Moscow City Council

Regular Meeting
~Agenda~

www.ci.moscow.id.us

Laurie M. Hopkins
City Clerk

208.883.7015

Monday, April 6, 2026 | **7:00 PM** | **Council Chambers 206 E. Third St.**

The Moscow Mayor, City Council and Staff welcome you to tonight's meeting. This meeting is open to the public. We appreciate and encourage public participation. For regular agenda items, an opportunity for public comment is sometimes provided after the staff report. However, the formality of procedures varies with the purpose and subject of the agenda item; therefore, the Mayor may exercise discretion in deciding when to allow public comment during the course of the proceedings and limitations may be placed on the time allowed for comments. Citizens wishing to comment on business that is not on the agenda will be provided the opportunity to do so during the public comment item on the agenda. If you plan to address the Council, you will find a list of "Tips for Addressing the Council" in the door pocket outside the City Council Chambers. Please note that Moscow City Council meetings are televised, videotaped and/or recorded. Links to view the City Council meeting live can be found on the City website and the City's YouTube channel. Thank you for your interest in City government.

PLEDGE OF ALLEGIANCE

PROCLAMATIONS

Fair Housing Proclamation

Arbor Day

CONSENT AGENDA

1. **All Consent Items (ACTION ITEM)**

   A. **Approval of Moscow City Council March 16, 2026 Minutes - Laurie M. Hopkins**

   B. **Approval of Payment of Claims - Sarah Decker**

   C. **Earth Day Celebration Alcohol Use Request in East City Park - Amanda Argona**

   Inland North Waste is sponsoring an Earth Day Celebration on Saturday, April 25th, from 4 to 7 pm in East City Park. The annual event honors the ways our community protects and preserves our environment and is offered free of charge. Live music and eco-minded organizations are part of this event, in addition to food and a beer garden. The applicant anticipates 1 (one) licensed beer vendor in the beer garden, which is estimated to be 25'x25' in size. Following standard operating procedures for events with alcohol within a City Park, Inland North Waste is requesting the allowance of attendees to possess and consume alcoholic beverages within the 25'x25' beer garden during the aforementioned date and time. Per Moscow City Code, Section 5-13-4, a draft resolution has been prepared by the Community Events Division and reviewed by the Legal Department for the Council's consideration to permit this typically prohibited activity. This was reviewed by the Administrative Committee on February 23, 2026 and recommended for approval.

ACTION: Approve the resolution allowing for the possession and consumption of alcoholic beverages in the designated beer garden in East City Park for Earth Day Celebration for the duration of the event; or provide staff with further direction.

D. North and South Mountain View Pedestrian Improvements - Bid Results and Contract Award - Scott Bontrager

In 2022, the City of Moscow submitted and received funding for two Transportation Alternatives Program (TAP) projects due to increased federal COVID-related funding. The Mountain View Road corridor was selected to improve the non-motorized transportation gaps along the northern and southern segments of the road. The northern segment includes adding about 1,600 feet of curb, gutter, and sidewalk to the west side of Mountain View Road from F Street to Slonaker Drive. The southern segment includes adding about 900 feet of curb, gutter, sidewalk, and green strip on both sides of Mountain View from Paradise Creek to Joseph Street. The southern segment also includes the installation of a pedestrian warning beacon at the Paradise Path crossing, installation of sidewalk along the northern side of the Latah County Fairgrounds, and some intersection improvements at Blaine Street and Harold Ave. The City published an advertisement for bids on February 10, 2026, and the Engineer's Estimate for construction was $1,277,521.86. Bids were opened on March 3, 2026, at which five (5) bids were received. The bids ranged from $1,025,088.98 to $2,285,746.76. Of those bids, the lowest responsive bid received was submitted by LaRiviere Incorporated of Rathdrum, ID with a bid of $1,025,088.98. A bid tabulation is included in the packet. This was reviewed by the Administrative Committee on March 23, 2026, and recommended for approval.

ACTION: Accept the bid from LaRiviere Inc., award the contract in the amount of $1,025,088.98 and authorize City Engineer approval of construction change orders in an amount not to exceed 10% of the contract amount.

E. Palouse Mall Lift Station Rehabilitation Project - Bid Results and Contract Award - Scott Bontrager

This project's scope is to rehabilitate the existing Palouse Mall lift station, which includes replacing the wet well cover and hatch, replacing the existing pumps with submersible pumps, new electrical/control, upgrading the existing force main out of the wet well, fence upgrades, and installing a new valve vault and flow meter vault. The City published an advertisement for bids on January 24, 2026, and the Engineer's Estimate for construction was $2,115,992.50. Bids were opened on March 3, 2026, at which five (5) bids were received. The bids ranged from $1,247,047.00 to $1,886,420.00. Of those bids, the lowest responsive bid received was submitted by DW Excavating of Davenport, WA with a bid of $1,247,047.00. A bid tabulation is included in the packet. This was reviewed by the Administrative Committee on March 23, 2026, and recommended for approval.

ACTION: Accept the bid from DW Excavating, award the contract in the amount of $1,247,047.00 and authorize City Engineer approval of construction change orders in an amount not to exceed 10% of the contract amount.

REGULAR AGENDA

2. **Mayors Appointments (ACTION ITEM)**
3. **Public Comment (limit 15 minutes)**
4. **Whitcom AI Call Taking Presentation – Wendy Barrett / Anthony Dahlinger**

5. **Annual Fire Department Report – Brian Nickerson**

6. **Woodbury Replat Development Agreement Amendment and Monumentation Agreement (ACTION ITEM) - Bob Buvel**
   Levi Wintz, on behalf of Woodbury Land, LLC., has submitted to the City a final replat of the Woodbury 1st Addition. On February 02, 2026, the City Council approved the Final Replat of this property. The final replat is titled Replat of Woodbury 1st Addition. As Council approved the final replat, development and monumentation agreements will be required prior to recording the document with Latah County. The development agreement amendment is necessary to address changes in construction of public improvements associated with the replat and assigning maintenance of portions of the infrastructure. The Monumentation Agreement is required as the interior property corners will not be set until after the final plat has been filed, the earthwork has been completed, and the utilities have been installed. In such instances, an agreement obligating the establishment of these interior corners is required by Idaho Code. Staff has prepared both the Amendment to the Development Agreement and the Amended Monumentation Agreement for the Council's approval. The agreements were reviewed by the Administrative Committee on March 23, 2026 and recommended for approval.
   PROPOSED ACTIONS: Approve the Development Agreement Amendment and Amended Monumentation Agreement for the Replat Woodbury 1st Addition, or take other action deemed appropriate.

7. **2025 Water, Sewer, and Stormwater Utility Rate Study (ACTION ITEM) - Tyler Palmer**
   In January 2025, the City of Moscow retained FCS Group to conduct comprehensive rate studies for the City's Water, Sewer, and Stormwater utilities. These periodic studies are essential to ensure that utility revenues remain sufficient to support current and future operations, maintenance, and capital improvements, while also allocating costs equitably among system users. To incorporate community input, a Citizen Rate Committee (CRC) was convened on April 8, 2025. The CRC included representatives from residential, commercial, institutional, and nonprofit sectors. Over the course of three formal meetings, supplemented by ongoing communication and review materials, the committee evaluated rate scenarios, financial projections, and cost-of-service analyses. At the conclusion of its work, the CRC unanimously approved recommendations for each utility. The committee also recommended that the City explore the development of utility rate relief programs to assist low-income customers. City staff supports the CRC's recommendations. Adoption of the recommended rate structures will provide the revenues necessary to fund utility operations, maintenance, and planned capital projects identified in the City's adopted Capital Improvement Program. The phased adjustments will ensure long-term financial stability of the Water, Sewer, and Storm utilities while aligning rates with the cost of service and regulatory requirements.
   PROPOSED ACTIONS: Approve the 2025 Water, Sewer, and Stormwater Utility Rate Study recommendations, or take other action deemed appropriate.

REPORTS

City Council

Mayor

ADJOURN

NOTICE: It is the policy of the City of Moscow that all City-sponsored public meetings and events are accessible to all people. If you need assistance in participating in this meeting or event due to a disability under the ADA, please contact the City's ADA Coordinator by phone at (208) 883-7600, TDD (208) 883-7019, or by email at adacoordinator@ci.moscow.id.us at least 48 hours prior to the scheduled meeting or event to request an accommodation. The City of Moscow is committed to ensuring that all reasonable accommodation requests are fulfilled.

Moscow City Council

Regular Meeting
~Minutes~

Laurie M. Hopkins
City Clerk

www.ci.moscow.id.us

208.883.7015

Monday, March 16, 2026 **7:00 PM** **Council Chambers**
206 E. Third St.

The meeting was called to order at 7:00 p.m.
PRESENT: Drew Davis, Evan Holmes, Sandra Kelly, Sage McCetich, Scott Sumner
ABSENT: Mayor Hailey Lewis, Bryce Blankenship
STAFF: Bill Belknap, Mia Bautista, Sarah Decker, Renee Tack, Catherine Adams, Mike Ray, Brian Nickerson, Laurie M. Hopkins

PLEDGE OF ALLEGIANCE
Council Member McCetich led the Pledge of Allegiance.

CONSENT AGENDA

1. All Consent Items (ACTION ITEM)

A. Approval of Moscow City Council March 2, 2026 Minutes - Laurie M. Hopkins

B. Approval of Payment of Claims - Sarah Decker

C. Disbursement Report February 2026 - Renee Tack

Staff presented the February 2026 Accounts Payable Report to the Public Works / Finance Committee on March 9th, 2026. The Committee received the report and recommended approval of the disbursement report.

ACTION: Accept the Disbursements Report for the month of February 2026.

D. Fourth Quarter Financial Report July 1, 2025 to September 30, 2025 for FY2025 - Renee Tack

Staff presented the financial report for the fourth quarter of Fiscal Year 2025 (July 1, 2025, to September 30, 2025) to the Public Works/Finance Committee on March 9th, 2026. The Committee received the financial report and approved it as presented.

ACTION: Accept the FY2025 Fourth Quarter Financial Report.

E. Historic Preservation Mitigation Bank (HPMB) Grant Program Request – Moscow Water Dept. Bldg. - Alisa Anderson / Mike Ray

Preservation Idaho is accepting grant applications for the HPMB Grant Program, which provides funding for historic preservation projects across Idaho, with applications due by April 15, 2026. Staff is requesting approval to submit a Type 1 General Preservation Project application to fund a National Register of Historic Places nomination for the city-owned building at 201 North Main Street. The proposed scope of work, estimated at $6,250, includes preparing the nomination and updating the Idaho Cultural Resource Information System (ICRIS). Staff recommends a 5% cash match of $310 and a grant request of $5,940 to support the project. This was reviewed by the Public Works/Finance Committee on March 9, 2026, and recommended for approval.

DRAFT

ACTION: Approval to submit a funding request to the Historic Preservation Mitigation Bank Grant Program to support the preparation of a National Register of Historic Places Nomination for the Moscow Water Department Building.

F. T-Mobile Hometown Grant – East City Park Stage Project - Alisa Anderson

City staff has identified the T-Mobile Hometown Grant Program as a potential funding source to support the construction and public art components of the East City Park Stage project. This five-year, $25 million initiative awards grants quarterly to small towns for community-driven projects that revitalize historic structures, create downtown assets, or enhance gathering spaces—especially those fostering community identity or attracting investment. The current application period, which is the final round, closes on March 31, 2024, with awards of up to $50,000 available, and projects must be completed within 12 months. The East City Park Stage project qualifies as an eligible use, aligns with the program's goals, and addresses a community need. Staff recommends submitting a $50,000 funding request to help cover project costs. This item was approved by the Public Works/Finance Committee March 9, 2026, and recommended for approval.

ACTION: Approval to submit a funding request for the T-Mobile Hometown Grant Program for $50,000 for the East City Park Stage project.

Kelly moved and Holmes seconded to approve the consent agenda as presented. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

REGULAR AGENDA

2. Public Comment (limit 15 minutes)

Jeff Berley (Moscow) spoke regarding the proposed stage in East City Park and expressed a desire for the Council to pause the project. He cited concerns about financial changes, project costs, and limited public input, noting that 14 responses may not be sufficient to guide decision-making. He encouraged the Council to consider alternative options, delay the vote, and reopen discussion to identify a solution that better reflects community needs and character. He emphasized the importance of developing a project the community can take pride in.

Jonathan Honisch (Moscow) said he agrees with Mr. Berley.

3. Citizen Commission Report - Planning and Zoning Commission - Mike Ray / Dennis Wilson

Ray introduced Dennis Wilson, chair of the P&Z Commission. Wilson listed the members of the Commission. He spoke on the Senate Bill 1403 passed in 2024 which significantly changed the Area of City Impact requirements. The Commission worked together with the county to comply with the requirements and the amendments were adopted by the County Commissioners on December 2, 2025. Recently the Commission has been working on duplex code amendments and review of ADU construction trends.

4. U.S. Highway 95 Palouse Region Study Report — Janet Zarate, ITD District Two

Janet Zarate wanted to advertise and invite the public to the ITD public input meeting. Developed concepts will be presented for near-term, mid-term and long-term highway designs. There is also an online public meeting. The study is from Snow Rd to the Benewah County line. They will also give an update about the Highway 8 traffic study.

5. **Annual Comprehensive Financial Report Presentation (ACTION ITEM) - Renee Tack /Nick Nicholson**

   Presnell Gage PLLC, the City's auditors, will be presenting the City's FY2025 Annual Comprehensive Financial Report (ACFR), which includes any significant changes regarding the annual audit and outlining comparative changes from the FY2024 ACFR. The City has received the Certificate of Achievement for Excellence in Financial Reporting for the ACFR for 22 consecutive years. After approval, staff will submit the FY2025 ACFR for consideration for the award. The accompanying final draft of the FY2025 ACFR is submitted for City Council review.

   PROPOSED ACTIONS: Accept the City of Moscow audited Annual Comprehensive Financial Report for FY2025 as presented, or take other action deemed appropriate.

Tack introduced the item as written above and introduced Nick Nicholson.

Nicholson outlined the roles of the City and auditor and reported that as of FY2025, the City's government-wide net position increased by $21.1 million (11%) to $211.9 million, largely due to accumulation for current and future capital projects. Restricted net position includes $3.0 million in governmental activities (debt service, highway tax, pension, and recreation) and $50.4 million in business-type activities (primarily utility capital projects).

Total FY2025 government-wide operating expenses were $44.75 million. The General Fund balance is approximately $7 million, with $5.2 million reserved for required working capital and about $349,000 unassigned. Enterprise funds (water, sewer, storm, sanitation) are stable, with revenues and expenditures leveling out while continuing to accumulate for capital projects.

Staff noted there is no time limit on capital accumulation, as larger projects may take years to fund, with annual contributions approved through the budget process. The unassigned General Fund balance was described as healthy but relatively limited (about one month of operations). Nicholson also noted that receiving the financial reporting award is uncommon and beneficial, as it can improve lender confidence and result in more favorable bond rates.

Kelly moved, Sumner seconded, to approve the City of Moscow audited Annual Comprehensive Financial Report for FY2025. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

6. **Mass Notification System Memorandum of Understanding (ACTION ITEM) - Brian Nickerson**

   The City of Moscow desires to partner with Latah County to secure and maintain an emergency mass notification system that can be utilized to inform residents of emergency situations. Under the proposed Memorandum of Understanding (MOU) the City and Latah County would equally fund the selected mass notification system and have independent access to utilize the system for both City and County emergency events. This item was included within the City's FY2026 budget. This was reviewed by the Public Works/Finance Committee on March 9, 2026, and recommended for approval.

   PROPOSED ACTIONS: Approve the MOU with Latah County, or take other action deemed appropriate.

Nickerson introduced the item as outlined above. He explained that the program is widely used in the Pacific Northwest for emergency notifications. Alerts can be issued from vehicles; however, use is restricted to trained personnel. The system is not subscription-based and instead utilizes geomapping to target specific areas for each notification.

Kelly moved to approve the MOU with Latah County. McCetich seconded. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

DRAFT

7. Paradise Creek Maintenance Program Plan (ACTION ITEM) - Tyler Palmer

Paradise Creek is a critical ecological, hydrological, and stormwater conveyance feature within the City of Moscow. The creek flows approximately 19 miles from Moscow Mountain through the City before joining the South Fork Palouse River in Pullman, Washington. The City is regulated as a Municipal Separate Storm Sewer System (MS4) under an Idaho Pollutant Discharge Elimination System (IPDES) Permit. Paradise Creek is a critical stormwater feature covered by the City's IPDES permit. The maintenance and management of Paradise Creek is essential to compliance with the Clean Water Act and the City's MS4 Permit, implementation of applicable Total Maximum Daily Load (TMDL) requirements, and protection of designated beneficial uses under Idaho Water Quality Standards (IDAPA 58.01.02). The Paradise Creek Maintenance Program Plan establishes a structured, adaptive framework for routine maintenance, capital improvements, regulatory coordination, beaver management, and public engagement to address regulatory requirements, enhance flood risk mitigation and infrastructure protection, and preserve habitat and riparian function. This was reviewed by the Public Works/Finance Committee on March 9, 2026, and recommended for approval.

PROPOSED ACTIONS: Adopt the Paradise Creek Maintenance Program Plan, or take other action deemed appropriate.

Staff reported recent record rainfall and flooding highlighted the need for a more proactive approach to maintaining Paradise Creek, the City's primary drainage system. Data from the USGS gauge (since 1979) shows that many of the highest flood events, including five of the six largest, have occurred in the past decade, indicating a trend toward more intense rainfall-driven flooding.

Following the 2019 flood, the City completed a hazard mitigation study. No single infrastructure solution was identified; instead, the study emphasized ongoing creek maintenance as the most effective strategy. Paradise Creek is highly reactive, carries significant sediment, and presents challenges due to limited City ownership and access along its 19-mile corridor.

The proposed plan establishes a formal maintenance framework, dividing the creek into 15 segments to prioritize work based on risk and conditions. It includes: 1) Routine inspections (post-storm, monthly, annual); 2) Sediment and vegetation management; 3) Capital improvement planning (2027–2041); 4) Beaver management policy emphasizing coexistence and non-lethal methods; 5) Public outreach, access planning, and coordination with property owners.

Staff emphasized that public outreach will be a significant component of implementation. Anticipated efforts include direct mailings, social media updates, community meetings, and on-site walkthroughs with affected property owners. Outreach will increase as projects move from planning to construction, with clear communication on timing, impacts, and access needs. Ongoing education will also focus on creek stewardship and appropriate practices near the waterway.

Staff noted the program will be resource-intensive and require coordination with private property owners, regulatory compliance, and phased implementation. Estimated costs vary by segment, with work anticipated every other year to balance capacity and rate impacts.

Benefits include improved regulatory compliance, reduced emergency maintenance, enhanced flood resilience, and a clearer long-term capital plan. Flooding cannot be eliminated, but impacts can be better managed and predicted.

Kelly moved to adopt the Paradise Creek Maintenance Program Plan. Homles seconded. Palmer said you are not authorizing funds. appropriation of funds will be through the annual budget. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

DRAFT

REPORTS

City Council

Transportation Commission – Kelly said the commission received a letter regarding traffic concerns around Lena Elementary.
Planning & Zoning Commission – McCetich said the Commission continued discussions on duplex codes.
Moscow Tree Commission – Holmes said the Commission is getting ready for Arbor Day and set dates for tabling at the Farmers Market.
Fair & Affordable Housing Commission – Holmes said the Commission will be able to host the annual renter's rights conference with the help of funding from other sources. They are watching state legislation which could affect some of their literature.
Moscow Arts Commission – Sumner said they did not have a meeting but are working on a lot of RFP's.
Farmers Market Commission – Davis said the Commission is discussing policies and procedures and getting ready for upcoming juries.
Moscow Volunteer Fire Department – Davis said they are talking about ways to train and planning for the year.
Moscow Urban Renewal Agency – Davis said the Agency approved the budget for the year and are reviewing upcoming projects.

ADJOURN

It was moved, seconded and mutually agreed upon to adjourn at 8:32 p.m.

_____
Hailey Lewis, Mayor

ATTEST:

_____
Laurie M. Hopkins, City Clerk

DRAFT

Accounts Payable
Checks for Approval

April 01, 2026 02:26 PM

jlopez

Check #	Check Date	Fund	Account	Vendor Name		Amount
444	04/01/2026	Capital Projects Fund	Buildings	LCA Architects, Inc.		$5,137.78
444	04/01/2026	Water Capital Fund	Buildings	LCA Architects, Inc.		$193.36
444	04/01/2026	Sewer Capital Fund	Buildings	LCA Architects, Inc.		$193.36
					Check Total:	$5,524.50

Check #	Check Date	Fund	Account	Vendor Name	Amount
				Total Amount Being Paid:	**$5,524.50**

Accounts Payable
Checks for Approval

April 01, 2026 02:31 PM

jlopez

Check #	Check Date	Fund	Account	Vendor Name		Amount
115794	03/18/2026	Water Fund	Dues, Subscriptions & Memberships	American Water Works		$221.50
115794	03/18/2026	Sewer Fund	Dues, Subscriptions & Memberships	American Water Works		$221.50
					Check Total:	$443.00
115795	03/18/2026	Sewer Fund	Professional Services	Anatek Labs, Inc.		$320.00
115795	03/18/2026	Water Fund	Professional Services	Anatek Labs, Inc.		$200.00
115795	03/18/2026	Water Fund	Professional Services	Anatek Labs, Inc.		$200.00
115795	03/18/2026	Water Fund	Professional Services	Anatek Labs, Inc.		$900.00
115795	03/18/2026	Water Fund	Professional Services	Anatek Labs, Inc.		$200.00
					Check Total:	$1,820.00
115796	03/18/2026	General Fund	Citizen Police Academy	Andrew Fox		$27.99
					Check Total:	$27.99
115797	03/18/2026	General Fund	R & M - Equipment	BLUE RIBBON LINEN SUPPLY, INC.		$10.00
					Check Total:	$10.00
115798	03/18/2026	Water Fund	Professional Development	Cameron Ramaekers		$333.00
					Check Total:	$333.00
115799	03/18/2026	Water Fund	R & M - Equipment	Canon U.S.A, Inc.		$20.75
					Check Total:	$20.75
115800	03/18/2026	Fleet Management Fund	Operations & Maintenance Parts	CHIPMAN & TAYLOR CHEVROLET		$312.56
115800	03/18/2026	Fleet Management Fund	Operations & Maintenance Parts	CHIPMAN & TAYLOR CHEVROLET		$756.28
					Check Total:	$1,068.84
115801	03/18/2026	Water Fund	Operations & Maintenance Parts	CONSOLIDATED SUPPLY CO.		$3,341.72
115801	03/18/2026	Water Fund	Meters	CONSOLIDATED SUPPLY CO.		$2,871.50
115801	03/18/2026	Water Fund	Meters	CONSOLIDATED SUPPLY CO.		$2,914.95
115801	03/18/2026	Water Fund	Meters	CONSOLIDATED SUPPLY CO.		$4.57
					Check Total:	$9,132.74
115802	03/18/2026	Fleet Management Fund	Professional Development	Cummins Sales and Service		$820.00
115802	03/18/2026	Fleet Management Fund	Professional Development	Cummins Sales and Service		$820.00

Check #	Check Date	Fund	Account	Vendor Name		Amount
115802	03/18/2026	Fleet Management Fund	Professional Development	Cummins Sales and Service		$(820.00)
					Check Total:	$820.00
115803	03/18/2026	Streets Fund	Deposits Payable	DP DUNLAP CONSTRUCTION		$367.50
					Check Total:	$367.50
115804	03/18/2026	General Fund	Janitorial Services & Supplies	EVCAR, INC.		$2,218.00
115804	03/18/2026	Recreation & Culture	Janitorial Services & Supplies	EVCAR, INC.		$2,400.00
115804	03/18/2026	Recreation & Culture	Janitorial Services & Supplies	EVCAR, INC.		$976.00
115804	03/18/2026	Fleet Management Fund	Janitorial Services & Supplies	EVCAR, INC.		$138.66
115804	03/18/2026	Streets Fund	Janitorial Services & Supplies	EVCAR, INC.		$138.67
115804	03/18/2026	Recreation & Culture	Janitorial Services & Supplies	EVCAR, INC.		$138.67
115804	03/18/2026	Sewer Fund	Janitorial Services & Supplies	EVCAR, INC.		$1,680.00
115804	03/18/2026	Water Fund	Janitorial Services & Supplies	EVCAR, INC.		$520.00
					Check Total:	$8,210.00
115805	03/18/2026	Recreation & Culture	Community Public Art	FAST SIGNS		$4,306.22
					Check Total:	$4,306.22
115806	03/18/2026	Recreation & Culture	Community Public Art	FAST SIGNS		$4,306.22
					Check Total:	$4,306.22
115807	03/18/2026	Sewer Fund	R & M - Equipment	Ferguson Waterworks		$133.58
					Check Total:	$133.58
115808	03/18/2026	Sewer Fund	Professional Services	FISHER SYSTEMS, INC.		$230.00
					Check Total:	$230.00
115809	03/18/2026	General Fund	Cadet Supplies	Galls, LLC		$106.97
115809	03/18/2026	General Fund	Cadet Supplies	Galls, LLC		$(99.98)
115809	03/18/2026	General Fund	Cadet Supplies	Galls, LLC		$7.99
					Check Total:	$14.98
115810	03/18/2026	General Fund	Janitorial Services & Supplies	GG Gutters, Inc.		$3,708.67
115810	03/18/2026	Transit Center	Janitorial Services & Supplies	GG Gutters, Inc.		$1,012.09
115810	03/18/2026	Recreation & Culture	Janitorial Services & Supplies	GG Gutters, Inc.		$1,500.00
					Check Total:	$6,220.76
115811	03/18/2026	Sewer Fund	R & M - Equipment	GRAINGER, INC.		$132.70
115811	03/18/2026	Water Fund	Other Miscellaneous Supplies	GRAINGER, INC.		$37.22
115811	03/18/2026	Water Fund	R & M - Equipment	GRAINGER, INC.		$6.90
115811	03/18/2026	Fleet Management Fund	Operations & Maintenance Parts	GRAINGER, INC.		$289.50
115811	03/18/2026	Fleet Management Fund	R & M - Equipment	GRAINGER, INC.		$76.46

Check #	Check Date	Fund	Account	Vendor Name		Amount
					Check Total:	$542.78
115812	03/18/2026	General Fund	Professional Services	GRITMAN MEDICAL CENTER		$909.50
					Check Total:	$909.50
115813	03/18/2026	General Fund	Professional Services	GRITMAN MEDICAL CENTER		$3,638.00
					Check Total:	$3,638.00
115814	03/18/2026	Water Fund	Lab Supplies	HACH COMPANY		$341.65
115814	03/18/2026	Sewer Fund	Lab Supplies	HACH COMPANY		$887.30
					Check Total:	$1,228.95
115815	03/18/2026	Recreation & Culture	Department Supplies	HAHN RENTAL CENTER, INC.		$143.00
115815	03/18/2026	Recreation & Culture	Department Supplies	HAHN RENTAL CENTER, INC.		$143.00
115815	03/18/2026	Water Fund	Rental Property & Equipment	HAHN RENTAL CENTER, INC.		$47.50
115815	03/18/2026	Stormwater Fund	Rental Property & Equipment	HAHN RENTAL CENTER, INC.		$47.50
					Check Total:	$381.00
115816	03/18/2026	1912 Center Fund	Professional Services	HEART OF THE ARTS, INC.		$7,000.00
115816	03/18/2026	1912 Center Fund	Utility Expense	HEART OF THE ARTS, INC.		$3,750.00
					Check Total:	$10,750.00
115817	03/18/2026	Sewer Fund	R & M - Equipment	HEISE ELECTRIC INC.		$26,206.33
					Check Total:	$26,206.33
115818	03/18/2026	Fleet Management Fund	Operations & Maintenance Parts	HELBLING MACHINE & AUTO PARTS		$207.22
115818	03/18/2026	Fleet Management Fund	Operations & Maintenance Parts	HELBLING MACHINE & AUTO PARTS		$8.39
					Check Total:	$215.61
115819	03/18/2026	Information Systems Fund	Professional Services - IS	Hexordia LLC		$7,080.50
115819	03/18/2026	Information Systems Fund	Professional Services - IS	Hexordia LLC		$4,721.50
					Check Total:	$11,802.00
115820	03/18/2026	Sewer Fund	Department Supplies	Home Depot U.S.A, Inc.		$39.00
115820	03/18/2026	Recreation & Culture	Department Supplies	Home Depot U.S.A, Inc.		$169.00
115820	03/18/2026	Sewer Fund	Department Supplies	Home Depot U.S.A, Inc.		$74.06
					Check Total:	$282.06
115821	03/18/2026	Recreation & Culture	Concession Supplies	IDAHO BEVERAGES, INC.		$188.00
					Check Total:	$188.00
115822	03/18/2026	Water Fund	Lab Supplies	IDEXX DISTRIBUTION, INC.		$366.21
115822	03/18/2026	Water Fund	Lab Supplies	IDEXX DISTRIBUTION, INC.		$2,686.52
					Check Total:	$3,052.73

Check #	Check Date	Fund	Account	Vendor Name		Amount
115823	03/18/2026	General Fund	Nuisances & Abatements	Inland North Waste		$80.00
					Check Total:	$80.00
115824	03/18/2026	Fleet Management Fund	Operations & Maintenance Parts	IRONCLAD COMPANY		$4,262.30
					Check Total:	$4,262.30
115825	03/18/2026	Sewer Capital Fund	WRRF Facility Improvements	J-U-B Engineers, Inc.		$1,695.10
					Check Total:	$1,695.10
115826	03/18/2026	Sewer Fund	Professional Services	J-U-B Engineers, Inc.		$13,702.13
					Check Total:	$13,702.13
115827	03/18/2026	Recreation & Culture	Concession Supplies	L.A. NELSON CO.		$696.38
					Check Total:	$696.38
115828	03/18/2026	General Fund	R & M - Equipment	L.N. Curtis & Sons		$1,128.30
115828	03/18/2026	General Fund	R & M - Equipment	L.N. Curtis & Sons		$1,734.00
115828	03/18/2026	General Fund	Department Supplies	L.N. Curtis & Sons		$1,793.00
					Check Total:	$4,655.30
115829	03/18/2026	Water Fund	Water Conservation Program	Mark and Amy Cummings		$125.00
					Check Total:	$125.00
115830	03/18/2026	Sewer Fund	R & M - Equipment	MUNDY'S MACHINE & WELDING		$163.25
					Check Total:	$163.25
115831	03/18/2026	Sewer Fund	Travel & Meetings	Nick Ruthruff		$14.71
					Check Total:	$14.71
115832	03/18/2026	Fleet Management Fund	Vehicles	Northwest Autostyles		$5,300.00
					Check Total:	$5,300.00
115833	03/18/2026	General Fund	Section 125 Administration	Peak 1 Administration, LLC		$643.90
115833	03/18/2026	General Fund	Professional Services	Peak 1 Administration, LLC		$6.00
115833	03/18/2026	General Fund	Professional Services	Peak 1 Administration, LLC		$20.00
					Check Total:	$669.90
115834	03/18/2026	Sewer Fund	Department Supplies	Productivity Plus		$26.84
					Check Total:	$26.84
115835	03/18/2026	Fleet Management Fund	Vehicles	Ray Allen Manufacturing, LLC		$556.98
					Check Total:	$556.98
115836	03/18/2026	Fleet Management Fund	Shop Supplies	Rebel Creek Properties LLC		$615.00
					Check Total:	$615.00

Check #	Check Date	Fund	Account	Vendor Name		Amount
115837	03/18/2026	Recreation & Culture	Professional Services	Room To Roam Fencing, LLC		$2,500.00
115837	03/18/2026	Recreation & Culture	R & M - Grounds	Room To Roam Fencing, LLC		$1,645.69
					Check Total:	$4,145.69
115838	03/18/2026	Sewer Fund	Travel & Meetings	Ryan Triplett		$12.40
					Check Total:	$12.40
115839	03/18/2026	Sanitation Fund	Dues, Subscriptions & Memberships	SECONDARY MATERIALS PRICING		$485.00
					Check Total:	$485.00
115840	03/18/2026	Water Fund	Department Supplies	Spence Sales & Service		$1,099.00
					Check Total:	$1,099.00
115841	03/18/2026	Sewer Fund	R & M - Equipment	Stoneway Electric Supply Co.		$558.92
115841	03/18/2026	General Fund	R & M - Buildings	Stoneway Electric Supply Co.		$379.99
115841	03/18/2026	General Fund	R & M - Buildings	Stoneway Electric Supply Co.		$(379.99)
					Check Total:	$558.92
115842	03/18/2026	General Fund	Uniform Expense	The Country Stitch		$15.00
					Check Total:	$15.00
115843	03/18/2026	General Fund	Department Supplies	Timothy Smalldridge		$100.00
					Check Total:	$100.00
115844	03/18/2026	General Fund	Uniform Expense	Uniforms2Gear,Inc.		$150.62
					Check Total:	$150.62
115845	03/18/2026	Information Systems Fund	Professional Services - Sewer	WinCan, LLC		$10,265.00
					Check Total:	$10,265.00
115846	03/25/2026	Fleet Management Fund	Shop Supplies	ALSCO, INC.		$86.15
					Check Total:	$86.15
115847	03/25/2026	Capital Projects Fund	Roadway Improvement Program	ALTA SCIENCE AND ENGINEERING INC		$182.57
115847	03/25/2026	Capital Projects Fund	Roadway Improvement Program	ALTA SCIENCE AND ENGINEERING INC		$14.46
					Check Total:	$197.03
115848	03/25/2026	Streets Fund	Maintenance	Amazon Capital Services		$35.99
					Check Total:	$35.99
115849	03/25/2026	Water Fund	Professional Services	Anatek Labs, Inc.		$600.00
					Check Total:	$600.00
115850	03/25/2026	Sewer Capital Fund	Lift Station Renovations	Ardurra Group, Inc.		$7,227.00
					Check Total:	$7,227.00

Check #	Check Date	Fund	Account	Vendor Name		Amount
115851	03/25/2026	1912 Center Fund	Utility Expense	Backflow Apparatus & Valve Co., Inc		$223.00
					Check Total:	$223.00
115852	03/25/2026	General Fund	Professional Development	Brandon Nigh		$56.00
					Check Total:	$56.00
115853	03/25/2026	General Fund	Professional Development	Bransen Stirk		$56.00
					Check Total:	$56.00
115854	03/25/2026	Streets Fund	Ice & Snow	BROKEN ARROW, INC.		$566.01
					Check Total:	$566.01
115855	03/25/2026	Capital Projects Fund	Buildings	CASTELLAW KOM ARCHITECTS		$1,474.38
					Check Total:	$1,474.38
115856	03/25/2026	Sewer Fund	R & M - Equipment	Certified Laboratories		$1,259.45
					Check Total:	$1,259.45
115857	03/25/2026	Sewer Fund	R & M - Equipment	COLEMAN OIL CO.		$129.29
					Check Total:	$129.29
115858	03/25/2026	Water Fund	R & M - Equipment	CONSOLIDATED SUPPLY CO.		$1,646.35
115858	03/25/2026	Water Fund	Operations & Maintenance Parts	CONSOLIDATED SUPPLY CO.		$216.05
					Check Total:	$1,862.40
115859	03/25/2026	Water Fund	Meters	CORE & MAIN		$1,241.30
115859	03/25/2026	Water Fund	Meters	CORE & MAIN		$2,269.63
115859	03/25/2026	Water Fund	Meters	CORE & MAIN		$22,497.80
					Check Total:	$26,008.73
115860	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	Cummins Sales and Service		$605.44
115860	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	Cummins Sales and Service		$(34.22)
115860	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	Cummins Sales and Service		$12.63
115860	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	Cummins Sales and Service		$(0.72)
					Check Total:	$583.13
115861	03/25/2026	Sewer Fund	Utility Accounts Receivable	DAVID SEARIGHT		$66.07
115861	03/25/2026	Water Fund	Utility Accounts Receivable	DAVID SEARIGHT		$49.72
115861	03/25/2026	Sanitation Fund	Utility Accounts Receivable	DAVID SEARIGHT		$32.82
					Check Total:	$148.61
115862	03/25/2026	Fleet Management Fund	Office Supplies	Farmer Brothers Co.		$51.96
115862	03/25/2026	Streets Fund	Office Supplies	Farmer Brothers Co.		$51.96
115862	03/25/2026	Stormwater Fund	Office Supplies	Farmer Brothers Co.		$51.95

Check #	Check Date	Fund	Account	Vendor Name		Amount
115862	03/25/2026	Recreation & Culture	Department Supplies	Farmer Brothers Co.		$51.95
					Check Total:	$207.82
115863	03/25/2026	Sewer Fund	R & M - Equipment	Ferguson Waterworks		$563.92
115863	03/25/2026	Water Fund	Operations & Maintenance Parts	Ferguson Waterworks		$14,331.26
					Check Total:	$14,895.18
115864	03/25/2026	Recreation & Culture	Department Supplies	Finishing Touch Vinyl Art		$125.00
					Check Total:	$125.00
115865	03/25/2026	Capital Projects Fund	Buildings	GEOPROFESSIONAL INNOVATION CORPORAT		$2,605.86
115865	03/25/2026	Water Capital Fund	Buildings	GEOPROFESSIONAL INNOVATION CORPORAT		$98.07
115865	03/25/2026	Sewer Capital Fund	Buildings	GEOPROFESSIONAL INNOVATION CORPORAT		$98.07
					Check Total:	$2,802.00
115866	03/25/2026	Sewer Fund	Department Supplies	GRAINGER, INC.		$98.23
115866	03/25/2026	Sewer Fund	Department Supplies	GRAINGER, INC.		$68.40
115866	03/25/2026	Water Fund	Other Miscellaneous Supplies	GRAINGER, INC.		$338.86
					Check Total:	$505.49
115867	03/25/2026	Water Fund	R & M - Buildings	GROPP, LLC		$727.65
115867	03/25/2026	General Fund	R & M - Buildings	GROPP, LLC		$100.00
115867	03/25/2026	Transit Center	R & M - Buildings	GROPP, LLC		$659.46
					Check Total:	$1,487.11
115868	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	Hells Canyon Upfitting & Sales		$3,890.22
					Check Total:	$3,890.22
115869	03/25/2026	Sewer Fund	Department Supplies	Home Depot U.S.A, Inc.		$50.79
115869	03/25/2026	Sewer Fund	Department Supplies	Home Depot U.S.A, Inc.		$60.81
115869	03/25/2026	Water Fund	R & M - Buildings	Home Depot U.S.A, Inc.		$45.95
					Check Total:	$157.55
115870	03/25/2026	MSD Community Play Fields	R & M - Grounds	Horizon Distributors, Inc.		$1,280.00
115870	03/25/2026	MSD Community Play Fields	R & M - Grounds	Horizon Distributors, Inc.		$1,953.00
					Check Total:	$3,233.00
115871	03/25/2026	Recreation & Culture	Refunds & Reimbursements	Ivar Nelson		$297.36
					Check Total:	$297.36
115872	03/25/2026	Sewer Capital Fund	WRRF Facility Improvements	J-U-B Engineers, Inc.		$25,923.00
					Check Total:	$25,923.00
115873	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	JESS FORD OF PULLMAN		$76.08

Check #	Check Date	Fund	Account	Vendor Name		Amount
115873	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	JESS FORD OF PULLMAN		$15.95
					Check Total:	$92.03
115874	03/25/2026	Streets Fund	Ice & Snow	JOHN S. POCOCK, LLC		$2,298.00
115874	03/25/2026	Streets Fund	Ice & Snow	JOHN S. POCOCK, LLC		$2,234.25
					Check Total:	$4,532.25
115875	03/25/2026	General Fund	Professional Development	Jurrian Hering		$56.00
					Check Total:	$56.00
115876	03/25/2026	General Fund	Professional Development	Justin Olson		$200.00
					Check Total:	$200.00
115877	03/25/2026	Recreation & Culture	Events & Programs	Kelsey Grafton		$125.00
					Check Total:	$125.00
115878	03/25/2026	General Fund	Professional Development	Kris Sneve		$173.00
					Check Total:	$173.00
115879	03/25/2026	Stormwater Fund	Office Supplies	LANDGROVE COFFEE, INC.		$129.50
115879	03/25/2026	Sewer Fund	Department Supplies	LANDGROVE COFFEE, INC.		$207.75
115879	03/25/2026	General Fund	Office Supplies	LANDGROVE COFFEE, INC.		$246.75
115879	03/25/2026	Water Fund	Other Miscellaneous Supplies	LANDGROVE COFFEE, INC.		$140.00
					Check Total:	$724.00
115880	03/25/2026	Streets Fund	Professional Development	LOCAL HIGHWAY TECHNICAL ASSISTANCE		$160.00
115880	03/25/2026	Streets Fund	Professional Development	LOCAL HIGHWAY TECHNICAL ASSISTANCE		$160.00
					Check Total:	$320.00
115881	03/25/2026	Sewer Fund	Department Supplies	McCoy Plumbing & Heating, Inc.		$31.90
115881	03/25/2026	Transit Center	R & M - Buildings	McCoy Plumbing & Heating, Inc.		$247.60
					Check Total:	$279.50
115882	03/25/2026	1912 Center Fund	Utility Expense	McKinstry CO.,LLC		$450.00
					Check Total:	$450.00
115883	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	MEINEKE CAR CARE CENTER #2410		$151.88
					Check Total:	$151.88
115884	03/25/2026	Information Systems Fund	Professional Services - IS	MIICOR INC.		$35,873.31
					Check Total:	$35,873.31
115885	03/25/2026	Sewer Fund	Department Supplies	National Safety, Inc.		$1,189.87
					Check Total:	$1,189.87

Check #	Check Date	Fund	Account	Vendor Name		Amount
115886	03/25/2026	Sewer Fund	Professional Services	NORTHERN STATES PEST		$240.00
					Check Total:	$240.00
115887	03/25/2026	Sewer Fund	Chemicals	OXARC, INC.		$12,934.84
					Check Total:	$12,934.84
115888	03/25/2026	Sewer Fund	R & M - Equipment	PHILLIP R. STRADLEY		$240.60
					Check Total:	$240.60
115889	03/25/2026	General Fund	Professional Development	Robert H. Buvel III		$286.00
115889	03/25/2026	General Fund	Department Supplies	Robert H. Buvel III		$116.42
					Check Total:	$402.42
115890	03/25/2026	Streets Fund	Travel & Meetings	Rosauers Supermarkets, Inc.		$38.27
115890	03/25/2026	Recreation & Culture	Department Supplies	Rosauers Supermarkets, Inc.		$23.93
115890	03/25/2026	Recreation & Culture	Special Events	ROSAUERS SUPERMARKETS, INC.		$29.48
115890	03/25/2026	General Fund	Department Supplies	ROSAUERS SUPERMARKETS, INC.		$3.99
					Check Total:	$95.67
115891	03/25/2026	Sewer Fund	Miscellaneous Services & Charges	SE Moscow Sewer District		$2,567.60
					Check Total:	$2,567.60
115892	03/25/2026	Information Systems Fund	Professional Services - IS	SHI INTERNATIONAL CORP		$14,010.10
					Check Total:	$14,010.10
115893	03/25/2026	General Fund	Refunds & Reimbursements	Smartprocure		$56.52
					Check Total:	$56.52
115894	03/25/2026	Recreation & Culture	Professional Services	Southeastern Washington Basketball		$3,892.19
					Check Total:	$3,892.19
115895	03/25/2026	Streets Fund	Maintenance	Stoneway Electric Supply Co.		$87.98
115895	03/25/2026	Recreation & Culture	R & M - Buildings	Stoneway Electric Supply Co.		$2.74
					Check Total:	$90.72
115896	03/25/2026	Fleet Management Fund	Operations & Maintenance Parts	The Lock Shop of North Idaho, Inc.		$85.00
					Check Total:	$85.00
115897	03/25/2026	Information Systems Fund	Professional Services - IS	Time Clock Plus, LLC		$6,888.00
					Check Total:	$6,888.00
115898	03/25/2026	Streets Fund	Ice & Snow	TITAN TRUCK EQUIPMENT		$3,571.76
					Check Total:	$3,571.76
115899	03/25/2026	General Fund	Advertising & Publishing	TRIBUNE PUBLISHING COMPANY		$134.80

Check #	Check Date	Fund	Account	Vendor Name		Amount
					Check Total:	$134.80
115900	03/25/2026	Sewer Fund	R & M - Buildings	UNLIMITED HEATING AND		$656.75
					Check Total:	$656.75
115901	03/25/2026	Water Fund	R & M - Equipment	USABLUEBOOK		$90.75
115901	03/25/2026	Sewer Fund	Lab Supplies	USABLUEBOOK		$1,409.12
115901	03/25/2026	Sewer Fund	Lab Supplies	USABLUEBOOK		$351.00
					Check Total:	$1,850.87
115902	03/25/2026	Recreation & Culture	Department Supplies	Walter E. Nelson Co.		$536.51
115902	03/25/2026	Recreation & Culture	Department Supplies	WALTER E. NELSON CO.		$110.18
					Check Total:	$646.69
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$766.82
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$653.51
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$663.51
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$419.06
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$653.79
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$653.65
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$651.62
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$664.73
115903	03/25/2026	Water Fund	R & M - Equipment	Western States Equipment Co.		$667.32
					Check Total:	$5,794.01
115904	03/25/2026	Water Fund	Meters	Zenner USA, Inc.		$13,485.04
					Check Total:	$13,485.04
115905	03/26/2026	General Fund	Crime Prevention Supplies	Joseph Sieverding		$350.00
					Check Total:	$350.00
115906	04/01/2026	General Fund	Printing & Binding	ALLEGRA PRINT & IMAGING		$265.10
					Check Total:	$265.10
115907	04/01/2026	Fleet Management Fund	Shop Supplies	ALSCO, INC.		$60.70
115907	04/01/2026	Fleet Management Fund	Shop Supplies	ALSCO, INC.		$86.15
115907	04/01/2026	General Fund	Janitorial Services & Supplies	ALSCO, INC.		$64.56
115907	04/01/2026	General Fund	Janitorial Services & Supplies	ALSCO, INC.		$28.38
115907	04/01/2026	Fleet Management Fund	Shop Supplies	ALSCO, INC.		$60.70
115907	04/01/2026	General Fund	Janitorial Services & Supplies	ALSCO, INC.		$64.56
115907	04/01/2026	General Fund	Janitorial Services & Supplies	ALSCO, INC.		$28.38
115907	04/01/2026	Fleet Management Fund	Shop Supplies	ALSCO, INC.		$86.15

Check #	Check Date	Fund	Account	Vendor Name		Amount
					Check Total:	$479.58
115908	04/01/2026	Stormwater Fund	Department Supplies	AM HARDWARE, INC.		$683.20
					Check Total:	$683.20
115909	04/01/2026	Streets Fund	Professional Services	BURSAR, UNIVERSITY OF IDAHO		$43,016.50
					Check Total:	$43,016.50
115910	04/01/2026	General Fund	R & M - Equipment	Canon U.S.A, Inc.		$13.59
					Check Total:	$13.59
115911	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	CHIPMAN & TAYLOR CHEVROLET		$36.70
					Check Total:	$36.70
115912	04/01/2026	General Fund	Recruitment Expense	CLEARVIEW EYE CLINIC LTD		$225.00
115912	04/01/2026	General Fund	Recruitment Expense	CLEARVIEW EYE CLINIC LTD		$225.00
					Check Total:	$450.00
115913	04/01/2026	General Fund	R & M - Buildings	Consolidated Electrical Distributor		$19.64
					Check Total:	$19.64
115914	04/01/2026	Streets Fund	Traffic Control	Crown Enterprises		$9.99
					Check Total:	$9.99
115915	04/01/2026	General Fund	Department Supplies	CULLIGAN, LLC		$14.90
115915	04/01/2026	Sewer Fund	Professional Services	CULLIGAN, LLC		$266.90
					Check Total:	$281.80
115916	04/01/2026	General Fund	Uniform Expense	Danette Vargas		$106.00
					Check Total:	$106.00
115917	04/01/2026	Water Fund	Utility Accounts Receivable	DEWEY WHITING		$42.53
115917	04/01/2026	Sewer Fund	Utility Accounts Receivable	DEWEY WHITING		$1.55
115917	04/01/2026	Sanitation Fund	Utility Accounts Receivable	DEWEY WHITING		$0.44
115917	04/01/2026	Stormwater Fund	Utility Accounts Receivable	DEWEY WHITING		$0.23
					Check Total:	$44.75
115918	04/01/2026	General Fund	Emergency Communication 911	ECC/IDAHO MILITARY DIVISION		$558.50
					Check Total:	$558.50
115919	04/01/2026	Water Fund	Water Conservation Program	Education & Outreach Company		$516.00
					Check Total:	$516.00
115920	04/01/2026	Streets Fund	Maintenance	ENNIS-FLINT, INC.		$7,040.00
					Check Total:	$7,040.00

Check #	Check Date	Fund	Account	Vendor Name		Amount
115921	04/01/2026	Sewer Fund	R & M - Equipment	Ferguson Waterworks		$2,915.20
115921	04/01/2026	Sewer Fund	R & M - Equipment	Ferguson Waterworks		$343.33
					Check Total:	$3,258.53
115922	04/01/2026	Water Fund	R & M - Equipment	FILTRATION TECHNOLOGY, INC		$1,623.91
					Check Total:	$1,623.91
115923	04/01/2026	Sewer Fund	Department Supplies	GRAINGER, INC.		$2.83
115923	04/01/2026	Water Fund	R & M - Buildings	GRAINGER, INC.		$300.34
					Check Total:	$303.17
115924	04/01/2026	Water Fund	Meters	H.D. FOWLER COMPANY		$146.35
					Check Total:	$146.35
115925	04/01/2026	Water Fund	Professional Services	HDR ENGINEERING, INC.		$16,833.14
					Check Total:	$16,833.14
115926	04/01/2026	Information Systems Fund	Professional Services - IS	Hexordia LLC		$13,078.10
					Check Total:	$13,078.10
115927	04/01/2026	Water Fund	Water Conservation Program	Home Depot U.S.A, Inc.		$71.92
115927	04/01/2026	Water Fund	R & M - Equipment	Home Depot U.S.A, Inc.		$83.32
					Check Total:	$155.24
115928	04/01/2026	General Fund	Humane Society Allocation	HUMANE SOCIETY OF THE PALOUSE		$4,991.58
					Check Total:	$4,991.58
115929	04/01/2026	Information Systems Fund	Professional Services - IS	HydroApps LLC		$607.50
					Check Total:	$607.50
115930	04/01/2026	Recreation & Culture	Concession Supplies	IDAHO BEVERAGES, INC.		$83.00
					Check Total:	$83.00
115931	04/01/2026	Streets Fund	Deposits Payable	IDAHO RENTAL RASCALS LLC		$615.00
					Check Total:	$615.00
115932	04/01/2026	Water Fund	Office Supplies	J & H PRINTING, INC.		$31.93
					Check Total:	$31.93
115933	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	JESS FORD OF PULLMAN		$207.70
115933	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	JESS FORD OF PULLMAN		$5.60
					Check Total:	$213.30
115934	04/01/2026	Water Fund	Professional Services	Mchugh Bromley, PLLC		$245.00
					Check Total:	$245.00

Check #	Check Date	Fund	Account	Vendor Name		Amount
115935	04/01/2026	General Fund	Rental Property & Equipment	MOSCOW VOLUNTEER FIRE DEPARTMENT		$1,750.00
					Check Total:	$1,750.00
115936	04/01/2026	General Fund	R & M - Buildings	MUNDY'S MACHINE & WELDING		$537.98
					Check Total:	$537.98
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$144.09
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$136.05
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$259.80
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$144.09
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$13.62
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$156.00
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$54.99
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$20.99
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$23.09
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$156.82
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$(18.00)
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$99.89
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$99.89
115937	04/01/2026	Fleet Management Fund	Shop Supplies	Napa Auto Parts		$71.99
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$13.62
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$324.18
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$52.99
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$138.82
115937	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Napa Auto Parts		$71.90
					Check Total:	$1,964.82
115938	04/01/2026	General Fund	Travel & Meetings	Nichoel Baird Spencer		$305.30
					Check Total:	$305.30
115939	04/01/2026	General Fund	Professional Services	Nicole Larson		$1,600.00
					Check Total:	$1,600.00
115940	04/01/2026	General Fund	Employee Recognition	Northwest Engraving Services		$15.00
115940	04/01/2026	General Fund	Department Supplies	Northwest Engraving Services		$30.00
					Check Total:	$45.00
115941	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	Northwest Lift & Equipment LLC		$1,285.00
115941	04/01/2026	Recreation & Culture	R & M - Grounds	Northwest Lift & Equipment LLC		$1,438.71
					Check Total:	$2,723.71
115942	04/01/2026	General Fund	Office Supplies	ODP Business Solutions LLC		$108.52

Check #	Check Date	Fund	Account	Vendor Name		Amount
					Check Total:	$108.52
115943	04/01/2026	Sewer Fund	Utility Accounts Receivable	POINTS CONSULTING		$32.35
115943	04/01/2026	Water Fund	Utility Accounts Receivable	POINTS CONSULTING		$15.09
115943	04/01/2026	Water Fund	Utility Accounts Receivable	POINTS CONSULTING		$3.79
115943	04/01/2026	Sanitation Fund	Utility Accounts Receivable	POINTS CONSULTING		$1.85
					Check Total:	$53.08
115944	04/01/2026	General Fund	Public Transportation	REGIONAL PUBLIC TRANSPORTATION, INC		$35,082.25
					Check Total:	$35,082.25
115945	04/01/2026	Recreation & Culture	R & M - Buildings	REXEL USA, INC.		$14.57
					Check Total:	$14.57
115946	04/01/2026	Water Fund	Water Conservation Program	Robert & Teresa Uhle		$125.00
					Check Total:	$125.00
115947	04/01/2026	Sewer Fund	Department Supplies	Rosauers Supermarkets, Inc.		$26.48
					Check Total:	$26.48
115948	04/01/2026	Sewer Fund	Miscellaneous Services & Charges	SE Moscow Sewer District		$138.00
					Check Total:	$138.00
115949	04/01/2026	Fleet Management Fund	Minor Equipment	SNAP-ON INC.		$155.92
					Check Total:	$155.92
115950	04/01/2026	Recreation & Culture	Professional Services	STACEY POLER		$1,100.00
					Check Total:	$1,100.00
115951	04/01/2026	Water Fund	Travel & Meetings	The Grove Hotel		$627.00
					Check Total:	$627.00
115952	04/01/2026	Fleet Management Fund	Operations & Maintenance Parts	TITAN TRUCK EQUIPMENT		$312.78
					Check Total:	$312.78
115953	04/01/2026	General Fund	Department Supplies	U.S. Postal Service (CMRS-FP)		$9.76
115953	04/01/2026	General Fund	Postage Expense	U.S. Postal Service (CMRS-FP)		$3.70
115953	04/01/2026	General Fund	Postage Expense	U.S. Postal Service (CMRS-FP)		$505.91
115953	04/01/2026	General Fund	Postage Expense	U.S. Postal Service (CMRS-FP)		$7.50
115953	04/01/2026	General Fund	Postage Expense	U.S. Postal Service (CMRS-FP)		$171.00
115953	04/01/2026	General Fund	Postage Expense	U.S. Postal Service (CMRS-FP)		$79.29
115953	04/01/2026	Water Fund	Postage Expense	U.S. Postal Service (CMRS-FP)		$1.63
					Check Total:	$778.79
115954	04/01/2026	General Fund	Uniform Expense	Uniforms2Gear,Inc.		$480.60

Check #	Check Date	Fund	Account	Vendor Name		Amount
					Check Total:	$480.60
115955	04/01/2026	Sewer Fund	Lab Supplies	USABLUEBOOK		$33.45
					Check Total:	$33.45
115956	04/01/2026	General Fund	Recruitment Expense	Weeks and Vietri Counseling		$50.00
					Check Total:	$50.00
115957	04/01/2026	Sewer Fund	Utility Accounts Receivable	WYATT MILLER		$14.75
115957	04/01/2026	Water Fund	Utility Accounts Receivable	WYATT MILLER		$11.10
115957	04/01/2026	Sanitation Fund	Utility Accounts Receivable	WYATT MILLER		$7.32
115957	04/01/2026	Water Fund	Utility Accounts Receivable	WYATT MILLER		$1.35
115957	04/01/2026	Stormwater Fund	Utility Accounts Receivable	WYATT MILLER		$2.48
					Check Total:	$37.00

Check #	Check Date	Fund	Account	Vendor Name	Amount
				Total Amount Being Paid:	**$496,011.73**

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, April 6, 2026

AGENDA ITEM TITLE

Earth Day Celebration Alcohol Use Request in East City Park - Amanda Argona

RESPONSIBLE STAFF

Amanda Argona, Community Events Manager

ADDITIONAL PRESENTER(S)

DESCRIPTION

Inland North Waste is sponsoring an Earth Day Celebration on Saturday, April 25th, from 4 to 7 pm in East City Park. The annual event honors the ways our community protects and preserves our environment and is offered free of charge. Live music and eco-minded organizations are part of this event, in addition to food and a beer garden. The applicant anticipates 1 (one) licensed beer vendor in the beer garden, which is estimated to be 25'x25' in size. Following standard operating procedures for events with alcohol within a City Park, Inland North Waste is requesting the allowance of attendees to possess and consume alcoholic beverages within the 25'x25' beer garden during the aforementioned date and time. Per Moscow City Code, Section 5-13-4, a draft resolution has been prepared by the Community Events Division and reviewed by the Legal Department for the Council's consideration to permit this typically prohibited activity. This was reviewed by the Administrative Committee on February 23, 2026 and recommended for approval.

REVIEWED BY

This was reviewed by the Administrative Committee on February 23, 2026 and recommended for approval.

PROPOSED ACTIONS

ACTION: Approve the resolution allowing for the possession and consumption of alcoholic beverages in the designated beer garden in East City Park for Earth Day Celebration for the duration of the event; or provide staff with further direction.

STAFF RECOMMENDATION

Approve the resolution allowing for the possession and consumption of alcoholic beverages in the designated beer garden in East City Park for Earth Day Celebration for the duration of the event.

OTHER RESOURCES

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. Form_Alcohol Use Application
2. Resolution 2026-_Park - Beer and Wine_ Earth Day Celebration_final

City of Moscow
Community Events Division

ALCOHOL USE APPLICATION

Date received: 2/13/26 Date fee paid: _____

Required for Events requesting Alcohol Use in the Moscow Downtown Central Business Zoning District or a Moscow Parks Facility. City Council has the right to deny this application, but applicants may still move forward with their approved Event without alcohol.

Timeline for requesting Alcohol Use:

1. At least two months prior to Event, applicant submits Event Application or Parks Reservation for review.
2. Upon approval of Application or Reservation, applicant submits:
    a. Alcohol Use application
    b. Pays $103 non-refundable Alcohol Use fee
    c. Name(s) of licensed alcohol provider(s)
    d. Events in a Moscow Park Facility also include:
        i. Location of the beer/wine garden during the event with size dimensions, entry and exit points, and serving location. Provide as much detail as possible.
3. Staff drafts a Resolution according to the Event and communicates with applicant on security and insurance requirements.
4. Applicant must be present at Administrative Committee meeting (meetings are held on the 2nd and 4th Mondays of each month pending no holiday delays).
5. Applicant must be present at City Council meeting (meetings are held on the 1st and 3rd of each month pending no holiday delays).
6. Upon approval, applicant pays any remaining fees.

Event Name: *Earth Day 2026* **Event Date(s):** *April 25, 2026*

Event Location: *East City Park*

Event Start time: *4pm* **Event End time:** *7pm*

Individual responsible per Event Application/Parks Reservation: *Elizabeth Prasil*

By signing this Alcohol Use application, applicant understands that their Event may not have alcohol unless approved by City Council, and that City Council has the right to deny Alcohol Use applications. Applicant also understands that the $103 fee is non-refundable regardless of the decision issued by City Council.

Elizabeth Prasil 2/5/26

Signature of Individual responsible for Event ***Date***

Alcohol Use application last updated January 6, 2026

The information on this form is Public Record and may be posted to a public website.

RESOLUTION NO. 2026 –

A RESOLUTION OF THE CITY OF MOSCOW, A MUNICIPAL CORPORATION OF THE STATE OF IDAHO, TO ALLOW FOR THE TEMPORARY VENDING OF BEER AND WINE IN EAST CITY PARK UNDER SPECIFIC REGULATIONS AND UNDER CERTAIN LIMITED CONDITIONS PURSUANT TO MOSCOW CITY CODE 5-13-4.B; PROVIDING THIS RESOLUTION TO BE EFFECTIVE UPON ITS PASSAGE AND APPROVAL.

WHEREAS, Moscow City Code Title 5, Chapter 13, Section 13-4.B., Title 9, Chapter 6, Section 6-35 and Title 9, Chapter 8, Section 8-17 prohibit the possession of alcoholic beverages while present in a public park in the City of Moscow, Idaho (hereinafter "City") except in accordance with specific regulations adopted by the Council by Resolution; and

WHEREAS, East City Park in Moscow is a City park as defined in Moscow City Code Title 5, Chapter 13, Section 13-3.C. (hereinafter "the Park"); and

WHEREAS, Inland North Waste (hereinafter "the Event Sponsor") desires to have its sponsored event, Earth Day (hereinafter "the Permitted Event"), in the Park (see Attachment "A"); and

WHEREAS, the Permitted Event is an event or series of events sponsored by Event Sponsor, intended to promote family and community fellowship; and

WHEREAS, Council wishes to allow for the vending and responsible consumption of beer and wine under certain conditions, contained herein and during limited hours during the Permitted Event; and

WHEREAS, Council wishes to prevent the sale and consumption of liquor during the Permitted Event; and

WHEREAS, Council believes the regulations contained herein are appropriate; and

WHEREAS, Council believes that the specific regulations contained herein balance health and safety concerns of citizens with the desire to promote responsible use of alcoholic beverages; and

WHEREAS, nothing contained in this Resolution is intended to waive other laws and regulations applicable to the sale and consumption of alcohol within City limits (including a requirement for a catering permit; a beer and wine permit for benevolent, charitable and public purpose events; or a winery sponsored event permit); and

WHEREAS, nothing contained within this Resolution is intended to endorse or support any particular belief, philosophy, or political position of the Event Sponsor or of the Permitted Event, and/or its affiliates, associations, contributors, supporters, participants, etc.;

NOW, THEREFORE, BE IT RESOLVED by the Mayor and City Council of the City of Moscow, Idaho that all matters stated above are found to be true and correct and are incorporated herein by reference as if copied in their entirety and shall be adopted with the following:

SPECIFIC REGULATIONS ON THE SALE AND CONSUMPTION OF BEER AND WINE ON APRIL 25, 2026:

Intent:

This Resolution is intended to allow the sale and consumption of beer and wine only (not liquor), pursuant to these specific regulations and is not intended to amend or expand the Moscow City Code or any other applicable law or regulation beyond the scope of the particulars of this Resolution or beyond the hours of the Permitted Event. Other than as specifically provided herein, park, sanitary, health, litter, police, fire, sidewalk café, alcohol vending, and other laws and regulations shall be unaffected by this Resolution. This Resolution is not a waiver of any State, County, or local requirement of a permit or licensure related to sales and/or distribution of alcohol including a requirement for a catering permit; a beer and wine permit for benevolent, charitable and public purpose events; or a winery sponsored event permit. This Resolution shall not establish precedent, nor shall it apply to any event other than the Permitted Event held on the 25th day of April, 2026, from 4 p.m. to 7 p.m.

Liability, Insurance and Safety:

1. No less than ten (10) days prior to the Permitted Event at which the licensed vendor will sell beer and/or wine, the Event Sponsor shall deliver to the Community Events Division one (1) copy of written proof that the licensed vendor has current, paid up, off-premise liquor liability insurance or special event insurance in an amount not less than One Million Dollars ($1,000,000) combined single limits.
2. No less than ten (10) days prior to the first activity of the Permitted Event herein described, the Event Sponsor shall deliver to the Community Events Division one (1) copy of written proof that the Permitted Event has obtained current, paid up, general liability insurance or special event insurance in an amount not less than One Million Dollars ($1,000,000) combined single limits. Such general liability insurance or special event insurance policy shall be primary to any other insurance related to these events and to that of any potential party subject to a claim related to the Permitted Event. City shall be named as an additional insured on the insurance policy of the licensed vendor.
3. No less than ten (10) days prior to the Permitted Event, the Event Sponsor shall deliver to the City Clerk the signed original of the Agreement, attached as Attachment "B", with City to defend, hold harmless and indemnify City of Moscow, Idaho, its agents, servants, employees, officers and contractors from any and all claims, causes of action or damages which may arise from the Event Sponsor use of the Park premises.
4. The Moscow Police Chief or their designee is hereby empowered to order the immediate cessation of all activities allowed under this Resolution at any time they reasonably determine that it is in the best interest of City to do so. There shall be no appeal from a determination by the Moscow Police Chief or their designee to terminate all or part of the Permitted Event.

Vendor:

1. There shall be only one (1) licensed vendor of beer and/or wine at the Permitted Event;

2. Event Sponsor is required to ensure that all beer and wine shall be sold only by a licensed vendor.
3. The licensed vendor shall obtain and shall comply with all alcohol related laws and regulations, including, but not limited to, the City requirement of a City catering permit; a State beer and wine permit for benevolent, charitable, or public purpose events; or a winery sponsored event permit.
4. The City shall play no role in determining which vendor shall be selected to sell alcoholic beverages in the Park during the Permitted Event; described herein.
5. The vendor shall provide at least two (2) persons to check proper identification for those who shall be sold beer and/or wine during the Permitted Event. These persons shall be clearly identified and shall be stationed no less than ten feet (10') from the vendor's sales or dispensing counter.
6. The Event Sponsor shall provide at least two (2) law enforcement officers or two (2) guards from a recognized private security firm to provide security for the Permitted Event. Such officers or guards shall be clearly identified as such and shall be on duty at all times beer and/or wine is being served during the Permitted Event. The Chief of Police shall make the determination of whether law enforcement officers are required or the use of a private security firm shall be utilized and in the event the Chief of Police approves the use of a private security firm, the Event Sponsor shall obtain written permission for use of said private security firm by the Chief of Police or designee and the Event Sponsor shall be responsible for all payment and costs associated with all security services.
7. The Event Sponsor and City both specifically understand and acknowledge that the Event Sponsor shall be solely responsible for any and all liability resulting from action or inaction, negligence, and/or gross negligence by security provided by the Event Sponsor for the Permitted Event.

Sales and Consumption:

1. No less than ten (10) days prior to the Permitted Event at which the licensed vendor will sell beer and/or wine, the Event Sponsor shall deliver to the Community Events Division a finalized site map which shall be drawn to show the locations, dimensions of, and relative distances between the following within the Park: (a) the beer and wine sales, dispensing, and consumption area; (b) the event barrier, entry and exit points; (c) identification checking station; and (d) food sales and service areas. Said site design and any subsequent alterations shall be approved in writing by Moscow City Parks and Facilities Manager or their designee, and by the Moscow Chief of Police prior to the Permitted Event.
2. All beer and wine sales and consumption shall take place within the area designated by the Event Sponsor and as shown on the site map required by this Resolution.
3. The designated beer and wine sales and service area shall be physically separated from the rest of the Park by a barricade which is no less than forty-four inches (44") tall and which is constructed so no person can pass under, over, or through it except at established entry and exit points located, as shown, on the site map required by this Resolution. All sales, dispensing, service, and consumption shall take place inside the approved barricade.
4. No person shall be allowed to purchase, consume or possess beer and/or wine other than within the area designated for beer and wine sales and consumption as shown on the map required by this Resolution.
5. There shall be no more than one (1) entrance and one (1) exit to each area designated for beer and wine consumption, as shown on the map required by this Resolution.

6. All beer and wine shall be dispensed in and consumed from the designated Event container.
7. Every occupant within the area designated for beer and wine consumption shall provide identification to law enforcement officers or City employees who request it.
8. No person under twenty-one (21) years of age shall be present in the area designated for beer and wine sales or consumption at any time beer and/or wine is being served.
9. A sign shall be prominently posted at or near the entrance and exit to the Event stating that the purchase and/or use of wristbands and the purchase and/or consumption of alcohol by persons under twenty-one (21) years of age is prohibited.
10. Beer and wine shall be sold and consumed only within the designated areas at the Park only between the hours of 4 p.m. and 7 p.m. local time on April 25, 2026, during the Permitted Event.
11. No person shall carry or consume any alcoholic beverage within the Park which is not purchased or dispensed from the licensed vendor at the Permitted Event and consumed within the approved consumption area. Consumption of alcohol within the Park and outside of the approved consumption area shall be considered a violation of the City's open container ordinance.

Fee:

The Event Sponsor shall submit to the Community Events Division, within ten (10) days of the Event, any remaining required fee established by Council that is associated with this Resolution.

Failure To Comply:

Failure to comply with this Resolution shall expose any such person to all relevant civil and criminal consequences and may result in denial of subsequent applications for alcohol permits in public parks for a period of no less than five (5) years.

PASSED on Motion by the Following Vote:

	Aye	Nay	Abstain	Absent
Scott Sumner				
Sage McCetich				
Bryce Blankenship				
Drew Davis				
Sandra Kelly				
Even Holmes				

DRAFT

ADOPTED by the City Council of the City of Moscow, Idaho and **APPROVED** by the Mayor of the City of Moscow, this ___ day of _____, 2026.

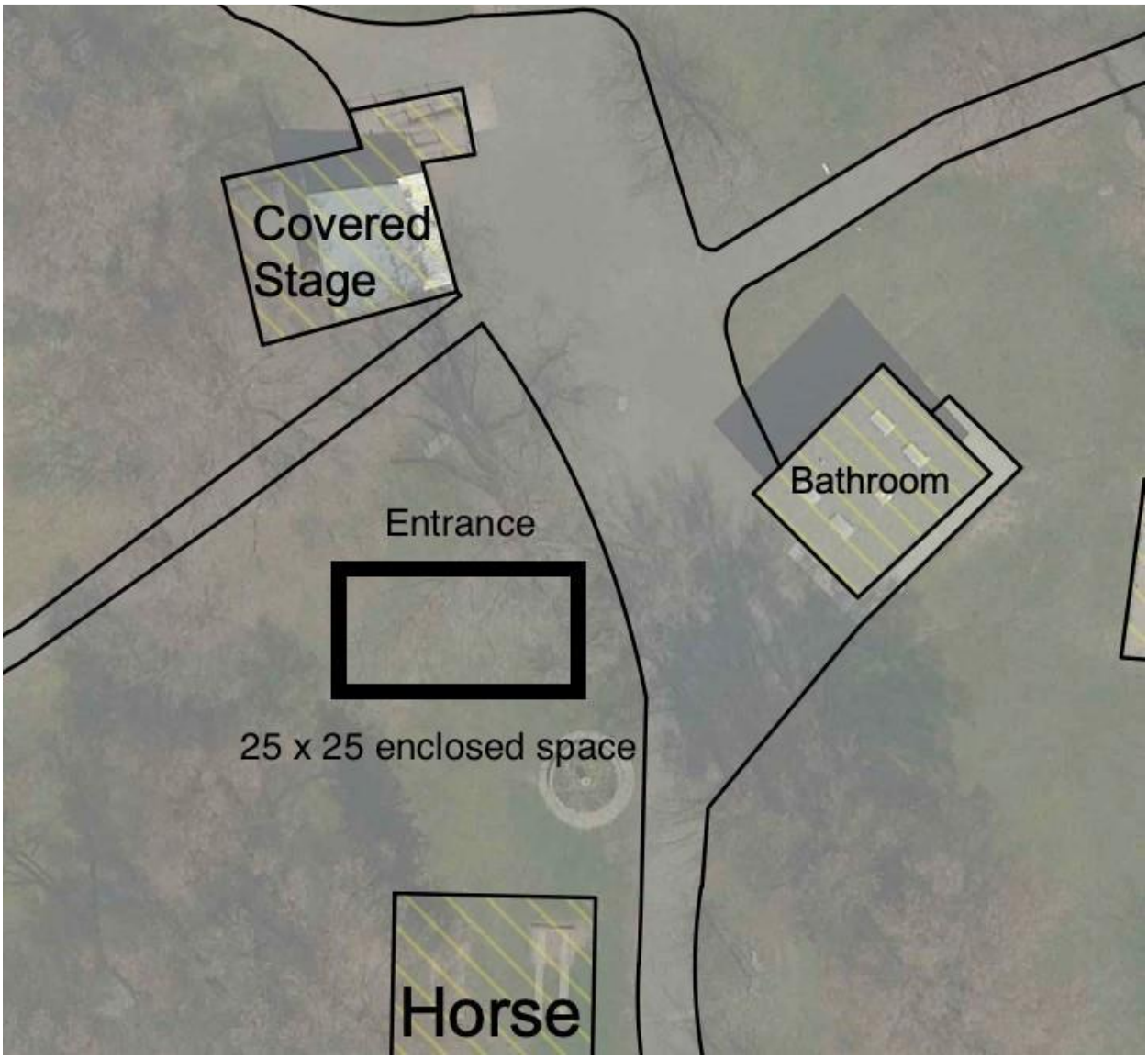
_____
Hailey Lewis, Mayor

CERTIFICATION and ATTESTATION. I hereby certify that the above is a true copy of a Resolution passed at a regular meeting of the City Council, City of Moscow, held on _____ and attest to the Mayor's signature.

_____
Laurie M. Hopkins, City Clerk

DRAFT

Attachment “A”



Attachment "B"

AGREEMENT TO DEFEND, TO HOLD HARMLESS
AND TO INDEMNIFY BETWEEN CITY OF MOSCOW, IDAHO
AND INLAND NORTH WASTE, FOR
THE EARTH DAY EVENT

THIS AGREEMENT TO DEFEND, TO HOLD HARMLESS AND TO INDEMNIFY, between City of Moscow, Idaho (hereinafter "CITY") and Inland North Waste (hereinafter "SPONSOR"), is made and entered into this ___ day of _____, 2026.

WHEREAS, Resolution No. 2026-_____ of the City of Moscow, Idaho, passed and approved on the ___ day of _____, 2026, provides, in part, for the group holding the approved event to enter into an agreement with CITY to defend, hold harmless and indemnify CITY, its agents, servants, employees, officers, and contractors from any and all claims, causes of action, or damages which may arise from the SPONSOR's use of CITY Park premises for the approved event; and

WHEREAS, this Agreement meets such requirement;

NOW, THEREFORE, CITY and SPONSOR agree as follows:

AGREEMENT TO DEFEND, HOLD HARMLESS, AND INDEMNIFY;

SPONSOR, through its duly and specifically authorized agents, hereby releases CITY and agrees, contracts and covenants not to bring suit, and agrees to defend, hold harmless, and indemnify CITY, its officers, employees, agents and representatives from any and all legal and equitable claims, causes of actions, costs, judgments, awards, or liability to any person, including claims by SPONSOR's own agents, officers, employees and representatives to which SPONSOR might otherwise be immune, arising from the Event scheduled to occur April 25, 2026, permitted under the terms of Resolution No. 2026-_____.

SPONSOR expressly agrees that this indemnity provision extends to any and all claims, losses, actions or judgments for damages to property or injury, sickness or death to persons, arising out of, or in connection with, the acts and/or any performances or activities of SPONSOR, SPONSOR's officers, employees, agents, and representatives, or caused by the presence, dispensing, sale, gift, or ingestion of alcohol by SPONSOR or its officers, employees, agents, and representative including, but not limited to, the caterer and/or vendor of alcohol during the Event.

Inspection, review and acceptance by CITY of any activity performed by or during the Event or any activity or non-activity by CITY police officers or other officers, employees, agents or representatives of CITY, shall not be grounds for avoidance of any of the covenants of defense, indemnification or hold harmless by SPONSOR on behalf of CITY contained in this Agreement.

SPONSOR agrees that they (i) have read the foregoing Agreement, understand it, and agree with its contents and conditions; (ii) have had an opportunity to speak with legal counsel prior to signing this Agreement; and (iii) understand that the terms of this Agreement are contractually and legally binding and that no verbal statement to the contrary, by any person, can void or alter the terms of this Agreement.

I, Stevie Steely-Johnson, acknowledge, declare and certify under the penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct and that I have the authority to bind Inland North Waste to this Agreement. If I am signing this Agreement utilizing an electronic signature, I understand that this electronic signature is valid and binding upon me to the same force and effect as a handwritten signature.

SIGNED this _____ day of _____, 2026.

INLAND NORTH WASTE

_____
Stevie Steely-Johnson

CITY OF MOSCOW, IDAHO

_____
Hailey Lewis, Mayor

ATTEST:

_____
Laurie M. Hopkins, City Clerk

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, April 6, 2026

AGENDA ITEM TITLE

North and South Mountain View Pedestrian Improvements - Bid Results and Contract Award - Scott Bontrager

RESPONSIBLE STAFF

Scott Bontrager, City Engineer, Luke Hajda, Civil Engineer

ADDITIONAL PRESENTER(S)

DESCRIPTION

In 2022, the City of Moscow submitted and received funding for two Transportation Alternatives Program (TAP) projects due to increased federal COVID-related funding. The Mountain View Road corridor was selected to improve the non-motorized transportation gaps along the northern and southern segments of the road. The northern segment includes adding about 1,600 feet of curb, gutter, and sidewalk to the west side of Mountain View Road from F Street to Slonaker Drive. The southern segment includes adding about 900 feet of curb, gutter, sidewalk, and green strip on both sides of Mountain View from Paradise Creek to Joseph Street. The southern segment also includes the installation of a pedestrian warning beacon at the Paradise Path crossing, installation of sidewalk along the northern side of the Latah County Fairgrounds, and some intersection improvements at Blaine Street and Harold Ave. The City published an advertisement for bids on February 10, 2026, and the Engineer's Estimate for construction was $1,277,521.86.

Bids were opened on March 3, 2026, at which five (5) bids were received. The bids ranged from $1,025,088.98 to $2,285,746.76. Of those bids, the lowest responsive bid received was submitted by LaRiviere Incorporated of Rathdrum, ID with a bid of $1,025,088.98. A bid tabulation is included in the packet. This was reviewed by the Administrative Committee on March 23, 2026, and recommended for approval.

REVIEWED BY

This was reviewed by the Administrative Committee on March 23, 2026, and recommended for approval.

PROPOSED ACTIONS

ACTION: Accept the bid from LaRiviere Inc., award the contract in the amount of $1,025,088.98 and authorize City Engineer approval of construction change orders in an amount not to exceed 10% of the contract amount.

STAFF RECOMMENDATION

Accept the bid from LaRiviere, Inc., award the contract in the amount of $1,025,088.98 and authorize City Engineer approval of construction change orders in an amount not to exceed 10% of the contract amount.

OTHER RESOURCES

FISCAL IMPACT

Funds for the project will be expended from capital accumulation in Streets Roadway Improvement Program (350-150-770-83).

PERSONNEL IMPACT

The project will be administered by LHTAC with support from City staff. Construction engineering and inspection will be completed by a consultant engineering firm.

ATTACHMENTS

1. 23902 23903 EngineersRecommenation
2. Construction Agreement NS Mtn View Pedestiran Improvements_final with attachments

March 10, 2026

Scott Bontrager, P.E.
City Engineer
City of Moscow
504 S Washington Street
Moscow, ID 83843

RE: North and South Mountain View Pedestrian Improvements

Subject: Engineer's Recommendation of Award

Dear Mr. Bontrager,

As specified, sealed bids received by 2:00 p.m. on March 3, 2026, were opened and read. Five (5) bids were received for the project. HMH Engineering reviewed the submitted and a detailed bid tabulation is enclosed for your review. The following table provides a summary of bids received:

Contractor	Bid
LaRiviere Inc.	$1,025,088.98
ML Albright	$1,499,219.48
Big Sky Id Corp	$1,510,437.06
Moreno & Nelson Construction	$1,554,236.99
Western Construction of Lewiston	$2,285,746.76
Engineer's Estimate	$1,276,956.50

Based on these results, LaRiviere, Inc is the low bidder. Based on our review of the bid from LaRiviere, Inc, their bid is considered responsive with no irregularities noted. We recommend that the total bid amount of $1,025,088.98 be awarded to LaRiviere, Inc as the low, responsive, and responsible bidder.

Should you have any questions, contact us at your convenience.

Sincerely,

HMH Engineering

Justin Shaw, PE
Project Manager

Enclosures: Bid Tabulation and Review Checklist

BID REVIEW CHECKLIST						
PROJECT: NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS						
OWNER: CITY OF MOSCOW						
PROJECT NO: A023(902) & A023(903)						
ENGINEER: HMH ENGINEERING						
BID OPENING: Tuesday, March 3, 2026, 2:05 pm						
LOCATION: Community Development Building, 504 S Washington Street, Moscow, ID 83843						
ITEM	LaRiviere Inc.	ML Albright	Big Sky Id Corp	Moreno & Nelson Construction	Western Construction of Lewiston	Engineer's Estimate
TOTAL BID PROPOSAL	**$1,025,088.98**	**$1,499,219.48**	**$1,510,437.06**	**$1,554,236.99**	**$2,285,746.76**	**$1,276,956.50**
Bid Schedule	✓	✓	✓	✓	✓	
Bid Security	✓	✓	✓	✓	✕	
Bidder's Non-Collusion Affidavit	✓	✓	✓	✓	✓	
Bidder's Drug-Free Workplace Affidavit	✓	✓	✓	✓	✓	
Prompt Payment Affidavit	✓	✓	✓	✓	✓	
License Requirements for Electrical Work	✓	✓	✓	✕	✓	
Idaho Public Works License	✓	✓	✓	✓	✓	
Addendum No. 1 Acknowledged	✓	✓	✓	✕	✓	
Responsive	✓	✓	✓	✕	✕	

Disclaimer: Bid tabulation is considered preliminary and subject to change until the Board officially awards contract to the low, responsive bidder.

Posted by: Justin Shaw, P.E.
Date posted: 3/5/2026

PROJECT: North and South Mountain View Pedestrian Improvements
OWNER: City of Moscow
PROJECT NO: A023(902) & A023(903)

BID TABULATION

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	LaRiviere Inc.		ML Albright		Big Sky Id Corp		Moreno & Nelson Construction		Western Construction of Lewiston		Engineer's Estimate	
				UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE	UNIT PRICE	TOTAL PRICE
107-019A	SURVEY MONUMENT PRESERVATION	6000	CA	$1.00	$6,000.00	$1.00	$6,000.00	$1.00	$6,000.00	$1.00	$6,000.00	$1.00	$6,000.00	$1.00	$6,000.00
201-010A	CLEARING AND GRUBBING	1	LS	$7,618.00	$7,618.00	$48,550.00	$48,550.00	$28,000.00	$28,000.00	$16,740.00	$16,740.00	$93,000.00	$93,000.00	$8,000.00	$8,000.00
202-005A	SELECTIVE REM OF TREES INCLUDING STUMPS	12	EACH	$586.00	$7,032.00	$2,800.00	$33,600.00	$480.90	$5,770.80	$1,080.00	$12,960.00	$600.00	$7,200.00	$900.00	$10,800.00
203-005A	REMOVAL OF OBSTRUCTIONS	1	LS	$29,418.00	$29,418.00	$6,200.00	$6,200.00	$2,415.44	$2,415.44	$1,200.00	$1,200.00	$1,500.00	$1,500.00	$10,000.00	$10,000.00
203-006A	REMOVAL OF SIGN	24	EACH	$111.00	$2,664.00	$130.00	$3,120.00	$99.00	$2,376.00	$62.00	$1,488.00	$100.00	$2,400.00	$300.00	$7,200.00
203-025A	REMOVAL OF CATCH BASIN	4	EACH	$401.00	$1,604.00	$1,200.00	$4,800.00	$975.40	$3,901.60	$670.00	$2,680.00	$500.00	$2,000.00	$1,100.00	$4,400.00
203-055A	REMOVAL OF CONCRETE PAV	66.7	SY	$18.00	$1,200.60	$19.00	$1,267.30	$19.80	$1,320.66	$26.00	$1,734.20	$50.00	$3,335.00	$58.00	$3,868.60
203-060A	REMOVAL OF CONCRETE SIDEWALK	66.6	SY	$18.00	$1,198.80	$18.00	$1,198.80	$19.80	$1,318.68	$26.00	$1,731.60	$40.00	$2,664.00	$45.00	$2,997.00
203-065A	REMOVAL OF CURB	112.6	FT	$8.00	$900.80	$11.00	$1,238.60	$17.55	$1,976.13	$6.00	$675.60	$20.00	$2,252.00	$12.00	$1,351.20
203-070A	REMOVAL OF CURB & GUTTER	371.7	FT	$8.00	$2,973.60	$8.00	$2,973.60	$15.30	$5,687.01	$7.00	$2,601.90	$15.00	$5,575.50	$12.00	$4,460.40
203-075A	REMOVAL OF FENCE	8.6	FT	$6.50	$55.90	$125.00	$1,075.00	$146.00	$1,255.60	$18.00	$154.80	$200.00	$1,720.00	$20.00	$172.00
203-095A	REMOVAL OF MANHOLE	1	EACH	$842.00	$842.00	$2,000.00	$2,000.00	$3,127.00	$3,127.00	$850.00	$850.00	$1,500.00	$1,500.00	$3,000.00	$3,000.00
203-122A	REMOVAL OF MISC ITEMS	14	EACH	$286.00	$4,004.00	$270.00	$3,780.00	$180.50	$2,527.00	$66.00	$924.00	$100.00	$1,400.00	$500.00	$7,000.00
203-123A	REMOVAL OF MISC ITEMS	68	FT	$59.00	$4,012.00	$40.00	$2,720.00	$144.50	$9,826.00	$7.00	$476.00	$100.00	$6,800.00	$30.00	$2,040.00
205-005A	EXCAVATION	2643.4	CY	$18.00	$47,581.20	$47.50	$125,561.50	$55.60	$146,973.04	$63.25	$167,195.05	$25.00	$66,085.00	$30.00	$79,302.00
212-011A	FIBER WATTLE	285.4	FT	$6.00	$1,712.40	$18.50	$5,279.90	$5.00	$1,427.00	$5.00	$1,427.00	$4.00	$1,141.60	$3.50	$998.90
212-095A	INLET PROTECTION	15	EACH	$228.00	$3,420.00	$84.00	$1,260.00	$84.80	$1,272.00	$98.00	$1,470.00	$100.00	$1,500.00	$150.00	$2,250.00
251-005A	MIGRATORY BIRD TREATY ACT COMPLIANCE	10000	CA	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00
303-022A	3/4" AGGR TYPE B FOR BASE	1949.2	TON	$28.00	$54,577.60	$45.00	$87,714.00	$75.70	$147,554.44	$65.00	$126,698.00	$32.00	$62,374.40	$27.00	$52,628.40
307-012A	OPEN-GRADED BASE CLASS III	1141.7	TON	$29.00	$33,109.30	$46.00	$52,518.20	$44.25	$50,520.23	$33.00	$37,676.10	$30.00	$34,251.00	$30.00	$34,251.00
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3	629.5	TON	$161.00	$101,349.50	$187.00	$117,716.50	$178.75	$112,523.13	$200.00	$125,900.00	$200.00	$125,900.00	$155.00	$97,572.50
502-065A	CON CL 40 AF	2.8	CY	$907.00	$2,539.60	$2,700.00	$7,560.00	$117.00	$327.60	$1,260.00	$3,528.00	$2,800.00	$7,840.00	$1,900.00	$5,320.00
605-015A	8" STORM SEWER PIPE	111.2	LF	$58.00	$6,449.60	$95.00	$10,564.00	$89.50	$9,952.40	$108.00	$12,009.60	$80.00	$8,896.00	$100.00	$11,120.00
605-025A	12" STORM SEWER PIPE	307.2	LF	$72.00	$22,118.40	$85.00	$26,112.00	$100.00	$30,720.00	$111.00	$34,099.20	$85.00	$26,112.00	$100.00	$30,720.00
605-045A	24" STORM SEWER PIPE	34.5	LF	$134.00	$4,623.00	$191.00	$6,589.50	$232.60	$8,024.70	$108.00	$3,726.00	$195.00	$6,727.50	$130.00	$4,485.00
605-635A	ADJUST MANHOLE COVERS	3	EACH	$1,278.00	$3,834.00	$900.00	$2,700.00	$816.50	$2,449.50	$710.00	$2,130.00	$400.00	$1,200.00	$600.00	$1,800.00
605-640A	ADJUST VALVE COVERS	8	EACH	$616.00	$4,928.00	$860.00	$6,880.00	$817.60	$6,540.80	$580.00	$4,640.00	$400.00	$3,200.00	$600.00	$4,800.00
612-005A	W-BEAM GUARDRAIL	147.9	FT	$57.00	$8,430.30	$54.00	$7,986.60	$63.70	$9,421.23	$58.00	$8,578.20	$55.00	$8,134.50	$30.00	$4,437.00
612-110A	GUARDRAIL ANCHOR	1	EACH	$4,336.00	$4,336.00	$4,100.00	$4,100.00	$4,810.00	$4,810.00	$4,420.00	$4,420.00	$4,200.00	$4,200.00	$1,600.00	$1,600.00
612-115C	GUARDRAIL TERMINAL, TANGENT	1	EACH	$2,344.00	$2,344.00	$2,200.00	$2,200.00	$2,600.00	$2,600.00	$2,390.00	$2,390.00	$2,300.00	$2,300.00	$3,750.00	$3,750.00
614-015A	SIDEWALK - CITY OF MOSCOW	2010.3	SY	$69.00	$138,710.70	$88.00	$176,906.40	$93.60	$188,164.08	$84.00	$168,865.20	$90.00	$180,927.00	$75.00	$150,772.50
614-020A	DRIVEWAY APPROACH - CITY OF MOSCOW	290.6	SY	$85.00	$24,701.00	$176.00	$51,145.60	$143.00	$41,555.80	$148.00	$43,008.80	$180.00	$52,308.00	$120.00	$34,872.00
614-025A	PED RAMP - CITY OF MOSCOW	158.7	SY	$142.00	$22,535.40	$220.00	$34,914.00	$247.00	$39,198.90	$250.00	$39,675.00	$230.00	$36,501.00	$400.00	$63,480.00
615-255A	CURB TYPE "A" - CITY OF MOSCOW	80.6	FT	$36.00	$2,901.60	$94.00	$7,576.40	$65.00	$5,239.00	$106.00	$8,543.60	$100.00	$8,060.00	$45.00	$3,627.00
615-490A	CURB & GUTTER TYPE "B" - CITY OF MOSCOW	2586	FT	$25.00	$64,650.00	$54.00	$139,644.00	$35.10	$90,768.60	$31.00	$80,166.00	$55.00	$142,230.00	$55.00	$142,230.00
616-010A	SIGN TYPE B-1	83.2	SF	$30.00	$2,496.00	$29.00	$2,412.80	$33.70	$2,803.84	$31.00	$2,579.20	$30.00	$2,496.00	$27.75	$2,308.80
616-040J	STEEL SIGN POST TYPE E-1	31.5	FT	$93.00	$2,929.50	$87.00	$2,740.50	$102.70	$3,235.05	$94.00	$2,961.00	$80.00	$2,520.00	$74.00	$2,331.00
616-040K	STEEL SIGN POST TYPE E-2	78.9	FT	$98.00	$7,732.20	$93.00	$7,337.70	$109.20	$8,615.88	$100.00	$7,890.00	$70.00	$5,523.00	$55.00	$4,339.50
616-080A	REINSTALL SIGN FACE	29	EACH	$46.00	$1,334.00	$43.00	$1,247.00	$50.70	$1,470.30	$47.00	$1,363.00	$30.00	$870.00	$39.00	$1,131.00
616-085A	REINSTALL SIGN POST	20	EACH	$604.00	$12,080.00	$850.00	$17,000.00	$669.50	$13,390.00	$610.00	$12,200.00	$700.00	$14,000.00	$145.00	$2,900.00
621-010A	SEEDING	0.334	ACRE	$5,860.00	$1,957.24	$9,825.00	$3,281.55	$6,500.00	$2,171.00	$62,730.00	$20,951.82	$7,000.00	$2,338.00	$2,200.00	$734.80
624-005A	LOOSE RIPRAP	24.4	CY	$161.00	$3,928.40	$86.00	$2,098.40	$66.80	$1,629.92	$300.00	$7,320.00	$160.00	$3,904.00	$102.00	$2,488.80
626-100A	MISC TEMPORARY TRAFFIC CONTROL ITEMS	10000	CA	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00
630-010A	TRSV, WD, SYM, & ARR PAV MKGS - PERFORM THERMO	861.3	SF	$12.00	$10,335.60	$11.50	$9,904.95	$13.15	$11,326.10	$12.00	$10,335.60	$11.00	$9,474.30	$10.00	$8,613.00
630-025A	LONGITUDINAL PAV MKG - WATERBORNE	5735.2	FT	$0.70	$4,014.64	$0.65	$3,727.88	$0.75	$4,301.40	$0.70	$4,014.64	$0.30	$1,720.56	$0.55	$3,154.36
634-005A	MAILBOX	5	EACH	$1,049.00	$5,245.00	$800.00	$4,000.00	$1,163.50	$5,817.50	$1,070.00	$5,350.00	$900.00	$4,500.00	$550.00	$2,750.00
640-010A	RIPRAP/EROS CONT GEOTEXTILE	80.7	SY	$4.00	$322.80	$6.00	$484.20	$87.80	$7,085.46	$10.00	$807.00	$20.00	$1,614.00	$3.50	$282.45
640-015A	SUBGRADE SEPARATION GEOTEXTILE TYPE II	2684.9	SY	$3.00	$8,054.70	$4.00	$10,739.60	$2.80	$7,517.72	$2.75	$7,383.48	$350.00	$939,715.00	$2.50	$6,712.25
675-005A	SURVEY	1	LS	$16,700.00	$16,700.00	$18,760.00	$18,760.00	$18,525.00	$18,525.00	$16,130.00	$16,130.00	$18,000.00	$18,000.00	$15,000.00	$15,000.00
675-010A	DIRECTED SURVEYING	10000	CA	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00
S501-15A	RETAINING WALL	675	SF	$60.00	$40,500.00	$86.00	$58,050.00	$64.50	$43,537.50	$92.00	$62,100.00	$70.00	$47,250.00	$100.00	$67,500.00
S600-20A	REMOVE AND REPLACE FIRE HYDRANT	1	EACH	$10,440.00	$10,440.00	$11,500.00	$11,500.00	$10,315.00	$10,315.00	$10,650.00	$10,650.00	$12,000.00	$12,000.00	$6,000.00	$6,000.00
S616-15A	RECTANGULAR RAPID-FLASHING BEACON (RRFB)	1	EACH	$31,979.00	$31,979.00	$43,200.00	$43,200.00	$33,790.00	$33,790.00	$26,550.00	$26,550.00	$33,000.00	$33,000.00	$12,000.00	$12,000.00
S900-50A	CONTINGENCY AMOUNT - MISCELLANEOUS WORK	10000	CA	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00
S901-05A	ADJUST CATCH BASIN COVERS	3	EACH	$1,278.00	$3,834.00	$800.00	$2,400.00	$790.60	$2,371.80	$760.00	$2,280.00	$400.00	$1,200.00	$1,000.00	$3,000.00
S901-05B	CITY OF MOSCOW CATCH BASIN	8	EACH	$2,747.00	$21,976.00	$3,165.00	$25,320.00	$2,888.00	$23,104.00	$1,980.00	$15,840.00	$2,500.00	$20,000.00	$3,000.00	$24,000.00
S901-05C	CITY OF MOSCOW STORM SEWER MANHOLE	3	EACH	$4,714.00	$14,142.00	$4,900.00	$14,700.00	$4,100.00	$12,300.00	$3,690.00	$11,070.00	$6,000.00	$18,000.00	$6,000.00	$18,000.00
S901-05D	ADJUST WATER METERS	7	EACH	$845.00	$5,915.00	$600.00	$4,200.00	$600.00	$4,200.00	$1,030.00	$7,210.00	$800.00	$5,600.00	$2,000.00	$14,000.00
S904-05A	TEMPORARY TRAFFIC CONTROL	1	LS	$7,413.00	$7,413.00	$32,000.00	$32,000.00	$52,578.50	$52,578.50	$112,980.00	$112,980.00	$20,000.00	$20,000.00	$25,000.00	$25,000.00
S912-05A	LANDSCAPE REPAIR	10000	CA	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00	$1.00	$10,000.00
S912-05B	DECORATIVE ROCK	709.3	SY	$18.00	$12,767.40	$22.00	$15,604.60	$67.60	$47,948.68	$68.00	$48,232.40	$18.00	$12,767.40	$35.00	$24,825.50
S913-05A	ROCK MULCH	120.2	CY	$96.00	$11,539.20	$92.00	$11,058.40	$140.25	$16,858.05	$110.00	$13,222.00	$100.00	$12,020.00	$100.00	$12,020.00
Z629-05A	MOBILIZATION	1	LS	$113,078.00	$113,078.00	$154,000.00	$154,000.00	$150,000.00	$150,000.00	$168,455.00	$168,455.00	$130,000.00	$130,000.00	$166,559.54	$166,559.54
			Total		**$1,025,088.98**		**$1,499,219.48**		**$1,510,437.06**		**$1,554,236.99**		**$2,285,746.76**		**$1,276,956.50**

CONSTRUCTION AGREEMENT
FOR NORTH AND SOUTH MOUNTAIN VIEW
PEDESTRIAN IMPROVEMENTS PROJECT
BETWEEN CITY OF MOSCOW, IDAHO
AND LARIVIERE, INC.

THIS CONSTRUCTION AGREEMENT FOR THE NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS PROJECT BETWEEN CITY OF MOSCOW, IDAHO AND LARIVIERE, INC. (hereinafter "Agreement"), dated this ____ day of _____, 2026, is made by and between City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY"), and LaRiviere, Inc., 17564 North Dylan Court, Rathdrum, Idaho, 83858 (hereinafter "CONTRACTOR"):

W I T N E S S E T H:

WHEREAS, pursuant to the invitation of CITY, extended through an "Invitation to Bid", see Attachment "A", CONTRACTOR submitted a Bid Proposal containing an offer invited by said invitation; and

WHEREAS, CITY has determined that said offer was the lowest responsive Bid Proposal; and

WHEREAS, CITY has accepted CONTRACTOR's Bid Proposal;

NOW THEREFORE, the Parties to this Agreement, in consideration of the mutual covenants and stipulations set out, agree as follows:

ARTICLE 1.
CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between CITY and CONTRACTOR concerning the work to be performed, are this Agreement, pages one (1) through eight (8) and the following:

1. Drawings, Specifications and Proposal for: North and South Mountain View Pedestrian Improvements Project, City of Moscow Project No. 115-023, Attachment "A" consisting of 364 pages;
2. Bid Proposal of CONTRACTOR, dated March 3, 2026, Attachment "B", consisting of 14 pages;
3. Performance and Payment Bonds and Insurance Certificates;
4. Addendum No. 1, Attachment "C", consisting of 8 pages; and
5. Change Orders, which may be delivered or issued after the effective date of this Agreement.

There are no Contract Documents other than those listed in Article 1. This Agreement may only be amended by change order as provided in the General Conditions of Attachment "A".

DRAFT

ARTICLE 2.
WORK

CONTRACTOR shall complete the entire work as specified, indicated and required under the Contract Documents, contained herein under Article 1. for CITY project (hereinafter "Project") titled:

NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS PROJECT

ARTICLE 3.
CONTRACT TIME/SUBSTANTIAL COMPLETION

The work to be performed pursuant to this Agreement shall start no earlier than May 18, 2026, and shall be substantially completed no later than August 14, 2026. The work shall be completed within sixty (60) calendar days from the commencement of work, unless adjustment of the Agreement time is made in accordance with the provisions of the Contract Documents. CONTRACTOR shall begin work in conformance with the Contract Documents.

CONTRACTOR and CITY recognize that time is of the essence and that CITY will suffer financial loss if the Project is not completed within the time specified above, unless approved extensions thereof are permitted in accordance with the terms of the Contract Documents. The Parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by CITY if the Project is not completed on time. Accordingly, instead of requiring any such proof, CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay CITY One Half of One Percent (0.5%) of the Contract Sum for each day that expires after the time specified above for Substantial Completion until the Project is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Project within the Time of Completion or by any proper extension thereof granted by CITY, CONTRACTOR shall pay CITY One Half of One Percent (0.5%) of the Contract Sum for each day that expires after the time specified above for completion, until the Project is completed and ready for final payment.

ARTICLE 4.
CONTRACT SUM

CITY shall pay CONTRACTOR for completion of the work for the Project in accordance with the Contract Documents in current funds in the amount of One Million, Twenty-Five Thousand, Eighty-Eight Dollars and Ninety-Eight Cents ($1,025,088.98), as submitted by CONTRACTOR. In no event shall the Contract amount exceed CONTRACTOR's bid amount of $1,025,088.98, unless otherwise authorized by CITY by written agreement. Said Contract Sum shall be paid in accordance with the Contract Documents.

ARTICLE 5.
TERMINATION

Termination provisions are governed by the attached Contract Documents.

DRAFT

ARTICLE 6.
INDEPENDENT CONTRACTOR

The Parties warrant by their signatures that no employer-employee relationship is established between CONTRACTOR and CITY by the terms of this Agreement. It is understood by the Parties hereto that CONTRACTOR is an independent contractor and, as such, neither CONTRACTOR nor CONTRACTOR's employees, agents, representatives or subcontractors, if any, are employees of CITY for any purpose, including for purposes of tax, retirement system, and social security (FICA) withholding.

ARTICLE 7.
SCOPE OF SERVICES

CONTRACTOR shall perform all work required by the Contract Documents. All work shall be completed in accordance with the specifications and plans established for this Project.

ARTICLE 8.
HOLD HARMLESS/INDEMNIFICATION

In addition to other rights granted to CITY by the Contract Documents, CONTRACTOR agrees to indemnify, defend, and hold harmless CITY, its officers, agents, employees, and engineers, from and against any and all losses, lawsuits, actions, claims, judgements for damages, or any injuries or damages received or sustained by any person, persons, or property, and losses, expenses, and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with the acts, performances, activities, errors or omissions by CONTRACTOR, CONTRACTOR's servants, agents, officers, employees, representatives, guests, business invitees or its subcontractors; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising out of or recovered under the Workers' Compensation Act or any other law, ordinance, order, or decree.

ARTICLE 9.
CONFLICT OF INTEREST

CONTRACTOR covenants that it presently has no interest and will not acquire any interest, direct or indirect, in the Project, which would conflict in any manner or degree with the performance of CONTRACTOR's services hereunder. CONTRACTOR further covenants that, in performing this Agreement, CONTRACTOR will employ no person who has any such interest. Should any conflict of interest arise during the performance of this Agreement, CONTRACTOR shall immediately disclose such conflict to CITY.

ARTICLE 10.
ENTIRE AGREEMENT, MODIFICATION AND ASSIGNABILITY

This Agreement and the attachments hereto contain the entire Agreement between the Parties, and no statements, promises, or inducements made by either Party, or agents of either Party are valid or binding unless contained herein. This Agreement may not be enlarged, modified or altered

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except upon written agreement signed by the Parties hereto. CONTRACTOR may not subcontract or assign its rights (including the right to compensation) or duties arising hereunder, other than as provided within the Contract Documents, without the prior written consent and express authorization of CITY.

ARTICLE 11.
LICENSES AND ADHERENCE TO LAW REQUIRED

CONTRACTOR represents that it possesses the skill and experience necessary and all licenses required to perform the services under this Agreement. CONTRACTOR further agrees to comply with all applicable Federal, State and Local statutes and regulations in the performance of the services hereunder, and are hereby made a part of this Agreement and shall be adhered to at all times. Violation of any of these statutes or regulations by CONTRACTOR shall be deemed material and shall subject CONTRACTOR to termination of this Agreement for cause. No pleas of misunderstanding or ignorance on the part of CONTRACTOR will, in any way, serve to modify the provisions of this requirement. CONTRACTOR and its surety shall indemnify, defend and hold harmless CITY and its employees, agents, engineers and representatives against any claim or liability arising from or based on the violation of any such laws, codes, ordinances, or regulations, whether by CONTRACTOR, CONTRACTOR's employees, or its subcontractors.

Anti-Boycott Against Israel Act. CONTRACTOR certifies it is not currently engaged in, and will not for the duration of this Agreement engage in, a boycott of goods and services from Israel or territories under its control. Failure to comply with Idaho Code § 67-2346 will result in this Agreement being void as against public policy.

Ownership or Operation by China. Pursuant to Idaho Code § 67-2359, CONTRACTOR certifies that it is not currently owned or operated by the government of China and will not for the duration of this Agreement be owned or operated by the government of China. The terms in this section defined in Idaho Code § 67-2359 shall have the meaning defined therein.

Employment of Residents of Idaho. Pursuant to Idaho Code § 44-1001, CONTRACTOR certifies that it will employ ninety-five percent (95%) bona fide Idaho residents, as that term is defined in Idaho Code § 44-1003, as employees for the completion of the terms required in this Agreement. If CONTRACTOR employs less than fifty (50) employees on this Project, CONTRACTOR may employ up to ten percent (10%) nonresidents for the completion of the terms required in this Agreement. In all cases, CONTRACTOR agrees to give a preference to bona fide Idaho residents. The Parties agree that if Project involves the expenditure of federal aid funds, that this clause will not be enforced in a manner that conflicts with federal statutes prescribing a labor preference for veterans or prohibiting unlawful discrimination or preferences among United States citizens.

Not an Abortion Provider or Affiliate. Pursuant to Idaho Code Title 18 Chapter 87, CONTRACTOR certifies that it is not an abortion provider or an affiliate of any abortion provider and does not, and will not for the duration of this Agreement, authorize the use of state facilities or public funds for abortion related activity.

Anti-Boycott of Certain Sectors. Pursuant to Idaho Code § 67-2347A, CONTRACTOR certifies that it is not engaged in, and will not for the duration of this Agreement engage in, a boycott of any individual or company because the individual or company 1) engages in or supports the

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exploration, production, utilization, transportation, sale or manufacture of fossil fuel-based energy, timber, minerals, hydroelectric power, nuclear power, or agriculture or 2) engages in or supports the manufacture, distribution, sale, or use of firearms, as defined in Idaho Code § 18-3302 (2)(d).

ARTICLE 12.
EMPLOYMENT DISCRIMINATION

It is illegal under the U.S. Federal law to discriminate against an employee, either intentionally or through disparate impact, on account of race, color, gender, religion, sex (including pregnancy), national origin, disability or genetic information, age (40 and older), marital or familial status, sexual orientation, or gender identity. CONTRACTOR shall not discriminate against any employee or applicant for employment. CONTRACTOR's action under this Section shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and other applicants for employment, notices setting forth the provisions of this non-discrimination Section.

ARTICLE 13.
LEGAL FEES

In the event either Party incurs legal expenses to enforce the terms and conditions of this Agreement, the prevailing Party is entitled to recover reasonable attorney's fees and other costs and expenses, whether the same are incurred with or without a lawsuit.

ARTICLE 14.
JURISDICTION, VENUE AND NONWAIVER

It is agreed that this Agreement shall be construed under and governed by the laws of the State of Idaho. In the event of litigation concerning it, it is agreed that proper venue shall be the District Court of the Second Judicial District of the State of Idaho, in and for the County of Latah. Failure of CITY to exercise any of the rights under this Agreement, or breach thereof, shall not be deemed to be a waiver of such right or a waiver of any subsequent breach.

ARTICLE 15.
SPECIAL WARRANTY

CONTRACTOR warrants that nothing of monetary value has been given, promised or implied as remuneration or inducement to enter into this Agreement. CONTRACTOR declares that no improper personal, political or social activities have been used or attempted in an effort to influence the outcome of the competition, discussion, or negotiation leading to the award of this Agreement. Any such activity by CONTRACTOR shall make this Agreement null and void. CONTRACTOR further warrants that all materials and goods supplied under this Agreement shall be of good merchantable quality and that all services will be performed in a good skillful manner. CONTRACTOR acknowledges that it will be liable for any breach of this warranty.

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ARTICLE 16.
COMMUNICATIONS

Such communications as are required by this Agreement shall be satisfied by mailing or by personal delivery to the Parties at the following address:

CONTRACTOR:

LaRiviere, Inc.
Thomas R. LaRiviere
17564 N. Dylan Court
Rathdrum, ID 83858

CITY:

City of Moscow
Engineering Division
206 East Third Street
PO Box 9203
Moscow, ID 83843

ARTICLE 17.
NON-APPROPRIATIONS

This Agreement is contingent upon CITY receiving the necessary funding to cover the obligations of CITY. In the event that such funding is not received or appropriated, then, and in that event, CITY's obligations under this Agreement shall cease and each Party shall be released from further performance under this Agreement without any liability to the other Party, and CONTRACTOR shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

ARTICLE 18.
APPROVAL REQUIRED AND SEVERABILITY

This Agreement shall not become effective or binding until approved by CITY. The terms of this Agreement shall be deemed severable. If any part of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, the remaining portions of the Agreement will, nevertheless, remain in full force and effect so long as the remainder of this Agreement is capable of completion.

ARTICLE 19.
DRUG/TOBACCO FREE FACILITIES

All CITY facilities are drug and tobacco free facilities. Any drug and/or tobacco use (smoked or smokeless) is prohibited at all times on all areas of CITY facilities.

ARTICLE 20.
HEADINGS, TITLES AND CAPTIONS

Headings, captions, and titles of sections of this Agreement are for the convenience of reference only, and are not intended to define, limit, or describe the scope or intent of any provision of this Agreement, and shall not affect the construction of any provision of this Agreement.

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ARTICLE 21.
EXECUTION

IN WITNESS WHEREOF, said CONTRACTOR and CITY have caused this Agreement to be executed on the day and year first above written.

This Agreement may be executed by the use of electronic signatures pursuant to Idaho Code §28-50-107, which has the same force and effect as a handwritten signature. If electronic signatures are utilized, the acknowledgement before a notary is not required.

I, Thomas R. LaRiviere, certify under the penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct and that I am an authorized agent to bind LaRiviere, Inc. to this Agreement. If I am signing this document utilizing a digital signature, I understand that my digital signature is valid and binding upon me to the same force and effect as a handwritten signature.

CONTRACTOR:

LaRiviere, Inc.

_____

Thomas R. LaRiviere, President

CITY:

City of Moscow, Idaho

_____

Hailey Lewis, Mayor

ATTEST:

_____

Laurie M. Hopkins, City Clerk

Approved as to Form:

_____

Mia Bautista, City Attorney

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ACKNOWLEDGMENT

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 2026, before me, a Notary Public in and for said State, appeared Thomas R. LaRiviere, known to me to be the person named above and acknowledged that they executed the foregoing document as the duly authorized representative for LaRiviere, Inc.

_____

Notary Public for the State of _____

Residing at_____

My commission expires_____

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COMMUNITY DEVELOPMENT
ENGINEERING DIVISION

DRAWINGS, SPECIFICATIONS AND
PROPOSAL FOR:

NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS

CITY OF MOSCOW PROJECT NO. 115-023

FEDERAL AID PROJECT NO. A023(902) / A023(903)

KEY NO. 23902 / 23903

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CITY OF MOSCOW, IDAHO

Community Development
Engineering Division
Moscow, Idaho 83843
(208) 883-7034

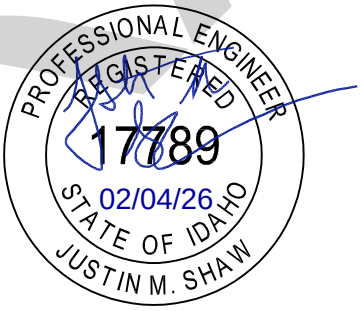
Plans, Specifications and Proposal

NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS

CITY OF MOSCOW PROJECT NO. 115-023

FEDERAL AID PROJECT NO. A023(902) / A023(903)

KEY NO. 23902 / 23903



ENGINEER:
JUSTIN SHAW, PE
HMH ENGINEERING

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INVITATION TO BID

The City of Moscow, Idaho is accepting sealed bids to be submitted to the Community Development Building (Engineering Division) at 504 South Washington Street, Moscow, Idaho 83843, and clearly marked "**Bid Enclosed – North and South Mountain View Pedestrian Improvements**" until **2:00 p.m.,** prevailing local time, **Tuesday, March 3, 2026**, for the following project:

NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS - 2026

At **2:05 p.m., on the same day**, all proposals will be publicly opened and read aloud in the Community Development Building, Main Floor Conference Room, at 504 South Washington Street, Moscow, ID 83843.

Scope of project includes installing 5-foot-wide and 6-foot-wide sidewalks, curb, gutter, ADA compliant pedestrian ramps, rapid flashing beacon, and minor stormwater improvements along the following routes: Mountain View – From existing sidewalk approximately 350 feet North of E White Ave to Joseph St., Mountain View – F St. to Existing Sidewalk approximately 240 feet West of Slonaker Dr., Northeast corner of Blaine St. and Harold St. intersection, and Harold St. – From existing sidewalk approximately 370 feet west of Mountain View to Mountain View.

Complete digital Project Manual and Project Plans, may be viewed at questcdn.com via the link provided on The City of Moscow Website at: www.ci.moscow.id.us – click on "Business" / "Bid Opportunities" / "North and South Mountain View Pedestrian Improvements"

Once on the Quest site, you may be download the digital plan documents for a **non-refundable fee of $22.00.** The Quest project number is 10047357. Please contact QuestCDN.com at 952-233-1632 or info@questcdn.com for assistance in free membership registration, downloading, and working with digital project information.

IMPORTANT - All communication about this project, including addenda **will only be issued** via QuestCDN, and **only to those firms listed on the Plan Holder's List.**

The Project Documents may also be examined at the City of Moscow Haddock Building (Engineering Division), 504 South Washington Street, Moscow, ID 83843.

Questions should be directed to Britany Luft, City of Moscow Engineering Division, 504 South Washington Street, Moscow, ID. Phone 208-883-7034 or Email: bluft@ci.moscow.id.us

Any objections to the contents or terms of the Specifications shall be raised three (3) days prior to bid opening or it shall be deemed to have been waived.

The City reserves the right to reject any and all Bid Proposals, to waive any formality in the Bidding Contract Documents and to make selection to the lowest responsive, responsible and qualified Bidder as it may best serve the interest of the Owner.

DRAFT

Britany Luft

Britany Luft, Deputy City Clerk

Publish Dates: February 7th and February 14, 2026

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BID PROPOSAL

TO: Mayor and City Council
City of Moscow, Idaho

Date: _____

This proposal is submitted as an offer by the undersigned to enter into contract with the City of Moscow, Idaho as represented by the City Council, hereinafter referred to as the 'CITY' for North and South Mountain View Pedestrian Improvements, (hereinafter "Project"), specified herein and which construction documents are on file with the City Engineer, 504 South Washington, Haddock Building, Moscow, Idaho, and which are a condition hereof with the same force and effect as though they were attached hereto. The offer is conditioned on the following declarations as to the facts, intention and understanding of the undersigned and the agreement of the CITY to the terms and prices herein submitted.

1. All Project specifications and drawings examined by the undersigned and their terms and conditions are hereby agreed to.

2. The undersigned certifies that they have received or made themselves aware of any and all existing site conditions that may affect the proposed work.

3. It is understood that the contract drawings may be supplemented by additional drawings and specifications in explanation and elaboration of the contract drawings and it is agreed that such supplemental drawings, when not in conflict with those referred to in paragraph 1 above, will have the same force and effect as if attached hereto and that when received they will be considered a part of the contract.

4. The undersigned will furnish separate performance and payment bonds in the full amount of the contract price.

5. The cash, certified check, bid bond, or cashier's check accompanying this proposal shall be forfeited to the City of Moscow to the extent of 5% of the amount bid if the undersigned shall fail or refuse to execute the contract, furnish performance and payment bonds, and insurance certificate as required by the specifications within the time limit therein after notification that the said proposal is accepted, all in accordance with the provisions of this proposal and the specifications.

6. The undersigned further agrees that CITY shall have the right to accept or reject any bid which rejection or acceptance is deemed to be in the best interest of CITY.

7. The undersigned agrees to order all necessary equipment and materials within a period of three (3) days after Notice to Proceed has been issued by the Engineer.

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8. The undersigned, as a bidder, acknowledges that Addenda Number _____ through _____ have been delivered to them and have been examined as part of the contract documents.

9. The undersigned agrees to complete all work embraced in the contract within the time limitations set forth in paragraph IB-13 of the Instruction to Bidders.

10. The undersigned holds Idaho Public Work's License Number _____.

11. The undersigned proposes to use the following sub-contractors in the performance of meeting the contract requirements. Information herein must comply with Idaho Code Section 67-2310 and IB-16:

Subcontractors	Trade Specialty	Idaho Public Works License No.	$ Amount
a.			
b.			
c.			
d.			
e.			

12. The undersigned has included with the bid the following forms and information:
    a. Bid Schedule
    b. Bid security
    c. DBE Race/Gender - Conscious Special Provisions, Local Projects
    d. EEO Special Provision
    e. Bidder's Non-Collusion Affidavit
    f. Bidder's Drug-Free Workplace Affidavit
    g. Buy America / Build America Buy America Insert
    h. Title VI Inclusions
    i. FHWA-1273
    j. Davis-Bacon Wage Determination
    k. Prompt Payment Affidavit
    l. Minimum Testing/Sampling Requirement Template
    m. TAP Environmental Contractor Notes and Special Provisions

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n. License Requirements For Electrical Work

o. Electrical Board Temporary Rules

p. Code of Federal Regulations Title 23

q. Code of Federal Regulations Title 41

13. The undersigned proposes to furnish labor, materials, equipment and services of all kinds required for North and South Mountain View Pedestrian Improvements as described in the specifications, including all appurtenant work, all as required by the specifications and this proposal for the prices in accordance with the completed schedule contract prices as follows:

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BID SCHEDULE

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Amount
107-019A	SURVEY MONUMENT PRESERVATION	CA	6000	$1.00	$6,000.00
201-010A	CLEARING AND GRUBBING	LS	1	$	$
202-005A	SELECTIVE REMOVAL OF TREES INCLUDING STUMPS	EACH	12	$	$
203-005A	REMOVAL OF OBSTRUCTIONS	LS	1	$	$
203-006A	REMOVAL OF SIGN	EACH	24	$	$
203-025A	REMOVAL OF CATCH BASIN	EACH	4.0	$	$
203-055A	REMOVAL OF CONCRETE PAV	SY	66.7	$	$
203-060A	REMOVAL OF CONCRETE SIDEWALK	SY	66.6	$	$
203-065A	REMOVAL OF CURB	FT	112.6	$	$
203-070A	REMOVAL OF CURB & GUTTER	FT	371.7	$	$
203-075A	REMOVAL OF FENCE	FT	8.6	$	$
203-095A	REMOVAL OF MANHOLE	EACH	1	$	$
203-122A	REMOVAL OF MISC ITEMS	EACH	14	$	$
203-123A	REMOVAL OF MISC ITEMS	FT	68	$	$
205-005A	EXCAVATION	CY	2643.4	$	$
212-011A	FIBER WATTLE	FT	285.4	$	$
212-095A	INLET PROTECTION	EACH	15	$	$
251-005A	MIGRATORY BIRD TREATY ACT COMPLIANCE	CA	10000	$1.00	$10,000.00
303-022A	3/4" AGGR TYPE B FOR BASE	TON	1949.2	$	$
307-012A	OPEN-GRADED BASE CLASS III	TON	1141.7	$	$
				$	$
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3	TON	629.5	$	$
502-065A	CONCRETE CLASS 40 AF	CY	2.8	$	$
605-015A	8" STORM SEWER PIPE	FT	153.9	$	$
605-025A	12" STORM SEWER PIPE	FT	307.2	$	$

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605-045A	24" STORM SEWER PIPE	FT	34.5	$	$
605-635A	ADJUST MANHOLE COVERS	EACH	3.0	$	$
605-640A	ADJUST VALVE COVERS	EACH	8.0	$	$
612-005A	W-BEAM GUARDRAIL	FT	147.9	$	$
612-110A	GUARDRAIL ANCHOR	EACH	1.0	$	$
612-115C	GUARDRAIL TERMINAL, TANGENT	EACH	1.0	$	$
614-015A	SIDEWALK	SY	2010.3	$	$
614-020A	DRIVEWAY	SY	290.6	$	$
614-025A	CURB RAMP	SY	158.7	$	$
615-255A	CURB	FT	80.6	$	$
615-490A	CURB & GUTTER	FT	2586.0	$	$
616-010A	SIGN TYPE B-1	SF	83.2	$	$
616-040J	STEEL SIGN POST TYPE E-1	FT	31.5	$	$
616-040K	STEEL SIGN POST TYPE E-2	FT	78.9	$	$
616-080A	REINSTALL SIGN FACE	EACH	29	$	$
616-085A	REINSTALL SIGN POST	EACH	20	$	$
621-010A	SEEDING	ACRE	0.334	$	$
624-005A	LOOSE RIPRAP	CY	20	$	$
626-100A	MISCELLANEOUS TEMPORARY TRAFFIC CONTROL ITEMS	CA	10000	$1.00	$10,000.00
630-010A	TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC	SF	861.3	$	$
630-025A	LONGITUDINAL PAV MKG - WATERBORNE	FT	5735.2	$	$
634-005A	MAILBOX	EACH	5	$	$
640-010A	RIPRAP/EROS CONT GEOTEXTILE	SY	67.8	$	$
640-015A	SUBGRADE SEPARATION GEOTEXTILE TYPE II	SY	2684.9	$	$
675-005A	SURVEY	LS	1	$	$
675-010A	DIRECTED SURVEYING	CA	10000	$1.00	$10,000.00
S501-15A	RETAINING WALL	SF	675	$	$
S600-20A	REMOVE AND REPLACE FIRE HYDRANT	EACH	1	$	$
S616-15A	RECTANGULAR RAPID-FLASHING BEACON (RRFB)	EACH	1	$	$
S900-50A	CONTINGENCY AMOUNT - MISCELLANEOUS WORK	CA	10000	$ 1.00	$10,000.00

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S901-05A	ADJUST CATCH BASIN LID AND FRAME	EACH	3	$	$
S901-05B	CITY OF MOSCOW CATCH BASIN	EACH	8	$	$
S901-05C	CITY OF MOSCOW STORM SEWER MANHOLE	EACH	3	$	$
S901-05D	ADJUST WATER METER	EACH	7	$	$
S904-05A	TEMPORARY TRAFFIC CONTROL	LS	1	$	$
S912-05A	LANDSCAPE REPAIR	CA	10000	$	$
S912-05B	DECORATIVE ROCK	SY	709.1	$	$
S913-05A	ROCK MULCH	CY	120.2	$	$
Z629-05A	MOBILIZATION	LS	1	$	$
Total of All Unit Price Bid Items					$

Firm Name of Bidder

Signature of Bidder

Official Title

Bidders Mailing Address

Public Works License No.

State of Incorporation if Incorporated

SEAL (if incorporated)

Dated at _____

This ____ day of _____, 2026

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CONSTRUCTION AGREEMENT
FOR NORTH AND SOUTH MOUNATIN VIEW PEDESTRIAN IMPROVEMENTS
BETWEEN CITY OF MOSCOW, IDAHO
AND ___

THIS CONSTRUCTION AGREEMENT FOR NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS BETWEEN CITY OF MOSCOW, IDAHO, AND ___ (hereinafter "Agreement"), dated this ___ day of , 2026, is made by and between City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY"), and ___ (hereinafter "CONTRACTOR"):

W I T N E S S E T H:

WHEREAS, pursuant to the invitation of CITY, extended through an "Invitation to Bid", see Attachment "A", CONTRACTOR submitted a Bid Proposal containing an offer invited by said invitation; and

WHEREAS, CITY has determined that said offer was the lowest responsive Bid Proposal; and

WHEREAS, CITY has accepted CONTRACTOR's Bid Proposal;

NOW THEREFORE, the Parties to this Agreement, in consideration of the mutual covenants and stipulations set out, agree as follows:

ARTICLE 1.
CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between CITY and CONTRACTOR concerning the work to be performed, are this Agreement, pages one (1) through seven (7) and the following:

1. Drawings, Specifications and Proposal for: NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS, City of Moscow Project No. 23902/23903, Attachment "A" consisting of 60 pages;
2. Bid Proposal of CONTRACTOR, dated ___, 2026, Attachment "B", consisting of ___ pages;
3. Performance and Payment Bonds and Insurance Certificates;
4. Addendum No. ___, if applicable, Attachment "C", consisting of ___ pages; and
5. Change Orders, which may be delivered or issued after the effective date of this Agreement.

There are no Contract Documents other than those listed in Article 1. This Agreement may only be amended by change order as provided in the General Conditions of Attachment "A".

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ARTICLE 2.
WORK

CONTRACTOR shall complete the entire work as specified, indicated and required under the Contract Documents, contained herein under Article 1. for CITY project (hereinafter "Project") titled:

NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS

ARTICLE 3.
CONTRACT TIME/SUBSTANTIAL COMPLETION

The work to be performed pursuant to this Agreement shall be substantially completed on or before ____, or other time considerations, unless adjustment of the Agreement time is made in accordance with the provisions of the Contract Documents. CONTRACTOR shall begin work in conformance with the Contract Documents.

CONTRACTOR and CITY recognize that time is of the essence and that CITY will suffer financial loss if the Project is not completed within the time specified above, unless approved extensions thereof are permitted in accordance with the terms of the Contract Documents. The Parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by CITY if the Project is not completed on time. Accordingly, instead of requiring any such proof, CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay CITY One Half of One Percent (0.5%) of the Contract Sum for each day that expires after the time specified above for Substantial Completion until the Project is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Project within the Time of Completion or by any proper extension thereof granted by CITY, CONTRACTOR shall pay CITY One Half of One Percent (0.5%) of the Contract Sum for each day that expires after the time specified above for completion, until the Project is completed and ready for final payment.

ARTICLE 4.
CONTRACT SUM

CITY shall pay CONTRACTOR for completion of the work for the Project in accordance with the Contract Documents in current funds in the amount of ___ Dollars ($___), as submitted by CONTRACTOR. In no event shall the Contract amount exceed CONTRACTOR's bid amount of ___ Dollars ($___), unless otherwise authorized by CITY by written agreement. Said Contract Sum shall be paid in accordance with the Contract Documents.

ARTICLE 5.
TERMINATION

Termination provisions are governed by the attached Contract Documents.

ARTICLE 6.
INDEPENDENT CONTRACTOR

The Parties warrant by their signatures that no employer-employee relationship is established between CONTRACTOR and CITY by the terms of this Agreement. It is understood by the Parties hereto that CONTRACTOR is an independent contractor and, as such, neither CONTRACTOR nor CONTRACTOR's employees, agents, representatives or subcontractors, if any, are employees of CITY for purposes of tax, retirement system, or social security (FICA) withholding.

ARTICLE 7.
SCOPE OF SERVICES

CONTRACTOR shall perform all work required by the Contract Documents. All work shall be completed in accordance with the specifications and plans established for this Project.

ARTICLE 8.
HOLD HARMLESS/INDEMNIFICATION

In addition to other rights granted to CITY by the Contract Documents, CONTRACTOR agrees to indemnify, defend, and hold harmless CITY, its officers, agents, employees, and engineers, from and against any and all losses, lawsuits, actions, claims, judgements for damages, or any injuries or damages received or sustained by any person, persons, or property, and losses, expenses, and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with the acts, performances, activities, errors or omissions by CONTRACTOR, CONTRACTOR's servants, agents, officers, employees, representatives, guests, business invitees or its subcontractors; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising out of or recovered under the Workers' Compensation Act or any other law, ordinance, order, or decree.

ARTICLE 9.
CONFLICT OF INTEREST

CONTRACTOR covenants that it presently has no interest and will not acquire any interest, direct or indirect, in the Project, which would conflict in any manner or degree with the performance of CONTRACTOR's services hereunder. CONTRACTOR further covenants that, in performing this Agreement, CONTRACTOR will employ no person who has any such interest. Should any conflict of interest arise during the performance of this Agreement, CONTRACTOR shall immediately disclose such conflict to CITY.

ARTICLE 10.
ENTIRE AGREEMENT, MODIFICATION AND ASSIGNABILITY

This Agreement and the attachments hereto contain the entire Agreement between the Parties, and no statements, promises, or inducements made by either Party, or agents of either Party are valid or binding unless contained herein. This Agreement may not be enlarged, modified or altered except upon written agreement signed by the Parties hereto. CONTRACTOR may not subcontract

or assign its rights (including the right to compensation) or duties arising hereunder, other than as provided within the Contract Documents, without the prior written consent and express authorization of CITY.

ARTICLE 11.
LICENSES AND ADHERENCE TO LAW REQUIRED

CONTRACTOR represents that it possesses the skill and experience necessary and all licenses required to perform the services under this Agreement. CONTRACTOR further agrees to comply with all applicable Federal, State and Local statutes and regulations in the performance of the services hereunder, and are hereby made a part of this Agreement and shall be adhered to at all times. Violation of any of these statutes or regulations by CONTRACTOR shall be deemed material and shall subject CONTRACTOR to termination of this Agreement for cause. No pleas of misunderstanding or ignorance on the part of CONTRACTOR will, in any way, serve to modify the provisions of this requirement. CONTRACTOR and its surety shall indemnify, defend and hold harmless CITY and its employees, agents, engineers and representatives against any claim or liability arising from or based on the violation of any such laws, codes, ordinances, or regulations, whether by CONTRACTOR, CONTRACTOR's employees, or its subcontractors.

Anti-Boycott Against Israel Act. CONTRACTOR certifies it is not currently engaged in, and will not for the duration of this Agreement engage in, a boycott of goods and services from Israel or territories under its control. Failure to comply with Idaho Code § 67-2346 will result in this Agreement being void as against public policy.

Ownership or Operation by China. Pursuant to Idaho Code § 67-2359, CONTRACTOR certifies that it is not currently owned or operated by the government of China and will not for the duration of this Agreement be owned or operated by the government of China. The terms in this section defined in Idaho Code § 67-2359 shall have the meaning defined therein.

Employment of Residents of Idaho. Pursuant to Idaho Code § 44-1001, CONTRACTOR certifies that it will employ ninety-five percent (95%) bona fide Idaho residents, as that term is defined in Idaho Code § 44-1003, as employees for the completion of the terms required in this Agreement. If CONTRACTOR employs less than fifty (50) employees on this Project, CONTRACTOR may employ up to ten percent (10%) nonresidents for the completion of the terms required in this Agreement. In all cases, CONTRACTOR agrees to give a preference to bona fide Idaho residents. The Parties agree that if Project involves the expenditure of federal aid funds, that this clause will not be enforced in a manner that conflicts with federal statutes prescribing a labor preference for veterans or prohibiting unlawful discrimination or preferences among United States citizens.

Not an Abortion Provider or Affiliate. Pursuant to Idaho Code Title 18 Chapter 87, CONTRACTOR certifies that it is not an abortion provider or an affiliate of any abortion provider and does not, and will not for the duration of this Agreement, authorize the use of state facilities or public funds for abortion related activity.

Anti-Boycott of Certain Sectors. Pursuant to Idaho Code § 67-2347A, CONTRACTOR certifies that it is not engaged in, and will not for the duration of this Agreement engage in, a boycott of any individual or company because the individual or company 1) engages in or supports the

exploration, production, utilization, transportation, sale or manufacture of fossil fuel-based energy, timber, minerals, hydroelectric power, nuclear power, or agriculture or 2) engages in or supports the manufacture, distribution, sale, or use of firearms, as defined in Idaho Code § 18-3302 (2)(d).

ARTICLE 12.
EMPLOYMENT DISCRIMINATION

It is illegal under the U.S. Federal law to discriminate against an employee, either intentionally or through disparate impact, on account of race, color, gender, religion, sex (including pregnancy), national origin, physical or mental disability, age, marital or familial status, sexual orientation, and gender expression or identity. CONTRACTOR shall not discriminate against any employee or applicant for employment. CONTRACTOR's action under this Section shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and other applicants for employment, notices setting forth the provisions of this non-discrimination Section.

ARTICLE 13.
LEGAL FEES

In the event either Party incurs legal expenses to enforce the terms and conditions of this Agreement, the prevailing Party is entitled to recover reasonable attorney's fees and other costs and expenses, whether the same are incurred with or without a lawsuit.

ARTICLE 14.
JURISDICTION, VENUE AND NONWAIVER

It is agreed that this Agreement shall be construed under and governed by the laws of the State of Idaho. In the event of litigation concerning it, it is agreed that proper venue shall be the District Court of the Second Judicial District of the State of Idaho, in and for the County of Latah. Failure of CITY to exercise any of the rights under this Agreement, or breach thereof, shall not be deemed to be a waiver of such right or a waiver of any subsequent breach.

ARTICLE 15.
SPECIAL WARRANTY

CONTRACTOR warrants that nothing of monetary value has been given, promised or implied as remuneration or inducement to enter into this Agreement. CONTRACTOR declares that no improper personal, political or social activities have been used or attempted in an effort to influence the outcome of the competition, discussion, or negotiation leading to the award of this Agreement. Any such activity by CONTRACTOR shall make this Agreement null and void. CONTRACTOR further warrants that all materials and goods supplied under this Agreement shall be of good merchantable quality and that all services will be performed in a good skillful manner. CONTRACTOR acknowledges that it will be liable for any breach of this warranty.

ARTICLE 16.
COMMUNICATIONS

Such communications as are required by this Agreement shall be satisfied by mailing or by personal delivery to the Parties at the following address:

CONTRACTOR:

CITY:

City of Moscow
Engineering Division
206 East Third Street
PO Box 9203
Moscow, ID 83843

ARTICLE 17.
NON-APPROPRIATIONS

This Agreement is contingent upon CITY receiving the necessary funding to cover the obligations of CITY. In the event that such funding is not received or appropriated, then, and in that event, CITY's obligations under this Agreement shall cease and each Party shall be released from further performance under this Agreement without any liability to the other Party, and CONTRACTOR shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

ARTICLE 18.
APPROVAL REQUIRED AND SEVERABILITY

This Agreement shall not become effective or binding until approved by CITY. If any part of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, the remaining portions of the Agreement will, nevertheless, remain in full force and effect so long as the remainder of this Agreement is capable of completion.

ARTICLE 19.
EXECUTION

IN WITNESS WHEREOF, said CONTRACTOR and CITY have caused this Agreement to be executed on the day and year first above written.

This Agreement may be executed by the use of electronic signatures pursuant to Idaho Code §28-50-107. If electronic signatures are utilized, the acknowledgement before a notary is not required.

I, , certify under penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct and that I am an authorized agent to bind to this Agreement. If I am signing this document utilizing a digital signature, I understand that my digital signature is valid and binding upon me to the same force and effect as a handwritten signature.

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CONTRACTOR:

_____

CITY:

City of Moscow, Idaho

_____

Hailey Lewis, Mayor

ATTEST:

_____

Laurie M. Hopkins, City Clerk

Approved as to Form:

_____

Mia Bautista, City Attorney

ACKNOWLEDGMENT

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 2026, before me, a Notary Public in and for said State, appeared , known to me to be the person named above and acknowledged that they executed the foregoing document as the duly authorized representative for .

_____
Notary Public for the State of _____
Residing at_____
My commission expires_____

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INSTRUCTION TO BIDDERS

IB-1. INTENT OF PLANS AND SPECIFICATIONS

A. It is the intention of these specifications to provide for careful, thorough and workmanlike construction procedure in the installation of material and equipment and in the manufacture or delivery of such materials and equipment. The bidder to whom the contract is awarded shall furnish all the material, equipment and labor necessary to complete said contract in accordance with all of its terms and conditions. All contracts shall be awarded subject to those instructions to bidders.

B. The plans and specifications shall be considered and used together; anything appearing as a requirement of either shall be accepted as applicable to both even though not stated therein or shown. All specifications and notes appearing on the plans shall have the same force and effect as though they were repeated herein. In case of discrepancies in specifications, the City of Moscow standards and requirements take precedence.

IB-2. PLANS, SPECIFICATIONS, AND ADDITIONAL INFORMATION

A. Additional information relative to the Plans and Specifications may be obtained from the office of the City Engineer.

IB-3. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE

A. Bidders shall satisfy themselves by personal examination of the plans, specifications, and site of the proposed improvement, and by any other examinations and investigation which they may desire to make, as to the accuracy of the estimate of quantities, the nature of the soil, conditions of the project site, and difficulties to be encountered.

IB-4. PREPARATION AND DELIVERY OF PROPOSAL

A. Bids shall be prepared and submitted upon the "Proposal" form supplied by the City Engineer. Each and every blank provided for in the "Proposal" shall be filled in with ink or typing. Proposals, which are incomplete or submitted on an unauthorized form, may be rejected as informal.

ALL BIDS SHALL INCLUDE THE FOLLOWING:

- Bid Schedule
- Bid Security
- DBE Race/Gender - Conscious Special Provisions, Local Projects
- EEO Special Provision
- Bidder’s Non-Collusion Affidavit
- Bidder’s Drug-Free Workplace Affidavit
- Buy America Specifications Changes
- Title VI Inclusions

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- FHWA-1273
- Prompt Payment Affidavit
- Minimum Testing/Sampling Requirement Template
- TAP Environmental Contractor Notes and Special Provisions
- License Requirements For Electrical Work
- Electrical Board Temporary Rules
- Code of Federal Regulations Title 23
- Code of Federal Regulations Title 41

B. After the date and hour set for the opening of the bids, no bidder may withdraw their proposal unless award of contract is delayed for a period exceeding the time limits described in IB-8, AWARD OF CONTRACT.

C. If discrepancies exist between the Unit Prices and the Total Price or Bid Total amount, the CITY will use the Unit Prices and calculate a corrected Bid Total.

D. The CITY reserves the right to reject any or all bids, any or all schedules or to accept the bid or schedule deemed to be in the best interest of the CITY.

IB-5. PROPOSAL GUARANTY

A. Each proposal must be accompanied by cash, a certified check, bid bond, or cashier's check in an amount not less than five percent (5%) of the total amount bid. This guaranty or "Good faith token" will be held until the successful bidder has, within ten (10) days from the date of notification of award of contract, executed the contract and furnished approved separate performance and payment bonds, each in an amount equal to one hundred percent (100%) of the amount of the contract. There shall also be submitted with the surety bonds, evidence of public liability insurance coverage in amounts not less than those specified in the general specifications included herein.

IB-6. US CITIZEN

A. The contractor/consultant warrants and takes the steps to verify that it does not knowingly hire or engage persons not authorized to work in the United States; and that any misrepresentation in this regard or any employment of person not authorized to work in the United States constitutes a material breach and shall be cause for the imposition of monetary penalties up to five percent (5%) of the contract price, per violation, and/or termination of its contract.

IB-7. QUALIFICATIONS OF BIDDER

A. The owner desires that this project shall be built by a contractor who is competent and adequately financed. The Owner may request the Bidder to submit a written statement to show experience in construction work of this character as an indication of qualification and

business standing. If required, the Bidder may make their statement in such form as may seem appropriate; said statement shall be notarized.

B. This public works project is financed by federal-aid funds. Bid proposals will be accepted from those contractors only (prime contractors, subcontractors and/or specialty contractors) who, prior to the bid opening, hold current licenses as public works contractors in the State of Idaho.

C. The prime contractor shall submit with their proposal a list of the subcontractors and their license numbers.

D. The successful bidder, in addition to listing the names and addresses of subcontractors in their bid, shall, within seven (7) days after opening of the bids, notify the Engineer in writing of the names of all major equipment and material suppliers proposed for the principal parts of the work, and for such others as the Engineer may direct, and shall not employ any subcontractors, (or purchase any equipment), to which the Engineer or CITY may, within a reasonable time, object to as incompetent or undesirable.

IB-8. AWARD OF CONTRACT

A. The contract will not be awarded until the CITY is satisfied the successful bidder is reasonably familiar with the class of work upon which they have submitted a proposal and has the necessary capital and tools to satisfactorily perform the same. The CITY may request and the bidder must provide the CITY with a current balance sheet and a list of tools owned by the bidder.

B. Within thirty (30) days after the opening of the proposals the CITY will accept one of the proposals or reject all bids. The award will be made upon the basis of the proposal that, in the CITY's judgment, will serve the best interest of the CITY.

C. The contract will not be awarded until the bidder has obtained an appropriate Idaho public works license from the Idaho Public Works Contractors State License Board. Subcontractors are also subject to this requirement.

IB-9. FAILURE TO EXECUTE CONTRACT

A. In the event the successful bidder fails to furnish approved performance and payment bonds, execute the contract and comply with all other pertinent legal requirements within ten (10) days after notification by the Engineer of the award of contract, the certified check, bank draft, money order of bid bond will be forfeited to the CITY as liquidated damages. The amount of any such damages will be five percent (5%) of the total bid submitted. Any excess amount that may have been included in the "good faith token" will be returned to the bidder. The next best proposal will then be considered the successful bid and, at the discretion of the City, be awarded the contract.

IB-10. NONDISCRIMINATION IN EMPLOYMENT

A. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, gender, religion, sex (including pregnancy), national origin, physical or mental disability, age, marital or familial status, sexual orientation, and gender expression or identity. The Contractor will take action, if necessary, to ensure that applicants are employed, and treated during such employment, without regard to their race, color, gender, religion, sex (including pregnancy), national origin, physical or mental disability, age, marital or familial status, sexual orientation, and gender expression or identity. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and other applicants for employment, notices setting forth the provisions of this non-discrimination Section.

B. The Contractor shall comply with City Ordinance No. 2013-06 Gender Anti-Discrimination in Housing, Employment & Public Accommodations.

IB-11. WAGE RATES

A. Contractors are required to pay prevailing wages on this Project.

IB-12. CONTRACTOR FOR PUBLIC WORKS TO PAY OR SECURE TAXES AGREEMENT

A. The contractors, in consideration of securing the business of erecting or construction public works in this State, recognizing that the business in which they are engaged is of a transitory character, and that in the pursuit thereof, their property used therein may be without the State when taxes, excises, or license fees to which they are liable become payable, agrees:

1. To pay promptly when due all taxes, (other than real property), excises and license fees due to the State, its subdivisions, and municipal quasi-municipal corporations therein, accrued or accruing during the term of this contract, whether or not the same shall be payable at the end of such term;

2. That if the said taxes, excises, and license fees are not payable at the end of said term, but liability, for the payment thereof exists, even though the same constitute liens upon their property, to secure the same to the satisfaction of the respective officers charged with the collection thereof; and

3. That, in the event of their default in the payment or securing of such taxes, excises, and license fees, to consent that the department, officer, board, or taxing unit entering into this contract may withhold from any payment due them hereunder the estimated amount of such accrued and accruing taxes, excises, and license fees for the benefit of all taxing units to which said contractor is liable.

IB-13. PERFORMANCE PERIOD

A. The work shall be completed in the working window described. This work shall start no earlier than May 18, 2026, and shall be substantially completed no later than August 14, 2026. The work shall be completed within **Sixty (60)** calendar days from the commencement of work, unless adjustment of the Agreement time is made in accordance with the provisions of the Contract Documents.

IB-14. CONSIDERATION OF MULTIPLE DIVISIONS OF WORK

A. The bidder shall submit a proposal for all divisions, if applicable. Considerations of proposals for each division of work shall be made separately (i.e. one bidder may be awarded one division; another bidder may be awarded one of the other divisions).

IB-15. ALTERNATES

A. If an alternative bid schedule is included, the bidder must submit a bid for each item in the alternate bid schedule. Low bid will be based upon the combined total price of the alternate(s) that the owner elects to use plus the base bid. If the owner elects to use an alternate(s), the amount of the contract will be the amount of the base bid modified in accordance with the amount of the alternate(s). An alternate may be additive to the scope of work described by the base bid items or may be substituted for the base bid item. Unit prices for alternate items will receive the same consideration for award as unit prices for base bid items.

IB-16. SUBCONTRACTORS TO BE LISTED ON BID

A. All bidders shall comply with Idaho Code Section 67-2310. **Failure to comply with Idaho Code Section 67-2310 shall render such bid unresponsive and void**. Information provided pursuant to this section must be current and correct as of the date of the submission of the bid. Do not use the term "mechanical" when identifying any work to be performed on this project.

B. The name, address, Idaho Public Works License Number and bid amount for each subcontractor to be utilized on the project must appear on the bid. Every subcontractor intending to perform plumbing work, and/or heating and air conditioning work, and/or electrical work must include its name, address, and Idaho Public Works License Number which allows it to perform such work, and bid amount for each of the following areas: plumbing work, heating and air conditioning work, electrical work. If a subcontractor intends to perform work in more than one of these specialties, such a subcontractor must list its name, address, Idaho Public Works License Number, and bid amount more than once (i.e., for each of the following subject areas: plumbing work, heating and air conditioning work, electrical work). It is helpful, but not mandatory, that each subcontractor includes its specialty construction category numbers, if any, with its submission of its Idaho Public Works License Number.

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C. Every contractor intending to perform its own plumbing work, and/or heating and air conditioning work, and/or electrical work, must include its name, address, and Idaho Public Works License Number which allow it to perform such work for each of the following areas: plumbing work, heating and air conditioning work, electrical work. A contractor does not need to list the amount of the bid for plumbing work, heating and air conditioning work, or electrical work which it intends to perform.

D. Subcontractors, Equipment and Material: The successful bidder, in addition to listing the names and addresses of subcontractors in their bid, shall, within seven (7) days after opening of the bids, notify the Engineer in writing of the names of all major equipment and material suppliers proposed for the principal parts of the work, and for such others as the Engineer may direct, and shall not employ any subcontractors, (or purchase any equipment), to which the Engineer or CITY may within a reasonable time object to as incompetent or undesirable.

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GENERAL CONDITIONS

GC-1. COMPLIANCE

A. The Contractor shall observe and comply with all Federal, State, and Local laws, codes, ordinances, and regulations, including all licensing and permit requirements which, in any manner, apply to the work being performed under this contract. No pleas of misunderstanding or ignorance on the part of the Contractor will in any way serve to modify the provisions of this requirement. The Contractor and their surety shall indemnify and save harmless CITY and its employees, agents and representatives against any claim or liability arising from or based on the violation of any such laws, codes, ordinances, or regulations, whether by themselves, their employees, or their subcontractors.

B. All work shall be completed in accordance with the specifications and plans established for this project.

GC-2. DEFINITIONS

Architect	The Project Architect, if such is designated by the Contract Documents.
Assistant Parks and Recreation Director	The City Parks & Facilities Manager of Moscow, Idaho, and/or engineers and inspectors acting under their orders; their authority being limited to the particular duties to which they are assigned
Attorney	The City Attorney of Moscow, Idaho.
City	The City of Moscow, Latah County, Idaho ("CITY"), a municipal corporation existing under and by virtue of the laws of the State of Idaho. Action herein designated as taken by the CITY is to be considered the acts of the Council acting through the Mayor and Clerk.
City Engineer	The City Engineer of Moscow, Idaho, resident engineers and inspectors acting under their orders; their authority being limited to the particular duties to which they are assigned.
Clerk	The duly appointed City Clerk of the City of Moscow, Idaho.
Contract Documents	These generally consist of the plans, specifications, agreement, performance bond, payment bond and proof of various types of insurance, including all modifications thereof incorporated in the documents before their execution. These are identified in the Contract.
Contractor	The person, persons, firm, partnership, corporation or other entity contracting to do the work under these specifications. The term also includes the Contractor's agents or employees.

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Council	The duly elected Council of the City of Moscow, Idaho.
Engineer	The Project Engineer, if such is designated by the Contract Documents.
Subcontractor	The person, persons, firm, corporation or other entity performing work under contract with the "Contractor" but subject, in such performance, to all the requirements of the 'Contract Documents' insofar as they are pertinent.
Bid/Proposal	The written document which is required to be signed by the bidder and which contains the formal statement of price or prices to be paid by the City for the performance required.

GC-3. PLANS AND SPECIFICATIONS AND ADDITIONAL DRAWINGS

A. The plans for this improvement and the specifications accompanying them shall be considered as a whole, and anything shown or called for in one (1) and omitted in the other is as binding as if called for or shown by both. Figure dimensions shall be in all cases used in preference to scale dimensions. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words so applied having a well-known technical or trade meaning shall be held to refer to such recognized standards.

B. The Engineer shall furnish to the Contractor the necessary plans and specifications required for the execution of the work at no additional cost. The Engineer shall furnish with reasonable promptness, additional instructions, by means of drawings or otherwise, necessary for the proper execution of the work.

C. The Contractor shall submit with such promptness as to cause no delay in their own work or in that of any other Contractor, copies of all shop drawings and schedules required for the work of various trades as required by the Engineer, and the Engineer shall pass upon them with reasonable promptness, making desired corrections relating to effects on design. The Contractor shall make any corrections required by the Engineer, file with them such corrected copies as the Engineer shall direct, and furnish such other copies as may be needed. The Engineer's approval of such drawings or schedules shall not relieve the Contractor from responsibility for deviation from drawings or specifications, unless they have in writing called the Engineer's attention to such deviation at the time of submission, nor shall it relieve them from responsibility for errors of any sort in shop drawings or schedules.

D. The Contractor shall keep one (1) copy of all drawings and specifications on the work, in good order, available to the Engineer, CITY, and its representatives.

GC-4. ALTERATION OR MODIFICATION OF CONTRACT DOCUMENTS

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A. No alteration or modification of the terms and conditions of the Contract Documents, except by written change order as provided herein, will be binding unless outlined in detail in a separate written addendum, and then only when properly signed and attested by the Contractor, CITY, and the Engineer.

GC-5. INVESTIGATION BY BIDDERS

A. The instructions to bidders cover the general scope of this investigation under the article entitled "Examination of the Plans, Specifications and Site". Bidders are specifically instructed to faithfully examine and investigate the entire bid prices submitted on their proposals. No bidder may, without the consent of CITY, withdraw their proposal or claim damages or extra compensation by reason of any error or omission made by said bidder in preparing their proposal.

GC-6. NON-DISCRIMINATION

A. The Contractor will not discriminate against an employee, either intentionally or through disparate impact, on account of race, color, gender, religion, sex (including pregnancy), national origin, physical or mental disability, age, marital or familial status, sexual orientation, and gender expression or identity.

B. The Contractor shall comply with City Ordinance No. 2013-06 Gender Anti-Discrimination in Housing, Employment & Public Accommodations.

GC-7. INTERPRETATION OF THE SPECIFICATIONS

A. In the event the specifications and plans are deficient or not clearly expressed, the parties submitted proposals hereunder must apply to the Engineer for the required information or explanation before the bids are submitted.

B. The request for such explanation or interpretation shall be made in writing and the person submitting the request will be responsible for its prompt delivery. Such interpretation or explanation will be given by the Engineer in writing and a copy will be filed in the office of the City Clerk. CITY will not be responsible for any other explanation or interpretation of the plans and specifications. After submission of bids, no bidder shall claim any misunderstanding in or to the nature of the amount of work to be performed or attempt to hold CITY or any person responsible for any error or omission that may have been made by the bidder.

GC-8. CONTRACTS

A. Contract Form

1. A copy of the construction agreement form is included in these documents.

B. Execution of Agreement

1. Within ten (10) days after receiving properly prepared Contract Documents from CITY, the successful bidder shall sign the Agreement. Work shall be started upon written notice to proceed from the Engineer.

C. Subcontracts

1. The Contractor agrees that they are as fully responsible to CITY for the acts and omissions of their subcontractors and of persons either directly or indirectly employed by them, as they are for the acts and omissions of persons directly employed by them, and that the Contractor shall hold CITY harmless for any activities of such subcontractors and shall indemnify and defend CITY from damages and claims of whatever nature relating or resulting to the activities of such subcontractors.

2. Relations of Contractor and Subcontractor: The Contractor agrees to bind every subcontractor to the terms of the construction contract, the information to bidders, the general conditions, the plans, and the specifications as far as applicable to their work, including the following provisions of this article. Nothing in this section shall create any obligation on the part of CITY to pay to or to see to the payment of any sums to any subcontractor.

   a. The Contractor shall bind every subcontractor to the following:

      (1) To be bound to the Contractor by the terms of the Contract Documents, and to assume toward them all the obligations and responsibilities that they, by those documents, assumes toward the CITY. Nothing contained in the Contract Documents shall create any contractual relation between any subcontractor and CITY.

      (2) To submit to the Contractor applications for payment in such reasonable time as to enable the Contractor to apply for payment. The Engineer shall, on request, furnish to any subcontractor, wherever practical, evidence of the amounts certified on their account.

      (3) To make all claims for extras, for extension of time and for damages for delays or otherwise, to the Contractor in the manner provided in the general conditions for like claims by the Contractor upon the CITY, except that the time for making claims for extra cost is one (1) week from the date such claim arises.

   b. The Contractor agrees:

      (1) To be bound to the subcontractor by all the obligations that CITY assumes to the Contractor under the Contract Documents.

      (2) To pay the subcontractor for conforming work, upon the payment of certificates, if issued under the terms of payments for the work, the amount allowed to the Contractor on account of the subcontractor's work to the extent of the subcontractor's interest therein.

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(3) To pay the subcontractor for conforming work, upon the payment of certificates, if issued otherwise than as in (2) so that at all times their total payments shall be as large in proportion to the value of the work done by them as the total amount certified to the Contractor is to the value of the work done by them.

(4) To pay the subcontractor for conforming work to such extent as may be provided by the Contract Documents or the subcontract if either of these provides for earlier or larger payments than the above.

(5) To pay the subcontractor for conforming work on demand on their work or materials as far as executed and fixed in place, less retained percentage, at the time the certificate should be issued, even though the Engineer fails to issue it for any cause not the fault of the subcontractor.

(6) To make no demands for liquidated damages or penalty for delay in any sum in excess of such amount as may be specifically named in the subcontract.

(7) That no claim for services rendered or material furnished by the Contractor to the subcontractor shall be valid unless written notice thereof is given by the Contractor to the subcontractor during the first ten (10) days of the calendar month following that in which the claim originated.

(8) To give the subcontractor an opportunity to be present and to submit evidence in any hearing involving their rights.

(9) To pay each subcontractor for satisfactory performance of its contract no later than twenty (20) calendar days from receipt of each payment the Contractor receives from CITY. The Contractor shall return retainage to each Subcontractor within twenty (20) calendar days after the Subcontractor's work is satisfactorily completed.

(10) To certify with each estimate payment to subcontractors has been made within the prescribed time frames. The certification will be made on forms provided by CITY, and returned within twenty (20) calendar days of receiving the estimate payment.

D. CITY's Right to Terminate Agreement - If the Contractor:

1. Fails to begin work within a reasonable time after the effective date of "Notice to Proceed," or

2. Fails to supply sufficient skilled workmen or suitable materials or equipment to complete the work within the time limits specified; or

3. Performs the work unsuitably or neglects or refuses to remove materials or to re-perform such work which is not in accordance with the plans and specifications; or

4. Discontinues the prosecution of the work for more than ten (10) days; or

5. Fails to resume work which has been discontinued within a reasonable time after notice to do so; or

6. Fails to make prompt payments to subcontractors or for labor, materials, or equipment; or

7. Disregards laws, ordinances, or the instruction of the Engineer; or

8. Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency; or

9. Makes an assignment for the benefit of creditors; or

10. Is guilty of a substantial violation of any provisions of the Agreement; in any such event(s), CITY, upon recommendation of the Engineer that sufficient cause exists to justify such action may, without prejudice to any other right or remedy, give notice to the Contractor and their surety of such delay, neglect, or default. If the Contractor or their surety, within a period of ten (10) days after such notice, does not proceed in accordance therewith, then CITY shall have full power and authority, without violating the Agreement, to take the prosecution of the work from the Contractor. CITY may appropriate or use any or all materials and equipment on the grounds as may be suitable and acceptable and may enter into an Agreement for the completion of said contract according to the terms and provisions thereof, or use such other methods as may be required for the completion of the contract in an acceptable manner.

11. Costs and charges incurred by CITY, together with the cost of completing the work under the Agreement, will be deducted from any moneys due or which may become due the Contractor. If such expense exceeds the sum which would have been payable under the Agreement, then the Contractor and its surety shall be liable and shall pay to CITY the amount of such excess.

E. Contractor's Right to Stop Work or Terminate Agreement:

1. If the work should be stopped pursuant to lawful order of a court of competent jurisdiction, or pursuant to lawful order of other public authority having jurisdiction, for a period of three (3) months, through no act or fault of the Contractor or of anyone employed by them, or if the Engineer should fail to issue any certificate for payment within twenty-two (22) days after it is due, or if CITY should fail to pay to the Contractor within twenty-two (22) days of its maturity and presentation, any sum certified by the Engineer or awarded by the court, then the Contractor may, upon twenty-two (22) days' notice to CITY and Engineer, stop work or terminate this Agreement or recover from CITY payment for all work

executed and any loss sustained upon any plant or materials and reasonable profit and damages.

F. Assignment:

1. The Contractor shall not assign this contract or sublet or subcontract any portion of it without the prior written consent of CITY nor shall the Contractor assign any moneys due or to become due to them hereunder, without the prior written consent of CITY. Any such assignment or sublet without such prior written consent shall be null and void and shall be a ground for termination for cause of this contract by CITY.

GC-9. QUANTITIES FURNISHED BIDDERS

A. Unit Price Contract. The estimates of quantities are only approximate and are for the purpose of comparing bids. CITY reserves the right to increase or decrease individual items in such amount as may be in CITY'S sole judgment, to CITY'S best interests depending upon conditions encountered or observed during the Project. It shall be CONTRACTOR'S responsibility to satisfy itself as to the accuracy of the estimates. The Contractor will be paid for the actual quantities of work finally installed or performed at the applicable unit prices stated in their proposal.

A. The unit price of an item of Unit Price Contract shall be subject to reevaluation and adjustment under the following conditions:

i. If the total cost of a particular item of Unit Price Contract amounts to fifteen percent (15%) or more of the total Contract Price at the time of award and the variation in the quantity of that particular item of Unit Price Contract performed by CONTRACTOR differs by more than twenty-five percent (25%) from the estimated quantity of such item indicated in the Bid Form; and

ii. If there is no corresponding adjustment with respect to any other item of Work; and

iii. If CONTRACTOR thinks that CONTRACTOR has incurred additional expense as a result thereof; or if the CITY thinks that the quantity variation entitles the CITY to an adjustment in the unit price, either the CITY or CONTRACTOR may demand a Change in Contract Price. Such Change in Contract Price shall be based upon any increase or decrease in costs due solely to the variation above one hundred twenty-five percent (125%) or below seventy-five percent (75%) of the estimated quantity. If the quantity variation is such as to cause an increase in Contract Time necessary for completion, CONTRACTOR may request an extension of Contract Time for the Delay in completion resulting from performing the quantity in excess of one hundred twenty-five percent (125%) of the estimated quantity. If the

parties are unable to agree on the effect of any such variation in the quantity of unit price work, either the CITY or CONTRACTOR may make a claim for an adjustment in the Contract Price and/or Contract Time in accordance with the General Conditions.
Items identified as contingency items will be paid at the unit price regardless of variation in quantity of that particular item of Unit Price Work performed by CONTRACTOR.

B. Lump Sum Contract. The Contractor shall include in the contract sum all allowances named in the Contract Documents and shall cause the work so covered to be performed for such sums as the Engineer may direct, the contract sum being adjusted in conformity therewith. The Contractor declares that the contract sum includes such sums for expenses and profit on account of cash allowances as they deem proper. No demand for expenses or profit other than those included in the contract sum shall be allowed. The Contractor shall not be required to employ for any such work persons whom they have reasonable objection.

GC-10. MAJOR CHANGES

A. If unforeseen conditions require a substantial change in the dimensions of a structure, location of underground utilities, or major variation of a similar nature from the original plans, such change shall be covered by a change order. The change order is to set forth in complete detail the nature of the change and reasons therefore, including compensation to be paid and time allotted the Contractor. The change order shall also detail whether the change constitutes an addition or reduction with respect to the original contract costs. Should additional or supplemental drawings be required, they will be furnished by the Engineer providing the Engineer determines the change is warranted.

B. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

C. Upon written notification, the Engineer will investigate the conditions, and if it is determined that the conditions differing materially and cause an increase or decrease in the cost or time required for the performance of any work under the contract, and adjustment, excluding loss of anticipated profits, will be made and the contract modified in writing accordingly. The Engineer will notify the Contractor of the determination whether or not an adjustment of the contract is warranted.

D. No contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice.

GC-11. EXTRA WORK

A. CITY shall have the right to issue written change orders to Contractor within the general scope of the work without the consent of the Contractor and without notice to any surety of the Contractor. If for any reason extra work is ordered by CITY and the compensation for such extra work cannot be agreed upon in advance, such work will be paid for at the actual cost of the labor, materials, and field supervision required, with the addition of not to exceed a total of fifteen percent (15%) to cover general overhead and profit (including subcontractor's general overhead and profit), use of small tools, payment of insurance and medical aid, taxes, and all other costs in connection therewith. If a fixed sum or unit prices can be agreed upon for any extra work that may be ordered, such sum and prices, together with a description of the work, shall be made a part of the written order. Such orders will be prepared by the Engineer in triplicate, with one (1) copy to CITY, one (1) to the Contractor and one (1) retained by the Engineer.

B. If during the progress of the work, the Contractor believes they are entitled to extra compensation for performing certain phases or items, any and all such claims must be promptly presented to CITY and the Engineer. Unless such claim is presented in writing within fifteen (15) days after it occurs, CITY may, at its discretion, reject the claim. CITY shall specifically reject claims of this nature that have been withheld by the Contractor for more than thirty (30) days.

GC-12. MONTHLY PAYMENTS

A. The Contractor shall file a monthly request for payment with the Engineer on the 20th day of each month for all work completed to the 20th day of the month. If monthly requests for payment are not received as stated, the CITY shall have the right to withhold payment for that month. The Engineer shall review Contractor's monthly requests for payment on the first day of the month for all work completed to the 20th day of the preceding month, and shall certify such requests for payment. Progress payments will be made by the CITY for all work completed to the 20th day of the preceding month and duly certified by the Engineer, on or before the 10th day of each month in cash or interim warrants. These payments will be equal to ninety-five percent (95%) of the total amounts of the certified requests for payment. The CITY shall retain five (5) percent of the total amount owing the Contractor after the contract has been completed and accepted by the CITY for a minimum period of thirty (30) days. Should any liens or claims be filed during the retention period, the retained percentage will be held until a satisfactory agreement is reached between the CITY, the Contractor, and the Contractor's surety. Before final payment will be made by the CITY, Contractor agrees that it shall furnish the CITY with satisfactory evidence that all persons, including subcontractors, that have performed work or furnished materials pursuant to this Agreement and are entitled to a lien for their work or materials under the laws of the State of Idaho have been fully paid or are no longer entitled to such lien, and the Contractor shall file with the Clerk a notarized affidavit to that effect. Final payment will not be made until CITY has received a tax release from the Idaho State Tax Commission per GC-38.

B. Progress payments for materials shall be considered eligible only if the materials are jobsite, and accurate, clearly detailed invoices from the material supplier are furnished. The ownership of these materials shall, upon payment from CITY to the Contractor, be vested in the City, and such materials may not be removed from the jobsite without written authorization of the Engineer.

C. CITY may, but is not obligated to, withhold any payments to the Contractor, in addition to retained percentage, in such an amount or amounts as may be necessary to cover:

1. Payments that may be earned or due for just claims or labor or materials furnished in and about the work;

2. Defective and/or condemned and/or non-conforming work or materials not remedied;

3. Failure of the Contractor to make proper payments to a subcontractor;

4. Reasonable doubt that this contract can be completed for the balance then unpaid;

5. Damages to another Contractor where there is evidence thereof;

6. Payments that cover all taxes, excises and license fees due the State and its taxing entities whether or not these moneys are yet due and payable.

D. CITY shall have the right, but not the obligation, to disperse and shall have the right to act as agent for the Contractor for the limited purpose of dispersing such funds as have been withheld pursuant to this paragraph to the party or parties who are entitled to payment there from. In the event CITY elects to disperse such funds, CITY shall render to the Contractor a proper accounting of all such funds dispersed on behalf of the Contractor. Nothing herein shall create in such party or parties entitled to payment a cause of action against CITY for failure to exercise its rights pursuant to this section. Contractor further agrees that no cause of action shall accrue on behalf of the Contractor as a result of CITY's exercise of such right to disperse.

GC-13. TIME OF COMPLETION/LIQUIDATED DAMAGES

A. The date of completion for this Agreement shall be defined by the Instruction to Bidders included in the Contract Documents. Contractor agrees that time is of the essence in the performance of this Agreement, and that failure to complete this Agreement by such date will result in financial injury to CITY. Contractor further agrees that failure to complete this Agreement by such date shall subject Contractor to payment of liquidated damages to CITY. The Contractor also recognizes the delays, expense and difficulties involved in proving in a legal proceeding of the actual loss suffered by CITY occasioned by failure to complete the work on time. Accordingly, instead of requiring such proof, CITY and the Contractor agree that as liquidated damages for delay (but not as a penalty) the Contractor shall pay to CITY the sum of one-half of one percent (0.005) of the Agreement amount, including change orders, will be deducted by CITY for each and every calendar day that the date of final completion is delayed. Should such deductions exceed the outstanding amount of the Agreement, the Contractor and its surety shall be liable for the excess.

B. The Contractor herewith specifically waives claims for damages for any hindrance or delay. Contractor shall be granted extensions of time for which liquidated damages will not be claimed by CITY for the following reasons:

1. A delay caused the Contractor by any suit or other legal action against CITY (except a legal action instituted by the Contractor) regarding this Project shall entitle the Contractor to an equivalent extension of time unless the period of such delay exceeds ninety (90) days. When such period is exceeded, CITY will, upon

request by the Contractor in writing, either negotiate a termination of the Agreement or grant a further extension of time, whichever shall be agreed.

2. Time lost by inclement weather, causing suspension of work, will entitle the Contractor to an extension equivalent to the total time so lost, whether it be a single continuous period or the accumulated total of several periods. Inclement weather is defined as that which, in the opinion of the Engineer, would seriously affect the progress of the work or the quality of the work.

3. Should unforeseen conditions require the performance under a change order, or work more complex or difficult than that originally specified and shown on the plans, and such work, in the Contractor's opinion, requires more time to execute than the proportional increase in dollar value, the Contractor shall state to CITY and Engineer, in writing prior to the performance of such work, their estimate of the added time required for such work. CITY may, if such estimate be reasonable, allow an added extension proportionate to the increase in the dollar value of the work.

C. If the performance of all or any portion of the work is suspended or delayed by the Engineer for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the Contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for adjustment within seven (7) calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

D. Upon receipt, the Engineer will evaluate the Contractor's request. If the Engineer agrees that the cost and/or time required for the performance of the Agreement has increased as a result of such suspension and the suspension was caused by condition beyond the control of and not the fault of the Contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the Engineer will make adjustment as provided (excluding profit) and modify the Agreement in writing accordingly. The Engineer will notify the Contractor of the determination whether or not an adjustment of the Agreement is warranted.

E. No Agreement adjustment will be allowed unless the Contractor has submitted the request for adjustment within the time prescribed.

F. No Agreement adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any other term of condition of this Agreement.

GC-14. ABANDONMENT OF WORK

A. If the Contractor abandons the work for a period of twenty (21) days for any cause other than failure of CITY to make monthly payments, or refuses to comply with the provisions of the plans and specifications, CITY shall have the right to notify the Contractor's surety and require said surety to complete the work in accordance with the aforesaid plans and specifications. In the event no liens or claims have been filed and CITY fails to make progress payments, the Contractor may then, at their option, cease operations until payments are resumed by notifying CITY of their intention to cease operations for this

cause. Should the Contractor abandon the work, fail or refuse to complete the work embraced in this contract, or fail to pay just claims for labor and materials, CITY reserves the right to charge against the Contractor, and Contractor agrees to pay, all legal, engineering, or other costs caused by such abandonment, failure or refusal. The Contractor agrees that such legal costs shall also include CITY's costs of defending any suits in connection with such abandonment, failure or refusal and nonpayment of claims wherein CITY is made a co-defendant.

GC-15. AUTHORITY OF ENGINEER

A. The Engineer shall decide questions which may arise as to the quality and acceptability of materials furnished and work performed, and as to the manner of performance and rate of progress of the work; questions which may arise as to the interpretation of the plans and specifications; and questions as to the satisfactory and acceptable fulfillment of the terms of the Agreement.

B. The Engineer, including their employees and agents, shall at all times have access to the work wherever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection. Inspections by the Engineer shall be promptly made. If any work should be covered up without approval or consent of the Engineer, it shall be uncovered, if required by the Engineer, for examination. The costs associated with the uncovering of such non-approved work shall be the responsibility of Contractor and shall not be charged to CITY.

C. Reexamination of questioned work may be ordered by the Engineer and if so ordered the work must be uncovered by the Contractor. If such work be found in accordance with the plans and specifications, CITY shall pay the cost of the reexamination and replacement. If such work is found not in accordance with the plans and specifications, the Contractor shall pay such costs.

D. If the performance of all or any portion of the work is suspended or delayed by the Engineer for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or Agreement time is due as a result of such suspension or delay, the Contractor shall submit to the Engineer in writing a request for adjustment within seven (7) calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.

E. Upon receipt, the Engineer will evaluate the Contractor’s request. If the Engineer agrees that the cost and/or time required for the performance of the Agreement has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the Contractor, its suppliers, or sub-contractors at any approved tier, and not caused by weather, the Engineer will make an adjustment and modify the Agreement in writing accordingly. The Engineer will notify the Contractor of the determination whether or not an adjustment of the Agreement is warranted.

F. In making the Agreement adjustment a markup for profit will only be allowed on changed or extra work caused by the delay or suspension. No profit will be allowed on any other delay or suspension costs including, but not limited to, standby costs or extended indirect costs. Payment for changed and extra work will be made in accordance with section GC-11.

G. No contract adjustment will be allowed unless the Contractor has submitted the request for adjustment within the prescribed time.

GC-16. PERFORMANCE AND PAYMENT BONDS

A. The Contractor shall execute a separate performance bond and payment bond, each in penal amounts at least equal to one hundred percent (100%) of the of the full Agreement price, such bonds to be executed by a corporate bonding company (surety) licensed to do business in the State of Idaho and which is acceptable to CITY. Such corporate bonding company (surety) shall be required to be named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The premiums of such bonds shall be paid by Contractor. The performance bond shall be conditioned upon the Contractor's faithful performance of all the covenants and Agreements on the part of the Contractor to be kept and performed at the times and in the manner set forth in the Agreement, including the repair or replacement where required, or the cost of repair or replacement, of all work performed under the terms of this Agreement. The payment bond shall be conditioned upon the payment to all persons, including subcontractors, who have, and fulfill, contracts for performing labor and furnishing materials in the prosecution of the work provided for in such Agreement, provided that every such payment bond shall be construed, regardless of its language, as incorporating within its provisions the obligation to pay those persons who furnish labor or materials as stated in the Contract Documents.

B. Such bonds shall remain in full force and effect during the term of this Agreement and during the terms of any warranty required by the specifications and shall be held in the custody of CITY. The current power of attorney for the persons who sign for the surety company shall be attached to the bond. The power of attorney shall be sealed and certified with a "first hand signature" by an officer of the surety. A facsimile signature shall not be acceptable to CITY.

C. If, at any time, a surety on any such bond is declared as bankrupt or loses its right to do business in the State of Idaho or is removed from the list of surety companies accepted on Federal bonds, the Contractor shall, within ten (10) days after notice from CITY to do so, substitute an acceptable bond (or bonds) in such form and sum signed by such other surety or sureties as may be satisfactory to CITY. The expense of such replacement bonds shall be borne by the Contractor. No further payments by CITY pursuant to this Agreement shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to CITY.

GC-17. INSURANCE/CITY TO BE NAMED AS ADDITIONAL INSURED

A. The Contractor shall not commence work until they have obtained all insurance required under this section or until they have satisfied CITY in this respect; nor shall they allow any subcontractor to commence work until such subcontractor has also obtained such required insurance applicable to such subcontractor's work. The Contractor shall maintain such required insurance coverage throughout the term of this Agreement as will hold CITY harmless and shall indemnify CITY for any losses arising out of the Contractor's operations, including any contingent liability arising there from. The cost of such insurance shall be borne by the Contractor. The Contractor shall furnish copies of all insurance policies and/or certificates of insurance to CITY at the time of execution of this Agreement. Each policy shall include a provision to the effect that it shall not be subject to cancellation, or reduction in the amounts of its liabilities, or any other material change, until notice has

been given in writing to CITY and the Engineer not less than fifteen (15) days prior to such action. Contractor shall further cause CITY to be named as an additional insured on all applicable insurance policies.

B. The Contractor shall take out and maintain during the term of this Agreement, statutory worker's compensation insurance for all employees who will work on this Project, and if any work is subcontracted, the Contractor shall require the subcontractor similarly to provide such insurance for all of the latter's employees unless they are included under the protection afforded by the Contractor.

C. The Contractor shall take out and maintain during the term of this Agreement comprehensive public and general liability insurance. The comprehensive public and general liability insurance shall have, at a minimum, a coverage limit of at least FIVE HUNDRED THOUSAND DOLLARS ($500,000.00) per occurrence, and ONE MILLION DOLLARS ($1,000,000.00) aggregate. Policies containing deductible clauses will not be acceptable.

D. The Contractor shall take out and maintain, during the term of this Agreement, builders' risk insurance which shall be written in completed value form, shall protect the Contractor and CITY against 'all-risks' of direct physical loss to buildings, structures, equipment and materials to be used in providing, performing or completing the project. This insurance shall be written with limits not less than the insurable value of the project at completion. This insurance shall include coverage while equipment or materials are in warehouses, during installation, during testing, and after the project is completed, but prior to final payment.

E. Contractor's Responsibility for Materials. The Contractor shall be responsible for all materials and work performed until final acceptance by CITY.

F. Contractor shall require all subcontractors to maintain the above referenced insurance requirements and shall verify that such requirements have been met by requiring all subcontractors to provide certification therefore.

GC-18. PATENT ROYALTIES AND PROCESS FEES

A. The Contractor shall furnish CITY a license or licenses for the use of any process or processes in connection with this Project. The Contractor shall include in the unit price bid any patent royalties or license fees for equipment installed or construction methods used.

GC-19. CONTRACTOR RESPONSIBLE FOR WORK

A. The Contractor shall be responsible for all work until its acceptance by CITY.

B. The Contractor shall be responsible for all quality control including but not limited to tests and inspections; correction, removal of defective work.

1. Tests and Inspections

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a. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

b. Contractor shall employ an independent testing laboratory or testing agency and shall be responsible for arranging and shall pay for all specified tests, inspections, and approvals (including tests, inspections, and approvals to be paid for on a cash allowance basis) required for CITY's and Engineer's acceptance of the Work at the site except: costs incurred in connection with tests or inspections as otherwise specifically provided in the Contract Documents.

c. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

d. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to City and Engineer.

e. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

f. Uncovering Work as provided in paragraph e. above shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

GC-20. USE OF COMPLETED PORTION

A. CITY reserves the right to use and occupy any portion of the improvement which has been completed sufficiently to permit use and/or occupancy, and such use and/or occupancy shall not be construed as an acceptance of the work as a whole or any part thereof. Any claims which CITY may have against the Contractor shall not be deemed to have been waived by such use and/or occupancy.

GC-21. SIGNATURES

A. A proposal made by a corporation shall be signed and sealed by the legally authorized officers of said corporation. If awarded the Agreement, the Agreement shall also be executed by proper authorized officers and be affixed with the corporate seal. If a proposal or Agreement is signed by an agent, such agent shall furnish satisfactory written evidence of the agent's authority to sign as the legal representative of the bidder. An authorized partner of a co-partnership may sign the Agreement subject to the approval of the Attorney,

who may, at their discretion, require each and every member of the co-partnership to sign the Agreement.

GC-22. ORDERS TO BEGIN WORK

A. The successful bidder shall not begin work until after the Agreement has been executed and the surety bond and insurance has been approved by the Attorney. The order for the Contractor to begin work shall be issued by the Engineer by a written "Notice to Proceed".

GC-23. ORDER OF WORK

A. The Agreement period and time of completion will be as set forth in the Instruction to Bidders included in the Contract Documents.

B. GC-13 "Time of Completion/Liquidated Damages" of the General Conditions shall apply to interim as well as final completion dates.

C. The specific details of the order of work will be established by the Engineer before construction begins. Before the successful bidder is authorized to begin work, they shall attend a pre-construction conference with the Engineer. At this time the successful bidder shall present a written schedule for the entire Project, specifying the beginning and completion dates for each phase of work. Once approved by the Engineer, this schedule shall be adhered to by the Contractor and shall employ the necessary workforce and equipment to maintain such schedule. Contractor further agrees that the approval by the Engineer of such schedule shall not create any liability to the Engineer or CITY for Contractor's means, methods, sequences, techniques or site safety.

GC-24. EFFICIENCY OF OPERATION/LICENSING

A. The work embraced in this Project shall be started at the earliest possible date after issuance of the Notice to Proceed, and shall be prosecuted regularly and without interruption thereafter, unless otherwise directed by the Engineer. The Contractor shall furnish work force and equipment sufficient to accomplish full completion of the work within the time specified in the proposal and Agreement. The Contractor shall at all times employ efficient and experienced workers. Contractor shall also require and verify that all workers and subcontractors are licensed in accordance with law and/or regulation.

GC-25. PROTECTION OF WORK AND PROPERTY

A. The Contractor shall exercise particular care in protecting surrounding buildings, structures, trees, and property from injury during the demolition and construction operation, and shall be responsible for their protection and shall repair or compensate the CITY thereof for any damage which may result from such demolition and construction operations. The expense of such compensation or repair shall be borne by Contractor, and shall not be the responsibility of CITY.

B. The Contractor shall exercise particular care in protecting trees, located on private or public property, from injury during the demolition and construction operations. If the Contractor's duties under this Agreement shall cause any damage, mutilation, or destruction whatsoever, of any tree, due to Contractor's need to remove, top, excavate, fill, or compact the roots of such tree, or by the placement or storage of any materials which are hazardous to trees, near such tree, the Contractor shall:

1. Inform the Engineer in writing of such need; and

2. Plot the location of such tree on the site plan which is the subject of this Agreement; and

3. Comply with all permit requirements as set forth in the Community Forest Ordinance, Moscow City Code §5-8-1 et seq.

C. Any utilities damaged by the Contractor shall be repaired by the Contractor and the Contractor shall be responsible to maintain temporary service until such damage is repaired. The expense of such repair and/or temporary service shall be borne by Contractor, and shall not be the responsibility of CITY.

D. The Contractor shall provide and maintain temporary sidewalks, warning lights, barricades and other preventive means to safeguard pedestrian and vehicular traffic around the construction, as deemed necessary by CITY.

E. During all construction operations, the Contractor shall construct and maintain such facilities as may be required to provide access by all property owners to their property. No person shall be cut off from access to their residence or place of business unless the Contractor has made a special arrangement with the affected persons.

F. Construction operations and parking of vehicles shall be confined to areas designated by CITY. Contractor shall consult the proper traffic regulatory authorities regarding the routing of trucks and other vehicles, and shall follow the direction of such authorities.

G. Any structures, tanks, mechanisms or equipment damaged by the Contractor shall be repaired at the Contractors expense. Any fines or penalties incurred by CITY as a result of any damages to the facilities shall be paid or mitigated by the Contractor.

GC-26. RESPONSIBILITY FOR SAFETY

A. The Contractor shall be responsible for the safety of their work, equipment, and materials until the finished project is accepted by CITY.

GC-27. GUARDS AND BARRICADES

A. The Contractor shall erect and maintain such barricades, detour signs and warning lights as will effectively mark any hazards or detours and the Contractor shall be liable for any damage occasioned by their acts or negligence, or the acts or negligence of their employees, agents or subcontractors, and shall indemnify CITY and the Engineer against loss and/or liability for any such damage, acts or negligence. Traffic signs shall be in accordance with the standards presented in the most current edition of the "Manual on Uniform Traffic Control Devices".

GC-28. EXISTING TRAFFIC SIGNS AND FACILITIES

A. Existing traffic and street name signs which will interfere with construction shall be removed by the Contractor and stored in a safe place. These signs shall not be removed until the Contractor has obtained the consent of the traffic regulatory authorities having jurisdiction and until the necessary measures have been taken to safeguard traffic after the

signs have been removed. Preservation and maintenance of the signs shall be the sole responsibility of the Contractor. As soon as sign location no longer interferes with work, the Contractor shall reset all such signs at locations indicated by the traffic regulatory authorities having jurisdiction, in cooperation with the Engineer and Streets Department. All costs incurred in work outlined above shall be considered as incidental to the construction contract, and shall be borne by Contractor.

GC-29. MAINTAINING POSTAL SERVICE

A. Postal service shall be maintained in accordance with instructions of the U.S. Post Office Department. The Contractor shall be responsible for moving mailboxes to temporary locations designated by the Post Office Department, and at completion of the work they shall replace them in locations and in condition satisfactory to the Post Office Department.

B. It will be the Contractor's responsibility to contact the U.S. Post Office Department for their requirements in maintenance of postal service and to follow those requirements.

C. In cases where posts upon which the box or boxes are fastened are in such condition that they cannot be reset, the Contractor shall furnish posts for this purpose at their own expense.

D. All costs incurred in work outlined above shall be considered as incidental to the construction contract, and shall be borne by Contractor.

GC-30. EMERGENCY WORK

A. The Contractor will not be allowed added compensation for any emergency work performed on Sundays or legal holidays unless such work is ordered in writing by the Engineer.

GC-31. SUPERVISION OF WORK

A. During the progress of the work, the Contractor shall employ a competent superintendent and any necessary assistants at the job site. The superintendent shall not be changed except with the approval of the Engineer (or upon the order of the Engineer should the superintendent be or become unsatisfactory to the Engineer) unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in their employ. The superintendent shall represent the Contractor in the Contractor's absence and all directions given to them shall be as binding as if given to the Contractor. Important directions shall be so confirmed on written request in each case.

B. The Contractor shall give efficient supervision to the work, using their best skill and attention. they shall carefully study and compare all drawings, specifications and other instructions and shall at once report to the Engineer any error, inconsistency or omission which they may discover, but they shall not be held responsible for their existence of discovery.

GC-32. CORRECTION AND COMPLETION OF WORK

A. Correction of Work before Final Payment:

1. The Contractor shall promptly remove from the premises all materials condemned by the Engineer as failing to conform to the Agreement, whether incorporated in

the work or not, and shall re-execute any work condemned by the Engineer as failing to conform to the Agreement, and the Contractor shall promptly replace such non-conforming materials and re-execute such non-conforming work in accordance with the Agreement, such costs of replacement and re-execution to be borne by Contractor at no additional expense to CITY.

2. If the Contractor does not re-execute such non-conforming work and/or remove and replace such non-conforming materials within a reasonable time, fixed by written notice of the Engineer, then and in that event, CITY may remove them and may store the material at the expense of the Contractor. If the Contractor does not pay the expenses of such removal within ten (10) days' time thereafter, CITY may, upon ten (10) days' written notice, sell such materials at auction or at private sale and shall account to Contractor for the net proceeds thereof, after deducting all the costs and expenses of such removal, storage, sale and repair. Nothing contained herein shall relieve the Contractor from their responsibility to perform the work in accordance with the Contract Documents, nor to reduce the liability of the Contractor to replace such non-conforming materials or re-execute such non-conforming work.

B. Correction of Work after Final Payment:

1. Neither the final certificate, nor payment, nor any provision in the Contract Documents shall relieve the Contractor of responsibility for faulty and/or non-conforming materials or workmanship and unless otherwise specified, they shall remedy any defects due thereto and pay for any damage to other work resulting there-from, which shall appear within a period of one (1) year from the date of final acceptance. CITY shall give notice of observed defects with reasonable promptness.

C. Deductions for Uncorrected Work:

1. If the Engineer and CITY deem it inexpedient to correct work injured or done not in accordance with the Agreement, an equitable deduction from the Agreement price and/or extended warranty shall be made therefore.

GC-33. SUBSTITUTES CLAUSE

A. In order to establish a basis or quality, certain processes, types of machinery and equipment, kinds of material, may be specified on the plans or herein, by designating a manufacturer by name and referring to their brand or product designation. It is not the intent of these specifications to exclude other processes, equipment or materials or a type and quality equal to those designated.

B. The materials, products and equipment described in the bidding documents establish a standard or required function, dimension, appearance and quality to be met by any proposed substitution.

C. Approval of alternate and equal specified equipment and material will be only by addenda issued by the Engineer at least five (5) days prior to bid opening. Requests for approval of alternate equipment and materials manufacturers must come from the manufacturer or bidder at least ten (10) days prior to bid opening. All such requests must be accompanied

by drawings and specifications in sufficient detail to allow the Engineer to determine whether or not the equipment and materials proposed is equal to that specified. The determination as to whether or not the proposed substitute equals that specified, shall rest solely with the City, based upon the opinion of the Engineer. The burden of proof of the merit of the proposed substitute shall be upon the proposer.

D. No extra compensation will be allowed the Contractor for any changes required to adopt the substitute equipment; therefore, the Contractor's proposal, including the approved alternate, shall include all costs for any modifications to the plans such as structural and foundation changes, additional piping or changes in piping, electrical changes, or any other modifications which may be necessary or required for approval and adoption of the proposed alternate equipment.

GC-34. DETAILED BREAKDOWN OF CONTRACT PRICE

A. The Contractor shall, within ten (10) days after receipt of this notice to proceed, submit a complete breakdown of all lump sum bid items showing the value assigned to each part of the work, including an allowance for profit and overhead. Upon acceptance of the breakdown of the contract price by the Engineer, it shall be used as the basis for all requests for payment.

GC-35. CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

A. Certain utilities and structures which are expected to be adjacent to or encountered in the work are shown on the plans. It is known that there are discrepancies and omissions in the locations and quantities of existing utilities and structures shown. Those shown are for the convenience of the Contractor only, and no responsibility is assumed by either the City or the Engineer for their accuracy or completeness.

B. It is the Contractor's responsibility to notify "CALL BEFORE YOU DIG" at nationwide #811 prior to excavating and to comply with Idaho Code Section 55-2207 and all other applicable laws and regulations regarding the protection of underground utilities.

C. At points where the Contractor's operations could cause damage which might result in considerable expense, loss, and inconvenience when their operations are adjacent to or near a railway, telephone, television, power, oil, gas, water, sewer, irrigation, or other private or municipal systems, the operations shall be suspended until all arrangements necessary for the protection thereof have been made by the Contractor.

D. The Contractor shall notify all utility offices which are affected by the construction operation at least forty-eight (48) hours in advance of such construction. Under no circumstances shall the Contractor expose any utility without first requesting permission from and being granted to do so from the affected agency. Once permission has been granted, Contractor shall locate, if necessary, and expose all existing underground utilities in advance of any trenching operation. Hand digging shall be required within twenty-four (24) inches of a marked utility.

E. The Contractor shall protect all other poles from damage. If interfering power poles, telephone poles, guy wires, or anchors are encountered, Contractor shall notify the Engineer and the affected utility company at least forty eight (48) hours in advance of construction operations to permit the necessary arrangements to be made with the affected utility company for protection or relocation of the interfering structure.

F. The Contractor shall be solely and directly responsible to the CITY and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims, of any character brought because of any injuries or damage which may result from the carrying out of the work to be done under the Agreement. Contractor shall hold harmless, indemnify and defend CITY from any such claims.

G. In the event of interruption to domestic water, sewer, storm drain, or to other utility services as a result of accidental breakage, or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority. After such notification, the Contractor shall cooperate with said authority in restoration of service as promptly as possible and the Contractor shall bear all costs of repair. In no case shall interruption of any water or utility service be allowed to exist beyond working hours unless prior approval is received from the Engineer.

H. In the event the Contractor encounters utility lines that interfere with trenching, the Contractor may, by obtaining prior written approval of the appropriate utility company, cut the service, dig through and restore the service with similar and equal materials at the Contractor's expense.

GC-36. STREET CLEANUP DURING CONSTRUCTION

A. The Contractor shall clean all spilled dirt, gravel, or other foreign material caused by the construction operations from all streets and roads at the conclusion of each day's work.

GC-37. CLEANUP

A. The Contractor shall at all times during the work keep the premises clean and orderly. They shall promptly remove all waste materials and rubbish. All directions from the Engineer and all authorized public officials having jurisdiction over health and safety shall be obeyed.

GC-38. PROOF OF TAX PAYMENT

A. The Contractor shall, within ten (10) days after receipt of the Notice of Award, furnish the Idaho State Tax Commission with a completed State of Idaho Form WH-5, PUBLIC WORKS CONTRACT REPORT. Copies of the form may be obtained from CITY, or from the Idaho State Tax Commission.

B. The Contractor shall furnish evidence that they have paid all state and local taxes which have become due and payable and that they have secured payment of state and local taxes which have accrued, but which are not due. CITY shall not make final payment to Contractor until a tax release from the Idaho State Tax Commission has been received by CITY.

GC-39. HOLD HARMLESS REQUIREMENT

A. In addition to other rights granted CITY by the Contract Documents, the Contractor shall indemnify and save harmless CITY, its officers and employees, from all suits, actions, or claims of any character brought because of any injuries or damages received or sustained by any person, persons, or property on account of the operations of the Contractor or their subcontractors; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or

omission, neglect, or misconduct of the Contractor or their subcontractors; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising or recovered under the Workmen's Compensation Act or any other law, ordinance, order or decree.

GC-40. JURISDICTION AND DISPUTE RESOLUTION

A. Either CITY, or Contractor, may request mediation of any Claim submitted to Engineer for a decision before such decision becomes final and binding. A mediator with a background in construction litigation shall be selected by mutual agreement. In the event the parties cannot mutually agree upon a mediator, the Trial Court Administrator for the Second Judicial District shall submit a list of three (3) mediators to the parties. Each party will be allowed to strike one (1) of the listed mediators, Contractor proceeding first and CITY second. The remaining person shall then be the mediator. Costs of the mediation shall be borne equally by the parties.

B. CITY and Contractor shall participate in the mediation process in good faith. The process shall be concluded within sixty (60) days of filing of the request.

C. If the Claim is not resolved by mediation, Engineer's action or denial shall become final and binding thirty (30) days after termination of the mediation unless, within that time period, CITY or Contractor:

1. agrees with the other party to submit the Claim to another dispute resolution process; or

2. gives written notice to the other party of the intent to file an action in the Second Judicial District of the State of Idaho which court, the parties agree, is the court with jurisdiction to hear the dispute. The action must then be filed not later than sixty (60) days after substantial completion of the Project.

GC-41. PERMITS AND LICENSES

A. The Contractor shall obtain and pay for all permits and licenses, including but not limited to the following:

B. Those required by the Moscow City Code, such as:

Community Forestry Ordinance	§5-8-1 et seq.
Building Code	§7-1-1 et seq.
Plumbing Code	§7-1-2 et seq.
Electrical Code	§7-1-3 et seq.
Gas Code	§7-1-4 et seq.
Contractor Licensing Ordinance	§7-16-1 et seq.

C. Those required by the Idaho Code or other State Law.

D. Those required by the Code of Federal Regulations or other Federal Law.

GC-42. ENVIRONMENTAL MATTERS

A. Contractor shall comply with all statutes and regulations regarding environmental matters, including, but not limited to, matters of health, safety, exposure, disposal, reporting, mitigation, etc.

GC-43. NO THIRD PARTY BENEFICIARIES

A. No claim as a third party beneficiary under this Agreement by any person other than Contractor shall be made or shall be valid against CITY, and CITY shall not be liable for or be held to pay any money to such person.

GC-44. COMPLIANCE WITH GRANT CONDITIONS

A. Contractor shall comply with all conditions of, and all laws applicable to, and all policies, practices and procedures of the City applicable to, any federal, state or local grant received by the City or Contractor at any time with respect to this contract or with respect to the provision, performance or completion of the work.

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CITY OF MOSCOW STANDARD CONSTRUCTION SPECIFICATIONS

ES-1. SCOPE OF WORK

The scope of work for the project is as set forth in the project specific plans and specifications.

The intent of the contract is to provide for the construction and completion in every detail of the work described.

The City reserves the right to make, at any time during the progress of the work, such changes in quantities and such alterations in the scope of work as are necessary to satisfactorily complete the project and the Contractor shall perform the work as altered. Compensation for change in scope of work will be in accordance with the project specific contract documents.

Unless otherwise noted, all labor, materials, and equipment necessary for the execution and completion of the work shall be furnished by the Contractor.

ES-2. TRAFFIC CONTROL/R.O.W USE PERMITS

2.1 Traffic Control

A. The Contractor shall obey all rules, laws, ordinances and regulations of all traffic regulatory authorities having jurisdiction regarding the closing or barricading of public streets. Work shall not begin until the proper permits have been acquired and all required traffic control devices are in place.

B. **Prior to commencement of work, the Contractor shall submit to the Engineer for review, Traffic Control Plan(s) created by an *ATSSA or ESC certified Traffic Control Supervisor.* The plan shall be consistent with requirements detailed in the current edition of the Manual of Uniform Traffic Control Devices and shall include identification of detour routes for pedestrians. All traffic control devices shall be MUTCD approved, and installed and maintained by *ATSSA or ESC certified Traffic Control Technicians.* In the event where flagging is required to control traffic flow around a work zone, all flaggers shall have a *current ATSSA or ESC flagging card.***

Traffic control plans for work within State of Idaho highway right-of-way must also be approved by the Idaho Transportation Department.

C. The work shall be carried out so as to cause a minimum of dislocation of normal commercial pursuits. Traffic must be kept open on roads and/or streets where no detour is possible. The Contractor shall, in addition to other requirements contained herein, without further notification or other order, provide, erect, and maintain at all times during the progress or temporary suspension of the work, barricades, fences, signs, flaggers, or other protection in accordance with the most current edition of the "Manual on Uniform Traffic Control Devices" and shall provide,

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keep, and maintain such danger lights, signals, and flaggers, as may be necessary or ordered by the Engineer and/or traffic regulatory authorities having jurisdiction to ensure the safety of the public as well as those engaged in connection with the work. All barricades and obstructions shall be protected by signal lights which shall be suitably distributed across and along the roadway and which shall be kept burning from one hour before sunset until one hour after sunrise and at other times as vision is obscured by fog, smoke, or dust.

D. The Contractor shall promptly reopen streets and driveways to the public after construction work requiring their closure is completed, and all safety issues have been resolved. Local traffic shall be provided access to private properties at all times, except during necessary stages of construction when it is impractical to carry on the construction and maintain traffic simultaneously, such as for the placing of asphalt concrete pavement, placing and curing of Portland cement pavement, and deep sewer excavation which prohibits safe travel of vehicular traffic. No private driveway may be closed except as provided here-in, or unless permission is given the Contractor by the owner of the property affected. Emergency traffic such as police, fire, and disaster units shall be provided reasonable access at all times. The Contractor shall be solely responsible for any damages which may result from failure to provide such reasonable access.

E. The Contractor shall take every precaution to protect pedestrian, bicycle and vehicular traffic. Whenever, in the opinion of the Engineer, the Contractor has not provided sufficient or proper safety precautions and safeguards, they shall do so immediately, and to whatever extent the Engineer directs at no additional cost to the City. Should the City Engineer deem it necessary to augment the traffic control devices and the Contractor be unresponsive or unwilling to do so, the Contractor will be charged the customary rental rate and force account charges for the required personnel to bring the site into compliance with the MUTCD.

2.2 Right of Way Use Permits

A. All street and sidewalk closures require a City issued Street Closure Permit.

B. Work within public right of way requires a City issued Right of Way use permit.

C. Work within State of Idaho highway right-of-way requires an Idaho Transportation Department (ITD) permit. These permits must be obtained through the City; not directly from ITD.

2.3 Payment: Traffic Control

Traffic control will be paid for as incidental to other bid items if there is no specific bid item for traffic control included in the proposal; OR, as a lump sum amount if traffic control is included as a separate pay item in the proposal. Lump Sum price for traffic control includes furnishing, installing and maintaining the required devices to comply with MUTCD requirements.

ES-3. MATERIALS

All materials shall be new, free of defects, manufactured in the USA, and shall be furnished and installed according to the manufacturer's specifications.

ES-4. REMOVALS AND DISPOSALS

The Contractor shall be responsible for all removals indicated on the Plans and in the Specifications, and as may be necessary to complete the work in accordance with the true intent and meaning of the drawings and the details.

The Contractor shall patch, repair, and/or replace all existing work immediately adjacent to the newly constructed areas, or where removals are made, so that such adjacent work is left in the same state as their original condition. Such applications specifically shall apply to private driveways with the intent that all such driveways will be left with a smooth consistent and constant grade constructed of the same material and to the same specifications as originally used in constructing the driveway.

When salvageable material is to remain Contracting Agency property, the Specifications will identify the material and describe how the Contractor shall remove it and where it will be stored. Any material not named in the Specifications as Contracting Agency property will become the property of the Contractor and shall be removed from the project.

The Contractor may dispose of waste material in Contracting Agency-owned sites if the Specifications or the Engineer permits it. Otherwise, the Contractor shall arrange to dispose of waste at no expense to the Contracting Agency.

The Contractor shall acquire all permits and approvals required for the use of the disposal site. The cost of any such permits and approvals shall be included in the Bid prices for other Work.

The Contractor shall provide the Engineer the location of all disposal sites to be used and also provide copies of the permits and approvals for such disposal sites before any waste is hauled off the project.

The Contractor shall protect, indemnify, and save harmless the Contracting Agency from any damages that may arise from the Contractor's activities in making these arrangements. Any action required to satisfy any permit and/or any approval requirements in a Contractor-provided disposal site shall be performed by the Contractor at no additional expense to the Contracting Agency.

Removals and disposals will be paid by lump sum or unit price:

The price shall include all costs incurred to remove and dispose of the items bid including labor and equipment and other incidental costs.

ES-5. EARTHWORK

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5.1 Excavation

All excavation shall be unclassified, except that which is required for the installation of pipe (storm, sanitary, water, drain), which is classified as trench excavation.

This work shall consist of excavation and disposal of all material, not being removed under some other item, which is encountered within the limits of the work necessary for the construction in accordance with the Specifications and in reasonably close conformity with the lines, grades, or thicknesses shown on the plans, or established by the Engineer.

This work shall include all excavation performed under this item regardless of the material encountered.

This work shall include the removal and disposal of any structure or any miscellaneous obstructions which are visible or are indicated on the plans which encroach upon or otherwise obstruct the work and for which a separate bid is not taken.

This work shall also include the preparation of the subgrade when the subgrade is not on a fill section. Subgrade elevation shall be below the gravel base elevation of pavement as indicated on the plans, and shall conform to the crown of the finished pavement surface. All depressions or ruts containing water shall be drained, as arranged with the Engineer. The entire surface shall be bladed to remove inequalities and secure a uniform surface. Line and grade stakes will be provided once by the Engineer, or their representative. The Engineer, or their representative, will set one set of stakes at fifty (50) foot intervals and at closer intervals where necessary. The subgrade shall be brought to a firm unyielding surface, true to line, grade, and cross section, by rolling and processing with equipment generally used for this purpose and acceptable to the Engineer. All soft, spongy, or yielding spots, which may be ordered to be removed by the Engineer, shall be entirely removed and replaced with geotextile and suitable rock material and thoroughly compacted to the satisfaction of the Engineer.

5.2 Structural Fill

This work shall consist of furnishing and placing selected material in one or more courses to form a stable roadbed in accordance with these specifications and in conformity with the Plans.

Structural fill (also ‘Borrow’ or ‘Embankment’) may consist of naturally occurring sand, sand gravel, sand and rock mixtures, decomposed granites, and native loess or clays. Sand and rock mixtures shall contain sufficient sand to fill the voids of the larger gravel and stone to permit the required compaction. All borrow must be obtained from designated or approved sources. Structural fill shall be free of roots, bark, topsoils or other organic materials.

The surface upon which the structural fill is to be placed shall conform to the established lines and grades and shall be smooth and uniform, having been cleared of all vegetation, roots, stumps, topsoil, and foreign material.

The Contractor shall use necessary precautions in loading borrow to assure reasonable uniformity in grading.

Borrow shall be compacted with modern, efficient, compacting equipment satisfactory to the Engineer.

Embankment shall be placed in successive horizontal layers not exceeding eight (8) inches in loose thickness. All embankment shall be compacted to at least ninety-five (95) percent of the maximum density in accordance with AASHTO T-99. At all locations that are inaccessible to a roller, the embankment shall be brought up in horizontal layers and compacted thoroughly with mechanical tampers. The horizontal layers shall not exceed eight (8) inches in loose thickness. The compacting equipment may be of any type provided they are capable of compacting each lift of the material to the specified density.

5.3 Payment

The accepted quantities of EXCAVATION will be paid for by the per cubic yard unit price or by lump sum. The quantity of excavation, as listed on the proposal or measured in the field, shall be used to compute the final payment, exclusive of any extra work ordered by the Owner or their representatives, as provided under Section GC-11, Extra Work.

The accepted quantities of STRUCTURAL FILL will be paid for by per cubic yard unit price or by lump sum. The unit price per cubic yard shall include all materials, labor, equipment and other costs incidental to furnishing and placing the borrow as herein specified and as shown on the plans.

ES-6. SUBGRADE SEPARATION GEOTEXTILES

6.1 Materials

Geotextile shall be Type II, nonwoven or woven, as set forth in **Section 718.07 – Subgrade Separation Geotextile Property Requirements** of the latest edition of the Idaho Transportation Department's Standard Specifications for Highway Construction.

6.2 Construction Requirements

Geotextile shall be furnished and installed in accordance with **Section 640 – Construction Geotextiles** of the latest edition of the Idaho Transportation Department's Standard Specifications for Highway Construction.

6.3 Payment

Geotextile will be paid for on the basis of unit price, per square yard, furnished and installed.

ES-7. CRUSHED ROCK BASE

7.1 Description

This work shall consist of furnishing and placing one or more courses of aggregate on a prepared surface in accordance with these Specifications and in reasonably close conformity with the lines, grades, thicknesses and typical sections shown on the Plans and/or established by the Engineer.

The Contractor shall make their own arrangements for obtaining crushed rock base material and shall designate the source of same in ample time to permit sampling and testing by the Engineer.

7.2 Aggregate

A. 3/4" (-) Aggregate shall conform to the following gradation:

Sieve Size	Percent Passing
1 inch	100
¾ inch	90 – 100
No. 4	40 – 65
No. 8	30 – 50
No. 200	3 – 9

The sand equivalent shall not be less than 30 if 5 percent or more of the material passes the No. 200 sieve. Sand equivalent will not be required if less than 5 percent passes the No. 200 sieve.

B. 1-1/4" (-) Aggregate shall conform to the following gradation:

Sieve Size	Percent Passing
1-1/2 inch	100
1 inch	90 – 100
½ inch	60 – 80
No. 4	35 – 60
No. 8	25 – 50
No. 30	10 – 30
No. 200	2 – 9

The sand equivalent shall not be less than 30 if 5 percent or more of the material passes the No. 200 sieve. Sand equivalent will not be required if less than 5 percent passes the No. 200 sieve.

7.3 Test Methods

Tests shall be made in accordance with the following applicable standard methods:

Field determination of density of soil in-place and percent compaction.	Idaho T-74

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Compaction standard for coarse granular materials by use of the vibratory spring-loaded compactor.	Idaho T-74
Moisture density relations using a 5.5 lb. rammer and 18-inch drop, method A or C.	AASHTO T-99
Nuclear method for the determination of percent compaction in place density and moisture content of soils and aggregates.	WAQTC TM7

7.4 Placing

Prior to placing base rock, the excavated subgrade will be graded smooth and compacted to the satisfaction of the Engineer. Geotextile fabric shall then be placed upon the full width of the compacted subgrade. The geotextile fabric shall be as specified in Specification ES-6. Joints between sections of fabric shall overlap a minimum of 2 feet along longitudinal joints and a minimum of 6 feet at end joints.

If the required compacted depth of the base course exceeds 8.0 inches, the base shall be constructed in two or more layers of approximate equal thickness.

7.5 Mixing

Unless otherwise specified, the Contractor shall mix the base course by any one or a combination of the three methods specified below:

Stationary Plant Method. The aggregate and water shall be mixed in an approved mixer. Water shall be added during the mixing operation in an amount necessary to facilitate compaction. After mixing, the base material shall be placed on the roadbed by means of an approved aggregate spreader.

Travel Plant Method. After the material for each layer of base course has been placed through an aggregate spreader or windrow sizing device, the base shall be uniformly mixed by a traveling mixing plant. During the mixing, water shall be added in an amount necessary to facilitate compacting.

Road Mix Method. After material for each layer of base course has been placed, the materials shall be mixed by motor graders or other approved equipment until the mixture is uniform throughout. During the mixing, water shall be added in the amount necessary to facilitate compaction.

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7.6 Shaping and Compaction

After each layer has been spread it shall be compacted for its full width. The choice of compaction equipment will be left to the Contractor. Compaction shall continue until not less than 95% of the standard density is attained as determined by AASHTO T-99.

At the request of the Contractor, the Engineer, or their representative, will set one set of stakes at fifty (50) foot intervals and at closer intervals where necessary.

All soft, spongy, or yielding spots, which may be ordered repaired by the Engineer, shall be repaired in accordance with Specification ES-8.

7.7 Payment

The accepted quantities of CRUSHED ROCK BASE will be paid for by the unit price per ton. The unit price per ton shall include all materials, labor, equipment and other costs incidental to furnishing and placing the crushed rock, as herein specified and as shown on the plans.

Weight slips, in duplicate form, shall accompany each load of crushed rock to the construction site. Upon delivery of the material, one copy of the weight slip will be given to the Engineer, or their representative, and one copy will remain with the truck driver, before the material is unloaded. Under no conditions will any weight slips be accepted by the Engineer, or their representative, after the material is unloaded from the vehicle. It shall be the responsibility of the Contractor to give the Engineer ample advance notice of the time when such material shall arrive at the job site, in order to assure the presence of the Engineer, or their representative, at the job site during delivery of the material. The weight slips will be the only basis of determination of pay quantity for this item.

ES-8. SOFT SPOT REPAIR

8.1 Materials

Geotextile shall be Type II, nonwoven or woven as per Specification ES-6. Crushed Rock Base shall be 1-1/4" (-) crushed basalt per Specification ES-7.

8.2 Construction Requirements

All soft spots in the subgrade shall be called to the attention of the Inspector prior to placing the geotextile fabric. The Inspector shall determine where additional excavation is necessary and instruct the Contractor on such over excavation.

All soft, spongy, pumping or yielding areas will be ordered by Engineer to be repaired as herein described:

1. Remove subgrade to a depth of one foot below design subgrade elevation.
2. Add Subgrade Separation Geotextile to the bottom of the excavated area. This layer of geotextile will be in addition to that required for the entire subgrade area.

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3. Backfill the area with Crushed Rock Base (95% min. compaction) to subgrade design elevation.

Dispose of the excavated material per Specification ES-4.

The Contractor shall cooperate with the City in determining the areas that require Soft Spot Repair by furnishing a loaded dump truck and operator to roll over the entire subgrade area and, with the assistance of a City representative, locate and mark all soft spots.

8.3 Payment

SOFT SPOT REPAIR will be paid for on the basis of unit price, per square yard, complete, in-place; including excavation, base aggregate and geotextile.

The Engineer may determine that excavation in excess of the one-foot depth may be required to accomplish the repair; in such instance's compensation will be adjusted proportionately.

ES-9. WATERING

Bulk water furnished to contractors for the construction of City funded projects will be provided at NO cost to the contractor. Bulk water furnished to contractors for purposes other than the construction of City funded projects must be purchased from the City. All bulk water use by contractors will be metered and paid for under rates and fees established by the City's most current adopted fee schedule and pursuant to City Code.

ALL BULK WATER WILL BE FURNISHED IN ACCORDANCE WITH THE CITY OF MOSCOW'S 'BULK WATER USE POLICY'.

Contractors shall coordinate ALL water usage with the Moscow Water Department.

ES-10. WEIGHING

Weighing equipment for the weighing of crushed stone surfacing materials, bituminous construction, etc., shall consist of and conform to Section 109, of the latest edition, of the Idaho Transportation Departments Standard Specifications for Highway Construction, and amendments thereto. In any event, the scales shall be tested and sealed, at the expense of the Contractor, as set forth in the Standard Specifications listed above. Weight slips in duplicate form shall accompany each load of crushed rock or asphalt to the construction site.

ES-11. CONCRETE

11.1 General

Portland cement concrete shall conform to Section 502 of the latest edition of the Idaho Transportation Department Standard Specifications for Highway Construction, and amendments thereto, and as follows:

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Portland cement concrete shall be composed of Portland cement, fine aggregate, coarse aggregate and water, proportioned and mixed in accordance with these specifications. Unless otherwise provided, the Portland cement concrete shall be Idaho Transportation Department Class 40B having a minimum unit compressive strength at 28 days age of 4,000 psi. Class 40B concrete shall have 6 sacks of cement per cubic yard of concrete and an air entrainment content of 6.5 percent, plus or minus 1.5 percent. The slump shall be a maximum of five (5) inches and shall not vary more than one (1) inch from the average.

11.2 Portland Cement

Portland cement shall conform to AASHTO M-85, Type I or II and shall contain no more than 0.60 percent total alkali. Type III can be used with prior approval of the Engineer.

Unless otherwise permitted, the product of only one mill or any one brand and type of Portland cement shall be used on any single pour.

11.3 Aggregates

Aggregates shall be reasonably free from wood, roots, bark, soft or disintegrated pieces, or other deleterious matter. Blend sand may be approved for use to correct deficiencies in the grading sizes, provided the combination meets the specification requirements for the class of material being produced.

Fine aggregate for concrete shall conform to the following gradation:

Sieve Size	Percent Passing
3/8 inch	100
No. 4	95 – 100
No. 16	45 – 80
No. 50	10 – 30
No. 100	2 – 10
No. 200	0 – 4

Sand equivalent shall be a minimum of 70.
Fineness modulus to be between 2.50 and 3.10 (AASHTO M-6).

The amount of deleterious substances shall not exceed the following limits:

	Percent by Weight Maximum
Clay lumps	1.0
Coal & lignite	1.0
Material to be reasonably free of shale, alkali, mica, coated grains, & soft flaky particles.	

Organic impurities shall not exceed those specified in AASHTO T-21. Mortar making properties shall conform to AASHTO T-71 or ASTM C87.

Coarse aggregate for concrete shall conform to the following gradations for coarse aggregate size No. 3:

Sieve Size	Percent Passing
1 1/2 inch	100
1 inch	95 – 100
1/2 inch	25 – 60
No. 4	0 – 10
No. 8	0 – 5

The amount of deleterious substances shall not exceed the following limits:

	Percent by Weight (Maximum)
Coal & lignite	1.0
Clay lumps	0.5
Material to be reasonably free of shale, alkali, mica, coated grains, & soft flaky particles.	

11.4 Water

Water for concrete shall be obtained from any source of potable water. Sources of non-potable water shall be approved before use.

11.5 Curing Compound

The curing compound shall be a liquid membrane-forming curing compound conforming to AASHTO M-148 Type I, with a fugitive dye and shall be applied to all finished concrete surfaces immediately after the concrete has set.

11.6 Air Entraining Admixture

Air entraining admixture shall conform to AASHTO M-154.

ES-12. CONCRETE CONSTRUCTION REQUIREMENTS

12.1 Mixing and Delivery

A. Concrete shall be mixed and delivered by means of any of the following:
   1. Mixed complete in a stationary mixer and the mixed concrete transported to the point of delivery in agitating equipment or in non-agitating equipment when approved. (Known as central-mixed concrete.)

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2. Mixed completely in a truck mixer at the batching plant or while in transit. (Known as transit mixed concrete.)

3. Mixed completely in a truck mixer at the point of delivery following the addition of mixing water. (Known as truck mixed concrete.)

4. Mix partially in a stationary mixer and the mixing completed in a truck mixer. (Known as shrink-mixed concrete.)

B. Truck mixers and truck agitators shall be operated within the rated capacity and at the speed of rotation for mixing or agitating as designated by the manufacturer of the equipment.

C. When a stationary mixer is used for the complete mixing of the concrete, the mixing time for mixers having a capacity of 10 cubic yards or less shall be 60 seconds minimum. For 10 or more yards capacity, the mixing time shall be approved. Mixing time shall be measured from the time all cement and aggregates are in the drum. The batch shall be so charged into the mixer that some water will enter in advance of cement and aggregates and all water shall be in the drum by the end of the first one-fourth (1/4) of the specified mixing time.

D. For shrink-mixed concrete, the mixing time in the stationary mixer may be reduced to a minimum of 30 seconds. Mixing shall be completed in a truck mixer by not less than 50 or more than 100 revolutions of the drum or blades at mixing speed. The batch volume shall not exceed 70 percent of the gross volume of the drum.

E. When a truck mixer is used for complete mixing each batch of concrete shall be mixed for not less than 70 nor more than 100 revolutions of the drum or blades at mixing speed. Additional mixing, if any, shall be at agitating speed.

F. When a truck mixer or agitator is used for transporting concrete that has been completely mixed in a stationary mixer, mixing during transport shall be at the agitating speed.

G. Unless otherwise approved, when a truck mixer or agitator is used for transporting concrete, the concrete shall be delivered to the site of the work and discharged completely within 1-1/2 hours or before the drum has been revolved 300 revolutions, whichever comes first, after the introduction of the cement to the aggregates. In hot weather or under conditions contributing to quick stiffening of the concrete, a time less than 1-1/2 hours may be directed. When a truck mixer is used for the complete mixing of the concrete, the mixing operation shall begin within 30 minutes after the cement has been intermingled with the aggregates. If additional mixing water is required to replace evaporated mixing water to maintain the specified slump and is added with the permission of the Engineer, a minimum of 20 revolutions of the truck mixer drum at mixing speed shall be required before discharge of any concrete.

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Tests for consistency may be made at approximately the beginning, the midpoint, and the end of the load. If the results vary by more than the tolerance specified below, the mixer or agitator shall not be used until the condition is corrected.

When Average Slump is	Tolerance
3 inches or less	1/2 inch
More than 3 inches	1 inch

H. Central mixing concrete may be transported in suitable non-agitating equipment. The bodies of such equipment shall be smooth, watertight metal containers.

12.2 Re-tempering

Concrete shall be mixed only in such quantities as are required for immediate use and shall be used while fresh before initial set has taken place. Any concrete having initial set before placing and finishing shall be wasted and not used for the work. No re-tempering of concrete (remixing with water or other materials) will be allowed, unless otherwise approved by the Engineer, and in no instance shall concrete be re-tempered at a rate in excess of 1 gallon of water per 1 cubic yard of concrete remaining in the truck.

12.3 Placing Concrete

General. Concrete shall not be placed until forms have been checked and approved by the Engineer. The forms shall be clean of all debris before concrete is placed. Concrete shall be placed so as to avoid segregation of the materials and the displacement of the reinforcement. Care shall be taken to fill each part of the form by depositing the concrete as near the final position as possible. After initial set of the concrete, the forms shall not be jarred and no strain shall be placed on the ends of projecting reinforcement.

12.4 Cold Weather Concreting

Heating and Placing Concrete. Before any concrete is placed, all snow and frost shall be completely removed. Concreting operations shall meet the following requirements when the ambient temperature falls below 40 degrees F.

To achieve adequate curing, the temperature of the concrete shall be maintained above 50°F during the entire curing period or 7 days, whichever is greater. The concrete temperature shall not be allowed to fall below 35°F during this time. Prior to placing concrete in cold weather, the Contractor shall provide a written procedure for cold weather concreting to the Engineer. The procedure shall detail how the Contractor will adequately cure the concrete and prevent the concrete temperature from falling below 35°F. Extra protection shall be provided for areas especially vulnerable to freezing (such as exposed top surfaces, corners and edges, thin sections, and concrete placed into steel forms). Concrete placement will only be allowed if the Contractor's cold weather protection plan has been approved by the Engineer.

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The Contractor shall furnish concrete that will have a temperature of at least 50 degrees F and not more than 80 degrees F at the time of placing. Heating equipment shall heat all the materials uniformly. Such heating shall prevent the occurrence of non-uniform moisture contents or contamination in the aggregates. Aggregates shall be heated in a manner such that frozen lumps, ice and snow are eliminated. The average temperature of an individual batch of aggregate shall not exceed 150 degrees F.

The Contractor is solely responsible for protecting concrete from inclement weather during the entire curing period. Permission given by the Engineer to place concrete during cold weather will in no way ensure acceptance of the Work by the Contracting Agency. Should the concrete placed under such conditions prove unsatisfactory in any way, the Engineer shall still have the right to reject the Work although the plan and the Work were carried out with the Engineer's permission.

12.5 Placing in Hot Weather

The temperature of the concrete shall not exceed 80 degrees F at the time of placement. When the combination of ambient air temperature, concrete temperature, humidity and wind is such that rapid evaporation of moisture from the concrete surface will take place, the Contractor shall take measures to slow the evaporation to tolerable limits. Such measures may include, but not limited to, erecting sun shades or placing at night or early morning. Ice may be used as a part of the mixing water providing it has completely melted by the time mixing is completed.

12.6 Finishing Concrete

If, in the judgment of the Engineer, rock pockets are of such extent or character as to materially affect the strength of the structure or to endanger the life of the steel reinforcement, they may declare the concrete defective and require the removal and replacement of that portion of the structure affected. All holes and depressions shall be cleaned, thoroughly wetted, and filled with cement mortar composed of one part of cement to two parts of sand. All fins caused by form joints and other projections shall be removed above ground line. The resulting surfaces shall be reasonably smooth and uniform in texture and color. After the concrete is placed, it shall be struck off with a template or a vibrating screen. Concrete shall be finished to an even surface by means of both longitudinal and transverse floats. The use of power trowels will not be permitted.

When concrete sidewalk has hardened sufficiently the surface shall be given a broom finish. The broom shall be of an approved type. The stroke shall be perpendicular to the centerline with adjacent strokes, slightly overlapped. The finish shall be free from porous spots, irregularities, depressions, small pockets or rough spots.

12.7 Curing Concrete

Concrete surfaces shall be kept completely and continuously moist until a curing method is applied. Curing compound shall not be applied to concrete surfaces before the finishing has been acceptably completed and shall not be applied to construction joints or to the inside faces of joints to be sealed with silicone joint sealer. The curing compound shall not be applied during rainfall.

Prior to completion of the curing period, if any membrane surface is marred or damaged by scuffing and wear, the Engineer may require an immediate application of the same type membrane or water cure for the remainder of the cure period.

Membrane forming curing compounds shall be thoroughly mixed before use and agitated during application to prevent settling of the suspended solids. The membrane must be uniformly applied.

Membrane forming curing compounds shall be applied to the finished concrete immediately after the bleed water or free-water sheen leaves the surface of the finished concrete surface.

The curing compound shall be a liquid membrane curing compound conforming to AASHTO M-148 Type I. Curing compound shall be applied under pressure, at the rate of application as directed, and shall be at least 1 gallon per 200 square feet for each application. All concrete cured by this method shall receive two applications of the curing compound for a total minimum coverage of 1 gallon per 100 square feet. The first coat shall be applied immediately after stripping the forms and/or acceptance of the concrete finish. If the surface under the forms has dried the concrete shall be thoroughly wet with water and the curing compound applied just as the surface film of water disappears. The second application shall be applied after the first application has set. During curing operations all unsprayed exposed surfaces shall be kept wet with water.

Should the film become damaged from any cause, within 10 days, the damaged portion shall be repaired immediately with additional compound.

If this curing compound is applied to construction joints, it shall be removed by sandblasting before fresh concrete is placed against them.

All membrane forming curing compounds shall be accompanied by a Manufacturer's Certificate of Compliance and shall be approved by the Engineer, prior to its use.

12.8 Correction of Work After Completion of Construction – Two Year Warranty

The contractor/person installing the concrete shall be responsible for faulty and/or non-conforming materials or workmanship for a period of two (2) years from the date of the initial installation; they shall remedy any defects due thereto. The City shall give notice of observed defects with reasonable promptness.

Surface scaling (or spalling) of the new concrete surface will be the fundamental consideration for determining non-conforming workmanship and materials requiring remediation. Scaled surfaces exceeding 5% (randomly dispersed or concentrated) per twenty (20) square feet of concrete surfacing area will be considered defective and shall be replaced. Manner and method as well as configuration of the area requiring replacement will be as directed and approved by the City Engineer. All replacement of concrete shall be as per City standards and at the Contractor's expense.

ES-13. CONCRETE CURB

13.1 General

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All concrete curb shall conform to the City of Moscow Standard Drawings, the Plans, and Specifications. Concrete for curbs shall conform to the requirements of ES-11 and ES-12 of these specifications.

13.2 Forms

Curb forms shall be set to line and grade as designated; securely staked, and so constructed as to result in finished lines true to the dimensions and shapes shown on the plans.

Forms shall be of wood or metal, straight and free from warp, and of sufficient strength to resist springing while placing concrete. Where a section must be constructed on a curve, straight lengths of the section shall be short enough that the middle ordinate to the curve, from the face of that section, does not exceed one-half (1/2) inch or the section shall be continuously curved.

13.3 Joints

Expansion joints (or thru joints) shall be provided at intervals of forty-eight (48) feet throughout the length of the curb and at the junction of straight curb and radii and at either end of a driveway or alley section. Pre-formed joint fillers of one-half (1/2) inch or three-eighths (3/8) inch thickness will be placed in expansion joints.

Contraction joints (or "Dummy Joints") shall be constructed every sixteen (16) feet. These joints shall be 1/8-inch minimum thickness and constructed to a minimum depth of 1-1/2 inches by scoring with a tool which will leave the corners rounded and destroy aggregate interlock.

13.4 Construction Requirements

A. Dimensions. All curbs, unless otherwise specified, shall be in accordance with dimensions conforming to one of the types shown on City of Moscow Standard Drawings as specified by the approved project plans.

B. Consistency. All Class A curb (cast in place) shall be of good plastic consistency and shall have a slump of three (3) inches and shall be tested by the Engineer according to the provisions of AASHTO T-119.

   All Class C curb (extruded) shall meet the requirements for Class A curb, except for the amount of slump which may vary according to the conditions of the concrete mix and the extrusion equipment used. Under no circumstances however, shall the finished curb vary more than one-half (1/2) inch from the design elevation, and not more than ten (10) percent from the dimensions shown in the City of Moscow Standard Drawings and Specifications. Class C curbs will not require expansion joints.

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13.5 Finishing

While the concrete is still green, the top and front face, or other exposed portions of the curb, shall be troweled to produce a uniform even surface then given a fine brush finish with brush strokes parallel to the long axis of the curb. Form marks and other irregularities shall be removed. The edges of the curb shall be rounded with an edger. Honeycombed areas in the back of the curb, that in the opinion of the Engineer are not detrimental to the curb, need not be patched.

13.6 Curing

Immediately after finishing, the concrete shall be cured in accordance with the requirements of ES-12.7.

13.7 Backfilling

All curb shall be backfilled as described herein and as shown in the plans and standard drawings. If sidewalk or concrete pavers are to be constructed behind the curb, all backfill material shall be three quarter-inch minus (3/4"-) crushed aggregate. If the area behind the curb is to be lawn or planted area, the top 16 inches shall be topsoil. All denuded areas shall be fertilized, re-sown with grass seed and covered with mulch as specified in Sections ES-27 and ES-28.

13.8 Payment

The accepted quantities of curb will be paid for by the unit price per linear foot. Compacted aggregate base under the curb and curb and gutter pan at catch basin locations will be considered incidental to the unit price for the curb. The unit price per linear foot shall include all materials, labor, equipment and other costs incidental to constructing concrete curb as herein specified and as shown on the Plans and special drawings.

ES-14. CONCRETE SIDEWALK

14.1 General

All concrete sidewalk, including driveways, shall conform to the City of Moscow Standard Drawings, Contract Plans, and Specifications. Concrete for sidewalks shall conform to the requirements of ES-11 and ES-12 of these specifications.

14.2 Gravel Base

Sidewalk shall be constructed on a compacted base of three quarter-inch minus (3/4"-) crushed rock; base aggregate shall be placed on compacted, non-pumping subgrade. The crushed rock shall have the following gradation:

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Sieve Size	Percent Passing
1 inch	100
3/4 inch	90 – 100
No. 4	40 – 65
No. 8	30 – 50
No. 200	3 – 9

The sand equivalent shall not be less than 30 if 5 percent or more of the material passes the No. 200 sieve. Sand equivalent will not be required if less than 5 percent passes the No. 200 sieve.

The total thickness of the gravel base shall be at least six (6) inches, compacted, in-place.

The gravel base shall be graded, rolled, tamped, or otherwise compacted to ninety-five (95) percent of the maximum density determined in accordance with AASHTO T-99.

The gravel base shall be thoroughly sprinkled with water before the concrete is placed.

All cost for furnishing and placing gravel base for sidewalks shall be included in the unit price bid on the bid proposal form for constructing concrete sidewalks. No additional compensation will be made for this gravel base.

14.3 Construction requirements

A. Dimensions. Sidewalk width, thickness, and reinforcement shall be as shown on the City of Moscow Standard Drawings.

Sidewalk shall have a cross slope of between 1% and 2%, unless otherwise approved by the Engineer.

B. Forms. Side forms shall be rigid and shall bear full length on the compacted gravel base and shall be the full depth of the finished walk. Forms shall be well staked, braced or otherwise rigidly held to true line and grade and shall rest upon stakes driven into the ground at intervals sufficient to provide rigid support. If metal forms are used they shall be of a type satisfactory to the Engineer.

C. Placing and Finishing Concrete. SLUMP SHALL NOT EXCEED FIVE (5) INCHES. The concrete shall be spread uniformly between the forms and thoroughly consolidated and leveled with an approved strike board. Expansion joints of premolded joint material one-half (1/2) inch thick or three-eighths (3/8) inch thick may be constructed through the sidewalk at intervals of twenty (20) feet. Expansion joints may also be located where new sidewalk meets existing concrete, unless otherwise approved by the Engineer. Where applicable, joints in sidewalks and curb shall coincide.

After the concrete has been thoroughly consolidated and leveled it shall be bull floated to eliminate high and low spots and to embed large aggregate. The concrete shall then be allowed to harden properly before jointing, edging, and brooming is completed.

Contraction joints shall be tooled into the concrete every four feet for four-foot-wide sidewalk and five feet for five-foot-wide sidewalk, shall be 3/8 inch minimum in depth, and shall be perpendicular to the direction of the walk. All joints shall then be edged with a 3/8-inch radius edger and the sidewalk edges shall be tooled with a one-half (1/2) inch radius edger.

After edging and jointing has been completed the concrete shall be smoothed with wood or metal hand floats. The floated surface shall then be coarse broomed uniformly in a transverse direction with a fiber hair brush or an approved type.

The placing and furnishing of all sidewalk shall be performed under the control of the Engineer, or their representative, and the tools shall meet with their approval.

The contractor shall keep a person at the job site for a minimum of four hours following the concrete surface brooming operation for the purpose of both preventing and repairing any damaged surfacing to the newly placed concrete. Concrete left unattended, if damaged or defaced shall be replaced at contractor expense.

D. Curing. Curing shall be performed by applying a sealing compound conforming to AASHO M-148 Type I to the surface of the concrete immediately after it has set sufficiently to permit such application. Curing shall conform to Section ES-12.7.

E. Backfill. After removal of the forms, the area behind the sidewalks shall be backfilled and compacted with at least sixteen (16) inches of topsoil level with the sidewalk and curb. Less than 16 inches of topsoil may be approved where new sidewalk is being constructed along older streets. The topsoil shall be raked or otherwise leveled, taking care to break up large dirt clods and remove large stones. All denuded areas shall be fertilized, resown with grass seed and covered with mulch as specified in Sections ES-27, ES-28.

14.4 Payment

The accepted quantities of concrete sidewalk will be paid for by the unit price per square yard. The unit price per square yard shall include all materials, labor, equipment, and other costs incidental to construction of concrete sidewalk, including aggregate base, as herein specified and as shown on the Plans and special drawings.

ES-15. SUPERPAVE HOT MIX ASPHALT

15.1 Hot Mix Asphalt

The Hot Mix Asphalt (HMA) pavement shall be placed in lifts to the thickness as specified on the Contract Plans and as required by the Standard Construction Drawings.

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PAVEMENT THICKNESS SPECIFIED BY CONSTRUCTION DRAWINGS AND CITY OF MOSCOW DOCUMENTS (STANDARD DRAWINGS, STANDARD SPECIFICATIONS ETC.) SHALL MEAN THE FULLY COMPACTED, IN-PLACE DEPTH.

Superpave hot mix asphalt paving shall conform to the requirements, of the latest edition, of the Idaho Transportation Department Standard Specifications for Highway Construction and amendments thereto. A copy of said specifications is available at the office of the City Engineer.

A Hveem or Super Pave Mix Design shall be submitted with associated "Job Mix Formula" (JMF) for approval, if required by the City Engineer.

15.2 Rolling and Compaction

Rolling and compaction of the asphaltic concrete mat shall be done in accordance with this document and with the latest edition of the Idaho Transportation Department Standard Specifications for Highway Construction and amendments thereto.

The cost of the rolling and compaction shall be included in the price of furnishing and placing superpave hot mix asphalt pavement.

15.3 Tack Coat

Tack coat shall be applied at all edges where the new asphaltic surface joins the existing pavement and shall be applied in accordance with Section 401, of the latest edition, of the Idaho Transportation Department Standard Specifications for Highway Construction and amendments thereto.

15.4 Payment

The accepted quantities of superpave hot mix asphalt pavement will be paid for by the unit price per ton or per square yard. The unit price shall include all materials, labor, equipment, and other costs incidental to furnishing and placing the superpave hot mix asphalt pavement herein specified and as shown on the plans.

Weight slips in duplicate form shall accompany each load of superpave hot mix asphalt pavement to the construction site. Upon delivery of the material, one copy of the weight slip will be given to the Engineer, or their representative, and one copy will remain with the truck driver before the material is unloaded. Under no conditions will any weight slips be accepted by the Engineer, or their representative, after the material is unloaded from the vehicle. It shall be the responsibility of the Contractor to give the Engineer ample advance notice of the time when such material shall arrive on the job site in order to assure the presence of the Engineer, or their representative, at the job site during delivery of the material. The weight slips will be the only basis of determination of pay quantity for this item.

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ES-16. CEMENT CONCRETE PAVEMENT

16.1 General

Portland cement concrete shall conform to Section ES-11, of these Specifications except as modified by the following sections and subsections.

16.2 Aggregates

Aggregates shall possess such characteristics of shape and size that concrete, prepared from a mixture of fine and coarse material in the proportions specified, will be of satisfactory workability in the opinion of the Engineer. Regardless of compliance with all other provisions of these specifications, if the concrete is not of a workable character or when finished does not exhibit a proper surface, either the fine or the coarse aggregate or both shall be rejected or altered as required by the Engineer.

A. Fine aggregate shall consist of sand or other inert materials, or combinations thereof approved by the Engineer, having hard, strong, durable particles free from adherent coating. Fine aggregate shall be thoroughly washed to remove clay, loam, alkali, organic matter or other deleterious matter.

   Fine aggregate with more than the maximum percentage passing any sieve may be accepted provided the mix proportions are adjusted to produce concrete having the same net water-cement ratio, slump and workability. Any resulting increase in the cement content shall be at the expense of the Contractor. Under no circumstances shall the fine aggregate, which has a grading finer than that permitted under Section 703, of the latest edition, of the Idaho Transportation Department Standard Specifications for Highway Construction, and amendments thereto, be used in paving concrete.

   Fine aggregate shall develop in the mortar strength test, at an age of 7 days, a compressive strength of not less than ninety (90) percent of the strength of a mortar prepared with the same cement (AASHTO T-71 or ASTM C-87).

B. Coarse aggregate shall consist of gravel, crushed stone or other inert material or combinations, thereof approved by the Engineer, having hard, strong, durable pieces free from adherent coatings. Coarse aggregate shall be thoroughly washed to remove clay, loam, bark, sticks, alkali, organic matter, or other deleterious material.

   Coarse aggregate containing more than the maximum percentage passing any screen may be accepted provided the mix proportions are adjusted to produce concrete having the same net water-cement ratio, slump and workability. Any resulting increase in the cement content shall be at the expense of the Contractor.

   Coarse aggregate shall not be used, under any circumstances in paving concrete, when the amount by weight passing the screens exceeds the following:

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3/4" square opening.....70%
3/8" square opening.....30%

C. Properties of concrete aggregate shall be determined in accordance with the following methods of test:

1. Amount of Material Finer than No. 200 Sieve in Aggregates: ASTM Designation C-117.
2. Organic Impurities: AASHTO T-113.
3. Flexural Strength of Concrete: AASHTO T-104.
4. Percentage of Particles of Less than 1.95 Specific Gravity: AASHTO T-150.
5. Clay Lumps in Aggregates: AASHTO T-112.
6. Abrasion of Coarse Aggregate by Use of the Los Angeles Machine; AASHTO T-96.

16.3 Curing and Protection

A. Curing and protection shall conform to the specifications of Section 703, of the latest edition, of the Idaho Standards for Public Works Construction and amendments thereto. A copy of said specifications is available at the office of the City Engineer.

16.4 Joint Fillers and Sealants

A. Joint fillers and sealants shall conform to the specifications of Section 705, of the latest edition, of the Idaho Standards for Public Works Construction and amendments thereto. A copy of said specifications is available at the office of the City Engineer.

16.5 Air-Entrained Concrete

Air-entrained concrete shall be used, as per ES-11, unless otherwise provided for in the Special Provisions. Either air-entrained Portland cement or an air-entraining admixture shall be added at the mixer.

The volume of air in freshly mixed concrete shall conform to that specified in the table which follows:

AIR CONTENT OF FRESHLY MIXED CONCRETE

Maximum Size of Coarse Aggregate (Inches)	Air Content (Percent by Volume)
1-1/2, 2, and 3	5 ± 1
3/4 and 1	6 ± 1
3/8 and 1/2	7-1/2 ± 1

If the measured air content is found above or below the values contained in the table, the Contractor shall immediately make changes in mixing or materials as will be necessary to comply with the requirements for air content.

If an air-entraining agent is used, it shall be introduced at the nominal rate of one fluid ounce per sack of cement, but the rate shall be varied if necessary to comply with the requirements for air content.

An automatic dispenser accurate to 10%, which will introduce into the mixing water the specified amount of air-entraining agent for each cycle of mixing, shall be connected to the mixer.

Aggregates shall be adjusted to compensate for increased yield resulting from air-entrainment so that the specified amount of cement is contained in each cubic yard of concrete. Adjustment shall be made by decreasing the weight of fine aggregates only, unless otherwise directed by the Engineer.

Other Admixtures: Calcium chloride or any other admixture for any purpose other than air-entrainment may be added only upon the approval of the Engineer and under their supervision.

16.6 Reinforcing Steel

Reinforcing steel shall consist of round or square deformed bars or wire mesh. Square twisted bars shall not be used.

A. Deformed steel bars for concrete reinforcement sizes No. 3 through 11 shall conform to the requirements of ASTM A-615M, Billet Steel Bars for Concrete Reinforcement, Grade 60, except as noted on the plans and except that the bars shall be made only by the open-hearth process or the electric furnace process.

   The form of the deformed bars shall conform to ASTM A-706M, Minimum Requirements for Deformations of Deformed Steel Bars for Concrete Reinforcement.

   Deformed bars size No. 14 and size No. 18 for concrete reinforcement shall conform to the requirements of ASTM A-615M, Special Large Size Deformed Billet Steel Bars for Concrete Reinforcement Intermediate Grade.

B. Wire mesh for concrete reinforcement shall conform to the requirements of the standard specifications of AASHTO M-55, Welded Steel Wire Fabric for Concrete Reinforcement. All wire mesh shall be of an approved kind and quality of manufacture.

C. Tie bars shall be free from rust, loose mill scale, dirt, grease or other defects affecting the strength or bond with the concrete.

16.7 Measurement of Materials

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The fine aggregate and each size of coarse aggregate shall be measured by weighing. Corrections shall be made for variations in weight of material due to moisture content and specific gravity. The quantities of aggregates used in each batch shall be such that the cement can be measured in full sacks unless it is weighted in bulk.

Fine and coarse aggregate shall be proportioned by weight, except that if the project is small, then volumetric proportioning may be used with permission of the Engineer. In proportioning, the unit of measure for cement will be by the sack, ninety-four (94) pounds.

Weights of fine and coarse aggregate are based on a bulk specific gravity, saturated surface dry, of 2.67. When volume measurements are used, one cubic foot of sand shall be taken as equivalent to 100 pounds of sand and one cubic foot of gravel shall be taken as equivalent to 105 pounds of gravel. Corrections must be made for contained moisture in the aggregates and variations in specific gravity.

Concrete mixes shall be proportioned to the satisfaction of the Engineer. The proportion of aggregate may be altered to give better workability only upon written approval of the Engineer.

16.8 Re-tempering

Concrete shall be mixed only in such quantities as are required for immediate use and shall be used while fresh before initial set has taken place. Any concrete having initial set before placing and finishing shall be wasted and not used for the work. No re-tempering of concrete (remixing with water or other materials) will be allowed.

16.9 Construction of Portland Cement Concrete Pavement

Construction of Portland cement concrete pavement shall conform to the requirements of Section 705, of the latest edition, of the Idaho Standards for Public Works Construction and amendments thereto. A copy of said specifications is available at the office of the City Engineer. Concrete pavement batches shall meet the requirements of Section 703, of these Standard Specifications.

Concrete batch proportions shall be approved by the Engineer and any subsequent changes to the approved batch must be made in writing by the Engineer.

16.10 Payment

The accepted quantities of Portland cement concrete pavement will be paid for by the unit price per square yard. The unit price per square yard shall include all materials, labor, equipment and other costs incidental to furnishing and placing the Portland cement concrete pavement herein specified and as shown on the plans.

Batch slips in triplicate form shall accompany each load of concrete for pavement delivered to the construction site. Upon delivery of the material, one copy of the batch slips will be given to the Engineer, or their representative, and one to the Contractor. Delivery of concrete shall mean discharged from the mixer truck and all water added to the mix shall be added to the batch slip. It

shall be the responsibility of the Contractor to give the Engineer ample advance notice of the time when such material shall arrive at the job site in order to assure the presence of the Engineer, or their representative, at the job site during material delivery. The batch slips may be used for the determination of cross section conformity.

1. All catch basins shall be separated from the pavement and curb by boxing out around basin. Expansion joint material shall extend completely through curb and slab. Manhole castings within the pavement limits shall be boxed in like manner except when telescoping type castings are used.

2. When a joint falls within 5 feet of, or contacts, basins, manholes or other structures, shorten one or more panels either side of opening to permit joint to fall on round structures and at or between corners of rectangular structures.

3. All transverse joints must extend through curbs and must be continuous across pavement, except tied transverse construction joints. Expansion joints will not be required except at structures or as shown on the plans.

4. Transverse sawed joints to be a + 15' o.c. as shown on drawings. Joints at 60' to be sawed the same day as placement. Intermittent joints at 15' to be sawed next day after placement. Longitudinal joints shall be sawed prior to permitting traffic on the pavement.

ES-17. ADJUSTMENT OF GATE VALVE BOXES, MONUMENTS, CATCH BASINS, CATCH INLETS, AND MANHOLES

Gate valve boxes, catch basins, catch inlets, monument casings, and manholes shall be adjusted to the grade, as established by the Engineer. Valve boxes, casings, rings and covers shall be reset in a careful and workmanlike manner to conform to the new grade. Special care shall be exercised in all operations in order not to damage the structures, equipment or water mains. Any damage occurring to the manholes, catch basins, gate valves, monuments, water meters or water mains, due to the contractor's operation, shall be repaired at the contractor's expense. Any masonry adjustment shall be made by using pre-cast risers, bricks, concrete blocks, poured concrete, HDPE Cretex Pro-Ring, or City approved equal.

The Contractor shall notify the appropriate utility company, in advance, if gas valve boxes need to be adjusted, so the utility company personnel can do so, in a timely manner.

The Contractor shall notify the City Water Department, in advance, if water meter boxes need to be adjusted, so the Water Department personnel can do so, in a timely manner.

Location of valve boxes, catch basins and manholes on the plans is approximate only. They will be accurately located and referenced by the Engineer, or their representative, whenever possible. Manhole lids and catch basin and monument covers and valve box lids shall, preferably, be set to grade following the final application of asphaltic concrete. During paving operations, tops of

manholes, monuments, catch basins and valve box lids shall be covered with building paper, diesel oil, or other suitable material to prevent sticking of asphalt to the metal lids.

Where excavation is necessary to adjust the grade of manholes, catch basins, monuments, or valve boxes, the backfill shall be carefully placed and tamped by hand.

Payment for adjustment of manholes, catch basins, gate valves, and monuments will be made according to the unit price for each unit adjusted:

The unit price bid shall include all costs incurred in furnishing materials and labor necessary to adjust the particular units to grade.

ES-18. MANHOLES AND CATCH BASINS

18.1 General

Catch basins, catch inlets, and manholes shall be precast reinforced concrete units, furnished and installed in accordance with the project plans, these Standard Specifications, and the Standard Drawings.

Completed catch basins and manholes including ring shall be capable of withstanding, with a reasonable margin of safety, a concentrated load of 20,000 pounds.

Backfill shall be placed in horizontal layers no more than 6 inches thick with each layer compacted to 95 percent of the maximum density or as approved by the Engineer.

18.2 Precast Reinforced Concrete Manholes, Catch Basins, and Catch Inlets

Precast reinforced manholes, catch basins, and catch inlets sections shall conform to AASHTO M-199, ASTM C-478 and ASTMC-433 and as shown on the Standard Construction Drawings.

A. Base Sections. Base shall be placed on a well graded dewatered granular bedding course. The bedding course shall be firmly tamped and made smooth and level to assure uniform contact and dimensions shall conform to the standard drawings. If the base is cast in place, the concrete shall conform, to the latest edition, of the Idaho Transportation Department Standard Specifications for Highway Construction Class 30 concrete. Where water is encountered at the site all cast in place bases shall be placed on a one-piece waterproof membrane so as to prevent any movement of water into the fresh concrete.

B. Joints. All lift holes and all joints between precast elements shall be first filled with an asphaltic fiber material then finished smooth with mortar. The fiber shall be Ramneck brand or approved equal.

C. Steps. Not required.

D. Workmanship and Finish. Cones and sections shall be substantially free from fractures, large and deep cracks and surface roughness. In precast sections where loops have been

provided in lieu of lift holes, the loops shall be removed flush with the inside wall surface after the manhole or catch basin has been completed. No sharp cut-off protrusions will be permitted. If concrete spalling occurs as a result of loop removal, the spalled area shall be restored in workmanship manner to a uniform smooth surface with mortar.

18.3 Rings and Lids

Rings and lids shall be cast iron and shall conform to the Standard Drawings. Castings shall conform to the requirements of ASTM A-48 Class 138 and shall be free of porosity shrink cavities, cold shuts or cracks, or any surface defects which would impair serviceability.

18.4 Sanitary Sewer Manholes

A. General. Sanitary sewer manholes shall be constructed according to Plans, Standard Drawings and Specifications. All sanitary manholes shall be constructed of precast reinforced concrete sections.

The Contractor may construct a channel through the manhole by either running sewer pipe through the bottom of the manhole, pouring concrete around the pipe and breaking out the upper half of the pipe; or by pouring concrete in the bottom of the manhole and forming a channel through the manhole by hand.

B. Basis of Payment. Sanitary sewer manholes will be paid for according to the unit price per each or per vertical foot.

The unit price bid shall include all cost incurred in furnishing materials, labor, excavation, installing the manholes in place including the asphaltic coating on the outside of the manhole and the manhole rings and lids, and backfilling.

C. Water tightness

1. SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED WATERTIGHT. All visible leaks (infiltrating subsurface water) shall be sealed; sealing shall be accomplished by a manner and method, in the opinion of the Engineer, that constitutes permanency. Leaks that cannot be sealed by Contractor shall be sealed either by the pressure grouting method (injected chemical sealants) or the interior surface coating method, utilizing a firm specializing in such services, at the Contractor's expense. Less than four minor drips in a single manhole will be considered negligible and will not require sealing.

2. Hydrostatic Testing.

    a. All sanitary sewer manholes constructed in areas where subsurface water may, in the opinion of the Engineer, pond around them shall be hydrostatically tested in accordance with this specification.

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b. Prior to testing, the manhole shall be completely constructed and all inlet and outlet pipes shall be plugged. The Contractor shall fill the manhole to the top with water. Four hours minimum after the manhole has been filled, the Contractor shall refill the manhole to the original water level and commence the test for a minimum 2-hour period. The leakage rate shall not exceed 0.2 gallons per hour per foot of test head above the pipe invert elevation. Manholes which fail the test shall be repaired and re-tested until they pass.

c. Manholes tested by the exfiltration method shall have all infiltrating water sealed prior to beginning the exfiltration test.

18.5 Storm Sewer Manholes

A. General. Storm sewer manholes shall be constructed according to the Plans, Standard Drawings and Specifications. Storm sewer manholes shall be precast reinforced concrete, unless otherwise approved by the Engineer.

All pipe extending into catch basins shall be trimmed within 1"-2" of the inside wall surfaces and shall be neatly grouted inside and out and watertight.

B. Basis of Payment. Storm sewer manholes will be paid for according to the unit price per each or per vertical foot.

The unit price bid shall include all costs incurred in furnishing materials, labor, excavation, installing manholes in place including the manhole rings and lids, and backfilling.

18.6 Catch Basins and Catch Inlets

A. General. Catch basins and catch inlets shall be constructed according to the Plans, Standard Drawings and specifications. Catch basins shall be precast reinforced concrete per WSDOT TYPE 1, catch inlets shall be WSDOT CONCRETE INLET - unless otherwise approved by the Engineer.

All pipe extending into basins and inlets shall be trimmed within 1"-2" of the inside wall surfaces shall be neatly grouted inside and out and watertight

Lids, grates, and risers shall be centered over the basin or inlet; unless specifically allowed otherwise.

B. Payment. Catch basins will be paid for by the unit price per each.

The unit price shall include all cost incurred in furnishing materials, labor, excavation, installing catch basins in place including the catch basin rings and lids, and backfilling.

18.7 Risers

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A. Risers for height adjustment shall be as per WSDOT's standard for the precast unit being furnished.

ES-19. TRENCH EXCAVATION AND BACKFILL

19.1 Scope

This section covers the work necessary for the trench excavation and backfill above the pipe zone. Pipe zone backfill is included under the specification for the pipe.

19.2 Type of Backfill

The class of backfill to be used above the pipe zone shall be as set forth on the Plans or as given in the project Special Provisions and if not specifically set forth in project documents then as required by the "use" description given herein. The right is reserved to modify the use, location, and quantities of the various types of backfill, during construction, as the Engineer considers being in the best interest of the Owner.

Trench backfill, above the pipe zone, shall be as follows:

1. Class A Backfill. Use in landscaping and agricultural type areas where lawn sod, shrubs, topsoil, fences, and other landscape items are either being replaced or are anticipated.
2. Class B Backfill. Use within existing or proposed gravel parking lots – not within gravel streets or alleys.
3. Class C Backfill. Use in areas where asphalt pavement, concrete, curb, sidewalk, gravel surfacing, landscaping and agricultural use is not anticipated, present or future.
4. Class D Backfill. Use in existing gravel streets and alleys, existing gravel roadway shoulders and in areas where asphalt pavement, concrete, curb, and sidewalk is existing or anticipated in the future.
5. Class E Backfill. Use in lieu of Class D Backfill in new streets when specifically allowed by the City Engineer.
6. Class F Backfill. Use within and immediately adjacent to existing asphalt paved streets, alleys, driveways, and parking lots.

19.3 Excavation and Backfill for Fire Hydrants

Excavation and backfill for fire hydrants shall be included in the unit price payment for Fire Hydrants (See ES-22).

19.4 Trench Excavation

Trench excavation shall be classified as common excavation or rock excavation and shall include whatever materials are encountered to the depths as shown or as directed by the Engineer.

Common Excavation. Common excavation is defined as the removal of all material which is not classified as rock excavation.

Rock Excavation. Rock excavation shall conform to all specifications of Section 302, of the latest edition, of the Idaho Standards for Public Works Construction and amendments thereto. A copy of said Specifications is available at the office of the City Engineer.

19.5 Materials

A. Foundation Stabilization. Materials for foundation stabilization shall be three quarter-inch minus (3/4"-) crushed rock with reasonable even gradation from coarse to fine and free from excessive dirt or other foreign material.

B. Granular Material. Granular backfill shall be three quarter-inch minus (3/4"-) crushed basalt conforming to ES-7.

C. Imported Topsoil. Imported topsoil shall possess friability and a high degree of fertility. It shall be free of clods, roots, gravel and other inert material. It shall be free of quack grass, horsetail and other noxious vegetation and seed. Should such regenerative material be present in the soil, it shall be the responsibility of the Contractor to remove all such growth, both surface and root, which may appear in the planting within one year following acceptance of the job, at their own expense, and in a manner satisfactory to the Owner.

D. Compaction Equipment. Compaction equipment shall be of suitable type and adequate to obtain the amount of compaction specified. Compaction equipment shall be operated in strict accordance with the manufacturer's instructions and recommendations and shall be maintained in such condition that it will deliver the manufacturer's rated compactive effort.

19.6 Workmanship

A. Clearing. Do not remove existing trees or tree limbs over 2 inches in diameter, whether on public or private property, unless they are within 4 feet of the pipe centerline without permission from the Engineer. All such work shall conform to the City's Community Forestry ordinance. The Contractor shall bear all costs of disposing of trees, stumps, brush, roots, limbs, and other waste materials from clearing operations. Material shall be disposed of in such a manner as to meet all requirements of state, county and local regulations regarding health, safety and public welfare.

B. Obstructions. This term refers to obstructions which may be removed and do not require replacement. Obstructions within the trench area or adjacent thereto such as tree roots, stumps, abandoned piling, buildings and concrete structures, logs, rubbish and debris of all types shall be removed without additional compensation from the Owner. The Engineer will, if requested, make changes in the trench alignment to avoid major obstructions; if such alignment changes can be made within the perpetual easement and right-of-way and without adversely affecting the intended function of the facility.

The contract amount will be adjusted accordingly for any cost changes resulting from such alignment modifications.

Dispose of obstructions removed from the excavation in accordance with section ES-4**.**

C. Utility Repairs. Any and all underground utility damaged in any way during trench excavation shall be repaired and properly backfilled, by the Contractor, at no cost to the City. The repair shall be as approved by the City – NO EXCEPTIONS.

D. Removal and Replacement of Topsoil. In all cases where trenches cross lawns, garden areas, pasture lands, cultivated fields, or other areas on which reasonable topsoil conditions exist; first remove the topsoil for a depth of 10 inches for the full width of the trench to be excavated. Stockpile this topsoil to one side of the right-of-way and do not mix with the remaining excavated material. Replace the topsoil in the top 10 inches of the backfilled trench. In lieu of stockpiling the top 10 inches of soil, "Imported Topsoil" from borrow pits may be substituted in the top 8 inches. Maintain the finished grade of the topsoil, over the center line of the trench, level with the immediate area bordering the trench, until acceptance of final seeding. Correct all damage to adjacent topsoil caused by trenching or pipe laying operations by removal of all rock, gravel, clay, and any other foreign materials from the surface and by regrading the additional topsoil as required.

E. Pavement, Curb and Sidewalk Removal. Cut (full depth) all asphaltic concrete or Portland Cement concrete pavements (regardless of the thickness), and all curbs and sidewalks prior to excavation of the trenches with an approved pavement saw, hydrohammer or other approved pavement cutter. Removal of street surfacing for excavations shall comply with the Specifications and Standard Drawing for Street/Alley Curb Repair. Pavement and concrete materials removed shall be hauled from the site and not used for trench backfill.

F. Trench Width. Minimum width of trenches in which pipe is to be laid shall be 18 inches greater than the inside diameter of the pipe except by permission of the Engineer.

The maximum clear width at the top of the trench will not be limited, except in cases where excess width of excavation would cause damage to adjacent structures or property.

In all cases, confine trench widths to dedicated rights-of-way for public thoroughfares or within areas for which construction easements have been obtained.

G. Grade. Carry the bottom of the trench to the lines and grades shown, or as established by the Engineer, with proper allowance for pipe thickness and for pipe base or special bedding, when required. If the trench is excavated below the required grade, correct any part of the trench excavated below the grade, at no additional cost to the Owner, with gravel of the type specified for pipe zone material. Place the gravel over the full width of trench in compacted layers, not exceeding 6 inches deep, to the established grade with allowance for the pipe base or special bedding.

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H. OSHA Compliance. All trench excavation and backfill shall conform to the latest published OSHA regulations, NO EXCEPTIONS.

I. Location of Excavated Materials. During trench excavation, locate the excavated material within the construction easement or right-of-way or specified working area so that the excavated material will not obstruct private or public traveled roadways or streets. It shall be the contractor's responsibility to conform with the federal, state and local codes governing the safe loading of all trenches with excavated material.

J. Removal of Water. Provide and maintain ample means and devices which will promptly remove and dispose of all water entering the trench excavation during the time the trench is being prepared for the pipe laying, during the laying of pipe, and until the backfilling of the pipe zone has been completed. These provisions shall apply during the lunch hour as well as overnight.

Dispose of the water in an approved manner without damage to adjacent property.

Drainage of trench waste through the pipeline, under construction, is prohibited.

K. Foundation Stabilization. When, in the opinion of the Engineer, the existing material in the bottom of the trench is unsuitable for supporting the pipe, excavate below the flow line of the pipe, as directed by the Engineer, and backfill the trench to the subgrade of pipe base with approved material. Place the material over the full width of the trench in compacted layers, not exceeding 6 inches deep, to the established grade.

L. Backfill in Pipe Zone. Pipe zone backfill is included in the Specification for the pipe.

M. Trench Backfill Above Pipe Zone. Do not push the backfill material into the trench in such a way as to permit free fall of the material into the open trench, until at least 2 feet of cover is provided over the pipe. Under no circumstances allow sharp, heavy pieces of material to drop directly onto the pipe or the tamped material around the pipe. Do not use backfill material of consolidated masses larger than 1 cubic foot.

N. Classes of Backfill.
Trench backfill shall comply with the City's Standard Construction Drawings and as follows:

1. Class A Backfill
Backfill the trench, above the pipe zone, with approved excavated trench material to within 10 inches of final surface grade. Compact the entire trench depth in suitable lifts with a vibratory compactor, pneumatic or gasoline powered tampers, or hydraulic hammers. Determine the method and type of equipment and amount of compaction required to prevent subsequent settlement.

Where Class A backfill is specified replace topsoil in the top 10 inches of the trench. Compact and rake to match the ground surface adjacent to the trench.

Maintain the surface of the backfilled trench level with the existing grade until the entire project is accepted by the Owner. Any subsequent settlement of the finished surfacing during the warranty period shall be considered to be a result of improper or insufficient compaction and shall be promptly repaired by the Contractor at no cost to the Owner.

2. Class B Backfill

Backfill the trench, above the pipe zone, with approved excavated trench material to within 6 inches of final surface grade. Compact the entire trench depth in suitable lifts with vibratory compactors, pneumatic or gasoline power tampers, or hydraulic hammers. Determine the method and type of equipment and the amount of compaction required to prevent subsequent settlement. Place and compact granular material in the top 6 inches.

Maintain the surface of the backfilled trench level with the existing grade by additions of granular backfill material, as specified, until final surface replacement is completed or the entire project is accepted by the Owner. Any subsequent settlement of the finished surface, during the warranty period, shall be considered to be a result of insufficient compaction and shall be promptly repaired by the Contractor at no cost to the Owner.

3. Class C Backfill

After the completion of the backfilling of the pipe zone, the excavated trench material may be pushed back into the trench by mechanical means.

In all locations where Class C backfill is used, the Contractor shall make their own estimate of the amount of backfill material required at the trench, so that after normal settlement has occurred, the finished surface will meet the existing grade. Neatly windrow the material over the trench and remove all excess. Any excess or deficiency of backfill material, which becomes apparent after settlement within the warranty period, shall be corrected by regrading, disposing of excess material or adding additional material where required. Remove rocks larger than 2 inches from the upper 8 inches of backfill.

4. Class D Backfill

Backfill the entire trench, above the pipe zone, with granular backfill material. Compact the entire trench depth to 95 percent density in 6 inch lifts with mechanical, vibrating or impact tampers. Determine the method and type of equipment and amount of compaction required to prevent subsequent settlement.

Maintain the surface of the backfilled trench level with the existing grade with crushed rock backfill material until final surface replacement is completed or the entire project is accepted by the Owner. Any subsequent settlement of the finished surface during the warranty period shall be considered to be a result of insufficient

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compaction and shall be promptly repaired by the Contractor at no cost to the Owner.

5. Class E Backfill

Class E trench backfill is to be used only where a new paved street is going to be constructed above the installed pipe.

The width of the trench, above the pipe zone, may be increased beyond the required specifications for pipe zone width, as described in the City of Moscow Standard Drawing #15, but shall not be less than (6) six feet.

Approved native excavated material may be used for backfill above the pipe zone in this widened trench. Compaction for all trench backfill, above the pipe zone, shall be 95% minimum of AASHTO T-99. All native backfill shall be placed in (6) six inch maximum lifts and method of compaction shall be only by a (5) five foot minimum wide sheepsfoot roller. Density testing frequency, for this approved native excavated material, will be in excess of that required for the Class 'D' crushed basalt backfill.

6. Class F Backfill

Backfill the trench, above the pipe zone, with granular material to within 4 inches of the finished surface.

Compact the entire trench, above the pipe zone, in six (6) inch maximum lifts with vibratory compactors, pneumatic or gasoline power tampers, or hydraulic hammers to a minimum 95 percent standard density. The top 4 inches of the trench is to have smooth cut edges before being backfilled with two equal lifts of asphaltic concrete patching mix.

7. Subsurface Drain Backfill

Backfill the entire trench to within 10 inches of the final surface grade or to the street subgrade, as applicable, with crushed or naturally occurring granular material from approved sources.

The material shall be washed, if necessary, to render the particles free from clay. It shall contain not more than 1% of clay lumps or other decomposed material. It shall conform to the following requirements for grading:

Sieve Size	Percent Passing
3"	100
2.5"	95 – 100
3/4"	50 – 80
1/4"	30 – 60
No. 8	20 – 50
No. 30	8 – 30

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No. 50	3 – 12
No. 200	0 – 1.2

* All percentages are by weight.

That portion of the gravel backfilled for drains retained on a 1/4" square sieve shall not contain more than 0.05% by weight of wood waste.

Compaction, above the pipe zone, shall be accomplished by the use of mechanical, vibrating or impact tampers. Determine the method and type of equipment to use and amount of compaction required to prevent subsequent settlement.

Maintain the surface of the backfilled trench level with the existing grade by additions of granular backfill material as specified until final surface replacement is completed or the entire project is accepted by the Owner. Any subsequent settlement of the finished surface, during the warranty period, shall be considered to be a result of insufficient compaction and shall be promptly repaired by the Contractor at no cost to the Owner.

O. Maintenance of Excavated Trench. Maintain the excavated trench between any two successive valved sections of pipeline or as specified in the project Special Provisions until the following operations have been completed, to the satisfaction of the Engineer, for waterline construction: Service connections have been installed, including pressure tap; valves, valve boxes, hydrants and thrust blocks installed, hydrostatic or air testing, sterilization, cleanup and restoration of all physical features, utilities restored to their original condition, or better, and in general, all work required between the two line valves accomplished with the exception of repaving.

P. Maintenance of Trench Backfill. This maintenance shall include, but not be limited to, the addition of crushed rock backfill material to keep the surface of the backfilled trenches reasonably smooth and free from excessive ruts and potholes and suitable for normal traffic flow.

Trenches backfilled within existing paved streets shall be temporarily surfaced with 2.5 inches of cold mix asphalt pavement; which temporary cold mix surfacing shall be placed within one day of completion of trench backfilling. This temporary patch shall be installed and maintained smooth until the permanent hot mix patch is installed. Under certain circumstances, this requirement may be waived by the City Engineer.

No additional payment will be made for the maintenance of the trench backfill prior to completion of the work outlined above, and the trench backfill maintenance and shall be considered as incidental to that item of work.

Q. Disposal of Excess Excavation. All excess excavation not required or suitable for backfill shall be disposed of in a waste area arranged by the Contractor.

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R. Drainage Culverts. Replace, in like kind, drainage culverts which are removed or damaged. If the pipe is damaged during removal, dispose of it and furnish and install new pipe. Dispose of culvert pipe that is in too poor condition to reuse because of age or physical conditions. Repair drainage pipes with manufactured fittings only; encase Ferncos in concrete.

S. Blasting. Blasting shall conform to all specifications of Section 302, of the latest edition, of the Idaho Standards for Public Works Construction and amendments thereto. A copy of said specifications is available at the office of the City Engineer.

19.7 Payment

Payment for trench excavation and backfill will be as specified for main line pipe as follows:

A. Trench Excavation and Backfill. Payment for trench excavation and backfill shall be included in the price per linear foot of the respective pipe stated in the Contractor's bid proposal.

Payment for trench excavation and the respective backfill shall constitute full compensation for all work specified and incidental to the price per linear foot of the respective pipe.

Pipe zone backfill is specified under Section ES-20.

B. Rock Excavation. Rock excavation shall be measured for payment as the actual quantity of rock removed within the approved limits.

ES-20. PIPE

20.1 Storm Sewer Pipe

Mains, **4-inch to 15-inch**: SDR 35 PVC ASTM D 3034, gasketed.

Mains, **18-inch to 36-inch**: Solid wall PVC ASTM F 679 or HDPE (High Density Polyethylene) AASHTO M 294, smooth-walled interior, silt-tight.

Culvert Pipe: Corrugated Steel Pipe and Pipe Arches conforming to AASHTO M 36, 2-2/3" x ½ corrugations. Round pipe shall be 16 gage minimum; arch pipe shall be 12 gage minimum.

Storm Sewer Service Laterals: SDR 35 PVC ASTM D-3034, except as follows: where a service lateral crosses a water main or a water service line with less than 18 inches of clearance between the two pipes the sanitary sewer service lateral pipe shall be un-jointed PVC pressure water pipe, either Schedule 40 PVC or Class 160 PVC ASTM D-2241 for distance nominally ten feet each side of the crossing. This pressure water pipe shall be joined to standard SDR 35 PVC pipe at both ends with FERNCO couplers having stainless steel shear ring bands.

20.2 Sanitary Sewer Pipe

All sanitary sewer pipe shall be a minimum of eight (8) inch diameter except sewer to house connections which shall be a minimum of four (4) inch diameter.

Mains, 8-inch diameter and larger: SDR 35 PVC ASTM D-3034.

Service Laterals: SDR 35 PVC ASTM D-3034, except as follows: where a service lateral crosses a water main or a water service line with less than 18 inches of clearance between the two pipes the sanitary sewer service lateral pipe shall be un-jointed PVC pressure water pipe, either Schedule 40 PVC or Class 160 PVC ASTM D-2241 for distance nominally ten feet each side of the crossing. This pressure water pipe shall be joined to standard SDR 35 PVC pipe at both ends with FERNCO couplers having stainless street shear ring bands.

20.3 Perforated Subsurface Drain Pipe

A. General. A perforated roadway underdrain system may be shown on the Plans and shall be furnished and installed as herein described in these Specifications, as shown on the City's Standard Construction Drawings and as shown on the Plans.

Laterals will generally be connected to the collector at 60° angles. The terminal end of each lateral will be sealed with a plug. All connections between pipe sections and branches are to be water tight.

The pipe shall be wrapped with a filtering sock.

Perforated Subsurface Drain Pipe that is corrugated on the inside will not be allowed.

Perforated pipe and fittings will not be dumped into the trench. All pipe shall be inspected prior to lowering into the trench and if necessary cleaned of any material tending to plug the perforations of the pipe.

Pipe shall be laid with the perforations at the bottom, per manufacturer's instructions.

Gravel backfill for drains shall be as defined under Section ES-19.

B. Types of Pipe. Perforated subsurface drain pipe as indicated on the plans and standard drawings shall be one of the following types of pipe or as approved by the Engineer:
Perforated Corrugated Plastic Pipe
Perforated Solid Wall Plastic Pipe

1.Perforated Corrugated Plastic Pipe
This pipe shall be Advanced Drainage System (ADS) N-12 pipe or approved equal. The pipe shall be 4" in diameter, having at least two (2) rows of perforations parallel

to the axis of the pipe. The pipe and fittings shall meet the requirements of AASHTO M-252 Type S (corrugated outside-SMOOTH INSIDE). The joints shall be gasketed non-water tight joints (Soil tight per AASHTO section 26); Gaskets may be architectural weather stripping material per ASTM D-1056 or rubber per ASTM F-477.

2. Perforated Solid Wall Plastic Pipe

This pipe shall be Advanced Drainage System (ADS) pipe or approved equal. The pipe shall be 4" in diameter, having at least two (2) rows of perforations parallel to the axis of the pipe. The pipe and fittings shall meet the requirements of AASHTO M-252. The joints shall be gasketed non-water tight joints (Soil tight per AASHTO section 26); Gaskets may be architectural weather stripping material per ASTM D-1056 or rubber per ASTM F-477.

20.4 Water Pipe & Ductile Iron Fittings

A. Joints. Pipe joints shall be push-on joints except where specifically shown or detailed otherwise.

B. Mechanical Joint Fittings. Three-inch through sixteen inch mechanical joint ductile iron fittings shall be Tyler SSB Class 350 ductile iron fittings, or an approved equal, and shall conform to ANSI/AWWA C-111

C. Flanged Ductile Iron Fittings. Flanged fittings shall conform to ANSI/AWWA C-110 and shall be faced and drilled to 125-pound ANSI. The fittings shall be 125 PSI rated working pressure and cement-mortar lined to same thickness specified for pipe.

D. Mechanical Couplings. Mechanical couplings, not a part of the pipe itself, shall be ductile iron couplings with long solid sleeves and be Mechanical Joint Class 350. Mechanical couplings shall mean straight couplings, transition couplings, reducing couplings, and flanged coupling adapters.

E. Ductile Iron Pipe. All ductile iron pipe shall be centrifugally cast of 60-42-10 iron and shall conform to ANSI / AWWA C-151. Thickness class or classes shall be 51(minimum). The pipe shall be cement mortar lined and seal coated in accordance with ANSI / AWWA C-104. The rubber ring gaskets shall be suitable for the specified pipe sizes and pressure and shall conform to applicable parts of the latest federal specification ANSI / AWWA C-111, and shall be furnished by the pipe manufacturer. A nontoxic vegetable soap lubricant shall be supplied with the pipe in sufficient quantities for installing the pipe.

F. Polyvinyl Chloride (PVC) Pressure Pipe. All PVC pressure pipe shall conform to pressure Class 150 AWWA C-900 or pressure Class 165 AWWA C-905. All pipe shall be push-on joints with one gasket bell end.

G. Tapping Sleeves. All tapping sleeves shall be ROMAC "SST" Stainless Steel as per ASTM A-240, Type 304 and Type 304L or an approved equal.

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20.5 Pipe Laying

Pipes shall be laid in straight lines at uniform rates of grade as shown on the plans.

Proper preparation of foundation, placement of foundation material where required, and placement of pipe zone material below the pipe shall precede the installation of all sewer, water and culvert pipe. This shall include necessary leveling of the native trench bottom or the top of the foundation material as well as placement and compaction of required pipe zone material, below the pipe, to a uniform grade so that the entire length of pipe will rest firmly on a well compacted material, so the backfill material around the pipe will be placed in a manner to meet requirements specified under backfilling.

Water pipe delivered for construction shall be handled so as to minimize entrance of foreign material. When pipe laying is not in progress as, for example, at the close of a day's work, all openings in the pipeline shall be closed by water-tight plugs. Joints of all pipe in the trench shall be completed before work is stopped. If water accumulates in the trench, the plugs shall remain in place until the trench is dry.

If dirt that, in the opinion of the Engineer, will not be removed by flushing enters the pipe, the interior of the pipe shall be cleaned and swabbed as necessary with a 5% hypochlorite disinfecting solution.

A. Backfill at the Pipe Zone. The pipe zone shall be considered to include the full width of the excavated trench from the bottom of the trench (a minimum of 4 inches under the pipe) to a point 12 inches above the top outside surface of the barrel of the pipe.

   Particular attention must be given to the area of the pipe zone from the flow line to the center line of the pipe to ensure that firm support is obtained to prevent any lateral movement of the pipe during the final backfilling of the pipe zone.

   Backfill the area of the pipe zone from the bottom to the horizontal center line of the pipe with "imported pipe zone material." Hand place the material around the pipe in 6 inch layers and thoroughly hand tamp with approved tamping bars supplemented by "walking in" and slicing with a shovel.

   All material, within the pipe zone, shall be hand tamped and done in such a manner as to not change the grade of the pipe (particularly gravity pipe).

B. Joints. In making the joints on the pipe care shall be exercised to clean all dirt, rock or other foreign matter completely from the inside of the bells and the outside of the spigots. The pipe shall be forced tightly in place with a bar or mechanical puller of a type approved by the Engineer. When the pipe is aligned it shall be supported by placing sufficient backfill material alongside and carefully tamped into place as described under Section 20.5.A.

When two different types of gravity pipe are joined together, a Fernco coupler may be used, upon approval of the Engineer. The completed connection shall be supported, in such a manner, as to maintain established line and grade and shall be encased, on all sides, with a minimum of four (4) inches of concrete. The concrete shall extend a minimum of two (2) feet on each side of the coupler.

Lubricant for water pipe gaskets shall be supplied by the pipe manufacturer.

C. Caps and Connections. Caps for pipe branches, stubs, or other open ends which are not to be immediately connected shall be made of an approved material and shall be secured in a place with a joint comparable to the main line joint, or stoppers may be of an integrally cast breakout design. Caps of the type recommended by the pipe's manufacturer shall be used.

D. Imported Pipe Zone Material. Granular material for pipe zone backfill shall be three quarter-inch minus (3/4"-) crushed rock unless otherwise specified. The material shall meet the specifications, of the latest edition, of the Idaho Transportation Department Standard Specifications for Highway Construction and amendments thereto.

E. Water Main Location and Separation. The location and separation of the water and non-potable water main pipes, both horizontal and vertical, shall meet the most current requirements of IDAPA 58.01.08 – Idaho Rules for Public Drinking Water Systems.

F. Permissible Deflection at Joints - Water Pipe. Wherever it is necessary to deflect pipe from a straight line, either in the vertical or horizontal plane, to avoid obstructions or where long radius curves are permitted, the amount of deflection allowed shall not exceed the values in the following table:

*MAXIMUM DEFLECTION PERMITTED (18 FOOT LENGTH PIPE)

Bell and Spigot	Mechanical Joint		Push-on Joint	
Diameter (Inches)	Max. & Min. Deflection Angle (Degrees)	Deflection (Inches)	Max. Deflection Angle (Degrees)	Deflection (Inches)
6	7-07	27	5	19
8	5-21	20	5	19
10	5-21	20	5	19
12	5-21	20	5	19
14	3-35	13 ½	3	11
16	3-35	13 ½	2	11
18	3-00	11	3	11
20	3-00	11	3	11
24	2-23	9	3	11

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*The maximum deflection shall be whichever is less, the table or that recommended by pipe manufacturer.

G. Anchorage (water pipe)

1. Limiting Pipe Diameter and Degree of Bend
On all pipelines 6 inches in diameter or larger, securely anchor by suitable thrust blocking all tees, plugs, caps, and bends where unbalanced forces exist, as directed by the Engineer.

2. Thrust Blocking
Provide thrust blocks as required by the Standard Construction Drawings. The concrete mix shall have a compressive strength of not less than 2500 psi. Place blocking between the undisturbed ground and the fitting to be anchored; plastic sheathing to be placed between the concrete and fitting. The bearing surface shall be as shown or as directed by the Engineer. Place the blocking so that the pipe and fitting joints will be accessible to repairs, unless otherwise shown.

3. Metal Tie Rods
Metal tie rods, if specifically required by the Plans or the Engineer, shall be used in conjunction with thrust block. The rods, nuts and washers shall be coated with a rust resistant coating. (A product intended for such use.)

20.6 Pipe Testing and T. V. Inspection

A. Sanitary Sewer Pipe. The finished sanitary sewer shall be tight against leakage from either the inside or the outside of the pipe.

All wyes, tees, and stubs shall be plugged with flexible jointed caps, or acceptable alternate, securely fastened to withstand the internal test pressure. Such plugs or caps shall be readily removable, and their removal shall provide a socket suitable for making a flexible jointed lateral connection or extension.

Exfiltration testing of the sanitary sewer pipe will be conducted by the Contractor, under the supervision of the Engineer, or their representative, after the sewer line is backfilled. The Contractor shall notify the Engineer at least twenty-four (24) hours in advance of their intention to pressure test the line.

If the test indicates that there is excessive leakage in the line the Contractor shall make repairs, at their own expense, and take such corrective action as may be required by the Engineer.

T.V. inspection of the sanitary and storm sewer pipe will be conducted by the City after the pipe has been backfilled and the manholes are accessible.

1. Exfiltration Test (Using Air)

The Contractor shall plug all openings in the pipe and supply necessary metering equipment and hoses for the test and a blower or compressor with adequate capacity to perform the test.

Immediately following the pipe cleaning, the pipe installation shall be tested with low pressure air. Air shall be slowly supplied to the plugged pipe installation until the internal air pressure reaches four (4) pounds per square inch greater than the average back pressure of any ground water that may submerge the pipe as determined by the Engineer.

At least two minutes shall be allowed for temperature stabilization before proceeding further. The inspector will then accurately determine the time of loss of one (1) psi. This time interval shall not be less than the time interval determined in the following formula.

$$T = 0.0109\ D2L$$

T = time in seconds
D = nominal inside diameter of pipe in inches
L = length of pipe in feet

Failure to meet or exceed the computed time interval for the loss of one (1) psi will be cause for rejection of the sewer pipe.

All repairs necessary to meet these requirements and/or testing will be at the expense of the Contractor.

The maximum length of sewer pipe, for the above tests, shall be the distance between consecutive manholes. Any section of sewer pipe, between any two manholes that does not meet the above requirements, shall be rejected.

2. T.V. Inspection

T.V. inspection, (by the City), of the newly installed sanitary and storm sewer pipes will be required, preferably, before the placement of asphalt on the roadway. It shall be the responsibility of the Contractor to give the Engineer ample advance notice of the time when this inspection is to be performed to assure the timely scheduling of the City's personnel and equipment.

Any and all imperfections (i.e. sags in the pipe invert, joints not fully seated, offset joints, poor manhole entries and exits, etc.) found in the installation of the pipe shall be immediately repaired by the Contractor at no cost to the City. Such repairs shall be as allowed and directed by the City Engineer.

B. Water Pipe

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All new watermain shall pass City standard pressure testing and bacteriological testing. Pressure testing, flushing, disinfection, and bacteriological testing shall be performed by the City Water Department. All testing, flushing, and disinfecting materials and labor costs of the City's must be paid by the Contractor. It is the Contractor's responsibility to repair all leaks. The test pressure shall be 1-½ times the working pressure of the pipe per AWWA standards. The bacteriological test criteria shall be as follows: one test showing "absence" of coliform bacteria (<1) and a standard plate count of less than 100. The Contractor shall be responsible for all excavation and back fill necessary to allow the City Water Department access to the new main for the City to furnish, install, and remove all corporation stops necessary to test, chlorinate, and bacteriological sample the new main as required. This includes backfill and trench surfacing once and then returning to the site to re-excavate and re-backfill (including cold mix patching) any corporation stops that remain in the main during disinfecting and sampling procedure. Where connections are made to existing mains the fitting and pipe shall be thoroughly cleaned and spray disinfected with 150(+) ppm chlorine solution immediately prior to their installation and such procedure shall be witnessed by a representative of the City; such operations by the contractor require the City to be notified a minimum of 48 hours in advance. The 48 hour notice is necessary to allow the City crew to notify customers of the water outage. The contractor shall be responsible for coordinating and cooperating with the City Water Department for testing, flushing, and disinfecting activities.

20.7 Plugging Existing Pipe

Where shown in the Plans or where designated by the Engineer, existing pipes shall be plugged on the inlet end for a distance of 2 diameters with commercial concrete. Care shall be used in placing the concrete in the pipe to see that the opening of the pipe is completely filled and thoroughly plugged.

20.8 Basis of Payment

A. Storm Sewer Pipe. The accepted quantities of storm sewer pipe will be paid for by the unit price per linear foot and shall include all costs incidental to furnishing and laying pipe, as herein described, including furnishing and installing lock bands at each joint and all pipe zone material.

B. Sanitary Sewer Pipe. The accepted quantities of sanitary sewer pipe will be paid for by the unit price per linear foot and shall include all costs incidental to furnishing and laying pipe. The cost of furnishing all pipe zone material is also included in this item.

C. Perforated Sub-Surface Drain Pipe. The accepted quantities of subsurface drain pipe will be paid for by the unit price per linear foot and shall include all costs incidental to furnishing and laying pipe, as herein described, including all angle branches, plugs, pipe connectors, and all pipe zone material.

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D. Water Pipe & Ductile Iron Fittings. Payment for main line water pipe, including fittings, thrust blocks and couplings will be made at the unit price per linear foot.

E. Plugging existing pipes will be measured per each, for each plug installed, for pipe diameters up to and including 36 inches. The concrete for plugging pipes in excess of 36 inches in diameter will be measured by the cubic yard. Computations for corrugated metal pipes will be based on the nominal diameter.

The measurement for payment will be the field measured centerline length of the pipe in place within the limits shown. Laying lengths of valves, fittings and couplings will be included. Payment for fittings, couplings and thrust blocks shall be considered incidental to the cost of the respectively-sized pipe.

Payment for valves will be made at a per each unit price.

ES-21. GATE VALVES AND VALVE BOXES

21.1 Scope

This section covers the work necessary for furnishing and installing the gate valves and valve boxes, complete.

21.2 Materials

A. Gate Valves (all sizes). Valves shall be ductile iron AMERICAN FLOW CONTROL SERIES 2500 resilient seated valves, or an approved equal, and shall open when the stem is rotated counterclockwise. Unless otherwise shown, valves shall have 2-inch square wrench nut. Valve ends and valve sizes shall be shown. Valves shall conform to ANSI / AWWA C-509.

B. Valve Boxes. Valve boxes for valves 12" in size and smaller shall be Buffalo 2-piece slip - type, cast iron with 5-1/4-inch shaft, and shall be TYLER 6855 series of appropriate length for the installation, or approved equal. Valve boxes for valves over 12" in size shall be Buffalo 3-piece sliding type cast iron with 5-1/4-inch shaft and shall be TYLER 6855 series of appropriate length for the installation or approved equal. The word “Water” shall be cast into the top of the lids. Extension pieces, if required, shall be the manufacturer's standard type for use with the valve boxes.

C. Extension stems for valve operators. Where the depth of the opening nut is more than 4.5 feet, standard operating extensions shall be provided to bring the operating nut to a point 3.5 feet below the surface of the ground or pavement. The extension stem shall be constructed of steel (and coated).

21.3 Workmanship

A. Valves. Before installation, the valves shall be thoroughly cleaned of all foreign material, and shall be inspected for proper operation for both opening and closing, and to verify that

the valves seat properly. Valves shall be installed so that the stems are vertical, unless otherwise directed by the Engineer. Jointing shall conform to AWWA C-600 or AWWA C-603, whichever is applicable. Valves shall be installed in accordance with "Standard Details". Joints shall be tested with the adjacent pipeline. If joints leak during the test, valves shall be disconnected and reconnected, and the valve and/or the pipeline retested.

Faces of flanges shall be cleaned thoroughly before flanged joint is assembled. After cleaning, the gasket shall be inserted and the nuts tightened uniformly around the flange. If flanges leak under test, the nuts shall be loosened, the gasket reset or replaced, the nuts retightened, and the valve and/or pipeline retested.

Valves on all service connections and stubouts, 4 inch and larger, shall be mechanical joint and shall be restrained with coated tie rods.

B. Valve Boxes. Center the valve boxes and set plumb over the wrench nuts of the valves. Set valve boxes so that they do not transmit shock or stress to the valves. Set the valve box covers flush with the surface of the finished pavement as shown, or such other level as may be ordered by the Engineer. Cut extensions to the proper length so that the valve box does not ride on the extension when set at grade.

Backfill shall be the same as specified for the adjacent pipe. Place backfill around the valve boxes and thoroughly compact to a density equal to that specified for the adjacent trench and in such a manner that will not damage or displace the valve box from proper alignment or grade. Misaligned valve boxes shall be excavated, plumbed, and backfilled at the Contractor's expense.

Valve boxes shall be clean prior to final project acceptance.

21.4 Payment

Payment for gate valves furnished and installed, complete, with valve boxes will be by the unit prices per each. Payment for the gate valves and valve boxes shall constitute full compensation for the work as specified under this section.

Payment for gate valves and valve boxes furnished and installed as auxiliary valves on hydrants shall be included in the unit price for hydrants.

ES-22. FIRE HYDRANTS

22.1 Scope

This section covers the work necessary for furnishing and installing the fire hydrants, complete, and the work necessary for the removal of existing hydrants.

22.2 Materials

A. Low Pressure Hydrants. Hydrants to be Corey pattern with nominal 5-1/4 inch main valve opening with 6 inch bottom connections. Equip with two 2-1/2 inch hose nozzles and one 4-1/2 inch pumper port with a 5 inch Storz hose nozzle. The Storz nozzle shall be an integral part of the fire hydrant and must be furnished by the manufacturer or authorized distributor designated by the manufacturer. Storz adapters will not be accepted. Operating nut shall be equipped with O-ring seals and shall open when turned to the left or counterclockwise. Hydrants shall be of the break-flange or safety-top type. Hydrants shall conform to AWWA C-502, and these Specifications. The depth of bury will generally be 5 feet; and as required to accommodate site conditions. Nozzle threads shall be American National Standard. The hydrant isolation valve shall be attached to the tee at the main and all of the piping shall be restrained from the tee to the hydrant with flanged fittings, retaining glands (mega lugs, etc.) or tie rods as approved by the City Engineer. Hydrants shall be factory painted or may be painted by the contractor using a high quality industrial enamel high intensity red paint above the ground line; spray can paint will not be allowed.

B. Manufacturer, "Model": Waterous, "Pacer" or Mueller, "Centurion"

C. Base Block. Solid precast concrete pier block having nominal dimensions of 8-inch thickness by 15-inch square base.

D. Drain Rock. Washed 1-1/2 inch crushed rock or graded river gravel free of organic matter, sand, loam, clay, and other small particles that will tend to restrict water flow through the gravel.

E. Concrete for Thrust Blocking. Follow ITD Section 509.

F. Thrust Ties. 3/4 inch diameter steel rods and Duc-Lugs as manufactured by Stellar Corporation, Columbus, Ohio, or approved equal. Rods shall have rust resistant protective coating.

G. Auxiliary Gate Valve. See City Standard ES-21.

22.3 Workmanship

Construction and installation shall conform to the detail on the Plans and to provisions of Sections 11 and 12 of AWWA C-600, except where otherwise specified.

A. Location and Position. Locate as shown or directed so as to provide complete accessibility and minimize possibility of damage from vehicles or injury to pedestrians. A 3-foot clear space shall be provided and maintained around the circumference of the hydrant or as approved by the Engineer. Where hydrants are subject to impact by a motor vehicle, guard posts other approved means shall be provided as approved by the Engineer. Improperly located hydrants shall be disconnected and relocated, at the Contractor's expense.

When placed behind the curb, set hydrant barrel so that the face of the pumper or hose nozzle cap will be 2 feet from the back of the curb. When set in lawn space between curb

and sidewalk, or between sidewalk and property line, let no portion of the hydrant or nozzle cap be within 12 inches of the sidewalk.

Set all hydrants plumb and nozzles parallel with, or at right angles to the curb, with the pumper nozzle facing the curb. Set hydrants so that safety flange is a minimum of 3 inches and maximum of 6 inches above finished ground or sidewalk level to clear bolts and nuts, and as directed.

B. Excavation. Do not carry below sub-base grade. Replace over-excavated areas with gravel, and hand tamp to provide firm foundation.

C. Base Block. Place on firm level sub-base to assure uniform support.

D. Installation of Hydrants. Place hydrant carefully on base block to prevent the base block from breaking. After hydrant is in place and connected to the pipeline, place temporary blocks to maintain the hydrant in a plumb position during subsequent work.

E. Drain Rock. Place gravel around base block and hydrant bottom after hydrant has been blocked in place. Drain gravel shall be not less than 6 inches above hydrant drain opening. Do not connect drainage system to sewer.

F. Concrete Thrust Blocking. Place after hydrant is blocked in its final position and hydrant is joined to pipe. Concrete thrust block shall have a minimum of 4 square feet of bearing area against undisturbed earth. Restraint devices such as flanged fitting, mega lugs, or tie rods may be used in lieu of thrust blocks if approved by the City Engineer.

G. Bury Depth and Thrust Ties. The ground surface around fire hydrants shall be as follows:

1. Behind the hydrant: The ground surface shall be a minimum of 4.5 feet above the hydrant base (as measured from 'level') for a distance of at least 10 feet behind the back of the hydrant. The City Engineer may approve a lesser bury requirement if thrust ties consisting of two ¾ inch coated steel tie rods connecting the hydrant to the valve and the main are utilized. All earthen fill behind hydrants for a minimum distance of 10 feet shall be compacted full depth to a minimum of 95% of AASHTO T99 proctor value.
2. Sides of the hydrant: The ground surface shall be a minimum of 4.5 feet above the hydrant base (as measured from 'level') for a distance of at least 6 feet from the centerline of the hydrant barrel. All earthen fill at the sides of the hydrant for a minimum distance of 6 feet shall be compacted full depth to a minimum of 95% of AASHTO T99 proctor value.
3. Front of the hydrant (towards the main): 4.0 foot minimum cover over the hydrant lateral pipe shall be maintained – as shown on the City of Moscow Standard Construction Drawings.

Payment for existing fire hydrant removal will be made at the unit price stated in the Contractor's bid proposal for each hydrant removed, as covered herein and on the plans.

H. Existing Fire Hydrant Removal. Remove fire hydrants on existing city mains as shown on the plans and as directed by the Engineer. The hydrants shall remain the property of the City of Moscow and shall be stockpiled, for the City, at a location to be determined. Care shall be taken so as not to damage the hydrants during removal, transporting, or stockpiling.

22.4 Payment

Payment for fire hydrants furnished and installed will be by unit price per each. Payment for fire hydrants shall constitute full compensation for all work specified under this section, and shall include the auxiliary gate valve and connecting pipe from the main line to the valve, and all trench excavation and backfill from the main to the hydrant.

Payment for existing fire hydrant removal will be made at the per each unit price.

ES-23. STORM AND SANITARY CONNECTIONS

23.1 Materials

A. Sewer house connections, where required on the plans or ordered by the Engineer, shall be a minimum of four (4) inch diameter pipe. The pipe shall conform to Specification ES-20.2.

B. Pipe zone material, unless otherwise specified, shall be three quarter-inch minus (3/4"-) pea gravel, crushed rock, pea gravel, or clean sand.

23.2 Workmanship

A. The sewer house connections shall be branched from the main sewer line by a Y branch on new mains; by a ROMAC style "CB' saddle on existing sewer mains. Branches shall be placed where indicated on the plans or as ordered by the Engineer, and shall be installed, at a point, above the centerline of the sanitary sewer main.

B. ROMAC style "CB" saddles shall be furnished and installed by the City and paid for by the contractor.

C. Sanitary sewer services shall not be connected to manholes.

D. Maximum deflection permissible with any one fitting shall not exceed 45 degrees and shall be accomplished with long-radius curves or bends. Short-radius elbows or curves will not be permitted except by approval of the Engineer.

E. Provide ends of all sewer house connection lines with standard watertight plugs, suitably braced to prevent blowoff during internal hydrostatic or air testing. With all plugs in place, test the sanitary sewer lines in accordance with ES-20.6.

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F. After the line has been tested by the Contractor and accepted by the Engineer, the Contractor shall furnish and install an approved marker, as per City of Moscow Standard Drawings, to identify the ends of the sewer stubs. The marker shall be wrapped with detectable sewer tape.

G. Conform to applicable portions of Section ES-19 and Section ES-20.2.

H. Backfill the pipe zone with granular pipe zone material, hand-placed simultaneously on both sides of the pipe for the full trench width and hand-tamped with approved tamping bars supplemented by 'walking in' and slicing with a shovel.

I. Backfill, above the pipe zone, shall conform to applicable portions of Section ES-19. Do not backfill sewer house connection pipe until inspected and approved by the Engineer.

J. All denuded areas shall be fertilized, re-sown with grass seed and covered with mulch as specified in Sections ES-27 and ES-28.

K. Install as per the Standard Construction Drawings.

L. Separation of storm and sanitary sewer service laterals from water mains and water service lines shall conform to the requirements of Idaho Drinking Water Standards.

23.3 Basis of Payment

A. Trench excavation and backfill, required under this item, will be paid for as incidental to the price per linear foot of pipe stated in the Contractor's bid proposal. Payment for that item shall constitute full compensation for all work connected with excavation and backfill.

C. Sewer house connection pipe, in place, will be paid for on the unit price per linear foot for the appropriate size of pipe stated in the Contractor's bid proposal. Payment for this item shall constitute full compensation for all materials and work required to install the sewer house connection pipe, complete, including trench excavation and backfill. The length of the house connection will be based on the total length of pipe installed, including all fittings, measured along the pipe center line.

ES-24. STREET / ALLEY CUT REPAIR

All excavations in to existing City street paving shall be repaired in accordance with the City's adopted STREET / ALLEY CUT REPAIR policy and as per Standard Construction Drawing entitled STREET /ALLEY CUT REPAIR.

ES-25. EROSION AND SEDIMENT CONTROL

All construction in the City involving earthwork shall comply with all of the requirements of City Code Section 7-1-4 pertaining to Erosion and Sediment Control and the City of Moscow EROSION AND SEDIMENT CONTROL STANDARDS adopted by resolution.

The Contractor shall implement appropriate erosion control eliminating sediment transport to City infra-structure and private property. The Contractor shall pay all costs associated with sediment removal from City infra-structure, private property or environmental remediation.

All sediment control devices shall be installed prior to any ground disturbing activity.

ES-26. STORMWATER RUNOFF CONTROL

All construction and development activity in the City shall comply with all of the requirements of City Code Section 5-15 STORMWATER RUNOFF CONTROL and including Moscow STORMWATER RUNOFF CONTROL STANDARDS adopted by resolution.

ES-27. IMPORTED TOPSOIL

27.1 General

Imported topsoil shall possess friability and a high degree of fertility. It shall be free of clods, roots, gravel and other inert material. It shall be free of quack grass, horsetail and other noxious vegetation and seed. Should such regenerative material be present in the soil, it shall be the responsibility of the Contractor to remove all such growth, both surface and root, which may appear in the planting within one year following acceptance of the job at their own expense and in a manner satisfactory to the Owner.

27.2 Payment

Payment for furnishing and placing imported topsoil shall be paid according to the unit price bid on the Contractor's bid proposal form or as noted as set forth in the Contract documents.

ES-28. SEEDING

28.1 Seed

Seed furnished shall be labeled; true as to variety; noxious weed-free; and meet all purity, germination specifications, and standards of the Federal Seed Act and Idaho State Seed Laws. The variety shall be as required to best satisfy the particular application - as approved by the City Engineer.

28.2 Application

Seed all cut and fill slopes and all other denuded areas where any earthwork has occurred. Seeding shall be done in accordance with Section 621 of the latest edition of the Idaho Transportation Department Standard Specifications for Highway Construction, including all amendments thereto.

28.3 Fertilizer

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Fertilizer shall be commercial grade and used in the seeding application in accordance with Section 621 of the latest edition of the Idaho Transportation Department Standard Specifications for Highway Construction, including all amendments thereto.

28.4 Mulch

Mulch shall be used in the seeding operation and shall consist of furnishing and placing mulch in accordance with Section 621 of the latest edition of the Idaho Transportation Department Standard Specifications for Highway Construction, including all amendments thereto.

28.5 Seedbed Preparation

Preparing the surface area to be seeded is part of the seeding operation and shall be done in accordance with Section 621 of the latest edition of the Idaho Transportation Department Standard Specifications for Highway Construction, including all amendments thereto.

28.6 Payment

Seeding will be paid for as allowed and described in the project specific contract documents; which may include, but not limited to, the following methods of payment: unit price per unit area; lump sum amount; incidental to other item unit prices; included in a project lump sum amount.

ES-29. TREE TRIMMING

Any tree, within the construction area, whose branches, trunk or roots must be removed in order to complete the work, should be trimmed, as directed by the Engineer. All costs for such trimming shall be noted as set forth in the Contract documents. **ALL TREE TRIMMING SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE COMMUNITY FORESTRY ORDINANCE**.

ES-30. INSPECTION

Work performed under this contract shall be inspected at various stages of progress. These inspections include, but shall not be limited to the following:

A. After storm sewer lines, sanitary sewer lines, perforated drain lines and their structures are in place, but before any backfilling is started.

B. Prior to and during the placement of all concrete. This inspection shall be requested when the forms are in place and ready to receive the concrete.

C. After the street has been excavated and compacted, but before any crushed rock is placed.

D. During the application and processing of the crushed rock base and after the crushed rock base has been placed and compacted, but before the prime coat is applied.

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E. After valve boxes, catch basins, manholes and monuments have been adjusted to the proper elevation.

F. Prior to and during the placement of prime coat and tack coat.

G. Prior to and during the placement of all superpave hot mix asphalt pavement.

H. At the completion of the job, after all cleanup, backfilling and all other work is done and job is ready for final acceptance.

It shall be the responsibility of the Contractor to notify the Engineer, or their representative, when the various phases of the project are ready for inspection.

Request for inspection may be verbal but shall be given in sufficient time to allow the Engineer, or their representative, to arrange to be present as required. Failure to notify the Engineer, or their representative, of the inspections shall be sufficient ground to reject the uninspected work and cause its immediate removal.

All discrepancies, indicated by the inspector, shall be corrected by the Contractor and re-inspected before the next phase of operation is started. No claim shall be made for delays caused by correction of work found unacceptable to the inspector.

ES-31. WORKMANSHIP AND CLEAN UP

It is the intent and purpose of these Specifications and Plans to obtain good workmanship throughout with the completed work complying with the said Specifications and Plans and in full working order upon completion. Work will not be accepted until this result is obtained.

All debris or rubbish caused by the contractor's operations shall be removed and the areas occupied during such operation shall be left in a neat and presentable condition.

Any damage to private property shall be repaired, replaced in kind, as approved by the City Engineer or the Owner compensated as required by the General Specifications.

Upon the satisfactory completion of all work embraced in the contract and specifications, including the cleanup, together with full compliance with the requirements of the General Specifications the Engineer will, within fifteen (15) days after such completion and compliance, issue a certificate of completion to the Owner with two (2) copies to the Contractor.

ES-32. MOBILIZATION

This item shall consist of preparatory work and operations, including but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of offices, buildings and other facilities necessary for the work on the project; for premiums on bond and insurance for the project; for all other work and operations which must be performed or costs incurred before beginning production work on the various contract items.

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Mobilization cost for subcontracted work shall be considered to be included in the prices bid by the prime Contractor.

The amounts to be allowed for mobilization in the partial payment to be made under the contract will be made as follows:

1. Sixty percent of the amount bid for mobilization will be paid on the first monthly progress estimate.
2. Forty percent of the amount bid for mobilization will be paid on the second monthly estimate providing that the contractor has initiated productive work on the project.

Mobilization will be measured and paid for by the Lump Sum as shown on the Contractor's Proposal

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SPECIAL PROVISIONS

SCOPE

Scope of project includes installing 5-foot-wide and 6-foot-wide sidewalks, curb, gutter, ADA compliant pedestrian ramps, rapid flashing beacon, and minor stormwater improvements along the following routes: Mountain View – From existing sidewalk approximately 350 feet North of E White Ave to Joseph St., Mountain View – F St. to Existing Sidewalk approximately 240 feet West of Slonaker Dr., Northeast corner of Blaine St. and Harold St. intersection, and Harold St. – From existing sidewalk approximately 370 feet west of Mountain View to Mountain View.

GENERAL

All labor, materials, equipment, traffic control, and incidentals necessary for the completion of the work, as herein described in these specifications and as shown on the plans, shall be furnished by the Contractor. All work performed under this contract shall be completed in strict accordance with these SPECIAL PROVISIONS, ENGINEERING SPECIFICATIONS, CONTRACT PLANS, and the City of Moscow STANDARD CONSTRUCTION SPECIFICATIONS and DRAWINGS (**unless herein modified**). These SPECIAL PROVISIONS, the SCOPE OF WORK DESCRIPTION, and the CONTRACT PLANS have precedence over the City standards and Standard Drawings where not in agreement. In case of discrepancies in specifications, the City of Moscow standards and requirements take precedence.

Traffic control must be in place prior to work commencing. Traffic control shall be in place any time a vehicle, piece of equipment or stockpile is in the roadway. The Contractor shall make no changes or modifications to the traffic control without prior approval from the Streets Supervisor or the Engineer.

It is the intent and purpose of these specifications and plans to obtain good workmanship throughout, with all work complying with these specifications. The project will not be considered substantially complete until all requirements of these specifications have been completed to the satisfaction of the Engineer.

It shall be the responsibility of the Contractor to notify the Engineer to request an inspection of the base material prior to beginning any paving or concrete operations. Failure to notify the Engineer shall be sufficient grounds to reject all uninspected work and cause its immediate removal. All discrepancies indicated by the Engineer shall be corrected by the Contractor, re-inspected and approved by the Engineer prior to acceptance of work and prior to payment. No claim shall be made for delays or compensation caused by correction of work found unacceptable by the Engineer, including noncompliance with ADA requirements.

All debris or rubbish generated by the Contractor's operations shall be removed and the areas occupied during such operation shall be left in a neat appearing condition. Any property, public or private, damaged by the Contractor shall be repaired to its original condition at the expense of the Contractor and approved by the Engineer.

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All lawn areas damaged by the Contractor shall be repaired to the satisfaction of the Engineer. This work may include grading and sodding, as required. Any tree, within the construction area, whose branches, trunk or roots must be removed in order to complete the work, should be trimmed, as directed by the Engineer. All costs for such trimming shall be noted as set forth in the Contract documents. All tree trimmings shall conform to the applicable sections of the community forestry ordinance.

Curbs and sidewalk damaged by the Contractor during this project shall be replaced by the Contractor and constructed to ES-13 and ES-14 of the City's Standard Construction Specifications, respectively.

Items referred to on the project plans as "found pins" or "monuments" are land net corner or property corner monuments and shall be retained and protected until such time as the Engineer approves their removal. In some cases, the Contractor may be required to work around monuments. Removal of monuments not approved by the Engineer shall be replaced by a professional land surveyor at the expense of the Contractor.

Construction items that are not explicitly covered in these written specifications but are required to complete a functioning project shall not be misconstrued by the Contractor as not being a part of the scope of the work covered by the contract. Those items that are not specifically covered in these specifications, but are required by the CONTRACT PLANS, shall be constructed in accordance with the construction industry's highest standards.

The Contractor shall bring to the Engineer's attention any problems associated with any part of the design and/or construction of this project – as a consequence of design error, construction error, site conditions, or any other unanticipated construction variable. The Contractor and the Engineer will then jointly work out a solution to the problem.

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SPECIAL PROVISIONS

IDAHO PROJECT NO. A023(902) & A023(903)

NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS Latah County

For the work to add ADA compliant sidewalk, pedestrian ramps, RRFB crossing systems, asphalt road to create a constant roadway width, and guardrail.

The following special provisions and all addenda issued supplement or modify the 2023 Idaho Transportation Department Standard Specifications for Highway Construction: 2024 Supplementals, 2020 Quality Assurance (QA) Manual (10/19), 2025 Buy America Insert (10/1/2025), 2023 Quality Assurance Special Provision for State Acceptance (12/07/2023), 2025 Special Provision for 405 Superpave Hot Mix Asphalt (11/17/2025), April 2024 Standard Drawings, Title VI Special Provisions; FHWA-1273 Federal Aid Required Contract Provisions, General Wage Decision ID250082, City of Moscow Standard Specifications, City of Moscow Standard Drawings.

SOURCE IDENTIFICATION

Designated sources. Designated source(s) are not identified for this contract/project.

Contractor provided sources. Provide an approved source(s) for all materials to be embanked or processed for placement.

Cost. Assume all costs incurred in obtaining approvals for use of source(s).

CONTRACT TIME AND LIQUIDATED DAMAGES

The project working window is 60 days. This work shall start no earlier than May 18, 2026, and shall be substantially completed no later than August 14, 2026.

Once started, work must continuously progress until completion. Return traffic through the work zone to normal operations during any planned or unplanned work stoppage lasting longer than 3 working days.

The amount of liquidated damages for failure to complete the work on time can be found in section GC-13 "Time of Completion/Liquidated Damages".

Liquidated damages provision does not waive the City's right to seek other remedies for a breach of contract by the awarded Contractor.

CONTRACTOR NOTES

DBE PROGRAM REQUIREMENTS **04/23**

The contractor must comply with the DBE program requirement of **0%** or percentage approved on the ITD-2396 DBE Commitments form (required in the contract award process). This % becomes contractual and failure to comply is a **Breach of Contract**.

Whenever the Engineer determines, after investigating and obtaining evidence the Contractor has not complied with the DBE program requirement, the Engineer will take corrective action. Refer to the Idaho Transportation Department's Standard Specifications for Highway Construction, Section 110, Civil Rights.

The Contractor, sub recipient, or subcontractor will not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor will carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the Contractor to

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carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate (e.g., withholding monthly progress payments, assessing sanctions, liquidated damages, disqualifying the contractor from future bidding as non-responsible).

For additional DBE Program information see the Idaho Transportation Department's DBE program requirements located at: *https://apps.itd.idaho.gov/apps/ocr/ocrDBEPROGRAM.aspx*

ALL ROADWAY USERS TEMPORARY TRAFFIC CONTROL PLANS
All Traffic Control Plan and implementation requirements and considerations must be made for all roadway users. This includes, but is not limited to any vehicular, pedestrian, bicycle, and/or equestrian traffic. Implemented pedestrian traffic control features will be compensated through the project.

AMERICANS WITH DISABILITIES ACT (ADA)
The curb ramps to be constructed with this project must meet all requirements of ADA as defined by the ADA Accessibility Guidelines (ADAAG), Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG), ITD Standards, City of Moscow Standards, as shown on the plans, and as directed. Curb ramp minimum and maximum dimensions and slopes are absolute and no deviation below minimum and maximum dimensions and slopes is allowed.

Curb ramps failing to meet all requirements of ADA shall be removed and replaced with curb ramps meeting all requirements of ADA at no additional cost to the Project.

ASPHALT AND CONCRETE SAW CUTTING
The City considers saw cutting incidental, regardless of asphalt or concrete thickness, and the work included in the contract unit prices for other contract pay items. All concrete and asphalt shall be sawcut when matching back to existing asphalt or concrete.

CLEARING OF TREES AND BRUSH
Clear all trees and brush including their stumps from within the project limits. Merchantable timber in the clearing area, not removed from the right of way before the start of construction, is the Contractor's property. Do not dispose of materials by open burning. The City will allow materials and debris to be disposed of at locations off the project site and out of view from the project site. Obtain the property owner's written permission before placing the materials and debris. Submit copies of the agreements with property owners and comply with the requirements of 107.17.

Protect and preserve trees, shrubbery, grass, and other vegetative ground cover outside the construction area. The Contractor is responsible for damage resulting from the work. Take reasonable care to avoid damage by construction operations to streams adjacent to the project site.

COMMUNICATION PROTOCOL DURING CONSTRUCTION BIDDING
During the advertisement period, prospective Contractors/Bidders will address all questions to the Design Construction Engineer, Justin Shaw, P.E. After Bid Opening and through Contract Award, all communications between the City and the Contractor/Bidder, and any unsuccessful bidders, will be through the Design Construction Engineer. The City will be unable to share any information related to bid submittals or pending decisions during this time. After Contract Award, all communications between the City and the Contractor will be through the Design Construction Engineer.

CONSULTANT CONFLICT OF INTEREST
The Consultant and sub-consultants, as the designers of this project, agree that no one in their firms will perform any services for the contractor on the construction of this project.

The following Consultants worked on the design of this project:

HMH Engineering

COORDINATION WITH OTHERS

The Contractor will maintain access to all properties adjacent to the maximum extent feasible. If temporary restriction of access is necessary, coordinate the access restriction with the property owner at least 48 hours prior to any restrictions.

No less than 48 hours before implementing traffic restricting measures, provide the following entities with specific traffic control methods and dates for all such controls that will be in use:

1. Emergency response agencies: Police agencies, local fire districts, ambulance services, etc.
2. The City of Moscow

Provide one telephone number to Emergency Services with which they will be able to contact the Contractors on-site project supervisor at any time during construction.

DEPARTMENT STANDARD DRAWINGS

The applicable City and Idaho Transportation Department standard drawings supplement the contract plans and are incorporated into the contract by reference. The City of Moscow Standard Drawings identified for this project are available on the City's website, https://www.ci.moscow.id.us/1107/Construction-Standards. The Department Standard Drawings identified for this project are available on the Department Website, http://apps.itd.idaho.gov/apps/StandardDrawings/StandardDrawings.htm. The City and Department will not provide printed or electronic file copies of the Standard Drawings to bidders prior to contract award or to the Contractor after contract award. Each bidder has sole responsibility to obtain the applicable City and Department Standard Drawings, and to provide a bid in accordance with the Standard Drawing revision specified on the first page of this contract.

EMERGENCY SERVICES NOTIFICATION

No less than 48 hours before implementing any traffic restricting measures, provide in writing the following entities with specific traffic control methods and dates all such controls will be in use, along with one phone number with which they will be able to contact the on-site project supervisor at any time during construction:

1. Emergency response agencies: Idaho State Patrol, Latah County Sheriff, Moscow Police Department, Moscow Volunteer Fire Department, Moscow Volunteer Fire Department Ambulances, PACT EMS, etc.

Provide the Engineer with copies of communications with the above entities.

EMPLOYMENT AGENCY

To find the nearest employment office, visit https://www.labor.idaho.gov/dnn/Local-Office-Directory.

ENVIRONMENTAL REQUIREMENT-MIGRATORY BIRD PROTECTION ACT COMPLIANCE

Work Window Restriction:

No clearing or removal of vegetation and trees is allowed between September 15th and April 7th unless work is approved by the Engineer. To request approval, submit a survey that verifies the absence of Migratory Birds. The survey shall be:

a. Completed immediately prior to ground disturbing, bridge removal or tree removal

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activities.

b. Covers an area or work activity including a 50’ buffer.

Initial survey work is incidental to the contract.

ENVIRONMENTAL REQUIREMENT – POLLINATOR PROTECTION

Implement the following Best Management Practices to support pollinators and pollinator habitat along roadside corridors:

- Protect Existing Habitat: Protect existing stands of native vegetation. Ground disturbing activities will be limited only to those areas deemed necessary for the construction of the project. Disturbing existing areas of native vegetation purely for the convenience of the contractor is prohibited.
- Herbicide Use: Reduce the risk of herbicide exposure to pollinators by:
    - Eliminating or reducing herbicide exposure to pollinators by first utilizing non-chemical (manual) methods to eliminate noxious and undesirable weeds.
    - If herbicide use is necessary, spot treat specific weeds with selective herbicides that do not leave residuals in the soil.
    - Treat weeds before they flower, to avoid spraying when pollinators are present.
    - Avoid spray application if winds are above 10 mph.

ENVIRONMENTAL REQUIREMENT – (STORM WATER) POLLUTION PREVENTION PLAN LOW EROSIVITY WAIVER **LHTAC**

With engineer approval, a Low Erosivity Waiver (LEW) may be obtained for the project, in lieu of construction general permit coverage, if the total project disturbances are less than 5.0 acres and the Environmental Protection Agency calculated rainfall erosivity R factor is less than 5.0. If approved, a pollution prevention plan (PPP) ITD-2788 form will be required. Include all LEW documentation in the PPP and retain on site.

If anticipated construction time is extended and the Rainfall Erosivity R factor will exceed 5.0 the project will no longer be eligible for a LEW. A SWPPP must be submitted for review and certification. When certified a Notice of Intent must be filed and construction general permit coverage obtained no less than 14 days prior to desired permit coverage.

For R value calculations see: https://lew.epa.gov/.

ESTIMATING BASIS

The unit weights in the estimating basis were determined from area history and past project experience. This information is provided for use by the designer in developing reasonable project quantities. The actual quantities will vary and are dependent on the Contractor provided materials source, crushing operation, and mix designs. The Contractor is responsible for determining actual unit weights based on the material produced and providing adequate materials for the project plus any losses due to stockpile operation, out of specification (rejected) materials, or other wastes.

FENCE REMOVAL

Before removing any fence, coordinate with the property owners as stated in 107.18 Fencing.

GENERAL WAGE DECISION

Upon written request 10 calendar days before the bid opening date, the Idaho Transportation Department will provide a missing job classification, wage rate, and fringe benefit rate as outlined on FHWA-1273 IV.1.b to all plan holders as addenda.

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HAZARDOUS MATERIALS SPILL PREVENTION/CONTINGENCY PLAN

Prepare a Hazardous Materials Spill Prevention/Contingency Plan prior to mobilization and submit it to the Engineer for approval. State the following in the plan:

- Contractor response to any unexpected finding of a hazardous material or release of a hazardous material to the environment.
- Contractor responds immediately to any hazardous materials finding or release.
- Names and phone numbers of all government or private agencies to be contacted.
- Construction and use of a designated fuel storage and equipment refueling area, in accordance with the Idaho Transportation Department Standard Drawing 212-15, Petroleum Storage Area. Any fueling must take place a minimum of 150 feet from live water or fuel over absorbent pads to assure protection from chemical spills.
- All Best Management Practices designed to prevent or contain hazardous materials spills.
- No separate payment will be made for containment devices.

IDAHO IMPLEMENTATION OF AASHTO MANUAL FOR ASSESSING SAFETY HARDWARE, 2ND EDITION (2016)

The following safety hardware must meet AASHTO 2016 MASH criteria, ITD's Standard Drawings, and if the hardware is a proprietary product it must be approved on ITD's Qualified Product List (QPL) for new permanent installations and full replacements:

- W-beam
- Cast-in-place concrete barriers
- W-beam tangent terminals and buried-in-backslope terminals
- W-beam flared terminals and terminals installed on a flare
- Crash cushions
- Transitions
- Permanently installed portable barriers
- Bridge rails
- Cable barriers
- Cable barrier terminals
- W-beam guardrail anchors

The following safety hardware may be MASH 2009/2016 or NCHRP 350 compliant for new permanent installations and full replacements:

- Double-sided or median terminals
- Sign supports
- All other breakaway hardware

For projects utilizing December 2018 Standard Drawings release or earlier, replace the 612 series sheets with the 612 series from the latest Standard Drawings release.

Temporary work zone devices (including portable barriers, truck- and trailer-mounted attenuators, portable changeable message signs (PCMS), temporary traffic signals, and camera trailers) manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

MAIL, PAPER BOXES AND SERVICE

Remove and reset existing mailboxes for temporary use during construction. The work to temporarily relocate the mail and paper boxes during construction is incidental to 203-125B. If any of the boxes are

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damaged by the Contractor replace at Contractor's expense. After the new mailboxes have been installed, return existing mailboxes to the property owners. Reattaching the newspaper box to the new mailbox post is considered incidental to Item 634-005A Mailbox.

Schedule operation to assure that access to mail and paper boxes within the project are maintained in a manner to assure uninterrupted daily mail and paper service. Contact the United States Post Office, Moscow at (208) 883-8464 or 1-800-Ask-USPS (275-8777) and Moscow-Pullman Daily News at their Headquarters: (208) 882-5561 or their Circulation Office: (208) 746-8742, before starting the mail and paper box removal.

MATERIALS MEMORANDUM N0. 17B

The Materials Memorandum No. 17B is a substitution for approved materials phase reports for the Local Highway Safety Improvement Program.

PAVEMENT MARKINGS

Longitudinal cross walk pavement markings shall be installed to avoid wheel paths.

PLANT CONTROL CHARTS

As noted in ITD Standard Specification Section 405.03, plant control charts will be a required submittal. These submittals must include mix design inputs, and actual aggregate and additive weights as recorded by automated, or staff recorded logs.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

The estimated project area of ground disturbance is approximately 1.6 acres. A pollution prevention plan (SWPPP) is required for this project due to the anticipated ground disturbance of more than 1 acre and/or lack the potential to discharge to Waters of the US.

If the Contractor's operations, including but not limited to staging, waste, or material source ground disturbances result in a disturbed area 1 acre or more and there is a potential connection to discharge to Waters of the US, an active IPDES permit (or NPDES permit if on Tribal land) and associated SWPPP will be required as specified in 107.17. All monetary and time impacts required to establish a SWPPP will be borne by the Contractor. A draft SWPPP must be submitted to the Engineer for approval before filing the Notice of Intent.

PROTECTION OF EXISTING UTILITIES AND ADJACENT PROPERTIES

It shall be the responsibility of the Contractor to protect all existing utilities, fences, fence posts, structures, pipes, drainage, and features on adjacent properties unless otherwise noted. Repair to the Owner's satisfaction, at no cost to the City, any such facilities damaged by construction operations. It is recommended that the Contractor take photos of proposed work zone areas and areas adjacent to the proposed work zone before construction begins to document the existing condition of said features to aid in case of disputes. The City considers this work incidental and the work included in the contract unit prices for other contract pay items.

ON PAGE 19, SUBSECTION 101.04 - DEFINITIONS

Delete the following under Working Day.

4. Days during December, January, and February.

ON PAGE 20, SUBSECTION 102.03 – EXAMINATION OF PLANS, SPECIFICATIONS, AND PROJECT

Delete the second paragraph and replace with the following:

Electronic design files will be provided, as available, upon request to the Engineer. The electronic design data is provided for the bidder's convenience and information and will not become part of the contract. All CADD files will be in Civil 3D format. Compatibility of CADD design files with non- Civil 3D software is not guaranteed and any use of such software with the provided electronic files is the sole responsibility of the Contractor. Additional work will not be performed by the Engineer to convert file types or generate files that are not available or incomplete.

The Contractor acknowledges the following:

1. All construction work must be completed per the Contract.
2. Such electronic CADD files were developed for the sole purpose of preparing drawings and are not intended nor represented to be suitable for use in construction.
3. Idaho Transportation Department, LHTAC, Sponsor, and design consultant make no warranty (expressed or implied) or assumes legal liability or responsibility for the accuracy, completeness, or usefulness of any electronic data provided.
4. The information shown on the electronic files may reflect data received from other sources (i.e. utilities, record drawings, etc.) and may not be the most current data. The electronic data may not reflect current conditions.
5. The Project Sponsor is the owner of the files. The design consultant retains ownership rights to the CADD files and grants the Contractor a nonexclusive, non-transferable license to use the documents.
6. Do not use the CADD files for any other project without the written consent of the design consultant.
7. Use of the documents is at the sole risk of the Contractor and without liability or legal exposure to the Department, LHTAC, Sponsor, and the design consultant, their employees, or sub-consultants.

The Contractor must defend, indemnify, and hold harmless the Department, LHTAC, and the design consultant, their employees, or sub-consultants from all claims, damages, losses, and expenses, including attorney's fees arising out of or resulting from the use of the CADD files. Providing electronic design data does not relieve the bidder from risks or of duty to make onsite project examinations and investigations, or other responsibilities.

Replace the first sentence of the 3rd paragraph with the following:

Immediately notify the City in writing of any errors or omissions on the plans and proposal forms or inconsistencies between these documents and the project site. Do not take advantage of errors or omissions in the contract documents.

ON PAGE 35, 105.02 – PLANS AND WORKING DRAWINGS
Add to the end of the third paragraph starting with "Submittals must…"

For products designed by the fabricator, all shop drawing sheets must stamped by an Engineer licensed in Idaho in addition to the cover sheet for the design calculations. When the shop drawings are for a product that is designed by the Engineer of Record, the shop drawings do not need to be stamped.

ON PAGE 36, SUBSECTION 105.04 – COORDINATION OF CONTRACT DOCUMENTS 4/24
Delete items 7 through 12 and add the following:

7. Buy America Insert
8. Quality Assurance (QA) Manual Supplementals
9. Standard Supplementals

10. Standard Specifications
11. Standard Drawings
12. QA Manual
13. Electronic Files (if specified as part of the contract)

ON PAGE 37, SUBSECTION 105.07 – UTILITY FACILITIES
Add the following to the end of the subsection:

The following utility companies have facilities within the project limits:

Avista Utilities
Randy Widman,
Office: (509) 336-6236
Cell: (208) 651-1717
Randy.widman@avistacorp.com

Avista has underground and overhead power within the work zone that require relocation and adjustment.

City of Moscow
Scott Bontrager
Engineering Manager
Office: (208) 883-7030
Cell: (509) 279-9456
sbontrager@ci.moscow.id.us

The City of Moscow has water meters, water valves, and a fire hydrant that require relocation and adjustment.

Ziply (formerly Frontier)
Italo D'Alessio, OSP Engineer
Office: (208) 882-0170
Cell: (425) 681-4983
Italo.Dalessio@ziply.com

Ziply has underground and overhead utilities within the work zone that require relocation and adjustment.

Retain and Protect existing facilities.

Request locates of buried utility facilities by contacting the Utility One-Call Center by calling 1-800-342-1585, e-mailing digline@digline.com or faxing 1-800-342-1586. It is the contractor's responsibility to verify locations including depths of all utilities identified in the plans or as identified in the field.

ON PAGE 28, SUBSECTION 104.01.B. – CONSTRUCTION PARTNERING
Delete the entire section.

ON PAGE 78 SUBSECTION 107.17 J – STORMWATER POLLUTION PREVENTION LHTAC
Delete the section and replace with the following:

"Each project will require one of the following:

1. A SWPPP ITD-2950 form as required by a CGP. A SWPPP is required when ground disturbance equals

or exceeds 1 or more acres and discharges to waters of the U.S.

a. Revise the draft SWPPP developed by the Department, consisting of plans sheets and a template narrative (using the ITD2950 form), included with the bid package.

b. Conduct inspections by a certified Water Pollution Control Manager (WPCM). Training requirements are posted on the Department's Environmental website under Stormwater Inspector Requirements.

c. Document the inspections using the ITD- 2802 form available online. Conduct inspections by a certified WPCM.

Submit the plan and plan revisions for approval. The Engineer may also require submittal of an electronic, editable version of the plan. Allow 15 calendar days for review, unless otherwise specified. Revise to address comments and resubmit. Adjustments in cost or time are not allowed for SWPPP approval. Once approved, LHTAC and Contractor will sign the plan. Obtain approval before commencing pollutant-generating activities. Provide the SWPPP upon request. Construction activities, construction support activities, or other pollutant-generating activities not covered under another discharge permit are not allowed beyond the project site without being included in the approved SWPPP.

ON PAGE 82 of 715, SUBSECTION 107.19 – SURVEY MONUMENT PRESERVATION 01/24
Under subsection 107.19.2, add the following after the first full sentence:

Research within the project limits in the MCPD for survey monuments within the work zone to determine the possible existence of survey monuments to preserve and protect or to be reestablished after construction. Document that this research has been completed.

ON PAGE 84 of 715, SUBSECTION 107.19 – SURVEY MONUMENT PRESERVATION 01/24
Under subsection 107.19.9.g., add the following at the end of the subsection:

The provisions of Section 107.08 will apply.

ON PAGE 87, SUBSECTION 108.01 – SUBLETTING OF CONTRACT LHTAC 05/23
Delete the second sentence and substitute the following:

If the Engineer consents to subletting a portion of the work, the Contractor will use its own organization to perform work amounting to at least 30 percent of the original contract amount.

ON PAGE 91, SUBSECTION 108.05 – LIMITATION OF OPERATIONS
Add the following to the end of the second paragraph:

unless approved by the Engineer.

ON PAGE 112, SUBSECTION 109.05 – PARTIAL PAYMENTS LHTAC
In the second sentence of the first paragraph delete "at least"

Delete the 3rd sentence in the first paragraph.

ON PAGE 134, SUBSECTION 203.01 – DESCRIPTION
Replace "old pavements," with "bituminous surface".

Add the following to part A after the first paragraph:

Removal of bituminous surface as an average depth of 0.25 feet.

ON PAGE 137, SUBSECTION 203.05 – BASIS OF PAYMENT
Add the following:

All required pavement saw cutting at existing pavement match locations will be considered incidental to bituminous surface removal.

All abandon pipe and fill with CDF material at locations notated on plans will be considered incidental to manhole removal.

ON PAGE 173, SUBSECTION 213.02 – MATERIALS
Delete from table 213.02-1, sieve size 1 in.

ON PAGE 181, SUBSECTION 251.04 – METHOD OF MEASUREMENT **LHTAC**
Delete the section and substitute the following:

The Engineer will not measure the MBTA work.

ON PAGE 181, SUBSECTION 251.05 – BASIS OF PAYMENT **LHTAC**
Delete the section and substitute the following:

251.05 Basis of Payment.

The Department considers the Migratory Bird Treaty Act as incidental to the contract.

ON PAGE 197, SUBSECTION 401.04 – METHOD OF MEASUREMENT **LHTAC**
Replace the section with:

Tack coat is incidental and included in the contract unit price for the Superpave HMA contract pay item.

ON PAGE 197, SUBSECTION 401.05 – BASIS OF PAYMENT **LHTAC**
Delete the first paragraph and pay item.

ON PAGE 327, SUBSECTION 502.03 – CONSTRUCTION REQUIRMENTS
Add the following after the last paragraph:

K. Rebar Reinforcement.

Use rebar reinforcement per City of Moscow Standards and as directed. Reinforcement shall be No. 4 rebar at one (1) foot centers each way centered in slab.

ON PAGE 329, SUBSECTION 502.05 – BASIS OF PAYMENT
Add the following after the last paragraph:

8. Rebar reinforcement and truncated domes for pedestrian ramp are incidental and included in the unit price for the CONC CL 40 AF contract pay item.

ON PAGE 479, SUBSECTION 605.01 – DESCRIPTION
Replace the first paragraph with the following:

Construct sewers and storm sewers with manholes, catch basins, inlets, drywells, connections, water meters, and other appurtenances. Adjust and repair manhole, valve, and water meter covers.

ON PAGE 479, SUBSECTION 605.02 – MATERIALS
Add the following after the last paragraph:

Water meter to be provided by the City of Moscow. Water meter frame and cover to be provided by Contractor in accordance with MSCD 400.101-103, if existing frame and cover is deemed insufficient.

ON PAGE 480, SUBSECTION 605.03 – CONSTRUCTION REQUIREMENTS
Add the following after the last paragraph in section **A. Sewers and Storm Sewers**

Water mains and non-potable water mains (sewer, storm drain, and irrigation) shall have a minimum horizontal separation of ten (10) feet and a minimum vertical separation of eighteen (18) inches. Water services and non-potable services shall have a minimum horizontal separation of six (6) feet. Refer to IDAPA 58.01.08.542.07 Separation of Potable, Non-Potable, and Raw Water Pipelines.

Storm sewer pipe shall be constructed of water class pipe if eighteen (18) inches of vertical separation from water mains is not achievable.

Replace section **B. Manholes, Valves, Catch Basins, Inlets, and Drywells** with the following:

B. Manholes, Valves, Water Meters, Catch Basins, Inlets, and Drywells

Construct manholes, valve frames and covers, water meter frames and covers, catch basins, inlets, and drywells.

Adjust existing manhole to the finished pavement grade. Adjust valve frame and cover to match finish grade and horizontally to match location indicated in plans or as indicated by Engineer. Coordinate with the utility owner 5 business days before making adjustments. Replace damaged manhole or valve frames and covers.

Move water meters outside of the sidewalk or as directed by the Engineer. After existing concrete or topsoil is removed, the existing water meter frame and cover shall be excavated around in a sufficient manner to allow for the required adjustment in grade. The adjustment of water meter boxes and valve boxes shall be made without adjustments in grade on the water line or service lines. If in the opinion of the Engineer an adjustment in the service line or system line is required, the Engineer may direct the Contractor to do so under this bid item or may be performed by City of Moscow personnel. If trench subgrade is of poor quality, the Engineer or City may require meter box blocking. When water meter is located in the green strip, a two inch (2”) minimum diameter conduit shall be installed extending two feet (2’) from the front of the sidewalk to two feet (2’) behind the sidewalk. Water meter cannot be located within concrete (i.e., driveway, sidewalk, pathway, etc…). Meter placement and elevation for “infill” development shall be on a case by case basis and based on existing infrastructure locations. Water meter installation, frame and cover construction and placement to be in accordance with MSCD-400.101-400.103.

Contractor is responsible calling in Utility Locates at least 48 hours prior to moving the water meters. Coordinate with both the City of Moscow Water Department and the individual homeowner 5 business days before making adjustments. Protect existing water meter, to be retained as possession of the City of Moscow. Replace damaged water meter frame and cover.

Install asphalt around manhole, valve, and water meter frames following City of Moscow Standard Drawings. Use Idaho IR 87 to test surface smoothness.

ON PAGE 481, SUBSECTION 605.05 – BASIS OF PAYMENT
Add the following to the end of the last paragraph:

If storm sewer pipe is constructed of water class pipe, the constructed water class pipe is paid under the storm sewer pipe item of equivalent size.

ON PAGE 495, SUBSECTION 614.01 – DESCRIPTION
Add the following after the last paragraph.

For this contract, a driveway is considered the portion beginning at the back of the driveway entrance and ending at the specified replacement length. Driveways vary in replacement length, slope, and material as shown in plans.

ON PAGE 495, SUBSECTION 614.02 – MATERIALS
Add the following after the last paragraph.

Sidewalks, Driveways and Curb Ramps: All concrete sidewalk shall conform to the City of Moscow Standard Drawings, Contract Plans, and Specifications. Concrete for sidewalks shall conform to the requirements of ES-11 CONCRETE and ES-12 CONCRETE CONSTRUCTION REQUIREMENTS of the City of Moscow Standard Construction Specifications.

Sidewalk, Driveways and Curb Ramps shall be constructed on a compacted base of ¾" minus crushed rock following Section 303; base aggregate shall be placed on compacted, non-pumping subgrade. The crushed rock shall have the following gradation:

Sieve Size	Percent Passing
1 inch	100
3/4 inch	90 – 100
No. 4	40 – 65
No. 8	30 – 50
No. 200	3 – 9

The sand equivalent shall not be less than 30 if 5 percent or more of the material passes the No. 200 sieve. Sand equivalent will not be required if less than 5 percent passes the No. 200 sieve.

The total thickness of the gravel base shall be at least six (6) inches, compacted, in-place.

The gravel base shall be graded, rolled, tamped, or otherwise compacted to ninety-five (95) percent of the maximum density determined in accordance with AASHTO T-99.

The gravel base shall be thoroughly sprinkled with water before the concrete is placed.

Driveway material may be asphalt, concrete or gravel (existing dirt driveways shall be replaced with gravel at the specified length).

Existing asphalt driveways shall be sawcut at the extent of the replacement length, existing asphalt and a minimum 2-inches of base material shall be removed. A minimum of 2 inches of ¾" Aggregate Type B for Base and compacted to 95% maximum dry density based on ASTM D1557. 3 inches of Commercial HMA shall be placed in accordance with ITD 2023 Standard Specifications for Highway Construction and City of Moscow 2024 Standard Specifications. Tack coat and joint seal at the saw cut.

Existing concrete driveway shall be sawcut at the extent of the replacement length, existing concrete and 2 inches of base material shall be removed. A minimum of 2 inches of ¾" Aggregate Type B for Base shall be replaced and compacted to 95% maximum dry density based on ASTM D1557. 6 inches of Class 40B Concrete shall be placed in accordance with ITD 2023 Standard Specifications for Highway Construction and City of Moscow 2024 Standard Specifications.

Existing gravel driveways shall have a minimum of 2 inches of existing material removed. A minimum of 4 inches of ¾" Aggregate Type B for Base shall be replaced and compacted to 95% maximum dry density based on ASTM D1557.

In all instances, the maximum ¾" Aggregate Type B for Base depth shall be determined as a field fit to create a smooth and constant slope from the back of the proposed driveway entrance to extent of the replacement length.

Curb Ramps require detectable warning "Truncated Dome" panels. Detectable warning "Truncated Dome" panels shall be cast iron and placed flush with the back of curb or as close as possible when prohibited by curb return radii.

ON PAGE 495, SUBSECTION 614.03 – CONSTRUCTION REQUIREMENTS
Add the following after the last paragraph.

A. Dimensions. Sidewalk, Driveway Approach, and Curb Ramp width, thickness, slopes, and reinforcement shall be as shown on the City of Moscow Standard Drawings. Sidewalk shall have a cross slope of between 1% and 2%, unless otherwise approved by the Engineer.

   Driveways will be replaced up to the replacement length in a manner that transitions the proposed driveway entrance smoothly to the existing undisturbed driveway. Existing driveways may have a positive or negative grade. Removal and replacement of base material will vary based on each driveway configuration. Driveways shall include replacing or matching existing concrete driveways as shown on Plans.

B. Forms. Side forms shall be rigid and shall bear full length on the compacted gravel base and shall be the full depth of the finished walk. Forms shall be well staked, braced or otherwise rigidly held to true line and grade and shall rest upon stakes driven into the ground at intervals sufficient to provide rigid support. If metal forms are used they shall be of a type satisfactory to the Engineer.

C. Placing and Finishing Concrete. SLUMP SHALL NOT EXCEED FIVE (5) INCHES. The concrete shall be spread uniformly between the forms and thoroughly consolidated and leveled with an approved strike board. Expansion joints of premolded joint material one-half (1/2) inch thick or three-eighths (3/8) inch thick may be constructed through the sidewalk at intervals of twenty (20) feet. Expansion joints must also be located where new sidewalk meets existing concrete, unless otherwise approved by the Engineer. Where applicable, joints in sidewalks and curb shall coincide.

   After the concrete has been thoroughly consolidated and leveled it shall be bull floated to eliminate high and low spots and to embed large aggregate. The concrete shall then be allowed to harden properly before jointing, edging, and brooming is completed.

   Contraction joints shall be tooled into the concrete every five feet, shall be 3/8 inch minimum in depth, and shall be perpendicular to the direction of the walk. All joints shall then be edged with a 3/8-inch radius edger and the sidewalk edges shall be tooled with a one-half (1/2) inch radius edger.

   After edging and jointing has been completed the concrete shall be smoothed with wood or metal hand floats. The floated surface shall then be coarse broomed uniformly in a transverse direction with a fiber hair brush or an approved type.

   The placing and furnishing of all sidewalk shall be performed under the control of the Engineer, or his/her representative, and the tools shall meet with his/her approval.

   The contractor shall keep a person at the job site for a minimum of four hours following the concrete surface brooming operation for the purpose of both preventing and repairing any

damaged surfacing to the newly placed concrete. Concrete left unattended, if damaged or defaced shall be replaced at contractor expense.

D. Curing. Curing shall be performed by applying a sealing compound conforming to AASHTO M-148 Type I to the surface of the concrete immediately after it has set sufficiently to permit such application. Curing shall conform to Section ES-12.7, Curing Concrete of the City of Moscow Standard Construction Specifications.

   a. "Apply Type 2, Class B curing compound per ASTM C 309-03 at the rate of 1 gal/150 ft^2 immediately after surface finishing is complete. Apply water as soon as concrete is set enough to not be damaged. Keep concrete surface moist for five days minimum. Cotton mats, rugs, burlap or other cover may be used as a reservoir medium. Plastic sheeting is permitted only with other reservoir mediums. Other methods for curing to be approved by the Engineer. Protect in place concrete from temperatures below 35°F with insulation material for 7 days after placing. Replace freeze damaged concrete with no additional cost to the owner."

   b. Cold Weather Curing: "Before any concrete is placed, completely remove all ice, snow and frost. Furnish concrete that will have a temperature of at least 50°F and not more than 80°F at the time of placing. Do not place against any material whose temperature is 32°F or less.

      i. When necessary, in order to produce concrete of the specified temperature, heat either the mix water or the aggregates, or both, prior to batching. Heat in a manner which is not detrimental to the mix and does not prevent the entrainment of the required amount of air. Use methods that heat the materials uniformly. Do not heat aggregates directly by gas or oil flame or on sheet metal over fire. Do not heat either aggregates or water to over 150°F. If either are heated to over 100°F, mix together prior to the addition of the cement so that the cement does not come into contact with materials which are in excess of 100°F.

      ii. Protection of Concrete. Maintain the temperature of the concrete at a minimum of 50°F for 7 days or 70°F for 3 days after placement except when steam curing is used. When fly ash is used, increase the time to 10 days for 50°F and 5 days for 70°F. Where uniform surfaces of concrete such as decks are involved, maintain the temperature at the surface at the temperatures and times as determined above. Where water cure is required for concrete, prevent water from freezing during the curing period at all times.

         1. Concrete may be protected and cured under water provided that the temperature of the water does not fall below 35°F and at least 6 in. of water is maintained over the concrete for a minimum of 10 days. Block combustion heaters up off the surface of the concrete and vent to the outside of the enclosure. Do not exceed a temperature within the enclosure of 120°F when the concrete is protected by any means other than steam. For protection methods other than the use of steam, limit the maximum concrete temperature drop to 50°F throughout the first 24 hours after the end of protection. When steam is used in the protection of the concrete, conform to the methods and requirements elsewhere in this Section under Steam Curing.

         2. Furnish calibrated recording thermometers with the range of 0 to 212°F.

Temperatures will be taken with an accurate thermometer for the 7-day (or 3-day if maintained at 70°) period. The Contractor's inspection personnel should keep a record of the date, time, temperature of concrete as placed with location of temperature taken, outside air temperature and weather conditions (calm, windy, clear, and cloudy, etc.). The tester's name and temperature information gathered will be furnished to the Engineer. Take temperatures at least two (2) times per day. On small quantities of concrete used in minor structures and sign foundations, protect the concrete from freeze damage by covering the concrete with suitable blanketing materials per Engineer's approval. Maintain such protective covering for a minimum of 5 days. Use recording thermometers to show that concrete used in minor structures was not exposed to freezing temperatures.

iii. Hot Weather Limitations & Concreting: Do no exceed concrete temperature of 80°F at time of placement. When the combination of ambient air temperature, concrete temperature, humidity and wind is such that rapid evaporation of moisture from the concrete surface will take place, take measures to slow evaporation to tolerable limits. Such measures may include, but are not limited to, erecting sunshades or placing at night or early morning. Ice may be used as a part of the mixing water providing it has completely melted by the time mixing is completed. Limit the temperature of the surface to be covered by concrete to 90°F or less."

E. Backfill. After removal of the forms, the area behind the sidewalks shall be backfilled and compacted with at least sixteen (16) inches of topsoil level with the sidewalk and curb. Less than 16 inches of topsoil may be approved where new sidewalk is being constructed along older streets. The topsoil shall be raked or otherwise leveled, taking care to break up large dirt clods and remove large stones. All denuded areas shall be fertilized, resown with grass seed and covered with mulch as specified in the latest version of the City of Moscow Standard Construction Specifications.

ON PAGE 495, SUBSECTION 614.05 – BASIS OF PAYMENT
Delete and substitute the following:

The Department will pay for accepted quantities at the contract unit prices as follows:

Pay Item	**Pay Unit**
Sidewalk – City of Moscow	SY
Driveway Approach – City of Moscow	SY
Ped Ramp – City of Moscow	SY

The unit price per square yard shall include all materials, labor, equipment and other costs incidental to constructing concrete sidewalk, driveways and curb ramps as herein specified and as shown on the Plans and City of Moscow Standard Drawings.

¾" Aggregate Type B for Base for these items will be measured per ton, with the quantity included in the ¾" Aggregate Type B for Base. All ¾" Aggregate Type B for Base removal, placement, and compaction is considered incidental to ¾" Aggregate Type B for Base. ¾" Aggregate Type B for Base shall follow Section 303.

Driveway curb removal and replacement is incidental to Driveway Approach. Use same material as Driveway Approach. Additional testing is not required.

ON PAGE 497, SUBSECTION 615.02 – MATERIALS
Add the following after the last paragraph.

Curb and Gutter: All concrete curb shall conform to the City of Moscow Standard Drawings, the Plans, and Specifications. Concrete for curbs shall conform to the requirements of ES-11 CONCRETE and ES-12 CONCRETE CONSTRUCTION REQUIREMENTS of these City of Moscow Standard Construction Specifications.

ON PAGE 497, SUBSECTION 615.03 – CONSTRUCTION REQUIREMENTS
Add the following after the last paragraph.

A. Forms: Curb forms shall be set to line and grade as designated; securely staked, and so constructed as to result in finished lines true to the dimensions and shapes shown on the plans. Forms shall be of wood or metal, straight and free from warp, and of sufficient strength to resist springing while placing concrete. Where a section must be constructed on a curve, straight lengths of the section shall be short enough that the middle ordinate to the curve, from the face of that section, does not exceed one-half (1/2) inch or the section shall be continuously curved.

B. Joints: Expansion joints (or thru joints) shall be provided at intervals of forty-eight (48) feet throughout the length of the curb and at the junction of straight curb and radii and at either end of a driveway or alley section. Pre-formed joint fillers of one-half (1/2) inch or three-eighths (3/8) inch thickness will be placed in expansion joints. Contraction joints (or "Dummy Joints") shall be constructed every sixteen (16) feet. These joints shall be 1/8 inch minimum thickness and constructed to a minimum depth of 1-1/2 inches by scoring with a tool which will leave the corners rounded and destroy aggregate interlock.

C. Dimensions: All curbs, unless otherwise specified, shall be in accordance with dimensions conforming to one of the types shown on City of Moscow Standard Drawings as specified by the approved project plans.

D. Consistency: All Class A curb (cast in place) shall be of good plastic consistency and shall have a slump of three (3) inches and shall be tested by the Engineer according to the provisions of AASHTO T-119. Under no circumstances, shall the finished curb vary more than one-half (1/2) inch from the design elevation, and not more than ten (10) percent from the dimensions shown in the City of Moscow Standard Drawings and Specifications.

E. Finishing: While the concrete is still green, the top and front face, or other exposed portions of the curb, shall be troweled to produce a uniform even surface then given a fine brush finish with brush strokes parallel to the long axis of the curb. Form marks and other irregularities shall be removed. The edges of the curb shall be rounded with an edger. Honeycombed areas in the back of the curb, that in the opinion of the Engineer are not detrimental to the curb, need not be patched.

F. Curing: Immediately after finishing, the concrete shall be cured in accordance with the requirements of ES-12.7, Curing Concrete of the City of Moscow Standard Construction specifications.

G. Backfilling: All curb shall be backfilled as described in City of Moscow Standard Construction Specifications and Drawings. If sidewalk or concrete pavers are to be constructed behind the curb,

all backfill material shall be ¾" minus crushed aggregate, except as indicated on plans. Decorative rock shall be behind the curb as indicated on plans. If the area behind the curb is to be lawn or planted area, the top 16 inches shall be topsoil. All denuded areas shall be fertilized, resown with grass seed and covered with mulch as specified in Sections ES-27 and ES-28 of the City of Moscow Standard Construction specifications.

ON PAGE 497, SUBSECTION 615.05 – BASIS OF PAYMENT
Delete the section and substitute the following:

The Department will pay for accepted quantities at the contract unit prices as follows:

Pay Item	**Pay Unit**
Curb Type A – City of Moscow	FT
Curb & Gutter Type B – City of Moscow	FT

The unit price per linear foot shall include all materials, labor, equipment, and other costs incidental to construction concrete curb as herein specified and as shown on the Plans and City of Moscow Standard Drawings.

ON PAGE 503, SUBSECTION 616.03 – CONSTRUCTION REQUIREMENTS
Replace the first sentence in **SUBSECTION 616.03.I – Special Sign Install** with the following:

Mounted signs, in close proximity to other posts (i.e. Guardrail posts), including bidirectional chevrons, to be affixed either between guardrail posts or to guardrail posts.

ON PAGE 517-523 SUBSECTION 621.03 CONSTRUCTION REQUIREMENTS
Add the following sentence to the end of the first paragraph of 621.03.A:

"Seed all disturbed and unstablized areas on the project site, including foreslope, backslope, and embankment areas."

Add the following sentence to the end of 621.03.A:
"Seeding of areas shown on the plans will include:

Seedbed Preparation
Seeding
Fertilizing
Mulching
Mulch Anchoring (Tackifier)

Seed as specified in contract documents, City of Moscow Standards, and as shown in plans, or as directed."

Remove the following from 621.03.H Performance Standards and Acceptance.

"1 year following seeding completion. The Contractor will request the inspection at least 10 calendar days in advance"

Add the following from 621.03.H Performance Standards and Acceptance

"Seed all disturbed areas on the project site as shown on the plans."

ON PAGE 518, SUBSECTION 621.03 CONSTRUCTION REQUIREMENTS.
Add to the end of Subsection A. General:

A 4-inch layer of topsoil shall be placed in all seeding areas before seedbed preparation and seeding occurs.

ON PAGE 519, SUBSECTION 621.03 – CONSTRUCTION REQUIREMENTS.
Delete the third paragraph of Part D and substitute the following:

"Furnish seed according to subsection 711.05."

ON PAGE 524, SUBSECTION 621.05 – BASIS OF PAYMENT
Add to the end of the section:

Topsoil is incidental.

ON PAGE 529, SUBSECTION 626.02 – MATERIALS
Add the following after the last paragraph.

Project Item Assumption. Plan sheets have the assumed items and quantities needed for this project. Items and quantities shown on the plans are for estimating purposes only and do not necessarily represent what will be required to fit the Contractor's staging plan. Submit temporary traffic control plans, items, and quantities as specified in 105.14.D. The Engineer's approval of the temporary traffic control plan is not an approval of the items and quantities; it is only an acknowledgement that the plan appears to meet Section 626 and the MUTCD.

If the Contractor underestimates any temporary traffic control items, the Contractor is still responsible to ensure the safety to the public and construction workers at no additional cost to the project.

ON PAGE 531, SUBSECTION 626.03 – CONSTRUCTION REQUIREMENTS
Add the following after the last sentence of Subsection A.

Place PCMS 7 calendar days before the construction start date. Submit a proposed message before placing the PCMS. Remove PCMS when traffic is restored to normal operations.

A minimum of three site visits per week to the project to monitor and maintain the temporary traffic control plan and devices will be required. It is the responsibility of the Contractor to determine if three visits will be sufficient. Additional compensation will not be made for variations to traffic control made necessary by Contractor operations.

Steel or concrete barriers may be used to protect the work zone.

For portable traffic signals submit a timing plan for approval before installation.

Correct traffic control deficiencies within 1 hour of receiving notification from the Engineer of requested corrective action.

Furnish, install, and maintain all TTC devices as shown on the approved traffic control plan and as specified in 626.03.

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If items in the approved TTC plan are underestimated and prove inadequate to suit the needs of the Contractor's operation while meeting Section 626 and the MUTCD, provide additional devices and services as necessary at no additional cost to the Department.

If all applicable requirements are being met, but unforeseen conditions necessitate additional TTC, the Engineer will direct the Contractor to provide additional devices and services to be paid by force account.

ON PAGE 534, SUBSECTION 626.04 – METHOD OF MEASUREMENT
Delete the section and substitute the following:

626.04 Method of Measurement

The engineer will measure acceptably completed work by the lump sum. Directed temporary traffic control will be by the contingency amount as specified in 109.03.C.5 as authorized by the Engineer.

ON PAGE 578, SUBSECTION 651.03 – CONSTRUCTION REQUIREMENTS
Replace section C. Establishment Period. with:

C. Establishment Period

Apply Seed and fertilizer and soil conditioner to all landscape repair areas as shown on the plans.

Water lawn areas in accordance with good horticultural practices for the prevailing or existing conditions. If seeding is performed between June 1 and September 14, watering is incidental to seeding.

The Department will conduct an evaluation inspection after the seeding is completed to identify any areas that have not met the required application. Reseed the areas identified by the Department as not meeting the contract at no additional cost. Supply the same grass seed type in accordance with the original work requirements.

Supply each property owner with a ½ pound of the same grass seed type used for the property owner to reseed areas that become eroded, washed out, flooded, or which for any reason fail to show healthy specified grass growth after the project is completed.

ON PAGE 580, SUBSECTION 651.05 – BASIS OF PAYMENT
Add to the end of the section:

Any water for establishment is incidental.

ON PAGE 612, SUBSECTION 675.04 – METHOD OF MEASUREMENT **D1 03/19**
Replace the first paragraph with the following:

Survey will be measured on a lump sum basis, based on a percent complete as determined in consultation with the Engineer and the Contractor, up to 70 percent of the total lump sum payment. Full payment will not be made on the survey contract pay item until all survey submittals are received and accepted. The Contractor will have up to but no more than 20 business days to submit all pay documents as stated in 109.08.

ON PAGE 636, SUBSECTION 703.08 – AGGREGATE GRADATION REQUIREMENTS
Delete Table 703.08-1 – **Aggregate Gradation Requirements** and replace with the following Table and following paragraph:

Table 703.08-1 – Aggregate Gradation Requirements

Screen /Sieve Size	Percent Passing (By Weight)		
	Class I (Rock Cap)	**Class II**	**Class III (1 ¼"(-) Aggregate)**
3 in	100	___	___
2 in	___	100	___
1 ½ in	55 - 85	90 - 100	100
1 in	___	___	90 – 100
¾ in	10 - 35	40 - 75	___
½ in	5 - 15	20 - 40	60 – 80
$^{3}/_{8}$ in	___	___	___
No. 4	0 - 5	0 - 10	35 – 60
No. 8	___	0 - 5.0	25 – 50
No. 30	___	___	10 – 30
No. 200	___	___	2 – 9

The sand equivalent shall not be less than 30 if 5 percent or more of the material passes the No. 200 sieve. Sand Equivalent will not be required if less than 5 percent passes the No. 200 sieve.

ON PAGE 678, SUBSECTION 711.05 – SEED
Delete this subsection and substitute the following:

"711.05 – Seed. Provide seed with a minimum of three eco-regional native plant species that has been collected or harvested within 2 years of the targeted seeding date. Provide all seed in pure live seed (PLS) unless otherwise directed.

Ensure each bag or container of individual seed species has labeling indicating seed classification (genus and species), lot number, purity, germination, percentage of weeds found, percentage of noxious weeds found, and test date.

For certified or non-certified seed:

1. Noxious weed seeds prohibited.
2. Less than 1 percent by weight weed seeds including restricted noxious weed seed.
3. Less than 3 percent by weight of allowable cheat, chess, or downy brome seed.

To obtain the PLS rating, use this formula:

PLS rating = (purity %) x (germination %)/ 100

To obtain the bulk seed needed:

Bulk pounds of seed needed per acre = (PLS lb/acre required)/ PLS rating

A. Approval. The Engineer will verify that all seed test results are valid and comply with certification tags for each species before approval. Once approved, deliver seed to the project site unopened, in original and individually packaged bags or containers according to species type (i.e. one species per bag or container). If seed is received in opened packages, packages without certification tags, or packages or containers containing multiple species, the seed will not be approved for use.

B. Randon Sampling. The Engineer may conduct random onsite sampling to verify species, purity percentage, germination percentage, and restricted and prohibited noxious weed seeds. The Engineer will weigh seed according to size, approximately 125 gram samples of mostly native seed (550 gram samples of grain or similar size seed) from unblended and individually packaged seed containers of each species. Samples will be submitted to the ISDA for analysis and verification. The Engineer will reject seed not meeting specifications. Do not plant until the seed is accepted and the application method is approved. Measure and mix individual unopened seed packages onsite in the Engineer's presence at the specified proportions."

ON PAGE 11 of 29 OF THE 2025 SPECIAL PROVISIONS FOR 405 SUPERPAVE HOT MIX ASPHALT (2025 SP 405 HMA), SUBSECTION 405.03.I – ACCEPTANCE TEST STRIP
Delete second sentence of 405.03.I and replace with the following:

The Department does not require acceptance test strips on small quantity pavement (e.g., less than 2250 tons), nonstructural pavement, or temporary pavement.

ON PAGE 17 of 29 OF THE 2025 SPECIAL PROVISIONS FOR 405 SUPERPAVE HOT MIX ASPHALT (2025 SP 405 HMA), SUBSECTION 405.03.R – SMALL QUANTITIES
Delete this section, in its entirety, and replace with following:

When an acceptance test strip is not required as per 405.03.I, the Department will base acceptance for pavement density on the density of cores taken from the finished pavement for quantity less than 750 Ton. The Engineer reserves the right to test additional properties for compliance with contract requirements. For quantity above 750 Tons and below 2250 Tons, will be tested in accordance with the QA manual 405-6. Obtain 5 randomly located core samples in accordance with the FOP for AASHTO R 67 from the compacted Superpave HMA in the Engineer's presence. The Engineer will determine the random core locations. Immediately submit the cores for testing. The Department will determine the density of the cores the FOP for AASHTO T 166 Method A or AASHTO T 331. In addition, obtain 3 randomly located mix samples during HMA placement, in the Engineer's presence, and immediately submit samples for testing. Obtain the samples in accordance with the AASHTO R 97 (see the QASP Table 106.03-1 Note 1.c.). The Engineer will randomly locate the mix samples and the Department will test the mix samples to determine the G_{mm} value in accordance with the FOP for AASHTO T 209 or ASTM D6857, Asphalt Content in accordance with the FOP for AASHTO T308, and Gradation in accordance with the FOP for AASHTO T 30. The Department will use the average of the 3 G_{mm} values to compute in-place density of the cores taken for density acceptance. The following table will be used for specification limits to determine pass/fail. If paving will be performed in different construction seasons (e.g., bridge approaches), obtain 5 additional cores from the compacted Superpave HMA and 3 additional mix samples for density acceptance when paving resumes. The Contractor is responsible for quality control testing.

Production Paving Specification Limits

Mix Characteristic	Limits

SP 2, SP3 and SP5 Mixture	
No. 4 sieve and larger sieves, %	JMF value ± 5.0 [(a)]
No. 8 to No. 30 sieves, %	JMF value ± 4.0 [(a)]
No. 50 to No. 100 sieves, %	JMF value ± 3.0 [(a)]
No. 200 sieve and smaller sieves, %	JMF value ± 1.5 [(a)]
Asphalt Binder Content, %	JMF value – 0.3 / +0.450
Roadway Characteristic	**Limits**
Density, % Compaction	92.0 – 100.0

a. The upper and lower specification limits are never allowed to be outside the control points specified in 703.05.

S501-15A RETAINING WALL

Description. Design, provide, fabricate and install all materials for the Gravity Small Concrete Block Retaining Walls. Provide and fabricate, including concrete facing elements, leveling pad if required, foundation preparation, wall facing erection, structural excavation and compacting backfill, internal drainage system, and any other incidental items required to complete the Gravity Small Concrete Block Retaining Wall in accordance with the plans, design drawings and these specifications.

Related work may include temporary shoring to construct the walls, scour countermeasures placement and finish grading at the wall toes, and erosion countermeasures construction at the wall ends.

Do not allow any extra surcharge on the constructed retaining walls, such as an accumulation of blasted rock and soil during rock blasting. Repair any damage to walls at no cost to the City.

Design Requirements.

General. Design the retaining walls as shown on the plans. The City has provided preliminary dimensions for estimating purposes only. Perform a design for a chosen proprietary system that will establish the following criteria, as a minimum:

1. Block dimensions for each layer.
2. Size of concrete leveling pad (if required by proprietary system or as shown in the plans).
3. Quality and quantity of backfill.

Design the wall in accordance with the AASHTO LRFD Bridge Design Specifications, 9th Edition and with latest revisions. Design the walls for a design life of 75 years for permanent structures, 100 years for walls around bridge abutments (that are supported by spread footings placed on wall backfill), building, critical utilities, and 3 years for temporary structures.

Unless founded on bedrock, embed the wall at least 1 foot at the wall front face (for walls constructed along rivers or streams, this embedment is measured from the bottom of the potential scour depth) or as shown on the plans, whichever is greater. Embedment for walls on slopes must meet global stability requirements.

Detailed Design Drawings. Submit design drawings in PDF format with computations to the Engineer.

Include details, dimensions, quantities, and cross sections necessary to construct the wall. Prepare plans to ITD standards and include elevation view, plan view, and section view sheets for each wall, containing the following:

1. Elevation view. Show the elevations at break points at the top of each wall face and at the top of each leveling pad (or bottom of each wall). Show block component details in the design drawings.
2. Plan view. Show dimensions tying break points at the top of each wall face and top of each leveling pad (or bottom of each wall) to the roadway centerline.
3. Section (side) views. Show dimensions tying break points at the top of each wall face and at the top of each leveling pad (or bottom of each wall) to the roadway centerline. Show excavation limits for wall construction.
4. Material takeoff for each wall, listing quantities for each main wall components, and incidental items required for construction.
5. Details for concrete blocks, leveling pads, coping if required. Design for wall end treatment, such as burying the wall ends, turning the wall ends into the slope and show them in the design drawings.
6. Design for drainage system as shown on the plans or this specification. As a minimum, design and provide an underdrain system for draining water away from the backfill and the wall.
7. Concrete coping details (cast in place or precast, if required).

Stamp and sign calculations and design drawings by a Professional Engineer licensed in the State of Idaho.

Provide design calculations and design drawings to the Engineers for review and approval before fabrication of wall elements. Allow at least 15 working days for the Engineer to review and approve the design calculations and design drawings.

Before project completion, provide the Engineer with as-built drawings in PDF format.

Materials.
General. Arrange to purchase or manufacture the necessary components for the selected pre-approved wall system from the following supplier list or approved equals. Use only one type of wall in the project unless indicated otherwise in the design.

Wall System	Manufacturer or Supplier	Facing Type	Limitations in Use
GEOWALL MAX	Basalite Concrete Products 1300 E. Franklin Meridian, ID 83642 (208)-888-4050	Small concrete block	- Maximum height: 4’-4” with flat backfill 3’-0” with sloping backfill or traffic surcharge - Cannot be used around bridge abutment
ANCHOR DIAMOND PRO VERTICA, VERTICA PRO	Central Pre-Mix Concrete Products Co. 16310 East Marietta Ave. Spokane, WA 99216 (509) 926-8235	Small concrete block	- Maximum height: Diamon Pro 4’-0” Vertica 3’-4” Vertica Pro 6’-0” - Cannot be used around bridge abutment
ALLAN BLOCK	Allan Block Corporation 7424 W. 78th Street Bloomington, MN 55439	Small concrete block	- Not for use within 20’ of a bridge abutment - Max height: 4’-7” with flat backfill 3’-1” with traffic behind wall 4’-1” with sloped backfill

			- Only allow the 4,000 psi (ITD Class 40A concrete) blocks. - No presumptive soil parameters can be used for wall designs.

Provide a Certificate of Compliance (along with backup test reports) in accordance with 106.04 of the Standard Specifications certifying that all materials provided by the Contractor or a manufacturer under these special provisions comply with the specifications for the wall system. Provide certifications before starting wall construction. Obtain written approval from the Engineer for non-specified materials or material from sources not listed in the contract documents.

Concrete Block Requirements. Provide Class 40A Concrete that complies with 502 of the Standard Specifications, except as modified in these Special Provisions. Obtain Engineer approval before using retarding or accelerating agents, or additive containing chloride.

1. Testing and Inspection. The Engineer will determine precast concrete block acceptability on the basis of compressive strength tests and visual inspection. The Engineer will consider precast units acceptable before 28 days if strength has reached the 28-day specified value. The Contractor or supplier shall furnish facilities and perform necessary sampling and testing in an expeditious and satisfactory manner. The City will consider concrete blocks utilizing Type I or II cement acceptable for placement in the wall when initial compressive strengths (as defined in these Special Provisions) exceed 85 percent of 28-day strength requirements. The City will consider blocks utilizing Type III cement acceptable for placement in the wall before 28 days only when compressive strength exceeds the 28-day strength requirement.
2. Concrete Finish and Color. Unless indicated otherwise, provide blocks with concrete facing texture and color as provided by the wall manufacturer. Submit the proposed concrete facing texture and color to the Engineer for approval before casting the concrete blocks.
3. Tolerances. Manufacture concrete blocks within the following tolerances:

    a. Dimension within ³/16 inch for block height.
    b. Dimension within ½ inch for block width, unless field cut for fitting.
    c. The block depths shall be at least equal to the design depths shown in the shop drawings.

4. Compressive Strength. The Engineer will determine concrete block acceptance with respect to compressive strength based on production lots. The City defines a production lot as a group of blocks represented by a single compressive strength sample that consists of 2000 blocks or a single day's production, whichever is less. During concrete block production, the manufacturer will randomly sample the concrete in accordance with 502.02 of the *Standard Specifications*. The Engineer may randomly select a single compressive strength sample, consisting of a minimum of five cylinders or coupons, for every production lot.

    Prepare coupons for compressive strength tests in accordance with ASTM C140-12, Annex A3. For every compressive strength sample, cure at least two coupons in the same manner as the blocks and tested at approximately 7 days. The average coupon compressive strength will determine the initial concrete strength. In addition, cure three coupons in accordance with 502.02 and tested at 28 days.

    The average 28-day coupon compressive strength will be the production lot compressive strength.

    If the initial strength test results indicate a compressive strength in excess of 4,000 psi, then the

Engineer will use these test results for that production lot and may waive the requirement for testing at 28 days for that particular production lot.

The Engineer will accept a production lot if the compressive strength test result is greater than or equal to 4,000 psi.

If the compressive strength test result is less than 4,000 psi, the Engineer will base production lot acceptance on meeting all the following criteria:

a. Ninety percent of the compressive strength test results exceed 4,150 psi for the overall production.
b. The average compressive strength test results exceed 4,250 psi for six consecutive lots.
c. No individual compressive strength test results shall fall below 3,600 psi.

In the event that a production lot fails to meet the specified compressive strength requirements, the Engineer will reject that production lot.

5. Rejection. In addition to the preceding paragraphs, the Engineer may reject a block or lot with any of the following defects:

   a. Defects that indicate imperfect molding.
   b. Defects that indicate honeycombed or open texture concrete.
   c. Cracked or chipped blocks.
   d. Front-block color variation due to excess form oil or other reasons.

6. Handling, Storage and Shipping. Handle units with care to eliminate chipping and fractures.

Coping For Walls. Provide Class 40A concrete for coping in accordance with 502 of the *Standard Specifications* when coping is required. Provide metal reinforcement for coping in accordance with 503 of the Standard Specification.

Leveling Pad. Provide a gravel or non-reinforced concrete leveling pad consisting of Class 22 concrete as shown on the plans.

Backfill Material. Provide the material that is free of shale, organic matter, mica, gypsum, clay, or soft, poor durability particles and meets the following property requirements:

1. The material shall have a minimum internal friction angle of 34º, determined in accordance to test method AASHTO T-236. Perform this test on material finer than No. 10 sieve compacted to 95% of the maximum dry density as determined by AASHTO T-99. The Engineer may waive the requirement for AASHTO T-236 test if the material has 80% or more material that is larger than ¾ inch and in this case an internal friction angle of 34º can be used in the design.
2. The reinforced backfill material shall also meet the following property requirements:

Property	Test Method	Sieve Size	Percent Passing
Gradation	AASHTO T-27&11	4 in	100
		No. 40	0-60
		No. 200	0-15

Core Fill and Drainage Aggregate Material for Segmental Block Wall Units. Provide core fill and drainage aggregate material for block wall units that is well-graded crushed stone or granular material meeting the following requirements:

Sieve Size	Percent Passing
1 in	100
¾ in	50 - 75
No. 4	0 - 60
No. 40	0 - 50
No. 200	0 - 5

Construction Requirements.

General. Ensure a field technical representative from the proprietary wall system to be on site for at least 2 days at the beginning of initial wall erection and available during the remaining wall erection to assist the Contractor and Engineer. The field representative shall have been involved in successfully construction of at least three same Gravity Concrete Block walls with sizes and complexity similar to the walls of this project in the last five years.

Wall Excavation. Excavate the wall in accordance with 210 of the *Standard Specifications* and as shown on the plans.

Foundation Preparation. Grade the foundation for the structure level for a width equal to or exceeding the bottom blocks or as shown on the plans. Before wall construction, compact the foundation, if not in rock, as directed by the Engineer. Remove and replace foundation soils found to be unsuitable as directed by the Engineer.

Cure the concrete leveling pad at least 12 hours before placement of wall blocks.

Wall Erection. Place concrete blocks in their final position as shown on the design drawings. Place concrete blocks in successive horizontal lifts in the sequence shown on the design drawings as backfill placement and compaction proceeds. Place backfill material behind the blocks while maintaining the position of the block unit in the desired position with temporary wedges or bracing in accordance with the wall supplier's recommendations. Ensure vertical tolerances and horizontal alignment tolerances along the wall line for segmental concrete blocks are within ¾ inch when measured with a 10-foot straight edge. Ensure the maximum offset in any block joint is ¾ inch. Check the position and tolerances of each concrete block row before erecting the next row. Should any block be out of tolerance, remove the fill, and reset blocks to their proper position.

Remove and reconstruct walls or wall portions constructed outside the tolerances in these Special Provisions, walls with negative batter (batter in excess of vertical away from the wall), or if the batter becomes negative during construction. The City will not make additional payment for this work.

Backfill Placement. Closely follow each concrete block erection course with backfill placement. Place backfill in 12-inch loose lifts or less. Place backfill in maximum 6" loose lifts within 3' behind the back of wall face. In all cases, decrease lift thicknesses as necessary to obtain the required minimum backfill density.

Place backfill so as to avoid facing element damage or misalignment. Remove and replace wall materials that become damaged or disturbed during backfill placement, or correct as directed by the Engineer at no

additional cost to the City. Correct wall facing element misalignment or distortion due to work not associated with these Special Provisions as directed by the Engineer at no additional cost to the City. Compact backfill with the compactor running parallel to the wall face.

Compact backfill within 3' of the back of wall face with a minimum of 5 passes of a lightweight plate compactor or vibratory roller. Plate compactors must have a minimum operating weight of 180lbs and a minimum plate width (smaller dimension) of 16", operate at a minimum frequency of 90 hertz and produce a minimum centrifugal force of 3,000 lbs.

Compact backfill to 95 percent of the maximum density as determined by AASHTO T-99, Method C or D (with oversize correction as outlined in this test). Uniformly distribute the backfill material moisture content before and during compaction throughout each layer, unless otherwise directed by the Engineer. Place backfill material with a moisture content range between optimum moisture and optimum moisture minus 4 percentage points, as determined by AASHTO T-99. Remove and rework backfill material which has moisture content in excess of the upper moisture limit until the moisture content is uniformly acceptable throughout the entire lift.

Backfill field density testing will be performed at the same frequency as for bridge abutments and approach slabs per the "Structure Backfill" construction type under Item 210 - Compacting Backfill in the ITD Quality Assurance Manual.

Do not place backfill materials when they are frozen. Do not place backfill materials on snow cover or frozen materials.

At the end of each day's operation, slope the backfill away from the wall face to direct surface runoff away from the wall. In addition, do not allow surface runoff from adjacent areas to enter the wall construction site.

Method of Measurement. The Engineer will measure acceptably completed work by the SF of wall surface area from the bottom of wall to the top of wall.

Basis of Payment. The City will pay for accepted quantities at the contract unit price as follows:

Pay Item	Pay Unit
S501-15A Retaining Wall	SF

Manufacturer's field representative services costs, coping, leveling pad, wall drainage systems, structural excavation, compacting backfill, and any other items required to complete the retaining walls in accordance with the plans, design drawings and these specifications are all incidental.

Temporary shoring to construct retaining walls, scour countermeasures placement and finish grading at the wall toes, and erosion countermeasures construction at the wall ends are incidental.

Final payment will not be made until the as-built drawings are accepted.

S600-20A REMOVE AND REPLACE FIRE HYDRANT

Description. This section covers the work necessary for furnishing and installing the fire hydrants and the work necessary for the removal of existing hydrants.

Materials.

A. Low Pressure Hydrants. Hydrants to be Corey pattern with nominal 5-1/4 inch main valve opening with 6 inch bottom connections. Equip with two 2-1/2 inch hose nozzles and one 4-1/2 inch pumper port with a 5 inch Storz hose nozzle. The Storz nozzle shall be an integral part of the fire hydrant and must be furnished by the manufacturer or authorized distributor designated by the manufacturer. Storz adapters will not be accepted. Operating nut shall be equipped with O-ring seals and shall open when turned to the left or counterclockwise. Hydrants shall be of the break-flange or safety-top type. Hydrants shall conform to AWWA C-502, and these Specifications. The depth of bury will generally be 5 feet; and as required to accommodate site conditions. Nozzle threads shall be American National Standard. The hydrant isolation valve shall be attached to the tee at the main and all of the piping shall be restrained from the tee to the hydrant with flanged fittings, retaining glands (mega lugs, etc.) or tie rods as approved by the City Engineer. Hydrants shall be factory painted or may be painted by the contractor using a high quality industrial enamel high intensity red paint above the ground line; spray can paint will not be allowed.

B. Manufacturer, "Model": Waterous, "Pacer" or approved equal.

C. Base Block. Solid precast concrete pier block having nominal dimensions of 8-inch thickness by 15-inch square base.

D. Drain Rock. Washed 1-1/2 inch crushed rock or graded river gravel free of organic matter, sand, loam, clay, and other small particles that will tend to restrict water flow through the gravel.

E. Concrete for Thrust Blocking. City Standard per ES-11 CONCRETE.

F. Thrust Ties. 3/4 inch diameter steel rods and ductile lugs as manufactured by Stellar Corporation, Columbus, Ohio, or approved equal. Rods shall have rust resistant protective coating.

G. Auxiliary Gate Valve. See City Standard ES-21 GATE VALVES AND VALVE BOXES.

H. All material must meet Buy America Build America (BABA) requirements.

Construction Requirements. Construction and installation shall conform to the detail on the Plans and to provisions of Sections 11 and 12 of AWWA C-600, except where otherwise specified.

A. Location and Position. Locate as shown or directed so as to provide complete accessibility and minimize possibility of damage from vehicles or injury to pedestrians. A 3-foot clear space shall be provided and maintained around the circumference of the hydrant or as approved by the Engineer. Where hydrants are subject to impact by a motor vehicle, guard posts other approved means shall be provided as approved by the Engineer. Improperly located hydrants shall be disconnected and relocated, at the Contractor's expense.

When placed behind the curb, set hydrant barrel so that the face of the pumper or hose nozzle cap will be 2 feet from the back of the curb. When set in lawn space between curb and sidewalk, or between sidewalk and property line, let no portion of the hydrant or nozzle cap be within 12 inches of the sidewalk.

Set all hydrants plumb and nozzles parallel with, or at right angles to the curb, with the pumper nozzle facing the curb. Set hydrants so that safety flange is a minimum of 3 inches and maximum of 6 inches above finished ground or sidewalk level to clear bolts and nuts, and as directed.

B. Excavation. Do not carry below sub-base grade. Replace over-excavated areas with gravel, and hand tamp to provide firm foundation.

C. Base Block. Place on firm level sub-base to assure uniform support.

D. Installation of Hydrants. Place hydrant carefully on base block to prevent the base block from breaking. After hydrant is in place and connected to the pipeline, place temporary blocks to maintain the hydrant in a plumb position during subsequent work.

E. Drain Rock. Place gravel around base block and hydrant bottom after hydrant has been blocked in place. Drain gravel shall be not less than 6 inches above hydrant drain opening. Do not connect drainage system to sewer.

F. Concrete Thrust Blocking. Place after hydrant is blocked in its final position and hydrant is joined to pipe. Concrete thrust block shall have a minimum of 4 square feet of bearing area against undisturbed earth. Restraint devices such as flanged fitting, mega lugs, or tie rods may be used in lieu of thrust blocks if approved by the City Engineer.

G. Bury Depth and Thrust Ties. The ground surface around fire hydrants shall be as follows:

1. Behind the hydrant: The ground surface shall be a minimum of 4.5 feet above the hydrant base (as measured from 'level') for a distance of at least 10 feet behind the back of the hydrant. The City Engineer may approve a lesser bury requirement if thrust ties consisting of two ¾ inch coated steel tie rods connecting the hydrant to the valve and the main are utilized. All backfill around hydrants shall be compacted full depth to a minimum of 95% of AASHTO T99 proctor value.
2. Sides of the hydrant: The ground surface shall be a minimum of 4.5 feet above the hydrant base (as measured from 'level') for a distance of at least 6 feet from the centerline of the hydrant barrel. All backfill around hydrants shall be compacted full depth to a minimum of 95% of AASHTO T99 proctor value.
3. Front of the hydrant (towards the main): 4.0 foot minimum cover over the hydrant lateral pipe shall be maintained – as shown on the City of Moscow Standard Construction Drawings.
   Payment for existing fire hydrant removal will be made at the unit price stated in the Contractor's bid proposal for each hydrant removed, as covered herein and on the plans.

H. Existing Fire Hydrant Removal. Remove fire hydrants on existing city mains as shown on the plans and as directed by the Engineer. The hydrants shall remain the property of the City of Moscow and shall be stockpiled, for the City, at a location to be determined. Care shall be taken so as not to damage the hydrants during removal, transporting, or stockpiling.

Method of Measurement. The Engineer will measure acceptably completed work per each installation.

Basis of Payment. The City will pay for accepted quantities at the contract unit prices as follows:

Pay Item	**Pay Unit**
Remove and Replace Fire Hydrant	EA

The unit price per each include all materials, labor, equipment, and other costs necessary to remove existing hydrant and install the new hydrant assembly as shown or directed. Work includes excavation; disconnection and reconnection to the existing water system; installation of new or salvaged hydrant, auxiliary gate valve, fittings, thrust restraint (blocks or tie rods), and bury pipe; adjustment to final grade; and coordination with the utility owner for shutdowns, testing, and acceptance. Salvaged hydrants, when required, shall be cleaned, capped, and delivered or stockpiled as directed. All trenching, backfill, compaction, surface restoration, traffic control, testing, disinfection, and compliance with Buy America

requirements are incidental to this item. Payment will be made only after the hydrant is fully installed, operational, and accepted by the engineer.

S616-15A RECTANGULAR RAPID-FLASHING BEACON (RRFB)

Description. Provide and install a solar powered, bidirectional, push button activated, RRFB crosswalk system as shown on project plans.

Materials. Ensure each RRFB crosswalk system meets FHWA Interim Approval 21 – Rectangular Rapid-Flashing Beacons at Crosswalks (1A-21) specifications and the following:

- One controller.
- Ensure the peak luminous intensity (candelas) meet the requirements of SAE J595, Class 1.
- *(2)* RRFB's with double-sided, pedestrian indicators.
- *(4)* W11-2 36" x 36" signs, Type B-2: aluminum with LED border.
- *(2)* W16-9P (Left) 30" x 18" signs and/or *(2)* W16-9P (Right) 30" x 18" signs.
- *(2)* Pushbuttons with the R10-25, 9" x 12" signs.
- *(2)* 4" Galvanized rigid steel conduit pole and foundation.
- *(2)* Frangible Cast Aluminum pole base as shown on Standard Drawing 656-2.
- Miscellaneous items including mounting hardware and wiring required for a complete and functional operation.
- Ensure material items meet the requirements in:

  Concrete…….502
  Signs ……..616
  Traffic Signal Materials……. 713
- Wireless communication.
- TAPCO RRFB XL2, Carmanah Technologies Corp. SC315-G, or approved equal.
- Solar Powered RRFB system with battery sized to provide continuous operation per manufacturer requirements, including autonomy under low sun conditions (autonomy duration based on local standards and manufacturer recommendation. Contractor shall submit autonomy duration calculations, including project solar zone and winter conditions, to the engineer for review and approval prior to ordering equipment).

Construction Requirements. Ensure the installation RRFB crosswalk systems follow all applicable ADA standards and conform to the manufacturers' installation instructions including the following:

- Ensure the duration period of operation is *20* seconds.
- Provide workmanship that meets the National Electrical Code and local codes.
- See Standard Drawing 656-3, Pedestrian Sign Pole for foundation requirements.

Method of Measurement. Rectangular Rapid Flashing Beacon will be measured per each crossing location, complete in place.

Basis of Payment. Payment for accepted work will be made as follows:

Pay Item	Pay Unit
Rectangular Rapid Flashing Beacon (RRFB)	EACH

The unit price per each includes all materials, labor, equipment, and other costs necessary to furnishing and installing one complete rectangular rapid flashing beacon system consisting of both pedestrian ramps

of the crosswalk. Work includes foundations poles, mast arms (if required), LED beacon assemblies, regulatory and warning signs, push buttons, batteries, control units, wiring, conduit or wireless communication between units, junction boxes, and connection to power (if applicable). When necessary for installation coordination with the city or utility company for electrical service, metering, start-up, and approval is included. All testing, programming, flash pattern setup, synchronization, labeling, and verification of proper operation are required. Traffic control, excavation, backfill, surface restoration, and any incidental work necessary to provide a fully functional and accepted RRFB system are included in this item. Payment will be made only after the entire RRFB system for the crossing is fully installed, operational on both sides, and accepted by the engineer.

S900-50A CONTINGENCY AMOUNT - MISCELLANEOUS WORK

Description. This item will compensate the Contractor for minor work or material not specified in the project documents that is necessary to the work as directed by the Engineer.

Materials. Provide material as directed by the Engineer and in accordance with the ITD Standard Specifications.

Construction Requirements. Complete construction as directed by the Engineer and in accordance with the ITD Standard Specifications.

Method of Measurement. The Engineer will measure acceptably completed work by the Contingency Amount (CA).

Basis of Payment. The City will pay for the accepted quantities at the contract unit price as follows:

Pay Item	Pay Unit
Contingency Amount - Miscellaneous Work	CA

S901-05A ADJUST CATCH BASIN LID AND FRAME

Description. Adjust and repair catch basin frames and covers.

Materials. Provide materials as specified in 605.02.

Construction Requirements. Perform work as directed by the engineer and as specified in 605.03.

Method of Measurement. The Engineer will measure acceptably completed work by the each

Basis of Payment. The City will pay for accepted quantities at the contract unit prices as follows:

Pay Item	Pay Unit
Adjust Catch Basin Lid and Frame	EA

The unit price bid shall include all costs incurred in furnishing materials, labor, excavation, installing catch basin covers including the risers and frames, and backfilling.

S901-05B CITY OF MOSCOW CATCH BASIN

Description. Catch basins shall be precast reinforced concrete units, furnished and installed in accordance with the project plans, these Standard Specifications, and the Standard Drawings. Completed catch basins including ring shall be capable of withstanding, with a reasonable margin of safety, a concentrated load of

20,000 pounds. Backfill shall be ¾" Type B for Base placed in horizontal layers no more than 6 inches thick with each layer compacted to 95 percent of the maximum density or as approved by the Engineer.

Materials. Precast reinforced manholes, catch basins, and catch inlets sections shall conform to AASHTO M-199, ASTM C-478 and ASTMC-433 and as shown on the City of Moscow Standard Construction Drawings.

A. Base Sections. Base shall be placed on a well graded dewatered granular bedding course. The bedding course shall be firmly tamped and made smooth and level to assure uniform contact and dimensions shall conform to the standard drawings. If the base is cast in place, the concrete shall conform, to the latest edition, of the Idaho Transportation Department Standard Specifications for Highway Construction Class 30 concrete. Where water is encountered at the site all cast in place bases shall be placed on a one-piece waterproof membrane so as to prevent any movement of water into the fresh concrete.

B. Joints. All lift holes and all joints between precast elements shall be first filled with an elastomeric polyurethane sealant material then finished smooth with mortar. The sealant material shall be SikaFlex NP1 or approved equivalent.

C. Steps. Not required.

D. Workmanship and Finish. Cones and sections shall be substantially free from fractures, large and deep cracks and surface roughness. In precast sections where loops have been provided in lieu of lift holes, the loops shall be removed flush with the inside wall surface after the manhole or catch basin has been completed. No sharp cut-off protrusions will be permitted. If concrete spalling occurs as a result of loop removal, the spalled area shall be restored in workmanship manner to a uniform smooth surface with mortar.

E. Rings and lids shall be cast iron and shall conform to the City of Moscow Standard Drawings. Castings shall conform to the requirements of ASTM A-48 Class 138 and shall be free of porosity, shrink cavities, cold shuts or cracks, or any surface defects which would impair serviceability.

F. Risers for height adjustment shall be as per WSDOT's standard for the precast unit being furnished.

Construction Requirements.

A. General. Catch basins and catch inlets shall be constructed according to the Plans, Standard Drawings and specifications. Catch basins shall be precast reinforced concrete per WSDOT TYPE 1, catch inlets shall be WSDOT CONCRETE INLET - unless otherwise approved by the Engineer.

B. All pipe extending into catch basins shall be trimmed within 1"-2" of the inside wall surfaces and shall be neatly grouted inside and out and watertight.

C. Lids, grates, and risers shall be centered over the basin or inlet; unless specifically allowed otherwise.

Method of Measurement. The Engineer will measure acceptably completed work per each installation.

Basis of Payment. The City will pay for accepted quantities at the contract unit prices as follows:

Pay Item	Pay Unit
City of Moscow Catch Basin	EA

The unit price bid shall include all costs incurred in furnishing materials, labor, excavation, installing manholes in place including the manhole rings and lids, and backfilling.

S901-05C CITY OF MOSCOW STORM SEWER MANHOLE

Description. Manholes shall be precast reinforced concrete units, furnished and installed in accordance with the project plans, these Standard Specifications, and the Standard Drawings. Completed manholes including ring shall be capable of withstanding, with a reasonable margin of safety, a concentrated load of 20,000 pounds. Backfill shall be ¾" Type B for Base placed in horizontal layers no more than 6 inches thick with each layer compacted to 95 percent of the maximum density or as approved by the Engineer.

Materials. Precast reinforced manholes, catch basins, and catch inlets sections shall conform to AASHTO M-199, ASTM C-478 and ASTMC-433 and as shown on the City of Moscow Standard Construction Drawings and the Washington State Department of Transportation (WSDOT) STANDARD PLAN B-15.20-01

A. Base Sections. Base shall be placed on a well graded dewatered granular bedding course. The bedding course shall be firmly tamped and made smooth and level to assure uniform contact and dimensions shall conform to the standard drawings. If the base is cast in place, the concrete shall conform, to the latest edition, of the Idaho Transportation Department Standard Specifications for Highway Construction Class 30 concrete. Where water is encountered at the site all cast in place bases shall be placed on a one-piece waterproof membrane so as to prevent any movement of water into the fresh concrete.

B. Joints. All lift holes and all joints between precast elements shall be first filled with an elastomeric polyurethane sealant material then finished smooth with mortar. The sealant material shall be SikaFlex NP1 or approved equivalent.

C. Steps. 1/2 inch steel reinforced bar covered with polypropylene plastic complying with ASTM C 478. Steps shall be 12 inches wide and project 7 inches from manhole wall.

D. Workmanship and Finish. Cones and sections shall be substantially free from fractures, large and deep cracks and surface roughness. In precast sections where loops have been provided in lieu of lift holes, the loops shall be removed flush with the inside wall surface after the manhole or catch basin has been completed. No sharp cut-off protrusions will be permitted. If concrete spalling occurs as a result of loop removal, the spalled area shall be restored in workmanship manner to a uniform smooth surface with mortar.

E. Rings and lids shall be cast iron and shall conform to the City of Moscow Standard Drawings. Castings shall conform to the requirements of ASTM A-48 Class 138 and shall be free of porosity, shrink cavities, cold shuts or cracks, or any surface defects which would impair serviceability.

Construction Requirements.

A. General. Storm sewer manholes shall be constructed according to the Plans, City of Moscow Standard Drawings and Specifications. Storm sewer manholes shall be precast reinforced concrete, unless otherwise approved by the Engineer.

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B. All pipe extending into catch basins shall be trimmed within 1”-2” of the inside wall surfaces and shall be neatly grouted inside and out and watertight.

Method of Measurement. The Engineer will measure acceptably completed work per each installation.

Basis of Payment. The City will pay for accepted quantities at the contract unit prices as follows:

Pay Item	Pay Unit
City of Moscow Storm Sewer Manhole	EA

The unit price bid shall include all costs incurred in furnishing materials, labor, excavation, installing manholes in place including the manhole rings and lids, and backfilling.

S901-05D ADJUST WATER METER
Description. Coordinate with City of Moscow to relocate existing water meters, meter box, and related water valves.

Materials. City of Moscow Water Department to provide water meter and box if unable to reuse existing water meter at no additional cost to the Contractor. Contractor to provide all other materials conforming to Division 400 of the 2025 ISPWC.

Construction Requirements. Contact the City Water Department 15 days in advance of work to review work plan and ensure availability of materials. Schedule material pick-up with the City and construct in accordance to Division 400 of the 2025 ISPWC.

Exercise care in all operations in order to not damage the structures, equipment, or utilities. Any damage occurring to the utilities due to the Contractor’s operation will be repaired at no additional cost to the Department.

Plan operations to cause minimum inconvenience to customers on existing mains and shall be done under the rules, regulations, and supervision of the City of Moscow Water Department. Disruption of service shall not exceed 4 hours in duration. Service disruptions greater than 4 hours must be pre-approved in writing by the Engineer, in which case temporary water service and metering shall be provided to each impacted customer. Do not open or close any valve, without authorization of the City. When work is started on a connection, proceed continuously without interruption to complete the work and as rapidly as possible. Make no connections or modifications to the existing water system unless an authorized representative of the City’s Water Department is present. Complete all such connections or modifications between 6:30 a.m. and 5:00 p.m., Monday through Friday, unless requested and approved two (2) weeks in advance. There shall be no shutoff of mains overnight, over weekends, or on holidays without City Water Department and Engineer approval, two (2) weeks in advance.

Pressurize the water meter upon installation and visually inspected to confirm that no leaks are present. All relocated water meters will be inspected and approved by the City Water Department as to proper installation, depth, and condition. Any deviations from City or Irrigation District Standards will require immediate correction by the Contractor.

Method of Measurement. The Engineer will measure acceptably completed work by the each.

Basis of Payment. The City will pay for accepted quantities at the contract unit price as follows:

Pay Item	Pay Unit
Adjust Water Meter	Each

The City considers structural excavation and compacting backfill as incidental and the cost included in the contract unit price.

S904-05A TEMPORARY TRAFFIC CONTROL

Description. Provide a temporary traffic control plan and all required items listed under 105.14 part D and follow all requirements under 626.

Materials. Provide TTC devices as specified in 626.02.

Project Item Assumption. Plan sheets have the assumed items and quantities needed for this project. Items and quantities shown on the plans are for estimating purposes only and do not necessarily represent what will be required to fit the Contractor's staging plan. Submit temporary traffic control plans, items, and quantities as specified in 105.14.D. The Engineer's approval of the temporary traffic control plan is not an approval of the items and quantities; it is only an acknowledgement that the plan appears to meet 626 and the MUTCD.

If the Contractor underestimates any temporary traffic control items, the Contractor is still responsible to ensure the safety to the public and construction workers at no additional cost to the project.

Construction Requirements. Place PCMS 7 calendar days before the construction start date. Submit a proposed message before placing the PCMS. Remove PCMS when traffic is restored to normal operations.

A minimum of three site visits per week to the project to monitor and maintain the temporary traffic control plan and devices will be required. It is the responsibility of the Contractor to determine if three visits will be sufficient. Additional compensation will not be made for variations to traffic control made necessary by Contractor operations.

Steel or concrete barriers may be used to protect the work zone.

For portable traffic signals submit a timing plan for approval before installation.

Correct traffic control deficiencies within 1 hour of receiving notification from the Engineer of requested corrective action.

Furnish, install, and maintain all TTC devices as shown on the approved traffic control plan and as specified in 626.03.

If items in the approved TTC plan are underestimated and prove inadequate to suit the needs of the Contractor's operation while meeting 626 and the MUTCD, provide additional devices and services as necessary at no additional cost to the City.

If all applicable requirements are being met, but unforeseen conditions necessitate additional TTC, the Engineer will direct the Contractor to provide additional devices and services to be paid by force account.

Method of Measurement. The Engineer will measure acceptably completed work by the lump sum. Directed temporary traffic control will be by the contingency amount as specified in 109.03.C.5 as

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authorized by the Engineer.

Basis of Payment. The City will pay for accepted quantities at the contract unit prices as follows:

Pay Item	Pay Unit
Temporary Traffic Control	LS

The City will pay 40 percent of the contract price on the first monthly progress payment estimate. The Engineer will use the Contractor's CPM schedule to determine a prorated payment percentage for TTC for each monthly progress payment, thereafter, retaining 10 percent of the contract unit price of this item until the work is complete. On completion of the work, the City will pay the remaining TTC bid amount. No additional payment will be made for an increase or decrease of any temporary traffic control item caused by alterations to the contractor phasing of the work.

In the event that a temporary traffic control deficiency occurs, including maintenance of temporary traffic control devices, and is not corrected within 1 hour after notification, the Engineer will assess $250 in penalties for each hour or partial hour thereafter the temporary traffic control remains deficient.

S912-05A LANDSCAPE REPAIR

Description. Adjust/relocate sprinklers, irrigation boxes/valves, and repair landscape and sod areas disturbed on private or City property as a result of construction activities to a pre-project or better condition.

Materials. Provide landscape materials (plantings, topsoil, seeding, decorative rock, and bark) that match existing. Provide grass sod that matches existing grass species. If grass species cannot be matched, use Merion, Park, Delta or Windsor Kentucky Bluegrass, as approved. Submit landscape material and grass sod for approval before delivery to the planting site. If seed is used, provide owner with 2 pounds of extra grass seed in case seed does not establish properly. Delivered landscape material or sod showing evidence of improper handling or discoloration due to prolonged storage prior to delivery and placement will be rejected.

Match the existing irrigation system in type and size for all irrigation pipe and sprinkler heads. If pressure class of existing PVC irrigation pipe cannot be documented, use Schedule 80 PVC pipe or approved equal matching the existing pipe size.

Materials Acceptance: Materials furnished for this bid item will be acceptedrr by form ITD-0854, Resident Engineers Letter of Inspection of Contract Items certifying that material furnished was manufactured in accordance with the project specifications.

Construction Requirements. Prior to any construction activities, document (via photos) existing landscape and grass areas and sprinkler systems. Provide documentation to the Engineer prior to impacting existing landscape areas. Coordinate with property owners of adjacent properties to ensure existing irrigation systems and flows are maintained throughout the project.

Remove all sprinkler heads and irrigation pipe damaged during construction and install new pipes and sprinkler heads to manufacturer's recommendations and Engineer's approval. Space new or relocated sprinkler heads to ensure adequate and uniform coverage. Cap sprinkler systems at the right-of-way line, or as directed, in areas where landscaping (grass and planter areas) has been removed due to the new roadway footprint.

Remove old damaged turf and landscape areas to a uniform depth. Place a minimum of 6 inches of topsoil

in areas where damaged material has been removed. In areas where the existing topsoil is retained and is sufficient, spread a soil amendment uniformly to a depth of 2 inches and thoroughly rototill to a depth of four inches. The contractor shall examine each lawn to be seeded and match, as closely as practicable, the existing turf species in each property owner's yard.

After cultivation, carefully fine grade and roll the area to provide a fine textured, smooth and firm surface, free of any foot prints, undulations, or irregularities. Set the finished grade to a depth below the finished grade of adjacent sidewalks to permit the final grade of the sod to be 1/4 to ½ inch below the finished grade of the sidewalks.

After placing sod/seeding and landscape, water heavily and at regular intervals to maintain new landscape establishment and growth. Apply fertilizer at the manufacturer's recommended rate one month after landscaping repair is complete.

Ensure planting establishment by watering, cultivating, replacing plants or mulch, and other work necessary to maintain the plants in a healthy condition, throughout the 1-year plant establishment period.

The City will require a plant establishment period of 1 year for replacement plants. Ensure the establishment of the new plantings as specified. Ensure planting establishment by watering, cultivating, replacing plants or mulch, and other work necessary to maintain the plants in a healthy condition until accepted by the Engineer.

Method of Measurement. The Engineer will measure acceptably completed work by the Contingency Amount (CA).

The City will pay for accepted quantities at the contract unit prices as follows:

Pay Item	Pay Unit
Landscape Repair	CA

The City considers all costs for labor, documentation, materials, grading, topsoil, seeding, sodding, landscape materials, sprinkler and irrigation box/valve relocation, repair, and adjustment, fertilizer, watering, and warranty as included in the unit bid price for this item.

S912-05B DECORATIVE ROCK

Description. Provide work and materials for site preparation and placement of landscape rock in the locations identified in the plans and as directed by the Engineer.

Materials. Provide round stone with a nominal diameter of 1 to 2 inches with a smooth texture. Stone material to be accepted by the Engineer by visual inspection. Provide barrier fabric meeting the requirements of the ITD Standard Specification Subsection 718.05.

Construction Requirements. Construct the work in accordance with the Contract, and as directed by the Engineer. Prepare a smooth surface covered with barrier fabric prior to placement of decorative rock. Place decorative rock at a depth of no less than 6 inches. Maintain all completed decorative rock areas throughout the construction of this project and retain and protect existing undisturbed areas.

Method of Measurement. The Engineer will measure acceptably completed work by the square yard.

Basis of Payment. The City will pay for accepted quantities at the contract unit prices as follows:

Pay Item	Pay Unit
Decorative Rock	SY

S913-05A ROCK MULCH

Description. This work shall consist of furnishing, hauling, placing, and compacting a mixture of shot rock and soil on specified slopes at the locations shown on the Plans.

Materials. Rock Mulch materials shall be produced from soil and screened or crushed shot rock meeting the following general gradation limit with acceptability determined by visual acceptance:

Nominal Maximum Size	Minimum Percent Retained
6 in.	0
3 in.	30-70
0.5 -1 in.	15

Construction Requirements. Shot rock and soil will be well mixed at a ratio of 4 volumetric units of rock to 1 volumetric unit of soil or as directed. The blended material shall be well mixed and placed on slopes as shown in the plans. The general gradation shall be adjusted as directed to provide a rock mulch mixture suitable to support vegetative growth.

Method of Measurement. Rock Mulch will be measured by "Plan Quantity" volume in accordance with subsection 109.11. Acceptance shall be based on meeting required nominal 12" depth of Rock Mulch in locations specified on the plans.

Basis of Payment. The City will pay for accepted quantities at the contract unit price as follows:

Pay Item	Pay Unit
Rock Mulch	CY

No separate payment will be made for surface preparation and excavation, and production, blasting, crushing, processing, hauling, mixing, placing, compacting Rock Mulch on the slopes as approved. All costs associated with this work are considered incidental and shall be included in the item unit price.

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APPENDIX I

EEO SPECIAL PROVISIONS

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EEO SPECIAL PROVISIONS

PART I **Special Equal Employment Opportunity Responsibilities (23 USC 140 and 23 CFR 230, Subpart A and D**

1. General

   a. Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246 and Executive Order 11375 are set forth in Required Contract Provisions (Form FHWA-1273) and these Special Provisions which are imposed pursuant to Section 140 of title 23, U.S.C. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.

   b. The contractor shall work with the Idaho Transportation Department (Department) and the Federal Government in carrying out equal employment opportunity obligations and in their review of activities under the contract.

   c. The contractor and all subcontractors holding subcontracts not including material suppliers, of $10,000 or more shall comply with the following minimum specific requirement activities of equal employment opportunity. (The equal employment opportunity requirements of Form FHWA-1273 are applicable to material suppliers as well as contractors and subcontractors.) The contractor shall include these requirements in every subcontract of $10,000 or more with such modification of language as is necessary to make them binding on the subcontractor.

2. Equal Employment Opportunity Policy

   The contractor shall accept as operating policy the following statement, which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, national origin, age, or disability and to promote the full realization of equal employment opportunity through a positive continuing program:

   "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age, or disability. Such action shall include: employment upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and on-the-job training."

3. Equal Employment Opportunity Officer

   The contractor shall designate in a letter to the Engineer the equal employment opportunity officer (hereinafter referred to as the EEO Officer) for the project who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so.

4. Dissemination of Policy

   a. All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such actions, will be made fully cognizant of, and shall implement, the contractor's equal employment opportunity policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To ensure that the above agreement is met, the contractor shall take the following actions as a minimum:

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(1) Periodic meetings of supervisory and personnel office employees shall be conducted before the start of work and then not less often than once every six months, at which time the contractor's equal employment opportunity policy and its implementation shall be reviewed and explained. The meeting shall be conducted by the EEO Officer or other knowledgeable company official. Documentation of this meeting shall be provided to the Engineer prior to the start of the project.

(2) All new supervisory or personnel office employees shall be given a thorough indoctrination by the EEO Officer or other knowledgeable company official covering all major aspects of the contractor's equal employment opportunity obligations within thirty days following their reporting for duty with the contractor.

(3) All personnel who are engaged in direct recruitment for the project shall be instructed by the EEO Officer or appropriate company official in the contractor's procedures for locating and hiring minority group employees.

b. In order to make the contractor's equal employment opportunity policy known to all employees, prospective employees and potential sources of employees, i.e., schools, employment agencies, labor unions (where appropriate), college placement officers, etc., the contractor shall take the following actions:

(1) Notices and posters setting forth the contractor's equal employment opportunity policy shall be placed in areas readily accessible to employees, applicants for employment, and potential employees.

(2) The contractor's equal employment opportunity policy and the procedures to implement such policy shall be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

5. Recruitment

a. When advertising for employees, the contractor shall include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be published in newspapers or other publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

b. The contractor shall, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants, including, but not limited to, State employment agencies, schools, colleges and minority group organizations. To meet this requirement, the contractor shall, through the company EEO Officer, identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

If the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the Department expects the contractor to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with equal employment opportunity contract provisions. (The U.S. Department of Labor has held that where implementation of such agreements has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

The contractor shall encourage present employees to refer minority group applicants for employment by posting appropriate notices or bulletins in areas accessible to all such employees. In addition, information and procedures with regard to referring minority group applicants *shall be discussed with employees.*

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6. Personnel Actions

The contractor shall establish and administer wages, working conditions, employee benefits and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, without regard to race, color, religion, sex, national origin, age, or disability. The following procedures shall be followed:

a. The contractor shall conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The Contractor shall periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor shall periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor shall promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor shall promptly investigate all complaints of alleged discrimination made to the contractor in connection with obligations under this contract, shall attempt to resolve such complaints, and shall take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor shall inform every complainant of all avenues of appeal.

7. Training and Promotion

a. The contractor shall assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. If the Training Special Provision is provided under this contract, this subparagraph will be superseded by the Training Special Provision.

c. The contractor shall advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor shall periodically review the training and promotion potential of minority group and women employees and shall encourage eligible employees to apply for such training and promotion.

8. Unions

If the contractor relies in whole or in part upon unions as a source of employees, the contractor shall use best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association, acting as agent shall include the procedures set forth below:

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a. The contractor shall use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor shall use best efforts to incorporate an equal employment opportunity clause into each union agreement to the end that such union shall be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age, or disability.

c. The contractor shall obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor. The contractor shall so certify to the Engineer and shall set forth what efforts have been made to obtain such information.

d. If the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor shall, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age, or disability, making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The U.S. Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) If the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, the contractor shall immediately notify the Engineer.

9. Subcontracting

a. The contractor shall use best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among their employees, in accordance with the Disadvantaged Business Enterprise Special Provisions of the contract. Contractors shall obtain lists of minority-owned firms from the Department External EEO Office.

b. The contractor shall use best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

10. Records and Reports

a. The contractor shall keep such records as are necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor shall be designed to indicate:

(1) The number of minority and nonminority group members and women employed in each work classification on the project.

(2) The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women (applicable only to contractors who rely in whole or in part on unions as a source of their work force).

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees.

(4) The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.

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b. All such records must be retained for a period of five years from the date of the final payment and shall be available at reasonable times and places for inspection by authorized representatives of the Department and the Federal Highway Administration.

c. The contractors shall submit to the Engineer for the final pay period in the month of July, a report indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391.

d. If the Training Special Provision is provided under this contract, the Engineer will require the contractor to collect and report training data.

11. Sanctions

a. If an investigation or review by the Department reveals that a contractor or a subcontractor is in non-compliance with these Special Provisions, the Engineer will issue a show cause notice (SCN) to the contractor or subcontractor. This written notice shall state the deficiencies found during the review, and will advise the contractor or subcontractor to show cause within 30 days why sanctions should not be imposed. Within the 30 days the contractor or subcontractor must show good cause or must provide an acceptable agreement for corrective action.

b. If the contractor or subcontractor does not correct deficiencies and fails to develop, sign and implement a corrective action plan (CAP) within the 30 days stated in the SCN, the Engineer will withhold all progress payments commencing the day after the expiration of the 30-day period.

c. If the contractor or subcontractor fails to meet the conditions of the CAP, no further show cause notice is required. The Engineer will immediately advise the District Engineer, who will immediately request a formal hearing before a panel consisting of a selected member of the Department's Legal Counsel, Representatives from Roadway Design, External EEO Office, and the District. At this hearing, the contractor will be given the opportunity to offer rebuttal to the findings. The purpose of the hearing will be to examine all documentation and determine which of the following sanctions will be imposed – not whether they will be imposed. Generally, sanctions will be imposed in sequential order for each incident that EEO contract provision violations occur, and are brought before the hearing panel. However, the Department reserves the right to impose any sanction listed depending on the severity of the contractor's deficiency.

- Withhold progress payments until it is determined that the contractor or subcontractor is found in compliance.
- Suspend the contract, in whole or in part, until the contractor or subcontractor is found to be in compliance with no progress payment being made during this time and no time extension made.
- Cancel or terminate the contract for cause in accordance with subsection 108.09 of the Contract Specifications.
- Assess against the contractor's final payment on this contract or any progress payments on current or future Idaho Federal-Aid projects an administrative remedy by reducing the final payment or future progress payment in an amount equal to 10% of this contract or $7,700 whichever is less.

d. The contractor shall have the right to appeal pursuant to Subsection 105.16 of the Standard Specifications

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PART II **Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity 41 CFR, 60-4:**

1. All Federal and Federally assisted construction contracts and subcontracts in excess of $10,000 are subject to the Department of Labor regulations contained in 41 CFR § 60-4.

2. 41 CFR § 60-4.2 provides for inclusion in contracts of the goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area. The goals related to this contract area as follows:

STANDARD METROPOLITON STATISTICAL AREAS
(SMSA) AND ECONOMIC AREAS (EA)

	Goals for minority participation in each trade	Goals for female participation in each trade
IDAHO		
165 Non-SMSA Counties: Bear Lake, Franklin and Oneida	5.1%	6.9 %
166 Non-SMSA Counties: Bannock, Bingham, Blaine, Butte, Bonneville, Camas, Caribou, Cassia, Clark, Custer, Fremont, Gooding, Jefferson, Jerome, Lemhi, Lincoln, Madison, Minidoka, Power, Teton, and Twin Falls	4.0 %	6.9 %
167 Boise City SMSA Counties: 1080 Boise City, Ada	2.3 %	6.9 %
Non-SMSA Counties: Adams, Boise, Canyon, Elmore, Gem, Owyhee, Payette, Valley and Washington	4.4 %	6.9 %
168 Non-SMSA Counties: Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, and Shoshone	3.0 %	6.9 %

The U.S. Department of Labor, Office of Contract Compliance Programs (OFCCP) is the only party with the authority to determine compliance with Executive Order 11246 and 41 CFR Part 60-4. For further information, to obtain a copy of the regulation, or to get clarification on the requirements, the Contractor should contact the OFCCP office:

Office of Federal Contract Compliance Programs

620 SW Main Street, Suite 411
Portland, OR 97205
(503) 326-4112

1111 Third Ave. Suite 745
Seattle, WA 98101-3212
(206) 398-8005

Approval:

FHWA Civil Rights Program Manager

06 JUNE 2011
Date

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APPENDIX II

NON-COLLUSION AFFIDAVIT

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Non-Collusion Affidavit

State of _____

) SS

County of _____

Bid for _____, being first duly

sworn, deposes, and says that he is _____ [sole owner, a

partner, president, secretary, etc.] of, _____

_____ [Bidder],

the party making the foregoing Bid; that such Bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation; that such Bid is genuine and not collusive or sham; that said Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid and has not directly or indirectly colluded, conspired, connived or agreed with any Bidder or anyone else to put in a sham Bid, nor that anyone shall refrain from bidding; that said Bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the Bid Price of said Bidder or of any other Bidder, nor to fix any overhead, profit or cost element of such Bid Price, nor of that of any other Bidder, nor to secure any advantage against the public body awarding the Contract or anyone interested in the proposed Contract; that all statements contained in such Bid are true; and, further, that said Bidder has not directly or indirectly submitted his Bid Price or any breakdown thereof, nor the contents thereof, nor divulged information or data relative thereto, nor paid and will not pay any fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such person(s) as has/have a partnership or other financial interest with said Bidder in his general business.

Signed:_____

Title:_____

Subscribed and sworn to before me this _____
day of _____, 20__.

(SEAL)

Notary Public _____

State of _____

My Commission Expires _____

THIS PAGE MUST BE COMPLETED RETURNED WITH YOUR BID DOCUMENTS

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APPENDIX III

DRUG FREE WORKPLACE AFFIDAVIT

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BIDDER'S DRUG-FREE WORKPLACE AFFIDAVIT

CONTRACTOR'S AFFIDAVIT
CONCERNING ALCOHOL AND DRUG-FREE WORKPLACE

STAE OF_____
COUNTY OF _____

The undersigned being duly sworn upon oath, deposes and says that _____ complies
(Contractor Name)
With the provision of Section 72-1717 Idaho Code (Drug Free Workplace program) that
_____ provides a drug-free workplace program that complies with the provisions of
(Contractor Name)
Idaho Code, Title 72, Chapter 17 and will maintain such program throughout the life of a state construction contract and that _____ shall subcontract work only to subcontractors
(Contractor Name)
meeting the requirements of Idaho Code, Section 72-1717(1)(a).

Name of Contractor

_____

Address

_____

By _____
(Signature)

Subscribed and sworn to before me this _____ day of _____ , 20--.

Notary Public for_____
Residing at _____
My Commission Expires_____

THIS PAGE MUST BE RETURNED COMPLETED WITH YOUR BID DOCUMENT

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APPENDIX IV

BUY AMERICA/BUILD AMERICA BUY AMERICA INSERT

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2025 BUY AMERICA/ BUILD AMERICA BUY AMERICA INSERT

(For projects obligated on or after October 1, 2025)

This document is intended as a Build America Buy America (BABA, 2 CFR 184) and Buy America (BA, 23 CFR 635.410) contract insert that includes changes to the 2023 Standard Specifications for Highway Construction (SSHC), and the 2020 Quality Assurance Manual (Dated 10/19). For the purposes of this contract, the term "Buy America" refers to both Build America Buy America (BABA), and Buy America (BA).

REVISIONS TO THE 2023 SSHC

ON PAGE 11, SUBSECTION 101.04 – DEFINITIONS **09/25**

Replace the definition of "Construction Material" with the following:

Construction Material (BABA, 2 CFR 184). A Construction Material is an article, material, or supply that consists of only one of the items listed, except for minor additions: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cable); glass (including optic glass); lumber (including treated wood, and untreated wood); Fiber optic cable; Optical fiber; Engineered wood or drywall. To the extent one of the items listed above contains as inputs other items listed above, it is nonetheless a Construction Material. For example, fiber optic cable contains as inputs other items listed, such as glass and/or plastics, but fiber optic cable is nonetheless a Construction Material. Items specifically excluded from Construction Materials are products that are primarily iron or steel (defined under Iron and Steel Products); cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. Coatings do not change the categorization of a Construction Material. Minor additions of articles, materials, supplies, or binding agents to a Construction Material do not change the categorization of Construction Material. For example, wax added to engineered wood should not disqualify the engineered wood from categorization as a Construction Material. However, if before the engineered wood is brought to the work site, it is combined with glass or other items or materials to produce a new product, which is not listed above, the new product would be classified as a Manufactured Product, not a Construction Material.

ON PAGE 14, SUBSECTION 101.04 – DEFINITIONS **09/25**

Add the following in alphabetical order:

Manufactured Product (BA, 23 CFR 635.410). A Manufactured Product is defined as articles, materials, or supplies that have been processed into a specific form and shape, or combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies. Any product that is classified as an iron or steel product, an excluded material, or a Construction Material is not a Manufactured Product. Excluded materials, defined in 2 CFR 184.3, include cement and cementitious materials, aggregates such as stone, sand, or gravel, or aggregate binding agents or additives. However, an article, material, or supply classified as a manufactured product may include components that are iron or steel products, excluded materials, or other product categories as specified by law or in 2 CFR part 184. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product. The FHWA waiver on

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Manufactured Products has been eliminated and 100% of the final assembly or manufacture of the Manufactured Product must occur domestically.

Manufacturer. In the case of Manufactured Products, manufacturer means the entity that performs the final manufacturing process that produces a Manufactured Product.

ON PAGE 59, 106.01.A.1 – IRON AND STEEL PRODUCTS **02/2024**

Add the following after the first paragraph.

Iron or steel products means articles, materials, or supplies that consist wholly or predominantly of iron or steel or a combination of both. "Predominantly of iron or steel" means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components.

ON PAGE 60, 106.01.A.1 – IRON AND STEEL PRODUCTS **02/2024**

Delete the second sentence of the fifth paragraph and replace with the following:

Cost determination is based on supplier invoice costs.

ON PAGE 60, 106.01.A.2 – CONSTRUCTION MATERIALS **02/2024**

Delete the first paragraph and replace with:

All Construction Materials must be produced in the United States. Produced in the United States is defined below for each Construction Material.

(1) Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
(2) Plastic and polymer-based products. All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.
(3) Glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
(4) Fiber optic cable (including drop cable). All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.
(5) Optical fiber. All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
(6) Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.
(7) Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.

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(8) Engineered wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

ON PAGE 60, 106.01.A.2 – CONSTRUCTION MATERIALS **09/2025**

Add the following after 106.01.A.2:

3. Manufactured Products (BA, 23 CFR 635.410).

All Manufactured Products must be produced in the United States. For Manufactured Products, produced in the United States means that 100% of the final assembly or manufacture of the Manufactured Product must occur domestically.

4. Small Quantities for Construction Materials and Manufactured Products

The Engineer may allow small quantities of foreign or non-compliant Construction Materials and Manufactured Products, so long as the total value of the foreign or non-compliant Construction Materials and Manufactured Products does not exceed the lesser of $1,000,000 or 5 percent of the Total Applicable Project Costs for the project or where the Total Amount of Federal Financial Assistance is below $500,000. "Total Applicable Project Costs" are defined as the cost of iron/ steel, Construction Materials and Manufactured Products used in the project that are subject to a domestic preference requirement, including materials that are within the scope of an existing waiver. "Total Amount of Federal Financial Assistance" includes federal funding provided for preliminary engineering, right of way, and all construction contracts. For projects under a NEPA decision, include all federal funding provided for all projects under that NEPA decision.

The Contractor must maintain and provide in .csv format for each estimate to the Engineer a running total, listed by bid item and manufacturer, of the cost of Construction Materials and Manufactured Products not meeting the Buy America criteria and a running total of the Total Applicable Project Costs (as defined in the paragraph above). Invoices must be available for audit at any time and must be retained for a period of five years from the date of substantial completion for the project. If the Contractor does not provide these costs for each estimate, the estimate payment will not be made until the costs are supplied, or the Contractor provides a written statement(*) that they are not going to supply these costs. The written statement will include a statement from the Contractor acknowledging that they will not be able to incorporate any non-compliant Construction Materials or Manufactured Products into the project. The Engineer needs to make sure the running total of the Total Applicable Project Costs and the running total of foreign or non-compliant Construction Materials or Manufactured Products are received prior to issuing each pay estimate and that the Contractor does not exceed the Buy America threshold for non-compliant Construction Materials or Manufactured Products or have received the written statement from the Contractor indicating they will not be providing the running total.

* The written statement must include the following sentence:

"As the authorized representative of the Contractor, by providing this written statement that I will not be providing the running total for each estimate of the Total Applicable Project

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Costs, the Contractor is acknowledging that non-compliant Construction Materials or Manufactured Products cannot be incorporated into the project."

REVISIONS TO THE 2020 QUALITY ASSURANCE MANUAL (DATED 10/19)

Section 100.00.01 – Quality Control (QC) Producer

Delete the second sentence of the first paragraph and replace with:

Quality control of materials used in construction is the Contractor's responsibility and is performed during the production of the material and/or at the point of delivery.

Section 200 "Outline"

Revise Section 230.01 as follows:

230.01	General Provisions and Buy America.
230.01.01	General Provisions.
230.01.02	Buy America, and Build America Buy America.
230.01.02.01	Iron and Steel Products
230.01.02.02	Construction Materials
230.01.02.03	Manufactured Products

Section 230.01 General Provisions

Delete Section 230.01 and replace with the following:

230.01 General Provisions and Buy America

230.01.01 General Provisions

Standard Department certification forms will be used. The standard forms are:

- ITD-849 Geotextile and Geogrid
- ITD-851 Miscellaneous Items
- ITD-875 Non-Structural Concrete
- ITD-914 Steel and Iron, and Buy America
- ITD-915 Construction Materials and Manufactured Products for Buy America
- ITD-966 PG Asphalt Binder
- ITD-968 Cement / Fly Ash

The standard forms must be completed in their entirety and signed by the manufacturer's representative who has quality control responsibility for the manufacture or fabrication of the material.

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When required by the contract, QC test results must be attached to the specified standard form. Certification does not preclude inspection, sampling, testing, or verification of certified test results of the material received on the project. Project inspectors will review all certification results for specification compliance before accepting the material. If the certified material is found to be outside acceptable specification limits, the material is subject to rejection.

Each shipment of certified material must be visually inspected for obvious defects and shipping/handling damage. Repair, reject, or replace damaged or defective material to the satisfaction of the Engineer. Where feasible, simple measurements of specified properties should be spot-checked at least once per project and recorded to verify certification. Examples would be length, mass per unit length, or thickness of steel items.

Withdraw acceptance of material by certification when sample test or inspection results show the material consistently fails to meet specifications requirements. Reestablishment of the certification acceptance may be achieved through Department pre-testing, pre-inspection, and review of historical certification records and test results of the material before its incorporation into a project. Additionally, the manufacturer's QA program may require revision and reevaluation by the Department.

230.01.02 Buy America (BA), and Build America Buy America (BABA)

Buy America and Build America Buy America apply to any contract eligible for Federal Aid Highway funding within the scope of an applicable NEPA finding, determination, or decision regardless of the funding source of such contracts if at least one contract or phase of the project is funded with Federal-Aid highway funds. All incorporated steel and iron products, Construction Materials, and Manufactured Products permanently installed on the project as established in Standard Specification 106.01.A must be certified that they were produced in the United States of America per 23 CFR 635.410 for iron/steel, 23 CFR 635.410 for Manufactured Products, and 2 CFR 184 for Construction Materials. Certification must be provided before incorporation of the materials into the project. Materials that are only used or rented during the project construction, but not incorporated into the work (temporarily installed), do not require certification. 230.01.02.01 Iron and Steel Products per 23 CFR 635.410.

The ITD-914 form will serve as Buy America Certification and be signed by a person having quality control responsibility for the company that manufactures or fabricates the material. The ITD-914 will be sent with mill tests reports attached, except as noted in the MTRs.

Small quantities of steel and iron may be accepted without Buy American Certification, so long as its total cost for the project does not exceed 0.1% of the contract amount or $2,500, whichever is greater. The total cost of steel and iron includes the cost of the material plus the cost of transportation to the project site, as evidenced by delivery receipt, but does not include labor cost involved in final assembly performed on the project site.

If Department project staff or consultant inspectors discover that foreign iron and/or steel products are incorporated into a federal-aid project that exceed the Buy America minimal use amount for iron or steel (the greater of $2,500 or 0.1% of the contract value), the FHWA Idaho Division must be contacted to

resolve this after-the-fact discovery. All information on foreign iron and steel permanently incorporated into a project that exceeds the minimal use amount must be presented to FHWA to determine the appropriate resolution. The Department will not complete a project's Material's Certification without FHWA's resolution when the project is not compliant with Buy America. The Department has no authority to complete such a resolution and cannot resolve Buy America compliance issues by use of non-Federal funds.

230.01.02.02.02 Construction Materials per 2 CFR Part 184.

A Construction Material is an article, material, or supply that consists of only one of the items listed, except for minor additions: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cable); glass (including optic glass); lumber (including treated wood, and untreated wood); Fiber optic cable; Optical fiber; Engineered wood or drywall.

To the extent one of the items listed above contains as inputs other items listed above, it is nonetheless a Construction Material. For example, fiber optic cable contains as inputs other items listed, such as glass and/or plastics, but fiber optic cable is nonetheless a Construction Material.

Items specifically excluded from Construction Materials are products that are primarily iron or steel (defined under Iron and Steel Products); cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

Coatings do not change the categorization of a Construction Material. Minor additions of articles, materials, supplies, or binding agents to a Construction Material do not change the categorization of Construction Material. For example, wax added to engineered wood should not disqualify the engineered wood from categorization as a Construction Material. However, if before the engineered wood is brought to the work site, it is combined with glass or other items or materials to produce a new product, which is not listed above, the new product would be classified as a Manufactured Product, not a Construction Material.

230.01.02.03 Manufactured Products per 23 CFR 635.410

Manufactured Products are defined as articles, materials, or supplies that have been processed into a specific form and shape, or combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.

With respect to precast concrete products that are classified as Manufactured Products, components of precast concrete products that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements for steel and iron products. The cost of such components shall be included in the applicable calculation for purposes of determining whether the precast concrete product is produced in the United States.

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With respect to intelligent transportation systems and other electronic hardware systems that are installed in the highway right of way or other real property and classified as manufactured products, the cabinets or other enclosures of such systems that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements for steel and iron products. The cost of cabinets or other enclosures shall be included in the applicable calculation for purposes of determining whether systems referred to in the preceding sentence are produced in the United States.

230.01.02.04 Small Quantities for Construction Materials and Manufactured Products

For awards obligated on or after August 16, 2023, the Engineer may allow small quantities of foreign Manufactured Products and Construction Materials, so long as the total value of the non-compliant products does not exceed the lesser of $1,000,000 or 5 percent of the total applicable costs for the project or where the total amount of federal financial assistance is below $500,000. "Total applicable project costs" are defined as the cost of Construction Materials and Manufactured Products used in the project that are subject to a domestic preference requirement, including materials that are within the scope of an existing waiver. "Total Amount of Federal Financial Assistance" includes federal funding provided for preliminary engineering, right of way, and all construction contracts. For projects under a NEPA decision, include all federal funding provided for all projects under that NEPA decision.

The Contractor must maintain and provide in .csv format for each estimate to the Engineer a running total, listed by bid item and manufacturer, of the cost of Construction Materials and Manufactured Products not meeting the Buy America criteria and a running total of the Total Applicable Project Costs (as defined in the paragraph above). Invoices must be available for audit at any time and must be retained for a period of five years from the date of substantial completion for the project. If the Contractor does not provide these costs for each estimate, the estimate payment will not be made until the costs are supplied, or the Contractor provides a written statement (*) that they are not going to supply these costs. The written statement will include a statement from the Contractor acknowledging that they will not be able to incorporate any non-compliant Construction Materials or Manufactured Products into the project. The Engineer needs to make sure the running total of the Total Applicable Project Costs and the running total of foreign or non-compliant Construction Materials and Manufactured Products are received prior to issuing each pay estimate and that the Contractor does not exceed the Buy America threshold for non-compliant Construction Materials and Manufactured Products or have received the written statement from the Contractor indicating they will not be providing the running total. Cost is defined in 2 CFR 200.306 (actual acquisition cost).

* The written statement must include the following sentence:

"As the authorized representative of the Contractor, by providing this written statement that I will not be providing the running total for each estimate of the Total Applicable Project Costs, the Contractor is acknowledging that non-compliant Construction Materials and Manufactured Products cannot be incorporated into the project."

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230.01.02.04 Certification of Construction Materials and Manufactured Products

The ITD-915 form serves as Buy America Certification for Construction Materials and Manufactured Products and must be signed by a person having quality control responsibility for the company that manufactures the product.

If Department project staff or consultant inspectors discover that foreign Construction Materials or Manufactured Products are incorporated into a federal-aid project, the FHWA Idaho Division must be contacted to resolve this after-the-fact discovery. All information on foreign Construction Materials and Manufactured Products permanently incorporated into a project must be presented to FHWA to determine the appropriate resolution. The Department will not complete a Project's Materials Certification without FHWA's resolution when the project is not compliant with Buy America requirements. The Department has no authority to complete such a resolution and cannot resolve Buy America compliance issues by use of non-Federal funds.

Section 230.03 Steel.

Delete the last sentence of the first paragraph and replace with:

Steel will comply with 230.01.02 Buy America per 23 CFR 635.410.

Section 230.07 Corrugated Metal Pipe and Corrugated Plate Pipe.

Add the following to the end of the second paragraph of the section:

Additionally, a form ITD-915 will be submitted attesting that the aluminum pipe meets applicable Buy America requirements for Construction Material (non-ferrous metals).

Section 230.08 Plastic Pipe.

Add the following to the end of the first paragraph of the section:

Additionally, a form ITD-915 will be submitted attesting that the plastic pipe meets applicable Buy America requirements for Construction Material (plastic and polymer-based products).

Section 230.09 Geosynthetics.

Add the following to the end of the first paragraph of the section:

Additionally, a form ITD-915 will be submitted attesting that the aluminum pipe meets applicable Buy America requirements for Construction Material (plastic and polymer-based products).

Section 270.00 Minimum Testing Requirements (Table)

Use the Buy America Summary Table below for BA requirements and BA certifications of materials. Iron or steel products are listed as "Fe". Construction Materials are listed as "CM". Manufactured Products are listed as "MP

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Buy America Summary Table (Section 270)				
Section	**Item Desc.**	**Code[1,4,6,7]**	**Form(s)[2,3,5,9]**	**Comments**
212	Slope Drain	Fe, CM	ITD-914, ITD-915	
212 (General)	Erosion and Sediment Control Products	MP	ITD-915	All erosion and sediment control products that are allowed to remain in place must be certified appropriately.
405	Pavement Reinforcement Fabric	CM	ITD-915	
420	Concrete Pavement Rehab (Precast Elements)	MP	ITD-914, ITD-915	Both required for steel reinforced products.
502	Precast Concrete Products	MP	ITD-914, ITD-915	Both required for steel reinforced products.
503	GFRP	MP	ITD-915	
504	Bolts, Nuts, Hardened Washers, DTI	Fe, CM, MP	ITD-914, ITD-915	
504	Two Tube Curb-Mount Railing	Fe, CM, MP	ITD-914, ITD-915	
504	Pedestrian Bicycle Railing	Fe, CM, MP	ITD-914, ITD-915	
504	Combination Pedestrian Bicycle, and Traffic Railing	Fe, CM, MP	ITD-914, ITD-915	
505	Timber Piles	CM	ITD-915	
506	Prestressing Concrete	Fe, CM, MP	ITD-915	
507	Bearing Pads and Plates	Fe, CM, MP	ITD-914, ITD-915	
508	Corrugated Plate Pipe - Entire Section	Fe, CM, MP	ITD-914, ITD-915	
511	Concrete Waterproofing Systems - Types A, B	CM, MP	ITD-915	
511	Concrete Waterproofing Systems - Types C	MP		Note, Type C Silanes and siloxane chemicals are not polymers and are not Construction Materials.
511	Concrete Waterproofing Systems - Types D	CM, MP	ITD-915	
511	Concrete Waterproofing Systems - Types E	CM, MP	ITD-915	
512	Gabion Structures	Fe, CM, MP	ITD-914, ITD-915	

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565	Asphaltic Plug Expansion Joint System	Fe, CM, MP	ITD-914, ITD-915	
566	Compression Seal Expansion Joint	CM, MP	ITD-915	
567	Strip Seal Expansion Joint	Fe, CM, MP	ITD-914, ITD-915	
576	GFRP	MP	ITD-915	
577	Pile Sleeves	Fe, CM, MP	ITD-914, ITD-915	
578	Precast Concrete Culvert	Fe, CM, MP	ITD-914, ITD-915	
581	Concrete Crack Repair	CM, MP	ITD-915	
582	Patch and Repair Concrete	Fe (for replaced reinforcing steel)	ITD-914	
586	Utility Conduit General	Fe, CM, MP	ITD-914, ITD-915	
587	Painting Structural Steel	CM, MP	ITD-915	
602-608	Culverts, Pipe Siphons, Irrigation Pipelines, Sewers, Storm Sewers, Manhole, Valve Covers, and Dry Wells, Pipe Underdrains, Urban and Rural Edgedrains, Embankment Protectors, Pipe Aprons	Fe, CM, MP	ITD-914[2], ITD-915	
609	Minor Structures General	Fe, CM, MP	ITD-914, ITD-915	
610	Fence General	Fe, CM, MP	ITD-914, ITD-915	
611	Cattle Guards	Fe, CM, MP	ITD-914, ITD-915	
612	–Guardrail and Concrete Barrier - General	Fe, CM, MP	ITD-914, ITD-915	
613	Crash Cushions	Fe, CM, MP	ITD-914, ITD-915	
614	Detectable Warning Surfaces	CM, MP	ITD-915	
616	Signs and Sign Supports - General	Fe, CM, MP	ITD-914, ITD-915	
617	Delineators and Mileposts General	Fe, CM, MP	ITD-914, ITD-915	
618	Marker Posts, Witness Posts, and Street Monuments - General	Fe, CM, MP	ITD-914, ITD-915	
619	Illumination General	Fe, CM, MP	ITD-914, ITD-915	
622	Precast Concrete Headgates	Fe, MP	ITD-914, ITD-915	

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623	Pre-formed expansion Joint Filler Concrete Slope Paving	CM, MP	ITD-915	
625	Joints - General	CM, MP	ITD-915	
627	Painting	CM, MP	ITD-915	
628	Snow Poles	Fe, CM, MP	ITD-914, ITD-915	
630	Pavement Markings - General	CM, MP	ITD-915	
634	Mailbox - General	Fe, CM, MP	ITD-914, ITD-915	
640	Geosynthetics - General	CM, MP	ITD-915	
641	Biaxial Geogrid	CM, MP	ITD-915	
652	Underground Sprinkler System - All Items	CM, MP	ITD-915	
656	Traffic Signal Installation - General	Fe, CM, MP	ITD-914, ITD-915	
Misc. Items	Epoxies	CM, MP	ITD-915	

Notes:

1. Code Key: Fe = iron & steel, CM = Construction Material, MP = Manufactured Product, BA N/A = Item determined not to apply to BA.
2. The ITD-914 applies to Iron and steel products only. There is no change to the Buy America certification process for Iron and Steel.
3. This table makes additional requirements to the existing 270 table only; the existing ITD-914 requirements for Iron and Steel are not restated.
4. Buy America requirements apply to all iron and steel items no matter what form of manufacturing or material combinations are used.
5. The ITD-915 applies to Construction Materials and Manufactured Products.
6. Besides Fe and CM, no other products/items are considered by the Department to be applicable to these Buy America requirements.
7. Field assembly does not constitute a manufactured process and does not necessarily preclude applicability to Buy America requirements.
8. Wood products, even when treated, are considered Construction Materials.
9. Any justification denying applicability to the Buy America requirements is to be submitted on/with the ITD-915 form.

Section 470.01 Exceptions.

In the sixth full paragraph, replace the sentence with:

Exceptions to the Buy America specification must be presented to FHWA for determination of a resolution, see Section 230.01.02 Buy America.

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APPENDIX V

TITLE VI SPECIAL PROVISIONS

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Title VI Special Provisions

In compliance with the United States Department of Transportation (USDOT) Standard Title VI/Non-Discrimination Assurances (DOT Order No. 1050.2A):

"The Idaho Transportation Department, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 US.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award."

During the performance of work covered by this Contract, the Contractor for themselves, their assignees and successors in interest agree as follows to adhere to Appendix A and E of the USDOT Standard Title VI/Non-Discrimination Assurances:

APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration (FHWA), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 2 l.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration (FHWA), to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration (FHWA), as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Nondiscrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration (FHWA) may determine to be appropriate, including, but not limited to:

a. withholding payments to the contractor under the contract until the contractor complies; and/or
b. cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the

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Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration **(**FHWA) may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 4 71, Section 4 7123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U .S.C. 1681 et seq).

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APPENDIX VI

FHWA-1273 REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

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REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Non-segregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
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XI. Certification Regarding Use of Contract Funds for Lobbying
XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

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1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

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within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

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(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

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(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

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2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

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(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or

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mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;

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(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

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IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

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2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

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excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

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ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

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APPENDIX VII

DAVIS-BACON WAGE DETERMINATION

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"General Decision Number: ID20250082 08/01/2025

Superseded General Decision Number: ID20240082

State: Idaho

Construction Type: Highway

County: Latah County in Idaho.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $17.75 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/03/2025
1	08/01/2025

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* PLAS0072-001 06/01/2025

ZONE 1:

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 40.89	18.64

Zone Differential (Add to Zone 1 rate): Zone 2 - $3.00

BASE POINTS: Spokane, Pasco, Lewiston, Wenatchee

Zone 1: 0-45 radius miles from the main post office

Zone 2: Over 45 radius miles from the main post office

SUID2013-010 06/17/2013

	Rates	Fringes
CARPENTER (Form Work Only)	$ 26.57	8.10
ELECTRICIAN	$ 26.83	11.94
HIGHWAY/PARKING LOT STRIPING: Painter	$ 23.80	6.67
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$ 22.86	9.40
LABORER: Common or General	$ 22.92	10.01
LABORER: Concrete Saw (Hand Held/Walk Behind)	$ 23.98	11.05
LABORER: Grade Checker	$ 23.41	10.78
LABORER: Mason Tender - Cement/Concrete	$ 23.52	10.39
OPERATOR: Backhoe/Excavator/Trackhoe	$ 25.97	10.95
OPERATOR: Bobcat/Skid Steer/Skid Loader	$ 25.35	11.55
OPERATOR: Broom/Sweeper	$ 26.82	11.55
OPERATOR: Bulldozer	$ 25.73	11.51
OPERATOR: Crane	$ 27.18	10.97
OPERATOR: Crusher	$ 25.06	9.23
OPERATOR: Grader/Blade	$ 26.00	10.30
OPERATOR: Hydroseeder	$ 24.76	11.51
OPERATOR: Loader	$ 25.76	10.31
OPERATOR: Mechanic	$ 26.00	9.93
OPERATOR: Oiler	$ 25.66	9.23

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OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....$ 25.66 11.03

OPERATOR: Roller (Subgrade).....$ 22.24 8.57

OPERATOR: Roller.....$ 25.49 11.55

OPERATOR: Rotomill.....$ 29.78 4.52

OPERATOR: Screed.....$ 25.71 11.55

TRAFFIC CONTROL: Flagger.....$ 21.46 10.12

TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper.....$ 22.66 10.90

TRUCK DRIVER: Dump Truck.....$ 23.40 10.75

TRUCK DRIVER: Lowboy Truck.....$ 22.12 13.20

TRUCK DRIVER: Oil Distributor Truck.....$ 22.54 12.35

TRUCK DRIVER: Water Truck.....$ 23.12 10.75

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical

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order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

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The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that

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the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION"

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APPENDIX VIII

PROMPT PAYMENT

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Prompt Payment

CONTRACTOR'S AFFIDAVIT CONCERNING PROMPT PAYMENT OF SUB-CONTRACTORS

48 CFR 52.232 Sections 25-27

The undersigned being duly sworn upon oath, deposes and says that _____ (Bidder) will comply with 48 CFR 52.232 Sections 25-27 that requires prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment made to the prime contractors.

The retainage of this project will not be paid to the prime contractor until all of the subcontractors have signed a "Subcontractor Confirmation of Prompt Payment" form upon substantial completion of the project, verifying the prime contractor followed the guidelines of 68 FR 35553.

_____ Name of Contractor

_____ Address

_____ Signed by

_____ Key Number

_____ Project Name

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public for_____

Residing at _____

My Commission Expires_____

THIS PAGE MUST BE COMPLETED RETURNED WITH YOUR BID DOCUMENTS

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Subcontractor Confirmation of Prompt Payment

48 CFR 52.232 Sections 25-27

The undersigned being duly sworn upon oath, deposes and says that _____ (Prime Contractor) has complied with 48 CFR 52.232 Sections 25-27 that requires prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment made to the prime contractors.

The retainage of this project will not be paid to the prime contractor until all of the subcontractors have signed a "Subcontractor Confirmation of Prompt Payment" form upon substantial completion of the project, verifying the prime contractor followed the guidelines of 68 FR 35553.

_____ Name of Subcontractor

_____ Address

_____ Signed by

_____ Key Number

_____ Project Name

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public for_____

Residing at _____

My Commission Expires_____

THIS PAGE MUST BE COMPLETED, SIGNED, AND RETURNED TO THE PRIME CONTRACTOR IN ORDER FOR THE RETAINAGE TO BE PAID AND THE PROJECT CLOSED OUT.

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APPENDIX IX

MINIMUM TESTING REQUIREMENTS

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Minimum Testing Requirements

Key Number	Project Number	Project Name	Work Authority
23902 23903	A023(902) A023(903)	NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS	

Contract Number	Contractor

CE&I Project Manger	Resident Engineer

This schedule is provided only as a guideline. Acceptance of material will be according to the contract, plans and specifications, including the ITD QA Manual. The number of samples taken shall not be determined exclusively by this schedule, but shall represent the quantity used as required by the minimum test requirements for acceptance and the Independent Assurance Program.

BID #	MATERIAL	PURPOSE OF TESTING	SPEC. REF. / SAMPLED BY	TEST METHOD / TESTED BY	REQUIRED REPORT FORM NO.	MINIMUM FREQUENCY	REMARKERS, NOTES, OR ADDITIONAL INSTRUCTIONS	BID QUANTITY	MINIMUM NO. TESTS/ CERTS REQ.	# COMPLETED/ QUANTITY CERTIFIED	VERIFIED BY (CONSULTANT INITIALS)
BID ITEM NO. & DESCRIPTION: 107-019A SURVEY MONUMENT PRESERVATION											
107-019A	Survey Monument Preservation	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	Tracked and paid by force account. See Spec 109.03.C.5. Provide certs per Section 618.	6,000 CA	RE-LETTER		

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID #	MATERIAL	PURPOSE OF TESTING	SPEC. REF. / SAMPLED BY	TEST METHOD / TESTED BY	REQUIRED REPORT FORM NO.	MINIMUM FREQUENCY	REMARKERS, NOTES, OR ADDITIONAL INSTRUCTIONS	BID QUANTITY	MINIMUM NO. TESTS/ CERTS REQ.	# COMPLETED/ QUANTITY CERTIFIED	VERIFIED BY (CONSULTANT INITIALS)
BID ITEM NO. & DESCRIPTION: 201-010A CLEARING AND GRUBBING											
201-010A	Clearing & Grubbing	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	1 LS	RE-LETTER		

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 202-005A SELECTIVE REMOVAL OF TREES INCLUDING STUMPS											
203-005A	Selective Removal of Trees Including Stumps	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	12 EACH	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 203-005A REMOVAL OF OBSTRUCTIONS											
203-005A	Removal of Obstructions	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	1 LS	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 203-006A REMOVAL OF SIGN											
203-006A	Removal of Sign	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	24 EACH	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 203-025A REMOVAL OF CATCH BASIN											
203-025A	Removal of Catch Basin	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	4 EACH	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 203-055A REMOVAL OF CONCRETE PAVEMENT											
203-055A	Removal of Concrete Pavement	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	66.7 SY	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: 203-060A REMOVAL OF CONCRETE SIDEWALK											
203-060A	Removal of Concrete Sidewalk	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	66.6 SY	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: 203-065A REMOVAL OF CURB											
203-065A	Removal of Curb	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	112.6 FT	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: 203-070A REMOVAL OF CURB & GUTTER											
203-070A	Removal of Curb & Gutter	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	371.7 FT	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 203-075A REMOVAL OF FENCE											
203-075A	Removal of Fence	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter-See QA Manual Section 107.18; Coordinate with Landowners	8.6 FT	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 203-095A REMOVAL OF MANHOLE											
203-095A	Removal of Manhole	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	1 EACH	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 203-122A REMOVAL OF MISCELLANEOUS ITEMS											
203-122A	Removal of Miscellaneous Items	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	14 EACH	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 203-123A REMOVAL OF MISCELLANEOUS ITEMS											
203-123A	Removal of Miscellaneous Items	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 - Check Approved Waste Site	68.0 FT	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 205-005A EXCAVATION

205-005A	Excavation Class C Compaction Excavated to top of subgrade or below natural ground under embankments	ACCEPTANCE In-Place Density (1)	205.03-F	FOP for AASHTO T 99 FOP for AASHTO T 180 FOP for AASHTO T 272 Idaho IT-74 FOP for AASHTO T 310 Method B	ITD-850	Each 5,000 SY	Document compaction effort (equipment, number of passes, etc.) for lifts not tested. After remedial efforts, obtain check tests within 10 feet and at same depth as original test. See QA Manual Section 215.00	2643.4 CY	1		
			ITD Project Personnel	ITD Project Personnel							
		(1) Document that the material is too granular to test on the ITD-850 by completing gradation, compaction effort (including equipment and roller passes), and SE (for granular borrow and if more than 5% passing the #200 sieve) at the same frequency as the required density acceptance. Note: Median areas and on slopes (approximately 2H:1V) that are outside the roadway prism where Class D compaction is required, fill out ITD-850 listing at least one coverage using Engineer approved track-type or rubber-tired earth moving equipment.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.		Remarks

BID ITEM NO. & DESCRIPTION: 212-011A FIBER WATTLE

212-011A	Fiber Wattle	ACCEPTANCE Certification	711.2		ITD-851 with weed free cert	Total Quantity Paid	Certified noxious weed-free grain straw.	285.4 FT	CERT		
			Manufacturer	Manufacturer							

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID ITEM NO. & DESCRIPTION: 212-095A INLET PROTECTION

212-095A	Inlet Protection	ACCEPTANCE Certification	212.03 711.23		ITD-851	Total Quantity Paid	Certification Based on Measures Used	15 EACH	CERT		
			Manufacturer	Manufacturer							

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 251-005A MIGRATORY BIRD COMPLIANCE											
251-005A	Migratory Bird Compliance	ACCEPTANCE Inspection	251		ITD-854	Total Quantity Paid		10000 CA	RE-LETTER		
			Manufacturer	Manufacturer							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 303-022A 3/4" AGGREGATE TYPE B FOR BASE											
303-022A	3/4" Aggregate Type B for Base	ACCEPTANCE Aggregate Gradation Sand Equivalent Fracture Count	303.02 703.04	FOP for AASHTO R 90 FOP for AASHTO R 76 FOP for AASHTO T 27 FOP for AASHTO T 11 FOP for AASHTO T 255 FOP for AASHTO T 265 FOP for AASHTO T 176 Alt.Method 2,Mechanical FOP for AASHTO T 335 Method 1	ITD - 901	Each 700 CY or 1,000 Tons	Acceptance from windrow or roadway. Moisture percent required for payment only. (Pass/Fail, no statistical analysis)	1949.2 TON	2		
			ITD Project Personnel	ITD Project Personnel							
		ACCEPTANCE Compacted Roadway In-Place Density	303.02	FOP for AASHTO T310 Method B	ITD-850	Each 700 CY or 1,000 Tons	Contractor is responsible for providing an Idaho T-74 Density Curve		2		
			ITD Project Personnel	ITD Project Personnel							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 307-012A OPEN-GRADED BASE CLASS III											
307-012A	Open-Graded Base Class III	ACCEPTANCE Gradation[1]	703.08	FOP for AASHTO R 90 FOP for AASHTO R 76 FOP for AASHTO T 27	ITD - 901	Each 1,800 CY or 2,500 Tons	Acceptance at Crusher Conveyor Belt Reducing & wash method not required for Class I & II. Drying to constant mass is not required for Class I & II	1141.7 TON	1		
			ITD Project Personnel	ITD Project Personnel							
		ACCEPTANCE In-Place Density	307.03	Method Specification	ITD-850	Each 3,000 LF but not less than once per day			1 per day		
			ITD Project Personnel	ITD Project Personnel							
	(1) The minimum test sample mass for FOP AASHTO T27 Sieve Analysis will be 65 lb. for Class I, 50 lb. for Class II and 25 lb. for Class III.										

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3												
405-435A	Mix Design	ACCEPTANCE Certification	405.02		See Section 260.01			629.5 TON	1 per mix			
			ITD Project Personnel	ITD Project Personnel								
	Performance Graded Binder	ACCEPTANCE Certification	702.01 702.05		ITD-966 OR manufacturer certification	Initial lot & each new lot to project	See QA Manual 230.10		1 per lot			
			Manufacturer	Manufacturer	Loading Certificate	Each Shipment to Project						
	Anti-Strip Additive	ACCEPTANCE Certification	702.04		Manufacturer Certification				CERT			
			ITD Project Personnel	ITD Project Personnel								
	Production Paving Class SP-3	SMALL QUANTITY ACCEPTANCE Loose Mix	405.03	AASHTO T 209	ITD-777	3 randomly located mix samples during HMA placement	Random Samples Locations. See Section 270.04. The Engineer may elect to sample and test small quantities at any time.		3			
			ITD Project Personnel	ITD Project Personnel								
		PRODUCTION ACCEPTANCE Density	405.03.R		ITD-892	Method Spec Compaction	For small quantities of traveled way paving, intersection paving, or paving at intersection radiuses, cores are required as specified in the Standard Specifications 405.03.O for in-place density acceptance. Small quantity pavement applications that do not require cores for in-place density acceptance include small patches, utility repairs, and pavement placed outside the traveled way.		NA			
			ITD Project Personnel	ITD Project Personnel								
		Surface Smoothness ACCEPTANCE Straight Edge	405-03T	Straight Edge 1/4" max over 10 ft.	Smoothness for roadways with a speed less than 40 MPH are accepted by Straight Edge requirements. See 405.03.T. Documented by inspector.				NA			
				ITD Project Personnel								

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID ITEM NO. & DESCRIPTION: 502-065A CONCRETE CLASS 40 AF											
	Concrete Ready-Mix Plant Inspection		ITD Project Personnel	ITD Project Personnel	ITD-893	1 per project	Inspection of plant is valid for one 1 year.		1		

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Mix Design	REVIEW BY HQ Central Lab	502.01 502.03(A)		See Section 260.03			MIX DESIGN SUBMITTAL		
		Contractor	Contractor						
	ACCEPTANCE (Water from other than a municipal drinking supply)	720.01	ASTM C1602	Submit independent test results with mix design information	1 per project	Water from any municipal drinking supply does not require testing.			
		Contractor	Independent Lab						
	ACCEPTANCE (Admixtures) Approved List	709.02 709.03 709.04 709.05	ASTM C494 AASHTO M154	Qualified Products List					
		Manufacturer	Manufacturer						
Fine Aggregate	ACCEPTANCE Gradation Sand Equivalent	409.02 703.02	FOP for AASHTO R 90 FOP for AASHTO R 76 FOP for AASHTO T 27 FOP for AASHTO T 11 FOP for AASHTO T 176 Method 2 mechanical	ITD-901 OR ITD-1043	Each 500 CY of concrete placed	Frequency applies to multiple concrete items from same concrete plant per project.	1		
		ITD Project Personnel	ITD Project Personnel						
	INDEPENDENT ASSURANCE Gradation Sand Equivalent	IA Inspector	IA Inspector	ITD-857	Each 10,000 CY of concrete placed		1		
Coarse Aggregate	ACCEPTANCE Gradation	409.02 703.03	FOP for AASHTO R 90 FOP for AASHTO R 76 FOP for AASHTO T 27	ITD-901 OR ITD-1043	Each 500 CY of concrete placed	Frequency applies to multiple concrete items from same concrete plant per project. Wash method not required.	1		
		ITD Project Personnel	ITD Project Personnel						
	INDEPENDENT ASSURANCE Gradation	IA Inspector	ITD District Lab	ITD-857	Each 10,000 CY of concrete placed		1		

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502-065A	Cement	ACCEPTANCE Certification	701.01	AASHTO M85 or AASHTO M240 Total Alkali	ITD-968 with bills of lading attached	Each week concrete is placed representing the amount of cement used	See QA Manual Section 230.02	2.8 CY	CERT		
			Manufacturer	Manufacturer							
		VERIFICATION Laboratory Test[1]	701.01	AASHTO M85 or AASHTO M240	ITD-1044[1B] (Sample Data) ITD-1825 (Lab Report)	Each 1,000 CY of concrete placed and for each mill analysis number [2]	The frequency applies to multiple concrete items from the same concrete plant per project. Price adjustment for failing cement.		1 / MILL		
			ITD Project Personnel	ITD Central Lab							
	Secondary Cementitious Material (SCM)	ACCEPTANCE Certification	714		ITD-968 with bills of lading attached	Each week concrete is placed representing the amount of SCM used	See QA Manual Section 230.02		CERT		
			Manufacturer	Manufacturer							
		VERIFICATION Laboratory Test[1]	714		ITD-1044[1B] (Sample Data) ITD-1826 (Lab Report)	Each 4,000 CY of concrete placed and for each sample ident number [2]	The frequency applies to multiple concrete items from the same concrete plant per project.		1 / MILL		
			ITD Project Personnel	ITD Central Lab							
	Curing Compound[1A]	ACCEPTANCE Laboratory Test	709.01	ASTM C309	ITD-1044 (Sample Data) ITD-1823 (Lab Report)	Submit sample at least 30 days prior to use for each batch/lot	Pre-approved by batch or lot number.		1 / LOT		
			Manufacturer	ITD Central Lab							
		ACCEPTANCE Certification			ITD-851	Total Quantity Paid	See QA Manual Section 230.01		CERT		
			Manufacturer	Manufacturer							
	Finished Concrete	ACCEPTANCE (Smoothness)	502.03-I-e	Idaho IR 87	ITD-854	As required	Verify smoothness with straight edge.		1 per structure		
				ITD Project Personnel							

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[(1)] No samples for laboratory tests when total quantity of concrete for projects less than 40 cubic yards

[1A)] Acceptance by manufacturer's certification when total project quantity is less than 55 gallons.

[(1B)] Include acceptance certification documents with ITD-1044 and sample. (ITD-968 and bill of lading)

[(2)] When the project quantity is 40 CY or more but less than the minimum sample frequency, the cement or fly ash sample may represent multiple projects provided the material is from the same mill analysis or sample ident number, manufacturer, and concrete plant. The sample test report and a file memo must be included in each project file and on each Materials Summary Report.

Concrete Production Specified Strength 3,500 psi, or greater	FIELD ACCEPTANCE Slump Air Content Temperature Unit Weight Cement Factor W/C Ratio	502.02	FOP for WAQTC T M2 FOP for AASHTO T 119 FOP for AASHTO T 121 FOP for AASHTO T 309 FOP for AASHTO T 152	ITD-70	First load, then randomly each 50 CY until quantity exceeds 100 CY. Thereafter, every 100 CY but not less than one per day. [(2)]	When there is a failing test, obtain check tests immediately and continue checking each load until 2 consecutive tests are passing. Computerized batch ticket accompanies each load to project.	No less than 1 per day		
		ITD Project Personnel	ITD Project Personnel						
	INDEPENDENT ASSURANCE Field Tests	IA Inspector	IA Inspector	ITD-857	Each 2000CY				
	ACCEPTANCE Compressive Strength/Surface Resistivity	502.02	AASHTO T22 AASHTO T23 AASHTO T358	ITD-1044 Sample Data ITD-845 Lab Report	1 set of three 28-day cylinders and 1 set of two 7-day cylinders each 100 CY but not less than 1 per day[(2)].	A single sample of concrete must be of sufficient size for the cylinders and air, slump, unit weight tests. Surface resistivity only required for Class 40AF Schedule 2 Concrete.	No less than 1 set per day		
		ITD Project Personnel	ITD District or Central Lab						
	INDEPENDENT ASSURANCE Making Cylinders	IA Inspector	IA Inspector	ITD-857	1 Observation per project				

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 605-015A 8" STORM SEWER PIPE											
605-015A	8" Storm Sewer Pipe	ACCEPTANCE Certification	706.13 706.14 706.15 706.16 706.17	ASTM D2680 AASHTO M 278 ASTM F794 AASHTO M 294 ASTM F894	ITD-851	Total Quantity Paid	See QA Manual Section 230.06	153.9 FT	CERT		
			Manufacturer	Manufacturer							
		Compacting Backfill (1)	210.03	FOP for AASHTO T99 FOP for AASHTO T180 FOP for AASHTO T272 Idaho IT-74 FOP for AASHTO T310 Method B	ITD-850	Each 200 LF of pipe installed, but no less than 1 test per pipe installed	A pipe is considered the total continuous length as shown on the project pipe summary sheet.		1 per pipe		
			ITD Project Personnel	ITD Project Personnel							
		(1) Document that the material is too granular to test on the ITD-850 by completing gradation, compaction effort (including equipment and roller passes), and SE (for granular borrow and if more than 5% passing the #200 sieve) at the same frequency as the required density acceptance. Note: Median areas and on slopes (approximate 2H:1V) that are outside the roadway prism where Class D compaction is required, fill out ITD-850 listing at least one coverage using Engineer approved track-type or rubber-tired earth moving equipment.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID ITEM NO. & DESCRIPTION: 605-025A 12" STORM SEWER PIPE											
605-025A	12" Storm Sewer Pipe	ACCEPTANCE Certification	706.13 706.14 706.15 706.16 706.17	ASTM D2680 AASHTO M 278 ASTM F794 AASHTO M 294 ASTM F894	ITD-851	Total Quantity Paid	See QA Manual Section 230.06	307.2 FT	CERT		
			Manufacturer	Manufacturer							
		Compacting Backfill (1)	210.03	FOP for AASHTO T99 FOP for AASHTO T180 FOP for AASHTO T272 Idaho IT-74 FOP for AASHTO T310 Method B	ITD-850	Each 200 LF of pipe installed, but no less than 1 test per pipe installed	A pipe is considered the total continuous length as shown on the project pipe summary sheet.		1 per pipe		
			ITD Project Personnel	ITD Project Personnel							
		(1) Document that the material is too granular to test on the ITD-850 by completing gradation, compaction effort (including equipment and roller passes), and SE (for granular borrow and if more than 5% passing the #200 sieve) at the same frequency as the required density acceptance. Note: Median areas and on slopes (approximate 2H:1V) that are outside the roadway prism where Class D compaction is required, fill out ITD-850 listing at least one coverage using Engineer approved track-type or rubber-tired earth moving equipment.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

DRAFT

BID ITEM NO. & DESCRIPTION: 605-045A 24" STORM SEWER PIPE												
605-045A	24" Storm Sewer Pipe	ACCEPTANCE Certification	706.13 706.14 706.15 706.16 706.17	ASTM D2680 AASHTO M 278 ASTM F794 AASHTO M 294 ASTM F894	ITD-851	Total Quantity Paid	See QA Manual Section 230.06	34.5 FT	CERT		
			Manufacturer	Manufacturer							
		Compacting Backfill (1)	210.03	FOP for AASHTO T99 FOP for AASHTO T180 FOP for AASHTO T272 Idaho IT-74 FOP for AASHTO T310 Method B	ITD-850	Each 200 LF of pipe installed, but no less than 1 test per pipe installed	A pipe is considered the total continuous length as shown on the project pipe summary sheet.		1 per pipe		
			ITD Project Personnel	ITD Project Personnel							
		(1) Document that the material is too granular to test on the ITD-850 by completing gradation, compaction effort (including equipment and roller passes), and SE (for granular borrow and if more than 5% passing the #200 sieve) at the same frequency as the required density acceptance. Note: Median areas and on slopes (approximate 2H:1V) that are outside the roadway prism where Class D compaction is required, fill out ITD-850 listing at least one coverage using Engineer approved track-type or rubber-tired earth moving equipment.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

DRAFT

BID ITEM NO. & DESCRIPTION: 605-635A ADJUST MANHOLE COVERS											
605-635A	Adjust Manhole Covers	ACCEPTANCE Plastic Manhole Frame support or Concrete Risers Certification	605.03 Manufacturer	Manufacturer	ITD-851	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	3 EACH	CERT		
		ACCEPTANCE Manhole Cover and Ring Certification	605.03 Manufacturer	Manufacturer	ITD-851	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03		CERT		
		ACCEPTANCE Concrete specified strength of 3,000 PSI or less Certification	509 Concrete Supplier	Concrete Supplier	ITD-875 with QC Results Attached	Total Quantity Paid	See QA Manual Section 230.06		CERT		
		ACCEPTANCE Reinforcing Steel Certification	503.02 708.02 Contractor	AASHTO M 31 Contractor	ITD-914 with mill test reports attached	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03		1		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 605-640A ADJUST VALVE COVERS											
605-640A	Adjust Valve Covers	ACCEPTANCE Certification	605.03 Manufacturer	Manufacturer	ITD-851	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	8 EACH	CERT		
		ACCEPTANCE Concrete specified strength of 3,000 PSI or less Certification	509 Concrete Supplier	Concrete Supplier	ITD-875 with QC Results Attached	Total Quantity Paid	See QA Manual Section 230.06		CERT		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 612-005A W-BEAM GUARDRAIL												
612-005A	W-Beam Guardrail	ACCEPTANCE Steel Post Certification	708.07		ITD-914 with mill test reports attached; ITD-915	Total Quantity Paid	See QA Manual Section 230.01.	147.9 FT	CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Blocks (Other Than Wood) Certification	QPL		ITD-851	Total Quantity Paid	See QA Manual Section 230.01. See QA Manual Section 230.03.		CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Steel Rail Certification	708.14		ITD-914 with mill test reports attached; ITD-915	Total Quantity Paid	See QA Manual Section 230.01. See QA Manual Section 230.03.		CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Bolts, Nuts, Washers, and Fittings	708.14		ITD-914 NO mill test reports	Total Quantity Paid	See QA Manual Section 230.01. See QA Manual Section 230.03.		CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Aluminum Rail and Fittings	708.25		ITD-851	Total Quantity Paid	See QA Manual Section 230.01		CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Metal Terminal Section Certification (2)	Standard Drawing Section G		ITD-851 ITD-914 with mill test reports attached for steel/iron & ITD-915	Total Quantity Paid	Type 5 and Type 10 are Certified as complete units, all other types need certifications for each component. See QA Manual Section 230.01. See QA Manual Section 230.03.		CERT		
			Manufacturer	Manufacturer							
		(2) Manufacturer's certification must indicate item meets Manual for Assessing Safety Hardware (MASH) or National Cooperative Highway Research Program (NCHRP) Report 350 requirements on all portions of the NHS and State Highway System. See QA Manual 270.08.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 612-110A GUARDRAIL ANCHOR												
612-110A	Guardrail Anchor	ACCEPTANCE Wood Post and Blocks Certification	710.03 710.09 Manufacturer	Manufacturer	ITD-851	Total Quantity Paid	See QA Manual Section 230.01	1 EACH	CERT		
		ACCEPTANCE Steel Rail Certification	708.14 Manufacturer	Manufacturer	ITD-914 with mill test reports attached for	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03		CERT		
		ACCEPTANCE Bolts, Nuts, Washers, and Fittings Certification	708.14 Manufacturer	Manufacturer	ITD-914 **No** mill test reports for steel/iron	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03		CERT		
Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**					
BID ITEM NO. & DESCRIPTION: 612-115C GUARDRAIL TERMINAL, TANGENT												
612-115C	Guardrail Terminal, Tangent	ACCEPTANCE Metal Terminal Section Certification (2)	Standard Drawing Section 612 Manufacturer	Manufacturer	ITD-851 ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	Flared and Tangent terminals are certified as complete units, all other types need certifications for each component. See QA Manual Section 230.01 and Section 230.03.	1 EACH	CERT		
		(2) Manufacturer's certification must indicate item meets Manual for Assessing Safety Hardware (MASH) or National Cooperative Highway Research Program (NCHRP) Report 350 requirements on all portions of the NHS and State Highway System. See QA Manual 270.08.									
Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**					

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BID ITEM NO. & DESCRIPTION: 614-015A SIDEWALK												
614-015A	City of Moscow Sidewalk	ACCEPTANCE Concrete Certification	509		ITD-875 with QC test results attached*	Total Quantity Paid	See QA Manual Section 230.06 Concrete Supplier's certification Note locations on ITD-875.	2010.3 SY	CERT		
			Concrete Supplier	Concrete Supplier							
		ACCEPTANCE Agg. Base Compaction Inspection	614.03			Total Quantity Paid	Minimum 2 passes of lightweight mech. Tamper, roller, or vibratory system.		Diary		
			ITD Project Personnel	No Testing Required							
		ACCEPTANCE Subgrade Compaction In-Place Density	614.02	FOP for AASHTO T 99 FOP for AASHTO T 310 Method B	ITD-850	1 per Project			1		
			ITD Project Personnel	ITD Project Personnel							
	* When total is less than 50CY, QC tests can be from previous batches in the 30 days prior to the first placement.										

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID ITEM NO. & DESCRIPTION: 614-020A DRIVEWAY												
614-020A	City of Moscow Driveway Approach	ACCEPTANCE Concrete Certification	509		ITD-875 with QC test results attached*	Total Quantity Paid	See QA Manual Section 230.06 Concrete Supplier's certification Note locations on ITD-875.	290.6 SY	CERT		
			Concrete Supplier	Concrete Supplier							
		ACCEPTANCE Agg. Base Compaction Inspection	614.03			Total Quantity Paid	Minimum 2 passes of lightweight mech. Tamper, roller, or vibratory system.		Visual		
			ITD Project Personnel	No Testing Required							
		ACCEPTANCE Subgrade Compaction In-Place Density	614.02	FOP for AASHTO T 99 FOP for AASHTO T 310 Method B	ITD-850	1 per Project			1		
			ITD Project Personnel	ITD Project Personnel							
	* When total is less than 50CY, QC tests can be from previous batches in the 30 days prior to the first placement.										

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 614-025A CURB RAMP											
614-025A	City of Moscow Pedestrian Ramp	ACCEPTANCE Concrete Certification	509		ITD-875 with QC test results attached*	Total Quantity Paid	See QA Manual Section 230.06 Concrete Supplier's certification Note locations on ITD-875.	158.7 SY	CERT		
			Concrete Supplier	Concrete Supplier							
		ACCEPTANCE Agg. Base Compaction Inspection	614.03			Total Quantity Paid	Minimum 2 passes of lightweight mech. Tamper, roller, or vibratory system.		Visual		
			ITD Project Personnel	No Testing Required							
		ACCEPTANCE Subgrade Compaction In-Place Density	614.02	FOP for AASHTO T 99 FOP for AASHTO T 310 Method B	ITD-850	1 per Project			1		
			ITD Project Personnel	ITD Project Personnel							
		* When total is less than 50CY, QC tests can be from previous batches in the 30 days prior to the first placement.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID ITEM NO. & DESCRIPTION: 615-255A CURB											
615-255A	City of Moscow Curb Type 'A'	ACCEPTANCE Class 30 Concrete (cast in place, precast, extruded)	509		ITD-875 with QC test results attached*	Total Quantity Paid	See QA Manual Section 230.06 Concrete supplier's certification. Note locations on ITD-875	80.6 FT	CERT		
			Concrete Supplier	Concrete Supplier							
		* When total is less than 50CY, QC tests can be from previous batches in the 30 days prior to the first placement.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID ITEM NO. & DESCRIPTION: 615-490A CURB & GUTTER											
615-490A	City of Moscow Curb & Gutter Type 'B'	ACCEPTANCE Class 30 Concrete (cast in place, precast, extruded)	509		ITD-875 with QC test results attached*	Total Quantity Paid	See QA Manual Section 230.06 Concrete supplier's certification. Note locations on ITD-875	2586.0 FT	CERT		
			Concrete Supplier	Concrete Supplier							
		* When total is less than 50CY, QC tests can be from previous batches in the 30 days prior to the first placement.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 616-010A SIGN TYPE B-1												
616-010A	Sign Material *All materials for signs and sign supports require certification for acceptance. Acceptance of all components on one ITD-851 certification form is acceptable as long as the components are listed on the ITD-851.*	ACCEPTANCE Certification	Sheet Aluminum 708.27		ITD-851	Total Quantity Paid	See QA Manual Section 230.01	83.2 SF	CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Certification	Hardware for signs 708.18		ITD-851 or ITD-914 with no mill test reports attached	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03		CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Certification	Reflective Sheeting 712.02		ITD-851	Total Quantity Paid	See QA Manual Section 230.01		CERT		
			Manufacturer	Manufacturer							
	Steel Brackets and Brace Angles	ACCEPTANCE Certification	708.17-A		ITD-914 with mill test reports attached; ITD-915	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03		CERT		
			Manufacturer	Manufacturer							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 616-040J STEEL SIGN POST TYPE E-1											
616-040J	Steel Sign Post Type E-1	ACCEPTANCE Breakaway Steel Sign Post Certification	708-17A		ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	31.5 FT	CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Installation Inspection	708.17-A		ITD-854	Total Quantity Paid	RE Letter-See QA Manual Section 230.01		RE-LETTER		
		ACCEPTANCE Class 30 Concrete Certification	509.01-B		ITD-875 with QC test results attached	Total Quantity Paid	See QA Manual Section 230.06 Concrete Supplier's certification Note locations on ITD-875		CERT		
			Concrete Supplier	Concrete Supplier							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 616-040K STEEL SIGN POST TYPE E-2											
616-040K	Steel Sign Post Type E-2	ACCEPTANCE Breakaway Steel Sign Post Certification	708-17A		ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	78.9 FT	CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Installation Inspection	708.17-A		ITD-854	Total Quantity Paid	RE Letter-See QA Manual Section 230.01		RE-LETTER		
		ACCEPTANCE Class 30 Concrete Certification	509.01-B		ITD-875 with QC test results attached	Total Quantity Paid	See QA Manual Section 230.06 Concrete Supplier's certification Note locations on ITD-875		CERT		
			Concrete Supplier	Concrete Supplier							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 616-080A REINSTALL SIGN FACE											
616-080A	Reinstall Sign Face	ACCEPTANCE Inspection	708.17-A		ITD-854	Total Quantity Paid	See QA manual Section 230.01	29 EACH	RE-LETTER		
		ACCEPTANCE Hardware for Signs Certification	708.18		ITD-851 or ITD-914 With no mill test reports for steel/iron	Total Quantity Paid	See QA manual Section 230.01 and Section 230.03		CERT		
			Manufacturer	Manufacturer							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 616-085A RE-INSTALL SIGN POST											
616-085A	Re-Install Sign Post	ACCEPTANCE Breakaway Steel Sign Post Installation Inspection	708.17-A		ITD-854	Total Quantity Paid	See QA Manual Section 230.01	20 EACH	RE-LETTER		
		ACCEPTANCE Concrete Specified Strength of 3,000 psi or less Certification	509.01-B		ITD-875 with QC test results attached	Total Quantity Paid	See QA Manual Section 230.06 Concrete Supplier's certification Note locations on ITD-875		CERT		
			Concrete Supplier	Concrete Supplier							
		ACCEPTANCE Hardware for Signs Certification	Hardware for signs 708.18		ITD-851 or ITD-914 with no mill test reports for steel/iron	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03		CERT		
			Manufacturer	Manufacturer							

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 621-010A SEEDING											
621-010A	Seeding	ACCEPTANCE Certification	711.05	AOSA	ITD-851* with Laboratory Analysis Report attached	Total Quantity Paid	See QA Manual Section 230.12 Note: State furnished seed is accepted to use on projects but MUST be sampled and tested. Unless it meets all the parameters in QA Manual 230.12. Include completed ITD-1044 to test lab with seed sample. Send copy of ITD-1044 to HQ Highway Operations, Attention: Roadside Program Administrator *ITD 851 for Contractor supplied seed and not needed for State furnished seed.	0.334 ACRE	CERT		
			Licensed Supplier / Manufacturer	Licensed Supplier / Manufacturer							
		VERIFICATION Laboratory Test	711.05	Purity and Viability, (Germination & Tetrazolium (TZ)) (Boise) ISDA Seed Laboratory	ISDA Test Results	1 for each individually packaged seed containers from each species			1/Package/Species		
			ITD Project Inspector	(Boise) ISDA Seed Laboratory							
		Topsoil	711.06 711.07 711.08 711.09 711.10 711.12		ITD-854	Total Quantity Paid	RE-Letter-See QA Manual Section 250.00		RE-LETTER		
				No Testing Required							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 624-005A LOOSE RIPRAP (CLASS 1)											
624-005A	Loose Riprap (Class 1)	ACCEPTANCE Inspection	711.04	Visual Inspection	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00 Initial testing by Contractor required for Apparent Specific Gravity, Absorbtion and Coarse Durability Index. Visual Inspection only during placement.	20 CY	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 626-100A MISCELLANEOUS TEMPORARY TRAFFIC CONTROL ITEMS											
626-100A	Miscellaneous Temporary Traffic Control Items	ACCEPTANCE Rent Construction Signs, Barricades, Drums, Portable Tubular Markers, Incidental Traffic Control Items Inspection	Reflectivity 712.02		ITD-854	Total Quantity Paid	RE Letter-See QA Manual Section 250.00	10000 CA	RE-LETTER		
			No Testing Required	No Testing Required							
		ACCEPTANCE Rent Vertical Panels, Advance Warning Arrow Panel, Traffic Control Signla, Hazard Identification Beacon Inspection	Reflectivity 712.02		ITD-854	Total Quantity Paid	RE Letter-See QA Manual Section 250.00		RE-LETTER		
			No Testing Required	No Testing Required							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: 630-010A TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC											
630-010A	Preform Thermoplastic	ACCEPTANCE Certification			ITD-851	Total Quantity Paid	See QA Manual Section 230.01	861.3 SF	RE-LETTER		
			Manufacturer	Manufacturer							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 630-020A LOGITUDINAL PAVEMENT MARKING - WATERBORNE

630-020A	Waterborne Paint (6)	ACCEPTANCE Laboratory Tests	707		ITD-1830	Each lot used on Project	Record lot numbers and lab numbers of approved pre-tested paint from ITD Cental Lab letter and/ or ITD-1830 or ITD-1831. Do not collect sample from striper paint guns. **(Not project specific.)** Reject if totes do not match lot numbers.	5735.2 FT	PRE-APPPOVED		
			ITD Project Personnel	ITD Cental Lab							
	Glass Beads (7)	ACCEPTANCE Laboratory Tests			ITD-1828	50 pound sample of glass beads. Each lot used on project (Sample must be left in manufacturer's bag.)	Record lot numbers and lab numbers of approved pre-tested beads from ITD Central Lab letter and/or ITD-1828. **(Not project specific.)**		PRE-APPROVED		
			ITD Project Personnel	ITD Cental Lab							

(6) Acceptance by manufacturer's certification when total project quantity is less than 55 gallons.
(7) Acceptance by manufacturer's certification when total project quantity is less than 350 gallons.

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID ITEM NO. & DESCRIPTION: 634-005A MAILBOX

634-005A	Support	ACCEPTANCE Certification	708.16 710.02		ITD-851 or ITD-914 with mill test reports attached for steel/iron; ITD-915	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	5 EACH	CERT		
			Manufacturer	Manufacturer							
	Mailbox	ACCEPTANCE Inspection or Certification for steel/iron	634.02		ITD-854 or ITD-914 with mill test reports attached for steel/iron; ITD-915	Total Quantity Paid	RE Letter-See QA Manual Section 250.00 See QA Manual Section 230.01 and Section 230.03		CERT/RE-LETTER		
				No Testing Required							

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: 640-010A RIPRAP/EROSION CONTROL GEOTEXTILE											
640-010A	Riprap/Erosion Control Geotextile	ACCEPTANCE Certification	718.06	ASTM D4632 ASTM D6241 ASTM D4533 ASTM D4751 ASTM D4491 ASTM D4355	ITD-849 with QC test results attached & ITD-915	Total Quantity Paid	See QA manual Section 230.09	67.8 SY	CERT		
			Manufacturer	Manufacturer							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 640-015A SUBGRADE SEPARATION GEOTEXTILE TYPE II											
640-015A	Subgrade Separation Geotextile Type II	ACCEPTANCE Certification	718.07	ASTM D4632 ASTM D6241 ASTM D4533 ASTM D4751 ASTM D4491 ASTM D4355	ITD-849 w/ QC test results attached	Total Quantity Paid	See QA Manual Section 230.09	2684.9 SY	CERT		
			Manufacturer	Manufacturer							
		VERIFICATION Laboratory Tests	718.07	ASTM D4632 ASTM D6241 ASTM D4533	ITD-1044 (Sample Data) ITD-1047 (Lab Reports)	One (1) sample per lot	See QA Manual Section 230.09		1		
			ITD Project Personnel	ITD Central Lab							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: 675-005A SURVEY											
675-005A	Survey	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00	1 LS	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: 675-010A DIRECTED SURVEYING											
675-010A	Directed Surveying	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00	10000 CA	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

BID ITEM NO. & DESCRIPTION: S501-15A RETAINING WALL GRAVITY LARGE CONCRETE BLOCK AND SEMI-GRAVITY											
S501-15A	Retaining Wall Gravity Large Concrete Block and Semi-Gravity	ACCEPTANCE Certification	501 502	Visual Inspection	ITD-851	Total Quantity Paid		675 SF	CERT		
			No sample required	No Testing Required							
	Compacting Backfill	ACCEPTANCE In-Place Density	210.03	AASHTO T 99 AASHTO T 180 AASHTO T 272 Idaho IT-74 AASHTO T 310 Method B	ITD-851	Total Quantity Paid			CERT		
			No sample required	No Testing Required							
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: S600-20A REMOVE AND REPLACE FIRE HYDRANT											
S600-20A	Low Pressure Hydrants & Components	ACCEPTANCE Certification	S600-20A 601.03 (D) Manufacturer	ASTM D3212 ANSI/AWWA C-600 Manufacturer	ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.06	1 EACH	CERT		
	Drain Rock	ACCEPTANCE In-Place Density	S600-20A.02d ITD Project Personnel	FOP for AASHTO R 90 FOP for AASHTO R 76 FOP for AASHTO T 27 ITD Project Personnel	ITD-901	Each 1,800 CY or 2,500 Tons	Acceptance at Crusher Conveyor Belt Reducing & wash method not required for Class I & II Drying to constant mass is not required for Class I & II		1		
		ACCEPTANCE Inspection and Gradation	 No Testing Required	 No Testing Required	ITD-854		RE Letter - See QA Manual Section 250.00		RE-LETTER		
	Thrust Block, Cast in place or Components	ACCEPTANCE Certification / Inspection	S600-20A.02D, 502, ES-11	FOP for WAQTC TM2 FOP for AASHTO T 119 FOP for AASHTO T 121 FOP for AASHTO T 309 FOP for AASHTO T 152	ITD-70 or ITD-914	Total Quantity Paid			1		
	Compacting Backfill	ACCEPTANCE In-Place Density	S600-45A 210.03 ITD Project Personnel	FOP for AASHTO T 99 FOP for AASHTO T 180 FOP for AASHTO T 272 Idaho IT-74 FOP for AASHTO T 310 Method B ITD Project Personnel	ITD-850	Total Quantity Paid	Minimum compacted distance 10' behind hydrant and 6' on sides		1		

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: S616-15A RECTANGULAR RAPID-FLASHING BEACON (RRFB)										
Rectangular Rapid Flashing Beacon (RRFB)	ACCEPTANCE Inspection	No sample required	No Testing Required	ITD-854		RE Letter-See QA Manual Section 657.02		RE-LETTER		
Concrete Ready-Mix Plant Inspection		ITD Project Personnel	ITD Project Personnel	ITD-893	1 Per Project	Inspection of Plant is vaild for 1 year.		CERT		
Mix Design	REVIEW BY HQ Central Lab	502.01 502.03-A Contractor	Contractor	See Section 260.03				1/mix		
	ACCEPTANCE (Admixtures) Approved List	709.02 709.03 709.04 709.05 Manufacturer	ASTM C494 AASHTO M 154 Manufacturer	Qualified Products List				QPL List		
	ACCEPTANCE (Water from other than a municipal drinking supply) Certification	720.01 Contractor	ASTM C1602 Independent Lab	Submit independent test results with mix design information	1 per project	Water from any municipal drinking supply does not require testing.		CERT		
Cement	ACCEPTANCE Certification	701.01 Manufacturer	AASHTO M 85 or AASHTO M 240 Total Alkali Manufacturer	ITD-968 with bill of lading attached	Each week concrete is placed representing the amount of cement used	See QA Manual Section 230.02		CERT		
	VERIFICATION Laboratory Tests (1)	701.01 ITD Project Personnel	AASHTO M 85 or AASHTO M 240 ITD Central Lab	ITD-1044 (1B) (Sample Data) ITD-1825 (Lab Report)	Each 1,000 CY of concrete placed and for each mill analysis number (2)	The frequency applies to multiple concrete items from the same concrete plant per project. Price adjustment for failing cement.		1		

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S616-15A	Fine Aggregate	ACCEPTANCE Gradation Sand Equivalent	502.02 703.02	FOP for AASHTO R 99 FOP for AASHTO R 76 FOP for AASHTO T 27 FOP for AASHTO T 11 FOP for AASHTO T 176 Alt. Method 2 Mechanical	ITD-901 OR ITD-1043	Each 500 CY of concrete placed	Frequency applies to multiple concrete items from same concrete plant per project.	1 EACH	1	
			ITD Project Personnel	ITD Project Personnel						
	Coarse Aggregate	ACCEPTANCE Gradation	502.02 703.02	FOP for AASHTO R 90 FOP for AASHTO R 76 FOP for AASHTO T 27	ITD-901 OR ITD-1043	Each 500 CY of concrete placed	Frequency applies to multiple concrete items from same concrete plant per project. Wash method not required		1	
			ITD Project Personnel	ITD Project Personnel						
	Class 40A Concrete for Foundation	FIELD ACCEPTANCE Slump Air Content Temperature Unit Weight Cement Factor W/C Ratio	502.02	FOP for WAQTC TM2	ITD-70	First load, then randomly each 50 CY until quantity reaches 100 CY. Thereafter, randomly every 100 CY but not less than one per day. (2)	When there is a failing test, obtain check tests immediately and continue checking each load until 2 consecutive tests are passing. Computerized batch ticket accompanies each load to project.		1	
			Manufacturer	Manufacturer						
		ACCEPTANCE Compressive Strength	502.02	FOP for AASHTO T 22 FOP for AASHTO T 23 FOP for AASHTO T 358	ITD-1044 (Sample Data) ITD-845 (Lab Report)	1 set of three 28-day cylinders and 1 set of two 7-day cylinders each 100 CY but not less than 1 per day (2).	A single sample of concrete must be of sufficient size for the cylinders and air, slump, unit weigth tests.		1	
			ITD Project Personnel	ITD District or Central Lab						
	(1B) When concrete is delivered to the forms by means of a concrete pump, then samples will be obtained at the point of discharge in accordance with WAQTC TM-2. (2) For some applications involving multiple small placements not on the same day, the minimum one test per day is not required. Examples where this applies are non-structural items such as median barriers, small bases for signs or poles. Examples of items where this does not apply are sign or pole bases larger than 4 CY bridge footings, columns, pier caps or bridge parapet.									

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Reinforcing Steel	ACCEPTANCE Certification	503.02 708.02	AASHTO M 31	ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	CERT		
	VERIFICATION Laboratory Tests	503.02 ITD Project Personnel	ITD Central Lab	ITD-1044 (3A) (Sample Data) ITD-1810 (ITD-812 Lab Report)	Total Quantity Paid	See QA Manual Section 230.09	1		
Aluminum Pole and Base	ACCEPTANCE Certification	S616-15A ITD Project Personnel	S616-15A ITD Project Personnel	ITD-851 and ITD-915	Total Quantity Paid		CERT		
RRFB Components (Anchor Bolts, Solar Engine, Push Button, Beacon, Controller, Wiring, Pole Connectors)	ACCEPTANCE Certification	S616-15A ITD Project Personnel	S616-15A 713.07 ASTM F1554 ASTM B85 Alloy 6063-T6 ITD Project Personnel	ITD-851, ITD-915 and ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid		CERT		
Sign Material *All materials for signs and sign supports require certification for acceptance. Acceptance of all components on one ITD-851 certification form is acceptable as long as the components are listed on the ITD-851.*	ACCEPTANCE Certification	Sheet Aluminum 708.27 Manufacturer	Manufacturer	ITD-851 ITD-915	Total Quantity Paid	See QA Manual Section 230.01	CERT		
	ACCEPTANCE Certification	Hardware for signs 708.18 Manufacturer	Manufacturer	ITD-851 or ITD-914 with **no** mill test reports attached	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	CERT		
	ACCEPTANCE Certification	Reflective Sheeting 712.02 Manufacturer	Manufacturer	ITD-851 ITD-915	Total Quantity Paid	See QA Manual Section 230.01	CERT		

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	Compacting Backfill (Structure Backfill)	ACCEPTANCE In-Place Density (1)	210.03 ITD Project Personnel	FOP for AASHTO T 99 FOP for AASHTO T 180 FOP for AASHTO T 272 Idaho IT-74 FOP for AASHTO T 310 Method B ITD Project Personnel	ITD-850	Each 2,500 CY or 4,000 tons for each structure component. Abutments for bridge approach slabs not less than one test per 8-in compacted lift.	Document compactive effort for each lift. After remedial efforts, obtain check tests within 10 feet and at the same depth as original test. See QA Manual Section 215.00		1		
	Pre-Formed Expansion Joint Filler	ACCEPTANCE Certification	704.01 Manufacturer	 Manufacturer	ITD-851 ITD-915	Total Quantity Paid	See QA Manual Section 230.01		CERT		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: S900-50A CONTINGENCY AMOUNT - MISCELLANCEOUS WORK											
S900-50A	CA Misc Work	ACCEPTANCE Certification	Samples required dependent on material used	Testing required depending on work performed	Certs dependent on work performed	Total Quantity Paid	Tracked and paid by force account. See Spec 109.03.	10000 CA	CERT		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: S901-05A ADJUST CATCH BASIN LID AND FRAME											
S901-05A	Manhole Covers and Rings, Grates	ACCEPTANCE Certification	708.22 Manufacturer	AASHTO M 105 Manufacturer	ITD-851 ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	3 EACH	CERT		
	Compacting Backfill (Structure Backfill)	ACCEPTANCE In-Place Density	210.03 ITD Project Personnel	AASHTO T 99 AASHTO T 180 AASHTO T 272 Idaho IT-74 AASHTO T 310 Method B ITD Project Personnel	ITD-850	Each 2,500 CY or 4,000 tons for each structure component.	Document compaction effort for each lift. After remedial efforts, obtain check tests within 10 feet and at same depth as original test. See QA Manual Section 215		1		
	HMA	ACCEPTANCE Inspection	405 Contractor	 Contractor	ITD-854	Total Quantity Paid	Placed with Mainline		RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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BID ITEM NO. & DESCRIPTION: S901-05B CITY OF MOSCOW CATCH BASIN TYPE 1												
S901-05B	City of Moscow Catch Basin Type 1	ACCEPTANCE Manhole covers and rings, grates Certification	708.22	AASHTO M 105	ITD-851 ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03	8 EACH	CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Catch Basins, Inlets & Manholes (Pre-cast) Certification	609 Standard Drawings 605		ITD-875 ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01, Section 230.03 and Section 230.06		CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Catch Basins, Inlets & Manholes (Cast in-Place) Certification	609 Standard Drawings 605		ITD-875 with QC test reports attached ITD-914 With mill test results attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01, Section 230.03 and Section 230.06 Concrete Supplier's certification Note locations on ITD-875		CERT		
			Manufacturer	Manufacturer							
		ACCEPTANCE Compacting Backfill (Structure Backfill) In-Place Density (1)	210.03	FOP for AASHTO T 99 FOP for AASHTO T 180 FOP for AASHTO T 272 Idaho IT-74 FOP for AASHTO T 310 Method B	ITD-850	Each 2,500 CY or 4,000 tons for each structure component.	Document compaction effort for each lift. After remedial efforts, obtain check tests within 10 feet and at same depth as original test. See QA Manual Section 215.00		2		
			ITD Project Personnel	ITD Project Personnel							
		(1) Document that the material is too granular to test on the ITD-850 by completing gradation, compaction effort (including equipment and roller passes), and SE (for granular borrow and if more than 5% passing the #200 sieve) at the same frequency as the required density acceptance. Note: Median areas and on slopes (approximate 2H:1V) that are outside the roadway prism where Class D compaction is required, fill out ITD-850 listing at least one coverage using Engineer approved track-type or rubber-tired earth moving equipment.									

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: S901-05C CITY OF MOSCOW STORM SEWER MANHOLE											
S901-05C	Catch Basins, Inlets & manholes (Pre-cast)	ACCEPTANCE Certification	Plan Sheet Details 609 Manufacturer	 Manufacturer	ITD-875 ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01, Section 230.03 and Section 230.06	3 EACH	CERT		
	Manhole Covers and Rings, Grates	ACCEPTANCE Certification	708.22 Manufacturer	AASHTO M105 Manufacturer	ITD-851 ITD-914 with mill test reports attached for steel/iron	Total Quantity Paid	See QA Manual Section 230.01 and Section 230.03		CERT		
	Coarse Aggregate for Concrete Size No. 5	ACCEPTANCE Visual	703.02 ITD Project Personnel	 ITD Project Personnel	ITD-854	1 per project			RE-LETTER		
		ACCEPTANCE Certification	703.02 Contractor	 Contractor	ITD-851 ITD-901	Each 700 CY or 1,000 Tons			CERT		
	Compacting Backfill (Structure Backfill) - Class D Compaction	ACCEPTANCE In-Place Density (1)	205.03.G.4 210.03 ITD Project Personnel	FOP for AASHTO T 99 FOP for AASHTO T 180 FOP for AASHTO T 272 Idaho IT-74 FOP for AASHTO T 310 Method B ITD Project Personnel	ITD-850	Each 2500 CY or 4000 tons for each structure component. Abutments for bridge approach slabs not less than one test per 8-in compacted lift.	Class D compaction is required. One ITD-850 for each dry well will be completed stating that at least one coverage using an approved track-type or rubber tire type earth moving equipment was completed during backfilling efforts.		1		

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

BID ITEM NO. & DESCRIPTION: S901-05D ADJUST WATER METER										
S901-05D	Adjust Water Meter	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00	7 EACH	RE-LETTER		

Test No.	Test Date	Form Used	Accept/ Verif.	Qty.	P/F	Remarks

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BID ITEM NO. & DESCRIPTION: S904-05A TEMPORARY TRAFFIC CONTROL											
S904-05A	Temporary Traffic Control	ACCEPTANCE Inspection	No Sample Required	No Testing Required	ITD-854	Total Quantity Paid		1 LS	N/A		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: S912-05A LANDSCAPE REPAIR											
S912-05A	Landscape Repair	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00	10000 CA	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: S912-05B DECORATIVE ROCK											
S912-05B	Decorative Rock	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00	709.1 SY	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				
BID ITEM NO. & DESCRIPTION: S913-05A ROCK MULCH											
S913-05A	Rock Mulch	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00	120.2 CY	RE-LETTER		
BID ITEM NO. & DESCRIPTION: Z629-05A MOBILIZATION											
Z629-05A	Mobilization	ACCEPTANCE Inspection	No Testing Required	No Testing Required	ITD-854	Total Quantity Paid	RE Letter - See QA Manual Section 250.00	1 LS	RE-LETTER		
	Test No.	**Test Date**	**Form Used**	**Accept/ Verif.**	**Qty.**	**P/F**	**Remarks**				

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APPENDIX X

IDAPA 24 – ELECTRICAL BOARD

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IDAPA 24 – DIVISION OF OCCUPATIONAL AND PROFESSIONAL LICENSES

IDAHO ELECTRICAL BOARD

24.39.10 – Rules of the Electrical Board

Who does this rule apply to?
This rule applies to those who make electrical installations, including licensed electrical and limited electrical contractors, and the master, journeyman and apprentice electricians employed by such. It also applies to homeowners and facility owners who are authorized to make electrical installations on their property.

What is the purpose of this rule?
The rule prescribes the requirements for licensing of electricians and electrical contractors to perform various types of electrical installations in Idaho, including requirements related to license examinations and continuing education. It also sets forth the requirements and process to obtain a permit and inspection from the Division for such electrical work. The rules also adopt the National Electrical Code as the standard to which all electrical work must be installed, as well as the requirements related to the approval of electrical products and equipment. It also provides penalties that may be imposed for violations of the electrical statutes or rules.

What is the legal authority for the agency to promulgate this rule?
This rule implements the following statutes passed by the Idaho Legislature:

Professions, Vocations, and Businesses -
- Title 54, Chapter 10, Idaho Code – Electrical Contractors and Journeymen:
- 54-1006, Idaho Code – Idaho Electrical Board

Who do I contact for more information on this rule?

Idaho Division of Building Safety
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000. LEGAL AUTHORITY.
The rules are promulgated pursuant to Sections 54-1001, 54-1005, 54-1006, 54-1007, 54-1009, 54-1018, 67-2604, 67-2614, 67-9406 and 67-9409, Idaho Code. (3-28-23)

001. SCOPE.
The rules prescribe criteria and fees for issuance of licenses, electrical permits, and inspections of electrical installations, civil penalties, and adoption and amendment of the National Electrical Code. (3-28-23)

002. DEFINITIONS.

01. Associated Buildings. All buildings, structures, and fixtures used for domestic purposes and in connection with the primary or secondary residence, such as garages, sheds, barns, or shops. (3-28-23)

02. Person. Includes an individual, company, firm, partnership, corporation, association or other organization. (3-28-23)

003. – 099. (RESERVED)

100. LICENSURE AND REGISTRATION.

01. Residential Electrician. An applicant must pass an examination designated by the Board and submit evidence of a minimum of four thousand (4,000) hours of work experience and an apprentice making installations as defined in Section 54-1003A(3), Idaho Code, and satisfactory competition of a two-year sequence of instruction approved by the Idaho Division of Career Technical Education and the Idaho Electrical Board. (4-4-25)

02. Journeyman Electrician. An applicant must pass an examination designated by the Board and either (a) submit evidence of a minimum of eight thousand (8,000) hours of work experience as an apprentice making electrical installations in accordance with the requirements of the jurisdiction in which the applicant obtained the experience and satisfactory completion of a four-year sequence of instruction approved by the Idaho Division of Career-Technical Education, or (b) submit proof of sixteen thousand (16,000) hours of electrical experience in accordance with the requirements of the jurisdiction in which the applicant obtained the experience. (4-4-25)

a. Examination. An applicant may sit for the exam after showing proof of completion of either the approved 4-year sequence of instruction or 16,000 hours of electrical experience. (3-28-23)

b. Provisional Journeyman Electrician. A provisional journeyman electrician license can be issued to an applicant who has completed the 16,000 hours of electrical experience but has not yet passed the examination. (4-4-25)

c. Work experience in appliance repair, motor winding, or communications will not count towards the requirements to take the journeyman examination or obtain a provisional journeyman or journeyman license. (3-28-23)

d. No more than two thousand (2,000) hours of work experience gained while engaged in the practice of a limited electrical installer or trainee may be counted toward the satisfaction of the experience requirements for journeyman licensure. (3-28-23)

03. Master Electrician. A master electrician does not need to also hold a journeyman license. (4-4-25)

04. Limited Electrical Installer. An applicant must submit evidence of a minimum of four thousand (4,000) hours of work experience in the same limited category in accordance with the requirements of the jurisdiction in which the applicant obtained the experience. (3-28-23)

05. Electrical Contractor and Limited Electrical Contractor. An applicant must pass an examination designated by the Board and submit an application. Each contractor shall designate one supervising electrician who shall be responsible for the activities of the license. Any such supervising electrician shall not represent any other applicant for a contractor's license. A supervising electrician holding more than one electrician license shall not use multiple licenses to represent more than one contractor. (4-4-25)

a. In the event the working relationship between a contractor and its supervising electrician

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terminates, the contractor will notify the Division in writing within ten (10) business days of the date of termination. The contractor may not purchase permits or make electrical installations unless another duly qualified supervising electrician is designated. (4-4-25)

101. – 199. (RESERVED)

200. PRACTICE STANDARDS.

01. Electrical Contracting Work. Contracting work includes electrical maintenance or repair work, in addition to new electrical installations, unless such work is expressly exempted by Section 54-1016, Idaho Code. (3-28-23)

02. Contractor Scope. A contractor's allowable scope of work is the same as the scope of its licensed employee. (3-28-23)

03. Supervision. (3-28-23)

a. The master electrician, journeyman electrician, residential electrician or limited electrical installer shall be designated the supervising electrician; must be available during working hours to carry out the duties of supervising, as set forth herein; and will be responsible for supervision of electrical installations made by said contractor as provided by Section 54-1010, Idaho Code. Any supervisory activities shall fall within the supervising electrician's licensed scope of practice. (4-4-25)

i. A master electrician, journeyman electrician, residential electrician, or limited electrical installer is not qualified for one (1) year as the supervising electrician if his contractor license was revoked. (4-4-25)

ii. An individual contractor may act as his own supervising master electrician, journeyman electrician, residential electrician, or limited electrical installer upon the condition that he holds an active master electrician, journeyman electrician, residential electrician, or limited electrical installer license. (4-4-25)

b. The employing contractor or limited electrical contractor must ensure each apprentice, trainee, and provisional journeyman electrician performs electrical work only under the constant on-the-job supervision and training of a master electrician, journeyman electrician, residential electrician or limited electrical installer. (4-4-25)

c. A journeyman who is an employee of a company, corporation, firm, or association with a facility account may sign as supervising electrician for that facility account in addition to signing as supervising journeyman for his own contractor's license so long as the journeyman is listed as the owner. (3-28-23)

04. Connecting and Energizing Prior to Inspections. At the request of a licensed electrical contractor and upon receipt of a copy of an electrical permit, a power supply company may connect and energize an electrical service, to the line side of the service disconnect, prior to a passed inspection in the following situations: to preserve life or property or to provide temporary service for construction. Any contractor energizing an electrical installation prior to an inspection assumes full responsibility for the installation. (3-28-23)

05. Limited Electrical Installations. A limited electrical installer must be employed by an electrical contractor or limited electrical contractor in the same restricted category and may only countersign a limited electrical contractor's license application as supervising limited electrical installer for work within the same restricted category. Limited electrical installations must comply with the National Electrical Code, as amended herein. The following categories of electrical installations constitute limited electrical installations, the practice of which shall require an electrical contractor or limited electrical contractor license and supervision by a journeyman, master electrician, or limited electrical installer: (3-28-23)

a. Elevator, Dumbwaiter, Escalator, or Moving-Walk Electrical. An elevator electrical limited licensee is only authorized to install, maintain, repair, and replace equipment, controls, and wiring beyond the disconnect switch in the machine room of the elevator and pertaining directly to the operation and control thereof when located in the elevator shaft and machine room. (3-28-23)

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b. Sign Electrical. A sign electrical limited licensee is only authorized to install, maintain, repair, and replace equipment, controls, and wiring on the secondary side of sign disconnecting means; provided the disconnecting means is located on the sign or within sight therefrom. (3-28-23)

c. Manufacturing or Assembling Equipment. A licensed limited electrical manufacturing or assembling equipment installer is only authorized to install, maintain, repair, and replace equipment, controls, and accessory wiring, integral to the specific equipment, on the load side of the equipment disconnecting means. Electrical service and feeder are to be installed by others. The licensee may also install circuitry in modules or fabricated enclosures for the purpose of connecting the necessary components which individually bear a label from a nationally recognized testing laboratory when such equipment is designed and manufactured for a specific job installation. (3-28-23)

i. This subsection does not apply to a limited electrical manufacturing or assembling equipment installer installing electrical wiring, equipment, and apparatus in modular buildings as that phrase is defined in Section 39-4105, Idaho Code. Only journeyman electricians and electrical apprentices, employed by an electrical contractor, may perform such installations. (3-28-23)

d. Limited Energy Electrical. Limited energy systems are defined as fire and security alarm systems, class 2 and class 3 signaling circuits, key card operators, nurse call systems, motor and electrical apparatus controls and other limited energy applications covered by the NEC. Unless exempted by Section 54-1016, Idaho Code, any person who installs, maintains, replaces or repairs electrical wiring and equipment for limited energy systems in facilities other than one (1) or two (2) family dwellings shall be required to have a valid limited energy limited electrical license. (3-28-23)

i. Limited energy systems do not include, and no license of any type is required for, the installation of landscape sprinkler controls or communication circuits, wires and apparatus that include telephone systems, telegraph facilities, outside wiring for fire and security alarm systems which are used for communication purposes, and central station systems of a similar nature, PBX systems, audio-visual and sound systems, public address and intercom systems, data communication systems, radio and television systems, antenna systems and other similar systems. (3-28-23)

e. Irrigation Sprinkler Electrical. An irrigation system electrical limited licensee is only authorized to install, maintain, repair and replace equipment, controls and wiring beyond the disconnect switch supplying power to the electric irrigation machine. The irrigation machine is considered to include the hardware, motors and controls of the irrigation machine and underground conductors connecting the control centers on the irrigation machine to the load side of the disconnecting device. Disconnect device to be installed by others. (3-28-23)

f. Well Driller and Installer. (4-4-25)

g. Water Pump Installer. A license holder in this category is only authorized to perform the following types of installations: (3-28-23)

i. Single or three (3) phase water pumps: install, maintain, repair and replace all electrical equipment, wires, and accessories from the pump motor up to the load side, including fuses, of the disconnecting device. Disconnecting device to be installed by others. (3-28-23)

ii. Domestic water pumps, one hundred twenty/two hundred forty (120/240) volt, single phase, sixty (60) amps or less: install, maintain, repair and replace all electrical equipment, wires, and accessories from the pump motor up to and including the disconnecting device. (3-28-23)

iii. Temporarily connect into a power source to test the installations, provided that all test wiring is removed before the installer leaves the site. (3-28-23)

iv. Individual residential wastewater pumping units. Install, maintain, repair and replace all electrical equipment, wires, and accessories from the pump motor up to and including the disconnecting device for systems that serve one-family, two-family, or three-family residential installations. (3-28-23)

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h. Refrigeration, Heating, and Air-Conditioning Electrical Installer. A license holder in this category is only authorized to perform the following types of installations, which installations shall be limited to factory-assembled, packaged units: (3-28-23)

i. Heating Units (single phase): install, repair, and maintain all electrical equipment, wires, and accessories from the unit up to the load side, including fuses, of the disconnecting device. Disconnecting device to be installed by others. (3-28-23)

ii. Refrigeration, Air-Conditioning Equipment and Heat Pumps (single phase): install, repair, and maintain all electrical equipment, wires, and accessories from the unit up to the load side, including fuses, of the disconnecting device. Disconnecting device to be installed by others. (3-28-23)

iii. Refrigeration, Air-Conditioning and Heating Systems (three (3) phase): install, maintain, and repair all electrical equipment and accessories up to the load side, including fuses, of the disconnecting device. Disconnecting device to be installed by others. (3-28-23)

i. Outside Wireman. Applicants for this license category shall provide documentation of having completed an electrical lineman apprenticeship program or similar program approved by the U.S. Department of Labor, Office of Apprenticeship. Any person currently licensed in this category is only authorized to perform the following types of installation (3-28-23)

i. Overhead distribution and transmission lines in excess of six hundred (600) volts (3-28-23)

ii. Underground distribution and transmission lines in excess of six hundred (600) volts. (3-28-23)

iii. Substation and switchyard construction in excess of six hundred (600) volts. (3-28-23)

j. Solar Photovoltaic. Applicants for this license category shall provide proof of photovoltaic installer certification by the North American Board of Certified Energy Practitioners (NABCEP) or equivalent. Any person licensed in this category is only authorized to perform the following types of installations: (3-28-23)

i. Solar Photovoltaic DC Systems: Install, maintain, repair, and replace all electrical equipment, wires, and accessories up to and including the inverter. (3-28-23)

ii. Solar Photovoltaic micro-inverter/AC Systems: Install, maintain, repair, and replace all electrical equipment, wires, and accessories up to and including the AC combiner box. (3-28-23)

06. Certification and Approval of Electrical Products and Materials. All materials, devices, fittings, equipment, apparatus, luminaires, and appliances installed or to be used in installations that are supplied with electric energy must be approved as provided in one (1) of the following methods: (3-28-23)

a. Testing Laboratory. Be tested, examined, and certified (Listed) by a Nationally Recognized Testing Laboratory (NRTL). (3-28-23)

b. Field Evaluation. Non-listed electrical equipment may be approved for use through a field evaluation process performed in accordance with recognized practices and procedures such as those contained in the 2012 edition of NFPA 791 - Recommended Practice and Procedures for Unlabeled Electrical Equipment Evaluation published by the National Fire Protection Association (NFPA). Such evaluations shall be conducted by: (3-28-23)

i. A field evaluation body approved by the authority having jurisdiction. The field evaluation body shall meet minimum recognized standards for competency, such as NFPA 790 - Standard for Competency of Third-Party Field Evaluation Bodies, 2012 edition, published by the National Fire Protection Association (NFPA); or (3-28-23)

ii. In the case of industrial machinery only, as defined by NFPA 79 - Electrical Standard for Industrial Machinery, 2012 edition, a field evaluation may be performed by a professional engineer currently licensed to practice electrical engineering by the state of Idaho and who is not involved in the design of the equipment being

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evaluated or the facility in which the equipment is to be installed. (3-28-23)

c. Availability of NFPA Standards. The most recent edition of NFPA 790 - Standard for Competency of Third-Party Field Evaluation Bodies and NFPA 791 - Recommended Practice and Procedures for Unlabeled Electrical Equipment Evaluation published by the National Fire Protection Association (NFPA) are available at the Division. (3-28-23)

201. – 299. (RESERVED)

300. CIVIL PENALTIES.
The acts described in this section subject the violator to a civil penalty not to exceed one thousand dollars ($1,000) for each separate count or offense. (3-28-23)

01. Statute or Rule. Failure to comply with any provision of Chapter 10, Title 54, Idaho Code or Board Rule. (3-28-23)

02. Licensure or Registration. Except as provided by Section 54-1016, Idaho Code, performance of electrical work without an active license or registration as required by Chapter 10, Title 54, Idaho Code. General contractors registered pursuant to Section 54-1016, Idaho Code who submit a bid on a multi-trade construction project which includes a licensed electrical contractor's pricing is not considered as acting or attempting to act as an electrical contractor. (3-28-23)

03. Performance Outside Scope. Performance of any electrical installation, alteration, or maintenance by a limited electrical contractor, limited electrical installer, or trainee outside the scope of the limited electrical license or registration. (3-28-23)

04. Employees. Knowing employment of a person who does not hold an active license or registration to perform electrical work. (3-28-23)

05. Supervision. Working as an apprentice or limited electrical installer trainee without the required journeyman, master, or installer supervision or employing an apprentice or trainee without providing the required supervision. (3-28-23)

06. Fees, Permits, and Inspections. Failure to obtain a required permit, pay applicable fees, properly post a permit, or request an inspection of any electrical work. (3-28-23)

07. Corrections. Failure to make corrections in the time allotted in the notice on any electrical work. (3-28-23)

08. Misrepresentation of Fees. Misrepresentation of the permit or inspection fees to the customer. (3-28-23)

09. Advertising. Advertising to engage in the business, trade, practice, or work of an electrical contractor as defined in Sections 54-1003A and 54-1010, Idaho Code, without holding a current and valid electrical contractor license issued by the Division or advertising without including the contractor license number in the advertisement. Advertising includes, but is not limited to: newspaper, telephone directory, community flier ads or notices; telephone, television, radio, internet, or door-to-door solicitations. (3-28-23)

10. Order. Failure to comply with any lawful order of the Board or Division administrator. (3-28-23)

301. – 499. (RESERVED)

500. PERMITS AND INSPECTIONS.

01. Permits and Inspections. (3-28-23)

a. Permits. All electrical permits shall be purchased before work is commenced. Payment of the total

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permit fee shall be made prior to a final inspection. (3-28-23)

i. No wiring or equipment may be concealed in any manner from access or sight until the work has been inspected and approved for cover by the electrical inspector except for those installations pursuant to Section 54-1005(3), Idaho Code. (3-28-23)

b. Completion of Installation. Each installation made by a permit holder or his authorized representative shall request an inspection from the Division. (3-28-23)

c. Expiration of Permits. Every permit issued shall expire and become null and void after three hundred sixty-five (365) days from the purchase date. A permit may be renewed for an additional year upon receipt of Division approval and payment of a sixty-five dollar ($65) renewal fee. (3-28-23)

d. Transferring a Permit. A permit may be transferred to another eligible party if such party provides to the Division written authorization signed and notarized by the original permit holder consenting to the transfer itself and assigning all responsibilities and conditions incorporated into the original permit issuance. A permit may be transferred to the owner of the property on which the electrical work is to be performed and for which the permit was issued or such owner's designated legal agent in cases where such owner has terminated his legal relationship with the electrical contractor who originally obtained the permit. An administrative fee in the amount of forty-five dollars ($45) for the transfer of the permit shall be assessed by the Division. (3-28-23)

02. Fee Schedule. (3-28-23)

a. Residential Permits. Includes associated buildings with wiring being constructed on each property. (3-28-23)

i. New residential construction permits: (3-28-23)

New One- Family Dwelling Unit	
Up to 1,500 square feet of living space	$130
1,501 to 2,500 square feet of living space	$195
2,501 to 3,500 square feet of living space	$260
3,501 to 4,500 square feet of living space	$325
Over 4,500 square feet of living space	$325 plus $65 for each additional 1,000 square feet or portion thereof
New Two- and Multi- Family Dwelling Unit	
Two-family dwellings	$260
Multi-family dwellings	$130 per building plus $65 per unit

(3-28-23)

ii. Existing Dwelling Unit Permit: sixty-five dollars ($65) per inspection. (3-28-23)

b. Other Installations Including Industrial and Commercial Permits. The following fees shall apply to industrial and commercial installations and installations not specifically mentioned elsewhere in this Fee Schedule. The electrical cost shall be the cost to the owner of all labor charges and all other costs that are incurred to complete the installation of all wiring and equipment installed as part of the system. Factory assembled industrial machinery to be operated by electrical energy shall not be included in calculating these fees. (3-28-23)

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i. Wiring cost not exceeding ten thousand dollars ($10,000): sixty dollars ($60) plus two percent (2%) of total wiring cost. (3-28-23)

ii. Wiring cost over ten thousand dollars ($10,000) but not exceeding one hundred thousand dollars ($100,000): two hundred sixty dollars ($260) plus one percent (1%) of wiring cost in excess of ten thousand dollars ($10,000). (3-28-23)

iii. Wiring cost over one hundred thousand dollars ($100,000): one thousand one hundred sixty dollars ($1,160) plus one-half of one percent (.5%) of the portion of wiring costs exceeding one hundred thousand dollars ($100,000). (3-28-23)

iv. Small work not exceeding five hundred dollars ($500) in cost and not involving a change in service connections: ten dollars ($10). (3-28-23)

03. Requested Inspection Permit. A sixty-five dollar ($65) fee per inspection. (3-28-23)

04. Reinspection Fees. A fee of sixty-five dollars ($65) per reinspection will be assessed for work not being ready for inspection, inaccurate description of jobsite locations or directions, or failure to respond to notice of correction. (3-28-23)

05. Virtual Inspection Request. Forty-five dollar ($45) fee for Contractors and Specialty Contractors requesting a virtual inspection of qualified installations. (3-28-23)

06. Plan Check Fee. Sixty-five dollar ($65) minimum for one (1) hour or less. Over one (1) hour: sixty-five dollars ($65) plus sixty-five dollars ($65) for each hour, or portion thereof, in excess of one (1) hour. (3-28-23)

501. – 599. (RESERVED)

600. IDAHO ELECTRICAL CODE.

01. Documents. Under the provisions of Section 54-1001, Idaho Code, the National Electrical Code, 2023 Edition, (herein NEC) is amended as follows: (4-4-25)

a. Sections 110.3(A) and 110.3(B). Shall not apply to submersible well pumps installed in swimming and marine areas; provided however, such articles shall apply to all other equipment required in the installation of a submersible well pump in such areas except for the actual submersible well pump itself. (4-4-25)

b. Section 210.8(A). Delete reference to 250-volt receptacles. (4-4-25)

c. Section 210.8(A)(5). Delete section 210.8(A) list item (5) and replace with the following: Unfinished areas of basements. (4-4-25)

d. Section 210.8(A)(7). Delete section 210.8(A) list item (7). Areas with sinks and permanent provisions for food preparation, beverage preparation, or cooking. (4-4-25)

e. Section 210.8(A)(8). Delete section 210.8(A) list item (8) and replace with the following: Sinks - located in areas other than kitchens where receptacles are installed within one and eight tenths (1.8) meters (six (6) feet) of the inside edge of the sink. (4-4-25)

f. Section 210.8(A)(11). Delete section 210.8(A) list item (11) Laundry Areas. (4-4-25)

g. Article 210.8(B). Delete list items (3) Areas with sinks and permanent provisions for food preparation, beverage preparation, or cooking, (4) serving areas with permanent provisions for food serving, or cooking, and (14) Laundry areas. (4-4-25)

h. Section 210.8(B)(7). Delete section 210.8(B) list item (7) and replace with the following: Sinks -

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located in kitchens and any other area where receptacles are installed within one and eight tenths (1.8) meters (six (6) feet) of the inside edge of the sink. (4-4-25)

i. Section 210.8(D). In dwelling units only, delete list items (7) Dishwashers, (8) Electric ranges, (9) Wall-mounted ovens, (10) Counter-mounted cooking units, (11) Clothes dryers, and (12) Microwave ovens. (4-4-25)

j. Section 210.8(F). Delete list items (1) Garages that have floors that are located at or below grade level and (2) Accessory buildings. (4-4-25)

k. Section 210.12(B). Shall apply in full. Exception: In one- and two-family dwelling units, Arc-Fault Circuit-Interrupter Protection shall only apply to all branch circuits and outlets supplying bedrooms. All other locations in such units are exempt from the requirements of section 210.12(B). (4-4-25)

l. Section 210.52 (C) add list item (4) - Island Countertop Spaces and Peninsular Countertop Spaces. If installed, receptacle outlets shall also be permitted to be mounted not more than 300 mm (12 in.) below the countertop or work surface. Receptacles mounted below a countertop or work surface in accordance with this exception shall not be located where the countertop or work surface extends more than 150 mm (6 in.) beyond its support base. (4-4-25)

m. Section 210.52(E)(3). Delete section 210.52(E) list item (3) and replace with the following: Balconies, Decks, and Porches. Balconies, decks, and porches having an overall area of twenty (20) square feet or more that are accessible from inside the dwelling unit shall have at least one (1) receptacle outlet installed within the perimeter of the balcony, deck, or porch. The receptacle shall not be located more than two (2.0) meters (six and one half (6½) feet) above the balcony, deck, or porch surface. (4-4-25)

n. Section 215.18 Surge Protection shall apply in full. Exception: for dwelling units, surge protection device shall be permitted when installed in compliance with 215.18(B) through (E). Delete section 215.18(A) list item (1). (4-4-25)

o. Article 225.41 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be permitted when installed in compliance with sections 225.41(A), (B), and (C). (4-4-25)

p. Section 225.42 Surge Protection shall apply in full. Exception: For dwelling units, a surge protection device shall be permitted when installed in compliance with 225.42 (B) though (E). Delete section 225.42(A) list item (1). (4-4-25)

q. Section 230.67 Surge Protection shall apply in full. Exception: For dwelling units, a surge protection device shall be permitted when installed in compliance with 230.67 (B) through (E). Delete section 230.67(A) list item (1). (4-4-25)

r. Article 230.85 Emergency Disconnects. For one- and two-family dwelling units, an emergency disconnecting means shall be permitted when installed in compliance with sections 230.85(A), (B), (D), and (E). Delete section 230.85(C). (4-4-25)

s. Section 314.27(C) Boxes at Ceiling-Suspended (Paddle) Fan Outlets. Delete second paragraph. (4-4-25)

t. Section 334.10(3). Delete and replace with the following: Other structures permitted to be of Types III, IV, and V construction. Cables shall be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has at least a fifteen (15) minute finish rating as identified in lists of fire-rates assemblies. For the purpose of this section, cable located in attics and underfloor areas that are not designed to be occupied shall be considered concealed. (4-4-25)

u. Section 334.15(C). Where the height of a crawl space does not exceed one and four tenths (1.4) meters or four and one half (4.5) feet, it shall be permissible to secure NM cables, that run at angles with joist, to the bottom edge of joist. NM cables that run within two and one tenth (2.1) meters or seven (7) feet of crawl space access shall comply with article 320.23. (4-4-25)

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v. Pole Lighting. Poles used as lighting standards along roadways only (parking areas are not roadways) that are forty (40) feet or less in nominal height and that support no more than four (4) luminaries operating at a nominal voltage of three hundred (300) volts of less to the ground, shall not be considered a structure as it is defined as equipment by the NEC. The disconnecting means may be mounted to the pole or elsewhere in accordance with NEC, section 225.31(B), exception 3. Special purpose fusible connectors (model SEC 1791-DF or model SEC 1791-SF) or equivalent shall be installed in a listed handhole (underground) enclosure. The enclosure shall be appropriately grounded and bonded per the requirements of the NEC applicable to article 230 – Services. Overcurrent protection shall be provided by a (fast-acting – minimum 100K RMS Amps 600 VAC) rated fuse. Wiring within the pole for the luminaries shall be protected by supplementary overcurrent device (time -delay – minimum 10K RMS Amps 600 VAC) in break-a-away fuse holder accessible from the handhole. Any poles supporting of incorporating utilization equipment or exceeding the prescribed number of luminaries, or in excess of forty (40) feet, may be considered structures, and an appropriate service disconnecting means shall be required per the NEC. All luminaire – supporting poles shall be appropriately grounded and bonded per the NEC. A service may not need a Watt Hour Meter. (4-4-25)

w. Section 422.5(A)(7). Delete section 422.5(A) list item (7) dishwashers. (4-4-25)

x. Section 675.8(B). Compliance with section 675.8(B) shall include the additional requirement that a disconnecting means always be provided at the point of service then the utility no matter where the disconnecting means for the machine is located. (4-4-25)

y, Article 682.10. Shall not apply to submersible well pumps installed in swimming and marine areas; provided however, such articles shall apply to all other equipment required in the installation of a submersible well pump in such areas except for the actual submersible well pump itself. (4-4-25)

z. Article 682.11. Add the following exception: This article shall not apply to service equipment that is located on or at the dwelling unit and which is not susceptible to flooding. (4-4-25)

aa. Article 682.13. Add the following exceptions: (4-4-25)

i. Exception No. 1. Wiring methods such as HDPE schedule eighty (80) conduit or its equivalent or greater and clearly marked at a minimum "Caution Electrical" to indicate that it contains electrical conductors shall be approved. It shall be buried wherever practical, and in accordance with the requirements of the authority having jurisdiction. The use of gray HDPE water pipe rated at two hundred (200) PSI (e.g. SIDR-7 or DR-9) is suitable for use as a chase only when the following conditions are met: when internal conductors are jacketed submersible pump cable; when used in continuous lengths, directly buried, or secured on a shoreline above and below the water line; when submersible pump wiring terminations in the body of water according to section 682.13 Exception No. 2 are met. (4-4-25)

ii. Exception No. 2. Any listed and approved splices required to be made at the submersible well pump itself, outside of a recognized submersed pump sleeve or housing, when wires are too large to be housed inside such sleeve, shall be covered with a non-metallic, impact resistant material, no less than one quarter (.25) inches thick, such as heavy-duty heat shrink or other equivalent method approved by the authority having jurisdiction. (e.g. install a heat shrink over the sleeve or housing that the submersible well pump is installed in, and then recover (apply heat) the heat shrink over both the HDPE and the water line). At least six (6) inches shall be over the sleeve and at least twelve (12) inches over the HDPE and water line. (4-4-25)

iii. Exception No. 3. Pipe, conduit, PVC well casing, or other electrically unlisted tubing may be used as a chase, but not as a raceway, to protect conductors or cables from physical damage. Conductors or cables within a chase shall be rated for the location. (4-4-25)

bb. Article 682.14. Add the following additional exception: For installations of submersible well pumps installed in public swimming and marine areas, submersible well pumps shall be considered directly connected and shall be anchored in place. Ballast is an acceptable form of anchoring. (4-4-25)

cc. Section 682.14(A). Add the following exception: For installations of submersible well pumps

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installed in public swimming and marine areas, motor controller circuits such as remotely located stop pushbutton/s, disconnect/s, relay/s or switches shall be permitted as a required disconnecting means. Such circuits shall be identified at a minimum as "Emergency Pump Stop", or "Emergency Stop" with other obvious indications on the visible side of the enclosure, that it controls a submersible pump in the body of water. (4-4-25)

dd. Article 682.15. Add the following exceptions: (4-4-25)

i. Exception No. 1. Submersible pumps, and their motor leads, located in bodies of water, and that are rated sixty (60) amperes maximum, two hundred fifty (250) volts maximum of any phase, shall have GFCI or Ground Fault Equipment Protection designed to trip at a maximum of thirty (30) milliamps or less, protected by means selected by a licensed installer, meeting listing or labeling requirements, and inspected by the AHJ prior to submersion in bodies of water. (4-4-25)

ii. Exception No. 2. Installations or repair and replacement of submersible pumps located in bodies of water, that are rated over sixty (60) amperes, and rated at any voltage, shall be evaluated by a qualified designer or experienced licensed contractor, or involve engineering or be engineered, for each specific application, with the goal of public safety. Whenever possible, GFCI or Ground Fault Equipment Protection designed to trip at a maximum of thirty (30) milliamps or less, meeting listing or labeling requirements, shall be installed, and inspected by the AHJ prior to submersion in bodies of water. (4-4-25)

ee. Article 690.12 Rapid Shut Down. Add following Exemptions: (4-4-25)

i. Detached structures whose sole purpose is to house PV system equipment shall not be subject to the requirements outlined in article 690.12. (4-4-25)

ii. PV system circuits installed on or in buildings without the presence of a utility supplied power source shall not be required to comply with article 690.12 where all of the following apply: the minimum distance to bring electric utility power lines or service conductors to the building is 1,000 feet or greater; the building has a minimum setback distance of 100 feet from any building or structure located on adjacent properties; A lockable service entrance rated AC disconnect is installed outside at a readily accessible location; and the AC disconnect has a permanent placard or label with the following words or equivalent:

WARNING
SOLAR PV SYSTEM IS NOT EQUIPPED WITH RAPID SHUTDOWN

The warning placard or label shall comply with Section 110.21(B). (4-4-25)

ff. Section 690.12(A) Exception. PV system circuits originating within or from arrays not attached to buildings that terminate on the exterior of buildings or inside nearest the point of entrance, and PV system circuits installed in accordance with article 230.6 shall not be considered controlled conductors for the purposes of this section. (4-4-25)

gg. Article 706.5: Listing. Energy storage systems shall be listed. This shall not apply to lead-acid batteries. (4-4-25)

hh. Section 706.15(B) Off Grid Systems. Add the following exception: For one-family and two-family dwellings, a disconnecting means or its remote control shall be located at a readily accessible location. (4-4-25)

02. Availability. A copy of the 2023 National Electrical Code is available at the offices of the Division of Occupational and Professional Licenses. (4-4-25)

601. – 999. (RESERVED)

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APPENDIX XI

IDAPA 24 – ELECTRICAL BOARD TEMPORARY RULES

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THE FOLLOWING IS THE TEXT OF THE TEMPORARY RULE FOR DOCKET NO. 24-3910-2401
(Only Those Sections With Amendments Are Shown.)

100. LICENSURE AND REGISTRATION.

01. Journeyman. An applicant must pass an examination designated by the Board and either (a) submit evidence of a minimum of eight thousand (8,000) hours of work experience as an apprentice making electrical installations in accordance with the requirements of the jurisdiction in which the applicant obtained the experience and satisfactory completion of a four-year sequence of instruction approved by the Idaho Division of Career-Technical Education, or (b) submit proof of sixteen thousand (16,000) hours of electrical experience in accordance with the requirements of the jurisdiction in which the applicant obtained the experience. (3-28-23)

a. Examination. An applicant may sit for the exam after showing proof of completion of either the approved 4-year sequence of instruction or 16,000 hours of electrical experience. (3-28-23)

b. Provisional Journeyman License. A provisional journeyman license can be issued to an applicant who has completed the 16,000 hours of electrical experience but has not yet passed the examination. (3-28-23)

c. Work experience in appliance repair, motor winding, or communications will not count towards the requirements to take the journeyman examination or obtain a provisional journeyman or journeyman license. (3-28-23)

d. No more than two thousand (2,000) hours of work experience gained while engaged in the practice of a limited electrical installer or trainee may be counted toward the satisfaction of the experience requirements for journeyman licensure. (3-28-23)

02. Master. A master electrician does not need to also hold a journeyman license. (3-28-23)

03. Limited Electrical Installer. An applicant must submit evidence of a minimum of four thousand (4,000) hours of work experience in the same limited category in accordance with the requirements of the jurisdiction in which the applicant obtained the experience. (3-28-23)

04. Electrical Contractor and Limited Electrical Contractor. Applicant or its entity designee must pass an examination designated by the Board and submit an application signed by the applicant or an official representative of the entity making the application and countersigned by the supervising electrician. (3-28-23)

a. An entity applicant (such as, corporation, partnership, company, firm, or association) must designate in writing an individual to represent it for examination purposes. Any such designee shall be a supervisory employee and may not represent any other applicant for a contractor's license. (3-28-23)

b. In the event the working relationship between a contractor and its designee terminates, the contractor will notify the Division in writing within ten (10) days of the date of termination. The contractor may not purchase permits or make electrical installations unless another duly qualified designee passes the contractor's examination on behalf of the contractor. (3-28-23)

05. Continuing Education. To renew, journeymen and master electricians must provide proof of completion, during the prior three-year license cycle, consisting of sixteen (16) hours of Idaho Electrical Code training and eight (8) hours of any combination of National Electrical Code code-update training, code-related training, industry-related training, or independent study. ( )T

101. – 199. (RESERVED)

200. PRACTICE STANDARDS.

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01. Electrical Contracting Work. Contracting work includes electrical maintenance or repair work, in addition to new electrical installations, unless such work is expressly exempted by Section 54-1016, Idaho Code. (3-28-23)

02. Contractor Scope. A contractor's allowable scope of work is the same as the scope of its licensed employee. (3-28-23)

03. Supervision. (3-28-23)

a. The master, journeyman, residential electrician, or limited electrical installer shall be designated the supervising electrician; must be available during working hours to carry out the duties of supervising, as set forth herein; and will be responsible for supervision of electrical installations made by said contractor as provided by Section 54-1010, Idaho Code. ~~(3-28-23)~~( )T

i. A master electrician, journeyman, residential electrician, or limited electrical installer is not qualified for one (1) year as the supervising electrician if his contractor license was revoked. ~~(3-28-23)~~( )T

ii. An individual contractor may act as his own supervising master, journeyman, residential electrician, or limited electrical installer upon the condition that he holds an active master, journeyman, residential electrician, or limited electrical installer license. ~~(3-28-23)~~( )T

b. The employing contractor or limited electrical contractor must ensure each apprentice, trainee, and provisional journeyman performs electrical work only under the constant on-the-job supervision and training of a master, journeyman, residential electrician, or installer. ~~(3-28-23)~~( )T

c. A journeyman who is an employee of a company, corporation, firm, or association with a facility account may sign as supervising electrician for that facility account in addition to signing as supervising journeyman for his own contractor's license so long as the journeyman is listed as the owner. (3-28-23)

04. Connecting and Energizing Prior to Inspections. At the request of a licensed electrical contractor and upon receipt of a copy of an electrical permit, a power supply company may connect and energize an electrical service, to the line side of the service disconnect, prior to a passed inspection in the following situations: to preserve life or property or to provide temporary service for construction. Any contractor energizing an electrical installation prior to an inspection assumes full responsibility for the installation. (3-28-23)

05. Limited Electrical Installations. A limited electrical installer must be employed by an electrical contractor or limited electrical contractor in the same restricted category and may only countersign a limited electrical contractor's license application as supervising limited electrical installer for work within the same restricted category. Limited electrical installations must comply with the National Electrical Code, as amended herein. The following categories of electrical installations constitute limited electrical installations, the practice of which shall require an electrical contractor or limited electrical contractor license and supervision by a journeyman, master electrician, or limited electrical installer: (3-28-23)

a. Elevator, Dumbwaiter, Escalator, or Moving-Walk Electrical. An elevator electrical limited licensee is only authorized to install, maintain, repair, and replace equipment, controls, and wiring beyond the disconnect switch in the machine room of the elevator and pertaining directly to the operation and control thereof when located in the elevator shaft and machine room. (3-28-23)

b. Sign Electrical. A sign electrical limited licensee is only authorized to install, maintain, repair, and replace equipment, controls, and wiring on the secondary side of sign disconnecting means; provided the disconnecting means is located on the sign or within sight therefrom. (3-28-23)

c. Manufacturing or Assembling Equipment. A licensed limited electrical manufacturing or assembling equipment installer is only authorized to install, maintain, repair, and replace equipment, controls, and accessory wiring, integral to the specific equipment, on the load side of the equipment disconnecting means. Electrical service and feeder are to be installed by others. The licensee may also install circuitry in modules or

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fabricated enclosures for the purpose of connecting the necessary components which individually bear a label from a nationally recognized testing laboratory when such equipment is designed and manufactured for a specific job installation. (3-28-23)

i. This subsection does not apply to a limited electrical manufacturing or assembling equipment installer installing electrical wiring, equipment, and apparatus in modular buildings as that phrase is defined in Section 39-4105, Idaho Code. Only journeyman electricians and electrical apprentices, employed by an electrical contractor, may perform such installations. (3-28-23)

d. Limited Energy Electrical. Limited energy systems are defined as fire and security alarm systems, class 2 and class 3 signaling circuits, key card operators, nurse call systems, motor and electrical apparatus controls and other limited energy applications covered by the NEC. Unless exempted by Section 54-1016, Idaho Code, any person who installs, maintains, replaces or repairs electrical wiring and equipment for limited energy systems in facilities other than one (1) or two (2) family dwellings shall be required to have a valid limited energy limited electrical license. (3-28-23)

i. Limited energy systems do not include, and no license of any type is required for, the installation of landscape sprinkler controls or communication circuits, wires and apparatus that include telephone systems, telegraph facilities, outside wiring for fire and security alarm systems which are used for communication purposes, and central station systems of a similar nature, PBX systems, audio-visual and sound systems, public address and intercom systems, data communication systems, radio and television systems, antenna systems and other similar systems. (3-28-23)

e. Irrigation Sprinkler Electrical. An irrigation system electrical limited licensee is only authorized to install, maintain, repair and replace equipment, controls and wiring beyond the disconnect switch supplying power to the electric irrigation machine. The irrigation machine is considered to include the hardware, motors and controls of the irrigation machine and underground conductors connecting the control centers on the irrigation machine to the load side of the disconnecting device. Disconnect device to be installed by others. (3-28-23)

f. Well Driller and Water Pump Installer. A license holder in this category is only authorized to perform the following types of installations: (3-28-23)

i. Single or three (3) phase water pumps: install, maintain, repair and replace all electrical equipment, wires, and accessories from the pump motor up to the load side, including fuses, of the disconnecting device. Disconnecting device to be installed by others. (3-28-23)

ii. Domestic water pumps, one hundred twenty/two hundred forty (120/240) volt, single phase, sixty (60) amps or less: install, maintain, repair and replace all electrical equipment, wires, and accessories from the pump motor up to and including the disconnecting device. (3-28-23)

iii. Temporarily connect into a power source to test the installations, provided that all test wiring is removed before the installer leaves the site. (3-28-23)

iv. Individual residential wastewater pumping units. Install, maintain, repair and replace all electrical equipment, wires, and accessories from the pump motor up to and including the disconnecting device for systems that serve one-family, two-family, or three-family residential installations. (3-28-23)

g. Refrigeration, Heating, and Air-Conditioning Electrical Installer. A license holder in this category is only authorized to perform the following types of installations, which installations shall be limited to factory-assembled, packaged units: (3-28-23)

i. Heating Units (single phase): install, repair, and maintain all electrical equipment, wires, and accessories from the unit up to the load side, including fuses, of the disconnecting device. Disconnecting device to be installed by others. (3-28-23)

ii. Refrigeration, Air-Conditioning Equipment and Heat Pumps (single phase): install, repair, and maintain all electrical equipment, wires, and accessories from the unit up to the load side, including fuses, of the

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disconnecting device. Disconnecting device to be installed by others. (3-28-23)

iii. Refrigeration, Air-Conditioning and Heating Systems (three (3) phase): install, maintain, and repair all electrical equipment and accessories up to the load side, including fuses, of the disconnecting device. Disconnecting device to be installed by others. (3-28-23)

h. Outside Wireman. Applicants for this license category shall provide documentation of having completed an electrical lineman apprenticeship program or similar program approved by the U.S. Department of Labor, Office of Apprenticeship. Any person currently licensed in this category is only authorized to perform the following types of installation (3-28-23)

i. Overhead distribution and transmission lines in excess of six hundred (600) volts (3-28-23)

ii. Underground distribution and transmission lines in excess of six hundred (600) volts. (3-28-23)

iii. Substation and switchyard construction in excess of six hundred (600) volts. (3-28-23)

i. Solar Photovoltaic. Applicants for this license category shall provide proof of photovoltaic installer certification by the North American Board of Certified Energy Practitioners (NABCEP) or equivalent. Any person licensed in this category is only authorized to perform the following types of installations: (3-28-23)

i. Solar Photovoltaic DC Systems: Install, maintain, repair, and replace all electrical equipment, wires, and accessories up to and including the inverter. (3-28-23)

ii. Solar Photovoltaic micro-inverter/AC Systems: Install, maintain, repair, and replace all electrical equipment, wires, and accessories up to and including the AC combiner box. (3-28-23)

06. Certification and Approval of Electrical Products and Materials. All materials, devices, fittings, equipment, apparatus, luminaires, and appliances installed or to be used in installations that are supplied with electric energy must be approved as provided in one (1) of the following methods: (3-28-23)

a. Testing Laboratory. Be tested, examined, and certified (Listed) by a Nationally Recognized Testing Laboratory (NRTL). (3-28-23)

b. Field Evaluation. Non-listed electrical equipment may be approved for use through a field evaluation process performed in accordance with recognized practices and procedures such as those contained in the 2012 edition of NFPA 791 - Recommended Practice and Procedures for Unlabeled Electrical Equipment Evaluation published by the National Fire Protection Association (NFPA). Such evaluations shall be conducted by: (3-28-23)

i. A field evaluation body approved by the authority having jurisdiction. The field evaluation body shall meet minimum recognized standards for competency, such as NFPA 790 - Standard for Competency of Third-Party Field Evaluation Bodies, 2012 edition, published by the National Fire Protection Association (NFPA); or (3-28-23)

ii. In the case of industrial machinery only, as defined by NFPA 79 - Electrical Standard for Industrial Machinery, 2012 edition, a field evaluation may be performed by a professional engineer currently licensed to practice electrical engineering by the state of Idaho and who is not involved in the design of the equipment being evaluated or the facility in which the equipment is to be installed. (3-28-23)

c. Availability of NFPA Standards. The most recent edition of NFPA 790 - Standard for Competency of Third-Party Field Evaluation Bodies and NFPA 791 - Recommended Practice and Procedures for Unlabeled Electrical Equipment Evaluation published by the National Fire Protection Association (NFPA) are available at the Division. (3-28-23)

(BREAK IN CONTINUITY OF SECTIONS)

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501. – 9599. (RESERVED)

600. IDAHO ELECTRICAL CODE.

01. Documents. Under the provisions of Section 54-1001, Idaho Code, the National Electrical Code, 2023 Edition, (herein NEC) is ~~hereby adopted with the following amendments~~amended as follows: ( )T

a. Article 110.3(A) and 110.3(B). Shall not apply to submersible well pumps installed in swimming and marine areas; provided however, such articles shall apply to all other equipment required in the installation of a submersible well pump in such areas except for the actual submersible well pump itself. ( )T

b. Article 210.8 (A). Delete reference to 250-volt receptacles. ( )T

c. Article 210.8(A)(7) Sinks. Delete article 210.8(A)(7).

~~c.~~d. Article 210.8(A)(8). Delete and replace with the following: Sinks - located in areas other than kitchens where receptacles are installed within one and eight tenths (1.8) meters (six (6) feet) of the outside edge of the sink. ( )T

e. Article 210.8(A)(11). Delete article 210.8(A)(11) Laundry Areas. ( )T

f. Article 210.8(B). Delete articles (3), (4), and (14).

~~d.~~g. Article 210.8(B)(7). Delete and replace with the following: Sinks - located in kitchens and any other area where receptacles are installed within one and eight tenths (1.8) meters (six (6) feet) of the outside edge of the sink.

h. Article 210.8(D)(1). Automotive vacuum machines shall only require GFCI protection where receptacles are installed within one and eight tenths (1.8) meters (six (6) feet) from the top inside edge or rim or from the conductive support framing of the automotive vacuum. ~~Shall apply in full. Exception: In one- and two-family dwelling units, GFCI protection is not required for dishwashers or clothes dryers.~~ ( )T

i. Article 210.8(D). Delete articles (4), (5), (7), (8), (9), (10), (11), and (12).

~~e.~~j. Article 210.8(F). Delete articles (1) and (2).

~~f.~~k. Article 210.12(B). Shall apply in full. Exception: In one- and two-family dwelling units, Arc-Fault Circuit-Interrupter Protection shall only apply to all branch circuits and outlets supplying bedrooms. All other locations in such units are exempt from the requirements of Article 210.12(B). ( )T

~~g.~~l. Article 210.52(E)(3). Delete and replace with the following: Balconies, Decks, and Porches. Balconies, decks, and porches having an overall area of twenty (20) square feet or more that are accessible from inside the dwelling unit shall have at least one (1) receptacle outlet installed within the perimeter of the balcony, deck, or porch. The receptacle shall not be located more than two (2.0) meters (six and one half (6½) feet) above the balcony, deck, or porch surface. ( )T

~~h.~~m. Article 230.67 Surge Protection. Delete NEC Article 230.67. ( )T

~~i.~~n. Article 230.85 Emergency Disconnects. Delete Article 230.85. ( )T

~~j.~~o. Article 314.27(C) Boxes at Ceiling-Suspended (Paddle) Fan Outlets. Delete second paragraph. ( )T

~~k.~~p. Article 334.10(3). Delete and replace with the following: Other structures permitted to be of Types III, IV, and V construction. Cables shall be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has at least a fifteen (15)-minute finish rating as identified in listings of fire-rated assemblies. For the purpose of this section, cables located in attics and underfloor areas that are not designed to be occupied shall be

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considered concealed. ( )T

~~l.~~**q.** Article 334.15(C). Where the height of a crawl space does not exceed one and four tenths (1.4) meters or four and one half (4.5) feet, it shall be permissible to secure NM cables, that run at angles with joist, to the bottom edge of joist. NM cables that run within two and one tenth (2.1) meters or seven (7) feet of crawl space access shall comply with Article 320.23. ( )T

~~m.~~**r.** Pole Lighting. Poles used as lighting standards along roadways only (parking areas are not roadways) that are forty (40) feet or less in nominal height and that support no more than four (4) luminaires operating at a nominal voltage of three hundred (300) volts or less to ground, shall not be considered a structure as it is defined as equipment by the NEC. The disconnecting means may be mounted to the pole or elsewhere in accordance with NEC, Article 225.32, exception 3. Special purpose fuseable connectors (model SEC 1791–DF or model SEC 1791-SF) or equivalent shall be installed in a listed handhole (underground) enclosure. The enclosure

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shall be appropriately grounded and bonded per the requirements of the NEC applicable to Article 230- Services. Overcurrent protection shall be provided by a (fast-acting – minimum - 100K RMS Amps 600 VAC) rated fuse. Wiring within the pole for the luminaires shall be protected by supplementary overcurrent device (time-delay – minimum - 10K RMS Amps 600 VAC) in break-a-away fuse holder accessible from the hand hole. Any poles supporting or incorporating utilization equipment or exceeding the prescribed number of luminaires, or in excess of forty (40) feet, may be considered structures, and an appropriate service disconnecting means shall be required per the NEC. All luminaire- supporting poles shall be appropriately grounded and bonded per the NEC. A service may not need a Watt Hour Meter. ( )T

s. Article 422.5 (A)(~~7~~1). Shall only apply where receptacles are installed within one and eight tenths (1.8) meters (six (6) feet) from the top inside edge or rim or from the conductive support framing of the automotive vacuum machine.

~~n.~~t. Article 422.5(A). Delete ~~Article 422.5 (A)(7) GFCI protection for dwelling unit dishwashers.~~articles (4), (5), and (7).

( )T

~~o.~~u. Article 480.7(B) Battery Emergency Disconnect. Delete. ( )T

~~p.~~v. Article 675.8(B). Compliance with Article 675.8(B) will include the additional requirement that a disconnecting means always be provided at the point of service from the utility no matter where the disconnecting means for the machine is located. ( )T

~~q.~~w. Article 682.10. Shall not apply to submersible well pumps installed in swimming and marine areas; provided however, such articles shall apply to all other equipment required in the installation of a submersible well pump in such areas except for the actual submersible well pump itself. ( )T

~~r.~~x. Article 682.11. Add the following exception: This article shall not apply to service equipment that is located on or at the dwelling unit and which is not susceptible to flooding. ( )T

~~s.~~y. Article 682.13. Add the following exceptions: ( )T

~~t.~~z. Exception No 1. Wiring methods such as HDPE schedule eighty (80) electrical conduit or its equivalent or greater and clearly marked at a minimum "Caution Electrical" to indicate that it contains electrical conductors shall be approved. It shall be buried whenever practical, and in accordance with the requirements of the authority having jurisdiction. The use of gray HDPE water pipe rated at two hundred (200) PSI (e.g. SIDR-7 or DR-9) is suitable for use as a chase only when the following conditions are met: when internal conductors are jacketed submersible pump cable; when used in continuous lengths, directly buried, or secured on a shoreline above and below the water line; when submersible pump wiring terminations in the body of water according to 682.13 Exception No. 2 are met. ( )T

i. Exception No 2. Any listed and approved splices required to be made at the submersible well pump itself, outside of a recognized submersed pump sleeve or housing, when wires are too large to be housed inside such sleeve, shall be covered with a non-metallic, impact resistant material, no less than one quarter (.25) inches thick, such as heavy-duty heat shrink or other equivalent method approved by the authority having jurisdiction. (e.g. install a heat shrink over the sleeve or housing that the submersible well pump is installed in, and then recover (apply heat) the heat shrink over both the HDPE and the water line). At least six (6) inches shall be over the sleeve and at least twelve (12) inches over the HDPE and water line. ( )T

ii. Exception No. 3. Pipe, conduit, PVC well casing, or other electrically unlisted tubing may be used as a chase, but not as a raceway, to protect conductors or cables from physical damage. Conductors or cables within a chase shall be rated for the location. ( )T

~~u.~~aa. Article 682.14. Add the following additional exception: For installations of submersible well pumps installed in public swimming and marine areas, submersible well pumps shall be considered directly connected and shall be anchored in place. Ballast is an acceptable form of anchoring. ( )T

~~v.~~bb. Article 682.14(A). Add the following exception: For installations of submersible well pumps

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installed in public swimming and marine areas, motor controller circuits such as remotely located stop pushbutton/s, disconnect/s, relay/s or switches shall be permitted as a required disconnecting means. Such circuits shall be identified at a minimum as "Emergency Pump Stop", or "Emergency Stop" with other obvious indications on the visible side of the enclosure, that it controls a submersible pump in the body of water. ( )T

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~~w.~~**cc.** Article 682.15. Add the following exceptions: ( )T

~~x.~~dd. Exception No. 1. Submersible pumps, and their motor leads, located in bodies of water, and that are rated sixty (60) amperes maximum, two hundred fifty (250) volts maximum of any phase, shall have GFCI or Ground Fault Equipment Protection designed to trip at a maximum of thirty (30) milliamps or less, protected by means selected by a licensed installer, meeting listing or labeling requirements, and inspected by the AHJ prior to submersion in bodies of water. ( )T

ii. Exception No. 2. Installations or repair and replacement of submersible pumps located in bodies of water, that are rated over sixty (60) amperes, and rated at any voltage, shall be evaluated by a qualified designer or experienced licensed contractor, or involve engineering or be engineered, for each specific application, with the goal of public safety. Whenever possible, GFCI or Ground Fault Equipment Protection designed to trip at a maximum of thirty (30) milliamps or less, meeting listing or labeling requirements, shall be installed, and inspected by the AHJ prior to submersion in bodies of water. ( )T

x. Article 690.12 Rapid Shut Down. Add following Exemptions: ( )T

i. Detached structures whose sole purpose is to house PV system equipment shall not be considered buildings and thus may have roof mounted PV systems without rapid shutdown equipment according to this exception. ( )T

ii. PV system circuits installed on or in buildings without the presence of a utility supplied power source shall not be required to comply with Article 690.12 where all of the following apply: the minimum distance to bring electric utility power lines or service conductors to the building is 1000 feet or greater; the building has a minimum setback distance of 100 feet from any building or structure located on adjacent properties; A lockable service entrance rated AC disconnect is installed outside at a readily accessible location; and the AC disconnect has a permanent placard or label with the following words or equivalent: ( )T

WARNING
SOLAR PV SYSTEM IS NOT EQUIPPED WITH RAPID SHUTDOWN

The warning placard or label shall comply with Article 110.21(B). ( )T

y. Article 690.12(A) Exception. PV system circuits originating within or from arrays not attached to buildings that terminate on the exterior of buildings or inside nearest the point of entrance, and PV system circuits installed in accordance with Article 230.6 shall not be considered controlled conductors for the purposes of this section. ( )T

z. Article 706.5: Listing. Energy storage systems shall be listed. This shall not apply to lead-acid batteries. ( )T

aa. Article 706.15(B) Off Grid Systems. Add the following Exception: For one-family and two-family dwellings, a disconnecting means or its remote control shall be located at a readily accessible location. ( )T

02. Availability. A copy of the 2023 National Electrical Code is available at the offices of the Division. ( )T

601. – 999. (RESERVED)

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APPENDIX XII

CODE OF FEDERAL REGULATIONS
TITLE 23

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Code of Federal Regulations

Title 23 - Highways

Volume: 1
Date: 2014-04-01
Original Date: 2014-04-01
Title: Appendix B to Subpart A of Part 230 - Training Special Provisions
Context: Title 23 - Highways. CHAPTER I - FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION. SUBCHAPTER C - CIVIL RIGHTS. PART 230 - EXTERNAL PROGRAMS. Subpart A - Equal Employment Opportunity on Federal and Federal-Aid Construction Contracts (Including Supportive Services).

Pt. 230, Subpt. A, App. B

Appendix B to Subpart A of Part 230—Training Special Provisions

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled “Specific Equal Employment Opportunity Responsibilities,” (Attachment 1), and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under the special provisions will be ____ (amount to be filled in by State highway department).

In the event that a contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the State highway agency and the Federal Highway Administration. The State highway agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training

period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

[40 FR 28053, July 3, 1975. Correctly redesignated at 46 FR 21156, Apr. 9, 1981]

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APPENDIX XIII

CODE OF FEDERAL REGULATIONS
TITLE 41

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Code of Federal Regulations

Title 41 - Public Contracts and Property Management

Volume: 1
Date: 2013-07-01
Original Date: 2013-07-01
Title: Section 60-4.2 - Solicitations.
Context: Title 41 - Public Contracts and Property Management. Subtitle B - Other Provisions Relating to Public Contracts. CHAPTER 60 - OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS, EQUAL EMPLOYMENT OPPORTUNITY, DEPARTMENT OF LABOR. PART 60 - 4-CONSTRUCTION CONTRACTORS-AFFIRMATIVE ACTION REQUIREMENTS.

§ 60-4.2 Solicitations.

(a) All Federal contracting officers and all applicants shall include the notice set forth in paragraph (d) of this section and the Standard Federal Equal Employment Opportunity Construction Contract Specifications set forth in § 60-4.3 of this part in all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of the part. Administering agencies shall require the inclusion of the notice set forth in paragraph (d) of this section and the specifications set forth in § 60-4.3 of this part as a condition of any grant, contract, subcontract, loan, insurance or guarantee involving federally assisted construction covered by this part 60-4.

(b) All nonconstruction contractors covered by Executive Order 11246 and the implementing regulations shall include the notice in paragraph (d) of this section in all construction agreements which are necessary in whole or in part to the performance of the covered nonconstruction contract.

(c) Contracting officers, applicants and nonconstruction contractors shall given written notice to the Director within 10 working days of award of a contract subject to these provisions. The notification shall include the name, address and telephone number of the contractor; employer identification number; dollar amount of the contract, estimated starting and completion dates of the contract; the contract number; and geographical area in which the contract is to be performed.

(d) The following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of $10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part (see 41 CFR 60-4.2(a)):

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. THE OFFEROR'S OR BIDDER'S ATTENTION IS CALLED TO THE “EQUAL OPPORTUNITY CLAUSE” AND THE “STANDARD FEDERAL EQUAL EMPLOYMENT SPECIFICATIONS” SET FORTH HEREIN.

2. THE GOALS AND TIMETABLES FOR MINORITY AND FEMALE PARTICIPATION, EXPRESSED IN PERCENTAGE TERMS FOR THE CONTRACTOR'S AGGREGATE WORKFORCE IN EACH TRADE ON ALL CONSTRUCTION WORK IN THE COVERED AREA, ARE AS FOLLOWS:

TIME-TABLES	GOALS FOR MINORITY PARTICIPATION FOR EACH TRADE	GOALS FOR FEMALE PARTICIPATION IN EACH TRADE
	INSERT GOALS FOR EACH YEAR	INSERT GOALS FOR EACH YEAR.

THESE GOALS ARE APPLICABLE TO ALL THE CONTRACTOR'S CONSTRUCTION WORK (WHETHER OR NOT IT IS FEDERAL OR FEDERALLY ASSISTED) PERFORMED IN THE COVERED AREA. IF THE CONTRACTOR PERFORMS CONSTRUCTION WORK IN A GEOGRAPHICAL AREA LOCATED OUTSIDE OF THE COVERED AREA, IT SHALL APPLY THE GOALS ESTABLISHED FOR SUCH GEOGRAPHICAL AREA WHERE THE WORK IS ACTUALLY PERFORMED. WITH REGARD TO THIS SECOND AREA, THE CONTRACTOR ALSO IS SUBJECT TO THE GOALS FOR BOTH ITS FEDERALLY INVOLVED AND NONFEDERALLY INVOLVED CONSTRUCTION.

THE CONTRACTOR'S COMPLIANCE WITH THE EXECUTIVE ORDER AND THE REGULATIONS IN 41 CFR PART 60-4 SHALL BE BASED ON ITS IMPLEMENTATION OF THE EQUAL OPPORTUNITY CLAUSE, SPECIFIC AFFIRMATIVE ACTION OBLIGATIONS REQUIRED BY THE SPECIFICATIONS SET FORTH IN 41 CFR 60-4.3(A), AND ITS EFFORTS TO MEET THE GOALS. THE HOURS OF MINORITY AND FEMALE EMPLOYMENT AND TRAINING MUST BE SUBSTANTIALLY UNIFORM THROUGHOUT THE LENGTH OF THE CONTRACT, AND IN EACH TRADE, AND THE CONTRACTOR SHALL MAKE A GOOD FAITH EFFORT TO EMPLOY MINORITIES AND WOMEN EVENLY ON EACH OF ITS PROJECTS. THE TRANSFER OF MINORITY OR FEMALE EMPLOYEES OR TRAINEES FROM CONTRACTOR TO CONTRACTOR OR FROM PROJECT TO PROJECT FOR THE SOLE PURPOSE OF MEETING THE CONTRACTOR'S GOALS SHALL BE A VIOLATION OF THE CONTRACT, THE EXECUTIVE ORDER AND THE

REGULATIONS IN 41 CFR PART 60-4. COMPLIANCE WITH THE GOALS WILL BE MEASURED AGAINST THE TOTAL WORK HOURS PERFORMED.

3. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO THE DIRECTOR OF THE OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS WITHIN 10 WORKING DAYS OF AWARD OF ANY CONSTRUCTION SUBCONTRACT IN EXCESS OF $10,000 AT ANY TIER FOR CONSTRUCTION WORK UNDER THE CONTRACT RESULTING FROM THIS SOLICITATION. THE NOTIFICATION SHALL LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE SUBCONTRACTOR; EMPLOYER IDENTIFICATION NUMBER OF THE SUBCONTRACTOR; ESTIMATED DOLLAR AMOUNT OF THE SUBCONTRACT; ESTIMATED STARTING AND COMPLETION DATES OF THE SUBCONTRACT; AND THE GEOGRAPHICAL AREA IN WHICH THE SUBCONTRACT IS TO BE PERFORMED.

4. AS USED IN THIS NOTICE, AND IN THE CONTRACT RESULTING FROM THIS SOLICITATION, THE “COVERED AREA” IS (INSERT DESCRIPTION OF THE GEOGRAPHICAL AREAS WHERE THE CONTRACT IS TO BE PERFORMED GIVING THE STATE, COUNTY AND CITY, IF ANY).

[43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65977, Oct. 3, 1980]

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Code of Federal Regulations

Title 41 - Public Contracts and Property Management

Volume: 1
Date: 2013-07-01
Original Date: 2013-07-01
Title: Section 60-4.3 - Equal opportunity clauses.
Context: Title 41 - Public Contracts and Property Management. Subtitle B - Other Provisions Relating to Public Contracts. CHAPTER 60 - OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS, EQUAL EMPLOYMENT OPPORTUNITY, DEPARTMENT OF LABOR. PART 60 - 4-CONSTRUCTION CONTRACTORS-AFFIRMATIVE ACTION REQUIREMENTS.

§ 60-4.3 Equal opportunity clauses.

(a) The equal opportunity clause published at 41 CFR 60-1.4(a) of this chapter is required to be included in, and is part of, all nonexempt Federal contracts and subcontracts, including construction contracts and subcontracts. The equal opportunity clause published at 41 CFR 60-1.4(b) is required to be included in, and is a part of, all nonexempt federally assisted construction contracts and subcontracts. In addition to the clauses described above, all Federal contracting officers, all applicants and all nonconstruction contractors, as applicable, shall include the specifications set forth in this section in all Federal and federally assisted construction contracts in excess of $10,000 to be performed in geographical areas designated by the Director pursuant to § 60-4.6 of this part and in construction subcontracts in excess of $10,000 necessary in whole or in part to the performance of nonconstruction Federal contracts and subcontracts covered under the Executive order.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. AS USED IN THESE SPECIFICATIONS:

A. “COVERED AREA” MEANS THE GEOGRAPHICAL AREA DESCRIBED IN THE SOLICITATION FROM WHICH THIS CONTRACT RESULTED;

B. “DIRECTOR” MEANS DIRECTOR, OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS, UNITED STATES DEPARTMENT OF LABOR, OR ANY PERSON TO WHOM THE DIRECTOR DELEGATES AUTHORITY;

C. “EMPLOYER IDENTIFICATION NUMBER” MEANS THE FEDERAL SOCIAL SECURITY NUMBER USED ON THE EMPLOYER'S QUARTERLY FEDERAL TAX RETURN, U.S. TREASURY DEPARTMENT FORM 941.

D. “MINORITY” INCLUDES:

(I) BLACK (ALL PERSONS HAVING ORIGINS IN ANY OF THE BLACK AFRICAN RACIAL GROUPS NOT OF HISPANIC ORIGIN);

(II) HISPANIC (ALL PERSONS OF MEXICAN, PUERTO RICAN, CUBAN, CENTRAL OR SOUTH AMERICAN OR OTHER SPANISH CULTURE OR ORIGIN, REGARDLESS OF RACE);

(III) ASIAN AND PACIFIC ISLANDER (ALL PERSONS HAVING ORIGINS IN ANY OF THE ORIGINAL PEOPLES OF THE FAR EAST, SOUTHEAST ASIA, THE INDIAN SUBCONTINENT, OR THE PACIFIC ISLANDS); AND

(IV) AMERICAN INDIAN OR ALASKAN NATIVE (ALL PERSONS HAVING ORIGINS IN ANY OF THE ORIGINAL PEOPLES OF NORTH AMERICA AND MAINTAINING IDENTIFIABLE TRIBAL AFFILIATIONS THROUGH MEMBERSHIP AND PARTICIPATION OR COMMUNITY IDENTIFICATION).

2. WHENEVER THE CONTRACTOR, OR ANY SUBCONTRACTOR AT ANY TIER, SUBCONTRACTS A PORTION OF THE WORK INVOLVING ANY CONSTRUCTION TRADE, IT SHALL PHYSICALLY INCLUDE IN EACH SUBCONTRACT IN EXCESS OF $10,000 THE PROVISIONS OF THESE SPECIFICATIONS AND THE NOTICE WHICH CONTAINS THE APPLICABLE GOALS FOR MINORITY AND FEMALE PARTICIPATION AND WHICH IS SET FORTH IN THE SOLICITATIONS FROM WHICH THIS CONTRACT RESULTED.

3. IF THE CONTRACTOR IS PARTICIPATING (PURSUANT TO 41 CFR 60-4.5) IN A HOMETOWN PLAN APPROVED BY THE U.S. DEPARTMENT OF LABOR IN THE COVERED AREA EITHER INDIVIDUALLY OR THROUGH AN ASSOCIATION, ITS AFFIRMATIVE ACTION OBLIGATIONS ON ALL WORK IN THE PLAN AREA (INCLUDING GOALS AND TIMETABLES) SHALL BE IN ACCORDANCE WITH THAT PLAN FOR THOSE TRADES WHICH HAVE UNIONS PARTICIPATING IN THE PLAN. CONTRACTORS MUST BE ABLE TO DEMONSTRATE THEIR PARTICIPATION IN AND COMPLIANCE WITH THE PROVISIONS OF ANY SUCH HOMETOWN PLAN. EACH CONTRACTOR OR SUBCONTRACTOR PARTICIPATING IN AN APPROVED PLAN IS INDIVIDUALLY REQUIRED TO COMPLY WITH ITS OBLIGATIONS UNDER THE EEO CLAUSE, AND TO MAKE A GOOD FAITH EFFORT TO ACHIEVE EACH GOAL UNDER THE PLAN IN EACH TRADE IN WHICH IT HAS EMPLOYEES. THE OVERALL GOOD FAITH PERFORMANCE BY OTHER CONTRACTORS OR SUBCONTRACTORS TOWARD A GOAL IN AN APPROVED PLAN DOES NOT EXCUSE ANY COVERED CONTRACTOR'S OR SUBCONTRACTOR'S FAILURE TO TAKE GOOD FAITH EFFORTS TO ACHIEVE THE PLAN GOALS AND TIMETABLES.

4. THE CONTRACTOR SHALL IMPLEMENT THE SPECIFIC AFFIRMATIVE ACTION STANDARDS PROVIDED IN PARAGRAPHS 7 A THROUGH P OF THESE SPECIFICATIONS. THE GOALS SET FORTH IN THE SOLICITATION FROM WHICH THIS CONTRACT

RESULTED ARE EXPRESSED AS PERCENTAGES OF THE TOTAL HOURS OF EMPLOYMENT AND TRAINING OF MINORITY AND FEMALE UTILIZATION THE CONTRACTOR SHOULD REASONABLY BE ABLE TO ACHIEVE IN EACH CONSTRUCTION TRADE IN WHICH IT HAS EMPLOYEES IN THE COVERED AREA. COVERED CONSTRUCTION CONTRACTORS PERFORMING CONSTRUCTION WORK IN GEOGRAPHICAL AREAS WHERE THEY DO NOT HAVE A FEDERAL OR FEDERALLY ASSISTED CONSTUCTION CONTRACT SHALL APPLY THE MINORITY AND FEMALE GOALS ESTABLISHED FOR THE GEOGRAPHICAL AREA WHERE THE WORK IS BEING PERFORMED. GOALS ARE PUBLISHED PERIODICALLY IN THE **FEDERAL REGISTER** IN NOTICE FORM, AND SUCH NOTICES MAY BE OBTAINED FROM ANY OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS OFFICE OR FROM FEDERAL PROCUREMENT CONTRACTING OFFICERS. THE CONTRACTOR IS EXPECTED TO MAKE SUBSTANTIALLY UNIFORM PROGRESS IN MEETING ITS GOALS IN EACH CRAFT DURING THE PERIOD SPECIFIED.

5. NEITHER THE PROVISIONS OF ANY COLLECTIVE BARGAINING AGREEMENT, NOR THE FAILURE BY A UNION WITH WHOM THE CONTRACTOR HAS A COLLECTIVE BARGAINING AGREEMENT, TO REFER EITHER MINORITIES OR WOMEN SHALL EXCUSE THE CONTRACTOR'S OBLIGATIONS UNDER THESE SPECIFICATIONS, EXECUTIVE ORDER 11246, OR THE REGULATIONS PROMULGATED PURSUANT THERETO.

6. IN ORDER FOR THE NONWORKING TRAINING HOURS OF APPRENTICES AND TRAINEES TO BE COUNTED IN MEETING THE GOALS, SUCH APPRENTICES AND TRAINEES MUST BE EMPLOYED BY THE CONTRACTOR DURING THE TRAINING PERIOD, AND THE CONTRACTOR MUST HAVE MADE A COMMITMENT TO EMPLOY THE APPRENTICES AND TRAINEES AT THE COMPLETION OF THEIR TRAINING, SUBJECT TO THE AVAILABILITY OF EMPLOYMENT OPPORTUNITIES. TRAINEES MUST BE TRAINED PURSUANT TO TRAINING PROGRAMS APPROVED BY THE U.S. DEPARTMENT OF LABOR.

7. THE CONTRACTOR SHALL TAKE SPECIFIC AFFIRMATIVE ACTIONS TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY. THE EVALUATION OF THE CONTRACTOR'S COMPLIANCE WITH THESE SPECIFICATIONS SHALL BE BASED UPON ITS EFFORT TO ACHIEVE MAXIMUM RESULTS FROM ITS ACTIONS. THE CONTRACTOR SHALL DOCUMENT THESE EFFORTS FULLY, AND SHALL IMPLEMENT AFFIRMATIVE ACTION STEPS AT LEAST AS EXTENSIVE AS THE FOLLOWING:

A. ENSURE AND MAINTAIN A WORKING ENVIRONMENT FREE OF HARASSMENT, INTIMIDATION, AND COERCION AT ALL SITES, AND IN ALL FACILITIES AT WHICH THE CONTRACTOR'S EMPLOYEES ARE ASSIGNED TO WORK. THE CONTRACTOR, WHERE POSSIBLE, WILL ASSIGN TWO OR MORE WOMEN TO EACH CONSTRUCTION PROJECT. THE CONTRACTOR SHALL SPECIFICALLY ENSURE THAT ALL FOREMEN, SUPERINTENDENTS, AND OTHER ON-SITE SUPERVISORY PERSONNEL ARE AWARE OF AND CARRY OUT THE CONTRACTOR'S OBLIGATION TO MAINTAIN SUCH A WORKING ENVIRONMENT, WITH SPECIFIC ATTENTION TO MINORITY OR FEMALE INDIVIDUALS WORKING AT SUCH SITES OR IN SUCH FACILITIES.

B. ESTABLISH AND MAINTAIN A CURRENT LIST OF MINORITY AND FEMALE RECRUITMENT SOURCES, PROVIDE WRITTEN NOTIFICATION TO MINORITY AND FEMALE RECRUITMENT SOURCES AND TO COMMUNITY ORGANIZATIONS WHEN THE CONTRACTOR OR ITS UNIONS HAVE EMPLOYMENT OPPORTUNITIES AVAILABLE, AND MAINTAIN A RECORD OF THE ORGANIZATIONS' RESPONSES.

C. MAINTAIN A CURRENT FILE OF THE NAMES, ADDRESSES AND TELEPHONE NUMBERS OF EACH MINORITY AND FEMALE OFF-THE-STREET APPLICANT AND MINORITY OR FEMALE REFERRAL FROM A UNION, A RECRUITMENT SOURCE OR COMMUNITY ORGANIZATION AND OF WHAT ACTION WAS TAKEN WITH RESPECT TO EACH SUCH INDIVIDUAL. IF SUCH INDIVIDUAL WAS SENT TO THE UNION HIRING HALL FOR REFERRAL AND WAS NOT REFERRED BACK TO THE CONTRACTOR BY THE UNION OR, IF REFERRED, NOT EMPLOYED BY THE CONTRACTOR, THIS SHALL BE DOCUMENTED IN THE FILE WITH THE REASON THEREFOR, ALONG WITH WHATEVER ADDITIONAL ACTIONS THE CONTRACTOR MAY HAVE TAKEN.

D. PROVIDE IMMEDIATE WRITTEN NOTIFICATION TO THE DIRECTOR WHEN THE UNION OR UNIONS WITH WHICH THE CONTRACTOR HAS A COLLECTIVE BARGAINING AGREEMENT HAS NOT REFERRED TO THE CONTRACTOR A MINORITY PERSON OR WOMAN SENT BY THE CONTRACTOR, OR WHEN THE CONTRACTOR HAS OTHER INFORMATION THAT THE UNION REFERRAL PROCESS HAS IMPEDED THE CONTRACTOR'S EFFORTS TO MEET ITS OBLIGATIONS.

E. DEVELOP ON-THE-JOB TRAINING OPPORTUNITIES AND/OR PARTICIPATE IN TRAINING PROGRAMS FOR THE AREA WHICH EXPRESSLY INCLUDE MINORITIES AND WOMEN, INCLUDING UPGRADING PROGRAMS AND APPRENTICESHIP AND TRAINEE PROGRAMS RELEVANT TO THE CONTRACTOR'S EMPLOYMENT NEEDS, ESPECIALLY THOSE PROGRAMS FUNDED OR APPROVED BY THE DEPARTMENT OF LABOR. THE CONTRACTOR SHALL PROVIDE NOTICE OF THESE PROGRAMS TO THE SOURCES COMPILED UNDER 7B ABOVE.

F. DISSEMINATE THE CONTRACTOR'S EEO POLICY BY PROVIDING NOTICE OF THE POLICY TO UNIONS AND TRAINING PROGRAMS AND REQUESTING THEIR COOPERATION IN ASSISTING THE CONTRACTOR IN MEETING ITS EEO OBLIGATIONS; BY INCLUDING IT IN ANY POLICY MANUAL AND COLLECTIVE BARGAINING AGREEMENT; BY PUBLICIZING IT IN THE COMPANY NEWPAPER, ANNUAL REPORT, ETC.; BY SPECIFIC REVIEW OF THE POLICY WITH ALL MANAGEMENT PERSONNEL AND WITH ALL MINORITY AND FEMALE EMPLOYEES AT LEAST ONCE A YEAR; AND BY POSTING THE COMPANY EEO POLICY ON BULLETIN BOARDS ACCESSIBLE TO ALL EMPLOYEES AT EACH LOCATION WHERE CONSTRUCTION WORK IS PERFORMED.

G. REVIEW, AT LEAST ANNUALLY, THE COMPANY'S EEO POLICY AND AFFIRMATIVE ACTION OBLIGATIONS UNDER THESE SPECIFICATIONS WITH ALL EMPLOYEES HAVING ANY RESPONSIBILITY FOR HIRING, ASSIGNMENT, LAYOFF, TERMINATION OR OTHER EMPLOYMENT DECISIONS INCLUDING SPECIFIC REVIEW OF THESE ITEMS WITH ONSITE SUPERVISORY PERSONNEL SUCH AS SUPERINTENDENTS, GENERAL FOREMEN, ETC., PRIOR TO THE INITIATION OF CONSTRUCTION WORK AT ANY JOB SITE. A WRITTEN RECORD SHALL BE MADE AND MAINTAINED IDENTIFYING THE TIME AND PLACE OF THESE MEETINGS, PERSONS ATTENDING, SUBJECT MATTER DISCUSSED, AND DISPOSITION OF THE SUBJECT MATTER.

H. DISSEMINATE THE CONTRACTOR'S EEO POLICY EXTERNALLY BY INCLUDING IT IN ANY ADVERTISING IN THE NEWS MEDIA, SPECIFICALLY INCLUDING MINORITY AND FEMALE NEWS MEDIA, AND PROVIDING WRITTEN NOTIFICATION TO AND DISCUSSING THE CONTRACTOR'S EEO POLICY WITH OTHER CONTRACTORS AND SUBCONTRACTORS WITH WHOM THE CONTRACTOR DOES OR ANTICIPATES DOING BUSINESS.

I. DIRECT ITS RECRUITMENT EFFORTS, BOTH ORAL AND WRITTEN, TO MINORITY, FEMALE AND COMMUNITY ORGANIZATIONS, TO SCHOOLS WITH MINORITY AND FEMALE STUDENTS AND TO MINORITY AND FEMALE RECRUITMENT AND TRAINING ORGANIZATIONS SERVING THE CONTRACTOR'S RECRUITMENT AREA AND EMPLOYMENT NEEDS. NOT LATER THAN ONE MONTH PRIOR TO THE DATE FOR THE ACCEPTANCE OF APPLICATIONS FOR APPRENTICESHIP OR OTHER TRAINING BY ANY RECRUITMENT SOURCE, THE CONTRACTOR SHALL SEND WRITTEN NOTIFICATION TO ORGANIZATIONS SUCH AS THE ABOVE, DESCRIBING THE OPENINGS, SCREENING PROCEDURES, AND TESTS TO BE USED IN THE SELECTION PROCESS.

J. ENCOURAGE PRESENT MINORITY AND FEMALE EMPLOYEES TO RECRUIT OTHER MINORITY PERSONS AND WOMEN AND, WHERE REASONABLE, PROVIDE AFTER SCHOOL, SUMMER AND VACATION EMPLOYMENT TO MINORITY AND FEMALE YOUTH BOTH ON THE SITE AND IN OTHER AREAS OF A CONTRACTOR'S WORK FORCE.

K. VALIDATE ALL TESTS AND OTHER SELECTION REQUIREMENTS WHERE THERE IS AN OBLIGATION TO DO SO UNDER 41 CFR PART 60-3.

L. CONDUCT, AT LEAST ANNUALLY, AN INVENTORY AND EVALUATION AT LEAST OF ALL MINORITY AND FEMALE PERSONNEL FOR PROMOTIONAL OPPORTUNITIES AND ENCOURAGE THESE EMPLOYEES TO SEEK OR TO PREPARE FOR, THROUGH APPROPRIATE TRAINING, ETC., SUCH OPPORTUNITIES.

M. ENSURE THAT SENIORITY PRACTICES, JOB CLASSIFICATIONS, WORK ASSIGNMENTS AND OTHER PERSONNEL PRACTICES, DO NOT HAVE A DISCRIMINATORY EFFECT BY CONTINUALLY MONITORING ALL PERSONNEL AND EMPLOYMENT RELATED ACTIVITIES TO ENSURE THAT THE EEO POLICY AND THE CONTRACTOR'S OBLIGATIONS UNDER THESE SPECIFICATIONS ARE BEING CARRIED OUT.

N. ENSURE THAT ALL FACILITIES AND COMPANY ACTIVITIES ARE NONSEGREGATED EXCEPT THAT SEPARATE OR SINGLE-USER TOILET AND NECESSARY CHANGING FACILITIES SHALL BE PROVIDED TO ASSURE PRIVACY BETWEEN THE SEXES.

O. DOCUMENT AND MAINTAIN A RECORD OF ALL SOLICITATIONS OF OFFERS FOR SUBCONTRACTS FROM MINORITY AND FEMALE CONSTRUCTION CONTRACTORS AND SUPPLIERS, INCLUDING CIRCULATION OF SOLICITATIONS TO MINORITY AND FEMALE CONTRACTOR ASSOCIATIONS AND OTHER BUSINESS ASSOCIATIONS.

P. CONDUCT A REVIEW, AT LEAST ANNUALLY, OF ALL SUPERVISORS' ADHERENCE TO AND PERFORMANCE UNDER THE CONTRACTOR'S EEO POLICIES AND AFFIRMATIVE ACTION OBLIGATIONS.

8. CONTRACTORS ARE ENCOURAGED TO PARTICIPATE IN VOLUNTARY ASSOCIATIONS WHICH ASSIST IN FULFILLING ONE OR MORE OF THEIR AFFIRMATIVE ACTION OBLIGATIONS (7A THROUGH P). THE EFFORTS OF A CONTRACTOR ASSOCIATION, JOINT CONTRACTOR-UNION, CONTRACTOR-COMMUNITY, OR OTHER SIMILAR GROUP OF WHICH THE CONTRACTOR IS A MEMBER AND PARTICIPANT, MAY BE ASSERTED AS FULFILLING ANY ONE OR MORE OF ITS OBLIGATIONS UNDER 7A THROUGH P OF THESE SPECIFICATIONS PROVIDED THAT THE CONTRACTOR ACTIVELY PARTICIPATES IN THE GROUP, MAKES EVERY EFFORT TO ASSURE THAT THE GROUP HAS A POSITIVE IMPACT ON THE EMPLOYMENT OF MINORITIES AND WOMEN IN THE INDUSTRY, ENSURES THAT THE CONCRETE BENEFITS OF THE PROGRAM ARE REFLECTED IN THE CONTRACTOR'S MINORITY AND FEMALE WORKFORCE PARTICIPATION, MAKES A GOOD FAITH EFFORT TO MEET ITS INDIVIDUAL GOALS AND TIMETABLES, AND CAN PROVIDE ACCESS TO DOCUMENTATION WHICH DEMONSTRATES THE EFFECTIVENESS OF ACTIONS TAKEN ON BEHALF OF THE CONTRACTOR. THE OBLIGATION TO COMPLY, HOWEVER, IS THE CONTRACTOR'S AND FAILURE OF SUCH A GROUP TO FULFILL AN OBLIGATION SHALL NOT BE A DEFENSE FOR THE CONTRACTOR'S NONCOMPLIANCE.

9. A SINGLE GOAL FOR MINORITIES AND A SEPARATE SINGLE GOAL FOR WOMEN HAVE BEEN ESTABLISHED. THE CONTRACTOR, HOWEVER, IS REQUIRED TO PROVIDE EQUAL EMPLOYMENT OPPORTUNITY AND TO TAKE AFFIRMATIVE ACTION FOR ALL MINORITY GROUPS, BOTH MALE AND FEMALE, AND ALL WOMEN, BOTH MINORITY AND NON-MINORITY. CONSEQUENTLY, THE CONTRACTOR MAY BE IN VIOLATION OF THE EXECUTIVE ORDER IF A PARTICULAR GROUP IS EMPLOYED IN A SUBSTANTIALLY DISPARATE MANNER (FOR EXAMPLE, EVEN THOUGH THE CONTRACTOR HAS ACHIEVED ITS GOALS FOR WOMEN GENERALLY, THE CONTRACTOR MAY BE IN VIOLATION OF THE EXECUTIVE ORDER IF A SPECIFIC MINORITY GROUP OF WOMEN IS UNDERUTILIZED).

10. THE CONTRACTOR SHALL NOT USE THE GOALS AND TIMETABLES OR AFFIRMATIVE ACTION STANDARDS TO DISCRIMINATE AGAINST ANY PERSON BECAUSE OF RACE, COLOR, RELIGION, SEX, OR NATIONAL ORIGIN.

11. THE CONTRACTOR SHALL NOT ENTER INTO ANY SUBCONTRACT WITH ANY PERSON OR FIRM DEBARRED FROM GOVERNMENT CONTRACTS PURSUANT TO EXECUTIVE ORDER 11246.

12. THE CONTRACTOR SHALL CARRY OUT SUCH SANCTIONS AND PENALTIES FOR VIOLATION OF THESE SPECIFICATIONS AND OF THE EQUAL OPPORTUNITY CLAUSE, INCLUDING SUSPENSION, TERMINATION AND CANCELLATION OF EXISTING SUBCONTRACTS AS MAY BE IMPOSED OR ORDERED PURSUANT TO EXECUTIVE ORDER 11246, AS AMENDED, AND ITS IMPLEMENTING REGULATIONS, BY THE OFFICE OF FEDERAL CONTRACT COMPLIANCE PROGRAMS. ANY CONTRACTOR WHO FAILS TO CARRY OUT SUCH SANCTIONS AND PENALTIES SHALL BE IN VIOLATION OF THESE SPECIFICATIONS AND EXECUTIVE ORDER 11246, AS AMENDED.

13. THE CONTRACTOR, IN FULFILLING ITS OBLIGATIONS UNDER THESE SPECIFICATIONS, SHALL IMPLEMENT SPECIFIC AFFIRMATIVE ACTION STEPS, AT LEAST AS EXTENSIVE AS THOSE STANDARDS PRESCRIBED IN PARAGRAPH 7 OF THESE SPECIFICATIONS, SO AS TO ACHIEVE MAXIMUM RESULTS FROM ITS EFFORTS TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY. IF THE CONTRACTOR FAILS TO COMPLY WITH THE REQUIREMENTS OF THE EXECUTIVE ORDER, THE IMPLEMENTING REGULATIONS, OR THESE SPECIFICATIONS, THE DIRECTOR SHALL PROCEED IN ACCORDANCE WITH 41 CFR 60-4.8.

14. THE CONTRACTOR SHALL DESIGNATE A RESPONSIBLE OFFICIAL TO MONITOR ALL EMPLOYMENT RELATED ACTIVITY TO ENSURE THAT THE COMPANY EEO POLICY IS BEING CARRIED OUT, TO SUBMIT REPORTS RELATING TO THE PROVISIONS HEREOF AS MAY BE REQUIRED BY THE GOVERNMENT AND TO KEEP RECORDS. RECORDS SHALL AT LEAST INCLUDE FOR EACH EMPLOYEE THE NAME, ADDRESS, TELEPHONE NUMBERS, CONSTRUCTION TRADE, UNION AFFILIATION IF ANY, EMPLOYEE IDENTIFICATION NUMBER WHEN ASSIGNED, SOCIAL SECURITY NUMBER, RACE, SEX, STATUS (E.G., MECHANIC, APPRENTICE TRAINEE, HELPER, OR LABORER), DATES OF CHANGES IN STATUS, HOURS WORKED PER WEEK IN THE INDICATED TRADE, RATE OF PAY, AND LOCATIONS AT WHICH THE WORK WAS PERFORMED. RECORDS SHALL BE MAINTAINED IN AN EASILY UNDERSTANDABLE AND RETRIEVABLE FORM; HOWEVER, TO THE DEGREE THAT EXISTING RECORDS SATISFY THIS REQUIREMENT, CONTRACTORS SHALL NOT BE REQUIRED TO MAINTAIN SEPARATE RECORDS.

15. NOTHING HEREIN PROVIDED SHALL BE CONSTRUED AS A LIMITATION UPON THE APPLICATION OF OTHER LAWS WHICH ESTABLISH DIFFERENT STANDARDS OF COMPLIANCE OR UPON THE APPLICATION OF REQUIREMENTS FOR THE HIRING OF LOCAL OR OTHER AREA RESIDENTS (E.G., THOSE UNDER THE PUBLIC WORKS EMPLOYMENT ACT OF 1977 AND THE COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM).

(b) The notice set forth in 41 CFR 60-4.2 and the specifications set forth in 41 CFR 60-4.3 replace the New Form for Federal Equal Employment Opportunity Bid Conditions for Federal and Federally Assisted Construction published at 41 FR 32482 and commonly known as the Model Federal EEO Bid Conditions, and the New Form shall not be used after the regulations in 41 CFR part 60-4 become effective.

[43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65978, Oct. 3, 1980]

DRAFT

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3-4	SURVEY CONTROL SHEETS
5-8	TYPICAL SECTIONS
9-11	ROADWAY SUMMARY
12	SEWER PIPE SUMMARY
13-19	DEMO PLAN
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41-45	SIGN & PAVEMENT MARKING PLAN
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CITY OF MOSCOW

LOCAL HIGHWAY TECHNICAL ASSISTANCE COUNCIL

PLAN AND PROFILE OF PROPOSED

NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS

FEDERAL AID PROJECT NO. A023(902) A023(903)

KEY NO. 23902/23903

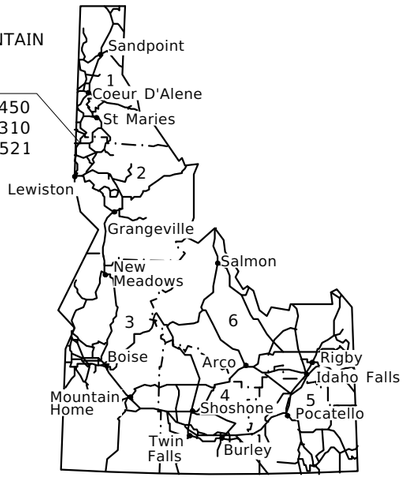
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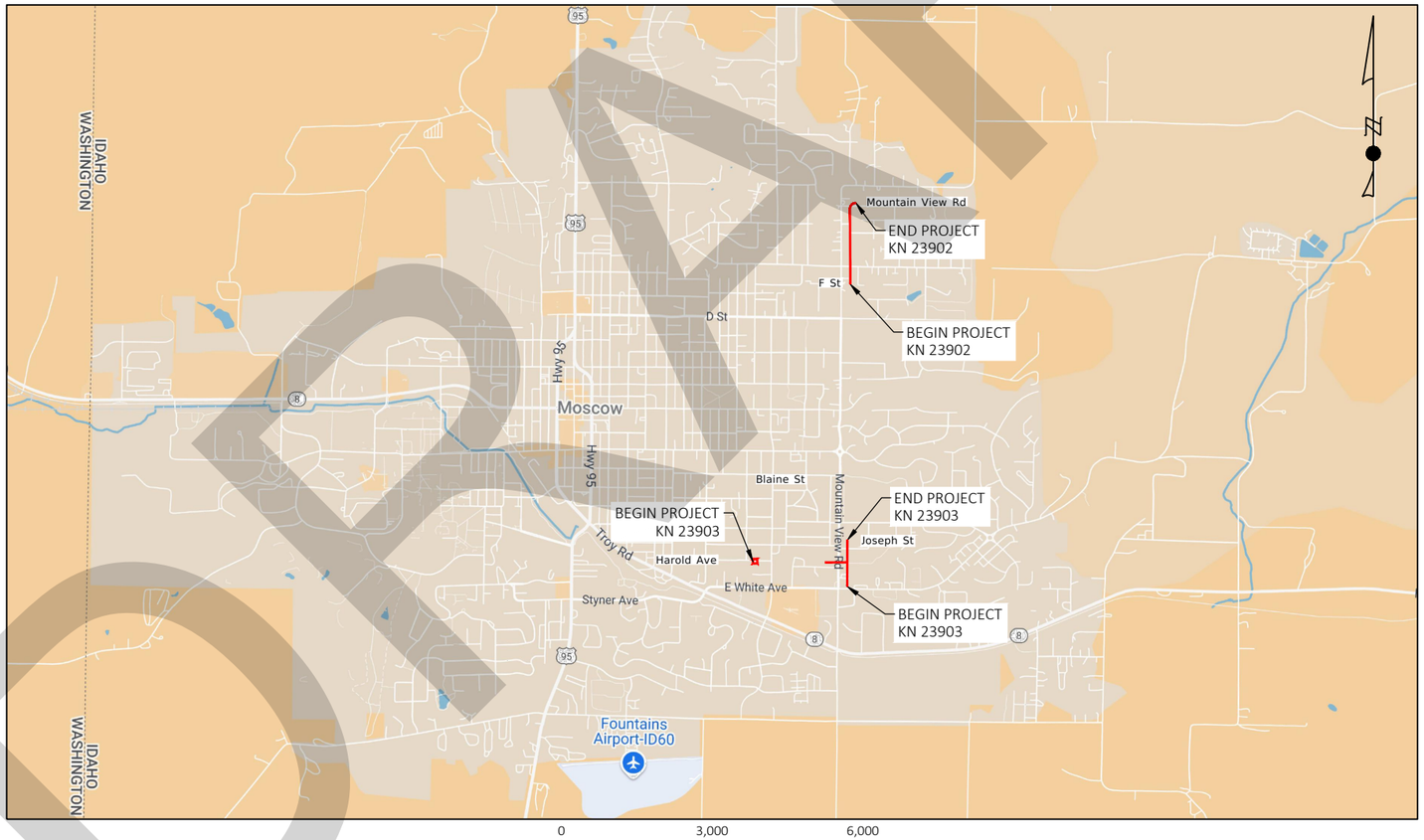
LATAH COUNTY

FEBRUARY 2026

NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS

SEGMENT CODES 006450
006310
041521





NOTE: PARCEL BOUNDARIES SHOWN HEREON ARE BASED ON COUNTY GIS DATA AND ARE TO BE USED FOR REFERENCE ONLY. RIGHT OF WAY LINES SHOWN HEREON WERE ESTABLISHED FROM FOUND MONUMENTS AND PUBLIC RECORDS AVAILABLE AS OF NOVEMBER 2024.

REVISIONS		
DATE	BY	DESCRIPTION

THE DIMENSIONS SHOWN ON THE PLANS SHALL BE ATTAINED WITHIN LIMITS OF PRECISION THAT GOOD CONSTRUCTION PRACTICES WILL PERMIT

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME
23902 TITL

DRAWING DATE:
FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

TITLE SHEET
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH

COUNTY
LATAH

KEY NUMBER
23902/23903

SHEET 1 OF 60

Approved for Advertising

Date Approved

EXISTING / PROPOSED

- B — BARN
- F — BUILDING FOUNDATION
- H — HOUSE
- D — DECK
- S — SILO

EXISTING / PROPOSED

- BUSH
- SLOPE OF TERRAIN
- DRAINAGE FLOW
- EMBANKMENT PROTECTOR
- DRAINAGE FLOW
- FOUND GPS CONTROL POINT
- MAILBOX
- MARSH
- MATERIAL SOURCE
- PHOTO CENTER
- RIP RAP
- SIPHON
- SPOT ELEVATION
- STOCKPILE SITE
- STUMP
- TREE
- WETLAND
- FLAG POLE
- IRRIGATION BOX
- SPRINKLER
- BUSH BOUNDARY
- CULTIVATION BOUNDARY
- TREE BOUNDARY
- EDGE OF ROAD EXISTING
- TRAIL
- RAILROAD TRACKS
- TOP OF RAIL (RAILROAD)
- ANGLE POINT
- CONCRETE MONUMENT
- FOUND / SET BRASS OR ALLOY CAP
- FOUND PLASTIC CAP
- FOUND IRON PIPE / SET IRON PIPE
- PK NAIL
- FOUND / SET NUMBER 4 REBAR
- FOUND / SET NUMBER 5 REBAR
- FOUND NUMBER 6 REBAR
- RIGHT OF WAY MARKER
- FOUND / SET SPIKE
- FOUND / SET STONE
- CONTROL POINT

EXISTING / PROPOSED

- FOUND / ESTIMATED QUARTER CORNER
- FOUND / ESTIMATE SECTION CORNER
- STATE LINE
- TOWNSHIP AND RANGE LINE
- RESERVATION BOUNDARY
- FOREST BOUNDARY
- SECTION LINE
- QUARTER SECTION LINE
- SIXTEENTH SECTION LINE
- COUNTY LINE
- CITY LIMITS
- EASEMENT LINE
- PERMANENT EASEMENT LINE
- INTERSTATE RIGHT OF WAY LINE
- RIGHT OF WAY LINE
- PURCHASED ACCESS CONTROL LINE
- PROPERTY LINE
- RAILROAD RIGHT OF WAY LINE
- TEMPORARY EASEMENT
- SILT FENCE
- FIBER WATTLE
- SEDIMENT BASIN
- ROCK CHECK DAM
- DIKE SWALE
- EROSION CONTROL BLANKET
- MULCH
- SEEDING PERMANENT
- SEEDING TEMPORARY
- LANDSCAPE REPAIR
- RIPRAP
- EXCAVATION
- REM OF CONCRETE PAV
- REM OF CONCRETE SIDEWALK
- REM OF CURB
- REM OF CURB & GUTTER
- GRAVEL DRIVEWAY
- ASPHALT PROPOSED
- DECORATIVE ROCK
- ROCK MULCH

EXISTING / PROPOSED

- RAILROAD PROTECTION DEVISE
- RAILROAD SIGNAL
- RAILROAD SWITCH
- GUY & ANCHOR
- JUNCTION BOX
- ELECTRICAL MANHOLE
- METER
- ELECTRIC POLE
- TRANSMISSION TOWER
- ELECTRIC VAULT
- FIRE HYDRANT
- RISER GAS OR OIL ETC.
- TELEPHONE OR LIGHT POLE
- SANITARY SEWER MANHOLE
- WELL
- VALVE
- STORM MANHOLE
- CATCH BASIN OR INLET
- SEDIMENT CONTROL STRUCTURE
- OHP — OVER HEAD ELECTRIC
- E — UNDER GROUND ELECTRIC CABLE
- OHF/O — OVER HEAD FIBER OPTIC
- F/O — UNDER GROUND FIBER OPTIC
- OHT — OVER HEAD TELEPHONE
- T — UNDER GROUND TELEPHONE
- OHTV — OVER HEAD TELEVISION
- TV — UNDER GROUND TELEVISION CABLE
- W — WATER LINE
- G — GAS LINE
- OIL — OIL LINE
- SIP — IRRIGATION SIPHON
- IRR — IRRIGATION LINE
- SAN — SANITARY SEWER
- SS — STORM SEWER
- UD — UNDER DRAIN
- CONDUIT OR CASING
- ITS CONDUIT

EXISTING / PROPOSED

- HORIZONTAL ALIGNMENT CONTROL LINE
- CURB
- GUTTER
- COMBINATION CURB AND GUTTER
- CULVERT WITH FLOW INDICATOR
- CULVERT WITH APRONS
- METAL GUARDRAIL
- CONCRETE BARRIER
- FENCE
- FENCE ON INTERSTATE ROW LINE
- FENCE ON ROW LINE
- FENCE ON PURCHASED ACCESS LINE
- FENCE ON PROPERTY LINE
- FENCE ON RAILROAD ROW LINE
- GATE
- SNOW FENCE
- RETAINING WALL
- EDGE OF WATER OR FLOW LINE
- EXISTING GROUND
- TOE OF FILL (SLOPE LIMIT)
- TOP OF CUT (SLOPE LIMIT)
- ROAD CLOSURE
- DELINEATOR TYPE 1
- DELINEATOR TYPE 2
- DELINEATOR TYPE 3
- DELINEATOR TYPE 4
- SIGN SINGLE POST
- SIGN DOUBLE POST
- EMERGENCY VEHICLE PREEMPT DETECTOR
- ELECTRICAL SERVICE PEDESTAL
- VIDEO DETECTION CAMERA
- LUMINAIRE HEAD
- ILLUMINATION POLE
- STOP BAR
- YIELD LINE
- FLAGGER STATION
- FLAGGER STATION

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 LGND.DWG
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

LEGEND
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 2 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

z:\documents\projects\2024\d2423902 mountain view ped improvements\cad\plan sheets\23902 lgnd.dwg

CONTROL TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
90	1846895.665	2316175.044	2599.40	"HMH CONTROL"
91	1845463.707	2316078.304	2600.60	"HMH CONTROL"
92	1846342.604	2314971.065	2604.28	"HMH CONTROL"
120	1848213.701	2316163.439	2611.05	"LS 7155"
121	1845571.076	2316122.405	2599.36	"LS 969"

811 Know what's below. Call before you dig.

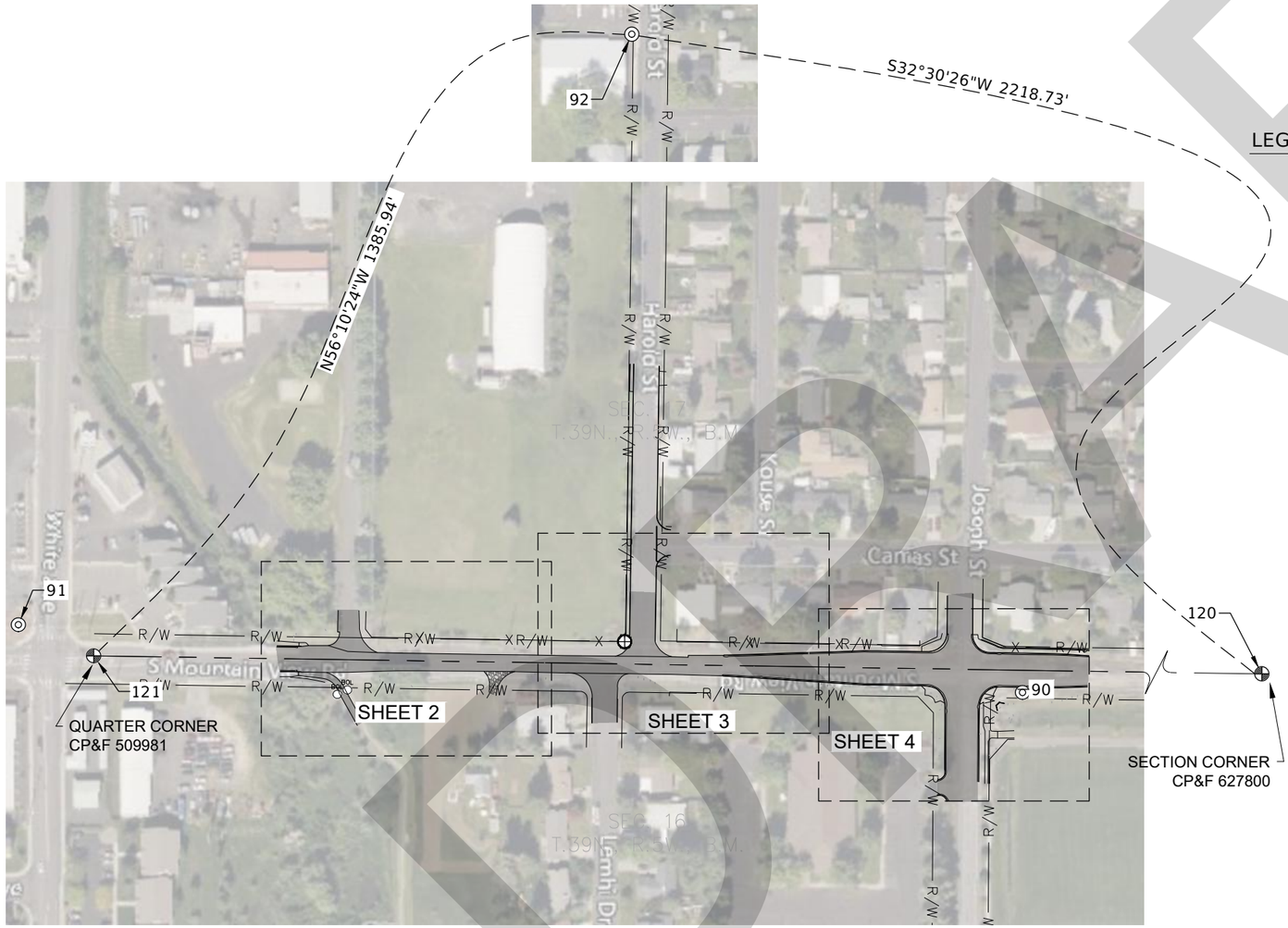
NOTES:

1. THIS SURVEY WAS ESTABLISHED BY GPS CONTROL COORDINATES DERIVED FROM NGS OPUS SOLUTIONS USING A REFERENCE FRAME OF NAD83 (2011)(EPOCH: 2010.000) ALL BEARINGS REFER TO IDAHO STATE PLANE COORDINATE SYSTEM OF 1983, WEST ZONE, (1103). UNITS ARE US SURVEY FT. DISTANCES HAVE BEEN CONVERTED FROM GRID TO GROUND USING A COMBINED ADJUSTMENT FACTOR (CAF) OF 1.0000793407 SCALED FROM AN ORIGIN POINT OF 0,0 WITH A FALSE NORTHING OF 147.019 FT AND A FALSE EASTING OF 183.622 FT.

   ELEVATIONS SHOWN HEREON ARE BASED ON NAVD88 USING GEOID 18.

2. TOPOGRAPHIC SURVEY WAS PERFORMED ON JULY 10, 2024.

3. UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON DIG LINE LOCATES AND ABOVE GROUND EVIDENCE ONLY. THE SURVEYOR MAKES NO GUARANTEE OF EXACT PLACEMENT OF UNDERGROUND UTILITIES.



LEGEND:

- FOUND ALUMINUM CAP
- FOUND BRASS CAP, MARKED AS SHOWN HEREON
- FOUND 5/8" REBAR, MARKED AS SHOWN HEREON
- FOUND PIPE
- SET 5/8"x24" REBAR WITH RED PLASTIC CAP STAMPED "HMH CONTROL"
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM CATCH BASIN SQUARE
- STORM CATCH BASIN ROUND
- STORM CATCH BASIN RECTANGULAR
- POWER POLE
- GUY WIRE
- ELECTRIC RISER
- ELECTRIC METER
- LIGHT POLE
- GAS VALVE
- GAS MARKER
- TELEPHONE RISER
- TELEPHONE VAULT
- TELEPHONE MANHOLE
- FIBER OPTIC RISER
- FIBER OPTIC MARKER
- SIGN
- MAIL BOX
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- DECIDUOUS TREE

0 200' 400'

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED	JUSTIN AULT
DESIGN CHECKED	DAN INLOES
DETAILED	JUSTIN AULT
DRAWING CHECKED	DAN INLOES

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME D2423902 Mountain View - ECM

DRAWING DATE: SEPTEMBER 2025

HMH engineering

CITY OF MOSCOW
IDAHO

PROJECT NO.
A023(902)
A023(903)

SURVEY CONTROL SHEET

NORTH & SOUTH MOUNTAIN VIEW
PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

English

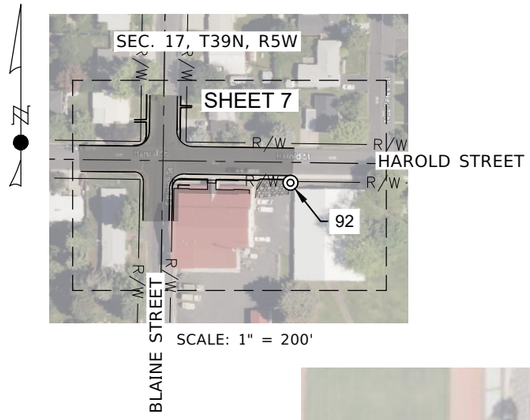
COUNTY LATAH

KEY NUMBER 23902/23903

SHEET 4 OF 60

PROFESSIONAL LAND SURVEYOR LICENSED 20888 10.24.2025 STATE OF IDAHO DANIEL O. INLOES

Plot Date:2/5/2026 2:23 PM Plotted By: Brandt Souvenir
Path: Z:\DOCUMENTS\PROJECTS\2024\D2423902 MOUNTAIN VIEW PED IMPROVEMENTS\SURVEY\09 DWG\D2423902 MOUNTAIN VIEW - ECM.DWG



SCALE: 1" = 200'

Know what's below.
Call before you dig.

NOTES:

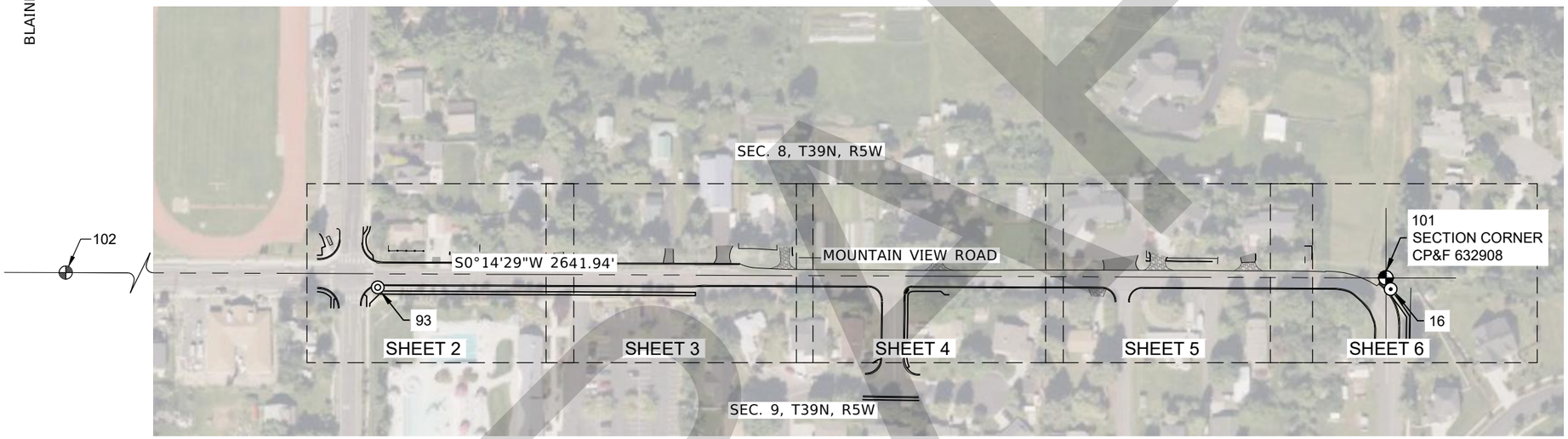
1. THIS SURVEY WAS ESTABLISHED BY GPS CONTROL COORDINATES DERIVED FROM NGS OPUS SOLUTIONS USING A REFERENCE FRAME OF NAD83 (2011)(EPOCH: 2010.000) ALL BEARINGS REFER TO IDAHO STATE PLANE COORDINATE SYSTEM OF 1983, WEST ZONE, (1103). UNITS ARE US SURVEY FT. DISTANCES HAVE BEEN CONVERTED FROM GRID TO GROUND USING A COMBINED ADJUSTMENT FACTOR (CAF) OF 1.0000793407 SCALED FROM AN ORIGIN POINT OF 0,0 WITH A FALSE NORTHING OF 147.019 FT AND A FALSE EASTING OF 183.622 FT.

   ELEVATIONS SHOWN HEREON ARE BASED ON NAVD88 USING GEOID 18.

2. TOPOGRAPHIC SURVEY WAS PERFORMED ON AUGUST 19, 2024.

3. UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE AND ARE BASED ON DIG LINE LOCATES AND ABOVE GROUND EVIDENCE COMBINED WITH CITY OF MOSCOW GIS INFORMATION. THE SURVEYOR MAKES NO GUARANTEE OF EXACT PLACEMENT OF UNDERGROUND UTILITIES.

0 40’ 80’



LEGEND:

- FOUND ALUMINUM CAP
- FOUND BRASS CAP, MARKED AS SHOWN HEREON
- FOUND MAG NAIL
- SET 5/8"x24" REBAR WITH RED PLASTIC CAP STAMPED "HMH CONTROL"
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- STORM CATCH BASIN RECTANGULAR
- POWER POLE
- GUY WIRE
- UTILITY VAULT
- ELECTRIC RISER/BOX
- ELECTRIC METER
- CONIFEROUS TREE
- LIGHT POLE/AREA LIGHT
- GAS VALVE
- GAS MARKER
- TELEPHONE RISER
- TELEPHONE MANHOLE
- FIBER OPTIC RISER
- FIBER OPTIC MARKER
- SIGN
- MAIL BOX
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- DECIDUOUS TREE

CONTROL TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
16	1853503.766	2316204.788	2667.32	MAG NAIL
92	1846342.604	2314971.065	2604.28	"HMH CONTROL"
93	1851932.196	2316202.042	2622.15	"HMH CONTROL"
101	1853496.365	2316187.484	2667.11	"PLS 1969"
102	1850854.452	2316176.356	2614.79	CL MONUMENT

PROFESSIONAL LAND SURVEYOR LICENSED 20888 10.24.2025 STATE OF IDAHO DANIEL O. INLOES

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED	JUSTIN AULT
DESIGN CHECKED	DAN INLOES
DETAILED	JUSTIN AULT
DRAWING CHECKED	DAN INLOES

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME D2423902 Mountain View - North ECM

DRAWING DATE: SEPTEMBER 2025

CITY OF MOSCOW
IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

SURVEY CONTROL SHEET

NORTH & SOUTH MOUNTAIN VIEW
PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

English

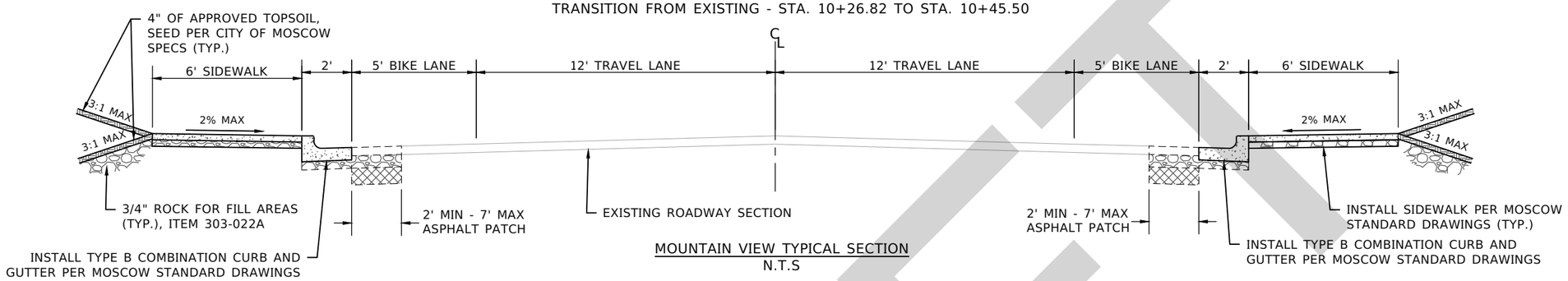
COUNTY LATAH

KEY NUMBER 23902/23903

SHEET 3 OF 60

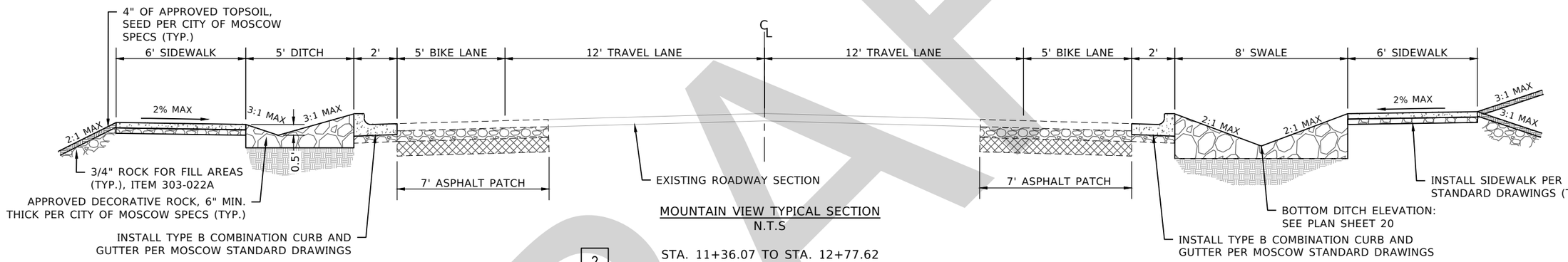
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TRANSITION FROM EXISTING - STA. 10+26.82 TO STA. 10+45.50



MOUNTAIN VIEW TYPICAL SECTION
N.T.S

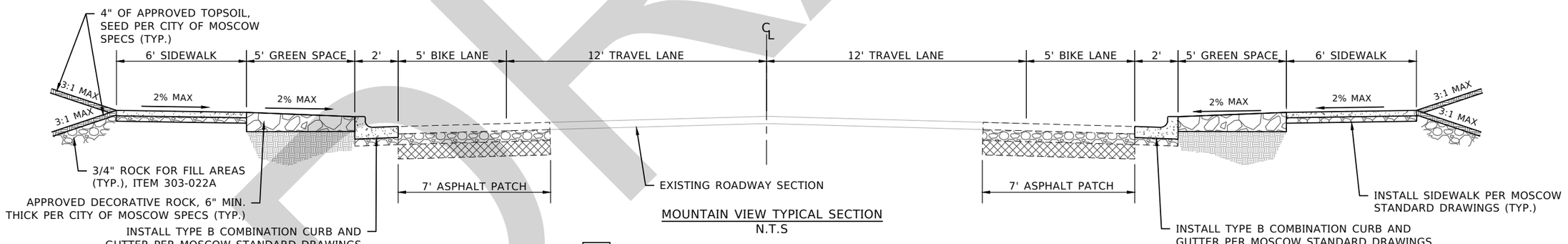
1 STA. 10+22.79 TO STA. 11+01.69
TRANSITION STA. 11+01.69 TO STA. 11+36.07



MOUNTAIN VIEW TYPICAL SECTION
N.T.S

2 STA. 11+36.07 TO STA. 12+77.62
TRANSITION STA. 12+77.62 TO STA. 13+40.45

3 STA. 13+40.45 TO STA. 14+63.80
TRANSITION STA. 14+63.80 TO STA.15+20.94



MOUNTAIN VIEW TYPICAL SECTION
N.T.S

4 STA. 15+20.94 TO STA. 16+22.52

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 TYPI
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

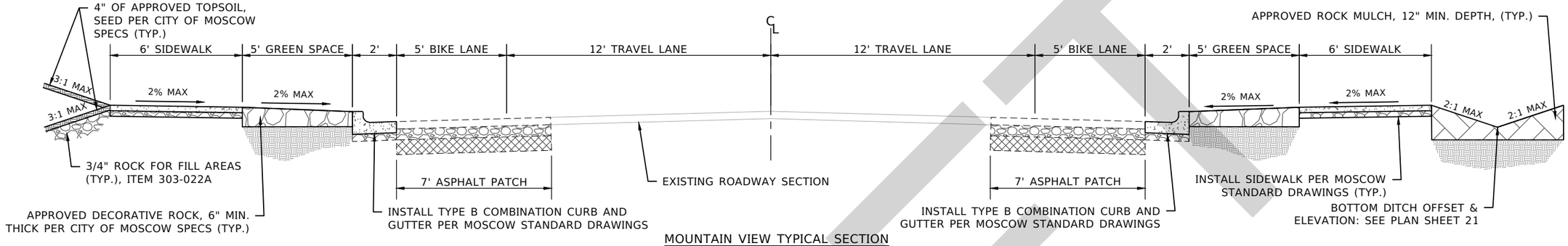
PROJECT NO.
A023(902)
A023(903)

TYPICAL SECTION
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 5 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 STATE OF IDAHO JUSTIN M. SHAW
02/03/2026

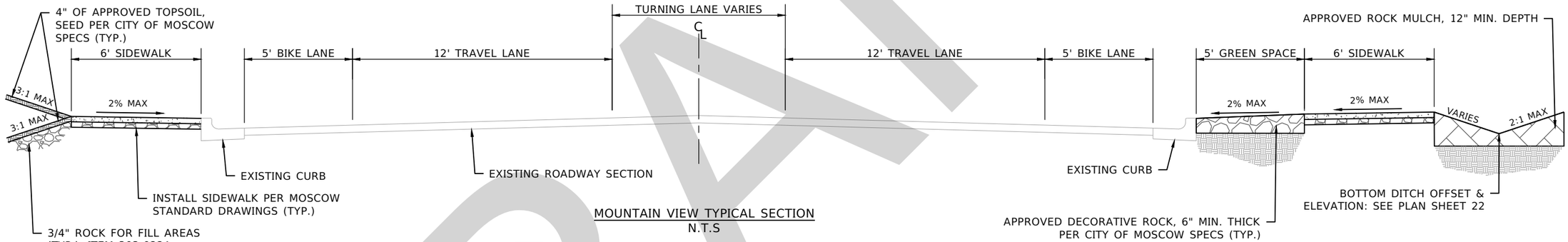
DRAFT



MOUNTAIN VIEW TYPICAL SECTION
N.T.S

5

STA. 16+22.52 TO STA. 17+36.04
TRANSITION STA. 17+36.04 TO STA. 17+42.98



MOUNTAIN VIEW TYPICAL SECTION
N.T.S

6

STA. 17+42.98 TO STA. 19+23.05

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 TYPI
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

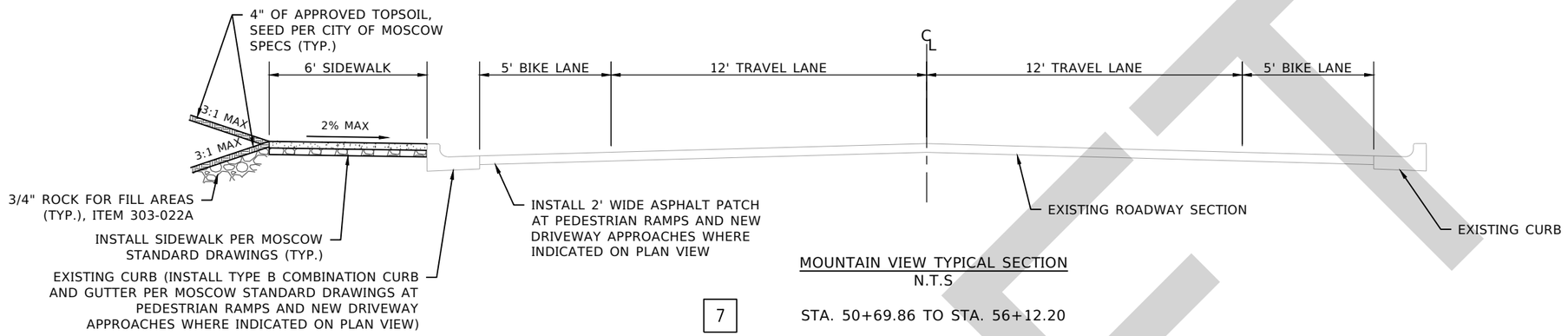
HMH engineering

PROJECT NO.
A023(902)
A023(903)

TYPICAL SECTION
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

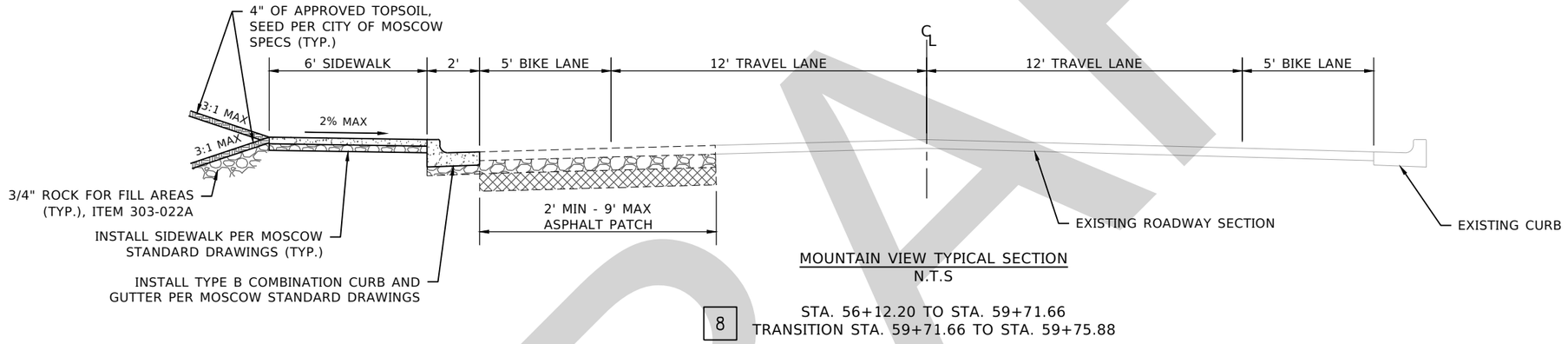
ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 6 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW



MOUNTAIN VIEW TYPICAL SECTION
N.T.S

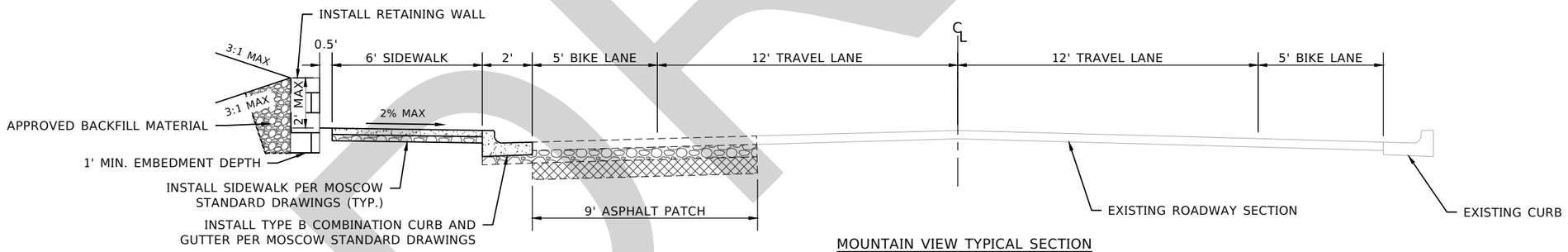
7 STA. 50+69.86 TO STA. 56+12.20



MOUNTAIN VIEW TYPICAL SECTION
N.T.S

8 STA. 56+12.20 TO STA. 59+71.66
TRANSITION STA. 59+71.66 TO STA. 59+75.88

10 STA. 62+01.82 TO STA. 65+96.61
TRANSITION STA. 65+96.61 TO STA. 66+02.90



MOUNTAIN VIEW TYPICAL SECTION
N.T.S

9 STA. 59+75.88 TO STA. 62+01.81
TRANSITION STA. 62+00.82 TO STA. 62+01.82

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED JUSTIN SHAW	
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER	CADD FILE NAME 23902 TYPI
DRAWING CHECKED JUSTIN SHAW	DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

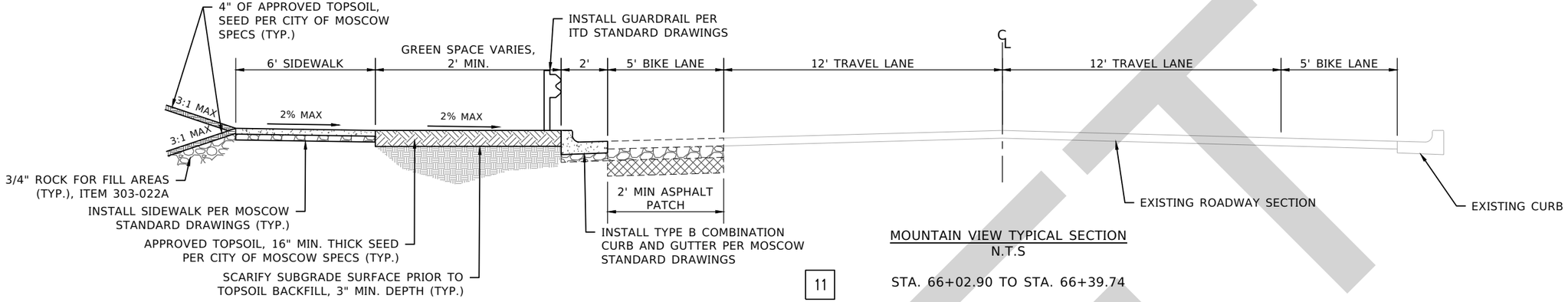
PROJECT NO.	TYPICAL SECTION
A023(902) A023(903)	NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH

COUNTY	LATAH
KEY NUMBER	23902/23903
SHEET	7 OF 60

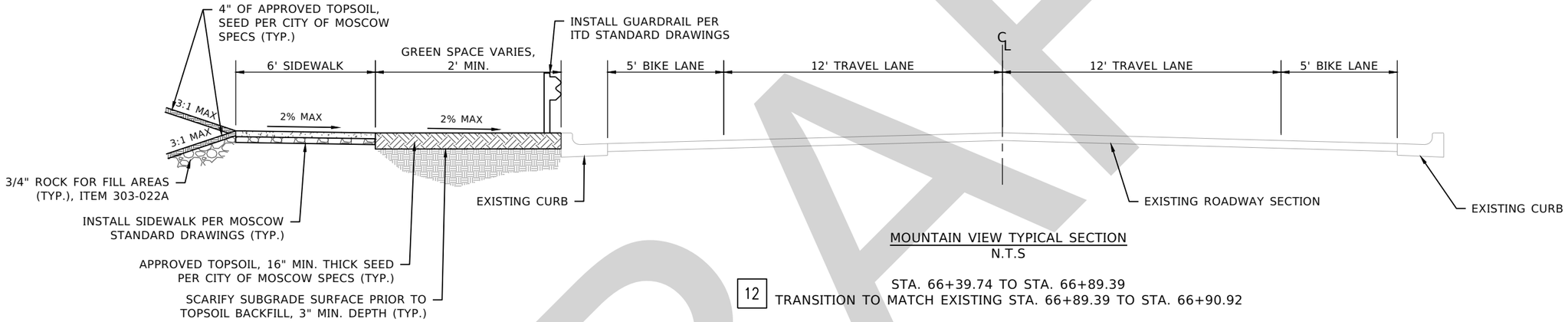
PROFESSIONAL ENGINEER REGISTERED 17889 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

DRAFT



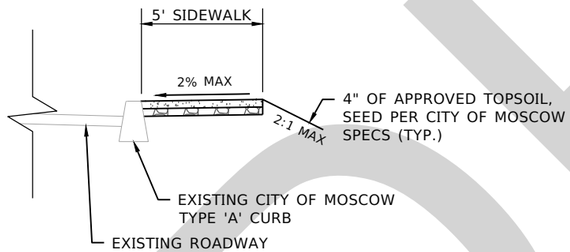
MOUNTAIN VIEW TYPICAL SECTION
N.T.S

11 STA. 66+02.90 TO STA. 66+39.74



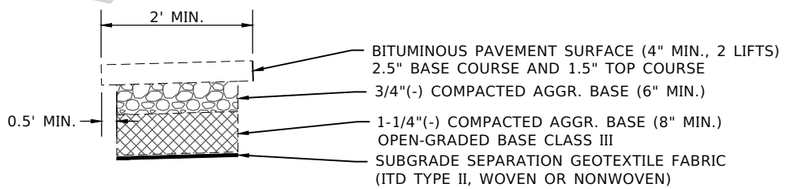
MOUNTAIN VIEW TYPICAL SECTION
N.T.S

12 STA. 66+39.74 TO STA. 66+89.39
TRANSITION TO MATCH EXISTING STA. 66+89.39 TO STA. 66+90.92



HAROLD ST TYPICAL SECTION
N.T.S

13 STA. 120+37.01 TO STA. 123+91.99



ASPHALT PATCH TYPICAL SECTION
N.T.S

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 TYPI
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

TYPICAL SECTION
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 8 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

SHEET NUMBER				13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
STATION - STATION				DEMO 10+26.82	DEMO 18+00.00	DEMO 50+00.00	DEMO 59+00.00	DEMO 160+00.00	DEMO 91+00.00	DEMO 120+00.00	PLPR 10+26.82	PLPR 14+00.00	PLPR 18+00.00	PLPR 50+69.86	PLPR 54+50.00	PLPR 59+00.00	PLPR 63+50.00	PLPR 160+00.00	PLPR 91+00.00
				DEMO 18+00.00	DEMO 19+23.05	DEMO 59+00.00	DEMO 67+23.50	DEMO 162+02.08	DEMO 91+50.00	DEMO 124+26.94	PLPR 14+00.00	PLPR 18+00.00	PLPR 19+23.05	PLPR 54+50.00	PLPR 59+00.00	PLPR 63+50.00	PLPR 67+32.78	PLPR 162+02.08	PLPR 91+50.00
ITEM NO.	ITEM	UNIT	QUANTITY																
107-019A	SURVEY MONUMENT PRESERVATION	CA	6000.0																
201-010A	CLEARING AND GRUBBING	LS	1.00																
202-005A	SELECTIVE REMOVAL OF TREES INCLUDING STUMPS	EACH	12.0	10.0			2.0												
203-005A	REMOVAL OF OBSTRUCTIONS	LS	1.0																
203-006A	REMOVAL OF SIGN	EACH	24.0	6.0	1.0	7.0	10.0												
203-025A	REMOVAL OF CATCH BASIN	EACH	4.0	4.0															
203-055A	REMOVAL OF CONCRETE PAV	SY	66.7	4.6	2.6	59.5													
203-060A	REMOVAL OF CONCRETE SIDEWALK	SY	66.6	7.3		13.6	41.9		3.8										
203-065A	REMOVAL OF CURB	FT	112.6	36.0		12.2			32.4	32.0									
203-070A	REMOVAL OF CURB & GUTTER	FT	371.7	190.6		181.1													
203-075A	REMOVAL OF FENCE	FT	8.6				8.6												
203-095A	REMOVAL OF MANHOLE	EACH	1.0	1.0															
203-122A	REMOVAL OF MISC ITEMS	EACH	14.0			6.0	8.0												
203-123A	REMOVAL OF MISC ITEMS	FT	68.0	68.0															
205-005A	EXCAVATION	CY	2643.4																
212-011A	FIBER WATTLE	FT	285.4																
212-095A	INLET PROTECTION	EACH	15.0																
251-005A	MIGRATORY BIRD TREATY ACT COMPLIANCE	CA	10000.0																
303-022A	3/4" AGGR TYPE B FOR BASE	TON	1949.2																
307-012A	OPEN-GRADED BASE CLASS III	TON	1141.7																
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3	TON	629.5								139.1	137.3		8.6	70.3	112.2	75.3	75.4	9.2
502-065A	CONCRETE CLASS 40 AF	CY	2.8																2.8
605-015A	8" STORM SEWER PIPE	FT	111.2								49.5	61.7							
605-025A	12" STORM SEWER PIPE	FT	307.2								65.0	20.0						192.6	29.6
605-045A	24" STORM SEWER PIPE	FT	34.5									34.5							
605-635A	ADJUST MANHOLE COVERS	EACH	3.0									3.0							
605-640A	ADJUST VALVE COVERS	EACH	8.0									6.0			1.0		1.0		
612-005A	W-BEAM GUARDRAIL	FT	147.9														147.9		
612-110A	GUARDRAIL ANCHOR	EACH	1.0														1.0		
612-115C	GUARDRAIL TERMINAL, TANGENT	EACH	1.0														1.0		
614-015A	SIDEWALK	SY	2010.3								412.8	425.4	160.7	192.9	226.9	200.3	209.1		3.9
614-020A	DRIVEWAY	SY	290.6								18.7			50.0	75.3	83.0	45.8		
614-025A	CURB RAMP	SY	158.7								59.8	64.7		16.1		18.1			
615-255A	CURB	FT	80.6																48.6
615-490A	CURB & GUTTER	FT	2586.0								741.5	665.7		104.4	320.8	450.0	303.6		
616-010A	SIGN TYPE B-1	SF	83.2																
616-040J	STEEL SIGN POST TYPE E-1	FT	31.5																
616-040K	STEEL SIGN POST TYPE E-2	FT	78.9																
616-080A	REINSTALL SIGN FACE	EACH	29.0																
616-085A	REINSTALL SIGN POST	EACH	20.0																
621-010A	SEEDING	ACRE	0.334																
624-005A	LOOSE RIPRAP	CY	24.4																
626-100A	MISCELLANEOUS TEMPORARY TRAFFIC CONTROL ITEMS	CA	10000.0																
630-010A	TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM	SF	861.3																
630-025A	LONGITUDINAL PAV MKG - WATERBORNE	FT	5735.2																
634-005A	MAILBOX	EACH	5.0											1.0	4.0				
640-010A	RIPRAP/EROS CONT GEOTEXTILE	SY	80.7																
640-015A	SUBGRADE SEPARATION GEOTEXTILE TYPE II	SY	2684.9																
675-005A	SURVEY	LS	1.0																
675-010A	DIRECTED SURVEYING	CA	10000.0																
S501-15A	RETAINING WALL	SF	675.0													675.0			
S600-20A	REMOVE AND REPLACE FIRE HYDRANT	EACH	1.0														1.0		
S616-15A	RECTANGULAR RAPID-FLASHING BEACON (RRFB	EACH	1.0																
S900-50A	CONTINGENCY AMOUNT - MISCELLANEOUS WORK	CA	10000.0																
S901-05A	ADJUST CATCH BASIN LID AND FRAME	EACH	3.0								3.0								
S901-05B	CITY OF MOSCOW CATCH BASIN	EACH	8.0								2.0	4.0						1.0	1.0
S901-05C	CITY OF MOSCOW STORM SEWER MANHOLE	EACH	3.0									1.0						2.0	
S901-05D	ADJUST WATER METER	EACH	7.0											1.0	4.0	1.0	1.0		
S904-05A	TEMPORARY TRAFFIC CONTROL	LS	1.0																

REVISIONS

NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 RSSM
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

ROADWAY SUMMARY SHEET
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 9 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

SHEET NUMBER			29	33	34	35	36	37	41	42	43	44	45						
STATION - STATION			PLPR 120+00.00	ECP 10+26.82	ECP 18+00.00	ECP 50+00.00	ECP 59+00.00	ECP 91+00.00	SPM 10+26.82	SPM 14+00.00	SPM 18+00.00	SPM 50+00.00	SPM 59+00.00						
			PLPR 124+26.94	ECP 18+00.00	ECP 19+23.05	ECP 59+00.00	ECP 67+23.50	ECP 91+50.00	SPM 14+00.00	SPM 18+00.00	SPM 19+23.05	SPM 59+00.00	SPM 67+32.80						
ITEM NO.	ITEM	UNIT																	
107-019A	SURVEY MONUMENT PRESERVATION	CA																	
201-010A	CLEARING AND GRUBBING	LS																	
202-005A	SELECTIVE REMOVAL OF TREES INCLUDING STUMPS	EACH																	
203-005A	REMOVAL OF OBSTRUCTIONS	LS																	
203-006A	REMOVAL OF SIGN	EACH																	
203-025A	REMOVAL OF CATCH BASIN	EACH																	
203-055A	REMOVAL OF CONCRETE PAV	SY																	
203-060A	REMOVAL OF CONCRETE SIDEWALK	SY																	
203-065A	REMOVAL OF CURB	FT																	
203-070A	REMOVAL OF CURB & GUTTER	FT																	
203-075A	REMOVAL OF FENCE	FT																	
203-095A	REMOVAL OF MANHOLE	EACH																	
203-122A	REMOVAL OF MISC ITEMS	EACH																	
203-123A	REMOVAL OF MISC ITEMS	FT																	
205-005A	EXCAVATION	CY																	
212-011A	FIBER WATTLE	FT		147.1			138.3												
212-095A	INLET PROTECTION	EACH		10.0		2.0	2.0	1.0											
251-005A	MIGRATORY BIRD TREATY ACT COMPLIANCE	CA		10.0		2.0	2.0	1.0											
303-022A	3/4" AGGR TYPE B FOR BASE	TON																	
307-012A	OPEN-GRADED BASE CLASS III	TON																	
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3	TON	2.1																
502-065A	CONCRETE CLASS 40 AF	CY																	
605-015A	8" STORM SEWER PIPE	FT																	
605-025A	12" STORM SEWER PIPE	FT																	
605-045A	24" STORM SEWER PIPE	FT																	
605-635A	ADJUST MANHOLE COVERS	EACH																	
605-640A	ADJUST VALVE COVERS	EACH																	
612-005A	W-BEAM GUARDRAIL	FT																	
612-110A	GUARDRAIL ANCHOR	EACH																	
612-115C	GUARDRAIL TERMINAL, TANGENT	EACH																	
614-015A	SIDEWALK	SY	178.3																
614-020A	DRIVEWAY	SY	17.8																
614-025A	CURB RAMP	SY																	
615-255A	CURB	FT	32.0																
615-490A	CURB & GUTTER	FT																	
616-010A	SIGN TYPE B-1	SF							5.6	35.5		8.1	34.0						
616-040J	STEEL SIGN POST TYPE E-1	FT							21.0	10.5									
616-040K	STEEL SIGN POST TYPE E-2	FT							12.2	26.6		13.5	26.6						
616-080A	REINSTALL SIGN FACE	EACH							1.0	11.0	1.0	8.0	8.0						
616-085A	REINSTALL SIGN POST	EACH								5.0	1.0	6.0	8.0						
621-010A	SEEDING	ACRE		0.151	0.006	0.096	0.080	0.001											
624-005A	LOOSE RIPRAP	CY		24.4															
626-100A	MISCELLANEOUS TEMPORARY TRAFFIC CONTROL ITEMS	CA																	
630-010A	TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM	SF							184.7	332.9	127.0	136.7	80.0						
630-025A	LONGITUDINAL PAV MKG - WATERBORNE	FT							1048.9	1043.0	446.3	1531.5	1665.5						
634-005A	MAILBOX	EACH																	
640-010A	RIPRAP/EROS CONT GEOTEXTILE	SY		80.7															
640-015A	SUBGRADE SEPARATION GEOTEXTILE TYPE II	SY																	
675-005A	SURVEY	LS																	
675-010A	DIRECTED SURVEYING	CA																	
S501-15A	RETAINING WALL	SF																	
S600-20A	REMOVE AND REPLACE FIRE HYDRANT	EACH																	
S616-15A	RECTANGULAR RAPID-FLASHING BEACON (RRFB	EACH							1.0										
S900-50A	CONTINGENCY AMOUNT - MISCELLANEOUS WORK	CA																	
S901-05A	ADJUST CATCH BASIN LID AND FRAME	EACH																	
S901-05B	CITY OF MOSCOW CATCH BASIN	EACH																	
S901-05C	CITY OF MOSCOW STORM SEWER MANHOLE	EACH																	
S901-05D	ADJUST WATER METER	EACH																	
S904-05A	TEMPORARY TRAFFIC CONTROL	LS																	

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 RSSM
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

ROADWAY SUMMARY SHEET

NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH

COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 10 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

SHEET NUMBER				13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
STATION - STATION				DEMO 10+26.82	DEMO 18+00.00	DEMO 50+00.00	DEMO 59+00.00	DEMO 160+00.00	DEMO 91+00.00	DEMO 120+00.00	PLPR 10+26.82	PLPR 14+00.00	PLPR 18+00.00	PLPR 50+69.86	PLPR 54+50.00	PLPR 59+00.00	PLPR 63+50.00	PLPR 160+00.00	PLPR 91+00.00
				DEMO 18+00.00	DEMO 19+23.05	DEMO 59+00.00	DEMO 67+23.50	DEMO 162+02.08	DEMO 91+50.00	DEMO 124+26.94	PLPR 14+00.00	PLPR 18+00.00	PLPR 19+23.05	PLPR 54+50.00	PLPR 59+00.00	PLPR 63+50.00	PLPR 67+32.78	PLPR 162+02.08	PLPR 91+50.00
ITEM NO.	ITEM	UNIT	QUANTITY																
S912-05A	LANDSCAPE REPAIR	CA	10000.0																
S912-05B	DECORATIVE ROCK	SY	709.3								322.2	319.5	67.6						
S913-05A	ROCK MULCH	CY	120.2									71.2	49.0						
Z629-05A	MOBILIZATION	LS	1.0																

DRAFT

SHEET 3 OF 3

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED JUSTIN SHAW	
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER	CADD FILE NAME 23902 RSSM
DRAWING CHECKED JUSTIN SHAW	DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

PROJECT NO.	ROADWAY SUMMARY SHEET	ENGLISH
A023(902) A023(903)	NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO	COUNTY LATAH KEY NUMBER 23902/23903 SHEET 11 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 STATE OF IDAHO JUSTIN M. SHAW
02/03/2026

STATION TO STATION	SEWER PIPE (LENGTH IN FEET)							PLASTIC PIPE				SIPHON TYPE METAL PIPE * COATING IS REQUIRED IF CHECKED					CONCRETE PIPE			MAN-HOLES		INLETS						REMARKS
	PIPE SIZE (INCHES)							CORRUGATED POLYETHYLENE (PE)	RIBBED POLYVINYL CHLORIDE (PVC)	SOLID WALL POLYVINYL CHLORIDE (PVC)	ABS COMPOSITE	STEEL		ALUM.		BITUMINOUS OR * POLYMER COATING	REINFORCED CLASS	NON-REINFORCED CLASS	TYPE OF BEDDING	48" MANHOLE	72" MANHOLE	CATCH BASIN	SWALE/DITCH	EXISTING DRAIN	Type _ _ _ _ _	Type _ _ _ _ _	Type _ _ _ _ _	
												1/2 IN CORR. DEPTH	___ CORR. DEPTH	1/4 IN TO 1/2 IN CORR. DEPTH	___ CORR. DEPTH													
	6.0	8.0	12.0	18.0	24.0			X	X	X	X	THICKNESS (INCHES)				X	II-V	X	1,2,3	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	
11+69.15		34.8						X														2						CB3 TO CB2
11+69.15		4.7						X														1						CB2 TO DITCH
13+43.42		10.0						X															1					BACK OF SIDEWALK TO DITCH
12+76.33 - 13+41.16			65.0					X															1					DITCH TO DITCH
14+49.31 - 14+82.68		33.4						X														1						CB1 TO CB5
14+32.68 - 15+06.65		28.3						X														1						CB5 TO SM1
14+95.51 - 16+24.96					17.2			X												1								SM1 TO EXISTING
16+12.74 - 16+19.90					17.3			X															1					DITCH TO EXISTING PIPE
16+38.44			20.0					X														1						CB7 TO DITCH
91+16.69 - 91+25.62			29.6					X														1						CB6 TO EXISTING SM2
160+14.38 - 160+68.06			53.7							X												1						CB9 TO SM3
160+68.06 - 161+86.92			118.9					X												1								SM3 TO SM2
161+80.69 - 161+86.92			10.0					X																1				EXISTING PIPE TO SM2
161+86.92 - 161+93.15			10.0					X												1								SM2 TO EXISTING PIPE
PROJECT TOTAL		111.2	307.2		34.5															3.0		8.0	3.0	1.0				

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED: BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED: JUSTIN SHAW
DETAILED: BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED: JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.: A023(902) A023(903)

SEWER PIPE SUMMARY

NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

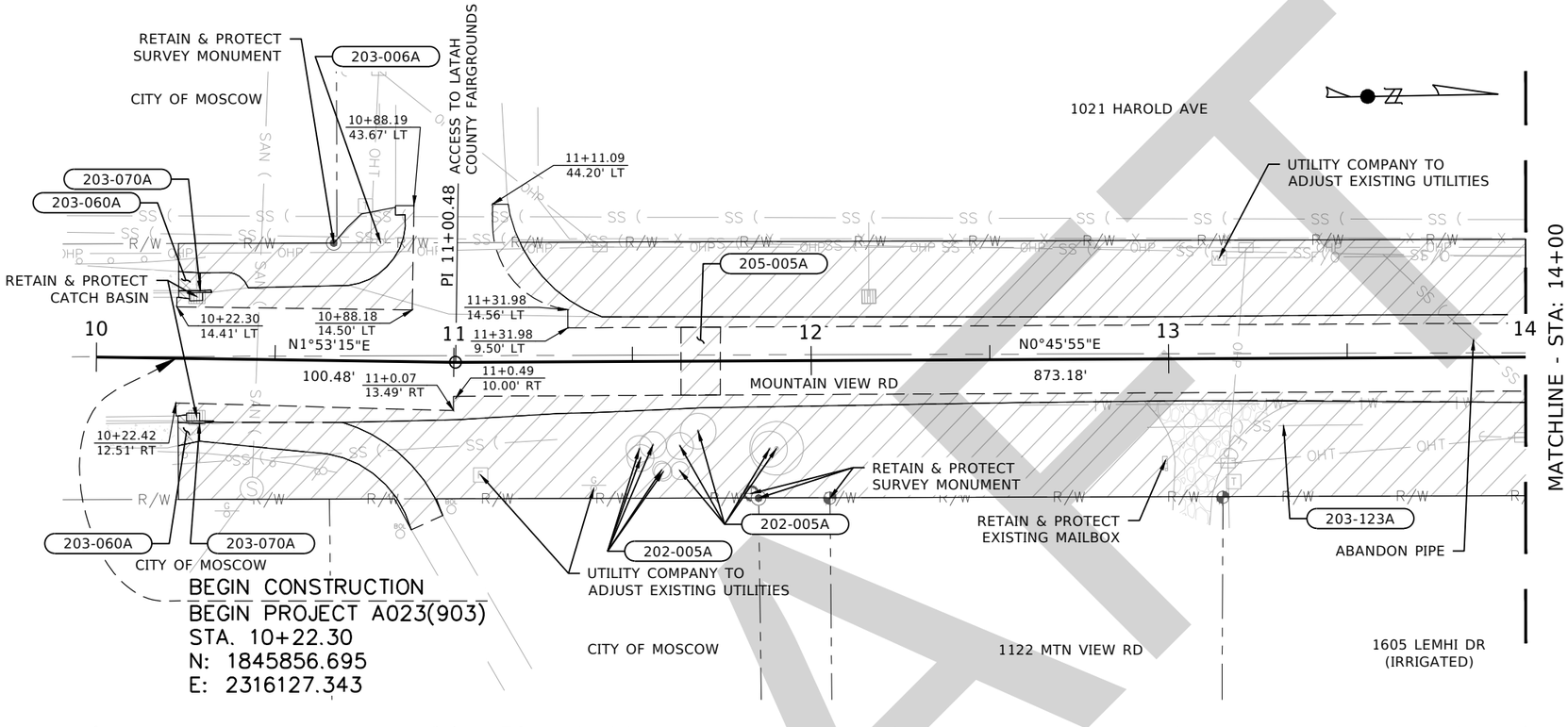
ENGLISH

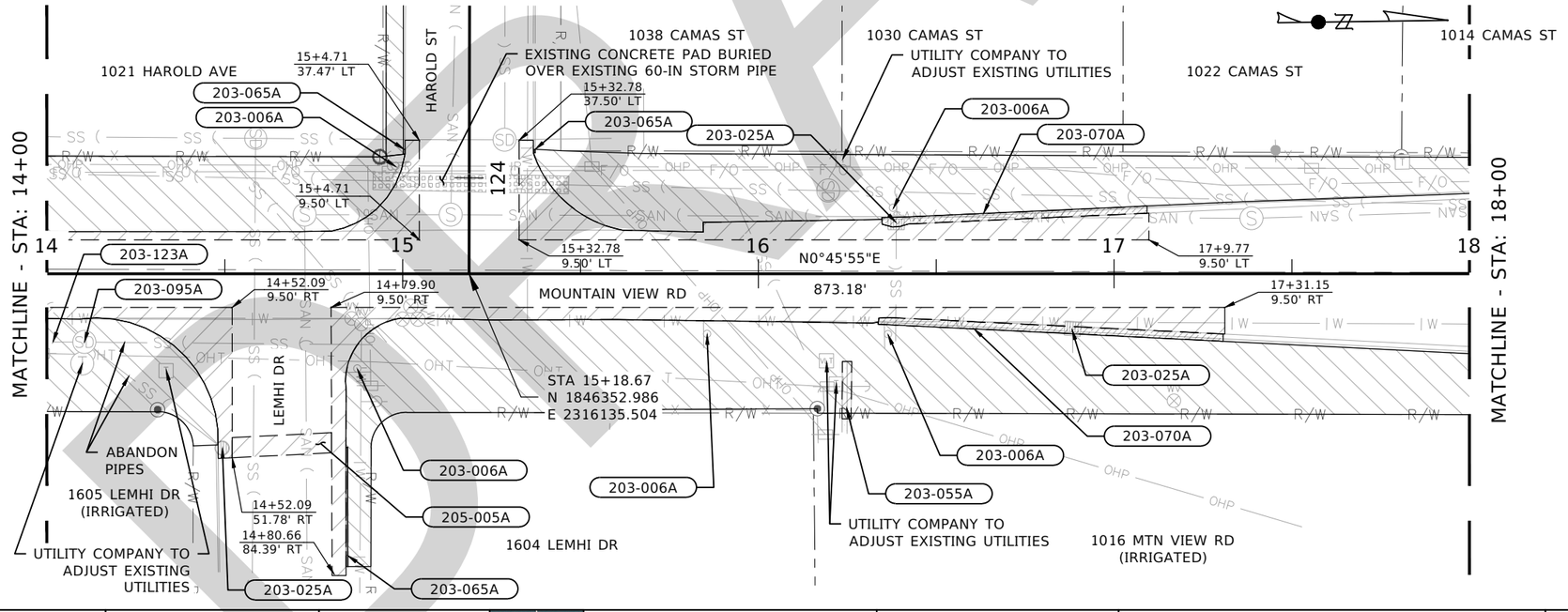
COUNTY: LATAH
KEY NUMBER: 23902/23903
SHEET 12 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

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NOTE:
COORDINATE WITH PROPERTY OWNERS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE PRESENCE AND EXTENT OF ANY EXISTING IRRIGATION SYSTEMS THROUGHOUT THE PROJECT PRIOR TO BEGINNING WORK. ANY IRRIGATION COMPONENTS ENCOUNTERED SHALL BE PROTECTED, RETAINED, OR RECONSTRUCTED AS NECESSARY TO MAINTAIN EXISTING FUNCTIONALITY AND COVERAGE. THE CONTRACTOR SHALL COORDINATE ANY REQUIRED ADJUSTMENTS WITH THE PARCEL OWNER TO ENSURE THE IRRIGATION SYSTEM IS FULLY OPERATIONAL UPON COMPLETION OF THE WORK.





203-095A REMOVAL OF MANHOLE
1 EACH
STA 14+10.56 RT

203-123A REMOVAL OF MISC ITEMS
60.0 FT OF PIPE
STA 12+93.96 - 13+54.29 RT
8.0 FT OF PIPE
STA 14+01.69 - 14+10.56 RT

LEGEND:

205-005A EXCAVATION

203-055A REM OF CONCRETE PAV

203-060A REM OF CONCRETE SIDEWALK

203-065A REM OF CURB

203-070A REM OF CURB & GUTTER

202-005A SELECTIVE REMOVAL OF TREES INCLUDING STUMPS
1 EACH
STA 11+51.79 RT
1 EACH
STA 11+52.13 RT
1 EACH
STA 11+55.58 RT
1 EACH
STA 11+57.99 RT
1 EACH
STA 11+58.42 RT
1 EACH
STA 11+63.12 RT
1 EACH
STA 11+63.18 RT
1 EACH
STA 11+68.30 RT
1 EACH
STA 11+88.21 RT
1 EACH
STA 11+90.20 RT

203-006A REMOVAL OF SIGNS
1 EACH
STA 10+79.01 LT
1 EACH
STA 14+87.26 RT
1 EACH
STA 14+98.03 LT
1 EACH
STA 15+85.62 RT
1 EACH
STA 16+36.47 RT
1 EACH
STA 16+37.90 LT

203-025A REMOVAL OF CATCH BASIN
1 EACH
STA 14+49.31 RT
1 EACH
STA 16+38.76 LT
1 EACH
STA 16+88.34 RT

203-055A REMOVAL OF CONCRETE PAV
4.6 SY
STA 16+23.62 - 16+26.25 RT

203-060A REMOVAL OF CONCRETE SIDEWALK
3.5 SY
STA 10+22.73 - 10+28.73 LT
3.8 SY
STA 10+23.10 - 10+29.17 RT

203-065A REMOVAL OF CURB
33.5 FT
STA 14+84.01 - 14+84.65 RT
1.4 FT
STA 15+00.21 - 15+00.67 LT
1.1 FT
STA 15+36.79 - 15+37.26 LT

203-070A REMOVAL OF CURB & GUTTER
9.1 FT
STA 10+22.73 - 10+31.99 LT
10.0 FT
STA 10+23.04 - 10+33.03 RT
74.5 FT
STA 16+34.80 - 17+09.27 LT
97.0 FT
STA 16+33.85 - 17+30.65 RT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 DEMO
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

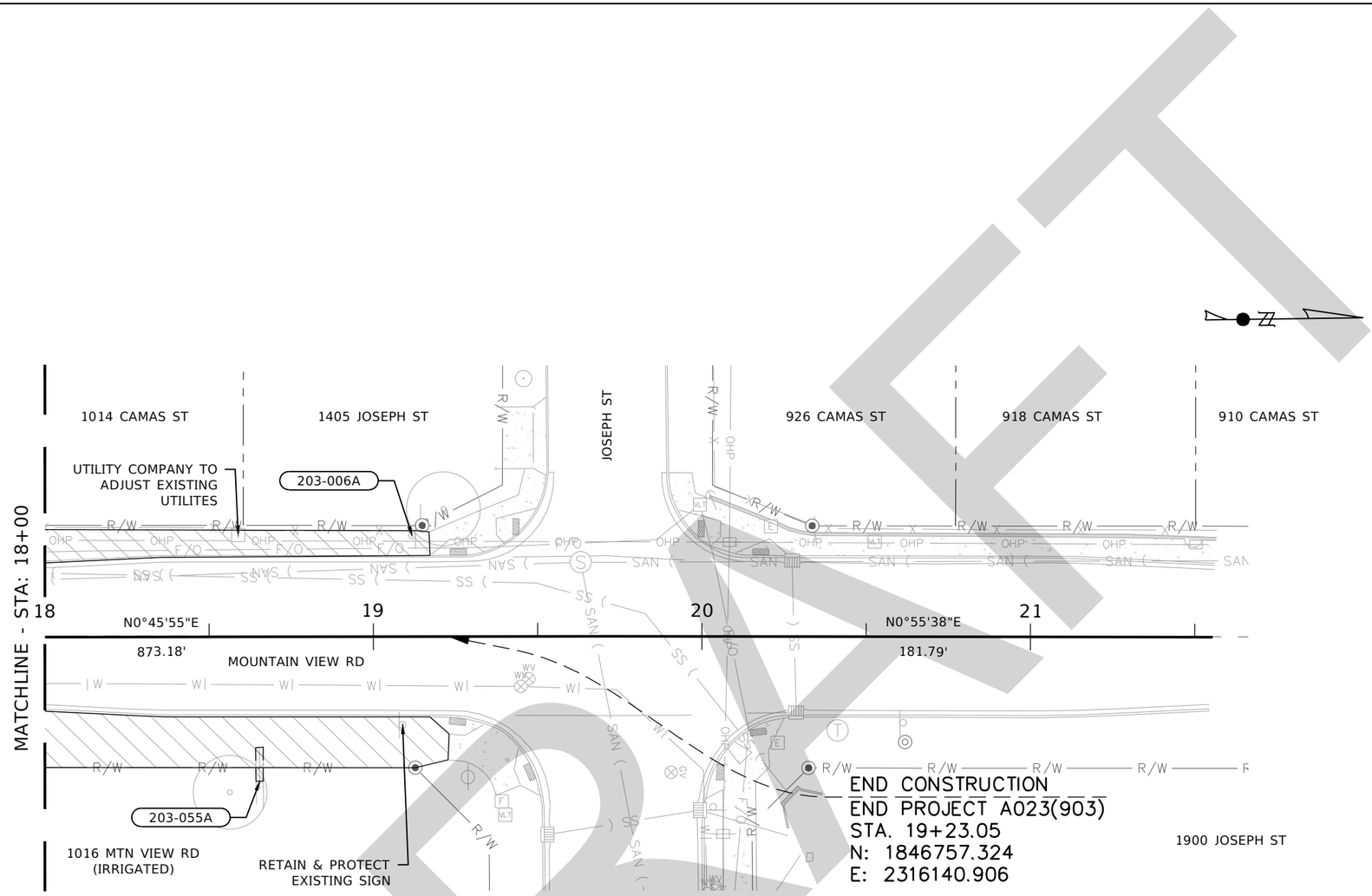
DEMO PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 13 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

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203-006A REMOVAL OF SIGNS
1 EACH
STA 19+11.83 LT

203-055A REMOVAL OF CONCRETE PAV
2.6 SY
STA 18+64.11 - 18+66.43 RT

LEGEND:

- 205-005A EXCAVATION
- 203-055A REM OF CONCRETE PAV
- 203-060A REM OF CONCRETE SIDEWALK
- 203-065A REM OF CURB
- 203-070A REM OF CURB & GUTTER

NOTE:
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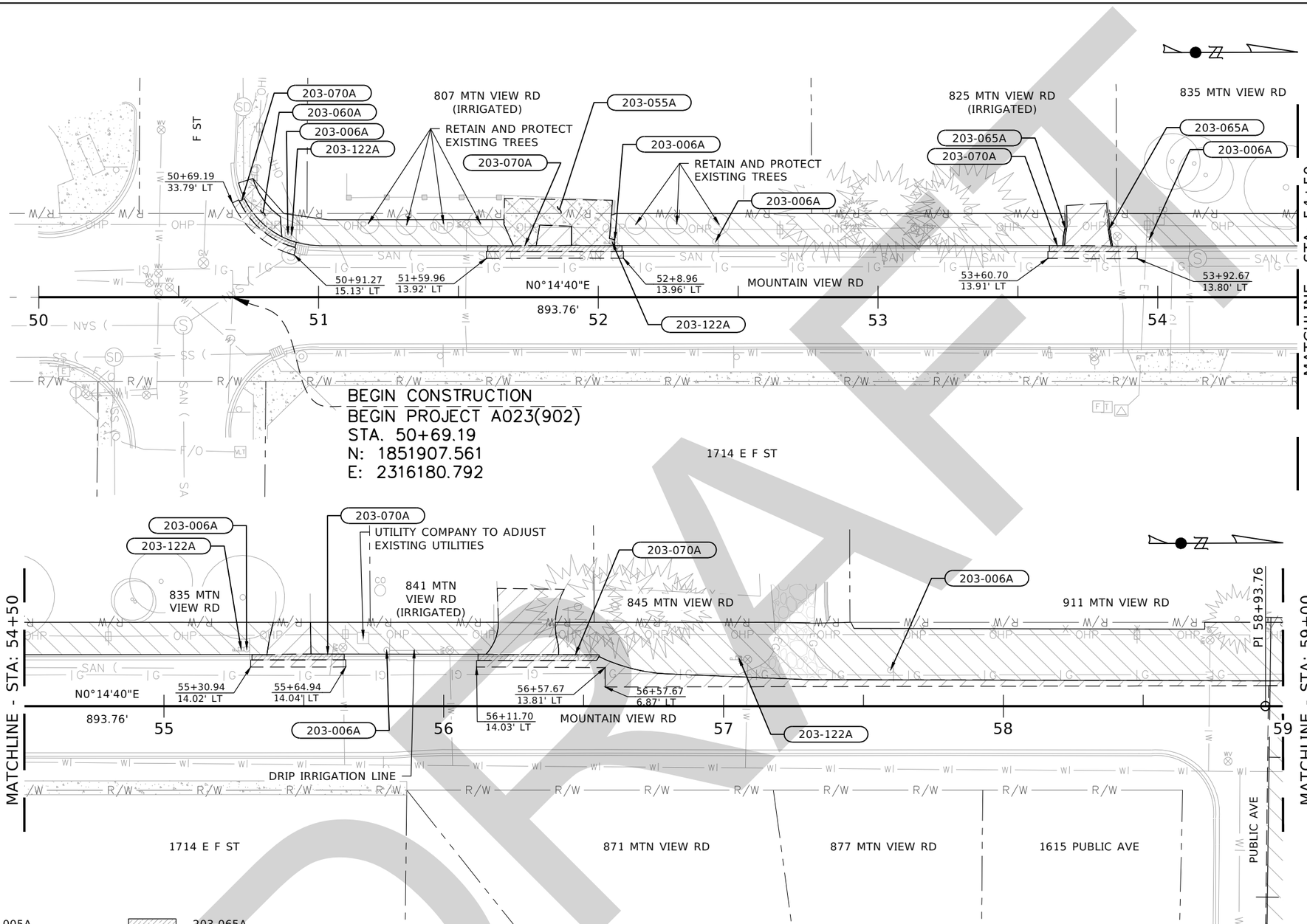
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DEMO PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
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PROFESSIONAL ENGINEER REGISTERED 17789 STATE OF IDAHO JUSTIN M. SHAW
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LEGEND:

- 205-005A EXCAVATION
- 203-055A REM OF CONCRETE PAV
- 203-060A REM OF CONCRETE SIDEWALK
- 203-065A REM OF CURB
- 203-070A REM OF CURB & GUTTER

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203-006A REM OF SIGN
1 EACH
STA 50+89.21 LT
1 EACH
STA 52+05.84 LT
1 EACH
STA 52+41.89 LT
1 EACH
STA 53+96.90 LT
1 EACH
STA 55+29.60 LT
1 EACH
STA 55+79.64 LT
1 EACH
STA 57+59.72 LT

203-055A REMOVAL OF CONCRETE PAV
59.5 SY
STA 51+66.29 - 52+05.89 LT

203-060A REMOVAL OF CONCRETE SIDEWALK
13.6 SY
STA 50+71.39 - 50+86.89 LT

203-065A REMOVAL OF CURB
6.1 FT
STA 53+66.02 - 53+67.39 LT
6.1 FT
STA 53+82.23 - 53+83.82 LT

203-070A REMOVAL OF CURB & GUTTER
25.8 FT
STA 50+71.65 - 50+92.04 LT
48.0 FT
STA 51+60.47 - 52+08.46 LT
31.0 FT
STA 53+61.21 - 53+92.18 LT
33.0 FT
STA 55+31.60 - 55+64.44 LT
43.3 FT
STA 56+12.21 - 56+55.59 LT

203-122A REMOVAL OF MISC ITEMS
1 EACH, ELECTRICAL BOX AND CONDUIT
STA 50+90.38, LT
1 EACH, MAILBOX
STA 52+05.03 LT
2 EACH, MAILBOX
STA 55+27.52 LT
2 EACH, MAILBOX
STA 57+05.36 LT

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CITY OF MOSCOW
IDAHO

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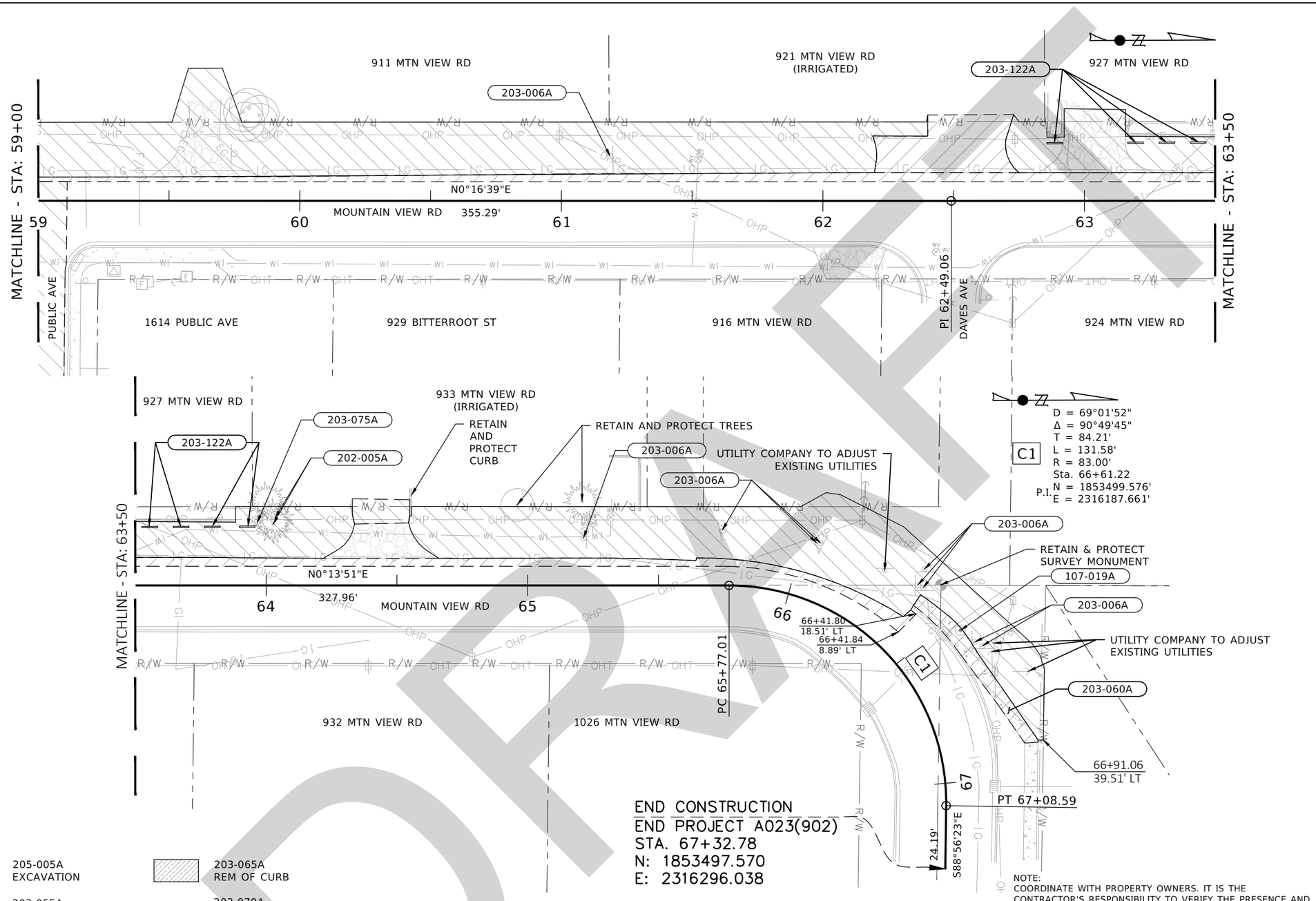
DEMO PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
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STATE OF IDAHO
JUSTIN M. SHAW

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NOTE:
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202-005A SELECTIVE REMOVAL OF TREES INCLUDING STUMPS
1 EACH
STA 64+02.74, 23.5' LT
1 EACH
STA 64+03.41, 25.8' LT

203-006A REMOVAL OF SIGNS
1 EACH
STA 61+18.71 LT
1 EACH
STA 65+21.40 LT
1 EACH
STA 65+74.48 LT
1 EACH
STA 66+04.29 LT
1 EACH
STA 66+05.17 LT
1 EACH
STA 66+34.87 LT
1 EACH
STA 66+36.39 LT
1 EACH
STA 66+38.05 LT
1 EACH
STA 66+59.20 LT*
1 EACH
STA 66+61.44 LT

203-060A REMOVAL OF CONCRETE SIDEWALK
41.9 SY
STA 66+38.79 - 66+91.32 LT

203-075A REMOVAL OF FENCE
8.6 FT
STA 63+96.51 - 63+96.72 LT

203-122A REMOVAL OF MISC ITEMS
1 EACH, PARKING BLOCK
STA 62+88.58 LT*
1 EACH, PARKING BLOCK
STA 63+19.53 LT*
1 EACH, PARKING BLOCK
STA 63+31.23 LT*
1 EACH, PARKING BLOCK
STA 63+43.25 LT*
1 EACH, PARKING BLOCK
STA 63+55.68 LT*
1 EACH, PARKING BLOCK
STA 63+67.53 LT*
1 EACH, PARKING BLOCK
STA 63+79.88 LT*
1 EACH, PARKING BLOCK
STA 63+92.84 LT*

*CONTRACTOR TO VERIFY STATIONING

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CITY OF MOSCOW IDAHO

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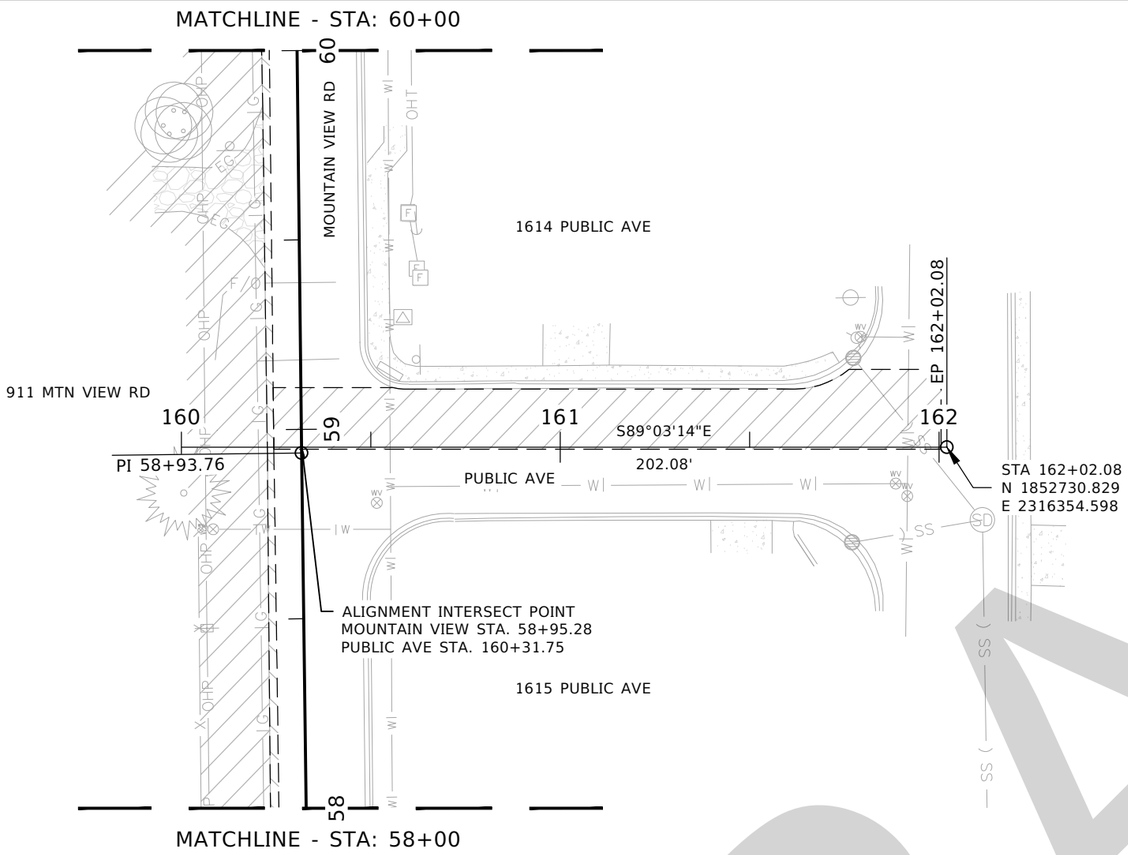
DEMO PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
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PROFESSIONAL ENGINEER
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17789
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JUSTIN M. SHAW

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LEGEND:

- 205-005A EXCAVATION
- 203-055A REM OF CONCRETE PAV
- 203-060A REM OF CONCRETE SIDEWALK
- 203-065A REM OF CURB
- 203-070A REM OF CURB & GUTTER

NOTE:
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CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.: A023(902) A023(903)

DEMO PLAN

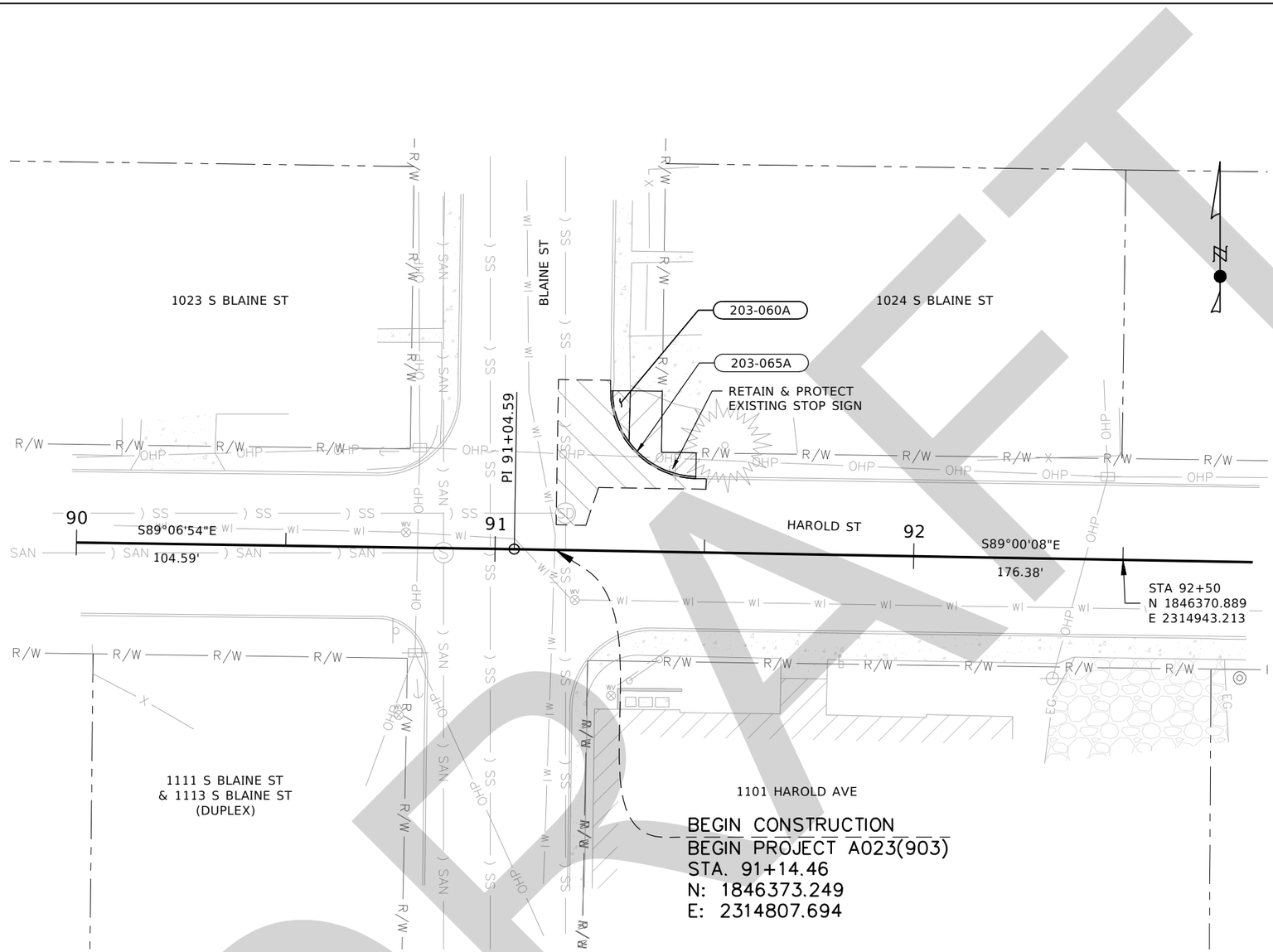
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH

COUNTY: LATAH
KEY NUMBER: 23902/23903
SHEET 17 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

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LEGEND:

- 205-005A EXCAVATION
- 203-055A REM OF CONCRETE PAV
- 203-060A REM OF CONCRETE SIDEWALK
- 203-065A REM OF CURB
- 203-070A REM OF CURB & GUTTER

0 30 60

SCALE IN FEET

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203-060A REMOVAL OF CONCRETE SIDEWALK
3.8 SY
STA 91+27.44 - 91+59.64 LT

203-065A REMOVAL OF CURB
32.4 FT
STA 91+26.90 - 91+47.64 LT

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HMH engineering

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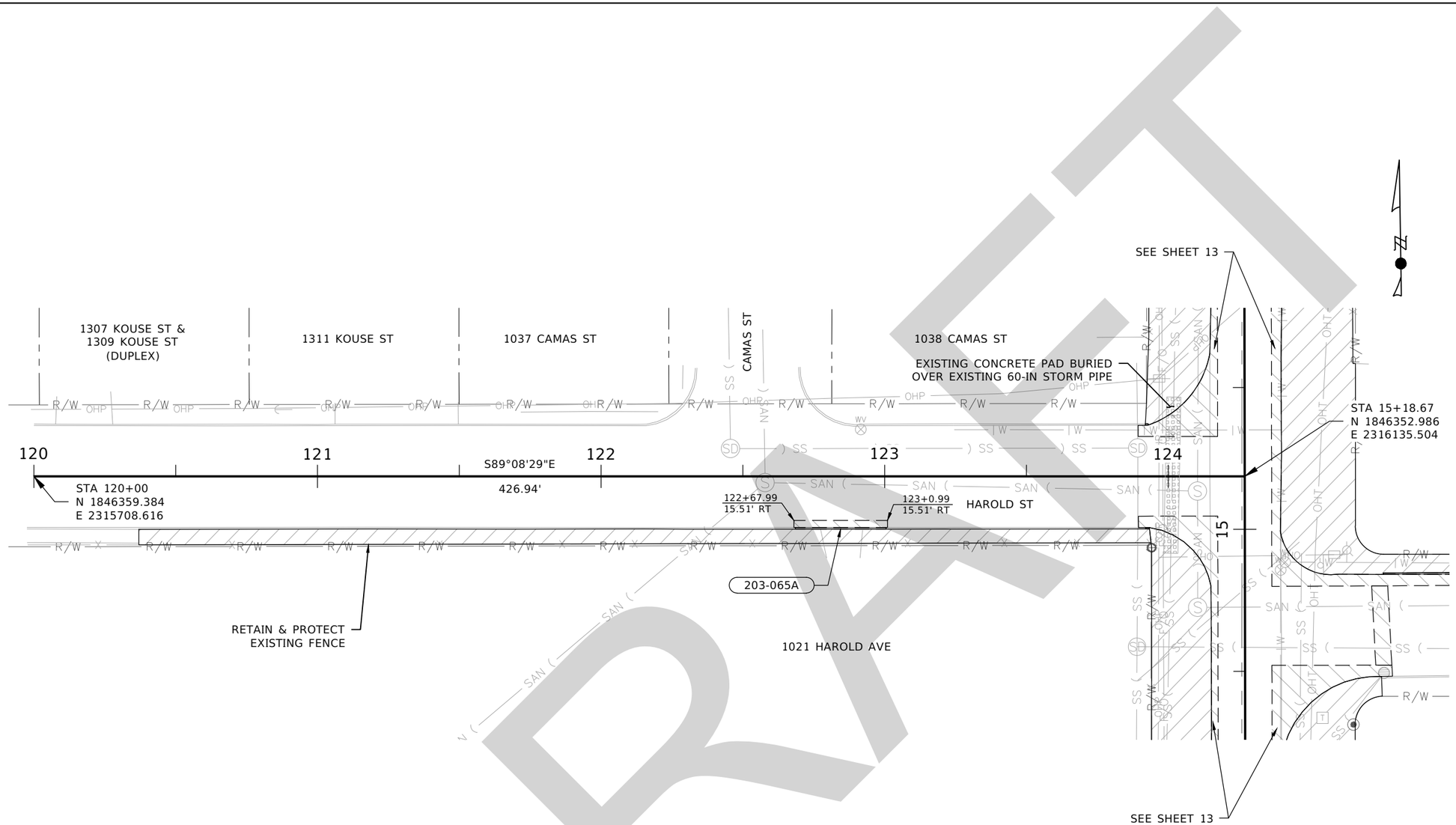
DEMO PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 18 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17889
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

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LEGEND:

- 205-005A EXCAVATION
- 203-055A REM OF CONCRETE PAV
- 203-060A REM OF CONCRETE SIDEWALK
- 203-065A REM OF CURB
- 203-070A REM OF CURB & GUTTER

203-065A REMOVAL OF CURB
32.0 FT
STA 122+68.49 - 123+00.49 LT

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DEMO PLAN

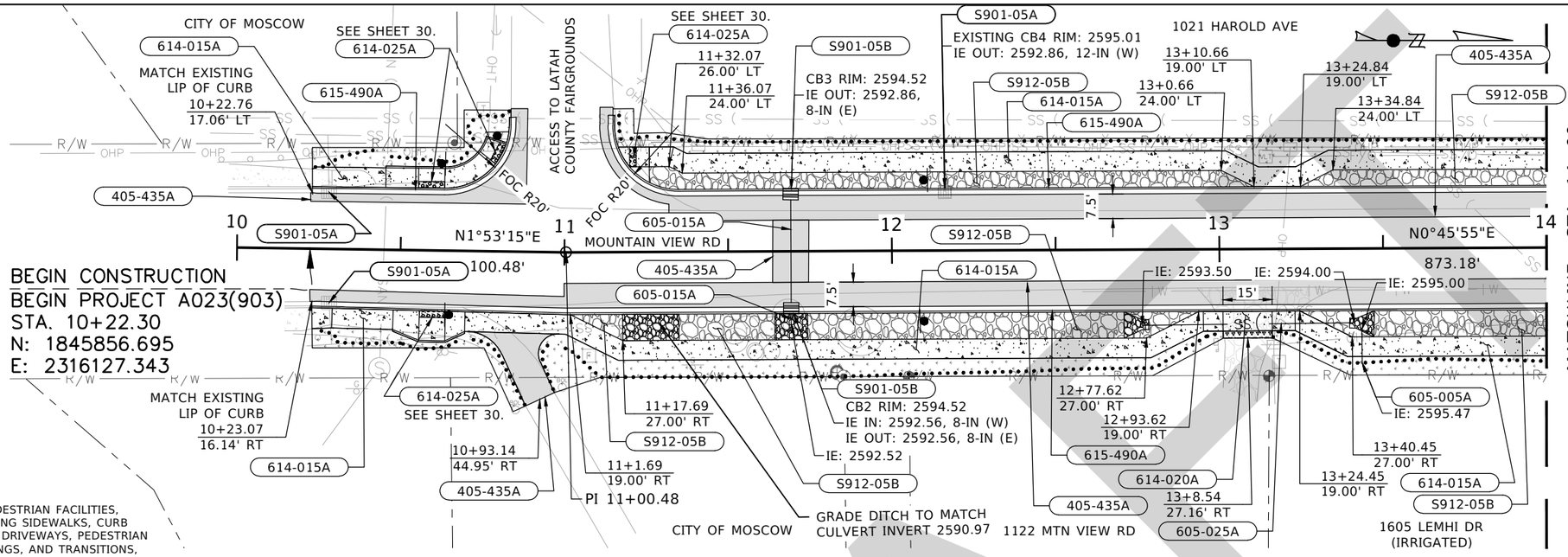
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH

COUNTY: LATAH
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SHEET 19 OF 60

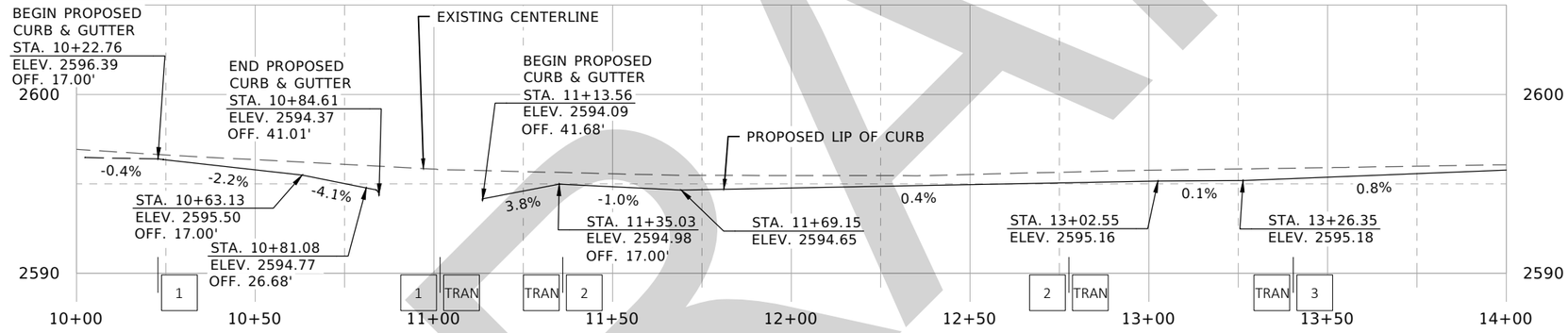
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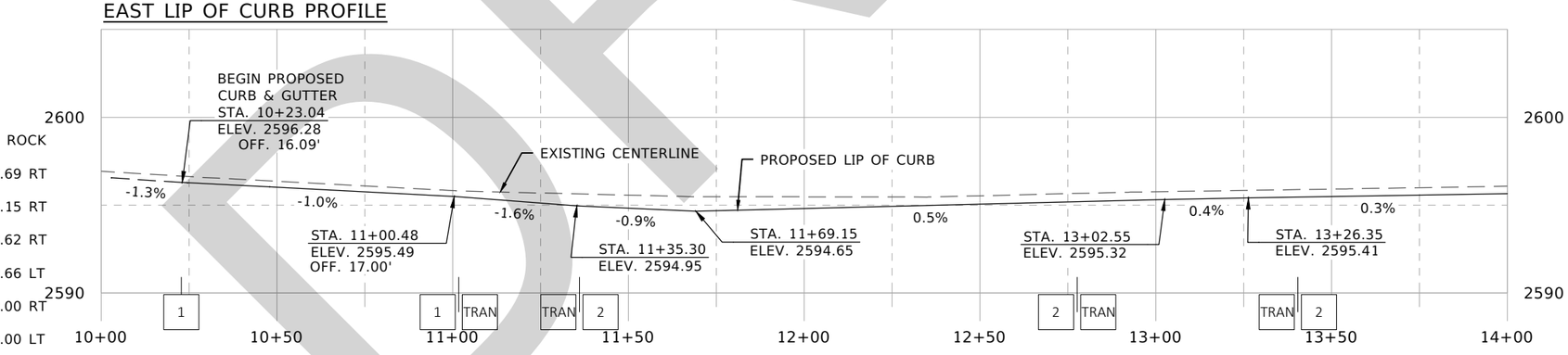


NOTE:
ALL PEDESTRIAN FACILITIES, INCLUDING SIDEWALKS, CURB RAMPS, DRIVEWAYS, PEDESTRIAN CROSSINGS, AND TRANSITIONS, SHALL MEET CURRENT ADA STANDARDS AND PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG). MAXIMUM CROSS-SLOPE SHALL NOT EXCEED 2.0%. MAXIMUM RUNNING SLOPE FOR CURB RAMPS SHALL NOT EXCEED 8.33% UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL NOT POUR ANY PEDESTRIAN FACILITY WITHOUT FIELD-VERIFIED ELEVATIONS AND/OR SLOPE STAKING. ANY NON-COMPLIANT WORK SHALL BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.

WEST LIP OF CURB PROFILE



EAST LIP OF CURB PROFILE



S912-05B DECORATIVE ROCK
7.1 SY
STA 11+01.69 - 11+17.69 RT
26.0 SY
STA 11+34.86 - 11+64.15 RT
95.1 SY
STA 11+74.15 - 12+93.62 RT
100.8 SY
STA 11+26.07 - 13+10.66 LT
54.2 SY
STA 13+24.45 - 14+00.00 RT
39.0 SY
STA 13+24.84 - 14+00.00 LT

405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3
9.3 TON
STA 10+22.30 - 10+88.19 LT
64.3 TON
STA 10+22.42 - 14+00.00 RT
6.3 TON
STA 10+70.72 - 10+98.64 RT
53.9 TON
STA 11+11.09 - 14+00.00 LT
5.3 TON
STA 11+63.60 - 11+74.60

605-015A 8" STORM SEWER PIPE
34.8 FT (CB3 TO CB2)
STA 11+69.15
4.7 FT (CB2 TO DITCH)
STA 11+69.15
10.0 FT (BACK OF SIDEWALK TO DITCH)
STA 13+43.42 RT

605-025A 12" STORM SEWER PIPE
65.0 FT (DITCH TO DITCH)
STA 12+76.33 - 13+41.16 RT

614-015A SIDEWALK
14.9 SY
STA 10+22.76 - 10+45.13 LT
12.3 SY
STA 10+23.07 - 10+47.94 RT
153.0 SY
STA 10+69.86 - 12+95.04 RT
180.0 SY
STA 11+32.07 - 14+00.00 LT
52.6 SY
STA 13+23.01 - 14+00.00 RT

614-020A DRIVEWAY
18.7 SY
STA 13+09.04, 19.0' RT

614-025A CURB RAMP
13.0 SY
STA 10+59.13, 19.0' LT
20.0 SY
STA 10+59.94, 18.5' RT
15.2 SY
STA 10+80.43, 29.5' LT
11.6 SY
STA 11+18.00, 29.0' LT

615-490A CURB & GUTTER
70.7 FT
STA 10+28.75 - 10+84.61 LT
371.2 FT
STA 10+29.14 - 14+00.00 RT
299.6 FT
STA 11+13.56 - 14+00.00 LT

S901-05A ADJUST CATCH BASIN LID AND FRAME
1 EACH
STA 10+27.85, 17.4' LT
1 EACH
STA 10+28.39, 16.5' RT
1 EACH
STA 12+16.22, 17.8' LT

S901-05B CITY OF MOSCOW CATCH BASIN TYPE 1
1 EACH (CB2)
STA 11+69.15, 17.4' RT
1 EACH (CB3)
STA 11+69.15, 17.4' LT

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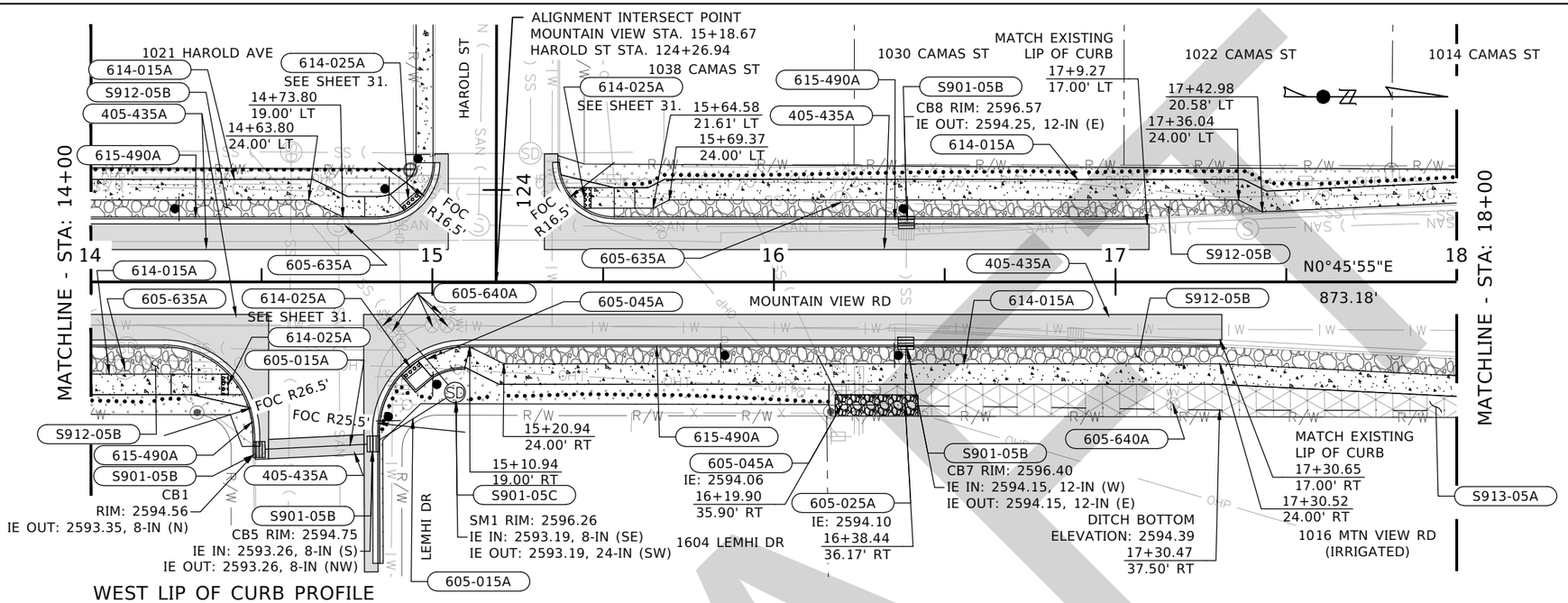
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PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

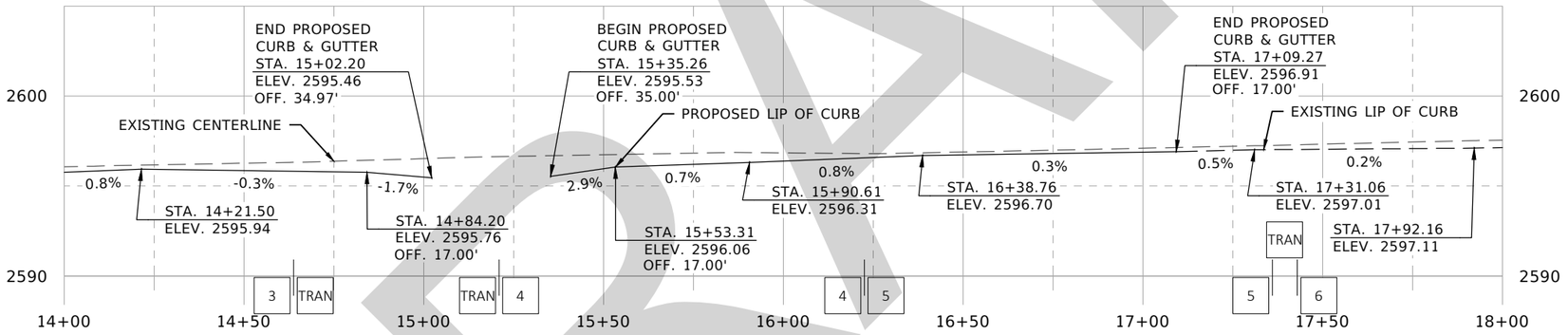
ENGLISH
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SHEET 20 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

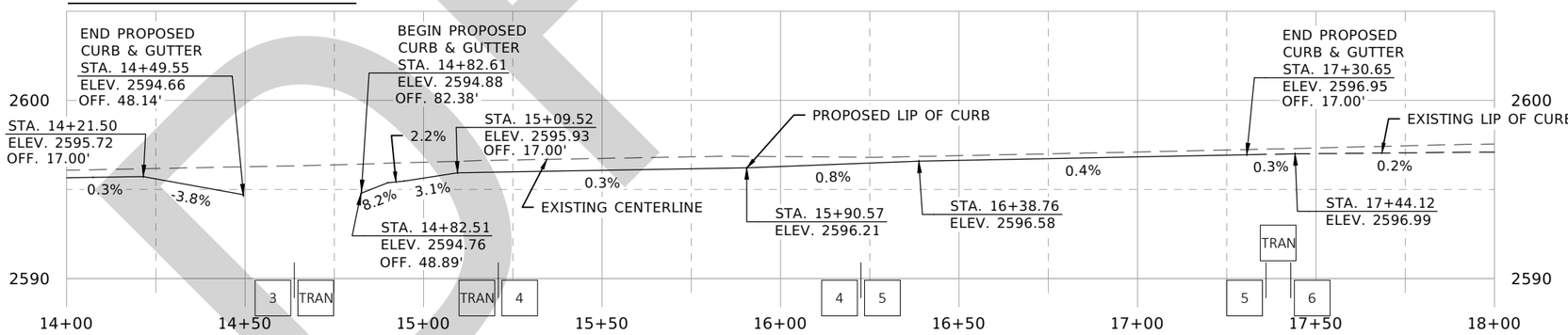
DRAFT



WEST LIP OF CURB PROFILE



EAST LIP OF CURB PROFILE



615-490A CURB & GUTTER
69.4 FT
STA 14+00.00 - 14+49.55 RT
112.4 FT
STA 14+00.00 - 15+02.20 LT
299.6 FT
STA 14+82.61 - 17+30.65 RT
184.3 FT
STA 15+35.26 - 17+09.27 LT

S901-05B CITY OF MOSCOW CATCH BASIN
1 EACH (CB1)
STA 14+49.31, 49.1' RT
1 EACH (CB5)
STA 14+82.68, 47.4' RT
1 EACH (CB7)
STA 16+38.60, 17.9' RT
1 EACH (CB8)
STA 16+38.76, 17.4' LT

S901-05C CITY OF MOSCOW STORM SEWER MANHOLE
1 EACH (SM1)
STA 15+06.65, 32.4' RT

S912-05B DECORATIVE ROCK
25.9 SY
STA 14+00.00 - 14+29.56 RT
38.2 SY
STA 14+00.00 - 14+73.80 LT
157.9 SY
STA 15+10.94 - 18+00.00 RT
97.5 SY
STA 15+53.31 - 18+00.00 LT

S913-05A ROCK MULCH
69.6 CY
STA 16+16.09 - 18+00.00 RT

405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3
16.7 TON
STA 14+00.00 - 14+52.09 RT
23.2 TON
STA 14+00.00 - 15+04.21 LT
4.0 TON
STA 14+52.09 - 14+80.02 RT
56.4 TON
STA 14+79.90 - 17+31.15 RT
37.0 TON
STA 15+32.78 - 17+09.77 LT

605-015A 8" STORM SEWER PIPE
33.4 FT (CB1 TO CB5)
STA 14+49.31 - 14+82.68 RT
28.3 FT (CB5 TO SM1)
STA 14+82.68 - 15+06.65 RT

605-025A 12" STORM SEWER PIPE
20.0 FT (CB7 TO DITCH)
STA 16+38.44 RT

605-045A 24" STORM SEWER PIPE
17.2 FT (SM1 TO EXISTING)
STA 14+95.51 - 15+06.65 RT
17.3 FT (DITCH TO EXISTING)
STA 16+12.74 - 16+19.90 RT

605-635A ADJUST MANHOLE COVERS
1 EACH
STA 14+72.52, 16.6' LT
1 EACH
STA 14+09.95, 25.3' RT
1 EACH
STA 16+19.64, 23.4' LT*

605-640A ADJUST VALVE COVERS
1 EACH
STA 14+85.69, 12.7' RT
1 EACH
STA 14+88.43, 14.3' RT
3 EACH
STA 15+02.10, 12.8' RT*
1 EACH
STA 17+16.84, 35.8' RT

614-015A SIDEWALK
15.7 SY
STA 14+00.00 - 14+23.56 RT
54.3 SY
STA 14+00.00 - 14+80.21 LT
194.0 SY
STA 15+09.52 - 18+00.00 RT
161.4 SY
STA 15+59.31 - 18+00.00 LT

614-025A CURB RAMP
20.5 SY
STA 14+42.73, 30.0' RT
11.4 SY
STA 14+93.42, 24.9' RT
16.1 SY
STA 14+94.41, 22.7' LT
16.7 SY
STA 15+41.03, 24.7' LT

*CONTRACTOR TO VERIFY STATIONING

PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 PLPR 1
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

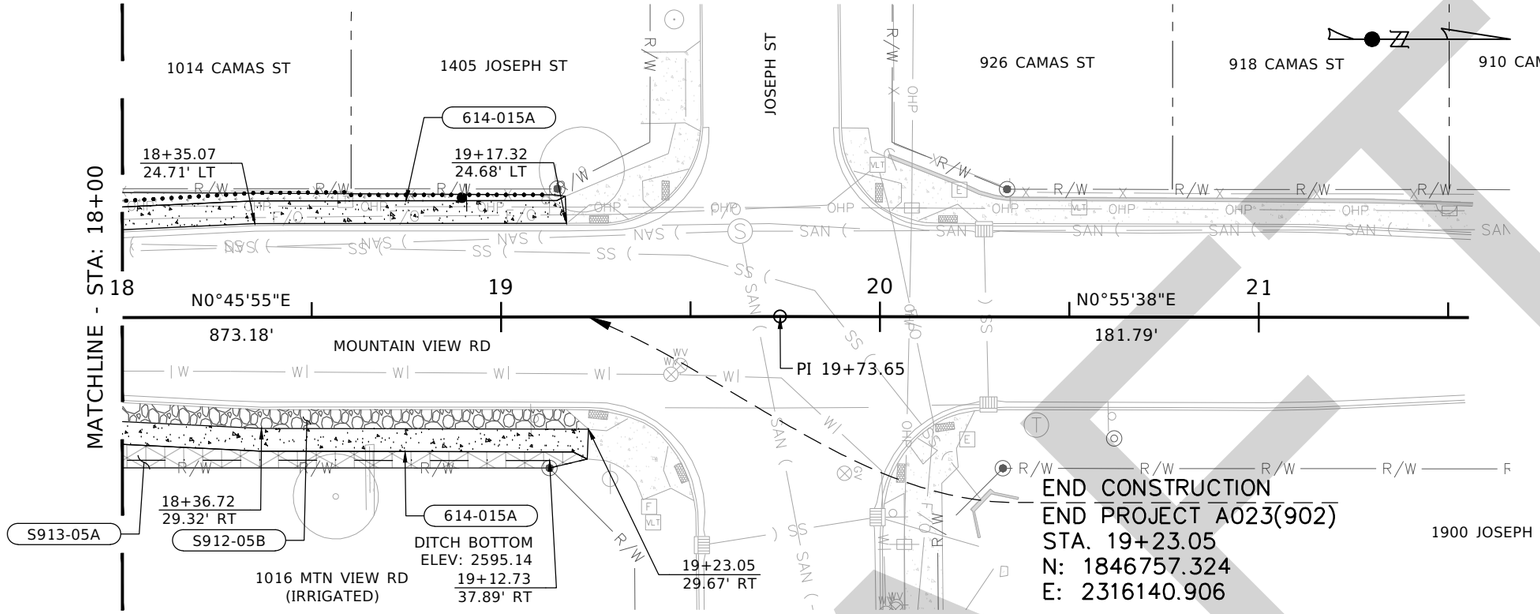
HMH engineering

PROJECT NO.
A023(902)
A023(903)

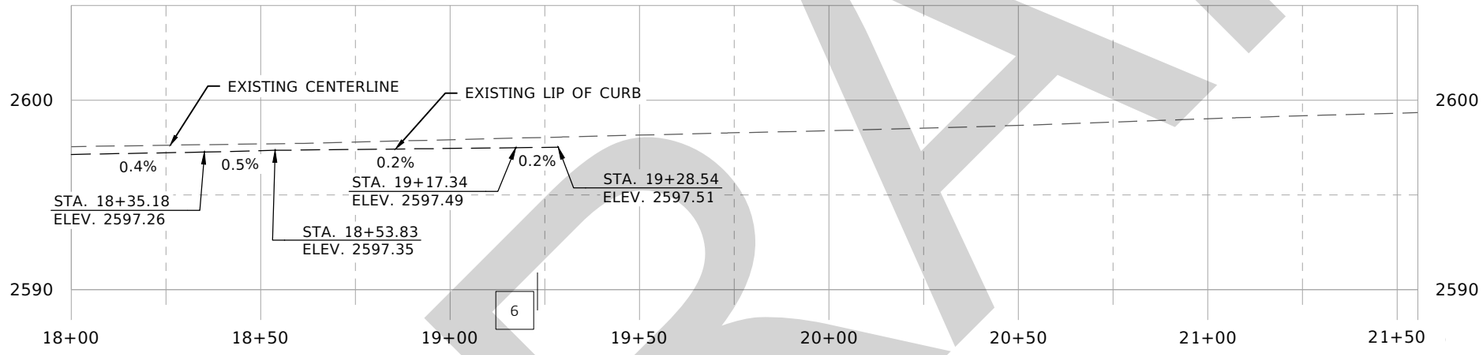
PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 21 OF 60

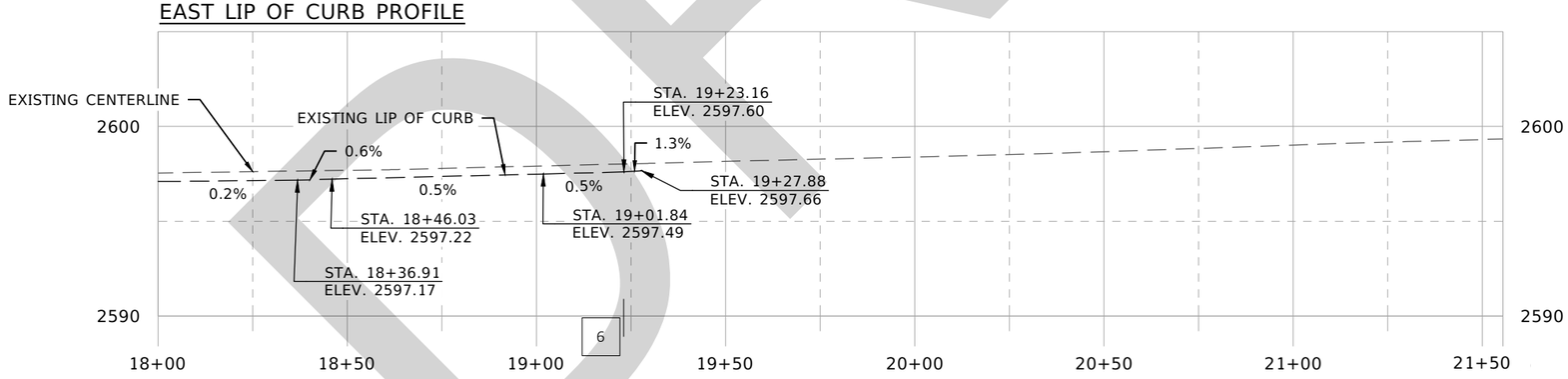
DRAFT



WEST LIP OF CURB PROFILE



EAST LIP OF CURB PROFILE



614-015A SIDEWALK
78.3 SY
STA 18+00.00 - 19+17.32 LT
82.4 SY
STA 18+00.00 - 19+23.05 RT

S912-05B DECORATIVE ROCK
67.6 SY
STA 18+00.00 - 19+23.05 RT

S913-05A ROCK MULCH
49.0 CY
STA 18+00.00 - 19+22.01 RT

DRAFT

REVISIONS			
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CITY OF MOSCOW IDAHO

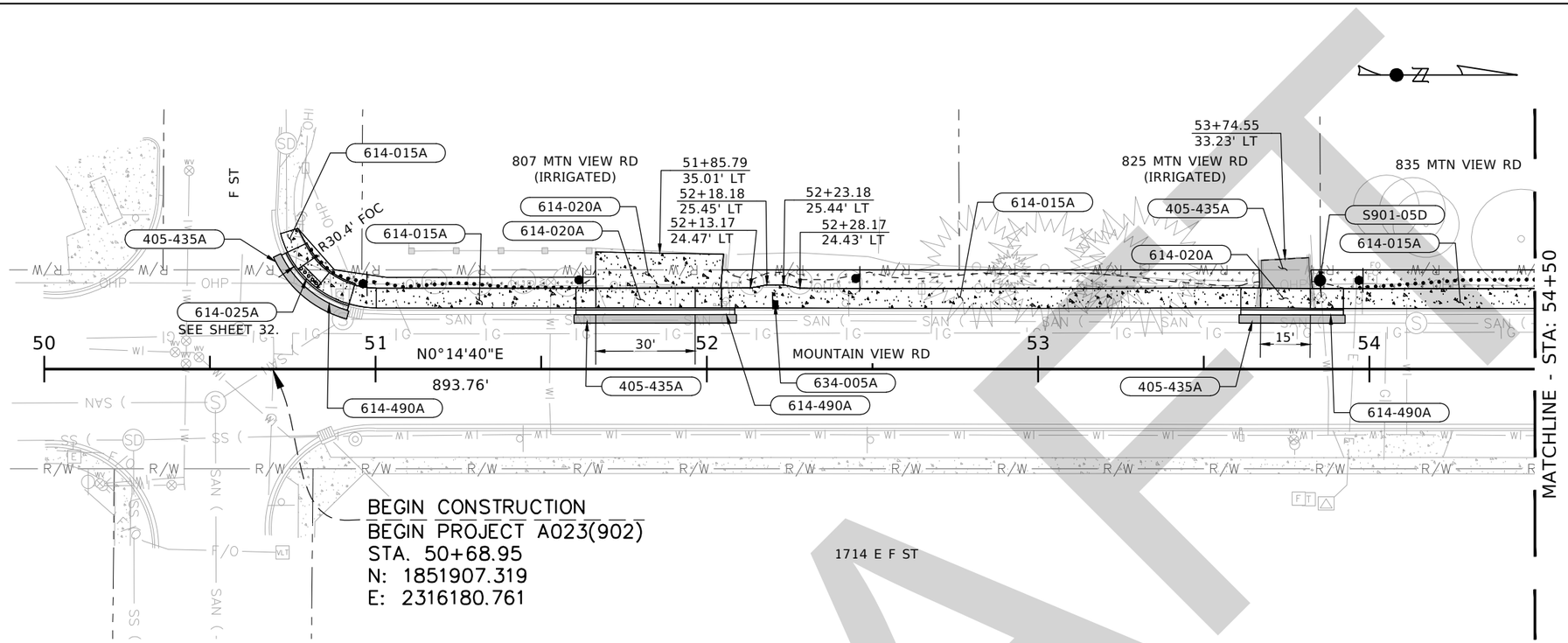
HMH engineering

PROJECT NO.
A023(902)
A023(903)

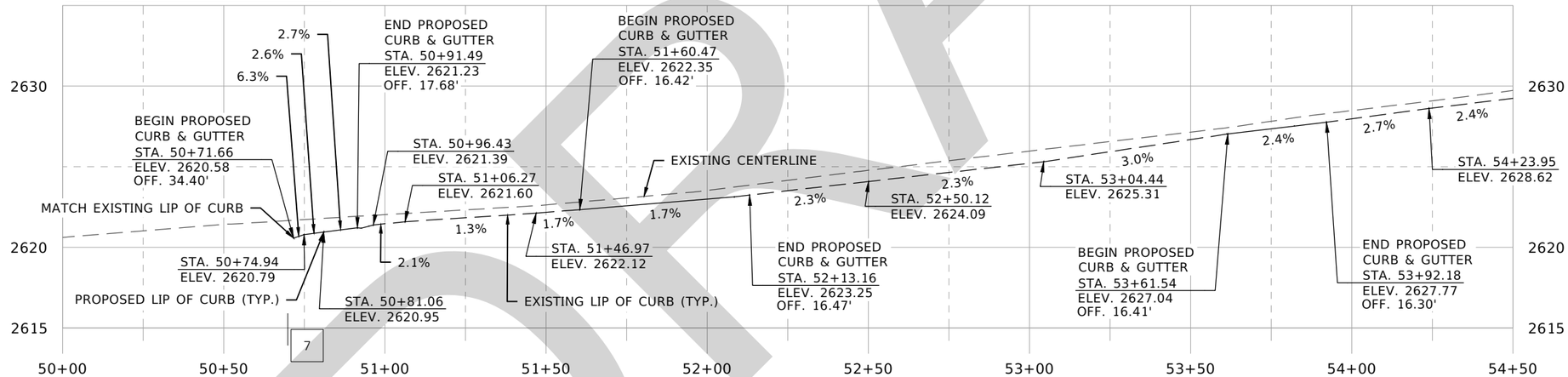
PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 22 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW



WEST LIP OF CURB PROFILE



405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3
1.9 TON
STA 50+69.19 - 50+91.95 LT
3.1 TON
STA 51+59.97 - 52+08.96 LT
2.0 TON
STA 53+60.70 - 53+92.67 LT
1.6 TON
STA 53+67.57 - 53+82.23 LT

614-015A SIDEWALK
3.6 SY
STA 50+71.39 - 50+78.90 LT
45.1 SY
STA 50+92.04 - 51+60.47 LT
105.7 SY
STA 52+04.47 - 53+61.21 LT
38.5 SY
STA 53+92.19 - 54+50.00 LT

614-020A DRIVEWAY
29.3 SY
STA 51+81.47, 18.4' LT
20.7 SY
STA 53+74.71, 18.4' LT

614-025A CURB RAMP
16.1 SY
STA 50+79.25, 27.2' LT

615-490A CURB & GUTTER
25.4 FT
STA 50+71.66 - 50+91.49 LT
48.0 FT
STA 51+60.47 - 52+08.47 LT
31.0 FT
STA 53+61.21 - 53+92.19 LT

634-005A MAILBOX
1 EACH
STA 52+20.66, 19.5' LT

S901-05D ADJUST WATER METER
1 EACH
STA 53+85.13, 26.8' LT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 PLPR 2
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

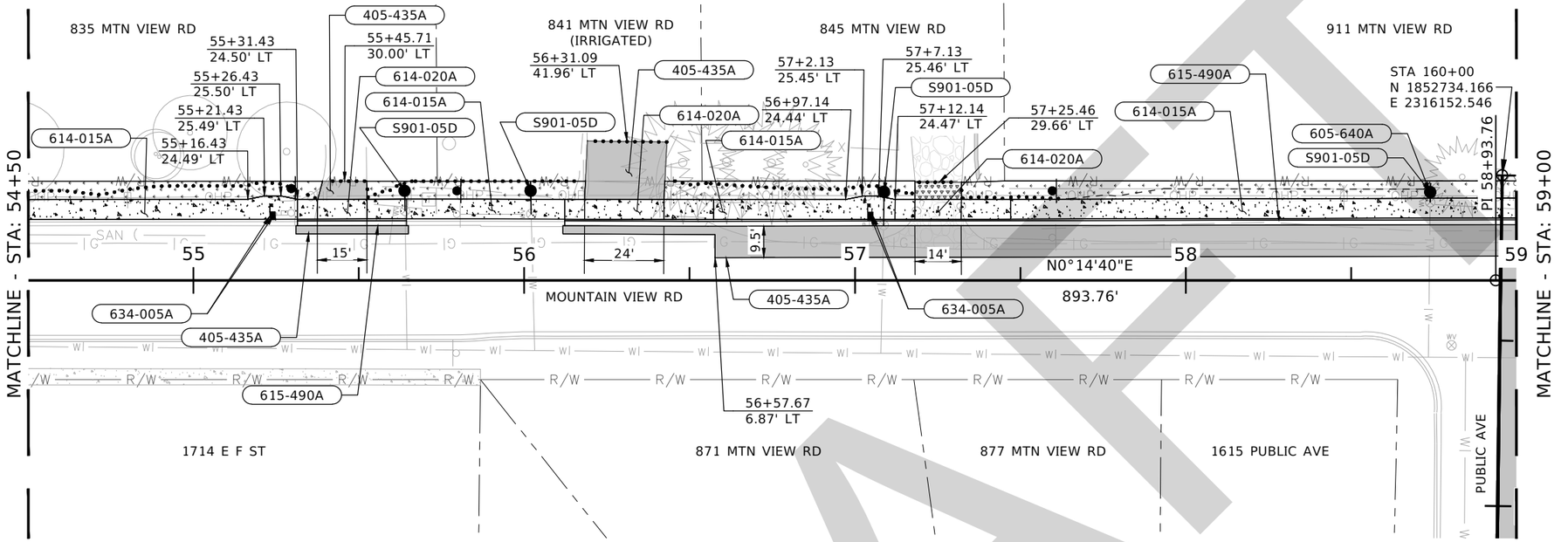
PROJECT NO.
A023(902)
A023(903)

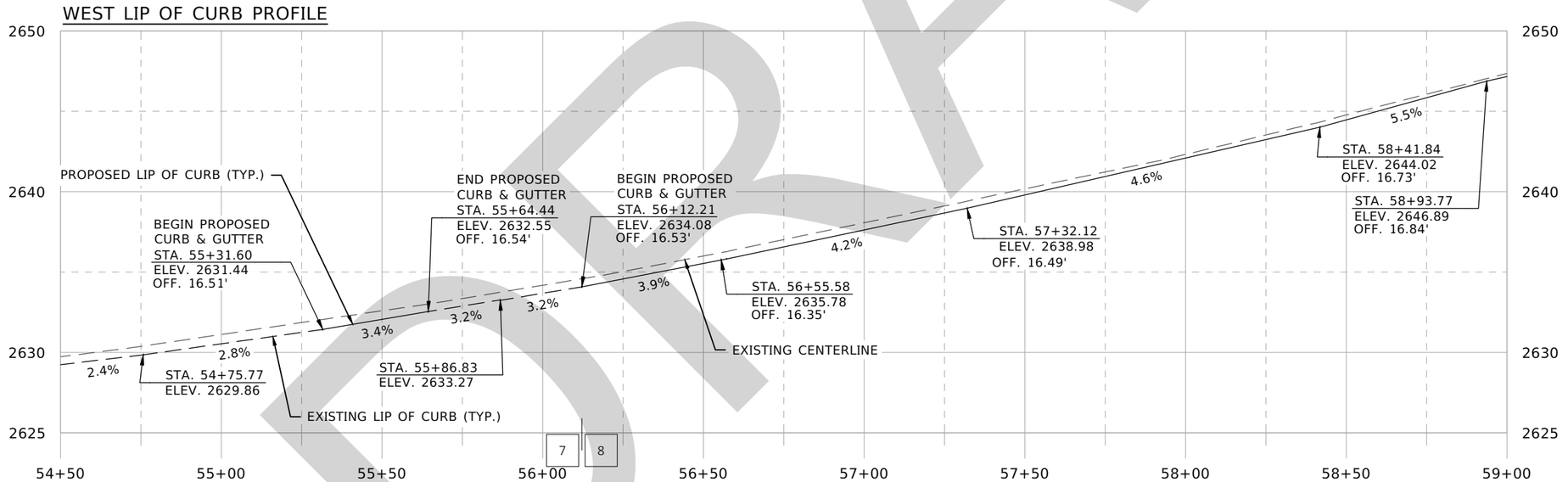
PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 23 OF 60

PROFESSIONAL ENGINEER REGISTERED 17889 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

DRAFT





405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3

2.2 TON
STA 55+30.94 - 55+64.94 LT
1.0 TON
STA 55+37.43 - 55+52.43 LT
61.7 TON
STA 56+11.70 - 59+00.00 LT
5.4 TON
STA 56+18.25 - 56+42.25 LT

605-640A ADJUST VALVE COVERS

1 EACH
STA 65+21.82, 20.9' LT

614-015A SIDEWALK

55.4 SY
STA 54+50.00 - 55+31.44 LT
31.9 SY
STA 55+64.44 - 56+12.22 LT
37.7 SY
STA 56+57.22 - 57+12.14 LT
101.9 SY
STA 57+47.13 - 59+00.00 LT

614-020A DRIVEWAY

22.0 SY
STA 55+44.94, 18.5' LT
30.0 SY
STA 56+30.22, 18.5' LT
23.3 SY
STA 57+25.13, 18.5' LT

615-490A CURB & GUTTER

33.0 FT
STA 55+31.44 - 55+64.44 LT
287.8 FT
STA 56+12.22 - 59+00.00 LT

634-005A MAILBOX

2 EACH
STA 55+23.93, 19.5' LT
2 EACH
STA 57+05.29, 19.5' LT

S901-05D ADJUST WATER METER

1 EACH
STA 55+63.87, 27.0' LT
1 EACH
STA 56+01.95, 27.0' LT
1 EACH
STA 57+08.86, 26.7' LT
1 EACH
STA 58+73.97, 26.6' LT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

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CADD FILE NAME 23902 PLPR 2
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

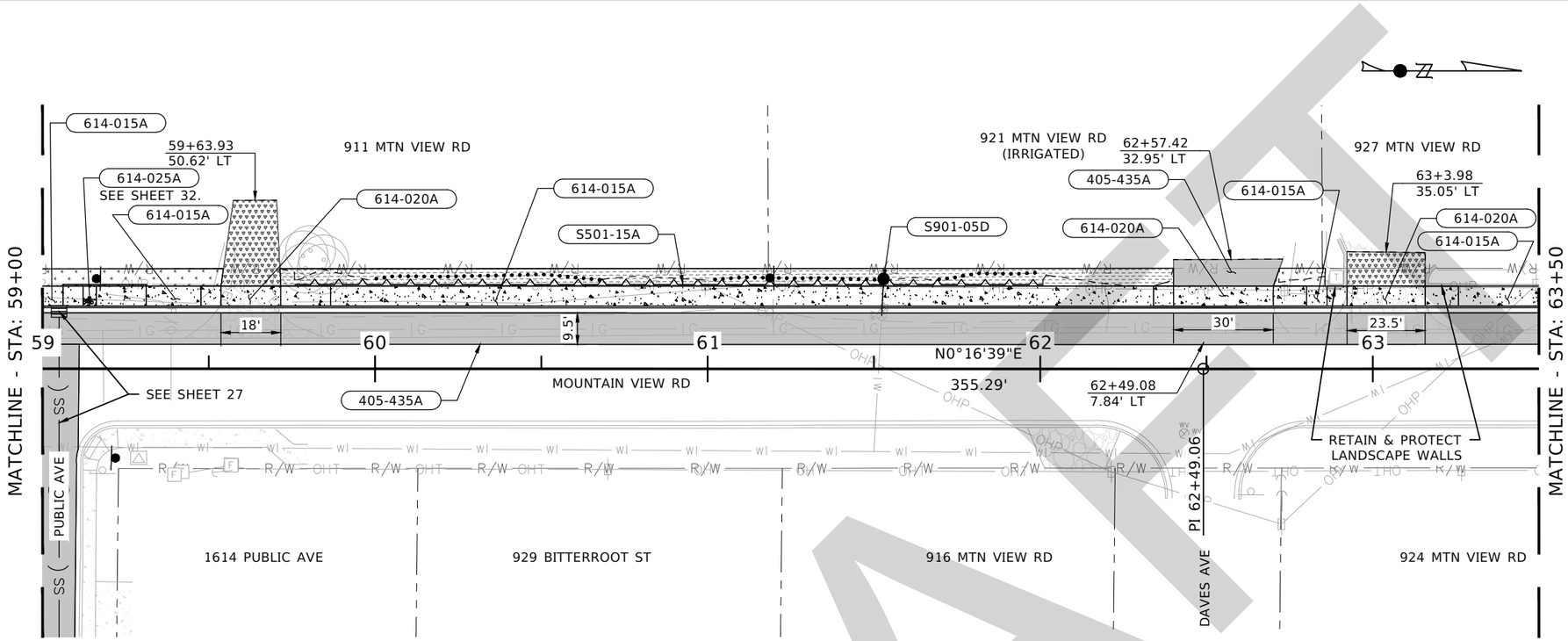
PROJECT NO.
A023(902)
A023(903)

PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

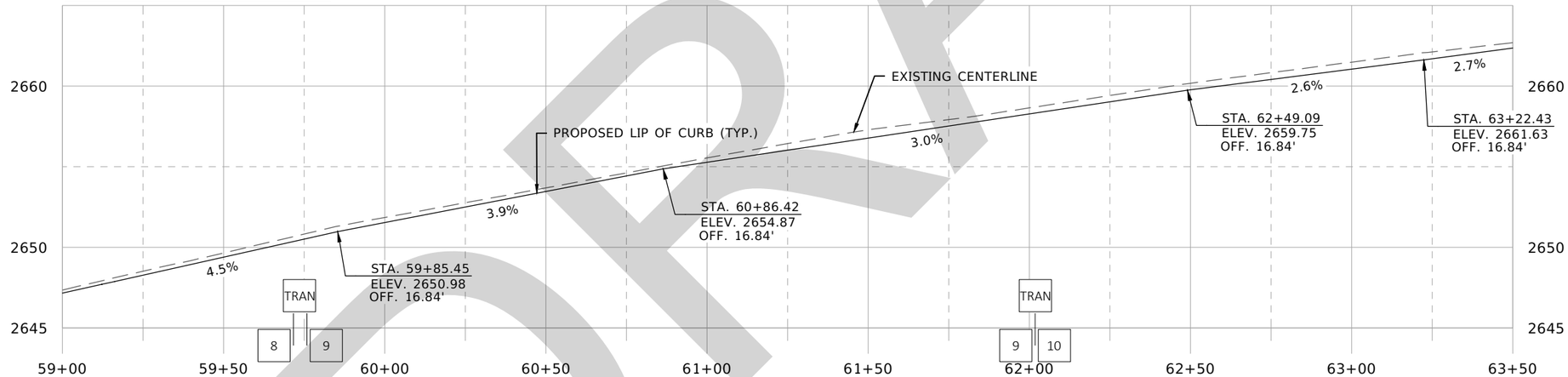
ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 24 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

DRAFT



WEST LIP OF CURB PROFILE



405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3
109.0 TON
STA 59+00.00 - 63+50.00 LT
3.2 TON
STA 62+40.05 - 62+72.91 LT

614-015A SIDEWALK
4.2 SY
STA 59+00.00 - 59+06.25 LT
10.9 SY
STA 59+31.25 - 59+47.67 LT
164.9 SY
STA 59+86.69 - 62+34.07 LT
4.1 SY
STA 62+80.08 - 62+86.27 LT
16.2 SY
STA 63+25.72 - 63+50.00 LT

614-020A DRIVEWAY
26.0 SY
STA 59+62.66, 18.8' LT
30.7 SY
STA 62+55.08, 18.8' LT
26.3 SY
STA 63+03.99, 18.8' LT

614-025A CURB RAMP
18.1 SY
STA 59+14.25, 18.8' RT

615-490A CURB & GUTTER
675.0 FT
STA 59+00.00 - 63+50.00 LT

S501-15A RETAINING WALL
450.0 SF
STA 59+75.88 - 62+01.81 LT

S901-05D ADJUST WATER METER
1 EACH
STA 55+63.87, 27.0' LT

REVISIONS			
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CADD FILE NAME 23902 PLPR 2
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

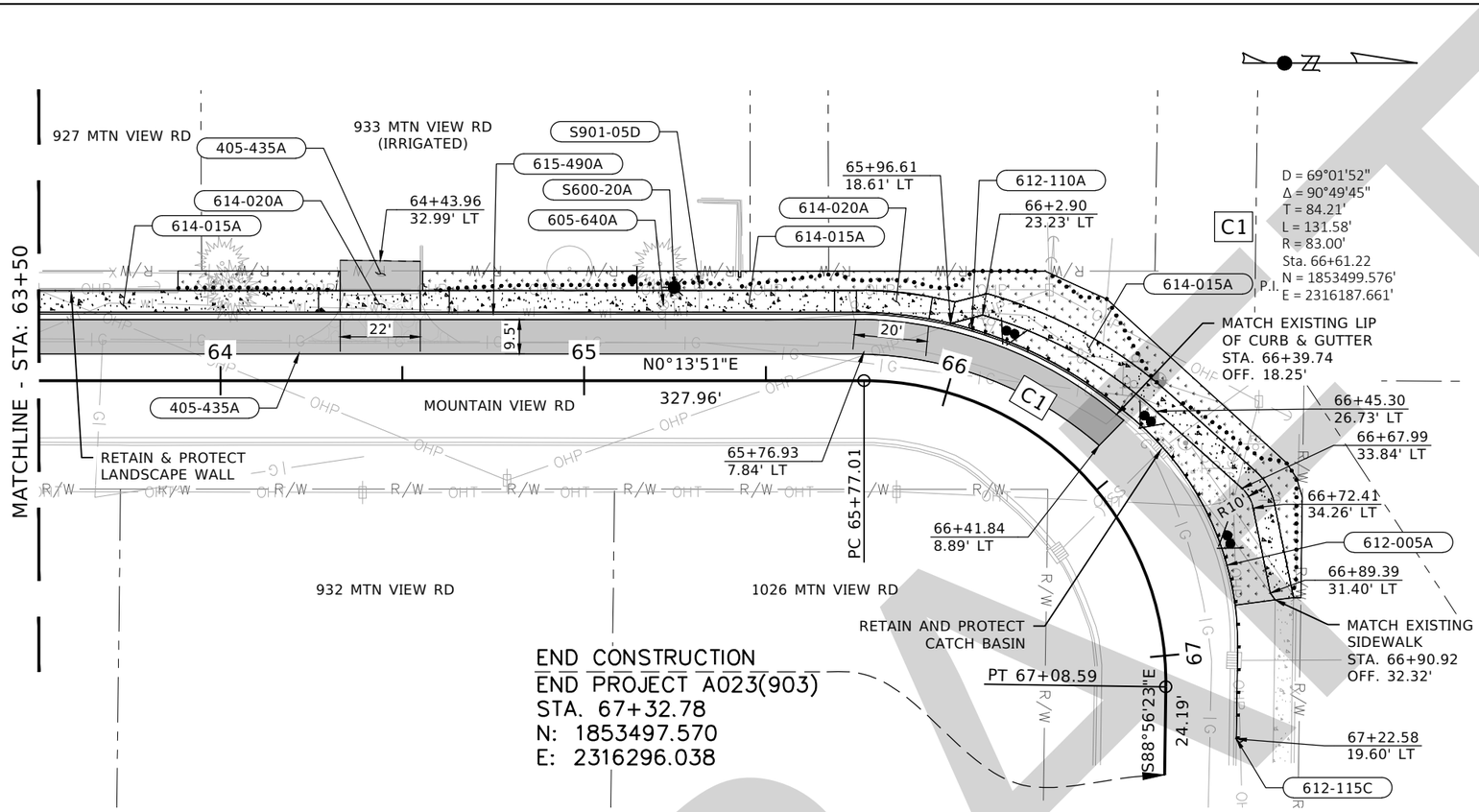
PROJECT NO.
A023(902)
A023(903)

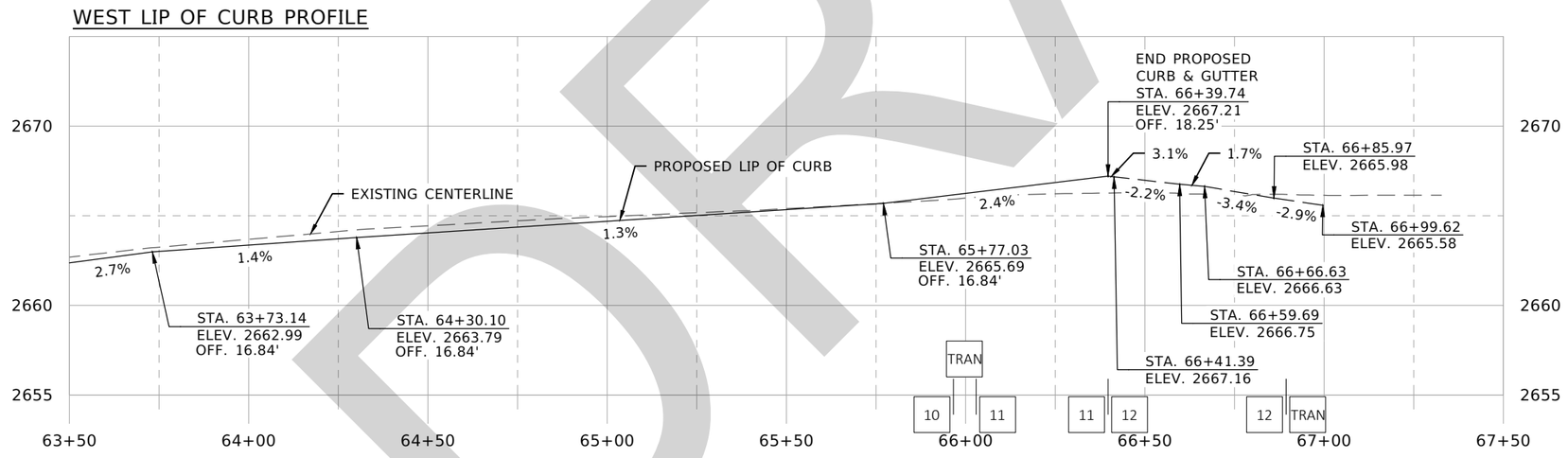
PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 25 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

DRAFT





405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3
73.0 TON
STA 63+50.00 - 66+41.84 LT
2.3 TON
STA 64+32.96 - 64+54.96 LT

605-640A ADJUST VALVE COVERS
1 EACH
STA 65+21.82, 20.9' LT

612-005A W-BEAM GUARDRAIL
147.9 FT
STA 66+01.51 - 67+22.58 LT

612-110A GUARDRAIL ANCHOR
1 EACH
STA 66+01.51 LT

612-115C GUARDRAIL TERMINAL, TANGENT (TL-2)
1 EACH
STA 67+22.58 LT

614-015A SIDEWALK
51.3 SY
STA 63+50.00 - 64+26.96 LT
70.6 SY
STA 64+62.97 - 65+68.90 LT
87.2 SY
STA 65+96.61 - 66+90.92 LT

614-020A DRIVEWAY
24.0 SY
STA 64+43.97, 18.8' LT
21.8 SY
STA 65+84.37, 18.7' LT

615-490A CURB & GUTTER
303.6 FT
STA 63+50.00 - 66+39.74 LT

S600-20A REMOVE AND REPLACE FIRE HYDRANT
1 EACH
STA 65+24.83, 25.7' LT

S901-05D ADJUST WATER METER
1 EACH
STA 65+31.16, 26.0' LT

REVISIONS			
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CADD FILE NAME 23902 PLPR 2
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

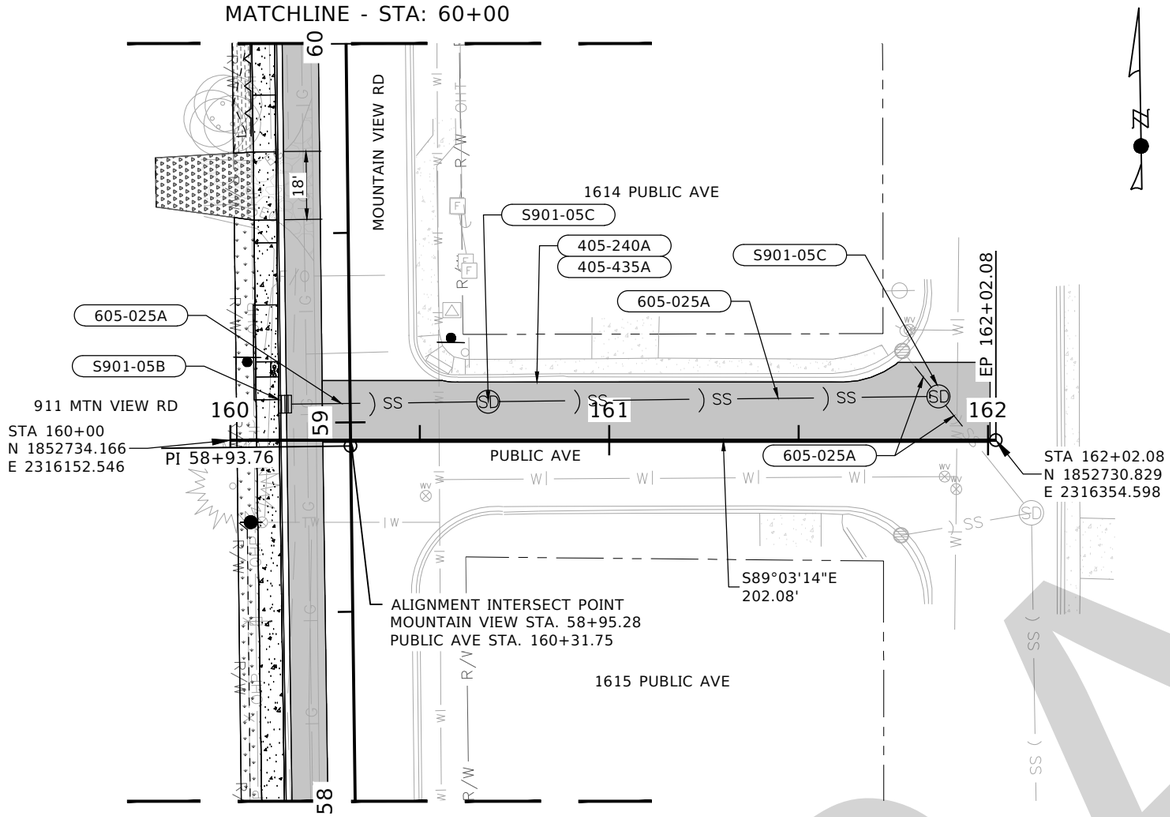
PROJECT NO.
A023(902)
A023(903)

PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 26 OF 60

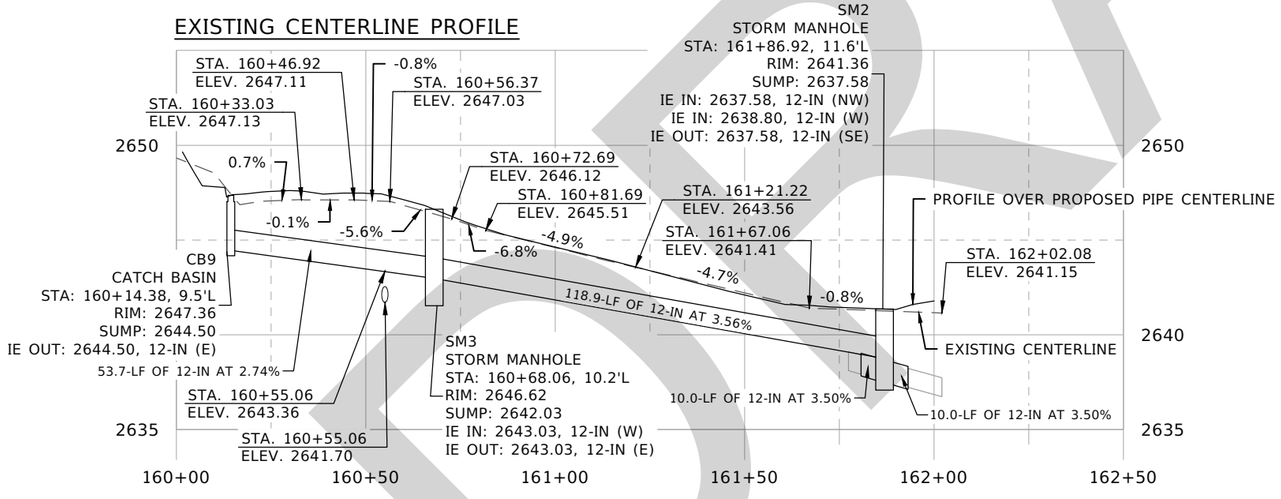
PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

DRAFT



NOTES:
1. USE ASPHALT PATCH TYPICAL SECTION FOR REPAIR OF PUBLIC AVE ROADWAY.
2. WATER MAINS AND NON-POTABLE WATER MAINS (SEWER, STORM SEWER, AND IRRIGATION) SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET AND A MINIMUM VERTICAL SEPARATION OF EIGHTEEN (18) INCHES. WATER SERVICES AND NON-POTABLE SERVICES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF SIX (6) FEET. REFER TO IDAPA 58.01.08.542.07 SEPARATION OF POTABLE, NON-POTABLE, AND RAW WATER PIPELINES.
3. STORM SEWER PIPE SHALL BE CONSTRUCTED OF WATER CLASS PIPE IF EIGHTEEN (18) INCHES OF VERTICAL SEPARATION FROM WATER MAINS IS NOT ACHIEVABLE. THE CONSTRUCTED WATER CLASS PIPE FOR THE DESCRIBED INSTANCE IS PAID UNDER THE STORM SEWER PIPE ITEM OF EQUIVALENT SIZE.

EXISTING CENTERLINE PROFILE



405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3
75.4 TON
STA 160+24.22 - 162+00.50 LT

605-025A 12" STORM SEWER PIPE
53.7 FT (CB9 TO SM3)
STA 160+14.38 - 160+68.06 LT
118.9 FT (SM3 TO SM2)
STA 160+68.06 - 161+86.92 LT
10.0 FT (EXISTING PIPE TO SM2)
STA 161+80.69 - 161+86.92 LT
10.0 FT (SM2 TO EXISTING PIPE)
STA 161+86.92 - 161+93.15 LT

S901-05B CITY OF MOSCOW CATCH BASIN
1 EACH (CB9)
STA 160+14.38, 9.5' LT

S901-05C CITY OF MOSCOW STORM SEWER MANHOLE
1 EACH (SM3)
STA 160+58.06, 10.2' LT
1 EACH (SM2)
STA 161+86.92, 11.6' LT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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CITY OF MOSCOW IDAHO

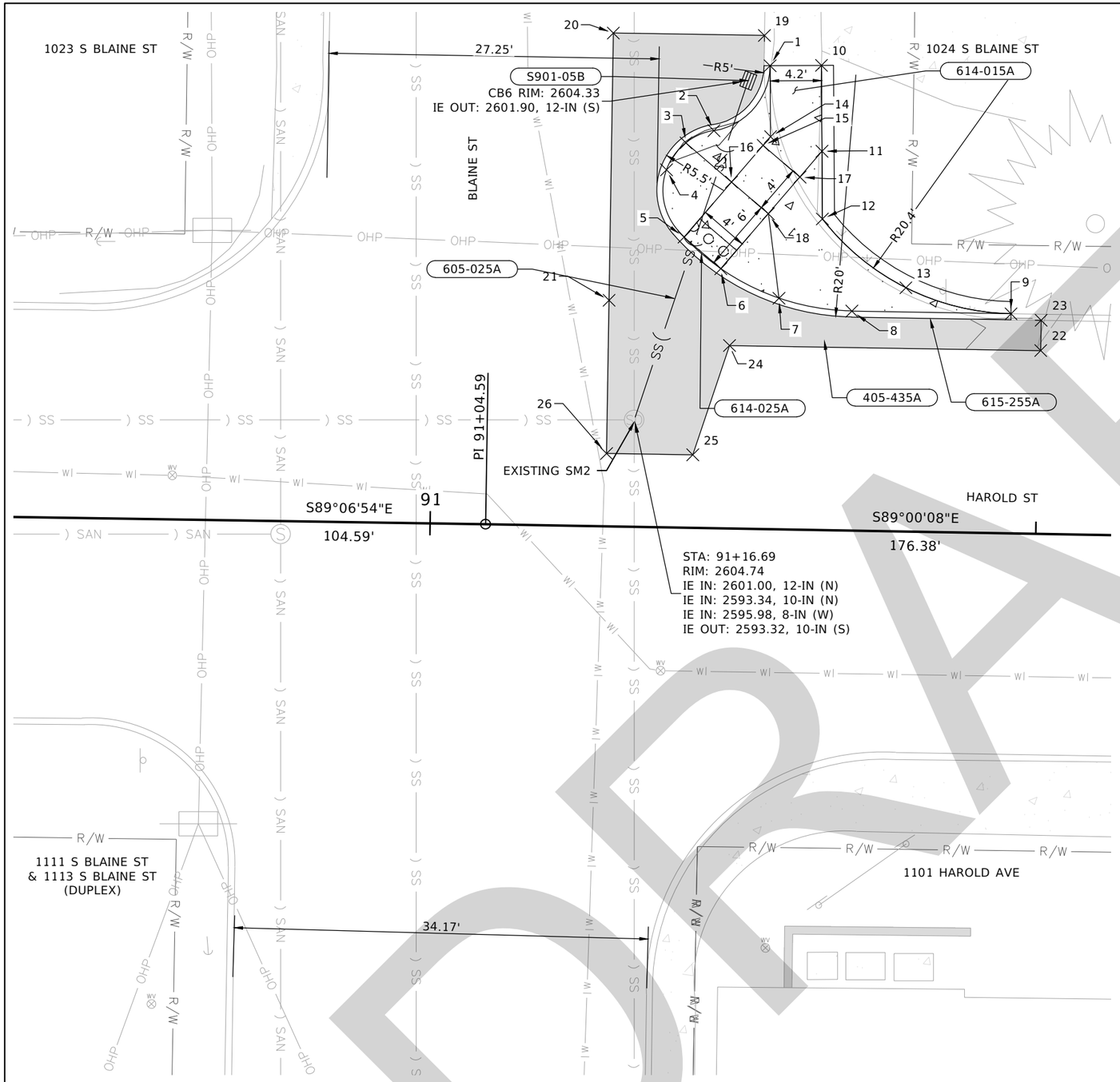
HMH engineering

PROJECT NO.
A023(902)
A023(903)

PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 27 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW



Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1846411.279	2314821.302	2604.51	TBC
2	1846405.916	2314816.666	2605.19	TBC
3	1846404.905	2314814.357	2605.15	TBC
4	1846402.681	2314812.751	2604.89	TBC
5	1846397.124	2314814.199	2604.51	TBC
6	1846394.515	2314817.231	2604.48	TBC
7	1846392.074	2314822.035	2604.64	TBC
8	1846391.017	2314828.044	2604.90	TBC
9	1846390.793	2314841.183	2604.36	TBC
10	1846411.304	2314825.538	2604.59	SWK
11	1846404.215	2314825.580	2604.56	SWK
12	1846398.626	2314825.613	2604.46	SWK
13	1846392.941	2314832.509	2604.42	SWK
14	1846405.416	2314821.336	2604.51	SWK
15	1846404.703	2314820.723	2604.51	SWK
16	1846401.671	2314818.113	2604.51	SWK
17	1846402.083	2314823.766	2604.54	SWK
18	1846399.051	2314821.157	2604.52	SWK
19	1846413.776	2314820.833	2604.31	EOP
20	1846413.978	2314808.363	2604.66	EOP
21	1846391.903	2314808.004	2604.67	EOP
22	1846387.755	2314843.632	2603.94	EOP
23	1846390.253	2314843.675	2603.85	EOP
24	1846388.172	2314817.947	2604.52	EOP
25	1846379.147	2314814.913	2604.68	EOP
26	1846379.262	2314807.799	2604.78	EOP

405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3
9.2 TON
STA 91+14.92 - 91+49.64 LT

502-065A CONCRETE CLASS 40 AF
2.8 CY
STA 91+22.02, 22.6' LT

605-025A 12" STORM SEWER PIPE
29.6 FT (CB6 TO EXISTING SM2)
STA 91+16.69 - 91+25.62 LT

614-015A SIDEWALK
3.9 SY
STA 91+20.57 - 91+47.64 LT

615-255A CURB
48.6 FT
STA 91+18.23 - 91+47.64 LT

S901-05B CITY OF MOSCOW CATCH BASIN
1 EACH (CB6)
STA 91+25.62 OFF 37.0' LT

NOTE:
ALL ELEVATIONS ARE TOP OF FINISHED SURFACE UNLESS OTHERWISE NOTED.

INSTALL REINFORCEMENT AS DIRECTED.

0 10 20
SCALE IN FEET

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 PLPR 3
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

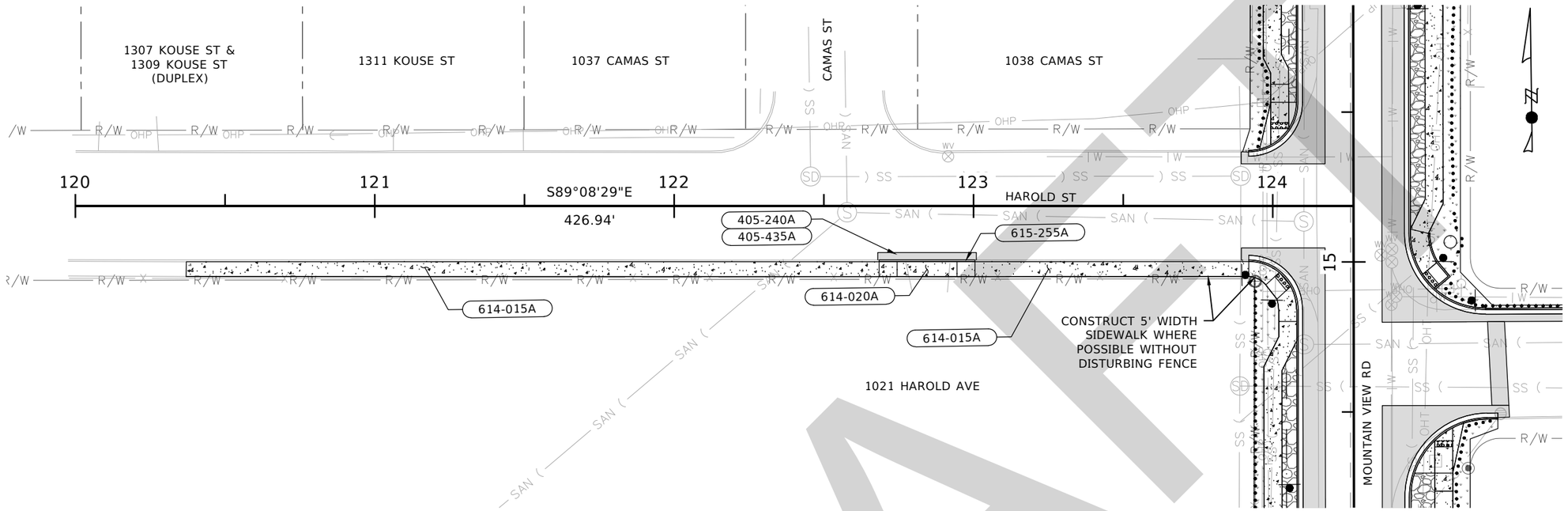
HMH engineering

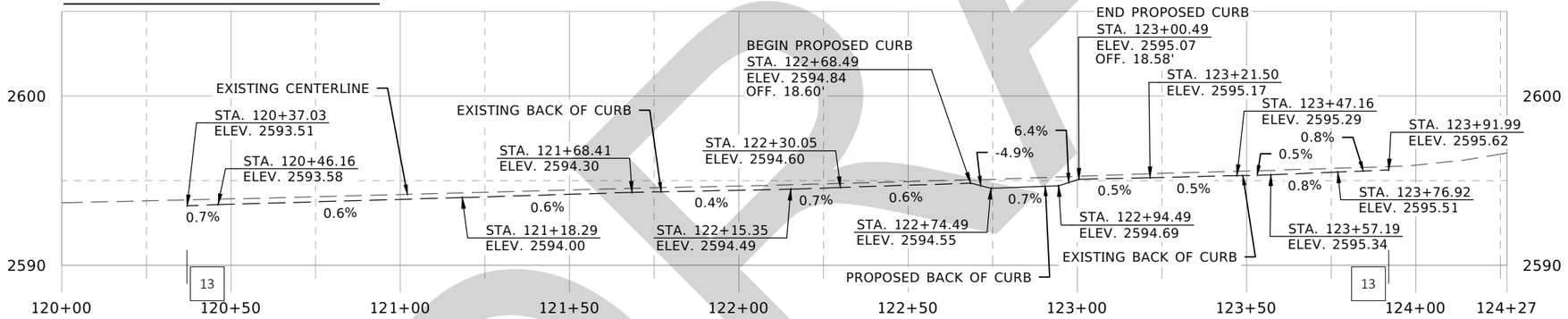
PROJECT NO.
A023(902)
A023(903)

PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 28 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17889
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW





405-240A MISCELLANEOUS PAVEMENT
7.0 SY
STA 122+68.49 - 123+00.49 RT

405-435A SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3
2.1 TONS
STA 122+68.49 - 123+00.49 RT

614-015A SIDEWALK
127.4 SY
STA 120+37.03 - 122+68.49 RT
50.9 SY
STA 123+00.49 - 123+91.99 RT

614-020A DRIVEWAY
17.8 SY
STA 122+84.49, 18.6' RT

615-255A CURB
32.0 LF
STA 122+68.49 - 123+00.49, 18.0' RT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 PLPR 4
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

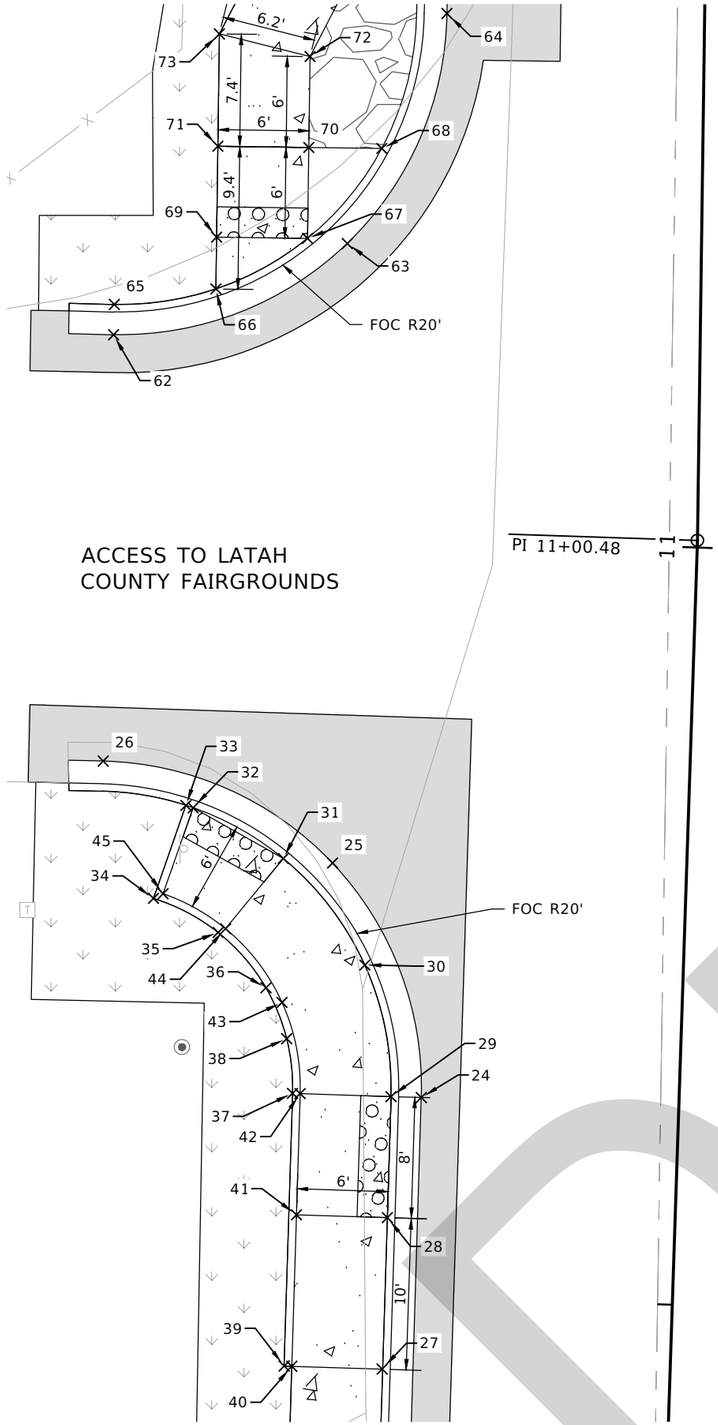
PROJECT NO.
A023(902)
A023(903)

PLAN AND PROFILE
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 29 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

DRAFT



Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
24	1845898.057	2316111.687	2595.50	EOP
25	1845913.538	2316105.825	2594.92	EOP
26	1845920.264	2316090.700	2594.47	EOP
27	1845880.137	2316109.105	2596.26	TBC
28	1845890.131	2316109.445	2595.54	TBC
29	1845898.122	2316109.688	2595.43	TBC
30	1845906.807	2316107.966	2595.39	TBC
31	1845913.834	2316102.581	2594.77	TBC
32	1845917.179	2316096.628	2594.65	TBC
33	1845917.338	2316096.154	2594.65	TBC
34	1845911.199	2316094.010	2595.26	TBC
35	1845908.952	2316098.282	2595.40	TBC
36	1845905.302	2316101.439	2595.65	TBC
37	1845898.338	2316103.192	2596.03	TBC
38	1845901.943	2316102.806	2595.83	TBC
39	1845880.337	2316102.637	2596.35	TBC
40	1845880.320	2316103.137	2596.35	SWK
41	1845890.316	2316103.445	2595.64	SWK
42	1845898.322	2316103.692	2595.53	SWK
43	1845904.334	2316102.499	2595.35	SWK
44	1845909.199	2316098.771	2594.85	SWK
45	1845911.515	2316094.650	2594.76	SWK

Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
46	1845881.806	2316144.513	2596.03	EOP
47	1845889.798	2316144.878	2595.95	EOP
48	1845897.789	2316145.242	2595.87	EOP
49	1845903.783	2316145.516	2595.80	EOP
50	1845881.715	2316146.509	2596.43	TBC
51	1845889.707	2316146.874	2595.84	TBC
52	1845897.698	2316147.239	2595.76	TBC
53	1845903.692	2316147.513	2596.19	TBC
54	1845881.419	2316153.002	2596.53	TBC
55	1845889.410	2316153.367	2595.91	TBC
56	1845897.402	2316153.732	2595.83	TBC
57	1845903.396	2316154.006	2596.28	TBC
58	1845881.442	2316152.503	2596.53	SWK
59	1845889.433	2316152.868	2595.91	SWK
60	1845897.425	2316153.233	2595.83	SWK
61	1845903.419	2316153.506	2596.29	SWK

Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
62	1845948.400	2316091.382	2594.16	EOP
63	1845954.416	2316106.805	2594.57	EOP
64	1845969.607	2316113.381	2594.98	EOP
65	1845950.400	2316091.429	2594.53	TBC
66	1845951.425	2316098.137	2594.28	TBC
67	1845954.762	2316104.182	2594.40	TBC
68	1845960.697	2316109.078	2595.11	TBC
69	1845954.847	2316098.183	2594.44	SWK
70	1845960.762	2316104.262	2594.61	SWK
71	1845960.842	2316098.263	2594.71	SWK
72	1845966.761	2316104.342	2594.72	SWK

0 10 20

SCALE IN FEET

NOTE:
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PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

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CADD FILE NAME 23902 GRAD
DRAWING DATE: FEBRUARY 2026

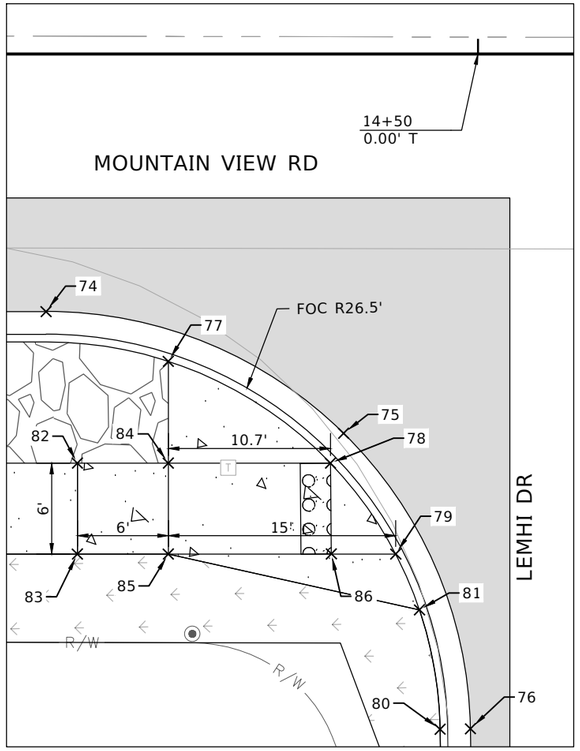
CITY OF MOSCOW
IDAHO

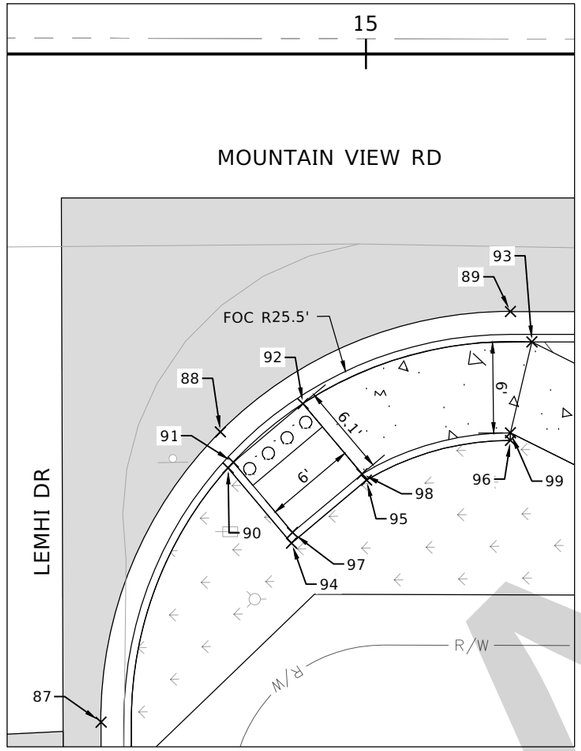
HMH engineering

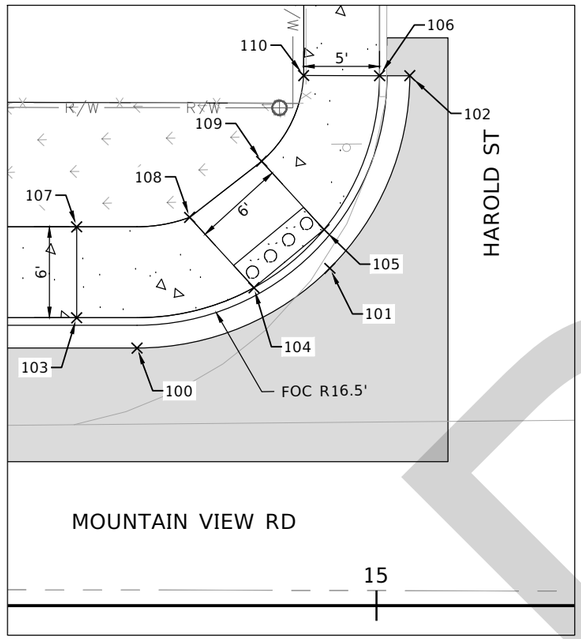
PROJECT NO.
A023(902)
A023(903)

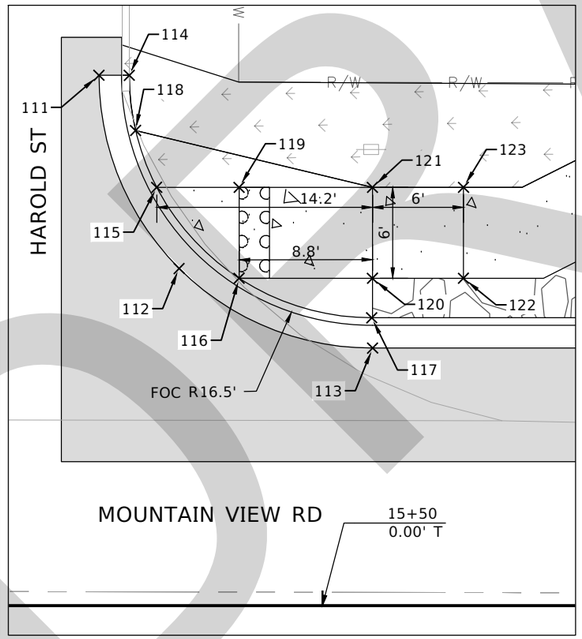
GRADING PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 30 OF 60









MOUNTAIN VIEW RD

15

MOUNTAIN VIEW RD

15+50
0.00' T

Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
74	1846255.592	2316151.205	2595.72	EOP
75	1846275.114	2316159.500	2595.22	EOP
76	1846283.218	2316179.102	2594.71	EOP
77	1846263.613	2316154.595	2595.91	TBC
78	1846274.219	2316161.455	2595.10	TBC
79	1846278.442	2316167.512	2594.97	TBC
80	1846281.218	2316179.109	2595.08	TBC
81	1846279.961	2316171.215	2595.35	TBC
82	1846257.524	2316161.232	2596.04	SWK
83	1846257.444	2316167.231	2596.14	SWK
84	1846263.523	2316161.312	2595.93	SWK
85	1846263.443	2316167.311	2596.03	SWK
86	1846274.192	2316167.441	2595.20	SWK

Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
87	1846316.251	2316179.110	2594.78	EOP
88	1846324.381	2316160.065	2595.38	EOP
89	1846343.610	2316152.381	2595.93	EOP
90	1846324.857	2316162.446	2595.78	TBC
91	1846325.202	2316162.078	2595.31	TBC
92	1846329.845	2316158.277	2595.41	TBC
93	1846345.000	2316154.399	2596.31	TBC
94	1846328.971	2316167.468	2595.88	TBC
95	1846333.968	2316163.375	2595.99	TBC
96	1846343.497	2316160.880	2596.29	TBC
97	1846329.041	2316166.765	2595.38	SWK
98	1846333.682	2316162.963	2595.49	SWK
99	1846343.503	2316160.380	2596.29	SWK

Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1846318.741	2316118.045	2595.76	EOP
101	1846331.528	2316112.954	2595.61	EOP
102	1846336.980	2316100.317	2595.46	EOP
103	1846314.784	2316115.992	2596.15	TBC
104	1846326.508	2316114.167	2595.60	TBC
105	1846331.184	2316110.396	2595.53	TBC
106	1846334.980	2316100.287	2595.62	TBC
107	1846314.864	2316109.993	2596.25	SWK
108	1846322.329	2316109.470	2595.70	SWK
109	1846327.125	2316105.834	2595.63	SWK
110	1846329.971	2316100.215	2595.70	SWK

Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
111	1846370.037	2316100.731	2595.53	EOP
112	1846375.158	2316113.546	2595.80	EOP
113	1846387.848	2316118.969	2596.06	EOP
114	1846372.037	2316100.758	2595.91	TBC
115	1846373.749	2316108.175	2595.65	TBC
116	1846379.106	2316114.246	2595.79	TBC
117	1846387.822	2316116.968	2596.43	TBC
118	1846372.408	2316104.402	2596.03	TBC
119	1846379.186	2316108.247	2595.79	SWK
120	1846387.906	2316114.363	2595.94	SWK
121	1846387.986	2316108.363	2596.02	SWK
122	1846393.906	2316114.442	2595.98	SWK
123	1846393.985	2316108.443	2596.08	SWK

0 10 20

SCALE IN FEET

NOTE:
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PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

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CADD FILE NAME 23902 GRAD
DRAWING DATE: FEBRUARY 2026

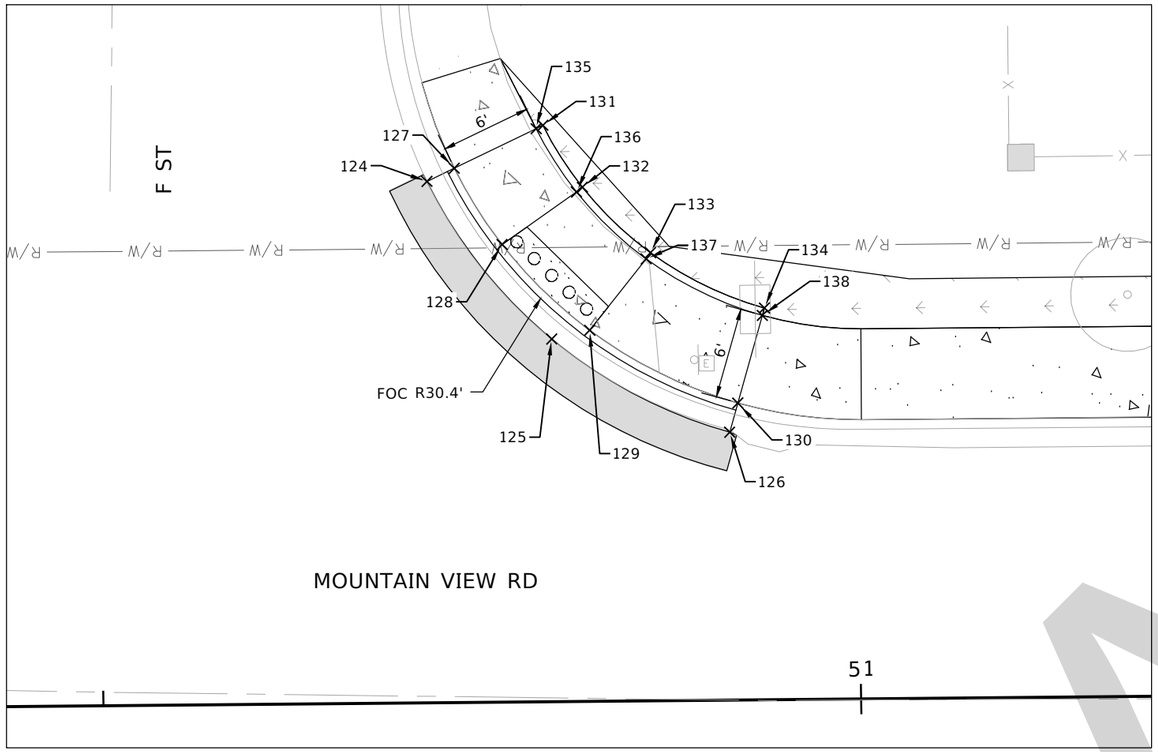
CITY OF MOSCOW IDAHO

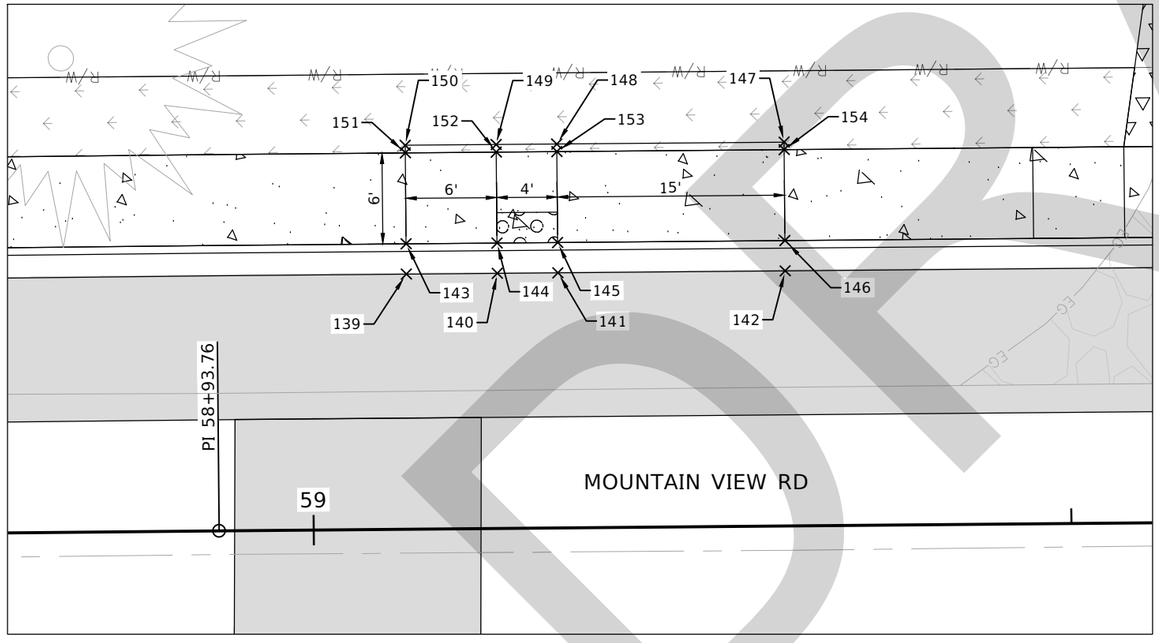
HMH engineering

PROJECT NO.
A023(902)
A023(903)

GRADING PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 31 OF 60





Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
124	1851910.176	2316146.369	2620.58	EOP
125	1851918.269	2316156.870	2620.92	EOP
126	1851929.930	2316163.175	2621.23	EOP
127	1851911.987	2316145.520	2621.10	TBC
128	1851915.082	2316150.596	2620.74	TBC
129	1851920.783	2316156.329	2620.89	TBC
130	1851930.495	2316161.257	2621.60	TBC
131	1851917.876	2316142.767	2621.16	TBC
132	1851920.430	2316146.889	2621.34	TBC
133	1851924.869	2316151.270	2621.45	TBC
134	1851932.330	2316155.021	2621.65	TBC
135	1851917.426	2316142.985	2621.16	SWK
136	1851920.034	2316147.195	2620.84	SWK
137	1851924.568	2316151.669	2620.95	SWK
138	1851932.188	2316155.501	2621.65	SWK

Point Table				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
139	1852744.696	2316167.504	2647.45	EOP
140	1852750.696	2316167.533	2647.71	EOP
141	1852754.696	2316167.553	2647.89	EOP
142	1852769.695	2316167.625	2648.56	EOP
143	1852744.705	2316165.504	2647.82	TBC
144	1852750.705	2316165.533	2647.69	TBC
145	1852754.705	2316165.553	2647.87	TBC
146	1852769.705	2316165.625	2648.94	TBC
147	1852769.737	2316159.125	2649.04	TBC
148	1852754.737	2316159.053	2648.47	TBC
149	1852750.737	2316159.033	2648.29	TBC
150	1852744.737	2316159.004	2647.92	TBC
151	1852744.734	2316159.504	2647.92	SWK
152	1852750.734	2316159.533	2647.79	SWK
153	1852754.734	2316159.553	2647.97	SWK
154	1852769.734	2316159.625	2649.04	SWK

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0 10 20
SCALE IN FEET

REVISIONS			
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CITY OF MOSCOW IDAHO
HMH engineering

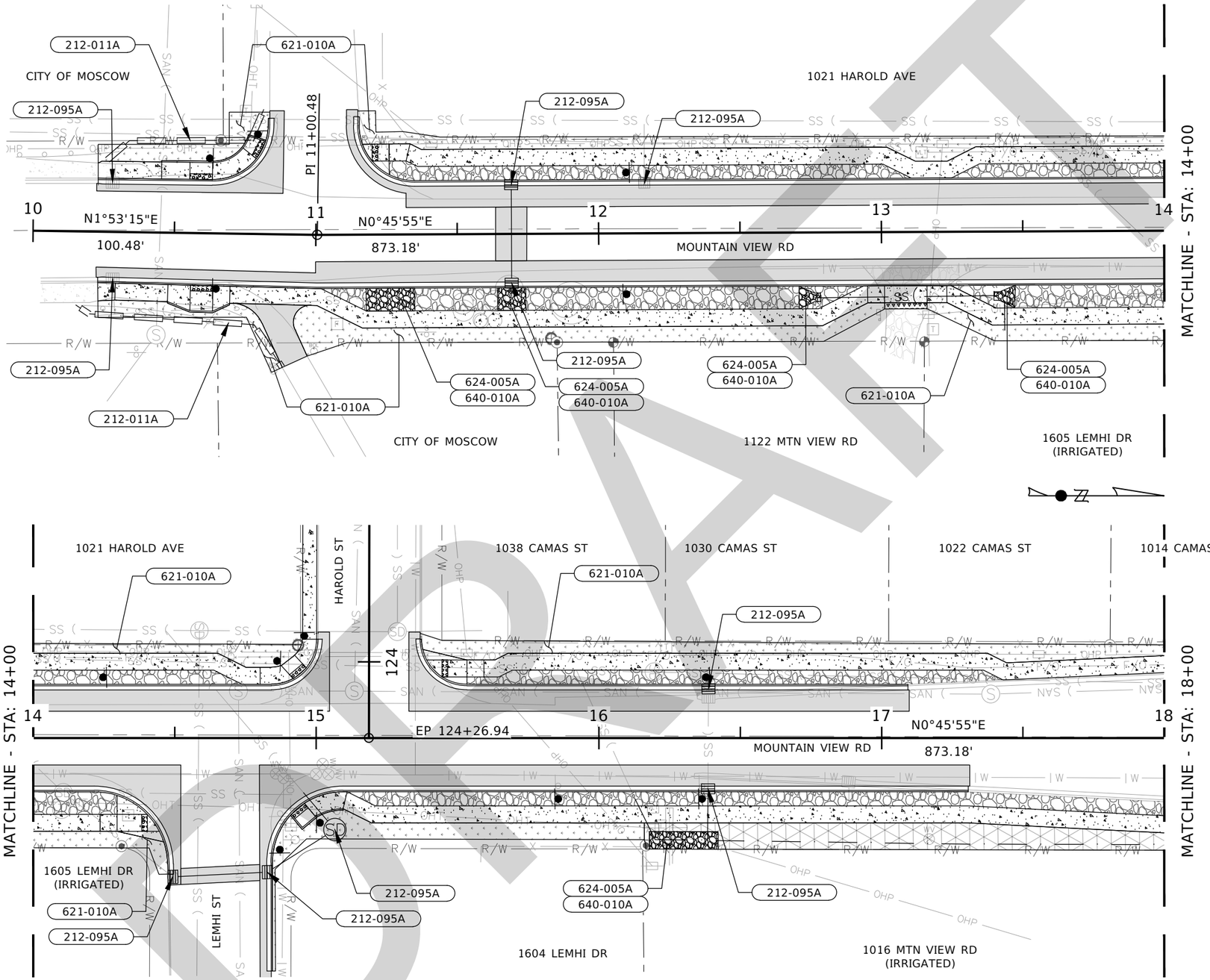
PROJECT NO.
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A023(903)

GRADING PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 32 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

DRAFT



212-011A FIBER WATTLE
82.1 FT
STA 10+15.48 - 10+88.72 RT
65.0 FT
STA 10+25.95 - 10+80.94 LT

212-095A INLET PROTECTION
1.0 EACH
STA 10+27.82, 17.4' LT
1.0 EACH
STA 10+28.36, 16.5' RT
1.0 EACH
STA 11+69.15, 17.4' LT
1.0 EACH
STA 11+69.15, 17.4' RT
1.0 EACH
STA 12+16.22, 17.8' LT
1.0 EACH
STA 14+49.31, 49.0' RT
1.0 EACH
STA 14+82.04, 47.4' RT
1.0 EACH
STA 15+06.65, 32.4' RT
1.0 EACH
STA 16+38.60, 17.9' RT
1.0 EACH
STA 16+38.76, 17.4' LT

621-010A SEEDING
0.010 ACRE
STA 10+22.66 - 10+83.08 LT
0.008 ACRE
STA 10+23.28 - 10+88.77 RT
0.029 ACRE
STA 10+92.56 - 13+01.04 RT
0.029 ACRE
STA 11+15.07 - 14+00.00 LT
0.011 ACRE
STA 13+16.04 - 14+00.00 RT
0.007 ACRE
STA 14+00.00 - 14+47.55 RT
0.009 ACRE
STA 14+00.00 - 14+94.88 LT
0.021 ACRE
STA 14+84.54 - 16+16.09 RT
0.027 ACRE
STA 15+36.76 - 18+00.00 LT

624-005A LOOSE RIPRAP
7.6 CY
STA 11+17.69 - 11+34.86 RT
4.4 CY
STA 11+64.15 - 11+74.15 RT
2.0 CY
STA 12+70.80 - 12+78.33 RT
2.0 CY
STA 13+39.67 - 13+47.16 RT
8.4 CY
STA 16+17.91 - 16+42.17 RT

640-010A RIPRAP/EROS CONT GEOTEXTILE
23.6 SY
STA 11+17.69 - 11+34.86 RT
12.9 SY
STA 11+64.15 - 11+74.15 RT
8.5 SY
STA 12+70.80 - 12+78.33 RT
8.5 SY
STA 13+39.67 - 13+47.16 RT
27.2 SY
STA 16+17.91 - 16+42.17 RT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

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CADD FILE NAME 23902 EROS
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

PROJECT NO.
A023(902)
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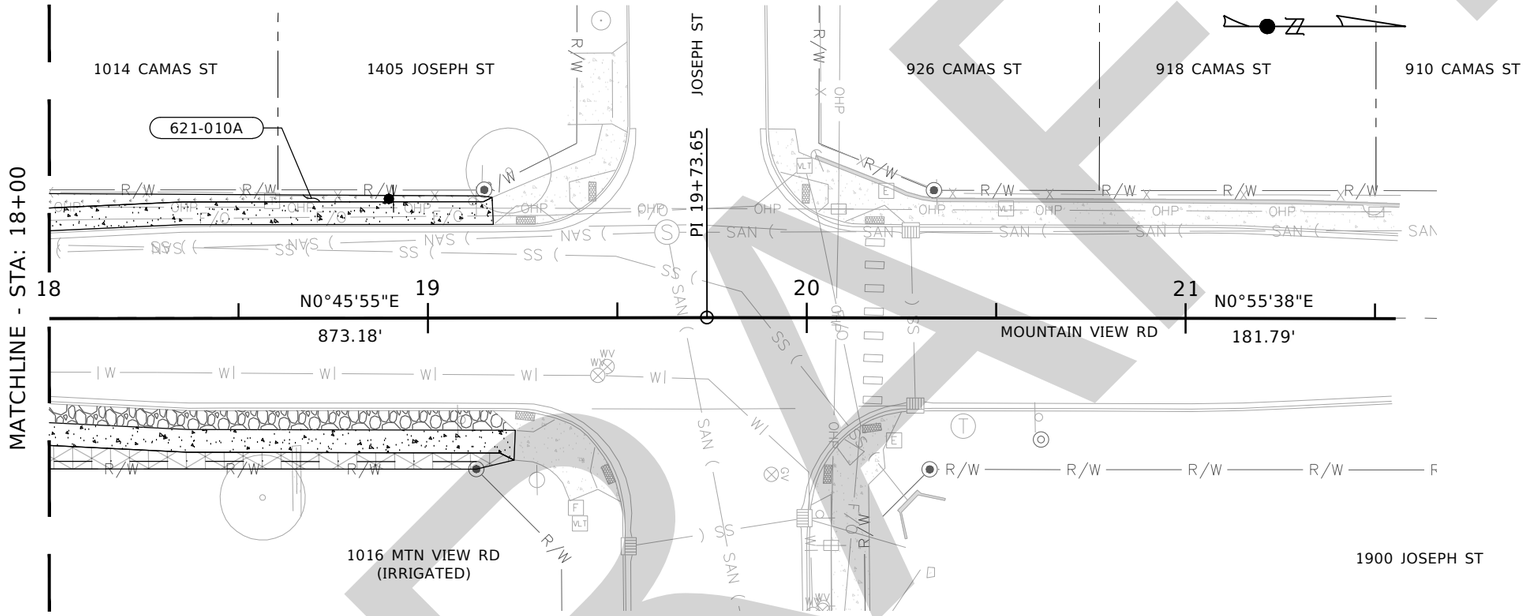
EROSION CONTROL PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 33 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

DRAFT

621-010A SEEDING
0.006 ACRE
STA 18+00.00 - 19+16.99 LT



REVISIONS			
NO.	DATE	BY	DESCRIPTION

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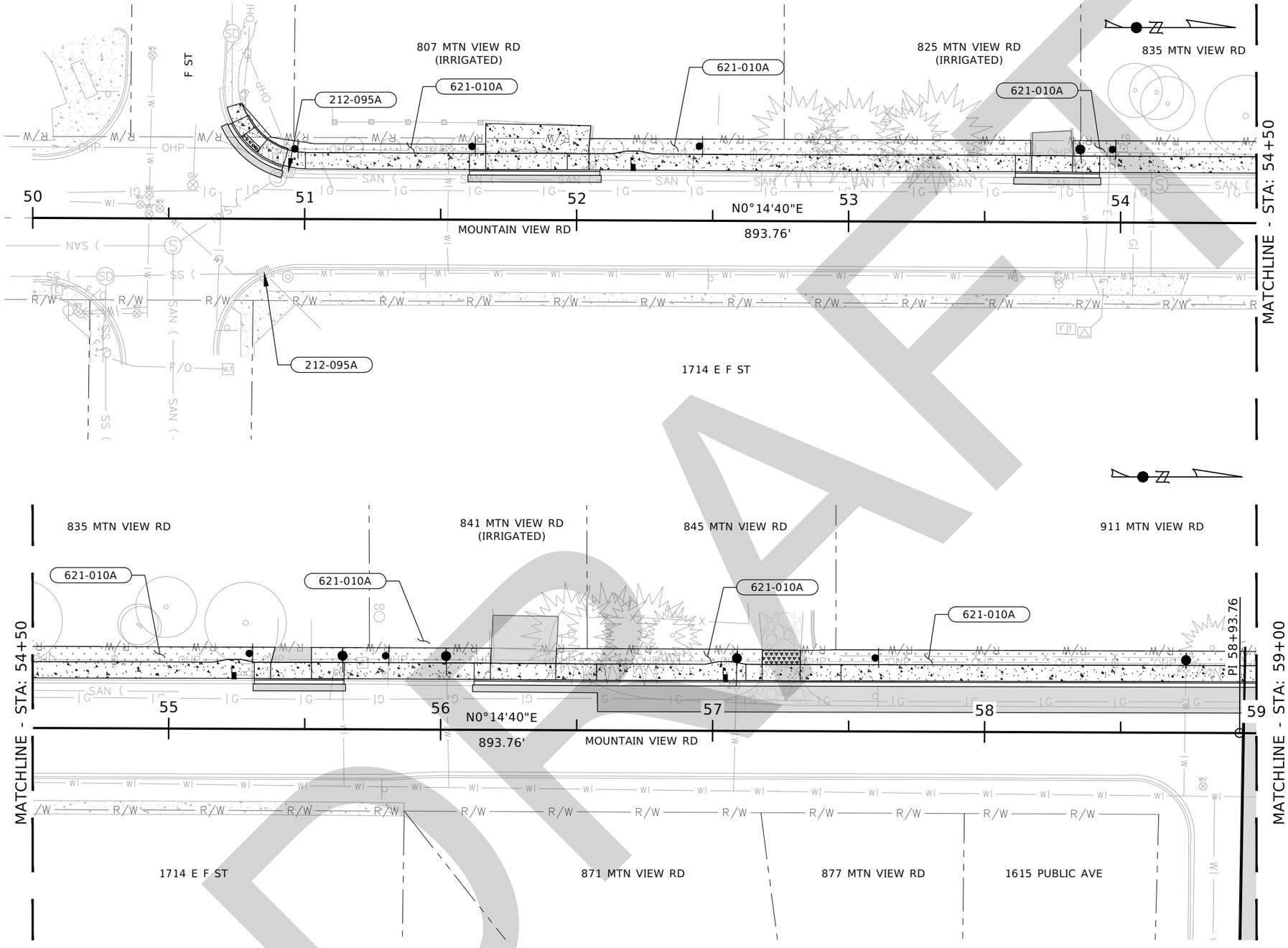
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EROSION CONTROL PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 34 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17889
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

DRAFT



212-095A INLET PROTECTION
1.0 EACH
STA 50+85.25, 19.9' RT
1.0 EACH
STA 50+93.93, 17.4' LT

621-010A SEEDING
0.007 ACRE
STA 50+76.57 - 51+66.46 LT
0.021 ACRE
STA 52+04.18 - 53+66.91 LT
0.002 ACRE
STA 53+82.41 - 54+00.00 LT
0.017 ACRE
STA 54+00.00 - 55+39.05 LT
0.017 ACRE
STA 55+52.43 - 56+19.08 LT
0.011 ACRE
STA 56+40.25 - 57+18.78 LT
0.021 ACRE
STA 57+32.14 - 59+00.00 LT

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 EROS
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

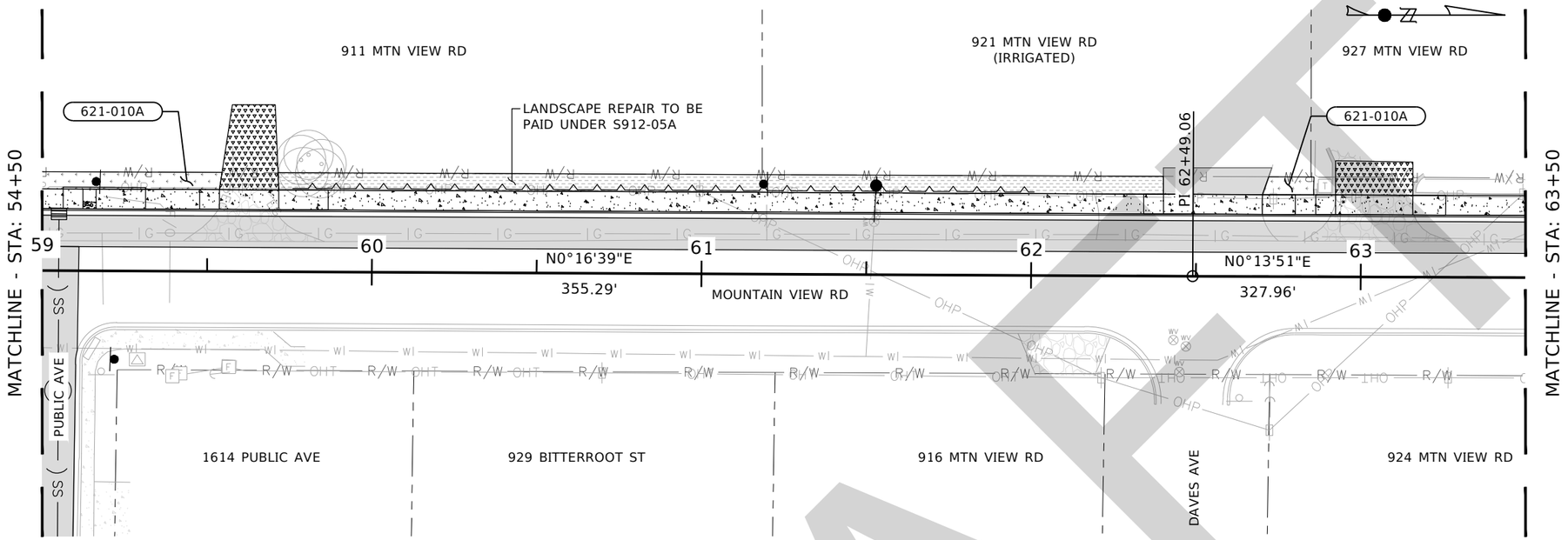
HMH engineering

PROJECT NO.
A023(902)
A023(903)

EROSION CONTROL PLAN
NORTH & SOUTH MOUNTAIN VIEW
PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 35 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW



212-011A FIBER WATTLE
138.3 FT
STA 65+76.95 - 66+73.33 LT

212-095A INLET PROTECTION
1.0 EACH
STA 66+52.15, 21.5' LT
1.0 EACH
STA 66+58.44, 18.8' RT

621-010A SEEDING
0.007 ACRE
STA 59+00.00 - 59+57.43 LT
0.002 ACRE
STA 62+70.07 - 62+85.66 LT
0.005 ACRE
STA 63+88.35 - 64+32.96 LT
0.046 ACRE
STA 64+55.62 - 66+91.48 LT
0.020 ACRE
STA 65+96.61 - 66+90.92 LT

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 EROS
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

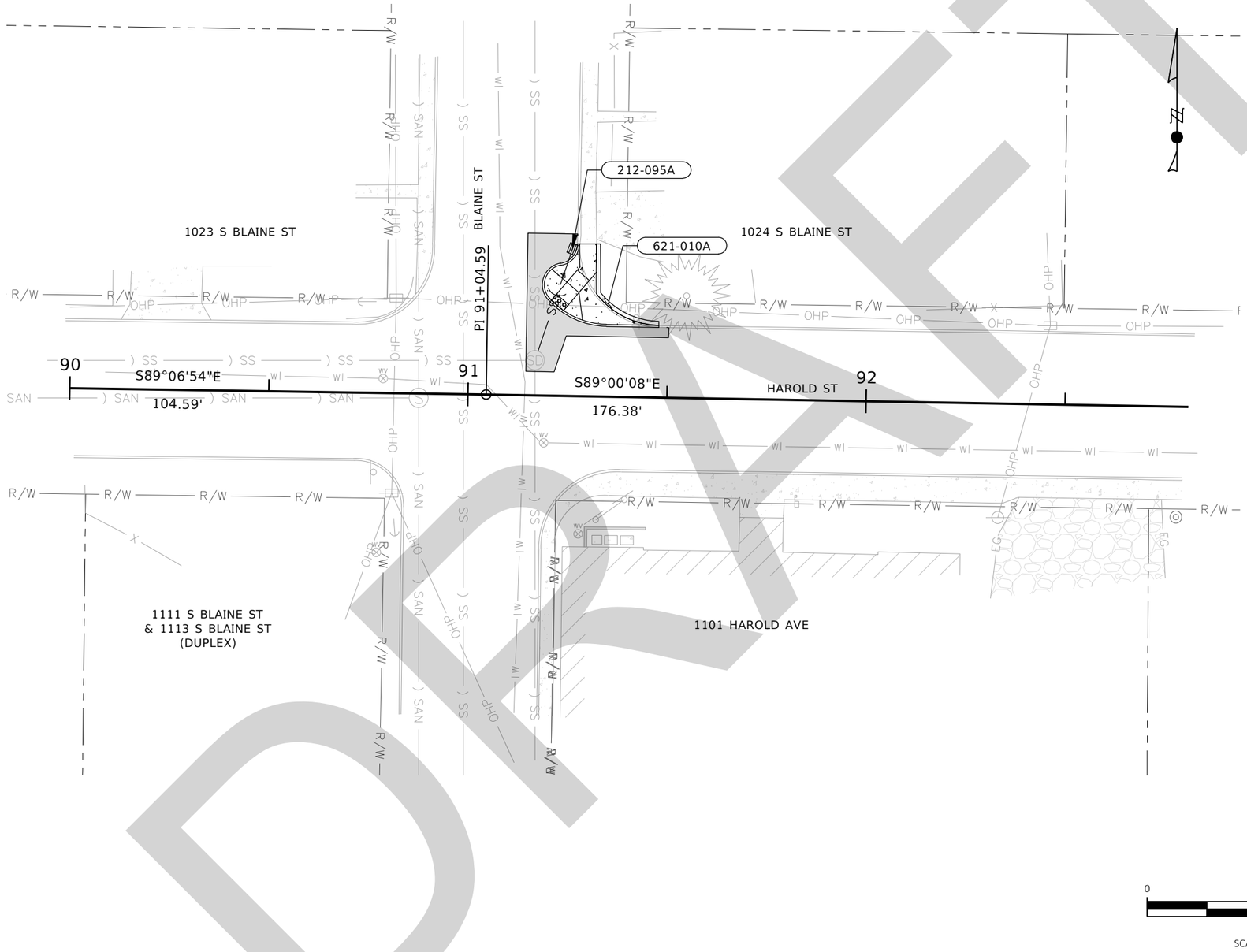
EROSION CONTROL PLAN
NORTH & SOUTH MOUNTAIN VIEW
PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 36 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

212-095A INLET PROTECTION
1 EACH
STA 91+25.62, 37.0' LT

621-010A SEEDING
0.001 ACRE
STA 91+31.64 - 91+47.64



DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 EROS
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

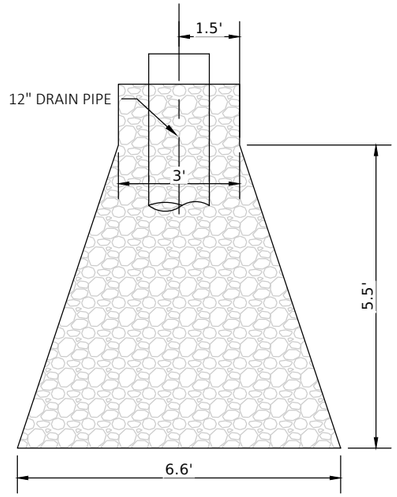
HMH engineering

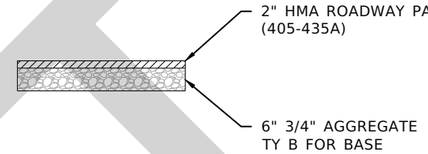
PROJECT NO.
A023(902)
A023(903)

EROSION CONTROL PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 37 OF 60

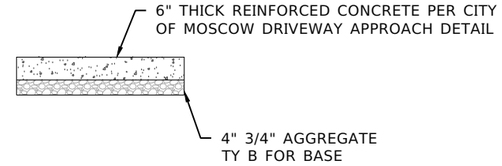
PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW





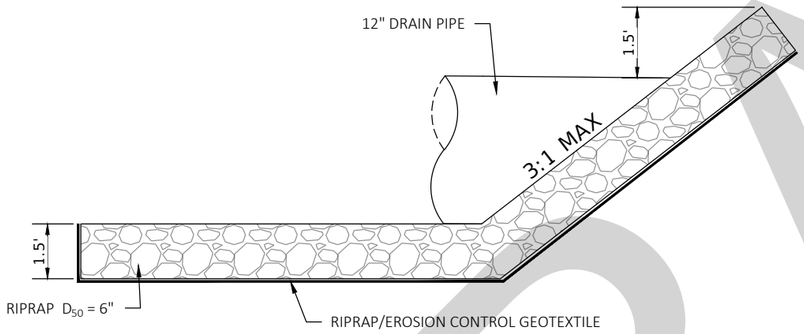
NOTE: ASPHALT DRIVEWAY IS PAID FOR UNDER 405-435A.

ASPHALT DRIVEWAY TYPICAL DETAIL
N.T.S.

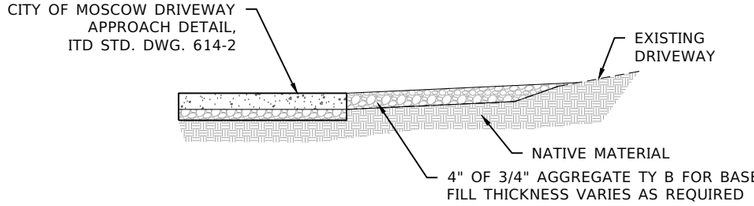


NOTE: CONCRETE DRIVEWAY IS PAID FOR UNDER 614-020A.

CONCRETE DRIVEWAY TYPICAL DETAIL
N.T.S.



LOOSE RIPRAP DETAIL
N.T.S.



NOTE: GRAVEL DRIVEWAY IS PAID FOR UNDER 303-022A

GRAVEL DRIVEWAY TYPICAL DETAIL
N.T.S.

DRAFT

REVISIONS				DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	CITY OF MOSCOW IDAHO	PROJECT NO.	DETAILS	ENGLISH
NO.	DATE	BY	DESCRIPTION	DESIGN CHECKED JUSTIN SHAW			A023(902) A023(903)	NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO	COUNTY LATAH
				DETAILED BRANDT SOUVENIR & WOLFGANG BEIER	CADD FILE NAME 23902 DTL				KEY NUMBER 23902/23903
				DRAWING CHECKED JUSTIN SHAW	DRAWING DATE: FEBRUARY 2026	HMH engineering			SHEET 38 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

SIGN ASSEMBLY	STATION, OFFSET (XXX+XX.XX, RT/LT, SHLD. OR MEDIAN IF ON DIVIDED HWY)	RAMP NUMBER OR LOCAL STREET	FOUNDATION SIZE (INxIN OR INxINxIN)	POST TYPE (A-X, B-X, D-X, E-X)	OFFSET FROM SHLD. OR FACE OF CURB TO POST 1 CENTER (FT)	DISTANCE BETWEEN POSTS (IF USING 2 OR 3 POSTS, FT)	POST 1 LENGTH* (FT)	POST 2 LENGTH* (IF USING 2 OR 3 POSTS, FT)	POST 3 LENGTH* (IF USING 3 POSTS, FT)	DISTANCE FROM SHLD. OR TOP OF CURB TO SIGN BOTTOM (FT)	SIGN TYPE (B-X, C-X, E)	SIGN DESIGNATION	SIGN SIZE† (INxIN)	SIGN AREA (SF)	SIGN BACKGROUND† COLOR	MAIN SIGN LEGEND† COLOR	SIGN BRACE WEIGHT (LBS)	SIGN BRACKET WEIGHT (LBS)	BRACKET NUMBER	NOTES (SIGN LEGEND, SIGN DESCRIPTION, ETC.)
1	10+62.12, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36		8.0		14			7.0	B-2	N/A	24 x 4	0.7	BLACK	YELLOW				RECTANGULAR RAPID-FLASHING BEACON (RRFB) PAID FOR AS S616-15A
											B-2	W11-2	30 x 30	9.0	YELLOW	BLACK				
											B-2	W16-7PL	21 x 15	2.2	YELLOW	BLACK				
2	10+64.92, RT. SHLD.	MOUNTAIN VIEW RD	8x8x36		1.5		14			7.0	B-2	N/A	24 x 4	0.7	BLACK	YELLOW				RECTANGULAR RAPID-FLASHING BEACON (RRFB) PAID FOR AS S616-15A
											B-2	W11-2	30 x 30	6.3	YELLOW	BLACK				
											B-2	W16-7PL	21 x 15	2.2	YELLOW	BLACK				
3	10+78.95, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36	E-2	3.3		12.2			7.0	B-1	R1-1	30 x 30	6.3	RED	WHITE				RELOCATE: STOP SIGN
											B-1	D3-1	46 x 8	2.6	WHITE	BLACK				NEW: CITY OF MOSCOW STREET NAME "MOUNTAIN VIEW RD"
4	12+09.76, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36	E-1	3.0		10.5			7.0	B-1	R7-9A	12 x 18	1.5	WHITE	RED				NEW: NO PARKING BIKE LANE
5	12+09.76, RT. SHLD.	MOUNTAIN VIEW RD	8x8x36	E-1	3.0		10.5			7.0	B-1	R7-9A	12 x 18	1.5	WHITE	RED				NEW: NO PARKING BIKE LANE
6	14+24.64, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36	E-1	3.0		10.5			7.0	B-1	R7-9A	12 x 18	1.5	WHITE	RED				NEW: NO PARKING BIKE LANE
7	14+87.13, RT. SHLD.	LEMHI DR	8x8x36								B-1	D3-1	23 x 8	1.3	WHITE	BLACK				RELOCATE: CITY OF MOSCOW STREET NAME "LEMHI DR"
											B-1	D3-1	46 x 8	2.6	WHITE	BLACK				RELOCATE: CITY OF MOSCOW STREET NAME "MOUNTAIN VIEW RD"
											B-1	R1-1	30 x 30	6.3	RED	WHITE				RELOCATE: STOP SIGN
8	14+86.99, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36	E-2	8.5		13.3			7.0	B-1	W11-2	30 x 30	6.3	YELLOW	BLACK				NEW: PEDESTRIAN CROSSING
											B-1	W16-7PL	21 x 15	2.2	YELLOW	BLACK				NEW: DIAGONAL DOWNWARD ARROW LEFT
											B-1	W11-2	30 x 30	6.3	YELLOW	BLACK				NEW: PEDESTRIAN CROSSING
											B-1	W16-7PR	21 x 15	2.2	YELLOW	BLACK				NEW: DIAGONAL DOWNWARD ARROW RIGHT
9	14+95.79, LT. SHLD.	HAROLD ST	8x8x36								B-1	D3-1	27 x 8	1.5	WHITE	BLACK				RELOCATE: CITY OF MOSCOW STREET NAME "HAROLD ST"
											B-1	D3-1	32 x 8	1.8	WHITE	BLACK				RELOCATE: CITY OF MOSCOW STREET NAME "MOUNTAIN VIEW RD"
											B-1	R1-1	30 x 30	6.3	RED	WHITE				RELOCATE: STOP SIGN
10	15+00.61, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36	E-2	9.2		13.3			7.0	B-1	W11-2	30 x 30	6.3	YELLOW	BLACK				NEW: PEDESTRIAN CROSSING
											B-1	W16-7PL	21 x 15	2.2	YELLOW	BLACK				NEW: DIAGONAL DOWNWARD ARROW LEFT
											B-1	W11-2	30 x 30	6.3	YELLOW	BLACK				NEW: PEDESTRIAN CROSSING
											B-1	W16-7PR	21 x 15	2.2	YELLOW	BLACK				NEW: DIAGONAL DOWNWARD ARROW RIGHT
11	15+85.62, RT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	D3-1	24 x 24	4.0	BROWN	WHITE				RELOCATE: CITY OF MOSCOW GUIDE SIGN "ROBINSON PARK ==>"
12	16+36.47, RT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	R3-17	24 x 18	3.0	WHITE	BLACK				RELOCATE: BIKE LANE
											B-1	R7-203	12 x 6	0.5	WHITE	RED				RELOCATE: CITY OF MOSCOW "SNOW ROUTE" SIGN
13	16+37.90, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	R3-17	24 x 18	3.0	WHITE	BLACK				RELOCATE: BIKE LANE
											B-1	R7-203	12 x 6	0.5	RED	WHITE				RELOCATE: CITY OF MOSCOW "SNOW ROUTE" SIGN
14	18+89.75, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	R3-17	24 x 18	3.0	WHITE	BLACK				RELOCATE: BIKE LANE
15	50+96.24, LT. SHLD.	F ST	8x8x36	E-2	7.7		13.5			7.0	B-1	R1-1	30 x 30	6.3	RED	WHITE				RELOCATE: STOP SIGN
											B-1	R1-3P	18 x 6	0.8	RED	WHITE				RELOCATE: "ALL WAY" PLAQUE
											B-1	D3-1	32 x 8	1.8	WHITE	BLACK				NEW: CITY OF MOSCOW STREET NAME "F ST"
											B-1	D3-1	24 x 8	1.8	WHITE	BLACK				NEW: CITY OF MOSCOW STREET NAME "MOUNTAIN VIEW RD"
16	51+61.43, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	R7-9A	12 x 18	1.5	WHITE	RED				NEW: NO PARKING BIKE LANE
											B-1	R7-203	12 x 6	0.5	RED	WHITE				RELOCATE: CITY OF MOSCOW "SNOW ROUTE" SIGN
17	52+45.00, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	S5-1	24 x 48	8.0	WHITE	BLACK				RELOCATE: "SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT" SIGN
18	53+98.89, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	R7-9A	12 x 18	1.5	RED	WHITE				NEW: NO PARKING BIKE LANE
19	55+29.59, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	W3-1	30 x 30	6.3	YELLOW	BLACK				RELOCATE: STOP AHEAD
20	55+79.63, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	R7-9A	12 x 18	1.5	WHITE	RED				NEW: NO PARKING BIKE LANE
											B-1	R7-203	12 x 6	0.5	RED	WHITE				RELOCATE: CITY OF MOSCOW "SNOW ROUTE" SIGN
21	57+59.69, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	CUSTOM	12 x 18	1.5	WHITE	BLUE				RELOCATE: "CITY OF MOSCOW ADOPT-A-STREET" SIGN
											B-1	CUSTOM	12 x 6	0.5	BLUE	WHITE				RELOCATE: CITY OF MOSCOW "GOOD SAMARITAN VILLAGE" PLAQUE

* POST LENGTHS ARE APPROXIMATE. FINALIZE POST LENGTHS IN THE FIELD BEFORE ASSEMBLY.
† FABRICATE SIGNS IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS AND MARKINGS (SHSM) BOOK, FHWA SHSM SUPPLEMENT, ITD SHSM SUPPLEMENT, OR AS SPECIFIED.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED: BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED: JUSTIN SHAW
DETAILED: BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED: JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME: 23902 SSM
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO
HMH engineering

PROJECT NO.: A023(902) A023(903)

SIGN SUMMARY SHEET
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY: LATAH
KEY NUMBER: 23902/23903
SHEET 39 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

DRAFT

SIGN ASSEMBLY	STATION, OFFSET (XXX+XX.XX, RT/LT, SHLD. OR MEDIAN IF ON DIVIDED HWY)	RAMP NUMBER OR LOCAL STREET	FOUNDATION SIZE (INxIN OR INxINxIN)	POST TYPE (A-X, B-X, D-X, E-X)	OFFSET FROM CENTERLINE ALIGNMENT TO POST 1 CENTER (FT)	DISTANCE BETWEEN POSTS (IF USING 2 OR 3 POSTS, FT)	POST 1 LENGTH* (FT)	POST 2 LENGTH* (IF USING 2 OR 3 POSTS, FT)	POST 3 LENGTH* (IF USING 3 POSTS, FT)	DISTANCE FROM EDGE OF ROADWAY TO BOTTOM OF MAJOR SIGN (FT)	SIGN TYPE (B-X, C-X, E)	SIGN DESIGNATION	SIGN SIZE† (INxIN)	SIGN AREA (SF)	SIGN BACKGROUND† COLOR	MAIN SIGN LEGEND† COLOR	SIGN BRACE WEIGHT (LBS)	SIGN BRACKET WEIGHT (LBS)	BRACKET NUMBER	NOTES (SIGN LEGEND, SIGN DESCRIPTION, ETC.)
22	59+16.25, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36	E-2	8.8		13.3			7.0	B-1	W11-2	30 x 30	6.3	YELLOW	BLACK				NEW: PEDESTRIAN CROSSING
											B-1	W16-7PL	21 x 15	2.2	YELLOW	BLACK				NEW: DIAGONAL DOWNWARD ARROW LEFT
											B-1	W11-2	30 x 30	6.3	YELLOW	BLACK				NEW: PEDESTRIAN CROSSING
											B-1	W16-7PR	21 x 15	2.2	YELLOW	BLACK				NEW: DIAGONAL DOWNWARD ARROW RIGHT
23	59+21.96, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36	E-2	9.8		13.3			7.0	B-1	W11-2	30 x 30	6.3	YELLOW	BLACK				NEW: PEDESTRIAN CROSSING
											B-1	W16-7PL	21 x 15	2.2	YELLOW	BLACK				NEW: DIAGONAL DOWNWARD ARROW LEFT
											B-1	W11-2	30 x 30	6.3	YELLOW	BLACK				NEW: PEDESTRIAN CROSSING
											B-1	W16-7PR	21 x 15	2.2	YELLOW	BLACK				NEW: DIAGONAL DOWNWARD ARROW RIGHT
24	61+18.71, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	CUSTOM	12 x 6	0.5	WHITE	RED				RELOCATE: CITY OF MOSCOW "SNOW ROUTE: NO PARKING DURING SNOW REMOVAL PROCLAMATION" SIGN
25	65+13.35, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	R2-1	24 x 30	5.0	WHITE	BLACK				RELOCATE: SPEED LIMIT 35
26	66+08.94, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	W1-8R	18 x 24	3.0	YELLOW	BLACK				RELOCATE: CHEVRON RIGHT
27	66+10.86, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	W1-8L	18 x 24	3.0	YELLOW	BLACK				RELOCATE: CHEVRON LEFT
28	66+44.25, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	W1-8R	18 x 24	3.0	YELLOW	BLACK				RELOCATE: CHEVRON RIGHT
29	66+46.12, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	W1-8L	18 x 24	3.0	YELLOW	BLACK				RELOCATE: CHEVRON LEFT
30	66+75.46, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	W1-8R	18 x 24	3.0	YELLOW	BLACK				RELOCATE: CHEVRON RIGHT
31	66+77.31, LT. SHLD.	MOUNTAIN VIEW RD	8x8x36								B-1	W1-8L	18 x 24	3.0	YELLOW	BLACK				RELOCATE: CHEVRON LEFT

* POST LENGTHS ARE APPROXIMATE. FINALIZE POST LENGTHS IN THE FIELD BEFORE ASSEMBLY.
† FABRICATE SIGNS IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS AND MARKINGS (SHSM) BOOK, FHWA SHSM SUPPLEMENT, ITD SHSM SUPPLEMENT, OR AS SPECIFIED.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED: BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED: JUSTIN SHAW
DETAILED: BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED: JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 23902 SSM

DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

SIGN SUMMARY SHEET

NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

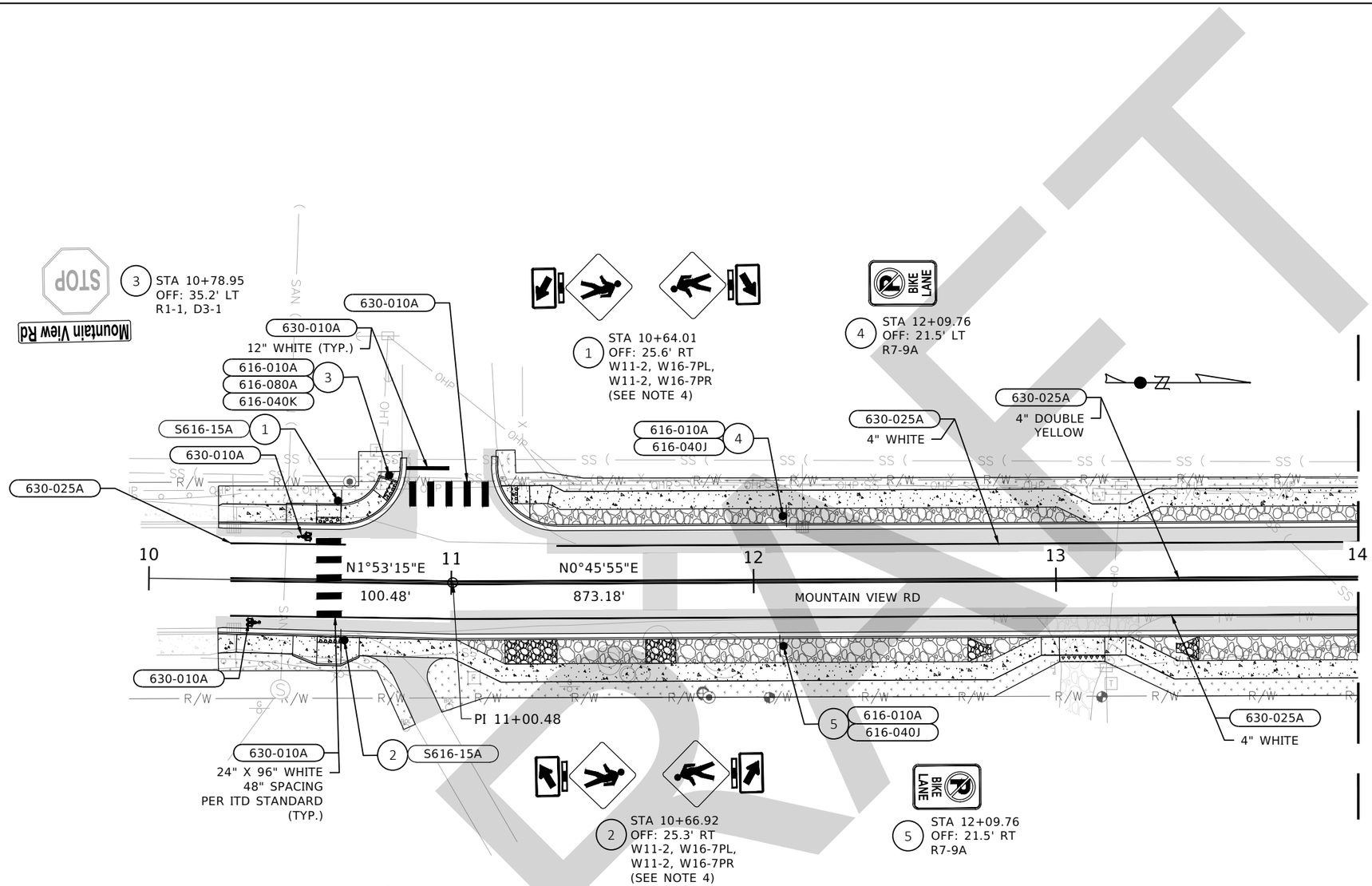
ENGLISH

COUNTY: LATAH

KEY NUMBER: 23902/23903

SHEET 40 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW



616-010A SIGN TYPE B-1
2.6 SF
STA.10+78.95, 35.2' LT
1.5 SF
STA 12+09.76, 21.5' LT
1.5 SF
STA 12+09.76, 21.5' RT

616-040J STEEL SIGN POST TYPE E-1
10.5 FT
STA 12+09.76, 21.5' LT
10.5 FT
STA 12+09.76, 21.5' RT

616-040K STEEL SIGN POST TYPE E-2
12.2 FT
STA 10+78.95, 35.2' LT

616-080A REINSTALL SIGN FACE
1 EACH
STA 10+78.95, 35.2' LT

630-010A TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC
5.3 SF
STA 10+04.80, 13.9' RT
5.3 SF
STA 10+51.93, 14.5' LT
80.0 SF
STA 10+61.36, 0.0'
14.1 SF
STA 10+91.65, 37.2' LT
80.0 SF
STA 10+98.81, 30.3' LT

630-025A LONGITUDINAL PAV MKG - WATERBORNE
38.0 FT (4" WHITE)
STA 10+27.00 - 10+64.86, 12.0' LT
373.0 FT (4" WHITE)
STA 10+27.00 - 14+00.00, 12.0' RT
373.0 FT (4" DOUBLE YELLOW)
STA 10+27.00 - 14+00.00, 0.00'
264.9 FT (4" WHITE)
STA 11+35.09 - 14+00.00, 12.0' LT

S616-15A RECTANGULAR RAPID-FLASHING BEACON (RRFB)
1 EACH
STA 10+62.12, 26.5' LT
STA 10+64.92, 19.6' RT

NOTES:

1. ALL CROSSWALK PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
2. CROSSWALK PAVEMENT MARKINGS SHALL NOT BE LOCATED IN THE WHEEL PATH OF TRAFFIC.
3. CROSSWALK PAVEMENT MARKINGS SHALL NOT BE PERMITTED WITHIN THE GUTTER PAN.
4. W16-7PL SIGN TO FACE DIRECTION OF TRAFFIC. W16-7PR TO FACE OPPOSITE DIRECTION.

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 SPM
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

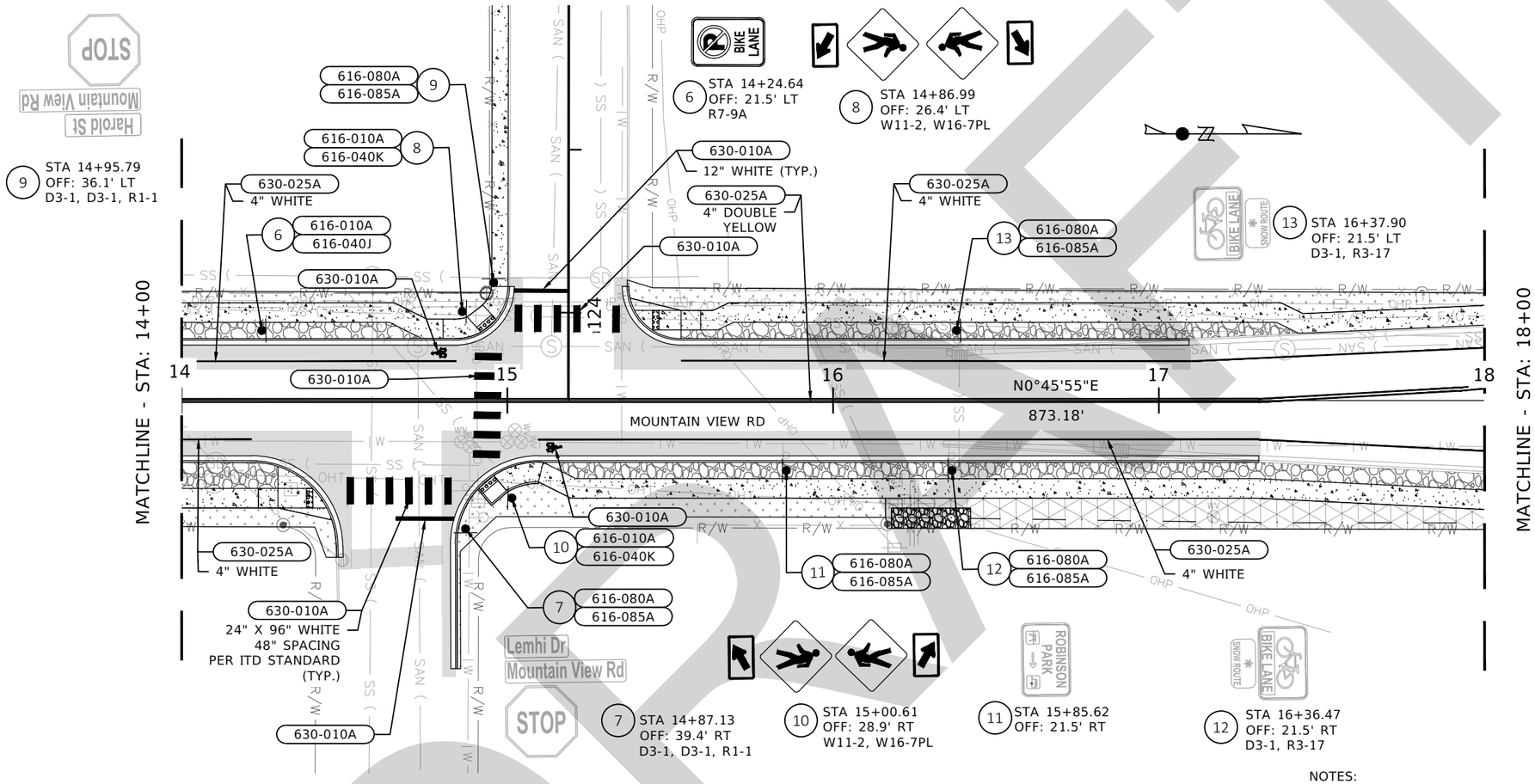
PROJECT NO.
A023(902)
A023(903)

SIGN AND PAVEMENT MARKING PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 41 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 STATE OF IDAHO JUSTIN M. SHAW
02/03/2026

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NOTES:

1. ALL CROSSWALK PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
2. CROSSWALK PAVEMENT MARKINGS SHALL NOT BE LOCATED IN THE WHEEL PATH OF TRAFFIC.
3. CROSSWALK PAVEMENT MARKINGS SHALL NOT BE PERMITTED WITHIN THE GUTTER PAN.
4. W16-7PL SIGN TO FACE DIRECTION OF TRAFFIC. W16-7PR TO FACE OPPOSITE DIRECTION.

616-010A SIGN TYPE B-1
1.5 SF
STA 14+24.64, 21.5' LT
17.0 SF
STA 14+86.99, 26.4' LT
17.0 SF
STA 15+00.61, 28.9 RT

616-040J STEEL SIGN POST TYPE E-1
10.5 FT
STA 14+24.64, 21.5' LT

616-040K STEEL SIGN POST TYPE E-2
13.3 FT
STA 10+58.18, 23.0' LT
13.3 FT
STA 13+48.27, 33.5' RT

616-080A REINSTALL SIGN FACE
3 EACH
STA 14+87.13, 39.4' RT
3 EACH
STA 14+95.79, 36.1' LT
1 EACH
STA 15+85.62, 20.1' RT
2 EACH
STA 16+36.47, 21.5' RT
2 EACH
STA 16+37.90, 21.5' LT

616-085A REINSTALL SIGN POST
1 EACH
STA 14+87.13, 39.4' RT
1 EACH
STA 14+95.79, 36.1' LT
1 EACH
STA 15+85.62, 21.5' RT
1 EACH
STA 16+36.47, 21.5' RT
1 EACH
STA 16+37.90, 21.5' LT

630-010A TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC
96.0 SF
STA 14+66.76, 27.8' RT
17.7 SF
STA 14+74.68, 35.8' RT
5.3 SF
STA 14+78.65, 15.1' LT
96.0 SF
STA 14+93.89, 0.0'
16.6 SF
STA 15+10.42, 33.1' LT
5.3 SF
STA 15+14.76, 14.9' RT
96.0 SF
STA 15+18.31, 25.1' LT

630-025A LONGITUDINAL PAV MKG - WATERBORNE
21.3 FT (4" WHITE)
STA 14+00.00 - 14+21.43, 12.0' RT
84.4 FT (4" WHITE)
STA 14+00.00 - 14+84.26, 12.0' LT
400.0 FT (4" DOUBLE YELLOW)
STA 14+00.00 - 18+00.00
290.6 FT (4" WHITE)
STA 15+09.30 - 18+00.00, 12.0' RT
246.7 FT (4" WHITE)
STA 15+61.22 - 18+00.00, 12.0' LT

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 SPM
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

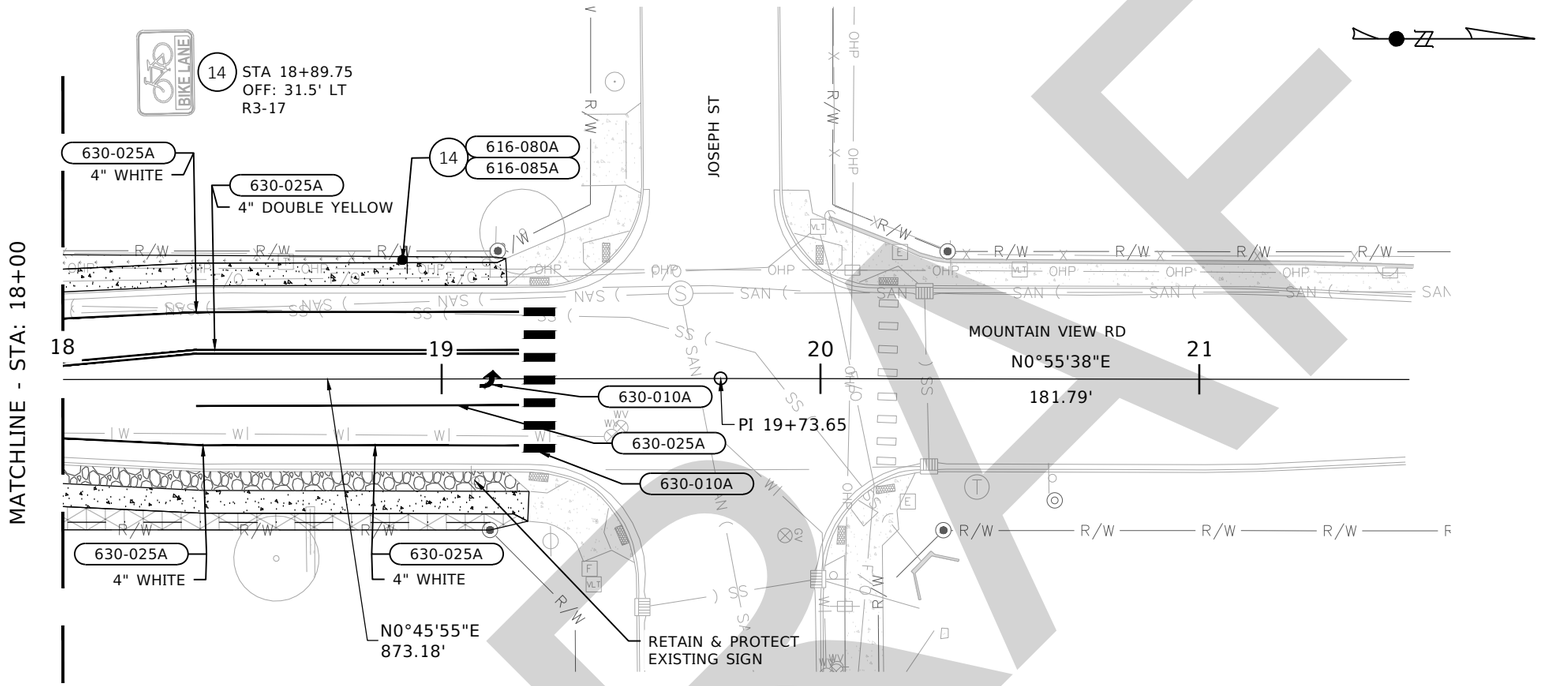
HMH engineering

PROJECT NO.
A023(902)
A023(903)

SIGN AND PAVEMENT MARKING PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 42 OF 60

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616-080A REINSTALL SIGN FACE
1 EACH
STA 18+89.75, 31.5' LT

616-085A REINSTALL SIGN POST
1 EACH
STA 18+89.75, 31.5' LT

630-010A TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC
15.0 SF (LEFT TURN ARROW)
STA 19+13.40, 0.0
112.0 SF
STA 19+25.80, 0.0

630-025A LONGITUDINAL PAV MKG - WATERBORNE
120.5 FT (4" DOUBLE YELLOW)
STA 18+00.00 - 19+22.73, 7.0' LT
85.0 FT (4" WHITE)
STA 18+35.30 - 19+22.73, 7.0' RT
120.4 FT (4" WHITE)
STA 18+00.00 - 19+22.73, 12.0' RT
120.4 FT (4" WHITE)
STA 18+00.00 - 19+22.73, 12.0' RT

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REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
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CITY OF MOSCOW
IDAHO

HMH engineering

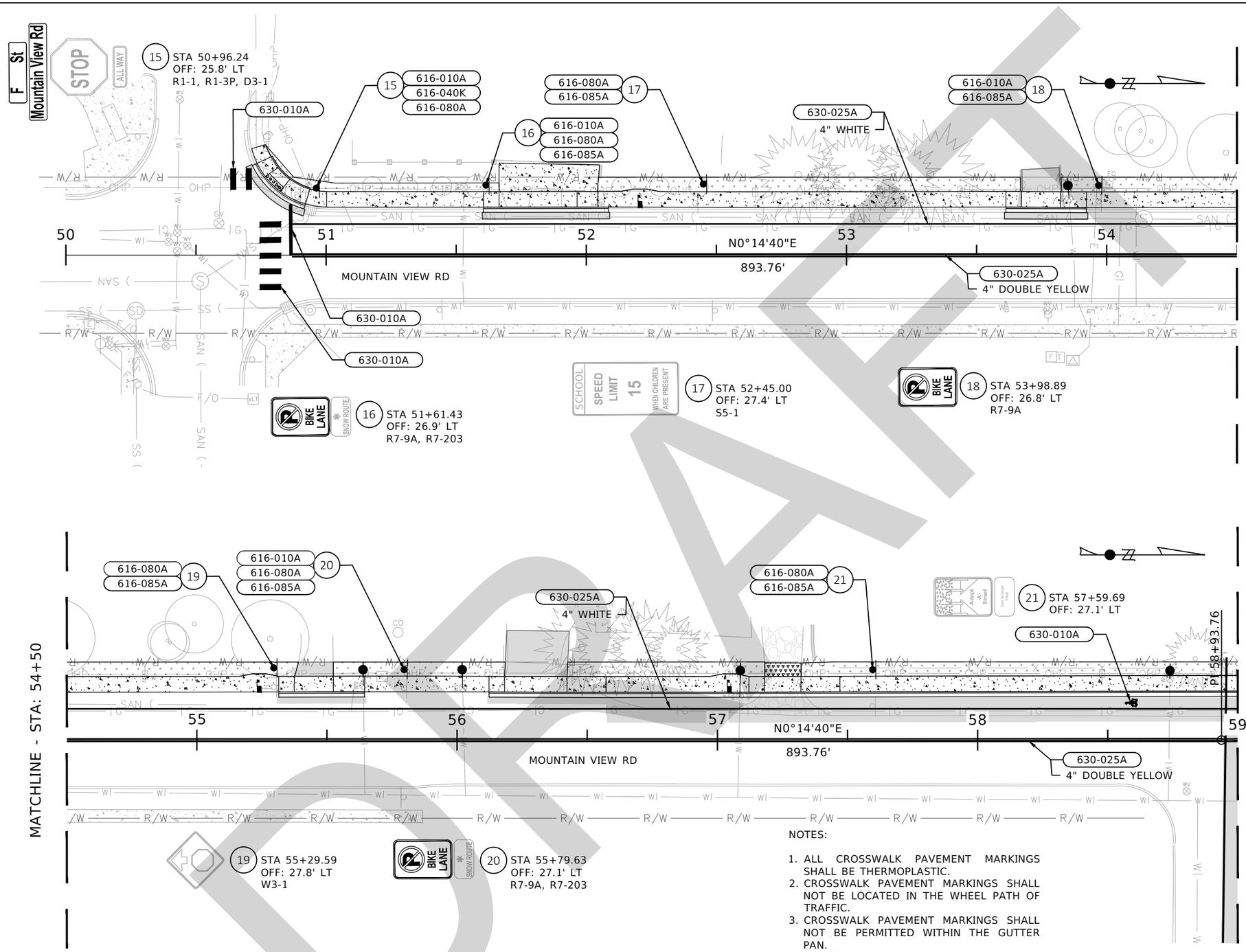
PROJECT NO.
A023(902)
A023(903)

SIGN AND PAVEMENT MARKING PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 43 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17889
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

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616-010A SIGN TYPE B-1
3.6 SF
STA 50+96.24, 25.8' LT
1.5 SF
STA 51+61.43, 26.9' RT
1.5 SF
STA 53+98.89, 26.8' RT
1.5 SF
STA 55+79.63, 27.1' LT

616-040K STEEL SIGN POST TYPE E-2
13.5 FT
STA 50+96.24, 25.8' LT

616-080A REINSTALL SIGN FACE
2 EACH
STA 50+96.24, 25.8' LT
1 EACH
STA 51+61.43, 26.9' LT
1 EACH
STA 52+45.00, 27.4' LT
1 EACH
STA 55+29.59, 27.8' LT
1 EACH
STA 55+79.63, 27.1' LT
2 EACH
STA 57+59.69, 27.1' LT

616-085A REINSTALL SIGN POST
1 EACH
STA 51+61.43, 26.9' LT
1 EACH
STA 52+45.00, 27.4' LT
1 EACH
STA 53+98.89, 26.8' LT
1 EACH
STA 55+29.59, 27.8' LT
1 EACH
STA 55+79.63, 27.1' LT
1 EACH
STA 57+59.69, 27.1' LT

630-010A TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC
32.0 SF
STA 50+64.33, 25.2' LT
80.0 SF
STA 50+78.58, 0.0'
19.4 SF
STA 50+86.48, 9.7' LT
5.3 SF
STA 58+58.74, 14.8' LT

630-025A LONGITUDINAL PAV MKG - WATERBORNE
368.4 FT (4" DOUBLE YELLOW)
STA 50+81.58 - 54+50.00, 0.0'
263.1 FT (4" WHITE)
STA 50+86.93 - 54+50.00, 12.0' LT
450.0 FT (4" DOUBLE YELLOW)
STA 54+50.00 - 59+00.00, 0.0'
450.0 FT (4" WHITE)
STA 54+50.00 - 59+00.00, 12.0' LT

NOTES:

1. ALL CROSSWALK PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
2. CROSSWALK PAVEMENT MARKINGS SHALL NOT BE LOCATED IN THE WHEEL PATH OF TRAFFIC.
3. CROSSWALK PAVEMENT MARKINGS SHALL NOT BE PERMITTED WITHIN THE GUTTER PAN.
4. W16-7PL SIGN TO FACE DIRECTION OF TRAFFIC. W16-7PR TO FACE OPPOSITE DIRECTION.

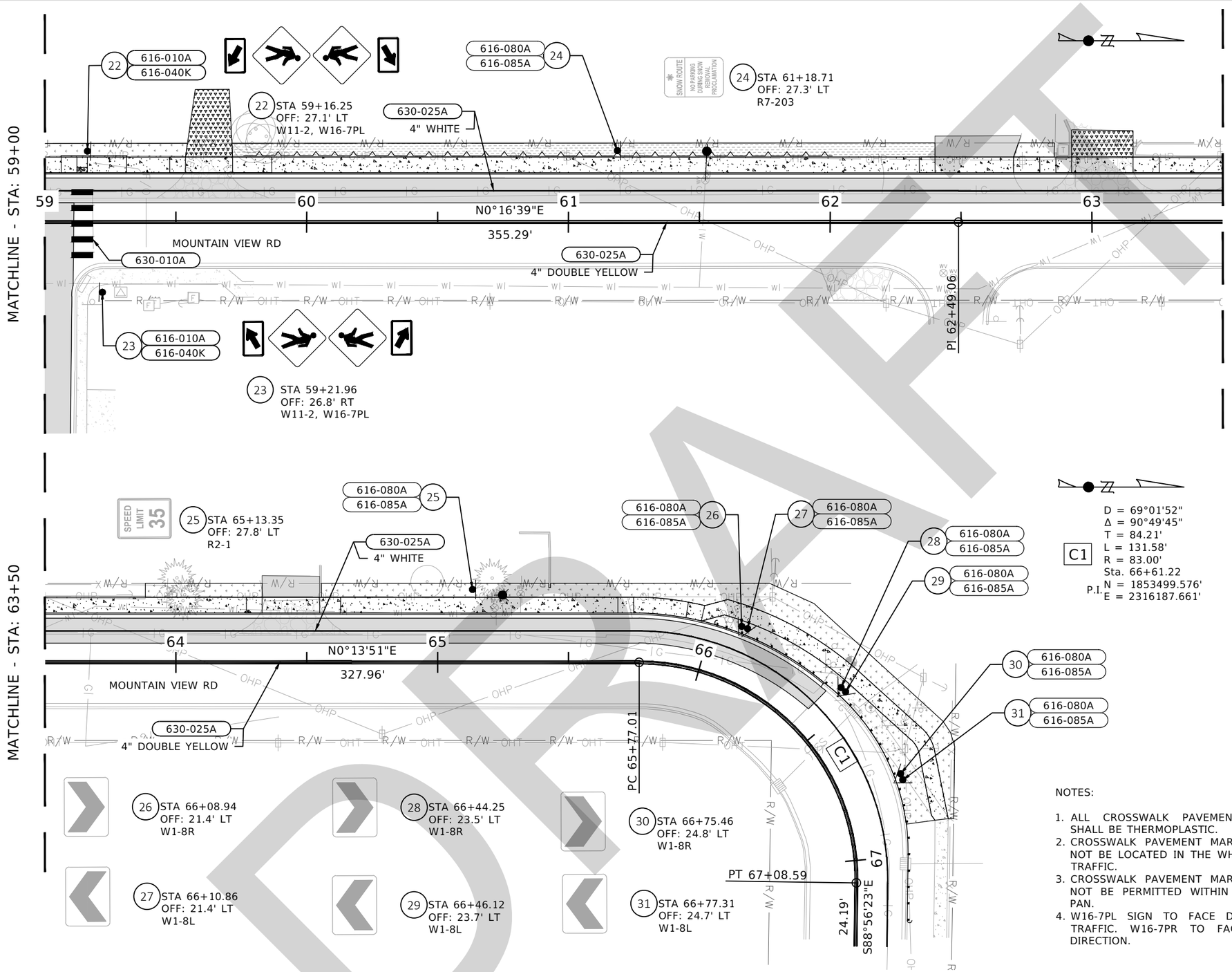
PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	CITY OF MOSCOW IDAHO
DESIGN CHECKED JUSTIN SHAW		
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER	CADD FILE NAME 23902 SPM	
DRAWING CHECKED JUSTIN SHAW	DRAWING DATE: FEBRUARY 2026	HMH engineering

PROJECT NO.	SIGN AND PAVEMENT MARKING PLAN	ENGLISH
A023(902) A023(903)	NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO	COUNTY LATAH KEY NUMBER 23902/23903 SHEET 44 OF 60

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C1
D = 69°01'52"
Δ = 90°49'45"
T = 84.21'
L = 131.58'
R = 83.00'
Sta. 66+61.22
P.I. N = 1853499.576'
E = 2316187.661'

NOTES:

1. ALL CROSSWALK PAVEMENT MARKINGS SHALL BE THERMOPLASTIC.
2. CROSSWALK PAVEMENT MARKINGS SHALL NOT BE LOCATED IN THE WHEEL PATH OF TRAFFIC.
3. CROSSWALK PAVEMENT MARKINGS SHALL NOT BE PERMITTED WITHIN THE GUTTER PAN.
4. W16-7PL SIGN TO FACE DIRECTION OF TRAFFIC. W16-7PR TO FACE OPPOSITE DIRECTION.

616-010A SIGN TYPE B-1
17.0 SF
STA 59+16.25, 27.1' LT
17.0 SF
STA 59+21.96, 26.8' RT

616-040K STEEL SIGN POST TYPE E-2
13.3 FT
STA 59+16.25, 27.1' LT
13.3 FT
STA 59+21.96, 26.8' RT

616-080A REINSTALL SIGN FACE
1 EACH
STA 61+18.71, 27.3' LT
1 EACH
STA 65+13.35, 27.8' LT
1 EACH
STA 66+08.94, 21.4' LT
1 EACH
STA 66+10.86, 21.4' LT
1 EACH
STA 66+44.25, 23.5' LT
1 EACH
STA 66+46.12, 23.7' LT
1 EACH
STA 66+75.46, 24.8' LT
1 EACH
STA 66+77.31, 24.7' LT

616-085A REINSTALL SIGN POST
1 EACH
STA 61+20.68, 30.0' LT
1 EACH
STA 65+23.52, 30.0' LT
1 EACH
STA 66+08.94, 21.4' LT
1 EACH
STA 66+10.86, 21.4' LT
1 EACH
STA 66+44.25, 23.5' LT
1 EACH
STA 66+46.12, 23.7' LT
1 EACH
STA 66+75.46, 24.8' LT
1 EACH
STA 66+77.31, 24.7' LT

630-010A TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC
80.0 SF
STA 59+14.29, 0.0'

630-025A LONGITUDINAL PAV MKG - WATERBORNE
450.0 FT (4" WHITE)
STA 59+00.00 - 63+50.00, 12.0' LT
450.0 FT (4" DOUBLE YELLOW)
STA 59+00.00 - 63+50.00, 0.0'
382.8 FT (4" WHITE)
STA 63+50.00 - 67+32.78, 12.0' LT
382.7 FT (4" DOUBLE YELLOW)
STA 63+50.00 - 67+32.78, 0.00'

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 SPM
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

SIGN AND PAVEMENT MARKING PLAN

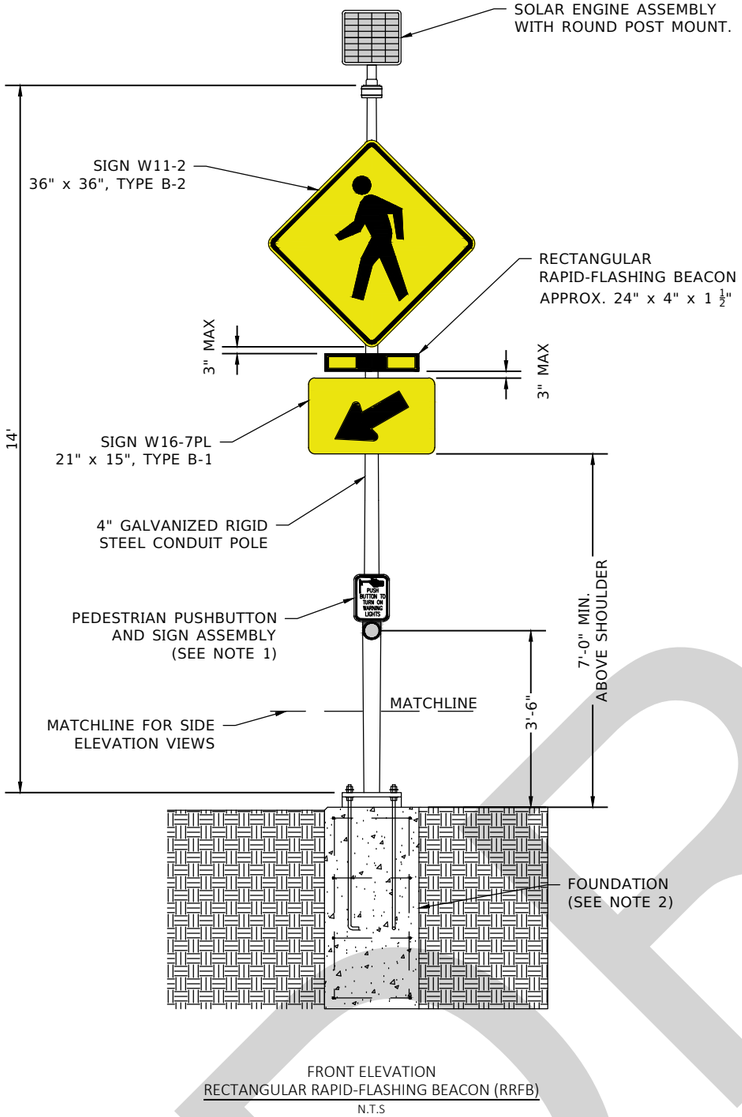
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 45 OF 60

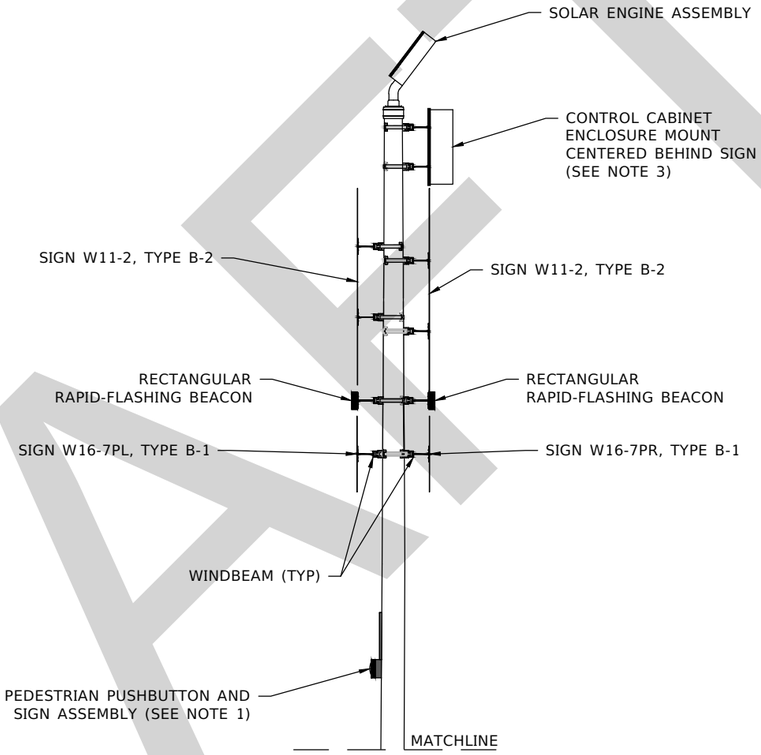
PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

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DRAFT



FRONT ELEVATION
RECTANGULAR RAPID-FLASHING BEACON (RRFB)
N.T.S



SIDE ELEVATION VIEW
RECTANGULAR RAPID-FLASHING BEACON
N.T.S

NOTES
1. PEDESTRIAN PUSH BUTTON AND SIGN ASSEMBLY MAY BE SEPARATE PARTS. USE 9" X 12" R10-25 SIGN IN ACCORDANCE WITH MOST CURRENT EDITION OF THE MUTCD. SIGN MAY INCLUDE INTEGRATED WARNING LIGHTS. SEE IDAHO TRANSPORTATION DEPARTMENT (ITD) STANDARD DRAWING 656-15 - PEDESTRIAN PUSHBUTTON PLACEMENT.
2. SEE ITD STANDARD DRAWING 656-3 FOR FOUNDATION DETAILS.
3. CONTROL CABINET ENCLOSURE SHALL BE SIZED BY THE RRFB MANUFACTURER.
4. PEDESTRIAN PUSHBUTTON ASSEMBLIES ARE TO BE MOUNTED AS PER MANUFACTURER'S INSTRUCTIONS

DRAFT

REVISIONS			
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CITY OF MOSCOW
IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

SIGN DETAILS
NORTH & SOUTH MOUNTAIN VIEW
PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 46 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

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GENERAL NOTES TRAFFIC CONTROL DEVICES

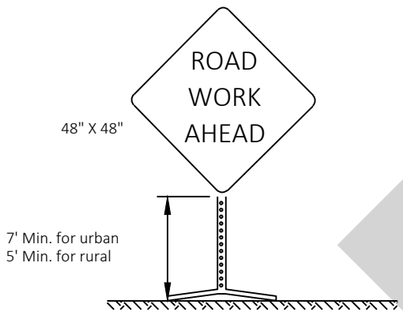
1. A minimum 10' lane shall be maintained at all times through the work zone. Flaggers will be used on approaches when volumes require it or as directed by the Engineer. Any delineation of lanes shall use tubular markers as shown on traffic control plans. All flaggers shall have two-way radios on the project.
2. Fabrication and installation of traffic control devices shall conform to all applicable provisions of the FHWA's Manual of Uniform Traffic Control Devices (MUTCD), as adopted by the State.
3. Mounting configuration, number of signs and minor adjustments needed for traffic control devices shall be as shown in the Traffic Control Plans, or as directed by the Engineer. The overall effectiveness and placement of these installations shall be checked periodically, under both night and day conditions.
4. Spacing for all channelization devices should not exceed a distance equal to the posted speed limit when used for taper channelization and a distance of twice the posted speed limit when used for tangent channelization.
5. All signs shall be mounted in a high profile manner with 2 standard flags (see the MUTCD, part 6 Fig. 6F-2). All signs remaining up for the duration of the project should be placed on ground mounted wood posts.
6. All portable sign stands, flags, two-way radios, and warning lights shall be considered as incidental items.
7. All existing signing that conflicts with the traffic control signing shall be covered up or removed. Signs removed during construction shall be replaced prior to completion of the project. Any signs damaged during removal or storage shall be replaced at Contractor's expense.
8. In the work zone the speed limit shall be posted the same as prior to the construction when existing speed limit is less than 45 MPH.
9. Signs and sign stands not in use shall be removed outside the highway clearzone.
10. All cross streets and private drives shall remain open, accessible, and maintained during construction.

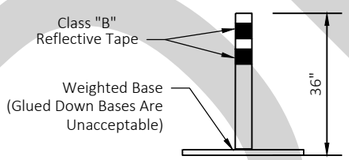
TAPER LENGTH (L) FEET (40 mph or Less)	TAPER LENGTH (L) FEET (45 mph or More)
$L=\frac{WS^2}{60}$ W = WIDTH OF OFFSET IN FEET S =POSTED SPEED	L=WS W = WIDTH OF OFFSET IN FEET S =POSTED SPEED

L = Merging Taper
½L =Shifting Taper
⅓L =Shoulder Taper

As Specified in the MUTCD

ROAD TYPE	DISTANCE BETWEEN SIGNS		
	A	B	C
URBAN <40	100'	100'	100'
URBAN >40	350'	350'	350'
RURAL	500'	500'	500'
FREEWAY	1000'	1500'	2640'





TUBULAR MARKERS

■ ■ ■ TUBULAR MARKERS

Buffer Spacing as a Function of Speed

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

*Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed.

PROJECT TRAFFIC CONTROL SIGN SUMMARY 626-010A

SIGN NUMBERS	DESCRIPTION	SIZE (IN)			AREA (SF)	QUANTITY	TOTAL AREA
G20-2	END ROAD WORK	36	X	18	4.5	8	36
W16-1	SHARE THE ROAD (ORANGE)	18	X	24	3	2	6
W20-1	ROAD WORK AHEAD	36	X	36	9	17	153
W20-4	ONE LANE ROAD AHEAD	36	X	36	9	3	27
W20-7a	FLAGGER (SYMBOL)	36	X	36	9	3	27
W21-5	SHOULDER WORK	36	X	36	9	17	153
R2-1	SPEED LIMIT	24	X	30	5	8	40
R9-9	SIDEWALK CLOSED	24	X	12	2	2	4
R9-10	SIDEWALK CLOSED USE OTHER SIDE	24	X	12	2	6	12
	ADDITIONAL SIGNS AS DIRECTED						46
	TOTAL SQ. FEET FOR CLASS "B" SIGNING						**504**
	TEMPORARY TRAFFIC CONTROL MAINTENANCE					HR	240
	FLAGGER CONTROL					HR	80

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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DESIGN CHECKED JUSTIN SHAW
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DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

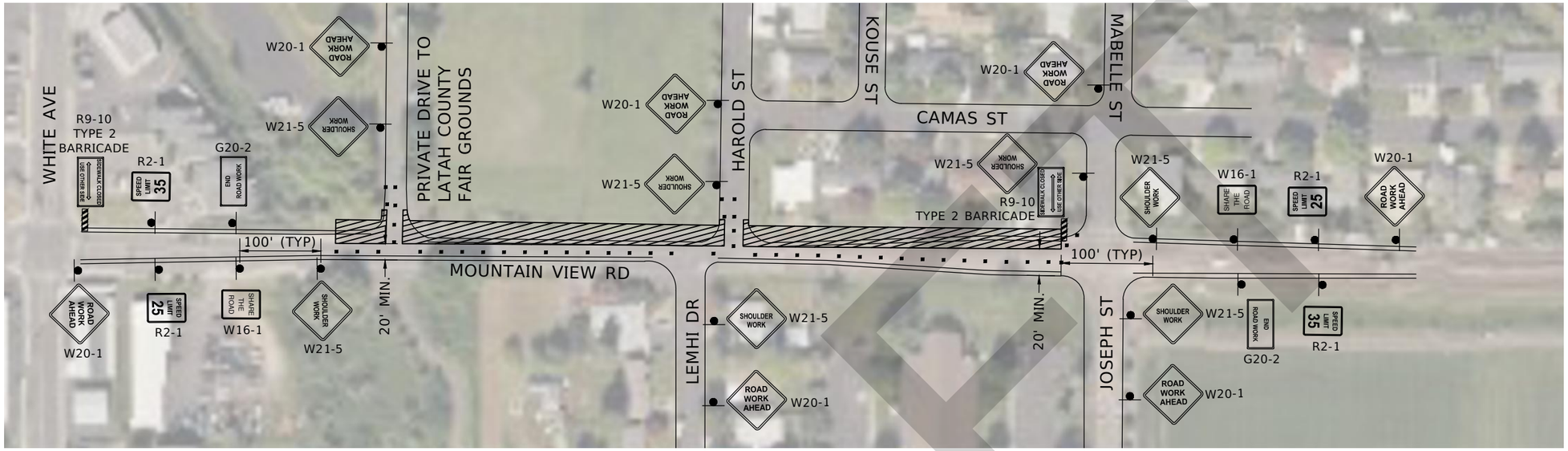
PROJECT NO.
A023(902)
A023(903)

TRAFFIC CONTROL SUMMARY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 47 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

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MOUNTAIN VIEW ROAD TYPICAL SHOULDER CLOSURE

N.T.S.

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED: BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED: JUSTIN SHAW
DETAILED: BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED: JUSTIN SHAW

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CITY OF MOSCOW
IDAHO

HMH engineering

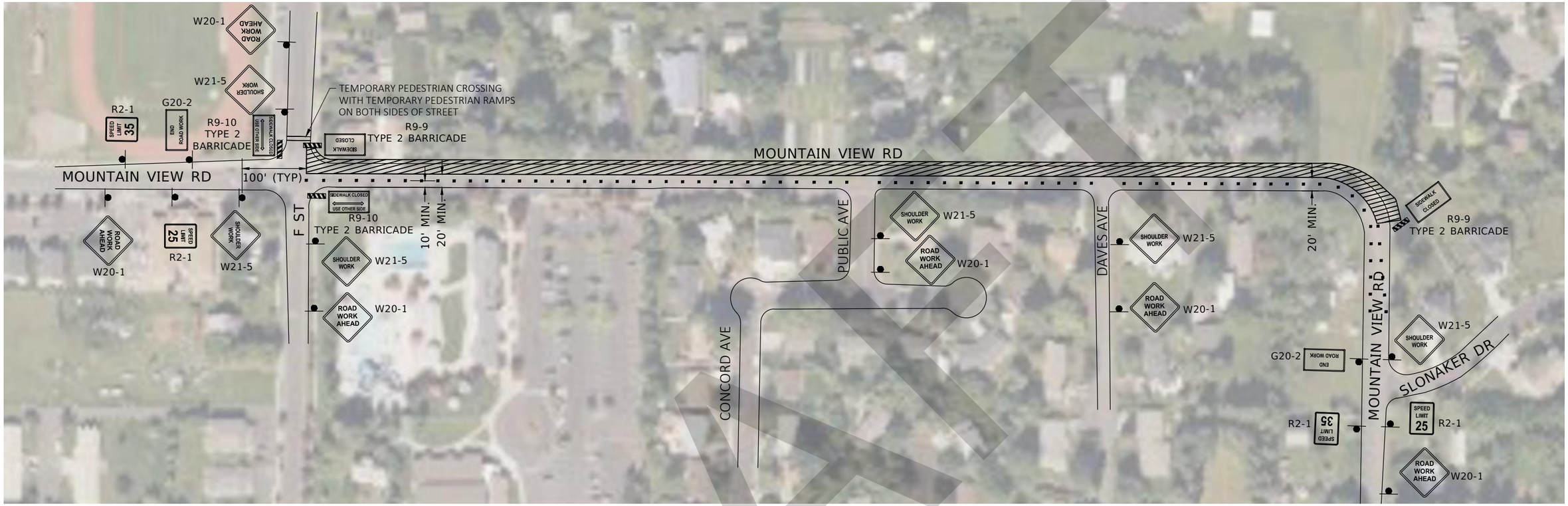
PROJECT NO.: A023(902) A023(903)

TRAFFIC CONTROL PLAN
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY: LATAH
KEY NUMBER: 23902/23903
SHEET 48 OF 60

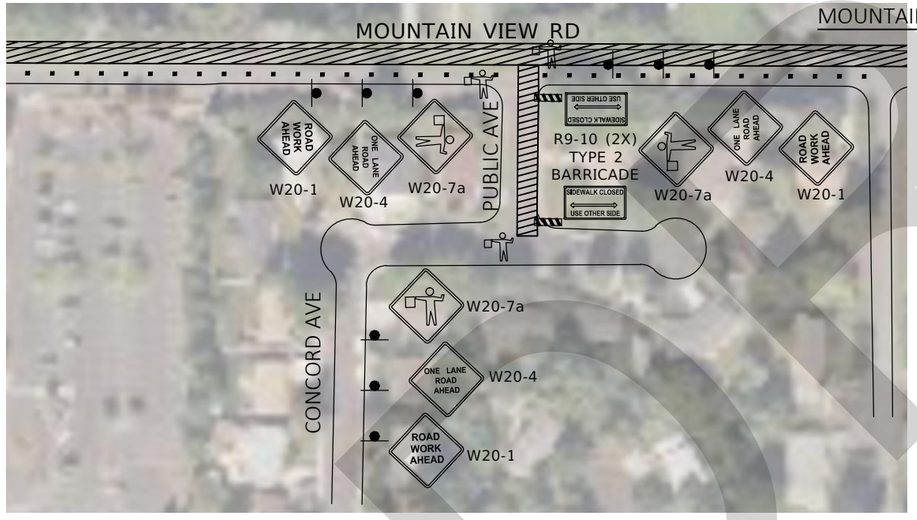
PROFESSIONAL ENGINEER REGISTERED 17789 STATE OF IDAHO JUSTIN M. SHAW
02/03/2026

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MOUNTAIN VIEW ROAD NORTH SHOULDER CLOSURE

N.T.S.



PUBLIC AVE SINGLE LANE CLOSURE

N.T.S.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED: BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED: JUSTIN SHAW
DETAILED: BRANDT SOUVENIR & WOLFGANG BEIER
DRAWING CHECKED: JUSTIN SHAW

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 23902 TRCP

DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.: A023(902) A023(903)

TRAFFIC CONTROL PLAN

NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH

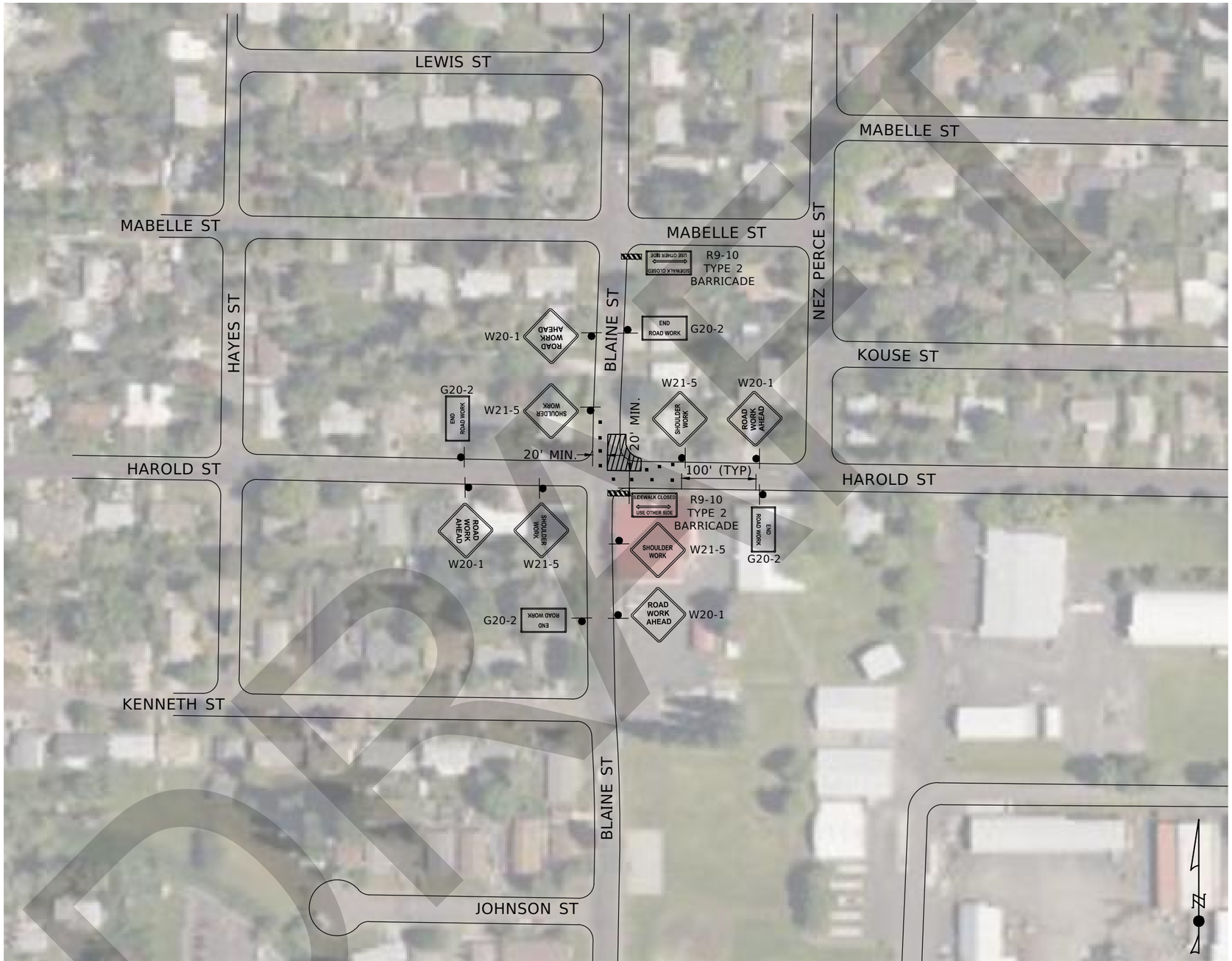
COUNTY: LATAH

KEY NUMBER: 23902/23903

SHEET 49 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

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BLAINE ST AND HAROLD ST INTERSECTION CLOSURE

N.T.S.

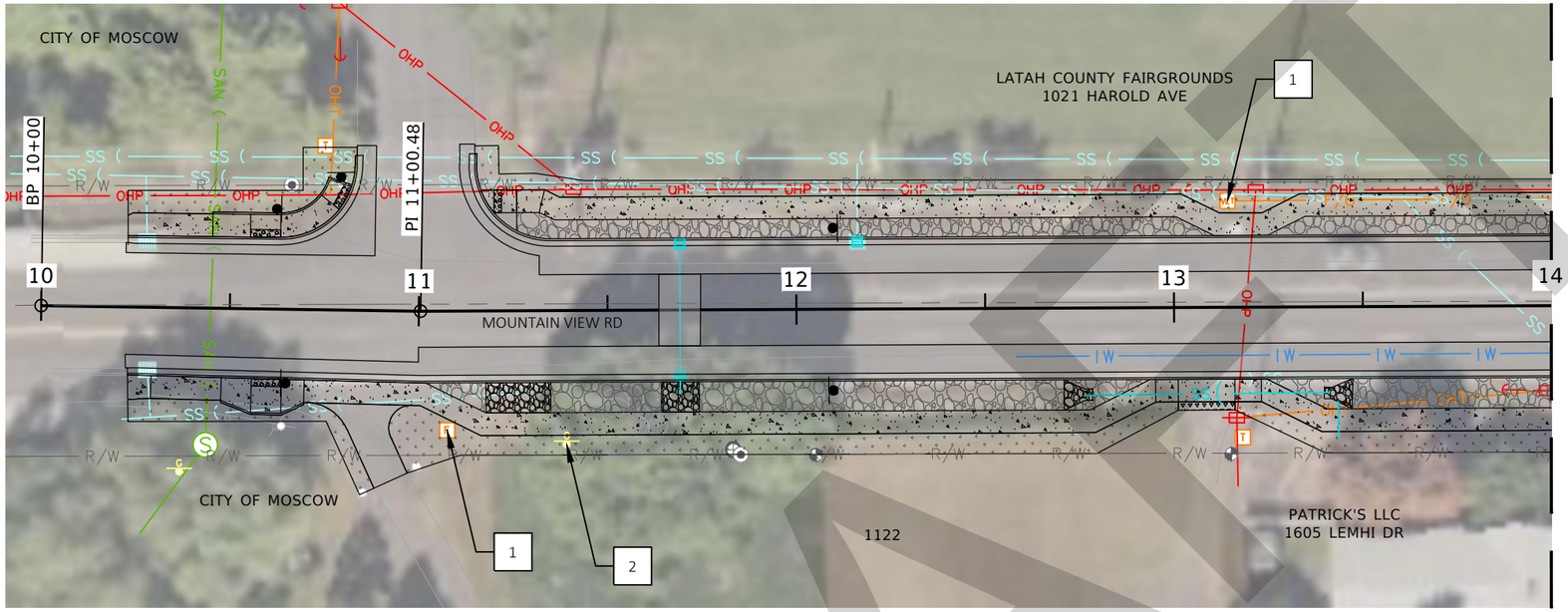
REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	CITY OF MOSCOW IDAHO
DESIGN CHECKED JUSTIN SHAW		
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER	CADD FILE NAME 23902 TRCP	
DRAWING CHECKED JUSTIN SHAW	DRAWING DATE: FEBRUARY 2026	HMH engineering

PROJECT NO.	TRAFFIC CONTROL PLAN	ENGLISH
A023(902) A023(903)	NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO	COUNTY LATAH KEY NUMBER 23902/23903 SHEET 50 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

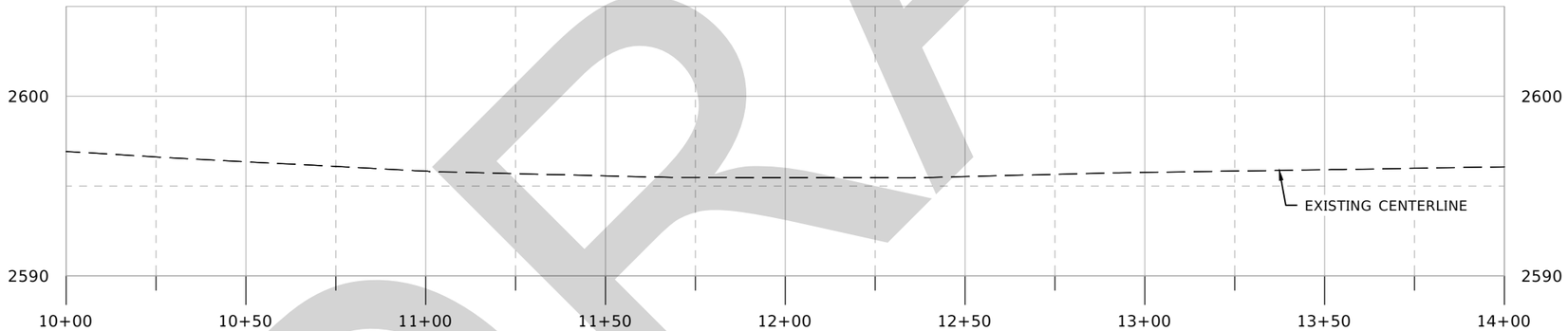
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1 UTILITY COMPANY TO ADJUST EXISTING UTILITIES AT UTILITY COMPANY EXPENSE

2 UTILITY COMPANY TO ADJUST EXISTING GAS SIGN AT UTILITY COMPANY EXPENSE

EXISTING CENTERLINE PROFILE



DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
DESIGN CHECKED JUSTIN SHAW
DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
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SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 23902 UTIL 1
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

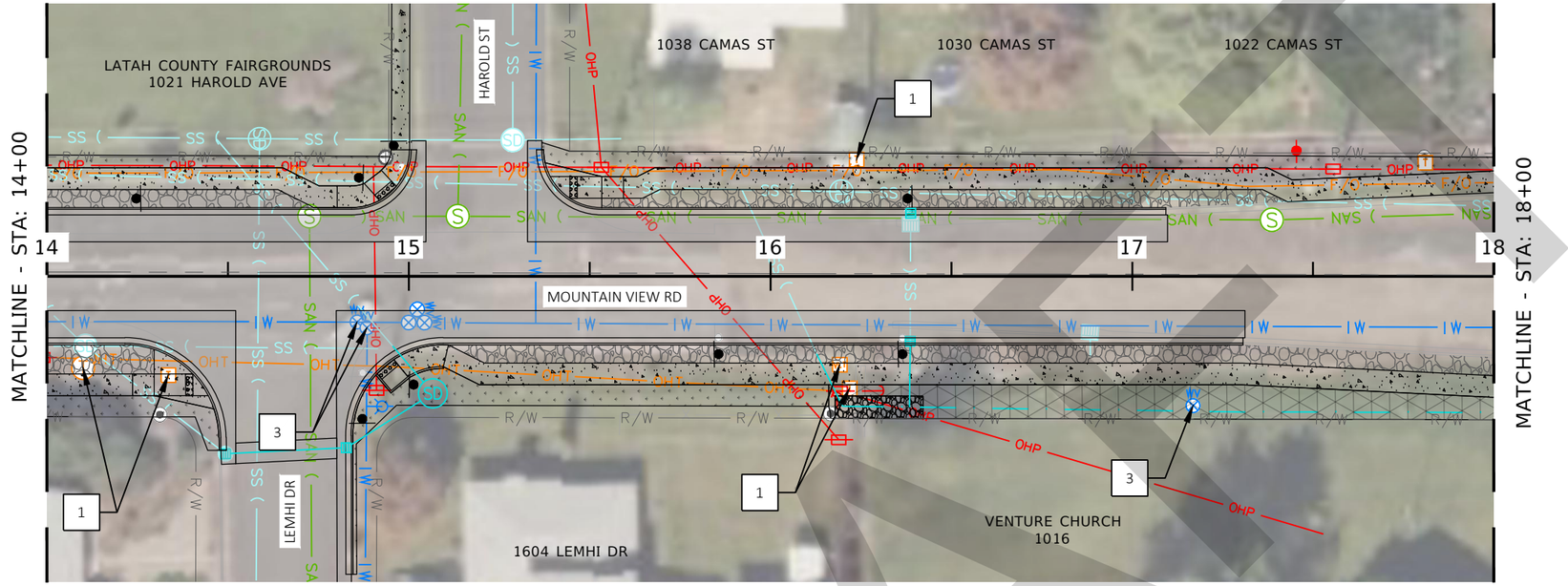
HMH engineering

PROJECT NO.
A023(902)
A023(903)

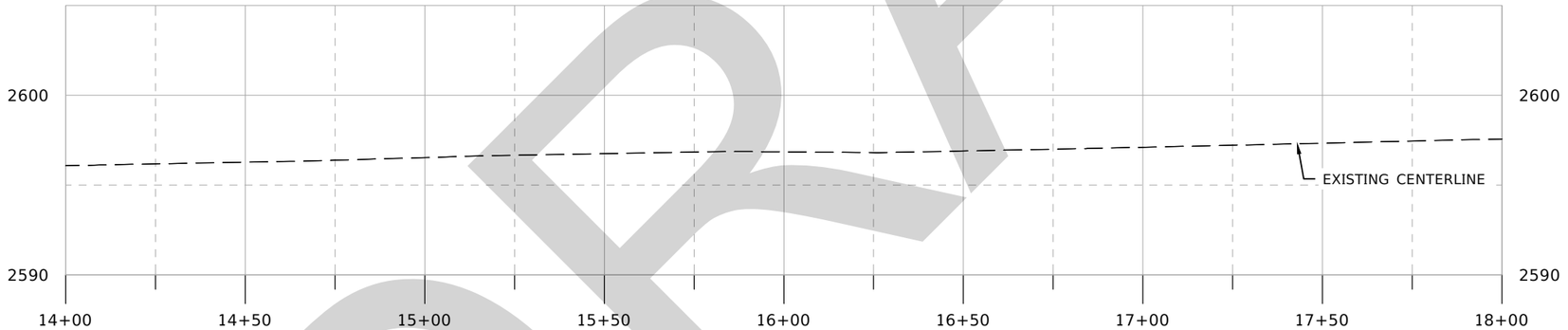
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 51 OF 60

PROFESSIONAL ENGINEER REGISTERED 17889 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW



EXISTING CENTERLINE PROFILE



1 UTILITY COMPANY TO ADJUST EXISTING UTILITIES AT UTILITY COMPANY EXPENSE

3 CONTRACTOR TO ADJUST EXISTING UTILITIES

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
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DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
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CADD FILE NAME 23902 UTIL 1
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

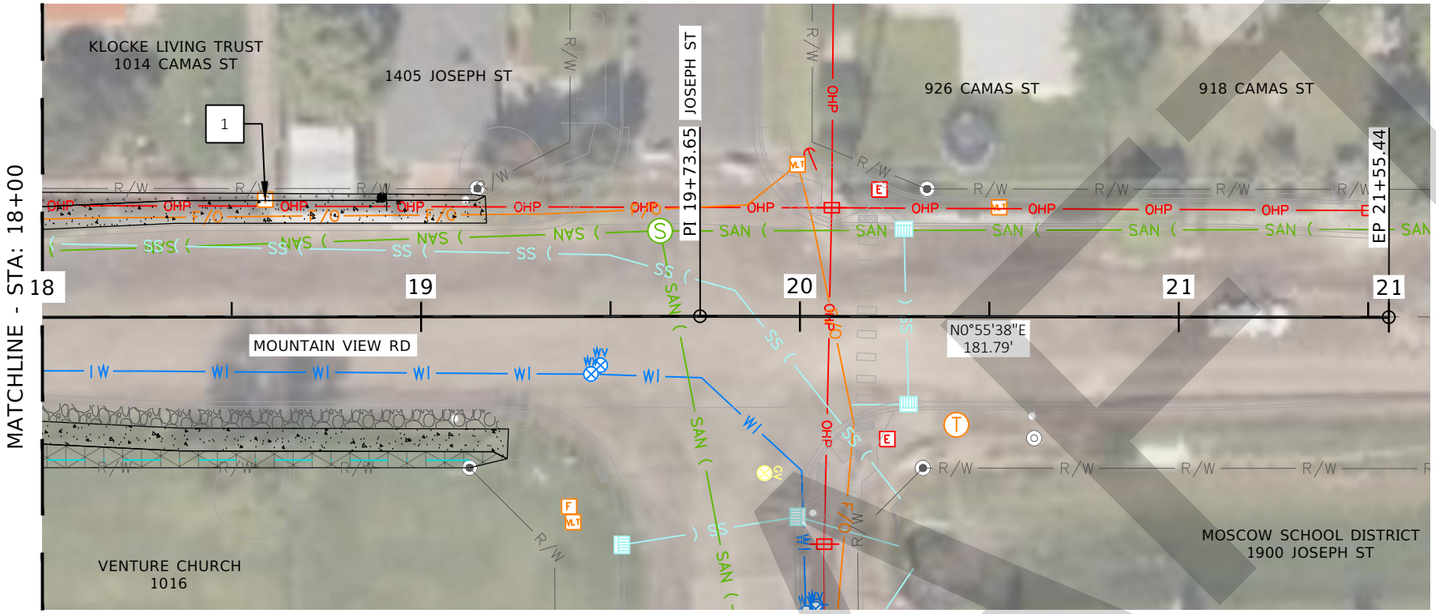
HMH engineering

PROJECT NO.
A023(902)
A023(903)

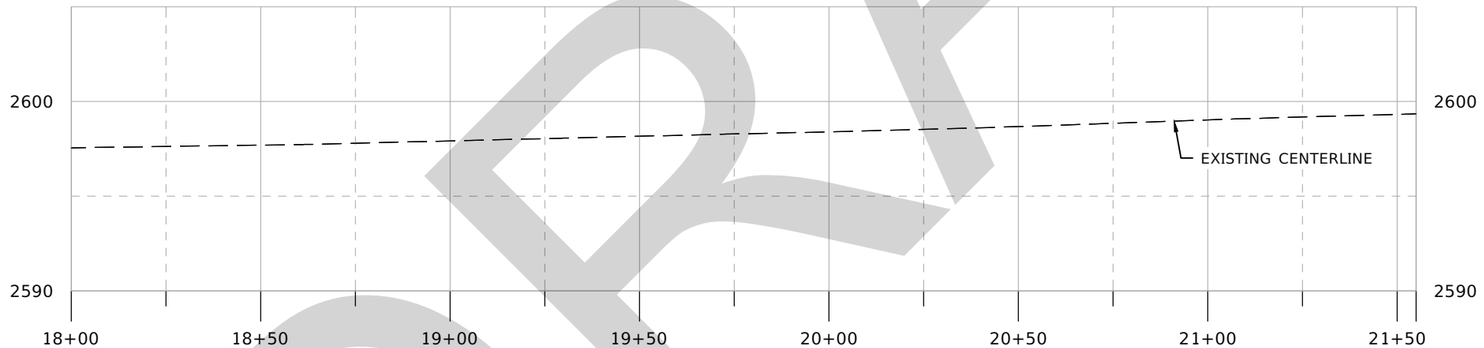
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 52 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW



EXISTING CENTERLINE PROFILE



1 UTILITY COMPANY TO ADJUST EXISTING UTILITIES AT UTILITY COMPANY EXPENSE

DRAFT

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CITY OF MOSCOW
IDAHO

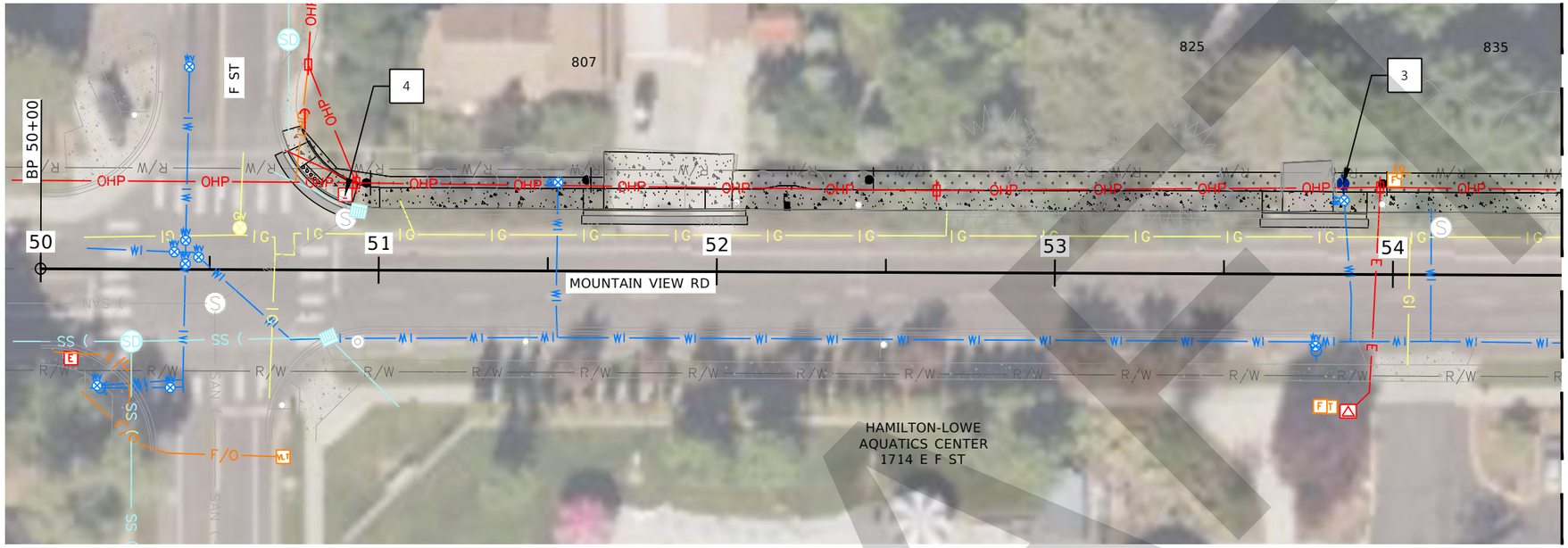
HMH engineering

PROJECT NO.
A023(902)
A023(903)

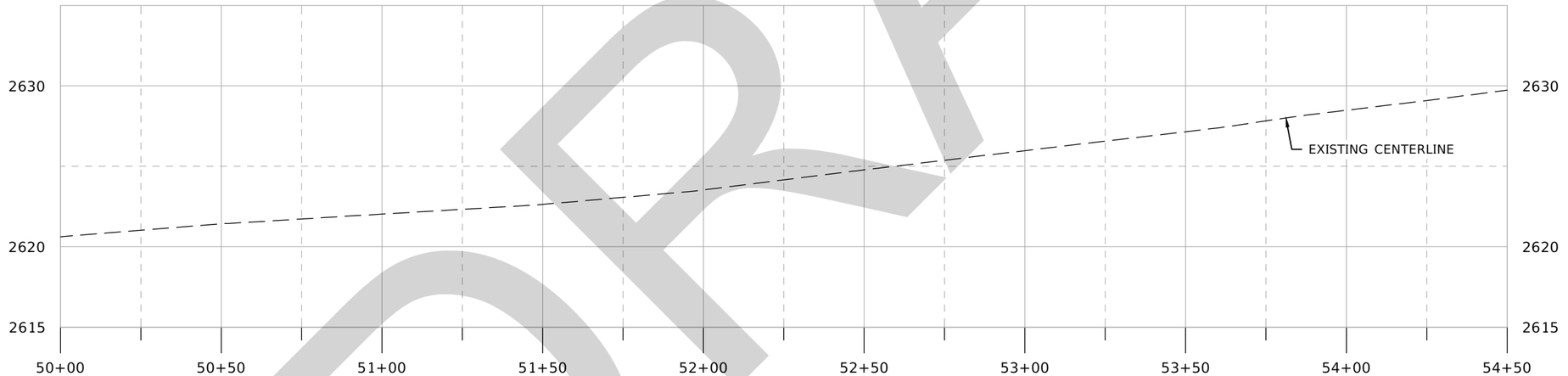
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 53 OF 60

PROFESSIONAL ENGINEER REGISTERED 17889 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW



EXISTING CENTERLINE PROFILE



3 CONTRACTOR TO ADJUST EXISTING UTILITIES

4 CONTRACTOR TO REMOVE EXISTING ELECTRICAL BOX AND CONDUIT

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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CADD FILE NAME 23902 UTIL 2
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

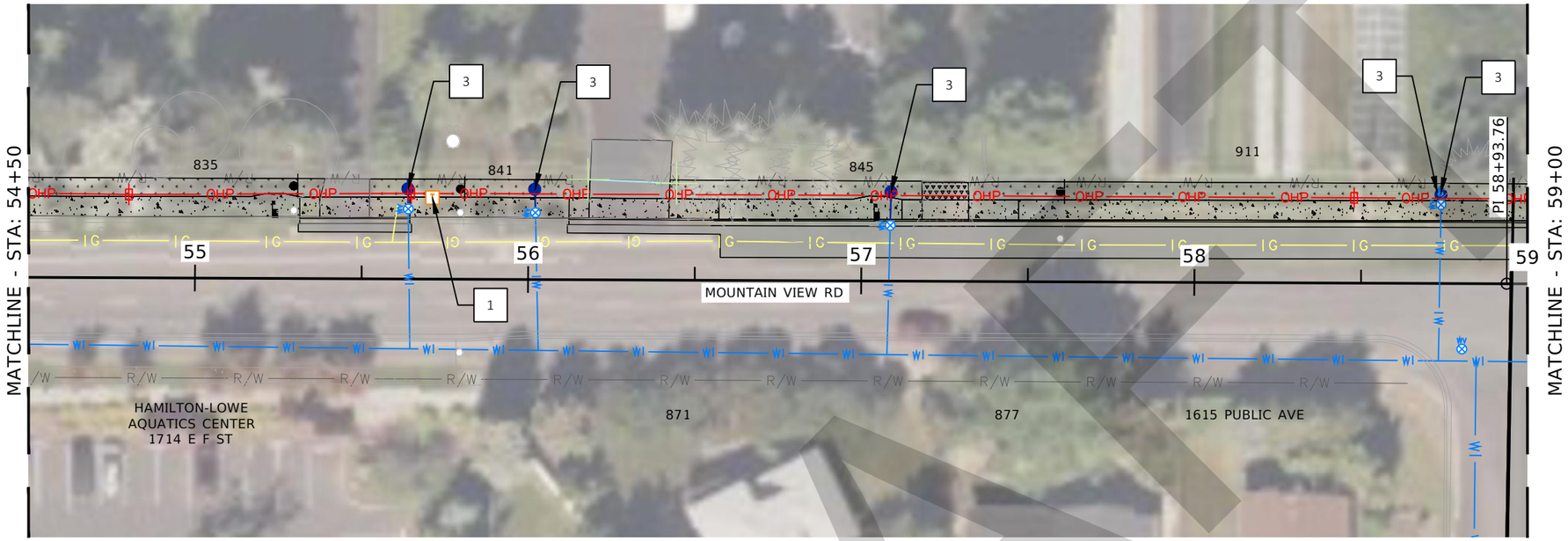
HMH engineering

PROJECT NO.
A023(902)
A023(903)

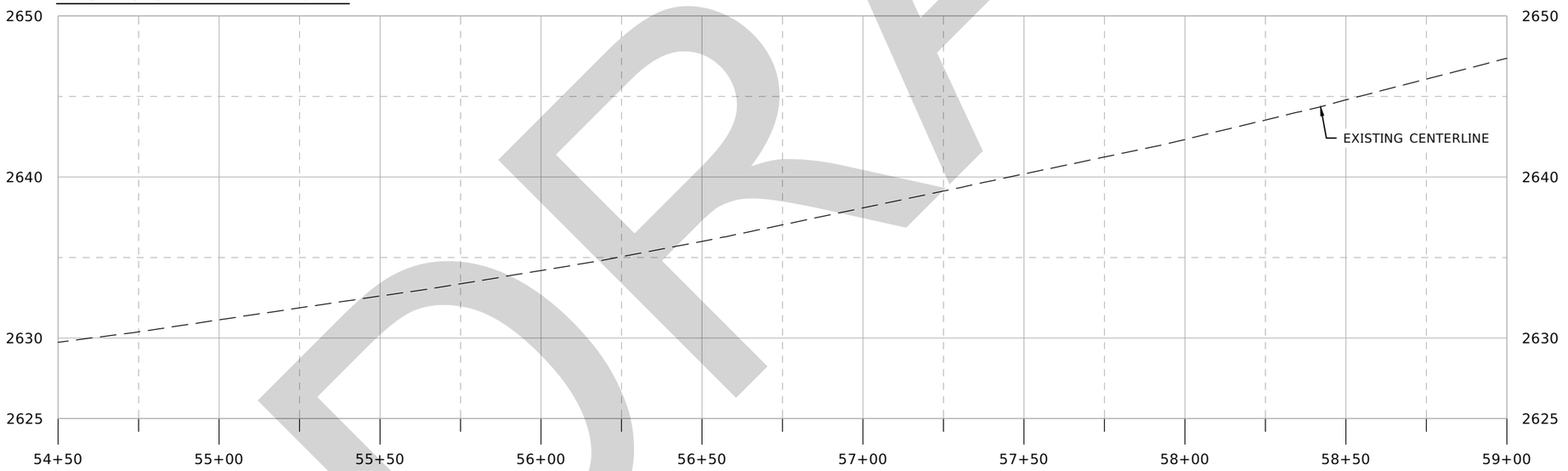
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 54 OF 60

PROFESSIONAL ENGINEER REGISTERED 17889 STATE OF IDAHO JUSTIN M. SHAW
02/03/2026



EXISTING CENTERLINE PROFILE



1 UTILITY COMPANY TO ADJUST EXISTING UTILITIES AT UTILITY COMPANY EXPENSE

3 CONTRACTOR TO ADJUST EXISTING UTILITIES

DRAFT

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CITY OF MOSCOW
IDAHO

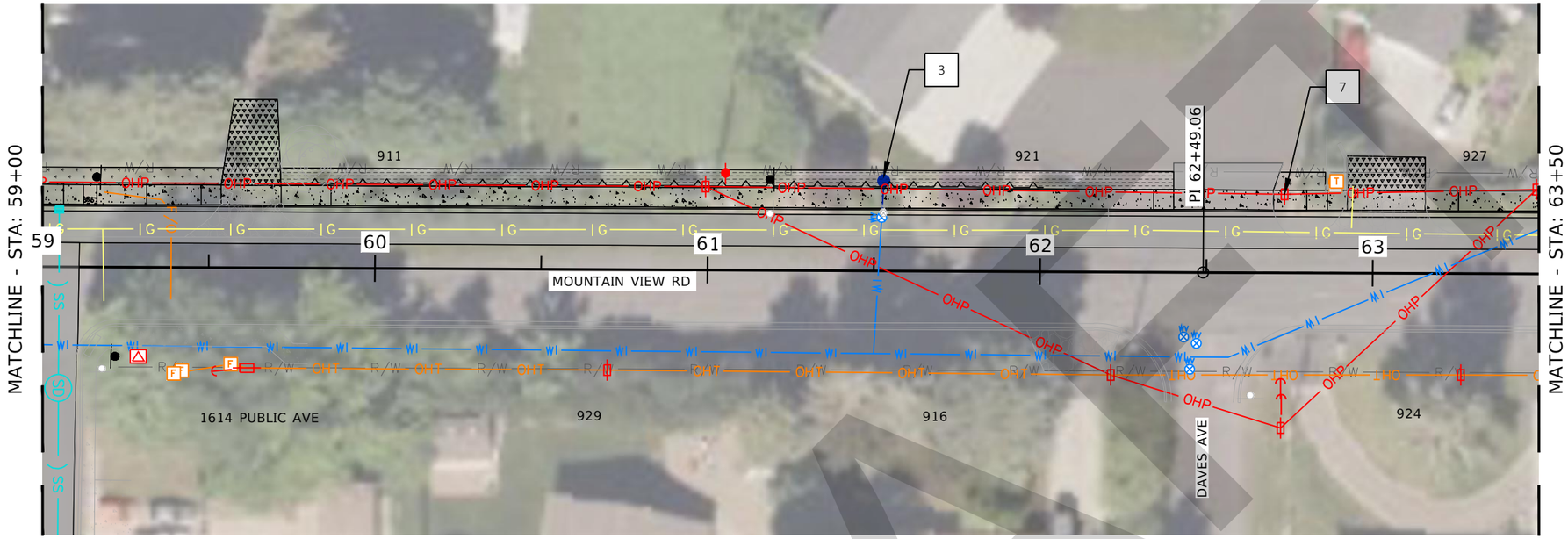
HMH engineering

PROJECT NO.
A023(902)
A023(903)

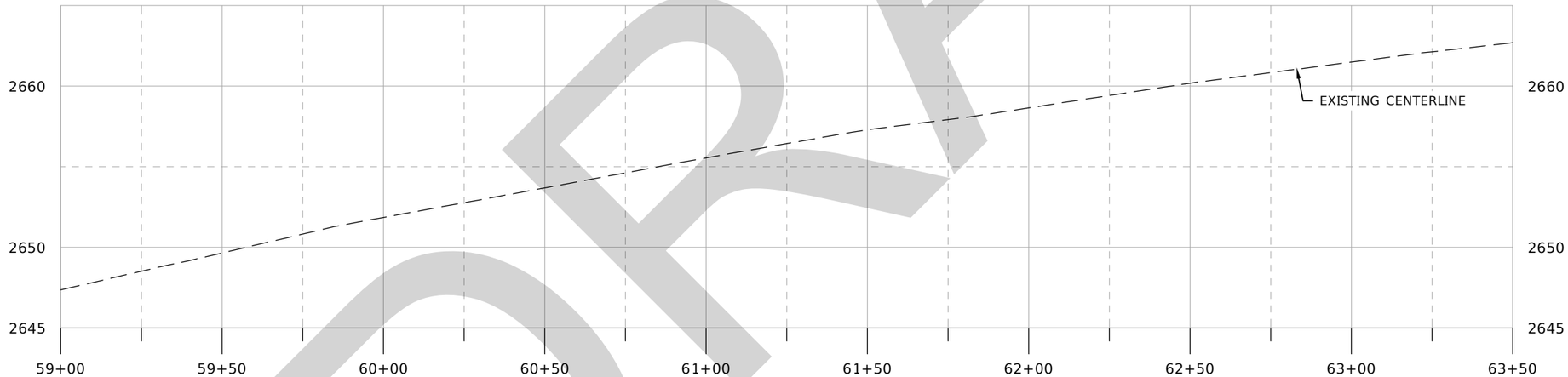
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 55 OF 60

PROFESSIONAL ENGINEER
REGISTERED
17889
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW



EXISTING CENTERLINE PROFILE



3 CONTRACTOR TO ADJUST EXISTING UTILITIES

7 UTILITY COMPANY TO ADJUST EXISTING UTILITY POLE AT UTILITY COMPANY EXPENSE

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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CITY OF MOSCOW
IDAHO

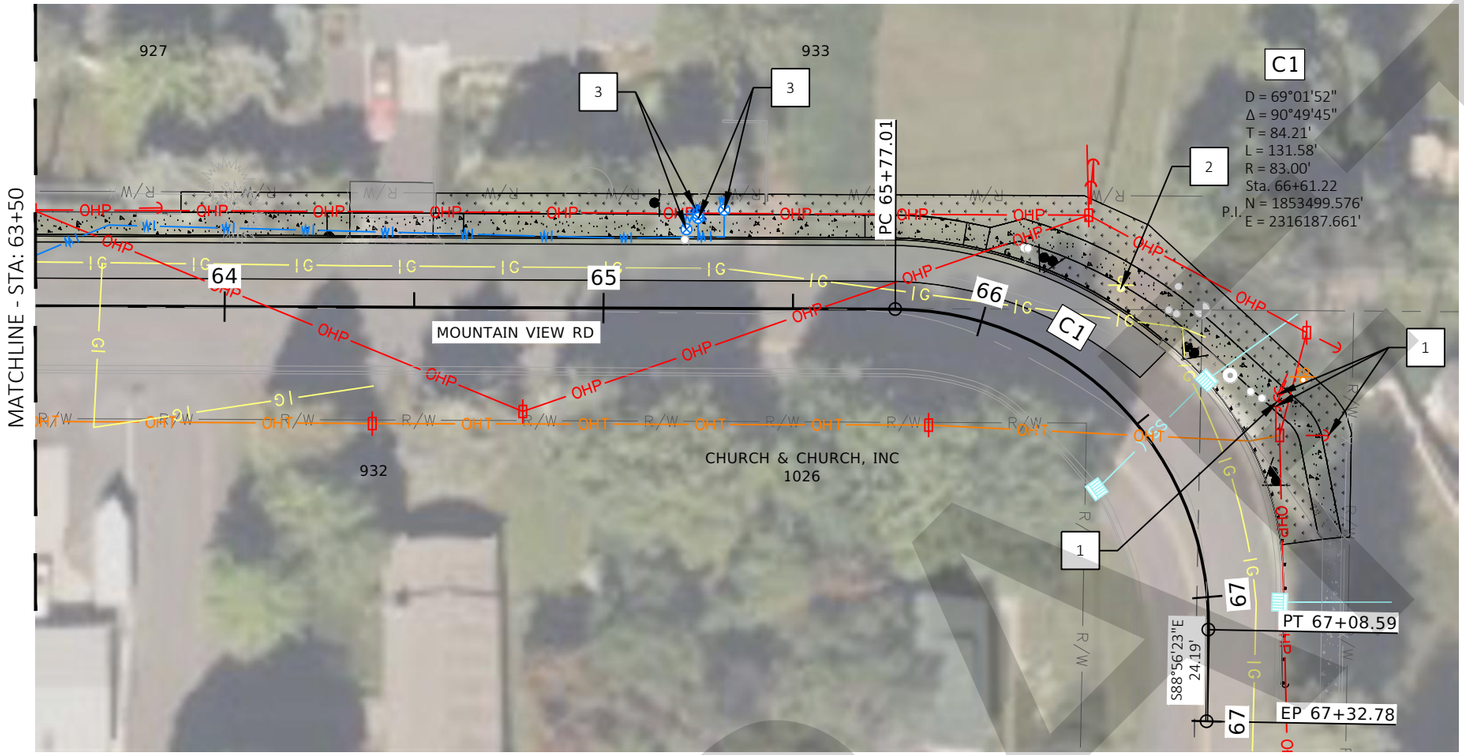
HMH engineering

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A023(902)
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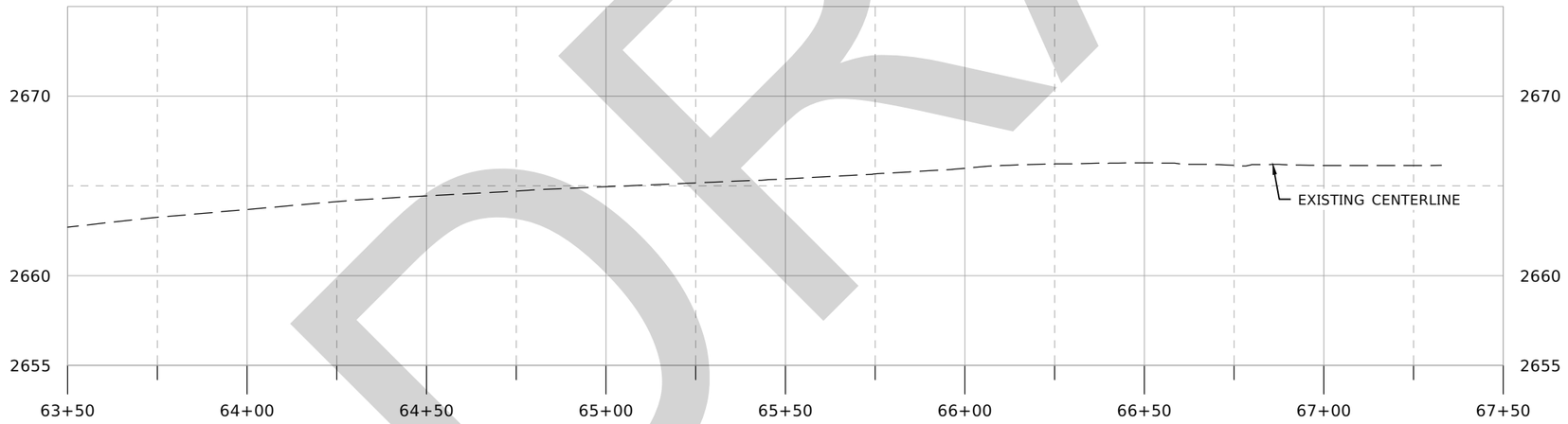
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 56 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW



EXISTING CENTERLINE PROFILE



1 UTILITY COMPANY TO ADJUST EXISTING UTILITIES AT UTILITY COMPANY EXPENSE

2 UTILITY COMPANY TO ADJUST EXISTING GAS SIGN AT UTILITY COMPANY EXPENSE

3 CONTRACTOR TO ADJUST EXISTING UTILITIES

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CITY OF MOSCOW IDAHO

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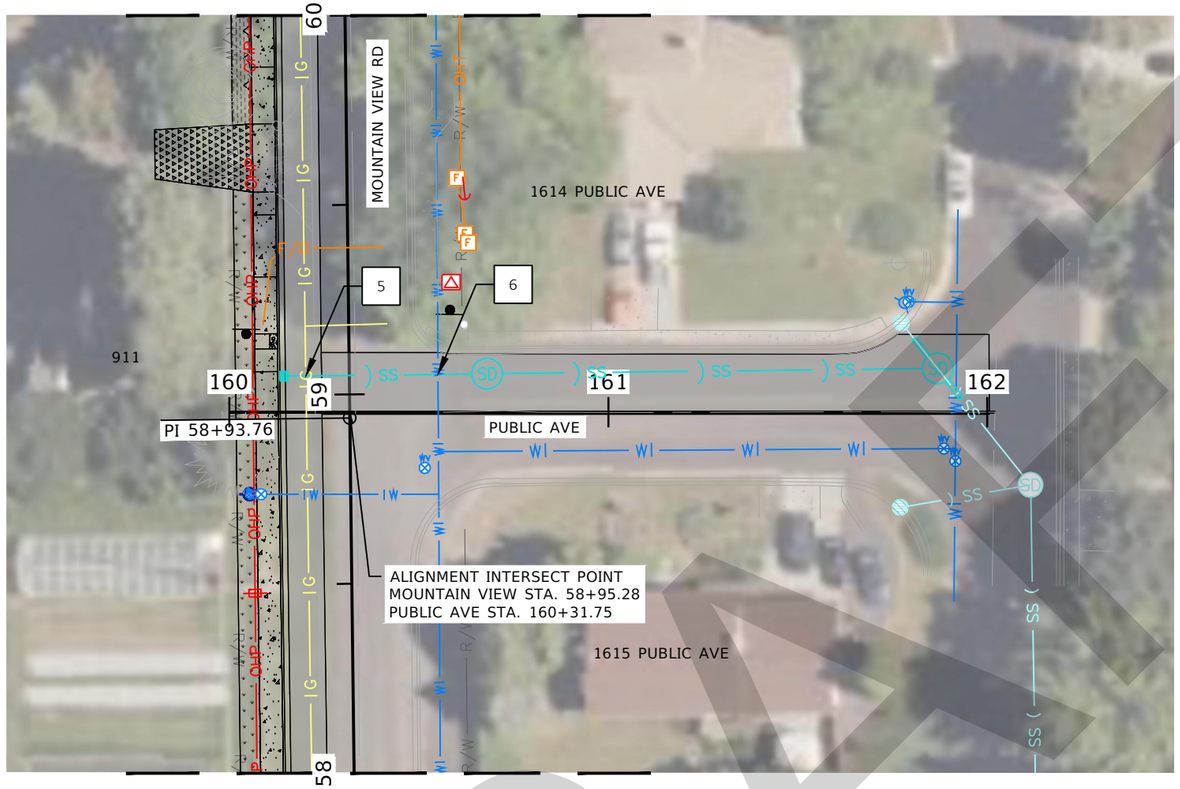
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A023(902)
A023(903)

UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 57 OF 60

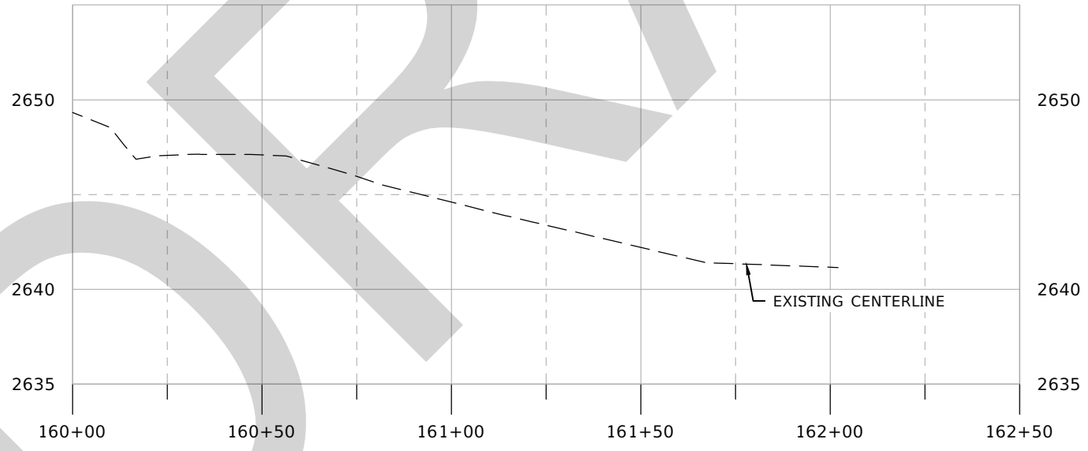
PROFESSIONAL ENGINEER REGISTERED 17789 02/03/2026 STATE OF IDAHO JUSTIN M. SHAW

MATCHLINE - STA: 60+00



MATCHLINE - STA: 58+00

EXISTING CENTERLINE PROFILE



5 POSSIBLE UTILITY CONFLICT: PROPOSED PIPE ELEVATION AT 2644.42 FT

6 POSSIBLE UTILITY CONFLICT: PROPOSED PIPE ELEVATION AT 2644.03 FT

DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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CITY OF MOSCOW IDAHO

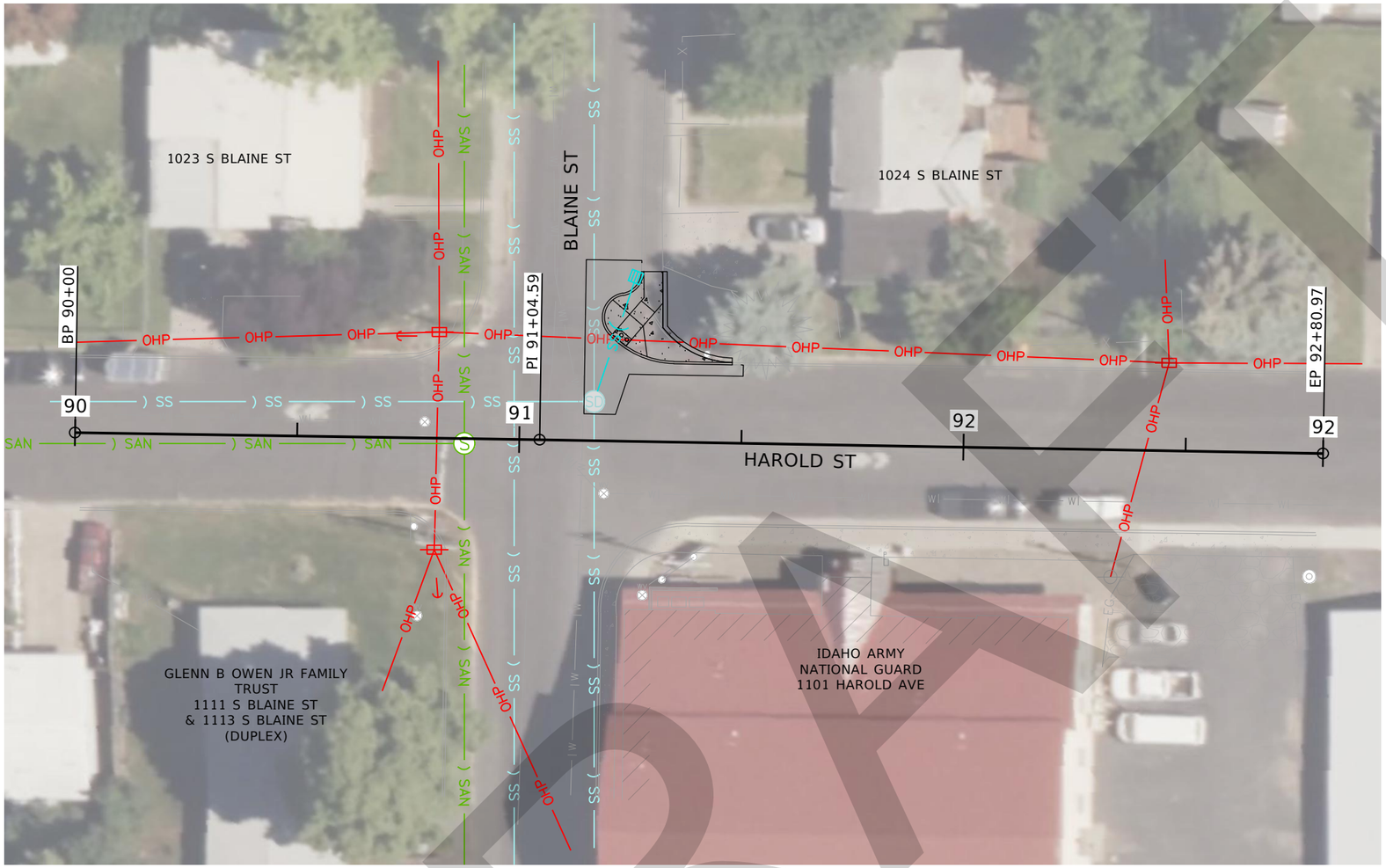
HMH engineering

PROJECT NO.
A023(902)
A023(903)

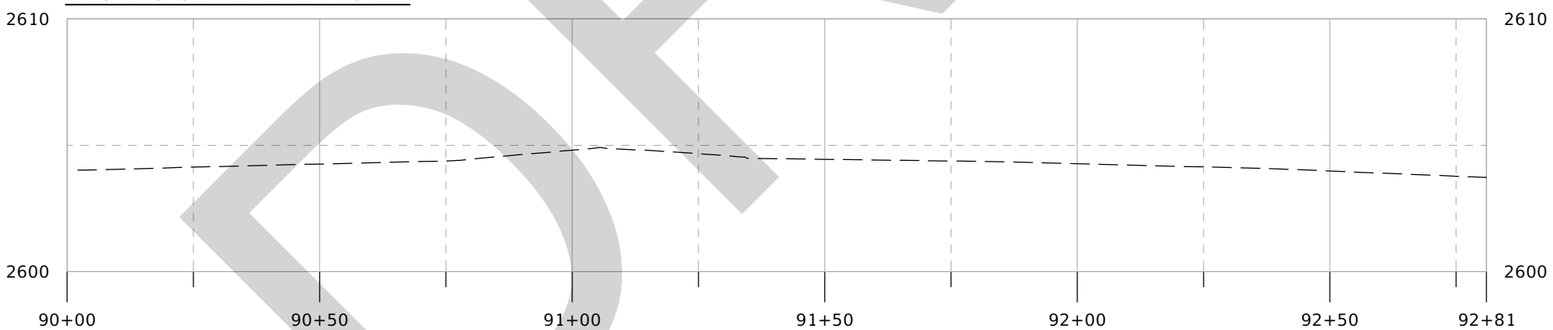
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 58 OF 60

PROFESSIONAL ENGINEER REGISTERED 17789 STATE OF IDAHO JUSTIN M. SHAW 02/03/2026



EXISTING CENTERLINE PROFILE



NO UTILITIES TO ADJUST THIS SHEET

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED BRANDT SOUVENIR & WOLFGANG BEIER
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DETAILED BRANDT SOUVENIR & WOLFGANG BEIER
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CADD FILE NAME 23902 UTIL 3
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

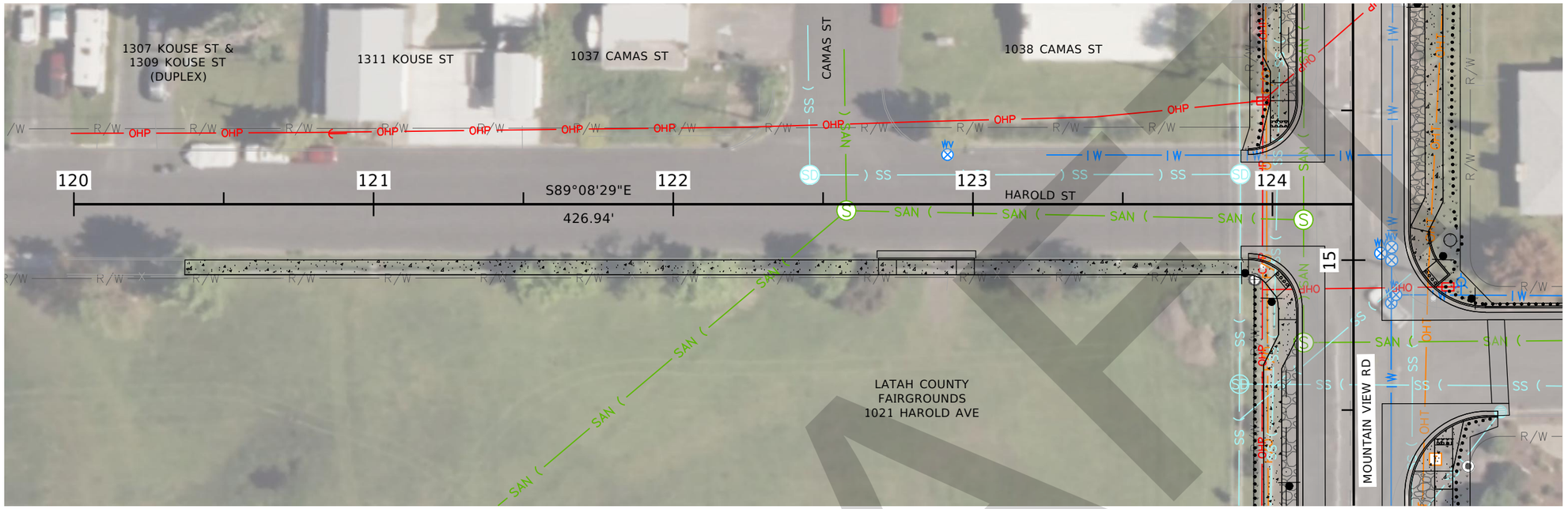
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 59 OF 60

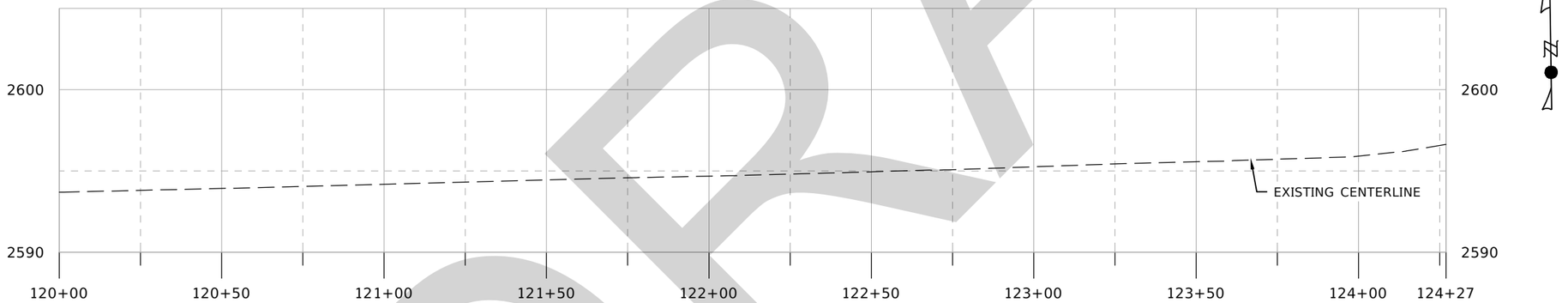
PROFESSIONAL ENGINEER REGISTERED 17789 STATE OF IDAHO JUSTIN M. SHAW
02/03/2026

DRAFT

NO UTILITIES TO ADJUST THIS SHEET



EXISTING CENTERLINE PROFILE



DRAFT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

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CADD FILE NAME 23902 UTIL 4
DRAWING DATE: FEBRUARY 2026

CITY OF MOSCOW
IDAHO

HMH engineering

PROJECT NO.
A023(902)
A023(903)

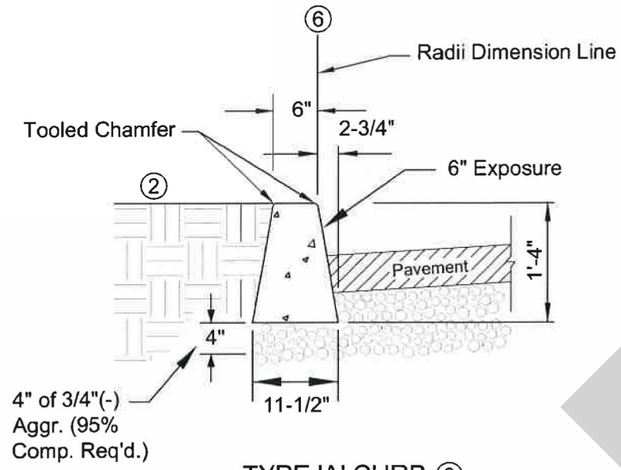
UTILITY
NORTH & SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS
MOSCOW, IDAHO

ENGLISH
COUNTY LATAH
KEY NUMBER 23902/23903
SHEET 60 OF 60

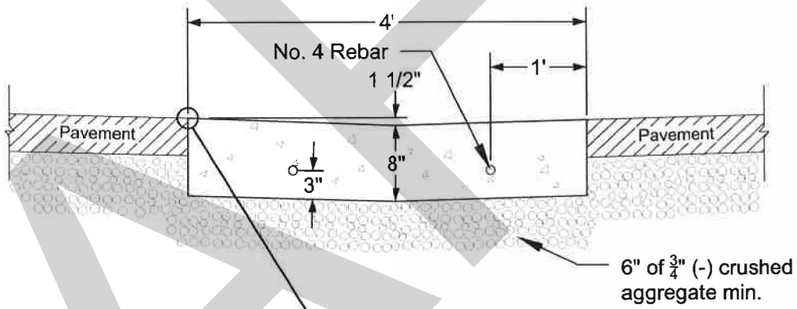
PROFESSIONAL ENGINEER
REGISTERED
17789
02/03/2026
STATE OF IDAHO
JUSTIN M. SHAW

NOTES:

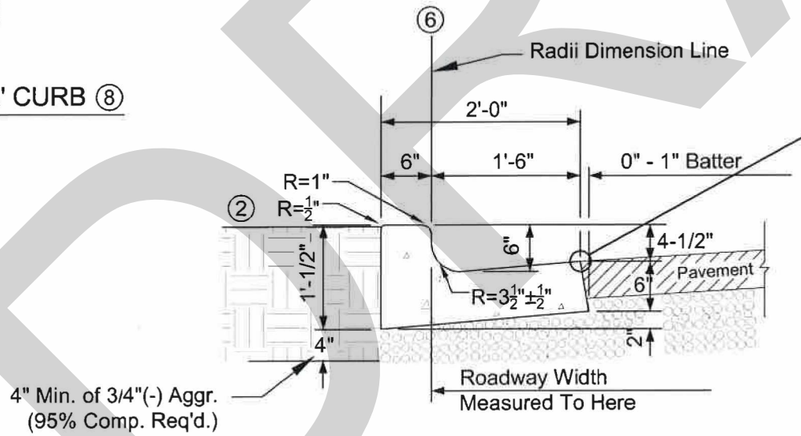
1. Replacement curb and sidewalk may be cast monolithic with prior approval of City Engineer.
2. Sidewalk to back-of-curb slope may not exceed 12:1 without City Engineer's approval.
3. Light broom finish curb parallel with the long axis of curb.
4. Rolled curb prohibited where sidewalk is adjacent to curb, unless specially allowed by the City Engineer. In areas without planter strips, sidewalks adjacent to to rolled curb shall be a minimum of six inches (6") thick.
5. All curb roadway planimetric radii dimensions shall be measured to the "Radii Dimension Line"shown in the typical curb section.
6. See table for curb radii requirements. Thirty foot (30') curb radii are required where any City street intersects an Idaho Transportation Department roadway.
7. 'Shed' section streets require 'spill curb' on the uphill side with gutter matching street cross slope.
8. Type 'A' curb only allowed where extending or replacing existing Type 'A' Curb.
9. Type 'C' curb only allowed in cul-de-sacs and where replacing existing rolled curb.



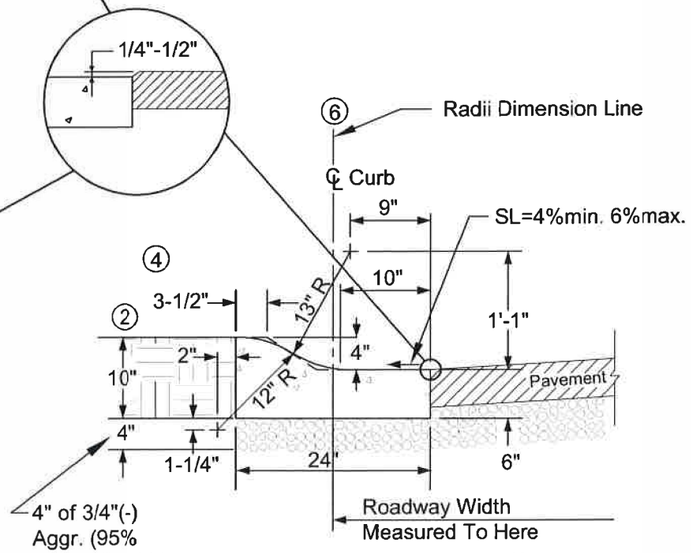
TYPE 'A' CURB ⑧



TYPE 'D' - VALLEY GUTTER



TYPE 'B' - COMBINATION CURB & GUTTER



TYPE 'C' - ROLLED CURB ⑨

CURB RADII REQUIREMENTS

Intersecting Street Classification	Curb Radii Dimension
Local - Local	15'
Local - Collector	15'
Local - Arterial	25'
Collector - Collector	25'
Collector - Arterial	25'
Arterial - Arterial	30'

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 2-1-18

DRAFTED BY: C.Edwards / K.Kipp
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

CURBS & GUTTERS

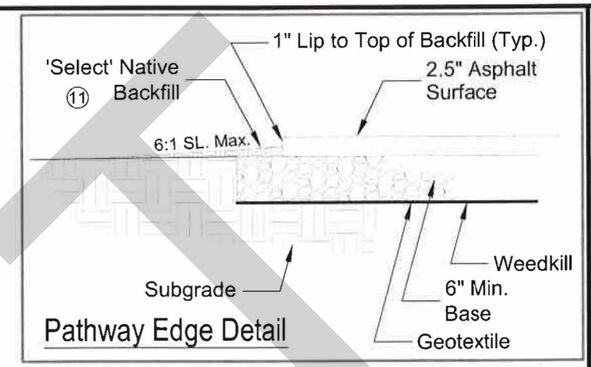
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 6

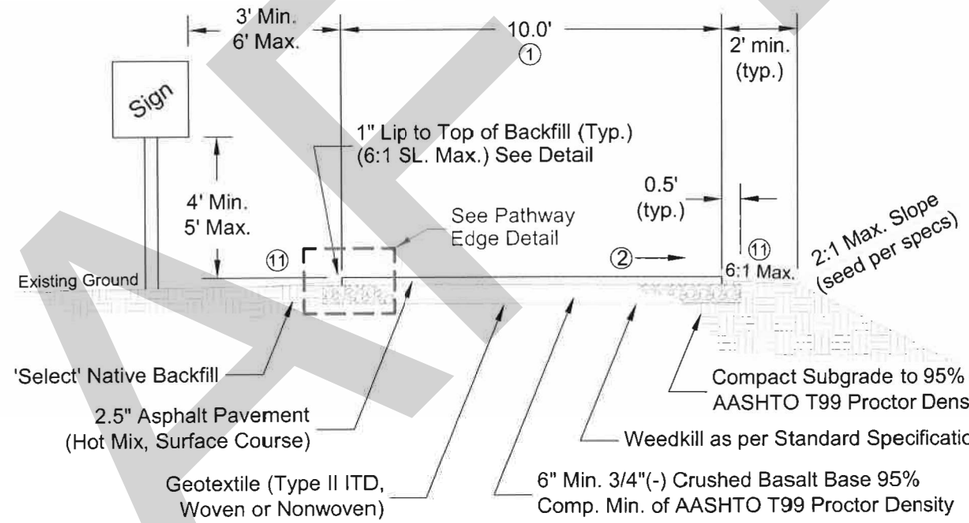
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NOTES:

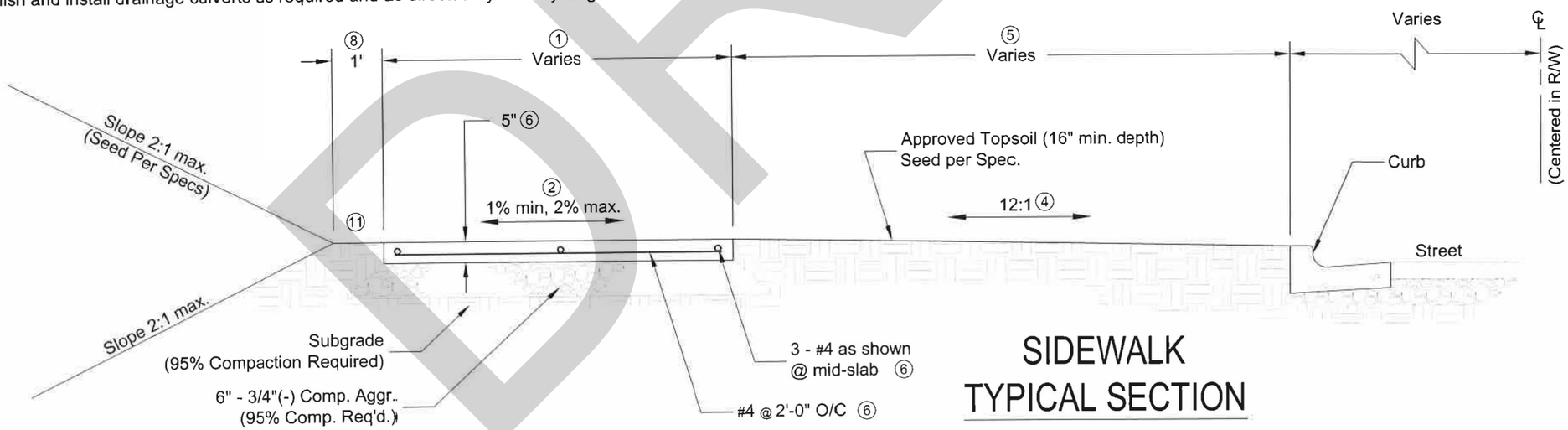
1. Minimum sidewalk widths shall be five feet (5') for local streets. For sidewalk widths for collectors and arterials, see Standard Street Section Drawings. Pathway width shall be ten feet (10') unless otherwise approved by the City Engineer.
2. Maximum cross slope of 2.0%; minimum cross slope of 1% - pathway cross slope may be 'crown' or 'shed'. Maximum sustained longitudinal grade for pathways of 5%. Pathways shall be free of humps, dips, or unnecessary curves.
3. Curb and sidewalk may be cast monolithic for repairs only with prior approval of City Engineer.
4. Slope from sidewalk to back-of-curb may not exceed 12:1 without City Engineer's approval.
5. Green strip required between curb and sidewalk width as specified in Standard Street Section Drawings. In areas of excessive cuts and fills, width may be reduced, as approved by the City Engineer.
6. Sidewalks shall be five inches (5") thick as shown on this drawing - with the following exceptions:
   a. Sidewalks through driveways shall be six inches (6") thick and constructed per the Std. Dwg. for Driveway Approaches.
   b. Sidewalks constructed adjacent to rolled curb shall be six inches (6") thick and reinforced as shown on this drawing.
   c. Reinforcement as directed by City Engineer.
7. Coarse broom finish sidewalk concrete perpendicular to the long axis of sidewalk; light broom finish curb concrete parallel to the long axis of curb.
8. This dimension shall be four feet (4') where standard franchise utility pedestals (excluding transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
9. Any trees adjacent to or with branches overhanging the pathway shall be kept trimmed such that ten feet (10') of both vertical and horizontal clearance exists between any branches and the pathway. Landscape vegetation cannot overhang sidewalk.
10. If fall protection is required by code, railing should be installed with a minimum height of 42" and a minimum height of 54" for bridges. Railing style must be approved by City Engineer.
11. 'Select' native backfill shall be free of clods, roots, gravel, and other inert material and shall be neatly graded to blend with the path and the adjoining ground. Backfill shall be compacted to 90% within 2' of path edge.
12. Furnish and install drainage culverts as required and as directed by the City Engineer.



Pathway Edge Detail



PATHWAY
TYPICAL SECTION



SIDEWALK
TYPICAL SECTION

DRAFT

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED 8832 5-19-14 STATE OF IDAHO KEVIN LILLY

DRAFTED BY: C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

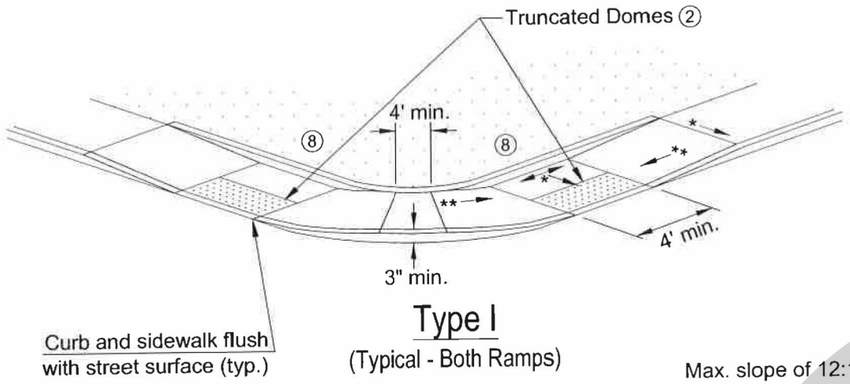
SIDEWALKS & PATHWAYS

CITY OF MOSCOW
ENGINEERING DEPARTMENT

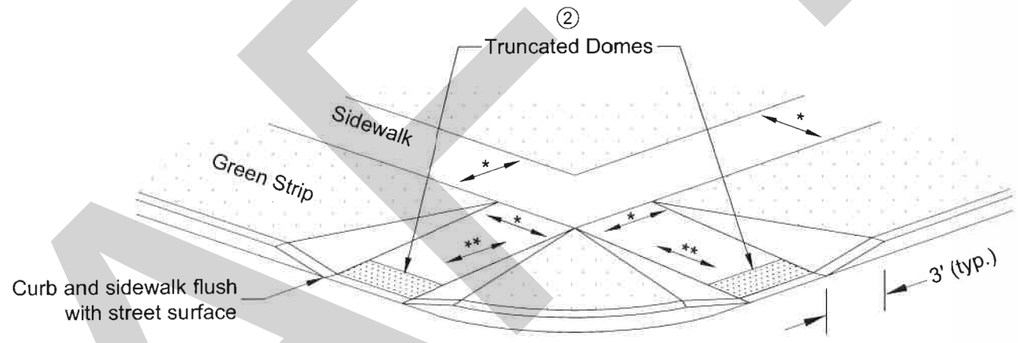
DRAWING NUMBER: 7

NOTES:

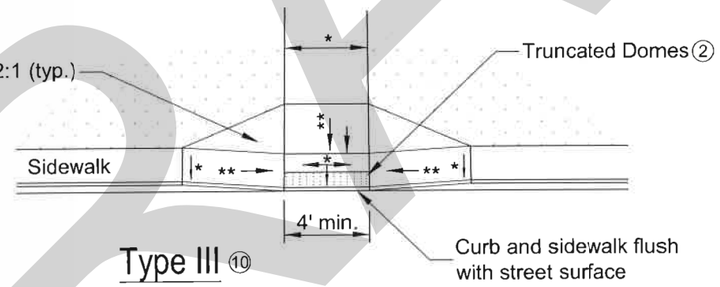
1. Moscow Standard Construction Specifications apply. Pedestrian ramps must comply with current Americans with Disability Act (ADA) Accessibility Guidelines.
2. All ramps shall be textured with Detectable Warnings, "Truncated Domes" as required by the current ADA Guidelines and as allowed by the City Engineer. The truncated domes shall extend the the full width of the flush curb ramp and two feet (2') radial to back of curb. Truncated Domes shall be prefabricated plate units cast monolithic with the concrete and set flush and to manufactured specifications. Coarse broom finish the remainder of the ramp.
3. All curb roadway planimetric radii dimensions shall be measured to the 'Radii Dimension Line' shown in the typical curb sections. See Standard Drawing for Curbs & Sidewalks. Curb radii shall conform to "Curb Radii Requirements" table in Standard Drawing for Curbs & Gutters.
4. Light broom finish curbs and gutters parallel with the long axis of the curb and/or curb and gutter. Coarse broom finish sidewalks perpendicular to the long axis of sidewalk.
5. Rolled curb section properties may vary from those shown as specifically allowed by the City Engineer.
6. Sidewalk constructed in driveway locations shall be six inches (6") thick and reinforced, all as per Standard Drawing for Driveway Approaches.
7. Specified 2.0% cross-slopes shall be 1% minimum and 2.0% maximum.
8. Construct curb or sloped (4:1) backfill - as required and/or allowed by the City Engineer.
9. Type I or Type II pedestrian ramp is the required standard; Type III, IV, or V ramps may be allowed in special circumstances as approved by the City Engineer.
10. Curb and sidewalk may be cast monolithic with prior approval of City Engineer.



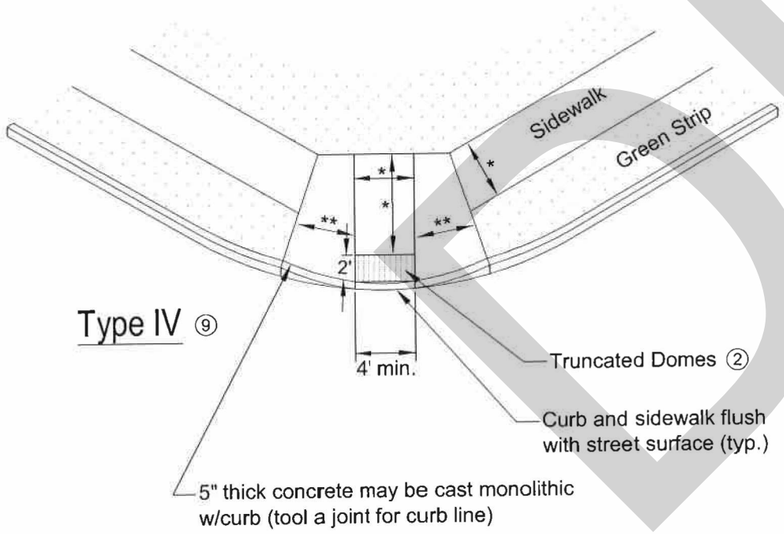
Type I
(Typical - Both Ramps)



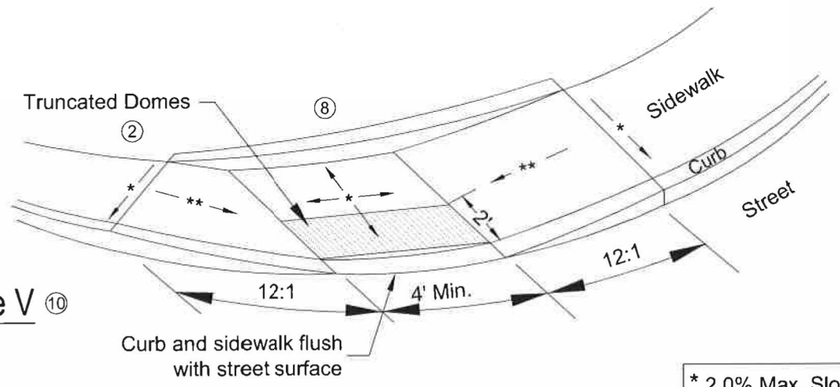
Type II



Type III ⑩



Type IV ⑨



Type V ⑩

* 2.0% Max. Slope ⑧
** 12:1 Max. Slope

REVISIONS	
DESCRIPTION	
DATE	

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

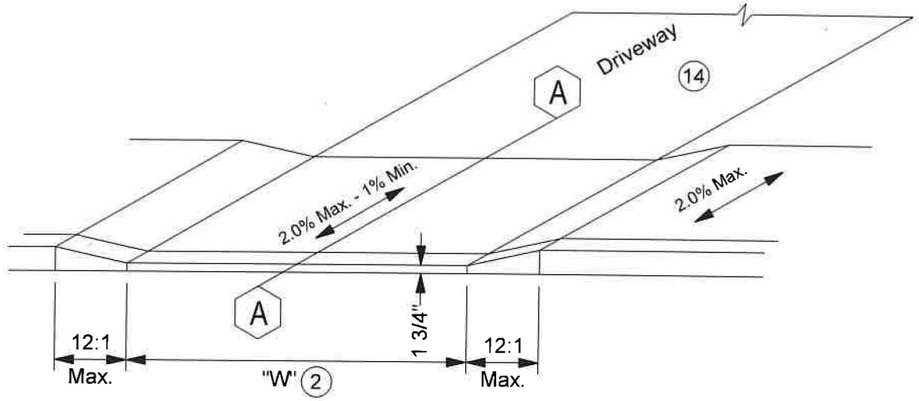
DRAFTED BY: K.Kipp / B.Buvel C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

PEDESTRIAN RAMPS

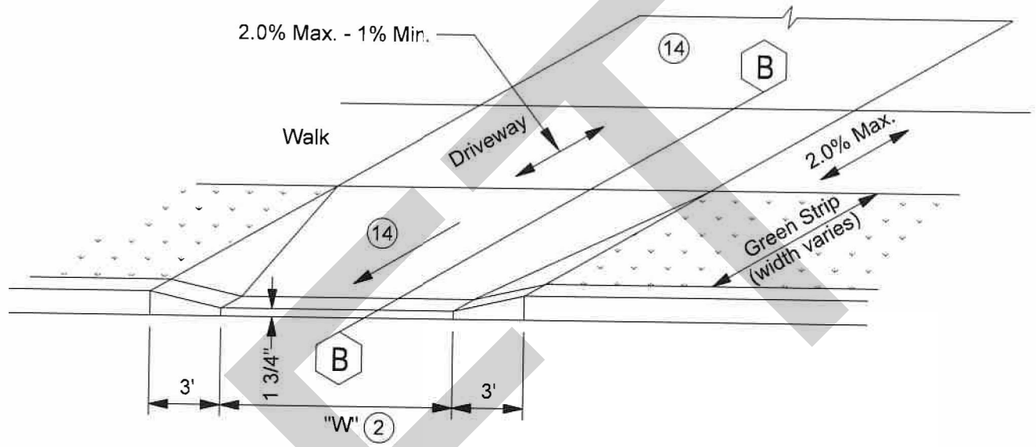
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 8

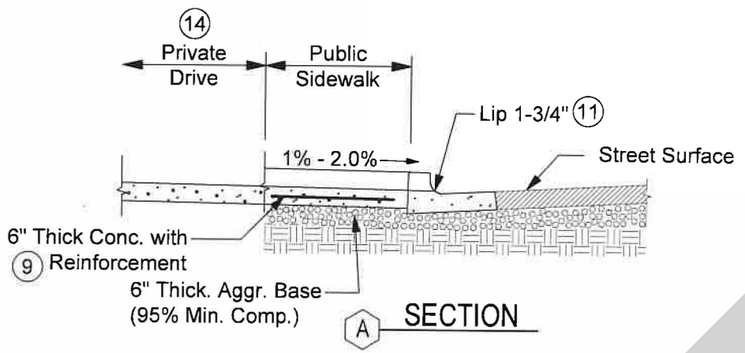
DRAFT



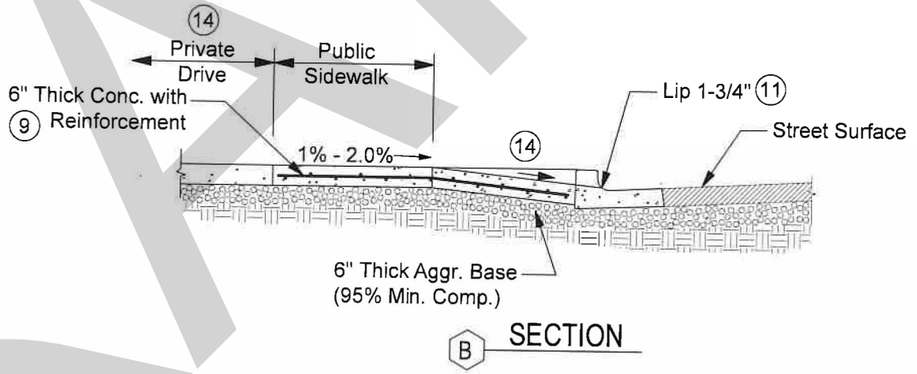
TYPE I



TYPE II



SECTION



SECTION

NOTES:

1. Existing curb and sidewalk section to be removed (sawcuts required) prior to construction of vehicular approaches.
2. The width "W" of a vehicle approach providing access to residential uses shall be a maximum of thirty feet (30'). Vehicle approaches providing two-way access to commercial uses shall be a maximum of forty feet (40') wide unless a wider width is deemed appropriate by the City Engineer.
3. Vehicle approaches shall be located at least thirty feet (30') from the intersection of the curb line of an intersecting street.
4. Approaches shall be limited to one per street frontage for each lot, with the following exceptions:
   a. Two twenty foot (20') curb cuts may be permitted to commercial uses where one cut will be egress only and the other ingress only.
   b. Additional approaches may be authorized by the City Engineer where, in his/her opinion, an exceptionally long street frontage or traffic conditions in the area justify such approaches.
5. Truncated domes are not to be installed in sidewalk at driveways.
6. A City of Moscow excavation permit is required to construct new driveways through existing curbs and sidewalks.
7. Curb and sidewalk may be cast monolithic with prior approval of City Engineer. (Strike dummy joint at back of curb)
8. Driveways within State of Idaho right-of-way are subject to Idaho Transportation Department standards and permits. Inquire at Moscow Engineering Department (208-883-7034).
9. Reinforcement shall be 6 x 6 - W2.1 / 2.1 welded wire mesh or No. 4 rebar @ 1'-0" centers each way centered in slab.
10. Forms shall be inspected by the City prior to placing concrete. No Exceptions.
11. Lip height shall be 1-3/4" (plus/minus 1/4").
12. Vehicle approaches per this standard required for all driveways.
13. In areas with rolled curb, the number of driveways shall not exceed the number of curb cuts allowed per lot (as per Zoning Code Section 6-4).
14. Allowed gradient per Driveway Grade Limitation Standard Drawing.

DRAFT

REVISIONS	
DATE	DESCRIPTION
2-4-2021	Changed driveway widths from 20' and 30' to 30' and 40'

SIGNED AND DATED

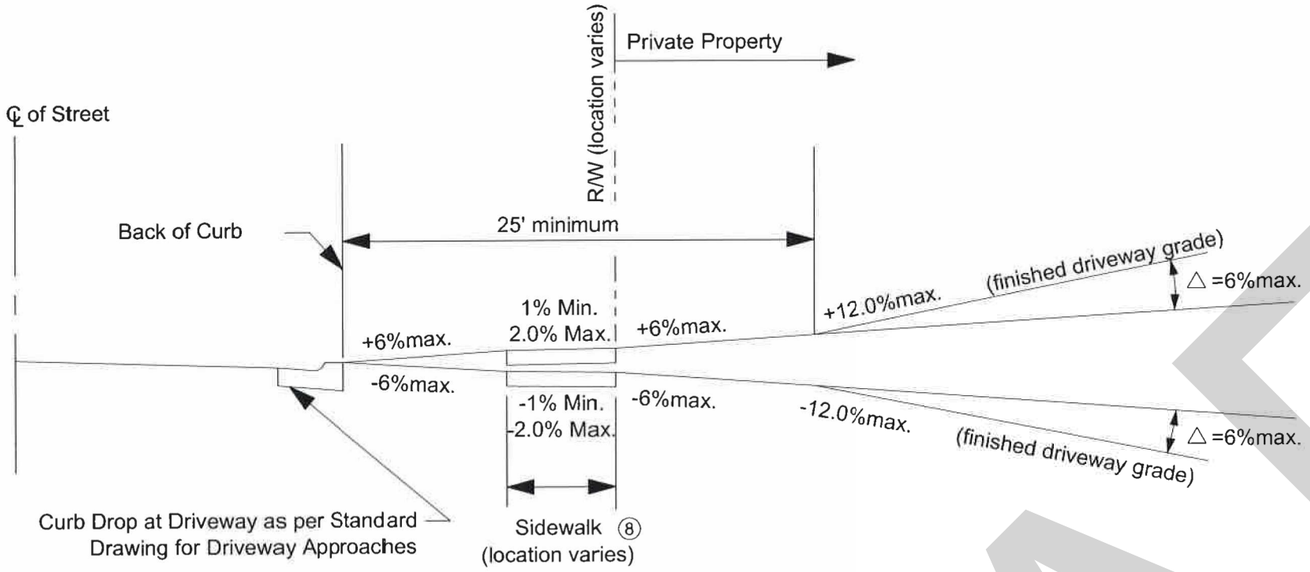
PROFESSIONAL ENGINEER LICENSED 14816 STATE OF IDAHO BRIAN SCOTT BOUTRAGER 2/4/21

DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
K.Kipp / C.Edwards	K.Lilly	NOT TO SCALE	3-5-2014

DRIVEWAY APPROACHES

CITY OF MOSCOW
ENGINEERING DEPARTMENT

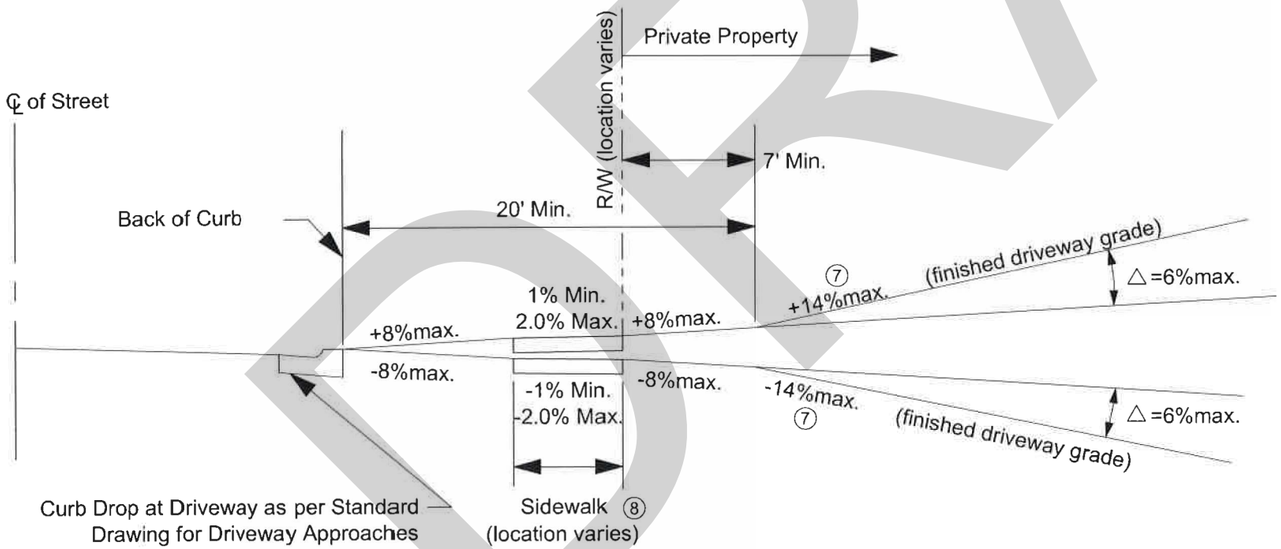
DRAWING NUMBER: 9



TYPE I DRIVEWAY

NOTES:

1. TYPE I DRIVEWAY applies to all driveways except those for single family dwellings and duplexes.
2. TYPE II DRIVEWAY applies to single family and duplex lots.
3. Driveway grade must also match existing sidewalk elevation. The City Engineer may allow reconstruction of the sidewalk for the purpose of matching a proposed driveway grade. ADA Standards Apply.
4. Maximum cross slope of driveways shall not exceed 5.0%.
5. Maximum slope of parking areas and aisles shall not exceed 5.0% in any direction.
6. Noted grades measured at driveway centerline.
7. Or as approved by the Building Official.
8. Sidewalk adjacent to curb shall slope -2.0% or -1% towards curb.



TYPE II DRIVEWAY

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

DRAFTED BY: K.Kipp, C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: N T S
DATE: 2-27-2014

DRIVEWAY GRADE LIMITATIONS

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 12

DRAFT

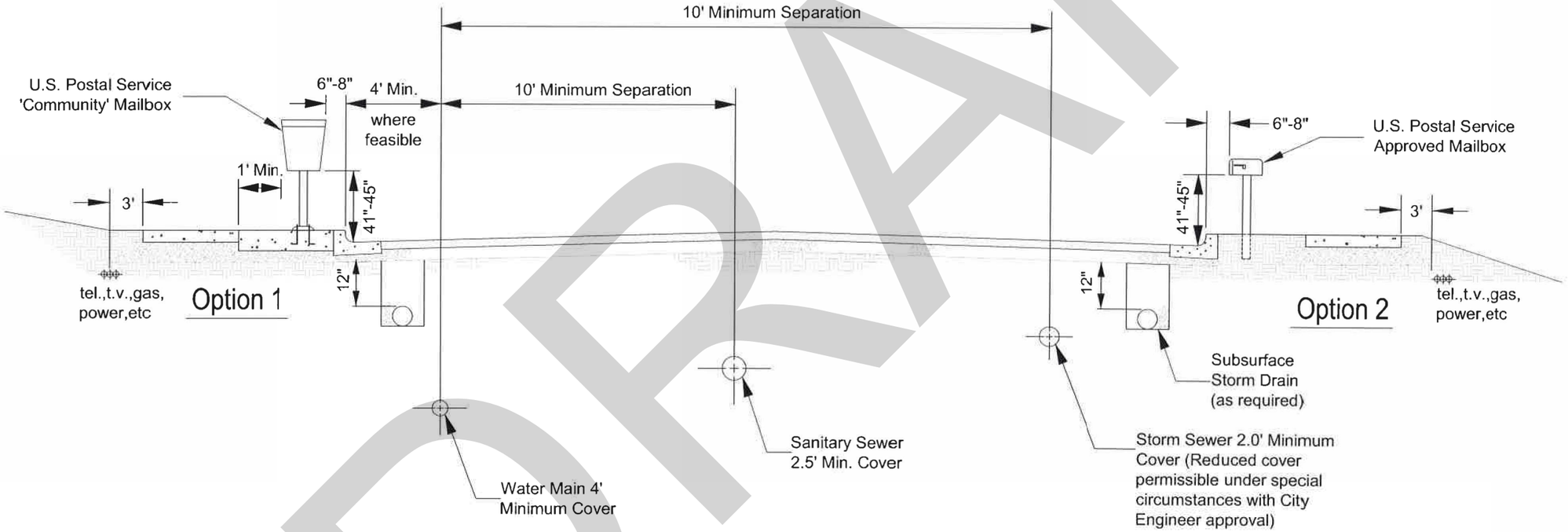
NOTES:

1. The locations of City water, sanitary sewer and storm sewer mains shown are preferred where possible; curvilinear street alignment and tangent utility runs dictate other locations, as approved by the City Engineer.

2. The 'community' style mailboxes shall be placed in locations approved by both the Postal Service and the City Engineer. The Developer is responsible for the construction of 'community' mailbox concrete support slab, all in accordance with U.S. Postal Service construction requirements. The support slab shall extend to the City sidewalk.

3. Utility poles (wood, metal, or other) shall be located with 1.5' minimum clearance from back of curb to face of pole or 1.0' minimum from back of sidewalk to face of pole. Sign posts shall be located 1.5' minimum from back of curb; their location shall also conform to MUTCD requirements.

4. Franchise utilities, including pedestals shall be located within street right-of-way or public utility easement and as shown on the Standard Drawing for Franchise Utility Details.



TYPICAL SECTION

DRAFT

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

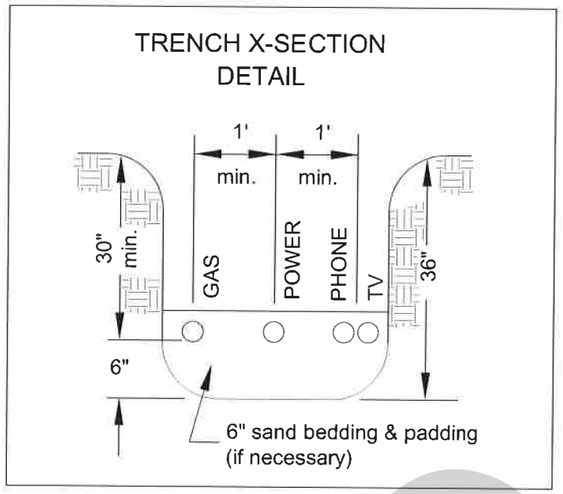
DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
K.Kipp / M.Sass	K.Lilly	NTS	3-31-2014

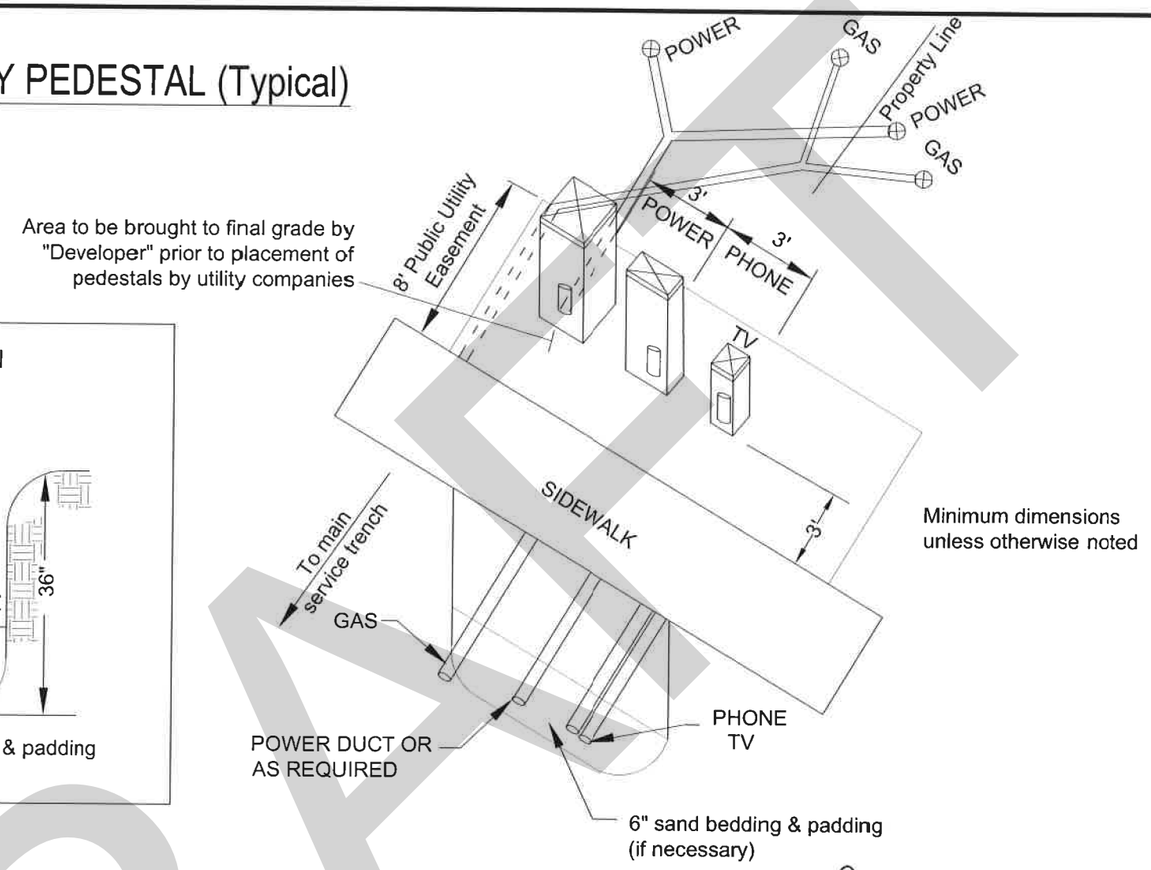
UTILITY & MAIL BOX LOCATIONS

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:
13

ROAD CROSSING FOR SECONDARY PEDESTAL (Typical)



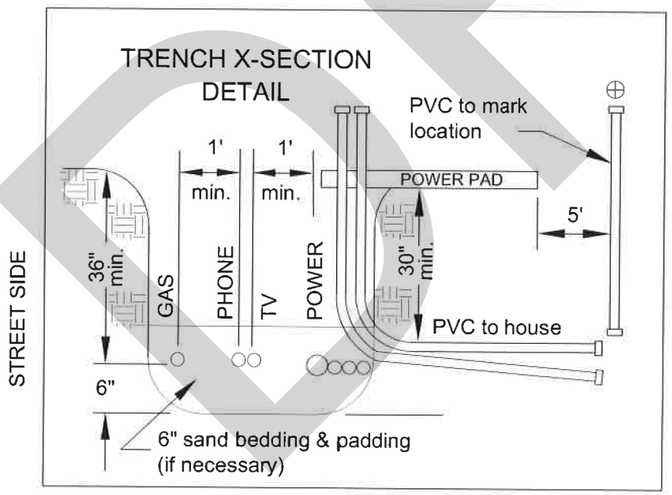


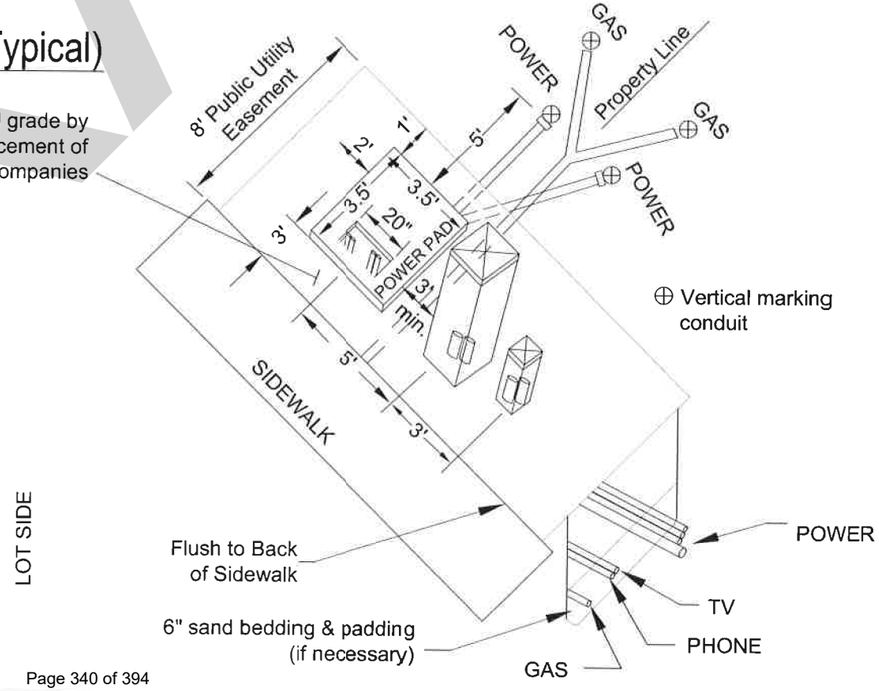
Minimum dimensions
unless otherwise noted

NOTES:

1. Verify conduit sizes with utilities prior to installation.
2. Bundle conduits for each utility at pedestal locations.
3. Dimensions shown are minimum unless otherwise noted.
4. Unless otherwise directed, the Gas, Power, Telephone, and T.V. Cable will be installed on the North and East sides of the street.
5. Furnish and install pull strings in all conduits.

MAIN LINE (Typical)





REVISIONS	
DATE	DESCRIPTION

DETAIL PROVIDED BY
THE FRANCHISE
UTILITY COMPANIES

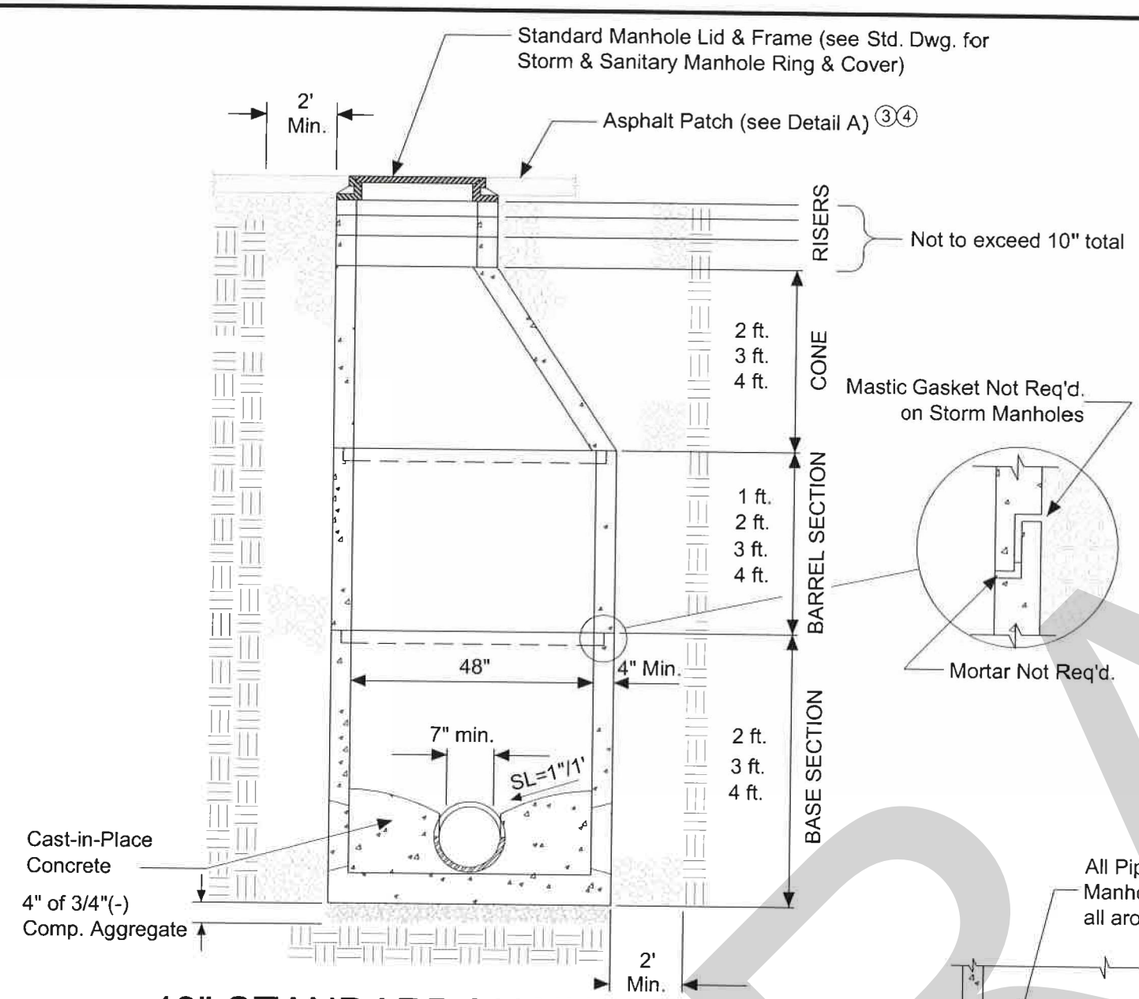
DRAFTED BY: K.Kipp
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 1-30-2012

FRANCHISE UTILITY DETAILS

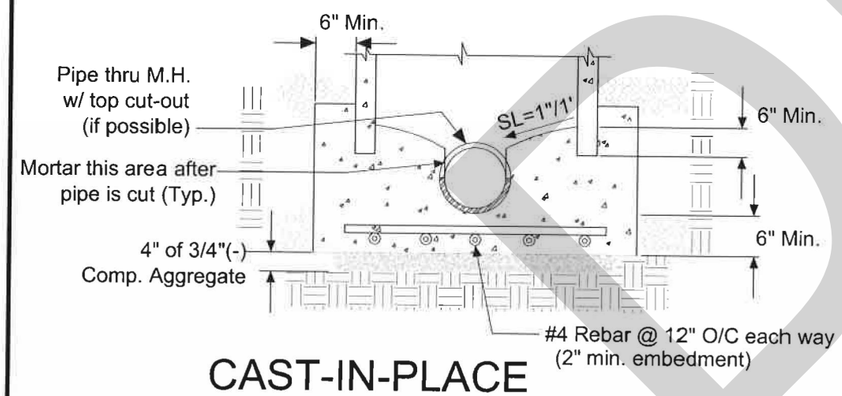
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:
14

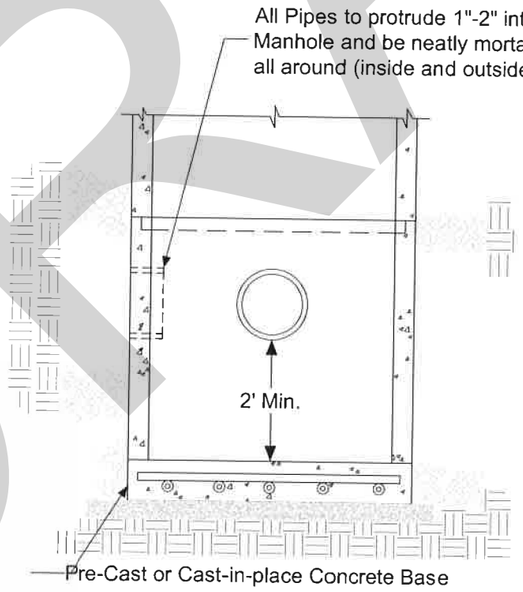
DRAFT



48" STANDARD MANHOLE w/ PRECAST BASE



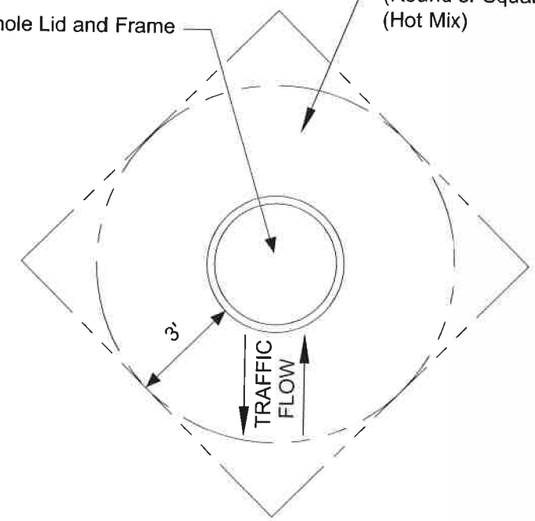
CAST-IN-PLACE ALTERNATE BASE



MANHOLE w/ CATCH BASE

NOTES:

1. Precast bases are preferred.
2. Steps shall not be installed in the manholes.
3. Manholes located in paved areas shall have asphaltic hot mix patch four inches (4") thick with top course mix restoring surface to exact line and grade of street. Manhole lids in new pavement shall be raised and adjusted to finished grade after completion of street paving.
4. Manholes located in unpaved streets or alleys shall have their lids adjusted to two inches (2") below gravel surface.
5. All cast-in-place concrete shall be troweled very smooth.
6. All joints between precast manhole/sections shall be very smooth.
7. All flow across manholes shall be on-tenth of a foot (0.1') fall, unless the flow changes direction more than 45°, then the fall shall be two-tenths of a foot (0.2') or greater.
8. Channels shall be as per Standard Drawing for Manhole Base Details.
9. Lids shall be set a quarter inch ($\frac{1}{4}$") below the existing paved street grade.
10. Flat slab top allowed on shallow manholes.
11. Contractors shall comply with the most current OSHA requirements for excavation.
12. WSDOT Catch Basin Type 2 may be required at certain locations by the City Engineer in place of this manhole standard.



A ASPHALT PATCH DETAIL

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

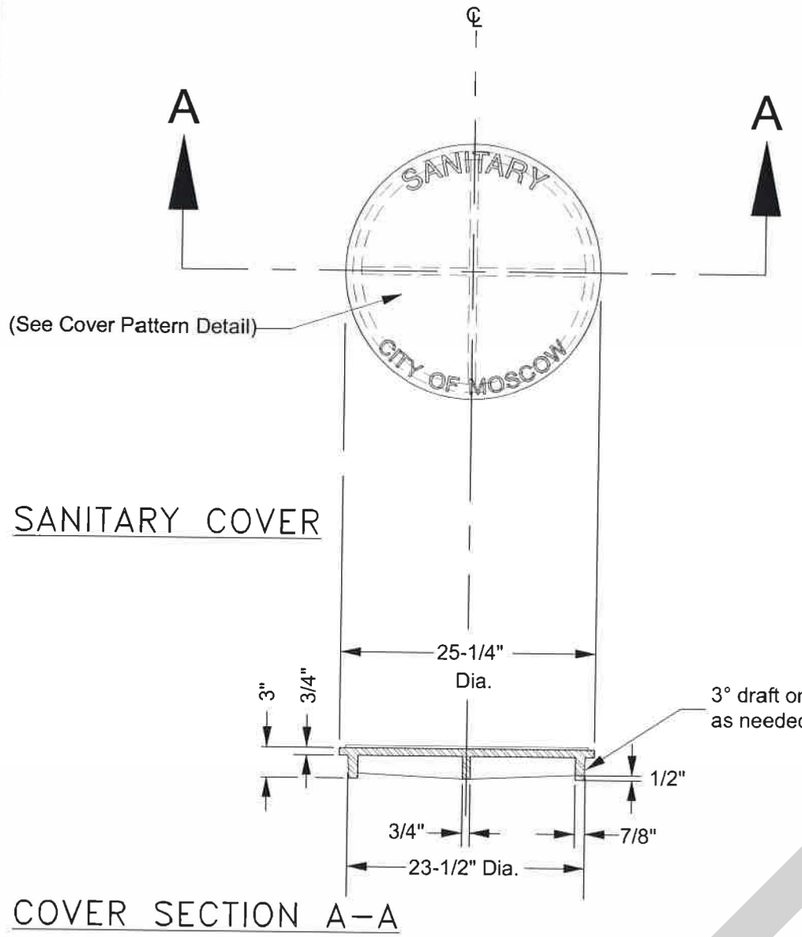
DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
CEE/KWK	K.Lilly	NTS	3-4-2014

STORM SEWER MANHOLE

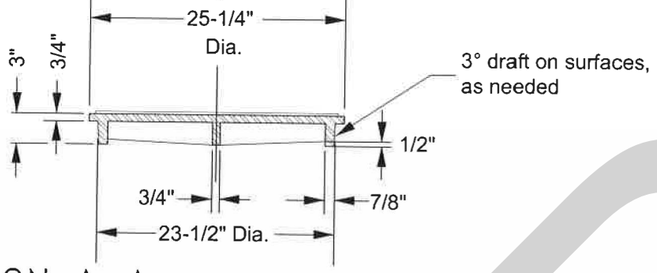
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 21

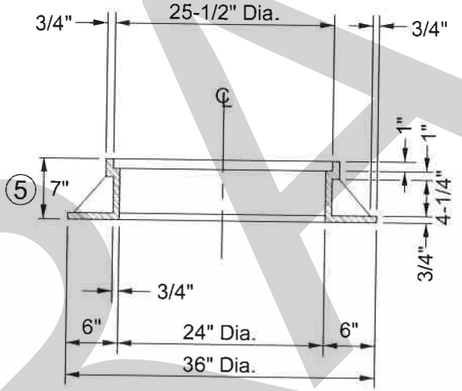
DRAFT



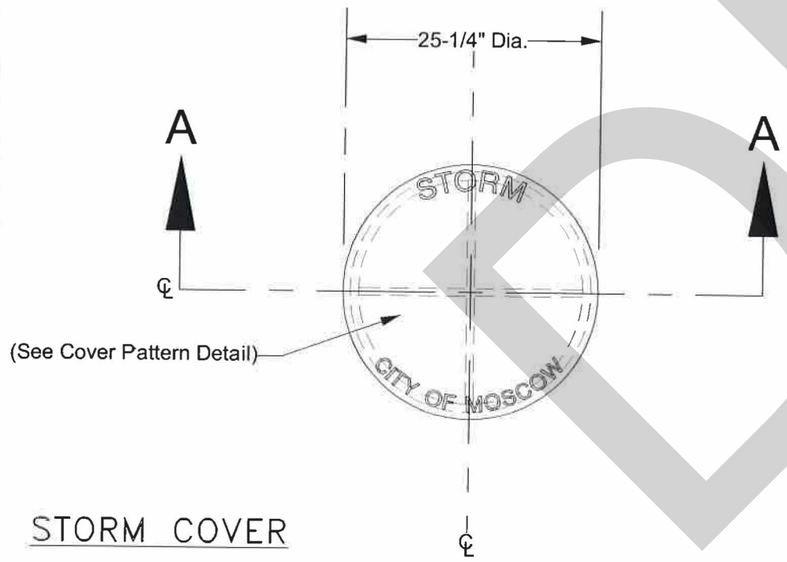
SANITARY COVER



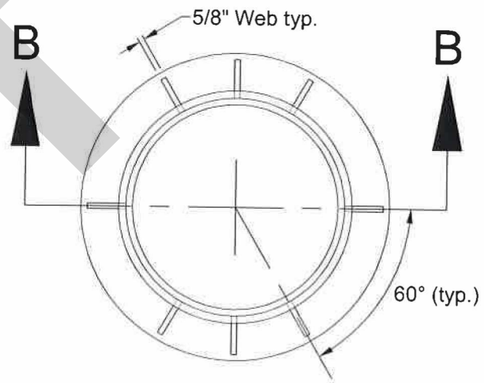
COVER SECTION A–A



RING SECTION B–B



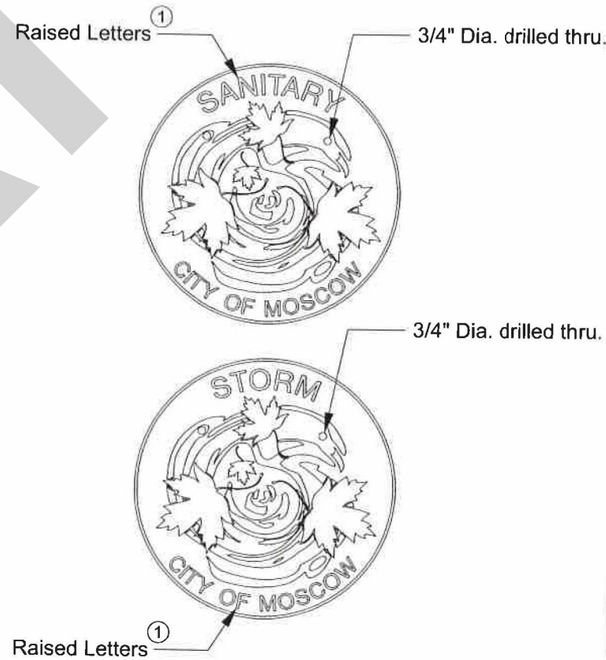
STORM COVER



RING

NOTES:

1. Raised letters are Sharp Face Gothic font; 2.5" for "SANITARY" and "STORM," 1.5" for "CITY OF MOSCOW." Center word about center line.
2. Cast covers of Grey Cast Iron; ASTM A48 Class 138.
3. All covers shall be interchangeable within the dimensions shown. All mating surfaces shall be machine finished to ensure a non-rocking fit The inside vertical recessed face of the ring and the vertical outside edge of the cover shall be machined or manufactured to the fallowing tolerances:
   Ring - +3/32 inch to -3/32 inch
   Cover - +3/32 inch to -3/32 inch
4. Rings (traffic rated) of lesser height may be used in special circumstances, as allowed by the City Engineer.



COVER PATTERN DETAILS

REVISIONS	
DESCRIPTION	
DATE	

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

DRAFTED BY: CEE/KWK	CHECKED BY: K.Lilly	DRAWING SCALE: NTS	DATE: 3-4-2014

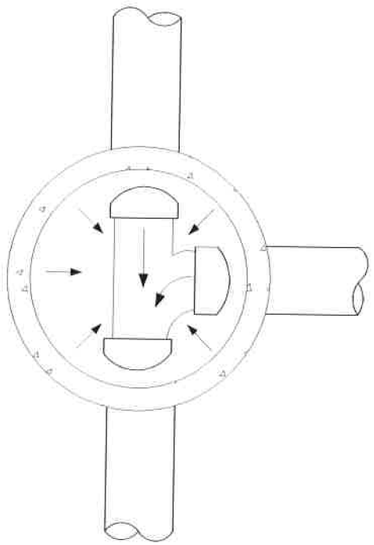
STORM & SANITARY MANHOLE RING & COVER

CITY OF MOSCOW
ENGINEERING DEPARTMENT

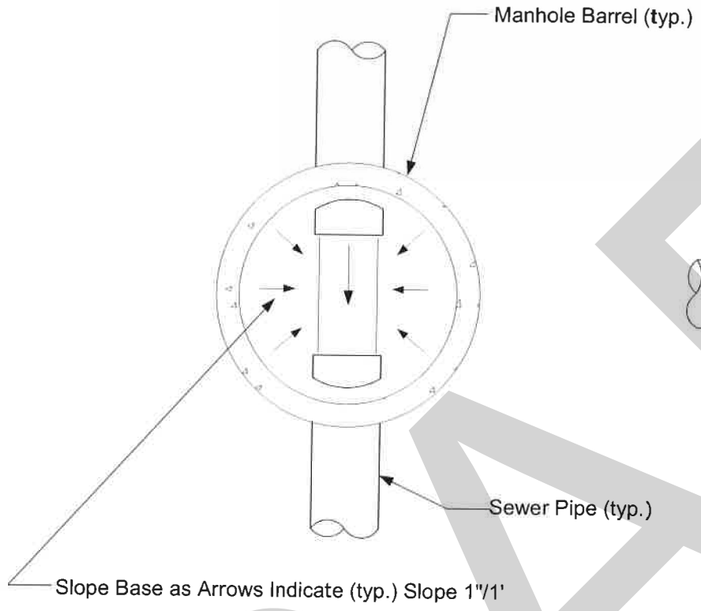
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DRAFT

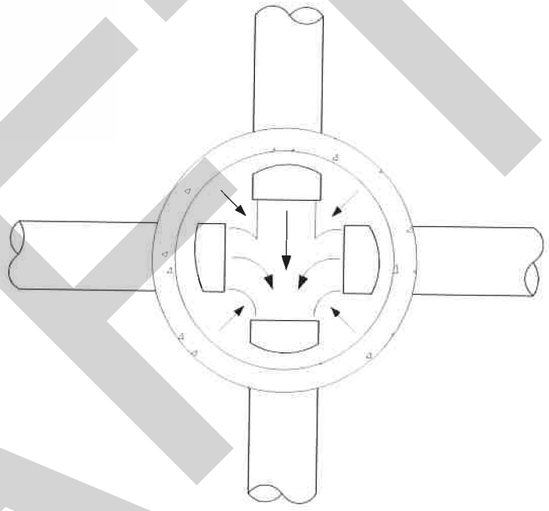
Note:
All channels to be 'U' shaped (See Channel X-Section)



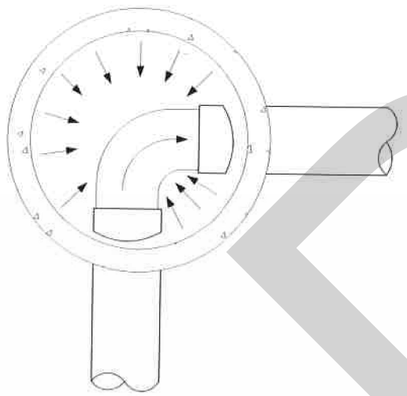
TYPE A



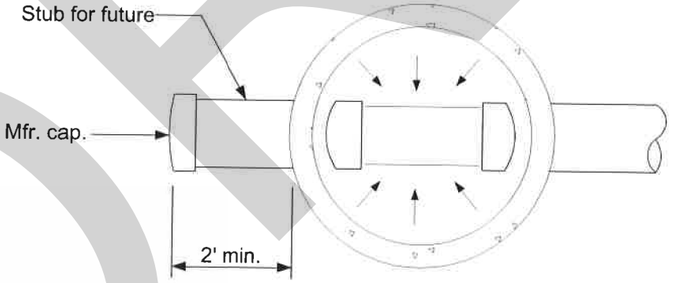
TYPE B



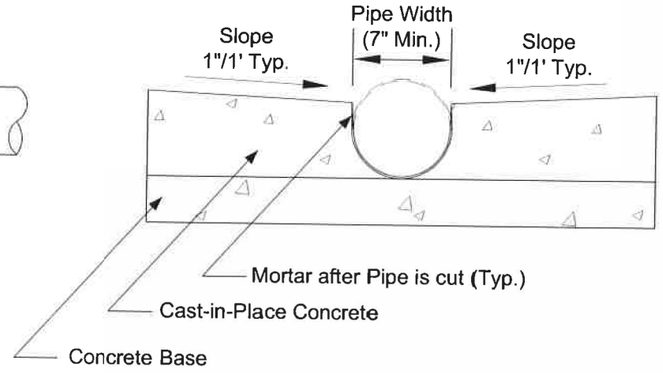
TYPE C



TYPE D



TYPE E
For Dead End Line



CHANNEL X-SECTION

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER
REGISTERED
8832
5-19-14
STATE OF IDAHO
KEVIN LILLY

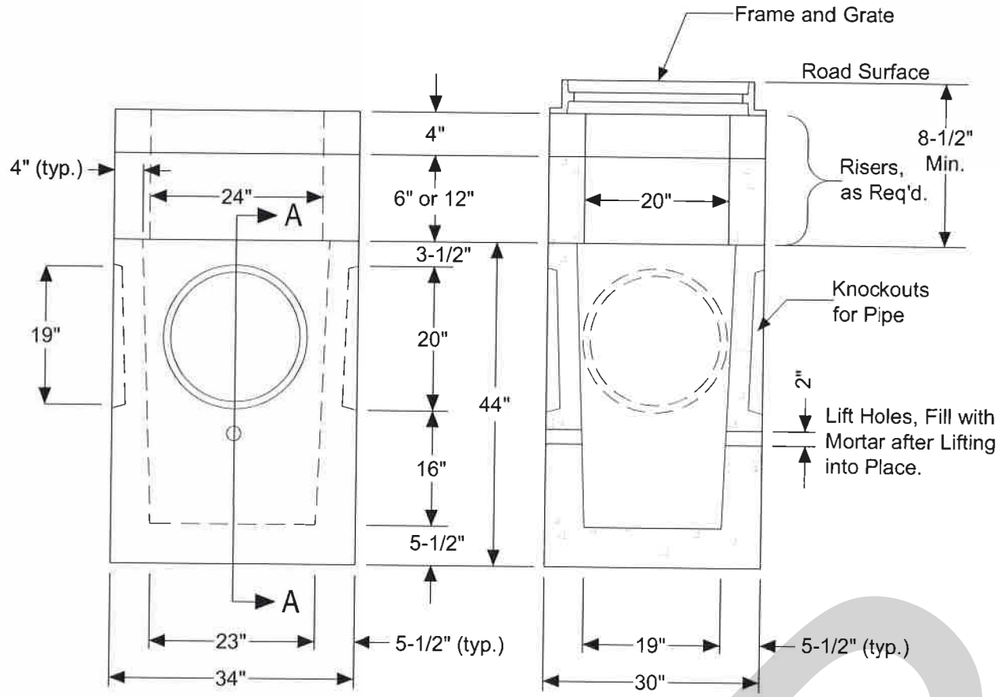
DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
CEE/KWK	K.Lilly	NTS	3-4-2014

MANHOLE BASE DETAILS

CITY OF MOSCOW
ENGINEERING DEPARTMENT

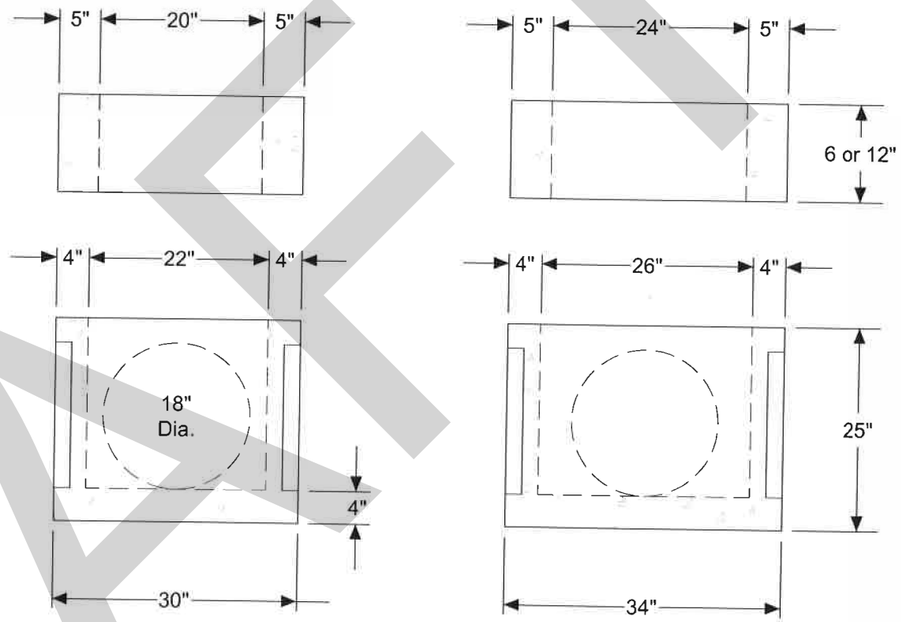
DRAWING NUMBER:
25

DRAFT



SECTION A-A

CATCH BASIN



CATCH INLET

NOTES:

1. Catch Basins shall be used in all City streets, City parking lots, and City alleys for catchment and conveyance of surface runoff. Catch Inlets are not to be used in these locations unless specifically allowed by the City Engineer.
2. Catch Basin shall be precast concrete per WSDOT Catch Basin Type 1 and Catch Inlets per WSDOT Concrete Inlet, unless otherwise approved by the City Engineer.
3. Catch Basins located in paved areas shall have asphaltic patch four inches (4") thick (in two lifts) restoring surface to original line and grade. (see note 6)
4. Catch basins located in gravel streets or alleys shall have grate adjusted two inches (2") below gravel surface.
5. All pipes shall protrude 1"-2" into the basin and shall be neatly mortared all around (inside and outside). Exit pipe to manhole or storm main shall have 1'-6" minimum cover.
6. Catch Basins shall be set 0.10 foot lower than adjoining street grade.
7. All materials shall be manufactured in the U.S.A.
8. Catch Basins and Inlets shall be pre-cast concrete conforming to AASHTO M199 or ASTM C478, as shown.
9. Catch Basins and Inlets shall be backfilled to grade as per adjoining pipe trench backfill.
10. Catch Inlets may only be used as a 'bubbler', area drain, or where clearance over some particular obstacle is necessary and if approved by the City Engineer.
11. Frames and Grates shall be as per the Catch Basin & Catch Inlet Gates and/or the Combination Inlet Standard Drawing.

DRAFT

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED 8832 STATE OF IDAHO KEVIN LILLY 5-19-14

DRAFTED BY: MAS/KWK

CHECKED BY: K.Lilly

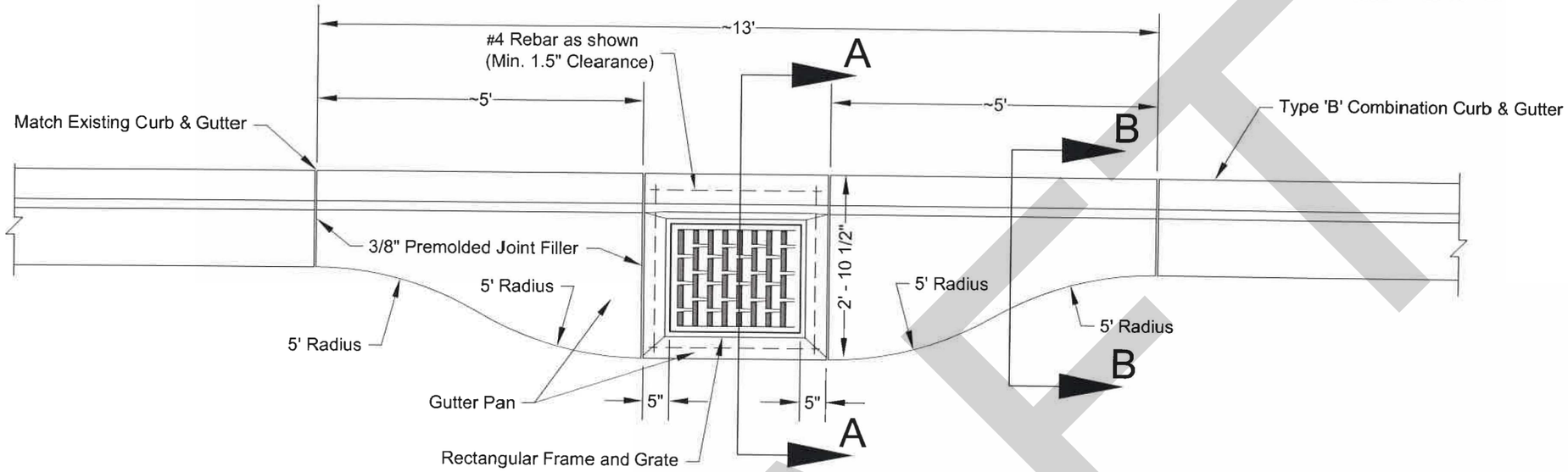
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DATE: 3-4-2014

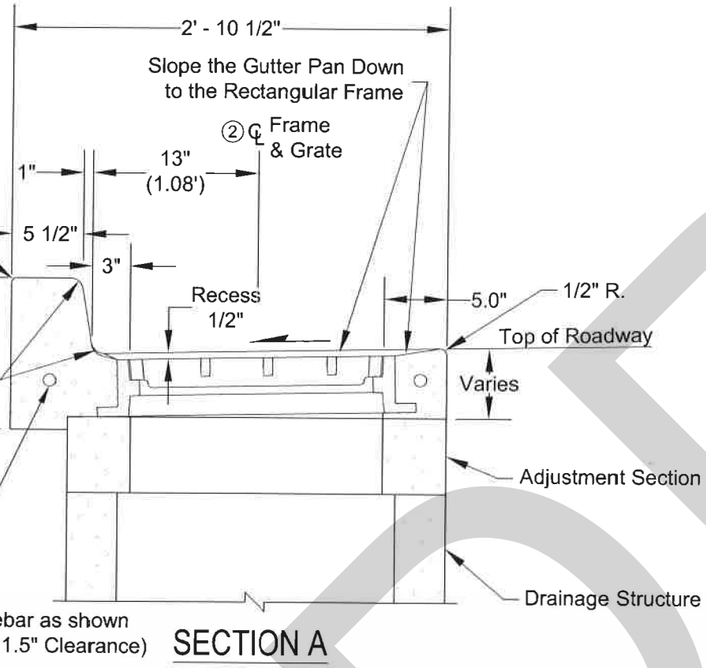
CATCH BASIN & CATCH INLET

CITY OF MOSCOW
ENGINEERING DEPARTMENT

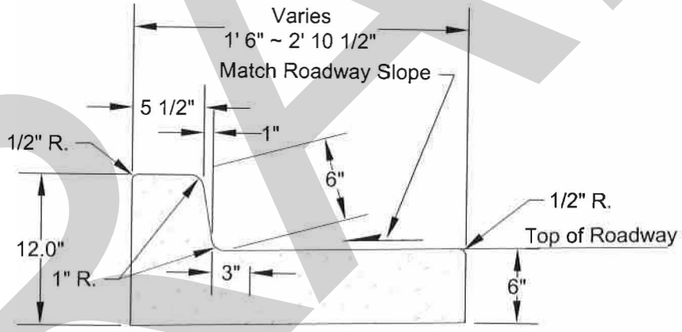
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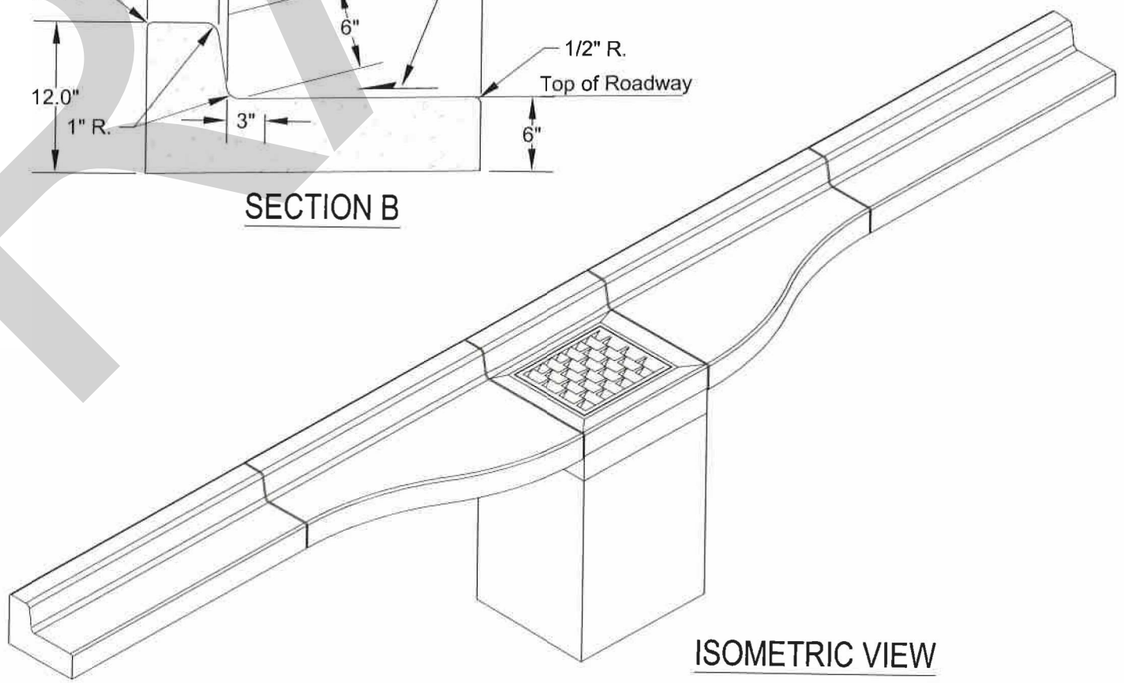
CATCH BASIN GUTTER PAN



SECTION A



SECTION B



ISOMETRIC VIEW

NOTES:

1. Curb and Gutter Pan design as per WSDOT Cement Concrete Curb And Gutter Pan.
2. The centerline of the drainage structure may differ from the centerline of the frame and grate.
3. The intent of this design is to facilitate the compaction of hot mix asphalt pavement adjacent to a drainage structure.

DRAFT

REVISIONS

DATE	DESCRIPTION

SIGNED AND DATED

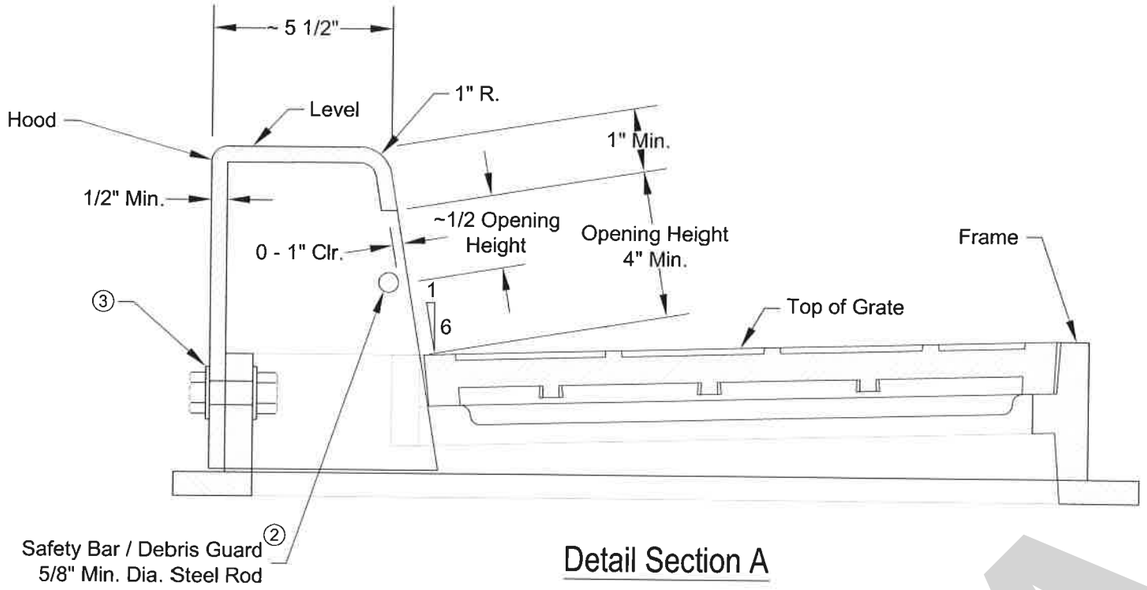
PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

DRAFTED BY: C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: N.T.S.
DATE: 3-4-2014

CURB & GUTTER PAN

CITY OF MOSCOW
ENGINEERING DEPARTMENT

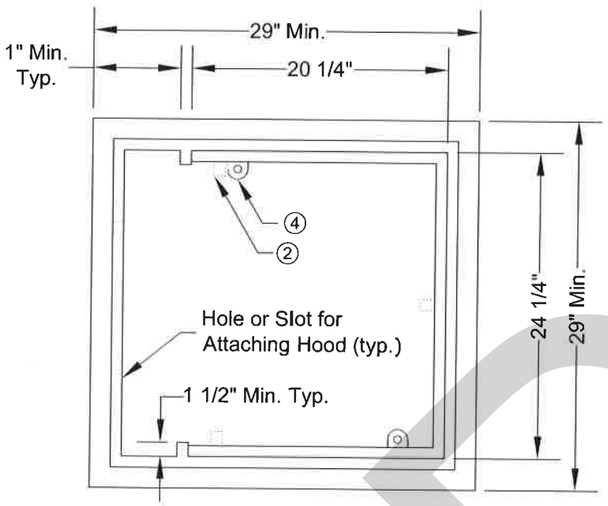
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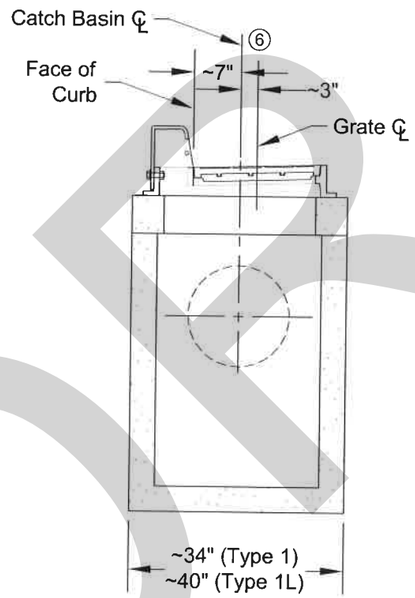
Detail Section A

NOTES:

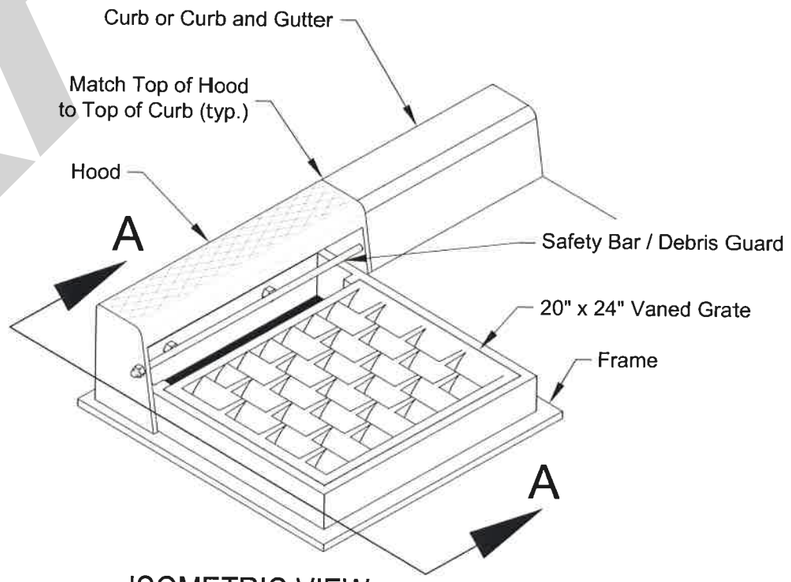
1. Curb and Gutter Pan design as per WSDOT Combination Inlet.
2. The dimensions of the Frame and Hood may vary slightly among different manufacturers. The Frame may have cast features intended to support a grate guard. Hood units shall mount outside of the Frame. The methods for fastening the Safety Bar / Debris Guard Rod to the Hood may vary. The Hood may include casting lugs. The top of the Hood may be cast with a pattern.
3. Attach the Hood to the frame with two 3/4" × 2" hex head bolts, nuts, and oversize washers. The washers shall have diameters adequate to assure full bearing across the slots.
4. When bolt-down grates are specified, provide two holes in the frame that are vertically aligned with the grate slots. Tap each hole to accept 5/8" × - 11 NC × 2" hex head cap screws. Location of bolt-down holes varies among different manufacturers. See BOLT- DOWN DETAIL, WSDOT Standard Plan B-30.10.
5. This plan is intended to show the installation details of a manufactured product. It is not the intent of this plan to show the specific details necessary to fabricate the castings shown on this drawing.
6. The asymmetry of the Combination Inlet shall be considered when calculating the offset distance for the catch basin. See SECTION A.



FRAME DETAIL
TOP VIEW



SECTION A



ISOMETRIC VIEW
COMBINATION INLET

REVISIONS		
DESCRIPTION		
DATE		

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

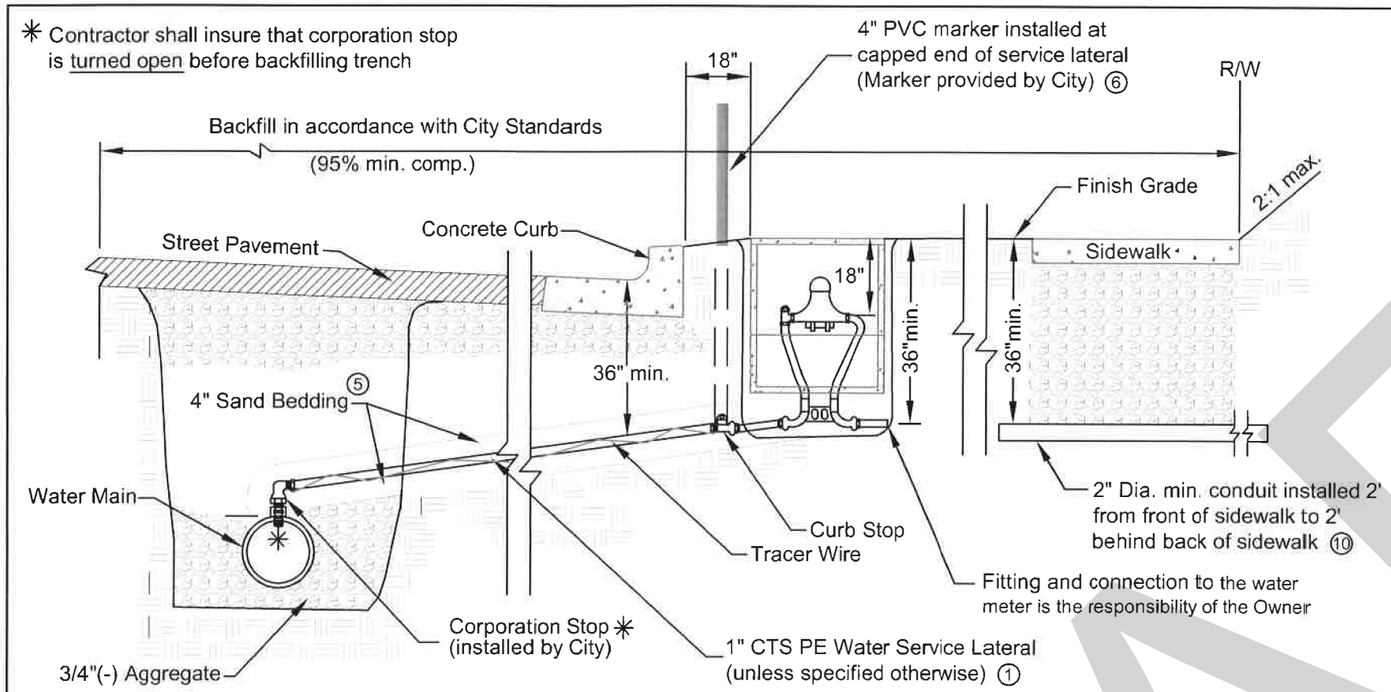
DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
C.Edwards	K.Lilly	N.T.S.	3-4-2014

COMBINATION INLET

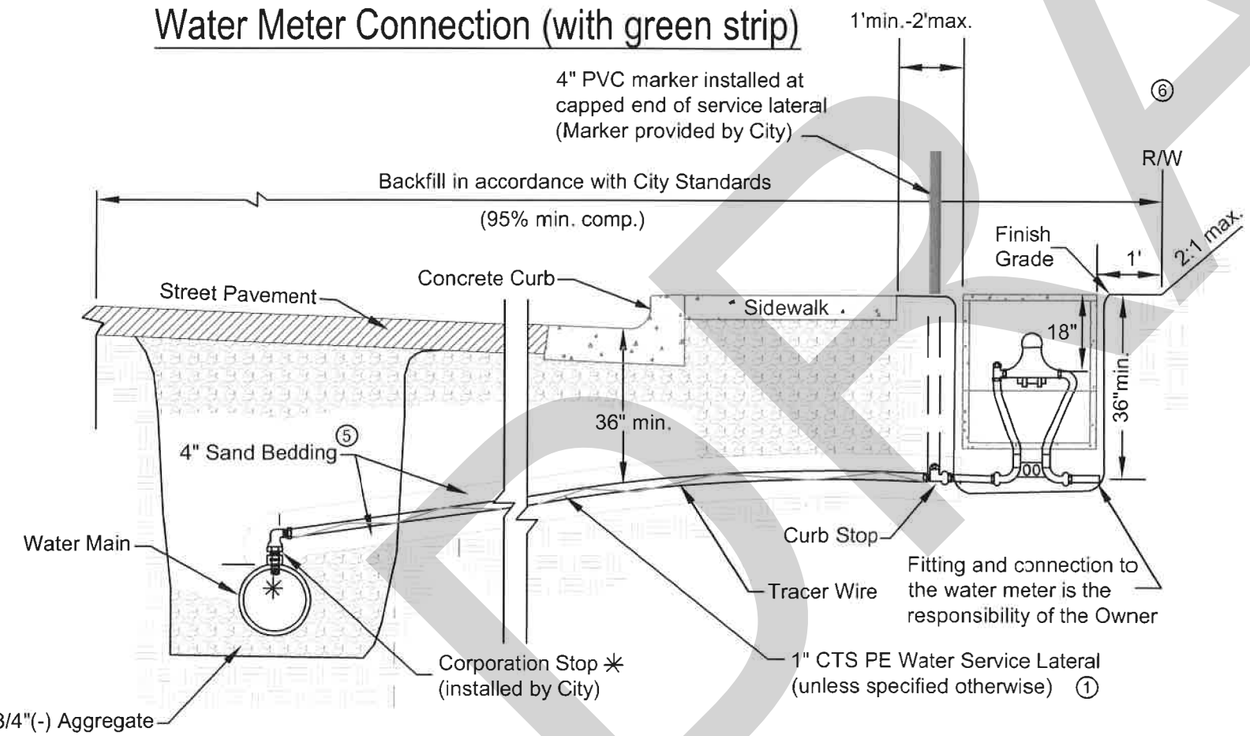
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:
27b

DRAFT



Water Meter Connection (with green strip)



Water Meter Connection (no green strip)

✳ Contractor shall insure that corporation stop is turned open before backfilling trench

NOTES:

1. Pipe and fittings, from the water main to the curb stop, will be supplied by the City.
2. Water main shall be tapped by the City.
3. Trench bottom to be prepared, as required, for a firm bed.

   If the water service line and sanitary or storm drain service lines, from the right-of-way to the house, are installed in the same trench, then all three of the following requirements shall be met:
   a. The bottom of the water pipe, at all joints, shall be at least twelve inches (12") above the top of the sanitary or storm drain service lines.
   b. The water pipe shall be placed on a solid shelf, excavated at one side of the common trench, with a minimum clear horizontal distance of at least twelve inches (12") from the sanitary or storm drain service line.
   c. Where the sanitary or storm drain line crosses the water service line, the top of the sanitary or the storm drain line is a minimum of twelve inches (12") below the water service line.
4. The roadway subgrade shall be established prior to the installation of the water service laterals.
5. The water service lateral shall be bedded in sand or pea gravel from four inches (4") under the pipe to four inches (4") over the pipe.
6. After the installation of the water service lateral, a 4" PVC marker shall be placed at the capped end of the curb stop. The marker will be provided by the City. It shall be the responsibility of the Contractor to install, maintain, and protect the marker.
7. The capped curb stop shall be located eighteen inches (18") beyond the back of curb, if placed in the green strip, and one foot (1') minimum to two feet (2') maximum beyond the back of sidewalk, if sidewalk is installed next to the curb.
8. The capped curb stop shall be buried to a minimum depth of thirty six inches (36") from finished grade elevation.
9. The water service lateral and curb stop shall be installed perpendicular to either the curb or the sidewalk.
10. When water meter is located in the green strip, a two inch (2") minimum diameter conduit shall be installed extending two feet (2') from the front of the sidewalk to two feet (2') behind the back of sidewalk.
11. Pipe installation shall be inspected by the City before the trench is backfilled.
12. Owner to obtain the necessary permits from the Moscow Community Development Department and Public Works Department.
13. The Owner's work shall comply with the Uniform Plumbing Code (UPC).
14. All backfill under sidewalks shall be 3/4"(-) crushed aggregate (95% min. compaction).

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED 8832 5-19-14 STATE OF IDAHO KEVIN LILLY

DRAFTED BY: KWK
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

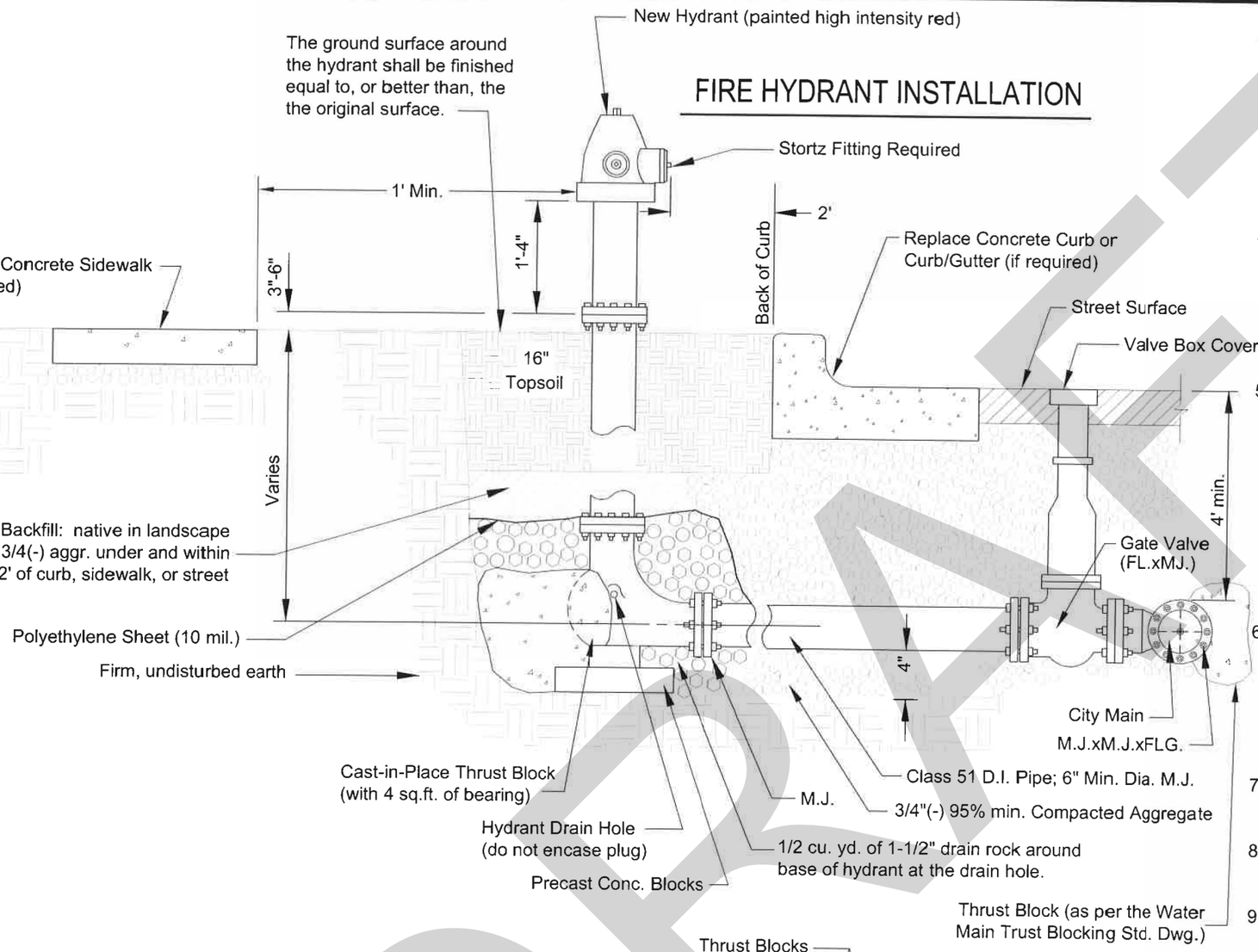
WATER SERVICE CONNECTIONS

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:
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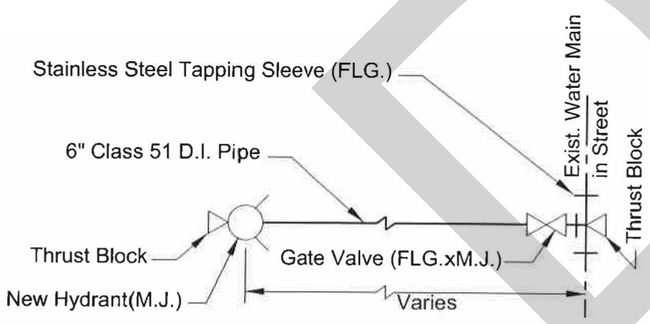
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FIRE HYDRANT INSTALLATION

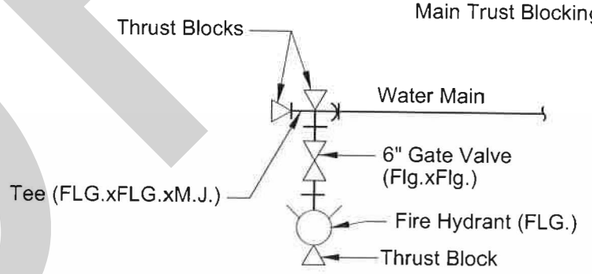


NOTES:

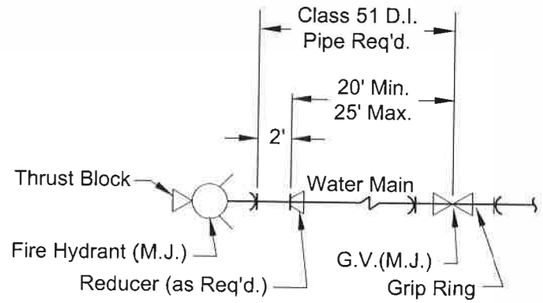
1. Thrust blocks shall be cast against undisturbed, firm earth.
2. Hydrants shall be set truly vertical.
3. Materials and installation shall also conform to the City's Standard Specifications.
4. FOR LIVE TAP ONLY: After the Contractor exposes the main, the City will provide the labor and pipe tapping tools for this connection at a set fee to the Contractor. Contractor is responsible for trench backfill and street patch in accordance with City Standards.
5. Where sidewalk is adjacent to or within four feet (4') of the back of curb the hydrant shall be located one foot (1') behind the sidewalk (measured from the face of the hydrant cap to back of sidewalk). Where there is curb but no sidewalk the hydrant shall be located two feet (2') from the back of curb (measured to the face of the hydrant cap). Where there is no sidewalk or curb locate the hydrant as directed by the City Engineer.
6. All fire hydrants and the water lines to the fire hydrants become the City's once installed. Twenty foot (20') wide public utility easements centered on and around the fire hydrant and the waterline to the fire hydrant shall be granted to the City.
7. Furnish and install protective bollards if required by the City Engineer.
8. A three foot (3') radius clear zone required all around fire hydrant, maximum slope of 10%.
9. Fire hydrant to be set to manufacturer elevation and bury specifications.



LIVE-TAP HYDRANT DETAIL



A OPTION 1



B OPTION 2

DEAD-END FIRE HYDRANT DETAILS

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED 8832 5-19-14 STATE OF IDAHO KEVIN LILLY

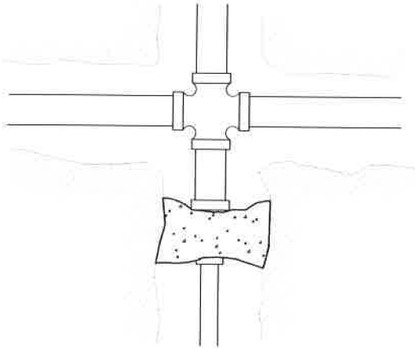
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CEE/KWK	K.Lilly	NTS	3-5--2014

FIRE HYDRANT ASSEMBLY

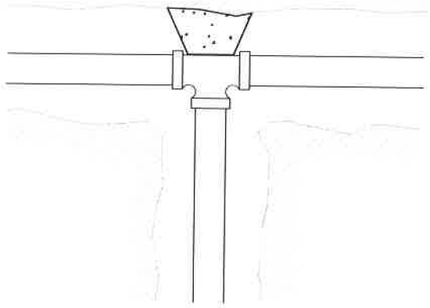
CITY OF MOSCOW
ENGINEERING DEPARTMENT

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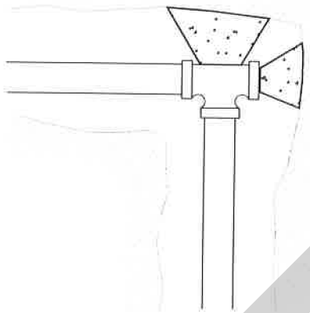
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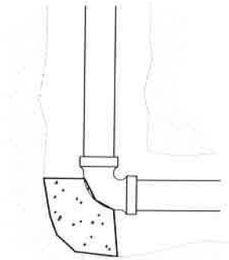
CROSS WITH REDUCER



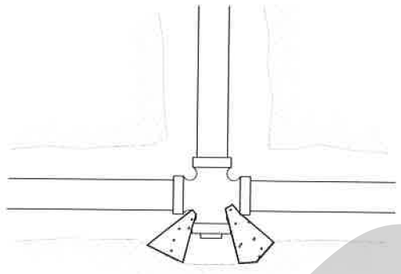
TEE



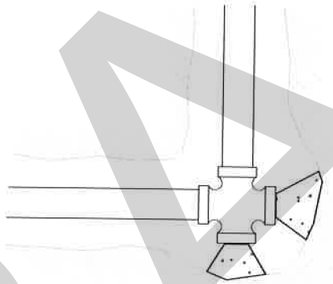
TEE WITH PLUG



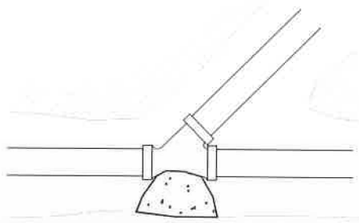
90° ELBOW



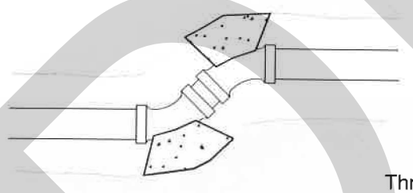
CROSS WITH PLUG



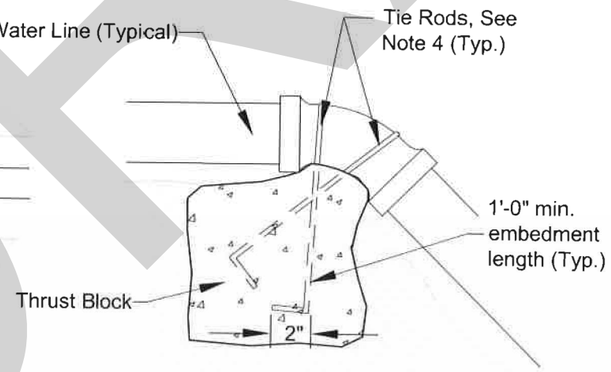
CROSS WITH 2 PLUGS



WYE



11-1/4°, 22-1/2°
OR 45° BENDS



VERTICAL DOWN BENDS

THRUST BLOCK SIZE

Size of Pipe	Horizontal Bends Sq. Feet of Bearing on Undisturbed Earth				Vertical Down Bends Cu.Yds.
	Tees & Deadends	90°	45°	22 1/2° / 11 1/4°	
4"	2	3	1-1/2	1	1/2
6"	4	5-1/2	3	1-1/2	1/2
8"	7	9-1/2	5	2-1/2	1
10"	11	15	8-1/2	4	1-1/2
12"	15-1/2	22	12	6	2
16"	21	27	21	11	2-1/2

NOTES:

1. Thrust blocking for water mains shall be, as a minimum, the size indicated in the above Table.
2. Concrete shall be from a commercial source and be a minimum of 5-sack mix or ITD Class 22.
3. Concrete shall not be allowed in joints or in contact with pipes. Protect with plastic or paper sheeting prior to placing concrete.
4. Tie rods shall be 3/4" minimum diameter steel; coat tie rods with bituminous coating or approved equal. Hook (2" min.) all embedded ends.
5. The minimum distance between the fitting and excavated bank shall be three (3) pipe diameters.
6. Thrust blocks shall be cast against firm, undisturbed earth, as approved by the City Engineer.
7. Thrust blocks must be inspected by the City prior to backfill.
8. Thrust blocks for vertical up bends shall correspond to the requirements of horizontal bends.

REVISIONS	
DESCRIPTION	
DATE	

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED 8832 STATE OF IDAHO KEVIN LILLY 5-19-14

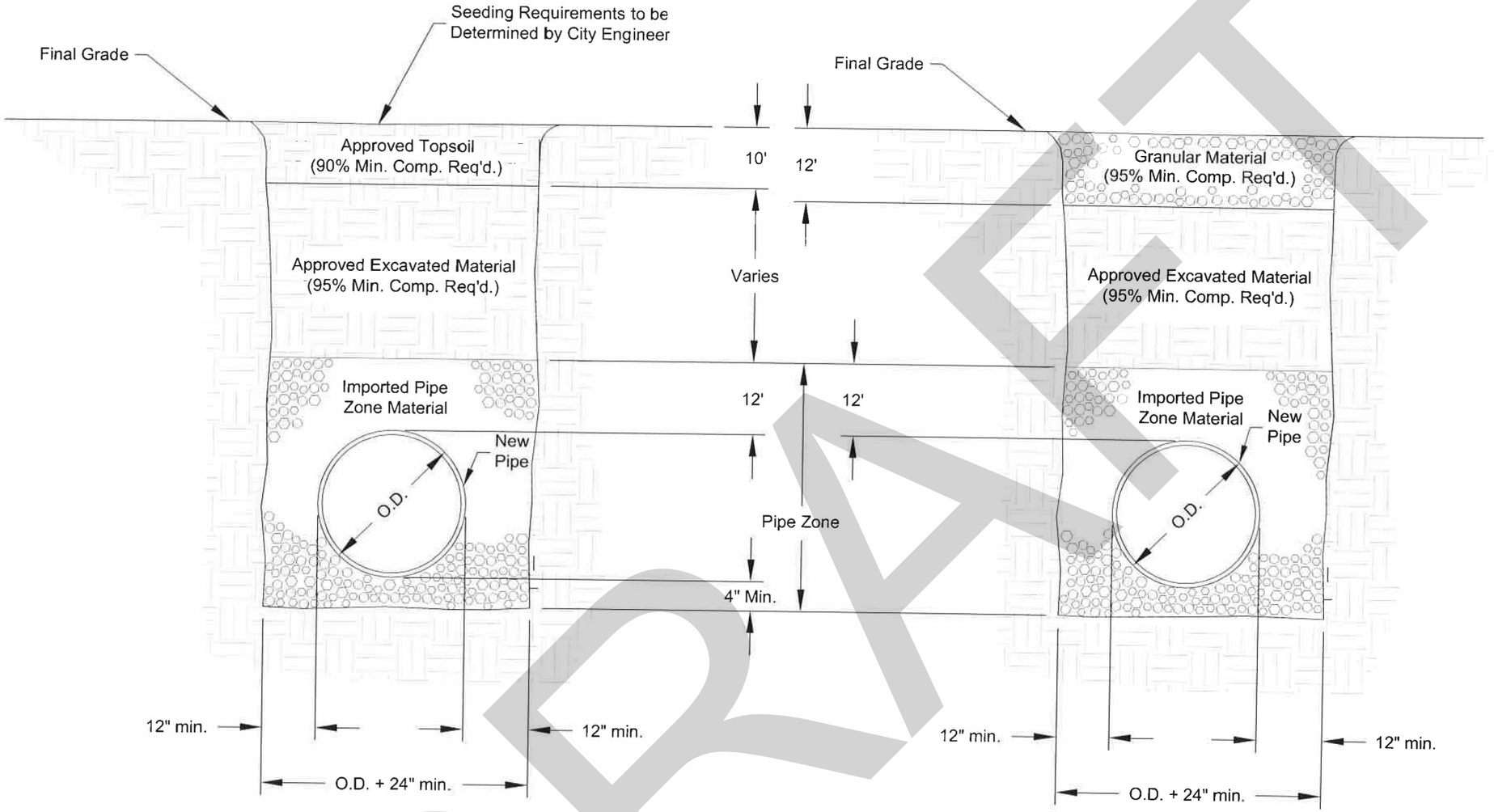
DRAFTED BY: RKC/KWK
CHECKED BY: K.Lilly
DRAWING SCALE: N.T.S.
DATE: 2-6-2012

WATER MAIN THRUST BLOCKING

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 31

DRAFT



BACKFILL CLASS A
TYPICAL SECTION

BACKFILL CLASS B
TYPICAL SECTION

NOTES:

1. Class 'A' Backfill shall be used in areas where there is to be re-vegetation and some trench settlement may be tolerated.
2. Class 'B' Backfill may not be constructed within the public right-of-way and has limited application - refer to the City's Standard Construction Specifications.
3. Contractor shall comply with the most current OSHA requirements for excavations.
4. Backfill shall comply with the requirements of the City's Standard Construction Specifications.

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN J. LILLY 8832 5-19-14

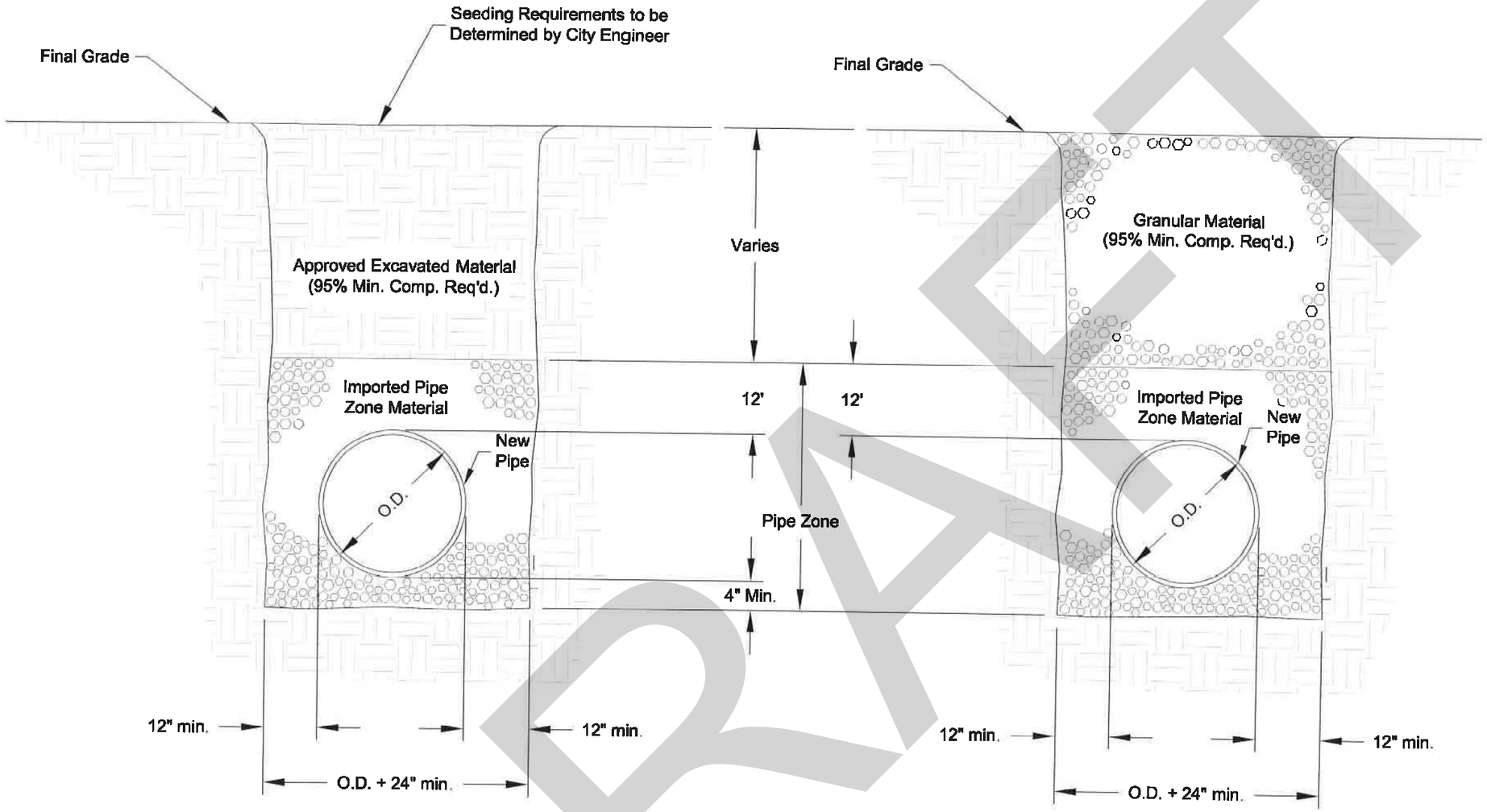
DRAFTED BY: K.Kipp/C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

BACKFILL CLASS A & B

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 33a

DRAFT



BACKFILL CLASS C
TYPICAL SECTION

BACKFILL CLASS D
TYPICAL SECTION

NOTES:

1. Class 'C' Backfill shall be used in areas where asphalt pavement, concrete curb, sidewalk, driveway, or gravel surfacing is not anticipated and where topsoil is not required.
2. Class 'D' Backfill is for areas where asphalt pavement, concrete, curb, sidewalk, or gravel surfacing is existing or anticipated.
3. Contractor shall comply with the most current OSHA requirements for excavations.
4. Backfill shall comply with the requirements of the City's Standard Construction Specifications.

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-14-14

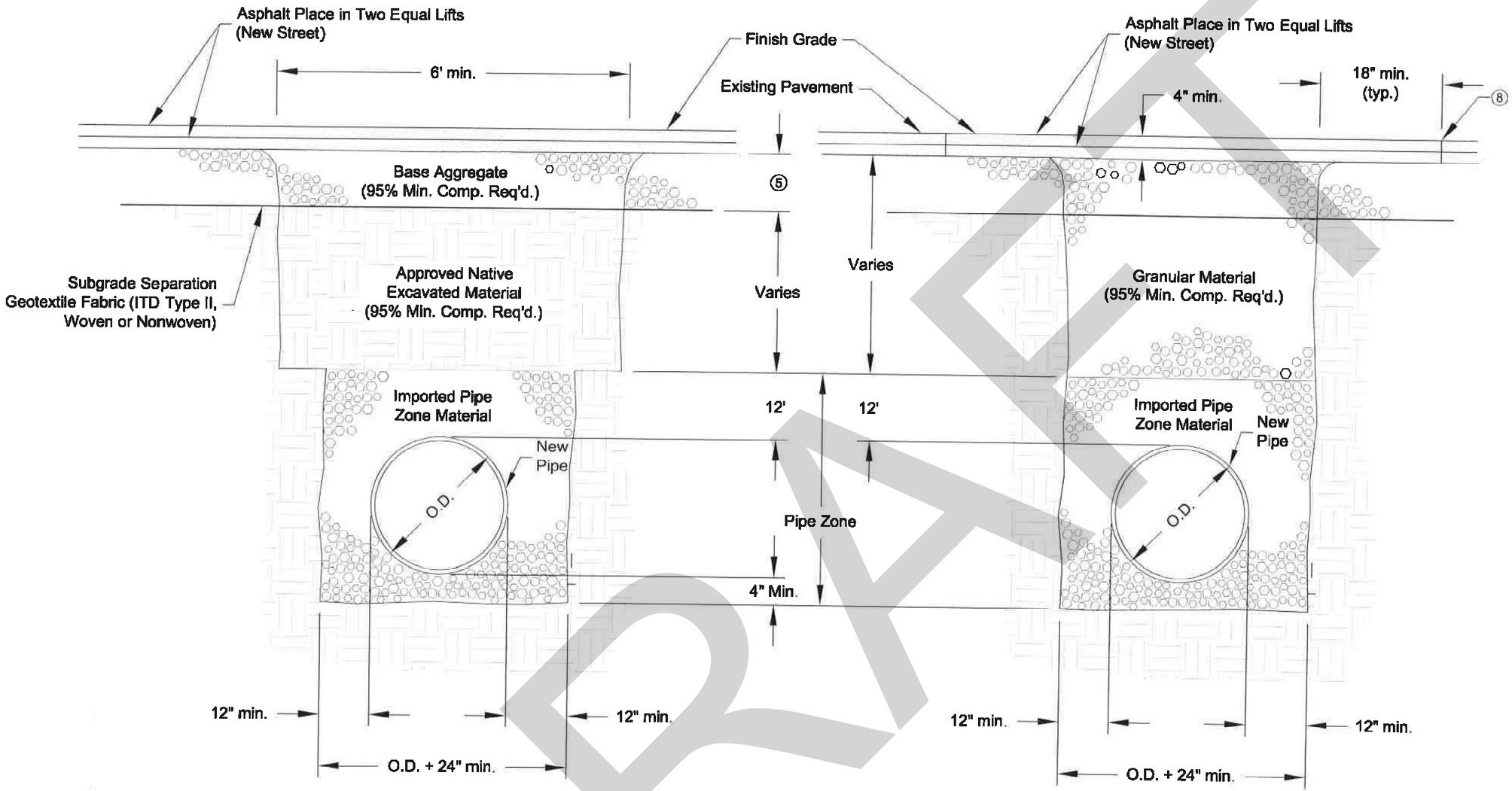
DRAFTED BY: K.Kipp/C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

BACKFILL CLASS C & D

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 33b

DRAFT



BACKFILL CLASS E
TYPICAL SECTION

BACKFILL CLASS F
TYPICAL SECTION

NOTES:

1. Class 'E' Backfill may be substituted for Class 'D' Backfill within new streets only (not existing streets) if specifically allowed by the City Engineer.
2. Class 'F' Backfill shall be utilized in trenches within existing pavement.
3. Compaction for all trench backfill above the pipe zone shall be 95% minimum of AASHTO T99. All native backfill material shall be placed in six inch (6") maximum lifts and wide sheepsfoot roller. Density testing frequency for native backfill will be in excess of that required for the Class 'D' crushed aggregate backfill.
4. Backfill around manholes and catch basins shall be all crushed aggregate; native material backfill will not be allowed.
5. Base aggregate depth and type to be the same as that required for the street section where this trench backfill is utilized.
6. All trenches excavated within existing paved streets shall be backfilled and surfaced the same day with a two inch (2") thick compacted cold mix asphalt patch (smooth) - to be replaced with the City's standard four inch (4") hot mix asphalt surfacing as soon as scheduling allows; unless specifically approved otherwise by the City Engineer.
7. The new asphalt patch shall match the existing pavement grade. Across the width of the trench, the new surface shall not exceed 0.25 inches out-of-level.
8. Existing pavement shall be cut full depth and in continuous, straight lines. Broken edges will not be allowed. Pavement cuts shall be 'tacked' immediately prior to installation of the hot mix patch.
9. Contractor shall comply with the most current OSHA requirements for excavations.
10. Backfill shall comply with the requirements of the City's Standard Construction Specifications.

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

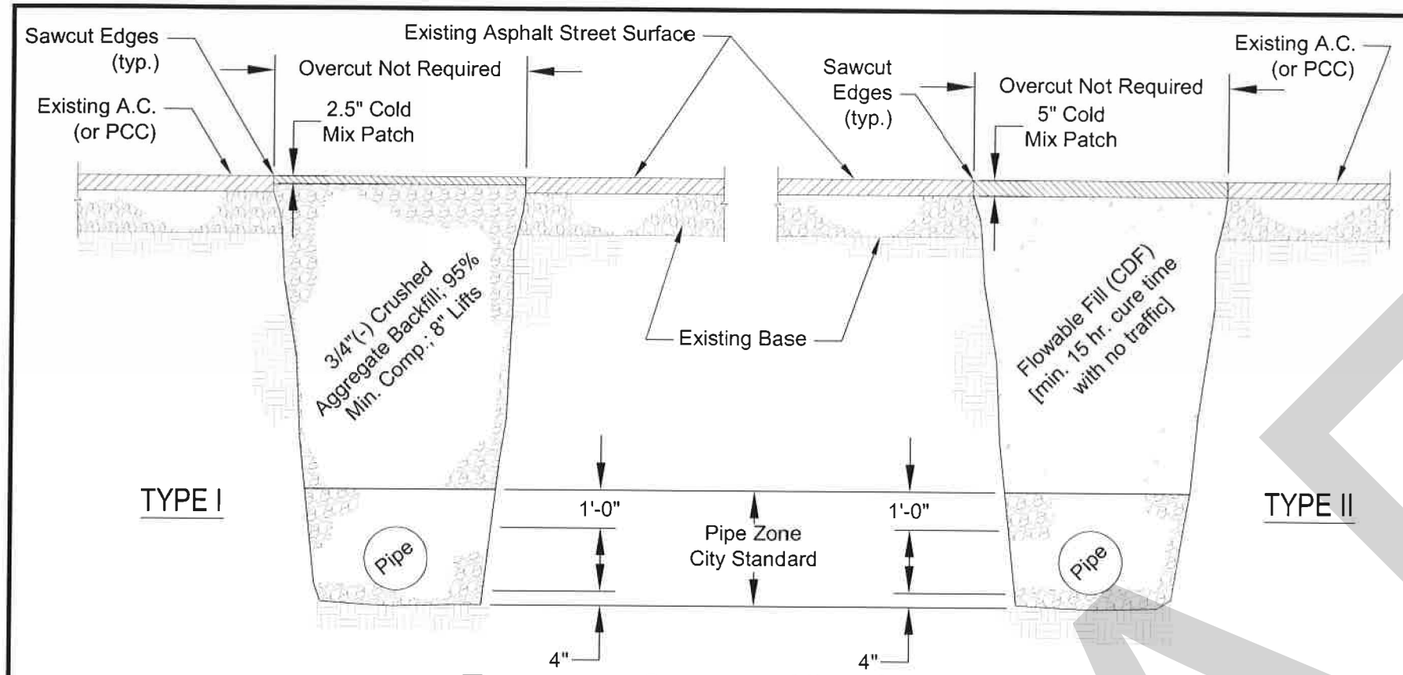
DRAFTED BY: K.Kipp/C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

BACKFILL CLASS E & F

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 33c

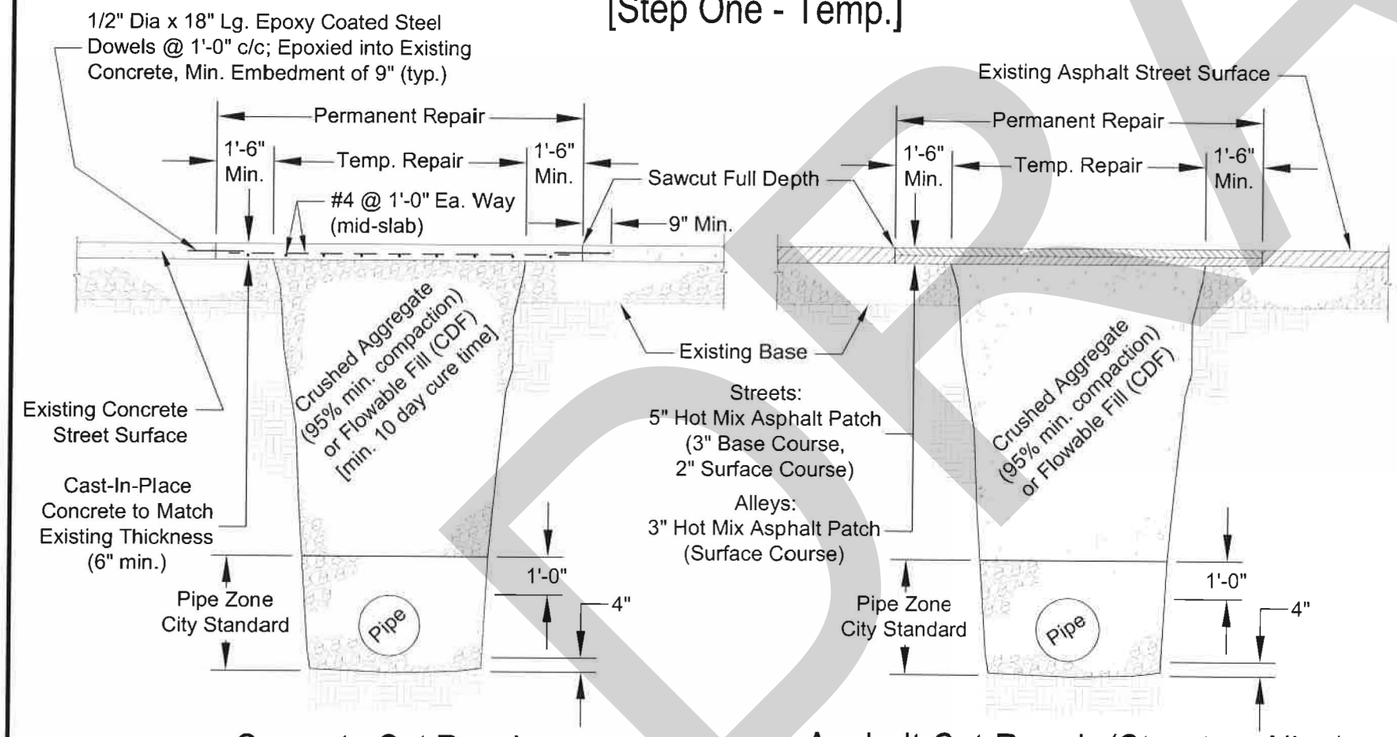
DRAFT



TYPE I

TYPE II

Temporary Street or Alley Cut Repair
[Step One - Temp.]



Concrete Cut Repair
[Step Two - Permanent]

Asphalt Cut Repair (Street or Alley)
[Step Two - Permanent]

NOTES:

1. All excavations made within public right-of-way and easements require excavation permits from the City prior to commencing work. Street closure permits are required as applicable.
2. See City of Moscow Standard Construction Specifications for additional requirements regarding street and alley cut repair.
3. Prior to commencing, contractor shall furnish, install and maintain traffic control in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and as allowed and approved by the City Engineer.
4. Street cuts within Idaho Highway Right-of-Way require an Idaho Transportation Department (ITD) permit and are subject to ITD permit conditions (i.e. backfilling, surfacing requirements and traffic control).
5. The pavement removal required to perform the initial excavation shall be the width of the excavation opening and is not to include the removal of the pavement of the width required to construct the permanent patch. All pavement cuts shall be sawcut in neat, straight lines, as allowed and approved by the City. The limits of the pavement cut for the permanent patch shall be as described in the Standard Construction Specifications.
6. Moscow Public Works Department shall be notified prior to beginning backfilling operations. Noncompliance with this provision shall require re-excavation and witnessed compaction.
7. ALL STREET AND ALLEY CUTS IN EXISTING ASPHALT PAVEMENT SHALL BE BACKFILLED AND TEMPORARILY PATCHED AT THE END OF EACH DAY - unless specifically allowed otherwise by the City Engineer. Properly applied steel plates may be utilized in lieu of this requirement if allowed by the City.
8. Temporary street surfacing (cold mix asphalt or flowable fill) shall be placed (and maintained) uniformly smooth across the width and length of the patch and shall match the existing, adjoining street grade. The finished surface of the temporary patch shall be level with, or no greater than 0.25 inches above the adjacent roadway surface.
9. Temporary street surface repair maintenance is the responsibility of the contractor.
10. The contractor making the cut shall be responsible for any future settling of the street cut for a period of one year from the date that temporary patch is completed.

REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-9-14

DRAFTED BY:	CHECKED BY:	DRAWING SCALE:	DATE:
C.Edwards	K.Lilly	NTS	3-5-2014

STREET / ALLEY CUT REPAIR

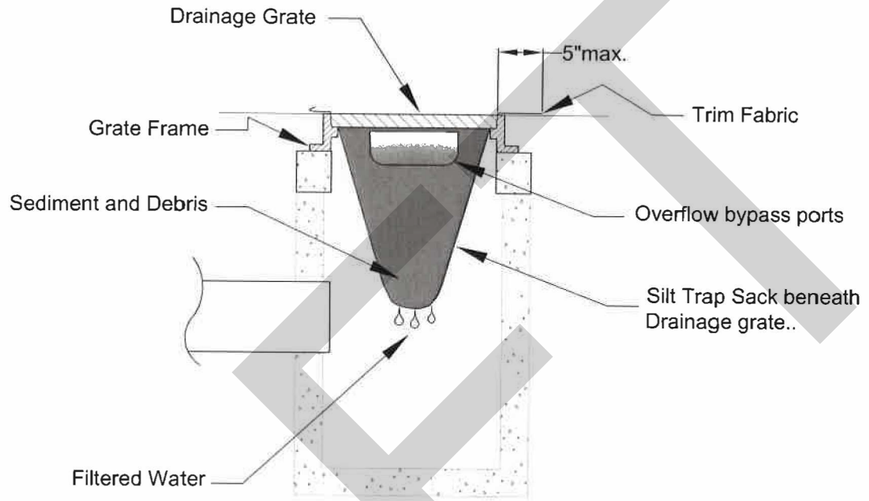
CITY OF MOSCOW
ENGINEERING DEPARTMENT

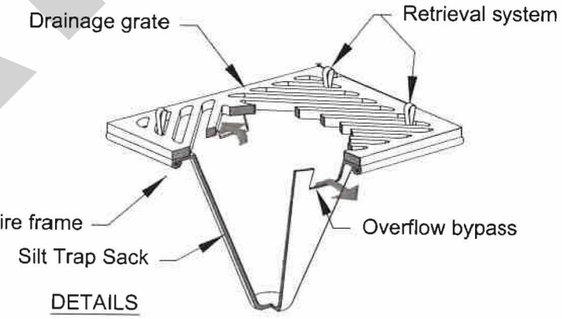
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34

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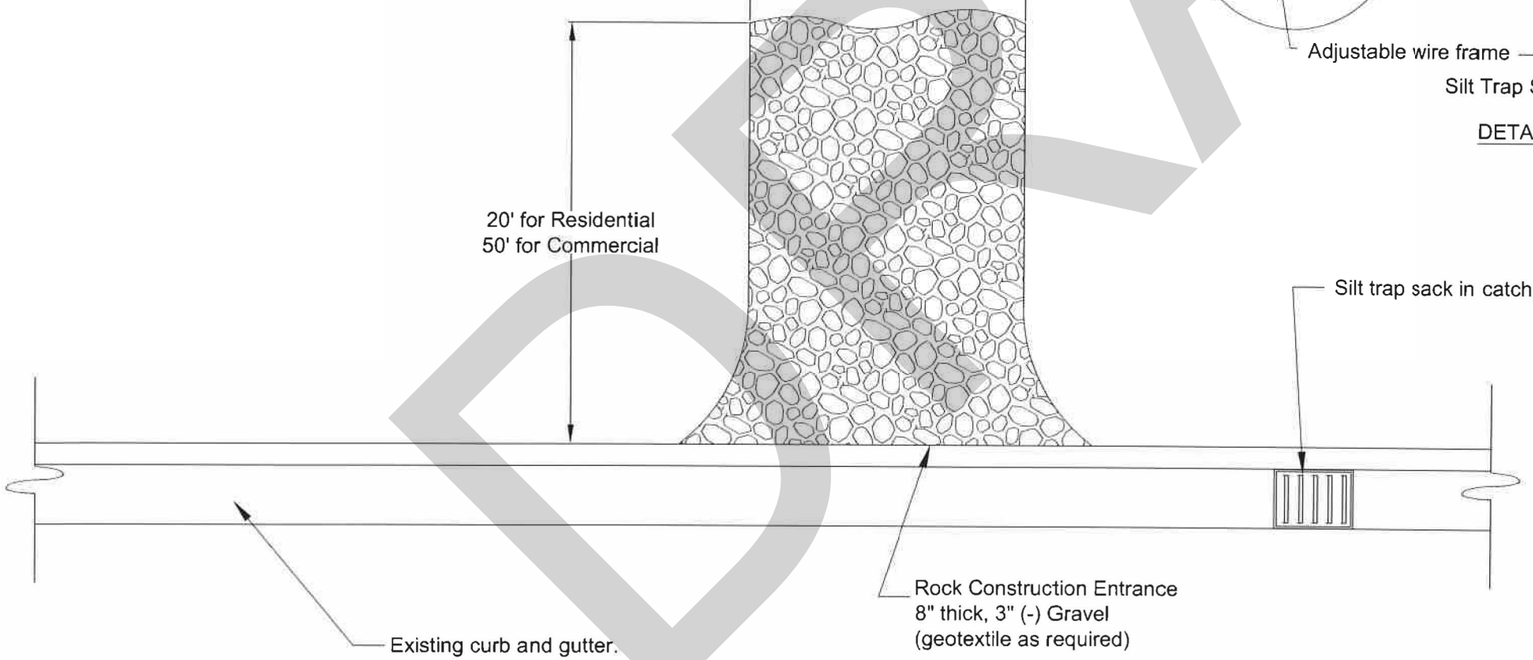
NOTES:

1. The size and shape of the silt trap sack to fit the storm structure it will service (rectangular or round).
2. The silt trap sack shall have a built-in high-flow relief system (overflow bypass).
3. The silt trap sack assembly must allow removal without spilling the collected material.
4. Empty silt trap sack and dispose of sediment and debris before the sack is half-full.
5. Ensure the silt trap sack assembly does not spill or fall into the storm structure. If sediment is spilled into the storm structure, remove the spilled material by suction hose or other approved method.
6. Construction entrances should be inspected regularly for signs of thinning areas where mud begins to show through. Add gravel periodically to maintain the integrity of the pad.





DETAILS



REVISIONS

DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO KEVIN LILLY 8832 5-19-14

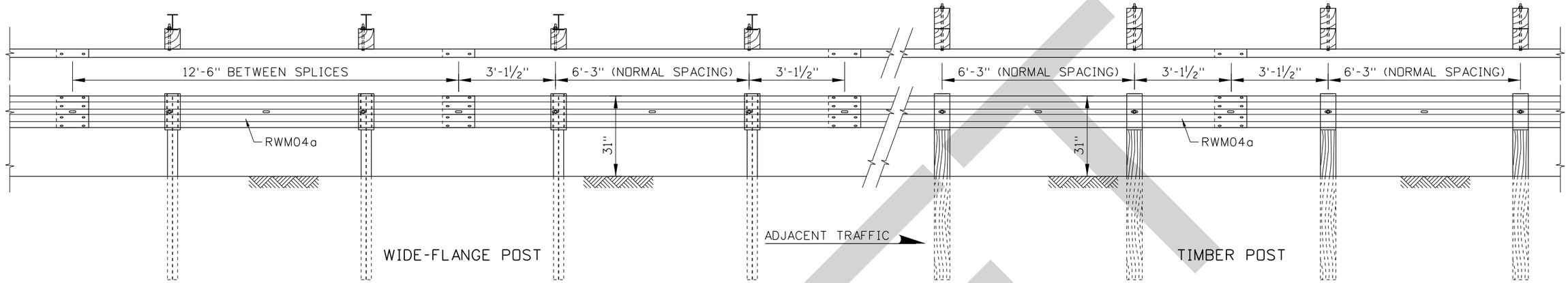
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CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

CONSTRUCTION ENTRANCE & INLET PROTECTION

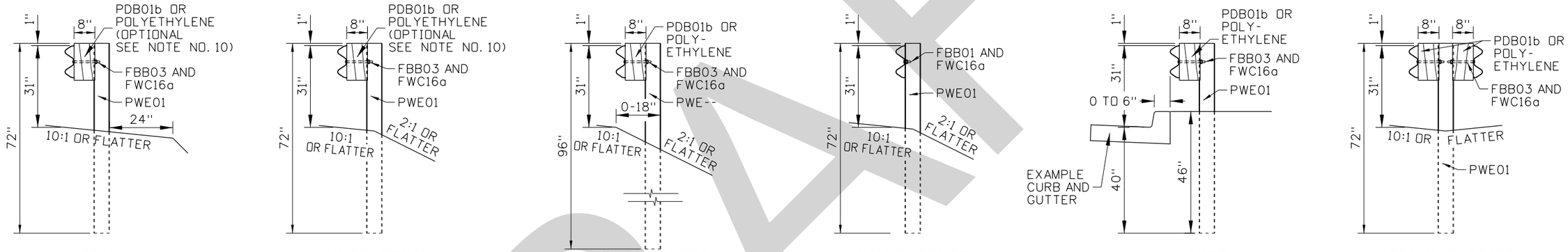
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER:
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DRAFT

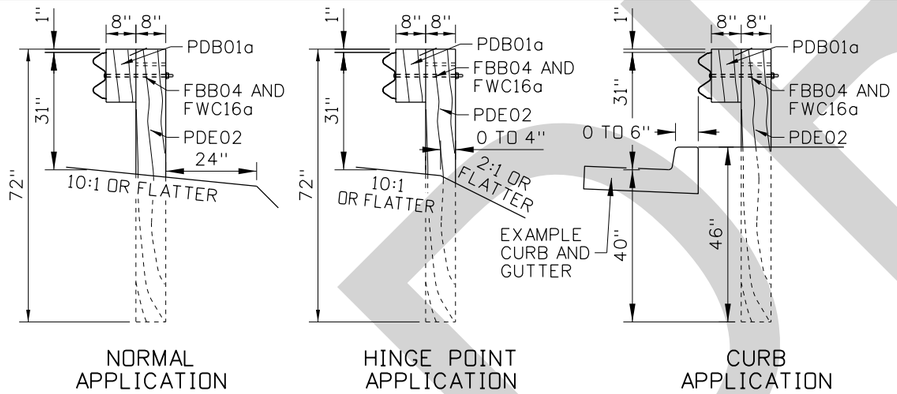


31" W-BEAM GUARDRAIL



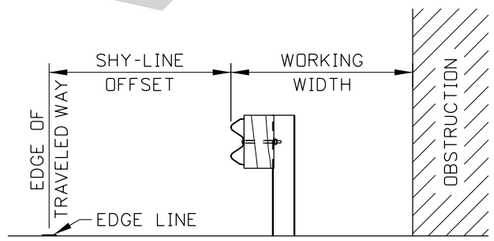
WIDE-FLANGE POST APPLICATIONS

SEE NOTE NOS. 3 AND 11



TIMBER POST APPLICATIONS

SEE NOTE NOS. 3 AND 11



PLACEMENT DETAIL

SEE NOTE NOS. 4 THROUGH 7

SHY-LINE OFFSET AND FLARE RATE TABLE

DESIGN SPEED (MPH)	SHY-LINE OFFSET (FT)	BARRIER FLARE RATE	
		INSIDE SHY LINE	AT OR BEYOND SHY LINE
80	12	30:1	15:1
70	9	30:1	15:1
60	8	26:1	14:1
55	7	24:1	12:1
50	6.5	21:1	11:1
45	6	18:1	10:1
40	5	16:1	8:1
30	4	13:1	7:1

DEFLECTION TABLE

APPLICATION	POST SPACING	WORKING WIDTH
NORMAL SPACING	6'-3"	54"
½ SPACING	3'-1½"	46"
¼ SPACING	1'-6¾"	38"
STEEP SLOPE	6'-3"	56"
HINGE POINT	6'-3"	78"
LONG SPAN	≤ 25'	96"

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER STATE OF IDAHO MARCH 10, 2020 13683 RYAN D. LANCASTER

REVISIONS

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

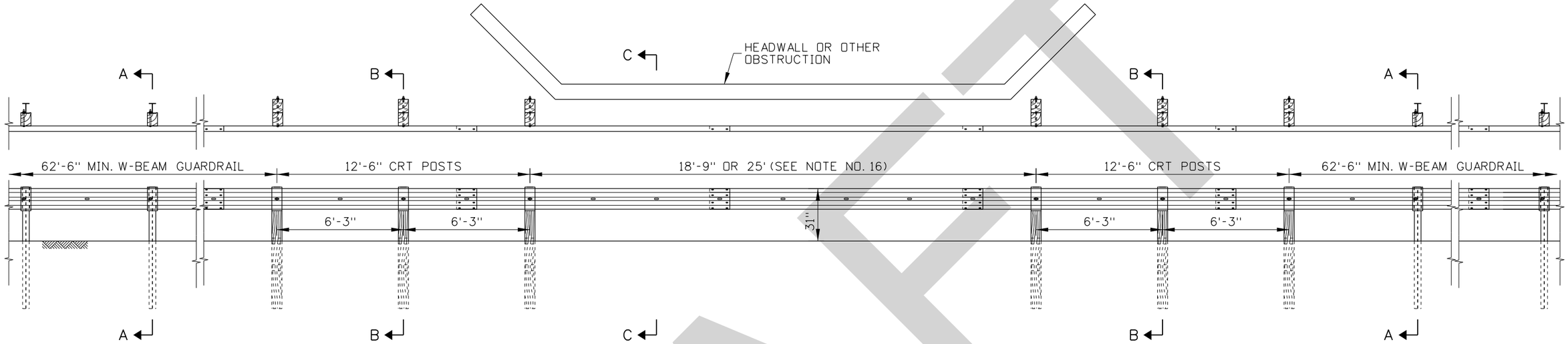
31" W-BEAM GUARDRAIL

English

STANDARD DRAWING NO. 612-1

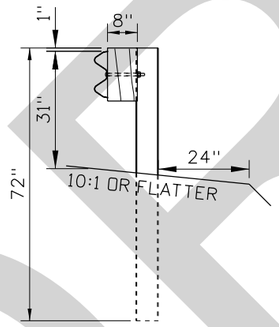
SHEET 1 OF 5

DRAFT

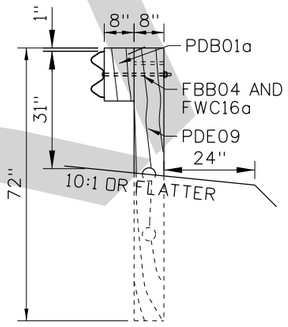


31" LONG-SPAN APPLICATION

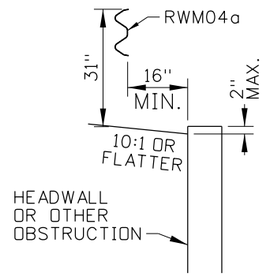
SEE NOTE NOS. 17 AND 18



SECTION A-A
WIDE-FLANGE OR TIMBER POST



SECTION B-B



SECTION C-C

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
CHIEF TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

31" W-BEAM GUARDRAIL

English

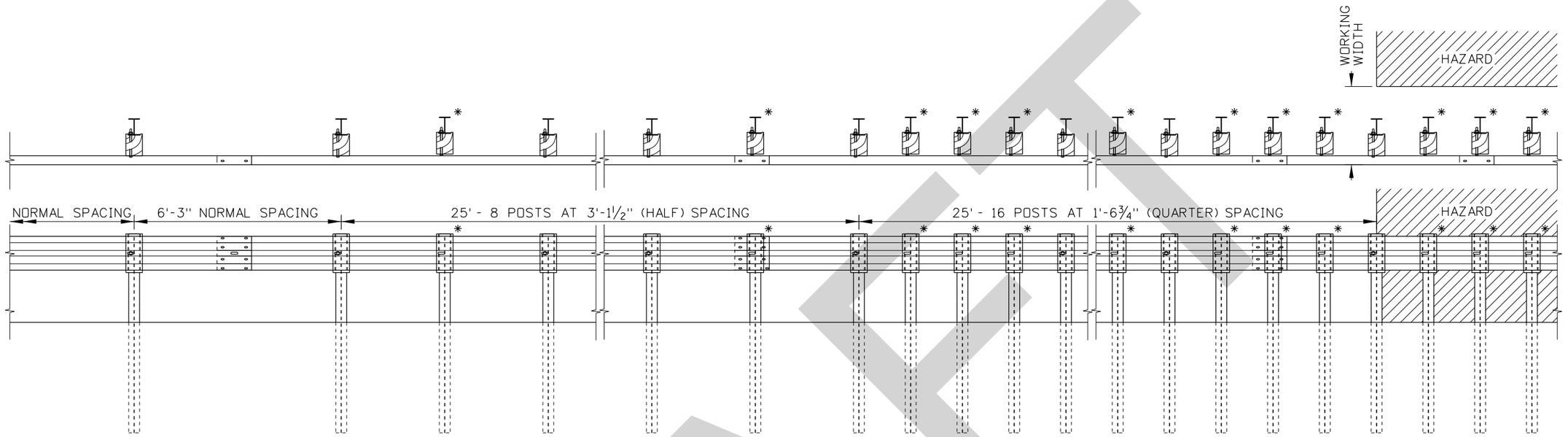
STANDARD DRAWING NO.
612-1

SHEET 2 OF 5

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER
LICENSED
ORIGINAL SIGNED BY RYAN D. LANCASTER
DATE ORIGINAL SIGNED MARCH 10, 2021
13683
RYAN D. LANCASTER
STATE OF IDAHO

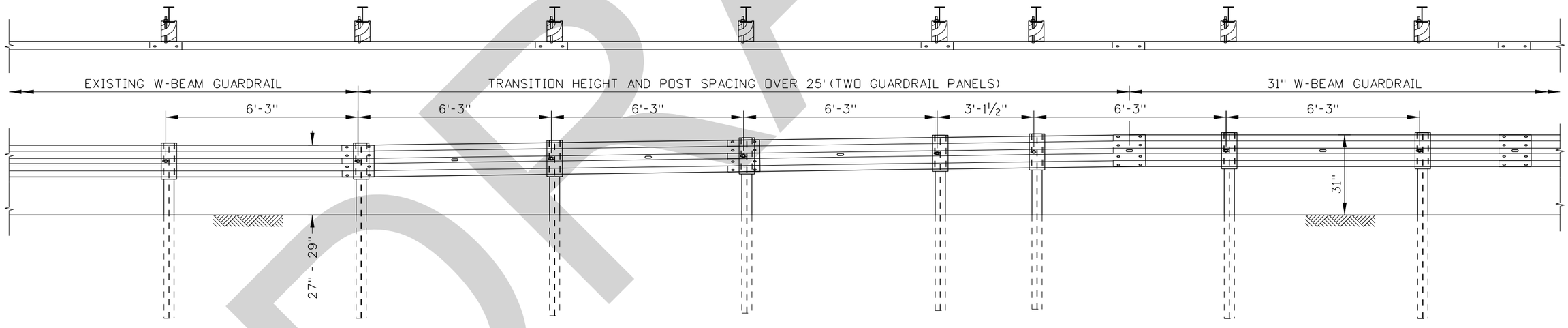
DRAFT



REDUCED POST SPACING

SEE NOTE NO. 7

LEGEND:
* EXTRA POSTS.
BOLT BLOCKOUT TO POST, BUT DO NOT BOLT TO GUARDRAIL



TRANSITION TO 31" W-BEAM GUARDRAIL

SEE NOTE NO. 19

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED AND DATED RYAN D. LANCASTER MARCH 10, 2021 13683 STATE OF IDAHO

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
CHIEF TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

31" W-BEAM GUARDRAIL

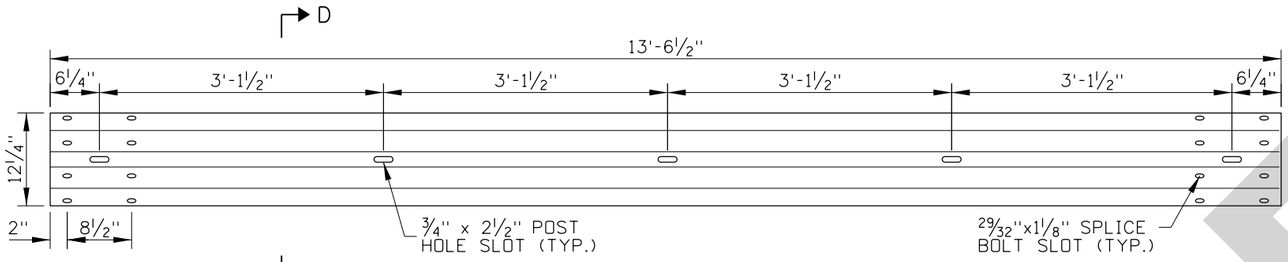
English

STANDARD DRAWING NO.

612-1

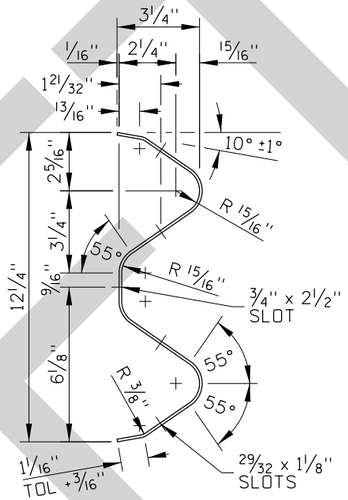
SHEET 3 OF 5

DRAFT



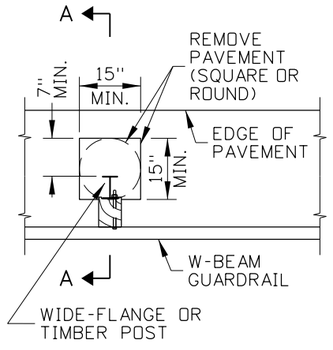
4-SPACE W-BEAM GUARDRAIL

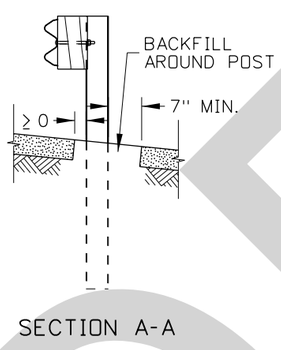
RWM04a



SECTION D-D

31" W-BEAM GUARDRAIL HARDWARE COMPONENTS TABLE		
COMPONENT DESCRIPTION	WIDE-FLANGE POST	TIMBER POST
4-SPACE W-BEAM GUARDRAIL	RWM04a	RWM04a
WIDE-FLANGE GUARDRAIL POSTS	PWE01, PWE--	-
TIMBER GUARDRAIL POSTS	-	PDE02
CRT TIMBER GUARDRAIL POST	-	PDE09
W-BEAM BLOCKOUT	PDB01b OR POLYETHYLENE	PDB01a
⅝" GUARDRAIL SPLICE BOLT AND RECESSED NUT	FBB01	FBB01
⅝" GUARDRAIL BOLT AND RECESSED NUT	FBB03	FBB04
⅝" PLAIN ROUND WASHER	FWC16a	FWC16a
16D GALVANIZED NAIL	-	N/A

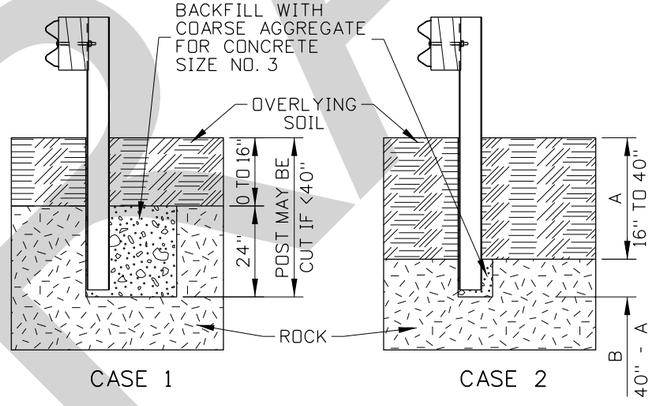




SECTION A-A

GUARDRAIL POST IN PAVEMENT

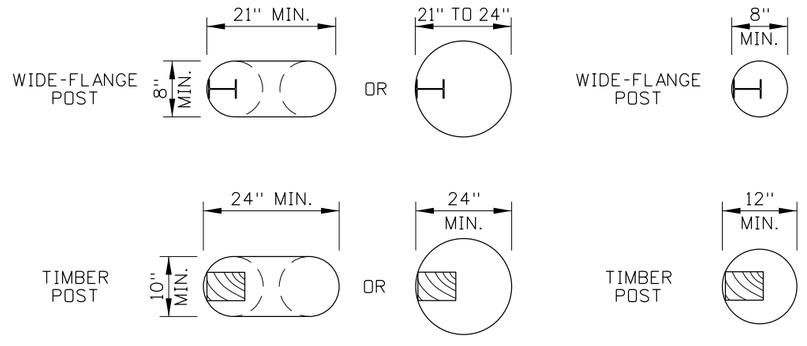
SEE NOTE NO. 9



CASE 1 CASE 2

GUARDRAIL POST IN ROCK FORMATION

SEE NOTE NO. 9



CASE 1 CASE 2

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

CHIEF TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

31" W-BEAM GUARDRAIL

English

STANDARD DRAWING NO.

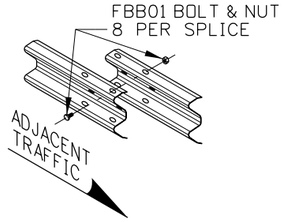
612-1

SHEET 4 OF 5

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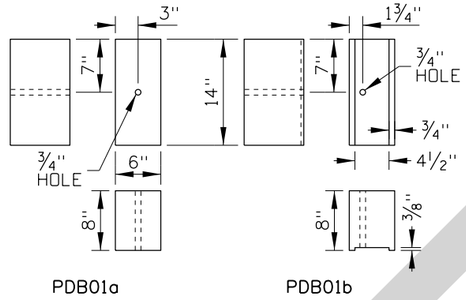
PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER DATE OF ORIGINAL SIGNATURE MARCH 10, 2020 13683 STATE OF IDAHO RYAN D. LANCASTER

DRAFT

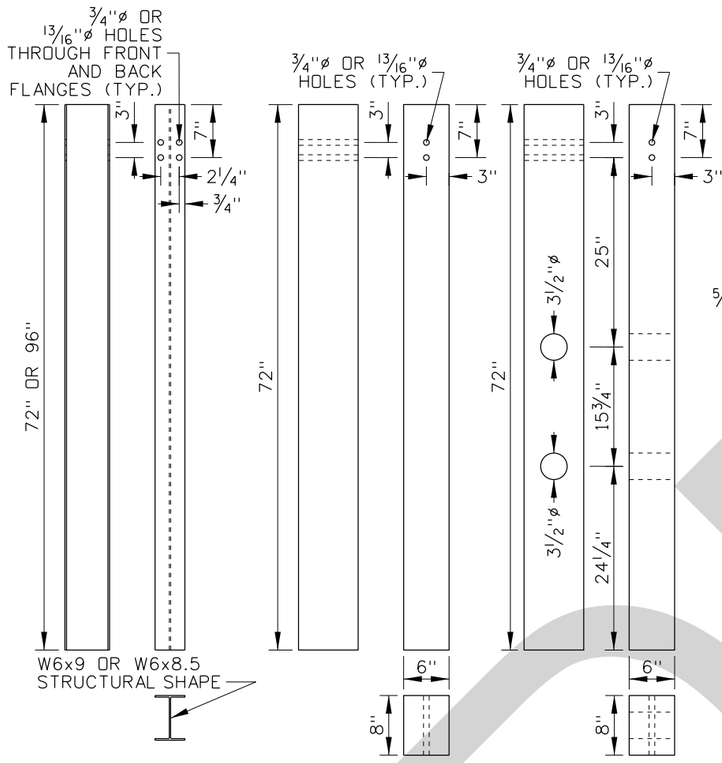


W-BEAM SPLICE DETAIL

SEE NOTE NO. 14



W-BEAM TIMBER BLOCKOUTS

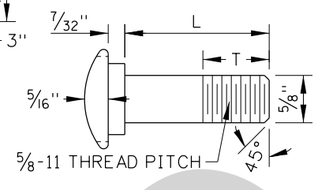


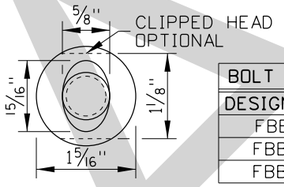
WIDE-FLANGE
PWE01, PWE--

TIMBER
PDE02, PDE--

CRT TIMBER POST
PDE09

GUARDRAIL POSTS

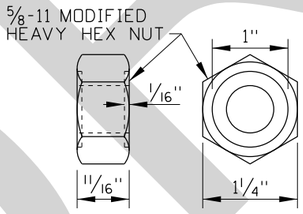




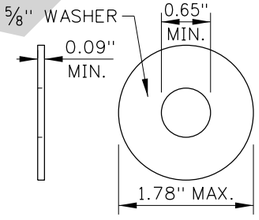
BOLT DIMENSION TABLE		
DESIGNATOR	L	T
FBB01	1¼"	1⅛"
FBB03	10"	1¾"
FBB04	18"	4"

GUARDRAIL BOLT (BUTTON-HEADED)

FBB01, FBB03, FBB04



RECESSED NUT



PLAIN ROUND WASHER

FWC16a

NOTES

1. THE 31" W-BEAM GUARDRAIL SYSTEM SHOWN IS A MASH TEST LEVEL 3 BARRIER SYSTEM.
2. PROVIDE BARRIER HARDWARE AS SHOWN AND AS SPECIFIED IN THE PUBLICATION "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE." WHERE THE GUIDE AND PLANS CONFLICT, PROVIDE HARDWARE COMPONENTS AS SHOWN ON THE PLANS.
3. INSTALL GUARDRAIL AS SHOWN IN THE NORMAL APPLICATION UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS. THE CURB APPLICATIONS CAN BE USED WITH ANY OF THE CURB AND GUTTER OR CURB TYPES SHOWN ON THE CURB AND GUTTER STANDARD DRAWING.
4. PLACE 31" W-BEAM GUARDRAIL AS FAR FROM THE TRAVELED WAY AS PRACTICAL. WHERE PRACTICAL PROVIDE THE SHY-LINE OFFSET DISTANCE SHOWN IN THE SHY-LINE OFFSET TABLE.
5. WHERE PRACTICAL, FLARE THE 31" W-BEAM GUARDRAIL AWAY FROM THE TRAVELED WAY. SEE THE SHY-LINE OFFSET AND FLARE RATE TABLE.
6. PROVIDE ADEQUATE DEFLECTION DISTANCE TO OBSTRUCTIONS BEHIND THE GUARDRAIL BY PROVIDING THE WORKING WIDTH SHOWN ON THE PLACEMENT DETAIL AND IN THE DEFLECTION TABLE.
7. DECREASE DEFLECTION BY REDUCING POST SPACING. INTRODUCE EACH REDUCTION IN POST SPACING OVER 25'OR MORE. DO NOT BOLT THE GUARDRAIL TO THE EXTRA POSTS.
8. WIDE-FLANGE OR TIMBER POSTS MAY BE USED UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS. USE THE SAME POST MATERIAL FOR THE PROJECT LENGTH (EXCEPT IN THE 31" LONG-SPAN APPLICATION).
9. REMOVE PAVEMENT AND ROCK AROUND GUARDRAIL POSTS.
10. USE TIMBER OR POLYETHYLENE BLOCKOUTS WITH WIDE-FLANGE POSTS. USE TIMBER BLOCKOUTS WITH TIMBER POSTS. USE THE SAME BLOCKOUT MATERIAL FOR THE PROJECT LENGTH (EXCEPT IN THE 31" LONG-SPAN APPLICATION). THE WIDE-FLANGE POST NORMAL APPLICATON CAN BE CONSTRUCTED WITHOUT BLOCKOUTS IF INDICATED ON THE PROJECT PLANS OR IF APPROVED BY THE ENGINEER.
11. INSTALL THE BLOCKOUT AND W-BEAM GUARDRAIL USING THE HOLE 7" FROM THE TOP OF THE POST. THE HIGHER HOLE IS RESERVED FOR FUTURE GUARDRAIL HEIGHT ADJUSTMENT.
12. NAIL TIMBER BLOCKOUTS TO TIMBER POSTS TO RESTRICT BLOCK ROTATION. NAIL THROUGH THE SIDES OF THE BLOCKOUT AND POST.
13. WHEN WIDE-FLANGE POSTS ARE USED AND WHEN PRACTICAL, INSTALL THE BOLT (FBB03) ON THE UPSTREAM SIDE OF THE POST IN RELATION TO THE ADJACENT TRAFFIC.
14. SPLICE 31" W-BEAM GUARDRAIL BETWEEN POSTS. OVERLAP SPLICES SO THAT THE EXPOSED W-BEAM EDGE IS DOWNSTREAM OF THE ADJACENT TRAFFIC.
15. BEGIN AND END 31" W-BEAM GUARDRAIL WITH A TERMINAL, ANCHOR, OR TRANSITION. CONSTRUCT TERMINALS OR TRANSITIONS USING THE SAME POST MATERIAL AS THE GUARDRAIL WHEN PRACTICAL. SOME ANCHORS AND TERMINALS ARE ONLY AVAILABLE WITH TIMBER OR WIDE-FLANGE POSTS.
16. DELINEATE GUARDRAILS WITH TYPE 9 DELINEATORS. SEE THE DELINEATOR STANDARD DRAWING FOR DELINEATOR SPACING.
17. ONE POST CAN BE OMITTED WITHOUT OTHER MODIFICATION IF APPROVED BY THE ENGINEER. THE LONG-SPAN APPLICATION CAN BE USED WHERE TWO POSTS (18'-9" SPAN) OR THREE POSTS (25' SPAN) ARE OMITTED.
18. WHEN THE LONG-SPAN APPLICATION (18'-9", OR 25') IS USED, INSTALL THREE CRT TIMBER POSTS (PDE09) WITH TIMBER BLOCKOUTS ADJACENT TO THE UPSTREAM AND DOWNSTREAM ENDS OF THE UNSUPPORTED SECTION. DO NOT NEST THE 4-SPACE W-BEAM GUARDRAIL IN THE UNSUPPORTED SECTION. INSTALL AT LEAST 62'-6" OF 31" W-BEAM GUARDRAIL UPSTREAM AND DOWNSTREAM OF THE CRT POSTS.
19. WHEN CONNECTING TO EXISTING GUARDRAIL, TRANSITION THE GUARDRAIL HEIGHT TO 31". REPLACE THE EXISTING W-BEAM GUARDRAIL IF THE TOP OF GUARDRAIL HEIGHT IS LESS THAN 27".
20. DRAWING NOT TO SCALE.

DRAFT

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO 13683 ORIGINAL SIGNED BY RYAN D. LANCASTER MARCH 10, 2020

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN / TRAFFIC SERVICES ENGINEER

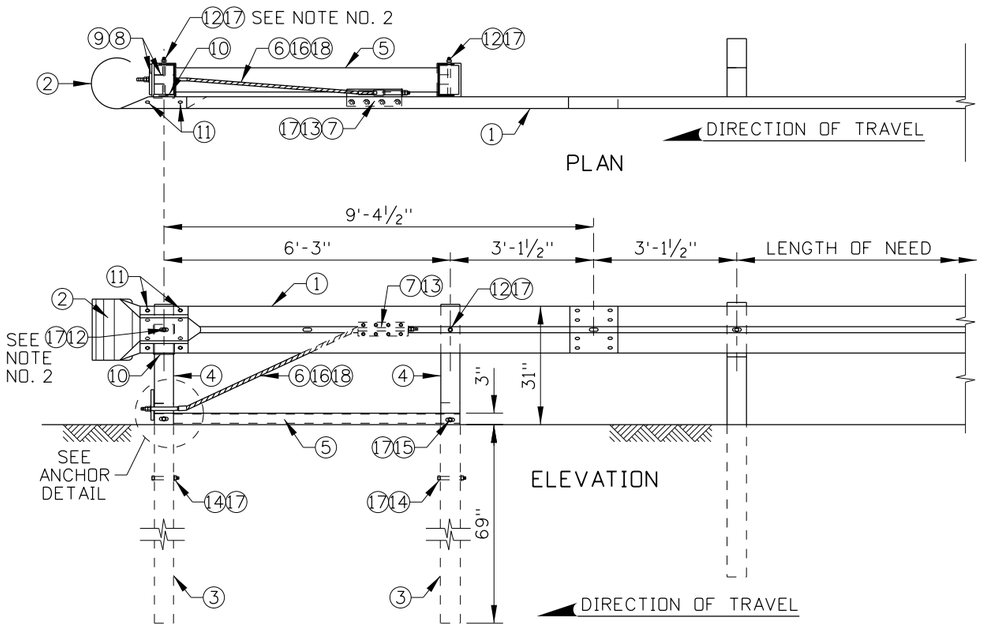
STANDARD DRAWING

31" W-BEAM GUARDRAIL

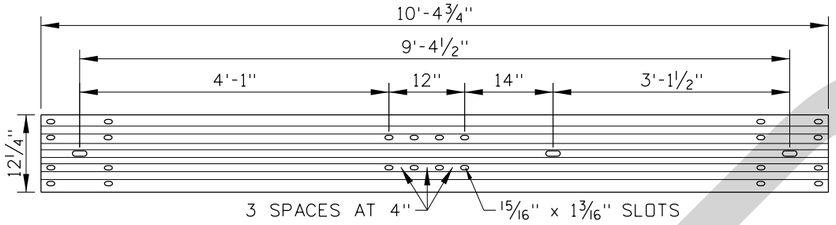
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STANDARD DRAWING NO. 612-1

SHEET 5 OF 5

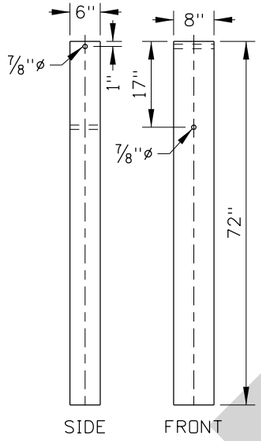


GUARDRAIL ANCHOR



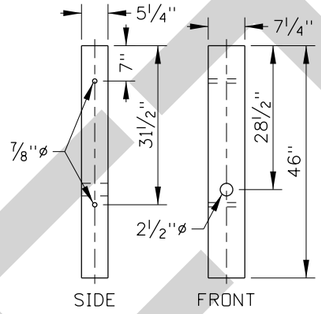
① W-BEAM ANCHOR GUARDRAIL

RWM14a (MODIFIED)



③ FOUNDATION TUBE DETAIL

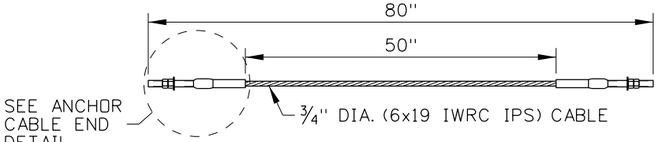
PTE06



④ BCT TIMBER POST DETAIL

PDF--

ANCHOR HARDWARE COMPONENTS TABLE			
ITEM NO.	COMPONENT DESCRIPTION	QTY.	TF-13 NAME
①	W-BEAM ANCHOR GUARDRAIL	1	RWM14a (MOD)
②	W-BEAM END SECTION (ROUNDED)	1	RWE03a
③	FOUNDATION TUBE	2	PTE06
④	BCT TIMBER POST	2	PDF--
⑤	STRUT AND YOKE ASSEMBLY	1	PFP02
⑥	BCT CABLE ANCHOR ASSEMBLY	1	FCA01
⑦	GUARDRAIL ANCHOR BRACKET	1	FPA01
⑧	BCT POST SLEEVE	1	FMM02
⑨	BCT BEARING PLATE	1	FPB01
⑩	SHELF ANGLE BRACKET	1	FPP02
⑪	5/8" GUARDRAIL SPLICE BOLT AND RECESSED NUT	4	FBB01
⑫	10" GUARDRAIL BOLT & RECESSED NUT	2	FBB03
⑬	5/8" X 2" HEX HEAD BOLT & NUT	8	FBX16a
⑭	5/8" X 8" HEX HEAD BOLT & NUT	2	FBX16a
⑮	5/8" X 10" HEX HEAD BOLT & NUT	2	FBX16a
⑯	1" HEX NUTS	4	FNX24a
⑰	5/8" FLAT WASHER	22	FWC16a
⑱	1" FLAT WASHER	2	FWC24a
⑲	16D GALVANIZED NAIL	2	N/A



⑥ BCT ANCHOR ASSEMBLY DETAIL

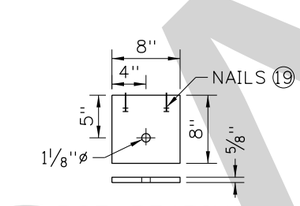
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② W-BEAM END SECTION DETAIL

RWE03a

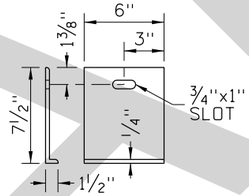
⑤ STRUT AND YOKE ASSEMBLY DETAIL

PFP02



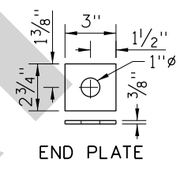
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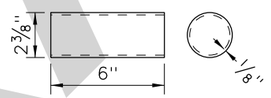
FPB01



⑩ SHELF ANGLE BRACKET DETAIL

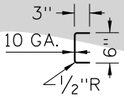
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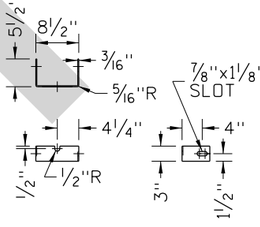


⑧ BCT POST SLEEVE DETAIL

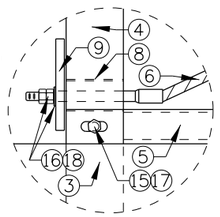
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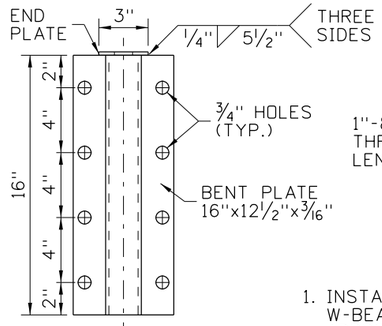
SEC A-A

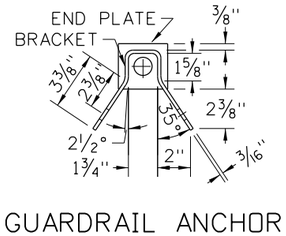


YOKE DETAIL



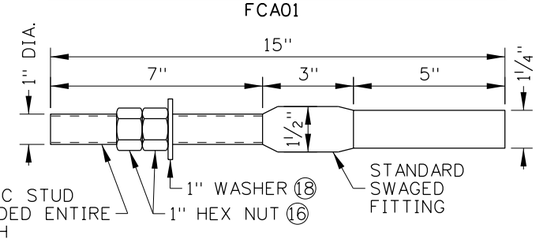
ANCHOR DETAIL





⑦ GUARDRAIL ANCHOR BRACKET DETAIL

FPA01



ANCHOR CABLE END DETAIL

NOTES

1. INSTALL THE ANCHOR SYSTEM ON THE TRAILING END OF 31" W-BEAM GUARDRAIL, OUTSIDE OF THE CLEAR ZONE FOR APPROACHING TRAFFIC, OR BOTH.
2. SUPPORT THE W-BEAM ANCHOR GUARDRAIL AT THE END POST WITH THE SHELF ANGLE BRACKET. DO NOT BOLT THE W-BEAM GUARDRAIL TO THE POST.
3. ENSURE THAT THE FOUNDATION TUBES DO NOT EXTEND MORE THAN 3¾" ABOVE THE FINISHED GRADE.
4. INSTALL AN EXTRA HEX NUT ON EACH END OF THE BCT CABLE ANCHOR ASSEMBLY.
5. AFFIX A TYPE 3 OBJECT MARKER TO THE W-BEAM END SECTION WHEN THE ANCHOR IS USED ON AN UNDIVIDED HIGHWAY.
6. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER STATE OF IDAHO 13683 JULY 25, 2017 RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-5_0617.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

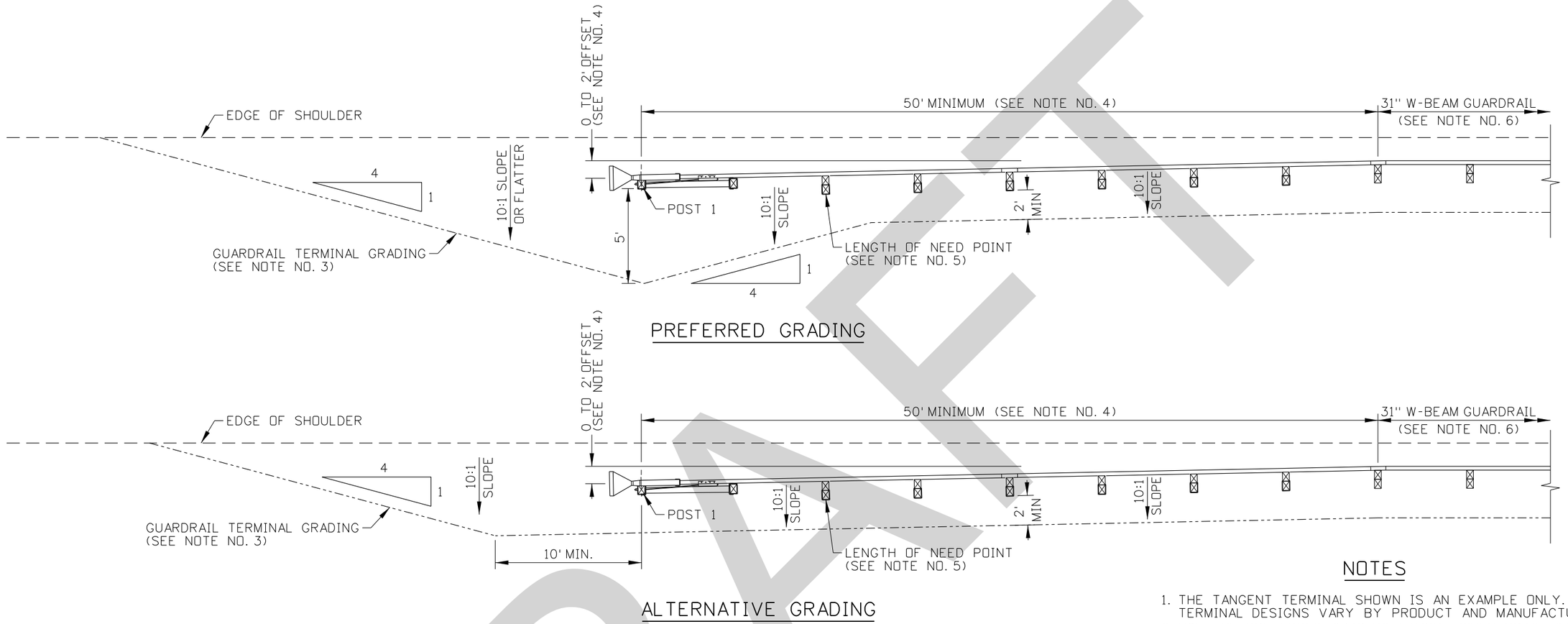
GUARDRAIL ANCHOR

English

STANDARD DRAWING NO. 612-5

SHEET 1 OF 1

DRAFT



PREFERRED GRADING

ALTERNATIVE GRADING

NOTES

1. THE TANGENT TERMINAL SHOWN IS AN EXAMPLE ONLY. TANGENT TERMINAL DESIGNS VARY BY PRODUCT AND MANUFACTURER.
2. USE THE PREFERRED GRADING LAYOUT WHEN PRACTICAL. THE ALTERNATIVE GRADING LAYOUT MAY BE USED WHEN UPGRADING AN EXISTING TERMINAL WITH SITE LIMITATIONS. DISTANCES SHOWN FROM THE TERMINAL POSTS TO THE GRADING EXTENTS ARE MEASURED FROM THE BACK OF THE POST.
3. PROVIDE A 4:1 OR FLATTER SLOPE OUTSIDE OF THE GUARDRAIL TERMINAL GRADING EXTENTS WHERE PRACTICAL.
4. INSTALL THE TERMINAL IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO THE INSTRUCTIONS FOR SYSTEM LENGTH, OFFSET, NUMBER OF POSTS, POST SPACING, AND WHEN A TANGENT TERMINAL IS TO BE INSTALLED ON A HORIZONTAL CURVE.
5. VERIFY THE LENGTH OF NEED POINT WITH MANUFACTURER INSTRUCTIONS FOR A SPECIFIC PRODUCT. ELEMENTS OF THE GUARDRAIL TERMINAL DOWNSTREAM OF THE LENGTH OF NEED POINT CAN BE INCLUDED AS PART OF THE LENGTH OF NEED.
6. PROVIDE A MINIMUM OF 12'-6" OF 31" W-BEAM GUARDRAIL BETWEEN THE GUARDRAIL TERMINAL AND A GUARDRAIL TRANSITION.
7. IF THE TANGENT TERMINAL DESIGN USES AN ANCHOR CABLE, INSTALL AN EXTRA HEX NUT ON EACH END OF THE CABLE.
8. AFFIX A TYPE 3 OBJECT MARKER TO THE TERMINAL END SECTION.
9. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED RYAN D. LANCASTER STATE OF IDAHO 13683 RYAN D. LANCASTER

REVISIONS

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-21	PBH						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-8_0421.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

GUARDRAIL TERMINAL TANGENT

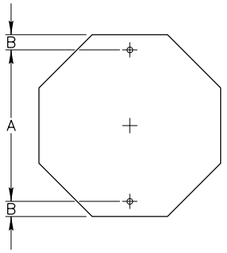
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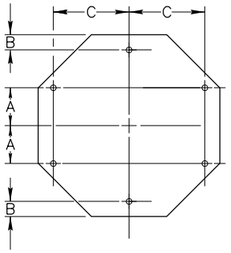
612-8

SHEET 1 OF 1

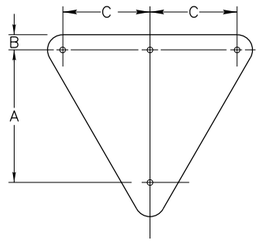
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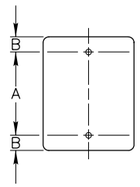
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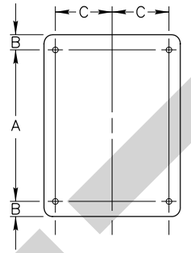
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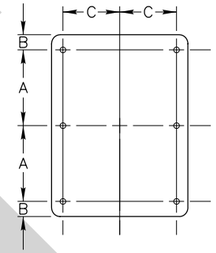
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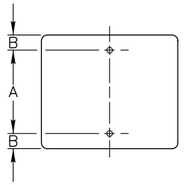
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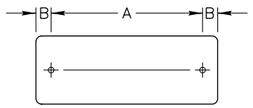
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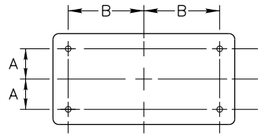
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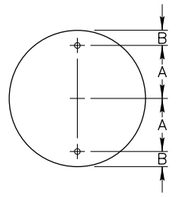
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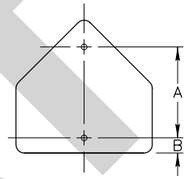
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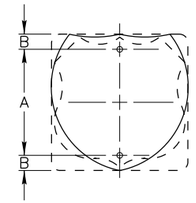
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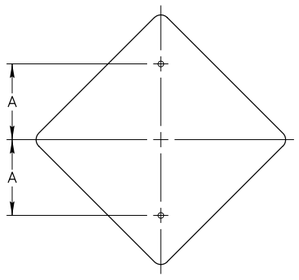
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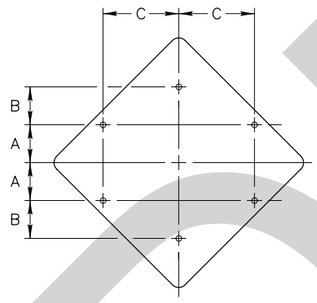
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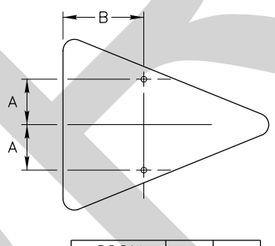
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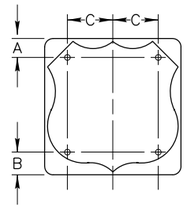
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24"X24"	12"
30"X30"	15"



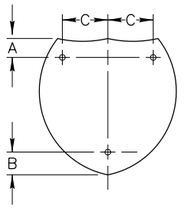
SIGN SIZE	A	B	C
36"X36"	8"	10"	12"
48"X48"	10"	—	20"



SIGN SIZE	A	B
36"X48"	9"	16"



SIGN SIZE	A	B	C
36"X36"	5"	6"	12"



SIGN SIZE	A	B	C
36"X36"	5"	6"	12"
45"X36"	5"	6"	16"

NOTES:

1. ALL MOUNTING HOLES SHALL BE ⅜" DIAMETER.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER DATE OF ORIGINAL SIGNATURE MARCH 1, 2017 13683 STATE OF IDAHO RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	12-01	NQB						
2	06-07	HEB						
3	07-14	HEB						
4	05-17	HEB						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 616-1_0517.dgn

DRAWING DATE: DECEMBER, 1994

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

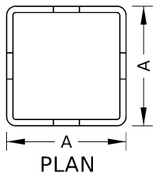
PUNCHING SCHEDULE FOR TYPE "B" OR TYPE "E" SIGNS

English

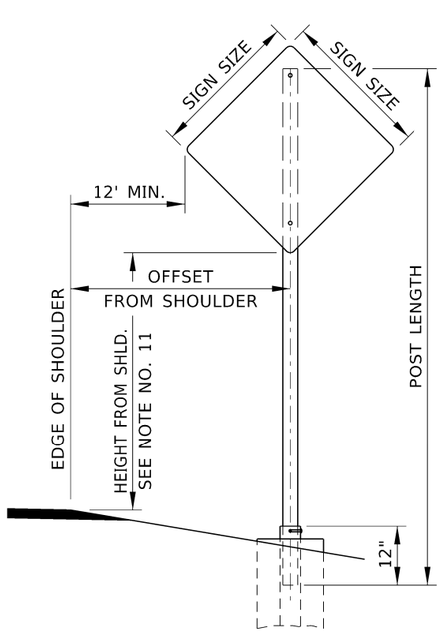
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SHEET 1 OF 1

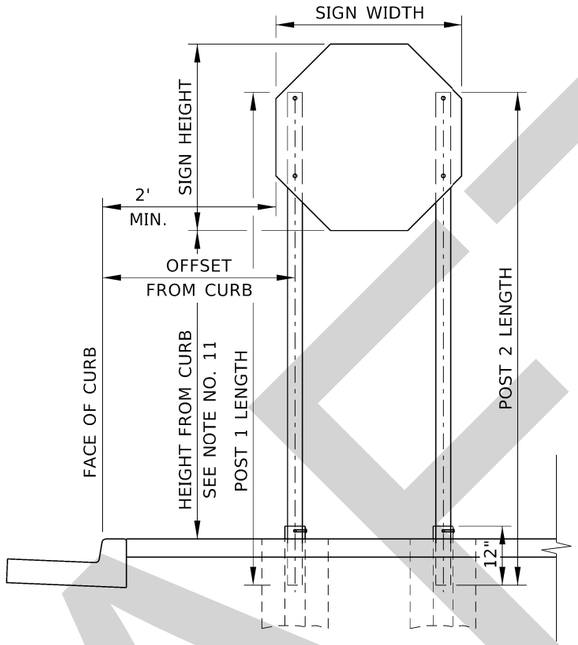
DRAFT



PLAN

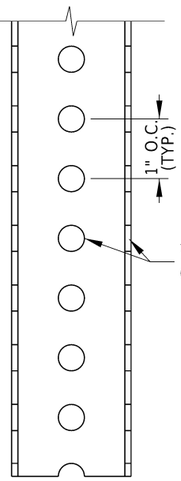


ONE POST

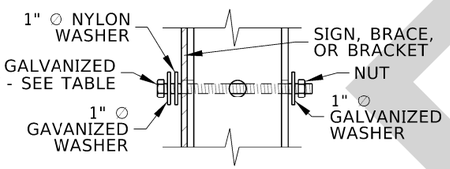


TWO POSTS

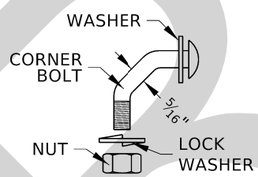
SIGN ASSEMBLY MEASUREMENTS



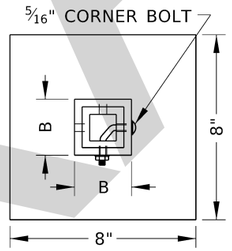
ELEVATION



SIGN BOLT



CORNER BOLT

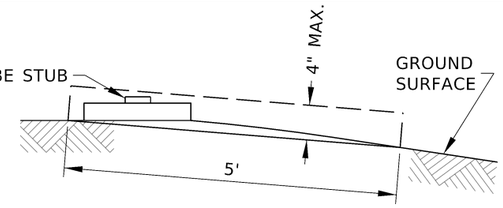


PLAN

FASTENER DETAILS

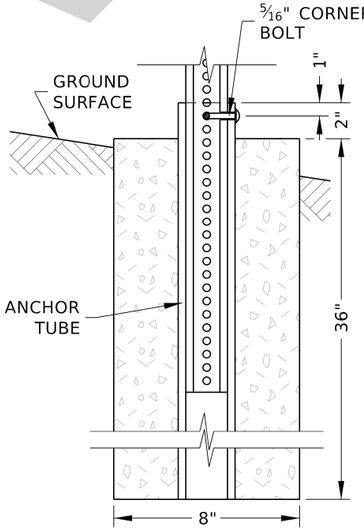
SEE NOTE NO. 10

SIGN POST AND FOUNDATION TABLE										
TYPE E PERFORATED STEEL TUBE POST					FOUNDATION		ANCHOR TUBE			FASTENERS
POST TYPE	PERFORATED STEEL TUBE POST SIZE		POST WEIGHT (LB/FT)	MAXIMUM SIGN LOAD (SFxFT)	SIZE (INxINxIN)	CONCRETE (CY)	B (IN)	GAUGE	POST WEIGHT (LB/FT)	SIGN BOLT LENGTH (IN)
	A (IN)	GAUGE								
E-1	2	12	2.42	43	8x8x36	0.05	2½x2½	7	5.59	2½
E-2	2½	10	4.01	91	8x8x36	0.05	3x3	7	6.87	3



FOUNDATION AND STUB HEIGHT DETAIL

SEE NOTE NO. 15



ELEVATION

FOUNDATION

SEE NOTE NOS. 12 & 13

NOTES

1. USE TYPE E - PERFORATED STEEL TUBE POSTS - WITH TYPE B - SHEET ALUMINUM AND TYPE E - HDO PLYWOOD SIGNS.
2. SEE THE TRAFFIC MANUAL TO CALCULATE SIGN LOAD PER POST.
3. SEE PROJECT SIGN SUMMARY FOR SIGN ASSEMBLY DIMENSIONS.
4. USE ONE OR MORE TYPE E - PERFORATED STEEL TUBE POST. DO NOT MIX E-1 AND E-2 POSTS ON THE SAME SIGN ASSEMBLY.
5. POST 1 IS CLOSEST TO THE HIGHWAY, WHETHER INSTALLED ON THE RIGHT OR LEFT SIDE.
6. A BREAKAWAY DEVICE MUST BE INSTALLED IF THREE POSTS ARE USED. REFER TO THE ITD QUALIFIED PRODUCTS LIST FOR BREAKAWAY DEVICES.
7. TYPE E - PERFORATED STEEL TUBE POSTS - DO NOT NEED TO BE SHIELDED BY GUARDRAIL OR BARRIER. WHEN PERFORATED STEEL POSTS ARE INSTALLED BEHIND GUARDRAIL OR BARRIER, ENSURE THE POSTS ARE OUTSIDE OF THE GUARDRAIL OR BARRIER WORKING WIDTH.
8. SIGNS CAN BE MOUNTED BACK-TO-BACK IF THE SHAPE OF STOP, YIELD, OR WARNING SIGNS ARE NOT SHIELDED.
9. SIGNS ARE INSTALLED WITH OR WITHOUT BRACES DEPENDENT ON SIGN SIZE AND APPLICATION.
10. TYPE B - SHEET ALUMINUM - OR TYPE E - HDO PLYWOOD - SIGNS CAN BE AFFIXED TO THE POST OR THROUGH BRACES OR BRACKETS.
11. INSTALL SIGNS AT THE FOLLOWING HEIGHTS:
    A. IF INSTALLED IN A RURAL AREA, 5 FEET ABOVE THE PAVEMENT ELEVATION OR 4 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN.
    B. IF INSTALLED IN THE VICINITY OF A CURB OR IN A BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY, 7 FEET ABOVE THE PAVEMENT ELEVATION OR 6 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN. IF INSTALLED LOWER THAN 7 FEET, ENSURE SIGNS DO NOT PROJECT MORE THAN 4 INCHES INTO THE PEDESTRIAN FACILITY.
12. PRECAST FOUNDATION OR CAST FOUNDATION IN PLACE. ENSURE THE BOTTOM OF THE FOUNDATION IS KEPT OPEN TO DRAIN. IF THE ANCHOR TUBE IS PERFORATED, ENSURE THE INSIDE OF THE ANCHOR REMAINS OPEN.
13. IF SOLID BEDROCK IS ENCOUNTERED WITHIN THE FOUNDATION DEPTH, DRILL A 4.5 INCH VERTICAL HOLE AND SOCKET THE ANCHOR TUBE. FILL DRILLED HOLES WITH GROUT, TYPE B, CLASS 1. ENSURE THE INSIDE OF THE ANCHOR TUBE REMAINS OPEN. WHEN INSTALLED IN BEDROCK, ENSURE THE E-1 POST IS EMBEDDED 18 INCHES DEEP AND THE E-2 POST IS EMBEDDED 24 INCHES.
14. WHEN THE SIGN IS INSTALLED ON A BACKSLOPE, ENSURE THE SIGN POST IS AT LEAST 5' HIGHER THAN THE GROUND SURFACE.
15. ENSURE NO PART OF THE FOUNDATION OR SIGN POST STUB PROJECTS MORE THAN 4 IN. ABOVE ANY 5 FT. CHORD ALIGNED PERPENDICULARLY TO THE EDGE OF THE HIGHWAY BETWEEN A POINT ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE OF THE SUPPORT.
16. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER DATE OF ORIGINAL SIGNATURE MARCH 1, 2023 STATE OF IDAHO 13683 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-92	JEC	6	05-15	HEB			
2	12-94	HEB	7	12-16	HEB			
3	06-99	HEB	8	02-23	RDL			
4	12-01	NQB						
5	12-13	HEB						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 616-7_0423.dgn

DRAWING DATE: JULY, 1991

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

BOISE IDAHO

ORIGINAL SIGNED BY: MONICA CRIDER

HIGHWAY DESIGN ENGINEER

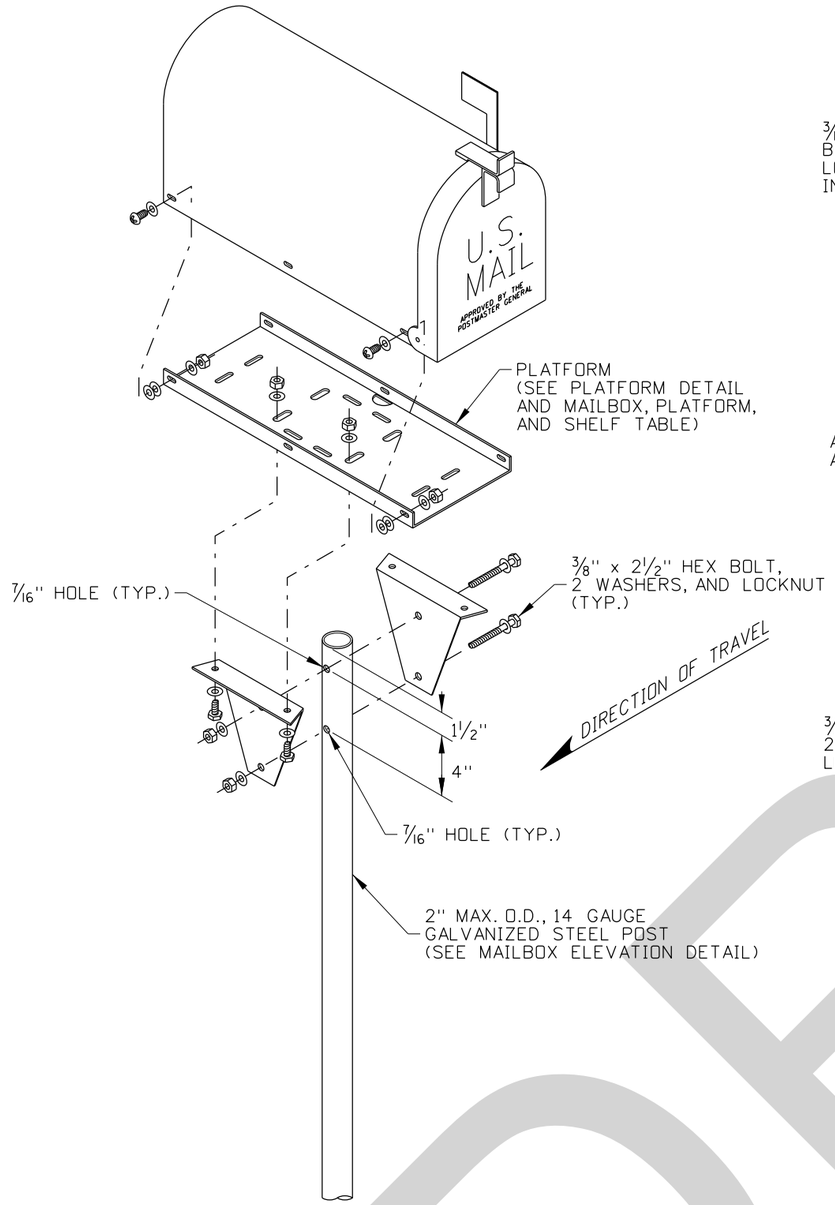
STANDARD DRAWING

STEEL SIGN POST AND FOUNDATION TYPE E - PERFORATED STEEL TUBE POST

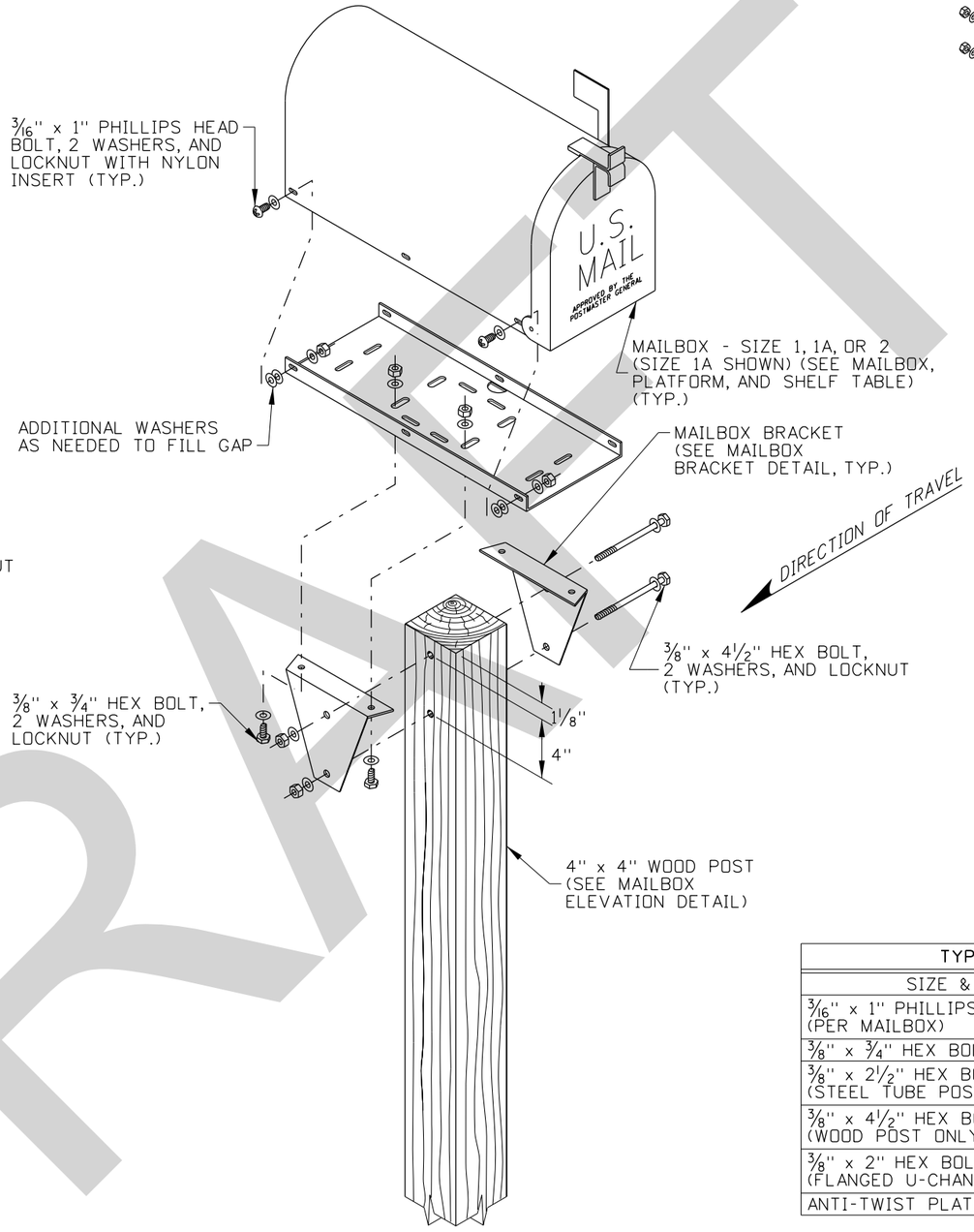
ENGLISH

STANDARD DRAWING NO. 616-7

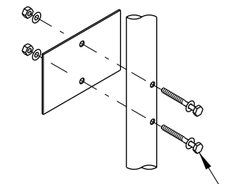
SHEET 1 OF 1



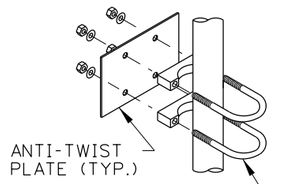
TYPE A ASSEMBLY
STEEL TUBE POST



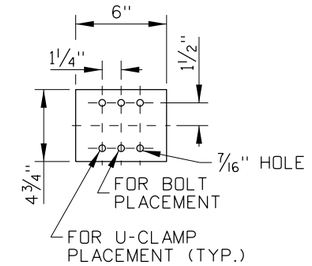
TYPE A ASSEMBLY
WOOD POST



BOLTED ASSEMBLY



MUFFLER CLAMP ASSEMBLY



ANTI-TWIST PLATE DETAIL

TYPE A ASSEMBLY FASTENERS TABLE			
SIZE & TYPE	QUANTITY	WASHERS	LOCKNUTS
3/16" x 1" PHILLIPS HEAD BOLTS (PER MAILBOX)	4 MIN.	8 MIN.	4 MIN.
3/8" x 3/4" HEX BOLT (BRACKET)	4	8	4
3/8" x 2 1/2" HEX BOLT (STEEL TUBE POST ONLY)	2	4	2
3/8" x 4 1/2" HEX BOLT (WOOD POST ONLY)	2	4	2
3/8" x 2" HEX BOLT (FLANGED U-CHANNEL POST ONLY)	2	4	2
ANTI-TWIST PLATE ASSEMBLY	SEE ANTI-TWIST PLATE DETAIL		

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER 13683 STATE OF IDAHO — ORIGINAL SIGNED BY RYAN D. LANCASTER JANUARY 31, 2013 — ORIGINAL SIGNATURE AND SEAL ON FILE

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	7-92	MSM	6	7-10	MGL			
2	7-02	MSM	7	11-11	TEM			
3	7-05	MSM	8	01-13	RDL			
4	12-05	MSM						
5	10-08	JRV						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 634-1_0113.dgn

DRAWING DATE: SEPTEMBER, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
HIGHWAYS PROGRAM OVERSIGHT ENGINEER

ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING

MAILBOXES

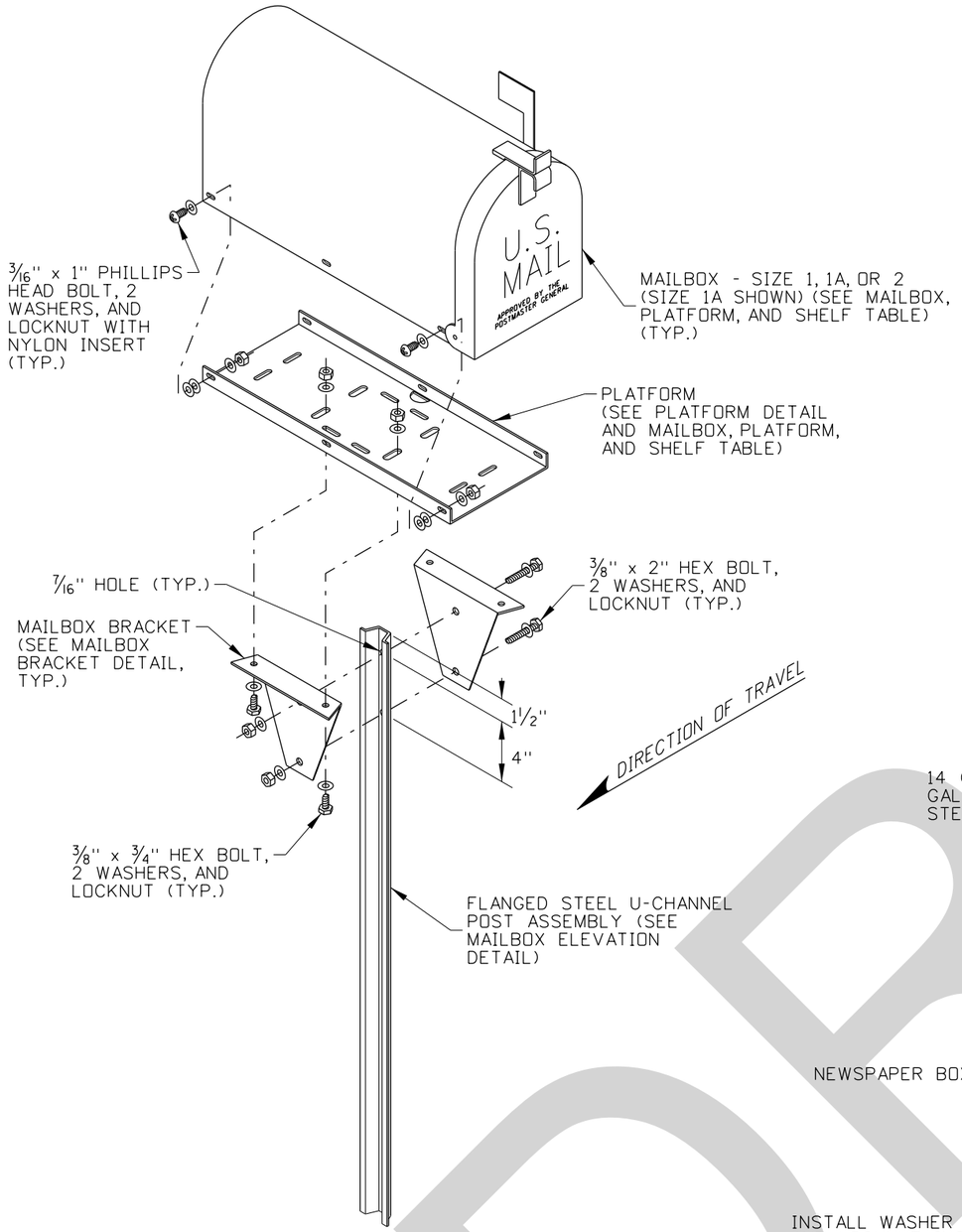
English

STANDARD DRAWING NO.

634-1

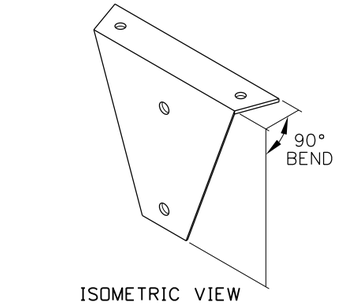
SHEET 1 OF 5

DRAFT

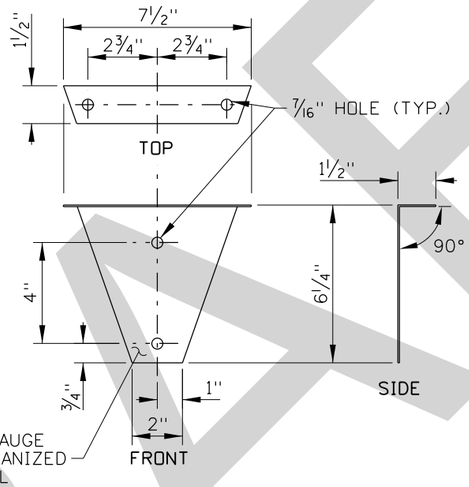


TYPE A ASSEMBLY

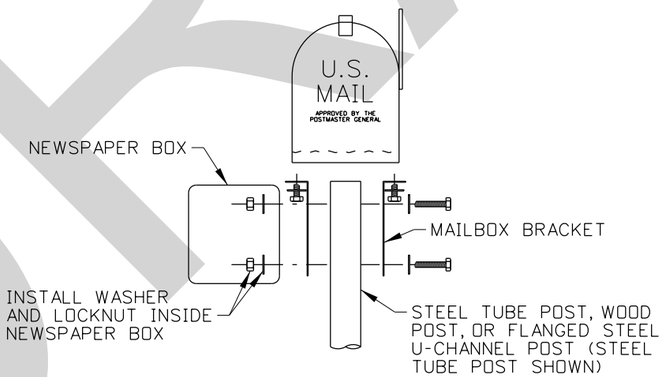
FLANGED STEEL U-CHANNEL POST (2 LB/FT)



ISOMETRIC VIEW

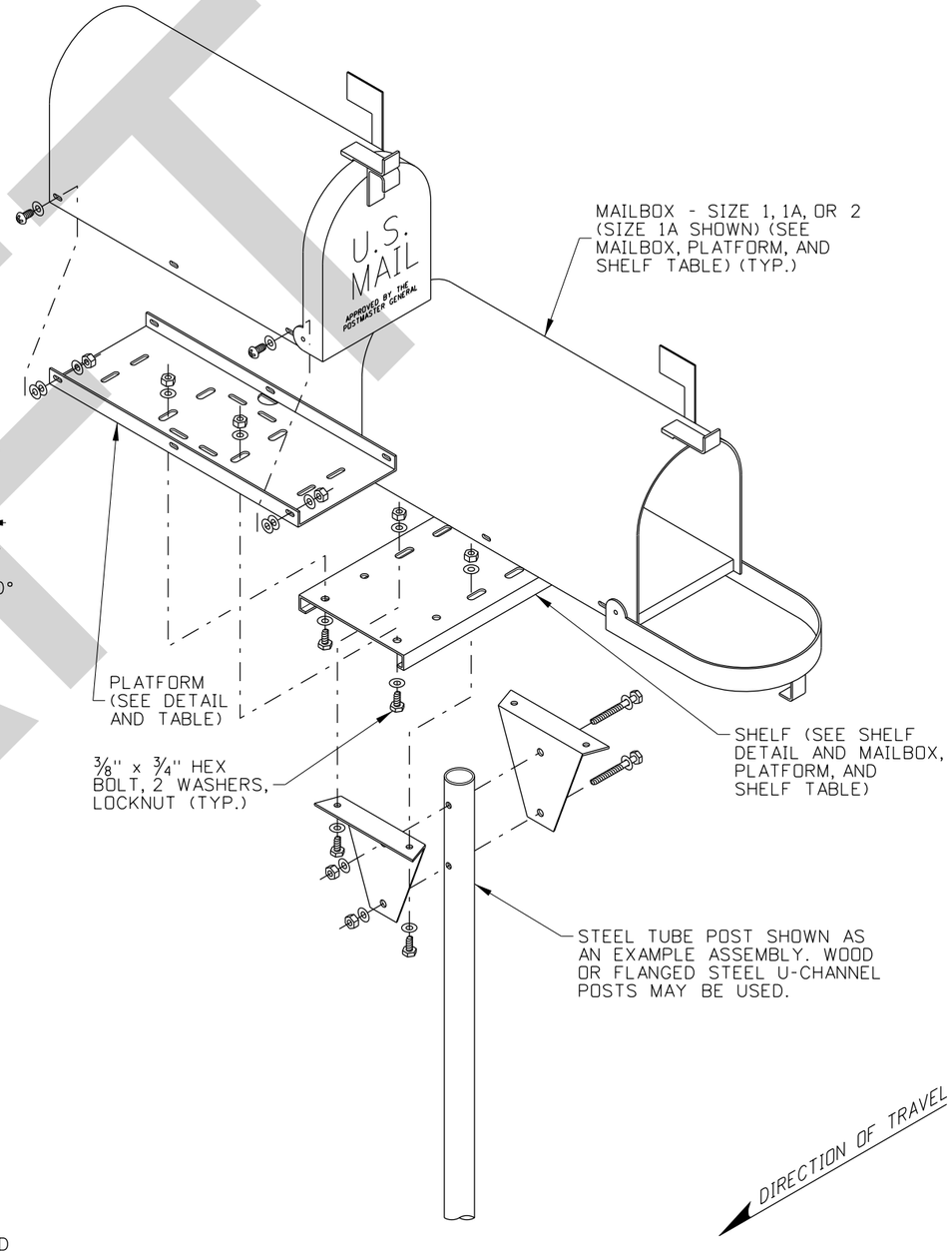


MAILBOX BRACKET DETAIL



NEWSPAPER BOX DETAIL

TYPE A ASSEMBLY



TYPE A ASSEMBLY

DOUBLE MAILBOX ASSEMBLY

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED RYAN D. LANCASTER STATE OF IDAHO JANUARY 31, 2008 ORIGINAL SIGNED 13683

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	7-92	MSM	6	7-10	MGL			
2	7-02	MSM	7	11-11	TEM			
3	7-05	MSM	8	01-13	RDL			
4	12-05	MSM						
5	10-08	JRV						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 634-1_0113.dgn

DRAWING DATE: SEPTEMBER, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
HIGHWAYS PROGRAM OVERSIGHT ENGINEER
ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING

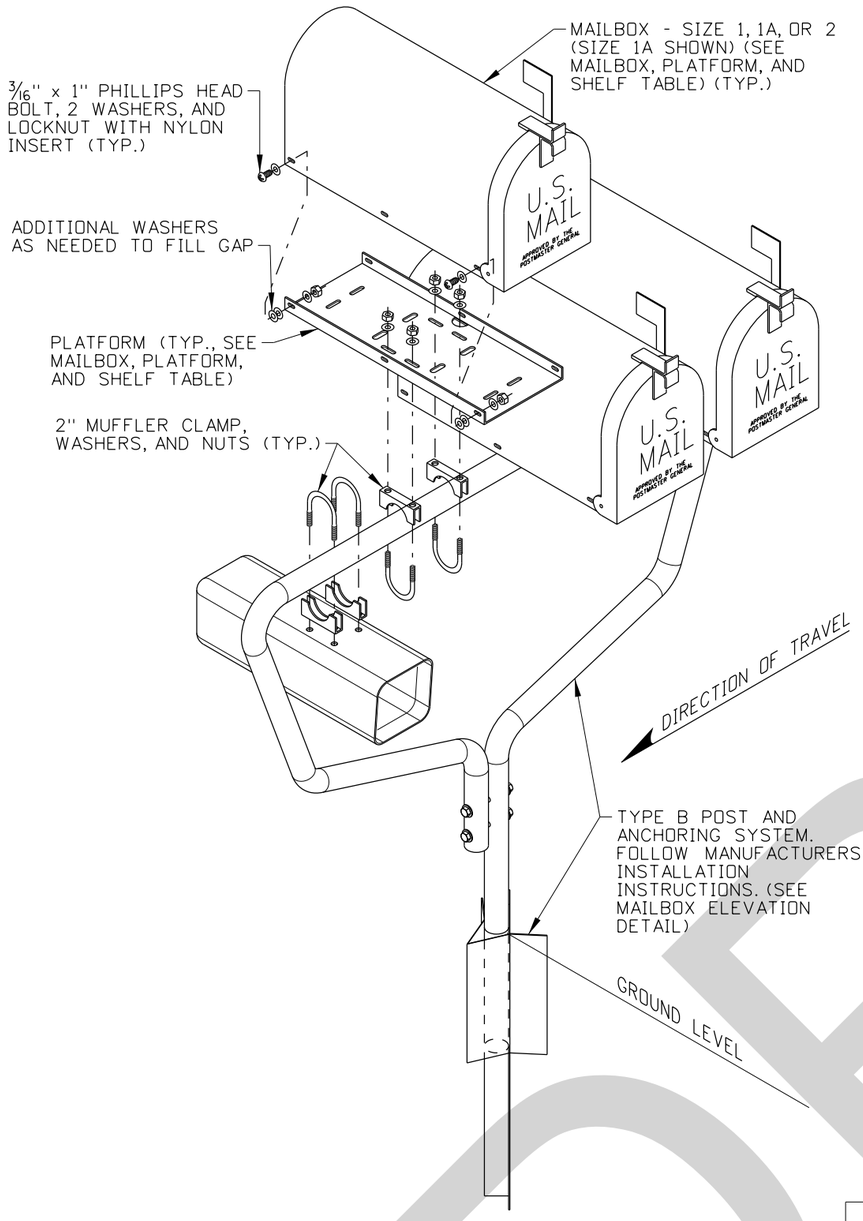
MAILBOXES

English

STANDARD DRAWING NO. 634-1

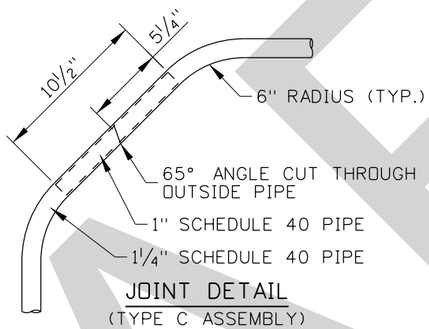
SHEET 2 OF 5

DRAFT

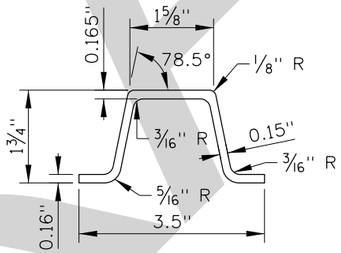


TYPE B ASSEMBLY

TYPE B ASSEMBLY FASTENERS TABLE			
SIZE & TYPE	QUANTITY	WASHERS	LOCKNUTS/NUTS
3/16" x 1" PHILLIPS HEAD BOLT (PER MAILBOX)	4 MIN.	8 MIN.	4 MIN.
2" MUFFLER CLAMP (PER MAILBOX)	2	4	4
2" MUFFLER CLAMP (PER NEWSPAPER BOX)	2	4	2
3/8" x 4 3/4" HEX BOLT (WOOD POST ONLY)	2	4	2
TYPE 2 POST AND ANCHORING SYSTEM	SEE MANUFACTURERS INSTALLATION INSTRUCTIONS		

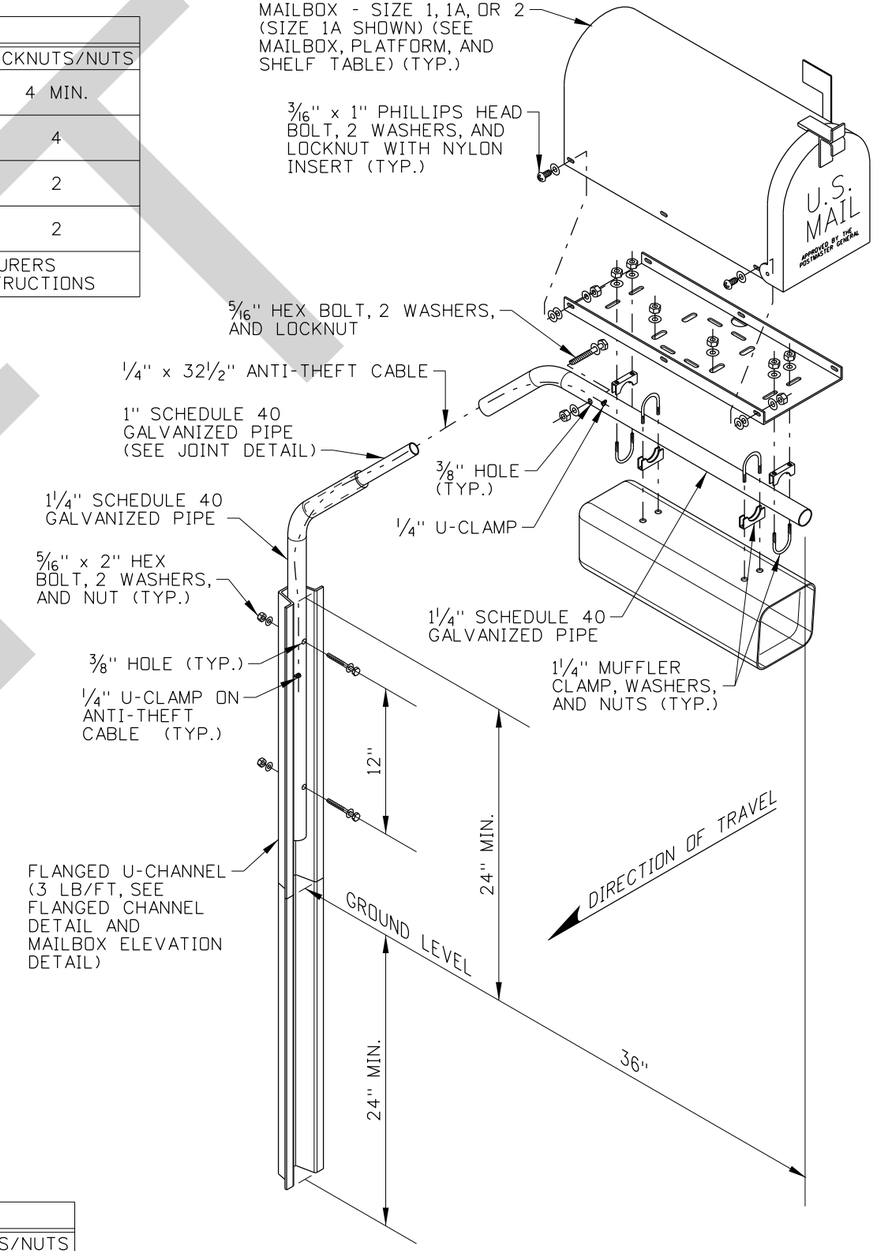


JOINT DETAIL
(TYPE C ASSEMBLY)



FLANGED CHANNEL DETAIL
3 LB/FT
(TYPE C ASSEMBLY)

TYPE C ASSEMBLY FASTENERS TABLE			
SIZE & TYPE	QUANTITY	WASHERS	LOCKNUTS/NUTS
3/16" x 1" PHILLIPS HEAD BOLT	4 MIN.	8 MIN.	4 MIN.
1 1/4" MUFFLER CLAMP	2	4	4
5/16" x 2" HEX BOLT	3	6	3
1/4" U-CLAMP	2	0	4



TYPE C ASSEMBLY

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO 13683 ORIGINAL SIGNED AND SEALED JANUARY 31, 2008 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	7-92	MSM	6	7-10	MGL			
2	7-02	MSM	7	11-11	TEM			
3	7-05	MSM	8	01-13	RDL			
4	12-05	MSM						
5	10-08	JRV						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 634-1_0113.dgn

DRAWING DATE: SEPTEMBER, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
HIGHWAYS PROGRAM OVERSIGHT ENGINEER
ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING

MAILBOXES

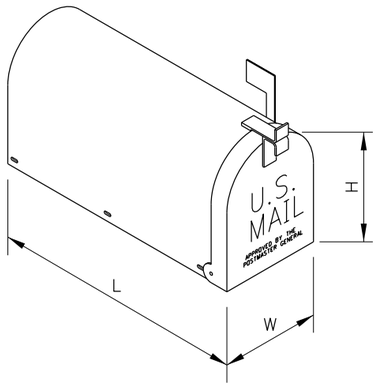
English

STANDARD DRAWING NO. 634-1

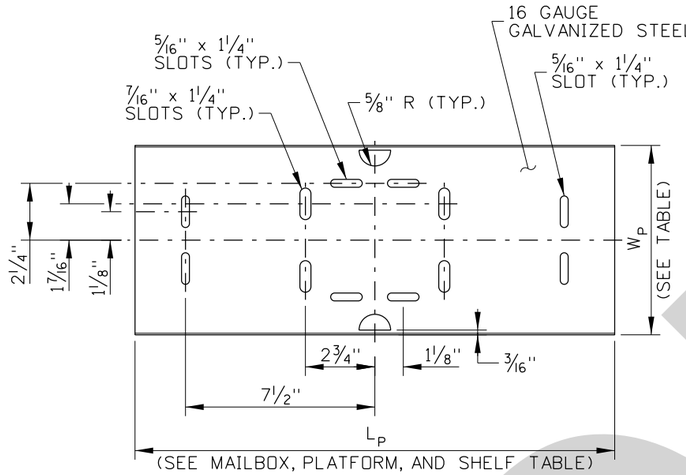
SHEET 3 OF 5

DRAFT

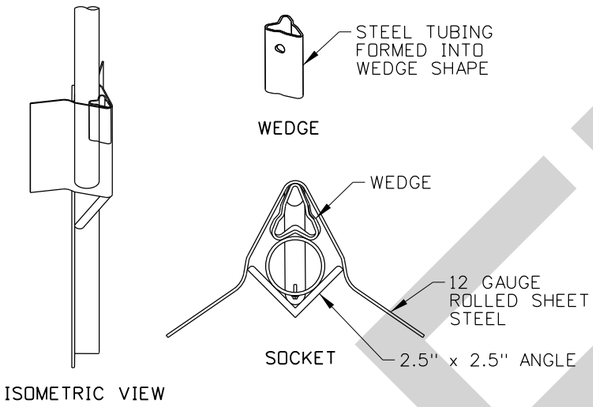
MAILBOX, PLATFORM, AND SHELF TABLE						
MAILBOX SIZE	MAILBOX DIMENSIONS			PLATFORM DIMENSION		SHELF DIM.
	L	W	H	L_P	W_P	L_S
1	19"	6½"	8½"	17"	6"	15"
1-A	21"	8"	10½"	19"	7½"	16½"
2	23½"	11½"	13½"	21"	11"	20"



MAILBOX DIMENSIONS

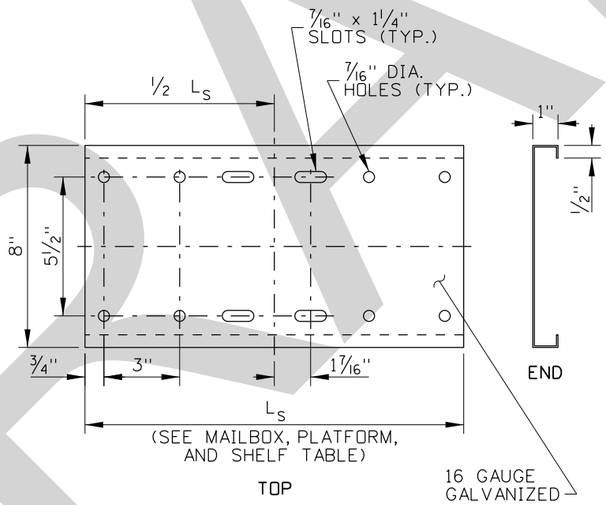


PLATFORM DETAIL
(ONE-PIECE)



SOCKET AND WEDGE MAILBOX SUPPORT SYSTEM DETAIL

FOR USE WITH TYPE B ASSEMBLY
MAY BE USED WITH TYPE A - STEEL TUBE POST ASSEMBLY
(SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS)



SHELF DETAIL
(FOR TYPE A DOUBLE MAILBOX ASSEMBLIES)

NOTES

1. CONSTRUCT MAILBOX ASSEMBLIES IN ACCORDANCE WITH SECTION 634 - MAILBOX OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

2. SEE STANDARD DRAWING 405-2 FOR MAILBOX PLACEMENT.

3. INSTALL THE MAILBOXES AND ASSEMBLIES WITH THE FASTENERS SHOWN IN THE ASSEMBLY FASTENER TABLES. SOME PLATFORM SLOTS AND HOLES MAY REMAIN UNUSED.

4. CENTER THE MAILBOX ON THE PLATFORM AND ENSURE THAT THE MAILBOX DOOR OPENS. SPACING OF MAILBOX MOUNTING HOLES MAY VARY BETWEEN MANUFACTURERS AND ADDITIONAL HOLES MAY BE DRILLED IN THE MAILBOX, PLATFORM, OR BOTH TO ATTACH THE MAILBOX TO THE PLATFORM.

5. COMMERCIALLY AVAILABLE MAILBOXES AND MAILBOX ASSEMBLIES MAY BE SUBSTITUTED FOR THOSE SHOWN IF THEY MEET THE REQUIREMENTS OF THE U.S. POSTMASTER GENERAL AND HAVE SUCCESSFULLY PASSED THE TESTING REQUIREMENTS OF MASH OR NCHRP 350. ADJUSTABLE PLATFORM ALTERNATIVES AND THE SOCKET AND WEDGE MAILBOX SUPPORT SYSTEM ARE EXAMPLES OF COMMERCIALLY AVAILABLE PROPRIETARY SYSTEMS THAT MAY BE ACCEPTABLE ALTERNATIVES. OBTAIN THE ENGINEER'S APPROVAL BEFORE INSTALLING ALTERNATIVE MAILBOXES OR ASSEMBLIES AND INSTALL IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

6. USE AN ANTI-TWIST PLATE, SHOWN ON THE ANTI-TWIST PLATE DETAIL. A SOCKET AND WEDGE MAILBOX SUPPORT SYSTEM MAY BE USED IN LIEU OF AN ANTI-TWIST PLATE. IF THE SOCKET AND WEDGE SYSTEM IS USED, FOLLOW THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

7. THE TYPE C ASSEMBLY SHOULD BE USED IN HEAVY SNOW AREAS OR AREAS WHERE SNOW PLOW DAMAGE TO MAILBOXES HAS BEEN OBSERVED OR IS ANTICIPATED.

8. WHEN USED IN HEAVY SNOW AREAS, ONLY ONE MAILBOX IS RECOMMENDED FOR TYPE A ASSEMBLIES. THE TYPE A ASSEMBLY WITH WOOD POSTS IS RECOMMENDED FOR USE IN HEAVY SNOW AREAS. A SNOW SHIELD MAY BE INSTALLED AS SHOWN ON STANDARD DRAWING 634-2.

9. MAILBOX SIZES 1, 1A, AND 2, SHOWN IN THE MAILBOX, PLATFORM, AND SHELF TABLE MAY BE INSTALLED ON THE TYPE A DOUBLE MAILBOX ASSEMBLY IN ANY COMBINATION OF SIZES. WHEN MORE THAN ONE SIZE IS TO BE INSTALLED, USE THE SHELF SIZE FOR THE LARGER MAILBOX.

10. THE TYPE B ASSEMBLY IS A PROPRIETARY SYSTEM THAT MAY BE USED FOR THE INSTALLATION OF TWO OR MORE MAILBOXES. ON TYPE B MAILBOX ASSEMBLIES, INSTALL A MAXIMUM OF FIVE SIZE 1 MAILBOXES, FOUR SIZE 1A MAILBOXES, OR THREE SIZE 2 MAILBOXES. WHEN MORE THAN ONE SIZE IS TO BE INSTALLED, LIMIT THE NUMBER OF MAILBOXES TO THE MAXIMUM NUMBER FOR THE LARGEST SIZE USED.

11. DO NOT INSTALL THE MAILBOX ASSEMBLY IN A CONCRETE FOUNDATION. AN EXCEPTION MAY BE MADE FOR MASH OR NCHRP 350 APPROVED ALTERNATIVE MAILBOX ASSEMBLIES IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

12. ENSURE THAT PLATFORM, SHELF, AND BRACKETS ARE GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

13. IF USED, ATTACH THE NEWSPAPER BOX TO THE SUPPORT, DIRECTLY UNDER THE MAILBOX. ENSURE THAT NEWSPAPER BOXES DO NOT EXTEND BEYOND THE FRONT OF THE MAILBOX WHEN THE MAILBOX DOOR IS CLOSED. IN HEAVY SNOW AREAS, LOCATE THE NEWSPAPER BOX ON THE TRAILING SIDE OF THE MAILBOX POST. SEE THE NEWSPAPER BOX DETAIL FOR INSTALLATIONS ON TYPE A MAILBOX ASSEMBLIES.

14. ROUND OR GRIND THE CORNERS OF PLATFORMS, SHELVES, BRACKETS, OR OTHER HARDWARE THAT HAS SHARP PROTRUDING EDGES.

15. NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER STATE OF IDAHO JANUARY 31, 2013 13683 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	7-92	MSM	6	7-10	MGL			
2	7-02	MSM	7	11-11	TEM			
3	7-05	MSM	8	01-13	RDL			
4	12-05	MSM						
5	10-08	JRV						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 634-1_0113.dgn

DRAWING DATE: SEPTEMBER, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
HIGHWAYS PROGRAM OVERSIGHT ENGINEER
ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING

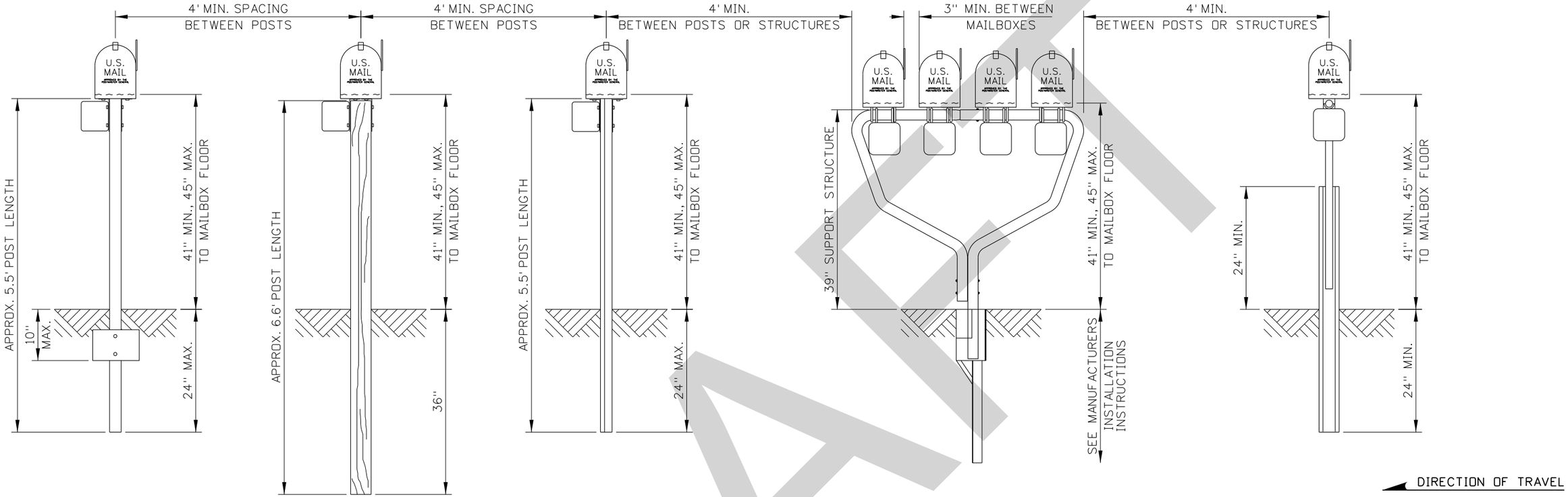
MAILBOXES

English

STANDARD DRAWING NO. 634-1

SHEET 4 OF 5

DRAFT



TYPE A ASSEMBLY
STEEL TUBE POST

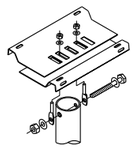
TYPE A ASSEMBLY
WOOD POST

TYPE A ASSEMBLY
FLANGED STEEL U-CHANNEL POST

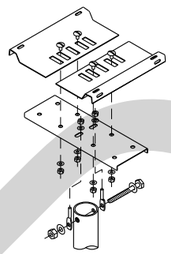
TYPE B ASSEMBLY

TYPE C ASSEMBLY

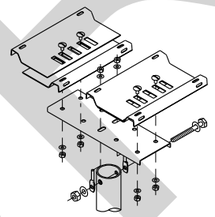
MAILBOX ELEVATION DETAIL



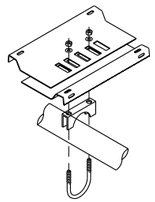
SINGLE MAILBOX ASSEMBLY
(FOR MAILBOXES
SIZES 1 AND 1A)



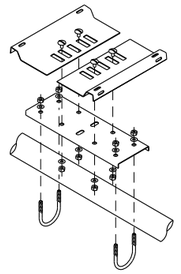
SINGLE MAILBOX ASSEMBLY
(FOR MAILBOX SIZE 2)



DOUBLE MAILBOX ASSEMBLY
(FOR MAILBOXES
SIZES 1 AND 1A)



SINGLE MAILBOX ASSEMBLY
(FOR MAILBOXES
SIZES 1 AND 1A ON
TYPE B ASSEMBLIES)



SINGLE MAILBOX ASSEMBLY
(FOR MAILBOX
SIZE 2 ON TYPE B
ASSEMBLIES)

ADJUSTABLE PLATFORM ALTERNATIVES

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER 13683 STATE OF IDAHO
ORIGINAL SIGNED AT THE OFFICE OF RYAN D. LANCASTER JANUARY 31, 2013
ORIGINAL SIGNED BY RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	7-92	MSM	6	7-10	MGL			
2	7-02	MSM	7	11-11	TEM			
3	7-05	MSM	8	01-13	RDL			
4	12-05	MSM						
5	10-08	JRV						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 634-1_0113.dgn

DRAWING DATE: SEPTEMBER, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
HIGHWAYS PROGRAM OVERSIGHT ENGINEER
ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING

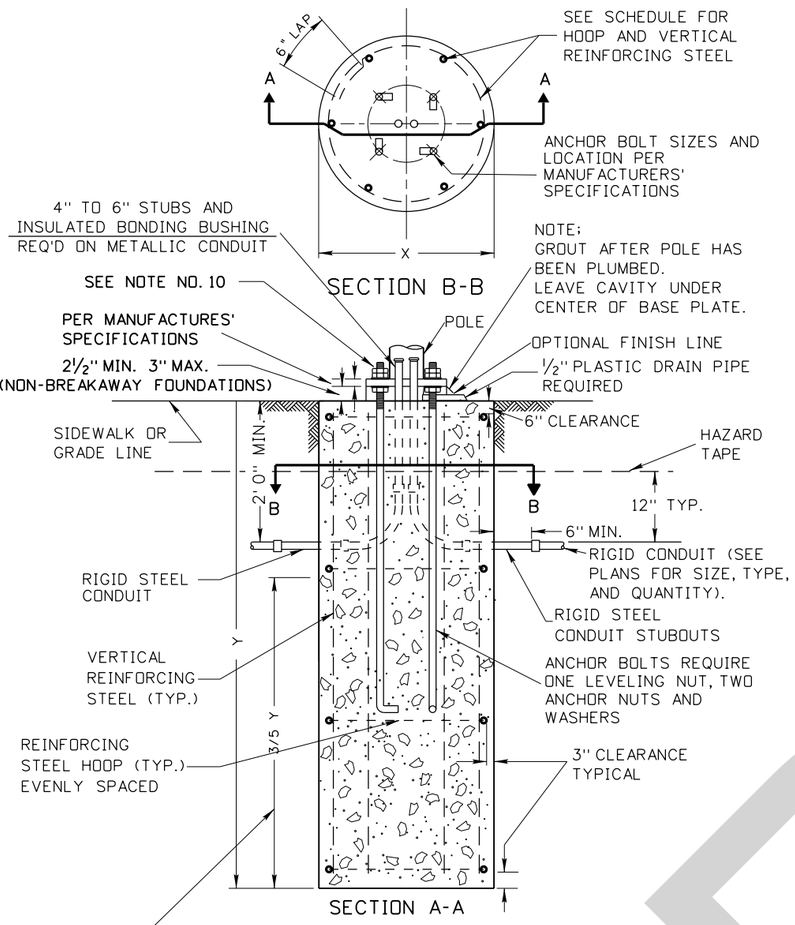
MAILBOXES

English

STANDARD DRAWING NO. 634-1

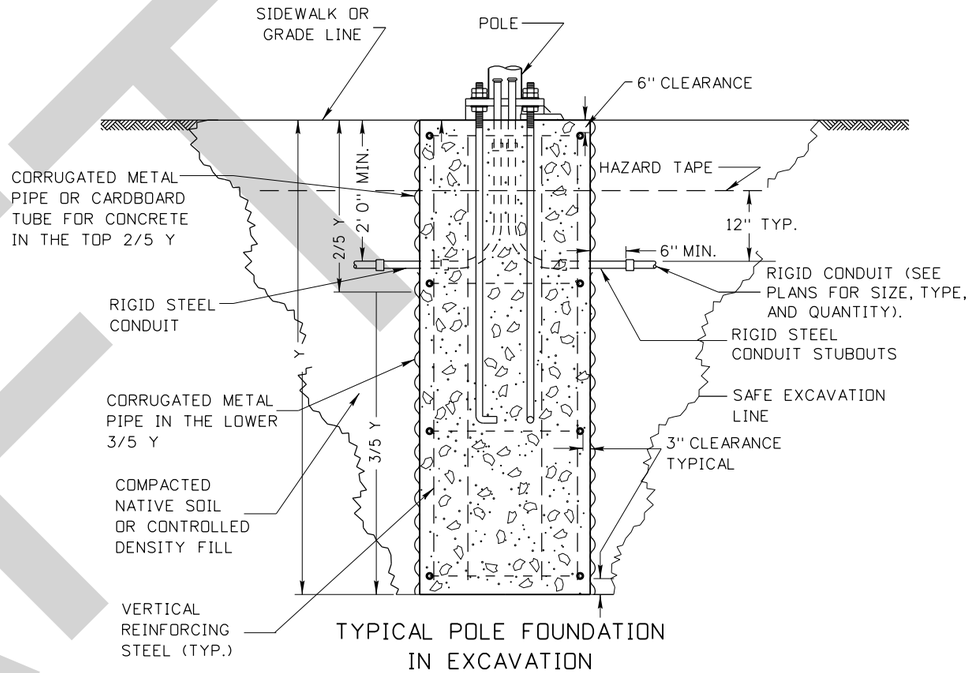
SHEET 5 OF 5

DRAFT



GENERAL NOTES:

1. THE FOUNDATIONS SHALL BE LOCATED AS INDICATED ON THE PROJECT PLAN SHEETS.
2. FOUNDATION REINFORCING STEEL CAGES MAY BE WELDED IF THE REINFORCING STEEL CONFORMS TO AASHTO M 31 AND ALL WELDING CONFORMS TO ANSI/AWS D1.4 (STRUCTURAL WELDING CODE - REINFORCING STEEL).
3. REINFORCING STEEL IN POLE FOUNDATIONS SHALL BE 60 KSI STEEL.
4. STEEL TEMPLATE REQUIRED FOR ANCHOR BOLT PLACEMENT.
5. SPARE STUBOUTS WHEN SHOWN ON PLAN SHEETS SHALL BE TERMINATED WITH A STEEL COUPLING AND FOAM PLUG AT BOTH ENDS.
6. CLASS 40A CONCRETE SHALL BE USED IN POLE FOUNDATIONS.
7. FOUNDATION CONCRETE SHALL ACHIEVE 100% STRENGTH AND CURE FOR A MINIMUM OF 7 DAYS BEFORE ANY LOADING IS APPLIED.
8. FILLER JOINT MATERIAL WILL BE PLACED AROUND POLE FOUNDATION WHEN POLE FOUNDATION IS IN CONTACT WITH SIDEWALK.
9. ELEVATION OF TOP OF POLE FOUNDATION SHALL MATCH THE ADJACENT PAVEMENT EDGE OR SIDEWALK ELEVATION.
10. ANCHOR BASE ASSEMBLIES SHALL BE INSTALLED AND TIGHTENED IN ACCORDANCE WITH SUBSECTION 619.03 OF THE ITD STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE SUPPLEMENTAL SPECIFICATIONS.
11. DRAWING NOT TO SCALE.



EXCAVATION NOTES:

1. IF CORRUGATED METAL PIPE IS USED UP TO SIDEWALK OR GRADE LINE, CUT OUT HOLE FOR THE CONDUITS WILL BE EQUAL TO THE DIAMETER OF CONDUIT OR CONDUITS PLUS ONE INCH.
2. WHEN NATIVE SOIL IS USED FOR BACKFILL, IT SHALL BE COMPACTED IN ACCORDANCE WITH SUBSECTION 210.03 OF THE IDAHO STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS.
3. IF CONTROL DENSITY FILL IS USED FOR BACK FILL, IT SHALL HAVE A COMPRESSIVE STRENGTH OF 100 PSI TO 300 PSI.
4. DRAWING NOT TO SCALE.

POLE FOUNDATION SCHEDULE

POLE TYPE	MT.HT.	MASTARM LENGTH	FOUNDATION TYPE	X	Y	REINFORCING STEEL HOOPS			VERTICAL REINFORCING STEEL			CUBIC YARDS CONCRETE
						QTY.	SIZE	LIN.FT.	QTY.	SIZE	LIN.FT.	
PEDESTRIAN SIGNAL POLE	-	-	A	2'-0"	5'-0"	4	#4	20'-10"	6	#4	25'-6"	.6
SIGNAL POLE		20' - 45'	D	3'-0"	9'-0"	5	#4	41'-10"	8	#6	66'-0"	2.4
PEDESTRIAN PUSHBUTTON POLE	4'-0"	-	E	1'-6"	2'-6"	-	-	-	-	-	-	0.2
DUAL MAST ARM SIGNAL POLE	-	ALL	F	3'-0"	12'-0"	8	#5	66'-10"	12	#6	135'-0"	3.1
SIGNAL POLE	-	50' - 55'	F	3'-0"	12'-0"	8	#5	66'-10"	12	#6	135'-0"	3.1

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

REGISTERED PROFESSIONAL ENGINEER — THE ORIGINAL SEAL WAS AFFIXED ON MAY 1, 2017 — STATE OF IDAHO — 4115 — TRI BUD

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

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CADD FILE NAME: 656-3_0517.dgn

DRAWING DATE: MAY, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

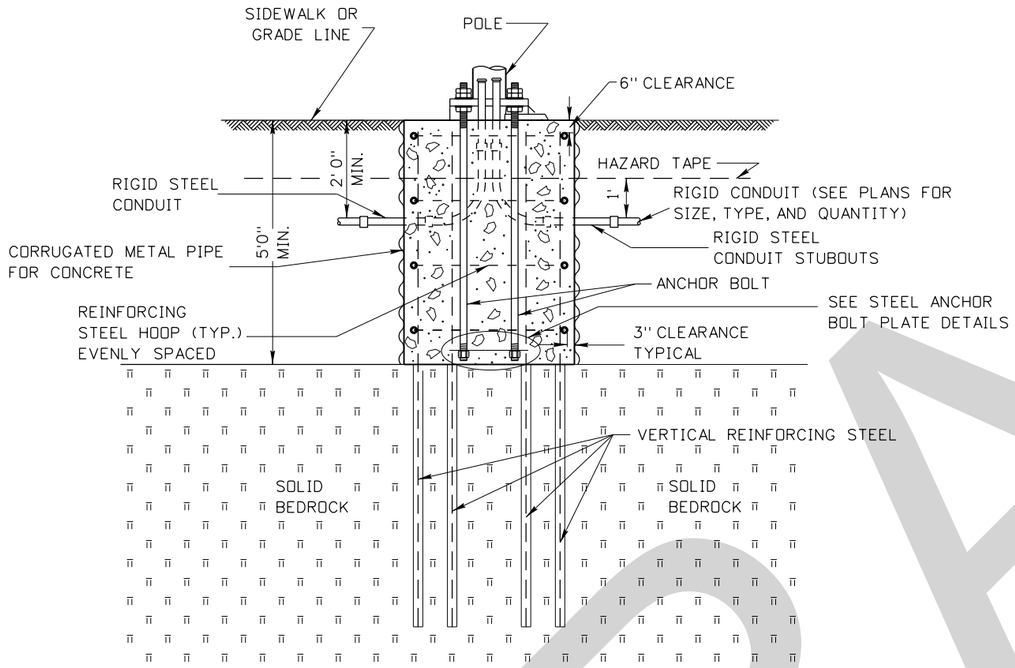
MASTARM SIGNAL POLE AND PEDESTRIAN POLE FOUNDATION DETAILS

English

STANDARD DRAWING NO. 656-3

SHEET 1 OF 2

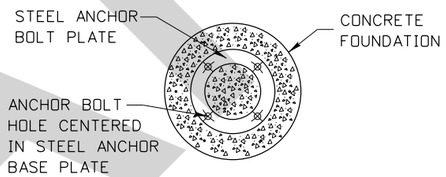
DRAFT



TYPICAL POLE FOUNDATION
IN SOLID BEDROCK

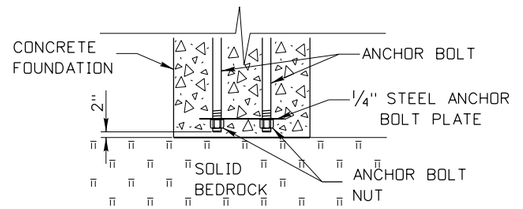
SOLID BEDROCK NOTES:

1. IF DEPTH TO BEDROCK IS LESS THAN 5', NOTIFY THE ENGINEER AND REDESIGN OF THE FOUNDATION MAY BE REQUIRED
2. FOUR REINFORCING STEEL HOOPS TO BE EVENLY SPACED ARE REQUIRED.
3. SOCKET ALL VERTICAL REINFORCING STEEL FULL LENGTH AS SHOWN IN POLE FOUNDATION SCHEDULE ON SHEET 1 IN BEDROCK. DIAMETERS OF DRILLED HOLES FOR VERTICAL REINFORCING STEEL SHALL BE AT LEAST 2 INCHES. FILL DRILLEDHOLES WITH GROUT, 705.02, TYPE B, CLASS 1.
4. EXCAVATION NOTES ON SHEET 1 APPLY TO THIS APPLICATION.
5. DRAWING NOT TO SCALE.



TOP VIEW

ANCHOR BOLT PLATE SCHEDULE		
BOLT CIRCLE	OUTSIDE DIAMETER	INSIDE DIAMETER
17 1/2"	21 1/4"	13 3/4"
18 1/2"	22 1/4"	14 3/4"
22"	26 1/4"	17 3/4"



SIDE VIEW

STEEL ANCHOR BOLT PLATE DETAILS

SEE STANDARD DRAWING 656-3 SHEEET 1 FOR DETAILS

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

REGISTERED PROFESSIONAL ENGINEER
4115
STATE OF IDAHO
TRI BUD
ORIGINAL SIGNED BY: KEVIN SABLAN
MAY 1, 2017

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 656-3_0517.dgn

DRAWING DATE: MAY, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

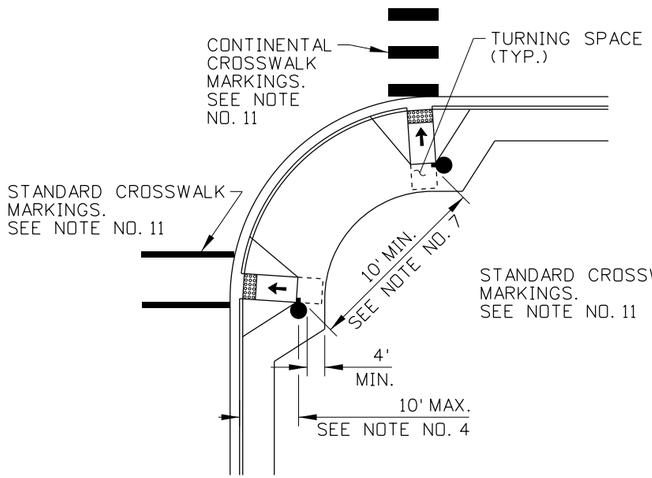
MASTARM SIGNAL POLE AND PEDESTRIAN POLE FOUNDATION DETAILS

English

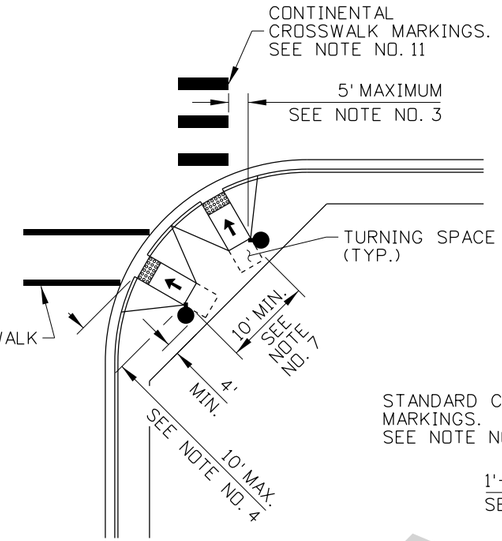
STANDARD DRAWING NO. 656-3

SHEET 2 OF 2

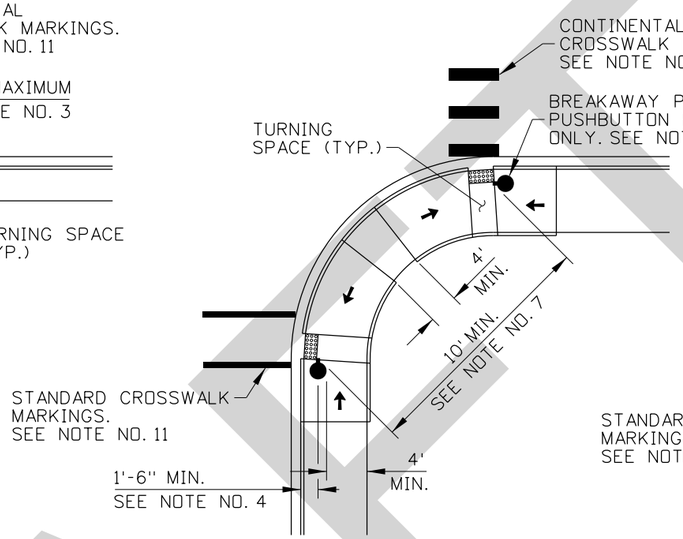
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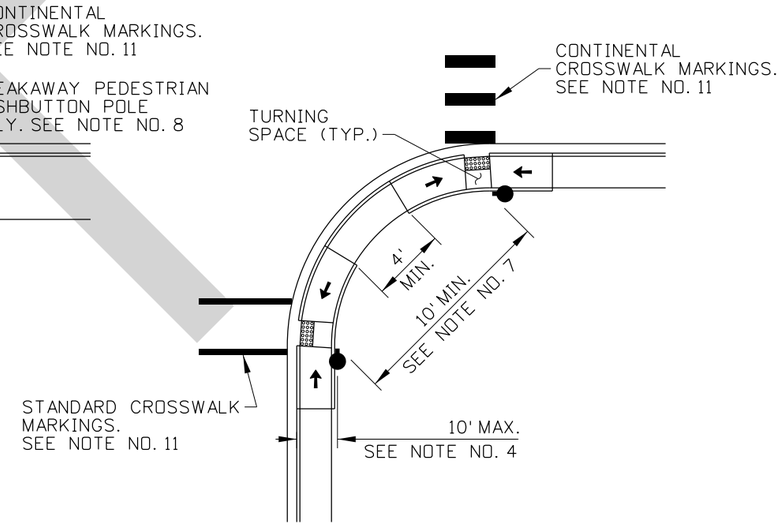
PERPENDICULAR CURB RAMP
WITH CROSSWALKS FAR APART



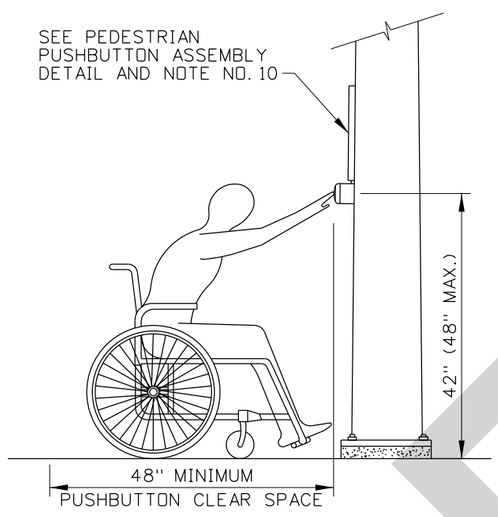
PERPENDICULAR CURB RAMP
WITH CROSSWALKS CLOSE TOGETHER



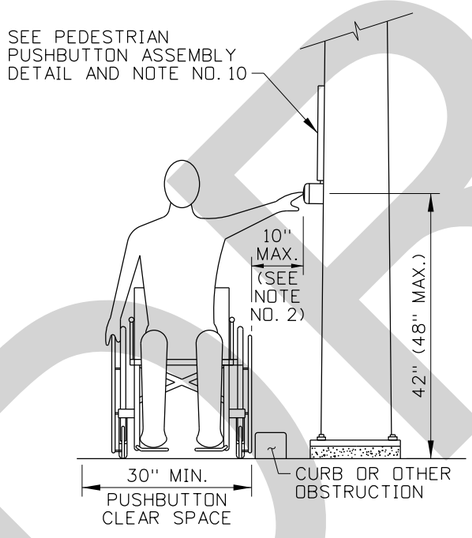
PARALLEL OR
COMBINATION CURB RAMP
WITH WIDE SIDEWALK



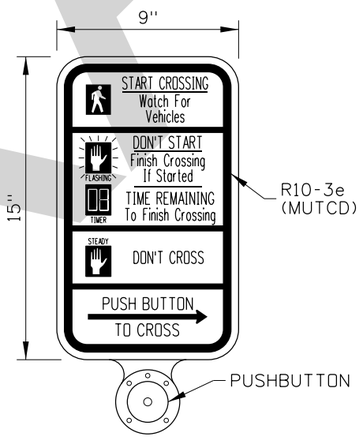
PARALLEL CURB RAMP
WITH NARROW SIDEWALK



FORWARD APPROACH
SEE NOTE NOS. 2 & 6



PARALLEL APPROACH
SEE NOTE NOS. 2 & 6



PEDESTRIAN PUSHBUTTON
ASSEMBLY DETAIL
SEE NOTE NO. 10

NOTES

1. FOUR TYPICAL CONFIGURATIONS ARE SHOWN. FOR OTHER CONFIGURATIONS, THE MAXIMUM AND MINIMUM DIMENSIONS SHOWN REMAIN APPLICABLE. WHERE CURB AND CURB RAMPS ARE NOT PRESENT, MEASURE FROM THE EDGE OF TRAVELED WAY.
2. PROVIDE A PUSHBUTTON CLEAR SPACE, WITH 30" BY 48" MINIMUM DIMENSIONS, ADJACENT TO PEDESTRIAN PUSHBUTTONS. ENSURE THAT THE CLEAR SPACE SURFACE IS FIRM, STABLE, AND SLIP RESISTANT. POSITION THE CLEAR SPACE SO THE PUSHBUTTON CAN BE ACCESSED WITH EITHER A FORWARD OR PARALLEL APPROACH. AN OBSTRUCTION, UP TO 10" IN DEPTH, BETWEEN THE CLEAR SPACE AND THE PUSHBUTTON IS PERMITTED FOR A PARALLEL APPROACH. WHERE CURB RAMPS ARE USED, THE TURNING SPACE FOR THE CURB RAMP MAY DOUBLE AS THE CLEAR SPACE.
3. PLACE PUSHBUTTON BETWEEN THE EDGE OF THE CROSSWALK LINE (EXTENDED) FARTHEST FROM THE CENTER OF THE INTERSECTION AND THE SIDE OF A CURB RAMP (IF PRESENT), BUT NOT MORE THAN 5' FROM THE SAID CROSSWALK LINE.
4. PLACE PUSHBUTTON BEHIND THE FACE OF CURB OR OUTSIDE THE EDGE OF TRAVELED WAY A MINIMUM DISTANCE OF 1'-6" AND A MAXIMUM DISTANCE OF 10'.
5. ENSURE THAT THE FACE OF THE PUSHBUTTON IS PARALLEL TO THE CROSSWALK TO BE USED.
6. MOUNT THE PUSHBUTTON 42" ABOVE THE CLEAR SPACE. THE MAXIMUM MOUNTING HEIGHT IS 48".
7. PROVIDE A MINIMUM DISTANCE OF 10' BETWEEN PEDESTRIAN PUSHBUTTONS. WHERE THERE ARE PHYSICAL CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10' SEPARATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.
8. PUSHBUTTONS MAY BE INSTALLED ON A SIGNAL POLE OR PEDESTRIAN PUSHBUTTON POLES. ENSURE THAT POLES WITHIN 10' OF THE FACE OF CURB OR EDGE OF TRAVELED WAY HAVE BREAKAWAY FEATURES.
9. INSTALL ACCESSIBLE PEDESTRIAN SIGNALS WHEN RECOMMENDED BY AN ENGINEERING STUDY.
10. USE MODULAR OR CAST PEDESTRIAN PUSHBUTTON ASSEMBLIES. DO NOT USE H FRAME PEDESTRIAN PUSHBUTTON ASSEMBLIES. USE THE R10-3e(MUTCD) SIGN ON THE PUSHBUTTON ASSEMBLY.
11. CROSSWALK MARKINGS MAY VARY.
12. DRAWINGS NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER STATE OF IDAHO JUNE 17, 2014 13683 RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

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CADD FILE NAME: 656-15_0614.dgn

DRAWING DATE: MAY, 2014

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: CARL D. MAIN
DESIGN TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

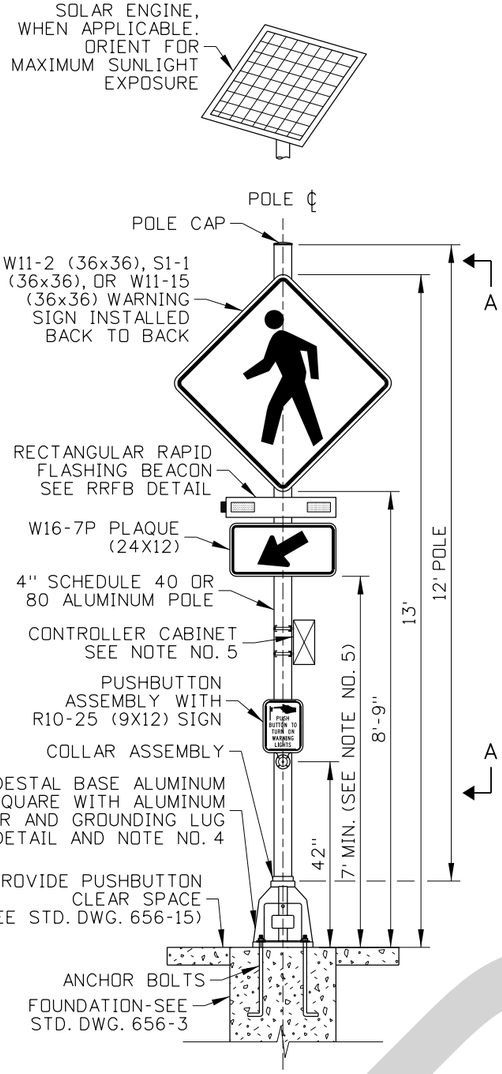
PEDESTRIAN PUSHBUTTON PLACEMENT

English

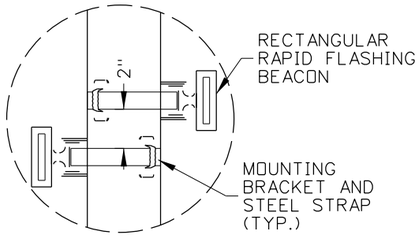
STANDARD DRAWING NO. 656-15

SHEET 1 OF 1

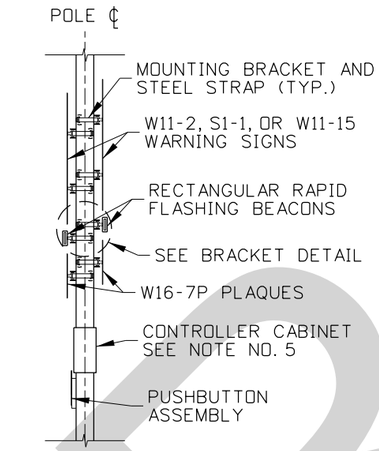
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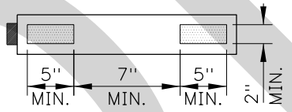
RECTANGULAR RAPID FLASHING BEACON (RRFB)



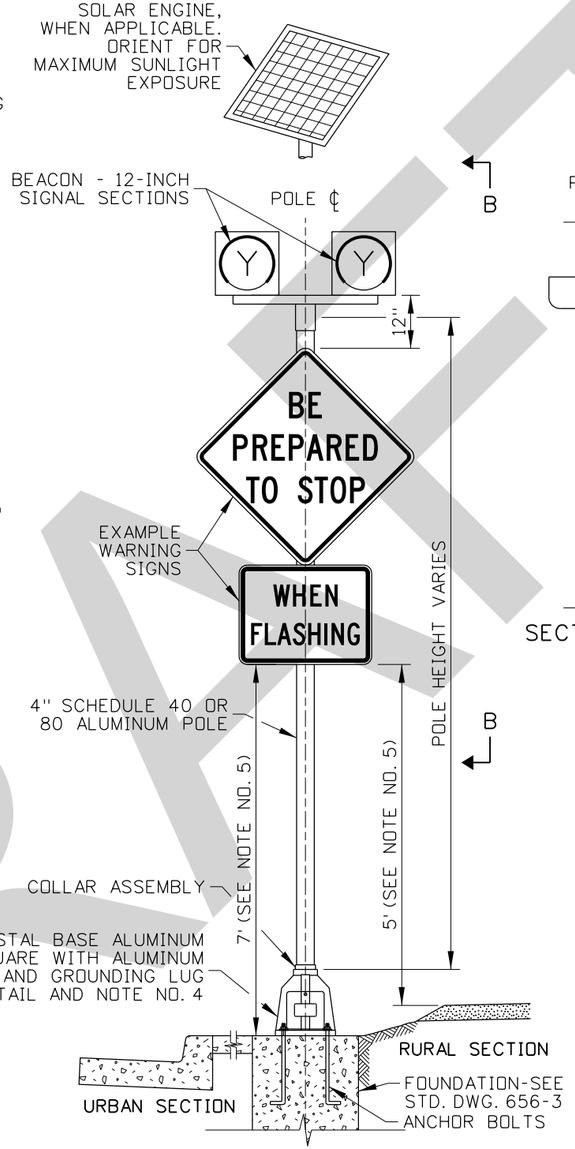
BRACKET DETAIL



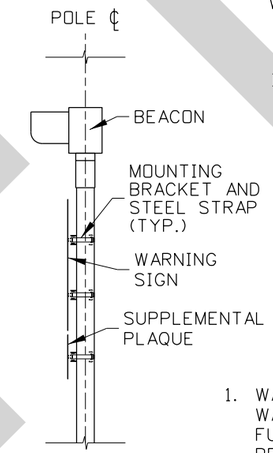
SECTION A-A



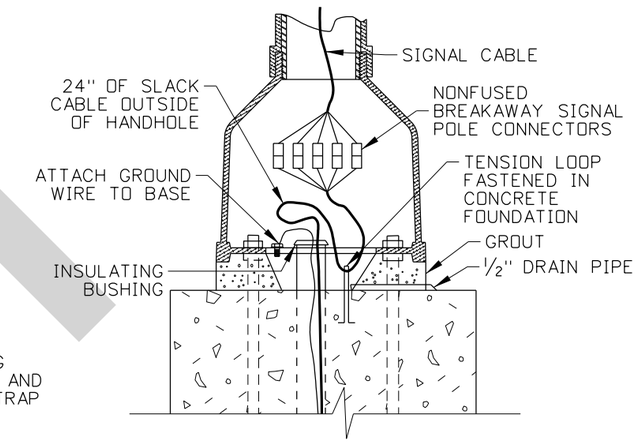
RRFB DETAIL



WARNING BEACON



SECTION B-B



FRANGIBLE ALUMINUM BASE DETAIL

NOTES

1. WARNING BEACONS PROVIDE SUPPLEMENTAL EMPHASIS TO WARNING SIGNS. RECTANGULAR RAPID FLASHING BEACONS FUNCTION AS WARNING BEACONS SPECIFICALLY FOR PEDESTRIAN, SCHOOL, AND TRAIL WARNING SIGNS AT MARKED CROSSWALKS ACROSS UNCONTROLLED APPROACHES. LED UNITS IN A SIGN OR SUPPLEMENTAL PLAQUE LEGEND OR BORDER DO NOT CONSTITUTE A WARNING BEACON.
2. THIS DRAWING SHOWS TYPICAL BEACON INSTALLATION DETAILS. THE DETAILS FOR QPL APPROVED PROPRIETARY SYSTEMS MAY VARY.
3. LOCATE RRFB POLES AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH STANDARD DRAWING 656-15. LOCATE WARNING BEACON POLES AS SHOWN IN THE PLANS.
4. A FRANGIBLE COUPLING SYSTEM BASE CAN BE SUBSTITUTED FOR A FRANGIBLE CAST ALUMINUM BASE.
5. ENSURE PUSHBUTTON ASSEMBLY, CONTROLLER CABINET, AND SECONDARY SIGNS DO NOT PROTRUDE MORE THAN 4 INCHES HORIZONTALLY INTO ADJACENT PEDESTRIAN CIRCULATION PATHS IN ACCORDANCE WITH STANDARD DRAWING 614-1.
6. THE HEIGHT TO THE BOTTOM OF A SECONDARY SIGN MOUNTED BELOW ANOTHER SIGN MAY BE 1 FOOT LESS THAN THE HEIGHT SHOWN PROVIDED THE CONDITIONS IN NOTE NO. 4 ARE MET.
7. USE STEEL CONDUIT ELBOWS IN CONCRETE BASES AND TO EXTEND ELBOWS BEYOND CONCRETE FOUNDATION.
8. TERMINATE SPARE STUB OUTS WITH A STEEL COUPLING AND PLASTIC PUSH PLUG AT BOTH ENDS.
9. PROVIDE CONTROLLER CABINET ENCLOSURE APPROPRIATE FOR THE WARNING BEACON OR RRFB SYSTEM. LOCATE CABINET AS SHOWN IN THE PLANS.
10. INSTALL PEDESTRIAN PUSHBUTTONS IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.
11. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER STATE OF IDAHO MARCH 9, 2022 13683 RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 657-1_0422.dgn

DRAWING DATE: JANUARY 2022

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN
STATE TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

FLASHING BEACONS

REQ. STANDARD DRAWINGS 656-3 & 656-15

English

STANDARD DRAWING NO. 657-1

SHEET 1 OF 1

DRAFT

Attachment "B"

Document A310™ – 2010

Conforms with The American Institute of Architects AIA Document 310

Bid Bond

CONTRACTOR:
(Name, legal status and address)

LaRiviere Incorporated
17564 North Dylan Court
Rathdrum, ID 83858

SURETY:
(Name, legal status and principal place of business)

United States Fire Insurance Company
305 Madison Avenue
Morristown, NJ 07960

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

OWNER:
(Name, legal status and address)

City of Moscow
504 South Washington Street
Moscow, ID 83843

BOND AMOUNT: $ 5% Five Percent of Amount Bid

PROJECT:
(Name, location or address, and Project number, if any)

NORTH AND SOUTH MOUNTAIN VIEW PEDESTRIAN IMPROVEMENTS - 2026 - Moscow, ID

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this 23rd day of February, 2026

(Witness) Brittney Vian

(Witness) Jennifer Martinez Ibarra

LaRiviere Incorporated
(Principal) *(Seal)*

By: Hiede Grant
(Title) Hiede Grant

United States Fire Insurance Company
(Surety) *(Seal)*

By:
(Title) Liliana Castrejon Perez Attorney-in-Fact

S-0054/AS 8/10

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POWER OF ATTORNEY
UNITED STATES FIRE INSURANCE COMPANY
PRINCIPAL OFFICE - MORRISTOWN, NEW JERSEY

KNOW ALL MEN BY THESE PRESENTS: That United States Fire Insurance Company, a corporation duly organized and existing under the laws of the state of Delaware, has made, constituted and appointed, and does hereby make, constitute and appoint: **Liliana Castrejon Perez**

each, its true and lawful Attorney(s)-In-Fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver: Any and all bonds and undertakings of surety and other documents that the ordinary course of surety business may require, and to bind United States Fire Insurance Company thereby as fully and to the same extent as if such bonds or undertakings had been duly executed and acknowledged by the regularly elected officers of United States Fire Insurance Company at its principal office, in amounts or penalties: **Unlimited**

This Power of Attorney limits the act of those named therein to the bonds and undertakings specifically named therein, and they have no authority to bind United States Fire Insurance Company except in the manner and to the extent therein stated.

Surety Bond No.: Bid Bond
Principal: LaRiviere Incorporated
Obligee: City of Moscow

This Power of Attorney is granted pursuant to Article IV of the By-Laws of United States Fire Insurance Company as now in full force and effect, and consistent with Article III thereof, which Articles provide, in pertinent part:

Article IV, Execution of Instruments - Except as the Board of Directors may authorize by resolution, the Chairman of the Board, President, any Vice-President, any Assistant Vice President, the Secretary, or any Assistant Secretary shall have power on behalf of the Corporation:

(a) to execute, affix the corporate seal manually or by facsimile to, acknowledge, verify and deliver any contracts, obligations, instruments and documents whatsoever in connection with its business including, without limiting the foregoing, any bonds, guarantees, undertakings, recognizances, powers of attorney or revocations of any powers of attorney, stipulations, policies of insurance, deeds, leases, mortgages, releases, satisfactions and agency agreements;
(b) to appoint, in writing, one or more persons for any or all of the purposes mentioned in the preceding paragraph (a), including affixing the seal of the Corporation.

Article III, Officers, Section 3.11, Facsimile Signatures. The signature of any officer authorized by the Corporation to sign any bonds, guarantees, undertakings, recognizances, stipulations, powers of attorney or revocations of any powers of attorney and policies of insurance issued by the Corporation may be printed, facsimile, lithographed or otherwise produced. In addition, if and as authorized by the Board of Directors, dividend warrants or checks, or other numerous instruments similar to one another in form, may be signed by the facsimile signature or signatures, lithographed or otherwise produced, of such officer or officers of the Corporation as from time to time may be authorized to sign such instruments on behalf of the Corporation. The Corporation may continue to use for the purposes herein stated the facsimile signature of any person or persons who shall have been such officer or officers of the Corporation, notwithstanding the fact that he may have ceased to be such at the time when such instruments shall be issued.

IN WITNESS WHEREOF, United States Fire Insurance Company has caused these presents to be signed and attested by its appropriate officer and its corporate seal hereunto affixed this 18th day of November, 2024.

UNITED STATES FIRE INSURANCE COMPANY

Matthew E. Lubin, President

State of New Jersey }
County of Morris }

On this 18th day of November, 2024, before me, a Notary public of the State of New Jersey, came the above named officer of United States Fire Insurance Company, to me personally known to be the individual and officer described herein, and acknowledged that he executed the foregoing instrument and affixed the seal of United States Fire Insurance Company thereto by the authority of his office.

ETHAN SCHWARTZ
NOTARY PUBLIC
STATE OF NEW JERSEY
MY COMMISSION EXPIRES 6/25/2029
COMMISSION: #50223171

Ethan Schwartz (Notary Public)

I, the undersigned officer of United States Fire Insurance Company, a Delaware corporation, do hereby certify that the original Power of Attorney of which the foregoing is a full, true and correct copy is still in force and effect and has not been revoked.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the corporate seal of United States Fire Insurance Company on the 23rd day of February 2026

UNITED STATES FIRE INSURANCE COMPANY

Michael C. Fay, Senior Vice President

CONTACT INFORMATION: Bond Verifications: surety@cfins.com / Claims: SuretyClaimsSupport@cfins.com

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CERTIFICATE OF AUTHORITY – SECRETARY / ESTIMATING DIRECTOR

This is to certify that Hiede Grant has been duly appointed as the Secretary / Estimating Director of LARIVIERE, INC., an Idaho corporation ("Corporation"). This appointment was made pursuant to the authority set forth in the Bylaws of the Corporation and Idaho Code § 30-29-840, and was affirmed by unanimous written consent of the shareholders and directors of the Corporation.

As of the date below, the following authority is conferred upon the officer named above:

a. Issue notices for all meetings, except notices for special shareholders meetings and special directors meetings called by the requisite number of shareholders or directors;

b. Keep minutes of all meetings, have charge of the seal and the corporate books, and make such reports and perform such other duties as are incident to such office or as are properly required of the Secretary by the Board;

c. Sign bid bonds, performance and payment bonds, and retainage bonds;

d. Execute bid proposals and related submission documentation; and

e. Bind the Corporation in subcontractor and supplier and supplier agreements, when the Chief Business Officer / Vice President is unavailable.

This Certificate of Authority is provided for the purpose of confirming the named officer's authority to act on behalf of the Corporation in dealings with financial institutions, contracting parties, governmental agencies, and other third parties.

Dated: 8.18.2025

LARIVIERE, INC.

By: _____
Name: Thomas R. LaRiviere, III
Title: President & Chief Executive Officer

DRAFT

BID PROPOSAL

TO: Mayor and City Council
City of Moscow, Idaho

Date: 3.3.26

This proposal is submitted as an offer by the undersigned to enter into contract with the City of Moscow, Idaho as represented by the City Council, hereinafter referred to as the 'CITY' for North and South Mountain View Pedestrian Improvements, (hereinafter "Project"), specified herein and which construction documents are on file with the City Engineer, 504 South Washington, Haddock Building, Moscow, Idaho, and which are a condition hereof with the same force and effect as though they were attached hereto. The offer is conditioned on the following declarations as to the facts, intention and understanding of the undersigned and the agreement of the CITY to the terms and prices herein submitted.

1. All Project specifications and drawings examined by the undersigned and their terms and conditions are hereby agreed to.

2. The undersigned certifies that they have received or made themselves aware of any and all existing site conditions that may affect the proposed work.

3. It is understood that the contract drawings may be supplemented by additional drawings and specifications in explanation and elaboration of the contract drawings and it is agreed that such supplemental drawings, when not in conflict with those referred to in paragraph 1 above, will have the same force and effect as if attached hereto and that when received they will be considered a part of the contract.

4. The undersigned will furnish separate performance and payment bonds in the full amount of the contract price.

5. The cash, certified check, bid bond, or cashier's check accompanying this proposal shall be forfeited to the City of Moscow to the extent of 5% of the amount bid if the undersigned shall fail or refuse to execute the contract, furnish performance and payment bonds, and insurance certificate as required by the specifications within the time limit therein after notification that the said proposal is accepted, all in accordance with the provisions of this proposal and the specifications.

6. The undersigned further agrees that CITY shall have the right to accept or reject any bid which rejection or acceptance is deemed to be in the best interest of CITY.

7. The undersigned agrees to order all necessary equipment and materials within a period of three (3) days after Notice to Proceed has been issued by the Engineer.

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8. The undersigned, as a bidder, acknowledges that Addenda Number 1 through 1 have been delivered to them and have been examined as part of the contract documents.

9. The undersigned agrees to complete all work embraced in the contract within the time limitations set forth in paragraph IB-13 of the Instruction to Bidders.

10. The undersigned holds Idaho Public Work's License Number PWC 17425.

11. The undersigned proposes to use the following sub-contractors in the performance of meeting the contract requirements. Information herein must comply with Idaho Code Section 67-2310 and IB-16:

Subcontractors	Trade Specialty	Idaho Public Works License No.	$ Amount
a.	HVAC	NOT REQUIRED FOR THIS PROJECT	
b. Thorco Inc	Electrical	PWC-C-10130 Unlimited	$29,287.00
c.	Plumbing	NOT REQUIRED FOR THIS PROJECT	
d. LaRiviere	Structural Steel	PWC 17425	
e. LaRiviere	Rebar Installation	PWC 17425	

12. The undersigned has included with the bid the following forms and information:
    a. Bid Schedule
    b. Bid security
    c. Bidder's Non-Collusion Affidavit
    d. Bidder's Drug-Free Workplace Affidavit
    e. Prompt Payment Affidavit
    f. License Requirements For Electrical Work

13. The undersigned proposes to furnish labor, materials, equipment and services of all kinds required for North and South Mountain View Pedestrian Improvements as described in the specifications, including all appurtenant work, all as required by the specifications and this proposal for the prices in accordance with the completed schedule contract prices as follows:

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BID SCHEDULE

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Amount
107-019A	SURVEY MONUMENT PRESERVATION	CA	6000	$1.00	$6,000.00
201-010A	CLEARING AND GRUBBING	LS	1	$ 7,618.00	$ 7,618.00
202-005A	SELECTIVE REMOVAL OF TREES INCLUDING STUMPS	EACH	12	$ 586.00	$ 7,032.00
203-005A	REMOVAL OF OBSTRUCTIONS	LS	1	$ 29,418.00	$ 29,418.00
203-006A	REMOVAL OF SIGN	EACH	24	$ 111.00	$ 2,664.00
203-025A	REMOVAL OF CATCH BASIN	EACH	4.0	$ 401.00	$ 1,604.00
203-055A	REMOVAL OF CONCRETE PAV	SY	66.7	$ 18.00	$ 1,200.60
203-060A	REMOVAL OF CONCRETE SIDEWALK	SY	66.6	$ 18.00	$ 1,198.80
203-065A	REMOVAL OF CURB	FT	112.6	$ 8.00	$ 900.80
203-070A	REMOVAL OF CURB & GUTTER	FT	371.7	$ 8.00	$ 2,973.60
203-075A	REMOVAL OF FENCE	FT	8.6	$ 6.50	$ 55.90
203-095A	REMOVAL OF MANHOLE	EACH	1	$ 842.00	$ 842.00
203-122A	REMOVAL OF MISC ITEMS	EACH	14	$ 286.00	$ 4,004.00
203-123A	REMOVAL OF MISC ITEMS	FT	68	$ 59.00	$ 4,012.00
205-005A	EXCAVATION	CY	2643.4	$ 18.00	$ 47,581.20
212-011A	FIBER WATTLE	FT	285.4	$ 6.00	$ 1,712.40
212-095A	INLET PROTECTION	EACH	15	$ 228.00	$ 3,420.00
251-005A	MIGRATORY BIRD TREATY ACT COMPLIANCE	CA	10000	$1.00	$10,000.00
303-022A	3/4" AGGR TYPE B FOR BASE	TON	1949.2	$ 28.00	$ 54,577.60
307-012A	OPEN-GRADED BASE CLASS III	TON	1141.7	$ 29.00	$ 33,109.30
				$	$
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3	TON	629.5	$ 161.00	$ 101,349.50
502-065A	CONCRETE CLASS 40 AF	CY	2.8	$ 907.00	$ 2539.60
605-015A	8" STORM SEWER PIPE	FT	111.2	$ 58.00	$ 6449.60
605-025A	12" STORM SEWER PIPE	FT	307.2	$ ~~702.00~~ 72.00	$ 22,118.40

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605-045A	24" STORM SEWER PIPE	FT	34.5	$ 134.00	$ 4623.00
605-635A	ADJUST MANHOLE COVERS	EACH	3.0	$ 1,278.00	$ 3834.00
605-640A	ADJUST VALVE COVERS	EACH	8.0	$ 616.00	$ 4,928.00
612-005A	W-BEAM GUARDRAIL	FT	147.9	$ 57.00	$ 8,430.30
612-110A	GUARDRAIL ANCHOR	EACH	1.0	$ 4,336.00	$ 4,336.00
612-115C	GUARDRAIL TERMINAL, TANGENT	EACH	1.0	$ 2,344.00	$ 2,344.00
614-015A	SIDEWALK	SY	2010.3	$ 69.00	$ 138,710.70
614-020A	DRIVEWAY	SY	290.6	$ 85.00	$ 24,701.00
614-025A	CURB RAMP	SY	158.7	$ 142.00	$ 22,535.40
615-255A	CURB	FT	80.6	$ 36.00	$ 2,901.60
615-490A	CURB & GUTTER	FT	2586.0	$ 25.00	$ 64,650.00
616-010A	SIGN TYPE B-1	SF	83.2	$ 30.00	$ 2,496.00
616-040J	STEEL SIGN POST TYPE E-1	FT	31.5	$ 93.00	$ 2,929.50
616-040K	STEEL SIGN POST TYPE E-2	FT	78.9	$ 98.00	$ 7,732.20
616-080A	REINSTALL SIGN FACE	EACH	29	$ 46.00	$ 1,334.00
616-085A	REINSTALL SIGN POST	EACH	20	$ 604.00	$ 12,080.00
621-010A	SEEDING	ACRE	0.334	$ 5,860.00	$ 1,957.24
624-005A	LOOSE RIPRAP	CY	24.4	$ 161.00	$ 3,928.40
626-100A	MISCELLANEOUS TEMPORARY TRAFFIC CONTROL ITEMS	CA	10000	$1.00	$10,000.00
630-010A	TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC	SF	861.3	$ 12.00	$ 10,335.60
630-025A	LONGITUDINAL PAV MKG - WATERBORNE	FT	5735.2	$ 0.70	$ 4,014.64
634-005A	MAILBOX	EACH	5	$ 1,049.00	$ 5,245.00
640-010A	RIPRAP/EROS CONT GEOTEXTILE	SY	80.7	$ 4.00	$ 322.80
640-015A	SUBGRADE SEPARATION GEOTEXTILE TYPE II	SY	2684.9	$ 3.00	$ 8054.70
675-005A	SURVEY	LS	1	$ 16,700.00	$ 16,700.00
675-010A	DIRECTED SURVEYING	CA	10000	$1.00	$10,000.00
S501-15A	RETAINING WALL	SF	675	$ 60.00	$ 40,500.00
S600-20A	REMOVE AND REPLACE FIRE HYDRANT	EACH	1	$ 10,440.00	$ 10,440.00
S616-15A	RECTANGULAR RAPID-FLASHING BEACON (RRFB)	EACH	1	$ 31,979.00	$ 31,979.00
S900-50A	CONTINGENCY AMOUNT - MISCELLANEOUS WORK	CA	10000	$ 1.00	$10,000.00

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S901-05A	ADJUST CATCH BASIN LID AND FRAME	EACH	3	$ 1,278.00	$ 3,834.00
S901-05B	CITY OF MOSCOW CATCH BASIN	EACH	8	$ 2,747.00	$ 21,976.00
S901-05C	CITY OF MOSCOW STORM SEWER MANHOLE	EACH	3	$ 4,714.00	$ 14,142.00
S901-05D	ADJUST WATER METER	EACH	7	$ 845.00	$ 5,915.00
S904-05A	TEMPORARY TRAFFIC CONTROL	LS	1	$ 7,413.00	$ 7,413.00
S912-05A	LANDSCAPE REPAIR	CA	10000	$ 1.00	$ 10,000.00
S912-05B	DECORATIVE ROCK	SY	709.3	$ 18.00	$ 12,767.40
S913-05A	ROCK MULCH	CY	120.2	$ 96.00	$ 11,539.20
Z629-05A	MOBILIZATION	LS	1	$ 113,078.00	$ 113,078.00
Total of All Unit Price Bid Items					$ 1,025,088.98

LaRiviere, Inc.
Firm Name of Bidder

Hiede Grant ,Hiede Grant
Signature of Bidder

Secretary
Official Title

17564 N. Dylan Ct., Rathdrum, ID 83858
Bidders Mailing Address

PWC 17425
Public Works License No.

Idaho
State of Incorporation if Incorporated

SEAL (if incorporated)

Dated at Rathdrum, ID

This 3rd day of March, 2026

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APPENDIX II

NON-COLLUSION AFFIDAVIT

DRAFT

Non-Collusion Affidavit

State of Idaho
) SS
County of Kootenai

Bid for North & South Mountain View Pedestrian Improvements - Moscow, being first duly sworn, deposes, and says that he is Secretary [sole owner, a partner, president, secretary, etc.] of, LaRiviere, Inc.

_____ [Bidder],

the party making the foregoing Bid; that such Bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation; that such Bid is genuine and not collusive or sham; that said Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid and has not directly or indirectly colluded, conspired, connived or agreed with any Bidder or anyone else to put in a sham Bid, nor that anyone shall refrain from bidding; that said Bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with anyone to fix the Bid Price of said Bidder or of any other Bidder, nor to fix any overhead, profit or cost element of such Bid Price, nor of that of any other Bidder, nor to secure any advantage against the public body awarding the Contract or anyone interested in the proposed Contract; that all statements contained in such Bid are true; and, further, that said Bidder has not directly or indirectly submitted his Bid Price or any breakdown thereof, nor the contents thereof, nor divulged information or data relative thereto, nor paid and will not pay any fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such person(s) as has/have a partnership or other financial interest with said Bidder in his general business.

Signed: Heidi Saint

Title: Secretary

Subscribed and sworn to before me this 3rd day of March, 2026.

(SEAL)

ALAINA D SCHEIB
NOTARY PUBLIC - STATE OF IDAHO
COMMISSION NUMBER 20242862
MY COMMISSION EXPIRES 8-5-2030

Notary Public _____

State of Idaho

My Commission Expires 08/05/2030

THIS PAGE MUST BE COMPLETED RETURNED WITH YOUR BID DOCUMENTS

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APPENDIX III

DRUG FREE WORKPLACE AFFIDAVIT

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BIDDER'S DRUG-FREE WORKPLACE AFFIDAVIT

CONTRACTOR'S AFFIDAVIT
CONCERNING ALCOHOL AND DRUG-FREE WORKPLACE

STAE OF Idaho
COUNTY OF Kootenai

The undersigned being duly sworn upon oath, deposes and says that LaRiviere, Inc. complies
(Contractor Name)
With the provision of Section 72-1717 Idaho Code (Drug Free Workplace program) that
LaRiviere, Inc. provides a drug-free workplace program that complies with the provisions of
(Contractor Name)
Idaho Code, Title 72, Chapter 17 and will maintain such program throughout the life of a state construction contract and that LaRiviere, Inc. shall subcontract work only to subcontractors
(Contractor Name)
meeting the requirements of Idaho Code, Section 72-1717(1)(a).

Name of Contractor
LaRiviere, Inc.

Address
17564 N. Dylan Ct., Rathdrum, ID 83858

By Hiede Grant Hiede Grant, Secretary
(Signature)

Subscribed and sworn to before me this 3rd *day of* March, 2026.

ALAINA D SCHEIB
NOTARY PUBLIC - STATE OF IDAHO
COMMISSION NUMBER 20242862
MY COMMISSION EXPIRES 8-5-2030

Notary Public for Idaho
Residing at Rathdrum ID
My Commission Expires 08/05/30

THIS PAGE MUST BE RETURNED COMPLETED WITH YOUR BID DOCUMENT

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APPENDIX VIII

PROMPT PAYMENT

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Prompt Payment

CONTRACTOR'S AFFIDAVIT CONCERNING PROMPT PAYMENT OF SUB-CONTRACTORS

48 CFR 52.232 Sections 25-27

The undersigned being duly sworn upon oath, deposes and says that LaRiviere, Inc. (Bidder) will comply with 48 CFR 52.232 Sections 25-27 that requires prime contractors to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment made to the prime contractors.

The retainage of this project will not be paid to the prime contractor until all of the subcontractors have signed a "Subcontractor Confirmation of Prompt Payment" form upon substantial completion of the project, verifying the prime contractor followed the guidelines of 68 FR 35553.

LaRiviere, Inc. Name of Contractor

17564 N. Dylan Ct., Rathdrum, ID 83858 Address

Hiede Grant Hiede Grant, Secretary Signed by

3902 / 23903 Key Number

North & South Mountain View Pedestrian Improvements - Moscow Project Name

Subscribed and sworn to before me this 3rd day of March, 20 26.

Notary Public for Idaho

Residing at Rathdrum ID

ALAINA D SCHEIB
NOTARY PUBLIC - STATE OF IDAHO
COMMISSION NUMBER 20242862
MY COMMISSION EXPIRES 8-5-2030

My Commission Expires 08/05/2030

THIS PAGE MUST BE COMPLETED RETURNED WITH YOUR BID DOCUMENTS

DRAFT

HMH Project No. 23902 & 23903 **February 19, 2026**

North and South Mountain View Pedestrian Improvements

Moscow, ID

ADDENDUM NO. 1: TECHNICAL SPECIFICATIONS

All bidders shall acknowledge receipt of this addendum by indicating the number (1) on the BID PROPOSAL under: “Bidder acknowledges receipt of Addenda”.

All changes, corrections, deletions, and/or additions to the initial bidding documents enumerated herein shall be included in the Bidder’s Proposal. In case of any conflict between the drawings, specifications, and this Addendum, this Addendum shall govern.

CLARIFICATIONS AND GENERAL NOTES:

1) The required bidding documents have been revised to remove the unnecessary appendices for bidding submittal. A new bid proposal has been issued on 02/19/2026.

END OF ADDENDUM NO. 1

DRAFT

BID PROPOSAL

TO: Mayor and City Council
City of Moscow, Idaho

Date: _____

This proposal is submitted as an offer by the undersigned to enter into contract with the City of Moscow, Idaho as represented by the City Council, hereinafter referred to as the 'CITY' for North and South Mountain View Pedestrian Improvements, (hereinafter "Project"), specified herein and which construction documents are on file with the City Engineer, 504 South Washington, Haddock Building, Moscow, Idaho, and which are a condition hereof with the same force and effect as though they were attached hereto. The offer is conditioned on the following declarations as to the facts, intention and understanding of the undersigned and the agreement of the CITY to the terms and prices herein submitted.

1. All Project specifications and drawings examined by the undersigned and their terms and conditions are hereby agreed to.

2. The undersigned certifies that they have received or made themselves aware of any and all existing site conditions that may affect the proposed work.

3. It is understood that the contract drawings may be supplemented by additional drawings and specifications in explanation and elaboration of the contract drawings and it is agreed that such supplemental drawings, when not in conflict with those referred to in paragraph 1 above, will have the same force and effect as if attached hereto and that when received they will be considered a part of the contract.

4. The undersigned will furnish separate performance and payment bonds in the full amount of the contract price.

5. The cash, certified check, bid bond, or cashier's check accompanying this proposal shall be forfeited to the City of Moscow to the extent of 5% of the amount bid if the undersigned shall fail or refuse to execute the contract, furnish performance and payment bonds, and insurance certificate as required by the specifications within the time limit therein after notification that the said proposal is accepted, all in accordance with the provisions of this proposal and the specifications.

6. The undersigned further agrees that CITY shall have the right to accept or reject any bid which rejection or acceptance is deemed to be in the best interest of CITY.

7. The undersigned agrees to order all necessary equipment and materials within a period of three (3) days after Notice to Proceed has been issued by the Engineer.

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8. The undersigned, as a bidder, acknowledges that Addenda Number _____ through _____ have been delivered to them and have been examined as part of the contract documents.

9. The undersigned agrees to complete all work embraced in the contract within the time limitations set forth in paragraph IB-13 of the Instruction to Bidders.

10. The undersigned holds Idaho Public Work's License Number _____.

11. The undersigned proposes to use the following sub-contractors in the performance of meeting the contract requirements. Information herein must comply with Idaho Code Section 67-2310 and IB-16:

Subcontractors	Trade Specialty	Idaho Public Works License No.	$ Amount
a.			
b.			
c.			
d.			
e.			

12. The undersigned has included with the bid the following forms and information:
    a. Bid Schedule
    b. Bid security
    c. Bidder's Non-Collusion Affidavit
    d. Bidder's Drug-Free Workplace Affidavit
    e. Prompt Payment Affidavit
    f. License Requirements For Electrical Work

13. The undersigned proposes to furnish labor, materials, equipment and services of all kinds required for North and South Mountain View Pedestrian Improvements as described in the specifications, including all appurtenant work, all as required by the specifications and this proposal for the prices in accordance with the completed schedule contract prices as follows:

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BID SCHEDULE

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Amount
107-019A	SURVEY MONUMENT PRESERVATION	CA	6000	$1.00	$6,000.00
201-010A	CLEARING AND GRUBBING	LS	1	$	$
202-005A	SELECTIVE REMOVAL OF TREES INCLUDING STUMPS	EACH	12	$	$
203-005A	REMOVAL OF OBSTRUCTIONS	LS	1	$	$
203-006A	REMOVAL OF SIGN	EACH	24	$	$
203-025A	REMOVAL OF CATCH BASIN	EACH	4.0	$	$
203-055A	REMOVAL OF CONCRETE PAV	SY	66.7	$	$
203-060A	REMOVAL OF CONCRETE SIDEWALK	SY	66.6	$	$
203-065A	REMOVAL OF CURB	FT	112.6	$	$
203-070A	REMOVAL OF CURB & GUTTER	FT	371.7	$	$
203-075A	REMOVAL OF FENCE	FT	8.6	$	$
203-095A	REMOVAL OF MANHOLE	EACH	1	$	$
203-122A	REMOVAL OF MISC ITEMS	EACH	14	$	$
203-123A	REMOVAL OF MISC ITEMS	FT	68	$	$
205-005A	EXCAVATION	CY	2643.4	$	$
212-011A	FIBER WATTLE	FT	285.4	$	$
212-095A	INLET PROTECTION	EACH	15	$	$
251-005A	MIGRATORY BIRD TREATY ACT COMPLIANCE	CA	10000	$1.00	$10,000.00
303-022A	3/4" AGGR TYPE B FOR BASE	TON	1949.2	$	$
307-012A	OPEN-GRADED BASE CLASS III	TON	1141.7	$	$
				$	$
405-435A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-3	TON	629.5	$	$
502-065A	CONCRETE CLASS 40 AF	CY	2.8	$	$
605-015A	8" STORM SEWER PIPE	FT	111.2	$	$
605-025A	12" STORM SEWER PIPE	FT	307.2	$	$

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605-045A	24" STORM SEWER PIPE	FT	34.5	$	$
605-635A	ADJUST MANHOLE COVERS	EACH	3.0	$	$
605-640A	ADJUST VALVE COVERS	EACH	8.0	$	$
612-005A	W-BEAM GUARDRAIL	FT	147.9	$	$
612-110A	GUARDRAIL ANCHOR	EACH	1.0	$	$
612-115C	GUARDRAIL TERMINAL, TANGENT	EACH	1.0	$	$
614-015A	SIDEWALK	SY	2010.3	$	$
614-020A	DRIVEWAY	SY	290.6	$	$
614-025A	CURB RAMP	SY	158.7	$	$
615-255A	CURB	FT	80.6	$	$
615-490A	CURB & GUTTER	FT	2586.0	$	$
616-010A	SIGN TYPE B-1	SF	83.2	$	$
616-040J	STEEL SIGN POST TYPE E-1	FT	31.5	$	$
616-040K	STEEL SIGN POST TYPE E-2	FT	78.9	$	$
616-080A	REINSTALL SIGN FACE	EACH	29	$	$
616-085A	REINSTALL SIGN POST	EACH	20	$	$
621-010A	SEEDING	ACRE	0.334	$	$
624-005A	LOOSE RIPRAP	CY	24.4	$	$
626-100A	MISCELLANEOUS TEMPORARY TRAFFIC CONTROL ITEMS	CA	10000	$1.00	$10,000.00
630-010A	TRANSVERSE, WORD, SYMBOL, ARROW PAVEMENT MARKING - PREFORM THERMOPLASTIC	SF	861.3	$	$
630-025A	LONGITUDINAL PAV MKG - WATERBORNE	FT	5735.2	$	$
634-005A	MAILBOX	EACH	5	$	$
640-010A	RIPRAP/EROS CONT GEOTEXTILE	SY	80.7	$	$
640-015A	SUBGRADE SEPARATION GEOTEXTILE TYPE II	SY	2684.9	$	$
675-005A	SURVEY	LS	1	$	$
675-010A	DIRECTED SURVEYING	CA	10000	$1.00	$10,000.00
S501-15A	RETAINING WALL	SF	675	$	$
S600-20A	REMOVE AND REPLACE FIRE HYDRANT	EACH	1	$	$
S616-15A	RECTANGULAR RAPID-FLASHING BEACON (RRFB)	EACH	1	$	$
S900-50A	CONTINGENCY AMOUNT - MISCELLANEOUS WORK	CA	10000	$ 1.00	$10,000.00

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S901-05A	ADJUST CATCH BASIN LID AND FRAME	EACH	3	$	$
S901-05B	CITY OF MOSCOW CATCH BASIN	EACH	8	$	$
S901-05C	CITY OF MOSCOW STORM SEWER MANHOLE	EACH	3	$	$
S901-05D	ADJUST WATER METER	EACH	7	$	$
S904-05A	TEMPORARY TRAFFIC CONTROL	LS	1	$	$
S912-05A	LANDSCAPE REPAIR	CA	10000	$	$
S912-05B	DECORATIVE ROCK	SY	709.3	$	$
S913-05A	ROCK MULCH	CY	120.2	$	$
Z629-05A	MOBILIZATION	LS	1	$	$
Total of All Unit Price Bid Items					$

Firm Name of Bidder

Signature of Bidder

Official Title

Bidders Mailing Address

Public Works License No.

State of Incorporation if Incorporated

SEAL (if incorporated)

Dated at _____

This ____ day of _____, 2026

DRAFT

INSTRUCTION TO BIDDERS

IB-1. INTENT OF PLANS AND SPECIFICATIONS

A. It is the intention of these specifications to provide for careful, thorough and workmanlike construction procedure in the installation of material and equipment and in the manufacture or delivery of such materials and equipment. The bidder to whom the contract is awarded shall furnish all the material, equipment and labor necessary to complete said contract in accordance with all of its terms and conditions. All contracts shall be awarded subject to those instructions to bidders.

B. The plans and specifications shall be considered and used together; anything appearing as a requirement of either shall be accepted as applicable to both even though not stated therein or shown. All specifications and notes appearing on the plans shall have the same force and effect as though they were repeated herein. In case of discrepancies in specifications, the City of Moscow standards and requirements take precedence.

IB-2. PLANS, SPECIFICATIONS, AND ADDITIONAL INFORMATION

A. Additional information relative to the Plans and Specifications may be obtained from the office of the City Engineer.

IB-3. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE

A. Bidders shall satisfy themselves by personal examination of the plans, specifications, and site of the proposed improvement, and by any other examinations and investigation which they may desire to make, as to the accuracy of the estimate of quantities, the nature of the soil, conditions of the project site, and difficulties to be encountered.

IB-4. PREPARATION AND DELIVERY OF PROPOSAL

A. Bids shall be prepared and submitted upon the "Proposal" form supplied by the City Engineer. Each and every blank provided for in the "Proposal" shall be filled in with ink or typing. Proposals, which are incomplete or submitted on an unauthorized form, may be rejected as informal.

ALL BIDS SHALL INCLUDE THE FOLLOWING:

- Bid Schedule
- Bid Security
- ~~DBE Race/Gender - Conscious Special Provisions, Local Projects~~
- ~~EEO Special Provision~~
- Bidder's Non-Collusion Affidavit
- Bidder's Drug-Free Workplace Affidavit
- ~~Buy America Specifications Changes~~
- ~~Title VI Inclusions~~

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- ~~FHWA-1273~~
- Prompt Payment Affidavit
- ~~Minimum Testing/Sampling Requirement Template~~
- ~~TAP Environmental Contractor Notes and Special Provisions~~
- License Requirements For Electrical Work
- ~~Electrical Board Temporary Rules~~
- ~~Code of Federal Regulations Title 23~~
- ~~Code of Federal Regulations Title 41~~

B. After the date and hour set for the opening of the bids, no bidder may withdraw their proposal unless award of contract is delayed for a period exceeding the time limits described in IB-8, AWARD OF CONTRACT.

C. If discrepancies exist between the Unit Prices and the Total Price or Bid Total amount, the CITY will use the Unit Prices and calculate a corrected Bid Total.

D. The CITY reserves the right to reject any or all bids, any or all schedules or to accept the bid or schedule deemed to be in the best interest of the CITY.

IB-5. PROPOSAL GUARANTY

A. Each proposal must be accompanied by cash, a certified check, bid bond, or cashier's check in an amount not less than five percent (5%) of the total amount bid. This guaranty or "Good faith token" will be held until the successful bidder has, within ten (10) days from the date of notification of award of contract, executed the contract and furnished approved separate performance and payment bonds, each in an amount equal to one hundred percent (100%) of the amount of the contract. There shall also be submitted with the surety bonds, evidence of public liability insurance coverage in amounts not less than those specified in the general specifications included herein.

IB-6. US CITIZEN

A. The contractor/consultant warrants and takes the steps to verify that it does not knowingly hire or engage persons not authorized to work in the United States; and that any misrepresentation in this regard or any employment of person not authorized to work in the United States constitutes a material breach and shall be cause for the imposition of monetary penalties up to five percent (5%) of the contract price, per violation, and/or termination of its contract.

IB-7. QUALIFICATIONS OF BIDDER

A. The owner desires that this project shall be built by a contractor who is competent and adequately financed. The Owner may request the Bidder to submit a written statement to show experience in construction work of this character as an indication of qualification and

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, April 6, 2026

AGENDA ITEM TITLE

Palouse Mall Lift Station Rehabilitation Project - Bid Results and Contract Award - Scott Bontrager

RESPONSIBLE STAFF

Scott Bontrager, City Engineer, Evan Timar

ADDITIONAL PRESENTER(S)

DESCRIPTION

This project's scope is to rehabilitate the existing Palouse Mall lift station, which includes replacing the wet well cover and hatch, replacing the existing pumps with submersible pumps, new electrical/control, upgrading the existing force main out of the wet well, fence upgrades, and installing a new valve vault and flow meter vault. The City published an advertisement for bids on January 24, 2026, and the Engineer's Estimate for construction was $2,115,992.50.

Bids were opened on March 3, 2026, at which five (5) bids were received. The bids ranged from $1,247,047.00 to $1,886,420.00. Of those bids, the lowest responsive bid received was submitted by DW Excavating of Davenport, WA with a bid of $1,247,047.00. A bid tabulation is included in the packet. This was reviewed by the Administrative Committee on March 23, 2026, and recommended for approval.

REVIEWED BY

This was reviewed by the Administrative Committee on March 23, 2026, and recommended for approval.

PROPOSED ACTIONS

ACTION: Accept the bid from DW Excavating, award the contract in the amount of $1,247,047.00 and authorize City Engineer approval of construction change orders in an amount not to exceed 10% of the contract amount.

STAFF RECOMMENDATION

Accept the bid from DW Excavating, award the contract in the amount of $1,247,047.00 and authorize staff approval of construction change orders in an amount not to exceed 10% of the contract amount.

OTHER RESOURCES

FISCAL IMPACT

Funds for the project will be expended from capital accumulation in Sewer Lift Station Renovations (330-230-770-69).

PERSONNEL IMPACT

Engineering Division staff will administer construction contract and inspection.

ATTACHMENTS

1. Palouse Mall LS Rehab_Recommendation of Award
2. Construction Agreement Palouse Mall Lift Station_final with attachments

March 5, 2026

Scott Bontrager
City of Moscow
504 South Washington Street
Moscow, ID 83843
sbontrager@ci.moscow.id.us

SUBJECT: **Palouse Mall Lift Station Rehabilitation**
Engineer's Recommendation of Award

Dear Scott:

As specified, sealed bids received by 2:00 P.M. on Tuesday, March 3, 2026, were publicly opened and read aloud. Prior to the time of opening, five (5) bids were received for the project. Ardurra has reviewed the bids submitted, and a detailed bid tabulation is enclosed for your review. Below is a table summarizing the received bids, and the correct totals:

Contractor	Bid	
Engineer's Estimate	$	2,115,992.50
DW Excavating	$	1,247,047.00
Germer Construction	$	1,549,151.82
M L Albright & Sons Inc	$	1,574,460.50
Simco Development Group, LLC	$	1,615,540.00
Western Construction of Lewiston	$	1,886,420.00

The project was bid under one bid schedule:

- Schedule A – Palouse Mall Lift Station Rehabilitation

It appears that DW Excavating is the lowest responsive bidder with a low bid of $1,247,047.00. Please see the attached bid tabulation and summary for additional details. Based on these findings, we recommend that the City of Moscow proceed with awarding the above-mentioned contract to DW Excavating from Davenport, WA. This award should be made contingent upon City of Moscow review and approval.

Should you have any questions, do not hesitate to reach out to me.

Sincerely,

Zach Thompson, P.E.
Ardurra Group, Inc.
Project Manager

BID SUMMARY

PROJECT TITLE:	Palouse Mall Lift Station Rehabilitation
PROJECT LOCATION:	Moscow, Idaho
PROJECT NUMBER:	240380
OWNER:	City of Moscow
ENGINEER:	Ardurra Group, Inc.
BID OPENING:	March 3, 2026, 2pm
BID LOCATION:	504 South Washington Street, Moscow, Idaho 83843
BID INFORMATION:	

		Bidder #1	Bidder #2	Bidder #3	Bidder #4	Bidder #5
CONTRACTOR:	**Engineer's Estimate**	**DW Excavating**	**Germer Construction**	**M L Albright & Sons Inc**	**Simco Development Group, LLC**	**Western Construction of Lewiston**
Acknowledge All Addenda	N/A	X	X	X	X	X
Public Works License # Included	N/A	X	X	X	X	X
Bid Security (Bid Bond @ 5%)	N/A	X	X	X	X	X
Proposed Subcontractor Form	N/A	X	X	X	X	X
Bid Schedule A	N/A	X	X	X	X	X
Bid Schedule Complete and Correct	N/A	X		X	X	
Bid Submittal Checklist	N/A	X	X		X	X
Non-Collusion Affidavit	N/A	X	X	X	X	X
Affidavit of Pavement or Securement of All Taxes	N/A	X	X	X	X	X
Anti Discrimination Affidavit	N/A	X	X	X	X	X
Bid	**$2,115,992.50**	**$1,247,047.00**	**$1,620,105.34**	**$1,574,460.50**	**$1,615,540.00**	**$1,886,470.00**
Corrections	**$0.00**	**$0.00**	**($70,953.52)**	**$0.00**	**$0.00**	**($50.00)**
Corrected Total	**$2,115,992.50**	**$1,247,047.00**	**$1,549,151.82**	**$1,574,460.50**	**$1,615,540.00**	**$1,886,420.00**
Responsive Bidder	N/A	Yes	Yes	Yes	Yes	Yes
Bidder Rank (Ranked on Price)	**N/A**	**1**	**2**	**3**	**4**	**5**

CITY OF MOSCOW
Palouse Mall Lift Station Rehabilitation
Tabulation of Bids
March 3, 2026

				Engineer's Estimate		DW Excavating		Germer Construction		M L Albright & Sons Inc		Simco Development Group, LLC		Western Construction of Lewiston	
Item No.	Item Description	Quantity	Units	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
Schedule A															
2010.4.1.A.1	MOBILIZATION (10% MAX)	1	LS	$0.00	$211,600.00	$72,000.00	$72,000.00	$70,953.52	$70,953.52	$135,000.00	$135,000.00	$130,000.00	$130,000.00	$170,000.00	$170,000.00
SP-012116	FORCE ACCOUNT WORK	1	FA	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00	$100,000.00
SP-014500	QUALITY CONTROL	1	LS	$82,662.50	$82,662.50	$13,400.00	$13,400.00	$12,000.00	$12,000.00	$10,000.00	$10,000.00	$14,800.00	$14,800.00	$15,500.00	$15,500.00
SP-015000	FENCE, TEMPORARY CONSTRUCTION FENCE	620	LF	$6.25	$3,875.00	$9.40	$5,828.00	$10.00	$6,200.00	$7.00	$4,340.00	$6.00	$3,720.00	$14.00	$8,680.00
SP-015726	DUST CONTROL	1	LS	$10,748.75	$10,748.75	$16,200.00	$16,200.00	$2,200.00	$2,200.00	$7,250.00	$7,250.00	$3,600.00	$3,600.00	$13,100.00	$13,100.00
SP-017123	CONSTRUCTION SURVEYING (CONTRACTOR PROVIDED)	1	LS	$13,597.50	$13,597.50	$7,650.00	$7,650.00	$7,500.00	$7,500.00	$8,500.00	$8,500.00	$7,700.00	$7,700.00	$9,300.00	$9,300.00
SP-099723	CONCRETE AND MASONRY COATINGS	1	LS	$112,500.00	$112,500.00	$48,700.00	$48,700.00	$50,300.00	$50,300.00	$50,000.00	$50,000.00	$49,300.00	$49,300.00	$105,000.00	$105,000.00
SP-260000	GENERAL ELECTRICAL	1	LS	$142,926.25	$142,926.25	$125,050.00	$125,050.00	$119,528.00	$119,528.00	$180,000.00	$180,000.00	$225,000.00	$225,000.00	$212,000.00	$212,000.00
SP-260021	CONTROL SYSTEM	1	LS	$56,543.75	$56,543.75	$38,600.00	$38,600.00	$38,010.00	$38,010.00	$40,000.00	$40,000.00	$46,000.00	$46,000.00	$80,000.00	$80,000.00
SP-260022	PUMP CONTROL PANEL	1	LS	$103,413.75	$103,413.75	$61,100.00	$61,100.00	$62,419.00	$62,419.00	$60,000.00	$60,000.00	$80,000.00	$80,000.00	$126,750.00	$126,750.00
SP-330563.A	VALVE VAULT AND HATCH	1	LS	$43,533.75	$43,533.75	$36,250.00	$36,250.00	$35,238.00	$35,238.00	$50,000.00	$50,000.00	$46,700.00	$46,700.00	$79,000.00	$79,000.00
SP-330563.B	FLOW METER VAULT AND HATCH	1	LS	$26,600.00	$26,600.00	$9,500.00	$9,500.00	$19,238.00	$19,238.00	$40,000.00	$40,000.00	$19,600.00	$19,600.00	$42,000.00	$42,000.00
SP-330563.C	WET WELL CONCRETE COVER AND HATCH	1	LS	$27,500.00	$27,500.00	$8,400.00	$8,400.00	$5,635.00	$5,635.00	$40,000.00	$40,000.00	$15,400.00	$15,400.00	$19,500.00	$19,500.00
SP-330563.D	BYPASS ASSEMBLY, VALVES, AND FITTINGS	1	LS	$87,500.00	$87,500.00	$28,800.00	$28,800.00	$25,970.00	$25,970.00	$42,000.00	$42,000.00	$27,200.00	$27,200.00	$51,500.00	$51,500.00
SP-333211.A	LIFT STATION PUMP SYSTEM	1	LS	$214,212.50	$214,212.50	$182,100.00	$182,100.00	$176,000.00	$176,000.00	$225,000.00	$225,000.00	$214,500.00	$214,500.00	$192,500.00	$192,500.00
SP-333211.B	LIFT STATION MISC. PIPING, FITTINGS, AND SUPPORTS	1	LS	$84,112.50	$84,112.50	$44,100.00	$44,100.00	$92,580.00	$92,580.00	$70,000.00	$70,000.00	$33,700.00	$33,700.00	$37,000.00	$37,000.00
SP-443116	ODOR CONTROL SYSTEM	1	LS	$21,262.50	$21,262.50	$25,100.00	$25,100.00	$32,860.00	$32,860.00	$40,000.00	$40,000.00	$36,400.00	$36,400.00	$22,000.00	$22,000.00
201.4.1.B.1	CLEARING AND GRUBBING	1	LS	$5,492.50	$5,492.50	$8,000.00	$8,000.00	$6,900.00	$6,900.00	$10,000.00	$10,000.00	$12,600.00	$12,600.00	$5,500.00	$5,500.00
201.4.1.C.1	REMOVAL OF OBSTRUCTIONS	1	LS	$19,250.00	$19,250.00	$10,650.00	$10,650.00	$37,550.00	$37,550.00	$23,700.00	$23,700.00	$10,300.00	$10,300.00	$25,000.00	$25,000.00
202.4.1.A.1	EXCAVATION	95	CY	$48.75	$4,631.25	$35.00	$3,325.00	$81.00	$7,695.00	$70.00	$6,650.00	$110.00	$10,450.00	$95.00	$9,025.00
301.4.1.D.1	SERVICE/UTILITY TRENCH EXCAVATION W/ 2" CONDUIT	40	LF	$40.00	$1,600.00	$19.00	$760.00	$675.00	$27,000.00	$90.00	$3,600.00	$30.00	$1,200.00	$82.00	$3,280.00
302.4.1.B.1	ROCK EXCAVATION	51	LF	$205.00	$10,455.00	$95.00	$4,845.00	$480.00	$24,480.00	$105.00	$5,355.00	$160.00	$8,160.00	$320.00	$16,320.00
401.4.1.B.1	WATER MAIN FITTING - SIZE 12" DUCTILE IRON 90 ELBOW	1	EA	$6,262.50	$6,262.50	$3,400.00	$3,400.00	$3,300.00	$3,300.00	$3,700.00	$3,700.00	$3,800.00	$3,800.00	$3,800.00	$3,800.00
401.4.1.B.2	WATER MAIN FITTING - SIZE 12" STAINLESS STEEL 90 ELBOW	2	EA	$13,325.00	$26,650.00	$7,000.00	$14,000.00	$6,600.00	$13,200.00	$7,290.00	$14,580.00	$5,900.00	$11,800.00	$3,000.00	$6,000.00
401.4.1.B.3	WATER MAIN FITTING - SIZE 12" DUCTILE IRON TEE	1	EA	$8,900.00	$8,900.00	$4,700.00	$4,700.00	$4,400.00	$4,400.00	$5,100.00	$5,100.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00
401.4.1.B.4	WATER MAIN FITTING - SIZE 12" X 8" SS ECCENTRIC REDUCER	2	EA	$15,100.00	$30,200.00	$5,600.00	$11,200.00	$5,500.00	$11,000.00	$5,500.00	$11,000.00	$4,700.00	$9,400.00	$4,700.00	$9,400.00
401.4.1.B.5	WATER MAIN FITTING - SIZE 12" X 16" ECCENTRIC REDUCER	1	EA	$8,662.50	$8,662.50	$5,300.00	$5,300.00	$4,200.00	$4,200.00	$5,100.00	$5,100.00	$5,400.00	$5,400.00	$5,450.00	$5,450.00
401.4.1.B.8	WATER MAIN FITTING - SIZE 16" HDPE 22.5 ELBOW	2	EA	$5,925.00	$11,850.00	$950.00	$1,900.00	$950.00	$1,900.00	$1,400.00	$2,800.00	$1,600.00	$3,200.00	$1,600.00	$3,200.00
401.4.1.B.9	WATER MAIN FITTING - SIZE 16" HDPE 45 ELBOW	4	EA	$6,062.50	$24,250.00	$980.00	$3,920.00	$950.00	$3,800.00	$2,250.00	$9,000.00	$1,700.00	$6,800.00	$1,650.00	$6,600.00
401.4.1.B.10	WATER MAIN FITTING - SIZE 16" DUCTILE IRON 90 ELBOW	1	EA	$7,175.00	$7,175.00	$5,800.00	$5,800.00	$4,400.00	$4,400.00	$6,150.00	$6,150.00	$5,800.00	$5,800.00	$5,870.00	$5,870.00
401.4.1.B.11	WATER MAIN FITTING -SIZE 16" X 10" ECCENTRIC REDUCER	1	EA	$4,950.00	$4,950.00	$5,600.00	$5,600.00	$4,500.00	$4,500.00	$5,620.00	$5,620.00	$5,900.00	$5,900.00	$6,000.00	$6,000.00
401.4.1.B.12	WATER MAIN FITTING - SIZE 12" X 8" ECCENTRIC REDUCER	1	EA	$15,100.00	$15,100.00	$2,700.00	$2,700.00	$2,200.00	$2,200.00	$3,000.00	$3,000.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00
401.4.1.B.13	WATER MAIN FITTING - SIZE 10" DUCTILE IRON 45 ELBOW	1	EA	$15,100.00	$15,100.00	$2,300.00	$2,300.00	$1,500.00	$1,500.00	$3,600.00	$3,600.00	$2,700.00	$2,700.00	$2,700.00	$2,700.00
402.4.1.A.1	VALVE - SIZE 12" - TYPE RESILIENT WEDGE GATE VALVE, WITH OPERATING HANDWHEEL	2	EA	$10,850.00	$21,700.00	$5,100.00	$10,200.00	$5,500.00	$11,000.00	$5,250.00	$10,500.00	$4,800.00	$9,600.00	$5,900.00	$11,800.00
402.4.1.A.2	VALVE - SIZE - 12" - TYPE BALL CHECK VALVE	2	EA	$13,012.50	$26,025.00	$19,200.00	$38,400.00	$26,400.00	$52,800.00	$11,500.00	$23,000.00	$11,800.00	$23,600.00	$25,700.00	$51,400.00
402.4.1.A.3	VALVE - SIZE - 16" - TYPE GATE VALVE	2	EA	$35,675.00	$71,350.00	$17,100.00	$34,200.00	$12,385.00	$24,770.00	$16,500.00	$33,000.00	$15,500.00	$31,000.00	$19,000.00	$38,000.00
402.4.1.A.4	FLOW METER	1	EA	$38,475.00	$38,475.00	$9,500.00	$9,500.00	$25,000.00	$25,000.00	$12,000.00	$12,000.00	$28,900.00	$28,900.00	$48,000.00	$48,000.00
402.4.1.A.5	AIR RELEASE VALVE ASSEMBLY	1	EA	$2,300.00	$2,300.00	$1,500.00	$1,500.00	$3,300.00	$3,300.00	$1,200.00	$1,200.00	$1,600.00	$1,600.00	$1,550.00	$1,550.00
402.4.1.A.6	PRESSURE GAUGE ASSEMBLY	1	EA	$5,437.50	$5,437.50	$5,700.00	$5,700.00	$5,100.00	$5,100.00	$6,243.00	$6,243.00	$7,200.00	$7,200.00	$12,000.00	$12,000.00
505.4.1.B.1	PRESSURE SEWER PIPE - SIZE 12", TYPE C900 DR-18 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)	28	LF	$281.25	$7,875.00	$220.00	$6,160.00	$149.00	$4,172.00	$200.00	$5,600.00	$260.00	$7,280.00	$180.00	$5,040.00
505.4.1.B.2	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)	209	LF	$437.50	$91,437.50	$190.00	$39,710.00	$398.00	$83,182.00	$225.00	$47,025.00	$190.00	$39,710.00	$180.00	$37,620.00
505.4.1.B.3	PRESSURE SEWER PIPE - SIZE 12", TYPE DUCTILE IRON (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)	8	LF	$1,075.00	$8,600.00	$1,700.00	$13,600.00	$428.00	$3,424.00	$1,665.00	$13,320.00	$470.00	$3,760.00	$800.00	$6,400.00
505.4.1.B.4	PRESSURE SEWER PIPE - SIZE 10", TYPE C900 DR-18 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)	3	LF	$281.25	$843.75	$2,400.00	$7,200.00	$240.00	$720.00	$1,610.00	$4,830.00	$2,540.00	$7,620.00	$825.00	$2,475.00
505.4.1.B.5	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 WITHIN ROADWAY PRISM (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)	70	LF	$437.50	$30,625.00	$260.00	$18,200.00	$832.00	$58,240.00	$425.00	$29,750.00	$320.00	$22,400.00	$500.00	$35,000.00
505.4.1.B.6	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 WITHIN CREEK CROSSING (INCLUDES EXCAVATION, BEDDING, ROCK BACKFILL, CONCRETE, ETC.)	43	LF	$437.50	$18,812.50	$520.00	$22,360.00	$1,800.00	$77,400.00	$300.00	$12,900.00	$450.00	$19,350.00	$1,200.00	$51,600.00
507.4.1.D.1	12" COUPLING	6	EA	$1,862.50	$11,175.00	$1,200.00	$7,200.00	$1,300.00	$7,800.00	$1,535.00	$9,210.00	$2,100.00	$12,600.00	$2,420.00	$14,520.00
512.4.1.A.1	SEWAGE BYPASS SYSTEMS	1	LS	$163,500.00	$163,500.00	$32,500.00	$32,500.00	$84,532.00	$84,532.00	$50,000.00	$50,000.00	$106,500.00	$106,500.00	$53,000.00	$53,000.00
706.4.1.A.7	CURB AND GUTTER, TYPE B COMBINATION	15	LF	$82.50	$1,237.50	$120.00	$1,800.00	$40.00	$600.00	$335.00	$5,025.00	$410.00	$6,150.00	$190.00	$2,850.00
802.4.1.A.1	CRUSHED AGGREGATE BASE TYPE I	40	CY	$112.50	$4,500.00	$180.00	$7,200.00	$60.00	$2,400.00	$100.00	$4,000.00	$114.00	$4,560.00	$57.00	$2,280.00
802.4.1.A.1	CRUSHED AGGREGATE BASE TYPE I FOR IMPORTED TRENCH CLASS F BACKFILL MATERIAL	86	CY	$112.50	$9,675.00	$97.00	$8,342.00	$71.00	$6,106.00	$110.00	$9,460.00	$90.00	$7,740.00	$90.00	$7,740.00
810.4.1.A.1	PLANT MIX PAVEMENT	44	TON	$462.50	$20,350.00	$578.00	$25,432.00	$681.00	$29,964.00	$745.00	$32,780.00	$860.00	$37,840.00	$840.00	$36,960.00
1001.4.2.B.1	STABILIZED CONSTRUCTION ENTRANCE	1	EA	$2,500.00	$2,500.00	$1,700.00	$1,700.00	$3,200.00	$3,200.00	$6,000.00	$6,000.00	$3,200.00	$3,200.00	$2,900.00	$2,900.00
1003.4.1.C.1	SILT FENCE	120	LF	$7.50	$900.00	$6.50	$780.00	$5.66	$679.20	$14.00	$1,680.00	$14.00	$1,680.00	$6.00	$720.00
1007.4.1.B.1	SEEDING	815	SY	$8.75	$7,131.25	$3.00	$2,445.00	$4.94	$4,026.10	$3.50	$2,852.50	$6.00	$4,890.00	$2.00	$1,630.00
1103.4.1.A.1	CONSTRUCTION TRAFFIC CONTROL	1	LS	$12,500.00	$12,500.00	$18,900.00	$18,900.00	$25,000.00	$25,000.00	$20,000.00	$20,000.00	$54,400.00	$54,400.00	$41,500.00	$41,500.00
1104.4.1.A.1	PAVEMENT LINE PAINT OR PAINTED PAVEMENT MARKINGS	180	LF	$3.75	$675.00	$17.00	$3,060.00	$6.00	$1,080.00	$8.00	$1,440.00	$11.00	$1,980.00	$2.00	$360.00
2040.4.1.A.1	FENCE, 8' CHAINLINK W/PRIVACY SLATS	65	LF	$90.00	$5,850.00	$212.00	$13,780.00	$200.00	$13,000.00	$120.00	$7,800.00	$130.00	$8,450.00	$220.00	$14,300.00
2040.4.1.B.1	GATES, PEDESTRIAN GATE	2	EA	$1,550.00	$3,100.00	$2,300.00	$4,600.00	$2,500.00	$5,000.00	$900.00	$1,800.00	$1,000.00	$2,000.00	$2,400.00	$4,800.00
2040.4.1.B.2	GATES, 16' DOUBLE SWING GATE	1	EA	$6,300.00	$6,300.00	$1,400.00	$1,400.00	$2,000.00	$2,000.00	$2,000.00	$2,000.00	$1,900.00	$1,900.00	$1,500.00	$1,500.00

CONSTRUCTION AGREEMENT
FOR THE PALOUSE MALL LIFT STATION
REHABILITATION PROJECT
BETWEEN CITY OF MOSCOW, IDAHO
AND DW EXCAVATING, INC.

THIS CONSTRUCTION AGREEMENT FOR THE PALOUSE MALL LIFT STATION REHABILITATION PROJECT BETWEEN CITY OF MOSCOW, IDAHO AND DW EXCAVATING, INC. (hereinafter "Agreement"), dated this ____ day of _____, 2026, is made by and between City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY"), and DW Excavating, Inc., 215 Park Street, Davenport, Washington, 99122 (hereinafter "CONTRACTOR"):

W I T N E S S E T H:

WHEREAS, pursuant to the invitation of CITY, extended through an "Invitation to Bid", see Attachment "A", CONTRACTOR submitted a Bid Proposal containing an offer invited by said invitation; and

WHEREAS, CITY has determined that said offer was the lowest responsive Bid Proposal; and

WHEREAS, CITY has accepted CONTRACTOR's Bid Proposal;

NOW THEREFORE, the Parties to this Agreement, in consideration of the mutual covenants and stipulations set out, agree as follows:

ARTICLE 1.
CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between CITY and CONTRACTOR concerning the work to be performed, are this Agreement, pages one (1) through eight (8) and the following:

1. Drawings, Specifications and Proposal for: Palouse Mall Lift Station Rehabilitation Project, City of Moscow Project No. 111-024, Attachment "A" consisting of 528 pages;
2. Bid Proposal of CONTRACTOR, dated March 3, 2026, Attachment "B", consisting of 27 pages;
3. Performance and Payment Bonds and Insurance Certificates;
4. Addendum Number 1, Attachment "C", consisting of 16 pages;
5. Addendum Number 2, Attachment "D", consisting of 3 pages; and
6. Change Orders, which may be delivered or issued after the effective date of this Agreement.

There are no Contract Documents other than those listed in Article 1. This Agreement may only be amended by change order as provided in the General Conditions of Attachment "A".

ARTICLE 2.
WORK

CONTRACTOR shall complete the entire work as specified, indicated and required under the Contract Documents, contained herein under Article 1. for CITY project (hereinafter "Project") titled:

PALOUSE MALL LIFT STATION REHABILITATION PROJECT

ARTICLE 3.
CONTRACT TIME/SUBSTANTIAL COMPLETION

The work to be performed pursuant to this Agreement shall be substantially completed within 155 calendar days from issuance of the Notice to Proceed and final completion within 170 calendar days as well as completed on or before October 23, 2026, unless adjustment of the Agreement time is made in accordance with the provisions of the Contract Documents. CONTRACTOR shall begin work in conformance with the Contract Documents.

CONTRACTOR and CITY recognize that time is of the essence and that CITY will suffer financial loss if the Project is not completed within the time specified above, unless approved extensions thereof are permitted in accordance with the terms of the Contract Documents. The Parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by CITY if the Project is not completed on time. Accordingly, instead of requiring any such proof, CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay CITY One Tenth of One Percent (0.1%) of the Contract Sum for each day that expires after the time specified above for Substantial Completion until the Project is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Project within the Time of Completion or by any proper extension thereof granted by CITY, CONTRACTOR shall pay CITY One Tenth of One Percent (0.1%) of the Contract Sum for each day that expires after the time specified above for completion, until the Project is completed and ready for final payment.

ARTICLE 4.
CONTRACT SUM

CITY shall pay CONTRACTOR for completion of the work for the Project in accordance with the Contract Documents in current funds in the amount of One Million, Two Hundred Forty-Seven Thousand, Forty-Seven Dollars ($1,247,047.00), as submitted by CONTRACTOR. In no event shall the Contract amount exceed CONTRACTOR's bid amount of $1,247,047.00, unless otherwise authorized by CITY by written agreement. Said Contract Sum shall be paid in accordance with the Contract Documents.

ARTICLE 5.
TERMINATION

Termination provisions are governed by the attached Contract Documents.

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ARTICLE 6.
INDEPENDENT CONTRACTOR

The Parties warrant by their signatures that no employer-employee relationship is established between CONTRACTOR and CITY by the terms of this Agreement. It is understood by the Parties hereto that CONTRACTOR is an independent contractor and, as such, neither CONTRACTOR nor CONTRACTOR's employees, agents, representatives or subcontractors, if any, are employees of CITY for any purpose, including for purposes of tax, retirement system, and social security (FICA) withholding.

ARTICLE 7.
SCOPE OF SERVICES

CONTRACTOR shall perform all work required by the Contract Documents. All work shall be completed in accordance with the specifications and plans established for this Project.

ARTICLE 8.
HOLD HARMLESS/INDEMNIFICATION

In addition to other rights granted to CITY by the Contract Documents, CONTRACTOR agrees to indemnify, defend, and hold harmless CITY, its officers, agents, employees, and engineers, from and against any and all losses, lawsuits, actions, claims, judgements for damages, or any injuries or damages received or sustained by any person, persons, or property, and losses, expenses, and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with the acts, performances, activities, errors or omissions by CONTRACTOR, CONTRACTOR's servants, agents, officers, employees, representatives, guests, business invitees or its subcontractors; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising out of or recovered under the Workers' Compensation Act or any other law, ordinance, order, or decree.

ARTICLE 9.
CONFLICT OF INTEREST

CONTRACTOR covenants that it presently has no interest and will not acquire any interest, direct or indirect, in the Project, which would conflict in any manner or degree with the performance of CONTRACTOR's services hereunder. CONTRACTOR further covenants that, in performing this Agreement, CONTRACTOR will employ no person who has any such interest. Should any conflict of interest arise during the performance of this Agreement, CONTRACTOR shall immediately disclose such conflict to CITY.

ARTICLE 10.
ENTIRE AGREEMENT, MODIFICATION AND ASSIGNABILITY

This Agreement and the attachments hereto contain the entire Agreement between the Parties, and no statements, promises, or inducements made by either Party, or agents of either Party are valid

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or binding unless contained herein. This Agreement may not be enlarged, modified or altered except upon written agreement signed by the Parties hereto. CONTRACTOR may not subcontract or assign its rights (including the right to compensation) or duties arising hereunder, other than as provided within the Contract Documents, without the prior written consent and express authorization of CITY.

ARTICLE 11.
LICENSES AND ADHERENCE TO LAW REQUIRED

CONTRACTOR represents that it possesses the skill and experience necessary and all licenses required to perform the services under this Agreement. CONTRACTOR further agrees to comply with all applicable Federal, State and Local statutes and regulations in the performance of the services hereunder, and are hereby made a part of this Agreement and shall be adhered to at all times. Violation of any of these statutes or regulations by CONTRACTOR shall be deemed material and shall subject CONTRACTOR to termination of this Agreement for cause. No pleas of misunderstanding or ignorance on the part of CONTRACTOR will, in any way, serve to modify the provisions of this requirement. CONTRACTOR and its surety shall indemnify, defend and hold harmless CITY and its employees, agents, engineers and representatives against any claim or liability arising from or based on the violation of any such laws, codes, ordinances, or regulations, whether by CONTRACTOR, CONTRACTOR's employees, or its subcontractors.

Anti-Boycott Against Israel Act. CONTRACTOR certifies it is not currently engaged in, and will not for the duration of this Agreement engage in, a boycott of goods and services from Israel or territories under its control. Failure to comply with Idaho Code § 67-2346 will result in this Agreement being void as against public policy.

Ownership or Operation by China. Pursuant to Idaho Code § 67-2359, CONTRACTOR certifies that it is not currently owned or operated by the government of China and will not for the duration of this Agreement be owned or operated by the government of China. The terms in this section defined in Idaho Code § 67-2359 shall have the meaning defined therein.

Employment of Residents of Idaho. Pursuant to Idaho Code § 44-1001, CONTRACTOR certifies that it will employ ninety-five percent (95%) bona fide Idaho residents, as that term is defined in Idaho Code § 44-1003, as employees for the completion of the terms required in this Agreement. If CONTRACTOR employs less than fifty (50) employees on this Project, CONTRACTOR may employ up to ten percent (10%) nonresidents for the completion of the terms required in this Agreement. In all cases, CONTRACTOR agrees to give a preference to bona fide Idaho residents. The Parties agree that if Project involves the expenditure of federal aid funds, that this clause will not be enforced in a manner that conflicts with federal statutes prescribing a labor preference for veterans or prohibiting unlawful discrimination or preferences among United States citizens.

Not an Abortion Provider or Affiliate. Pursuant to Idaho Code Title 18 Chapter 87, CONTRACTOR certifies that it is not an abortion provider or an affiliate of any abortion provider and does not, and will not for the duration of this Agreement, authorize the use of state facilities or public funds for abortion related activity.

Anti-Boycott of Certain Sectors. Pursuant to Idaho Code § 67-2347A, CONTRACTOR certifies that it is not engaged in, and will not for the duration of this Agreement engage in, a boycott of

any individual or company because the individual or company 1) engages in or supports the exploration, production, utilization, transportation, sale or manufacture of fossil fuel-based energy, timber, minerals, hydroelectric power, nuclear power, or agriculture or 2) engages in or supports the manufacture, distribution, sale, or use of firearms, as defined in Idaho Code § 18-3302 (2)(d).

ARTICLE 12.
EMPLOYMENT DISCRIMINATION

It is illegal under the U.S. Federal law to discriminate against an employee, either intentionally or through disparate impact, on account of race, color, gender, religion, sex (including pregnancy), national origin, disability or genetic information, age (40 and older), marital or familial status, sexual orientation, or gender identity. CONTRACTOR shall not discriminate against any employee or applicant for employment. CONTRACTOR's action under this Section shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and other applicants for employment, notices setting forth the provisions of this non-discrimination Section.

ARTICLE 13.
LEGAL FEES

In the event either Party incurs legal expenses to enforce the terms and conditions of this Agreement, the prevailing Party is entitled to recover reasonable attorney's fees and other costs and expenses, whether the same are incurred with or without a lawsuit.

ARTICLE 14.
JURISDICTION, VENUE AND NONWAIVER

It is agreed that this Agreement shall be construed under and governed by the laws of the State of Idaho. In the event of litigation concerning it, it is agreed that proper venue shall be the District Court of the Second Judicial District of the State of Idaho, in and for the County of Latah. Failure of CITY to exercise any of the rights under this Agreement, or breach thereof, shall not be deemed to be a waiver of such right or a waiver of any subsequent breach.

ARTICLE 15.
SPECIAL WARRANTY

CONTRACTOR warrants that nothing of monetary value has been given, promised or implied as remuneration or inducement to enter into this Agreement. CONTRACTOR declares that no improper personal, political or social activities have been used or attempted in an effort to influence the outcome of the competition, discussion, or negotiation leading to the award of this Agreement. Any such activity by CONTRACTOR shall make this Agreement null and void. CONTRACTOR further warrants that all materials and goods supplied under this Agreement shall be of good merchantable quality and that all services will be performed in a good skillful manner. CONTRACTOR acknowledges that it will be liable for any breach of this warranty.

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ARTICLE 16.
COMMUNICATIONS

Such communications as are required by this Agreement shall be satisfied by mailing or by personal delivery to the Parties at the following address:

CONTRACTOR:

DW Excavating, Inc.
Lars Hendrickson
215 Park Street
Davenport, WA 99122

CITY:

City of Moscow
Engineering Division
206 East Third Street
PO Box 9203
Moscow, ID 83843

ARTICLE 17.
NON-APPROPRIATIONS

This Agreement is contingent upon CITY receiving the necessary funding to cover the obligations of CITY. In the event that such funding is not received or appropriated, then, and in that event, CITY's obligations under this Agreement shall cease and each Party shall be released from further performance under this Agreement without any liability to the other Party, and CONTRACTOR shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

ARTICLE 18.
APPROVAL REQUIRED AND SEVERABILITY

This Agreement shall not become effective or binding until approved by CITY. The terms of this Agreement shall be deemed severable. If any part of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, the remaining portions of the Agreement will, nevertheless, remain in full force and effect so long as the remainder of this Agreement is capable of completion.

ARTICLE 19.
DRUG/TOBACCO FREE FACILITIES

All CITY facilities are drug and tobacco free facilities. Any drug and/or tobacco use (smoked or smokeless) is prohibited at all times on all areas of CITY facilities.

ARTICLE 20.
HEADINGS, TITLES AND CAPTIONS

Headings, captions, and titles of sections of this Agreement are for the convenience of reference only, and are not intended to define, limit, or describe the scope or intent of any provision of this Agreement, and shall not affect the construction of any provision of this Agreement.

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ARTICLE 21.
EXECUTION

IN WITNESS WHEREOF, said CONTRACTOR and CITY have caused this Agreement to be executed on the day and year first above written.

This Agreement may be executed by the use of electronic signatures pursuant to Idaho Code §28-50-107, which has the same force and effect as a handwritten signature. If electronic signatures are utilized, the acknowledgement before a notary is not required.

I, Lars Hendrickson, certify under the penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct and that I am an authorized agent to bind DW Excavating, Inc. to this Agreement. If I am signing this document utilizing a digital signature, I understand that my digital signature is valid and binding upon me to the same force and effect as a handwritten signature.

CONTRACTOR:

DW Excavating, Inc.

_____

Lars Hendrickson, President

CITY:

City of Moscow, Idaho

_____

Hailey Lewis, Mayor

ATTEST:

_____

Laurie M. Hopkins, City Clerk

Approved as to Form:

_____

Mia Bautista, City Attorney

DRAFT

ACKNOWLEDGMENT

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 2026, before me, a Notary Public in and for said State, appeared Lars Hendrickson, known to me to be the person named above and acknowledged that they executed the foregoing document as the duly authorized representative for DW Excavating, Inc.

_____

Notary Public for the State of _____

Residing at_____

My commission expires_____

DRAFT

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Attachment "A"

CONSTRUCTION DRAWINGS
CITY OF MOSCOW PALOUSE MALL LIFT STATION REHABILITATION

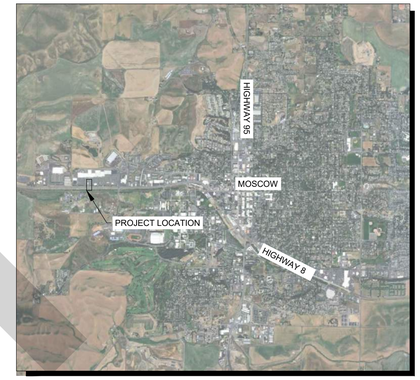
A PORTION OF THE SW 1/4 OF THE SE 1/4 OF SECTION 12
TOWNSHIP 39 NORTH, RANGE 6 WEST, BOISE MERIDIAN
LATAH COUNTY, IDAHO
December 2025

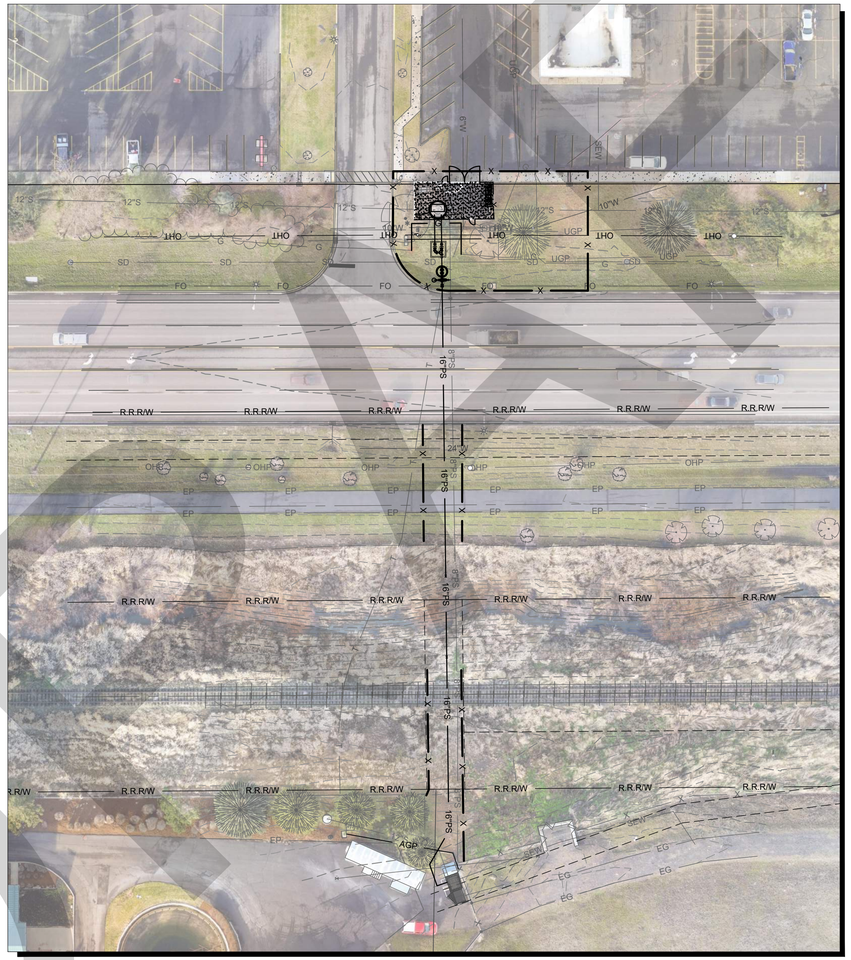
811 CALL BEFORE YOU DIG!
CALL DIGLINE INC.
PRIOR TO COMMENCING
UNDERGROUND WORK
DIAL: 811

NOTE:
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN APPROXIMATELY ONLY PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ALL UTILITY COMPANIES OF THE CONSTRUCTION SCHEDULE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MAY OCCUR BY FAILURE TO EXACTLY LOCATE AND PROTECT ALL UTILITIES.

CITY OF MOSCOW 1887 IDAHO

0 20 40 80 120





LEGEND

10"W	EXISTING 10" WATER
6"W	EXISTING 6" WATER
UGP	EXISTING UNDERGROUND POWER
OHT	EXISTING OVERHEAD COMMUNICATION
T	EXISTING COMMUNICATION LINE
G	EXISTING NATURAL GAS
R.R.R/W	EXISTING RIGHT-OF-WAY
FO	EXISTING FIBER OPTIC
8"PS	EXISTING 8" PRESSURE SEWER
AGP	EXISTING ABOVE GROUND POWER
12"PS	PROPOSED 12" PRESSURE SEWER
16"PS	PROPOSED 16" PRESSURE SEWER
EP	EXISTING EDGE OF PAVEMENT
X X X	EXISTING FENCE
X X X	PROPOSED FENCE
SD	EXISTING STORM PIPE
SD	PROPOSED STORM PIPE
	EXISTING CONIFEROUS TREE
	EXISTING DECIDUOUS TREE
	EXISTING CATCH BASIN
	EXISTING STORM BASIN
WV	EXISTING SEWER VALVE
EM	EXISTING ELECTRIC METER
G	EXISTING GAS MARK
	EXISTING POWER JUNCTION BOX
	EXISTING POWER POLE
TX	EXISTING TRANSFORMER
WM	EXISTING WATER METER
T	EXISTING TELEPHONE RISER
	PROPOSED 16" CROSS
	PROPOSED VALVE
2580	PROPOSED MAJOR CONTOUR
2582	PROPOSED MINOR CONTOUR
2580	EXISTING MAJOR CONTOUR
2582	EXISTING MINOR CONTOUR
X X X	TEMPORARY CONSTRUCTION FENCE
	PROPOSED CRUSHED ROCK BASE
	SEEDING
	SEEDING - NATIVE

SHEET INDEX

SHEET NUMBER	SHEET TITLE
C0.0	COVER
C0.1	NOTES
C1.0	SURVEY CONTROL
C1.1	SITE OVERVIEW
C1.2	PROPOSED SITE IMPROVEMENTS
C1.3	PROPOSED UTILITY REROUTING
C2.0	DEMOLITION SHEET
C3.0	MECHANICAL PLAN
C4.0	FORCE MAIN PLAN AND PROFILE
C4.1	BYPASS PUMPING PLAN
C4.2	FORCE MAIN TO DISCHARGE STRUCTURE
C5.0	GENERAL DETAILS
C5.1	GENERAL DETAILS II
C5.2	GENERAL DETAILS III
C5.3	GENERAL DETAILS IV
C6.0	EROSION CONTROL
E-01	ELECTRICAL SYMBOL AND LEGEND SHEET
E-02	ELECTRICAL AREA PLAN
E-03	ELECTRICAL SITE DEMOLITION PLAN
E-04	ELECTRICAL SITE PLAN
E-05	ELECTRICAL DETAILS (1 OF 2)
E-06	ELECTRICAL DETAILS (2 OF 2)
E-07	ELECTRICAL SCHEDULES
E08	ELECTRICAL ONE-LINE DIAGRAM
E-09	PUMP CONTROL PANEL WIRING DIAGRAMS (1 OF 2)
E-10	PUMP CONTROL PANEL WIRING DIAGRAMS (2 OF 2)
E-11	TELEMETRY PANEL WIRING DIAGRAMS (1 OF 5)
E-12	TELEMETRY PANEL WIRING DIAGRAMS (2 OF 5)
E-13	TELEMETRY PANEL WIRING DIAGRAMS (3 OF 5)
E-14	TELEMETRY PANEL WIRING DIAGRAMS (4 OF 5)
E-15	TELEMETRY PANEL WIRING DIAGRAMS (5 OF 5)
I-01	P&ID SYMBOL AND LEGEND SHEET
I-02	LIFT STATION P&ID

UTILITY REPRESENTATIVES

UTILITY	AGENCY	REPRESENTATIVE	PHONE
ELECTRIC	AVISTA	CHRIS DUX	(509) 336-6245
SEWER	CITY OF MOSCOW	EVAN TIMAR	(208) 882-2725
WATER	CITY OF MOSCOW	JUSTIN KILBORN	(208) 883-7113
ROADS	CITY OF MOSCOW	STEVE SCHULTE	(208) 883-7079
STORM WATER	CITY OF MOSCOW	KYLE STEELE	(208) 883-7230
GAS	AVISTA	RANDY WIDMAN	(509) 336-6214
TELECOM	ZIPLY	TERRY LEAVITT	(208) 882-0164

NOTICE TO CONTRACTORS

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD THE CITY OF MOSCOW PUBLIC WORKS DEPARTMENT, AND THE DESIGN CONSULTANT HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

UNAUTHORIZED CHANGES & USES: THE DESIGN CONSULTANT PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

NO.	DESCRIPTION	DATE
	REVISIONS	

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS
LIFT STATION REHABILITATION
COVER

ATTENTION:
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" ON 22x34 SHEET or 1/2" ON 11x17 SHEET, THEN DRAWING IS NOT TO SCALE

DATE: December 2025
PROJECT: 240380
SHEET: C0.0

Y:\CDA\240380\03_CAD\SHEETS\CONSTRUCTION_DRAWINGS\240380_C_COVER.DWG, 12/23/2025

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GENERAL

1. ALL WORK SHALL CONFORM TO THE "IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION", (ISPWC) CURRENT EDITION, AND THE CITY OF MOSCOW STANDARD DRAWINGS AND SPECIFICATIONS. IN THE CASE OF CONFLICT, THE MOST STRINGENT STANDARD SHALL APPLY.
2. NO REVISIONS SHALL BE MADE TO THESE PLANS WITHOUT THE APPROVAL OF THE PROJECT ENGINEER. ALL PROPOSED REVISIONS SHALL BE SUBMITTED BY THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL BY THE CITY.
3. NO REVISIONS SHALL BE MADE TO THE CITY STANDARD DRAWINGS OR NOTES WITHOUT WRITTEN APPROVAL OF THE PROJECT ENGINEER. REVISIONS OF CITY STANDARD DRAWINGS SHALL BE CLEARLY IDENTIFIED UPON THE APPROVED DRAWINGS; REVISIONS OR ADDITIONS TO STANDARD NOTES SHALL BE PROVIDED ONLY WITHIN THE SUPPLEMENTAL NOTES.
4. ALL SAFETY STANDARDS AND REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND COMPLIED WITH AS SET FORTH BY OSHA.
5. EXISTING UTILITIES SHALL BE LOCATED BY CONTACTING CALL BEFORE YOU DIG AT 811, AT LEAST 2 BUSINESS DAYS PRIOR TO STARTING ANY EXCAVATIONS. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANIES PRIOR TO STARTING WORK NEAR ANY FACILITIES AND SHALL COORDINATE THEIR WORK WITH COMPANY REPRESENTATIVES. DISCREPANCIES BETWEEN LOCATES AND PLAN SET SHOULD BE REVIEWED WITH PROJECT ENGINEER PRIOR TO EXCAVATION.
6. WORK SHALL NOT BEGIN PRIOR TO THE DATE AGREED UPON IN THE EXECUTED NOTICE TO PROCEED.
7. ALL INSPECTIONS SHALL BE SCHEDULED WITH A MINIMUM 24-HOUR NOTICE PRIOR TO TESTING UNLESS OTHERWISE NOTED IN THE IN THE INDIVIDUAL PROJECT SPECIFICATIONS.
8. AN APPROVED SET OF THE CONTRACT DOCUMENTS SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
9. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS, AND ALL OTHER PUBLIC RIGHTS-OF-WAY IN A CLEAN, SAFE AND USEABLE CONDITION. ALL SOIL, ROCK, OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION, AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY; PRIVATE OR PUBLIC, SHALL BE MAINTAINED IN A CLEAN, SAFE AND USEABLE CONDITION.
10. EXISTING PROPERTY CORNERS OR SURVEY MONUMENTS SHALL BE PROTECTED DURING THE COURSE OF CONSTRUCTION. ANY DAMAGED OR OBLITERATED CORNERS OR MONUMENTS SHALL BE RE-ESTABLISHED BY PROFESSIONAL SURVEYORS, LICENSED TO WORK IN THE STATE OF IDAHO, PRIOR TO FINAL ACCEPTANCE.
11. TREES NOT IDENTIFIED FOR REMOVAL SHALL BE PRESERVED OR PROTECTED IN AN APPROVED MANNER PRIOR TO COMMENCEMENT OF GRADING OPERATIONS.
12. THE ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION, AND AS NECESSARY DURING THE COURSE OF THE PROJECT. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THESE PLANS, AND THE "CATALOG OF STORM WATER BEST MANAGEMENT PRACTICES FOR IDAHO CITIES AND COUNTIES" AS PREPARED BY THE IDAHO DIVISION OF ENVIRONMENTAL QUALITY.
13. ALL PROJECTS HAVING THE POTENTIAL FOR RUNOFF DISCHARGE TO ANY SURFACE WATER BODY, SHALL FILE A NOTICE OF INTENT (NOI), WITH THE EPA. COPIES OF ANY REQUIRED STORM WATER POLLUTION PREVENTION PLANS (SWPPP) OR NOI SHALL BE PROVIDED TO THE PROJECT ENGINEER ON RECORD PRIOR TO START OF CONSTRUCTION.
14. ALL CONCRETE, UNLESS OTHERWISE SPECIFIED, SHALL BE COMMERCIAL GRADE PORTLAND CEMENT WITH AIR ENTRAINMENT (6.5% +/- 1.5%), AND A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
15. ALL UNDERGROUND UTILITY LATERALS SHALL BE INSTALLED AND APPROVED BEFORE CONSTRUCTION OF CURBS, CROSS GUTTERS, SIDEWALKS OR THE SURFACING OF STREETS.
16. SURFACE RESTORATION OF ROADWAY CUTS SHALL COMPLY WITH THE CITY'S ROADWAY CUT POLICY. PERMANENT ROADWAY PATCHING SHALL BE PLACED WITHIN 7 DAYS OF THE INITIAL ROADWAY CUT. TEMPORARY PATCHING THAT UTILIZES A MINIMUM OF 2 INCHES OF ASPHALT CONCRETE (COLD MIX) SHALL BE PLACED WITHIN 24 HOURS OF THE INITIAL ROADWAY CUT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL TEMPORARY PATCHING AND SHALL WARRANT ALL PERMANENT PATCHING FOR A PERIOD OF 2 YEARS.
17. ALL TRENCHES AND ROADWAY CUTS WITHIN PUBLIC EASEMENTS OR RIGHTS-OF-WAY SHALL BE COMPACTED IN ACCORDANCE WITH CITY OF MOSCOW STANDARD CONSTRUCTION SPECIFICATIONS. COMPACTION TEST RESULTS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO ANY PAVING AND FINAL ACCEPTANCE OF WORK.
18. ALL OPERATIONS CONDUCTED ON THE PREMISES SHALL BE RESTRICTED TO THE HOURS BETWEEN 7:00 A.M. AND 7:00 P.M., UNLESS OTHERWISE APPROVED BY THE CITY. THIS INCLUDES THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT OR ANY OTHER ASSOCIATED EQUIPMENT.
19. ALL IMPROVEMENTS SHALL BE JOINED OR MATCHED IN A MANNER SATISFACTORY TO THE PROJECT ENGINEER. THIS INCLUDES ALL UTILITY CONNECTIONS AND NECESSARY SAW CUTTING, REMOVAL, REPLACEMENT, EXTENSION, AND CAPPING ASSOCIATED WITH CURB AND GUTTER, SIDEWALKS, SWALES, ASPHALT, CONCRETE OR OTHER PAVING.
20. COPIES OF DAILY REPORTS AND TEST RESULTS SHALL BE MADE AVAILABLE TO THE ENGINEER FOR REVIEW ON A WEEKLY BASIS, FAILURE TO PROVIDE REPORTS MAY RESULT IN SUSPENSION OF CONSTRUCTION. PROJECT CERTIFICATION AND AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL, IN ACCORDANCE WITH THE M.U.T.C.D., CURRENT EDITION. AT LEAST 72 HOURS PRIOR TO DISRUPTION OF ANY TRAFFIC, TRAFFIC CONTROL PLANS AND A CITY ROAD CLOSURE APPLICATION SHALL BE PREPARED AND SUBMITTED TO THE CITY ENGINEERING DIVISION FOR APPROVAL. NO WORK SHALL COMMENCE UNTIL A PERMIT IS ISSUED AND ALL APPROVED TRAFFIC CONTROL IS IN PLACE.
22. ALL DISTURBED AREAS OF THE PUBLIC RIGHTS-OF-WAY SHALL BE TOP COATED WITH A MINIMUM OF 1 INCH OF TOPSOIL AND SEEDED. CONTRACTOR SHALL UTILIZE SEEDING REQUIREMENTS NOTED IN THE CITY OF MOSCOW'S STANDARD CONSTRUCTION SPECIFICATIONS, SECTION ES-28, SEEDING, FOR TYPE, APPLICATION, ETC. CONTRACTOR RESPONSIBLE FOR COORDINATION WITH THE CITY TO DETERMINE SEED MIX FOR THE TRAIL PATHWAY AND NATIVE SEED AREAS NOTED IN THE PLANS.

DOMESTIC WATER

1. WATER MAINS UP TO 12 INCHES IN DIAMETER SHALL BE PVC AWWA C905, DR 18 PIPE AND SHALL UTILIZE GATE VALVES. WATER MAINS GREATER THAN 12 INCHES IN DIAMETER SHALL UTILIZE C900, DR 18 PIPE AND SHALL UTILIZE BUTTERFLY VALVES. ALL WATER MAINS SHALL BE CONSTRUCTED WITH THE TOP OF PIPE 4.5 FEET BELOW FINISH GRADE, EXCEPT WHERE OTHERWISE INDICATED WITH SPECIFIC ELEVATIONS AND APPROVED BY THE PROJECT ENGINEER. WATER SERVICES SHALL BE CONSTRUCTED OF POLYETHYLENE TUBING CONFORMING TO AWWA C901, 250 PSI LOCATED AND SIZED AS SHOWN ON THE CONSTRUCTION PLANS.
2. 48 HOURS PRIOR TO DISRUPTION, SHUT-OFF OR CONNECTION TO EXISTING WATER SYSTEMS; THE CONTRACTOR SHALL INFORM AND RECEIVE APPROVAL FROM THE ENGINEER. ANY CONNECTION POINTS SHALL BE EXPOSED AT LEAST 24 HOURS PRIOR TO CONNECTION, TO VERIFY LOCATION AND FITTING REQUIREMENTS.
3. AT LEAST 24 HOURS PRIOR TO SHUT-OFF, THE CONTRACTOR SHALL NOTIFY ALL AFFECTED PROPERTIES UTILIZING FLYERS, DOOR HANGERS OR LETTERS. NOTIFICATIONS SHALL CONTAIN AT A MINIMUM, DATE AND TIME OF SHUTOFF, ANTICIPATED DURATION, CONTRACTOR'S NAME AND PHONE NUMBER, AND AN EMERGENCY CONTACT PERSON AND PHONE NUMBER. A COPY OF THE NOTIFICATION SHALL BE PROVIDED TO THE ENGINEER AND CITY ENGINEERING DIVISION.
4. NO CONNECTIONS FOR THE PURPOSE OF OBTAINING WATER SUPPLY DURING CONSTRUCTION SHALL BE MADE, WITHOUT FIRST OBTAINING A PERMIT FROM THE CITY WATER DIVISION.
5. ANY AND ALL FITTINGS OR APPURTENANCES REMOVED FROM THE CITY OF MOSCOW'S WATER LINES, AS PART OF THE PROJECT, SHALL BE SALVAGED AND RETURNED TO THE CITY OF MOSCOW WATER DEPARTMENT BY THE CONTRACTOR.
6. ALL WATER MAINS AND SERVICES SHALL BE INSTALLED WITH CONTINUOUS TRACER WIRE AND PLASTIC MARKER TAPE. PLASTIC MARKER TAPE SHALL BE INSTALLED 2 FEET ABOVE THE WATER MAIN. TRACER WIRE SHALL BE INSTALLED ALONG THE TOP OF THE WATER MAIN AND SHALL BE TESTED PRIOR TO SUB-GRADE APPROVAL.
7. ALL WATER MAINS SHALL BE SEPARATED AT LEAST TEN FEET HORIZONTALLY FROM SANITARY OR STORM SEWER SYSTEMS. CROSSING OF WATER MAINS AND SEWER SYSTEMS SHALL HAVE A MINIMUM 18-INCH VERTICAL SEPARATION, WITH THE WATER MAIN BEING CENTERED OVER THE SEWER. ANY ANTICIPATED SEPARATION DIFFERING FROM THE MINIMUM STANDARDS CONTAINED HEREIN, SHALL CONFORM TO THE IDAHO RULES FOR WASTE WATER (IDAPA 58.01.16).
8. ALL THRUST BLOCKING SHALL BE FORMED IN PLACE AGAINST UNDISTURBED OR COMPACTED SOIL, AND CONFORM TO THE MINIMUM DIMENSIONS SHOWN IN DETAIL 1, SHEET C5.0. THE USE OF PRE-CAST THRUST BLOCKS IS PROHIBITED. ALL BOLTS AND NUTS SHALL BE FREE OF CONCRETE AND ACCESSIBLE BY WRENCH.
9. ALL WATER MAINS, FIRE MAINS, VALVES, FIRE HYDRANTS, SERVICES AND APPURTENANCES SHALL BE INSTALLED, HYDROSTATIC TESTED AT 150PSI FOR A MINIMUM OF 2 HOURS, BACTERIA TESTED, AND APPROVED, IN ACCORDANCE WITH REFERENCED STANDARDS IN THE GENERAL NOTES AND CITY REQUIREMENTS, PRIOR TO PAVING. RESULTS OF CHLORINATION AND BACTERIA TESTS SHALL BE SUBMITTED TO THE ENGINEER, PRIOR TO OPERATING VALVES TO PUT NEW MAINS INTO SERVICE.
10. ALL WATER MAIN TAPS SHALL BE A MINIMUM OF 16 INCHES APART AND 16 INCHES FROM THE BELL AND STAB ENDS OF THE PIPES.

SANITARY SEWER

1. SANITARY SEWER MAINS UP TO 15-INCH DIAMETER SHALL BE PVC, ASTM D 3034, SDR 35 WITH FLEXIBLE GASKETED JOINTS. SEWER SERVICE CONNECTIONS SHALL BE MADE BY A TAP TO AN EXISTING MAIN, OR A TEE BRANCH FROM A NEW MAIN CONNECTED ABOVE THE SPRING LINE OF THE PIPE. SERVICE CONNECTIONS LESS THAN 45 ABOVE HORIZONTAL SHALL BE ALLOWED ONLY WHEN APPROVED BY THE PROJECT ENGINEER, AND AT THOSE LOCATIONS INDICATED ON THE PLANS. SERVICE CONNECTIONS TO MANHOLES ARE PROHIBITED.
2. FORCE MAINS SHALL BE HDPE DR-9 PIPE. ALL FORCE MAINS SHALL BE CONSTRUCTED TO THE LINE AND GRADE INDICATED ON THE APPROVED PLANS, AND HAVE A MINIMUM BURY OF 4.5 FEET TO THE TOP OF THE PIPE FROM FINISH GRADE. FORCE MAINS SHALL BE HYDROSTATICALLY TESTED PER ISPWC, SECTION 401.
3. FORCE MAINS SHALL BE INSTALLED WITH CONTINUOUS TRACER WIRE AND PLASTIC MARKING TAPE. TRACER WIRE MUST BE TERMINATED IN A PLACE ACCESSIBLE FOR FUTURE ACCESS. TRACER WIRE SHALL BE TESTED PRIOR TO SUB GRADE APPROVAL, LOCATING BALLS SHALL BE PLACED AT EACH BEND.
4. SEWER SERVICES SHALL BE SIZED AS SHOWN ON THE CONSTRUCTION PLANS, AND FIELD STAKED FOR GRADE AND ALIGNMENT. A MINIMUM INVERT DEPTH OF 5 FEET BELOW TOP OF CURB AT THE PROPERTY LINE IS REQUIRED, AS-BUILT PLANS SHALL SHOW SERVICES WITH STATIONING, OFF-SET AND DEPTH.
5. SEWER SERVICES SHALL BE AT RIGHT ANGLES TO THE SEWER MAIN, EXCEPT IN CUL-DESACS OR STREET KNUCKLES.
6. DISRUPTION OF EXISTING SEWER SERVICES WHILE MAKING CONNECTION TO EXISTING MAINS IS PROHIBITED, WITHOUT THE WRITTEN APPROVAL OF THE CITY.
7. ALL SEWER MAINS SHALL BE MARKED WITH CONTINUOUS PLASTIC MARKING TAPE. THE ENDS OF ALL SERVICES SHALL BE MARKED WITH A MARKER INDICATING THE DEPTH OF BURY TO THE NEAREST INCH, AND A LOCATING BALL.
8. ALL PUBLIC SEWER LINES SHALL BE VIDEO INSPECTED, AND AN ELECTRONIC COPY ALONG WITH A TRANSCRIPT SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. PAVING SHALL NOT PROGRESS WITHOUT THE PROJECT ENGINEER'S APPROVAL.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF ANY DEBRIS WITHIN NEWLY CONSTRUCTED PIPES, OR THEIR CONNECTIONS TO EXISTING SYSTEMS. ALL LINES AND MANHOLES SHALL BE CLEANED AND INSPECTED PRIOR TO PAVING. HYDRANT FLUSHING OF SEWERS IS NOT AN ACCEPTABLE MEANS OF CLEANING. ANY DOWNSTREAM MANHOLES FROM FLUSHING SHALL BE PLUGGED AND THE FLUSHING WATER AND DEBRIS SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED SITE. FLUSHING WATER AND DEBRIS SHALL NOT BE ALLOWED TO ENTER EXISTING SEWER INFRASTRUCTURE.
10. ALL SEWER MAINS SHALL BE AIR TESTED IN ACCORDANCE WITH ISPWC, SECTION 501.
11. ALL THRUST BLOCKING SHALL BE FORMED IN PLACE AGAINST UNDISTURBED OR COMPACTED SOIL, AND CONFORM TO THE MINIMUM DIMENSIONS SHOWN IN DETAIL 1, SHEET C5.0. THE USE OF PRE-CAST THRUST BLOCKS IS PROHIBITED. ALL BOLTS AND NUTS SHALL BE FREE OF CONCRETE AND ACCESSIBLE BY WRENCH.
12. ALL SANITARY SEWER MAINS SHALL BE SEPARATED A MINIMUM OF 10 FEET HORIZONTALLY FROM DOMESTIC WATER LINES. CROSSINGS OF WATER MAINS AND SEWER SYSTEMS SHALL HAVE A MINIMUM 18-INCH VERTICAL SEPARATION WITH THE WATER MAIN BEING CENTERED OVER THE SANITARY SEWER. ANY ANTICIPATED SEPARATION DIFFERING FROM THE MINIMUM STANDARDS CONTAINED HEREIN SHALL CONFORM TO THE IDAHO RULES FOR WASTE WATER, (IDAPA 58.01.16)
13. THE INTERNAL COATING OF SEWER FORCE MAIN FITTINGS SHALL BE 40 MILS OF PROTECTO 401 CERAMIC EPOXY COATING AS MANUFACTURED BY PACIFIC STATES CAST IRON PIPE CO. OR AN APPROVED EQUAL.
14. FOR FORCE MAINS THAT HAVE LARGER THAN A 12-INCH DIAMETER, PLUG VALVES SHALL BE UTILIZED, FOR FORCE MAINS THAT HAVE A 12-INCH DIAMETER OR LESS, GATE VALVES SHALL BE UTILIZED, UNLESS OTHERWISE NOTED.
15. ALL SEWER FORCE MAIN LINES SHALL BE TESTED IN ACCORDANCE WITH ISPWC DIVISION 500 AND AWWA C651-05 UNLESS OTHERWISE NOTED ON PLANS.
16. CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A PRESSURE TESTING PLAN, INCLUDING ANY TEMPORARY CONNECTIONS, VALVES, AND FITTINGS, SOURCE OF WATER AND OTHER RELATED ITEMS NEEDED TO COMPLETE PRESSURE TESTING AND DISINFECTION.
17. CONTRACTORS METHODS SHALL ENSURE THE RELEASE OF ALL AIR FROM THE PIPING PRIOR TO START OF PRESSURE TESTING.
18. CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS IN ADVANCE OF EXPECTED PRESSURE TESTING AND SHALL PROVIDE SEGMENTS TO BE TESTED TO ENGINEER. IF ENGINEER ARRIVES ON SITE FOR EXPECTED PRESSURE TEST AND TEST IS NOT READY, CONTRACTOR WILL BE RESPONSIBLE FOR PAYMENT OF ENGINEERS TIME.
19. CONTRACTOR SHALL SUBMIT A TESTING PLAN FOR APPROVAL TO OWNER AND ENGINEER PRIOR TO TESTING. PRESSURE TEST SHALL CONSIST OF PRESSURIZING SEWER FORCE MAINS TO 150 PSI. PROJECT REPRESENTATIVE ENGINEER SHALL WITNESS TEST FOR 2 HRS MINIMUM. ALLOWABLE LEAKAGE IS AS DETERMINED FROM THE BELOW FORMULA FROM THE MOST CURRENT EDITION OF ISPWC.

19.1. ALLOWABLE LEAKAGE FORMULA:

Q =(LD√P)/148000

Q = ALLOWABLE LEAKAGE IN GALLONS PER HOUR

L = LENGTH OF PIPE SECTION BEING TESTED, IN FT.

D = NOMINAL DIAMETER OF PIPE BEING TESTED, IN IN.

P = AVERAGE TEST PRESSURE DURING THE HYDROSTATIC TEST, IN POUNDS PER SQUARE IN (PSI)

EROSION CONTROL PLAN NOTES

1. THE EROSION CONTROL PLAN IS NOT TO BE USED AS A GRADING PLAN BUT IS INTENDED FOR USE AS AN EROSION AND SEDIMENT CONTROL PLAN ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE SAFETY LAWS OF ANY JURISDICTIONAL BODY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL BARRICADES, SAFETY DEVICES, AND TRAFFIC CONTROL WITHIN AND AROUND THE CONSTRUCTION AREA.
2. THE ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF EROSION AND SEDIMENTATION CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION, AND AS NECESSARY DURING THE COURSE OF THE PROJECT. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THESE PLANS, AND THE "CATALOG OF STORM WATER BEST MANAGEMENT PRACTICES FOR IDAHO CITIES AND COUNTIES" AS PREPARED BY THE IDAHO DIVISION OF ENVIRONMENTAL QUALITY.
3. SITE SHALL BE GRADED AFTER DISTURBANCE TO ENSURE STORMWATER RUNOFF DOES NOT LEAVE THE SITE WHERE POSSIBLE.
4. NOTIFY THE ENGINEER A MINIMUM OF 48-HOURS PRIOR TO COMMENCEMENT OF INSTALLATION OF EROSION CONTROL DEVICES.
5. ALL NECESSARY ACTION SHALL BE TAKEN TO MINIMIZE DEPOSITING AND TRACKING OF MUD, DIRT, SAND, GRAVEL, ROCK OR DEBRIS ON TO THE PUBLIC RIGHT OF WAY.
6. DUST CONTROL SHALL BE CONTINUOUSLY MONITORED AND ABATED USING WATER OR MAGNESIUM CHLORIDE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CLEAN-UP OF THE PUBLIC RIGHTS OF WAY OR ADJACENT PRIVATE PROPERTY FROM ANY TRACKING OR DEPOSITING OF MUD, DIRT, SAND, GRAVEL, ROCK OR DEBRIS.
8. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE TO REMAIN IN PLACE AFTER FINAL INSPECTION. CONTRACTOR TO ENSURE ALL EROSION AND SEDIMENT CONTROL MEASURES ARE PROPERLY MAINTAINED AND LEFT IN GOOD WORKING ORDER. ALL TRAPPED SEDIMENT BEHIND STRAW WATTLES IS TO BE REMOVED BEFORE FINAL INSPECTION.
9. ALL DISTURBED AREAS ARE TO BE COVERED IN STRAW MULCH, EROSION CONTROL BLANKET OR HYDROMULCH AS SPECIFIED AFTER BACKFILL AND COMPACTION IS COMPLETED.
10. CONTRACTOR SHALL NOT SWEEP OR FLUSH SEDIMENT OR DEBRIS INTO ANY EXISTING STORM DRAIN FACILITIES.
11. AT A MINIMUM, THE CONTRACTOR SHALL INSPECT THE SITE BEFORE AND AFTER STORM EVENTS AND AT 24 HOUR INTERVALS DURING EXTENDED STORMS. THE EROSION AND SEDIMENT CONTROL PLAN PERMIT MAY REQUIRE ADDITIONAL INSPECTIONS.
12. CONTRACTOR SHALL CONFORM TO ALL GUIDELINES SET FORTH IN THE CONSTRUCTION SWPPP DOCUMENT.

MASS GRADING AND GEOTECHNICAL NOTES

1. ALL CUTS AND FILLS SHALL BE CONFINED TO THE LIMITS INDICATED WITHIN THE APPROVED GRADING PLANS.
2. THE CONTRACTOR SHALL INSURE THAT ALL TEMPORARY SLOPES ARE STABLE AND THAT APPROPRIATE EROSION MEASURES ARE IN PLACE AND MAINTAINED.
3. GROUNDWATER OR UNANTICIPATED GEOLOGIC CONDITIONS SHALL BE REPORTED TO THE ENGINEER FOR ASSESSMENT AND RECOMMENDATIONS.
4. ALL COMPACTION EFFORTS SHALL BE MONITORED AND TESTED BY AN EXPERIENCED SOILS TECHNICIAN, UNDER THE SUPERVISION OF A LICENSED GEOTECHNICAL ENGINEER .
5. ALL MASS GRADING SHALL BE MONITORED, TESTED, AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER (GEOTECHNICAL ENGINEER).
6. CONTRACTOR IS TO NOTIFY THE ENGINEER OF RECORD 48 HOURS PRIOR TO EACH AND EVERY START OR STOPPING OF CONSTRUCTION, EACH TIME A LIFT OF GRADING IS READY FOR INSPECTION, AND EACH AND EVERY TIME THE CONTRACTOR IS REQUESTING GRADING INSPECTION FROM CITY. FAILURE TO NOTIFY MAY RESULT IN CONTRACTOR REMOVING ANY MATERIAL THAT HAS NOT BEEN INSPECTED.
7. ALL AREAS SHALL BE STRIPPED OF ORGANIC TOP SOIL AND NON-ENGINEERED FILL; IN ADDITION TO ALL BRUSH, STUMPS, AND ROOTS. ONSITE DISPOSAL OF ORGANIC MATERIALS IS NOT ALLOWED. THE ENGINEER SHALL REVIEW AND APPROVE ALL STRIPPED AND CLEARED AREAS PRIOR TO PLACEMENT OF FILL. PRIOR TO PLACING FILL, THE CLEARED AREAS SHALL BE SCARIFIED AND COMPACTED.
8. FILLS SHALL CONSIST OF WELL GRADED SANDS AND GRAVELS, WITH A MAXIMUM PARTICLE SIZE OF SIX INCHES, AND NO MORE THAN 20% PASSING THE NO. 200 SIEVE. THE ENGINEER SHALL PRE-APPROVE ALL IMPORT SOIL SOURCES.
9. BOULDERS AND COBBLES GREATER THAN 6 INCHES APPEARING IN THE EXCAVATION TO A DEPTH OF AT LEAST 4 INCHES BELOW SUBGRADE SHALL BE REMOVED.
10. ALL FILL MATERIAL SHALL BE DRIED OR MOISTENED TO WITHIN 3% OF THE OPTIMUM MOISTURE, PRIOR TO PLACEMENT. LIFTS SHALL NOT EXCEED EIGHT INCHES. ALL FILL SHALL BE COMPACTED TO AT LEAST 90% OF MODIFIED PROCTOR (ASTM D-1557, AASHTO T-180), WITH THE TOP 12 INCHES WITHIN THE ROADWAY PRISM COMPACTED TO 95% OF THE MODIFIED PROCTOR. MATERIAL TOO COARSE TO TEST PER THE SPECIFIED STANDARDS SHALL BE PLACED IN CONTROLLED LIFTS UNDER A PERFORMANCE BASED METHOD, AS OUTLINED WITHIN ISPWC.
11. EMBANKMENTS SHALL NOT BE CONSTRUCTED ON FROZEN OR SNOW-COVERED FOUNDATIONS, OR WITH THE USE OF FROZEN MATERIALS.
12. EMBANKMENTS CONSTRUCTED ON SLOPES GREATER THAN 5 HORIZONTAL TO 1 VERTICAL (5:1) SHALL BE KEYED INTO THE UNDISTURBED GROUND WITH HORIZONTAL BENCHES OF SUFFICIENT WIDTH TO ALLOW FOR THE PROPER OPERATION OF COMPACTION EQUIPMENT.
13. IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE ENGINEER OF RECORD SHALL BE IMMEDIATELY NOTIFIED IN ORDER TO PROVIDE GUIDANCE TO CONTRACTOR.

DEMOLITION NOTES:

1. ALL DEMOLITION WORK TO BE PERFORMED WITH NO DAMAGE TO REMAINING BUILDING, PIPING AND STRUCTURE.
2. ALL REMOVED MATERIAL AND DEBRIS SHALL BE DISPOSED OF IN A LEGAL MANNER.
3. WHERE ELECTRICAL IS TO BE ABANDONED, REMOVE WIRE AT PANEL/SOURCE.
4. CONTRACTOR TO COORDINATE WITH OWNER TO DETERMINE WHAT MATERIAL TO SALVAGE. CONTRACTOR TO SALVAGE AND DELIVER TO THE CITY THE ITEMS INDICATED ON THE DEMOLITION PLAN SHEET C2.0.
5. PROVIDE SIMILAR PRODUCT AND TYPE OF FINISH AS SPECIFIED TO PATCH, EXTEND OR MATCH EXISTING STRUCTURES AFFECTED BY DEMOLITION PROCESS.
6. SCRAP METALS, PIPING, VALVES, AND APPURTENANCES LISTED ON THE DEMOLITION PLAN, EXCEPT FOR ANY AND ALL DOMESTIC WATER FITTINGS AND APPURTENANCES, ARE THE PROPERTY OF THE CONTRACTOR AND ALL SCRAP VALUE IS TO BE THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE WRITTEN ON THE PLANS. ALL COSTS ASSOCIATED WITH DISPOSAL ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.

STREET NOTES

1. ALL FILL PLACED WITHIN THE ROADWAY PRISM SHALL BE COMPACTED TO 90% OF THE MODIFIED PROCTOR, WITH THE EXCEPTION OF THE TOP 12 INCHES OF SUB-GRADE THAT SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR (ASTM D-1557).
2. PRIOR TO PLACING BASE MATERIAL, THE FOLLOWING SHALL BE COMPLETED:
   A. ALL PUBLIC UTILITIES SHALL BE INSTALLED, TESTED AND APPROVED.
   B. THE LINE AND GRADE OF THE SUB-GRADE SHALL BE INSPECTED AND APPROVED.
   C. OBTAIN AUTHORIZATION FROM THE ENGINEER OF RECORD TO PROCEED WITH PLACEMENT OF BASE MATERIAL. THE ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO PLACEMENT OF BASE MATERIAL.
3. CRUSHED AGGREGATE BASE SHALL CONFORM TO THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION, SECTION 802, (TYPE 1) ¾-INCH MAXIMUM AGGREGATE SIZE, AND SHALL BE COMPACTED TO THE FOLLOWING SPECIFICATIONS:
   A. ROADWAY: 95%-MODIFIED PROCTOR.
   B. CURB BASE AND DRIVEWAY APPROACHES: 92%-MODIFIED PROCTOR.
   C. SIDEWALKS OR TRAILS: 90%-MODIFIED PROCTOR.
4. PRIOR TO PLACING ASPHALT CONCRETE, THE FOLLOWING SHALL BE COMPLETED:
   A. THE CONTRACTOR SHALL CERTIFY AND PROVIDE COMPACTION TEST RESULTS FOR BASE MATERIAL TO THE ENGINEER.
   B. ALL UTILITIES SHALL BE ADJUSTED TO GRADE AND THICKENED COLLARS INSTALLED.
   C. OBTAIN AUTHORIZATION FROM THE ENGINEER OF RECORD TO PROCEED WITH ASPHALT PAVING. THE ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO PLACEMENT OF ASPHALT PAVEMENT.
5. ASPHALT PAVEMENT SHALL CONFORM WITH IDAHO TRANSPORTATION DEPARTMENT (ITD) SPECIFICATIONS FOR SUPERPAVE. PAVEMENT SHALL BE SP3 PG 58-28 WITH ½" MAX AGGREGATE SIZE. PAVEMENTS WITH A SECTION OF 3" OR LESS MAY BE PLACED WITH 1 LIFT. PAVEMENTS WITH A SECTION GREATER THAN 3" SHALL BE PLACED WITH MULTIPLE LIFTS. MINIMUM LIFT THICKNESS OF 1.5" AND MAXIMUM THICKNESS OF 3".
6. NO ASPHALT SHALL BE PLACED ON WET OR FROZEN SURFACES, OR WHEN THE AIR OR GROUND TEMPERATURE IS LESS THAN 40°F, TOP COURSES OR PAVEMENT THICKNESS LESS THAN 2.5 INCHES SHALL NOT BE PLACED WHEN AIR OR GROUND TEMPERATURE IS LESS THEN 50°F, WITHOUT APPROVAL BY THE PROJECT ENGINEER.
7. A TACK COAT SHALL BE APPLIED TO ALL ADJACENT CURBS AND JOINTS, PRIOR TO PLACEMENT OF ASPHALTIC CONCRETE.
8. DURING PAVING OPERATIONS, THE ENGINEER OF RECORD SHALL OBSERVE PAVING OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR PERFORMING COMPACTION AND QUALITY CONTROL TESTING.
9. THE ENGINEER MAY REQUIRE THE PAVEMENT SECTIONS SHOWN ON THE PLANS TO BE VERIFIED BY "R" VALUE TESTS TAKEN FROM EXPOSED SUB-GRADE.
10. EXTRACTION, CORING, AND GRADATION TESTS MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER TO VERIFY PAVEMENT THICKNESS, COMPACTION, AND OR TO VERIFY COMPLIANCE OF MATERIALS TO SPECIFICATIONS.
11. FORMS, SUB-GRADE AND STRING-LINE INSPECTION IS REQUIRED PRIOR TO POURING CONCRETE. A MINIMUM NOTICE OF 24 HOURS IS REQUIRED PRIOR TO INSPECTION.
12. CONCRETE SHALL NOT BE PLACED ON FROZEN SURFACES, ICE OR SNOW, OR SURFACES WITH A TEMPERATURE GREATER THAN 90F. UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER, CONCRETE PLACEMENT SHALL BE DISCONTINUED WHEN AIR TEMPERATURES REACH 35F AND FALLING.
13. CURB AND GUTTER SHALL BE CONSTRUCTED WITH FULL DEPTH CONSTRUCTION EXPANSION JOINTS ADJACENT TO CATCH BASINS, AT COLD JOINTS, AND AT ALL RETURNS. WEAKENED PLANE JOINTS ARE REQUIRED EVERY 10 FEET.
14. SIDEWALKS SHALL BE CONSTRUCTED WITH FULL DEPTH EXPANSION JOINTS EVERY 20 FEET, AT COLD JOINTS, AND ADJACENT TO STRUCTURES. WEAKENED PLANE JOINTS SHALL BE LOCATED EVERY 5 FEET. JOINTS IN THE SIDEWALK SHALL BE ALIGNED WITH CURB JOINTS, AS NEARLY AS PRACTICAL.
15. CONTRACTOR SHALL RETAIN AND PROTECT ALL TREES NOT SPECIFICALL

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Y:\CDA\240380\01_CAD\SHEETS\CONSTRUCTION_DRAWINGS\240380_C_SURVEY CONTROL.DWG, 12/22/2025

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DIAL: 811

NOTE:
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN APPROXIMATELY ONLY PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ALL UTILITY COMPANIES OF THE CONSTRUCTION SCHEDULE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MAY OCCUR BY FAILURE TO EXACTLY LOCATE AND PROTECT ALL UTILITIES.

BASIS OF BEARING AND COORDINATES

THE BASIS OF BEARING AND COORDINATES FOR THIS SURVEY IS A MODIFIED NORTH AMERICAN DATUM OF 1983 (NAD83) 2011 ADJUSTMENT (EPOCH:2010) IDAHO STATE PLANE COORDINATE SYSTEM, WEST ZONE (ISPCSW) DERIVED USING A STATIC GPS MEASUREMENT PROCESSED THROUGH THE ONLINE POSITIONING USER SERVICE (OPUS) PROVIDED BY THE NATIONAL GEODEDIC SURVEY (NGS) AND REAL TIME KINEMATIC (RTK) GPS MEASUREMENTS. ALL BEARINGS SHOWN ARE GRID USING A CONVERGENCE ANGLE OF (-)0°47'39" CALCULATED AT GRID COORDINATES N: 2163871.04, E: 2359369.10, ALL DISTANCES SHOWN ARE GROUND DISTANCES. A COMBINED ADJUSTMENT FACTOR (CAF) OF 1.000067745 (CALCULATED AT THE ABOVE GRID COORDINATES AND AT AN ELEVATION OF 2130') WAS USED TO CONVERT GRID COORDINATES TO GROUND COORDINATES AND APPLIED AT THE 0,0 ORIGIN. THE FOLLOWING NGS NETWORK STATIONS WERE USED IN PROCESSING THE GPS MEASUREMENTS.

PID	DESIGNATION	LATITUDE	LONGITUDE
DL7746	P422 FOOT_HILL_ID2007 CORS ARP	N46°47'52.298"	W116°58'46.803"
DL6886	LWST LEWISTON CORS ARP	N46°22'23.424"	W117°00'08.246"
DL7722	P025 BNDRY_AIR_ID 2007 CORS ARP	N48°43'51.632"	W116°17'14.982"

VERTICAL DATUM

THE ELEVATIONS SHOWN ON THIS SURVEY ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND GEOID 18 DERIVED USING A STATIC GPS OBSERVATION PROCESSED THROUGH ONLINE POSITION USER SERVICE (OPUS) PROVIDED BY THE NATIONAL GEODETIC SURVEY (NGS) WEBSITE USING THE SAME NGS NETWORK CONTROL STATIONS AS LISTED IN THE BASIS OF BEARING AND COORDINATES STATEMENT.

SURVEY CONTROL TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1849431.25	2303821.71	2545.01'	GPSS SET 3/8IN REBAR W/RPC TO ENG CONTROL
2	1849428.83	2303661.83	2544.66'	GPSS SET 3/8IN REBAR W/RPC TO ENG CONTROL
3	1849328.16	2303607.06	2540.98'	GPSS SET 3/8IN REBAR W/RPC TO ENG CONTROL
4	1849123.64	2303805.97	2558.67'	GPSS SET 3/8IN REBAR W/RPC TO ENG CONTROL
9	1849534.40	2303894.40	2546.16'	MAGNAIL AERIAL TARGET 9
10	1849527.73	2303553.65	2546.69'	MAGNAIL AERIAL TARGET 10

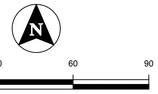
SURVEYOR'S CERTIFICATE

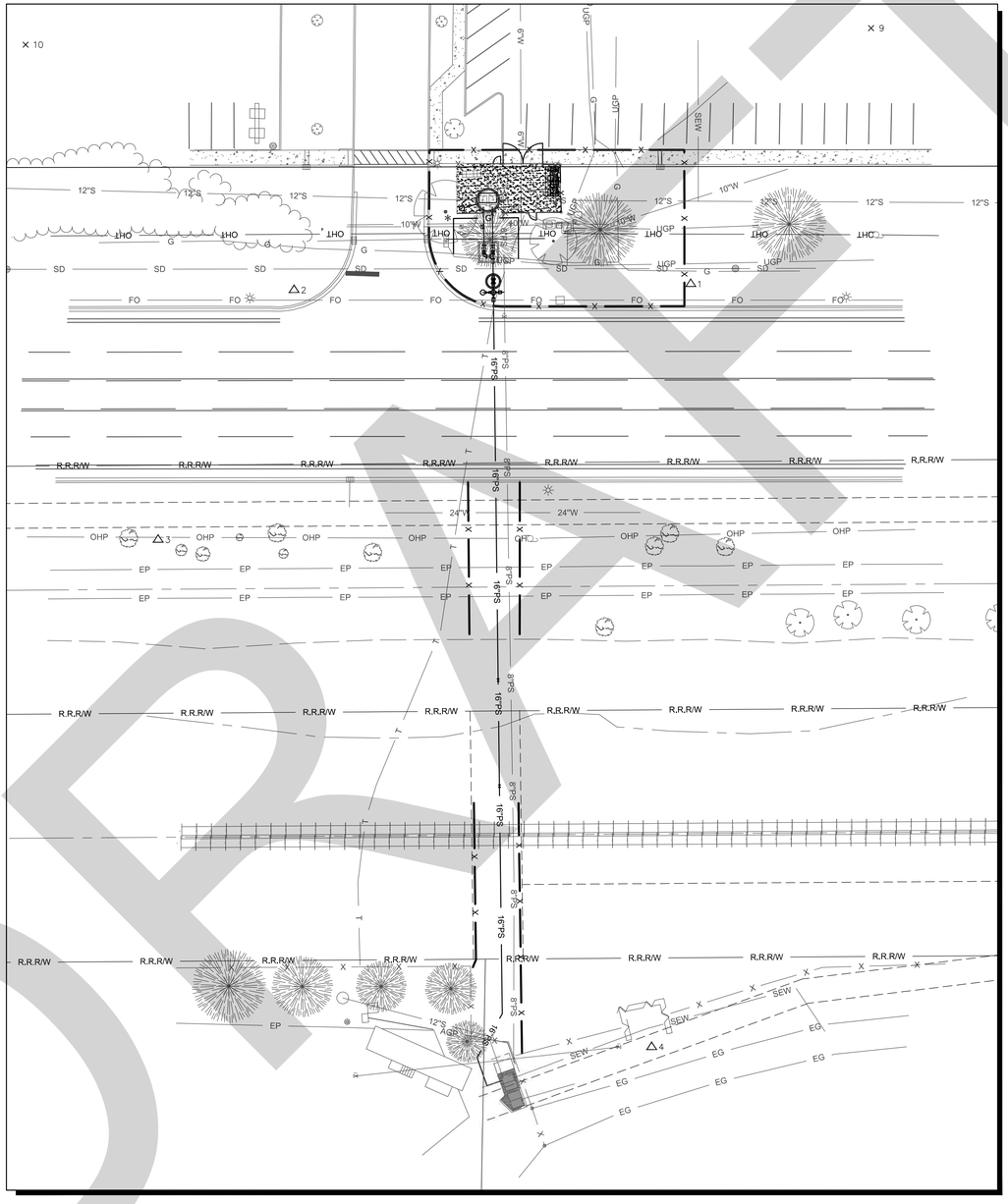
I, MICHAEL REYMANN, PROFESSIONAL LAND SURVEYOR No. 20917 IN THE STATE OF IDAHO, DO HEREBY CERTIFY THAT THE SURVEY DATA OF THE POINTS LISTED IN THE PROJECT CONTROL TABLE WERE COMPILED BY A SURVEY MADE BY ME OR UNDER MY SUPERVISION FOR THIS PROJECT TO COMPLY WITH IDAHO CODE §55-1613.

12/22/2025
DATE

MICHAEL REYMANN PLS 20917
MREYMANN@ARDURRA.COM

PROFESSIONAL LAND SURVEYOR LICENSED 20917 STATE OF IDAHO MICHAEL A. REYMANN





DRAFT

REVISIONS		
NO.	DESCRIPTION	DATE

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS
LIFT STATION REHABILITATION
SURVEY CONTROL

ATTENTION:
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" ON 22x34 SHEET or 1/2" ON 11x17 SHEET, THEN DRAWING IS NOT TO SCALE

DATE: December 2025
PROJECT: 240380
SHEET: C1.0

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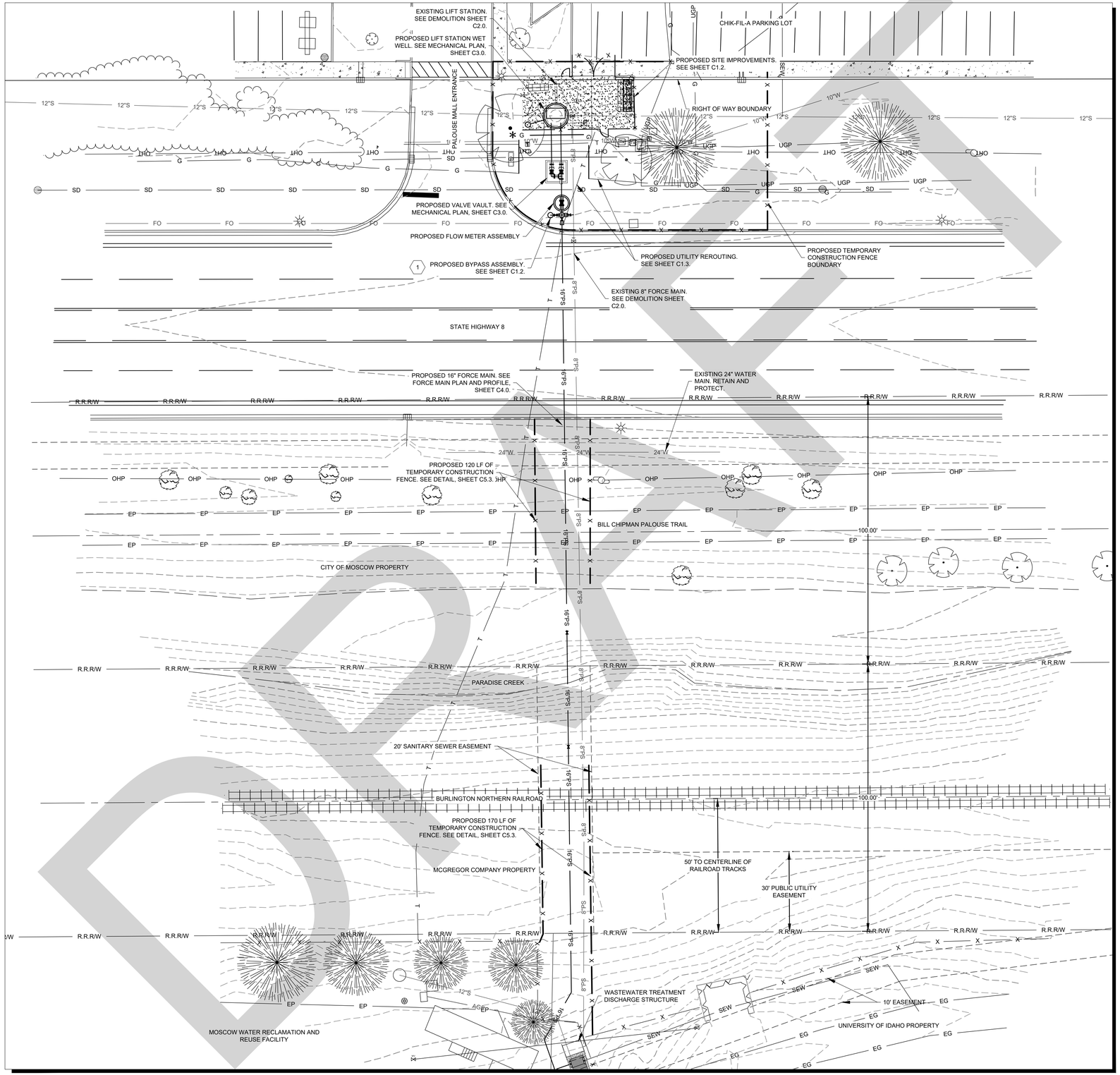
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N

0 10 20 40 60

GENERAL NOTES:

1. CONTRACTOR TO ADD A CONCRETE COLLAR TO ALL VALVES THAT ARE CONNECTED TO PROPOSED 12" CROSS FITTING.



PROFESSIONAL ENGINEER
REGISTERED
16087
12/23/2025
STATE OF IDAHO
ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

NO.	DESCRIPTION	DATE

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CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION

SITE OVERVIEW

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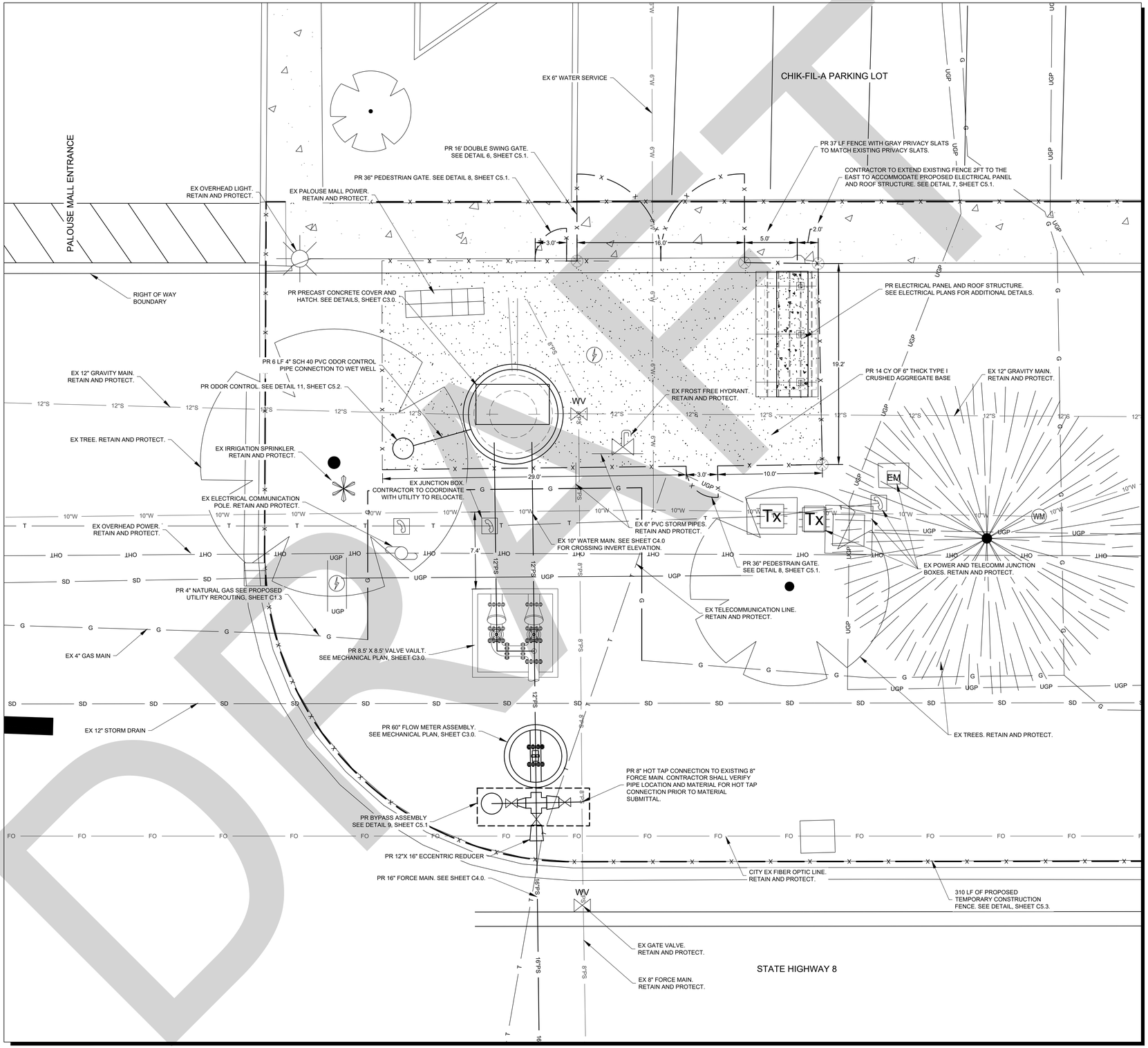
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N

0 3 5 10 15



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PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
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REVISIONS

NO.	DESCRIPTION	DATE

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CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION
PROPOSED SITE IMPROVEMENTS

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PROJECT:	240380
SHEET:	C1.2

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PRIOR TO COMMENCING
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DIAL: 811

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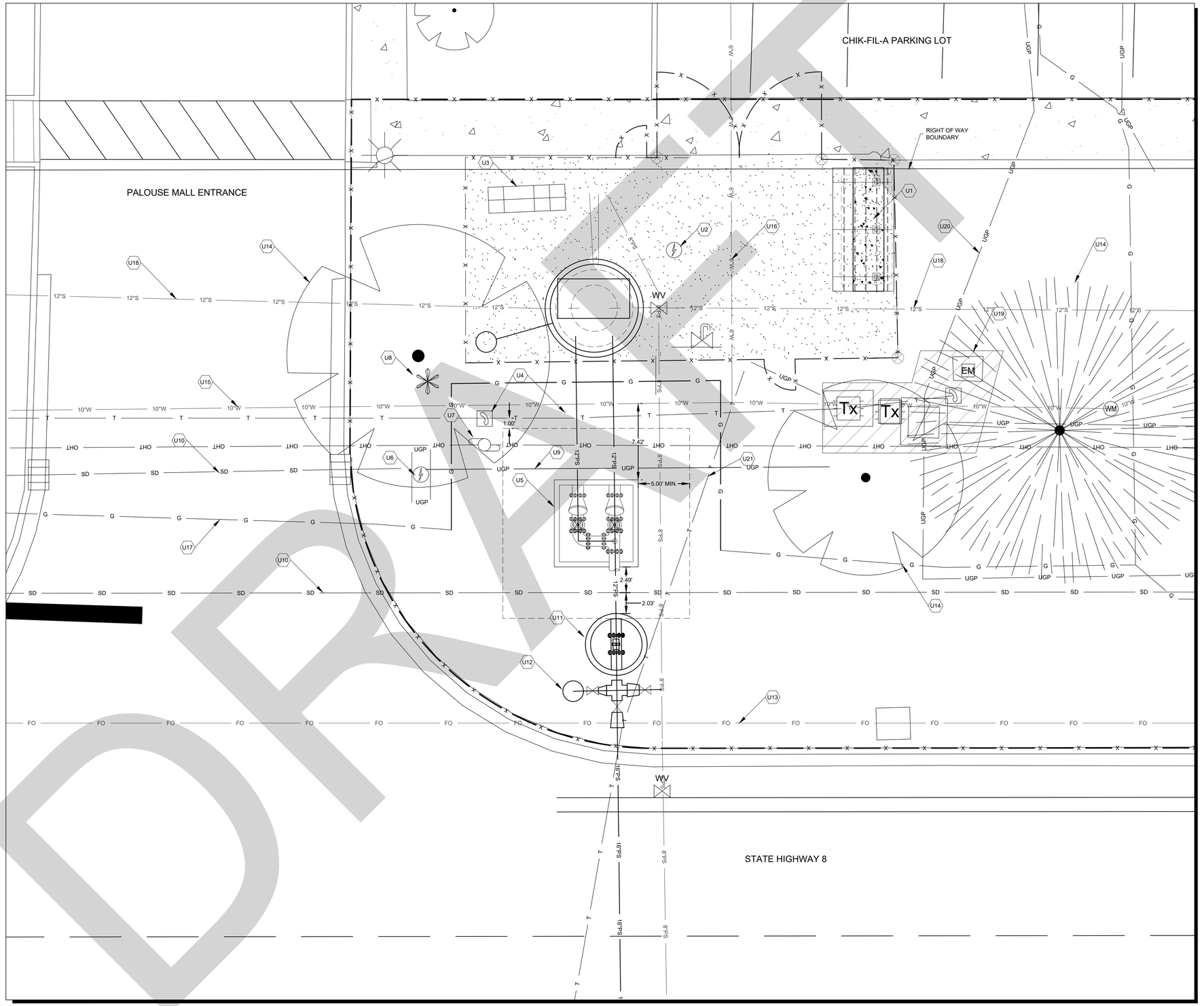
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GENERAL NOTES:

1. CONTRACTOR SHALL CALL 811 PRIOR TO COMMENCING ANY GROUNDWORK.
2. EXISTING UTILITIES AND UNDERGROUND PIPING ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFICATION OF ALL UTILITIES AND UNDERGROUND PIPING.
3. THE CONTRACTOR SHALL CONTACT AVISTA UTILITIES AT (1-800-277-9187) PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND STRUCTURES.
   - 3.1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATING ALL UTILITY-RELATED WORK WITH AVISTA UTILITIES. SUCH COORDINATION MUST OCCUR NO LATER THAN FOUR (4) WEEKS PRIOR TO THE COMMENCEMENT OF ANY WORK REQUIRING UTILITY INVOLVEMENT, IN ORDER TO PREVENT DELAYS TO THE PROJECT SCHEDULE.
   - 3.1. CONTRACTOR SHALL INSTALL NEW CONDUITS NORTH OF THE PROPOSED VALVE VAULT. SEE KEYNOTE U9 FOR CONDUIT DETAIL. CONDUIT SHALL BE INSTALLED AFTER VALVE VAULT HAS BEEN INSTALLED AND BACKFILLED. JUNCTION BOX WEST OF VALVE VAULT SHALL BE DE-ENERGIZED BY AVISTA PRIOR TO COMMENCING WORK. CONDUIT SHALL CONNECT POWER TO WEST JUNCTION BOX ONCE WORK IS COMPLETE.
   - 3.2. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE CODES, STANDARDS, AND AVISTA UTILITY REQUIREMENTS.

UTILITY KEYNOTES:

- U1 PR ELECTRICAL PANEL AND ROOF STRUCTURE. SEE ELECTRICAL PLANS FOR ADDITIONAL DETAILS.
- U2 EX UNDERGROUND POWER JUNCTION BOX. RETAIN AND PROTECT.
- U3 EX PALOUSE MALL POWER. RETAIN AND PROTECT.
- U4 EX TELECOMMUNICATION JUNCTION BOX. SEE ELECTRICAL PLANS FOR RELOCATION DETAILS.
- U5 PR VALVE VAULT, SEE MECHANICAL PLAN, SHEET C3.0.
- U6 EX ELECTRICAL JUNCTION BOX. RETAIN AND PROTECT.
- U7 EX ZIPLY COMMUNICATION POLE WITH OVERHEAD COMMUNICATION LINES. RETAIN AND PROTECT.
- U8 EX IRRIGATION SPRINKLER SYSTEM. RETAIN AND PROTECT. CONTRACTOR TO REPAIR IRRIGATION SYSTEM WHERE DAMAGED DURING CONSTRUCTION.
- U9 PR (3) 2" CONDUITS FOLLOWING INSTALLATION OF VALVE VAULT. CONTRACTOR TO REPLACE AND ABANDON IN PLACE EXISTING CONDUIT PER NEW CONDUIT CONFIGURATION PER AVISTA STANDARDS.
- U10 EX 12" STORM DRAIN. RETAIN AND PROTECT.
- U11 PR FLOW METER ASSEMBLY, SEE SHEET C3.0.
- U12 PR BYPASS ASSEMBLY, SEE SHEET C5.1.
- U13 EX CITY FIBER LINE. RETAIN AND PROTECT.
- U14 EX TREE. RETAIN AND PROTECT.
- U15 EX 10" WATER MAIN. CONTRACTOR TO MAINTAIN A MINIMUM OF 6-FT HORIZONTAL SEPARATION FROM VALVE VAULT. RETAIN AND PROTECT WATER MAIN AND SERVICES.
- U16 EX WATER SERVICE. RETAIN AND PROTECT.
- U17 EX 4" GAS MAIN. RETAIN AND PROTECT.
- U18 EX GRAVITY MAIN. RETAIN AND PROTECT.
- U19 EX POWER AND COMMUNICATION JUNCTION BOXES AND PULL BOXES. CONTRACTOR TO COORDINATE WITH ZIPLY AND AVISTA PRIOR TO CONSTRUCTION. RETAIN AND PROTECT BOTH ABOVE AND BELOW GROUND EXISTING UTILITIES.
- U20 EX UNDERGROUND POWER. RETAIN AND PROTECT.
- U21 EX POWER AND COMMUNICATION TO EXISTING LIFT STATION CONTROL PANEL. SEE ELECTRICAL PLANS.



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PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

NO.	DESCRIPTION	DATE
	REVISIONS	

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
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CITY OF MOSCOW

LIFT STATION REHABILITATION

PROPOSED UTILITY REROUTING

ATTENTION:
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DATE: December 2025
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DEMOLITION KEYNOTES

- D1 ABANDON IN PLACE EXISTING PREFABRICATED STEEL PUMP STATION DRY PIT. REMOVE EXISTING ELECTRICAL/CONTROL. REMOVE EXISTING SANTIARY SEWER PUMPS AND ALL MECHANICAL PIPING (2 TOTAL). CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT, INCLUDING PUMPS, ELECTRICAL/CONROL, LADDERS, CONDUITS, AND PIPING FROM EXISTING DRY PIT. CONTRACTOR SHALL PUNCH SIX (6) 6" DIAMETER HOLES IN THE DRY PIT STRUCTURE BOTTOM FOR DRAINAGE. DRY PIT SHALL BE FILLED WITH IMPORTED $\frac{3}{4}$" AGGREGATE DESIGNATED AS STRUCTURAL FILL AND ABANDONED IN PLACE. CONTRACTOR SHALL REMOVE AND DISPOSE OF STEEL DRY PIT ACCESS RISER AND LID OF DRY PIT PRIOR TO COMPLETELY BACKFILLING. SEE ELECTRICAL PLANS FOR ELECTRICAL DEMOLITION DETAILS.
- D2 REMOVE 50 LF OF EXISTING CHAIN LINK FENCE WITH PRIVACY SLATS
- D3 REMOVE EXISTING ELECTRICAL CONTROL PANEL AND TELEMETRY PANEL. SEE ELECTRICAL PLANS FOR DEMOLITION AND SALVAGE DETAILS.
- D4 REMOVE EXISTING FORCE MAIN PIPING FROM INSIDE OF THE WET WELL TO INSIDE OF THE DRY WELL. EXISTING PIPE PENETRATIONS SHALL BE PLUGGED AND COVERED IN GROUT FROM INSIDE OF THE WET WELL TO ENSURE WATER TIGHT SEAL.
- D5 REMOVE EXISTING 9.5' DIAMETER PRECAST CONCRETE COVER WITH TWO (2) HATCHES.
- D6 REMOVE EXISTING TREE, TREE STUMP, AND ROOT BALL.
- D7 REMOVE EXISTING ODOR CONTROL J-TUBE AND MESH SCREEN.
- D8 REMOVE EXISTING ABOVE GRADE DRY PIT VENT PVC PIPING.
- D9 REMOVE ELECTRICAL POWER BOX ATTACHED TO STRUT SYSTEM ON WET WELL COVER.
- D10 REMOVE EXISTING 8" FORCE MAIN FROM EXISTING DRY PIT TO CAMLOCK FITTING. CAP EXISTING 8" FORCE MAIN AT CAMLOCK FITTING.
- D11 EXISTING 4" CAMLOCK FITTING AND CONCRETE COVER. RETAIN AND PROTECT.
- D12 REMOVE EXISTING MAINTENANCE DOUBLE SWING GATE

DEMOLITION DETAILS


FENCE TO BE REMOVED AND REPLACED.


J-TUBE ATTACHED TO CONCRETE COVER


EXISTING FORCE MAIN CAMLOCK FITTING.

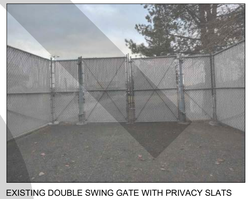

ELECTRICAL/POWER CONNECTION ON WET WELL COVER

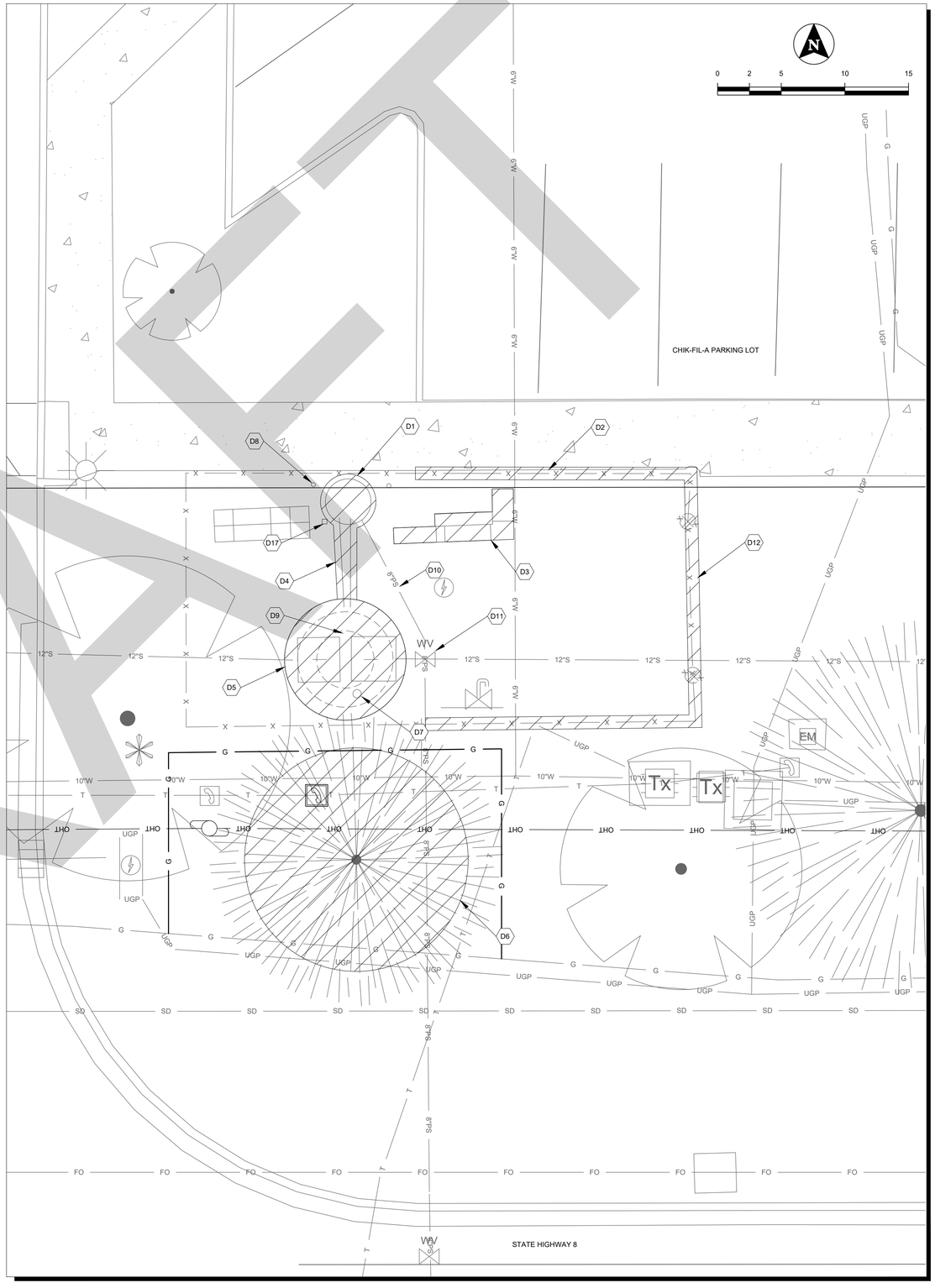

EXISTING HATCH IMBEDDED IN PRECAST CONCRETE COVER


DRY PIT ENTRANCE WITH STEPS AND VENT PVC PIPING


INTERIOR OF DRY PIT ENTRANCE STEEL TUBE


EXISTING TELECOMMUNICATION BOX


EXISTING DOUBLE SWING GATE WITH PRIVACY SLATS



PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

NO.	DESCRIPTION	DATE
	REVISIONS	

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS
LIFT STATION REHABILITATION
DEMOLITION SHEET

ATTENTION:
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DATE:	December 2025
PROJECT:	240380
SHEET:	C2.0

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DIAL: 811

NOTE:
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PUMPS

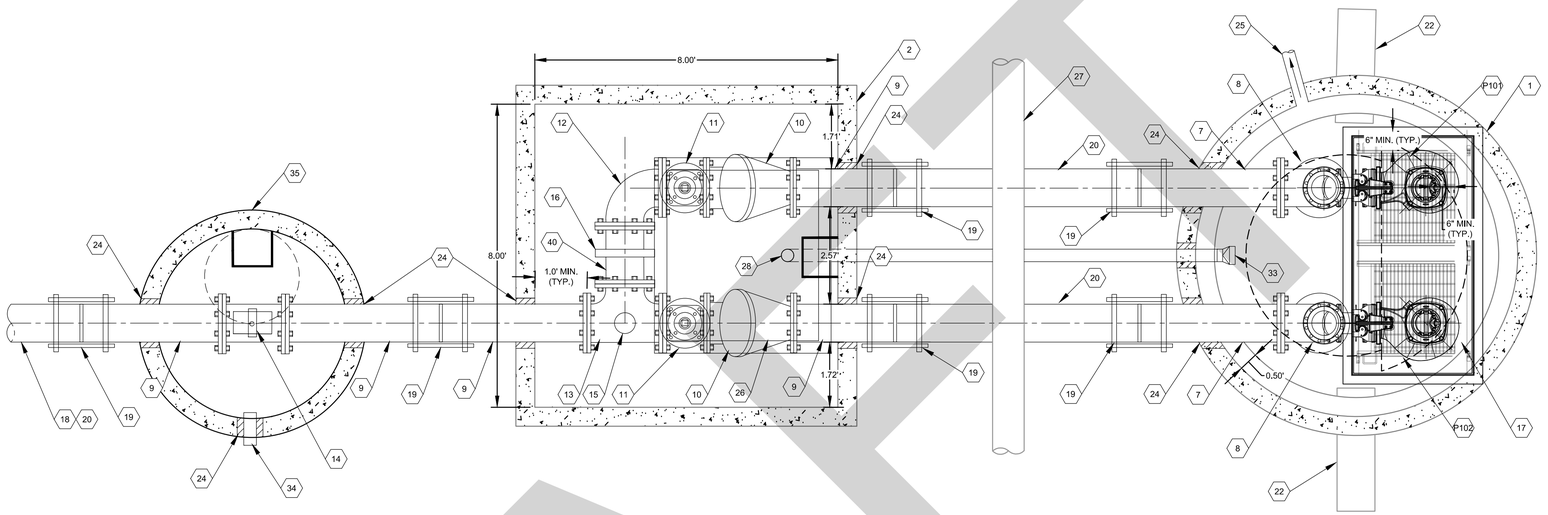
P101 P102 FLYGT MODEL NP 3153 LT 3~ 414 SUBMERSIBLE PUMPS, 17 HP, 60 HZ, 480 V, 3-PH PUMP INCLUDING:
- INDIVIDUAL PUMPS CAPABLE OF DELIVERING 1955 GPM AT 23' TDH,

PUMP CONTROL SHALL INCLUDE PUMP RUN TIME METERS MOUNTED IN THE CONTROL PANEL.

KEYNOTES

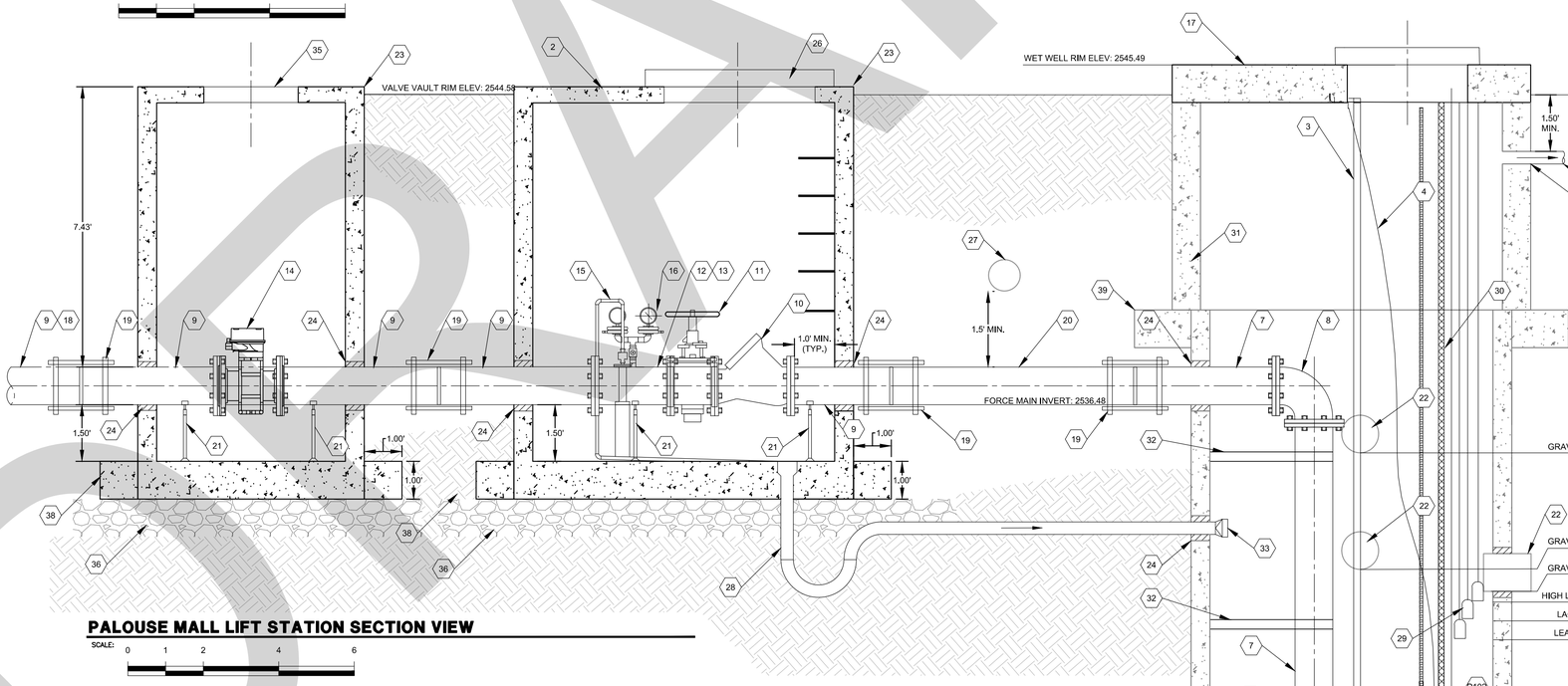
1. EXISTING 102" DIAMETER PRECAST STRUCTURE ON TOP OF EXISTING 90" DIAMETER PRECAST CONCRETE WET WELL
2. PROPOSED 8 X 8' PRECAST CONCRETE VALVE VAULT
3. PROPOSED 3" STAINLESS STEEL GUIDE RAIL FOR PUMP REMOVAL INCLUDES MOUNTING BRACKETS AND BRACES.
4. PROPOSED 20' STAINLESS STEEL HOIST CHAIN WITH STAINLESS STEEL SHACKLE AT EACH END FOR EACH PUMP. MIN. 6,000LB STRENGTH.
5. PROPOSED 8" CAST IRON PUMP DISCHARGE ELBOW AND MOUNTING BASE ASSEMBLY WITH EPOXY SET SANITARY SEWER ANCHOR BOLTS VERIFY SIZE AND MODEL WITH PUMP MANUFACTURER.
6. PROPOSED 8"X12" FL S.S. ECCENTRIC REDUCER
7. PROPOSED 12" FLXPE S.S. SPOOL, LENGTH TO BE DETERMINED IN THE FIELD.
8. PROPOSED 12" FL S.S. 90° ELBOW
9. PROPOSED 12" FLXPE D.I. SPOOL
10. PROPOSED 12" FL FLYGT BALL CHECK VALVE TYPE 5087
11. PROPOSED 12" FL D.I. AMERICAN FLOW RESILIENT WEDGE SEAT GATE VALVE PART #2500-1 WITH OPERATING HANDWHEEL
12. PROPOSED 12" FL D.I. 90° ELBOW
13. PROPOSED 12" FL D.I. TEE
14. PROPOSED 12" FLOW METER. FLOW METER SHALL BE ENDRESS + HAUSER PROMAG W400 FIXED FLANGE, 0 X DN INLET/OUTLET RUN, FULL BORE FLOW METER , IP 68 TYPE 6P SUBMERGENCE RATED, ELECTRODE CLEANING CIRCUIT FLOW METER OR APPROVED EQUAL
15. PROPOSED 1" MANUAL AIR RELEASE VALVE ASSEMBLY. ROUTE PIPING TO FLOOR DRAIN. SECURE PIPING TO VAULT WALL
16. PROPOSED PRESSURE GAUGE (0-30 PSI). SEE ELECTRICAL PLANS FOR DETAILS.
17. PROPOSED 96" DIAMETER (114" OUTER DIAMETER) PRECAST CONCRETE WET WELL COVER WITH MINIMUM 37" X 74" OPENING FOR HALLIDAY HATCH TYPE W1S OR APPROVED EQUAL WITH PEDESTRIAN TRAFFIC RATING (300 LBS. PSF UNIFORM LOAD) AND PROTECTIVE GRATING PANEL. HATCH DOOR TO NOT EXCEED 30 LBS. AND BE LOCKABLE. CONTRACTOR SHALL COORDINATE WITH SUPPLIER OF COVER AND HATCH TO CONFIRM SIZING PRIOR TO INSTALLATION.
18. CONNECT PROPOSED 12" FORCE MAIN TO BYPASS ASSEMBLY
19. PROPOSED 12" ROMAC MACRO HP COUPLING ADAPTER
20. PROPOSED 12" C900 DR-18 PVC
21. PROPOSED PIPE SUPPORT
22. EXISTING 12" PVC GRAVITY SEWER MAINS.
23. STRUCTURE RIM TO BE 1" ABOVE ADJACENT GROUND.
24. CONTRACTOR SHALL CORE PIPE PENETRATIONS OF BOTH EXISTING AND PROPOSED STRUCTURES ONSITE. CONTRACTOR TO FIELD VERIFY PIPE INVERT ELEVATIONS PRIOR TO CORING. PIPE PENETRATIONS SHALL UTILIZE LINK SEAL, CONSEAL, OR APPROVED EQUAL TO ENSURE PROPER WATERTIGHT SEAL (TYP). LINK SEAL, CONSEAL, ETC. SIZE SHALL MATCH APPROPRIATE PIPE SIZE.
25. PROPOSED 4" SCH 40 PVC ODOR CONTROL PIPE. SEE SITE PLAN FOR ADDITIONAL DETAILS.
26. PROPOSED 54"X48" HALLIDAY HATCH MODEL SERIES H2C OR APPROVED EQUAL. HATCH SHALL BE PEDESTRIAN TRAFFIC RATED ALUMINUM SINGLE LEAF, LOCKABLE ACCESS DOOR AND STAINLESS STEEL HARDWARE.
27. EXISTING 10" WATER MAIN. SEE NOTE 7, DOMESTIC WATER NOTES, SHEET C0.1 FOR CROSSING REQUIREMENTS.
28. PROPOSED 6"Ø CAST IRON FLOOR DRAIN. P-TRAP &" PVC DRAIN TO WET WELL SLOPED AT 2% MIN
29. PROPOSED FLOAT LEVEL SWITCH. FLOATS SHALL BE ATTACHED TO PVC PIPE. FLOAT TREE SHALL BE REMOVABLE. SEE ELECTRICAL PLANS SHEET E-07 FOR DETAILS.
30. PROPOSED SUBMERSIBLE PRESSURE TRANSDUCER SENSOR. SEE ELECTRICAL SHEET E-07 FOR DETAILS.
31. PROPOSED SPRAY ROQ COATING AND GROUT INJECTION INTERIOR OF WET WELL. SEE SPECIFICATION 099723 FOR ALL PREPARATION AND COATING REQUIREMENTS.
32. PROPOSED PIPE BRACE
33. PROPOSED 6" CHECK VALVE. TIDEFLEX "CHECKMATE" OR "TF-1" W/STAINLESS STEEL CLAMP OR APPROVED EQUAL
34. PROPOSED 2" CONDUIT PIPE PENETRATION. SEE ELECTRICAL DETAILS FOR MATERIAL TYPE AND ADDITIONAL DETAILS.
35. PROPOSED 60" DIAMETER MANHOLE W/ 30" DIAMETER TRAFFIC RATED COMPOSITE MANHOLE LID PER DETAIL 13, SHEET C5.2.
36. PROPOSED 6" OF ¾" CRUSHED ROCK BASE.
37. PROPOSED WET WELL CONCRETE FILL FOR PUMP BASES, SEE DETAIL 14, SHEET C5.2.
38. PROPOSED CONCRETE ANTI-FLOTATION RING. INCLUDE ALL NECESSARY REBAR REINFORCEMENT.
39. EXISTING CONCRETE FOOTING. CONTRACTOR TO FIELD VERIFY SIZE OF FOOTING AND COORDINATE WITH ENGINEER. ANY NECESSARY ADJUSTMENTS TO FORCE MAIN LOCATION.
40. PROPOSED 12" FLXPE D.I. SPOOL W/ADAPTER

TOP ELEV	2545.49	ft			
BOTTOM ELEV	2525.78	ft			
DIAMETER	7.33	ft			
VOL PER FT DEPTH	315.6	gal/ft			
FULL DEPTH	19.71	ft			
FULL VOLUME	6,221	gal			
CYCLE DEPTH	3.38	ft			
CYCLE VOLUME	1,067	gal			
PUMPING RATE	1,952	gpm			
MAX. STARTS/HOUR	27.4	times/hr.			
FUNCTION	**ELEV**	**VOL IN (GAL)**	**VOL REM. (GAL)**	**% FULL**	**DIST FROM BTM (FT)**
TOP/OVERFLOW LEVEL	2545.49	6,221	0	100.0%	19.71
INFLUENT PIPE INVERT	2531.45	1,790	4,432	28.8%	5.67
HIGH-LEVEL ALARM	2531.17	1,700	4,522	27.3%	5.39
LAG PUMP ON	2530.67	1,542	4,679	24.8%	4.89
LEAD PUMP ON	2530.17	1,384	4,837	22.2%	4.39
PUMPS OFF	2526.79	317	5,904	5.1%	1.01
BOTTOM OF WETWELL	2525.78	0	6,221	0.0%	0.00



PALOUSE MALL LIFT STATION PLAN VIEW

SCALE: 0 1 2 4 6



PALOUSE MALL LIFT STATION SECTION VIEW

SCALE: 0 1 2 4 6

DRAFT

PROFESSIONAL ENGINEER REGISTERED 16087 01/20/2026 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE	22"X34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

NO.	DESCRIPTION	DATE

REVISIONS

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
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CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION

MECHANICAL PLAN

ATTENTION:
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DATE: January 2026
PROJECT: 240380
SHEET: C3.0

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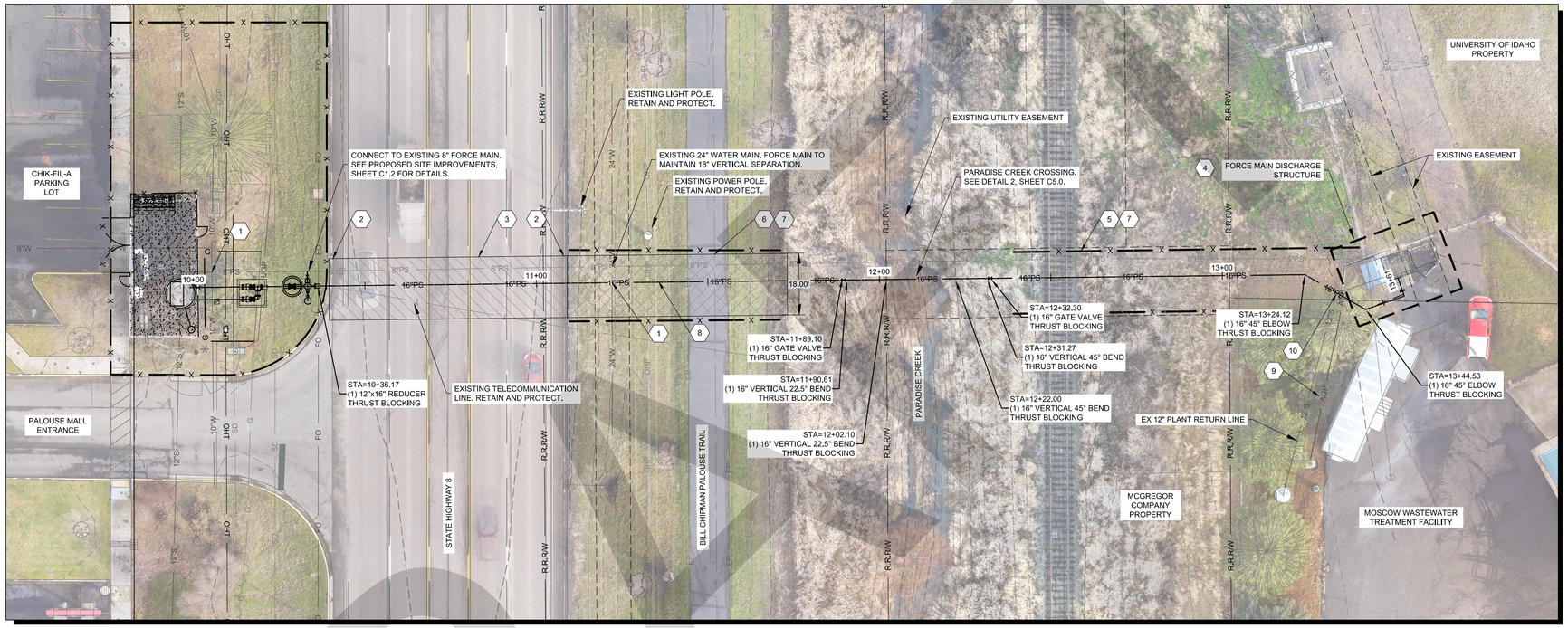
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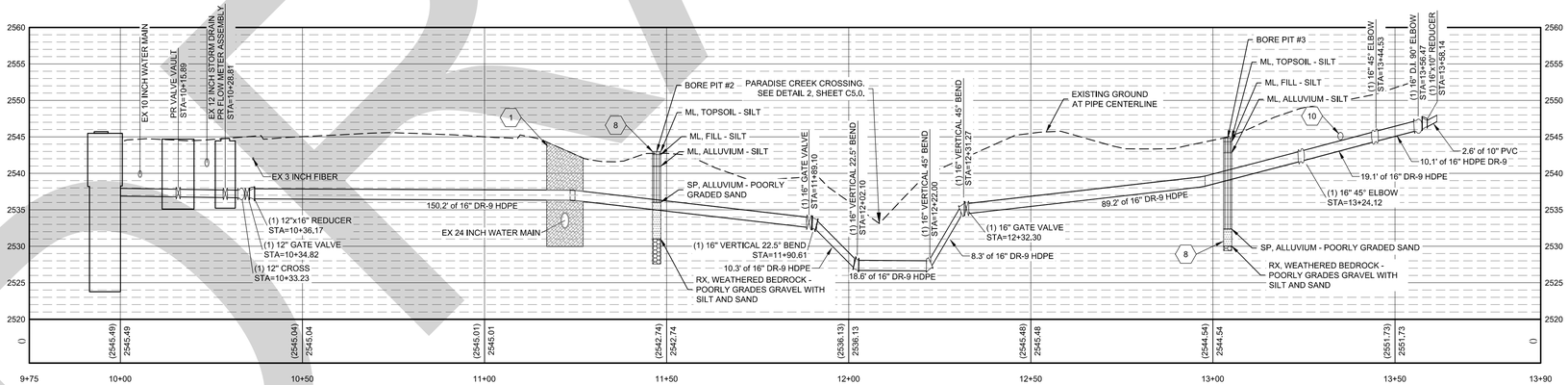
KEYNOTES

1. CONTRACTOR TO EXPOSE/FIELD VERIFY EXISTING WATER MAIN LOCATION PRIOR TO FORCE MAIN INSTALLATION. PIPE SHALL BE FULLY EXPOSED AND VISIBLE AND EXCAVATION SHALL REMAIN OPEN UNTIL FORCE MAIN INSTALLATION IS COMPLETE AT UTILITY CROSSING.
2. CURB AND GUTTER REPLACEMENT SHALL BE CITY OF MOSCOW DETAIL 6 - TYPE 'B' COMBINATION CURB AND GUTTER, SEE DETAIL 15, SHEET C5.3.
3. ASPHALT CUT REPAIR TO BE CITY OF MOSCOW DETAIL 34 - STREET/ALLEY CUT REPAIR, HIGHWAY TYPICAL SECTION REQUIREMENTS SHALL FOLLOW CITY OF MOSCOW DETAIL 1F - MINOR ARTERIAL. CONTRACTOR TO MATCH EXISTING ASPHALT SURFACE DEPTH FOR REPAIR. PER ITD, CORES FROM THIS SECTION INDICATE 0.5' OF ASPHALT. ASPHALT MIX TO BE PG 70-34 FOR SUPERPAVE HMA PAVEMENT, CLASS SP-3. SEE DETAIL 17, SHEET C5.3
4. FORCE MAIN DISCHARGE LOCATION WITHIN WASTEWATER TREATMENT FACILITY, SEE SHEET C4.2 FOR MORE DETAILS.
5. EXISTING RAILROAD CROSSING. RAILROAD IS NO LONGER USED. CONTRACTOR TO BACKFILL WITH WITH NATIVE BACKFILL ONCE FORCE MAIN IS INSTALLED. CONTRACTOR TO REMOVE AND DISPOSE OF RAILROAD MATERIAL FROM SITE.
6. PALOUSE TRAIL SURFACE REPAIR TO ADHERE TO CITY OF MOSCOW DETAIL 7 - SIDEWALKS & PATHWAYS, SEE DETAIL 12, SHEET C5.2.
7. SEE SURFACE REPAIR REQUIREMENTS, SHEET C6.0.
8. HISTORICAL GROUNDWATER LEVEL MEASUREMENTS IN THE PROJECT AREA AND ALONG THE PROPOSED FORCE MAIN CAN BE FOUND IN THE GEOTECHNICAL REPORT WITHIN SPECIFICATION SECTION 00 31 32.
9. EXISTING ELECTRICAL POWER FOR WASTEWATER TREATMENT PLANT'S INFLUENT COMPOSITE SAMPLER AND FLOW METER. POWER CONDUIT IS ABOVE GROUND ALONG THE PROPERTY'S FENCE LINE. CONTRACTOR SHALL COORDINATE WITH THE CITY PRIOR TO DISCONNECTING POWER.
10. CONTRACTOR SHALL POTHOLE PROPOSED 16" FORCE MAIN AND EXISTING 12" PLANT RETURN LINE CROSSING WITH VAC TRUCK WITHIN TWO WEEKS OF NOTICE TO PROCEED. CONTRACTOR TO COORDINATE WITH ENGINEER ANY NECESSARY ADJUSTMENTS TO FORCE MAIN LOCATION.

PERMITS

1. ANY ADDENDUM "CHANGE ORDER, ALTERATION OR MODIFICATION" TO THE ENCROACHMENT PERMIT OR ANY OF ITS TERMS OR CONDITIONS, MUST BE AUTHORIZED AND SIGNED BY AN ITD AUTHORIZED REPRESENTATIVE.
2. ALL WORK WITHIN THE STATE HIGHWAY RIGHT-OF-WAY MUST OBSERVE AND COMPLY ALL APPLICABLE LAWS, ORDINANCES, REGULATIONS, ORDERS AND DECREES AND WITH GOVERNMENT AND INDUSTRY STANDARDS, INCLUDING AMERICANS WITH DISABILITIES ACT, (OSHA) REGULATIONS AS ENACTED BY THE UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, AND THE CURRENT ITD TRAFFIC CONTROL REQUIREMENTS AND ITD WORKZONE SAFETY AND MOBILITY POLICY (COPIES ARE AVAILABLE FROM ITD UPON REQUEST). THE PERMITTEE IS RESPONSIBLE FOR OBTAINING ALL OTHER NECESSARY PERMITS AND APPROVALS PRIOR TO STARTING WORK. ITD MAY REQUEST DOCUMENTATION OF THE LOCAL JURISDICTION'S LAND-USE APPROVAL.
3. ONCE THE PERMIT IS APPROVED, THE PERMITTEE MUST NOTIFY ITD FIVE (5) WORKING DAYS BEFORE STARTING THE PERMITTED WORK. NO WORK WILL BEGIN UNTIL THE PERMITTEE IS GIVEN PERMISSION TO PROCEED BY AN AUTHORIZED REPRESENTATIVE OF ITD.
4. ITD APPROVED TRAFFIC CONTROL MUST BE IN PLACE AND MAINTAINED DURING WORK AND MEET THE MOST CURRENT EDITIONS OF: ITD TRAFFIC CONTROL REQUIREMENTS, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE TRAFFIC CONTROL PLAN (TCP) MUST BE ON-SITE AND AVAILABLE FOR INSPECTION DURING TRAFFIC CONTROL SET UP AND REMOVAL. VIOLATIONS OF THE TCP OR MUTCD REQUIREMENTS MAY RESULT IN IMMEDIATE SHUT-DOWN OF THE PERMITTED WORK AND REVOCATION OF THE PERMIT.
5. UPON COMPLETION OF THE PERMITTED WORK, AT THE PERMITTEE'S EXPENSE, THE RIGHT-OF-WAY MUST BE RESTORED TO ORIGINAL CONDITION OR BETTER THE SATISFACTION OF ITD INCLUDING THE REMOVAL OF ALL TRASH AND DEBRIS, REPAIR OF ANY AND ALL DAMAGE, CORRECTION OF ANY INTERFERENCES WITH HIGHWAY DRAINAGE, RESTORATION OF SURVEY MONUMENTS AND TRAFFIC CONTROL DEVICES, AND ALL REQUIRED GRADING AND SEEDING. IF THE PERMITTEE FAILS TO MAKE THE NECESSARY REPAIRS, THE DEPARTMENT WILL MAKE THE REPAIRS AND BILL THE PERMITTEE.
6. ALL PERMITTED WORK MUST BE COMPLETED AND AVAILABLE FOR FINAL INSPECTION WITHIN THIRTY (30) DAYS AFTER CONSTRUCTION BEGINS, UNLESS OTHERWISE WRITTEN IN THE SPECIAL PROVISIONS OF THE PERMIT. AFTER CONSTRUCTION IS COMPLETED THE PERMITTEE MUST NOTIFY THE ITD MAINTENANCE FOREMAN FOR FINAL INSPECTION. THE CONTACT INFORMATION FOR THE FOREMAN WILL BE INCLUDED IN THE PERMIT APPROVAL LETTER. PERMIT WILL BE CONSIDERED TEMPORARY UNTIL FINAL APPROVAL BY ITD.





16 INCH FORCE MAIN PLAN & PROFILE 10+00 TO 13+50

HORIZONTAL SCALE: 0 10 20 40 60

VERTICAL SCALE: 0 5 10 20 30

PROFESSIONAL ENGINEER REGISTERED 16087 01/20/2026 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

NO.	DESCRIPTION	DATE

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
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CITY OF MOSCOW

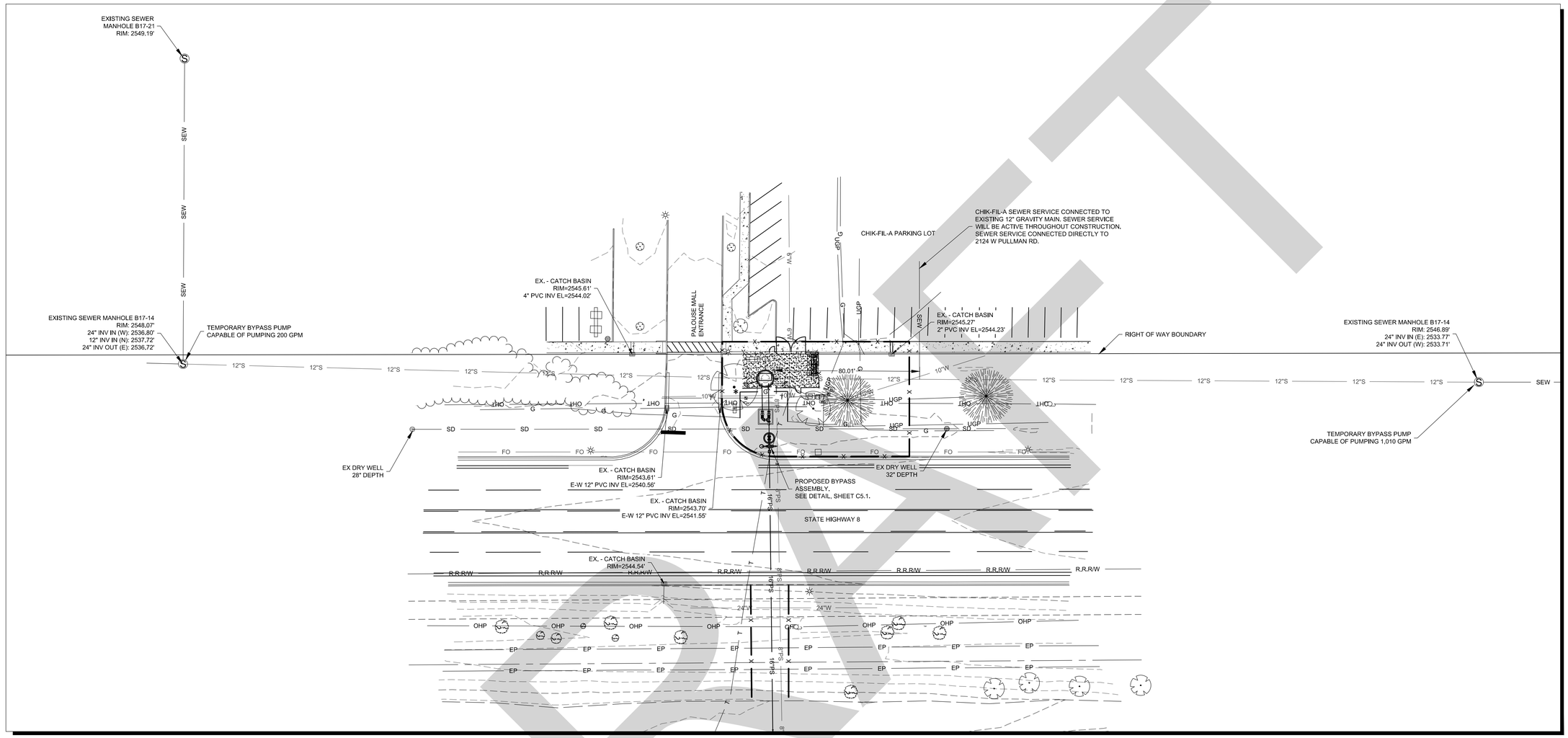
LIFT STATION REHABILITATION
FORCE MAIN PLAN AND PROFILE

ATTENTION: 0 1/2 1
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DATE: January 2026
PROJECT: 240380
SHEET: C4.0

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LIFT STATION BYPASS PUMPING INFORMATION

SCALE: 0 15 30 60 90

SEWAGE BYPASS NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR SECURING TEMPORARY BYPASS PUMPING OR OTHER MEANS SUCH AS TEMPORARY STORAGE , OR PUMP AND HAUL DURING WET WELL REHABILITATION OR OTHER INTERUPTIONS IN LIFT STATION SERVICE. THERE WILL BE CONTINUOUS WASTEWATER FLOW THROUGHOUT THE DURATION OF THE PROJECT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND MAINTAIN CONSTANT SEWER SERVICE WITH THE OWNER AND ENGINEER. THE CONTRACTOR IS NOT ALLOWED TO OPERATE THE LIFT STATIONS WITHOUT THE OWNERS OPERATOR ON-SITE.
2. THE CONTRACTOR SHALL SUBMIT A BYPASS PLAN TO THE ENGINEER FOR REVIEW PRIOR TO THE PRE-CONSTRUCTION MEETING. SEE ISPWC SECTION 512 FOR SUBMITTAL AND OTHER BYPASS PLAN REQUIREMENTS.
3. THE CONTRACTOR SHALL COORDINATE WITH THE CITY AND UTILIZE THE CITY'S WASTE WATER TREATMENT PLANT FOR DISCHARGE OF PUMPED AND HAULED WASTE WATER.

DRAFT

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PROFESSIONAL ENGINEER
REGISTERED
16087
12/23/2025
STATE OF IDAHO
ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
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REVISIONS

NO.	DESCRIPTION	DATE

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CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION

BYPASS PUMPING PLAN

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PROJECT:	240380
SHEET:	C4.1

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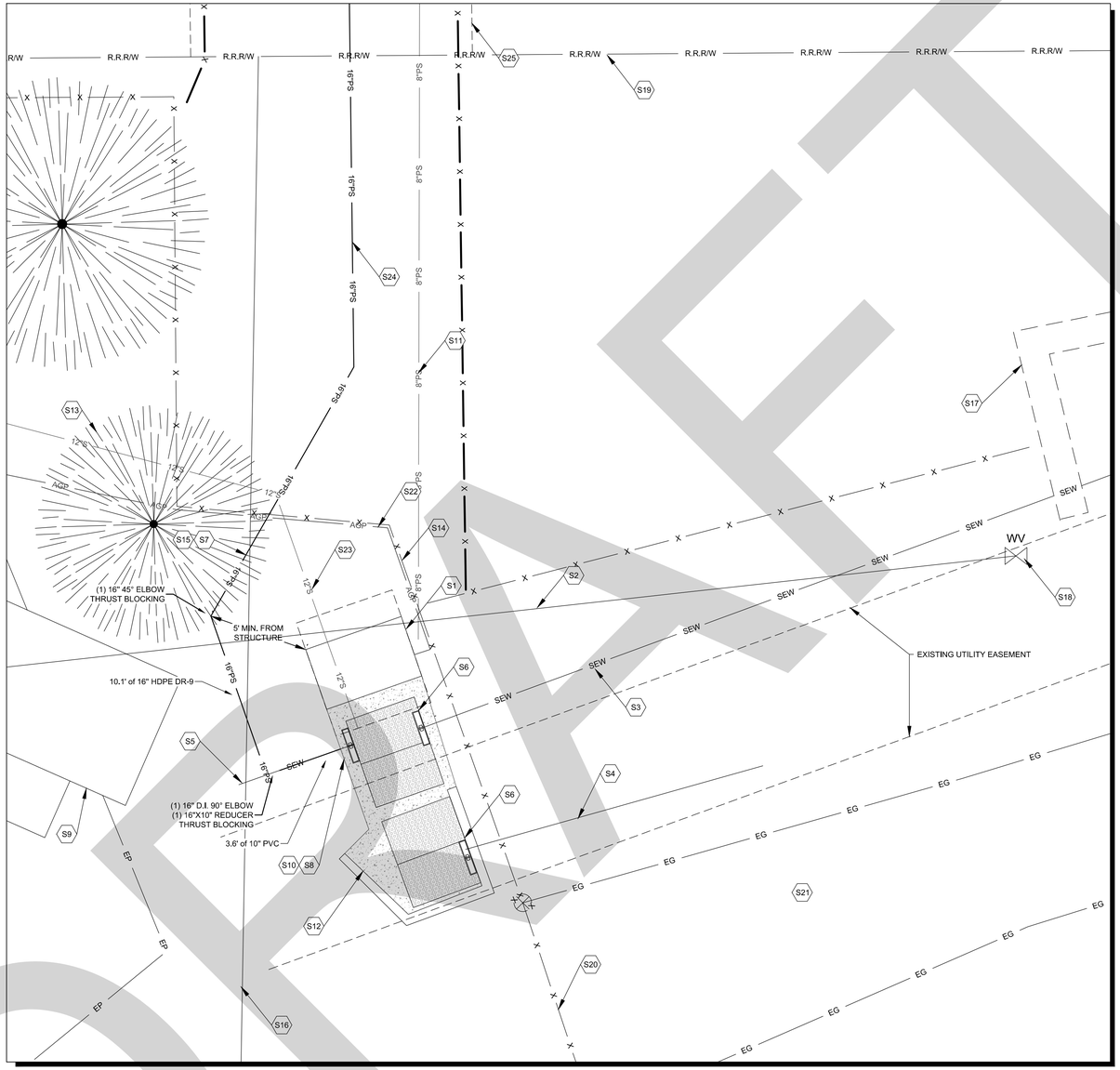
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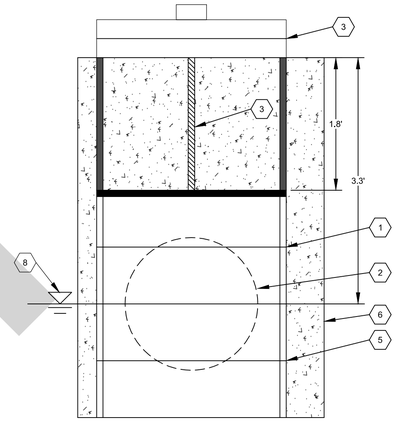
NOTES:

1. LOCATION OF ALL UTILITIES ARE APPROXIMATE. CONTRACTOR TO FIELD VERIFY UTILITY LOCATION AND NOTIFY ENGINEER OF SIGNIFICANT DISCREPANCIES FROM PLANS. VERTICAL LOCATION OF UTILITY CROSSING SHOWN ON PROFILE ARE UNKNOWN. LOCATIONS SHOWN ON PROFILES ARE SOLELY TO INDICATE THERE IS A UTILITY CROSSING AND NOT A REPRESENTATION OF ACTUAL DEPTH.
2. CONTRACTOR IS TO MAINTAIN SERVICE OF ALL UTILITIES THROUGHOUT CONSTRUCTION. ANY INTERRUPTIONS OF SERVICE MUST BE CLEARED BY UTILITY PROVIDER AND ENGINEER.
3. CONTRACTOR SHALL KEEP EXISTING SEWER SERVICES AND COLLECTION LINES OPERATIONAL AT ALL TIMES. CONTRACTOR SHALL COORDINATE WITH CITY OF MOSCOW REPRESENTATIVES AND ENGINEER FOR ANY TEMPORARY BYPASS OF SEWER. CONTRACTOR SHALL SUBMIT A TEMPORARY BYPASS PUMPING PLAN TO THE CITY AND ENGINEER FOR REVIEW AND APPROVAL.
4. CONTRACTOR SHALL COORDINATE DIRECTLY WITH CITY OF MOSCOW REPRESENTATIVES FOR SITE ACCESS DURING WORK DAYS. WASTEWATER TREATMENT FACILITY SHALL BE SECURE AT THE END OF EVERY WORK DAY TO ENSURE PUBLIC SAFETY. CONTRACTOR SHALL ADHERE TO WASTEWATER TREATMENT FACILITY ACCESS AND SAFETY PROTOCOL.
5. FORCE MAIN TRENCH SHALL BE BACKFILLED AT THE END OF EACH WORK DAY. TRENCHES SHALL NOT BE LEFT OPEN DURING NON-WORK DAYS, INCLUDING HOLIDAYS AND WEEKENDS.
6. FORCE MAIN PIPE SHALL BE C900 DR-35 PVC WATER PIPE STARTING AT STA 13+49.91 PER 16-INCH FORCE MAIN ALIGNMENT SHEET C4.0.

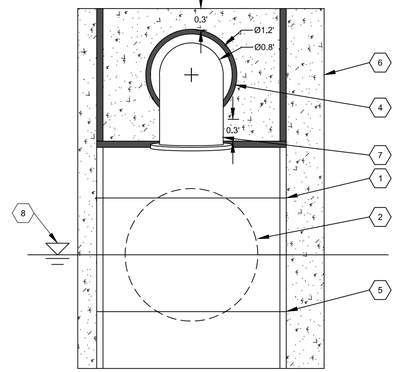
SEWER KEYNOTES:

- S1 EXISTING DISCHARGE BUILDING. RETAIN AND PROTECT.
- S2 EXISTING WATER MAIN. RETAIN AND PROTECT.
- S3 EXISTING SEWER MAIN. CONTINUOUS WASTEWATER FLOW DURING CONSTRUCTION. RETAIN AND PROTECT.
- S4 EXISTING STORMWATER CULVERT. RETAIN AND PROTECT.
- S5 EXISTING GRAVITY MAIN. ABANDON IN PLACE.
- S6 EXISTING SEWER SPLITTER BOX STRUCTURE. RETAIN AND PROTECT.
- S7 CONTRACTOR SHALL ADHERE TO ALL UTILITY CROSSING REQUIREMENTS PER THE CONTRACT DOCUMENTS.
- S8 CONNECT FORCE MAIN TO EXISTING DISCHARGE STRUCTURE. SEE NOTES AND DETAILS, THIS SHEET.
- S9 EXISTING WASTEWATER TREATMENT BUILDING. RETAIN AND PROTECT.
- S10 EXISTING DISCHARGE STRUCTURE SLUICE GATE. SLUICE GATES REMAIN CLOSED AT ALL TIMES. RETAIN AND PROTECT.
- S11 EXISTING FORCE MAIN. ABANDON IN PLACE.
- S12 EXISTING CONCRETE PAD.
- S13 EXISTING TREE. RETAIN AND PROTECT.
- S14 EXISTING 3-STRING BARB WIRE SECURITY FENCE. CONTRACTOR TO REMOVE 15 LF SECTION OF FENCE TO INSTALL PROPOSED 16" FORCE MAIN AND REPLACE ONCE INSTALLATION IS COMPLETE. CONTRACTOR TO RETAIN AND PROTECT ALL OTHER EXISTING FENCING AND GATES.
- S15 TRENCH EXCAVATION SHALL NOT UNDERMINE EXISTING DISCHARGE STRUCTURE FOUNDATION. CONTRACTOR TO UTILIZE TEMPORARY SLOPE PROTECTION, IF NECESSARY.
- S16 EXISTING PROPERTY LINE.
- S17 EXISTING RETAINING WALL.
- S18 EXISTING WATER VALVE.
- S19 EXISTING RIGHT-OF-WAY LINE. EXISTING AND PROPOSED FORCE MAINS WITHIN THE EXISTING UTILITY EASEMENT.
- S20 EXISTING WASTEWATER TREATMENT FACILITY SECURITY GATE
- S21 EXISTING GRAVEL SIDE ENTRANCE TO WASTEWATER TREATMENT FACILITY.
- S22 EXISTING WASTEWATER TREATMENT INFLUENT COMPOSITE SAMPLER AND FLOW METER ELECTRICAL CONDUIT. CONDUIT LOCATED ON TOP OF GROUND AND ATTACHED TO EXISTING FENCE.
- S23 EXISTING 12" PLANT RETURN LINE
- S24 PROPOSED 16" FORCE MAIN
- S25 EXISTING UTILITY EASEMENT. SEE SHEET C1.1.





EXISTING SLUICE GATE, HARDWARE, AND GRAVITY MAIN



EXISTING SLUICE GATE, GRAVITY MAIN, WITH PROPOSED FORCE MAIN DISCHARGE PIPE PENETRATION

FORCE MAIN CONNECTION TO DISCHARGE STRUCTURE DETAIL

NOTES:

1. CONTINUOUS WASTEWATER FLOW WILL OCCUR IN WASTEWATER TREATMENT DISCHARGE STRUCTURE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND MAINTAIN CONSTANT WASTEWATER FLOW WITH THE OWNER AND ENGINEER.
2. EXISTING SLUICE GATE SHALL REMAIN IN PLACE AFTER HARDWARE HAS BEEN DISPOSED OF, CONTRACTOR TO COORDINATE WITH OWNER AND ENGINEER TO ENSURE THAT GATE CONTINUES A WATERTIGHT SEAL ONCE HARDWARE IS REMOVED.

DETAIL KEYNOTES:

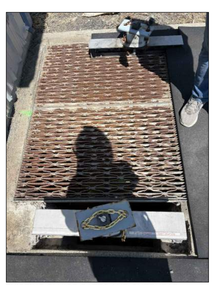
- 1 EXISTING SLUICE GATE, ABANDON IN PLACE.
- 2 EXISTING GRAVITY MAIN, ABANDON IN PLACE.
- 3 EXISTING SLUICE GATE HARDWARE, REMOVE AND DISPOSE.
- 4 PROPOSED 10" FORCE MAIN. CONTRACTOR TO CORE 14" PIPE PENETRATION IN EXISTING CONCRETE WALL ABOVE SLUICE GATE. USE LINK SEAL OR APPROVED EQUAL AROUND 10" PIPE. NEW PENETRATION SHALL BE LEAK FREE, VISUAL LEAK INSPECTION SHALL BE COORDINATED WITH ENGINEER UPON FINAL INSPECTION OF FORCE MAIN.
- 5 EXISTING SLUICE GATE WATERTIGHT SEAL. RETAIN AND PROTECT.
- 6 EXISTING SEWER CONCRETE STRUCTURE. RETAIN AND PROTECT.
- 7 PROPOSED 10" D.I. 45° ELBOW POSITIONED VERTICALLY TO POINT DOWNWARD INTO SPLITTER BOX.
- 8 EXISTING CONTINUOUS WASTEWATER LEVEL WITHIN THE INLET WEIR STRUCTURE. CONTRACTOR RESPONSIBLE FOR MAINTAINING CONSTANT WASTEWATER FLOW THROUGHOUT CONSTRUCTION INCLUDING DURING CORING AND INSTALL OF NEW 10" FORCE MAIN PENETRATION.



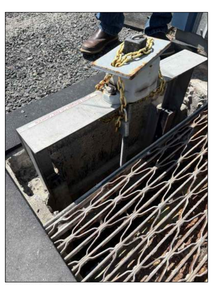
DISCHARGE STRUCTURE AND BUILDING.



DISCHARGE STRUCTURE EXISTING SLUICE GATES.



EXISTING SLUICE GATES AND OVERHEAD GRATE ABOVE THE PRECAST CONCRETE DISCHARGE STRUCTURE.



EXISTING WEST SLUICE GATE.



EXISTING SOUTHEAST SLUICE GATE AND CONCRETE PAD WITH BLACK PADS ON TOP.

DRAFT

PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

REVISIONS

NO.	DESCRIPTION	DATE

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION
FORCE MAIN TO DISCHARGE STRUCTURE

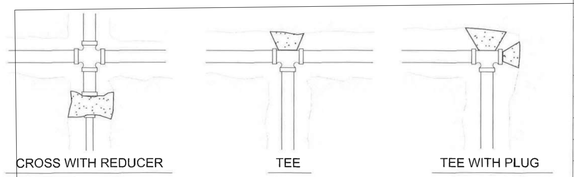
ATTENTION:
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" ON 22x34 SHEET or 1/2" ON 11x17 SHEET, THEN DRAWING IS NOT TO SCALE

DATE: December 2025
PROJECT: 240380
SHEET: C4.2

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WATER MAIN THRUST BLOCKING



THRUST BLOCK SIZE

Size of Pipe	Horizontal Bends Sq. Feet of Bearing on Undisturbed Earth: Tees & Deadends	90°	45°	22 1/2°	11 1/4°	Vertical Down Bends Cu.Yds.
4"	2	3	1-1/2	1		1/2
6"	4	5-1/2	3	1-1/2		1/2
8"	7	9-1/2	5	2-1/2		1
10"	11	15	8-1/2	4		1-1/2
12"	15-1/2	22	12	6		2
16"	21	27	21	11		2-1/2

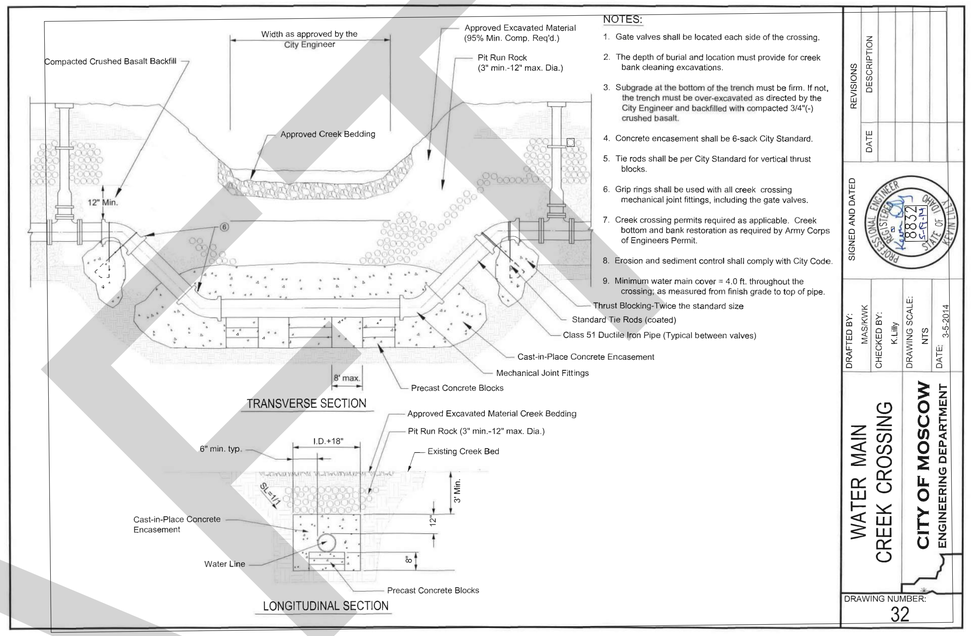
NOTES:

1. Thrust blocking for water mains shall be, as a minimum, the size indicated in the above Table.
2. Concrete shall be from a commercial source and be a minimum of 5-sack mix or ITD Class 22.
3. Concrete shall not be allowed in joints or in contact with pipes. Protect with plastic or paper sheeting prior to placing concrete.
4. Tie rods shall be 3/4" minimum diameter steel; coat tie rods with bituminous coating or approved equal. Hook (2" min.) all embedded ends.
5. The minimum distance between the fitting and excavated bank shall be three (3) pipe diameters.
6. Thrust blocks shall be cast against firm, undisturbed earth, as approved by the City Engineer.
7. Thrust blocks must be inspected by the City prior to backfill.
8. Thrust blocks for vertical up bends shall correspond to the requirements of horizontal bends.

REVISIONS: DESCRIPTION | DATE
SIGNED AND DATED: PROFESSIONAL ENGINEER REGISTERED 8832 STATE OF IDAHO 12/23/2025 ZACHARY J. THOMPSON
DRAFTED BY: RKC/KWK | CHECKED BY: K.Lilly | DRAWING SCALE: N.T.S. | DATE: 2-6-2012
WATER MAIN THRUST BLOCKING
CITY OF MOSCOW ENGINEERING DEPARTMENT
DRAWING NUMBER: 31

WATER MAIN THRUST BLOCKING | N.T.S. | 1

WATER MAIN CREEK CROSSING



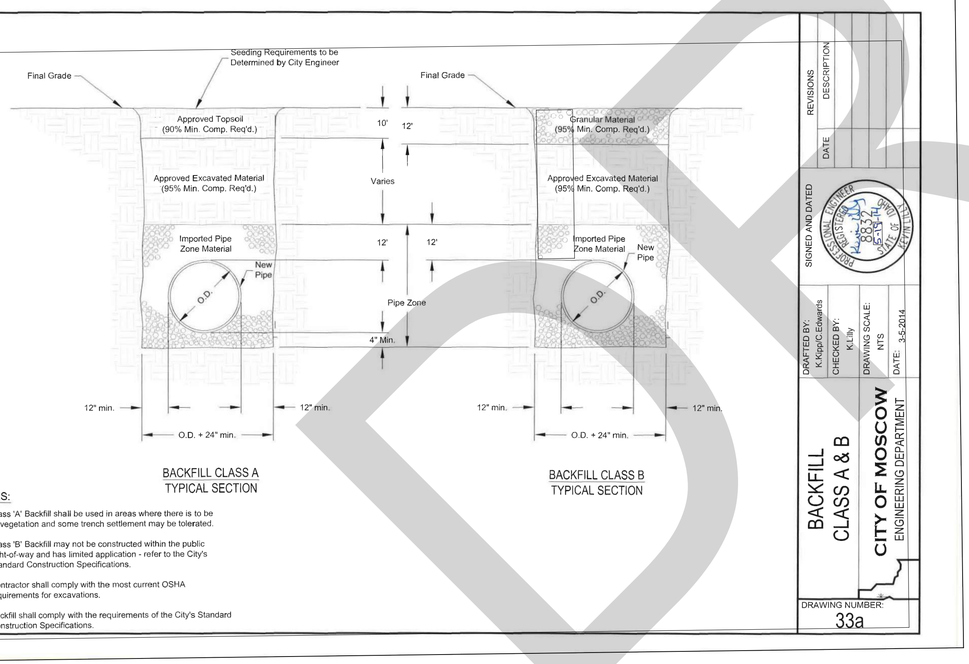
NOTES:

1. Gate valves shall be located each side of the crossing.
2. The depth of burial and location must provide for creek bank cleaning excavations.
3. Subgrade at the bottom of the trench must be firm. If not, the trench must be over-excavated as directed by the City Engineer and backfilled with compacted 3/4"(-) crushed basalt.
4. Concrete encasement shall be 6-sack City Standard.
5. Tie rods shall be per City Standard for vertical thrust blocks.
6. Grip rings shall be used with all creek crossing mechanical joint fittings, including the gate valves.
7. Creek crossing permits required as applicable. Creek bottom and bank restoration as required by Army Corps of Engineers Permit.
8. Erosion and sediment control shall comply with City Code.
9. Minimum water main cover = 4.0 ft. throughout the crossing, as measured from finish grade to top of pipe.

REVISIONS: DESCRIPTION | DATE
SIGNED AND DATED: PROFESSIONAL ENGINEER REGISTERED 8832 STATE OF IDAHO 12/23/2025 ZACHARY J. THOMPSON
DRAFTED BY: MASKWIK | CHECKED BY: K.Lilly | DRAWING SCALE: NTS | DATE: 3-5-2014
WATER MAIN CREEK CROSSING
CITY OF MOSCOW ENGINEERING DEPARTMENT
DRAWING NUMBER: 32

WATER MAIN CREEK CROSSING | N.T.S. | 2

BACKFILL CLASS A & B



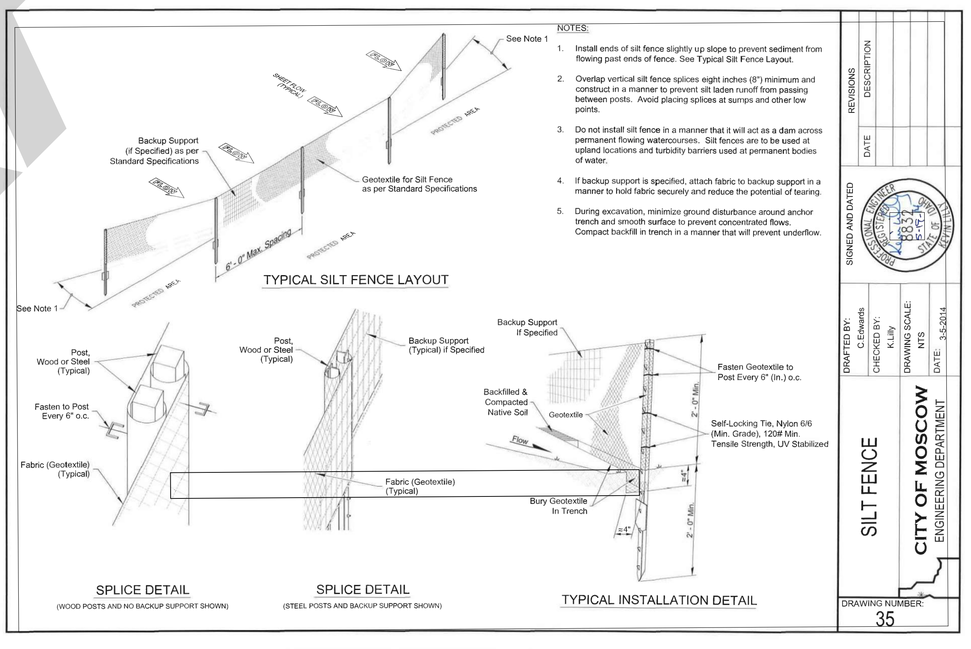
NOTES:

1. Class 'A' Backfill shall be used in areas where there is to be re-vegetation and some trench settlement may be tolerated.
2. Class 'B' Backfill may not be constructed within the public right-of-way and has limited application - refer to the City's Standard Construction Specifications.
3. Contractor shall comply with the most current OSHA requirements for excavations.
4. Backfill shall comply with the requirements of the City's Standard Construction Specifications.

REVISIONS: DESCRIPTION | DATE
SIGNED AND DATED: PROFESSIONAL ENGINEER REGISTERED 8832 STATE OF IDAHO 12/23/2025 ZACHARY J. THOMPSON
DRAFTED BY: K.Kipp/C.Edwards | CHECKED BY: K. Lilly | DRAWING SCALE: NTS | DATE: 3-5-2014
BACKFILL CLASS A & B
CITY OF MOSCOW ENGINEERING DEPARTMENT
DRAWING NUMBER: 33a

BACKFILL CLASS A & B | N.T.S. | 3

SILT FENCE



NOTES:

1. Install ends of silt fence slightly up slope to prevent sediment from flowing past ends of fence. See Typical Silt Fence Layout.
2. Overlap vertical silt fence splices eight inches (8") minimum and construct in a manner to prevent silt laden runoff from passing between posts. Avoid placing splices at sumps and other low points.
3. Do not install silt fence in a manner that it will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.
4. If backup support is specified, attach fabric to backup support in a manner to hold fabric securely and reduce the potential of tearing.
5. During excavation, minimize ground disturbance around anchor trench and smooth surface to prevent concentrated flows. Compact backfill in trench in a manner that will prevent underflow.

REVISIONS: DESCRIPTION | DATE
SIGNED AND DATED: PROFESSIONAL ENGINEER REGISTERED 8832 STATE OF IDAHO 12/23/2025 ZACHARY J. THOMPSON
DRAFTED BY: C.Edwards | CHECKED BY: K.Lilly | DRAWING SCALE: NTS | DATE: 3-5-2014
SILT FENCE
CITY OF MOSCOW ENGINEERING DEPARTMENT
DRAWING NUMBER: 35

SILT FENCE | N.T.S. | 4

PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE: 22"x34" | DESIGNED: MCK | DRAWN: TPB | CHECKED: SGM | APPROVED: ZJT

REVISIONS: NO. | DESCRIPTION | DATE

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION

GENERAL DETAILS

ATTENTION:
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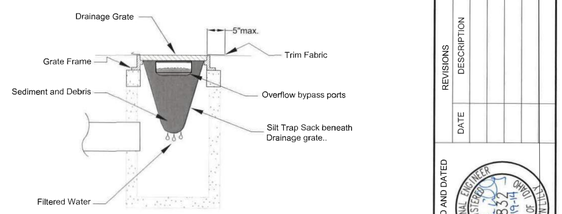
DATE: December 2025
PROJECT: 240380
SHEET: C5.0

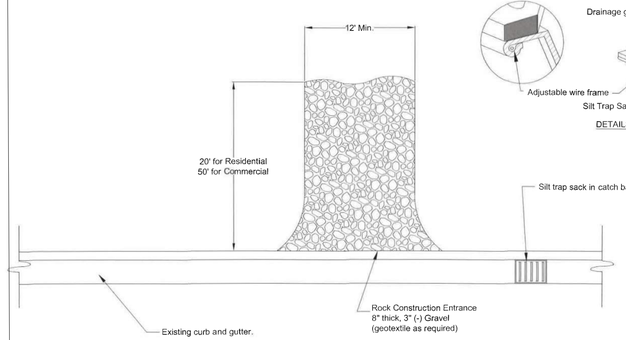
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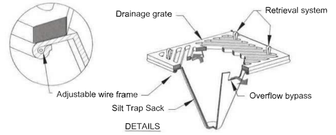
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NOTES:

1. The size and shape of the silt trap sack to fit the storm structure it will service (rectangular or round).
2. The silt trap sack shall have a built-in high-flow relief system (overflow bypass).
3. The silt trap sack assembly must allow removal without spilling the collected material.
4. Empty silt trap sack and dispose of sediment and debris before the sack is half-full.
5. Ensure the silt trap sack assembly does not spill or fall into the storm structure. If sediment is spilled into the storm structure, remove the spilled material by suction hose or other approved method.
6. Construction entrances should be inspected regularly for signs of thinning areas where mud begins to show through. Add gravel periodically to maintain the integrity of the pad.







DETAILS

REVISIONS

NO.	DESCRIPTION	DATE

SIGNED AND DATED

PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

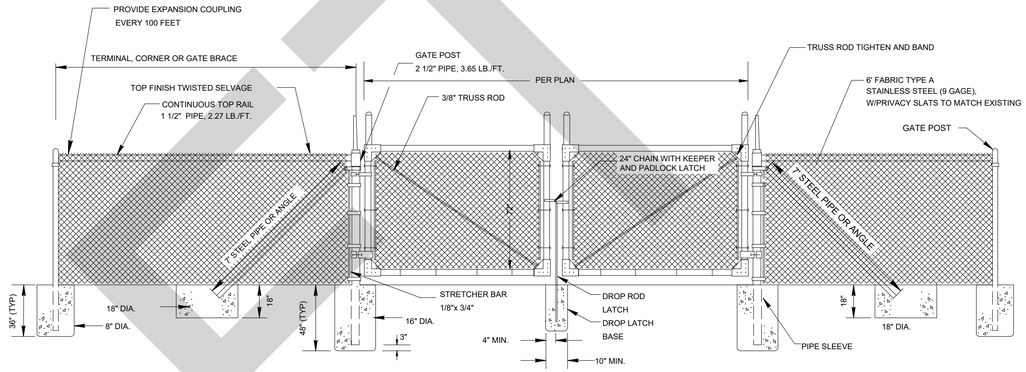
DRAFTED BY: C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

CONSTRUCTION ENTRANCE & INLET PROTECTION

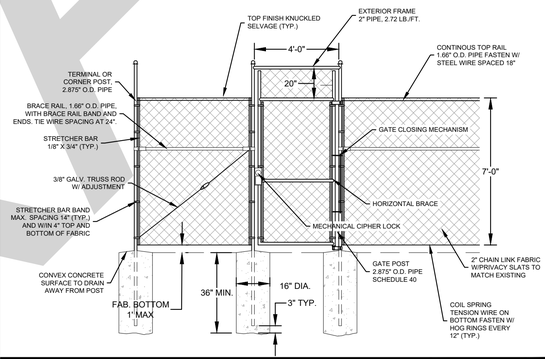
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 36

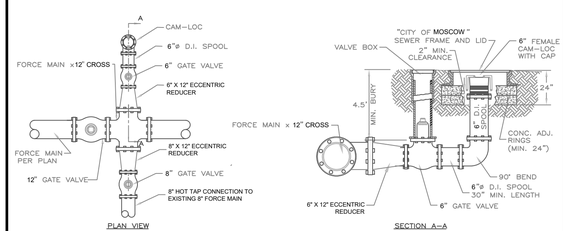
CONSTRUCTION ENTERANCE & INLET PROTECTION | N.T.S. | 5



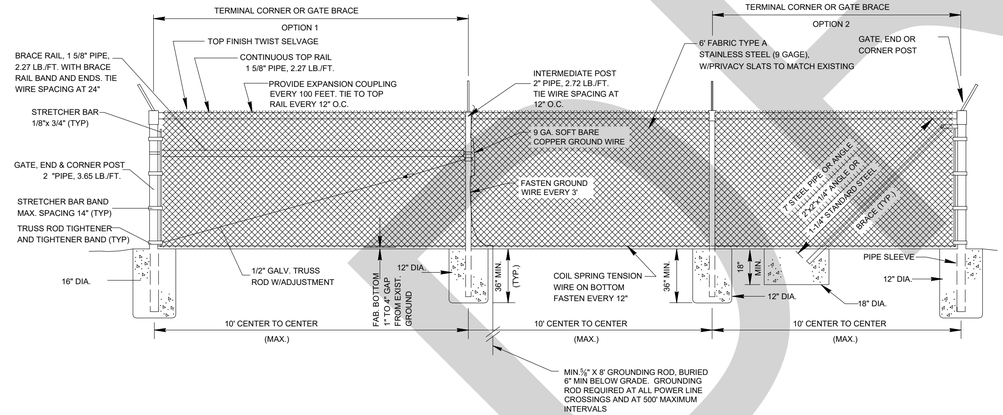
SWING GATE | N.T.S. | 6



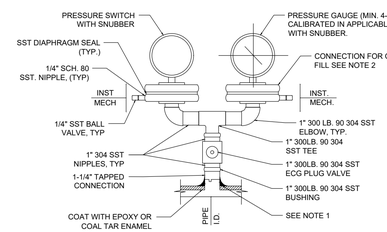
PEDESTRIAN GATE | N.T.S. | 8



BYPASS ASSEMBLY | N.T.S. | 9



FENCE DETAIL | N.T.S. | 7



NOTES:

1. USE SERVICE SADDLE FOR DUCTILE IRON AND PVC PIPE.
2. USE ANNULAR SEAL WHERE INDICATED.
3. SEE SPECIFICATIONS: SECTION 15100 FOR GAUGE, SWITCH AND SEALS.

PRESSURE GAUGE | N.T.S. | 10

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7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

BORDER SIZE 22"x34"
DESIGNED MCK
DRAWN TPB
CHECKED SGM
APPROVED ZJT

REVISIONS

NO.	DESCRIPTION	DATE

CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION

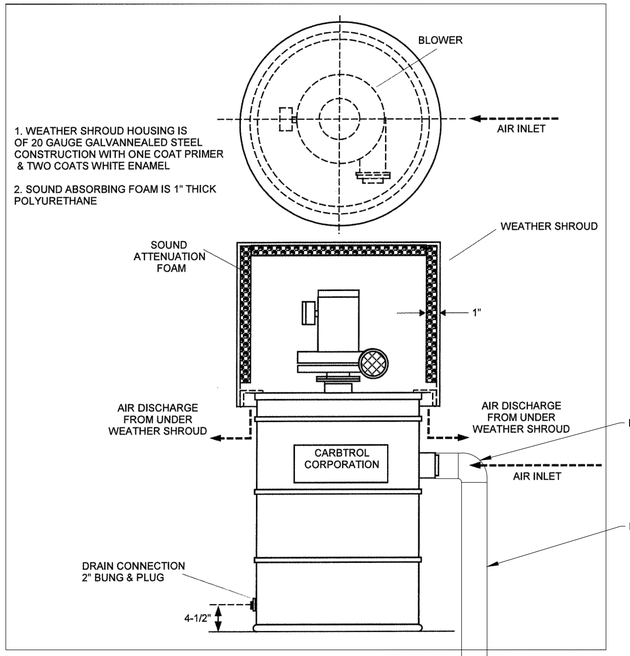
GENERAL DETAILS

ATTENTION:
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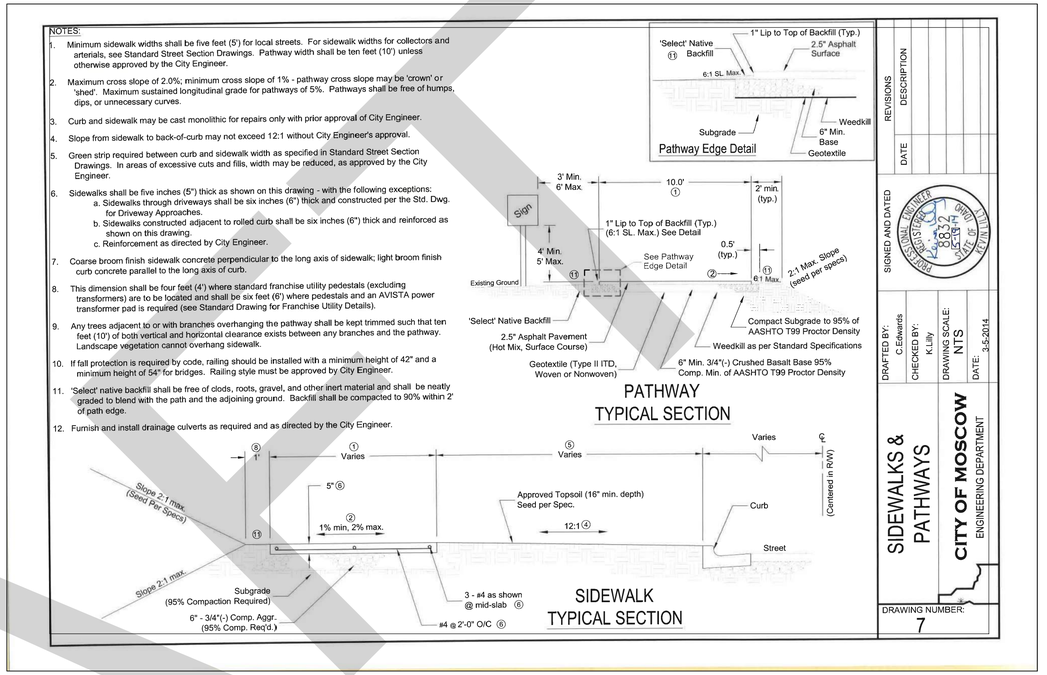
DATE: December 2025
PROJECT: 240380
SHEET: C5.1

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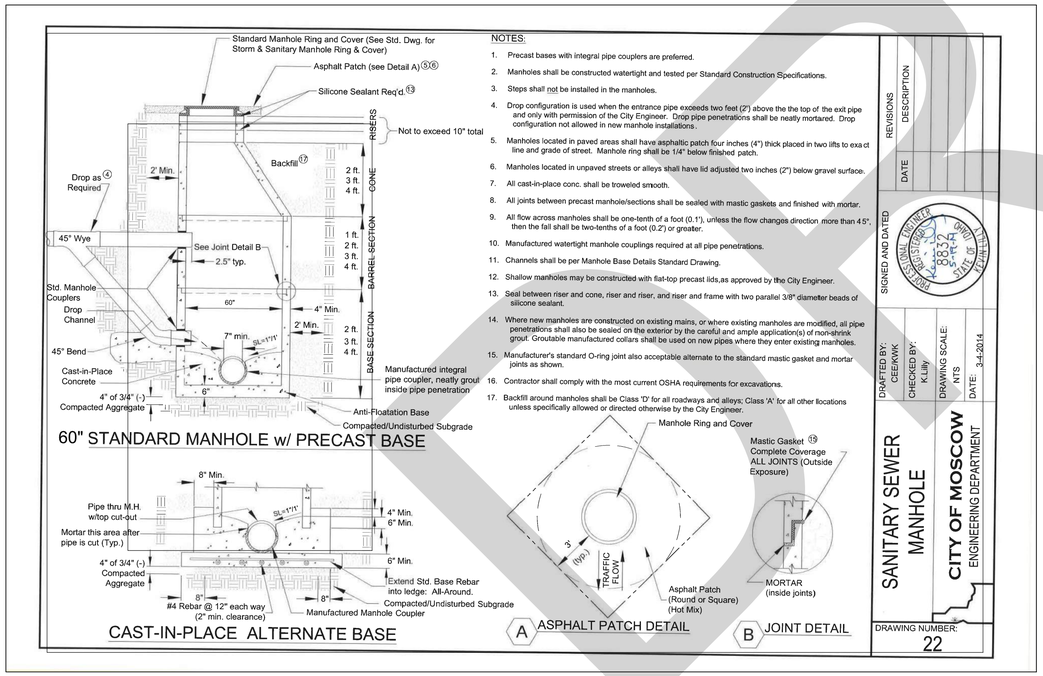
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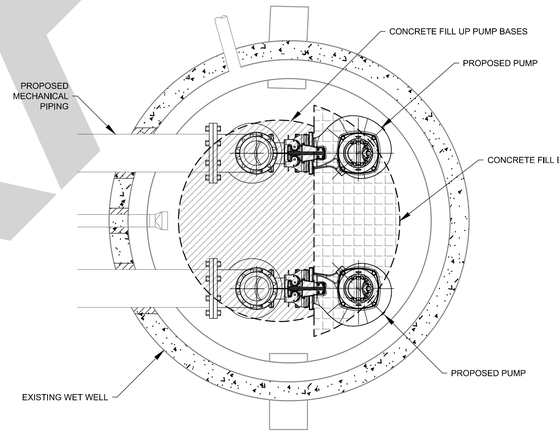
ODOR CONTROL | N.T.S. | 11

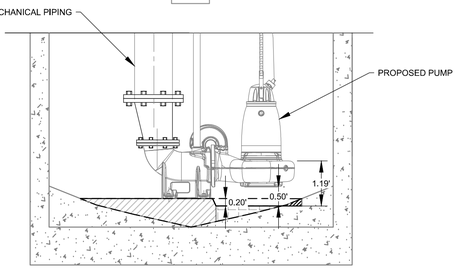


SIDEWALKS & PATHWAYS | N.T.S. | 12



SANITARY SEWER MANHOLE | N.T.S. | 13





FILL WET WELL WITH CONCRETE UP TO ELEVATION NOTED ON MECHANICAL PLAN. PUMP BASES SHALL BE INSTALLED ON FLAT CONCRETE AREA PER MANUFACTURER'S RECOMMENDATIONS.

FILL WET WELL WITH CONCRETE WITHIN 6 ¾" OF PUMP INLET PER MANUFACTURER'S RECOMMENDATIONS

NOTES:

1. ANCHOR BOLTS FOR PUMP ELBOW BASE ASSEMBLY SHALL PENETRATE A MINIMUM OF 3" INTO EXISTING CONCRETE BASE.
2. CONCRETE FILL SHALL ACCOMMODATE INSTALLATION OF BOTH PUMPS PER MANUFACTURER'S RECOMMENDATIONS INCLUDING INSTALLATION OF FOUR (4) ANCHOR BOLTS AND TWO (2) VIBRATION DAMPENERS PER PUMP.

WET WELL CONCRETE FILL FOR PUMP BASES | N.T.S. | 14

PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

REVISIONS
NO. | DESCRIPTION | DATE

BORDER SIZE 22"x34"
DESIGNED MCK
DRAWN TPB
CHECKED SGM
APPROVED ZJT

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS
LIFT STATION REHABILITATION
GENERAL DETAILS

ATTENTION:
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" ON 22x34 SHEET or 1/2" ON 11x17 SHEET, THEN DRAWING IS NOT TO SCALE

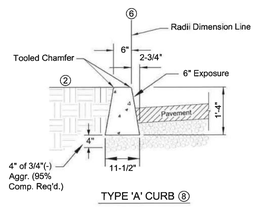
DATE: December 2025
PROJECT: 240380
SHEET: C5.2

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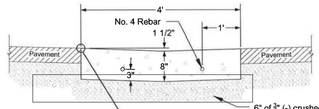
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NOTES:

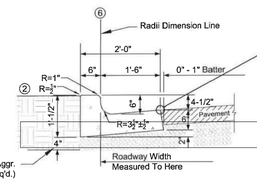
1. Replacement curb and sidewalk may be cast monolithic with prior approval of City Engineer.
2. Sidewalk to back-of-curb slope may not exceed 12:1 without City Engineer's approval.
3. Light broom finish curb parallel with the long axis of curb.
4. Rolled curb prohibited where sidewalk is adjacent to curb, unless specially allowed by the City Engineer. In areas without planter strips, sidewalks adjacent to to rolled curb shall be a minimum of six inches (6") thick.
5. All curb roadway planimetric radii dimensions shall be measured to the "Radii Dimension Line"shown in the typical curb section.
6. See table for curb radii requirements. Thirty foot (30') curb radii are required where any City street intersects an Idaho Transportation Department roadway.
7. 'Shed' section streets require 'spill curb' on the uphill side with gutter matching street cross slope.
8. Type 'A' curb only allowed where extending or replacing existing Type 'A' Curb.
9. Type 'C' curb only allowed in cul-de-sacs and where replacing existing rolled curb.



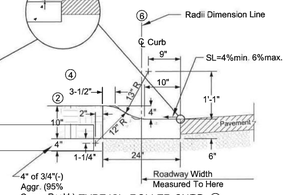
TYPE 'A' CURB ⑧



TYPE 'D' - VALLEY GUTTER



TYPE 'B' - COMBINATION CURB & GUTTER



TYPE 'C' - ROLLED CURB ⑨

CURB RADII REQUIREMENTS

Intersecting Street Classification	Curb Radii Dimension
Local - Local	15'
Local - Collector	15'
Local - Arterial	25'
Collector - Collector	25'
Collector - Arterial	25'
Arterial - Arterial	30'

REVISIONS: DESCRIPTION, DATE

SIGNED AND DATED

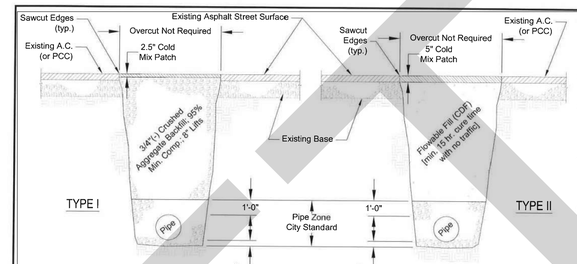
DRAFTED BY: C.Edwards / K Kipp
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

CURBS & GUTTERS

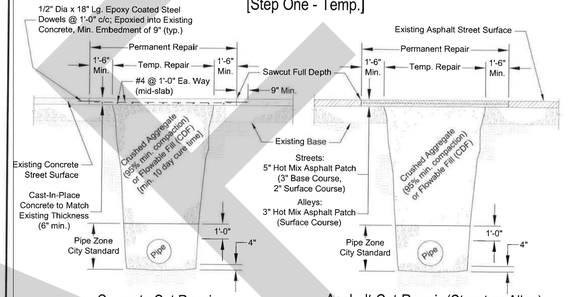
CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 6

CURBS & GUTTERS | N.T.S. | 15



Temporary Street or Alley Cut Repair
[Step One - Temp.]



Concrete Cut Repair
[Step Two - Permanent]

Asphalt Cut Repair (Street or Alley)
[Step Two - Permanent]

NOTES:

1. All excavations made within public right-of-way and easements require excavation permits from the City prior to commencing work. Street closure permits are required as applicable.
2. See City of Moscow Standard Construction Specifications for additional requirements regarding street and alley cut repair.
3. Prior to commencing, contractor shall furnish, install and maintain traffic control in accordance with the Manual on Uniform Traffic Control Devices (MUTCD) and as allowed and approved by the City Engineer.
4. Street cuts within Idaho Highway Right-of-Way require an Idaho Transportation Department (ITD) permit and are subject to ITD permit conditions (i.e. backfilling, surfacing requirements and traffic control).
5. The pavement removal required to perform the initial excavation shall be the width of the excavation opening and is not to include the removal of the pavement of the width required to construct the permanent patch. All pavement cuts shall be sawcut in neat, straight lines, as allowed and approved by the City. The limits of the pavement cut for the permanent patch shall be as described in the Standard Construction Specifications.
6. Moscow Public Works Department shall be notified prior to beginning backfilling operations. Noncompliance with this provision shall require re-excavation and witnessed compaction.
7. ALL STREET AND ALLEY CUTS IN EXISTING ASPHALT PAVEMENT SHALL BE BACKFILLED AND TEMPORARILY PATCHED AT THE END OF EACH DAY - unless specifically allowed otherwise by the City Engineer. Properly applied steel plates may be utilized in lieu of this requirement if allowed by the City.
8. Temporary street surfacing (cold mix asphalt or flowable fill) shall be placed (and maintained) uniformly smooth across the width and length of the patch and shall match the existing, adjoining street grade. The finished surface of the temporary patch shall be level with, or no greater than 0.25 inches above the adjacent roadway surface.
9. Temporary street surface repair maintenance is the responsibility of the contractor.
10. The contractor making the cut shall be responsible for any future settling of the street cut for a period of one year from the date that temporary patch is completed.

REVISIONS: DESCRIPTION, DATE

SIGNED AND DATED

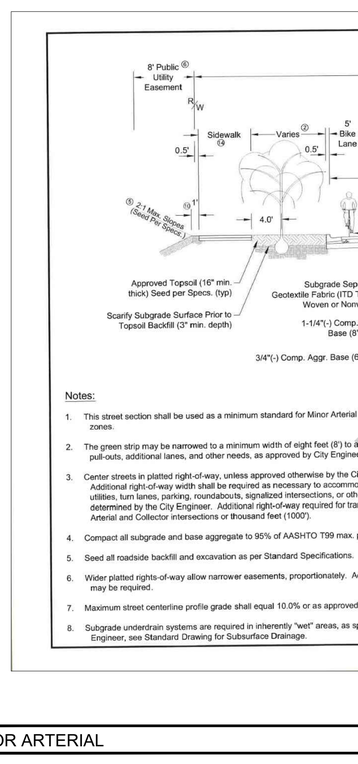
DRAFTED BY: C.Edwards
CHECKED BY: K.Lilly
DRAWING SCALE: NTS
DATE: 3-5-2014

STREET / ALLEY CUT REPAIR

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 34

STREET / ALLEY CUT REPAIR | N.T.S. | 16



Notes:

1. This street section shall be used as a minimum standard for Minor Arterial class streets in all zones.
2. The green strip may be narrowed to a minimum width of eight feet (8') to accommodate bus pull-outs, additional lanes, and other needs, as approved by City Engineer.
3. Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way width shall be required as necessary to accommodate topography, utilities, turn lanes, parking, roundabouts, signalized intersections, or other needs as determined by the City Engineer. Additional right-of-way required for transit stops at Minor Arterial and Collector intersections or thousand feet (1000').
4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
5. Seed all roadside backfill and excavation as per Standard Specifications.
6. Wider platted rights-of-way allow narrower easements, proportionately. Additional easements may be required.
7. Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
8. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the City Engineer, see Standard Drawing for Subsurface Drainage.
9. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
10. This dimension shall be four feet (4') where standard franchise utility pedestals (no transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
11. On-street parking (9' width for Residential and 10' width for Commercial/Industrial) is optional in this road standard. If included on one or both sides, additional right-of-way shall be required.
12. A center median is an option in this road standard. Minimum planter width shall be ten feet (10') for Residential and eleven feet (11') for Commercial/Industrial with curbs on each side. Travel lanes adjacent to median shall be increased two feet (2') in width. Additional right-of-way shall be required to accommodate the median, curbs, and additional lane widths.
13. Minor Arterial streets shall be subject to access control. No residential driveways shall be permitted.
14. Minimum sidewalk widths shall be six feet (6') in Residential zones and eight feet (8') in Commercial and Industrial zones. Back of sidewalk to be at the right-of-way line.

REVISIONS: DESCRIPTION, DATE

SIGNED AND DATED

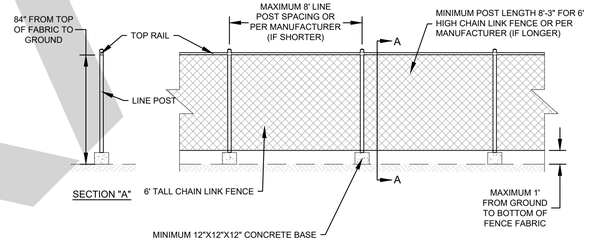
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DRAWING SCALE: NTS
DATE: 3-31-2014

Minor Arterial

CITY OF MOSCOW
ENGINEERING DEPARTMENT

DRAWING NUMBER: 1f

MINOR ARTERIAL | N.T.S. | 17



TEMPORARY CONSTRUCTION FENCE | N.T.S. | 18

BLANK | N.T.S. | 19

BLANK | N.T.S. | 20

BLANK | N.T.S. | 21

PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE: 22"x34"
DESIGNED: MCK
DRAWN: TPB
CHECKED: SGM
APPROVED: ZJT

REVISIONS: NO., DESCRIPTION, DATE

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION

GENERAL DETAILS

ATTENTION:
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" ON 22x34 SHEET or 1/2" ON 11x17 SHEET, THEN DRAWING IS NOT TO SCALE

DATE: December 2025
PROJECT: 240380
SHEET: C5.3

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Y:\2024\240380\03_CAD\SHEETS\CONSTRUCTION_DRAWINGS\240380_C_EROSION CONTROL.DWG, 12/19/2025

811 CALL BEFORE YOU DIG!
CALL DIGLINE INC.
PRIOR TO COMMENCING
UNDERGROUND WORK
DIAL: 811

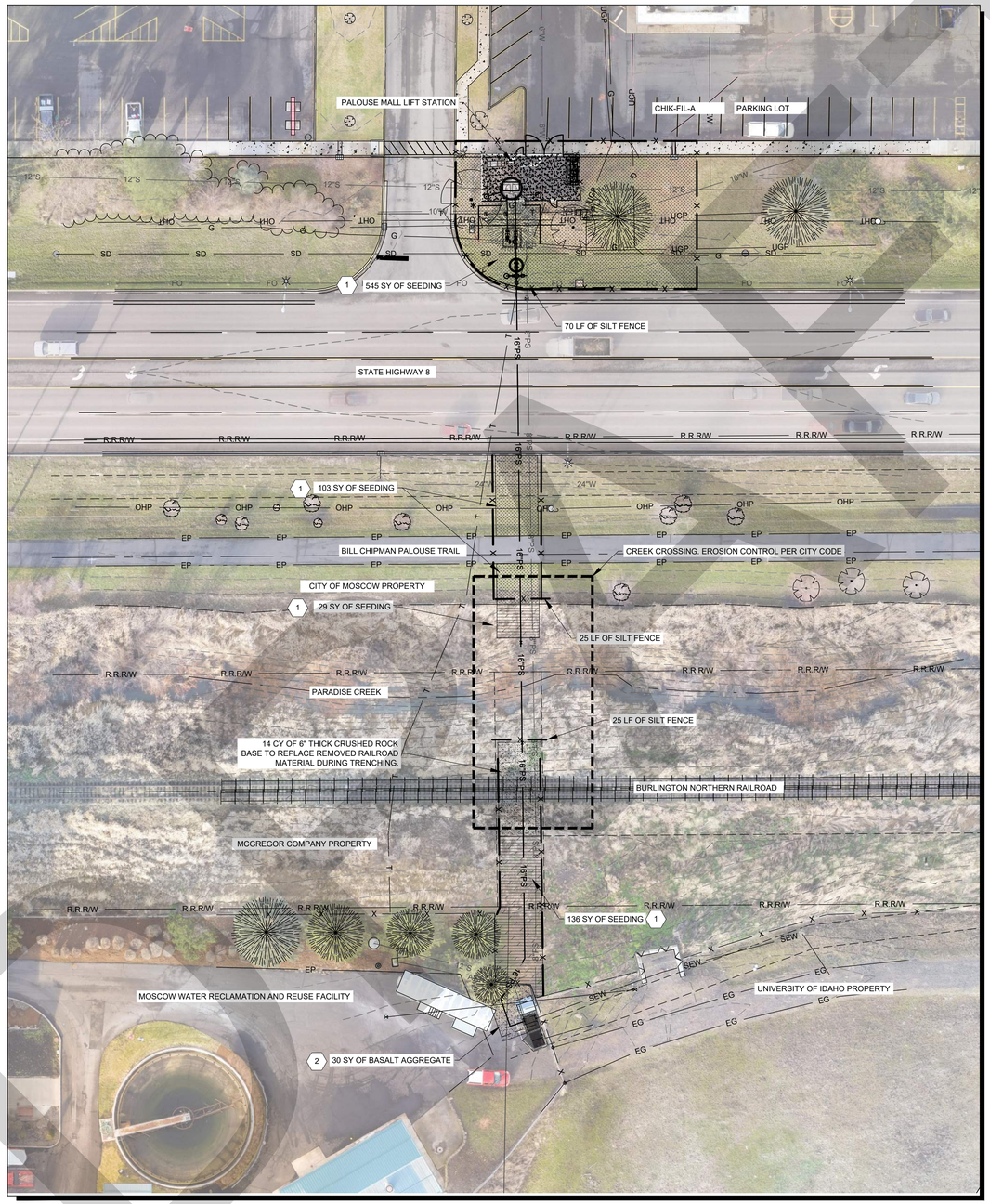
NOTE:
THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN APPROXIMATELY ONLY PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ALL UTILITY COMPANIES OF THE CONSTRUCTION SCHEDULE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MAY OCCUR BY FAILURE TO EXACTLY LOCATE AND PROTECT ALL UTILITIES.

KEYNOTES

1. CONTRACTOR TO COORDINATE WITH THE CITY OF MOSCOW TO DETERMINE SEED MIX AROUND LIFT STATION, TRAIL PATHWAY, PARADISE CREEK CROSSING, AND ALONG FORCE MAIN ALIGNMENT TRENCHING TO THE FENCE BORDERING THE WASTEWATER TREATMENT FACILITY.
2. CONTRACTOR RESPONSIBLE FOR COORDINATION WITH THE CITY OF MOSCOW FOR TYPE/SIZE OF BASALT AGGREGATE SURFACE REPAIR WITHIN WASTEWATER TREATMENT PLANT. ROCK SHALL MATCH EXISTING TYPE/SIZE/MATERIAL ROCK SURFACE.

N

0 15 30 60 90



PROFESSIONAL ENGINEER REGISTERED 16087 12/23/2025 STATE OF IDAHO ZACHARY J. THOMPSON

BORDER SIZE	22"x34"
DESIGNED	MCK
DRAWN	TPB
CHECKED	SGM
APPROVED	ZJT

REVISIONS

NO.	DESCRIPTION	DATE

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3844 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS

LIFT STATION REHABILITATION

EROSION CONTROL

ATTENTION:
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" ON 22x34 SHEET or 1/2" ON 11x17 SHEET, THEN DRAWING IS NOT TO SCALE

DATE: December 2025
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SHEET: C6.0

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DRAWING LIST

DRAWING NO.	SHEET TITLE
E-01	ELECTRICAL SYMBOL AND LEGEND SHEET
E-02	ELECTRICAL AREA PLAN
E-03	ELECTRICAL SITE DEMOLITION PLAN
E-04	ELECTRICAL SITE PLAN
E-05	ELECTRICAL DETAILS (1 OF 2)
E-06	ELECTRICAL DETAILS (2 OF 2)
E-07	ELECTRICAL SCHEDULES
E-08	ELECTRICAL ONE-LINE DIAGRAM
E-09	PUMP CONTROL PANEL WIRING DIAGRAMS (1 OF 2)
E-10	PUMP CONTROL PANEL WIRING DIAGRAMS (2 OF 2)
E-11	TELEMETRY PANEL WIRING DIAGRAMS (1 OF 5)
E-12	TELEMETRY PANEL WIRING DIAGRAMS (2 OF 5)
E-13	TELEMETRY PANEL WIRING DIAGRAMS (3 OF 5)
E-14	TELEMETRY PANEL WIRING DIAGRAMS (4 OF 5)
E-15	TELEMETRY PANEL WIRING DIAGRAMS (5 OF 5)

SYMBOL	DESCRIPTION
a, L1, P1-2	LIGHTING FIXTURE, SURFACE "L1" INDICATES TYPE PER LUMINAIRE SCHEDULE "P1-2" INDICATES CIRCUITING "a" INDICATES SWITCHING
	LIGHTING FIXTURE, RECESSED
	STRIP, SURFACE OR PENDANT AS INDICATED IN LUMINAIRE SCHEDULE
a, L1, P1-2	LIGHTING FIXTURE, EMERGENCY
	LIGHTING FIXTURE, CEILING MOUNTED
	FIXTURE, WALL MOUNT
	EXIT LIGHT, INDICATES DIRECTION OF ARROW
	EMERGENCY WALL PACK
X	FLASHING ALARM BEACON
	LIGHTING FIXTURE, POLE MOUNTED
Φ, Φ(X)	SURFACE METAL RACEWAY W/RECEPTACLE @ X" O.C.
	DOUBLE DUPLEX RECEPTACLES
P1-4, GFCI, WP	DUPLEX RECEPTACLE P1-4= CIRCUIT NUMBER (TYP) GFCI= CLASS A, GROUND FAULT CIRCUIT INTERRUPTER WP= WEATHER PROOF XP= EXPLOSION PROOF
	SPECIAL PURPOSE RECEPTACLE
T	THERMOSTAT
S	SMOKE DETECTOR
	HEAT DETECTOR
	DATA OUTLET
	TELEPHONE OUTLET
	COMBINATION DATA/TELEPHONE OUTLET
$	SINGLE POLE SWITCH
$x	2 = DOUBLE POLE SWITCH 3 = THREE WAY SWITCH 4 = FOUR WAY SWITCH P = SWITCH AND PILOT LAMP K = KEY OPERATED SWITCH M = MOTOR RATED SWITCH (FOR USE WITH THERMALLY PROTECTED MOTORS) WP = WEATHER PROOF SWITCH T = SWITCH WITH TIMER
	PANELBOARD
H	HUMIDISTAT
OC	OCCUPANCY SENSOR
	EQUIPMENT TO BE REMOVED

SYMBOL	DESCRIPTION
	INTRINSICALLY SAFE JUNCTION BOX
	DEVICE TERMINAL IN PUMP CONTROL PANEL
	TERMINAL IN TELEMETRY PANEL
	TERMINAL AT REMOTE DEVICE OR PANEL
	THERMAL OVERLOAD RELAY
SS, OL	SOLID STATE OVERLOAD
M	MOTORIZED LOUVER
M	EXHAUST FAN
	CONDUIT CONCEALED IN WALL, CEILING, UNDER FLOOR, IN FLOOR SLAB, OR ROUTED UNDERGROUND
	CONDUIT EXPOSED
E	EXISTING CONDUIT ROUTED UNDERGROUND
OHP	OVERHEAD ELECTRICAL
	EXTRA-HARD USAGE FLEXIBLE CORD
	CONDUIT FLEXIBLE
	ELECTRICAL HEAT TRACE CABLE
	CONDUIT TURNED UP OR TOWARD
	CONDUIT TURNED DOWN OR AWAY
	CONDUIT CAPPED
P1-1, P1	CONDUIT HOME RUN 3/4"C, 2#12 & 1#12 GND. UNLESS SHOWN OTHERWISE. (EXAMPLE SHOWN: TO PANEL P1, CIRCUIT 1)
	CONDUIT HOME RUN - SEE CONDUIT AND WIRE SCHEDULE
HH1	HANDHOLE WITH DESIGNATION
J	JUNCTION BOX
30A, 2P	CKT. BKR, RATING/NO. OF POLES WITH THERMAL MAGNETIC CIRCUIT BREAKER TRIP
	MANUAL OR AUTOMATIC TRANSFER SWITCH
	POWER CAPACITOR
VFD, XXA	VARIABLE FREQUENCY DRIVE (XXA INDICATES CURRENT RATING)
SSS, XXA	SOLID STATE STARTER, REDUCED VOLTAGE WITH INTEGRAL & BYPASS CONTACTORS (XXA INDICATES CURRENT RATING)
	FUSE
DMS	DIGITAL METERING SYSTEM
CR	CR = CONTROL RELAY TDR = TIME DELAY RELAY TR = TIMER RELAY
PFR	PHASE FAIL RELAY & FUSE
RTM, SCC	RUN TIME METER WITH START CYCLE COUNTER
PE	PHOTO ELECTRIC CELL
	CONDUCTORS NOT CONNECTED
	CONDUCTORS CONNECTED
	PULL OUT SWITCH/PLUG-RECEPTACLE CONNECTION
	HORN
	SEAL OFF
I	INTERCOM STATION
	POWER POLE

SCHEMATIC	PLAN	DESCRIPTION
		GROUND ROD IN GROUND ROD BOX
	- +	BATTERY
	T	TRANSFORMER, PLAN VIEW SHOWN TO SCALE
3	CT	CURRENT TRANSFORMER, NUMBER INDICATES NUMBER OF C.T.'S. PLAN VIEW SHOWN TO SCALE
10	M	MOTOR, NUMBER INDICATES HORSEPOWER
150W		ELECTRIC HEATER WINDING, WATTAGE INDICATED
G		GENERATOR, PLAN VIEW SHOWN TO SCALE
	SV	SOLENOID VALVE
FVNR, 2		FULL VOLTAGE NON-REVERSING STARTER/NEMA SIZE MS = MOTOR STARTER CONTACT BP = BYPASS CONTACTOR IC = ISOLATION CONTACTOR FVNR = FULL VOLTAGE NON-REVERSING
100AF	60A	DISCONNECT SWITCH, NON FUSED (60A) INDICATES AMPERAGE RATING
200AS	F, 200/100	DISCONNECT SWITCH, FUSED 200=SWITCH RATING, 100=FUSE RATING
M		UTILITY WATT HOUR METER
R	R	INDICATING LIGHT: A = AMBER G = GREEN W = WHITE B = BLUE R = RED
R	R	LIGHTED PUSHBUTTON
HAND, OFF, AUTO	HOA	SELECTOR SWITCH: HOR = HAND/OFF/REMOTE HOA = HAND/OFF/AUTO RO = RUN/OFF
	PB	PUSHBUTTON SWITCH, MOMENTARY ON
	PS	PRESSURE SWITCH, NORMALLY CLOSED
	FS	FLOW SWITCH, NORMALLY CLOSED
	ZS	LIMIT SWITCH, NORMALLY OPEN
	ZS	LIMIT SWITCH, NORMALLY CLOSED
	LS	LEVEL SWITCH, CLOSES ON RISING LEVEL
	T	TS, TEMP. SWITCH, CLOSES ON RISING TEMP T, THERMOSTAT FOR COOLING / VENTILATION
	T	TS, TEMP. SWITCH, CLOSES ON FALLING TEMP T, THERMOSTAT FOR HEATING
	TS	TIMED CONTACT, CONTACT ACTION IS RETARDED AFTER COIL IS ENERGIZED - NOTC
	TS	TIMED CONTACT, CONTACT ACTION IS RETARDED AFTER COIL IS ENERGIZED - NCTO
	TS	TIMED CONTACT, CONTACT ACTION IS RETARDED AFTER COIL IS DEENERGIZED - NOTO
	TS	TIMED CONTACT, CONTACT ACTION IS RETARDED AFTER COIL IS DEENERGIZED - NCTC
		POTENTIOMETER
XX	XX	LT = LEVEL TRANSMITTER PT = PRESSURE TRANSMITTER SI = SPEED INDICATOR FT = FLOW TRANSMITTER VB = VIBRATION TRANSMITTER TT = TEMPERATURE TRANSMITTER FI = FLOW INDICATOR
	D	DOOR SWITCH
	OT	OVERTEMPERATURE CUTOUT
CP, H	XXXX	LOCAL EQUIPMENT CONTROL PANEL - MCP, LCP, FACP
F		UNIT HEATER

GENERAL NOTES

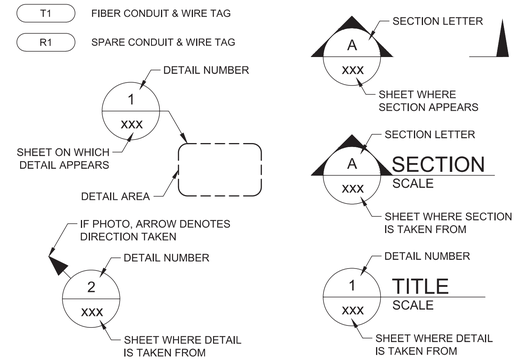
1. "GENERAL NOTES" APPLY TO ALL DRAWINGS. "SHEET NOTES" APPLY TO ALL OF THE SHEETS ON WHICH THEY OCCUR. "KEYNOTES" APPLY ONLY WHERE CALLED OUT.
2. CONTRACTOR SHALL PROVIDE CONDUIT AND WIRE FROM ALL CONTROL DEVICES TO LUMINAIRES FOR CONTROL OF LUMINAIRES SHOWN.
3. BRANCH CIRCUIT CONDUCTORS, NOT OTHERWISE IDENTIFIED SHALL BE A MINIMUM 12 AWG FOR RUNS 70 FEET OR LESS AND A MINIMUM 10 AWG FOR RUNS GREATER THAN 70 FEET. QUANTITY AND SIZE SHALL BE "AS REQUIRED" TO SERVE AND CONTROL DEVICE(S) OR EQUIPMENT WITH A MAXIMUM VOLTAGE DROP OF THREE PERCENT. WHERE CONTRACTOR CHOOSES TO RUN MORE THAN THREE CURRENT CARRYING CONDUCTORS WITHIN ONE RACEWAY OR CABLE, CONDUCTORS SHALL BE INCREASED IN SIZE TO COMPENSATE FOR THE DERATING REQUIRED PER NEC SECTION 310.15. CONDUCTOR AMPACITIES SHALL BE TAKEN FROM THE 75°C COLUMN.
4. MINIMUM CONDUIT IN EXTERIOR AND UNDERGROUND LOCATIONS TO BE 1". MINIMUM CONDUIT FOR INTERIOR BRANCH CIRCUITS TO BE 3/4". CONDUITS FROM LUMINAIRES TO LOCAL USER CONTROL DEVICES (SWITCHES, OCCUPANCY SENSORS, ETC.) MAY BE 1/2" OR AS INDICATED IN SPECIFICATIONS. PROVIDE ADDITIONAL CONDUCTOR FOR UNSWITCHED "HOT" TO LIGHTING LUMINAIRES WITH EMERGENCY POWER BATTERIES OR GENERATOR TRANSFER DEVICES.
5. CONTRACTOR SHALL PROVIDE CONDUIT AND WIRE FOR ALL CIRCUITS SHOWN AND SCHEDULED ON DRAWINGS.
6. PROVIDE DEDICATED NEUTRAL CONDUCTOR FOR ALL BRANCH CIRCUITS.
7. ALL EQUIPMENT SHOWN IN BOLD LINEWEIGHT SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED. EXISTING ELECTRICAL EQUIPMENT, BACKGROUND AND/OR WORK/EQUIPMENT THAT IS TO BE PROVIDED BY OTHERS IS SHOWN IN LIGHTER LINEWEIGHTS.
8. THE SYMBOLS, ABBREVIATIONS AND NOTES ON THIS SHEET ARE INTENDED TO BE GENERAL AND COMPREHENSIVE AND DO NOT ALL APPLY TO THIS PROJECT.

ABBREVIATIONS

AFC	AVAILABLE FAULT CURRENT	LCP	LIGHTING CONTROL PANEL
AFG	ABOVE FINISHED GRADE	LTG	LIGHTING
AF	AMP FRAME	MCC	MOTOR CONTROL CENTER
AFCI	ARC FLASH CIRCUIT INTERRUPTER	MDP	MAIN DISTRIBUTION PANEL
AFF	ABOVE FINISHED FLOOR	MLO	MAIN LUGS ONLY
AI	ANALOG INPUT POINT	NL	NIGHT LIGHT
AIC	AMPERE INTERRUPTING CAPACITY	NTS	NOT TO SCALE
AHJ	AUTHORITY HAVING JURISDICTION	OC	ON CENTER
AO	ANALOG OUTPUT POINT	OH	OVERHEAD
ATS	AUTOMATIC TRANSFER SWITCH	OIT	OPERATOR INTERFACE TERMINAL
BC	BATTERY CHARGER	OS	OCCUPANCY SENSOR
BH	BLOCK HEATER	PB	PUSH BUTTON
C	CONDUIT	PIV	POST INDICATOR VALVE
CB	CIRCUIT BREAKER	PNL	PANEL
COM	COMMON	PS	POWER SUPPLY
COMM	COMMUNICATIONS	PT	POTENTIAL TRANSFORMER
CPT	CONTROL POWER TRANSFORMER	PTT	PUSH TO TEST
CT	CURRENT TRANSFORMER	PVC	POLYVINYL CHLORIDE
DI	AC DIGITAL INPUT POINT	RCPT	RECEPTACLE
DO	AC DIGITAL OUTPUT POINT	RMC	RIGID METAL CONDUIT
EC	ELECTRICAL CONTRACTOR	RTM	RUN TIME METER
EF	EXHAUST FAN	SA	SURGE ARRESTOR
EMT	ELECTRICAL METALLIC TUBING	SPD	SURGE PROTECTIVE DEVICE
EX	EXPLOSION PROOF	SS	STAINLESS STEEL
FAAP	FIRE ALARM ANNUNCIATOR PANEL	STP	SHIELDED TWISTED PAIR
FACP	FIRE ALARM CONTROL PANEL	SV	SOLENOID VALVE
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GFP	GROUND FAULT PROTECTION	UH	UNIT HEATER
GND	GROUND	UL	UNDERWRITERS LABORATORIES
GRS	GALVANIZED RIGID STEEL CONDUIT	UG	UNDERGROUND
HH	HANDHOLE	UON	UNLESS OTHERWISE NOTED
HOA	HAND-OFF-AUTO	UTP	UNSHIELDED TWISTED PAIR
HD	HEAVY DUTY	VFD	VARIABLE FREQUENCY DRIVE
HP	HORESPOWER	WP	WEATHERPROOF
IC	ISOLATION CONTACT	XFMR	TRANSFORMER
IMC	INTERMEDIATE METALLIC CONDUIT		
JBOX	JUNCTION BOX		

REFERENCE SYMBOLS

- G1 — GROUNDING ELECTRODE SYSTEM CONDUIT & WIRE TAG
- P1 — POWER CONDUIT & WIRE TAG
- C1 — CONTROL CONDUIT & WIRE TAG
- S1 — SIGNAL CONDUIT & WIRE TAG
- T1 — FIBER CONDUIT & WIRE TAG
- R1 — SPARE CONDUIT & WIRE TAG
- XX — FAULT CURRENT TAG (AIC)
- X — KEY NOTE
- P-01 — MECHANICAL EQUIP. DESIGNATION
- PSL-101 — INSTRUMENT DESIGNATION



PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

REVISIONS			
NO.	DESCRIPTION	DATE	
A	FOR 60% REVIEW	08/16/2025	
B	FOR 100% REVIEW	10/24/2025	
C	FOR AGENCY REVIEW	12/15/2025	

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
CHECKED	GJW
APPROVED	GJW

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CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
ELECTRICAL SYMBOL AND LEGEND SHEET

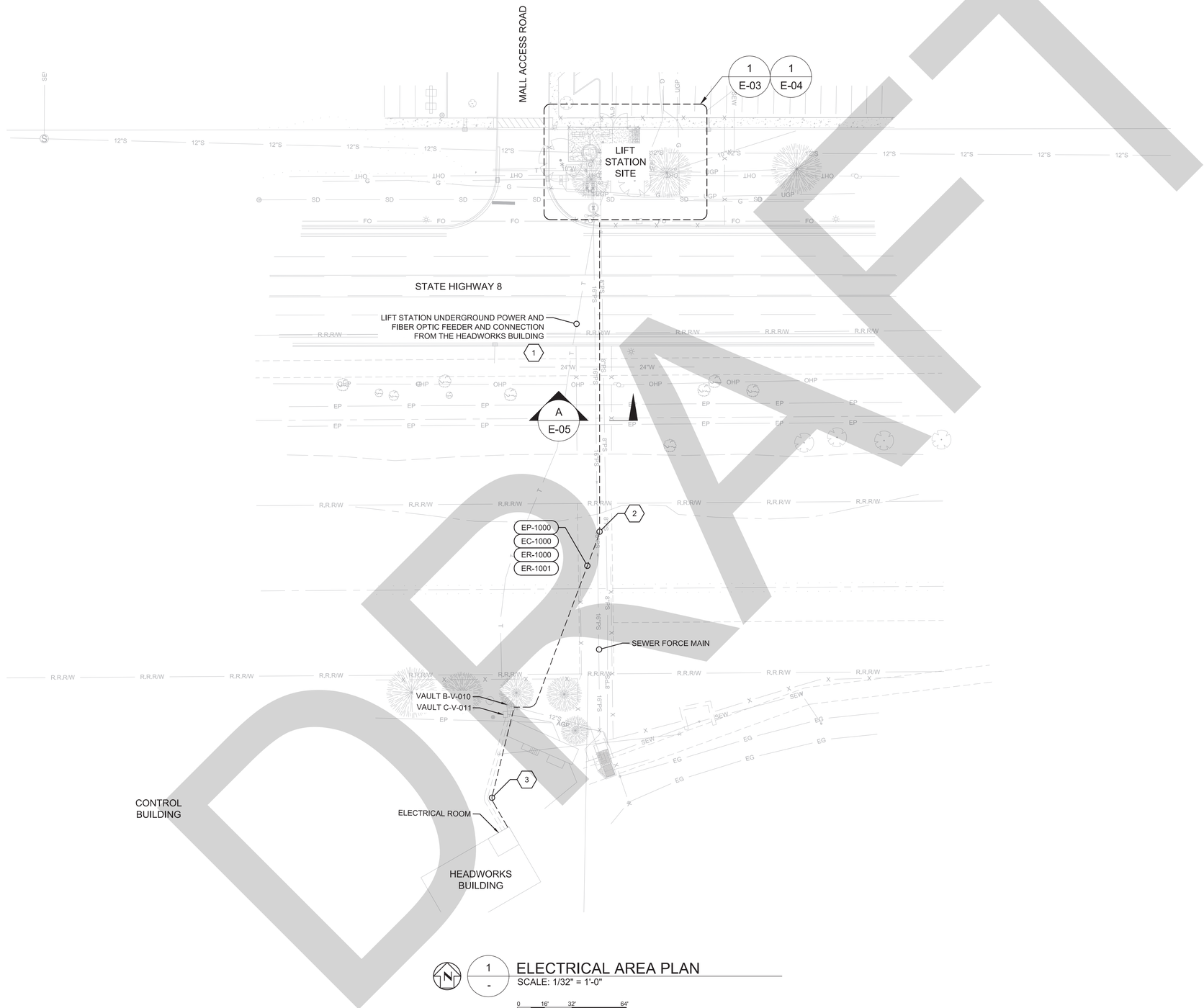
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SANDPOINT, IDAHO 83864
208.946.4380

ATTENTION: 0 1/2 1
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DATE: December 25
PROJECT: 240380
SHEET: E-01

DRAFT

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1 - ELECTRICAL AREA PLAN
SCALE: 1/32" = 1'-0"

0 16' 32' 64'

GENERAL NOTES

1. NOT ALL EXISTING UTILITIES, PIPING, OR CONDUIT ROUTING IS KNOWN OR SHOWN. FIELD VERIFY.
2. NOT ALL CONDUIT ROUTING IS SHOWN; SEE CONDUIT AND WIRE SCHEDULE. ELECTRICAL CONTRACTOR SHALL DETERMINE THE BEST ROUTING PATHS AND CIRCUIT COMBINATIONS BASED ON FIELD CONDITIONS AND ELECTRICAL CODES.

THE SCOPE OF THIS PROJECT GENERALLY INCLUDES:

1. THE LIFT STATION ELECTRICAL AND CONTROL EQUIPMENT PROCUREMENT, INSTALLATION, PROGRAMMING MODIFICATIONS, AND REUSING THE TELEMETRY PANEL.
2. INSTALLING FIBER AND POWER WIRES AND CONDUIT FROM THE LIFT STATION TO THE HEADWORKS BUILDING THROUGH THE B-V-010 VAULT.
3. DEMO OF DRY WELL AND WET WELL ELECTRICAL EQUIPMENT AFTER TRANSFER OF POWER AND CONTROL.
4. DEMO RACK AND EQUIPMENT CABINETS, EXCEPT FOR THE TELEMETRY PANEL, AFTER TRANSFER OF POWER AND CONTROL.
5. COMPLETE SYSTEM FUNCTIONAL TESTING, COMMISSIONING, AND REPORTING IN ACCORDANCE WITH SPECIFICATIONS.
6. CONTRACTOR SHALL PROVIDE A DETAILED PROPOSED DEMOLITION AND INSTALLATION SEQUENCING PLAN FOR ENGINEER REVIEW.

KEY NOTES

1. PRESERVE AND PROTECT EXISTING POWER AND FIBER OPTIC CONDUITS ROUTED BETWEEN THE LIFT STATION AND VAULT B-V-010. DEMO WIRES AND CABLE FOLLOWING COMMISSIONING OF NEW SYSTEMS. REPLACE WITH PULL CORDS AND IDENTIFY CONDUITS AS SPARES ON BOTH ENDS.
2. COORDINATE WITH OWNER AND ENGINEER BASED ON EXISTING CONDITIONS TO DETERMINE THE BEST UNDERGROUND CONDUIT ROUTE FOR CONDUIT PLACEMENT BETWEEN VAULT B-V-010 AND THE NEW SEWER FORCE MAIN TRENCH. COORDINATE TO INSTALL CONDUITS IN THE NEW SEWER FORCE MAIN TRENCH ALONG THE ROUTE WHEREVER POSSIBLE.
3. UTILIZE EXISTING CONCRETE ENCASED DUCT BANK BETWEEN VAULT B-V-010 AND THE HEADWORKS BUILDING ELECTRICAL ROOM FOR NEW WIRES AND CABLE.

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
CHECKED	GJW
APPROVED	GJW

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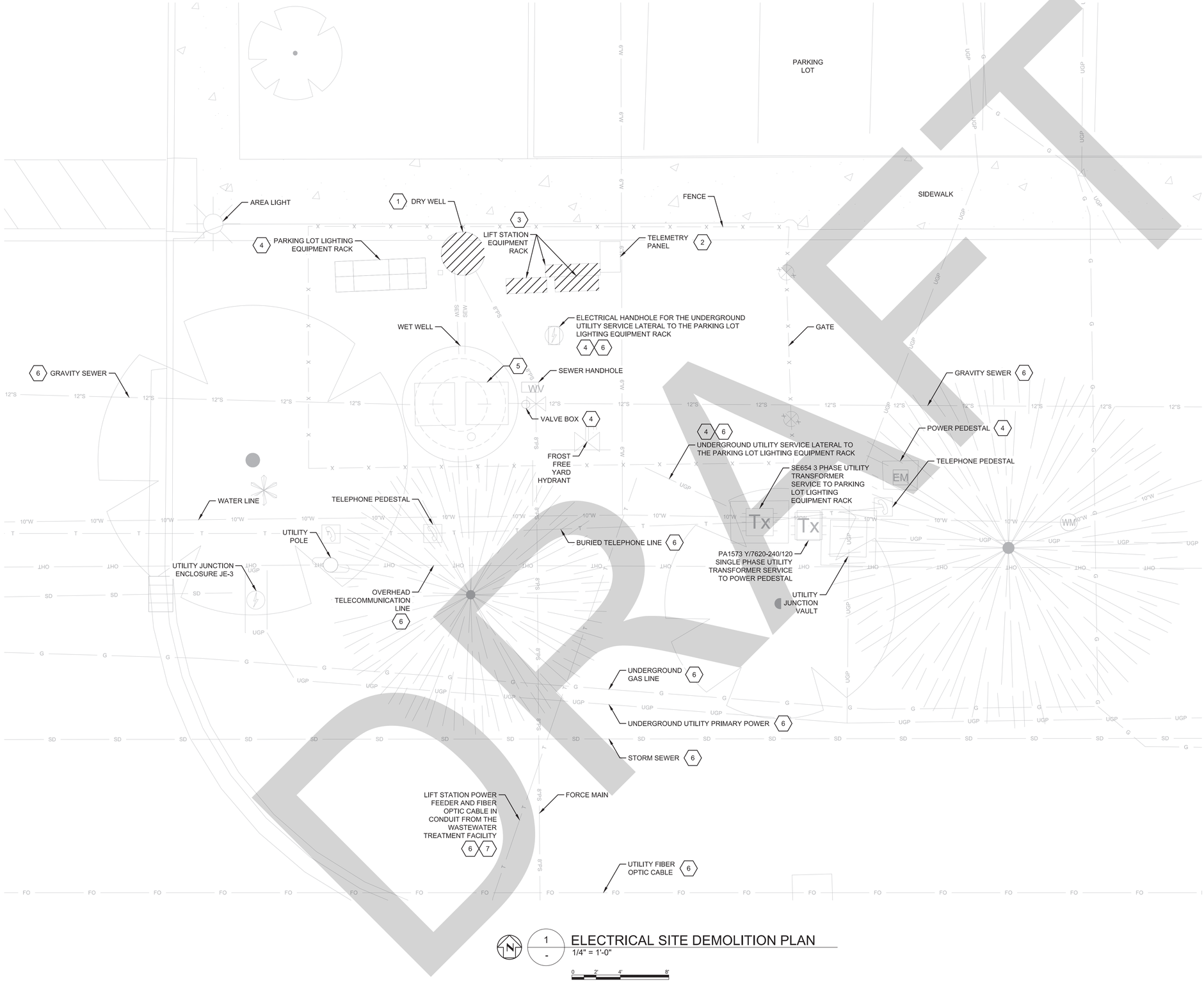
CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
ELECTRICAL AREA PLAN

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SHEET: E-02

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1 - ELECTRICAL SITE DEMOLITION PLAN
1/4" = 1'-0"

0 2' 4' 8'

SHEET NOTES

1. NOT ALL EXISTING UTILITIES, PIPING, OR CONDUIT ROUTING IS KNOWN OR SHOWN. FIELD VERIFY.
2. COORDINATE WITH OWNER FOR POWER AND CONTROL TRANSFER FROM THE EXISTING SYSTEM TO THE NEW SYSTEM, REUSE OF THE TELEMETRY PANEL, AND DEMOLITION OF EQUIPMENT.
3. CONTRACTOR SHALL PROVIDE A DETAILED PROPOSED DEMOLITION AND INSTALLATION SEQUENCING PLAN FOR ENGINEER REVIEW.
4. COORDINATE WITH SERVING UTILITIES AND RANDY WIDMAN OF AVISTA UTILITIES AT PHONE: 509-867-8790, E-MAIL: RANDY.WIDMAN@AVISTACORP.COM FOR COORDINATION AND SCOPE OF UTILITY PRESERVATION AND/OR RELOCATION, AS REQUIRED.

KEY NOTES

1. ELECTRICALLY DECOMMISSION DRY WELL AFTER POWER AND CONTROL TRANSFER. COORDINATE WITH OWNER TO SALVAGE/DEMOLISH EQUIPMENT AS REQUESTED. SEE CIVIL PLANS PAGE C2.0 FOR DEMOLITION DETAILS.
2. PRESERVE AND PROTECT TELEMETRY PANEL FOR REUSE ON THIS PROJECT.
3. DEMO RACK AND EQUIPMENT CABINETS, EXCEPT FOR THE TELEMETRY PANEL DETAILED IN KEYNOTE 2, AFTER TRANSFER OF POWER AND CONTROL.
4. PRESERVE AND PROTECT.
5. DEMO WET WELL FLOATS, WIRES, AND LEVEL TRANSMITTER AFTER TRANSFERRING TO NEW REPLACEMENT INSTRUMENTATION. MINIMIZE DOWNTIME.
6. FIELD CONFIRM LOCATION AND DETAILS.
7. PRESERVE AND PROTECT. DEMO WIRES AND CABLE FOLLOWING NEW SYSTEMS COMMISSIONING.

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
CHECKED	GJW
APPROVED	GJW

REVISIONS

NO.	DESCRIPTION	DATE
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CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
ELECTRICAL SITE DEMOLITION PLAN

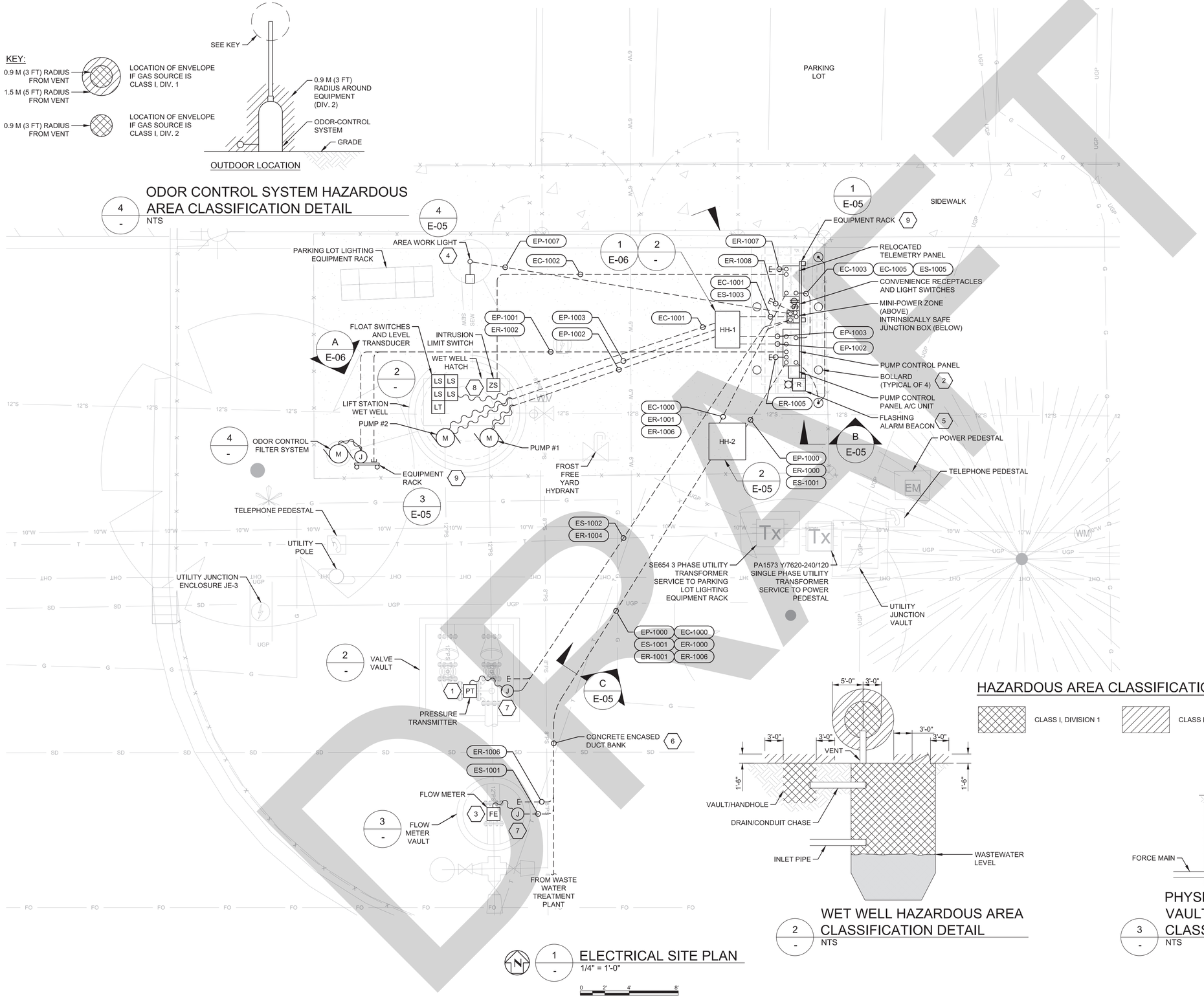
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SHEET: E-03

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ODOR CONTROL SYSTEM HAZARDOUS AREA CLASSIFICATION DETAIL
NTS

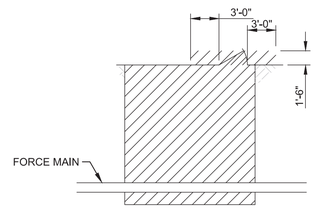


ELECTRICAL SITE PLAN
1/4" = 1'-0"

HAZARDOUS AREA CLASSIFICATION LEGEND

CLASS I, DIVISION 1 | CLASS I, DIVISION 2 | UNCLASSIFIED

WET WELL HAZARDOUS AREA CLASSIFICATION DETAIL
NTS



PHYSICALLY SEPARATED VAULT HAZARDOUS AREA CLASSIFICATION DETAIL
NTS

SHEET NOTES

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KEY NOTES

1. SEE CIVIL PLANS DETAIL 10, "PRESSURE GAUGE."
2. 8" DIAMETER, YELLOW, CAST-IN-PLACE CONCRETE BOLLARD ASSEMBLY, CEME-TUBE CT08BA-8, OR EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
3. SEE CIVIL PLANS ON PAGE C3.0 FOR FLOW METER DETAILS.
4. COORDINATE LIGHT INSTALLATION WITH DRY PIT FILLING OF AGGREGATE FOR ABANDONMENT PER CIVIL DEMOLITION KEY NOTE D1 ON C2.0.
5. MOUNT FLASHING ALARM BEACON TO EQUIPMENT RACK SO THAT BEACON CAN BE SEEN ABOVE THE FENCE FROM THE CONTORL BUILDING AT THE WASTEWATER TREATMENT PLANT. USE FACTORY MOUNTING BRACKET.
6. INSTALL CONCRETE ENCASED DUCT BANK BETWEEN HANDHOLE HH-2 AND THE FLOW METER VAULT.
7. TYPE "T" CONDUIT BODY WITH TOP OR SIDE CABLE GLAND AND BOTTOM DRAIN FITTING.
8. LIMIT SWITCH TO MONITOR HATCH OPEN/CLOSED POSITIONS. MOUNT USING STAINLESS STEEL HARDWARE TO LID ASSEMBLY IN A LOCATION TO PROVIDE RELIABLE OPERATION.
9. INSTALL SEAL-OFFS DIRECTLY ABOVE FINISHED CONCRETE IN RACEWAYS ROUTED FROM HAZARDOUS AREAS. FOR SPARE CONDUITS PROVIDE GRS PLUGS AND COUPLINGS FLUSH WITH FINISHED CONCRETE.

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
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CHECKED	GJW
APPROVED	GJW

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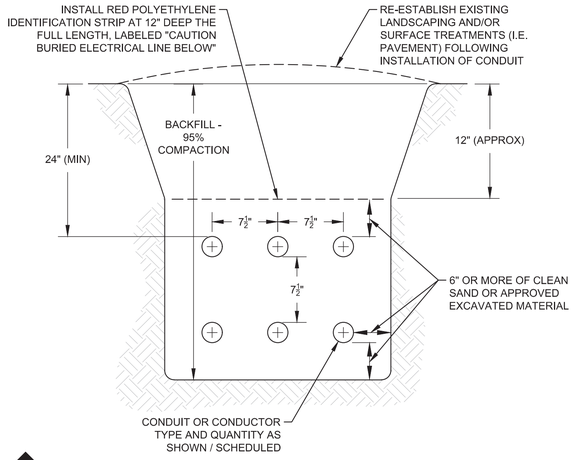
CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
ELECTRICAL SITE PLAN

CENTURY WEST ENGINEERING
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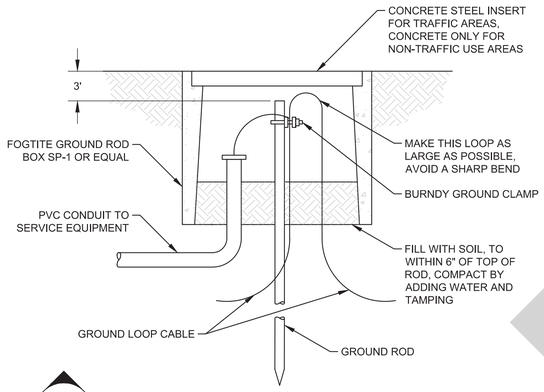
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DATE: December 25
PROJECT: 240380
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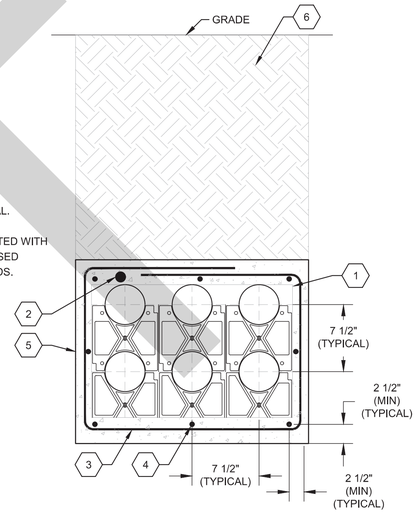
A - ELECTRICAL CONDUIT TRENCH DETAIL - TYPICAL
NTS



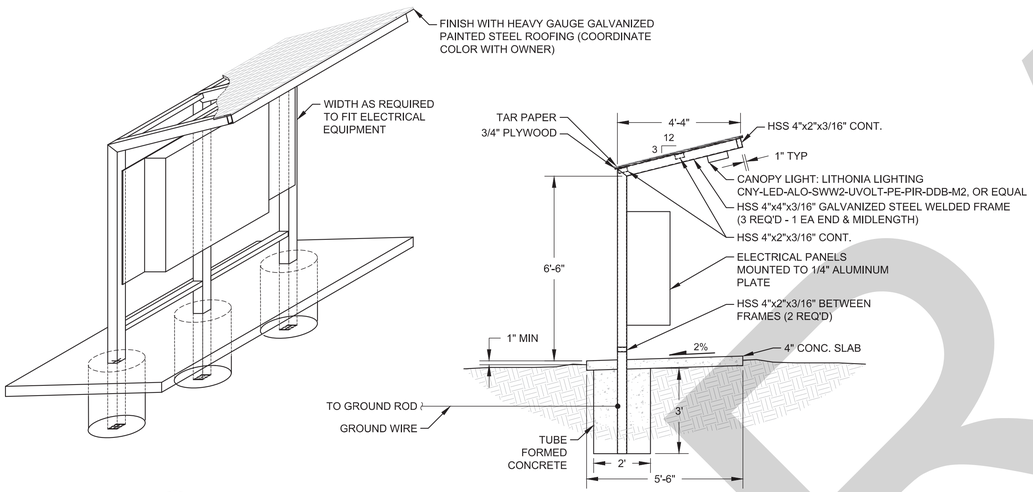
B - TYPICAL GROUND WELL DETAIL
NTS

DETAIL NOTES

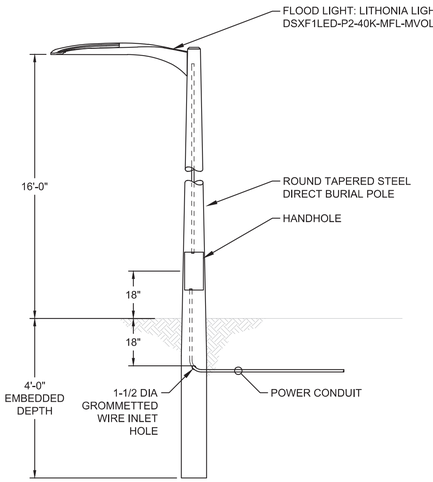
1. CARLON SNAPLOCK SYSTEM OR EQUAL.
2. #4 BARE COPPER GROUND WIRE ROUTED WITH ALL DUCT BANKS. BOND TO ALL EXPOSED CONDUIT IN VAULTS AND TO VAULT LIDS.
3. #4 REBAR @ 18" OC MAXIMUM.
4. #4 REBAR @ 10" OC MAXIMUM.
5. CONCRETE PER SPECIFICATIONS.
6. BACKFILL PER SPECIFICATIONS.



C - TYPICAL DUCT BANK ARRANGEMENT
NTS



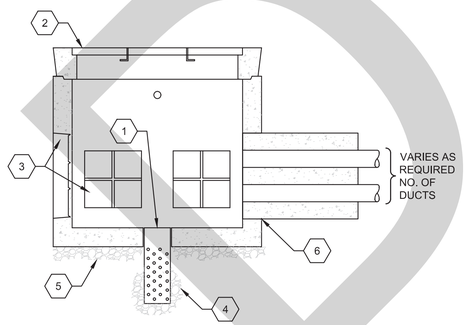
1 - ELECTRICAL EQUIPMENT RACK DETAIL
NTS



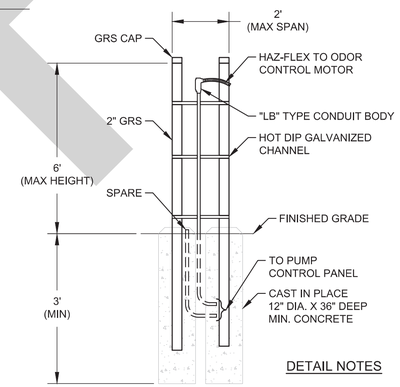
4 - DIRECT BURY POLE LUMINAIRE DETAIL
NTS

DETAIL NOTES

1. CORE DRILL HOLE IN BOTTOM OF VAULT. DIG 24" DEEP HOLE OF 6" PVC PIPE. GROUT AROUND PIPE AFTER INSTALLATION. FILL PIPE WITH 1" MINUS GRAVEL.
2. BOND ALL METAL PARTS AND LID WITH COPPER BRAND CABLE SIZED PER NEC REQUIREMENTS.
3. GROUT TO FULL WALL THICKNESS AROUND CONDUIT AT KNOCKOUTS, TYPICAL. SEAL ALL RACEWAYS WITH WATERTIGHT ENCAPSULANT FOLLOWING CONDUCTOR INSTALLATION.
4. 10 CF 1" TO 1-1/2" GRAVEL, ALL AROUND DRAIN.
5. COMPACTED GRAVEL 12" DEEP, MINIMUM 3/4" MINUS.
6. GROUT TO FULL WALL THICKNESS AROUND KNOCK-OUTS.



2 - HANDHOLE DRAIN INSTALLATION DETAIL
NTS



DETAIL NOTES

1. PROVIDE GROUNDING FOR OUTDOOR INSTALLATION, PER SPECIFICATIONS.

3 - ODOR CONTROL SYSTEM CONDUIT SUPPORT RACK
NTS

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PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
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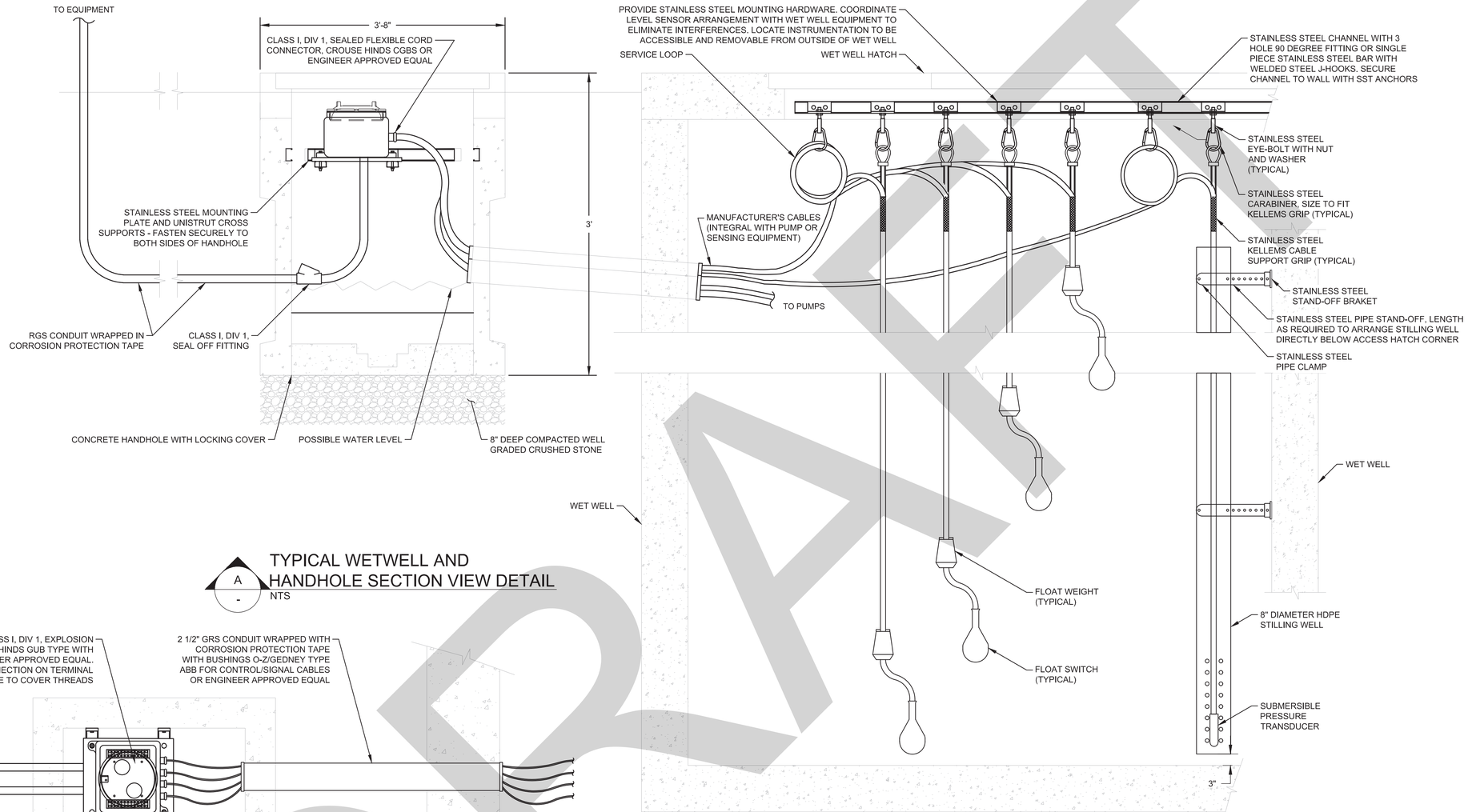
CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
ELECTRICAL DETAILS (1 OF 2)

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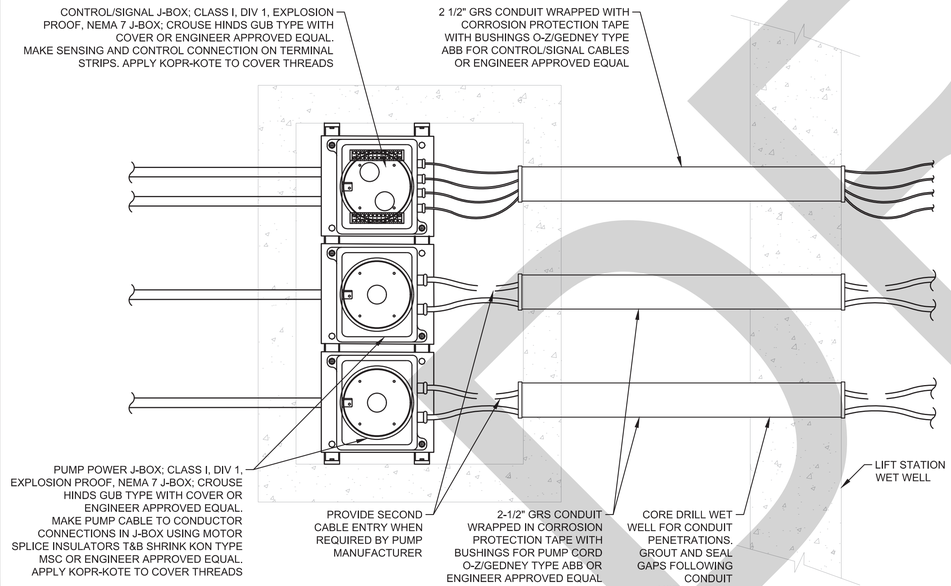
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A - TYPICAL WETWELL AND HANDHOLE SECTION VIEW DETAIL
NTS



1 - TYPICAL HANDHOLE PLAN VIEW DETAIL
NTS

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE 22"x34"
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CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
ELECTRICAL DETAILS (2 OF 2)

CENTURY WEST ENGINEERING
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Designation: 120/240 VOLT PANELBOARD — Volts: 120/240 — Phase: 1 — Wire: 3
Location: PALOUSE MALL LIFT STATION — 60 Amp Bus with 1LO 40 Main Breaker
Enclosure: 3R — Surface Mounted — AIC Rating: 18k

Ckt	*Nts	Description	Bkr	A		B		Bkr	Description	Nts	Ckt
1		PUMP CONTROL PANEL CONTROL POWER	20	1350	1035			20	ODOR CONTROL FAN (PUMP CONTROL PANEL)	1	2
3		TELEMETRY PANEL	20			1000	1035	|	|		4
5		EQUIPMENT RACK RECEPTACLE	20	180	72			20	AREA AND CANOPY LIGHTS		6
7		SPARE	20				5	30	SPD		8
9		SPARE	20		5			|	|		10
		Phase VA Totals:		2642		2040		Connected Load:	Demand Factor:	Demand Load:	
								Totals:		4.7 Kva 19.5 Amps	

* Notes:
1 INCLUDES 125% OF MOTOR FLA
2 INCLUDE NAMEPLATE ON THE TRANSFORMER IDENTIFYING THAT IT IS POWERED FROM THE PUMP CONTROL PANEL

CONDUIT AND WIRE SCHEDULE

TAG	C SIZE	WIRE SIZE (EACH)	FROM	TO
EP-1000	2"	(3) 2 AWG, 6 AWG EGC	HEADWORKS ELECTRICAL ROOM (PANEL HW-MAIN)	VAULT B-V-010
	2"	(3) 2 AWG, 6 AWG EGC	VAULT B-V-010 VAULT	HH-2
	2"	(3) 2 AWG, 6 AWG EGC	HH-2	PUMP CONTROL PANEL
EP-1001	1"	(2) 12 AWG, 12 AWG EGC	PUMP CONTROL PANEL (FAN OVERLOAD RELAY)	ODOR CONTROL FAN MOTOR
EP-1002	1-1/4"	(3) 8 AWG, 10 AWG EGC; (6) 14 AWG SHIELDED CABLE	PUMP CONTROL PANEL (PUMP #1 VFD)	HH-1 (PUMP #1 JUNCTION BOX)
	2-1/2"	MANUFACTURER'S CABLE(S)	HH-1 (PUMP #1 JUNCTION BOX)	PUMP #1
EP-1003	1-1/4"	(3) 8 AWG, 10 AWG EGC; (6) 14 AWG SHIELDED CABLE	PUMP CONTROL PANEL (PUMP #2 VFD)	HH-1 (PUMP #2 JUNCTION BOX)
	2-1/2"	MANUFACTURER'S CABLE(S)	HH-1 (PUMP #2 JUNCTION BOX)	PUMP #2
EP-1004	3/4"	(5) 12 AWG, 12 AWG EGC	MINI POWER ZONE	PUMP CONTROL PANEL (ODOR CONTROL FAN STARTER, CONTROL POWER)
EP-1005	3/4"	(4) 12 AWG, 12 AWG EGC	MINI POWER ZONE	CANOPY AND AREA WORK LIGHT SWITCHES, EQUIPMENT RACK RECEPTACLE
EP-1006	3/4"	(2) 12 AWG, 12 AWG EGC	CANOPY LIGHT SWITCH	CANOPY LIGHT
EP-1007	1"	(2) 12 AWG, 12 AWG EGC	AREA WORK LIGHT SWITCH	POLE MOUNTED AREA WORK LIGHT
EP-1008	3/4"	(2) 12 AWG, 12 AWG EGC	PUMP CONROL PANEL	INTRINSICALLY SAFE JUNCTION BOX (CONTROL POWER)
EP-1009	3/4"	(2) 12 AWG, 12 AWG EGC	MINI POWER ZONE	TELEMETRY PANEL
EP-1010	3/4"	(2) 12 AWG, 12 AWG EGC	PUMP CONTROL PANEL	ALARM BEACON
EC-1000	2"	SM 6 FIBER OPTIC CABLE	HEADWORKS	VAULT B-V-010
	2"	SM 6 FIBER OPTIC CABLE	VAULT B-V-010	HH-2
	2"	SM 6 FIBER OPTIC CABLE	HH-2	TELEMETRY PANEL
EC-1001	2-1/2"	MANUFACTURER'S CABLES (5)	HH-1	LEVEL FLOAT SWITCHES AND LEVEL TRANSMITTER
	1"	(12) 14 AWG, 12 AWG	INTRINSICALLY SAFE JUNCTION BOX	HH-1
EC-1002	3/4"	(2) 14 AWG, 12 AWG EGC	(EX) WET WELL HATCH OPEN/CLOSED LIMIT SWITCH	TELEMETRY PANEL
EC-1003	2"	(50) 14 AWG, 12 AWG EGC	PUMP CONTROL PANEL	TELEMETRY PANEL
EC-1004	3/4"	(8) 14 AWG, 12 AWG EGC	INTRINSICALLY SAFE JUNCTION BOX	PUMP CONTROL PANEL (FLOAT SWITCH STATUS)
EC-1005	1-1/4"	CAT 6	PUMP CONTROL PANEL	TELEMETRY PANEL
ES-1001	1"	MANUFACTURERS CABLE	FLOW METER	HH-2
	1"	MANUFACTURERS CABLE	HH-2	PUMP CONTROL PANEL
ES-1002	1"	MANUFACTURERS CABLE	PRESSURE TRANSMITTER	INTRINSICALLY SAFE JUNCTION BOX
ES-1003	1"	(2) 16 AWG STP	INTRINSICALLY SAFE JUNCTION BOX	HH-1
ES-1004	1"	(2) 16 AWG STP	HH-1	TELEMETRY PANEL
ES-1005	2"	(9) 16 AWG STP	PUMP CONTROL PANEL	TELEMETRY PANEL
EG-1000	-	4 AWG BARE STRANDED COPPER	GROUND ROD	ELECTRICAL EQUIPMENT RACK
EG-1001	-	4 AWG BARE STRANDED COPPER	GROUND ROD	GROUND ROD
EG-1002	1" (ABOVE GROUND)	4 AWG BARE STRANDED COPPER	GROUND ROD	PUMP CONTROL PANEL
ER-1000	2"	PULL CORD	HEADWORKS	B-V-010 VAULT
	2"	PULL CORD	B-V-010 VAULT	HH-2
	2"	PULL CORD	HH-2	PUMP CONTROL PANEL
ER-1001	2"	PULL CORD	HEADWORKS	B-V-010 VAULT
	2"	PULL CORD	B-V-010 VAULT	HH-2
	2"	PULL CORD	HH-2	TELEMETRY PANEL
ER-1002	1"	PULL CORD	ODOR CONTROL FILTER SYSTEM EQUIPMENT RACK	PUMP CONTROL PANEL
ER-1003	1-1/4"	PULL CORD	BELOW INTRINSICALLY SAFE JUNCTION BOX	STUB-OUT BEYOND HOUSEKEEPING PAD AND CAP
ER-1004	1"	PULL CORD	VALVE VAULT	BELOW INTRINSICALLY SAFE JUNCTION BOX
ER-1005	1-1/4"	PULL CORD	PUMP CONTROL PANEL	STUB-OUT BEYOND HOUSEKEEPING PAD AND CAP
ER-1006	1"	PULL CORD	FLOW METER VAULT	BELOW INTRINSICALLY SAFE JUNCTION BOX
ER-1007	1-1/4"	PULL CORD	TELEMETRY PANEL	STUB-OUT BEYOND HOUSEKEEPING PAD AND CAP

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PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE 22"x34"
DESIGNED EWN
DRAWN JTR
CHECKED GJW
APPROVED GJW

REVISIONS

NO.	DESCRIPTION	DATE
A	FOR 60% REVIEW	08/16/2025
B	FOR 100% REVIEW	10/24/2025
C	FOR AGENCY REVIEW	12/15/2025

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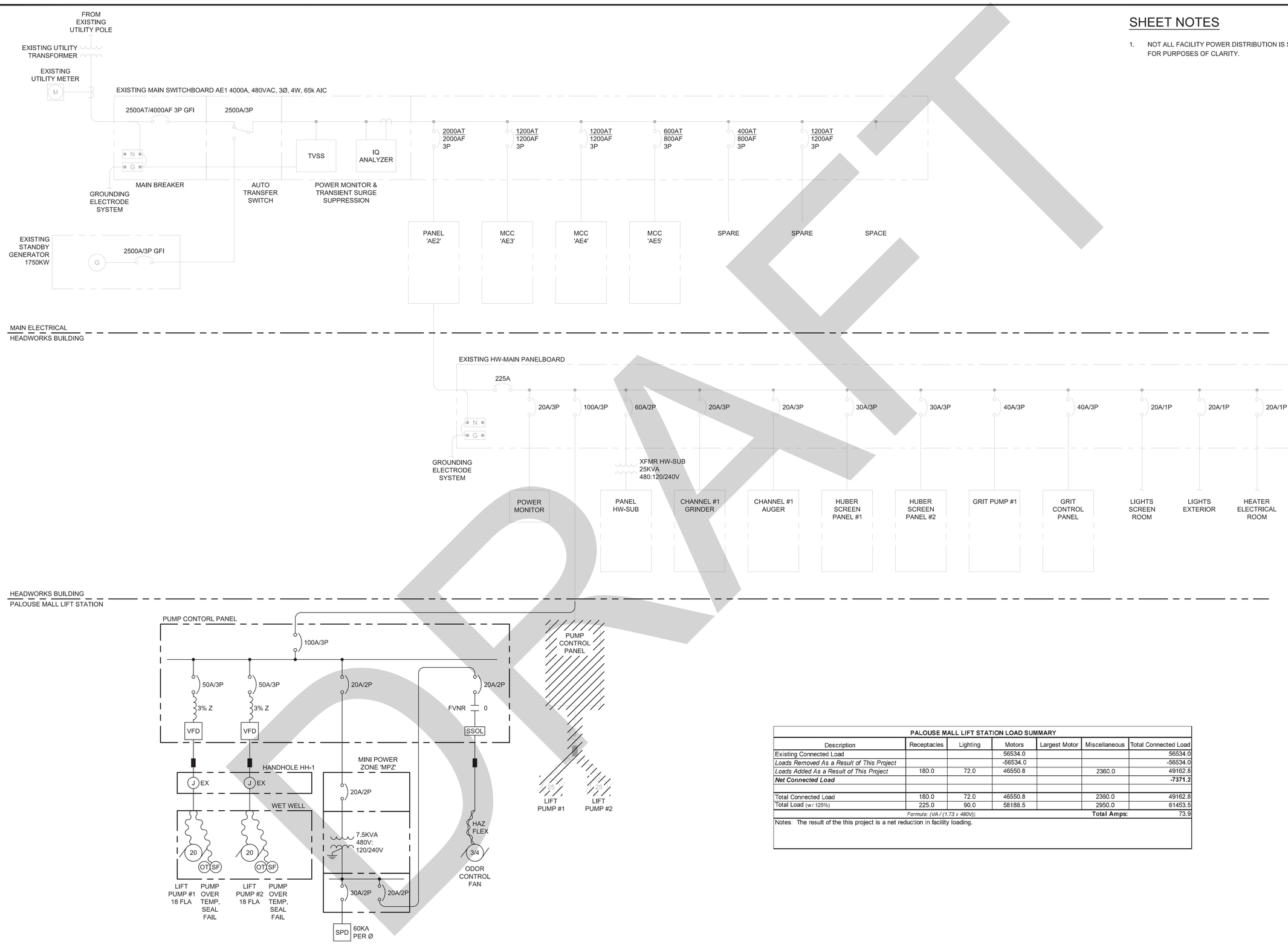
CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
ELECTRICAL SCHEDULES

CENTURY WEST ENGINEERING
SANDPOINT OFFICE
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SANDPOINT, IDAHO 83864
208.946.4380

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DATE: December 25
PROJECT: 240380
SHEET: E-07

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SHEET NOTES

1. NOT ALL FACILITY POWER DISTRIBUTION IS SHOWN, FOR PURPOSES OF CLARITY.

PALOUSE MALL LIFT STATION LOAD SUMMARY

Description	Receptacles	Lighting	Motors	Largest Motor	Miscellaneous	Total Connected Load
Existing Connected Load			56534.0			56534.0
Loads Removed As a Result of This Project			-56534.0			-56534.0
Loads Added As a Result of This Project	180.0	72.0	46550.8		2360.0	49162.8
Net Connected Load						**-7371.2**
Total Connected Load	180.0	72.0	46550.8		2360.0	49162.8
Total Load (w/ 125%)	225.0	90.0	58188.5		2950.0	61453.5
Formula: (VA / (1.73 x 480V))					**Total Amps:**	73.9

Notes: The result of the this project is a net reduction in facility loading.

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

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APPROVED	GJW

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CONSTRUCTION DRAWINGS FOR:

CITY OF MOSCOW LIFT STATION REHAB

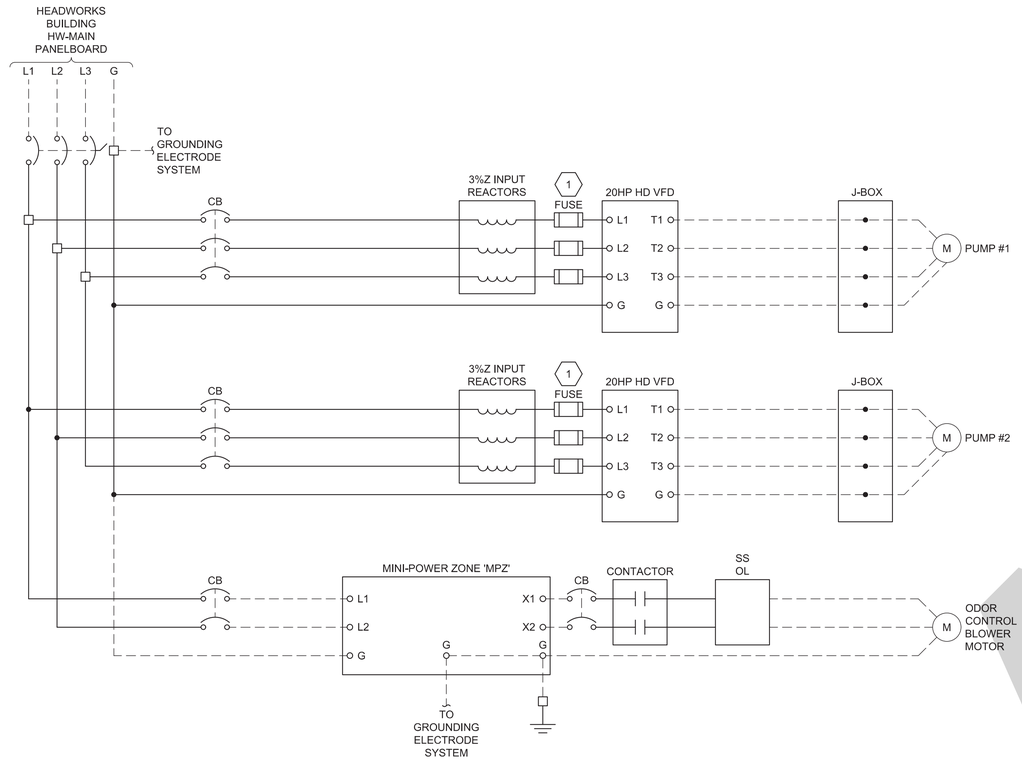
ELECTRICAL ONE-LINE DIAGRAM

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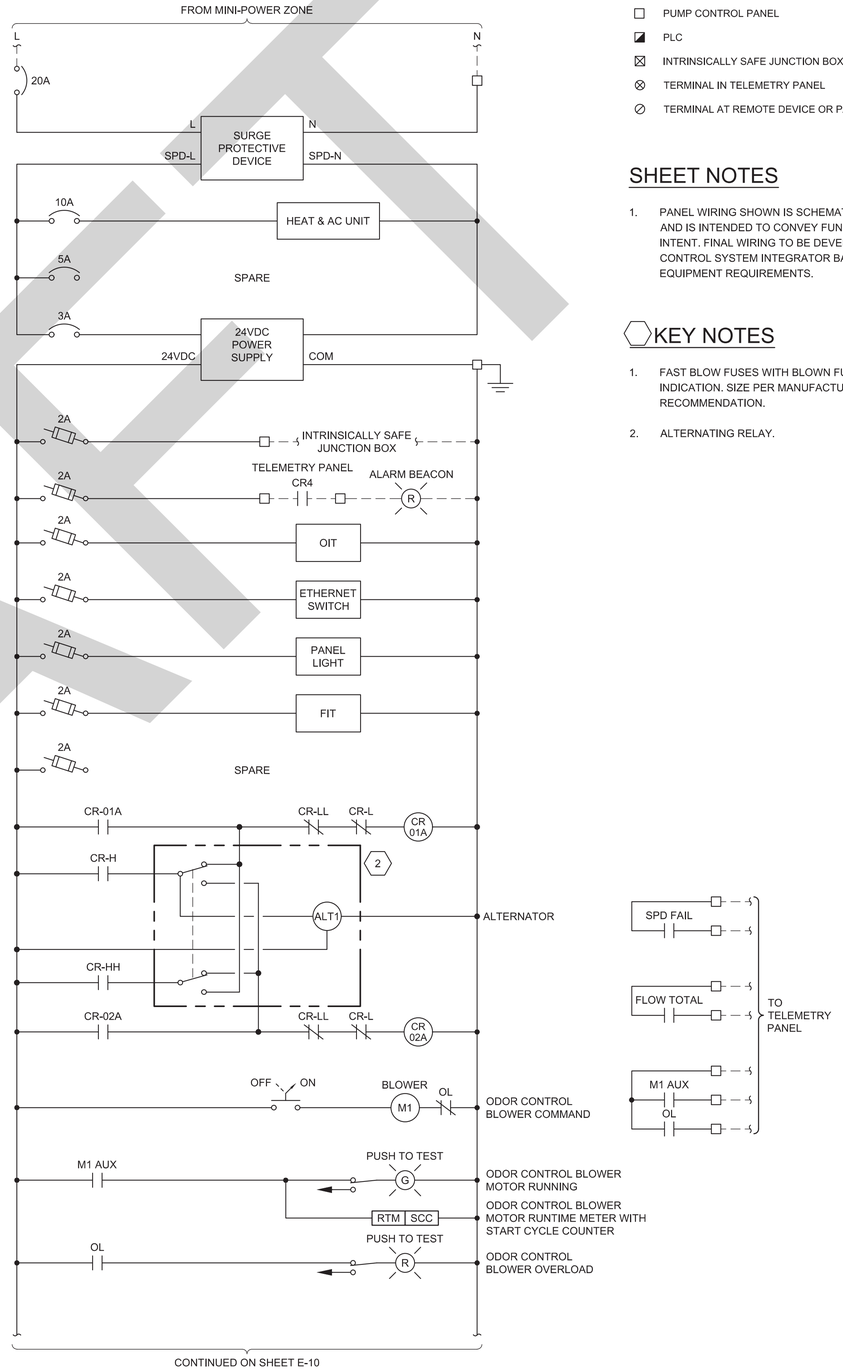
ATTENTION: 0 1/2 1
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DATE: December 25
PROJECT: 240380
SHEET: E-08

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PUMP CONTROL PANEL 480V
WIRING DIAGRAM



PUMP CONTROL PANEL 120V
WIRING DIAGRAM

TERMINAL LEGEND:

- ☐ PUMP CONTROL PANEL
- ◪ PLC
- ⊠ INTRINSICALLY SAFE JUNCTION BOX
- ⊗ TERMINAL IN TELEMETRY PANEL
- ⊘ TERMINAL AT REMOTE DEVICE OR PANEL

SHEET NOTES

1. PANEL WIRING SHOWN IS SCHEMATIC IN NATURE AND IS INTENDED TO CONVEY FUNCTIONAL INTENT. FINAL WIRING TO BE DEVELOPED BY CONTROL SYSTEM INTEGRATOR BASED ON EQUIPMENT REQUIREMENTS.

KEY NOTES

1. FAST BLOW FUSES WITH BLOWN FUSE INDICATION. SIZE PER MANUFACTURERS RECOMMENDATION.
2. ALTERNATING RELAY.

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
CHECKED	GJW
APPROVED	GJW

REVISIONS

NO.	DESCRIPTION	DATE
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B	FOR 100% REVIEW	10/24/2025
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CONSTRUCTION DRAWINGS FOR:
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PUMP CONTROL PANEL WIRING DIAGRAMS (1 OF 2)

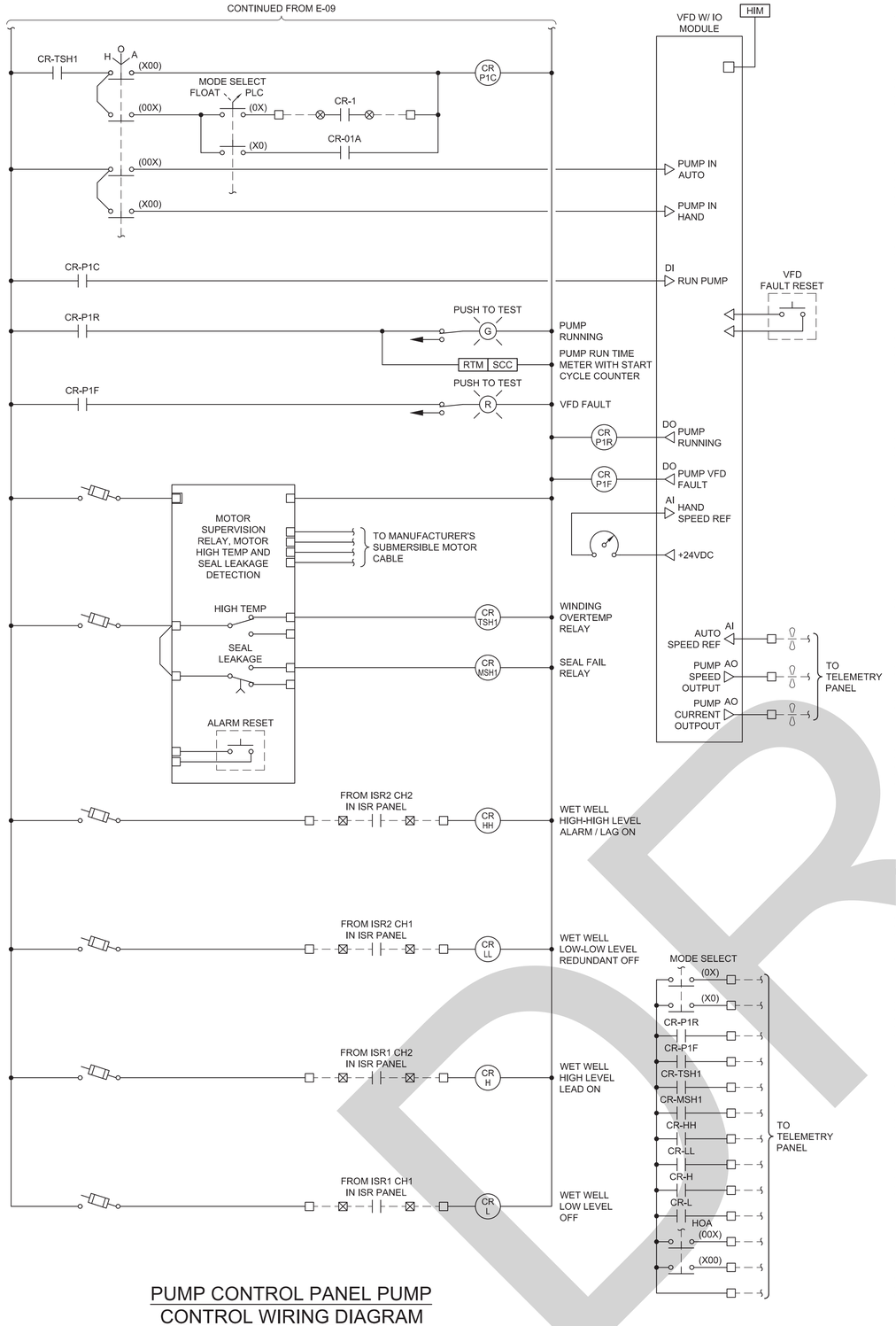
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DATE: December 25
PROJECT: 240380
SHEET: E-09

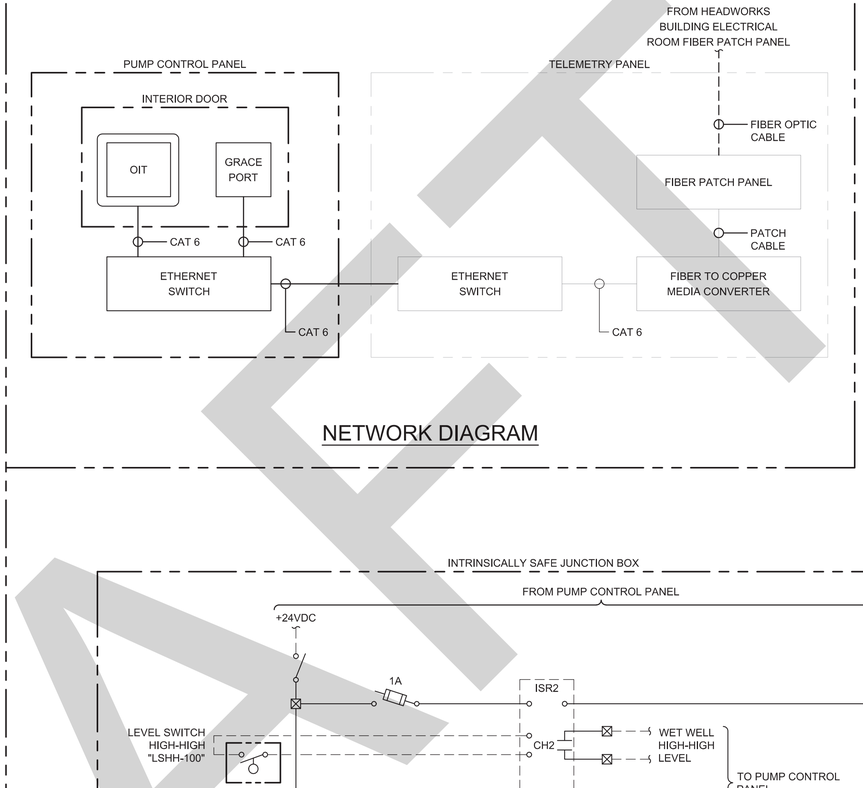
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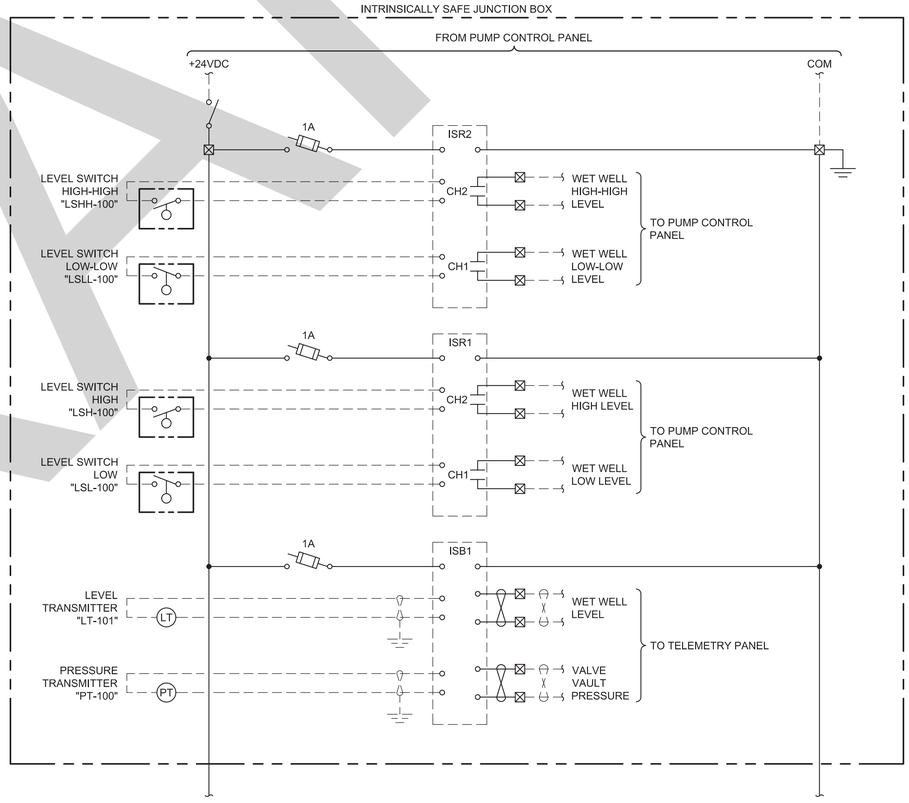


PUMP CONTROL PANEL PUMP CONTROL WIRING DIAGRAM

PUMP #1 SHOWN, PUMP #2 SIMILAR



NETWORK DIAGRAM



INTRINSICALLY SAFE JUNCTION BOX WIRING DIAGRAM

TERMINAL LEGEND:

- ☐ PUMP CONTROL PANEL
- ◪ PLC
- ⊠ INTRINSICALLY SAFE JUNCTION BOX
- ⊗ TERMINAL IN TELEMETRY PANEL
- ⊘ TERMINAL AT REMOTE DEVICE OR PANEL

SHEET NOTES

1. WIRING DIAGRAMS ARE GENERIC IN NATURE AND ARE INTENDED TO CONVEY THE FUNCTIONAL REQUIREMENTS. SUBMIT DETAILED WIRING DIAGRAMS FOR REVIEW, APPROVAL, AND PANEL FABRICATION.

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PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
CHECKED	GJW
APPROVED	GJW

REVISIONS

NO.	DESCRIPTION	DATE
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CONSTRUCTION DRAWINGS FOR:

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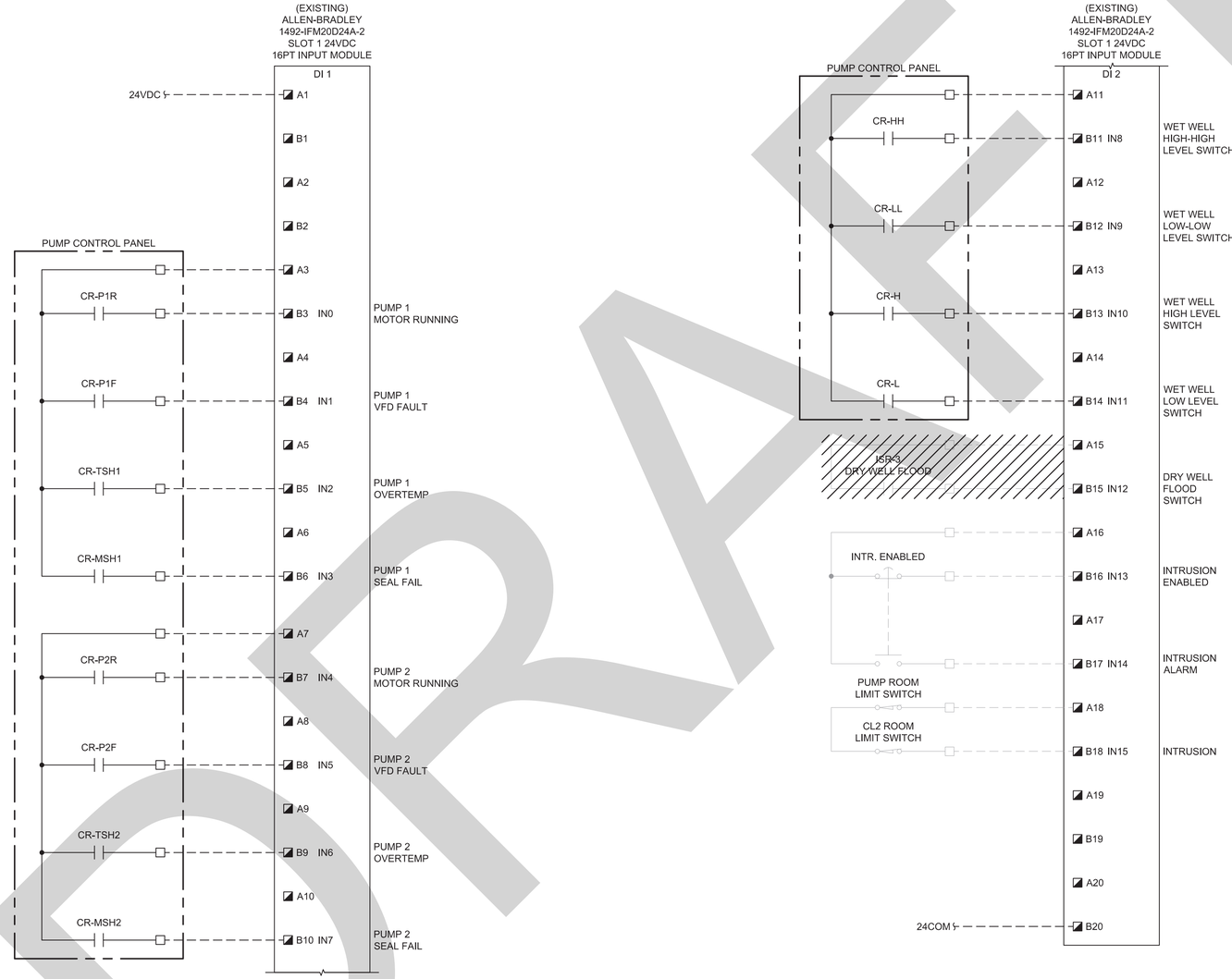
PUMP CONTROL PANEL WIRING DIAGRAMS (2 OF 2)

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PROJECT: 240380
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TELEMETRY PANEL WIRING DIAGRAM

TERMINAL LEGEND:

- □ PUMP CONTROL PANEL
- ◪ PLC
- ⊠ INTRINSICALLY SAFE JUNCTION BOX
- ⊗ TERMINAL IN TELEMETRY PANEL
- ⊘ TERMINAL AT REMOTE DEVICE OR PANEL

SHEET NOTES

1. WIRING DIAGRAMS ARE GENERIC IN NATURE AND ARE INTENDED TO CONVEY THE FUNCTIONAL REQUIREMENTS. SUBMIT DETAILED WIRING DIAGRAMS FOR REVIEW, APPROVAL, AND PANEL FABRICATION.

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
CHECKED	GJW
APPROVED	GJW

NO.	DESCRIPTION	DATE
A	FOR 60% REVIEW	06/16/2025
B	FOR 100% REVIEW	10/24/2025
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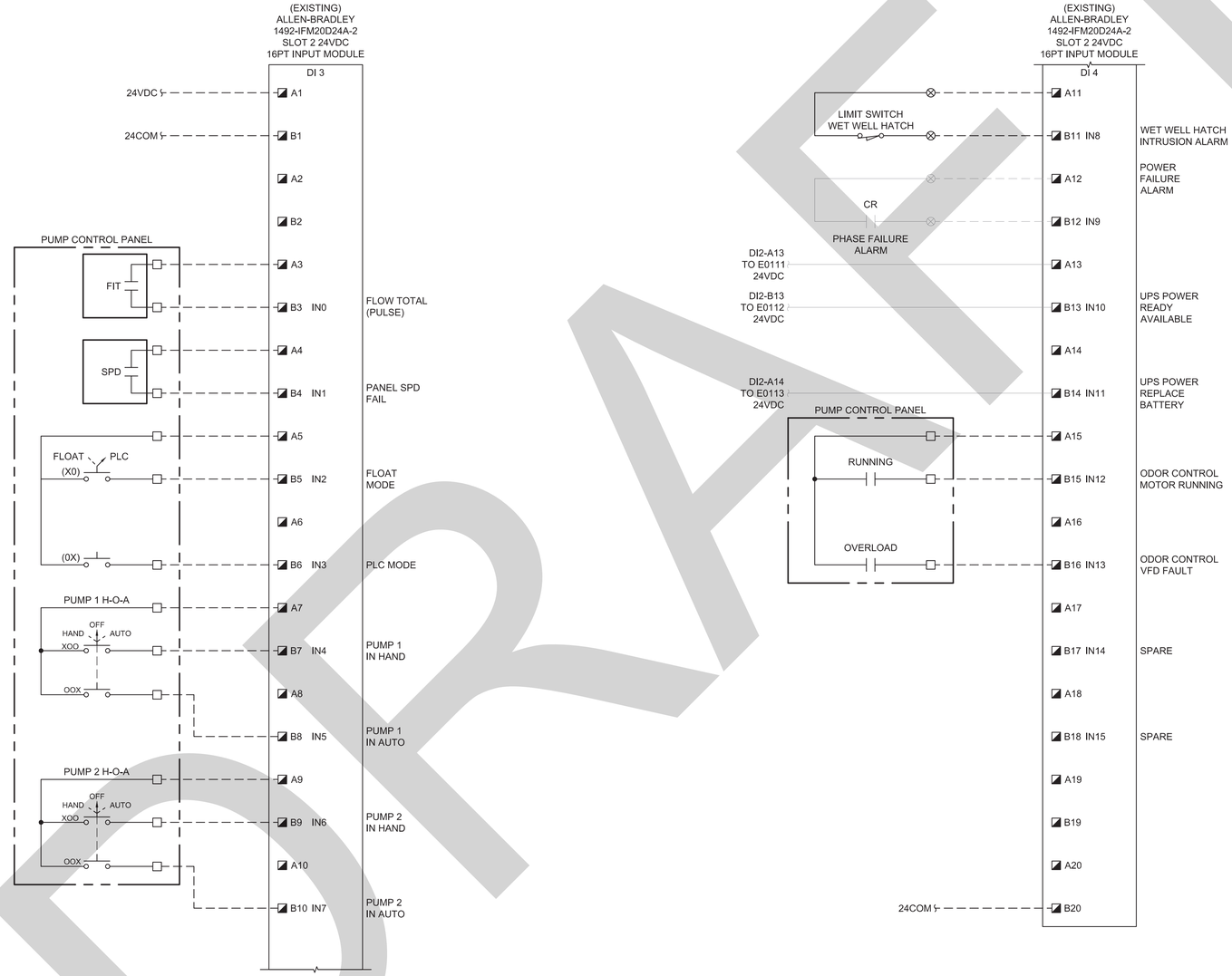
CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
TELEMETRY PANEL WIRING DIAGRAMS (1 OF 5)

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SHEET:	E-11

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TELEMETRY PANEL WIRING DIAGRAM

TERMINAL LEGEND:

- ☐ PUMP CONTROL PANEL
- ◪ PLC
- ⊠ INTRINSICALLY SAFE JUNCTION BOX
- ⊗ TERMINAL IN TELEMETRY PANEL
- ⊘ TERMINAL AT REMOTE DEVICE OR PANEL

SHEET NOTES

1. WIRING DIAGRAMS ARE GENERIC IN NATURE AND ARE INTENDED TO CONVEY THE FUNCTIONAL REQUIREMENTS. SUBMIT DETAILED WIRING DIAGRAMS FOR REVIEW, APPROVAL, AND PANEL FABRICATION.

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
CHECKED	GJW
APPROVED	GJW

NO.	DESCRIPTION	DATE
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CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
TELEMETRY PANEL WIRING DIAGRAMS (2 OF 5)

CENTURY WEST ENGINEERING
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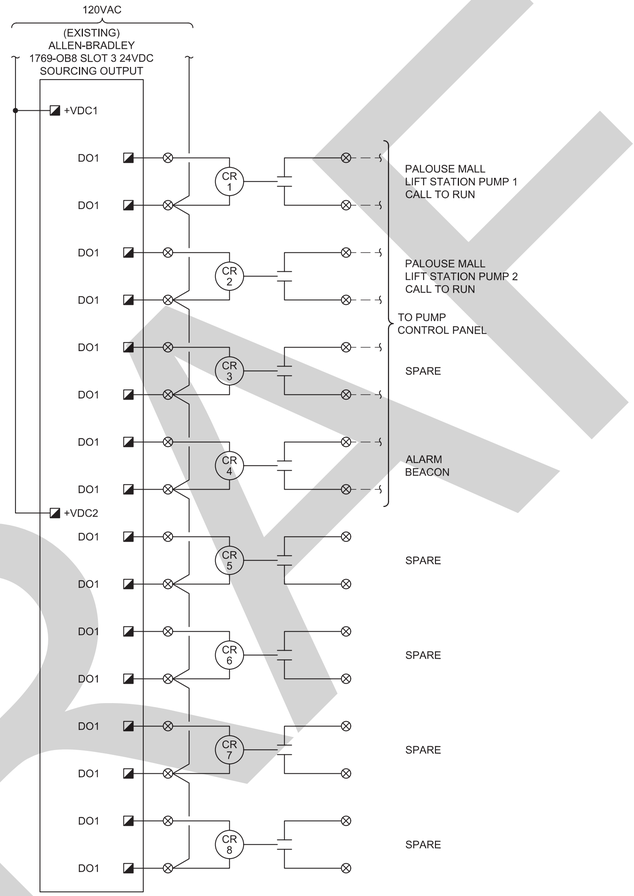
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TERMINAL LEGEND:

- ☐ PUMP CONTROL PANEL
- ◪ PLC
- ☒ INTRINSICALLY SAFE JUNCTION BOX
- ⊗ TERMINAL IN TELEMETRY PANEL
- ⊘ TERMINAL AT REMOTE DEVICE OR PANEL

SHEET NOTES

1. WIRING DIAGRAMS ARE GENERIC IN NATURE AND ARE INTENDED TO CONVEY THE FUNCTIONAL REQUIREMENTS. SUBMIT DETAILED WIRING DIAGRAMS FOR REVIEW, APPROVAL, AND PANEL FABRICATION.



TELEMETRY PANEL WIRING DIAGRAM

DRAFT

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
DESIGNED	EWN
DRAWN	JTR
CHECKED	GJW
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CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
TELEMETRY PANEL WIRING DIAGRAMS (3 OF 5)

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DATE: December 25
PROJECT: 240380
SHEET: E-13

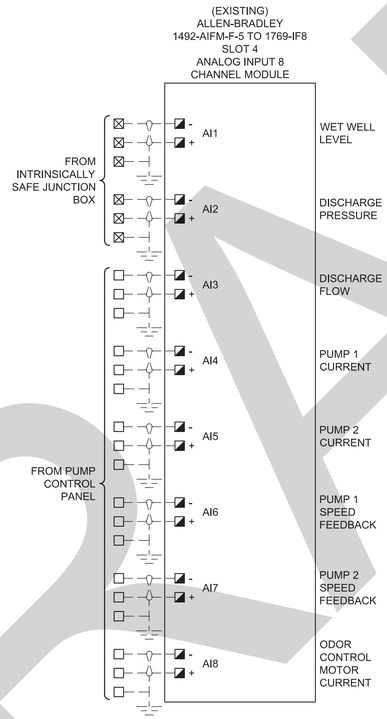
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TERMINAL LEGEND:

- ☐ PUMP CONTROL PANEL
- ◪ PLC
- ⊠ INTRINSICALLY SAFE JUNCTION BOX
- ⊗ TERMINAL IN TELEMETRY PANEL
- ⊘ TERMINAL AT REMOTE DEVICE OR PANEL

SHEET NOTES

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TELEMETRY PANEL WIRING DIAGRAM

DRAFT

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
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DRAWN	JTR
CHECKED	GJW
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CONSTRUCTION DRAWINGS FOR:

CITY OF MOSCOW LIFT STATION REHAB

TELEMETRY PANEL WIRING DIAGRAMS (4 OF 5)

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DATE: December 25
PROJECT: 240380
SHEET: E-14

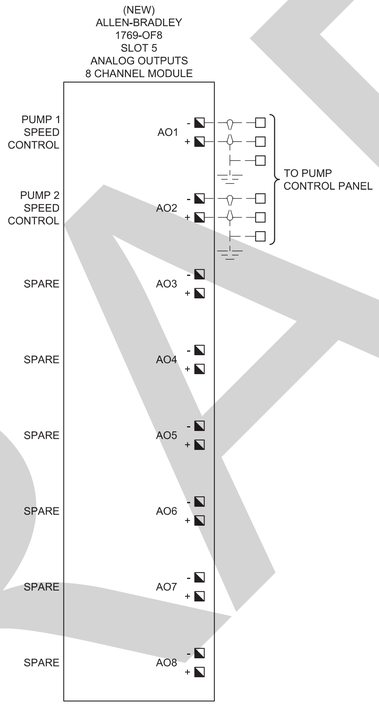
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TERMINAL LEGEND:

- ☐ PUMP CONTROL PANEL
- ◪ PLC
- ☒ INTRINSICALLY SAFE JUNCTION BOX
- ⊗ TERMINAL IN TELEMETRY PANEL
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SHEET NOTES

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TELEMETRY PANEL WIRING DIAGRAM

DRAFT

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE	22"x34"
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APPROVED	GJW

REVISIONS

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B	FOR 100% REVIEW	10/24/2025
C	FOR AGENCY REVIEW	12/15/2025

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CONSTRUCTION DRAWINGS FOR:

CITY OF MOSCOW LIFT STATION REHAB

TELEMETRY PANEL WIRING DIAGRAMS (5 OF 5)

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DATE: December 25
PROJECT: 240380
SHEET: E-15

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DRAWING LIST

SHEET NO.	SHEET TITLE
I-01	P&ID SYMBOL AND LEGEND SHEET
I-02	LIFT STATION P&ID

OTHER COMBINATIONS

DO	DISSOLVED OXYGEN
FYIT	FLOW CALCULATING INDICATING TRANSMITTER
HMS	HAND MOMENTARY SWITCH
HOA	HAND-OFF-AUTO
HS	HAND SWITCH
IQ	CURRENT TOTALIZATION
KY	TIME DELAY RELAY
LY	LEVEL RELAY (USED IN ISR BOXES)
NA	SAFETY ALARM
NS	SAFETY SWITCH
OC	OPEN CLOSE
UU	COMPLEX CALCULATION
YA	EVENT ALARM
MA	MOISTURE ALARM
ZS	POSITION SWITCH
GA	GENERAL ALARM
NSO	SAFETY SWITCH OPEN

INSTRUMENT LETTER COMBINATIONS

FIRST LETTERS	INITIATING OR MEASURED VARIABLE	CONTROLLERS				READOUT DEVICES		SWITCHES AND ALARM DEVICES			TRANSMITTERS			SOLENOID, RELAYS COMPUTING DEVICES	PRIMARY ELEMENT
		RECORDING	INDICATING	BLIND	SELF-ACTUATED CONTROL VALVES	RECORDING	INDICATING	HIGH	LOW	COMB	RECORDING	INDICATING	BLIND		
A	ANALYSIS	ARC	AIC	AC		AR	AI	ASH	ASL	ASHL	ART	AIT	AT	AY	AE
B	BURNER/COMBUSTION	BRC	BIC	BC		BR	BI	BSH	BSL	BSHL	BRT	BIT	BT	BY	BE
C	USER'S CHOICE														
D	USER'S CHOICE														
E	VOLTAGE	ERC	EIC	EC		ER	EI	ESH	ESL	ESHL	ERT	EIT	ET	EY	EE
F	FLOW RATE	FRC	FIC	FC	FCV, FICV	FR	FI	FSH	FSL	FSHL	FRT	FIT	FT	FY	FE
FQ	FLOW QUANTITY	FQRC	FQIC			FQR	FQI	FQSH	FQSL			FQIT	FQT	FQY	FQE
FF	FLOW RATIO	FFRC	FFIC	FFC		FFR	FFI	FFSH	FFSL						FE
G	USER'S CHOICE														
H	HAND		HIC	HC						HS					
I	CURRENT	IRC	IIC			IR	II	ISH	ISL	ISHL	IRT	IIT	IT	IY	IE
J	POWER	JRC	JIC			JR	JI	JSH	JSL	JSHL	JRT	JIT	JT	JY	JE
K	TIME	KRC	KIC	KC	KCV	KR	KI	KSH	KSL	KSHL	KRT	KIT	KT	KY	KE
L	LEVEL	LRC	LIC	LC	LCV	LR	LI	LSH	LSL	LSHL	LRT	LIT	LT	LY	LE
M	MOISTURE														
N	SAFETY														
O	USER'S CHOICE														
P	PRESSURE/VACUUM	PRC	PIC	PC	PCV	PR	PI	PSH	PSL	PSHL	PRT	PIT	PT	PY	PE
PD	PRESSURE, DIFFERENTIAL	PDRC	PDIC	PDC	PDCV	PDR	PDI	PDSH	PDSL		PDRT	PDIT	PDT	PDY	PE
Q	QUANTITY	QRC	QIC			QR	QI	QSH	QSL	QSHL	QRT	QIT	QT	QY	QE
R	RUNNING	RRC	RIC	RC		RR	RI	RSH	RSL	RSHL	RRT	RIT	RT	RY	RE
S	SPEED/FREQUENCY	SRC	SIC	SC	SCV	SR	SI	SSH	SSL	SSHL	SRT	SIT	ST	SY	SE
T	TEMPERATURE	TRC	TIC	TC	TCV	TR	TI	TSH	TSL	TSHL	TRT	TIT	TT	TY	TE
TD	TEMPERATURE, DIFFERENTIAL	TDRC	TDIC	TDC	TDCV	TDR	TDI	TDSH	TDSL		TDRT	TDIT	TDT	TDY	TE
U	CALCULATOR					UR	UI							UY	
V	VIBRATION/MACHINERY ANALYSIS					VR	VI	VSH	VSL	VSHL	VRT	VIT	VT	VY	VE
W	TORQUE	WRC	WIC	WC	WCV	WR	WI	WSH	WSL	WSHL	WRT	WIT	WT	WY	WE
WD	WEIGHT/FORCE, DIFFERENTIAL	WDRC	WDIC	WDC	WDCV	WDR	WDI	WDSH	WDSL		WDRT	WDIT	WDT	WDY	WE
X	UNCLASSIFIED														
Y	EVENT/STATE/PRESENCE		YIC	YC		YR	YI	YSH	YSL				YT	YY	YE
Z	POSITION/DIMENSION	ZRC	ZIC	ZC	ZCV	ZR	ZI	ZSH	ZSL	ZSHL	ZRT	ZIT	ZT	ZY	ZE
ZD	GAUGING/DEVIATION	ZDRC	ZDIC	ZDC	ZDCV	ZDR	ZDI	ZDSH	ZDSL		ZDRT	ZDIT	ZDT	ZDY	ZDE

INSTRUMENT FUNCTION SYMBOLS

	PRIMARY LOCATION *** NORMALLY ACCESSIBLE TO OPERATOR	FIELD MOUNTED	AUXILIARY LOCATION *** NORMALLY ACCESSIBLE TO OPERATOR	NORMALLY INACCESSIBLE OR BEHIND THE PANEL
DISCRETE INSTRUMENTS	AAA MODIFIER BBB CCC DDD	AAA BBB CCC		
SHARED DISPLAY, SHARED CONTROL				
COMPUTER FUNCTION				
PROGRAMMABLE LOGIC CONTROL				

AAA - FUNCTION
BBB - SYSTEM
CCC - LOOP NUMBER
DDD - DESCRIPTION

AAA BBB — PILOT LIGHT

AAA BBB — INTERLOCK LOGIC OR SEQUENTIAL CONTROL

INSTRUMENT LINE SYMBOLS

- DISCRETE ELECTRICAL SIGNAL
- RADIO SIGNAL
- COMMUNICATION SIGNAL
- ANALOG MILLIAMP SIGNAL
- POWER

VALVE SYMBOLS

- ECCENTRIC PLUG (SEAT/PORT)
- BUTTERFLY
- BALL
- GLOBE
- GATE
- KNIFE GATE
- PINCH
- NEEDLE
- BALL CHECK
- SWING CHECK
- SOLENOID (S)
- THREE-WAY
- PRESSURE CONTROL (REGULATED SIDE)
- PRESSURE RELIEF
- AIR RELEASE AND VACUUM RELIEF

INSTRUMENT ELEMENT SYMBOLS

- PARSHALL FLUME
- ROTAMETER
- PROPELLER OR TURBINE METER
- SUSPENDED ULTRASONIC LEVEL ELEMENT
- PG — PRESSURE GAUGE
- CLAMP ON ULTRASONIC FLOWMETER
- MAGNETIC FLOWMETER
- PITOT-STATIC
- TARGET TYPE SENSOR
- VENTURI OR FLOW TUBE
- VORTEX SHEDDING
- ORIFICE METER
- X — INSERTION FLOW METER M=MAGNETIC H=HOT WIRE
- SUSPENDED SUBMERSIBLE LEVEL ELEMENT
- SUBMERSIBLE PROBE
- VERTICAL FLOAT
- FLOW SWITCH (NORMALLY OPEN)
- XX — MONITORING SYSTEM PH - pH T - TEMPERATURE CL - CHLORINE TB - TURBIDITY

PUMP & COMPRESSOR SYMBOLS

- SUBMERSIBLE PUMP
- CENTRIFUGAL PUMP (DRY PIT)
- VERTICAL TURBINE PUMP
- COMPRESSOR (PISTON)
- CHEMICAL FEED PUMP
- PLUNGER PUMP

MISCELLANEOUS SYMBOLS

- PT — PRESSURIZED TANK
- RUPTURE DISK
- CHEMICAL INJECTOR
- F — FLUSHING WATER CONNECTION
- M — ELECTRIC MOTOR

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PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE 22"x34" | DESIGNED EWN | DRAWN JTR | CHECKED GJW | APPROVED GJW

REVISIONS

NO.	DESCRIPTION	DATE
A	FOR 60% REVIEW	08/16/2025
B	FOR 100% REVIEW	10/24/2025
C	FOR AGENCY REVIEW	12/15/2025

ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS FOR:

CITY OF MOSCOW LIFT STATION REHAB

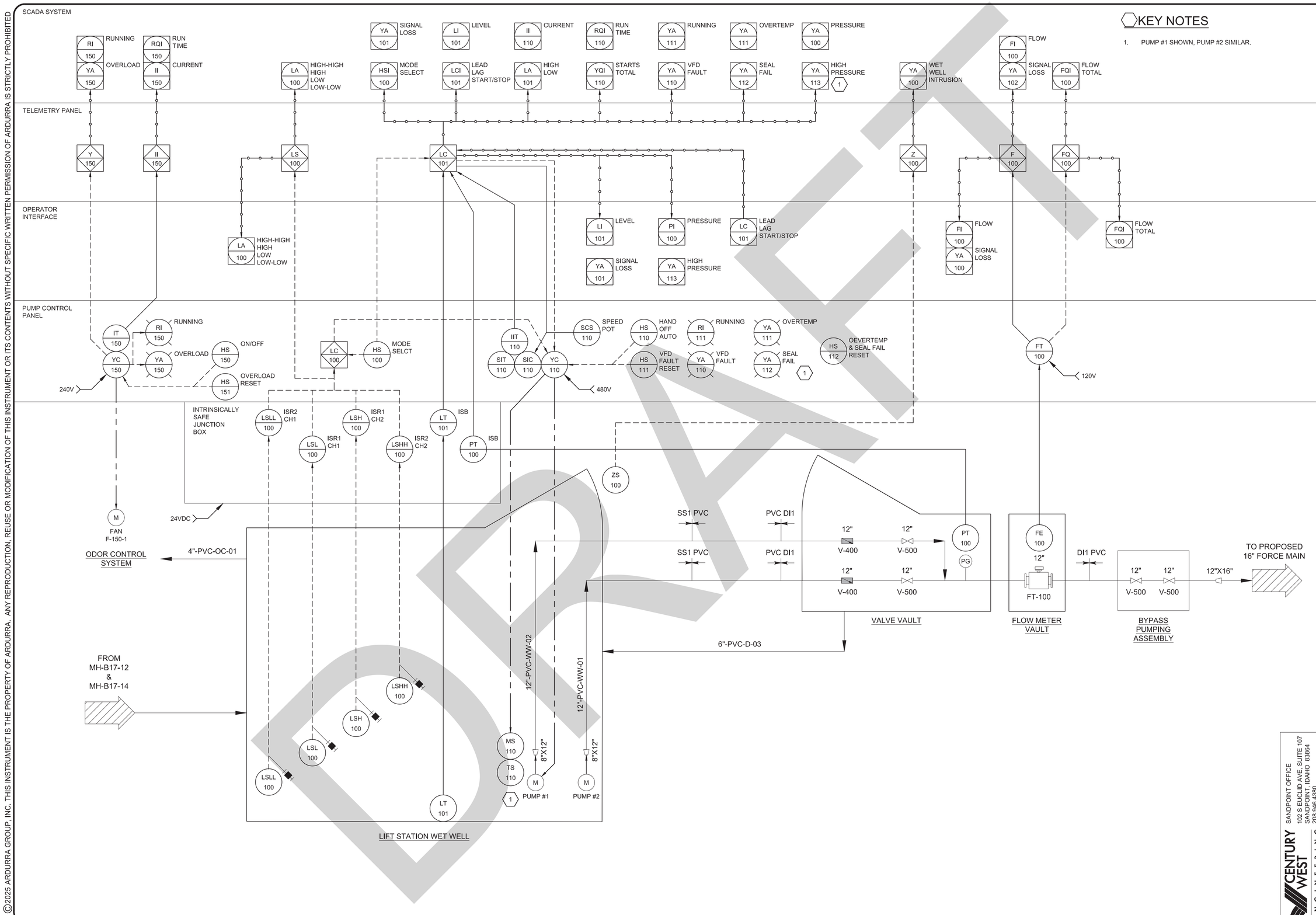
P&ID SYMBOL AND LEGEND SHEET

CENTURY WEST ENGINEERING
SANDPOINT OFFICE
102 S EUCLID AVE, SUITE 107
SANDPOINT, IDAHO 83864
208.946.4380

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DATE: December 25
PROJECT: 240380
SHEET: I-01

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KEY NOTES

1. PUMP #1 SHOWN, PUMP #2 SIMILAR.

PROFESSIONAL ENGINEER LICENSED 16750 STATE OF IDAHO GRADY J. WEISZ
12/16/2025

BORDER SIZE 22"x34"
DESIGNED EWN
DRAWN JTR
CHECKED GJW
APPROVED GJW

REVISIONS

NO.	DESCRIPTION	DATE
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ARDURRA
7950 N. MEADOWLARK WAY, STE. A
COEUR D'ALENE, IDAHO 83815
208-762-3644 | WWW.ARDURRA.COM

CONSTRUCTION DRAWINGS FOR:
CITY OF MOSCOW LIFT STATION REHAB
LIFT STATION P&ID

CENTURY WEST ENGINEERING
SANDPOINT OFFICE
102 S EUCLID AVE, SUITE 107
SANDPOINT, IDAHO 83864
208.946.4380

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DATE: December 25
PROJECT: 240380
SHEET: I-02

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CITY OF MOSCOW

CONSTRUCTION DOCUMENTS AND SPECIFICATIONS

FOR

PALOUSE MALL LIFT STATION REHABILITATION PROJECT

CITY OF MOSCOW PROJECT NO. 111-024

December 2025

Prepared By:

ARDURRA GROUP, INC.

7950 N. MEADOWLARK WAY, SUITE A

COEUR D'ALENE, IDAHO 83815

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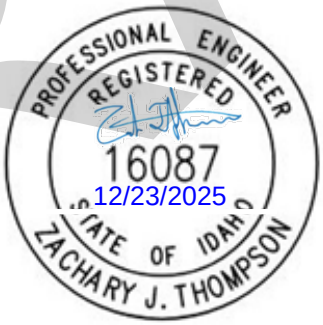
CITY OF MOSCOW

CONSTRUCTION DOCUMENTS AND SPECIFICATIONS

FOR

PALOUSE MALL LIFT STATION REHABILITATION PROJECT

December 2025



Prepared By:

ARDURRA GROUP, INC.

7950 N. MEADOWLARK WAY, SUITE A

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DIVISION 00 10 00 - SOLICITATION

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SECTION 00 11 16 - INVITATION TO BID

OWNER: City of Moscow
206 E Third Street
Moscow, ID 83843

Separate sealed Bids for the construction of **The City of Moscow Palouse Mall Lift Station Rehabilitation Project** will be received at the Community Development Building (Engineering Division) at 504 South Washington Street, Moscow, Idaho 83843, and clearly marked "Bid Enclosed - PALOUSE MALL LIFT STATION REHABILITATION PROJECT" until 2:00 p.m., prevailing local time, Tuesday, February 17, 2026. At 2:05 p.m., on the same day, all proposals will be publicly opened and read aloud in the Community Development Building, Main Floor Conference Room, at 504 South Washington Street, Moscow, ID 83843. A non-mandatory pre-bid meeting will be held at the Moscow Council Chambers (City Hall Second floor, 206 E 3rd St), at 10:00 a.m. prevailing local time on Thursday, February 12th, 2026.

Work associated with the proposed project is generally described as follows:

> **Schedule A:** Rehabilitation of the existing Palouse Mall lift station includes replacing the wet well cover and hatch, replacing of the existing pumps with submersible pumps, new electrical/control, upgrading the existing force main out of the wet well, fence upgrades, and the installation of a new valve vault and flow meter vault.

Interested bidders may obtain bid documents at https://www.questcdn.com/. Download the digital documents for $22.00 by inputting **Quest Number: 10020344** on the website's Bid Posting search page after login. To be considered a plan holder and to receive automatic addenda and bid updates, register with QuestCDN.com for a free Regular membership. Please contact QuestCDN Customer Support at 952-233-1632 or support@questcdn.com for assistance in membership registration and downloading digital bid documents. Complete digital Project Manual and Project Plans, may be viewed at questcdn.com via the link provided on The City of Moscow Website at: www.ci.moscow.id.us – click on "Business" / "Bid Opportunities" / "Palouse Mall Lift Station Rehabilitation Project".

A Bid Guaranty of 5 percent of the Bid Amount is required. Separate Performance and Payment Bonds each in the amount of 100 percent of the Contract Amount will be required. Each bidder must supply all the information required by the Bid Documents and Specifications.

This Project is not financed by Federal Aid Funds. All contractor, subcontractor, or specialty contractor shall be required to have a current license as a Public Works Contractor in the State of Idaho in order to submit a bid or proposal on this project.

The City, in accordance with Title VI of the Civil Rights Act of 1964, 78 stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all applicants that it will affirmatively ensure that in any contract entered into pursuant to the advertisement, disadvantaged business enterprises as defined at 49 CFR Part 23 will be afforded full opportunity to submit offers in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

All prospective bidders are directed to the Instructions for Bidders for discussion of Bid policies,

procedures, and requirements. The Owner reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the successful Bidder, and the right to disregard all non-conforming, non-responsive or conditional Bids.

All questions shall be directed in writing to Meghann Kolb at Ardurra, (208) 762-3644, mkolb@ardurra.com.

Owner: City of Moscow
Tyler Palmer, Public Works Director

PUBLICATION DATE:
Saturday, January 24th, 2026
Saturday, January 31st , 2026

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DIVISION 00 20 00 - INSTRUCTIONS FOR PROCUREMENT

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SECTION 00 21 13 - INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

1.1 Terms used in these Instructions to Bidders, which are defined in the General Conditions of the Construction Contract, have the meanings assigned to them in the General Conditions. The term "Successful Bidder" means the lowest, qualified, responsive Bidder to whom Owner on the basis of Owner's evaluation as hereinafter provided makes an award.

2. COPIES OF BIDDING DOCUMENTS

2.1 Interested bidders may obtain bid documents at https://www.questcdn.com/. Download the digital documents for $22.00 by inputting **Quest Number: 10020344** on the website's Bid Posting search page after login. To be considered a plan holder and to receive automatic addenda and bid updates, register with QuestCDN.com for a free Regular membership. Please contact QuestCDN Customer Support at 952-233-1632 or support@questcdn.com for assistance in membership registration and downloading digital bid documents. Bid Documents will be made available after 12 p.m., Saturday, January 24th, 2026.

2.2 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents. It is the Bidder's responsibility to assure that they possess complete sets of the Bidding Documents.

2.3 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

2.4 If the Bidder requests hard copies or rapid delivery or special shipping service, the Bidder shall pay the additional shipping cost in advance. No reimbursement of shipping costs will be made to a Bidder.

2.5 Electronic Bidding Documents are provided by the Owner for the Bidder's convenience. It is the responsibility of the Bidder to obtain all updates from the Ardurra's Online Planroom at QuestCDN.com.

3. QUALIFICATIONS OF BIDDERS

3.1 To demonstrate Bidder's qualifications to perform the Work, within five days of Owner's request, Bidder shall submit written evidence as may be called for below.

3.2 The Bid shall contain evidence of Bidder's authority and qualification to do business in Idaho. If the project is federally funded, signing the Bid Form constitutes a covenant to obtain such qualification prior to award of the Contract. Bidder's Idaho Public Works Contractor License Number shall also be shown on the Bid form.

3.3 Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located prior to submitting a bid for the contract, i.e., an Idaho Public Works Contractors License.

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3.3.1 Idaho Code Section 67-2310 requires subcontractors who will perform plumbing, HVAC work, or electrical work, if applicable to the project, to be named on the bid of the general contractor. If the Contractor intends to perform plumbing, HVAC work, or electrical work under the provisions of their own license, they shall name themselves providing they are properly licensed. The Contractor shall not name more than one subcontractor for each work item. Failure to name subcontractors or list the valid contractor's license number for plumbing, HVAC or electrical work being self-performed by the general contractor on Designation of Subcontractors and Suppliers (Additional Bid Forms, Exhibit I) shall result in the bid being deemed nonresponsive.

3.4 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.5 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

3.6 Idaho Code 54-1902 requires Bidder and subcontractors to have the appropriate Public Works Contractor's License to submit a Bid or proposal for this project. Public Works Contractor License Number shall be submitted with the Bid where indicated in the Bid Form.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

4.1 It is the responsibility of each Bidder, before submitting a Bid, to (a) examine the Contract Documents and other related data identified in the Bidding Documents thoroughly, (b) visit the site to familiarize themselves with local conditions that may in any manner affect cost, progress or performance of the Work, (c) familiarize themselves with and consider Federal, State and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Contract Documents, (e) to promptly notify Engineer, pursuant to Article 5 below, of all conflicts, errors, ambiguities, or discrepancies which Bidder has discovered in or between the Contract Documents and such other related documents.

4.2 Information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities or others, and Owner and Engineer do not assume responsibility for the accuracy or completeness thereof.

4.3 On request, Owner may provide each Bidder access to the site to conduct such investigations, subject to the approval of the Owner, as each Bidder deems necessary for submission of their Bid.

4.4 The lands upon which the Work is to be performed, rights-of-way for access thereto, and other land designated for use by Contractor in performing the Work are identified in General Requirements or Drawings. Additional lands and access thereto required for temporary construction facilities, construction equipment or storage of materials and equipment to be incorporated in the Work, or disposal of unsuitable or excess materials off-site are to be obtained and paid for by Contractor.

4.5 Before submitting a Bid each Bidder will be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or

otherwise, which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.6 The submission of a Bid will constitute an incontrovertible representation by the Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and applying the specific means, methods, techniques, sequences or procedures of construction (if any) that may be shown or indicated or expressly required by the Contract Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities and discrepancies that Bidder has discovered in the Contract Documents and the written resolutions thereof by Engineer if acceptable to Bidder, and that the Contract Documents are sufficient in scope and detail and that the time allocated for the preparation of the Bid was adequate to indicate and convey understanding of all terms and conditions for performance of the Work.

5. PRE-BID CONFERENCE

5.1 If a pre-Bid conference is to be held, it will be held at the time and location stated in the invitation or advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are encouraged to attend and participate in the conference. Engineer will issue such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

6. INTERPRETATIONS AND ADDENDA

6.1 Questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing, to be received at least three business days before the date and time upon which bids are scheduled to be opened. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda.

6.1.1 Objections to specifications or bidding procedures shall be submitted to the Owner in writing, to be received at least three business days before the date and time upon which bids are scheduled to be opened. Any objection not perfected within the time limitations shall be deemed to constitute a waiver of any rights to raise such objection or appeal thereafter.

6.2 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents. Only questions answered by formal Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6.3 It is the responsibility of the Bidder to obtain all Addenda and project updates from the Ardurra's Online Planroom at https://www.questcdn.com/.

7. BID SECURITY

7.1 Each Bid must be accompanied by Bid Security made payable to Owner, **in an amount of 5 percent of the Bidder's maximum Bid price** and in the form of a certified bank check or a Bid

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Bond (on form attached, if a form is prescribed) issued by the Surety meeting the requirement of paragraph 5.01 of the General Conditions and licensed to do business in the State of Idaho.

7.2 The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and finished the required Contract Security and met the other conditions of the Award, whereupon it will be returned. If the successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security within 10 days after the Notice of Award, Owners may annul the Notice of Award and the Bid Security of that Bidder will be forfeited.

7.3 The Bid Security of the other Bidders who Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the 7th day after the "effective date of Agreement" (which term is defined in the General Conditions) by Owner of Contractor and the required Contract Security is furnished or the 90th day after the Bid Opening. Bid Security of the other Bidders which are not competitive will be returned within fourteen days of the Bid opening.

8. CONTRACT TIME/COMMENCEMENT OF CONSTRUCTION

8.1 The number of days within which, or the date by which, the Work is to be completed (the Contract Times) are defined in the General Conditions and set forth in Article 3.1 of the Agreement. The date that the Owner expects the Contractor to begin project construction work is specified in the Specifications. The submission of a Bid is a representation by the Bidder that Bidder will commence construction work and will complete construction during the time specified in the Contract Documents.

9. LIQUIDATED DAMAGES

9.1 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

10. SUBSTITUTE MATERIAL AND EQUIPMENT

10.1 The Contract, if awarded, will be on the basis of material and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor, if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the "effective date of the Agreement". The procedure for submittal of any such application by Contractor and consideration by Engineer is set forth in paragraph 6.05 of the General Conditions and supplemented by general Requirements; Specification Section 1340, Submittals, Shop Drawings and Samples; and others. Any assumptions regarding the possibility of post-bid approvals of "or-equal" or substitution requests are made at the Bidder's sole risk.

11. SUBCONTRACTORS

11.1 "Designation of Subcontractors" requires the identity of mechanical, electrical, and plumbing Subcontractors be submitted to Owner as a part of the bid. The Bidder shall provide additional "Evidence of Competency" for each such Subcontractor, person and organization proposed for

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the work, upon the request of the Engineer. Per Idaho Code 67-2310, each subcontractor shall include their Idaho Public Works License number. Failure to comply with this section shall render Bidder's Bid unresponsive and void.

11.2 Prime contractor is responsible for distribution of approved construction drawings and specifications to all subcontractors during bidding.

11.3 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom the contractor has a reasonable objection.

12. BID FORM AND BID DOCUMENTS

12.1 One Bid Form is provided in the Construction Documents and Specifications.

12.2 Bid Schedule(s) must be completed in ink or by typewriter. The bid unit price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence. A Bid price must be indicated for each section, Bid item, alternative, adjustment unit price item, and unit price item listed therein, or the words "No Bid", "No Change", "Not Applicable", or "N/A" entered. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

12.3 Bids by corporations must be executed (signed) in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

12.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature, and the official address of the partnership must be shown below the signature.

12.5 All names must be typed or printed below the signature.

12.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

12.7 The address and telephone number for communications regarding the Bid must be shown in the space provided.

13. SUBMISSION OF BIDS

13.1 Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the Project title and name and address of the Bidder and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof. Bids received after the required time of submittal will be returned unopened to the prospective Bidders.

14. MODIFICATION AND WITHDRAWAL OF BIDS

14.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids

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14.2 If, within 5 days after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a clerical or mathematical mistake in the preparation of their Bid and the mistake was material, satisfying the conditions of 54-1904C, Idaho Code, that Bidder may withdraw their Bid. Bidders seeking relief from a bid that do not satisfy the conditions found in 54-1904C, Idaho Code, shall forfeit any Bid Security. Bidders failing to execute a contract and not satisfying the conditions found in 54-1904C, Idaho Code, shall also forfeit any Bid Security.

14.3 A Bidder who claims a mistake will be prohibited from participating in any rebidding of the Work on which the mistake was claimed.

15. OPENING OF BIDS

15.1 Bids will be opened publicly and read aloud. A tabulation of the amounts of the Bids and bid items will be available from the Engineer 48 hours after the opening of Bids.

16. BIDS TO REMAIN SUBJECT TO ACCEPTANCE

16.1 All Bids shall remain subject to acceptance for 60 days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid and return the Bid Security prior to that date.

17. AWARD OF CONTRACT

17.1 Owner reserves the right to reject any and all Bids, including without limitation the rights to waive any and all informalities and to negotiate contract terms with the "Successful Bidder," as defined in paragraph 21.1.4, and the right to disregard all nonconforming, non-responsive, unbalanced, or conditional Bids. Failure to submit required Bid Documents with the sealed Bid shall be considered a Non-Responsive Bid.

17.2 In evaluating Bids, Owner shall consider whether or not the Bids comply with the prescribed Bid requirements, and such alternates, unit prices, and other data as requested in the Bid forms or by the Engineer prior to the Notice of Award.

17.3 If the contract is to be awarded it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project. Refer to Section 19.1 for additional criteria. It is Owner's intent to accept all bid schedules; however, Owner may choose to accept them in any order or combination.

17.4 If the contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within 60 days after the day of the Bid opening.

17.5 If the Owner deems it is in its best interest, it may, on refusal or failure of the Successful Bidder to execute the contract, award it to the second lowest responsive Bidder. On the failure or refusal of the Successful Bidder to execute a contract, their Bid Security shall be forfeited. If the second lowest responsive Bidder fails or refuses to execute the contract, the Owner may likewise award it to the next lowest responsive Bidder.

17.6 On the failure or refusal of the second or next lowest responsive Bidder to execute a contract, their Bid Security shall be likewise forfeited.

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17.7 The Owner may determine it is in its best interests to cancel and rebid the public works project and retain any forfeited Bid Security.

17.8 Owner reserves the right to waive all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder.

17.9 More than one Bid for the same Work from an individual or entity under the same or difference names will not be considered. Reasonable grounds for believing that any bidder has an interest in more than one Bid for the Work may be cause for disqualification of that bidder and the rejection of all Bids in which that Bidder has an interest.

18. BONDS AND INSURANCE

18.1 Article 5 of the General Conditions (Supplemental Conditions-Owner) set forth Owner's requirements as to Bonds and Insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by the required Contract Security and documentation of required insurance coverages.

19. SIGNING OF AGREEMENT

19.1 When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with other written Documents attached. Within 10 days thereafter, unless otherwise stipulated in the Notice of Award, Contractor shall sign and deliver the required number of the Agreement to Owner with all other required Contract Documents attached. Within 30 days thereafter Owner will deliver one fully signed counterpart to Contractor. Engineer will identify those portions of the Contract Documents not fully signed by Owner and Contractor and such identification shall be binding on all parties.

20. RETAINAGE

20.1 Provisions for retainage are as established in the Supplementary Conditions.

21. SPECIAL LEGAL REQUIREMENTS

21.1 Bid Schedules

21.1.1 Bid Schedules included in the Bid are titled as follows:

Schedule A – Rehabilitation of the existing Palouse Mall lift station includes replacing the wet well cover and hatch, replacing the existing pumps with submersible pumps, new electrical/control, upgrading the existing force main out of the wet well

21.1.2 A "Responsive" Bidder shall submit a Bid including schedule along with the required Bid Securities and additional Bid Forms

21.1.3 It is the Owner’s desire and intent to award all schedules for which adequate funding is available to the “Successful Bidder.” The Contractor is forewarned that Budget Limitations may prevent the award of one or more of the Schedules and/or require the deletion of items or portions of the work scope of a given Schedule.

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21.1.4 The “Successful Bidder” for the purpose of subsequent negotiations, if necessary, will be the responsive Bidder who submits the total of the low bid for the work to be awarded, which is expected to be all schedules based on availability of funding.

21.1.5 The Bidders attention is directed to Section 17: "Award of Contract" of these Instructions to Bidders for further discussion of evaluation of the Bid and to Section 19: "Signing of Agreement".

21.1.6 The Owner reserves the right to delete all or a portion of individual Schedule(s) for budget, weather, schedule or other circumstances and select those Schedules or portions thereof which the Owner, at their sole discretion determines to be to the benefit of the project.

21.1.7 Force Account Work Allowance: The Contractor shall maintain accurate records of all equipment, materials, and labor used to complete Force Account work directed by the Engineer. Signed copies of the records shall be provided to the Engineer with each monthly pay request. Hourly rates for the labor and equipment shall be established by negotiations between Contractor and Engineer.

21.2 Contracts

21.2.1 The Bidder/Offeror certifies, by submission of this proposal or acceptance of this contract, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any State or Federal department or agency. It further agrees by submitting this proposal that it will include this clause without modification in all lower tier transactions, solicitations, proposals, contracts, and subcontracts. Where the Bidder/Offeror/Contractor or any lower tier participant is unable to certify to this statement, it shall attach an explanation to this solicitation/proposal.

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DIVISION 00 30 00 - AVAILABLE INFORMATION

SECTION 00 31 32 - GEOTECHNICAL DATA
SECTION 00 31 33 – DEPARTMENT OF THE ARMY NWP
SECTION 00 31 34 – ITD ENCROACHMENT PERMIT

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GeoProfessional Innovation®

February 17, 2025
File: MO24275A

Ms. Meghann Kolb, P.E.
Staff Engineer
Ardurra Group, Inc.
2950 N. Meadowlark Way, Ste. A
Coeur d'Alene, ID 83815

RE: **Geotechnical Exploration Summary**
Lift Station & Sewer Transmission Line
Palouse Mall & State Highway 8
Moscow, Idaho

Greetings, Meghann:

GeoProfessional Innovation Corporation (GPI) has performed the authorized geotechnical exploration for the new lift station and transmission line that will extend below Idaho State Highway 8 to the existing City of Moscow (City) wastewater treatment plant on the west side of Moscow, Idaho. Our services were performed referencing our proposal dated October 3, 2024. The following sections summarize our exploration and presents our geotechnical opinions and considerations to assist project design and construction.

PROJECT UNDERSTANDING

The new lift station connection is positioned adjacent a commercial parking lot and one of the main entrances to the Palouse Mall on the north side of Idaho State Highway 8. The existing lift station extends 20 to 24 feet below the existing ground surface and comprises a below grade concrete structure housing pumping equipment.

From the lift station, an 8-inch-diameter, sanitary sewer force main will be installed via "jack and bore" methodology below State Highway 8. Although the design has not been finalized, the sewer main profile is expected to extend approximately 4 to 8 feet below Highway 8's pavement surface and will be launched from the lift station area as shown on Plate 1, *Force Main Utility Alignment & Profile Map*. The planned alignment will be directed slightly deeper as it progresses south to maintain cover below Paradise Creek near the middle of the alignment. Additionally, the force main will need to extend below new utilities installed along the Bill Chipman Trail in 2023. A receiving pit and bore termination pit will be constructed at the northeast corner of the existing City wastewater treatment plant. There it will connect to existing sewer lines that connect to the main wastewater processing facilities. No new buildings are planned to accommodate equipment.

FIELD AND LABORATORY EVALUATION

Drill Exploration

GPI coordinated subsurface exploration with the Idaho Digline and the City of Moscow to help reduce the potential for damage to subsurface utilities during exploration. We also had a private utility locate performed to help reduce the potential for utility conflicts with exploration. Prior to exploration, we coordinated with Palouse Mall representatives and the City to facilitate access for our exploration crews and equipment. GPI accomplished exploration between January 30 and 31, 2025 by observing 3 exploratory soil borings along the sewer force main alignment extending approximately 15.3 to 30.5 feet below the existing ground surface.

Soil borings were accomplished with a track-mounted Acker Recon drill rig equipped with hollow stem augers and standard penetration test (SPT) sampling equipment. We accomplished SPT sampling in each boring at 2.5- to 5.0-foot intervals. GPI's geologist visually classified and logged the soil encountered referencing the *Unified Soil Classification System* (USCS). We collected select in-place soil samples from various depths and locations for subsequent laboratory testing. Piezometers were installed in borings B24275A-1 and -2 at 15 feet below

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the ground surface with 5 feet of solid stem and a bentonite seal. The piezometers received a flush mount casing at the surface. Boring B24275A-3 was plugged at the surface with bentonite. Exploration locations are shown on Plate 1 attached to this summary letter.

The USCS and exploration logs are presented in Appendix A, *USCS & Exploration Logs*, and the USCS should be used to interpret the soil conditions in this report and on the individual exploration logs.

Laboratory Testing

Although not planned as part of our scope, we performed index laboratory testing in reference to ASTM standards on select soil samples obtained during exploration. Laboratory testing included:

- Grain Size Distribution (ASTM C136)
- Moisture Content (ASTM D2216)
- pH, Resistivity, & Sulfates

We utilized laboratory test results to help characterize soil types referencing the USCS. Laboratory test results are included in Appendix B, *Laboratory Test Results*, and on the exploration logs in Appendix A.

SUBSURFACE CONDITIONS

At the exploration location surfaces, we encountered topsoil containing vegetation and organics extending 0.3 to 0.5 feet below the ground surface (BGS). Topsoil comprised silt with varying amounts of sand that was dark brown, soft, and moist. Thicker topsoil, vegetation, and organic deposits can be expected along Paradise Creek. Beneath topsoil, we encountered the following primary subsurface units.

Uncontrolled Fill – Silt (ML): dark brown, soft, and moist. Fill depths ranged from approximately 0.5 feet to approximately 2 feet below the existing ground surface in the boring locations.

Alluvium - Silt (ML): dark brown to gray, soft to firm, and moist to wet. Encountered at depths ranging from approximately 2 to 11.5 feet below the existing ground surface.

Alluvium – Poorly Graded Sand with Gravel (SP): dark brown to gray and white, medium dense to dense, wet to saturated. Encountered at depths ranging from approximately 7 feet below ground surface to approximately 20.5 feet below the existing ground surface.

Bedrock – Basalt (RX): black with orange-brown staining, moderately fractured to massive, very weathered to slightly weathered, and dense. Bedrock was encountered below the soil profile in each boring at depths ranging from 12.0 to 30.5 feet. Exploration equipment was refused within 1.0 foot of encountering competent basalt bedrock due to its hardness.

We encountered groundwater in each exploration location at depths ranging from 8.2 to 12.3 feet below the existing ground surface. We expect groundwater levels throughout the planned improvement alignment will vary with seasonal fluctuations in precipitation and infiltration. Also, perched water tables can accumulate at the interface between varying materials such as fill deposits and along existing utility alignments.

During exploration, GPI installed piezometers in borings B-24275-1 and -2 comprising 2-inch-diameter PVC pipe with a 5-foot slotted section at the base. The piezometers were installed to 15 feet below the ground surface. GPI monitored the piezometers immediately after exploration and immediately prior to publishing this document. We will monitor the groundwater level fluctuations monthly and update the table below after each measurement. The groundwater levels monitored to date are shown in Table 1.

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Table 1. Groundwater Levels

Date Measured	Groundwater Measurement by Boring Number (* denotes piezometer)		
	B-24275A-1*	B-24275-2*	B-24275-3
January 31, 2025	10.8[1]	8.2[1]	12.3[1]
February 17, 2025	5.8[1]	3.5[1]	N.A.

1. Depth below top of well (feet).

GEOTECHNICAL OPINIONS AND CONSIDERATIONS

The following sections are presented to assist planning, design, and construction for the planned lift station and force main sewer transmission line along State Highway 8. Our opinion is several design and construction challenges identified herein require careful consideration by the Ardurra Group Inc. (Ardurra) and the selected contractor. These include but are not limited to the following:

- Caving soil conditions during launch and receiving pit excavation, and utility installation in open trenches.
- Potential difficulty with utility installation within proximity of weathered bedrock, as well as the groundwater levels in and around Paradise Creek.
- Inducing deformation beneath the highway infrastructure via directional drilling or jack and bore activities.

The following sections provide our geotechnical opinions and considerations to help Ardurra address the above challenges throughout design and construction. In our opinion, clearly defining construction requirements in the project documents, close correspondence between the design team and prospective contractors, and performing pre-bid and pre-construction meetings with prospective contractors will be critical aspects of the project's success.

Contractors should be provided with this letter and any historical construction information that may exist to assist their scoping and bidding of the project. We further recommend Ardurra incorporate an acknowledgment into project specifications that the contractor has read this geotechnical summary and understands they may advance additional exploration or laboratory testing they deem necessary to delineate geologic conditions that may impact their specific approach to this project.

Excavation Considerations

Excavations can cave and slough and must be sloped back in accordance with *Occupational Safety and Health Administration* (OSHA) guidelines. Based on our exploration findings, the soil encountered within the anticipated excavation limits is Type C soil, which may be temporarily sloped as steep as 1.5H:1V (horizontal to vertical), when the soil remains dry. Surface or subsurface water that infiltrates excavation slopes can drastically impact temporary slope stability, requiring much flatter slopes. Additionally, it is GPI's experience that the sand encountered from 7 to as deep as 20 feet in the exploration locations is saturated and when exposed to vibrations or open excavations, the sand can flow and cause collapse of trench sidewalls or sinkholes at the surface.

To reduce excavation extents and associated disturbance to adjacent pavements, utilities or other existing site features, contractors may elect to utilize temporary shoring systems such as trench boxes, slide rail systems, or other manufacturer-designed excavation support systems. Due to the potential for subsurface conditions to vary at the launch and receiving pit alignments, earthwork contractors should evaluate each excavation configuration specific to OSHA guidelines and seek appropriate professional guidance, as defined by OSHA, to ensure excavation safety and stability. Ultimately, the selected contractor is responsible for site and trench safety.

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Bedrock Excavation

Highly weathered bedrock is classified as Type B soil, which can be sloped at 1H:1V in temporary excavations. Weathered bedrock is rock that which can be excavated to varying extents with a typical, large excavators (John Deere 300G or larger) equipped with rock excavation teeth. The depth of rock penetration will be a function of the rock's competency and fracturing. For budgeting purposes, we recommend excavation beyond 4 feet into the rock surface be classified as rock excavation and tracked separately.

Where encountered, slightly weathered to competent basalt bedrock will comprise "stable rock" referencing OSHA requirements, which may be excavated near vertical for temporary applications. Excavating competent bedrock beyond 1 to 2 feet will be difficult and will require large, and possibly specialized excavating equipment. We expect excavation equipment will need to be equipped with ripper shanks, rock teeth, and/or hydraulic breakers. We do not expect blasting will be allowed due to the alignment's proximity to State Highway 8 and other significant utilities and commercial developments.

The following considerations can be incorporated into the project specifications or used as a general guide to facilitate bedrock excavation requirements. Earthwork and general contractors should consider the following with respect to accomplishing rock excavation.

1. Bedrock excavation shall be performed with late-model excavation equipment; configurations equipped with short-tip-radius rock buckets; rated at not less than 150 hp net flywheel power with a bucket-curling force of no less than 35,000 lbf and stick-crowd force of not less than 23,000 lbf.

2. A minimum 9,500 ft-lb hydraulic breaker is expected to breakout competent bedrock in confined spaces when not fractured or weathered. The contractor shall maintain contingencies for mobilizing such equipment.

3. Other rock excavation methods, including predrilling, chemical agents, and others, may be considered to achieve the required excavation depths. However, potential impacts of each method must be carefully evaluated by Ardurra, the City, and any prospective contractor.

As part of any bedrock excavation process, it is critical that the overall bedrock removal limits be clearly outlined to contractors such that appropriate methods are utilized to prevent fracturing at or below subgrade elevations and that rock removal extend laterally to the prescribed limits.

We also encountered groundwater between 8.2 and 12.3 feet in each boring. Perched water tables that vary due to seasonal variations, can impact trenchless installations, specifically where launch and receiving pits are established. Therefore, the contractor should expect that directional drilling activities may be working at or in the groundwater levels in launch or receiving pits. Prospective contractors should consider this risk in their installation plans and equipment configurations.

Trenchless Installation Considerations

The encountered subsurface conditions as well as the primary concerns and challenges discussed herein may impact constructability for the planned utility improvements. Based on our previous discussions with regional contractors and involvement with directional drilling projects, we understand trenchless installation can be accomplished through almost any material. However, trenchless installation's cost effectiveness dramatically reduces when drilling through bedrock. Also, the feasibility and success of accomplishing trenchless installation will differ with varying technologies.

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The following information should be considered by Ardurra and prospective contractors with respect to trenchless utility installation on this project.

- Utility installation feasibility depends on alignment tolerances. For example, tapping existing utility connections across great distances may require careful directional control, which could be difficult with the varying soil coarseness and density encountered in the locations explored.

- Directional drilling vibrations may cause excavations to slough and cave or for saturated sand to liquify and flow along utility alignments, occasionally creating sinkholes. Specifically, penetrations through the near surface silt alluvium will likely result in caving without a casing advanced concurrently with drill penetration. Also, some drilling operations can cause the above-ground surface to bulge/heave without appropriate cover (i.e., embedment depth). This can impact State Highway 8 and the Chipman trail asphalt, utilities, or other infrastructure. We recommend project documents clearly delineate the selected trenchless installation methodology.

- For trenchless installations, we recommend project documents outline a minimum cover requirement of 4 feet between the top of the casing and pavement surfaces within the roadway prism (edge of shoulder). The minimum cover requirement between the top of the casing and other overlying features or utilities shall be at least 3 feet. This is consistent with the latest *ITD Guide for Utility Management* (GUM - 5.3) requirements. However, additional cover may be prudent, depending on site and drilling conditions encountered.

- Monitoring the existing ground and roadway surfaces along planned trenchless installation alignments will be critical to proactively identifying bulging, settlement, or vibration impacts to at the existing surface before significant damage or distress is incurred. Methods for monitoring can vary per contractor capabilities, but an example method would be optical surveying with a total station and GPS at set locations along the planned alignment during construction. Complete surveying at regular intervals during construction to monitor possible deflection in the ground surface and roadway caused by installation. A pre- and post-construction profile of the roadway should be performed in each lane and extending 20-feet on either side of the utility alignment.

- Directional drilling that requires penetrating basalt bedrock at an oblique angle can be difficult and often deflect.

Launch & Receiving Pit Considerations

Launch and receiving pits are required for trenchless alignments. Though specific pit invert elevations are not established, we anticipate these excavations could extend 5 to 10 feet below the existing ground surface. These excavations will be subject to the same challenges and requirements for cut and cover trench excavations described in the *Excavation Characteristics* section above. However, due to their critical impact on trenchless installation procedures, we provide the following additional information for consideration by Ardurra while preparing contract documents.

Launch and receiving pits may require temporary shoring depending on final pit invert elevations and excavation configurations due to proximity to the existing infrastructure such as State Highway 8 and the Chipman Trail. Typically, any temporary shoring required for the project will be contractor designed and supplied. We recommend project documents require all contractor-supplied shoring designs be prepared by a licensed engineer and be submitted to Ardurra, the City, or other project stakeholders for review prior to construction. The selected contractor and their engineer must verify all site information including geometry, right-of-way and property encroachment, utility conflicts, soil-engineering parameters, and any other

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pertinent criteria prior to completing design or mobilizing. Shoring plans should outline the provisions for dewatering if necessary. Plans should also delineate requirements for handling drilling fluids and reclaiming the pit(s) when complete. GPI recommends pits be excavated to remove all loose or soft material and that they be backfilled with suitable structural fill. Structural fill shall be placed and compacted in 1-foot-thick lifts to at least 95% of the soil's maximum dry density referencing ASTM D1557 (Modified Proctor).

The force main alignment soil conditions appear suitable for a range of shoring systems. Primarily, we anticipate pre-engineered and pre-manufactured bracing systems (i.e., "trench boxes" or "slide-rail systems") are applicable for launch and receiving pit applications on this project. We recommend these systems be established outside of the State Highway 8 right-of-way if possible. Depending on the pit proximity to the highway and associated loading or required protection, soldier pile and lagging, or soil nail and tied-back wall systems may also be suitable for this project when factoring in the difficulty of installing subsurface support systems.

EVALUATION LIMITATIONS

Our geotechnical exploration services for this project do not constitute a detailed geotechnical engineering analysis of any planned improvements. Rather, our scope was limited to providing subsurface exploration to help characterize the subsurface conditions along the alignment and to aid Ardurra, the City, and prospective contractors with evaluating their design and construction approach. Further, our scope excludes civil design, structural design, stormwater disposal or erosion control design, concrete section design, pavement design, slope stability analysis, designing specific shoring or earth retention systems, or dewatering design. Our scope does not include an environmental or hazardous substance evaluation. Neither does our scope include performing a 100-foot-deep boring to assess IBC seismic site class.

There are inherent risks whenever soil, geologic, or hydrogeologic conditions are involved with design or construction. Soil and geologic material, especially groundwater, are variable in nature. Conditions may change between exploration locations and at depth. Extrapolating substantially beyond the immediate exploration area has obvious risks that must be considered by the project design and construction teams. Project designers and contractors must apply appropriate judgment to the exploration findings herein to facilitate prudent design development. This acknowledgment is in lieu of any express or implied warranties.

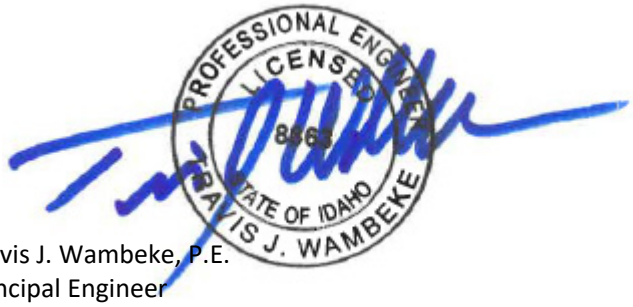
CLOSING

We appreciate the opportunity to assist Ardurra and the City of Moscow by serving as your geotechnical consultant. Please contact us if you have any questions about our exploration findings, or other geotechnical related project aspects.

Sincerely,
GPI

Noah Hattrup

Noah G. Hattrup, E.I.T
Staff Engineer

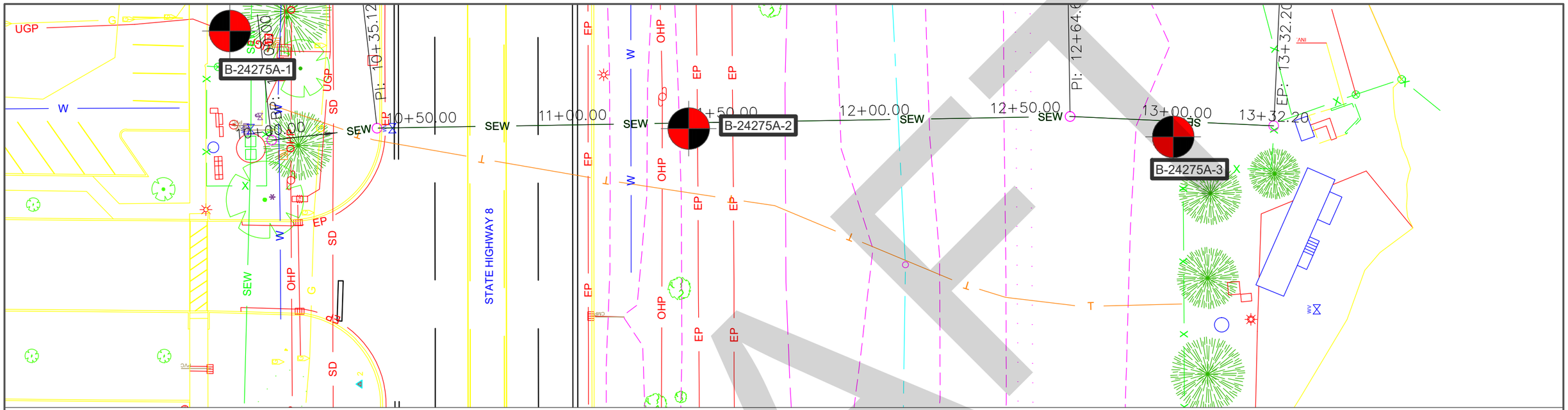


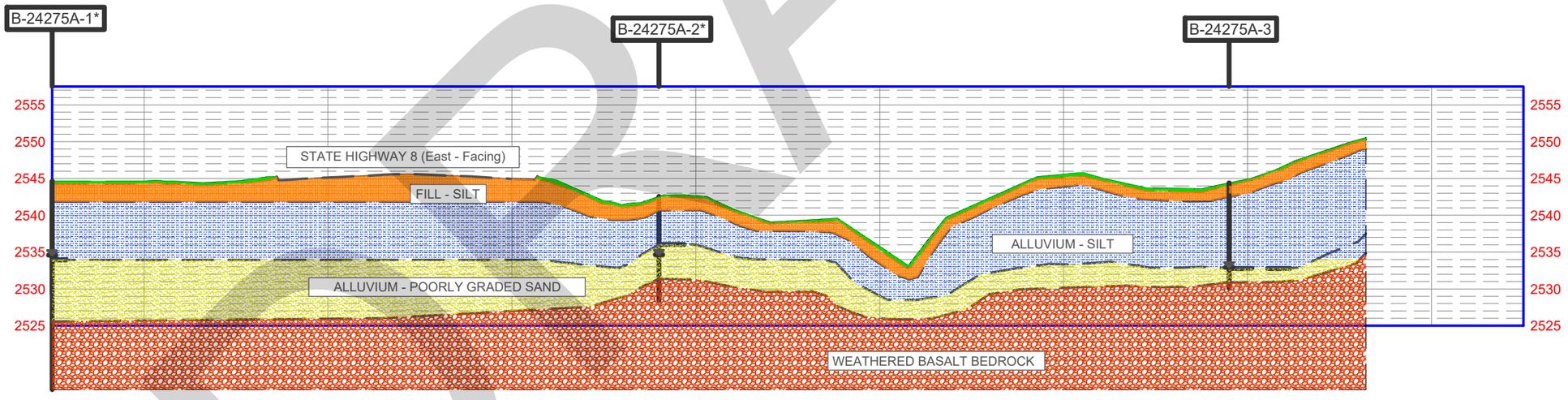
Travis J. Wambeke, P.E.
Principal Engineer

TJW/mg

Attachments: Plate 1: Force Main Utility Alignment & Profile Map
Appendix A: USCS and Exploration Logs
Appendix B: Laboratory Test Results

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Force Main Utility Alignment & Profile Map Interpreted Geologic Cross Section Moscow, Idaho	Reference: Ardurra Group, Inc., February 14, 2025	MO24275	PLATE: 1
		DRAWN BY: NGH	CHECKED BY: TJW

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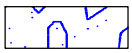
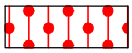
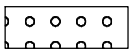
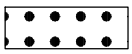
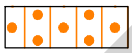
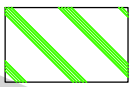
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APPENDIX A

Unified Soil Classification System (USCS) and Exploration Logs

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UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GRAPHIC SYMBOL	GROUP SYMBOL	TYPICAL NAMES
COARSE GRAINED SOIL	GRAVEL	CLEAN GRAVEL		GW	WELL-GRADED GRAVEL, GRAVEL-SAND MIXTURES.
				GP	POORLY-GRADED GRAVEL, GRAVEL-SAND MIXTURES.
		GRAVEL WITH FINES		GM	SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURES.
				GC	CLAYEY GRAVEL, GRAVEL-SAND-CLAY MIXTURES.
	SAND	CLEAN SAND		SW	WELL-GRADED SAND, GRAVELLY SAND.
				SP	POORLY-GRADED SAND, GRAVELLY SAND.
		SAND WITH FINES		SM	SILTY SAND, SAND-SILT MIXTURES.
				SC	CLAYEY SAND, SAND-CLAY MIXTURES.
FINE GRAINED SOIL	SILT AND CLAY LIQUID LIMIT LESS THAN 50%			ML	INORGANIC SILT, SANDY OR CLAYEY SILT.
				CL	INORGANIC CLAY OF LOW TO MEDIUM PLASTICITY, SANDY OR SILTY CLAY.
				CL-ML	INORGANIC MIXED CLAY AND SILT.
				OL	ORGANIC SILT AND CLAY OF LOW PLASTICITY.
	SILT AND CLAY LIQUID LIMIT GREATER THAN 50%			MH	INORGANIC SILT, MICA- CEOUS SILT, PLASTIC SILT.
				CH	INORGANIC CLAY OF HIGH PLASTICITY, FAT CLAY.
				OH	ORGANIC CLAY OF MEDIUM TO HIGH PLASTICITY.
				PT	PEAT, MUCK AND OTHER HIGHLY ORGANIC SOILS.

BORING LOG SYMBOLS

STANDARD 2 INCH OD SPLIT SPOON SAMPLE



CALIFORNIA MODIFIED 3 INCH OD SPLIT SPOON SAMPLE



ROCK CORE



SHELBY TUBE 3 INCH OD UNDISTURBED SAMPLE



TEST PIT LOG SYMBOLS

GRAB BAG SAMPLE

BG

BULK SAMPLE

BK

RING SAMPLE

RG

GROUNDWATER SYMBOLS

GROUNDWATER AFTER 24 HOURS



GROUNDWATER AT TIME OF EXPLORATION



GROUNDWATER AT THE END OF EXPLORATION



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GeoProfessional Innovation®

USCS Description	Depth (ft)	Symbol	Sample Type	SPT Blows Per 6 Inches	SPT N	Dry Density (pcf)	TEST RESULTS	Remarks
							Pocket Penetrometer, TSF ▲ 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 SPT, N-Value ● % Passing No. 200 Sieve ★ PL MC LL 20 40 60 80	Note: BGS = Below Ground Surface
(ML) (TOPSOIL) - SANDY SILT, dark brown, soft, moist (GM) FILL - SILTY GRAVEL, dark gray, loose, moist (ML) UNCONTROLLED FILL - SILT, dark brown, soft, damp (ML) ALLUVIUM - SILT, dark brown to gray, soft to firm, moist	0	ML GM ML	BK	0 0 1	1		22.9	Moderate vegetation and organics 0.3-foot BGS. Geofabric at 1-foot BGS.
	5	ML		0 1 3	4			Chemisty Suite pH = 6.9 Resistivity = 83.3 ohm-m Sulfates = 10.8 mg/kg Organics encountered at 6 to 6.5-feet BGS.
				3 5 6	6			Color change from dark brown to light gray at 9-feet BGS. In-Situ Dry Density = 102.8 pcf
	10			3 7 9	10		28 36 27.5	Groundwater encountered at 10.8-feet BGS at time of exploration.
(GP) ALLUVIUM - POORLY-GRADED GRAVEL WITH SAND, dark brown, medium dense, wet	15	GP		7 6 7	13		28.5	Groundwater monitoring well installed to depth of 15-feet BGS.
(RX) WEATHERED BEDROCK - POORLY GRADED GRAVEL WITH SILT AND SAND, black and orange, very dense, saturated	20			15 43 50/1.0"	93		50+	
	25	RX		19 40 50/4.0"	90		50+	
	30			43 50/1.0"	93		50+	
Borehole Terminated at 30.6 Feet.								Boring refusal at 30.6-feet BGS. Borehole backfilled with cuttings and bentonite.

Client: Ardurra	**Boring Number:** B-24275-1	GeoProfessional Innovation.	**EXPLORATORY BORING LOG**
Project: MOP24275	**Date Drilled:** 01-30-2025		
Drill Rig: Acker Recon	**Borehole Diameter:** 6		
Depth to Groundwater: 10.8'	**Logged By:** JTK		Sheet 1 Of 1

GPI BORING - GPJ.GDT - 2/17/25 13:06 - V:\ENGINEERING\GINT FILES\2025\250203 MO24275 HIGHWAY 8 LIFT STATION.GPJ

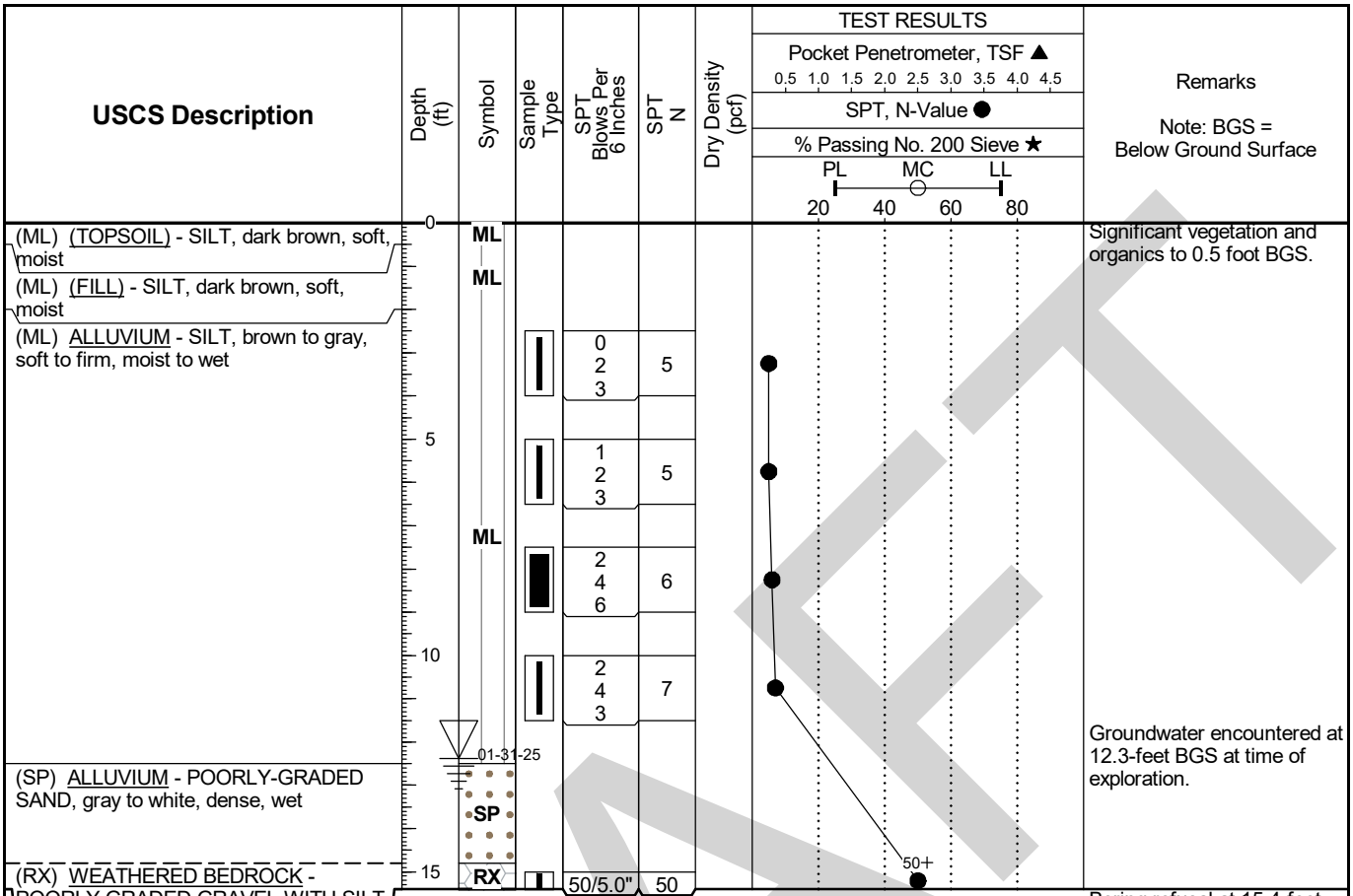
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USCS Description	Depth (ft)	Symbol	Sample Type	SPT Blows Per 6 Inches	SPT N	Dry Density (pcf)	TEST RESULTS	Remarks
							Pocket Penetrometer, TSF ▲ 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 SPT, N-Value ● % Passing No. 200 Sieve ★ PL MC LL 20 40 60 80	Note: BGS = Below Ground Surface
(ML) (TOPSOIL) - SILT, dark brown, soft, moist	0	ML						Moderate vegetation and organics to 0.3 foot BGS.
(ML) (FILL) - SILT, dark brown, soft, moist		ML	BK					
(ML) ALLUVIUM - SILT, gray to brown, soft to firm, moist		ML		0 1 3	4			
	5	ML		1 3 3	6			
(SP) ALLUVIUM - POORLY-GRADED SAND, gray to white, medium dense, wet		SP		3 3 14	10			Groundwater encountered at 8.2-feet BGS at time of exploration.
	10	SP		5 38 50/4.0"	88		50+	
(RX) WEATHERED BEDROCK - POORLY GRADED GRAVEL WITH SILT AND SAND, black and orange, very dense, saturated		RX						Groundwater monitoring well installed to depth of 15-feet BGS.
	15	RX		50/3.0"	50		50+	
Borehole Terminated at 15.3 Feet.								Boring refusal at 15.25-feet BGS. Borehole backfilled with cuttings and bentonite.

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Client: Ardurra	**Boring Number:** B-24275-2	GeoProfessional Innovation.	**EXPLORATORY BORING LOG**
Project: MOP24275	**Date Drilled:** 01-31-2025		
Drill Rig: Acker Recon	**Borehole Diameter:** 6		
Depth to Groundwater: 8.2'	**Logged By:** JTK		Sheet 1 Of 1

GPI BORING - GPI.GDT - 2/17/25 13:06 - V:\ENGINEERING\GINT FILES\2025\250203 MO24275 HIGHWAY 8 LIFT STATION.GPJ



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Client: Ardurra	**Boring Number:** B-24275-3
Project: MOP24275	**Date Drilled:** 01-31-2025
Drill Rig: Acker Recon	**Borehole Diameter:** 6
Depth to Groundwater: 12.3'	**Logged By:** JTK

GeoProfessional Innovation.

EXPLORATORY BORING LOG

Sheet 1 Of 1

GPI BORING - GPJ.GDT - 2/17/25 13:06 - V:\ENGINEERING\GINT FILES\2025\250203 MO24275 HIGHWAY 8 LIFT STATION.GPJ

APPENDIX B

Laboratory Test Results

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GeoProfessional Innovation.

Project Name: Palouse Mall Lift Station Force Main
Project Number: MO24275A
Client: Ardurra Group Inc

Laboratory Test Results Summary

Boring	Depth (feet)	Description (U.S.C.S. Classification)	In situ Moisture, %	In situ Dry Density, pcf	Atterberg Limits		pH	Resistivity Ω·cm	Sulfates ppm
					Liquid Limit	Plasticity Index			
B-24275A-1	2.5-4.0	Silt (ML)	22.9	-	-	-	-	-	-
B-24275A-1	5.0-6.5	Silt (ML)	-	-	-	-	6.9	8,330	10.8
B-24275A-1	10.0-11.0	Silt (ML)	27.5	102.8	36.0	8.0	-	-	-
B-24275A-1	15.0-16.5	Poorly-Graded Gravel with Sand (GP)	28.5	-	-	-	-	-	-

Reviewed By: Campbell

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Table 1. Groundwater Levels

Date Measured	Groundwater Measurement by Boring Number (* denotes piezometer [2])		
	B-24275A-1*	B-24275-2*	B-24275-3[3]
January 31, 2025	10.8[1]	8.2[1]	12.3[1]
February 17, 2025	5.8[1]	3.5[1]	N.A.
March 14, 2025	5.9[1]	1.9[1]	N.A.
April 23, 2025	6.1[1]	2.8[1]	N.A.
May 21, 2025	6.5[1]	3.4[1]	N.A.
June 23, 2025	6.9[1]	4.0[1]	6.8[1]
July 24, 2025	7.1[1]	4.2[1]	6.9[1]
August 22, 2025	7.2[1]	4.3[1]	7.4[1]
September 23, 2025	6.9[1]	3.9[1]	7.2[1]
October 30, 2025	7.1[1]	3.6[1]	3.8[1]
November 28, 2025	6.6[1]	2.8[1]	3.6[1]
December 30, 2025	6.3[1]	2.2[1]	2.9[1]
January 19, 2026	5.9[1]	2.4[1]	2.6[1]

1. Depth below top of well (feet).
2. Piezometer installed in borings at time of drilling.
3. Piezometer installed in boring on 6/17/2025.

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DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
BOISE REGULATORY OFFICE
720 EAST PARK BOULEVARD, SUITE 245
BOISE, IDAHO 83712-7757

October 21, 2025

WALLA WALLA DISTRICT
REGULATORY DIVISION

SUBJECT: NWW-2025-00373: City of Moscow – Wastewater Treatment Lift Station Rehabilitiation

Scott Bontrager, P.E.
City of Moscow
206 E. Third Street
Moscow, Idaho 83843

Dear Mr. Bontrager:

We have determined that your proposed project wastewater treatment lift station project is authorized in accordance with Department of the Army (DA) **Nationwide Permit (NWP) No. 03: Maintenance**. This project is located at, within Section 12 of Township 39 North, Range 6 West, near coordinates 48.732148º N latitude and -117.030381º W longitude, in Moscow, Lata County, Idaho. Please refer to File Number NWW-2025-00373 in all future correspondence with our office regarding this project.

Project activities include the discharge of approximately 10.5 cubic yards (CY) of rock/gravel/native materials over 40.5 square feet (sqft) below the Ordinary High Water Mark (OHWM) of Paradise Creek, associated with the rehabilitation of the wastewater lift station. Work will entail construction a coffer sandbag coffer dam, dewatering and piping water around the work area, and trenching utilizing an excavator working from outside of the aquatic resource above the OHWM to replace approximately 75 linear feet (LF) of 16” pipe HDPE.. All work shall be done in accordance with the enclosed drawings, titled: 20251021_Drawings_NWW-2025-00373.

DA permit authorization is necessary because your project may involve the discharge of dreged and fill material into waters of the U.S. This authorization is outlined in Section 404 of the Clean Water Act (33 U.S.C. 1344).

You must comply with all general, regional, and special conditions, for this verification letter to remain valid and to avoid possible enforcement actions. The general and regional permit conditions for *NWP No. 03: Maintenance* are attached and also

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available online[1]. In addition, you must also comply with the special conditions listed below.

The following Special Conditions include:

a. All work associated with bank stabilization shall be performed during low water conditions and in the dry to reduce turbidity and impacts from any contaminants entering the water.

b. Please pay special attention to "General Condition 20. Historic Properties" and/or the discovery of Native American Artifacts and/or Human Remains.

c. The permittee is responsible for all work done by any contractor. Permittee shall ensure any contractor who performs the work is informed of and follows all the terms and conditions of this authorization, including any Special Conditions listed above. Permittee shall also ensure these terms and conditions are incorporated into engineering plans and contract specifications.

You must also comply with the conditions detailed in the attached Section 401 Water Quality Certification (WQC) issued by the Idaho Department of Environmental Quality (IDEQ) on December 4, 2020. If you have any questions regarding the conditions set forth in the WQC, please contact IDEQ directly at 208-769-1422, Coeur d'Alene Regional Office.

Nationwide Permit General Condition 30 (Compliance Certification) requires that every permittee who has received NWP verification must submit a signed certification regarding the completed work and any required mitigation. This Compliance Certification form is enclosed for your convenience and must be completed and returned to us within 30 days of your project's completion.

This letter of authorization does not convey any property rights, or any exclusive privileges and does not authorize any injury to property or excuse you from compliance with other Federal, State, or local statutes, ordinances, regulations, or requirements which may affect this work.

This verification is valid until March 14, 2026, unless the NWP is modified, suspended or revoked. If your project, as permitted under this NWP verification, is modified in any way you must contact our office prior to commencing any work activities. If you commence or are under contract to commence the authorized work before March 14, 2026, you will have twelve (12) months from that date to complete the authorized activity under the present terms and conditions of this NWP. If you have not

[1] http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/Nationwide-Permits/

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completed construction of your project by this extended date you will need to obtain authorization under any newly issued NWP or have the remaining work authorized by another type of Department of the Army Permit.

We actively use feedback to improve our delivery and provide you with the best possible service. If you would like to provide feedback, please take our online survey[2]. If you have questions or if you would like a paper copy of the survey, please contact the Walla Walla District Regulatory. For more information about the Walla Walla District Regulatory program, you can visit us online[3].

If you have any questions or need additional information about this permit authorization, you can contact me by phone at 208-446-4237, by mail at the address in the letterhead, or email at Joshua.M.Moore@usace.army.mil. For informational purposes, a copy of this letter has been sent to: Idaho Department of Environmental Quality, Idaho Department of Water Resources, and your authorized agent, Mr. Shane Slate of Ardurra.

Sincerely,

Joshua M. Moore

Joshua M. Moore
Project Manager, Regulatory Division

Encls
Transfer of Nationwide Permit Form

[2] https://regulatory.ops.usace.army.mil/customer-service-survey/
[3] http://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/

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TRANSFER OF NATIONWIDE PERMIT

When the structures or work authorized by this Nationwide Permit, **NWW-2025-00373, City of Moscow – Waste Water List Station Rehabilitation**, are still in existence at the time the property is transferred. The terms and conditions of this Nationwide Permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this Nationwide Permit, the associated liabilities and compliance with the terms and conditions the transferee must sign and date below.

Name of New Owner:

Street Address:

Mailing Address:

City, State, Zip:

Phone Number:

_____ _____

Signature of TRANSFEREE *DATE*

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COMPLIANCE CERTIFICATION

US Army Corps of Engineers
Walla Walla District

Permit Number: NWW-2025-00373

Name of Permittee: Scott Bontrager, P.E.

Date of Issuance: October 21, 2025

Upon completion of the activity authorized by this permit and any mitigation required by the permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Walla Walla District
Coeur d'Alene Regulatory Office
1910 Northwest Blvd., Suite 210
Coeur d'Alene, Idaho 83814-2676

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with all terms and conditions of this permit, the permit is subject to suspension, modification, or revocation and you are subject to an enforcement action by this office.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit. The required mitigation was also completed in accordance with the permit conditions.

_____ _____

Signature of PERMITEE *DATE*

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NATIONWIDE PERMIT 03

Maintenance:

(a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This NWP authorizes the removal of previously authorized structures or fills. Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project. This NWP also authorizes the removal of accumulated sediment and debris within, and in the immediate vicinity of, the structure or fill. This NWP also authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the district engineer, provided the permittee can demonstrate funding, contract, or other similar delays.

(b) This NWP also authorizes the removal of accumulated sediments and debris outside the immediate vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.). The removal of sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. This 200-foot limit does not apply to maintenance dredging to remove accumulated sediments blocking or restricting outfall and intake structures or to maintenance dredging to remove accumulated sediments from canals associated with outfall and intake structures. All dredged or excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization.

(c) This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills or dewatering of construction sites.

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Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After conducting the maintenance activity, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

(d) This NWP does not authorize maintenance dredging for the primary purpose of navigation. This NWP does not authorize beach restoration. This NWP does not authorize new stream channelization or stream relocation projects.

Notification: For activities authorized by paragraph (b) of this NWP, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 32). The pre-construction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals. (Authorities: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (Sections 10 and 404))

Note: This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Clean Water Act Section 404(f) exemption for maintenance.

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WATER QUALITY CERTIFICATION, NWP 03:

Agency responsible for administration of water quality, based on project location is listed below. If DENIED, then an Individual Water Quality Certification or Waiver of Certification is required, prior to the commencement of any work activities and/or issuance of a DA verification, authorization and/or permit.

State of Idaho: **PARTIALLY DENIED:** activities authorized by paragraph (b) of NWP 03 are **not certified**.

Coeur d'Alene Tribal Lands: **DENIED**

Shoshone-Bannock Tribal Lands: **DENIED**

U.S. Environmental Protection Agency for all other Tribal Lands: **PARTIALLY DENIED:** activities are denied when the project involves:

- Maintenance, repair, or replacement of shoreline stabilization using hard armoring approaches; or
- Extending existing infrastructure beyond its prior footprint in fish bearing waters of the U.S.; or
- Excavation or dredging in marine waters.

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2021/2022 Nationwide Permits
Regional Conditions
Walla Walla District Regulatory Division (State of Idaho)

January 13, 2021

The following Nationwide Permit (NWP) regional conditions are required in the state of Idaho and apply to all 2021/2022 NWPs[1]. Regional conditions are established by individual Corps Districts to ensure projects result in no more than minimal adverse impacts to the aquatic environment and to address local resources concerns. This document also includes regional additions to the NWP General Conditions, notification procedures pertaining to certain NWP's, and regional additions to the definitions.

REGIONAL CONDITIONS

A. Watersheds Requiring Pre-Construction Notification, Specific to Anadromous Fish

This Regional Condition applies to all 2021/2022 NWPs.

- Pre-construction notification (PCN) will be required for the above listed nationwide permits in the geographic area as shown on Figure 1: *Watersheds Requiring Pre-Construction Notification*, dated January 6, 2021.

B. Vegetation Preservation and Replanting

- To avoid impacts to aquatic habitat and to reduce sedimentation and erosion, permittee shall avoid and minimize the removal of vegetation in waters of the U.S. to the maximum extent practicable. Areas subject to temporary vegetation removal in waters of the U.S. during construction shall be replanted with appropriate native[2] species by the end of the first growing season, unless conditioned otherwise. Permittee shall avoid introducing or spreading noxious or invasive plants[3].

- Replanted vegetation that does not survive the first growing season shall be replanted before the end of the next growing season. Re-plantings shall continue to occur until desired vegetation densities are achieved. Re-vegetation densities should be based on reference conditions.

[1] For the list of 2021/2022 Nationwide Permits please see: https://www.nww.usace.army.mil/Business-With-Us/Regulatory-Division/Nationwide-Permits/
[2] Idaho Department of Transportation, Native Plants for Idaho Roadside Restoration and Revegetation Programs: https://itd.idaho.gov/wp-content/uploads/2016/06/RP171Roadside_Revegetation.pdf
[3] U.S. Department of Agriculture, Natural Resource Conservation Service Plant Database of introduced, invasive, and noxious plants for Idaho: https://plants.usda.gov/java/noxious?rptType=State&statefips=16.

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C. De-watering & Re-watering (as applicable)

- Cofferdams shall be constructed of non-erosive material such as concrete jersey barriers, bulk bags, water bladders, sheet pile, and other similar non-erosive devices. Cofferdams may not be constructed by using mechanized equipment to push streambed material through flowing water.

- Diversion channels constructed to bypass flow around the construction site shall be lined with plastic, large rock, pipe or otherwise protected from erosion prior to releasing flows into or through the diversion channel.

- Water removed from within the coffered area shall be pumped to a sediment basin or otherwise treated to remove suspended sediments prior to its return to the waterway.

- To prevent unwanted passage of state or federally-protected fish, if present, from the coffered area, Water pipe intakes shall be screened with openings measuring < 3/32 inch to prevent entrainment of fish trapped in the coffered area.

- Should fish be present within the coffered areas contact your local Idaho Department of Fish and Game (IDFG) office prior to performing fish removal or salvage. Fish shall be collected by electrofishing, seining or dip net, or otherwise removed and returned to the waterway upstream of the project area. If electrofishing is used, the National Marine Fisheries Service (NMFS) guidelines for electrofishing should be followed[4], unless conditioned otherwise.

- Stream channels that have been dewatered during project construction shall be re-watered slowly to avoid lateral and vertical erosion of the de-watered channel, prevent damage to recently reclaimed work areas and/or damage to permitted work.

- Temporary stockpiles in waters of the United States shall be removed in their entirety so as not to form a berm or levee parallel to the stream that could confine flows or restrict overbank flow to the floodplain.

D. In-Water Structures and Complexes

- PCN notification in accordance with General Condition 32 is required for all non-federal applicants with activities involving gabion baskets placed below the ordinary high water mark.

- Stream meanders, riffle and pool complexes, pool stream structures, rock/log barbs, rock J-hooks, drop structures, sills, engineered log jams or similar structures/features when used shall be site specifically designed by an appropriate professional with experience in hydrology or fluvial geomorphology.

[4] Guidelines for Electrofishing Waters Containing Salmonids Listed Under the Endangered Species Act (June 2000) http://www.westcoast fisheries.noaa.gov/publications/reference_documents/esa_refs/section4d/electro2000.pdf

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E. Temporary Sidecasting

- Materials from exploratory trenching and installation of utility lines may be temporarily side cast into a de-watered coffered area for up to 30 days but not within flowing waters. Material from exploratory trenching and installation of utility lines in wetlands may be temporarily side cast for up to 30 days.

F. Suitability of Sediments for Open Water Disposal and us as Fill

- Sampling for determination of suitability of sediments for open water disposal or for use as fill, must comply with the Sediment Evaluation Framework for the Pacific Northwest (SEF)[5].

G. Avoidance and Minimization

- In addition to information required under General Condition 32(b), the applicant shall include information about previous discharges of fill material into waters of the United States within the project area. This is only for non-federal applicants where a PCN is required.

- Discharges of dredged or fill material into waters of the U.S., including wetlands, to meet set back requirements are not authorized under NWP.

H. Erosion Control

- Erosion control blanket or fabric used in or adjacent to waters of the U.S. shall be comprised of biodegradable material, to ensure decomposition and reduced risk to fish, wildlife and public safety, unless conditioned otherwise. If the applicant proposes to use materials other than as indicated above they must demonstrate how the use of such materials will not cause harm to fish, wildlife and public safety.

I. Reporting Requirement for Federal Permittees

- Federal Agencies with projects that require compensatory mitigation for loss of waters of the U.S. and who propose to purchase credits from an approved wetland and/or stream mitigation bank must provide proof of purchase within 30 days of when the credits were purchased. Purchase of credits from an approved mitigation bank must be IAW the Mitigation Banking Instrument of Record.

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[5] Northwest Regional Sediment Evaluation Team (RSET) 2016. Sediment Evaluation Framework for the Pacific Northwest. Prepared by the RSET Agencies, July 2016, 160 pp plus appendices. http://nwd.usace.army.mil/Missions/Civil-Works/Navigation/RSET/SEF

REGIONAL ADDITIONS TO THE GENERAL CONDITIONS

General Condition 4. Migratory Bird Breeding Areas. Regional Addition: For additional information please contact the US Fish and Wildlife Service at the following field office locations: State Office (Boise) at (208) 387-5243; Northern Idaho Field Office (Spokane) at (509) 891-6839; or the Eastern Idaho Field Office (Chubbuck) at (208) 237-6975. https://www.fws.gov/idaho/promo.cfm?id= 177175802

General Condition 6. Suitable Material. Regional Addition: Erosion control blanket or fabric used in or adjacent to waters of the U.S. shall be comprised of biodegradable material, to ensure decomposition and reduced risk to fish, wildlife and public safety, unless conditioned otherwise. If the applicant proposes to use materials other than as indicated above they must demonstrate how the use of such materials will not cause harm to fish, wildlife and public safety.

General Condition 9. Management of Water Flows. Regional Addition: To obtain information on State of Idaho definition of high water refer to Idaho Department of Water Resources (IDAPA 37.03.07. Rule 62.03.04.a). For culverts or bridges located in a community qualifying for the national flood insurance program, the minimum size culvert shall accommodate the 100-year flood design flow frequency (IDAPA 37.03.07. Rule 62.03.04.c).

General Condition 12. Soil Erosion and Sediment Controls. Regional Addition: For additional information refer to the Idaho Department of Environmental Quality Catalog of Stormwater Best Management Practices for Idaho Cities and Counties, available online at: https://www.deq.idaho.gov/public-information/laws-guidance-and-orders/guidance/.

General Condition 18. Endangered Species. Regional Addition: For additional information on ESA listed species in north Idaho please contact the US Fish and Wildlife Service (USFWS) Northern Idaho Field Office (Spokane) at (509) 893-8009, for all other counties in Idaho contact the USFWS State Office (Boise) at (208) 378-5388.

General Condition 20. Historic Properties. Regional Addition: Property is generally considered “historic” if it is at least 50 years old, and is not limited to buildings. For additional information on the potential for cultural resources in proximity to the project site, contact the Idaho State Historic Preservation Office at (208) 334-3847 located in Boise, Idaho.

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NOTIFICATION PROCEDURES BY THE CORPS FOR CERTAIN NATIONWIDE PERMITS

Waivers: For nationwide permits with a waiver provision, District coordination with Idaho Department of Environmental Quality (IDEQ) and Environmental Protection Agency (tribal lands) will be conducted prior to the District Engineer making a waiver determination to ensure the proposed activity is in compliance with Section 401 Water Quality Standards.

Select Waters and Wetlands: The Corps will coordinate with the Idaho Department of Fish and Game (IDFG) for activities in the following waters and wetlands that require notification and are authorized by NWP:

- Waters: Waters: Anadromous waters as shown on Figure 1: *Watersheds Requiring Pre-Construction Notification*, dated January 6, 2021; Henry's Fork of the Snake River and its tributaries; South Fork Snake River and its tributaries; Big Lost River and its tributaries upstream of the US 93 crossing; Beaver, Camas, and Medicine Lodge Creeks; Snake River; Blackfoot River above Blackfoot Reservoir; Portneuf River; Bear River; Boise River including South Fork, North Fork and Middle Fork; Payette River including South Fork, North Fork and Middle Fork; Coeur d'Alene River, including the North Fork; St. Joe River; Priest River; Kootenai River; Big Wood River; and Silver Creek and its tributaries.

- Wetlands identified in Idaho Department of Fish and Game, Wetland Conservation Strategy as Class I, Class II and Reference Habitat Sites[6].

- Wetlands identified in the Idaho Wetland Conservation Prioritization Plan-2012[7].

NWP 27-Aquatic Habitat Restoration, Establishment, and Enhancement Activities

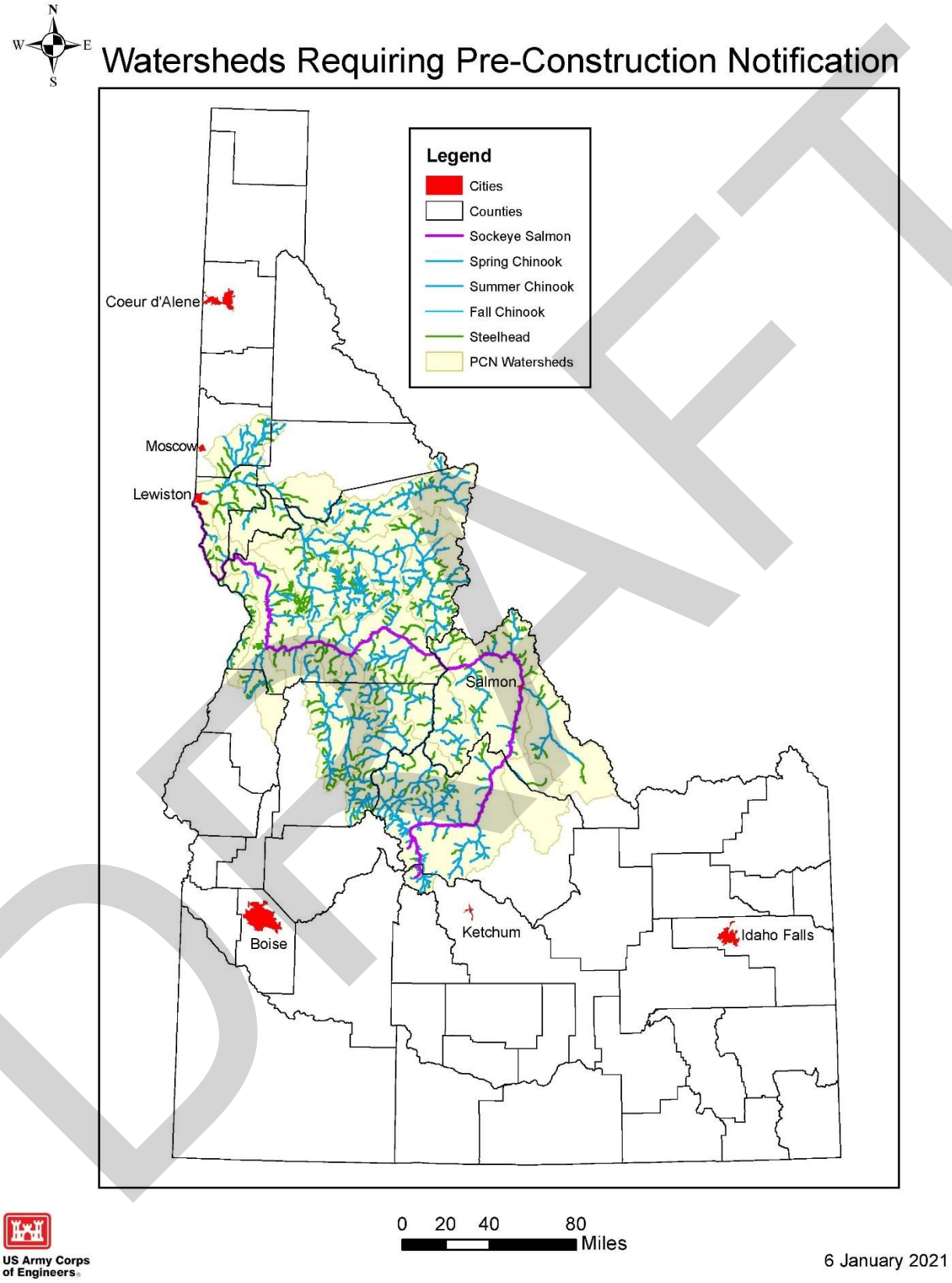
Prior to verification, the Corps will coordinate the project with the Idaho Department of Fish and Game for activities in perennial, fish bearing streams.

[6] Idaho Department of Fish and Game (IDFG) Wetland Conservation Strategies have been developed for the Henrys Fork Basin, Northern Idaho, Big Wood River, Southeast Idaho, East-Central Idaho and Spokane River Basin, Middle and Western Snake River and tributaries, and the Upper Snake River–Portneuf Drainage, Weiser River Basin, and West Central Mountain Valleys and adjacent wetlands. Closed basins of Beaver-Camas Creeks, Medicine Lodge Creek, Palouse River and lower Clearwater River sub-basins, Middle Fork and South Fork Clearwater Basins and Camas Prairie in northern Idaho. Refer to the internet site at: http://fishandgame.idaho.gov/content/page/wetlands-publications-idaho-natural-heritage-program#reports

[7] Murphy, C., J. Miller and A. Schmidt. 2012. https://parksandrecreation.idaho.gov/sites/default/files/uploads/documents/SCORTP/Update/Apdx%20.%20Wetlands%Priority%Plan%20(Part %20I)%Compressed1.pdf

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Figure 1



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2021 Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

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1. Navigation

(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements

No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas

Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas

Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds

No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material

No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes

No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments

If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

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9. Management of Water Flows

To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains

The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment

Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls

Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills

Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance

Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project

The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency

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with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights

No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be

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affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take'' means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at

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http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles

The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties

(a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)).

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Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts

Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters

Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment,

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additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. <u>Mitigation</u>

The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of

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streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14)

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must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures

To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have

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been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality

(a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management.

In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions

The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits

The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated

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bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1⁄3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications

If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

_____

(Transferee)

_____

_____

(Date)

30. Compliance Certification

Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory

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mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States

If an NWP activity also requires review by, or permission from, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification

(a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

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(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed activity;

(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;

(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amount of loss of wetlands, other special aquatic sites, and other waters expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of the Army authorization but do not require pre-construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii) For linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining

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why the adverse environmental effects are no more than minimal and why compensatory mitigation should not be required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatenedspecies (or species proposed for listing) that might be affected by the proposed activity or utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstrating compliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the PCN must identify the Wild and Scenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) *Form of Pre-Construction Notification*: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information may also be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) *Agency Coordination*: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for: (i) all NWP activities that require pre-construction notification and result in the loss of greater than 1/2-acre of waters of the United States; (ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and (iii)

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NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or water quality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

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STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 N Hilton Street, Boise, ID 83706
(208) 373-0502

Brad Little, Governor
Jess Byrne, Director

December 4, 2020

Kelly J. Urbanek, Chief
U.S. ACOE Regulatory Division
Walla Walla District
720 East Park Boulevard, Suite 245
Boise, Idaho 83712-7757

Subject: Final §401 Water Quality Certification for 2020 Nationwide Permits in Idaho

Dear Ms. Urbanek:

Enclosed please find the Idaho Department of Environmental Quality (DEQ) final water quality certification for the 2020 Nationwide Permits in Idaho. DEQ offered a 21-day public comment period, beginning on November 2, 2020, and ending on November 23, 2020.

DEQ received a single comment letter. After review of the comments received, minor modifications were made to the final certification in order to provide additional clarity.

If you have any questions or concerns regarding this certification, please contact Jason Pappani at (208) 373-0515 or via email at jason.pappani@deq.idaho.gov.

Sincerely,



Mary Anne Nelson, PhD
Surface and Wastewater Division Administrator

MAN:JP:lf

cc: Jason Pappani, DEQ State Office
DEQ Regional Administrators
James Joyner, ACOE Walla Walla District
Brent King, Idaho Attorney General's Office

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Idaho Department of Environmental Quality

Final §401 Water Quality Certification

December 4, 2020

2020 U.S. Army Corps of Engineers §404 Nationwide Permits (NWPs)

Pursuant to the provisions of Section 401(a)(1) of the Federal Water Pollution Control Act (Clean Water Act), as amended; 33 U.S.C. Section 1341(a)(1); and Idaho Code §§ 39-101 et seq. and 39-3601 et seq., the Idaho Department of Environmental Quality (DEQ) has authority to review activities receiving Section 404 dredge and fill permits and issue water quality certification decisions.

Based upon its review of the proposed 2020 Nationwide Permits published in the Federal Register on September 15, 2020, DEQ certifies that if the permittee complies with the terms and conditions imposed by the permits, including the Regional Conditions set forth by the Army Corps of Engineers (ACOE), along with the conditions set forth in this water quality certification, then activities will comply with the applicable water quality requirements of Sections 301, 302, 303, 306, and 307 of the Clean Water Act, the Idaho Water Quality Standards (WQS) (IDAPA 58.01.02), and other appropriate water quality requirements of state law.

This certification does not constitute authorization of the permitted activities by any other state or federal agency or private person or entity. This certification does not excuse the permit holder from the obligation to obtain any other necessary approvals, authorizations, or permits, including without limitation, the approval from the owner of a private water conveyance system, if one is required, to use the system in connection with the permitted activities.

1 Antidegradation Review

The WQS contain an antidegradation policy providing three levels of protection to water bodies in Idaho (IDAPA 58.01.02.051).

- Tier I Protection. The first level of protection applies to all water bodies subject to Clean Water Act jurisdiction and ensures that existing uses of a water body and the level of water quality necessary to protect those existing uses will be maintained and protected (IDAPA 58.01.02.051.01; 58.01.02.052.01). Additionally, a Tier I review is performed for all new or reissued permits or licenses (IDAPA 58.01.02.052.07).
- Tier II Protection. The second level of protection applies to those water bodies considered high quality and ensures that no lowering of water quality will be allowed unless deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

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- Tier III Protection. The third level of protection applies to water bodies that have been designated outstanding resource waters and requires that activities not cause a lowering of water quality (IDAPA 58.01.02.051.03; 58.01.02.052.09).

DEQ is employing a water body by water body approach to implementing Idaho's antidegradation policy. This approach means that any water body fully supporting its beneficial uses will be considered high quality (IDAPA 58.01.02.052.05.a). Any water body not fully supporting its beneficial uses will be provided Tier I protection for that use, unless specific circumstances warranting Tier II protection are met (IDAPA 58.01.02.052.05.c). The most recent federally approved Integrated Report and supporting data are used to determine support status and the tier of protection (IDAPA 58.01.02.052.05).

1.1 Pollutants of Concern

The primary pollutant of concern, for projects permitted under the 2020 NWPs administered by the ACOE, is sediment. In locations where heavy metals are present due to mining activities, or where high concentrations of nutrients may be associated with sediments, additional considerations may be necessary. If the project reduces riparian vegetation, then temperature (thermal loading) may also be of concern.

The procedures outlined in the Sediment Evaluation Framework for the Pacific Northwest[1] may be applied to assess and characterize sediment to determine the suitability of dredged material for unconfined aquatic placement, to determine the suitability of post dredge surfaces, and to predict effects on water quality during dredging (See Section 2.4 for more details).

As part of the Section 401 water quality certification, DEQ is requiring the applicant to comply with various conditions to protect water quality and to meet Idaho WQS, including the criteria applicable to sediment.

1.2 Receiving Water Body Level of Protection

The ACOE NWPs authorize construction activities in waters of the United States. In Idaho, jurisdictional waters of the state can potentially receive discharges either directly or indirectly from activities authorized under the NWPs. DEQ applies a water body by water body approach to determine the level of antidegradation protection a water body will receive. (IDAPA 58.01.02.052.05).

All waters in Idaho that receive discharges from activities authorized under a NWP will receive, at minimum, Tier I antidegradation protection because Idaho's Tier I antidegradation policy applies to all state waters (IDAPA 58.01.02.052.01). Water bodies that fully support their aquatic life or recreational uses are considered *high quality waters* and will receive Tier II antidegradation protection (IDAPA 58.01.02.051.02). Because of the statewide applicability, the antidegradation review will assess whether the NWP permit complies with both Tier I and Tier II antidegradation provisions (IDAPA 58.01.02.052.03).

Although Idaho does not currently have any Tier III designated outstanding resource waters (ORWs), it is possible for a water body to be designated as an ORW during the life of the NWPs.

[1] Northwest Regional Sediment Evaluation Team (RSET). 2018. Sediment Evaluation Framework for the Pacific Northwest. *Prepared by* the RSET Agencies, May 2018, 183 pp plus appendices.

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Because of this potential, the antidegradation review also assesses whether the permit complies with the outstanding resource water requirements of Idaho's antidegradation policy (IDAPA 58.01.02.051.03).

To determine the support status of the receiving water body, the most recent EPA-approved Integrated Report, available on Idaho DEQ's website, is to be used: http://www.deq.idaho.gov/water-quality/surface-water/monitoring-assessment/integrated-report/. (IDAPA 58.01.02.052.05).

High quality waters are identified in Categories 1 and 2 of the Integrated Report. If a water body is in either Category 1 or 2, it is a Tier II water body.

Unassessed waters are identified in Category 3 of DEQ's Integrated Report. These waters require a case by case determination to be made by DEQ based on available information at the time of the application for permit coverage (IDAPA 58.01.02.052.05.b). For activities occurring on unassessed waters under this certification, DEQ has determined that complying with the conditions of the NWP, the regional conditions, and this certification will ensure the provisions of IDAPA 58.01.02.052 are met.

Impaired waters are identified in Categories 4 and 5 of the Integrated Report. Category 4(a) contains impaired waters for which a TMDL has been approved by EPA. Category 4(b) contains impaired waters for which controls other than a TMDL have been approved by EPA. Category 5 contains waters which have been identified as "impaired", for which a TMDL is needed. These waters are Tier I waters, for the use which is impaired. With the exception, if the aquatic life uses are impaired for any of these three pollutants—dissolved oxygen, pH, or temperature—and the biological or aquatic habitat parameters show a healthy, balanced biological community, then the water body shall receive Tier II protection, in addition to Tier I protection, for aquatic life uses (IDAPA 58.01.02.052.05.c.i).

DEQ's webpage also has a link to the state's map-based Integrated Report which presents information from the Integrated Report in a searchable, map-based format: http://www.deq.idaho.gov/assistance-resources/maps-data/.
Water bodies can be in multiple categories for different causes. If assistance is needed in using these tools, or if additional information/clarification regarding the support status of the receiving water body is desired, please feel free to contact your nearest DEQ regional office or the State Office (Table 1).

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Table 1. Idaho DEQ Regional and State Office Contacts

Regional Office	*Address*	*Phone Number*	*Email*
Boise	1445 N. Orchard Rd., Boise 83706	208-373-0550	kati.carberry@deq.idaho.gov
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene 83814	208-769-1422	chantilly.higbee@deq.idaho.gov
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls 83402	208-528-2650	troy.saffle@deq.idaho.gov
Lewiston	1118 "F" St., Lewiston 83501	208-799-4370	sujata.connell@deq.idaho.gov
Pocatello	444 Hospital Way, #300 Pocatello 83201	208-236-6160	matthew.schenk@deq.idaho.gov
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls 83301	208-736-2190	balthasar.buhidar@deq.idaho.gov
State Office	1410 N. Hilton Rd., Boise 83706	208-373-0502	jason.pappani@deq.idaho.gov

1.3 Protection and Maintenance of Existing Uses (Tier I Protection)

A Tier I review is performed for all new or reissued permits or licenses, applies to all waters subject to the jurisdiction of the Clean Water Act, and requires demonstration that existing uses and the level of water quality necessary to protect existing uses shall be maintained and protected (IDAPA 58.01.02.051.01; 052.01 and 04). The numeric and narrative criteria in the WQS are set at levels that ensure protection of existing and designated beneficial uses.

Water bodies not supporting existing or designated beneficial uses must be identified as water quality limited, and a total maximum daily load (TMDL) must be prepared for those pollutants causing impairment (IDAPA 58.01.02.055.02). Once a TMDL is completed, discharges of causative pollutants shall be consistent with the allocations in the TMDL (IDAPA 58.01.02.055.05). Prior to the completion of a TMDL, the WQS require the application of the antidegradation policy and implementation provisions to maintain and protect beneficial uses (IDAPA 58.01.02.055.04).

The general (non-numeric) effluent limitations in the NWPs and associated Regional Conditions for the ACOE Walla Walla District address best management practices (BMPs) aimed at minimizing impacts to the aquatic environment, especially sediment and turbidity impacts including: vegetation protection and restoration, de-watering requirements, erosion and sediment controls, soil stabilization requirements, pollution prevention measures, prohibited discharges, and wildlife considerations. Although the NWPs do not contain specific (numeric) effluent limitations for sediment or turbidity, the conditions identified in the permits and in this water quality certification will ensure compliance with DEQ's water quality standards, including the narrative sediment criteria (IDAPA 58.01.02.200.08) and DEQ's turbidity criteria (IDAPA 58.01.02.250.02.e).

In order to ensure compliance with Idaho WQS, DEQ has included a condition requiring the permittee(s) to comply with Idaho's numeric turbidity criteria, developed to protect aquatic life

uses. The criterion states, "Turbidity shall not exceed background turbidity by more than 50 nephelometric turbidity units (NTU)[2] instantaneously or more than 25 NTU for more than 10 consecutive days" (IDAPA 58.01.02.250.02.e). DEQ is requiring turbidity monitoring when project activities result in a discharge to waters of the United States that causes a visible sediment plume (IDAPA 58.01.02.054.01) (See Section 2.5 for more details).

If an approved TMDL exists for a receiving water body that requires a load reduction for a pollutant of concern, then the project must be consistent with the provisions of that TMDL (IDAPA 58.01.02.055.05).
For authorized activities requiring a pre-construction notification (PCN), the Corps will have the opportunity to evaluate the NWP activities on a case by case basis to ensure that the activity will not cause more than a minimal adverse environmental effect, individually and cumulatively. The Corps has agreed to forward the verification letters to the appropriate DEQ regional office (Table 1) for all authorized activities including the NWP activities that require a PCN. This will better inform DEQ of the authorized activities that are occurring throughout the state and determine if additional conditions will need to be implemented when the ACOE reissues the NWPs.

1.3.1 DEQ's Determination

DEQ concludes that, given the nature of the activities authorized by the 2020 NWPs, such activities will comply with Idaho's Tier I requirements under IDAPA 58.01.02.051.01 and 58.01.02.052.07, provided the permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions set forth in this water quality certification.

1.4 Protection of High-Quality Waters (Tier II Protection)

Water bodies that fully support their beneficial uses are recognized as high-quality waters and will be provided Tier II protection in addition to Tier I protection (IDAPA 58.01.02.051.02; 58.01.02.052.05.a). Water quality parameters applicable to existing or designated beneficial uses must be maintained and protected under Tier II, unless a lowering of water quality is deemed necessary to accommodate important economic or social development (IDAPA 58.01.02.051.02; 58.01.02.052.08).

The ACOE does not authorize projects with more than minimal individual and cumulative impacts on the aquatic environment under a NWP (33 U.S.C.A. § 1344(e)). As required by the National Environmental Policy Act (NEPA) the Corps has analyzed the individual and cumulative effects for the NWP activities. DEQ recognizes that short term changes in water quality may occur with respect to sediment as a result of the authorized activities, but has determined that adherence to the terms and conditions imposed by the permits, including the Regional Conditions set forth by the Army Corps of Engineers (ACOE or Corps), along with the conditions set forth in this water quality certification will ensure that there are no long-term adverse changes to water quality or beneficial use support as a result of any activity authorized under this certification (IDAPA 58.01.02.052.03). As a general principle, DEQ believes degradation of water quality should be viewed in terms of permanent or long-term adverse

[2] *NTU is a unit of measure of the concentration of suspended particles in the water (turbidity). It is determined by shining a light through a sample and measuring the incident light scattered at right angles from the sample.*

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changes. Short-term or temporary reductions in water quality, if reasonable measures are taken to minimize them (such as the certification conditions in Section 2), may occur without triggering a Tier II analysis (IDAPA 58.01.02.052.03; 080.02).

To ensure proposed regulated activities will not cause more than minimal individual and cumulative impacts on the aquatic environment, certain NWPs require project proponents to notify district engineers (in the form of a PCN) of their proposed activities prior to conducting regulated activities. This level of review gives the district engineer the opportunity to evaluate activities on a case by case basis to determine whether additional conditions or mitigation requirements are warranted to ensure that the proposed activity results in no more than the minimal individual and cumulative impacts on the aquatic environment.

DEQ has denied certification for NWP 16, NWP 23, and NWP 53 (see Section 3.1); and for certain activities associated with NWP 3, NWP 12, NWP 13, NWP 14, NWP 21, NWP 29, NWP 39, NWP 40, NWP 42, NWP 43, NWP 44, NWP 50, NWP 51, NWP 52, NWP C, NWP D, and NWP E (see Section 3.2). Projects seeking coverage under these NWPs will need to request individual certification from DEQ. DEQ will consider any additional conditions or denial of certification if necessary to ensure no lowering of water quality occurs for any of these projects proposed on Tier II water.

Additionally, if an authorized project causes a visible sediment plume then turbidity monitoring is required (see Section 2.5 for more details).

1.4.1 DEQ's Determination

DEQ concludes that the activities authorized by the 2020 NWPs and this certification will comply with Idaho's Tier II requirements under IDAPA 58.01.02.051.02 and 58.01.02.052.08 providing permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions of this water quality certification.

1.5 Protection of Outstanding Resource Waters (Tier III Protection)

Idaho's antidegradation policy requires that the quality of outstanding resource waters (ORWs) be maintained and protected from the impacts of point and nonpoint source activities (IDAPA 58.01.02.051.03). No water bodies in Idaho have been designated as ORWs to date. Because it is possible waters may become designated during the term of the 2020 NWPs, DEQ has evaluated whether the NWPs comply with the ORW antidegradation provision.

DEQ has denied certification for any activities on any Outstanding Resource Water (ORW) (see Section 3) and is requiring that any activities proposed on an ORW apply for individual certification (see Section 2.3).

1.5.1 DEQ's Determination

DEQ concludes that the activities authorized by the 2020 NWPs and this certification will comply with Idaho's Tier III requirements under IDAPA 58.01.02.051.03 providing permitted activities are carried out in compliance with the limitations and associated requirements of the 2020 NWPs, Regional Conditions, and conditions of this water quality certification.

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2 Conditions Necessary to Ensure Compliance with Water Quality Standards or Other Appropriate Water Quality Requirements of State Law

For all activities covered under this certification, the following conditions are necessary to ensure that permitted projects comply with water quality requirements.

2.1 Design, Implementation, and Maintenance of Appropriate Best Management Practices

Best Management Practices (BMPs) must be designed, implemented, and maintained by the permittee to fully protect and maintain the beneficial uses and ambient water quality of waters of the state and to prevent exceedances of WQS (IDAPA 58.01.02.350.01.a).

BMPs must be selected and properly installed. Proper installation and operation of BMPs are required to ensure the provisions of IDAPA 58.01.02.052 are met. In order to ensure that BMPs are operating properly and to demonstrate that degradation has not occurred, the permittee must monitor and evaluate BMP effectiveness daily during project activities to assure that water quality standards are being met.

Approved BMPs for specific activities (mining, forestry, stream channel alteration, etc.) are codified in IDAPA 58.01.02.350. Additionally, DEQ provides a catalog of storm water best management practices, available at: http://www.deq.idaho.gov/media/60184297/stormwater-bmp-catalog.pdf. This catalog presents a variety of BMPs that can be used to control erosion and sediment during and after construction. Other sources of information are also available and may be used for selecting project appropriate BMPs.

This condition is necessary meet the following water quality requirements:

Control of erosion, sediment, and turbidity to maintain beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)
- Point source wastewater treatment requirements (IDAPA 58.01.02.401.02)

2.2 TMDL Compliance

If there is an approved or established TMDL, then the permittee must comply with the established loads in the TMDL. Approved TMDLs can be found on DEQ's website (https://www.deq.idaho.gov/water-quality/surface-water/tmdls/table-of-sbas-tmdls/) or by contacting the appropriate regional office contact (Table 1).

This condition is necessary to meet the following water quality requirements:

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Ensure projects are consistent with waste load and load allocations established in approved TMDLs (IDAPA 58.01.02.055.04 and .05).

2.3 Outstanding Resource Waters

If waters become designated as ORWs during the term of the NWPs, a permittee proposing a project on an ORW must contact the appropriate DEQ regional office and apply for individual certification.

This condition is necessary to meet the following water quality requirements:

Ensure there is no lowering of water quality in any ORW as required by the Idaho Antidegradation Policy (IDAPA 58.01.02.051.03).

2.4 Fill Material

Material subject to suspension, including suspended dredge material, shall be free of easily suspended fine material. The fill material to be placed in waters of the United States shall be clean material only. If dredged material is proposed to be used as fill material and there is a possibility the material may be contaminated, then the permittee must apply the procedures in the *Sediment Evaluation Framework for the Pacific Northwest* (RSET, 2018) to assess and characterize sediment to determine the suitability of dredged material for unconfined-aquatic placement; determine the suitability of post dredge surfaces; and to predict effects on water quality during dredging.

This condition is necessary to meet the following water quality requirements:

Prevent suspension of fine sediment and turbidity in order to provide beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)
- Point source wastewater treatment requirements (IDAPA 58.01.02.401.02)

Prevent suspension of hazardous, toxic, or deleterious materials or other pollutants that may be associated with fill material in order to ensure beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for hazardous materials (IDAPA 58.01.02.200.01), toxic substances (IDAPA 58.01.02.200.02), deleterious materials (IDAPA 58.01.02.200.03), excess nutrients (IDAPA 58.01.02.200.06), or oxygen demanding materials (IDAPA 58.01.02.200.09)
- Numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210)

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2.5 Turbidity

If no visible sediment plume is present, it is reasonable to assume that there is no potential violation of the water quality criteria for turbidity (IDAPA 58.01.02.250.02.e). Therefore, turbidity monitoring is only required when activities cause a visible sediment plume.

A properly and regularly calibrated turbidimeter is required for measurements analyzed in the field, but grab samples may be collected and taken to a laboratory for analysis. When monitoring is required a sample must be taken at an undisturbed area immediately up-current from in-water disturbance or discharge to establish background turbidity levels. Background turbidity, latitude/longitude, date, and time must be recorded prior to monitoring down-current. Then a sample must be collected immediately down-current from the in-water disturbance or point of discharge and within any visible sediment plume. The turbidity, latitude/longitude, date, and time must be recorded for each sample. The downstream sample must be taken immediately following the upstream sample in order to obtain meaningful and representative results.

Results from the down-current sampling point must be compared to the up-current or background level to determine whether project activities are causing an exceedance of state WQS. If the downstream turbidity is 50 NTUs or more greater than the upstream turbidity, then the project is causing an exceedance of the WQS (IDAPA 58.01.02.250.02.e).
Any exceedance of the turbidity standard must be reported to the appropriate DEQ regional office (Table 1) within 24 hours.

The following steps should be followed to ensure compliance with the turbidity standard:

1. If a visible plume is observed, collect turbidity measurements at 1) an upstream location; and, 2) from within the plume, and compare the results to Idaho's instantaneous numeric turbidity criterion (50 NTU over background).
2. If turbidity in the plume is less than 50 NTU instantaneously over the background turbidity continue monitoring as long as the plume is visible. If turbidity exceeds background turbidity by more than 50 NTU instantaneously then stop all earth disturbing construction activities immediately and proceed to Step 3. If turbidity exceeds background turbidity by more than 25 NTU, or if a visible plume is observed for more than 10 consecutive days, then stop all earth disturbing construction activities and proceed to Step 3.
3. Notify the appropriate DEQ regional office within 24 hours of any turbidity criteria exceedance. Take action to address the cause of the exceedance. That may include inspecting the condition of project BMPs. If the BMPs are functioning to their fullest capability, then the permittee must modify project activities and/or BMPs to correct the exceedance.
4. Earth disturbing activities may continue once turbidity readings return to within 50 NTU over background instantaneously; or, if turbidity has exceeded 25 NTU over background for more than ten consecutive days, once turbidity readings have no longer exceeded 25 NTU over background for at least 24 consecutive hours.

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Copies of daily logs for turbidity monitoring must be available to DEQ upon request. The report must describe all exceedances and subsequent actions taken, including the effectiveness of the action.

This condition is necessary to meet the following water quality requirements:

Ensure that activities do not impair beneficial uses, and ensure and document compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)

2.6 Mixing Zones

No mixing zones are authorized through this certification. If a mixing zone, or alternatively, a point of compliance, is desired, the permittee must apply for an individual certification and must contact the appropriate DEQ regional office (Table 1) to request authorization for a mixing zone.

This condition is necessary to meet the following water quality requirements:

Ensure any mixing zone is properly authorized in accordance with the Idaho Mixing Zone Policy (IDAPA 58.01.02.060).

2.7 Culverts

To prevent road surface and culvert bedding material from entering a stream, culvert crossings must include best management practices to retain road base and culvert bedding material. For perennial waters, the permittee should consider the Idaho Stream Channel Alterations rules (IDAPA 37.03.07). Another source of BMPs for culvert installation can be found in the Idaho Forest Practices Act (IDAPA 20.20.01). Examples of best management practices include, but are not limited to: parapets, wing walls, inlet and outlet rock armoring, compaction, suitable bedding material, anti-seep barriers such as bentonite clay, or other acceptable roadway retention systems.

This condition is necessary to meet the following water quality requirements:

Control of erosion, sediment, and turbidity to provide beneficial use support and compliance with the following water quality standards:

- General Surface Water Criteria for Sediment (IDAPA 58.01.02.200.08)
- Numeric Turbidity Criteria for Aquatic Life (IDAPA 58.01.02.250.02.e)
- Numeric turbidity criteria for protection of domestic water supply (IDAPA 58.01.02.252.01.b)

2.8 Wood Preservatives

DEQ's *Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments* must be considered when using treated wood materials in the aquatic environment. Within this guidance document DEQ references the *Best Management Practices*

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for the Use of Treated Wood in Aquatic and Wetland Environments[3]. This document provides recommended guidelines for the production and installation of treated wood products destined for use in sensitive environments.

This condition is necessary to meet the following water quality requirements:

Ensure that toxic chemicals are not introduced into waters and to ensure compliance with the following water quality standards:

- General Surface Water Criteria for hazardous materials (IDAPA 58.01.02.200.01), toxic substances (IDAPA 58.01.02.200.02), and deleterious materials (IDAPA 58.01.02.200.03)
- Numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210)

2.9 Reporting of Discharges Containing Hazardous Materials or Deleterious Materials

All spills of hazardous material, deleterious material or petroleum products which may impact waters (ground and surface) of the state shall be immediately reported. Call 911 if immediate assistance is required to control, contain or clean up the spill. If no assistance is needed in cleaning up the spill, contact the appropriate DEQ regional office in Table 2 during normal working hours or Idaho State Communications Center after normal working hours. If the spilled volume is above federal reportable quantities, contact the National Response Center.

For immediate assistance: Call 911

National Response Center: (800) 424-8802

Idaho State Communications Center: (800) 632-8000

Table 2. Idaho DEQ regional contacts for reporting discharge or spill of hazardous or deleterious materials.

Regional Office	*Toll Free Phone Number*	*Phone Number*
Boise	888-800-3480	208-373-0550
Coeur d'Alene	877-370-0017	208-769-1422
Idaho Falls	800-232-4635	208-528-2650
Lewiston	877-541-3304	208-799-4370
Pocatello	888-655-6160	208-236-6160
Twin Falls	800-270-1663	208-736-2190

[3] Western Wood Preservers Institute, Wood Preservation Canada, Southern Pressure Treaters' Association, and Southern Forest Products Association. 2011. "Best Management Practices: For the Use of Treated Wood in Aquatic and Wetland Environments" Vancouver, WA: Western Wood Preservers Institute.

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This condition is necessary to meet the following water quality requirements:

Ensure compliance with the following water quality standards:

- Hazardous Material Spills (IDAPA 58.01.02.850)
- Petroleum release reporting, investigation, and confirmation (IDAPA 58.01.02.851)
- Petroleum release response and corrective action (IDAPA 58.01.02.852)

2.10 Other Conditions

This certification is conditioned upon the requirement that if there are material modifications of the NWPs or the permitted activities—including without limitation, significant changes from the draft NWPs to final NWPs, or significant changes to the draft Regional Conditions, then DEQ must re-evaluate the certification to determine compliance with Idaho WQS and to provide additional certification pursuant to Section 401.

This condition is necessary to ensure that DEQ can evaluate any material modification to ensure it meets water quality requirements and complies with the Idaho antidegradation policy (IDAPA 58.01.02.051) and its implementation (IDAPA 58.01.02.052), general surface water quality criteria (200), numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210), numeric criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

3 Projects for Which Certification Is Denied

DEQ cannot certify that the following activities will comply with water quality requirements, including State WQS and other appropriate requirements of state law, and is therefore denying certification for the activities listed below.

For activities for which certification has been denied, the applicant will be required to request an individual certification before the activity can be conducted. Individual certification requests will provide DEQ with the opportunity to review project details and determine if additional conditions are necessary to ensure that water quality requirements will be met.

Upon review and evaluation of individual certification requests, DEQ may 1) certify without condition, 2) provide individual certification with conditions necessary to ensure water quality requirements will be met, or 3) deny certification for projects that will not meet water quality requirements.

3.1 NWPs denied

DEQ denies certification for all activities proposed to occur on waters designated as ORWs during the term of the permit. This denial is necessary to ensure compliance with the water quality requirements of Idaho's antidegradation policy (IDAPA 58.01.02.051.03) and implementation procedures (IDAPA 58.01.02.052.09.g).

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In addition, the following NWPs are denied certification for all Idaho waters. Projects seeking coverage under these NWPs must request individual certification from DEQ.

NWP 16 - Return Water from Upland Contained Disposal Areas

Basis for denial:

Return water from upland disposal areas has the potential to contribute turbidity, sediment, and other toxic and non-toxic pollutants to receiving waters.

To ensure that discharge from upland contained disposal areas meets water quality requirements, DEQ must evaluate the quality of the return water and evaluate the potential pollutants associated with return water on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

NWP 23 - Approved Categorical Exclusions

Basis for denial:

DEQ is unable to determine that meeting the requirements for categorical exclusion under the National Environmental Policy Act will meet state water quality requirements.

DEQ will evaluate categorically excluded activities on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

NWP 53 – Removal of Low-Head Dams

Basis for denial:

Material released from the removal of low head dams has the potential to contribute turbidity, sediment, and other toxic and non-toxic pollutants to receiving waters.

In order to ensure that release of materials from the removal of low head dams meets water quality requirements, DEQ must evaluate the potential pollutants associated with this release on a case-by-case basis to determine compliance with general surface water quality criteria (IDAPA 58.01.02.200); numeric toxics criteria for aquatic life and human health (IDAPA 58.01.02.210); and use specific criteria for aquatic life (IDAPA 58.01.02.250), recreation (IDAPA 58.01.02.251), and water supply uses (IDAPA 58.01.02.252).

3.2 NWPs partially denied

The following activities have the potential to disturb significant areas and could disturb a significant fraction of entire Assessment Units, causing permanent and significant impairment of designated and existing beneficial uses. The conditions associated with the NWP, regional conditions, and the conditions associated with this certification are not sufficient to provide DEQ with assurance that projects of this magnitude would not result in impairment of existing or

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designated beneficial uses in all waters, and potentially increase degradation in high quality (Tier II) waters.

In order to meet the requirements of Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052), ensure that beneficial uses are not impaired, and ensure compliance with general surface water quality criteria for sediment (IDAPA 58.01.02.200.08), DEQ must evaluate these projects on a case-by-case basis and provide individual certification where applicable.

3.2.1 NWPs 3, 13, and 14

The 2020 NWPs 3, 13, and 14 require preconstruction notification (PCN) for certain activities when it is necessary for the district engineer to review activities to ensure only minimal adverse environmental effects.

While the additional district engineer review is intended to ensure that activities will cause only minimal adverse environmental effects, it is not reasonable to expect that the district engineer review will consider the requirements of Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052) when making their determination. Consequently, DEQ cannot certify that activities requiring PCN under these NWPs would not cause degradation of water quality, and therefore cannot certify that these activities would meet Idaho's antidegradation implementation procedures (IDAPA 58.01.02.052).

Therefore, DEQ is denying certification for the following activities that require PCN under the proposed 2020 NWPs:

NWP 3 – Maintenance

Activities Denied Certification

- Activities authorized by paragraph (b) of NWP 3

NWP 13 – Bank Stabilization

Activities Denied Certification:

- activities involving discharge into special aquatic sites;
- activities in excess of 500 linear feet;
- activities that involve discharge of greater than one cubic yard per running foot measured along the length of the treated bank below the plane of the ordinary high water mark

NWP 14 – Linear Transportation Projects

Activities Denied Certification:

- activities resulting in the loss of waters of the United States in excess of 1/10 acre;
- discharge in a special aquatic site, including wetlands

3.2.2 NWPs 12, C, and D

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The 2017 NWP 12 included activities proposed to be permitted under the 2020 NWPs C and D.

The 2017 NWP 12 required PCN for activities that, among other thresholds, involved mechanized clearing in forested wetlands, exceeded 500 linear feet, or that resulted in loss of greater than 1/10 acre of waters of the United States. The 2020 NWP proposes removal of these thresholds for PCN, and does not require additional review from the ACOE district engineer to ensure only minimal adverse environmental effects.

Without the requirement for PCN and additional review from the district engineer, DEQ cannot certify that these activities will not result in degradation. Therefore, DEQ is denying certification for the following activities:

NWP 12 – Oil or Natural Gas Pipeline Activities

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- oil or natural gas pipelines in waters of the United States that exceed 500 linear feet or that run adjacent to a water body for greater than 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

NWP C – Electric Utility Line and Telecommunications Activities

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- electric utility line and telecommunications activities in waters of the United States that exceed 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

NWP D – Utility Line Activities for Water and Other Substances

Activities Denied Certification:

- activities that involve mechanized clearing of a wooded wetland;
- utility line activities in waters of the United States that exceed 500 linear feet;
- activities where discharge will result in loss of greater than 1/10-acre, as determined by ACOE, of waters of the United States

3.2.3 NWPs 21, 29, 39, 40, 42, 43, 44, 50, 51, 52, and E

The 2017 NWPs for the following activities had a 300 linear foot limit for losses of stream bed. The 2020 NWP proposes removal of the 300 linear foot limit for losses of stream bed and instead rely solely on the ½ acre limit.

The median bankfull width measured from 48 wadeable streams monitored in 2010 as part of DEQ's Beneficial Use reconnaissance Program (BURP) was 19.7 feet. A loss of ½ acre at this stream width would correspond to 1,105 linear feet of loss, or the equivalent of 0.2 miles of stream. DEQ cannot certify that losses of this magnitude of stream bed, or that losses of stream

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bed based solely on the ½ acre limit, would not result in permanent degradation. Therefore, DEQ is denying certification for the following activities that exceed the 300 linear foot limit previously imposed by the 2017 NWP:

NWP 21 – Surface Coal Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 29 – Residential Developments

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 39 – Commercial and Institutional Developments

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 40 – Agricultural Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 42 – Recreational Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 43 – Stormwater Management Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 44 – Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 50 – Underground Coal Mining Activities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 51 – Land Based Renewable Energy Generation Facilities

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Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP 52 – Water-Based Renewable Energy Generation Pilot Projects

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

NWP E – Water Reclamation and Reuse Facilities

Activities Denied Certification:

- activities resulting in loss in excess of 300 linear feet of streambed
- activities resulting in loss in excess of ½ acre of jurisdictional wetlands

4 Right to Appeal Final Certification

The final Section 401 Water Quality Certification may be appealed by submitting a petition to initiate a contested case, pursuant to Idaho Code § 39-107(5) and the "Rules of Administrative Procedure before the Board of Environmental Quality" (IDAPA 58.01.23), within 35 days of the date of the final certification.

Questions or comments regarding the actions taken in this certification should be directed to Jason Pappani, State Office IDEQ, at (208) 373-0515 or via email at jason.pappani@deq.idaho.gov.

Mary Anne Nelson, PhD
Surface and Wastewater Division
Administrator

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STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 N Hilton Street, Boise, ID 83706
(208) 373-0502

Brad Little, Governor
Jess Byrne, Director

MEMORANDUM

TO: James Joyner, Chief, Upper Snake and Idaho Panhandle Branch, U.S. Army Corps of Engineers

FROM: Mary Anne Nelson, Surface and Wastewater Division Administrator of the Department of Environmental Quality

DATE: 01/10/23

SUBJECT: 2020 Final § 401 Water Quality Certification Contact and Hyperlink Updates

The Department of Environmental Quality (DEQ) is submitting an update for agency contacts and hyperlinks to be included as an attachment to the § 401 Water Quality Certification dated December 4, 2020, upon authorization of a federal permit or license.

Table 1. DEQ state and regional office contacts.

Regional Office	Address	Phone Number	Email
Boise	1445 N. Orchard St., Boise, ID 83706	(208) 373-0490	*chase.cusack@deq.idaho.gov*
Coeur d'Alene	2110 Ironwood Parkway, Coeur d'Alene, ID 83814	(208) 666-4605	*chantilly.higbee@deq.idaho.gov*
Idaho Falls	900 N. Skyline, Suite B., Idaho Falls, ID 83402	(208) 528-2679	*alex.bell@deq.idaho.gov*
Lewiston	1118 "F" St., Lewiston, ID 83501	(208) 799-4874	*sujata.connell@deq.idaho.gov*
Pocatello	444 Hospital Way, #300 Pocatello, ID 83201	(208) 239-5007	*matthew.schenk@deq.idaho.gov*
Twin Falls	650 Addison Ave. W., Suite 110, Twin Falls, ID 83301	(208) 737-3877	*sean.woodhead@deq.idaho.gov*
State Office	1410 N. Hilton St., Boise, ID 83706	(208) 373-0570	*tambra.phares@deq.idaho.gov*

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Table 2. Updated hyperlinks.

Section	Hyperlink
1.2	*Integrated Report*
1.2	*Final 2022 Integrated Report Interactive Mapper*
2.1	*Catalog of Storm Water Best Management Practices*
2.2	*Approved TMDLs*
2.8	*Guidance for the Use of Wood Preservatives and Preserved Wood Products In or Around Aquatic Environments*
2.8	*Best Management Practices for the Use of Treated Wood in Aquatic and Wetland Environments*

Please direct questions or comments about the actions taken in the 2020 Final § 401 Water Quality Certification to Tambra Phares, State Office DEQ, (208) 373-0187, or email at *tambra.phares@deq.idaho.gov*.

APPROVAL: _____ 01/10/2023

Mary Anne Nelson, PhD — Date
Department of Environmental Quality
Surface and Wastewater Division Administrator

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SECTION 00 31 34 – ITD ENCROACHMENT PERMIT

The ITD Encroachment Permit shall be incorporated into contract documents once the final permit has been issued by ITD. The City shall provide the Contractor with the permit once it has been obtained for the project. The Contractor shall abide by requirements outlined in the encroachment permit. Reference the construction drawings, Sheet C4.0 for permit requirements.

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DIVISION 00 40 00 - PROCUREMENT FORMS AND SUPPLEMENTS

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SECTION 00 41 00 - BID FORM

PROJECT IDENTIFICATION:	Palouse Mall Lift Station Rehabilitation Project
CONTRACT IDENTIFICATION AND NUMBER:	111-024
THIS BID IS SUBMITTED TO OWNER:	City of Moscow 206 E Third Street Moscow, ID 83843

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

2. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid Security. Bidder will sign the Agreement and submit the Contract Security and other documents required by the Contract Documents within 10 days after the date of Owner's Notice of Award.

3. In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

    a. Bidder has examined copies of all the Contract Documents and of the following addenda:

Addendum Date:	Number of Addendum:
_____	_____
_____	_____
_____	_____

    (Receipt of all of which is hereby acknowledged) and also copies of the Advertisement or Invitation to Bid and the Instructions to Bidders;

    b. Bidder has examined the site and locality where the Work is to be performed, the legal requirements (Federal, State and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Bidder deems necessary;

    c. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

    d. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the

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price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

e. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder. Bidder has verified the viability of any plans and specifications for accuracy and completeness.

f. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

g. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

h. Bidder certifies that:

   A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

   B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

   C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

   D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 3.h.D:

      1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

      2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

      3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

      4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

i. The Bidder and all Subcontractors currently possess the appropriate Idaho Public Works Contractor's License.

   Idaho Contractors License No. _____

j. All Subcontractors currently possess the appropriate Idaho Public Works Contractor's

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License.

4. Bidder will complete the Work per the prices established in the attached Bid Schedule:

   BID SCHEDULE SUMMARY:

Title	Total Schedule Price
Schedule A	$_____
Total Price	**$**_____

   Bidder acknowledges that (1) each bid unit price includes an amount considered by bidder to be adequate to cover contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of bids, and final payment for all unit price bid items will be based on actual quantities, determined as provided in the contract documents.

5. Bidder agrees that the:

   a. Work will be Substantially Complete and Complete on or before the dates or within the number of calendar days indicated in Article 3 of the Agreement.

   b. Bidder accepts the provisions of Article 3 of the Agreement as to Liquidated Damages in the event of failure to complete the Work on time.

   c. Bidder agrees to comply with Idaho Code 44-1001 through 44-1005, regarding employment of Idaho residents.

6. The following documents are attached to, and made a condition of, and incorporated by reference into this Bid if not attached.

   a. Bid Bond

   b. Proposed Subcontractors Form

   c. Bid Schedule A

   d. Bid Submittal Checklist

   e. Non-Collusion Affidavit

   f. Affidavit of Payment or Securement of All Taxes

   g. Anti-Discrimination Affidavit

7. Communications concerning this Bid shall be addressed to:

   The address of Bidder indicated below:

   _____

8. The terms used in this Bid which are defined in the General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions, and as may be amended.

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9. Bid Opening: _____ _____
Date Time

Submitted on_____, 20____.

If Bidder is:

A Corporation

_____
(Corporation Name)

_____
(State of Incorporation)

By_____
(Signature of Person Authorized to Sign)

_____
(Name and Title of Person Authorized to Sign)

Attest_____
(Secretary)

Business Address_____

_____

_____

Phone No._____

A Joint Venture

By_____
(Signature)

_____
(Name)

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(Address)

By_____
(Signature)

(Name)

(Address)

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

Attest_____
(Secretary)

Business Address_____

Phone No._____

A Partnership

(Firm Name)

(Signature of General Partner)

(Name of General Partner)

Business address_____

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Phone No._____

Attest_____
(Secretary)

Business Address_____

_____

_____

Phone No._____

An Individual

By_____
(Signature of Individual)

By_____
(Individual's Name)

Doing business as_____

Business address_____

_____

_____

Phone No._____

Attest_____
(Secretary)

Business address_____

_____

_____

Phone No._____

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SECTION 00 43 13 - BID BOND (PENAL SUM FORM)

Bidder Name: **[Full formal name of Bidder]** Address *(principal place of business)*: **[Address of Bidder's principal place of business]**	**Surety** Name: **[Full formal name of Surety]** Address *(principal place of business)*: **[Address of Surety's principal place of business]**
Owner Name: **City of Moscow** Address *(principal place of business)*: **206 E Third Street, Moscow, ID83843**	**Bid** Project *(name and location)*: **Palouse Mall Lift Station Rehabilitation Project, Moscow ID** Bid Due Date: **[Enter date bid is due]**
Bond Penal Sum: **[Amount]** Date of Bond: **[Date]**	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder _____ *(Full formal name of Bidder)* By: _____ *(Signature)* Name: _____ *(Printed or typed)* Title: _____ Attest: _____ *(Signature)* Name: _____ *(Printed or typed)* Title:	Surety _____ *(Full formal name of Surety) (corporate seal)* By: _____ *(Signature) (Attach Power of Attorney)* Name: _____ *(Printed or typed)* Title: _____ Attest: _____ *(Signature)* Name: _____ *(Printed or typed)* Title:
Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.	

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EJCDC® C-430, Bid Bond (Penal Sum Form).
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1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation will be null and void if:

   3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

   3.2. All Bids are rejected by Owner, or

   3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.

7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the

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provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

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SECTION 00 43 36 - PROPOSED SUBCONTRACTORS FORM

The Bidder's attention is directed to the provisions of Idaho Code Section 67-2310 which requires subcontractors who will perform mechanical, electrical or plumbing work to be named on the bid of the general contractor. The Contractor shall not name more than one subcontractor for each work item. If the Contractor intends to perform mechanical and/or electrical work under the provisions of their own license, they shall name themselves providing they are properly licensed. Plumbing and HVAC are not anticipated on this project.

The Contractor shall not, without written consent of the Owner, make any substitution, alterations, or additions to the following list of subcontractors which is made a material part of this Bid.

The following is a complete list of the proposed Subcontractors: (Attach additional sheets if necessary.)

Name and Address	Approximate Amount of Subcontract or Value of Materials	Idaho Public Works Contractor License No.	Type Work To Be Done

_____
(Name of Firm)

_____
(Date)

_____
(Signature)

_____
(Title)

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SECTION 00 43 73 - PROPOSED SCHEDULE OF VALUES

Bidder acknowledges receipt of the following Addenda:

_____

_____

_____

BID SCHEDULE A

City of Moscow
Palouse Mall Lift Station Rehabilitation
206 E Third Street, Moscow ID, 83843
Section 12, Township 39 North, Range 6 West, Boise Meridian
January 21, 2026

Item No.	Item Description	Estimated Quantity	Unit Measure	Unit Price	Extended Price
2010.4.1.A.1	MOBILIZATION (10% MAX) @	1	LS	$	$
SP-012116	FORCE ACCOUNT WORK @	1	FA	$100,000.00	$100,000.00
SP-014500	QUALITY CONTROL @	1	LS	$	$
SP-015000	FENCE, TEMPORARY CONSTRUCTION FENCE @	620	LF	$	$
SP-015726	DUST CONTROL @	1	LS	$	$
SP-017123	CONSTRUCTION SURVEYING (CONTRACTOR PROVIDED) @	1	LS	$	$
SP-099723	CONCRETE AND MASONRY COATINGS @	1	LS	$	$
SP-260000	GENERAL ELECTRICAL @	1	LS	$	$
SP-260021	CONTROL SYSTEM @	1	LS	$	$
SP-260022	PUMP CONTROL PANEL @	1	LS	$	$
SP-330563.A	VALVE VAULT AND HATCH @	1	LS	$	$

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SP-330563.B	FLOW METER VAULT AND HATCH				
	@	1	LS	$	$
SP-330563.C	WET WELL CONCRETE COVER AND HATCH				
	@	1	LS	$	$
SP-330563.D	BYPASS ASSEMBLY, VALVES, AND FITTINGS				
	@	1	LS	$	$
SP-333211.A	LIFT STATION PUMP SYSTEM				
	@	1	LS	$	$
SP-333211.B	LIFT STATION MISC. PIPING, FITTINGS, AND SUPPORTS				
	@	1	LS	$	$
SP-443116	ODOR CONTROL SYSTEM				
	@	1	LS	$	$
201.4.1.B.1	CLEARING AND GRUBBING				
	@	1	LS	$	$
201.4.1.C.1	REMOVAL OF OBSTRUCTIONS				
	@	1	LS	$	$
301.4.1.B.1	TRENCH EXCAVATION - DEPTH 8 FEET				
	@	361	LF	$	$
301.4.1.D.1	SERVICE/UTILITY TRENCH EXCAVATION W/ 2" CONDUIT				
	@	40	LF	$	$
302.4.1.B.1	ROCK EXCAVATION				
	@	51	LF	$	$
306.4.1.A.1	TYPE "A-1" TRENCH BACKFILL				
	@	361	LF	$	$
401.4.1.B.1	WATER MAIN FITTING - SIZE 12" DUCTILE IRON 90 ELBOW				
	@	1	EA	$	$
401.4.1.B.2	WATER MAIN FITTING - SIZE 12" STAINLESS STEEL 90 ELBOW				
	@	2	EA	$	$
401.4.1.B.3	WATER MAIN FITTING - SIZE 12" DUCTILE IRON TEE				
	@	1	EA	$	$
401.4.1.B.4	WATER MAIN FITTING - SIZE 12" X 8" SS ECCENTRIC REDUCER				
	@	2	EA	$	$
401.4.1.B.5	WATER MAIN FITTING - SIZE 12" X 16" ECCENTRIC REDUCER				
	@	1	EA	$	$

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401.4.1.B.8	WATER MAIN FITTING - SIZE 16" HDPE 22.5 ELBOW				
	@	2	EA	$	$
401.4.1.B.9	WATER MAIN FITTING - SIZE 16" HDPE 45 ELBOW				
	@	4	EA	$	$
401.4.1.B.10	WATER MAIN FITTING - SIZE 16" DUCTILE IRON 90 ELBOW				
	@	1	EA	$	$
401.4.1.B.11	WATER MAIN FITTING -SIZE 16" X 10" ECCENTRIC REDUCER				
	@	1	EA	$	$
401.4.1.B.12	WATER MAIN FITTING - SIZE 12" X 8" ECCENTRIC REDUCER				
	@	1	EA	$	$
401.4.1.B.13	WATER MAIN FITTING - SIZE 10" DUCTILE IRON 45 ELBOW				
	@	1	EA	$	$
402.4.1.A.1	VALVE - SIZE 12" - TYPE RESILIENT WEDGE GATE VALVE, WITH OPERATING HANDWHEEL				
	@	2	EA	$	$
402.4.1.A.2	VALVE - SIZE - 12" - TYPE BALL CHECK VALVE				
	@	2	EA	$	$
402.4.1.A.3	VALVE - SIZE - 16" - TYPE GATE VALVE				
	@	2	EA	$	$
402.4.1.A.4	FLOW METER				
	@	1	EA	$	$
402.4.1.A.5	AIR RELEASE VALVE ASSEMBLY				
	@	1	EA	$	$
402.4.1.A.6	PRESSURE GAUGE ASSEMBLY				
	@	1	EA	$	$
505.4.1.A.1	PRESSURE SEWER PIPE - SIZE 12", TYPE C900 DR-18				
	@	28	LF	$	$
505.4.1.A.2	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9				
	@	322	LF	$	$
505.4.1.A.3	PRESSURE SEWER PIPE - SIZE 12", TYPE DUCTILE IRON				
	@	8	LF	$	$
505.4.1.A.4	PRESSURE SEWER PIPE - SIZE 10", TYPE C900 DR-18				
	@	3	LF	$	$
507.4.1.D.1	12" COUPLING				
	@	6	EA	$	$

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512.4.1.A.1	SEWAGE BYPASS SYSTEMS				
	@	1	LS	$	$
706.4.1.A.7	CURB AND GUTTER, TYPE B COMBINATION				
	@	15	LF	$	$
802.4.1.A.1	CRUSHED AGGREGATE BASE TYPE I				
	@	54	CY	$	$
810.4.1.A.1	PLANT MIX PAVEMENT				
	@	44	TON	$	$
1001.4.2.B.1	STABILIZED CONSTRUCTION ENTRANCE				
	@	1	EA	$	$
1003.4.1.C.1	SILT FENCE				
	@	120	LF	$	$
1007.4.1.B.1	SEEDING				
	@	815	SY	$	$
1103.4.1.A.1	CONSTRUCTION TRAFFIC CONTROL				
	@	1	LS	$	$
1104.4.1.A.1	PAVEMENT LINE PAINT OR PAINTED PAVEMENT MARKINGS				
	@	180	LF	$	$
2040.4.1.A.1	FENCE, 8' CHAINLINK W/PRIVACY SLATS				
	@	65	LF	$	$
2040.4.1.B.1	GATES, PEDESTRIAN GATE				
	@	2	EA	$	$
2040.4.1.B.2	GATES, 16' DOUBLE SWING GATE				
	@	1	EA	$	$

BID SCHEDULE A TOTAL = $ _____

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Respectfully Submitted:

_____

(Bidder)

By_____

(Signature)

_____

(Title)

_____

(Address)

_____

(Date)

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SECTION 00 43 93 - BID SUBMITTAL CHECKLIST

The Bidder's Check List is offered to the prospective bidder as a means of checking that his/her bid Proposal is a complete Bid free from omissions and errors that could possibly lead to rejection of the bid.

Check off when completed:

_____ 1. Are all blank spaces filled out on Bid Form? Is a complete set of Bid Proposal documents intact?

_____ 2. Have questions arising from the bidding, contract specifications, or plans been submitted to the proper authority and resolved in the proper manner?

_____ 3. Are Bid amounts shown correctly as well as extensions and totals? Recheck for errors or omissions.

_____ 4. Are authorized signatures properly affixed to the Bidding Documents, giving also title, Idaho Public Works Contractor license number, etc.?

_____ 5. Per Idaho Code 67-2310, have all electrical, plumbing, and HVAC subcontractors to whom work will be awarded been listed, as well as their Idaho Public Works Contractor license number?

_____ 6. A Bid Bond, Certified or Cashier's Check in the amount of five percent (5%) of the Total Base Bid must be included.

_____ 7. Have all Addenda been received and acknowledged with the proper signature on the Bid Proposal and included with the Bid?

_____ 8. All Bidding Documents shall be placed in properly addressed, sealed envelope, and delivered to the specified authority prior to the time designated for the bid opening.

_____ 9. Has the original and a copy of the Bid Proposal plus all forms and attachments been included?

The City may reject all Bids not containing the mandatory submittals as non-responsive.

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SECTION 00 45 19 - NON-COLLUSION AFFIDAVIT

(THIS FORM TO BE EXECUTED BY EACH BIDDER AND SUBMITTED WITH BID)

State of _____)
:ss
County of _____)

_____, being duly sworn, deposes and says that

he/she is_____
(sole owner, a partner, president, secretary, etc.)

Of_____,

the party making the foregoing bid, that such Bid is not made in the interest of or on behalf of any undisclosed person, partnership, company association, organization or corporation; that such Bid is genuine and not collusive or sham; that said Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a shame bid, nor that anyone shall refrain from bidding; that said Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of said Bidder or of any other bidder, nor to fix any overhead, profit, or cost advantage against the public body awarding the contract or anyone interested in the proposed contract; that all statement contained in such Bid are true; and, further, that said Bidder has not directly or indirectly, submitted its bid price or any breakdown thereof, nor the contents thereof, nor divulged information or data relative thereto, not paid and will not pay fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such person or persons as have a partnership or other financial interest with said bidder in his/her general business.

Signed: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

_____
Notary Public in and for the State

Of_____

Residing at:_____

My Commission expires: _____

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SECTION 00 46 01 - AFFIDAVIT OF PAYMENT OR SECUREMENT OF ALL TAXES

State of _____)
:ss
County of _____)

_____, being first duly sworn, deposes and says that they [are] [are not]

_____ in conformance with Idaho Code 63-15-2; affiant states that

_____ has paid or secured to the satisfaction of the respective taxing units all taxes for which they or their property is liable now due or delinquent including assessments, excises, and license fees levied by the State of Idaho or any taxing unit within the State of Idaho.

Signed: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

_____
Notary Public in and for the State

Of_____

Residing at:_____

My Commission expires:_____

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SECTION 00 46 02 - ANTI-DISCRIMINATION AFFIDAVIT

State of _____)
:ss
County of _____)

The Bidder hereby covenants, stipulates and agrees that no person shall be discriminated against in the bidding of the services and/or materials herein under and that the Bidder shall no refuse to hire any person therefore because of such person's race, creed, sex, color, or national origin, unless based on a bona fide occupation qualification. Also, the Bidder will in no manner discriminate against any person because of such person's race, creed, sex, color, or national origin. Any such discrimination shall be deemed a violation of this Bid and shall render this Bid subject to forfeiture.

Signed: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

_____
Notary Public in and for the State

Of_____

Residing at:_____

My Commission expires: _____

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DIVISION 00 50 00 - CONTRACTING FORMS AND SUPPLEMENTS

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SECTION 00 51 00 - NOTICE OF AWARD

Date of Issuance:			
Owner:	City of Moscow	Owner's Project No.:	111-024
Engineer:	Ardurra Group, Inc.	Engineer's Project No.:	240380
Project:	Palouse Mall Lift Station Rehabilitation		
Contract Name:			
Bidder:			
Bidder's Address:			

You are notified that Owner has accepted your Bid dated **[date]** for the above Contract, and that you are the Successful Bidder and are awarded a Contract for:

[Describe Work, alternates, or sections of Work awarded]

The Contract Price of the awarded Contract is $**[Contract Price]**. Contract Price is subject to adjustment based on the provisions of the Contract, including but not limited to those governing changes, Unit Price Work, and Work performed on a cost-plus-fee basis, as applicable.

[Number of copies sent] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically.

☐ Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 10 days of the date of receipt of this Notice of Award:

1. Deliver to Owner **[number of copies sent]** counterparts of the Agreement, signed by Bidder (as Contractor).
2. Deliver with the signed Agreement(s) the Contract security (such as required performance and payment bonds) and insurance documentation, as specified in the Instructions to Bidders and in the General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any): **[Describe other conditions that require Successful Bidder's compliance]**

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within 30 days after you comply with the above conditions, Owner will return to you one fully signed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

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Owner: **City of Moscow**

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

Copy: Engineer

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SECTION 00 52 00
CONSTRUCTION AGREEMENT
FOR PALOUSE MALL LIFT STATION REHABILITATION PROJECT
BETWEEN CITY OF MOSCOW, IDAHO
AND COMPANY

THIS CONSTRUCTION AGREEMENT FOR PALOUSE MALL LIFT STATION REHABILITATION PROJECT BETWEEN CITY OF MOSCOW, IDAHO, AND COMPANY (hereinafter "Agreement"), dated this ____ day of _____, 2026, is made by and between City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY"), and Company Name, Full Address (hereinafter "CONTRACTOR"):

W I T N E S S E T H:

WHEREAS, pursuant to the invitation of CITY, extended through an "Invitation to Bid", see Attachment "A", CONTRACTOR submitted a Bid Proposal containing an offer invited by said invitation; and

WHEREAS, CITY has determined that said offer was the lowest responsive Bid Proposal; and

WHEREAS, CITY has accepted CONTRACTOR's Bid Proposal;

NOW THEREFORE, the Parties to this Agreement, in consideration of the mutual covenants and stipulations set out, agree as follows:

ARTICLE 1.
CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between CITY and CONTRACTOR concerning the work to be performed, are this Agreement, pages one (1) through seven (7) and the following:

1. Drawings, Specifications and Proposal for: Palouse Mall Lift Station Rehabilitation Project, City of Moscow Project No. 111-024, Attachment "A" consisting of # of pages pages;
2. Bid Proposal of CONTRACTOR, dated date, 2026, Attachment "B", consisting of # of pages pages;
3. Performance and Payment Bonds and Insurance Certificates;
4. Addendum No. , if applicable, Attachment "C", consisting of # of pages pages; and
5. Change Orders, which may be delivered or issued after the effective date of this Agreement.

There are no Contract Documents other than those listed in Article 1. This Agreement may only be amended by change order as provided in the General Conditions of Attachment "A".

ARTICLE 2.
WORK

CONTRACTOR shall complete the entire work as specified, indicated and required under the Contract Documents, contained herein under Article 1. for CITY project (hereinafter "Project") titled:

Palouse Mall Lift Station Rehabilitation Project

ARTICLE 3.
CONTRACT TIME/SUBSTANTIAL COMPLETION

The work to be performed pursuant to this Agreement shall be substantially completed within 155 calendar days and final completion within 170 calendar days as well as completed on or before September 18, 2026, unless adjustment of the Agreement time is made in accordance with the provisions of the Contract Documents. CONTRACTOR shall begin work in conformance with the Contract Documents.

CONTRACTOR and CITY recognize that time is of the essence and that CITY will suffer financial loss if the Project is not completed within the time specified above, unless approved extensions thereof are permitted in accordance with the terms of the Contract Documents. The Parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by CITY if the Project is not completed on time. Accordingly, instead of requiring any such proof, CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay CITY One Half of One Percent (0.5%) of the Contract Sum for each day that expires after the time specified above for Substantial Completion until the Project is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Project within the Time of Completion or by any proper extension thereof granted by CITY, CONTRACTOR shall pay CITY One Tenth of One Percent (0.1%) of the Contract Sum for each day that expires after the time specified above for completion, until the Project is completed and ready for final payment.

ARTICLE 4.
CONTRACT SUM

CITY shall pay CONTRACTOR for completion of the work for the Project in accordance with the Contract Documents in current funds in the amount of Dollar Amount Dollars ($), as submitted by CONTRACTOR. In no event shall the Contract amount exceed CONTRACTOR's bid amount of Dollar Amount Dollars ($), unless otherwise authorized by CITY by written agreement. Said Contract Sum shall be paid in accordance with the Contract Documents.

ARTICLE 5.
TERMINATION

Termination provisions are governed by the attached Contract Documents.

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ARTICLE 6.
INDEPENDENT CONTRACTOR

The Parties warrant by their signatures that no employer-employee relationship is established between CONTRACTOR and CITY by the terms of this Agreement. It is understood by the Parties hereto that CONTRACTOR is an independent contractor and, as such, neither CONTRACTOR nor CONTRACTOR's employees, agents, representatives or subcontractors, if any, are employees of CITY for purposes of tax, retirement system, or social security (FICA) withholding.

ARTICLE 7.
SCOPE OF SERVICES

CONTRACTOR shall perform all work required by the Contract Documents. All work shall be completed in accordance with the specifications and plans established for this Project.

ARTICLE 8.
HOLD HARMLESS/INDEMNIFICATION

In addition to other rights granted to CITY by the Contract Documents, CONTRACTOR agrees to indemnify, defend, and hold harmless CITY, its officers, agents, employees, and engineers, from and against any and all losses, lawsuits, actions, claims, judgements for damages, or any injuries or damages received or sustained by any person, persons, or property, and losses, expenses, and other costs, including litigation costs and attorney's fees, arising out of, resulting from, or in connection with the acts, performances, activities, errors or omissions by CONTRACTOR, CONTRACTOR's servants, agents, officers, employees, representatives, guests, business invitees or its subcontractors; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising out of or recovered under the Workers' Compensation Act or any other law, ordinance, order, or decree.

ARTICLE 9.
CONFLICT OF INTEREST

CONTRACTOR covenants that it presently has no interest and will not acquire any interest, direct or indirect, in the Project, which would conflict in any manner or degree with the performance of CONTRACTOR's services hereunder. CONTRACTOR further covenants that, in performing this Agreement, CONTRACTOR will employ no person who has any such interest. Should any conflict of interest arise during the performance of this Agreement, CONTRACTOR shall immediately disclose such conflict to CITY.

ARTICLE 10.
ENTIRE AGREEMENT, MODIFICATION AND ASSIGNABILITY

This Agreement and the attachments hereto contain the entire Agreement between the Parties, and no statements, promises, or inducements made by either Party, or agents of either Party are valid

or binding unless contained herein. This Agreement may not be enlarged, modified or altered except upon written agreement signed by the Parties hereto. CONTRACTOR may not subcontract or assign its rights (including the right to compensation) or duties arising hereunder, other than as provided within the Contract Documents, without the prior written consent and express authorization of CITY.

ARTICLE 11.
LICENSES AND ADHERENCE TO LAW REQUIRED

CONTRACTOR represents that it possesses the skill and experience necessary and all licenses required to perform the services under this Agreement. CONTRACTOR further agrees to comply with all applicable Federal, State and Local statutes and regulations in the performance of the services hereunder, and are hereby made a part of this Agreement and shall be adhered to at all times. Violation of any of these statutes or regulations by CONTRACTOR shall be deemed material and shall subject CONTRACTOR to termination of this Agreement for cause. No pleas of misunderstanding or ignorance on the part of CONTRACTOR will, in any way, serve to modify the provisions of this requirement. CONTRACTOR and its surety shall indemnify, defend and hold harmless CITY and its employees, agents, engineers and representatives against any claim or liability arising from or based on the violation of any such laws, codes, ordinances, or regulations, whether by CONTRACTOR, CONTRACTOR's employees, or its subcontractors.

Anti-Boycott Against Israel Act. CONTRACTOR certifies it is not currently engaged in, and will not for the duration of this Agreement engage in, a boycott of goods and services from Israel or territories under its control. Failure to comply with Idaho Code § 67-2346 will result in this Agreement being void as against public policy.

Ownership or Operation by China. Pursuant to Idaho Code § 67-2359, CONTRACTOR certifies that it is not currently owned or operated by the government of China and will not for the duration of this Agreement be owned or operated by the government of China. The terms in this section defined in Idaho Code § 67-2359 shall have the meaning defined therein.

Employment of Residents of Idaho. Pursuant to Idaho Code § 44-1001, CONTRACTOR certifies that it will employ ninety-five percent (95%) bona fide Idaho residents, as that term is defined in Idaho Code § 44-1003, as employees for the completion of the terms required in this Agreement. If CONTRACTOR employs less than fifty (50) employees on this Project, CONTRACTOR may employ up to ten percent (10%) nonresidents for the completion of the terms required in this Agreement. In all cases, CONTRACTOR agrees to give a preference to bona fide Idaho residents. The Parties agree that if Project involves the expenditure of federal aid funds, that this clause will not be enforced in a manner that conflicts with federal statutes prescribing a labor preference for veterans or prohibiting unlawful discrimination or preferences among United States citizens.

Not an Abortion Provider or Affiliate. Pursuant to Idaho Code Title 18 Chapter 87, CONTRACTOR certifies that it is not an abortion provider or an affiliate of any abortion provider and does not, and will not for the duration of this Agreement, authorize the use of state facilities or public funds for abortion related activity.

Anti-Boycott of Certain Sectors. Pursuant to Idaho Code § 67-2347A, CONTRACTOR certifies that it is not engaged in, and will not for the duration of this Agreement engage in, a boycott of

any individual or company because the individual or company 1) engages in or supports the exploration, production, utilization, transportation, sale or manufacture of fossil fuel-based energy, timber, minerals, hydroelectric power, nuclear power, or agriculture or 2) engages in or supports the manufacture, distribution, sale, or use of firearms, as defined in Idaho Code § 18-3302 (2)(d).

ARTICLE 12.
EMPLOYMENT DISCRIMINATION

It is illegal under the U.S. Federal law to discriminate against an employee, either intentionally or through disparate impact, on account of race, color, gender, religion, sex (including pregnancy), national origin, physical or mental disability, age, marital or familial status, sexual orientation, and gender expression or identity. CONTRACTOR shall not discriminate against any employee or applicant for employment. CONTRACTOR's action under this Section shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training, including apprenticeship. CONTRACTOR agrees to post in conspicuous places, available to employees and other applicants for employment, notices setting forth the provisions of this non-discrimination Section.

ARTICLE 13.
LEGAL FEES

In the event either Party incurs legal expenses to enforce the terms and conditions of this Agreement, the prevailing Party is entitled to recover reasonable attorney's fees and other costs and expenses, whether the same are incurred with or without a lawsuit.

ARTICLE 14.
JURISDICTION, VENUE AND NONWAIVER

It is agreed that this Agreement shall be construed under and governed by the laws of the State of Idaho. In the event of litigation concerning it, it is agreed that proper venue shall be the District Court of the Second Judicial District of the State of Idaho, in and for the County of Latah. Failure of CITY to exercise any of the rights under this Agreement, or breach thereof, shall not be deemed to be a waiver of such right or a waiver of any subsequent breach.

ARTICLE 15.
SPECIAL WARRANTY

CONTRACTOR warrants that nothing of monetary value has been given, promised or implied as remuneration or inducement to enter into this Agreement. CONTRACTOR declares that no improper personal, political or social activities have been used or attempted in an effort to influence the outcome of the competition, discussion, or negotiation leading to the award of this Agreement. Any such activity by CONTRACTOR shall make this Agreement null and void. CONTRACTOR further warrants that all materials and goods supplied under this Agreement shall be of good merchantable quality and that all services will be performed in a good skillful manner. CONTRACTOR acknowledges that it will be liable for any breach of this warranty.

ARTICLE 16.
COMMUNICATIONS

Such communications as are required by this Agreement shall be satisfied by mailing or by personal delivery to the Parties at the following address:

CONTRACTOR:

Company Name
Authorized Agent
Street Address
City, State, Zip

CITY:

City of Moscow
Engineering Division
206 East Third Street
PO Box 9203
Moscow, ID 83843

ARTICLE 17.
NON-APPROPRIATIONS

This Agreement is contingent upon CITY receiving the necessary funding to cover the obligations of CITY. In the event that such funding is not received or appropriated, then, and in that event, CITY's obligations under this Agreement shall cease and each Party shall be released from further performance under this Agreement without any liability to the other Party, and CONTRACTOR shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

ARTICLE 18.
APPROVAL REQUIRED AND SEVERABILITY

This Agreement shall not become effective or binding until approved by CITY. If any part of this Agreement is held invalid or unenforceable by a court of competent jurisdiction, the remaining portions of the Agreement will, nevertheless, remain in full force and effect so long as the remainder of this Agreement is capable of completion.

ARTICLE 19.
EXECUTION

IN WITNESS WHEREOF, said CONTRACTOR and CITY have caused this Agreement to be executed on the day and year first above written.

This Agreement may be executed by the use of electronic signatures pursuant to Idaho Code §28-50-107. If electronic signatures are utilized, the acknowledgement before a notary is not required.

I, Authorized Agent, certify under penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct and that I am an authorized agent to bind Company to this Agreement. If I am signing this document utilizing a digital signature, I understand that my

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digital signature is valid and binding upon me to the same force and effect as a handwritten signature.

CONTRACTOR:

Company

_____

Authorized Agent

CITY:

City of Moscow, Idaho

_____

Arthur D. Bettge, Mayor

ATTEST:

_____

Laurie M. Hopkins, City Clerk

Approved as to Form:

_____

Mia Bautista, City Attorney

ACKNOWLEDGMENT

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 2026, before me, a Notary Public in and for said State, appeared Authorized Agent, known to me to be the person named above and acknowledged that they executed the foregoing document as the duly authorized representative for Company .

_____
Notary Public for the State of _____
Residing at _____
My commission expires _____

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SECTION 00 55 00 - NOTICE TO PROCEED

Owner:	The City of Moscow	Owner's Project No.:	111-024
Engineer:	Ardurra Group, Inc.	Engineer's Project No.:	240380
Contractor:		Contractor's Project No.:	
Project:	Palouse Mall Lift Station Rehabilitation		
Contract Name:			
Effective Date of Contract:			

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on **[date Contract Times are to start]** pursuant to Paragraph 4.01 of the General Conditions.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement: **[Select one of the following two alternatives, insert dates or number of days, and delete the other alternative.]**

The date by which Substantial Completion must be achieved is **[date for Substantial Completion, from Agreement]**, and the date by which readiness for final payment must be achieved is **[date for readiness, from Agreement]**.

[or]

The number of days to achieve Substantial Completion is **[number of days, from Agreement]** from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of **[date, calculated from commencement date above]**; and the number of days to achieve readiness for final payment is **[number of days, from Agreement]** from the commencement date of the Contract Times, resulting in a date for readiness for final payment of **[date, calculated from commencement date above]**.

Before starting any Work at the Site, Contractor must comply with the following:

[Note any access limitations, security procedures, or other restrictions]

Owner: **[Full formal name of Owner]**

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

Date Issued: _____

Copy: Engineer

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DIVISION 00 60 00 - PROJECT FORMS

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SECTION 00 61 13.13 - PERFORMANCE BOND

Contractor Name: **[Full formal name of Contractor]** Address *(principal place of business)*: **[Address of Contractor's principal place of business]**	**Surety** Name: **[Full formal name of Surety]** Address *(principal place of business)*: **[Address of Surety's principal place of business]**
Owner Name: **The City of Moscow** Mailing address *(principal place of business)*: **206 E Third Street Moscow, ID 83843**	**Contract** Description *(name and location)*: **[Owner's project/contract name, and location of the project]** Contract Price: **[Amount from Contract]** Effective Date of Contract: **[Date from Contract]**

Bond

Bond Amount: **[Amount]**

Date of Bond: **[Date]**

(Date of Bond cannot be earlier than Effective Date of Contract)

Modifications to this Bond form:

☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

Contractor as Principal	Surety
_____ *(Full formal name of Contractor)*	_____ *(Full formal name of Surety) (corporate seal)*
By: _____ *(Signature)*	By: _____ *(Signature)(Attach Power of Attorney)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title: _____	Title: _____
Attest: _____ *(Signature)*	Attest: _____ *(Signature)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title: _____	Title: _____

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.

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1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:

   3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;

   3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

   3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

   5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

   5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

   5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

   5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

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5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, or the Surety has denied liability, in whole or in part, without further notice, the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

   7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

   7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

   7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.

12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

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statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

    14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

    14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

    14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

    14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

    14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

16. Modifications to this Bond are as follows: **[Describe modification or enter "None"]**

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SECTION 00 61 13.16 - PAYMENT BOND

Contractor Name: **[Full formal name of Contractor]** Address *(principal place of business)*: **[Address of Contractor's principal place of business]**	**Surety** Name: **[Full formal name of Surety]** Address *(principal place of business)*: **[Address of Surety's principal place of business]**
Owner Name: **The City of Moscow** Mailing address *(principal place of business)*: **206 E Third Street Moscow, Idaho 38343**	**Contract** Description *(name and location)*: **[Owner's project/contract name, and location of the project]** Contract Price: **[Amount, from Contract]** Effective Date of Contract: **[Date, from Contract]**
Bond Bond Amount: **[Amount]** Date of Bond: **[Date]** *(Date of Bond cannot be earlier than Effective Date of Contract)* Modifications to this Bond form: ☐ None ☐ See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal *(Full formal name of Contractor)*	Surety *(Full formal name of Surety) (corporate seal)*
By: _____ *(Signature)*	By: _____ *(Signature)(Attach Power of Attorney)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title: _____	Title: _____
Attest: _____ *(Signature)*	Attest: _____ *(Signature)*
Name: _____ *(Printed or typed)*	Name: _____ *(Printed or typed)*
Title: _____	Title: _____
Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.	

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EJCDC® C-615, Payment Bond.
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1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
    5.1. Claimants who do not have a direct contract with the Contractor
        5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
        5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
    5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
    7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
    7.2. Pay or arrange for payment of any undisputed amounts.
    7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

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8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

    16.1. *Claim*—A written statement by the Claimant including at a minimum:

        16.1.1. The name of the Claimant;

        16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;

        16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;

        16.1.4. A brief description of the labor, materials, or equipment furnished;

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16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;

16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;

16.1.7. The total amount of previous payments received by the Claimant; and

16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.

18. Modifications to this Bond are as follows: **[Describe modification or enter "None"]**

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SECTION 00 62 16 - CERTIFICATE OF INSURANCE FORM

Contractor to submit documentation of insurance as required in Section 5.04 of the General Conditions and Specification Section 00 73 00 Supplementary Conditions. Replace this sheet with the appropriate Certificates of Insurance and other evidence of insurance.

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APPLICATION FOR PAYMENT NO. _____

To City of Moscow (OWNER)

Contract For Palouse Mall Lift Station Rehabilitation

OWNER's Contract No. _____ **ENGINEER's Project No.** 240380

For Work Accomplished Through The Date Of _____

Bid Schedule	Work Completed Preceding Pay Application No. ___	Work Completed This Payment Period	Total Work Completed To Date
Change Order(s)			
Total(s)			

Payment Calculation:

Gross Payment Amount Due	$_____
Less ____% Retainage	$_____
Less Other Retainage	$_____
Payment Amount Due to Date	$_____
Less Previous Payments	$_____

- Payment Amount Due Contractor This Application $

Accompanying Documentation:

1. Detailed Schedule of Values for Bid Items
2. Certification of Subcontractor Payment
3. Description of Other Retainage (if Necessary)
4. Change Order(s) No. _____, _____, _____, _____ (if Appropriate)
5. Other: _____

CONTRACTOR'S Certification:

The undersigned CONTRACTOR certifies that: (1) **all previous progress payments received from OWNER on account of Work done under the Contract referred to above have been applied to discharge in full all obligations of CONTRACTOR incurred in connection with Work covered by prior Applications for Payment numbered 1 through ____ inclusive;** (2) title to all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all liens, claims, security interest and encumbrances (except such as are covered by Bond acceptable to Owner indemnifying OWNER against any such lien, claim, security interest or encumbrance); and (3) all WORK covered by this Application for Payment is in accordance with the Contract Documents and not *defective* as that term is defined in the Contract Documents.

_____
CONTRACTOR

Dated _____ By _____
(Authorized Signature)

Payment of the Above AMOUNT DUE THIS APPLICATION is recommended.

Ardurra

Dated _____ By _____
(Authorized Signature)

Payment of the Above AMOUNT DUE THIS APPLICATION is approved by:

City of Moscow

Dated _____ By _____
(Authorized Signature)

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SECTION 00 62 90 - CERTIFICATION OF SUBCONTRACTOR PAYMENT

To The City of Moscow (Owner)

Contract For Palouse Mall Lift Station Rehabilitation

Owner's Contract No. _____

For Work Accomplished Through the Date of _____

The undersigned Contractor certifies that: (1) payment has been made to the subcontractors listed below for the subcontracted work items identified; (2) payment as required by paragraph 5.3 of the Agreement and Article 15 of the General Conditions was made within 30 calendar days from receipt of payment from Owner.

Subcontractor	Bid Schedule	Item No.	Description	Unit	Quantity	Unit Price	Amount Paid This Estimate

_____ _____

Dated Contractor

_____ _____

Name (Printed Title

_____

Authorized Signature

Note: Use additional sheets as necessary.

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SECTION 00 62 92 - CONTRACTOR'S PROJECT CERTIFICATION

State of _____)
:ss
County of _____)

_____, being duly sworn, deposes and says that

he/she is_____
(title or office)

of_____,

Contractor, in a construction contracted entered into between the Contractor, and

_____, Owner, for construction of _____

and that they are authorized to and do make this certificate on behalf of the Contractor.

Affiant further states that the Contractor has paid in full for all their materials used in, for, or on the complete contract, as well as having made full payment to any Subcontractors they have used on this contract for subletting work or materials, in compliance with the laws of the State of Idaho.

This Certification form indemnifies the Owner and saves harmless the Owner from all liabilities, claims or lawsuits arising from the contract in relation to Contractor's, Subcontractor's work, material, labor, etc.

Signed: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

_____
Notary Public in and for the State

Of_____

Residing at:_____

My Commission expires: _____

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SECTION 00 62 93 - SUBCONTRACTOR'S LIEN WAIVER

State of _____)
:ss
County of _____)

_____, being duly sworn, deposes and says that

he/she is_____
(title or office)

of_____,

Subcontractor, in a construction contracted entered into between _____,

Contractor, and _____, Owner, for construction of

_____ and that they are authorized to and do make this

certificate on behalf of the Subcontractor.

Affiant further states that the Subcontractor has been paid in full for all their materials used in, for, or on the complete contract, as well as having received full payment for all work performed on the project, in compliance with the laws of the State of Idaho.

This Certification form indemnifies the Owner and saves harmless the Owner from all liabilities, claims or lawsuits arising from the contract in relation to Contractor's, Subcontractor's work, material, labor, etc.

Signed: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

_____
Notary Public in and for the State

Of_____

Residing at:_____

My Commission expires: _____

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SECTION 00 62 94 - MATERIAL SUPPLIER'S LIEN WAIVER

Supplier: _____

Project: _____

Address: _____

Owner: _____

Period from: _____ to _____
(Date) (Date)

Materials, Equipment, and/or Machinery have been delivered to the site, or materials have been especially fabricated for the Project during the Period as follows:

Description:

(Supplier) hereby certifies that payment has been received in full for the above and hereby waives all rights to liens and claims against the Owner therefore.

Signed: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

_____
Notary Public in and for the State

Of_____

Residing at:_____

My Commission expires: _____

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SECTION 00 63 36 - FIELD ORDER

FIELD ORDER NO.: [Number of Field Order]

Owner:	The City of Moscow	Owner's Project No.:	
Engineer:	Ardurra Group, Inc.	Engineer's Project No.:	240380
Contractor:		Contractor's Project No.:	
Project:	Palouse Mall Lift Station Rehabilitation		
Contract Name:			
Date Issued:		Effective Date of Field Order:	

Contractor is hereby directed to promptly perform the Work described in this Field Order, issued in accordance with Paragraph 11.04 of the General Conditions, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification Section(s):

Drawing(s) / Details (s):

Description:

[Description of the change to the Work]

Attachments:

[List documents supporting change]

Issued by Engineer

By: _____

Title: _____

Date: _____

EJCDC® C-942, Field Order.
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SECTION 00 63 49 - WORK CHANGE DIRECTIVE

WORK CHANGE DIRECTIVE NO.: [Number of Work Change Directive]

Owner:	The City of Moscow	Owner's Project No.:	
Engineer:	Ardurra Group, Inc.	Engineer's Project No.:	240380
Contractor:		Contractor's Project No.:	
Project:	Palouse Mall Lift Station Rehabilitation		
Contract Name:			
Date Issued:		Effective Date of Work Change Directive:	

Contractor is directed to proceed promptly with the following change(s):

Description:

[Description of the change to the Work]

Attachments:

[List documents related to the change to the Work]

Purpose for the Work Change Directive:

[Describe the purpose for the change to the Work]

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☐ Non-agreement on pricing of proposed change. ☐ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: $ _____ **[increase] [decrease] [not yet estimated]**.

Contract Time: _____ days **[increase] [decrease] [not yet estimated]**.

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

	Recommended by Engineer	Authorized by Owner
By:	_____	_____
Title:	_____	_____
Date:	_____	_____

EJCDC® C-940, Work Change Directive.
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SECTION 00 63 63 - CHANGE ORDER

CHANGE ORDER NO.: [Number Of Change Order]

Owner:	The City of Moscow	Owner's Project No.:	
Engineer:	Ardurra Group, Inc.	Engineer's Project No.:	240380
Contractor:		Contractor's Project No.:	
Project:	Palouse Mall Lift Station Upgrades		
Contract Name:			
Date Issued:		Effective Date of Change Order:	

The Contract is modified as follows upon execution of this Change Order:

Description:

[Description of the change]

Attachments:

[List documents related to the change]

Change in Contract Price	**Change in Contract Times [State Contract Times as either a specific date or a number of days]**
Original Contract Price: $ _____	Original Contract Times: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. **[Number of previous Change Order]**: $ _____	**[Increase] [Decrease]** from previously approved Change Orders No.1 to No. **[Number of previous Change Order]**: Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Order: $ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] this Change Order: $ _____	**[Increase] [Decrease]** this Change Order: Substantial Completion: _____ Ready for final payment: _____
Contract Price incorporating this Change Order: $ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____

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EJCDC® C-941, Change Order EJCDC® C-941, Change Order, Rev.1.
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	Recommended by Engineer (if required)	Accepted by Contractor
By:		
Title:		
Date:		
	Authorized by Owner	Approved by Funding Agency (if applicable)
By:		
Title:		
Date:		

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SECTION 00 65 16 - CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:	The City of Moscow	Owner's Project No.:	
Engineer:	Ardurra Group, Inc.	Engineer's Project No.:	240380
Contractor:		Contractor's Project No.:	
Project:	Palouse Mall Lift Station Rehabilitation		
Contract Name:			

This ☐ Preliminary ☐ Final Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

[Describe the portion of the work for which Certificate of Substantial Completion is issued]

Date of Substantial Completion: **[Enter date, as determined by Engineer]**

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor; see Paragraph 15.03.D of the General Conditions.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work must be as provided in the Contract, except as amended as follows:

Amendments to Owner's Responsibilities: ☐ None ☐ As follows:

[List amendments to Owner's Responsibilities]

Amendments to Contractor's Responsibilities: ☐ None ☐ As follows:

[List amendments to Contractor's Responsibilities]

The following documents are attached to and made a part of this Certificate:

[List attachments such as punch list; other documents]

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

EJCDC® C-625, Certificate of Substantial Completion.
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SECTION 00 65 19.23 - ACCEPTANCE CERTIFICATE FORM

Owner:	The City of Moscow	Owner's Project No.:	
Engineer:	Ardurra Group, Inc.	Engineer's Project No.:	240380
Contractor:		Contractor's Project No.:	
Project:	Palouse Mall Lift Station Rehabilitation		
Contract Name:			
Notice Date:		Effective Date of the Construction Contract:	

The Engineer hereby gives notice to the Owner and Contractor that Engineer recommends final payment to Contractor, and that the Work furnished and performed by Contractor under the Construction Contract is acceptable, expressly subject to the provisions of the Construction Contract's Contract Documents ("Contract Documents") and of the Agreement between Owner and Engineer for Professional Services dated **[date of professional services agreement]** ("Owner-Engineer Agreement"). This Notice of Acceptability of Work (Notice) is made expressly subject to the following terms and conditions to which all who receive and rely on said Notice agree:

1. This Notice has been prepared with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer's professional opinion.
3. This Notice has been prepared to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's Work) under the Owner-Engineer Agreement, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Owner-Engineer Agreement.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents, or to otherwise comply with the Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

Engineer

By *(signature)*: _____

Name *(printed)*: _____

Title: _____

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DIVISION 00 70 00 - CONDITIONS OF THE CONTRACT

SECTION 00 72 00 - GENERAL CONDITIONS

IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC) DIVISION 100 - STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

The 2015 Update to the ISPWC General Conditions are incorporated by reference. The Contractor shall provide and maintain in good condition on the job site a minimum of one (1) complete set of the most current edition of the ISPWC for reference.

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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

ISPWC DIVISION 100 – STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Modified From

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

2015 IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC)

NOTE: The base document is the 2007 EJCDC version. Items added to EJCDC to form the 2015 ISPWC are underlined. Items deleted from the EJCDC to form the 2015 ISPWC are shown in strikeout format.

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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly by

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American Council of Engineering Companies

ASCE American Society of Civil Engineers

National Society of Professional Engineers
Professional Engineers in Private Practice

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A Practice Division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by

CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidder*—The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

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15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*—See Paragraph 11.01 for definition.

17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*—The individual or entity named as such in the Agreement.

20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*—Sections of Division 1 of the Specifications.

22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.

23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*—Polychlorinated biphenyls.

31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

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33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.

37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

42.a *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

42.b. *Standard Specifications*–Wherever in these Contract Documents reference is made to the Standard Specifications, said reference shall be understood as referring to the Idaho Standards for Public Works Construction which applicable parts are incorporated herein and made a part of these Documents by specific reference thereto. If requirements contained in the Standard Specifications are modified by or are in conflict with supplemental information in these Contract Documents, the requirements of these Contract Documents shall prevail.

43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.

46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.

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47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.

48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

49. *Unit Price Work*—Work to be paid for on the basis of unit prices.

50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

2. <u>"Command" type language is used in the Contract Documents. This command language refers to, and is directed to the Contractor.</u>

C. *Day:*

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

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b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

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2.05 *Before Starting Construction*

A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.

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C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

A. Standards, Specifications, Codes, Laws, and Regulations

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work*: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

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3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or

2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if

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any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

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B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

   a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

   b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

   a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

   b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

   c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

   a. reviewing and checking all such information and data;

   b. locating all Underground Facilities shown or indicated in the Contract Documents;

   c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be

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within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

1. The Contractor's scope of work shall include implementation of necessary safety, public health and environmental procedures and requirements relating to sanitary sewage encountered during the work.

2. The Contractor's scope of work shall include necessary safety and environmental requirements for handling and disposal of asbestos pipe removed from service or excavated during the course of the work.

D. If Contractor encounters a Hazardous Environmental Condition not indicated in the Drawings or Specifications or identified in the Contract Documents or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligent acts or omissions ~~negligence~~.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

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I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions. Surety and insurance companies from which the bonds and insurance for this Project are purchased shall have a Best's rating of no less than A:VII, in addition to the other requirements specified herein.

5.03 *Certificates of Insurance*

A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.

B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.

C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.

E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

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5.04 *Contractor's Insurance*

A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

   a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

   b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance required by this Paragraph 5.04 shall:

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07;

6. include completed operations coverage:

   a. Such insurance shall remain in effect for two years after final payment.

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b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuing coverage during the two year period ~~of continuation of such insurance at final payment and one year thereafter~~.

5.05 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

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The Owner, in consultation with their attorney and risk manager, should choose which party shall provide property insurance. In accordance with the Owner's direction, use the appropriate Section A below.

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

A. Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, Engineer, Engineer's Consultants and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners,

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employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

B. ~~Owner~~Contractor shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

~~D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.~~

D. Contractor shall be responsible for any deductible or self-insured retention.

~~E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.~~

E. If Owner requests in writing that other special perils be included in the property insurance policies provided under paragraphs 5.06.A or 5.06.B of the General Conditions, Contractor shall, if possible, include such insurance, and the cost thereof will be charged to Owner by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the site, Contractor shall in writing advise Owner whether or not such other insurance has been procured by Contractor.

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5.07 *Waiver of Rights*

A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing

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within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit ~~overtime work or~~ the performance of Work outside the regular working hours or on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties, special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

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C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and,

3) it has a proven record of performance and availability of responsive service.

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable

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substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,

b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified, and

b) available engineering, sales, maintenance, repair, and replacement services; and

4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

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E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier ~~who is listed as a loss payee~~ whose interests are included on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the

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Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents..

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

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C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

D. While not intended to be inclusive of all Laws or Regulations for which Contractor may be responsible under paragraph 6.09, the following Laws or Regulations are included as mandated by statute or for the convenience of the Contractor;

Idaho Code Section 63-1501. Definitions. As used in this act, the following terms shall have the following meanings:

"Contracting units" shall include the state or any officer or department thereof, the counties or other subdivisions of the state, and all municipal and quasi-municipal corporations therein.

"Contractor" shall mean any person, firm, co-partnership, association, or corporation, foreign or domestic, entering into a contract for the construction, erection, repair, or improvement of any kind or character of public works in this state.

"Taxes" shall mean all taxes, assessments, excises, and license fees authorized to be levied, assessed, and collected under the laws of this state, other than taxes on real property.

"Taxing unit" shall mean the state or any officer or department thereof, the counties or other subdivisions of the state, and all municipal and quasi-municipal corporations therein authorized by law to assess, levy and collect taxes.

Idaho Code Section 63-1502. Conditions precedent to contract for public works. Before entering into a contract for the construction of any public works in this state, the contracting unit shall require as conditions precedent that the contractor be authorized to do business in this state and that he furnish satisfactory evidence that he has paid or secured to the satisfaction of the respective taxing units all taxes for which he or his property is liable then due or delinquent.

Idaho Code Section 63-1503. Contractor for public works to pay or secure taxes—Agreement. Every contract for the construction of public works by a contracting unit of this state shall contain substantially the following provisions:

The contractor, in consideration of securing the business of erecting or constructing public works in this state, recognizing that the business in which he is engaged is of a transitory character, and that in the pursuit thereof, his property used therein may be without the state when taxes, excises, or license fees to which he is liable become payable, agrees:

1. To pay promptly when due all taxes (other than on real property), excises and license fees due to the state, its subdivisions, and municipal and quasi-municipal corporations therein accrued or accruing during the term of this contract, whether or not the same shall be payable at the end of such term;

2. That if the said taxes, excises, and license fees are not payable at the end of said term, but liability for the payment thereof exists, even though the same constitute liens upon his property, to secure the same to the satisfaction of the respective officers charged with the collection thereof; and

3. That in the event of his default in the payment or securing of such taxes, excises, and license fees, to consent that the department, officer, board, or taxing unit entering into this contract may withhold from any payment due him hereunder the estimated amount of such accrued and accruing taxes, excises, and license fees for the benefit of all taxing units to which said contractor is liable.

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Idaho Code Section 44-1002 requires the following: The Contractor must employ ninety-five percent (95%) bona fide Idaho residents as employees on any job under any such contract except where under such contracts fifty (50) or less persons are employed, the Contractor may employ ten percent (10%) nonresidents, provided, however, in all cases employers must give preference to the employment of bona fide residents in the performance of said work, and no contract shall be let to any person, firm, association, or corporation refusing to execute an agreement with the above mentioned provisions in it; provided, that, in contracts involving the expenditure of federal aid funds this act shall not be enforced in such a manner as to conflict with or be contrary to the federal statutes prescribing a labor preference to honorably discharged soldiers, sailors, and marines, prohibiting as unlawful any other preference or discrimination among citizens of the United States.

Idaho Code Chapter 19 of Title 54 requires proper licensing of Public Works Contractors.

6.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

B. In the event of the Contractor's default on the payment of taxes, excises, and license fees as set forth in Idaho Code 63-1503 , the Owner shall have the authority to withhold from any payment due the Contractor under this contract, the estimated amount of such accrued and accruing taxes, excises, and license fees for the benefit of all taxing authorities to which said Contractor is liable.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work. Contractor shall not enter upon nor use property not under Owner control until appropriate easements have been executed and a copy is on file at the site.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

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D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

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6.14 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 Shop Drawings and Samples

A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

a. Submit number of copies specified in the General Requirements.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

a. Submit number of Samples specified in the Specifications.

b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Submittal Procedures:*

1. Before submitting each Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

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b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

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6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;

2. recommendation by Engineer or payment by Owner of any progress or final payment;

3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;

4. use or occupancy of the Work or any part thereof by Owner;

5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

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1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.

B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

6.22 *Quality Control*

A. Contractor shall provide quality control, which shall include the initial and subsequent inspections of Contractor's Work to ensure that the Work conforms to the Contract Documents.

B. Contractor shall designate the person responsible for Contractor's quality control while Work is in progress, and shall notify Engineer, in writing, prior to any change in quality control representative assignment.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a

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reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.

C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful actions or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

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8.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

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ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

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9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

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D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

F. Contractors, Subcontractors, Suppliers and others on the Project, or their sureties, shall maintain no direct action against the Engineer, its officers, employees, affiliated corporations, and subcontractors, for any claim arising out of, in connection with, or resulting from the engineering services performed. Only the Owner will be the beneficiary of any undertaking by the Engineer.

9.10 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

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10.04 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than ~~30~~ 10 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within ~~60~~ 20 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within ~~30~~ 10 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within ~~30~~ 20 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part;

2. approve the Claim; or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said ~~30~~ 21 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality

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of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

    a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

    b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

    c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

    d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

    e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

    f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in

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accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. Contractor agrees that:

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a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

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2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the claim to the Engineer and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

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B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. ~~Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:~~ Contractor shall employ an independent testing laboratory or testing agency and shall be responsible for arranging and shall pay for all specified tests, inspections, and approvals (including tests, inspections, and approvals to be paid for on a cash allowance basis) required for Owner's and Engineer's acceptance of the Work at the site except:

1. ~~for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;~~ costs incurred in connection with tests or inspections pursuant to paragraph 13.04.B of the General Conditions shall be paid for as provided in said paragraph; and as otherwise specifically provided in the Contract Documents.

2. ~~that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.C; and~~.

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~~3. as otherwise specifically provided in the Contract Documents.~~

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not

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limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's warranty, special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or

2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be

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entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

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2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 7 ~~10~~ days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

   b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

   a. to supervise, direct, or control the Work, or

   b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

   c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

   d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

   e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner referred to in Paragraph 14.02.B.2. Engineer may also

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refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due:*

1. ~~Ten Twenty-one~~ Thirty days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. *Reduction in Payment:*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

c. there are other items including, but not limited to, liquidated damages entitling Owner to a set-off against the amount recommended; or

d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

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B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars

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in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

   a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;

   b. consent of the surety, if any, to final payment;

   c. a list of all Claims against Owner that Contractor believes are unsettled; and

   d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due:*

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

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14.08 *Final Completion Delayed*

A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's repeated disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

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1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and

3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if, within 7 days of receipt of notice of intent to terminate, Contractor begins to correct its failure to perform and proceeds diligently to cure such failure and become in compliance with the contract requirements. Such cure must occur within no more than 30 days of said notice unless otherwise extended by the Engineer. ~~Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.~~

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

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15.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.

C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

2. agrees with the other party to submit the Claim to another dispute resolution process; or

3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

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17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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SECTION 00 73 00 - SUPPLEMENTARY CONDITIONS

PART 1 COORDINATION OF PLANS, SPECIFICATION AND SPECIAL PROVISIONS

These technical specifications, special provisions, general conditions, plans and all supplementary documents are essential parts of the contract, and a requirement in one is binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work or project. In case of discrepancy, calculated dimensions will govern over scaled dimensions; special provisions shall govern over plans, technical specifications, general conditions and cited standards/circulars/testing; plans shall govern over technical specifications, general conditions and cited standards/circulars/testing; technical specifications shall govern over general conditions and cited standards/circulars/testing; general conditions shall govern over cited standards/circulars/testing. If there is a conflict in requirements between the general notes and details on the plans, the requirement of the detail on the plans shall prevail.

The Contractor shall take no advantage of any apparent error or omission in the plans or contract documents. In the event the Contractor discovers such an error or omission, they shall immediately notify the Engineer. The Engineer will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the plans and contract documents.

PART 2 REFERENCED SPECIFICATIONS

All construction within the public rights-of-way shall be performed in accordance with the latest edition of the Idaho Standards for Public Works Construction (ISPWC), and the City of Moscow Community Planning & Design Engineering Division Standard Construction Specifications and Standard Construction Drawings. In the event of a conflict with these technical specifications, or other referenced documents, the more stringent criteria shall apply.

PART 3 SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the General Conditions of the Construction Contract, as given in the 2015 version of ISPWC, and other provisions of the Contract documents as indicated below. All provisions, which are not so amended or supplemented, remain in full force and effect.

Article 1.

The terms used in these Supplementary Conditions, which are defined in the General Conditions of the Construction Contract, have the meanings assigned to them in the General Conditions.

Article 1, Section 1.01.A, Item 44

Add the following language at the end of the Paragraph 1.01.A.44 as follows:

> Substantial Completion is further defined as (i) that degree of completion of the Project's operating facilities or systems sufficient to provide the Owner the full time, uninterrupted, and continuous beneficial operation of the Work; and (ii) all required functional, performance and acceptance, or startup testing and commissioning has been successfully demonstrated for all components, devices, equipment, and instrumentation and control to the satisfaction of the continuous days operation without significant interruption has been completed, as specified; and (iii) all inspections required have been completed and identified defective Work replaced or corrected, and (iv) all paving is

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complete.

Article 1, Section 1.01.A, Item 45

Delete definition 1.01.A.45. of the General Conditions in its entirety and insert the following in its place:

45. *Successful Bidder* - The Bidder submitting the lowest responsive Bid whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

Article 2, Section 2.03.A

Delete the paragraph and replace with the following:

A. The Contract Times will commence to run on the day indicated on the Notice to Proceed. A Notice to Proceed may be given at any time as Agreed upon by the Owner and Contractor after the effective date of the Agreement.

Article 2, Section 2.05

Delete paragraph 2.05.A of the General Conditions in its entirety and insert the following in its place:

A. *Preliminary Schedules:* Within five days after the Effective Date of the Contract (or as specifically required in the General Requirements), Contractor shall submit to the Resident Project Representative (RPR) for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract; and

2. a preliminary Schedule of Submittals.

Article 4, Section 4.02

Supplement paragraph 4.02.A of the General Conditions as follows:

3. Contact the Engineer for availability of geotechnical investigation report.

Article 4, Section 4.04

Supplement paragraph 4.04.A of the General Conditions as follows:

A. No complete As-Built Drawings are available for the Contractor.

Article 5, Section 5.04

The limits of liability for the insurance required by Section 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by law:

Worker's Compensation, under Section 5.04 of the General Conditions:

1) State: Statutory

2) Applicable Federal

(i.e. Longshoreman's): Statutory

3) Employer's Liability: $500,000

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Comprehensive General Liability (under Section 5.04 of the General Conditions):

1) Bodily Injury:

   $1,000,000 Each Occurrence

   $2,000,000 Annual Aggregate, Products and Complete Operations

2) Property Damage liability insurance will provide Explosion, Collapse and underground coverage where applicable.

3) Personal Injury, with Employment Exclusion Deleted

   $2,000,000 Annual Aggregate

Comprehensive Automobile Liability (under Section 5.04):

1) Bodily Injury and Property Damage:

   $1,000,000 Each person

   $1,000,000 Each Accident

Additional Insurance Requirements (under Section 5.04):

1) Contractor shall provide completed operations and products coverage in the amount of $1,000,000.

2) Add The City of Moscow and Ardurra Group, Inc., as named insured under terms of policies for coverages under Sections 5.04

Article 5, Section 5.06

A. Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:

   1. include the interests of Owner, Contractor, Subcontractors, Engineer, Engineer's Consultants and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

   2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and materials and equipment in transit and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.

   3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

   4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and

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equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

Article 6, Section 6.06

Delete paragraph 6.06.B of the General Conditions in its entirety and insert the following in its place:

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price or Contract Times, or both, will not be adjusted by the difference in the cost occasioned by such replacement. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

Article 6, Sections 6.17, 6.19, and 6.21

Paragraphs 6.17, 6.19, and 6.21 make reference to the wording and language "review and approval". This wording shall be replaced in all locations with the following wording "review and comment".

Article 6, Section 6.19

Add paragraph 6.19.D to Article 6 of the General Conditions, which is to read as follows:

D. The Contractor's standard warranty and guarantee period shall be one year and shall commence on the date of final project acceptance as indicated on the Certificate of Final Completion; or for such longer period of time as may be prescribed by the terms of any specific provisions of the Contract Documents or Specifications.

Article 8, Section 8.01

Delete paragraph 8.01.A of the General Conditions in its entirety and insert the following in its place:

A. Except as otherwise provided in these General Conditions, Owner may issue all communications to Contractor through Engineer or directly to Contractor. Owner shall copy Engineer on any communications delivered directly to Contractor.

Article 11, Paragraph 11.03.D

Delete paragraph 11.03.D of the General Conditions in its entirety.

Article 12, Section 12.03.C

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Delete paragraph 12.03.C of the General Conditions in its entirety and insert the following in its place:

B. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, acts of God, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

Article 13, Paragraph 13.03.G

Add paragraphs 13.03.G, 13.03.G.1, and 13.03.G.2 to Article 13 of the General Conditions, which are to read as follows:

G. Inspections, tests, or approvals required by the Contract Documents to be performed by Contractor and that require test certificates to be submitted to Owner or RPR for acceptance shall be made by an independent testing laboratory or agency licensed or certified in accordance with Laws and Regulations and applicable state and local statutes. In the event state license or certification is not required, testing laboratories or agencies shall meet following applicable requirements:

1. Basic requirements of ASTM E 329, "Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials as Used in Construction" ASTM D 3666, "Standard Specification for Minimum Requirements for Agency Testing and Inspecting Bituminous Paving Materials, as applicable.

2. Calibrate testing equipment at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards or accepted values of natural physical constants.

Article 13, Section 13.07.A

Amend paragraph 13.07.A to read as follows:

A. If within one year after the date of Final Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents), Owner gives Contractor written notice that any Work has been found to be defective, or that Contractor's repair of any damages to the Site or adjacent areas has been found to be defective, then after receipt of such notice of defect Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such adjacent areas;

2. correct such defective Work;

3. remove the defective Work from the Project and replace it with Work that is not defective, if the defective Work has been rejected by the Owner, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting from the corrective measures.

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Article 14, Section 14.02.A.3

Delete paragraph 14.02.A.3 of the General Conditions in its entirety and insert the following in its place:

3. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract.

    a. **95** percent of the value of the Work completed (with the balance being retainage).

    b. **95** percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

Article 14, Section 14.02.C.1

Amend paragraph 14.02.C.1 to read as follows:

1. Forty-five days after approval of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

Article 14, Section 14.04

Add paragraph to Section 14.04 of the General Conditions which is to read as follows:

F. A copy of the Certificate of Substantial Completion issued by the Engineer is included for information purposes.

Article 14, Section 14.07

Delete paragraph 14.07.C of the General Conditions in its entirety and insert the following in its place:

C. Forty-five days after approval by Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

Article 15, Section 15.04

Delete paragraph 15.04 of the General Conditions in its entirety and insert the following in its place:

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such

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amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

Article 16

Add the following sentence:

D. The prevailing party in any legal action shall be entitled to payment of their attorney fees.

Article 17, Paragraph 17.01

Delete paragraph 17.01 of the General Conditions in its entirety and insert the following in its place:

A. Whenever any provision of the Contract requires the giving of written notice to Owner, Engineer, or Contractor, it will be deemed to have been validly given only if delivered:

1. in person, by a commercial courier service or otherwise, to the recipient's place of business; or

2. by registered or certified mail, postage prepaid, to the recipient's place of business; or

3. in writing to the to the recipient by electronic transmission if a method for electronic transmission is set forth in the agreement, or through common practice by the parties, with the words "Formal Notice" or similar in the electronic transmission's subject line.

Article 17

Add paragraph 17.07 to Article 17 of the General Conditions, which is to read as follows:

17.07 Litigation Costs

A. Should litigation occur between the two parties relating to any provision of this Contract, all litigation costs, collection expenses, witness fees, court costs and attorney fees incurred by the prevailing party as allowed by the court shall be paid to the prevailing party by the non-prevailing party and on appeal or bankruptcy proceedings.

END OF SECTION

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REVISIONS TO THE IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPWC)

All work shall be completed in accordance with the most recent edition of the Idaho Standards for Public Works Construction (ISPWC), the 2015 ISPWC General Conditions and the most current City of Moscow Standard Construction Specifications and Construction Drawings unless otherwise modified in the Contract Documents herein. In case of conflict, the more stringent specifications shall apply.

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DIVISION 01 00 00 - GENERAL REQUIREMENTS

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SECTION 01 11 00 - SUMMARY OF WORK

PART 1 GENERAL

1.1 PROJECT LOCATION

A. The project is located within the City of Moscow. The project is located adjacent to the parking lot, to the South of the Palouse Mall. 1850 Pullman Rd, Moscow, ID 83843.

1.2 DESCRIPTION OF WORK

A. The City of Moscow is rehabilitating their existing lift station. The existing pumps will be replaced with submersible pumps and new guide rails. The lift station wet well will be coated with a new protective lining and fitted with a new hatch. The site improvements include upgrades to the electrical and controls and expanding the existing fence. A new valve vault and flow meter vault will be installed along with a new 16" force main that will cross State Highway 8 and terminate at the City of Moscow's Wastewater Headworks Building.

PART 2 MATERIALS

No products are required in this section.

PART 3 WORKMANSHIP

3.1 CONTRACTOR USE OF SITE AND PREMISES

A. Contractor access to the site is shown on the plans.

B. Contractor shall schedule work to allow access to adjacent businesses.

3.2 CONTRACTOR'S WORK/STORAGE AREAS

A. The contractor's work access areas are shown on the construction plans. Storage/staging areas if required shall be determined by the Contractor and approved by the Engineer. Specific locations for the Contractor's consideration will be discussed at the Pre-Construction conference. It is the Contractor's responsibility to coordinate, negotiate and secure storage and staging areas for construction, the Owner and Engineer shall approve the storage and staging areas but is not responsible for finding, coordinating, or negotiating any terms with third parties. The Contractor may use the appropriate areas following issuance of the Notice to Proceed for this project.

3.3 WORK SEQUENCE

A. Phasing will not be utilized to complete this construction project.

B. Contractor shall work in an orderly and timely manner. The Contractor shall coordinate the schedule and sequence of operations with the Owner.

C. Contractor will be given authorization to commence construction upon issuance of Notice to Proceed on an agreed upon date following execution of the Agreement. Once the contractor starts work, contractor shall work continuously to complete the project in accordance with the contract times listed in the Agreement. Any material items with long lead times or extended procurement that may require pausing contract time to allow for delivery must be

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identified on the initial submittal schedule and discussed at the Pre-Construction Conference.

D. The Contractor shall provide a draft construction schedule a minimum of five days prior to the Pre-Construction Conference. The schedule shall identify the Contractor's plan for accomplishing the work in accordance with the Contract Time. During the active portion of the project, a schedule update covering two-week periods will be required on a weekly basis.

E. Other contractors and utility companies may be working on site during construction of this project, including extension of other utilities. The contractor shall coordinate and cooperate with other contractors and utility companies as required to progress the work with minimal conflict and interference.

3.4 WORK HOURS

A. The Contractor shall base the project construction schedule on a five-day workweek of eight hours per day or a four-day workweek of up to ten hours per day, with construction activities limited to the hours of 7:00 AM to 7:00 PM Monday through Friday. From the effective date of the Notice to Proceed, the contractor and all subcontractors shall work diligently and continuously to the completion of the project without any unjustified delays or non-working periods except for legal holidays, Saturdays, Sundays or as may be directed or approved by the Owner. Work during extended hours before or after typical business hours may occur. Contractor shall submit all requests to coordinate any shutdowns with Owners and Engineer in writing prior to authorization of additional scheduled work hours. The Owner and Engineer must authorize additional scheduled work hours in advance. Priorities of work extensions are as follows:

1. Extended hours during the five-day workweek.
2. Saturday work.
3. Sunday work.

3.5 EXISTING UTILITIES

A. The locations of any existing utilities, as shown, are approximate only. No guarantee is made or implied that all existing underground utilities are shown. It shall be the Contractor's responsibility to contact all utility companies and to verify the type, size, and location of all existing utilities prior to starting any work. Any discrepancies in or from the information shown on the plans shall be reported to the Engineer prior to the commencing construction.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred under this Section by the Contractor shall be incidental to all other bid items.

END OF SECTION

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SECTION 01 21 16 – FORCE ACCOUNT

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Perform work on a force account basis, if required by the contract or as directed. Record force account work on City-provided forms and submit at the end of each work day to allow immediate field verification. The Engineer will revise, as appropriate, the daily force account records and provide duplicate report sheets to the Contractor for signature. Duplicate report sheets, signed by the Engineer and the Contractor, are the true record of force account work.

1.2 RELATED SECTIONS

A. Section 01 11 00 - Summary of Work

PART 2 MATERIALS

NOT USED

PART 3 WORKMANSHIP

3.1 SATISFACTORY EVIDENCE/DOCUMENTATION

A. The Engineer will not approve force account work payment before the Contractor submits an itemized cost statement for that work. The Engineer will review the itemized statement and approve payment for the cost the Engineer deems reasonable based on experience and prevailing market rates. The Engineer may request the Contractor to submit additional evidence to support the cost. Submit the following information in itemized statements for force account work:

1. For labor: name, classification, dates worked, daily hours, total hours, labor rate, and extended amount for each laborer and foreman.
2. For equipment: designation, dates used, daily hours, total hours of actual operation and standby, rental rate, and extended amount for each equipment unit. Include the manufacturer's name or trademark, model number, and manufacture year with the designation.
3. For material: quantities, cost, and extensions, including source recover fees, royalties, and use tax.
4. Transportation cost for material, free on board (FOB), to the project site.
5. Documentation showing payment for invoiced items, including work, material, and transportation.

B. If providing material from the Contractor’s stock for force account work, submit a signed verification of the following:

1. Material was provided from the Contractor’s stock.

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2. Material quantity was used for the force account work.

3. Material and transportation costs represent the Contractor's actual cost, excluding overhead.

PART 4 MEASUREMENT AND PAYMENT

A. Force Account: The City will pay for FORCE ACCOUNT work based on the reviewed and approved Contractor itemized cost statement. This payment is full payment for performing the force account work.

1. Labor:

   a. The City will pay for laborer and foremen performing approved force account work.

   b. The City will pay the wage rate or scale approved in writing before beginning work.

   c. The City will pay an amount equal to 120 percent of the sum of the direct labor cost. This payment is broken down into field office overhead (5 percent), home office overhead (10 percent), and profit (5 percent) totaling the additional 20 percent above direct labor cost. The City will not pay for costs deemed unreasonable.

2. Material:

   a. For materials approved and used in the work, the City will pay for material costs, including transportation costs, source recovery feeds, royalties, and use or sales tax.

   b. The City will pay the Contractor an additional 15 percent of this sum as pay for field office overhead, home office overhead, and profit.

3. Equipment.

   a. The City will pay the Contractor for machinery or special equipment (other than small tools) on force account work as specified in this subsection. Obtain written approval of the rental rates established in this subsection before beginning the force account work.

4. Bid Schedule Payment Reference: SP-012116

5. Bid Schedule Description: Force Work…lump sum (LS)

END OF SECTION

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SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Project requirements and associated responsibilities for the Contractor and Engineer related to project coordination and administration. The requirements and conditions addressed in this section do not in any way amend or change the requirements of other respective sections but are intended to support and clarify project coordination and administration functions and/or requirements of the Engineer and Contractor.

1.2 RELATED SECTIONS

A. Section 01 11 00 - Summary of Work

B. Section 01 31 19 - Project Meetings

PART 2 MATERIALS

NOT USED

PART 3 WORKMANSHIP

3.1 PROJECT CORRESPONDENCE

A. The Contractor and Engineer shall conform to the following requirements in issuing and receiving project correspondence related to contract conditions. All correspondence, requests, clarifications, submittals and information shall be addressed directly between the Contractor and Engineer. No other form of communications written or oral shall be permitted between project participants without the Contractor and/or Engineer consent by assigning the responsibility to an authorized agent acting in that contractual capacity or role. The transferring of this authority by either party shall be in the written form issued to the other corresponding party that he or she has transferred that specific authority in the contract.

B. All correspondence issued from the Engineer or Contractor shall be identified by the construction management software (CMS) for tracking and referencing specific documents. The construction management software shall be Procore or approved equal. The correspondence shall include notification of all documents requiring action by either party (i.e., transmittals, submittals, requests for information, request for change, and general correspondence). The CMS shall include punch list creation, meeting management, project schedule viewing, photo uploading, and construction plans and specifications. All CMS functionalities shall be made available to the Engineer. All other correspondence related to the project beyond the listed CMS capabilities listed above, must be completed via email or telephone.

C. All correspondence issued from the Engineer or Contractor shall be identified by a correspondence code numbering system for tracking and referencing specific documents. The correspondence code shall be shown on all documents requiring action by either party (i.e., transmittals, submittals, request for information, request for change and general

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correspondence). The code system format and usage shall be agreed on by the Engineer and Contractor at the pre-construction conference and used on all correspondence.

3.2 REQUEST FOR INFORMATION (RFI)

A. An RFI can be initiated or requested from any of the project participants but shall be addressed and answered in written correspondence between the Contractor and Engineer before it is considered binding to the contract. The Engineer will record all RFI in a RFI log that tracks all request that require response regardless of who initiates the request. The RFI Log will be made available to the Contractor upon their request in writing to the Engineer.

3.3 REQUEST FOR CHANGE/CONTRACT MODIFICATION (RFC)

A. An RFC can be initiated or requested from any of the project participants but must be addressed and answered in written correspondence between the Contractor and Engineer before it is considered binding to the contract. The Engineer will record all RFC in an RFC log that tracks all request that require response regardless of who initiates the request. The RFC Log will be made available to the Contractor upon their request in writing to the Engineer.

3.4 CONTRACT DEFICIENCIES/NON-COMPLY WORK:

A. The Engineer shall issue Deficiency and Non-Complying Work Notices to the contractor for work items that do not meet or exceed the quality requirements stated in the contract documents related to workmanship, materials or methods used by the Contractor. The Contractor shall be required to provide the Engineer a schedule for correcting the specific deficiencies or have the deficiencies corrected within 3 working days of the notice. The Engineer will record and track all deficiencies and non-complying work activities on a Deficiency Log until the specific deficiencies are corrected and resolved by the Contractor. The Deficiency Log shall be made available to the Contractor upon their request in writing to the Engineer.

3.5 EXCEPTION REPORTS:

A. The Engineer shall issue Exception Reports to the Contractor for the purpose of assessing project status and identifying potential problems. Typical reasons to issue the Exception Reports (but not limited to) are: submittals not received from the Contractor on scheduled submission dates, submittals not returned to the Contractor within the contract required time period, responses on RFI and RFC not received from corresponding parties within the contract time frame, correction of deficiencies not completed by the Contractor within the agreed time period and negotiations of changed work scope not completed within the agreed time period. The interval of issuing these reports shall be at the discretion of the Engineer on "As-Need" basis.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All project management costs incurred or associated by the Contractor shall be incidental to all other bid items.

END OF SECTION

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SECTION 01 31 19 - PROJECT MEETINGS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Project requirements and associated responsibilities for sponsoring, assisting and participating in project meetings related to the project construction and coordination.

1.2 RELATED SECTIONS

A. Section 01 11 00 - Summary of Work

B. Section 01 31 00 - Project Management and Coordination

1.3 QUALITY ASSURANCE

A. Project participants designated by the Contractor to attend project or construction meetings shall have all required authority to commit the Contractor to solutions agreed upon at the meetings.

1.4 SUBMITTALS

A. To the maximum extent practicable, advise the Engineer at least 24 hours in advance of the project or construction meetings regarding all items to be added to the meeting agenda.

B. The Engineer shall compile minutes of each project or construction meeting and will furnish a copy to the Contractor. The Contractor shall review the minutes for content and correctness. If the Contractor finds discrepancies or errors in the meeting minutes, it should be addressed with the Engineer immediately.

PART 2 MATERIALS

NOT USED

PART 3 WORKMANSHIP

3.1 PRE-CONSTRUCTION CONFERENCE

A. A mandatory Pre-Construction Conference shall be held prior to the start of project construction. This conference is the appropriate and logical place for the participants (Owner, Engineer, Surveyor, Contractor, Subcontractors, Suppliers, Utility Companies, End Users and all other involved parties) to discuss and resolve the following issues related the execution of the construction contract. Mandatory attendance shall be required of the Contractor, Subcontractors and major Suppliers performing work related to the construction contract. The Pre-Construction Conference agenda topics for discussion or resolution shall be, but not limited to: scheduled water service shutdown procedures, progress payments, form of payment request, submittals requirements, insurance and bonding requirements, surveying and staking, quality control, labor requirements and reporting, correspondence and management reporting, contract administration procedures, construction schedules and updating, project safety requirements, regulatory and permitting requirements,

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coordination, temporary facilities and controls, storage and staging areas, security, change order requirements, record drawings, final payment and project close-out procedures.

B. The Notice to Proceed will be issued at the Pre-Construction Conference when all contractual requirements are satisfied by the Contractor. The primary purpose for this conference is to establish acceptable ground rules related to the contract requirements. This will ensure that the Contractor understands the complete project requirements and coordinates the work to produce a completed project within the allotted time constraints specified in the contract.

C. Minimum Agenda Items (Distribution and Discussion):

1. Organization arrangement of Contractor's forces and personnel, subcontractors, material suppliers, utilities and Engineer.

2. Channels and procedures for project communications.

3. Construction Schedules.

4. Contract documents; including distribution of required copies of original documents and revisions.

5. Processing of shop drawing and submittals to the Engineer for review.

6. Processing of field decisions and change orders.

7. Rules and regulations governing performance of the work.

8. Procedures for safety, emergencies, security, quality control, housekeeping and other related matters.

3.2 CONSTRUCTION MEETINGS

A. Weekly "On-Site" construction meetings will be required for the purpose of discussing and reviewing project status on changes, progress, short-term scheduling, impacts to the construction process, submittals, outstanding correspondence and resolving critical issues or problems at the construction site. The Contractor, Subcontractors and Supplier involved in the active prosecution of the work shall be in attendance at all of the Weekly Construction Meetings.

3.3 PROGRESS AND SCHEDULING MEETINGS

A. Once a month the Contractor shall meet with the Engineer for the purpose of reconciling pay quantities, progress and determining construction activity status (percent complete, remaining duration, start and finish dates and non-performance of scheduled work). This meeting will be the basis of preparation of the Contractor's application for monthly progress payments and construction schedule updating procedures. This meeting shall be precedent to all progress payment reviews or actual payment to the Contractor.

3.4 SPECIAL MEETINGS

A. These are meetings prior to the construction and/or installation of sensitive functions of a system or features during the prosecution of the construction work. These meeting are generally called for and arranged by the Engineer but could be requested by the Contractor

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for their Subcontractors or Suppliers. The purpose of these meetings is to coordinate the interface between all of the necessary project participants related to the installation. At this meeting the Engineer shall reinforce and clarify the contract requirements related to the system or feature of the work that will be installed by the Contractor.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred or associated by the Contractor in preparing items for and attending meetings shall be incidental to all other bid items.

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SECTION 01 32 16 - CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.1 SECTION INCLUDES

A. The Contractor shall schedule the work under the Contract in accordance with the requirements of this Section and the General Conditions.

1.2 SUBMITTALS

A. Within five days after the effective date of the Contract, the Contractor shall submit the draft construction schedule to the Engineer. The schedule document shall serve as the Contractor's Plan of Operation for the Contract Time and to identify the manner in which the Contractor intends to complete all work within the Contract Time. The draft construction schedule shall include a list of manpower and equipment to be utilized. The Contractor shall not make any substitutions, alterations, additions, or deletions, to the equipment, materials, key personnel or manpower listed without written permission of the Engineer.

B. The Engineer shall review the project schedule and submit comments to the Contractor within five days after receiving the schedule. The Engineer's review and comment shall be limited to Contract conformance with the sequencing and milestone requirements as stated in Section 01 10 00 - Summary of Work. The Contractor shall make corrections to the schedule necessary to comply with the Contract requirements and shall adjust the schedule to incorporate any missing information requested by the Engineer. Corrected schedule(s) shall be resubmitted to the Engineer within five days after receiving Engineer’s comments.

PART 2 MATERIALS

NOT USED

PART 3 WORKMANSHIP

3.1 PROJECT SCHEDULE

A. The project schedule shall be either in a standard Gantt/bar chart or computerized Critical Path Method (CPM) format. The schedule shall indicate the major components of the project work by location and the sequence relations between major components and subdivisions of major components.

B. The project schedule shall indicate the relationships and time frames in which the various components of the work will be made complete and placed into service in order to meet the project milestones.

C. Sufficient detail shall be included for the (1) safety and traffic control, (2) earthwork and aggregate work by location, (3) drainage work by location, (4) electrical work, (5) demolition work by location, (6) paving and (7) other important work for each major facility within the overall project scope. Planned durations and start dates shall be indicated for each work item subdivision.

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D. The schedule shall include a list of the various sizes, types, and number of units of equipment to be used. The schedule shall also identify the manpower requirements with a list of the classifications and the number of workers to be employed in each classification.

E. Each major component and subdivision component shall be accurately plotted on time scale sheets not to exceed 11-inch by 17-inch in size. Not more than four sheets shall be employed to represent this overview information.

3.2 TWO-WEEK SCHEDULE REQUIREMENTS

A. The Contractor will be requested to submit a two-week working schedule each week during the active construction portion of the project. These updates will show the necessary operation or function of work with appropriate durations in a bar chart form. The two-week working schedule shall include all of the requirements of the project schedule.

B. Neither the submission nor the updating of the Contractor's original project schedule submittal nor the submission, updating, change or revision of any other report, curve, schedule or narrative submitted to the Engineer by the Contractor under this Contract, nor the Engineer's review or acceptance of any such report, curve, schedule or narrative shall have the effect of amending or modifying, in any way, the Contract completion date or milestone dates or of modifying or limiting, in any way, the Contractor's obligation under this Contract. Only a signed, fully executed change order can modify these contractual obligations.

C. Each two-week working schedule shall identify the resources required to maintain the project schedule submitted by the Contractor prior to beginning construction. Equipment, manpower and other resources necessary to maintain the project schedule shall be identified on the two-week working schedule.

D. A two-week working schedule that does not maintain the timeline of the project schedule or fails to indicate conformance with the sequencing and milestone requirements will be returned to the Contractor for correction. The Contractor shall make corrections to the schedules necessary to comply with the Contract requirements and shall adjust the schedules to incorporate any missing information requested by the Engineer. Corrected two-week working schedule(s) shall be resubmitted to the Engineer within 48 hours after the original submittal.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred or associated by the Contractor in preparing, updating, and maintaining the schedule(s) shall be incidental to all other bid items.

END OF SECTION

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SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Procedures that have been established for advance submittal of design data and for review by the Engineer to ensure that the specified products are furnished and installed in accordance with design intent. Wherever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined by manufacturer's name and catalog number, reference to recognized industry and government standards, or description of required attributes and performance. Make all submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

1.2 RELATED SECTIONS

A. Individual requirements for submittals and substitutions may be described in the Sections of these Contract Documents pertaining to the item.

B. General Conditions of the Construction Contract, Articles 6.05 and 6.17.

1.3 QUALITY ASSURANCE

A. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted and verify that each item and the submittal for it conforms in all respects with the requirements of the Contract Documents. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed.

B. Certify that all materials used in the work comply with all specified provisions thereof. Certification shall not be construed as relieving the Contractor from furnishing satisfactory materials if, after tests are performed on selected samples, the material is found to not meet specified requirements.

1. Show on each certification the name and location of the work, name and address of Contractor, quantity and date or dates of shipment or delivery to which the certificate applies, and name of the manufacturing or fabricating company. Certification shall be in the form of letter or company-standard forms containing all required data. Certificates shall be signed by an officer of the manufacturing or fabricating company.

2. In addition to the above information, all laboratory test reports submitted with Certificates of Compliance shall show the date or dates of testing, the specified requirements for which testing was performed, and results of the test or tests.

1.4 SUBMITTALS

A. Within 7 days after execution of the Agreement, and before any items are submitted for approval, submit to the Engineer two copies of the schedule described in Article 2.1 of this Section.

B. Prior to installation of the materials, and as a condition of acceptance, submit to the Engineer all Certificates of Compliance required.

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C. Make all submittals of Shop Drawings, Samples, Requests for Substitution, and other items, in strict accordance with this Section. When the Contractor elects to use a material exceeding specifications for their convenience or availability, they do so at their own expense unless approved by the Engineer.

D. The Contractor's testing lab will prepare a list of all required submittals and minimum testing frequency of all materials. These shall be identified by Section and Item numbers. This Test Summary shall be approved by the Engineer prior to starting construction.

1.5 CONSTRUCTION PROGRESS SCHEDULES

A. Submit initial progress schedule within 5 days after the effective date of the contract for Engineer review. Submit progress schedule no later than Preconstruction Conference.

B. Revise and resubmit with each Application for Payment, identifying changes since previous version. Application for Payment will not be accepted for review unless accompanied by a revised project schedule.

C. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.

D. Indicate estimated percentage of completion for each item of Work at each submission.

E. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates.

1.6 GUARANTEE

A. The Contractor shall bear ultimate responsibility for providing a complete working system and shall guarantee that all installed system components are compatible and will provide for the intended operation of the component and the system of which it is a part.

PART 2 MATERIALS

2.1 SUBMITTAL SCHEDULE

A. Compile a complete and comprehensive schedule of all submittals anticipated to be made during progress of the work.

1. Include a list of each type of item for which Contractor's drawings, Shop Drawings, Certificates of Compliance, material samples, guarantees, or other types of submittals are required. Upon review and comment by the Engineer this schedule will become part of the Contract and the Contractor will be required to adhere to the schedule except when specifically otherwise permitted.

B. Coordinate the schedule with all necessary subcontractors and materials suppliers to ensure their understanding of the importance of adhering to the approved schedule and their ability to so adhere. Coordinate as required to ensure the grouping of submittals as described in Paragraph 3.2 below.

C. Revise and update the schedule on a monthly basis as necessary to reflect conditions and sequences. Promptly submit revised schedules to the Engineer for review and comment.

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2.2 SHOP DRAWINGS AND COORDINATION DRAWINGS

A. Shop drawings:

1. Make all Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the work.

2. Submit 3 copies of all Shop Drawings to the Engineer.

2.3 MANUFACTURERS' LITERATURE

A. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly indicate which portion of the contents is being submitted for review.

2.4 SAMPLES

A. Samples shall be of the precise article proposed to be furnished.

B. Unless otherwise specified, submit 2 samples, one of which will be retained by the Engineer.

C. In situations specifically so approved by the Engineer, the Engineer's retained sample may be used in the construction as one of the installed items.

2.5 SUBSTITUTIONS

A. The Contract is based on the standards of quality established in the Contract Documents. All products proposed for use, including those specified by required attributes and performance, shall require approval by the Engineer before being incorporated into the work.

B. See also: General Conditions Article 6.05.

2.6 AVAILABILITY OF SPECIFIED ITEMS

A. The Contractor shall be responsible for verifying to their satisfaction that all specified items will be available in time for installation during orderly and timely progress of the work.

B. In the event specified items will not be available, the Contractor shall notify the Engineer prior to receipt of bids.

C. The costs of delays resulting from non-availability of specified items, when such delays could have been avoided by the Contractor, will be the Contractor's liability and shall not be borne by the Owner.

PART 3 WORKMANSHIP

3.1 IDENTIFICATION OF SUBMITTALS

A. Consecutively number all submittals. Accompany each submittal with a letter of transmittal containing all pertinent information (item and section number) required for identification and checking of submittals. Every submittal item shall have the bid item number and related technical specification section number clearly identified on the top left-hand corner for every page. Every submittal shall clearly identify each page number and total number of pages for the submittal. Do not submit multiple submittals under a single transmittal - each submittal needs to be addressed on its own merit for acceptance or rejection.

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B. On each copy of each submittal, and elsewhere as required for positive identification, clearly indicate the submittal number in which the item was included.

C. Resubmittals shall include a new letter of transmittal with item and section numbers as defined Section 3.1, Paragraph A.

D. Maintain an accurate submittal log for the duration of the Contract, showing current status of all submittals at all times. The minimal required information on the submittal log shall be the date it was transmitted, Contractor's transmittal number, description, subcontractor reference, specification reference, Engineer's review status and date returned to the Contractor. The Contractor shall submit their submittal with their progress payment application on a monthly basis. The updated submittal log will be precedent to all progress payments unless otherwise directed by the Engineer.

3.2 COORDINATION OF SUBMITTALS

A. Prior to submittal for review and comment, use all means necessary to fully coordinate all material including, but not necessarily limited to:

1. Determine and verify all interface conditions, catalog numbers, and similar data.

2. Coordinate with other trades as required.

3. Clearly indicate all deviations from requirements of the Contract Documents.

B. Unless otherwise specified, make all submittals in groups containing all associated items to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying with the provisions of the Contract Documents and the Contractor shall be strictly liable for all delays so occasioned. Full compliance of Section 3.1 is an understood requirement of this section by the Contractor.

3.3 TIMING OF SUBMITTALS

A. Make all submittals far enough in advance of schedule dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and Resubmittals, and for placing orders and securing delivery.

B. In scheduling, allow at least 10 calendar days for review by the Engineer following their receipt of the submittal.

C. Delays caused by tardiness in receipt of submittals will not be an acceptable basis for extension of the Contract completion date.

3.4 ENGINEER'S REVIEW

A. Review by the Engineer shall not be construed as a complete check, but only that the general method of construction and detailing is satisfactory. Review shall not relieve the Contractor from responsibility for errors which may exist.

B. The notations "No Exception Taken", "Make Corrections Noted", and "Other", authorize the Contractor to proceed with fabrication, purchase, or both, of the items so noted, subject to the revisions, if any, required by the Engineer's review comments.

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C. Make all revisions required by the Engineer. If the Contractor considers any required revision to be a change, they shall so notify the Engineer as provided for under "Changes" in the General Conditions. Show each drawing revision by number, date, and subject in a revision block on the drawing. Make only those revisions directed by the Engineer.

D. Resubmittals due to revisions shall be made in a timely manner. If the contractor fails to address Engineer's comments and resubmits more than one (1) time without addressing previous comments, Engineer review time and associated costs will be paid for from Contractor's retainage. When a submittal has been reviewed by the Engineer, resubmittal for substitution of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred under this Section by the Contractor shall be incidental to all other bid items.

END OF SECTION

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SECTION 01 42 19 - REFERENCE STANDARDS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Codes and standards which establish quantities and types of workmanship and materials, and which establish methods for testing and reporting on the pertinent characteristics, that are referenced in these contract documents.

1. Where materials or workmanship are required by these Contract Documents to meet or exceed the specifically named code or standards, it is the Contractor's responsibility to provide materials and workmanship which meet or exceed the specifically named code or standard.

2. It is also the Contractor's responsibility, when so required by the Contract Documents or by written request from the Engineer, to deliver to the Engineer all required proof that the materials or workmanship, or both, meet or exceed the requirements of the specifically named code or standard. Such proof shall be in the form requested in writing by the Engineer, and copies of a certified report of tests conducted by a testing agency approved for that purpose.

B. Specific naming of codes or standards that occur on the drawings and in other sections of these specifications.

1.2 QUALITY ASSURANCE

A. In procuring all items used in this work, it is the Contractor's responsibility to verify the detailed requirements of the specifically named codes and standards and to verify that the items procured for use in this work meet or exceed the specified requirements.

B. The Engineer reserves the right to reject items incorporated into the work which fail to meet the specified minimum requirements. The Engineer further reserves the right, and without prejudice to other recourse the Engineer may take, to accept non-complying items subject to adjustment in the Contract Amount as approved by the Engineer and the Owner.

1.3 REFERENCES

Applicable standards listed in these Specifications include, but are not necessarily limited to, standards promulgated by the following agencies and organizations:

A. AASHTO = American Association of State Highway and Transportation Officials, 444 North Capitol St., NW, Suite 249, Washington, D.C. 20001.

B. ACI = American Concrete Institute, Box 19150, Redford Station, Detroit, Michigan 48219.

C. AISC = American Institute of Steel Construction, Inc., 1221 Avenue of the Americas, New York, New York 10020.

D. ANSI = American National Standards Institute (Successor to USASI and ASA), 1430 Broadway, New York, New York 10018.

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E. ASTM = American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

F. AWS = American Welding Society, Inc., 2501 N.W. 7th Street, Miami, Florida 33125.

G. AWWA = American Water Works Association, Inc., 6666 West Quincy Avenue, Denver, Colorado 80235.

H. CRSI = Concrete Reinforcing Steel Institute, 228 North LaSalle Street, Chicago, Illinois 60610.

I. CS = Commercial Standard of NBS, U.S. Department of Commerce, Government Printing Office, Washington, D.C. 20402.

J. FGMA = Flat Glass Marketing Association, 3310 Harrison, Topeka, Kansas 66611.

K. ISPWC = Idaho Standards for Public Works Construction, Local Highway Technical Assistance Council (LHTAC), 3330 Grace Street, Boise, Idaho 83705.

L. NAAMM = The National Association of Architectural Metal Manufacturers, 1033 South Boulevard, Oak Park, Illinois 60302.

M. NEC = National Electrical Code (see NFPA).

N. NEMA = National Electrical Manufacturers Association, 155 East 44th Street, New York, New York 10017.

O. NFPA = National Fire Protection Association, 470 Atlantic Avenue, Boston, Massachusetts 02210.

P. SDI = Steel Deck Institute, 135 Addison Avenue, Elmhurst, Illinois 60125

Q. SSPC = Steel Structures Painting Council, 4400 5th Avenue, Pittsburgh, Pennsylvania 15213.

R. TCA = Tile Council of America, Inc., P.O. Box 326, Princeton, New Jersey 08540.

S. Underwriters' Laboratories, Inc., 207 East Ohio Street, Chicago, Illinois 60611.

T. Fed Specs and Fed Standards, Specifications Sales (3FRI), Bldg, 197, Washington Navy Yard, General Services Administration, Washington, D.C. 20407.

U. MIL-SPECS = Military Specifications, Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402.

V. UBC = Uniform Building Code, International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601.

PART 2 MATERIALS

NOT USED

PART 3 WORKMANSHIP

A. The Contractor is responsible for being familiar with all named or implied codes. The latest revision or edition of codes or standards shall be used, unless otherwise specified.

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PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred under this Section by the Contractor shall be incidental to all other bid items.

END OF SECTION

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SECTION 01 45 00 - QUALITY CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Administrative and procedural requirements for quality control and quality assurance services including special inspections. Including but not limited to: project requirements for sampling, testing and submittals required to control subgrade preparation; production, delivery and placement of all aggregates and bituminous pavement mixes to be used in accordance with these specifications and plans for construction.

1.2 REFERENCES

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and any other Division 01 00 00 Specification Section.

B. The latest edition of the ISPWC Division 2100 Field QC Manual.

1.3 RESPONSIBILITIES

A. The Owner will provide inspections, tests, and similar quality assurance services that may be specified in individual Specification Sections and required by governing authorities.

B. Contractor shall retain the services of an independent Testing Agency. Contractor's Testing Agency shall meet the requirements set forth in ASTM D3666, ASTM E329, ASTM D3740 and ASTM E548 or AASHTO R18. The Contractors Testing Agency shall provide all inspections and similar quality control services that may be specified in individual specification sections as necessary to control work process and final products.

C. The Contractor shall coordinate the sequence of activities with each agency engaged to perform inspections, tests and similar services to accommodate required services with a minimum of delay.

D. The Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

E. The Owner will pay for the first test required in the contract and requested by the Contractor. All retests, resulting from failed tests, shall be paid for by the Contractor.

PART 2 MATERIALS

2.1 CONTRACTOR QUALITY CONTROL PLAN

A. The Contractor shall submit a Quality Control Program one week prior to the pre-construction conference and other documentation in conformance with the requirements of the most recent version of ISPWC requirements and the City of Moscow Standards for Construction. Plan shall be approved by the City prior to Contractor starting work.

2.2 QUALITY CONTROL SUMMARY REPORT

A. Within 20 working days of project completion, the Contractor's independent testing laboratory shall submit to the Engineer electronic copies of all tests (organized by

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specification number) conducted on the project. Test results shall be summarized on forms provided and submitted by the Contractor. A typed summary of all material failures and corrective action shall be included.

PART 3 WORKMANSHIP

3.1 CONTRACTOR'S QUALITY CONTROL

A. The Contractor shall establish, provide, and maintain a quality control system and submit a Quality Control Plan that will provide assurance that all materials and completed construction submitted for acceptance conform to contract requirements, whether manufactured or processed by the Contractor or procured from subcontractors or vendors. Although guidelines are established and certain requirements are specified, they are minimal and the Contractor shall assume full responsibility for meeting all requirements.

B. The Contractor shall be prepared to present and discuss, at the Pre-Construction conference, their understanding of the quality control responsibilities for specific items as included in these specifications.

C. The Contractor, via an independent testing laboratory, shall perform quality control sampling, testing and inspection during all applicable phases of the work and shall perform them at a rate sufficient to ensure that the work conforms to the contract requirements and at minimum test frequencies.

3.2 ADDITIONAL QUALITY ASSURANCE TESTING BY ENGINEER

A. The Engineer may, at their discretion, conduct additional testing of materials and placement of materials to determine if the Contractor’s Quality Control Program is in conformance with these specification requirements or to establish quality assurance.

B. If the Engineer determines that the Contractor’s Quality Control Program or the performance of the Contractor’s independent laboratory is deficient, the ENGINEER shall identify the deficiency(s) and issue a notification to stop work until such deficiency(s) in the Contractor’s program are corrected.

PART 4 MEASUREMENT AND PAYMENT

A. Quality Control: By the lump sum. Payments will be made proportionate with progress of work. The Engineer shall establish the percentage payment commensurate with the progress of work. Includes all quality control, sampling and acceptance testing required of the Contractor’s testing agency to comply with ISPWC Section 1400 and the City of Moscow Standards, and also includes coordination, administration, and reporting. Contractor shall be responsible for all fees associated with lab test, analysis, and reporting.

1. Bid Schedule Payment Reference: SP-014500
2. Bid Schedule Description: Quality Control…lump sum (LS)

END OF SECTION

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SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Temporary facilities and controls required for this work, including but not necessarily limited to:

1. Temporary utilities such as heat, water, electricity, and telephone.
2. Field offices and sheds.
3. Sanitary facilities.
4. Enclosures such as tarpaulins, barricades, and canopies.
5. Fencing of the construction area.
6. Storage Tanks.

B. Related work described elsewhere:

1. Except that all equipment furnished by Subcontractors shall comply with all requirements of pertinent safety regulations, the ladders, planks, hoists, and similar items normally furnished by the individual trades in execution of their own portions of the work are not part of this Section.
2. Permanent installation and hook-up of the various utility lines are described in the pertinent other sections of these specifications.

1.2 SUBMITTALS

A. Submittals shall comply with Section 01 33 00 - Submittal Procedures.

B. Materials and product submittals shall be forwarded to the Engineer for the following items:

1. 6-foot Chain Link Temporary Construction Fence

1.3 PRODUCT HANDLING

A. Use all means necessary to maintain temporary facilities and controls in proper and safe condition throughout progress of the work.

1.4 JOB CONDITIONS

A. Make all required connections to existing utility systems with minimum disruption to services in the existing utility systems. When disruption of the existing service is required, do not proceed without the Engineer's approval and, when required, provide alternate temporary service.

PART 2 MATERIALS

2.1 UTILITIES

A. All temporary facilities shall be subject to the Owner and Engineer's approval.

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B. Furnish and install all necessary temporary water lines and water supply and, upon completion of the work, remove all such temporary facilities.

C. Furnish and install all necessary temporary wiring and, upon completion of the work, remove all such temporary facilities. The Contractor will furnish all electricity needed for construction, at no cost to the Owner.

D. Provide and maintain all heat needed for proper conduct of all operations included in the work at no cost to the Owner.

E. Make all necessary arrangements and pay all costs for operation and installation of telephone service to the construction offices.

2.2 FIELD OFFICES AND SHEDS

A. If desired, provide a field office building and sheds adequate in size and accommodation for all Contractor's offices, supply and storage. Locate at a site agreed upon by the Contractor and the Engineer. The entire facility, including furniture, will remain the property of the Contractor and shall be removed from the site after completion of the work.

B. Provide temporary sanitary facilities in the quantity required, for use of all personnel. Maintain in a sanitary condition at all times.

2.3 ENCLOSURES

A. Furnish, install, and maintain for the duration of construction all required scaffolds, tarpaulins, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of the work in compliance with all safety and other regulations.

2.4 CONSTRUCTION FENCES

A. Contractor shall provide and install temporary construction fences per the detail outlined in the construction drawings and described in the specifications for security purposes. Contractor is responsible for maintaining the integrity of fence throughout entirety of project.

1. 6-Foot Chain Link Temporary Construction Fence

a. Temporary construction fence shall be a 6-foot-tall chain link fence with posts secured by concrete bases. Dimensions of fence post spacing, chain link fence fabric, and concrete bases designated in construction plans.

2.5 ACCESS

A. Provide and maintain all required access to the work in strict accordance with all regulations governing the Contractor’s use of the site.

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PART 3 WORKMANSHIP

3.1 MAINTENANCE AND REMOVAL

A. Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the work. Remove all such temporary facilities and controls as rapidly as progress of the work will permit, or as directed by the Engineer.

3.2 TEMPORARY CONSTRUCTION FENCE

A. 6-foot-tall chain link temporary construction fence shall be installed at the locations designated on the plans. Installation shall be per the manufacturer's recommendations. Temporary construction fence shall be installed prior to all construction activities beginning and remain installed until project's substantial completion date.

PART 4 MEASUREMENT AND PAYMENT

A. Temporary Construction Fence: By the linear foot. Includes all materials, labor, and equipment necessary for completing the work and all items not itemized in the Bid Schedule.

1. Bid Schedule Payment Reference: SP-015000

2. Bid Schedule Description: Temporary Construction Fence…linear foot (LF)

B. Staging Area: To be considered incidental to other Bid Items.

C. Any items required by this section to complete the project that are not listed in the Bid Schedule are to be considered incidental to other Bid Items.

END OF SECTION

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SECTION 01 57 13 - TEMPORARY EROSION AND SEDIMENT CONTROL

MODIFICATION TO

ISPWC SECTION 206 – PERMANENT EROSION CONTROL

PART 1 GENERAL

Amend Part 1.1 to include the following:

I. Stormwater Pollution Prevention Plan (SWPPP)

1.2 REFERENCES

A. City of Moscow Construction Standards and Drawings

PART 2 MATERIALS

Amend Part 2 to include the following

2.9 EROSION AND SEDIMENT CONTROL

A. Silt Fence shall be placed per the City of Moscow's Construction Standards and Drawing #35, Silt Fence.

PART 3 WORKMANSHIP

Amend Part 3 to include the following:

3.2 SILT FENCE

A. Silt fence shall be installed per the City of Moscow's Construction Standards and Details.

3.3 GENERAL

A. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

B. The Engineer shall be responsible for assuring compliance to the extent that construction practices, construction operations, and construction work are involved.

3.4 SCHEDULE

A. Prior to the start of construction, the Contractor shall submit schedules for accomplishment of temporary and permanent erosion control work as are applicable for site protection. Work shall not be started until the erosion control schedules and methods of operation for the applicable construction have been reviewed by the Engineer.

3.5 CONSTRUCTION DETAILS

A. The Contractor will be required to incorporate all permanent erosion control features into the project at the earliest practicable time as outlined in the accepted schedule. Except where future construction operations will damage slopes, the Contractor shall perform the specified

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slope protection work in stages as soon as substantial areas of exposed slopes can be made available. Temporary erosion and pollution control measures will be used to correct conditions that develop during construction that were not foreseen during the design stage; that are needed prior to installation of permanent control features; or that are needed temporarily to control erosion that develops during normal construction practices but are not associated with permanent control features on the project.

B. Where erosion is likely to be a problem, clearing and grubbing operations should be scheduled and performed so that grading operations and permanent erosion control features can follow immediately thereafter if the project conditions permit; otherwise, temporary erosion control measures may be required between successive construction stages.

C. The Engineer will limit the area of clearing and grubbing, excavation, borrow, and embankment operations in progress, commensurate with the Contractor's capability and progress in keeping the finish grading, mulching, seeding, and other such permanent control measures current in accordance with the accepted schedule. Should seasonal limitations make such coordination unrealistic, temporary erosion control measures shall be taken immediately to the extent feasible and justified.

D. In the event that temporary erosion and pollution control measures are required due to the Contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled, or are ordered by the Engineer, such work shall be performed by the Contractor at his/her own expense.

E. The Engineer may increase or decrease the area of erodible earth material to be exposed at one time as determined by analysis of project conditions.

F. The erosion control features installed by the Contractor shall be maintained by the Contractor in a manner acceptable to the Engineer during the construction period.

G. Whenever construction equipment must cross watercourses at frequent intervals, and such crossings will adversely affect the sediment levels, temporary structures should be provided.

H. Pollutants such as fuels, lubricants, bitumen, raw sewage, wash water from concrete mixing operations, and other harmful materials shall not be discharged into or near rivers, streams, and impoundments or into natural or manmade channels leading thereto.

3.6 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A. The Contractor shall be responsible for developing a draft Storm Water Pollution Prevention Plan (SWPPP) before the start of construction. The plan will address the following items:

1. Site Description:

    a. Description of the construction activity

    b. Sequence of major construction activities

    c. Estimate of the total area of the site and the area to be disturbed

    d. The name of the receiving water

    e. Site map

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2. Measures and Controls:

    a. Sediment and erosion control

    b. Stabilization

    c. Structural controls

    d. Storm water management controls

    e. Other controls

3. Applicable requirements of State and Local programs must be met.

4. The site must be inspected at least once every seven days and within 24 hours of the end of a storm event. Maintenance of the storm water controls must follow the inspection.

5. The plan must be kept at the site during construction.

B. In the event of conflict between these requirements and pollution control laws, rules, or regulations of other Federal, state, or local agencies, the more restrictive laws, rules, or regulations shall apply.

C. The Contractor shall be responsible for finalization and implementation of the SWPPP, to include inspections, recordkeeping and actual construction or installation of the storm water control requirements.

D. The Contractor shall submit a Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an IPDES General Permit to the Idaho Department of Environmental Quality.

E. The Engineer shall be responsible for assuring that construction practices and operations comply as required.

PART 4 MEASUREMENT AND PAYMENT

A. Any items required by this section to complete the project that are not listed in the Bid Schedule are to be considered incidental to other Bid Items.

END OF SECTION

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SECTION 01 57 26 - SITE WATERING FOR DUST CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

A. All equipment, labor, and materials necessary to control dust relating to or resulting from performance of the project work.

B. In addition to the requirements described herein, comply with specific requirements for dust control as may be detailed in other Sections of these specifications or as noted on the Drawings.

1.2 QUALITY ASSURANCE

A. Comply with all pertinent requirements of Federal, State, and Local agencies which may have jurisdiction over dust control procedures and additives used to aid in dust abatement.

B. The Engineer, Contractor, and Owner shall regularly (weekly) review the adequacy of dust control efforts and procedures to assure they are satisfactorily meeting the needs of the project.

1.3 SUBMITTALS

A. Prior to commencing the project work the Contractor shall meet and submit a written Dust Control Plan to the Owner and Engineer for review and comments. Included in the proposed Dust Control Plan shall be the Contractor's means and methods to assure compliance with the specific project requirements.

B. All additives proposed for use as an aid in dust control other than those specified in Section 2.2 shall be reviewed with the Engineer prior to their application. Manufacturer’s literature along with recommended application rates shall be provided.

PART 2 PRODUCTS

2.1 WATER

A. Water used for dust control shall be clear and free from chemical contaminants.

2.2 CHEMICAL ADDITIVES

A. Calcium chloride, if required, shall conform to the requirements of AASHTO M 144 (ASTM-D-98) except that either pellet or flake form shall be acceptable.

PART 3 EXECUTION

3.1 GENERAL

A. During the performance of the work required by these specifications or any operations appurtenant thereto, the Contractor shall furnish all labor, equipment, materials and means required, and shall carry out proper and efficient measures wherever and as often as necessary or as directed to reduce the dust nuisance, and to prevent dust which has

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originated from their operations from damaging crops, dwellings, or causing a nuisance or safety hazard.

3.2 WATER

A. The Contractor shall be responsible for arranging for the necessary supply of suitable water for dust abatement.

B. The Contractor shall apply water and/or water with additives on all access and haul roads, excavations, surfaces of refilled trenches, stockpiles, waste areas and other work areas as may be necessary to adequately control dust.

3.3 WORK AREAS

A. The Contractor shall make a reasonable effort to keep work areas and adjacent areas free of excessive dirt and mud which may unnecessarily contribute to a dust nuisance.

B. Pavement or concrete surfaces adjoining work areas shall be kept broomed off and washed clean of excess excavated material.

PART 4 MEASUREMENT AND PAYMENT

A. Dust Control: By the lump sum per the various schedules shown in the bid proposal. The contractor shall be paid accordingly for “Dust Control” service as a percent of completion of the actual work performed in each schedule. The Engineer's determination of percent complete of dust control services provided by the Contractor shall be the final assessment for payment. The lump sum payments by bid schedules for "Dust Control" services shall be full compensation for all cost associated for furnishing labor, tools, equipment, and materials necessary for the application of dust control measures as specified and shown on the plans, including all mobilization, traffic control, and demobilization cost.

1. Bid Schedule Payment Reference: SP-015726
2. Bid Schedule Description: Dust Control…lump sum (LS)

END OF SECTION

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SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. General standards for quality of materials, equipment purchase and installation, and general project workmanship.

1.2 QUALITY ASSURANCE

A. All Materials:

1. All materials and equipment supplied for this project shall be new, unused and correctly designed for the intended application. They shall be of standard first grade quality, produced by expert workmen, and be intended for the use for which they are offered. Materials or equipment which, in the opinion of the Engineer, are inferior or of a lower grade than indicated, specified or required will not be accepted.

2. All materials and equipment supplied shall meet specified performance requirements at the elevation of the project site.

3. Any two or more pieces of material or equipment of the same kind, type or classification, and being used for similar types of services, shall be made by the same manufacturer.

4. Where intended for use with potable water, materials and methods shall in general, comply with the appropriate AWWA and NSF standards.

B. Equipment:

1. Equipment and appurtenances shall be designed in conformity with ANS, ASME, IEEE, NEMA and other generally accepted standards. All equipment supplied shall be suitable for the intended purpose, under design operating conditions, in the location and climate where they are to be used.

2. All equipment supplied shall be in accordance with the requirements of the Contract Documents.

3. Equipment shall be of the approximate dimensions indicated on the Drawings or as specified, shall fit the spaces shown on the drawings with adequate clearances, and shall be capable of being handled through openings provided in the structure for this purpose. Equipment shall be of such design that piping and electrical connections, ductwork and auxiliary equipment can be assembled and installed without causing major revisions to the locations or arrangement of any of the facilities.

4. Where applicable, all equipment shall bear a brass or stainless-steel nameplate giving manufacturer's rated capacity, head, speed, horsepower, service factor and any other pertinent operating data.

5. Equipment shall be of sufficient strength to withstand all stresses which may occur during fabrication, testing, transportation, installation and all conditions of operation. All bearings and moving parts shall be adequately protected against wear by bushings or

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other approved means and shall be fully lubricated by readily accessible devices. Details shall be designed for appearance as well as utility. Protruding members, joints, corners, gear covers and the like, shall be finished in appearance. All exposed welds shall be ground smooth, and the corners of structural shapes shall be mitered.

C. Machinery:

1. Machinery parts shall conform exactly to the dimensions shown on the working Drawings. There shall be no more fitting or adjusting in setting up a machine than is necessary in assembling high grade apparatus of standard design. The equivalent parts of identical machines shall be made interchangeable. All grease lubricating fittings on equipment shall be of a uniform type. All machinery and equipment shall be safeguarded in accordance with the safety codes of the ANS, applicable state and local codes and with U.S. Department of Labor, Part 1910 Occupational Safety and Health Standards, promulgated under the Occupational Safety and Health Act of 1980 (PL 91-596) or as amended.

1.3 PRODUCT HANDLING AND STORAGE

A. All materials and equipment to be incorporated in the work shall be handled and stored by the Contractor in a manner satisfactory to the Engineer and in such a way as to prevent damage or theft of the same.

B. All materials and equipment subject to corrosive damage by the atmosphere if stored outdoors (even though covered by canvas) shall be stored in a building to prevent injury. The building may be a temporary structure on the site or elsewhere, but it must be satisfactory to the Engineer.

C. All materials which, in the opinion of the Engineer, have become so damaged as to be unfit for the use intended or specified shall be promptly removed from the site of the work, and the Contractor shall receive no compensation for the damaged material or its removal.

D. All pipe and other materials delivered to the job shall be unloaded and placed in a manner which will not hamper the normal operation of existing facilities or interfere with the flow of necessary traffic or with construction progress.

PART 2 MATERIALS

NOT USED

PART 3 WORKMANSHIP

3.1 GENERAL REQUIREMENTS FOR INSTALLATION OF EQUIPMENT SPECIFIED FOR USE ON THE PROJECT SHALL BE AS FOLLOWS:

A. All equipment shall be installed, equipped and serviced as per the manufacturer's recommendations except as supplemented or modified by the requirements of these Specifications or as directed by the Engineer.

B. All equipment shall be leveled, plumbed, aligned and wedged into position to fit connecting piping and assemblies without transmitting stresses to the equipment.

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C. Where applicable, equipment base frames shall be anchored to concrete pads with cast-in-place anchor bolts. Dimensions for equipment pads shall be determined by the equipment manufacturer and shall be shown on the Shop Drawings. The base frame shall be grouted solid with non-shrink grout.

D. All inlet and discharge piping connections to equipment shall include unions for ease of removal and repair. Wastewater from packing shall be piped directly to a drain and not allowed to discharge freely on the floor or elsewhere.

E. All equipment shall be greased, lubed, oiled, and in all ways properly prepared for start-up by the Contractor per the manufacturer's written recommendations. Where required by these Contract Documents, a qualified service technician shall provide the necessary start-up services.

F. The Contractor shall provide all labor, tools, equipment and coordination necessary to provide compliance with the Contract Documents for leakage, performance, quantity, thickness, efficiency, etc. of installed materials and equipment.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred under this Section by the Contractor shall be incidental to all other bid items.

END SECTION

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SECTION 01 66 00 – MATERIALS ON HAND

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Project requirements that the Contractor shall comply with to receive credit and payment for selected materials-on-hand that have not been incorporated into the work.

1.2 SUBMITTALS

A. The Contractor shall present for Engineer approval particular bid items and/or materials that will be considered for payment of materials-on-hand. These items should be long lead items or materials that the Contractor would normally order in bulk. These items will require the Contractor to reimburse their suppliers or pay interest before it is incorporated into the work and receiving payment from the Owner. By using this specification, the Owner avoids paying extra cost involved in the Contractor's carrying charges to their suppliers of which is passed on to the Owner.

PART 2 MATERIALS

NOT USED

PART 3 WORKMANSHIP

3.1 NOTIFICATION AND SUBMITTAL

A. The Contractor shall submit a written intention for consideration of materials-on-hand including supplier's invoicing on or before the 15th day of the pay period. A pay period is defined as the number of days in the month in question and the first day of the pay period is the first day of the month.

B. On or about the 25th day of the pay period or at the monthly progress meeting the Engineer and the Contractor shall agree on the actual quantities of materials-on-hand that are not incorporated into the work for payment. All materials-on-hand shall be properly stored at the construction site or at a designated storage facility acceptable to the Engineer before consideration of payment will be made by the Engineer.

C. Any and all request for payment of materials-on-hand after the 15th day of the pay period shall not be considered until the next consecutive pay period, regardless of when the specific material(s) arrive on site or at the designated storage facility.

D. With notification to Engineer and prior to acceptance of materials-on-hand, Contractor shall maintain an updated materials-on-hand list reflecting materials-on-hand release for each application of payment. This list shall be updated and submitted with each pay application for materials-on-hand tracking. List shall include at a minimum the bid item, schedule, materials-on-hand cost for each item.

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PART 4 MEASUREMENT AND PAYMENT

A. Measurement will be made on actual quantities of materials-on-hand requested by the Contractor in writing on or before the 15th day of the pay period. Only the items of materials-on-hand not incorporated into the product or work shall be considered for payment in the application for monthly progress payments to the Contractor. The actual amount of payment to the Contractor for materials-on-hand shall be the invoiced unit price of the item(s) times the number of unit(s) not incorporated into the product or work at the end of the pay period.

B. Payment for materials-on-hand is a temporary or interim payment to the Contractor for materials cost on long lead items as specified in this section. Once the materials are incorporated into the work the actual reimbursement for materials-on-hand payment will be deducted from the Contractor's eligible amount of materials-on-hand extended in the monthly progress payments.

END OF SECTION

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SECTION 01 71 13 - MOBILIZATION

MODIFICATIONS TO

ISPWC SECTION 2010 - MOBILIZATION

PART 1 GENERAL

Amend Part 1.1 to include:

B. Included in this specification are the project requirements for mobilizing equipment and facilities to the project site in preparation for the work to be accomplished under this contract. In addition, mobilization shall include bond and insurance premiums required for the execution of the work under this contract. See Section 01 11 00 – Summary of Work for project schedule phasing and work sequence.

PART 2 MATERIALS

NO MODIFICATIONS

PART 3 WORKMANSHIP

Amend Part 3 to include:

3.3 MOBILIZATION REQUIREMENTS

A. Mobilization shall consist of preparatory work and operations, including but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for establishment of Contractor's offices, building, and other facilities necessary for work on the project; and for all other work and operations which must be performed, or cost incurred, before beginning production work on various contract items.

B. Not included in mobilization are expendable supplies such as fuel, lubricants, spare parts and materials which become a part of permanent physical features constructed as part of this contract.

C. Mobilization for all subcontracted or supplied work shall be considered to be included in the contract unit price bid by the Contractor.

PART 4 MEASUREMENT AND PAYMENT

Delete the entirety of Part 4.1.A and include the following:

A. Mobilization: By the lump sum.

The contract unit price in the bid schedule for mobilization shall not exceed 10% of the total contract price. If it does exceed 10% of the total contract price, retainage of the amount over 10% of the total contract will be withheld until Final Payment.

Allowable amounts for partial payment of mobilization are as follows: 1) 60% of the contract price will be paid on the first monthly progress estimate. 2) 40% of the contract unit price

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will be paid on the monthly progress estimate immediately following issuance of the Certificate of Substantial Completion for the project by the Engineer to the Contractor.

Interim milestone or phase completion dates shall not be considered in the determination or payment under this section for mobilization, and substantial completion shall mean the project's substantial completion date only.

Total contract amount is defined as the original total of all bid items plus the cost of items paid for at the invoice as shown on the original bid schedule.

END OF SECTION

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SECTION 01 71 23 - CONSTRUCTION SURVEYING

(CONTRACTOR FURNISHED CONSTRUCTION SURVEYING AND STAKING)

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Contractor's responsibilities for surveying and Field Engineering necessary to construct the work. The Work shall Consist of staking lines and grades for earthwork, pipes, manholes, clean outs, valves, hydrants and other appurtenances. It shall also include remeasurement or reestablishment work, as required, if the Engineer determines that any portion of the work has not been completed in conformity with line, grade and dimensions shown on the plans or as directed by the Engineer.

B. All surveying and construction staking shall be under the direction and supervision of a qualified surveyor knowledgeable of construction surveying and volumetric calculation for the work described in this specification. The surveyor shall be licensed in the state of Idaho. The Contractor shall submit evidence and qualifications of the surveyor(s) competency to the Engineer for review and comment at the preconstruction conference and prior to commencing with any surveying or staking activities at the site.

1.2 RELATED SECTIONS

A. General Conditions, Section 4.05

PART 2 MATERIALS

2.1 OWNER

A. The Owner shall provide horizontal and vertical control points from which the Contractor’s Surveyor shall establish all additional control points and related staking needed to construct the facilities identified in these specifications and drawings.

2.2 CONTRACTOR'S SURVEYOR

A. The Surveyor shall provide all field notebooks and forms to be used for construction staking. The field notebooks and forms shall become the property of the Engineer upon completion of the work. The field notebooks used for the work shall be made available to the Engineer upon request at any time during the execution of the work. Such request may be made verbally or in a written form and shall be complied with immediately by the Contractor or their Surveyor.

B. The Surveyor shall furnish all stakes, surveying equipment, and other devices necessary for establishing, setting, marking and maintaining the required control and reference points to construct the work. All lumber shall have the following minimum dimensions in inches:

Hubs	1"x2"x8"
Stakes	1"x2"x16"
Lath	½"x2"x48"

1. Plastic marking flagging and paint shall be highly visible type supplied in the colors of

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red, white, blue, yellow and orange.

PART 3 WORKMANSHIP

3.1 CONSTRUCTION STAKING

A. Construction staking by the Surveyor shall include the horizontal and vertical control points to set benchmarks, water pipes, sewer pipes, valves, manholes, clean outs and any other control or elevations deemed necessary for proper control to construct the work. The positional tolerances for staking shall conform to the following guidelines:

Description	Vertical Tolerance	Horizontal Tolerance
Excavation	0.02+/- foot	0.5 +/- foot
Embankment	0.02+/- foot	0.5 +/- foot
Slope Stakes	0.1+/- foot	0.1+/- foot
Paving Surfaces	0.02+/- foot	N/A
Piping and Other Structures	0.01+/- foot	0.1+/- foot

B. Field notes shall be kept in a standard format on forms supplied by the Surveyor and acceptable to the Engineer. Lettering shall be at least 0.15 inch and legible from a distance of 1.5-feet. Errors shall be deleted by lining the errors out and erasures in the field notes will not be an acceptable practice of correcting errors. After completion and acceptance of the work, the Surveyor shall submit to the Engineer all survey and design data. Crew names, positions, and dates shall be recorded in the field books on the beginning sheet of each day's work. All notes, including the originals, shall be signed and sealed by the licensed Surveyor and become the property of the Engineer. The Surveyor is required to complete daily diaries detailing the work completed each day, along with people on the project. Copies of all field notes and diaries shall be submitted to the Engineer on a weekly basis or as directed by the Engineer.

C. The Surveyor shall employ sufficient qualified personnel experienced in construction surveying to conduct the work as required. Supervision of such personnel is the responsibility of the Surveyor, and any error or omission by such personnel shall be corrected at the expense of the Contractor by their Surveyor. The Surveyor is responsible for the calculations of the grades and alignment for all staking. Any discrepancies in grade, alignment locations, and/or dimensions detected by the Surveyor shall immediately be brought to the attention of the Engineer. Major differences found between the horizontal or vertical alignment data shown on the plans and the alignment observed on the ground shall be referred to the Engineer immediately. Staking of these areas shall be deferred until these differences are reconciled by the Engineer. The Surveyor shall compare the staked centerline cut and fill depth with the design data. Differences exceeding one foot at any two or more consecutive points shall be reported to the Engineer for possible evaluation and correction.

D. The Engineer may check the accuracy of the Surveyor's construction stakes, lines, grades and layouts, but will not assume responsibility for the accuracy of the final result of the construction stakes, lines, grades and layouts. All stakes shall be legibly marked with a stake pencil that leaves a depression or a waterproof black marker. The top two inches of all slope, guard, reference, clearing and structure stakes shall be painted or marked with plastic flagging. Stakes shall be painted or marked with the following colors:

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Types of Stakes	Colors
Right of Way	Yellow
Control Points	Red/White/Blue
Misc. Stakes	Red/White
Slope Stakes	White
Conduit Stakes	Orange/White
Centerline Stakes	Red
Reference Points/Easements	Orange

1. The Contractor and Surveyor shall maintain and protect all construction stakes and marks until the work is completed and accepted by the Engineer. In the event that the construction staking or control points are obliterated during the execration of the work the Surveyor shall establish or reestablish all construction stakes and controls points, as necessary.

Minimum Control Points	
PI	Point of Intersection of Tangents
PC	Point of Curvature
POC	Point on Curve
PT	Point of Tangency
POT	Point on Tangent
RP	Reference Point
BM	Benchmark
TBM	Temporary Benchmark

3.2 SURVEYING CONTROL ITEMS (MINIMUM REQUIREMENTS)

A. Vertical benchmarks established for the project by the Owner shall be checked and/or reestablished by the Surveyor. Benchmarks falling within the clearing limits of the project shall be reset in a safe location by the Surveyor. After resetting any bench marks a level circuit meeting the precision of the original survey shall be run to all benchmarks and datum elevations computed and/or checked.

B. Centerline stakes shall be set at 50-foot intervals (including all 100-foot stations), at significant breaks in the ground, at conduit locations, at PC's and PT's, points of radiuses, and at approaches. Stakes shall be marked with appropriate identification or location on the side of the stake facing the initial station on the project.

C. Cross-section measurements, original and remeasure, shall be taken at locations necessary for computing pay items that require volume calculations. This data shall be computed, checked, and plotted into cross-section format using both the original and remeasured section data by the Surveyor and signed and sealed by the Surveyor. The purpose of these cross-sections is for measurement and payment of quantities. The Surveyor shall compute the earthwork cut and fill volume quantities and submit these calculations to the Engineer to support the respective progress payment request by the Contractor.

D. Subgrade stakes shall be established at cut and fill catch points on both sides of centerline at every staked point in the centerline system. The cut or fill to subgrade, shoulder, back-of sidewalk or curb along with distance to centerline and offset distance to centerline shall be marked on the stakes and recorded in the field notebooks. Each centerline station stake shall have at least one reference point on the same cross-section line as the slope stake. The stake

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at the reference point shall refer to the same point as the slope stake and shall be marked with sufficient information to enable reestablishment of the slope stake.

E. Finishing stakes shall be set when subgrade or base course is within 0.2 foot of the final grade. The stakes shall be set to the nearest 0.02 foot of the measured grade line. Finishing stakes shall be required for all surfaces requiring finish grading including (but not limited to) subgrade, base courses, approaches and pavement surfaces, as required. Finishing stakes shall be hubs placed transversely on the roadway template line at 12-foot intervals, in addition to centerline and at each shoulder. The finishing stakes shall be marked with guard stakes or with plastic blue top flags or chasers.

F. All water and sewer lines shall be staked on 15-foot offset line at 100-foot intervals and at manholes, valves, fittings and other appurtenances. Guard stakes shall also be set and marked with the following:

1. Diameter, length and type of conduit.
2. The vertical and horizontal distance from the hub/nail to the invert of the conduit.
3. Flow line grade of the conduit.

The hub shall be referenced to both horizontal and vertical control well beyond the anticipated construction limits and cut of the flow line, as necessary.

G. Curb and gutter shall be staked with an offset hub and tack line for both line and grade. Stakes shall be placed at a maximum of 50-foot intervals for tangent lines and 25-foot intervals for curves. A guard stake shall be placed at each hub and shall be marked with both the offset distance and vertical cut or fill to the top back of curb.

H. Major structures (bridges and retaining walls) shall be staked by setting hubs and tacks with guard stakes on each side of the structural components, or as requested by the Engineer. Minor structures (headwalls, drop inlets and manholes) shall be staked by setting a hub with guard stake on each side of the culvert on-line with the face or center of the structure.

I. Staking will be required for location and installation of all illumination and traffic control facilities including, but not limited to poles, conduits, boxes, traffic signs, etc.

3.3 DRAWINGS OF RECORD

A. The Contractor will be furnished one complete set of prints of all of the Contract Drawings upon which the Contractor shall maintain a neat and accurate record of all contract work. The Contractor shall promptly record the as-built quantities and dimensions of all contract work as it is performed on this set of prints. At the completion of project work, the entire set of prints plus any additional drawings necessary shall be submitted to the Engineer for review and comment. The Contractor shall correct or amplify information and assist the Engineer as may be required to complete the as-built record in a manner satisfactory to the Engineer.

B. The Contractor's record shall include for example, locations of fittings, connections, service lines and manholes. Locations are to be established by three-point ties to physical objects, which will remain undisturbed, where feasible. Materials and fittings used; relative placement of fittings, with dimensions; depths of conduit and location of lines or other

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important items which enter into structures or pass under foundation walls or paved surfaces are to be clearly defined.

PART 4 MEASUREMENT AND PAYMENT

A. Construction Surveying: by the lump sum. Includes full compensation for labor, tools, equipment, and materials necessary for the setting, maintaining, and verifying of the alignment and grade as specified and shown on the plans. Also includes all mobilization, surveying traffic control, and demolition costs. The Contractor shall be paid accordingly as a percent of completion of the actual work performed in each schedule. The Engineer's determination of percent complete of surveying and staking services provided by the contractor shall be the final assessment for payment.

1. Bid Schedule Payment Reference: SP-017123
2. Bid Schedule Description: Construction Surveying (Contractor Provided)…lump sum (LS)

END OF SECTION

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SECTION 01 74 00 - CLEANING AND WASTE MANAGEMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Project site cleanliness by the Contractor throughout the construction period and at the completion of work to the standards described in this section. In addition to the general standards described in this Section, comply with all specific requirements for cleaning or cleanup as described in various sections of these specifications.

1.2 REFERENCES

A. In addition to the standards described in this section, comply with all pertinent requirements of other agencies having jurisdiction.

1.3 QUALITY ASSURANCE

A. The Engineer and/or the Contractor shall conduct regular inspections to verify that requirements of cleanliness are being met.

PART 2 MATERIALS

2.1 CLEANING MATERIALS AND EQUIPMENT

A. Provide all required personnel, equipment, and materials needed to maintain the specified standards of cleanliness.

2.2 COMPATIBILITY OF CLEANING PRODUCTS

A. Use only the cleaning materials and equipment which are compatible with the surface being cleaned, as recommended by the manufacturer of the material or as accepted by the Engineer.

PART 3 WORKMANSHIP

3.1 PERIODIC CLEANUP

A. Store all items to be used on the project in an orderly arrangement allowing maximum access. Stored materials should not impede drainage or traffic. Stored materials shall be placed and protected per the manufacturer's recommendations.

B. Do not allow the accumulation of scrap, debris, waste material, and other items not required for construction of the project to accumulate on the work site.

C. At least twice each month, and more often if necessary, all scrap, debris, and waste material shall be collected and removed from the job site and disposed of in an appropriate disposal area.

D. Storage of all items awaiting removal from the job site, shall be done in such a manner as to minimize fire hazard or environmental damage.

E. The Engineer may require the Contractor to wash down or broom paved areas periodically during the progress of work.

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3.2 FINAL CLEANUP

A. General:

1. Prior to completion of the work, remove from the work site all tools, surplus materials, equipment, scrap, debris, and waste.

B. Site:

1. Unless otherwise specifically directed by the Engineer, broom clean all paved areas on the site and all public paved areas directly adjacent to the site. Completely remove all resultant debris.

2. Graveled parking or driveway areas within or adjacent to the work site which have had excavated or other loose materials stockpiled on them shall be scraped clean down to the original surface. Replacement of gravel materials may be required to restore the surface to its original condition.

3. Grassed areas within or adjacent to the work site shall be scraped and raked clean to the original grass or soil level. All stones larger than 3/4 inches in diameter and other loose debris shall be picked up and removed.

C. Timing:

1. Schedule final cleaning and cleanup to enable the Owner to accept a clean, finished project.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred under this Section by the Contractor shall be incidental to all other bid items.

END OF SECTION

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SECTION 01 78 23 - OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.1 SECTION INCLUDES

A. The continued instruction of operating and maintenance personnel, and to provide a positive source of information regarding the products incorporated in the work, furnish, and deliver the manual described in this Section and in pertinent other Sections of these Specifications.

1.2 RELATED SECTIONS

A. Section 01 33 00 - Submittal Procedures

1.3 QUALITY ASSURANCE

A. In preparation of the manual required by this Section, use only personnel who are thoroughly trained and experienced in operation and maintenance of the described items, completely familiar with the requirements of this Section, and skilled in technical writing to the degree needed for communicating the essential data.

B. Unless otherwise directed in the pertinent other Sections, submit three (3) suitably bound copies and one electronic copy (PDF) of the FINAL manual to the Engineer prior to indoctrination of operation and maintenance personnel and as a condition of final acceptance. The final manual shall include important data on all equipment and materials included in the work.

PART 2 MATERIALS

2.1 OPERATION AND MAINTENANCE MANUALS

A. Include at least the following:

1. Typewritten index near the front of the manual, giving immediate information as to location within the manual of all equipment and materials covered in the manual. Organize similar to division and section number system.

2. Complete instructions regarding operation and maintenance of all equipment involved, including lubrication, disassembly, re-assembly, etc.

3. Complete nomenclature of all parts of all equipment.

4. Complete nomenclature and part number of all replaceable parts, name and address of nearest vendor, and all other pertinent data regarding procurement procedure.

5. Performance tests.

6. Engineer Reviewed Shop Drawings.

7. Copy of all guarantees and warranties issued.

8. Manufacturers' bulletins, cuts, and descriptive data, where pertinent, clearly indicating the precise items included in this installation and deleting, or otherwise clearly indicating,

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all manufacturers' data with which this installation is not concerned.

9. Such other data as required in pertinent other Section of these Specifications.

PART 3 WORKMANSHIP

3.1 MANUALS

A. Submit as previously specified.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred under this Section by the Contractor shall be incidental to all other bid items.

END OF SECTION

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DIVISION 02 00 00 - EXISTING CONDITIONS

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SECTION 02 01 51 - PRESERVATION OF MONUMENTATION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Project requirements and associated responsibilities for the Contractor-related to protection of the project monumentation and instrumentation.

1.2 RELATED SECTIONS

A. Section 01 10 00 - Summary of Work.

PART 2 MATERIALS

NOT USED

PART 3 WORKMANSHIP

3.1 GENERAL

A. The Contractor shall be responsible for preservation of all survey monuments, piezometers, benchmarks and other project or property monumentation or instrumentation.

B. PER IDAHO CODE TITLE 55, CHAPTER 16, PARAGRAPH 13 ALL SURVEY MONUMENTS SHALL BE PROTECTED IN PLACE. IN THE EVENT ANY OF THESE SURVEY MONUMENTS OR THEIR ACCESSORIES ARE DESTROYED OR DISTURBED BY CONSTRUCTION, THEY SHALL BE REESTABLISHED AND REMONUMENTED OR WITNESSED AT THEIR ORIGINAL LOCATION, AT THE EXPENSE OF THE CONTRACTOR UNDER THE DIRECTION OF A PROFESSIONAL LAND SURVEYOR LICENSED IN THE STATE OF IDAHO.

C. If during the Work, any monuments, piezometers, benchmarks, or other project/property monumentation are destroyed or disturbed, Contractor shall immediately notify the Engineer, who shall have them reinstalled or corrected at the Contractor's expense.

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for the work under this Section. All costs incurred under this Section by the Contractor shall be incidental to all other bid items.

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SECTION 02 41 13 SITE DEMOLITION

MODIFICATION TO

ISPWC SECTION 201 CLEARING AND GRUBBING AND REMOVAL OF OBSTRUCTIONS

PART 1 GENERAL

NO MODIFICATION

PART 2 MATERIALS

Delete Part 2 in its entirety and replace with the following:

2.1 OBSTRUCTIONS

G. Obstructions to be removed include but are not limited to the following existing site components noted on the construction plans, Sheet C2.0:

1. Sanitary sewer pumps
2. Dry pit mechanical piping, ladders, conduits, and all appurtenances within dry pit
3. Chain link fence with privacy slats and vehicular and pedestrian gates where noted on the plans.
4. Force main piping and valves
    a. Existing pipe penetrations within wet well structure to be plugged with non-shrink grout per construction drawings.
5. Wet well concrete cover and hatches (2 total)
6. Trees, noted on the plan
7. J-tube odor control and piping
8. Lift station system venting systems
9. Electrical/control
    a. Includes all existing electrical/control. See electrical plans and specifications for additional details.
    b. Power boxes and electrical items specific to the lift station system.
    c. Electrical connections including conduits connected to the Palouse Mall main power control panels shall be retained and protected per the construction drawings.

2.2 IMPORTED ¾" AGGREGATE

G. Contractor shall utilize ¾" aggregate to fill dry pit once obstructions inside of dry as well as access risers and lids have been removed.

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PART 3 WORKMANSHIP

Amend Part 3 to include the following:

3.3 ABANDON IN PLACE

A. Structures designated on the plans to be abandoned in place shall be stripped of the internal components and all other associated items listed on the plans, modified in the specified manner to promote drainage, and filled with suitable waste material or ¾" aggregate prior to backfilling.

PART 4 MEASUREMENT AND PAYMENT

Amend Part 4.1 to include the following:

A. Any items required by this section to complete the project that are not listed in the Bid Schedule are to be considered incidental to other Bid Items.

END OF SECTION

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DIVISION 09 00 00 - FINISHES

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SECTION 09 96 26 - PAINTING AND COATING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. All equipment, material, labor, services, and incidentals required to ensure complete surface preparation, furnishing and application of special protective coatings.

B. It is the intent of these Specifications to finish paint all surfaces exposed to view, submerged, or requiring paint protection as outlined in the application schedule unless specified otherwise herein. The omission of minor items in the schedule of work shall not relieve the Contractor of their obligation to include such items where they come within the general intent of these Specifications.

C. Unless otherwise specifically indicated in these Specifications or on the Drawings, the following areas or items will not require field painting:

1. Poured in place concrete surfaces.

2. Non-ferrous and corrosion-resistant ferrous alloys such as copper, bronze, aluminum, chromium plate, and stainless steel, except where required for electrical insulation between dissimilar metals, aluminum is in contact with concrete or masonry, and color coding of equipment or piping is required.

3. Non-metallic materials such as glass, wood, porcelain, and plastic (FRP) except as required for architectural painting or color coding.

4. Pre-finished architectural items such as acoustical tile, vinyl wall covering, cabinets, etc.

5. Electrical conduits and duct work not exposed or attached to unpainted or pre-finished surfaces.

6. Items specified to be galvanized after fabrication unless specifically required elsewhere in these Specifications. Galvanized items requiring coatings shall be prepared and coated as specified hereinafter for the exposure condition of the item and for architectural purposes unless otherwise approved by the Engineer.

7. Insulated piping and/or insulated piping with jacket, except as required for architectural painting or color coding.

8. Pre-finished equipment items such as control cabinets, motor control centers or similar equipment that have factory finishes.

9. Ferrous metals embedded in concrete, certain machined surfaces.

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1.2 QUALITY ASSURANCE

A. The paint manufacturer shall furnish services of a competent, factory-trained representative for consultation during surface preparation and painting as may be required for product application quality assurance, and to determine compliance with manufacturer's instructions and these Specifications, and as may be necessary to resolve field problems attributable to, or associated with, the manufacturer's products furnished under this Contract, or as requested by the Engineer. This service shall be included as part of the original project cost and no additional costs shall be incurred by the Owner.

B. contractor is responsible for all quality control required in accordance with manufacturers recommendations including providing the appropriate equipment for testing. Equipment for testing shall be made available to the Engineer for observation, if necessary. Inspections and testing shall be recorded and made available to the Engineer prior to work resuming the next day.

C. When inspection is required, the Engineer is responsible for quality assurance at any or all phases of the project including reviewing required reporting from Contractor and issuing a Non-Conformance Report if work does not meet requirements of the specification. Engineer quality assurance does not replace the need for the Contractor to provide daily quality control inspections. The Engineer has the right to reject any and all work that was performed without sufficient quality assurance observations.

1.3 SUBMITTALS

A. The Contractor shall furnish the Engineer, for their approval, a detailed schedule showing materials they propose to use for each portion of the work including the mil thickness of each coating to be applied in the shop or in the field. This schedule shall be as recommended by the manufacturer of the paint approved for the project. The Contractor shall furnish to the Engineer the paint manufacturer's written instruction for applying each type of paint or protective coating. The Contractor shall not furnish or use any of these materials until they have been approved by the Engineer.

B. All colors, including special colors for color coding and identification of piping and appurtenances and all equipment and all other work shall be as selected by the Engineer from color samples submitted by the Contractor.

1.4 PRODUCT DELIVERY, HANDLING AND STORAGE

A. All materials shall be new and shall be delivered to the project site in unopened containers plainly indicating the designated name, date of manufacture, color, and name of manufacturer. Paints shall be stored in a suitable protected area that is heated or cooled as required by maintaining temperature within the range recommended by the manufacturer. Storage areas shall be kept neat and clean and accessible to the Engineer at all times. All inflammable materials shall be stored in approved containers separate from the paint storage area. Necessary precautions to avoid damage by fire and vandalism shall be taken.

B. Materials are to be kept dry, protected from weather, and stored under cover.

C. Protective coating materials are to be stored between 50 deg F and 90 deg F. Do not store near flame, heat, or strong oxidants.

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D. Protective coating materials are to be handled according to their material safety data sheets.

1.5 SITE CONDITIONS

A. Applicator shall conform with all local, state, and federal regulations including those set forth by OSHA, RCRA and the EPA and any other applicable authorities.

B. All existing equipment and structure painting shall be retained and protected. Contractor will be required to repair and restore to equal or better of its original condition any damaged equipment or structure paint caused by Contractor operation. Damage includes any caused by overspray.

PART 2 MATERIALS

2.1 COATINGS, PAINTS, AND PAINT PRODUCTS

A. The coatings, paints, and paint products of Tnemec Company, Inc., North Kansas City, Missouri, have been specified as a standard of quality in preparing the coating system schedule, except where otherwise noted. The selection of proper coatings shall be treated as a coating system rather than multiple coats of paint. Although Tnemec systems and products are outlined, equivalent coating systems as described, qualified, and specified in this Specification may be submitted by the Contractor in writing for the Engineer's approval within 30 days after signing of the Contract. Equivalent systems shall be equal in all ways to the specified Tnemec Systems. Coating systems from the following manufacturers will be considered: Koppers, American Wisconsin Protective Coatings, Porter Coatings, Mobile Chemical Company, Southern Imperial Coatings, Carboline Coatings Co., Rustoleum Corporation or other approved equal. No request for coating system substitutions will be considered if it decreases the film thickness, the number of coats to be applied or offers a change from the generic type of coating specified.

B. Other painting material required but not specifically described such as linseed oil, shellac, turpentine, thinner, etc., shall be of highest quality and shall have identifying labels on containers.

C. No materials other than types specified or approved may be delivered to the project site. All unapproved materials shall be removed from project site immediately.

D. All materials used shall be free of lead, lead compounds, or other materials that may adversely affect the process of water filtration.

E. Coal tar epoxy and products containing coal tar pitch is not permitted.

F. Paint materials utilized shall be compatible with all tools, equipment, and surfaces to be coated as well as finish coats compatible with prime coats.

2.2 PIPE IDENTIFICATION PAINTING

A. All non-submerged, non-insulated and non-condensate-proof piping shall be completely color code painted. Fittings and valves shall also be painted with the same background color as the pipe. All insulated and condensate-proof piping shall be color banded. Color coding and banding shall comply with the requirements of the pipe painting and identification schedule included herein.

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B. Colors and painting schemes shall match existing colors at project for similar surfaces.

PART 3 WORKMANSHIP

3.1 PREPARATION

A. All work shall be done in strict accordance with recommendations of the manufacturer as well as of these Specifications.

B. It is the intent of these Specifications that contractors and their subcontractors will leave the surfaces of their work in such a condition that only minor cleaning, sanding, and filling is required prior to surface preparation and painting. It is the responsibility of the Contractor to inspect and provide substrate surfaces that are prepared in accordance with these Specifications and the printed directions and recommendations of the paint manufacturer whose product is to be applied.

C. Remove, mask, or otherwise protect hardware, lighting fixtures, switch plates, aluminum surfaces, machined surfaces, shafts and couplings, machinery name plates, and other surfaces not intended to be painted. Provide drop clothes to prevent paint materials from falling on or marring adjacent surfaces. Protect working parts of mechanical and electrical equipment from damage during surface preparation and painting process. Openings in motors shall be masked to prevent paint and other materials from entering the motors.

D. Paint shall not be applied in temperatures exceeding the manufacturer's recommended maximum and minimum allowable, nor in dust, smoke-laden atmosphere, damp, or humid weather.

1. Abrasive blast cleaning shall not be performed whenever the relative humidity exceeds 85%, nor whenever the surface temperature is less than 5°F above the dew point of the ambient air.

2. Recyclable steel grit or expendable abrasives shall be used for abrasive blast cleaning. Silica sand is not permittable for abrasive blast cleaning. Expendable abrasives shall meet requirements of SSPC-AB1 and shall be disposed of after one time use. Recyclable steel grit shall meet requirements of SSPC-AB2. All surfaces that utilize abrasive blast cleaning shall be solvent cleaned or low-pressure water cleaned and re-blasted at the Contractor’s expense if they do not meet SSPC-AB1, SSPC-AB2, or SSPC-AB3 requirements, where applicable.

E. Surface preparation and painting shall be done at the project site, except as noted hereinafter.

F. Painting shall be performed in strict accordance with the safety recommendations of the paint manufacturer; safety recommendations of the National Association of Corrosion Engineers contained in the publication, Manual for Painter Safety; Federal, State, and local agencies having jurisdiction.

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G. Multiple-component coatings shall be prepared using all of the contents of the container for each component as packaged by the paint manufacturer. No partial batches will be permitted. Multiple-component coatings that have been mixed shall not be used beyond their pot life. The Contractor shall provide small quantity kits for touch-up painting and for painting other small areas. Only the components specified and furnished by the paint manufacturer shall be mixed. No intermixing of additional components for reasons of color or otherwise, even within the same generic type of coating, will be permitted.

H. Items such as structural steel, miscellaneous metals, metal doors and frames, metal louvers, and similar items shall be shop prepared and primed. All work shall be blast cleaned and primed in accordance with these Specifications.

I. Perform sandblasting for items and equipment where specified and as required to restore damaged surfaces previously shop or field blasted and primed. Materials, equipment, procedures, and safety equipment for personnel shall conform to the Steel Structures Painting Council requirements.

3.2 PREPARATION OF SURFACES

A. Metal surfaces:

1. All workmanship for metal surfaces preparation shall be in strict conformance with the current Steel Structures Painting Council (SSPC) Specifications as described herein. Pre-blast cleaning requirements: All oil, grease welding fluxes, and other surface contaminants shall be removed prior to blast cleaning.

2. All sharp edges shall be rounded or chamfered, and all burrs, jagged edges, and surface defects shall be ground smooth.

3. If inspection is required, Contractor shall utilize test plates on the first day of sandblasting operation to standard specified for surface preparation herein. Approval from Engineer prior to commencing work is required. One plate per inspection if multiple sandblasting operations is to take place for the project.

4. Welds and adjacent areas shall be prepared such that there is: (1) no undercutting or reverse ridges on the weld bead, (2) no weld spatter on or adjacent to the weld or any other area to be painted, and (3) no sharp peaks or ridges along the weld bead. All embedded pieces of electrode or wire shall be ground flush with the adjacent surface of the weld bead. Blast cleaning requirements: The type of equipment and speed of travel shall be such that the specified degree of cleanliness is obtained. The type and size of abrasive shall be selected to produce a surface profile that meets the coating manufacturer's recommendations for the particular primer to be used. Only dry blast cleaning methods will be permitted. The abrasive shall not be reused unless otherwise approved by the Engineer.

5. The Contractor shall comply with the applicable federal, state, and local air pollution control regulations for blast cleaning.

6. Post-blast cleaning and other cleaning requirements: All surfaces shall be cleaned of all dust and residual particles of the cleaning operations by dry (no oil or water vapor) air blast cleaning or other approved method prior to painting.

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7. Surfaces shall be painted the same day they are sandblasted. Surfaces that have started to rust before they are painted shall be re-blasted.

B. All plastic surfaces to be coated shall be hand sanded with a medium grit sandpaper to provide tooth for the coating system. Large areas may be power sanded or brush-off blasted, provided sufficient controls are employed so the surface is roughened without removing excess material.

C. The equipment, procedure, and degree of cleaning shall conform to the Steel Structures Painting Council Surface Preparation 7, Brush-Off Blast Cleaning. The abrasive shall be dry blasting sand. The various surface preparation parameters such as size and hardness of the abrasive, nozzle size, air pressure, and nozzle distance from the surface shall be selected such that the surface is cleaned without pitting, chipping, or otherwise damaging the surface. The Contractor shall verify their parameter selection by blast cleaning a trial area that will not be exposed to view. The trial blast cleaned area shall be subject to the approval of the Engineer and shall be used as a representative sample of the surface preparation. Surfaces that are damaged by blast cleaning shall be repaired or replaced by the Contractor to the satisfaction of the Engineer.

D. Solvent cleaning shall consist of removal of foreign matter such as oil, grease, soil, drawing and cutting compounds, and any other surface contaminants by the use of solvents, emulsions, cleaning compounds, steam cleaning, or similar materials and methods which involve a solvent or cleaning action. This method conforms with Steel Structures Painting Council SP 1.

3.3 APPLICATION OF PAINT

A. All work shall be done in strict accordance with the manufacturer's recommendations. The Contractor shall give the Engineer a minimum of 3 days advance notice of the start of any surface preparation work or coating application work. All such work shall be performed in the presence of the Engineer, unless the Engineer has granted prior approval to perform such work in their absence.

B. Cleaned surfaces and all coats shall be inspected prior to the succeeding coat. Schedule such inspection with the Engineer in advance. Sufficient time shall be allowed between coats to assure thorough drying of previously applied paint. Coatings subject to immersion shall not be immersed for any purpose until completion of the curing cycle. Units to be bolted together and to structures shall be painted prior to assembly or installation.

C. All materials shall be spray painted unless brush painting is specifically approved by the Engineer.

D. Include supplementary materials, tools, and accessories necessary to complete the work properly and in accordance with the intent of the Contract Documents, whether or not specifically scheduled on the Drawings or specified herein.

E. Repair mortar applicators shall be trained to properly apply the cementitious mortar according to manufacturer's recommendations.

F. Protective coating must be applied by a Certified Applicator of the protective coating manufacturer and according to manufacturer specifications.

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G. Shop Painting:

1. All structural steel, wrought metals, metal castings, mechanical equipment, electrical equipment, all piping specified to be painted shall receive 1 shop coat of primer before exposure to weather. This shop coat shall be the first coat specified in the coating systems herein.

2. All shop primer items shall be inspected at the job site for compliance with these Specifications. Schedule such inspection with the Engineer in advance. Areas of chipped, peeled, or abraded primer shall be hand or power sanded feathering the edges. The areas shall then be spot primed with the specified primer. Prior to the application of finish coats, shop primed surfaces shall be cleaned free of all dirt, oil, and grease. All shop primed items shall be thoroughly and uniformly sanded as required to remove all surface defects and provide a smooth even surface. Hold back areas for welding shall be prepared and primed, after welding, as required for the specified paint system.

3. Shop painting and the field painting specified herein shall be products of the same manufacturer to insure compatibility.

4. Where equipment is shipped with a standard machinery finish, the manufacturer shall submit as a portion of the Shop Drawings, the color and finish proposed for approval prior to shipping. Equipment so finished and having received approval of the Engineer shall not require field painting unless the finish is damaged in transport or installation. Abraded areas on the factory finish shall be repaired in strict accordance with the manufacturer's directions. Repaired areas shall be carefully blended into the original finish.

H. Field Painting:

1. All paints and similar materials shall be mixed in galvanized iron pans or pails or other approved containers of adequate capacity. All paints shall be thoroughly stirred before being taken from the containers and shall be kept stirred during application. All ready-mixed paint shall be applied exactly as received from the manufacturer without addition of any kind of drier or thinner, except as specified or as permitted or directed by the Engineer. Prime coats shall be applied in the same hue as the approved finish, but in a considerably lighter shade. For multi-coat work, each succeeding coat shall be darker than the previous coat, with the final coat the hue, shade and texture required. Where thinning is permitted, only the products and quantities recommended by the manufacturer shall be used.

2. All work shall be performed by skilled, experienced, journeymen painters, in the best workmanlike manner and under the skilled supervision of at least one master painter foreman. All material is to be evenly applied so as to be free from sags, runs, crawls or other defects. If additional coats are required, the first coat must be dry prior to applying an additional coat. All coats shall be of proper consistency and sprayed out with no drips or runs or brushed out to show a minimum of brush marks. Approved paint and color schedules shall be followed explicitly. Cooperate with all trades in carrying work to a prompt and successful completion and coordinate the application with the work under related sections, as necessary.

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3. Coverage is listed as either thickness in dry film mils or spreading rate in square feet per gallon. The number of coats is the minimum required irrespective of the coating thickness.

4. Additional coats may be required to obtain the minimum required paint thickness, depending on method of application, differences in manufacturer's products, and atmospheric conditions. Maximum film per coat shall not exceed the coating manufacturer's recommendations.

5. Contractor shall provide approved dry and wet paint film thickness gauges and shall check film thickness to determine that they conform to the requirements specified herein and to the satisfaction of the Engineer. Particular attention shall be given edges, angles, flanges, etc., where insufficient film thickness are likely to be present, insure proper millage in these areas. Each coat shall be checked for correct millage. No measurement of dry millage shall be made under a minimum of 8 hours after application of the coating. Where stripe coating is necessary for edges, angles, fasteners, irregular surfaces, and/or field welds, brush apply one coat to thickness required.

6. If a painted item has insufficient film thickness, an improper finish color, or if color, stains, dirt, or undercoats show through the final coat of paint, the surface shall be cleaned and top- coated with the specified paint material to obtain a uniform color and coverage as specified. Specific surface preparation information to be secured from the coating manufacturer and the Engineer.

7. Any defects in the coating system shall be repaired by the Contractor per written recommendations of the coating manufacturer. If necessary, sufficient heating and ventilation shall be provided to keep the atmosphere and all surfaces to be painted dry and warm until each coat of paint has hardened.

3.4 COATING SYSTEMS

A. Surface preparation, prime coatings and finish coatings for the various surfaces are specified below. Prime coatings shall be contrasting but complimentary to the finish coat.

B. Ferrous Metals: Equipment, pipe, structural steel, metal trim, ductile iron pipe and fittings.

1. Epoxy Coating

Tnemec System #S-66, Epoxy Polyamide	
Surface Prep.: SSPC - SP 6 Commercial Blast Cleaning	
First coat: Tnemec Series 37-77 Chem Prime	2.0 - 3.5
Second coat: Tnemec Series 66-1211 Epoxoline Primer	3.0 - 5.0
Third coat: Tnemec Series 66, Hi-build Epoxoline	4.0 - 6.0
	9.0 - 14.5

Note: A first coat of Chem-Prime is required on all shop primed metals.

2. Alkyd Gloss

Tnemec System #S-2 Alkyd Enamel	
Surface Prep.: SSPC - SP 6 Commercial Blast Cleaning	
First coat: Tnemec Series 37-77 Chem Prime	2.0 - 3.5

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Second coat: Tnemec Series 2 Tneme-Gloss	1.5 - 2.5
Third coat: Tnemec Series 2 Tneme-Gloss	1.5 - 2.5
	5.0 - 8.5

C. Submerged Ferrous Metals

1. Epoxy Coating

Tnemec System #S-66 Epoxy Polyamide	
Surface Prep.: SSPC-SP 10 near white blast cleaning	
First coat: Tnemec Series 66-1211 Epoxoline Primer	3.0 - 5.0
Second coat: Tnemec Series 66 Hi-build Epoxoline	4.0 - 6.0
	7.0 - 11.0

2. Coal Tar-Epoxy Coating

Tnemec System #S46H413 Coal Tar-Epoxy	
Surface Prep.: SSPC - SP 10 near white blast cleaning	
First coat: Tnemec Series 46H413 Hi-build Tneme-Tar	14.0 - 20.0

D. Mill Coated Steel Pipe

1. Epoxy Coating

Tnemec System #S-66 Epoxy Polyamide	
Surface Prep.: Surface shall be clean and dry	
First coat: Tnemec Series 66-1211 Epoxoline Primer	3.0 - 5.0
Second coat: Tnemec Series 66, Hi-build Epoxoline	4.0 - 6.0
	7.0 - 11.0

2. Epoxy Immersion Coating

Tnemec System #S-66 Epoxy Polyamide	
Surface Prep.: SSPC - SP 10 near white blast cleaning	
First coat: Tnemec Series 66-1211 Epoxoline Primer	3.0 - 5.0
Second coat: Tnemec Series 66, Hi-build Epoxoline	4.0 - 6.0
	7.0 - 11.0

E. Galvanized Surfaces

1. Epoxy Coating

Tnemec System #S-66 Epoxy Polyamide	
Surface Prep: SSPC - SP 1 Solvent cleaning	
First coat: Tnemec Series 66-1211 Epoxoline Primer	3.0 - 5.0
Second coat: Tnemec Series 66, Hi-build Epoxoline	4.0 - 6.0
	7.0 - 11.0

2. Epoxy with Aliphatic Polyurethane Enamel

Tnemec System #S-71 Aliphatic Polyurethane	
Surface Prep.: SSPC-SP 1 Solvent cleaning	
First coat: Tnemec Series 66, Hi-build Epoxoline	4.0 - 6.0
Second coat: Tnemec Series 71 Endura Shield	1.5 - 2.5
	5.5 - 8.5

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F. Aluminum in Contact with Concrete

1. Coal Tar-Epoxy Coating

Tnemec System #46H413 Coal Tar-Epoxy Coating
Surface Prep.: Solvent clean
First coat: Tnemec Series 46H413 Hi-build Tneme-Tar 14.0 - 16.0

G. Exterior Concrete Below Grade

1. Asphalt Base Coating

Tnemec System # 46H413 Coal Tar-Epoxy Coating
Surface Prep: Brush blast to remove all laitance
First coat: Tnemec Series 46H413 Hi-build Tneme-Tar 14.0 - 20.0

H. Non-Ferrous Metals, PVC, FRP

1. Epoxy Coating

Tnemec System #S-66 Epoxy Polyamide
Surface Prep.: Sanding as required, solvent clean
First coat: Tnemec Series 66-1211 Epoxoline Primer 3.0 - 5.0
Second coat: Tnemec Series 66, Hi-build Epoxoline 4.0 - 6.0
7.0 - 11.0

I. Condensate-Proof Pipe

1. No-drip Plastic Coating

Surface Prep.: Remove grease, oil, dirt, all foreign matter
First coat: Mortell No-drip Plastic Coating 6 sf/gal

3.5 CLEAN UP

A. The Contractor shall always keep the premises free from accumulation of waste material and rubbish caused by their employees or work. At the completion of painting, Contractor shall remove all of tools, scaffolding, surplus material, and rubbish from the project site and shall leave the work "broom clean" unless more exactly specified. The Contractor shall also, upon completion, remove all paint where it has been spilled, splashed, or spattered on all surfaces, including floors, fixtures, equipment, etc., to the satisfaction of the Engineer.

3.6 SCHEDULES

A. Pipe painting and identification schedule:

Pipe System - For Color Identification proper wording for pipe labels	Color
Sludge	Brown
Potable water	Blue
Non-Potable water	Blue with 6-inch white bands spaced 40 inches apart
Chlorine	Yellow
Sulfur Dioxide	Light green with yellow band
Sewage	Green
Compressed Air	Dark Green
Class C Effluent	Light Green

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3.7 PIPING COLOR CODE AND IDENTIFICATION

A. All exposed process and building piping shall be identified as specified herein, unless otherwise required by Engineer. It is not necessary to paint basic identification colors for bronze, copper, brass, glass, and chrome-plated pipes unless with a color band to serve as the background for the legends. All other piping and accessories shall be painted based on the color code indicated within the pipe schedule.

B. Identification shall be placed on all exposed pipe and all pipe on both sides of a valve, adjacent to each penetration and not more than 15 feet on center. Identification is required of all pipes with the name of the service as shown within the construction documents utilizing stenciled block letters in the color indicated in the schedule above. Identification shall be visible at eye level. All chemical piping shall be identified a minimum of two (2) times in each interior room. No abbreviations shall be permitted.

C. Size of letters:

Outside Diameter of Pipe or Covering	Height of Stencil Letter
¾" to 1¼"	½"
1½" to 2"	¾"
2½" to 6"	1¼"
8" to 10"	2½"
Over 10"	3½"

PART 4 MEASUREMENT AND PAYMENT

A. No separate measurement and payment will be made for all other work under this section. All costs incurred under this section by the Contractor shall be incidental to all other bid items.

END OF SECTION

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SECTION 09 97 23
CONCRETE AND MASONRY COATINGS

PART 1 GENERAL

1.1 DESCRIPTION

A. Work included: This specification covers work, materials and equipment required for protecting and/or rehabilitating; concrete and masonry structures, manholes, and other underground vaults by either chemical grouting or monolithic spray-application of a high-build, rigid and solvent-free polyurethane coating to eliminate infiltration, provide corrosion protection, repair voids and enhance structural integrity as required. Procedures for surface preparation, cleaning, application and testing are described herein.

The omission of minor items in the schedule of work shall not relieve the Contractor of their obligation to include such items where they come within the general intent of these Specifications.

1.2 SECTION INCLUDES

A. Requirements for surface preparations, repairs, and solvent-free rigid polyurethane material application to specified surfaces along with all work, materials, labor, equipment, and testing required for the completion of chemical grouting of manhole defects.

1.3 RELATED SECTIONS

A. Section 01 33 00 – Submittals Procedures

B. Section 01 45 00 - Quality Control

C. Section 01 60 00 – Product Requirements

D. Section 33 32 11 – Field Erected Wastewater Pumping Station

1.4 REFERENCES

A. ASTM D638 - Tensile Properties of Plastics.

B. ASTM D790 - Flexural Properties of Unreinforced and Reinforced Plastics.

C. ASTM D695 - Compressive Properties of Rigid Plastics.

D. ASTM D 7234 (Concrete) - ASTM D 4541 (Steel) Pull-off Strength of Coatings Using a Portable Adhesion Tester.

E. ASTM D2584 - Volatile Matter Content.

F. ASTM D2240 - Durometer Hardness, Type D.

G. ASTM D543 - Resistance of Plastics to Chemical Reagents.

H. ASTM C109 - Compressive Strength Hydraulic Cement Mortars.

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I. ACI 506.2-77 - Specifications for Materials, Proportioning, and Application of Shotcrete.

J. ASTM C579 - Compressive Strength of Chemically Setting Silicate and Silica Chemical Resistant Mortars.

K. ASTM - The published standards of the American Society for Testing and Materials, West Conshohocken, PA.

L. SSPC - The published standards of the Society of Protective Coatings, Pittsburgh, PA.

M. Los Angeles County Sanitation District – Evaluation of Protective Coatings for Concrete.

N. ASTM F1216 (Including Appendix XI-X7): Design Parameters for Buried Structures (structural rehabilitation) utilizing the External Buckling Equation for thickness determination.

O. ASTM D2990: Test Methods for Tensile, Compressive, and Flexural Creep and Creep Rupture in Plastics

P. DMA – Dynamic Mechanical Analysis measures changes in mechanical properties of polymers

Q. SSPWC 210-2.3.3 - Chemical resistance testing published in the Standard Specifications for Public Works Construction, 1997 edition (otherwise known as "The Greenbook").

R. NACE - The published standards of National Association of Corrosion Engineers (NACE International), Houston, TX.

1.5 SUBMITTALS

A. Technical data sheet on each product used, including ASTM test results indicating the product conforms to and is suitable for its intended use per these specifications.

B. Material Safety Data Sheets (MSDS) for each product used.

C. Project specific guidelines and recommendations.

D. Applicator Qualifications:

a. Manufacturer certification that Applicator has been trained and approved in the handling, mixing and application of the products to be used.

b. The Manufacturer shall provide four (4) references which demonstrate previous successful projects completed for the specified structural protective coating system or comparable, during the last two (2) years.

c. Certification that the equipment to be used for applying the products has been manufactured or approved by the protective coating manufacturer and Applicator personnel have been trained and certified for proper use of the equipment. Certification letter shall be dated within six months of bid date.

d. Proof of any necessary federal, state or local permits or licenses necessary for the project.

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E. Structural Design:

a. Third party testing verifying the short-term Modulus of Elasticity used on this project, minimum of 735,000 psi.

b. Third party testing verifying long term Flexural Modulus of Elasticity, minimum of 529,000 psi. This third-party testing will verify the long-term reduction factor (Creep Analysis) of a minimum of 28%. This long-term reduction factor verification shall be conducted utilizing DMA 983 or ASTM D2990-01 via a third party, independently certified laboratory.

1.6 DESIGN CONDITIONS

A. The following design conditions shall be assumed for all structures being rehabilitated with the approved resin system:

	Parameter	**Design Requirement**
1.	Structure Condition	Partially/Fully Deteriorated, based on condition of the existing structure.
2.	Soil Type	Saturated/Unsaturated
3.	Design Thickness	ASTM 1216-09 or Two Way Flat Wall Beam Analysis
4.	Ovality	Not greater than 5%
5.	Soil Load	120 lbs/cu. ft.
6.	Traffic Load	AASHTO-HS-20-44 Highway
7.	Soil Modulus	>500 psi.<1000 psi.
8.	Safety Factor	2.0
9.	Soil Cover	Distance from grade to crown of conduit
10.	Water Table	Distance from invert to water table

Wall thickness design calculations for each structure to be rehabilitated utilizing the specified resin technology systems must be submitted with all qualified bids, along with supporting formulas that document that version of formula used. Additionally, product specific strength values, including the short-term flexural modulus and the long-term flexural modulus strength, must be substantiated by third party testing which will be submitted with all qualified bids. The materials utilized for the contracted project shall be of a quality equal to or better than the materials used in the long-term test with respect to the initial flexural modulus and the long-term reduction factor used in design.

1.7 QUALITY ASSURANCE

A. Applicator shall initiate and enforce quality control procedures consistent with applicable ASTM, NACE and SSPC standards and the protective coating manufacturer's recommendations.

1.8 PRODUCT DELIVERY, HANDLING AND STORAGE

A. Materials are to be kept dry, protected from weather and stored under cover.

B. Protective coating materials are to be stored between 50 deg F and 90 deg F. Do not store near flame, heat or strong oxidants.

C. Protective coating materials are to be handled according to their material safety data sheets.

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1.9 SITE CONDITIONS

A. Applicator shall conform with all local, state, and federal regulations including those set forth by OSHA, RCRA, and the EPA and any other applicable authorities.

B. Method statements and design procedures are to be provided by Owner when confined space entry, flow diversion or bypass is necessary in order for Applicator to perform the specified work.

1.10 WARRANTY

A. Applicator shall warrant all work against defects in materials and workmanship for a period of three (3) years, unless otherwise noted, from the date of final acceptance of the project. Applicator shall, within a reasonable time after the receipt of written notice thereof, repair defects in materials or workmanship which may develop during said three (3) year period, and in any damage to other work caused by such defects or the repairing of same, at their own expense and without cost to the Owner.

PART 2 PRODUCTS

2.1 CHEMICAL GROUTING

A. Manufacturer recommendations

B. All materials, additives, mix ratios, and procedures needed for the grouting process shall be in accordance with manufacturer's recommendations. Manufacturer must provide proof of product liability insurance, material data sheets, and M.S.D.S sheets. Injection resin shall be an Acrylic and or Polyurethane based material designed for use in a wet environment, MasterRoc Injection Resin or approved equal. Material must be capable of withstanding movement caused by thermal cycle changes and or settling of the structure.

2.2 GROUTING MATERIALS

A. The following material properties shall be exhibited by the injection resin:

a. Documented service of satisfactory performance in similar usage.

b. Controllable reaction times and shrinkage through the use of additives supplied by the same manufacturer. The minimum shall be established so that adequate grout travel is achieved.

c. Resistance to chemicals; to most organic solvents, mild acids, and alkali

d. The chemical shall be essentially non-toxic in a cured form. ‘

e. The material shall be able to withstand freeze/thaw and moving load conditions.

2.3 ADDITIVES

A. Additives may be utilized for catalyzing the reaction, lowering the freezing temperature of the chemical, and minimizing dehydration of the materials.

2.4 MIXING AND HANDLING

A. Mixing and handling of Injectable Resins shall be in accordance with the recommendations of

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the manufacturer and in such a manner to minimize hazard to personnel. It is the responsibility of the contractor to provide appropriate protective measures to ensure that chemicals or gels are handled by authorized personnel in the proper manner. Only personnel thoroughly familiar with the handling of the grout materials and additives shall perform the grouting operations.

2.5 POLYUERETHANE COATING

A. EXISTING PRODUCTS

a. Standard Portland cement or new concrete (not quick setting high strength cement) must be well cured prior to application of the protective coating. Generally, 28 days is adequate cure time for standard Portland cement. If earlier application is desired, compressive or tensile strength of the concrete can be tested to determine if acceptable cure has occurred. (Note: Bond strength of the concrete itself. Engineer may require pull tests to determine suitability of concrete or metal for coating)

b. Cementitious patching and repair materials should not be used unless their manufacturer provides information as to its compatibility and procedures for topcoating with the approved coating. Project specific submittals should be provided including application, cure time and surface preparation procedures which permit optimum bond strength with the approved coating.

c. Remove existing coatings prior to application of the protective coating. Applicator is to maintain strict adherence to applicable NACE and SSPC recommendations with regard to proper surface preparation and compatibility with existing coatings.

2.6 MATERIALS

A. Structural rehabilitation coating shall be manufactured by Sprayroq, Inc. or approved equal.

2.7 REPAIR MATERIALS

A. Repair materials shall be used to; fill voids, bugholes, structurally reinforce and/or rebuild surfaces, etc. as determined necessary by the engineer and protective coating applicator. Repair materials must be compatible with the specified coating and shall be applied in accordance with the manufacturer's recommendations.

B. The following products may be accepted and approved as compatible repair basecoat materials for approved topcoating for use within the specifications:

a. 100% solids, solvent-free grout specifically formulated for approved topcoating compatibility. The grout manufacturer shall provide instructions for trowel or spray application and for approved topcoating procedures.

b. Factory blended, rapid setting, high early strength, non-shrink cementitious or epoxy repair mortar that can be trowelled or pneumatically spray applied may be approved if specifically formulated to be suitable for approved topcoating. Such repair mortars should not be used unless their manufacturer provides information as to its suitability for topcoating with the approved topcoating. Project specific submittals should be provided including application, cure time and surface preparation procedures which

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permit optimum bond strength with the approved coating.

c. In the case of excessive infiltration, a hydraulic cement or plug may be used to stop the flow of the infiltration. Approved manufacturer's include Euclid, Strong, or Approved equal. The hydraulic cement shall be compatible with the spray applied resin coating.

2.8 STRUCTURAL AND OR PROTECTIVE COATING MATERIALS

A. The resin-based material shall be used to form the sprayed structurally enhanced monolithic liner covering all interior surfaces of the structure, including benches and inverts of manholes. The finished liner shall be 100% Solids polyurethane and conform to the minimum physical requirements listed below. The physical requirements must be verified by an independent, certified, third-party testing and must be submitted with the bid package. Any bid package not including the verifiable, independent third-party testing shall be ruled non-responsive and will be rejected.

Compressive strength	ASTM D 695	> 18,000 psi
Tensile strength	ASTM D 638	> 7,450 psi
Bond (Concrete)	ASTM D7234 Or Substrate Failure	> 200 psi
Bond (Steel)	ASTM D4541	> 1,600 psi
Flexural modulus (initial)	ASTM D 790	> 735,000 psi
Flexural modulus (Long Term)	DMA 983 or ASTM D 2990	> 529,000 psi
Density		87 ± pcf
Chemical Resistance:	ASTM D543	
Severe Municipal Sewer:	All types of service	

Successful Pass: Sanitation District of L.A. County Coating Evaluation Study or SSPWC 211-2

B. When the wall of the resin-based liner is to be structurally designed to withstand the hydraulic load generated by the groundwater table the long term (50yr) value of the flexural modulus of elasticity will be utilized to calculate the thickness of the structural liner. The initial flexural modulus of elasticity (short term) of the submitted resin material will be utilized with the long-term deformation percentage as determined from creep testing by DMA 983 or ASTM D2990 (see below) in the design equation outlined in ASTM 1216-09, Appendix X1-X7 (Circular Geometries) or Flat Wall Beam Analysis for walled structures. No adhesion to the substrate is assumed in structural calculations The value of the long term flexural modulus of the proposed product will be certified by an independent, certified, third party testing lab, independent of the Manufacturer and submitted with the bid package. [The definition of long term value will be identified as initial flexural modulus of elasticity less the reduction in value caused by Creep over a fifty (50) year minimum period and verified by third party DMA 983 testing (or ASTM D2990).] All design submittals will include this certified third party DMA 983 testing (or ASTM D2990) value in their respective design calculations for each structure being rehabilitated.

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C. When groundwater loading is not an issue and only a corrosion barrier is required, the rehabilitation lining shall be installed to the thickness necessary to qualify as a monolithic (void free) liner. The roughness of the substrate will dictate the thickness needed to create the monolithic liner and eliminate any opportunity for voids in the lining. The minimum value for coating thickness for corrosion protection for non-structural rehabilitation shall be 125 mils and structural shall be a minimum 250 mils or the design thickness determined by the proper design protocol.

2.9 PROTECTIVE COATING APPLICATION EQUIPMENT

A. Manufacturer approved heated plural component spray equipment shall be used in the application of the specified protective coating.

2.10 REPAIR MORTAR SPRAY APPLICATION EQUIPMENT (IF SPRAY APPLIED)

A. Spray applied repair mortars shall be applied with manufacturer approved equipment.

PART 3 EXECUTION

3.1 CHEMICAL GROUTING

A. PREPARATION

a. Manhole grouting shall not be performed until the repair of the manhole frame and grade rings, or any other structural manhole repairs are complete.

b. The Contractor shall cut and trim all roots within the manhole.

c. The Contractor shall seal all unsealed lifting holes, unsealed step holes, voids larger than approximately one-half (1/2) inch in thickness. All cracked or deteriorated material shall be removed from the area to be patched, in accordance with manufacturer's specifications.

d. The Contractor shall perform the Soakum Oakum Technique by soaking dry Oil Free Oakum (MasterRoq EQ 250 OR) into an approved MasterRoq resin then forcing the Oakum/Resin plug into an opening until it sets.

e. Normal grouting operations shall be performed in accordance with manufacturer's recommendations for temperature.

B. GROUTING

a. Grouting may include corbel, wall, pipe seals, manhole joints, well to flattop joint, and/or bench/trough. The Engineer will direct areas of the manhole designated to be grouted. If the entire manhole is scheduled, grouting shall include corbel, wall, pipe seals, and bench/trough. Pipe seal grouting shall include all pipe seals in the specified manhole and grouting of the specified manhole including the bench/trough to the maximum height of 18 inches from the crown.

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C. DRILLING AND INJECTION

a. Injection holes shall be drilled through the manhole wall at locations recommended by the manufacturer.

b. Grout shall be injected through the holes under pressure with suitable injection packers and or wall spears. Injection pressure shall not cause damage to the manhole structure or surrounding surface. Grout shall be injected through the lowest holes first. The procedure shall be repeated until the manhole is externally sealed with grout.

c. Grouting from the ground surface shall not be allowed unless interior gases are above average.

d. Grout travel shall be verified by observation of grout to defects or adjacent injection holes. Provide additional injection holes, if necessary to ensure grout travel.

e. Injection holes shall be cleaned with a drill and patched with a quick setting mortar.

D. TESTING

a. If exfiltration or vacuum testing is used, usually 10 percent of the sealed manholes, as chosen by the inspector, are tested. Manholes that fail are reworked and retested by the Contractor. If more than 5 percent of the manholes tested fail the initial test, and additional 10 percent of the sealed manholes are tested. This process continues until the testing is satisfactory, or until all manholes have been tested. Limitations and considerations include recognizing that exfiltration and vacuum testing may be impractical or cost-prohibitive for all manholes; therefore, the use of either method is subject to the following limitations and considerations.

b. Complete Sealing: These methods are used only when the entire manhole has been sealed or rehabilitated. The lack of sealing or rehabilitation of some portions of the manhole may prevent the passage of either of these tests. Spot repairs and partial sealing or rehabilitation are therefore subject to infiltration and visual testing only.

c. Inlet and Outlet Sewers: Manholes built over large diameter sewer may be impractical and uneconomical to test using either of these methods due to bypassing requirements, availability of plugs, and high forces that are generated on the plus. Consideration must be given to these factors when determining the method of acceptance testing to be used.

d. Structural Condition: The structural condition of some manholes may be such that testing with these methods is impractical and destructive. The Owner's Representative and Contractor shall therefore deem as structurally sound prior to testing and using these methods, those manholes that have not been structurally lined.

3.2 POLYUERETHANE COATING

A. PREPARATION

a. ACCEPTABLE APPLICATORS

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i. Repair mortar applicators shall be trained to properly apply the cementitious mortar according to manufacturer's recommendations.

ii. Protective coating must be applied by a Certified Applicator of the protective coating manufacturer and according to manufacturer specifications.

B. EXAMINATION

a. All structures to be coated shall be readily accessible to Applicator.

b. Appropriate actions shall be taken to comply with local, state and federal regulatory and other applicable agencies with regard to environment, health and safety.

c. Any active flows shall be dammed, plugged or diverted as required to ensure that the liquid flow is maintained below the surfaces to be coated. Flows should be totally plugged and/or diverted when coating the invert. All extraneous flows into the manhole or vaults at or above the area coated shall be plugged and/or diverted until the coating has set hard to the touch. As an option, hot air may be added to the manhole to accelerate set time of the coating.

d. (Optional) Pipe joint seals shall be installed by others. No leaks may be present prior to commencing and during work.

e. Installation of the protective coating shall not commence until the concrete substrate has properly cured in accordance with these specifications.

f. Temperature of the surface to be coated should be maintained between 70ºF and 110ºF during application. Prior to and during application, care should be taken to avoid exposure of direct sunlight or other intense heat source to the structure being coated.

C. SURFACE PREPARATION

a. Applicator shall inspect all surfaces specified to receive a protective coating prior to surface preparation. Applicator shall notify Owner of any noticeable disparity in the surfaces which may interfere with the proper preparation or application of the repair mortar and protective coating.

b. All contaminants including: oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants shall be removed.

c. All concrete or metal that is not sound or has been damaged by chemical exposure shall be removed to a sound surface or replaced.

d. Surface preparation method(s) should be based upon the conditions of the substrate, service environment and the requirements of the resin protective coating to be applied.

e. Surfaces to receive protective coating shall be cleaned and abraded to produce a sound surface with profile to meet as a minimum ICRI CSP3 –CSP6 profile and porosity to provide a strong bond between the protective coating and the substrate. Generally,

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this can be achieved with a high pressure water cleaning using equipment capable of a minimum 5,000 psi at 4.0 gpm with a turbo head jet nozzle. Other methods such as high pressure water jetting (refer to SSPC-SP 13/NACE No.6), abrasive blasting, shotblasting, grinding, scarifying or acid etching may also be used. Detergent water cleaning and hot water blasting may be necessary to remove oils, grease or other hydrocarbon residues from the concrete. Whichever method(s) are used, they shall be performed in a manner that provides a uniform, sound clean neutralized surface that is not excessively damaged.

f. Infiltration shall be stopped by using a material which is compatible with the specified repair mortar and is suitable for topcoating with the specified protective coating.

g. The area between the manhole and the manhole ring and any other area that might exhibit movement or cracking due to expansion and contraction, shall be grouted with a flexible grout or gel.

h. (OPTIONAL) Castings can be abrasive blasted and coated to prevent corrosion.

i. Surfaces to receive protective coating shall be dry to the touch and or with no visible dampness. If required, drying may be accomplished by a minimum of 20 minutes of a heated, indirect forced air blower. The drying shall be to the specification dictated by the resin manufacturer and its trained applicator.

j. Surfaces to receive protective coating utilizing Flat Wall Beam Analysis design shall be prepared with a series of grooves cut into the substrate at a spacing and depth determined by the manufacturer to “key” or lock the protective coating to the substrate. All coating termination edges shall be “locked” in to the substrate with a termination groove “key” cut into the substrate. The “key” shall be a minimum ¼”w x ¼”d and cut at a 45 degree angle.

k. All surfaces should be inspected by the Inspector during and after preparation and before the repair material is applied.

3.3 APPLICATION OF REPAIR MATERIALS

A. Areas where structural steel has been exposed or removed shall be repaired in accordance with the Project Engineer's recommendations.

B. Repair materials shall meet the specifications herein. The materials shall be trowel or spray applied utilizing proper equipment on to specified surfaces. The material thickness shall be specified by the Project Engineer according to Owner's requirements and manufacturer's recommendations.

C. If using approved cementitious repair materials, such shall be trowelled to provide a smooth surface with an average profile equivalent to coarse 60 grit sandpaper or a minimum ICRI CSP3-CSP6 profile to optimally receive the protective coating. No bugholes or honeycomb surfaces should remain after the final trowel procedure of the repair mortar.

D. The repair materials shall be permitted to cure according to manufacturer recommendations. Curing compounds should not be used unless approved for compatibility with the specified protective coating.

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E. Application of the repair materials, if not performed by the coating certified applicator, should be inspected by the protective coating certified applicator to ensure proper finishing for suitability to receive the specified coating.

F. After high pressure water blasting and leak repair is performed, all surfaces shall be inspected for remaining laitance prior to protective coating application. Any evidence of remaining contamination or laitance shall be removed by additional abrasive blast, shotblast or other approved method. If repair materials are used, refer to these specifications for surface preparation. Areas to be coated must also be prepared in accordance with these specifications after receiving a cementitious repair mortar and prior to application of the approved coating.

G. All surfaces should be inspected during and after preparation and before the protective coating is applied.

3.4 APPLICATION OF PROTECTIVE LINING

A. Application procedures shall conform to the recommendations of the protective coating manufacturer, including material handling, mixing, environmental controls during application, safety, and spray equipment.

B. The spray equipment shall be specifically designed to accurately ratio and apply the specified protective coating materials and shall be regularly maintained and in proper working order.

C. The protective coating material must be spray applied by a Certified Applicator of the protective coating manufacturer.

D. Specified surfaces shall be coated by spray application of a solvent-free, 100% solids, rigid polyurethane structural lining as further described herein.

E. Airless spray application equipment approved by the coating manufacturer shall be used to apply each coat of the protective coating. The air source is to be filtered to completely remove all oil and water.

F. If necessary, subsequent topcoating or additional coats of the protective coating should occur as soon as the basecoat becomes tack free, no later than the recoat window for the specified products. Additional surface preparation procedures will be required if this recoat window is exceeded as per Manufacturer's recommendation.

G. When groundwater loading is not an issue and only a corrosion barrier is required, the rehabilitation lining shall be installed to the thickness necessary to qualify as a monolithic (void free) liner. The minimum value for coating thickness for corrosion protection for non-structural rehabilitation shall be 125 mils and structural shall be a minimum 250 mils or the design thickness determined by the proper design protocol.

3.5 TESTING AND INSPECTION

A. High Voltage Spark Test. After the protective coating has set hard to the touch it shall be inspected with high-voltage holiday detection equipment. <u>This test is critical when applied to corrosion protection applications (i.e. mil coatings less than 250 mils).</u> Surface shall first be dried, an induced holiday shall then be made on to the coated concrete or metal surface and shall serve to determine the minimum/maximum voltage to be used to test the coating for

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holidays at that particular area. The spark tester shall be initially set at 100 volts per 1 mil (25 microns) of film thickness applied but may be adjusted as necessary to detect the induced holiday (refer to NACE RPO188-99 or D4787 Continuity Testing of Liquid or Sheet Liners On Concrete-Holidays). All detected holidays shall be marked and repaired by abrading the coating surface with grit disk paper or other hand tooling method. After abrading and cleaning, additional protective coating material can be hand applied to the repair area. All touch-up/repair procedures shall follow the protective coating manufacturer's recommendations.

B. Adhesion Testing. The adhesion tests shall be performed on a minimum of one or 10% of all rehabilitated structures, whichever is greater, or as shown on the Plan and/or specified in the Special Provisions. Adhesion testing shall be conducted after the lining or coating system has cured per manufacturer instruction and in accordance with ASTM D4541 (Steel) or ASTM 7234 (Concrete). **Adhesion is critical for proper performance of a corrosion barrier (i.e. <250 mils).** A minimum of one 20 mm dolly shall be affixed to the lined surface of the structure at the upper section or cone area, mid-section and at the bottom, unless otherwise specified in the Special Provisions. Each testing location shall be identified by the Engineer. The adhesive used to attach the dollies to the liner shall be rapid setting with a tensile strength in excess of the liner material and permitted to cure in accordance with manufacturer recommendations. The lining material and dollies shall be adequately prepared to receive the adhesive. Prior to pull test, the Contractor shall utilize a scoring device to cut through the coating until the substrate is reached. Extreme care shall be required while scoring to prevent micro cracking in the coating, since cracks may cause failures at diminished strengths. Failure due to improper dolly adhesive or scoring shall require retesting. The pull tests in each area shall meet or exceed 200 psi. and shall include subbase adhered to the back of the dolly or no visual signs of coating material in the test hole. Pull tests with results between a minimum 150 psi and 200 psi shall be acceptable if more than 50% of the subsurface is adhered to the back of the dolly. A test result can be discarded, as determined by the Engineer, if there is a valid nonstatistical reason for discarding the test results as directed by Sections 8.4 and 8.5 of ASTM D4541 and ASTM D7234. If any test fails, a minimum of three additional locations in the section of the failure shall be tested, as directed by the Engineer. If any of the retests fail, all loosely adhered or unadhered liner in the failed area, as determined by the Engineer, shall be removed and replaced at the Contractor's expense. If a structure fails the adhesion test, one additional structure or 10% of the initial number of structures selected for testing shall be tested at the discretion of the Engineer and/or as specified in the Special Provisions.

   NOTE: The mil thickness will be measured and confirmed with the scored and pulled test samples. In structural repairs (partially or fully deteriorated design assumptions), it is critical to confirm the design thickness with the pulled sample as adhesion is not assumed in the ASTM 1216-09 design. <u>The primary purpose of the pull test in structural rehabilitation is to confirm applied thickness, not adhesion.</u> Any derived adhesion is further enhancement to the final installation strength of the rehabilitated structure.

C. A final visual inspection shall be made by the Inspector and manufacturer's representative. Any deficiencies in the finished coating shall be marked and repaired according to the procedures set forth herein by Applicator.

D. The municipal sewer system may be put back into non-severe operational service as soon as the final inspection has taken place. However, for severe corrosion duty such as high concentrations of acids, bases or solvents, 4 to 8 hours may be necessary prior to returning to service. Consult coating manufacturer for further details.

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PART 4 MEASUREMENT AND PAYMENT

A. Wet Well Coating: By the lump sum. Includes all surface preparation, cleaning, priming, coating, testing, inspection, materials, labor, and equipment necessary for completing the work and all items not itemized in the Bid Schedule.

   1. Bid Schedule Payment Reference: SP-099723

   2. Bid Schedule Description: Wet Well Coating…lump sum (LS)

B. Any items required by this section to complete the project that are not listed in the Bid Schedule are to be considered incidental to other Bid Items.

END OF SECTION

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DIVISION 26 00 00 - ELECTRICAL

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CENTURY WEST ENGINEERING

SPECIFICATION STAMP PAGE

DATE: December 16, 2025

CLIENT: Ardurra
7950 N. Meadowlark Way
Suite A
Coeur d'Alene, ID 83815

PROJECT: City of Moscow
Lift Station Rehab

ARDURRA PROJECT#: 240380

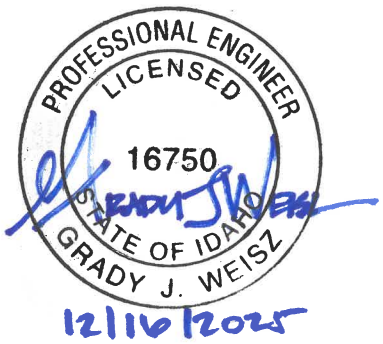
CWE PROJECT #: 60009.014.01

ENGINEER: Grady J. Weisz, P.E.

DESIGNER: Emily Neff

Section	Specification Description
26 00 00	ELECTRICAL GENERAL PROVISIONS
26 00 01	ELECTRICAL SCOPE OF WORK
26 00 02	BASIC MATERIAL AND METHODS
26 01 26	ELECTRICAL TESTING
26 05 19	WIRE AND CABLE
26 05 26	GROUNDING
26 05 33	RACEWAYS
26 24 16	PANELBOARDS
26 27 26	WIRING DEVICES
26 28 00	OVERCURRENT PROTECTIVE DEVICES
26 29 23	VARIABLE FREQUENCY MOTOR CONTROLLERS
26 50 00	LIGHTING
26 70 00	MOTORS
26 90 21	CONTROL SYSTEM
26 90 22	PUMP CONTROL PANEL

The technical specification sections listed above have been prepared under the direction of the Professional Engineer, registered in the State of Idaho, whose seal and signature appear below:



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SECTION 26 00 00
ELECTRICAL GENERAL PROVISIONS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Contract requirements

B. Codes, permits and fees

C. Quality assurance and standards

D. Site visit and familiarization

E. Submittals

F. Coordination of electrical work

G. Material and workmanship

H. Space requirements

I. Safety regulations

J. Delivery, storage and handling of materials

1.2 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:

1. Division 0 - Bidding Requirements, Contract Forms, and Conditions of the Contract.
2. Division 1 - General Requirements.

1.3 STANDARDS AND REFERENCES

A. Refer to Division 1 for general administrative/procedural requirements related to compliance with applicable standards.

B. This Work and all materials shall meet the standards set forth in the applicable portions of the following recognized standards:

1. ANSI – American National Standards Institute.
2. ASHRAE – American Society of Heating Refrigerating & Air-Conditioning Engineers.
3. ASME – American Society of Mechanical Engineers.
4. ASPE – American Society of Plumbing Engineers.
5. ASTM – American Society for Testing and Materials.
6. ETL – Electrical Testing Laboratory.
7. FM – Factory Mutual Engineering Corporation.
8. IEEE – Institute of Electrical and Electronics Engineers.
9. IES – Illuminating Engineering Society of North America.
10. NEC – National Electric Code (by NFPA).
11. NEMA – National Electrical Manufacturers Association.
12. NFPA – National Fire Protection Association.
13. UL – Underwriters' Laboratories Inc.

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1.4 SUBMITTALS

A. General: Submittals required for this project shall include, but are not be limited to:
   1. Shop Drawings and Product Brochure Submittals.
   2. Record (as-installed) Drawings.
   3. Certifications and Test Reports.
   4. Operating and Maintenance Manuals.
   5. Warranties (Guarantees).
   6. Refer to Division 1 for additional submittal requirements.

B. Shop Drawings and Product Brochure Submittals:
   1. The terms “Submittal” and “Shop Drawing” in this Specification are defined as either product literature, samples of equipment, or actual Shop Drawings.
   2. The Contractor shall submit complete data covering each item or equipment or material electronically in Adobe .pdf file format.
   3. Submittals shall be provided with a cover sheet with the names and addresses of the Project, Engineer, General Contractor, and the Subcontractor making the submittal. The cover sheet shall also contain the Specification section number applicable to the item or items submitted, the item nomenclature and description and a submittal number. Electrical submittals shall be numbered sequentially by Specification section with a sequence suffix (e.g. 26 05 19-1, 26 06 33-2, etc.). Re-submittals shall be numbered with the original submittal number plus an "R" in the sequence suffix (e.g. the re-submittals of submittal 26 05 19-1 would be 26 05 19-1RI, 26 05 19-1R2).
   4. Submittals shall be provided with an index page with a listing of all data included in the submittal.
   5. Submittals shall be provided with a list of variations, including unfurnished or additional items or features between the submitted equipment and the specified equipment. If there are no variations, then this page shall state "No Variations". Where variations affect the work of other contractors, then the contractor shall certify on this page that these variations have been fully coordinated with the affected contractors and that the submitting contractor shall pay all additional costs to the affected contractors associated with the variations.
   6. Submittals shall provide equipment information including manufacturer's name and designation, size, performance and capacity data. All applicable listings, labels, approvals and standards shall be clearly indicated.
   7. Submittals shall provide dimensional data and actual sketches as applicable to show that the submitted equipment will fit the space available with all required Code and maintenance clearances.
   8. Submittals shall include an identification of each item of material or equipment matching that indicated on the Drawings.
   9. Submittals shall provide sufficient pictorial, descriptive and diagrammatic data on each item to show its conformance with the Drawings and Specifications. Any options or special requirements shall be so indicated. All applicable information shall be clearly indicated with arrows or another approved method. Any non-applicable information shall be crossed out.
   10. Submittals shall include additional information as required in other sections of this Division.
   11. Submittals shall include certification by the General Contractor and Subcontractor that the material submitted is in accordance with the Contract Documents signed and dated.
   12. Reports or information requiring certification shall be certified by an authorized officer of the manufacturer or testing agency.

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13. Submittals shall include Certified Shop Drawings showing dimensions, loading details, anchor bolt locations, and inserts required for each piece of equipment set on concrete in sufficient time to cause no delay in the Work.
14. Equipment and material submittals shall show sufficient data including all performance data, recommended installation details, and sufficient data to indicate complete compliance with the Contract Documents, including proper sizes, clearances, capacities, materials, and finishes.

C. Required Shop Drawing Submittals:
1. Submittal Shop Drawings, including, but not limited to the following items.
2. Basic Materials and Methods .....See Section 26 00 02.
3. Wire and Cable ..... See Section 26 05 19.
4. Grounding ..... See Section 26 05 26.
5. Raceways..... See Section 26 05 33.
6. Panelboards ..... See Section 26 24 16.
7. Wiring Devices ..... See Section 26 27 26.
8. Overcurrent Protective Devices .....See Section 26 28 00.
9. Variable Frequency Motor Controllers .....See Section 26 29 23.
10. Lighting..... See Section 26 50 00.
11. Motors ..... See Section 26 70 00.
12. Control System..... See Section 26 90 21.
13. Pump Control Panel..... See Section 26 90 22.
14. Coordination Drawings as required by this Section.
15. As-Built Drawings.

D. Shop Drawing Submittal Review:
1. Shop Drawings will be reviewed for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Any action shown in review comments is subject to the requirements of the Contract Documents. The submitting Contractor is responsible for: dimensions that shall be confirmed at the job site; fabrication processes and techniques of construction; coordination of work with that of all other trades; and the satisfactory performance of work.

E. Certifications and Test Reports:
1. The Engineer may, at their discretion, witness any or all on and off site acceptance and operational testing. Submit a detailed listing of certification and testing for each system indicating estimated dates for completion of system installation.
2. Test procedures and test result reporting forms shall be submitted for review no later than the date of the certification and testing listing submittal.
3. Submit all certifications and test reports to the Engineer for review adequately in advance of completion of the Work to allow for remedial action as required to correct deficiencies discovered in equipment and systems.
4. Certifications and test reports to be submitted shall include, but not be limited to those items outlined in Section 26 01 26 - Electrical Testing.
5. Notify the Engineer in writing one week prior to all scheduled testing to allow time for Engineer to schedule witnessing of testing, where elected by the Engineer.

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1.5 OPERATING AND MAINTENANCE MANUALS

A. Submit two copies of Operating and Maintenance Manuals to the Engineer for approval prior to the beginning of operator training. Provide four approved Operating and Maintenance Manuals for use in operator training. Manuals shall be bound in rigid cover, 3-ring binders with spine and cover labels and shall provide operating and maintenance information for every piece of equipment furnished under this Specification. All sections shall be typed and indexed into sections and labeled for easy reference. Bulletins containing information about equipment that is not installed on the project shall be properly marked up or stripped and reassembled. All pertinent information required by the Owner for proper operation and maintenance of equipment supplied shall be clearly and legibly set forth in memoranda which shall, likewise, be bound with bulletins. As a minimum, the following information shall be provided as applicable:

1. Complete description of each system, item of equipment, and apparatus provided under this Division, including ratings, capacities, performances, data and curves, characteristics identifying name and number, locations, and wiring diagrams, including sources for all parts.
2. Fully detailed parts lists, including all numbered parts and recommended spare parts, of each item of equipment and apparatus provided under this Division.
3. Manufacturer's printed instructions describing operation, service, maintenance, and repair of each item of equipment and apparatus.
4. Typewritten record of tests made of materials, equipment, and systems included under this Division. Such records shall state the dates the tests were conducted, name(s) of person(s) making and witnessing the tests, and citing any unusual conditions relevant to the tests.
5. Identifying names, name tags designations and locations for all equipment.
6. Parameters and settings for configurable electronic equipment.
7. Equipment and motor nameplate data.
8. Copies of all approved Shop Drawing submittals.
9. Fabrication drawings.
10. Equipment and device bulletins and cut sheets clearly highlighted to show equipment installed on the project and including performance curves and data as applicable.
11. Maintenance instructions clearly highlighted to show all required periodic maintenance and lubrication.
12. Wiring diagrams.
13. Operating instructions clearly highlighted to show proper operating procedures for all equipment.
14. Exploded parts views and parts list for all equipment and devices.
15. Location and listing of all spare parts and special keys and tools furnished to the Owner.

B. Tools: Provide and deliver to the Owner's authorized representative any special tools required for maintenance of systems, equipment, and apparatus installed under this Division prior to requesting final acceptance of the installation.

C. Commissioning requirements are part of this contract.

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1.6 CODES, PERMITS AND FEES

A. General:

1. Comply with the most recently revised versions of applicable laws, rules, regulations, and ordinances of federal, state, and local utilities and authorities. Where alterations to and deviations from the Contract Documents are required by said authority, report the requirements and secure approval before starting work. Obtain all applicable permits, licenses and inspections and pay all fees charged by above authorities.

B. Code Design Basis:

1. The following codes and ordinances were used in the design of the project and shall be complied with during construction of the project.
   a) Electrical Code – NEC, most recent edition enforced.
   b) Standard for Fire Protection in Wastewater Treatment and Collection Facilities — NFPA 820, most recent edition enforced.

C. Precedence:

1. Where Contract Document requirements are in excess of Code requirements and are permitted under the Code, the Contract Documents shall govern. None of the terms or provisions of the drawings or specification shall be construed as waiving any of the rules, regulations or requirements of these authorities. In the event of conflict between the Contract Documents and the local enforcing authority, the latter shall rule. Any modifications resulting there from shall be made without additional cost to the Owner or Engineer. This Contractor shall report any such modifications to the Engineer and secure his approval before proceeding.

1.7 QUALITY ASSURANCE

A. Materials/Methods:

1. Manufacturers, materials and methods described in the various sections of the Specifications, and indicated on the Drawings are intended to establish a standard of quality only. It is not the intention of the Engineer to discriminate against any product, material or method that is equal to the standards as indicated and/or specified, nor is it intended to preclude open, competitive bidding. The fact that a specific manufacturer is listed as an acceptable manufacturer should not be interpreted to mean that the manufacturers standard product would meet the requirements of the project design, Specifications and space constraints.

B. Alternative Products/Materials/Methods:

1. Products by other reliable manufacturers, other materials, and other methods may be accepted provided they have equivalent capacity, construction, and performance. Under no circumstances shall any substitution be made without the prior written approval of the Engineer.
2. Wherever a definite product, material or method is specified and there is not a statement that another product, material or method will be acceptable, it is the intention of the Engineer that the specified product, material or method is the only one that shall be used without prior approval.

C. Alternative Equipment:

1. Where substituted or alternative equipment is used on the project, it shall be the responsibility of the Contractor or Subcontractor involved to verify that the equipment will fit in the space available, including all required Code and maintenance clearances, and to coordinate all equipment requirements and provisions with the Electrical Design and all other Contractors.

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D. Compatibility:
   1. Provide products that are compatible with other products of the electrical work, and with other work requiring interface with the electrical work, including electrical connections and control devices. For exposed electrical work, coordinate colors and finishes with other work. Determine in advance of purchase that equipment and materials proposed for installation will fit into the confines indicated, leaving adequate clearance as required by applicable codes and for adjustment, repair, and replacement.

1.8 SITE VISIT AND FAMILIARIZATION

A. General:
   1. Become familiar with the Drawings and Specifications, examine the premises, and understand the conditions under which the Contract shall be performed, prior to submitting a bid.

B. Site:
   1. Be informed of the site conditions, verify locations of new and existing equipment and determine exact requirements for connections.

C. Coordination:
   1. Submission of a bid for this project infers that the Electrical Contractor has visited the site and has become familiar with the Drawings and site conditions and has included in his proposal, all work necessary to properly install the systems on the project.

D. Pre-Bid Conference:
   1. Refer to Division 1.

1.9 DRAWINGS AND SPECIFICATIONS

A. General:
   1. The Drawings are schematic in nature and indicate approximate locations of the electrical systems, equipment, fixtures and devices, except where specific locations are noted and dimensioned on the Drawings. All items are shown approximately to scale. The intent is to show how these items shall be integrated into the project site. Locate all items by on the job measurements and in accordance with the Contract Documents. Cooperate with other trades to ensure project completion as indicated.

B. Location:
   1. Prior to locating electrical devices, light fixtures, and other items, obtain the Engineer's approval as to exact location. Locations shall not be determined by scaling Drawings. Mount lighting fixtures and electrical devices at the heights directed by the Engineer. Contractor shall be responsible for costs of redoing work of trades necessitated by failure to comply with this requirement.
   2. All electrical devices, lighting fixtures, and other devices shall be referenced to coordinated, established data points and shall be located to present symmetrical arrangements with these points and to facilitate the proper arrangements of acoustical tile panels and other similar panels with respect to the mechanical and electrical outlets and devices. Electrical devices, fixtures, and outlets shall be referenced to such features as wall and ceiling furring, balance, border widths, masonry joints, etc. Outlets in acoustical tile shall occur symmetrically in tile joints or in the centers of whole tiles and the exact location of each outlet and the arrangements to be followed shall be acceptable to the Engineer. Outlets in wall tile or masonry construction shall occur symmetrically in the centers of whole tiles, bricks, or blocks and the exact location of each outlet and the arrangement to be followed shall be acceptable to the Engineer.

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3. The Drawings show diagrammatically the location of the various outlets and apparatus. Exact locations of these outlets and apparatus shall be determined by reference to the general Drawings and to all detail Drawings, equipment Drawings, rough-in Drawings, etc., by measurements at the building, and in cooperation with the other trades. The Owner and Engineer reserve the right to make any reasonable change in location of any outlet or apparatus before installation, without additional cost to the Owner.

C. Specifications:

1. The Specifications are intended to supplement the Drawings and it is not in the scope of the specifications to mention any part of the work that the Drawings are competent to fully explain. Conversely, any part of the work that the specification is competent to fully explain may not be mentioned on the Drawings.

1.10 DISCREPANCIES

A. Clarification:

1. Clarification shall be obtained before submitting a proposal for the Work under this Division as to discrepancies or omissions from the Contract Documents or questions as to the intent thereof.

B. Detailed Instructions:

1. Should it appear that the work hereby intended to be done or any of the materials relative thereto is not sufficiently detailed or explained in the Drawings or Specifications, then the Contractor shall apply to the Engineer for such further Drawings or explanations as may be necessary, allowing a 10 working day time period for the Engineer to respond.

C. Interpretations:

1. Should any doubt or question arise respecting the true meaning of Drawings or Specifications, reference shall be made to the Engineer, whose written decision shall be final and conclusive.

D. Contractor Agreement:

1. Consideration will not be granted for misunderstanding of the amount of work to be performed. Submission of a bid conveys full Contractor agreement of the items and conditions specified, shown, scheduled, or required by the nature of the project.

1.11 UTILITIES

A. General:

1. Utility information shown on the Drawings has been shown based upon data obtained from the site survey and the agencies having jurisdiction and are accurate to the best of the knowledge of the Engineer.

B. Coordination:

1. The Contractor shall be responsible for field verification of the actual location of site and/or building utilities and shall make modifications necessary for connection to or construction around those utilities at no additional cost to the Owner or Engineer.

1.12 TEMPORARY FACILITIES

A. General:

1. Refer to Uniform General Conditions and Division 1 for requirements concerning temporary electrical facilities.

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1.13 SITE OBSERVATION

A. General:

1. Observations at the site to verify general compliance with Contract Documents shall be made periodically by the Engineer or his representative. Written observation comments shall be submitted to the General Contractor for review and a written response.

1.14 COORDINATION OF ELECTRICAL WORK

A. General:

1. Refer to Division 1 for general coordination requirements applicable to the entire work.
2. It is recognized that the Contract Documents are diagrammatic in showing certain physical relationships that must be established within the electrical work and in its interface with other work, including utilities and mechanical work, and that such establishment is the exclusive responsibility of the Contractor. The Drawings show diagrammatically the sizes and locations of the various conduit and raceway systems and equipment items along with the sizes of the major interconnecting distribution, without showing exact details as to elevations, offsets, control lines, and installation details.
3. Arrange electrical work in a neat, well organized manner with services running parallel with primary lines of the building construction and with a minimum of 7' overhead clearance where possible.
4. The Contractor shall carefully lay out his work at the site to conform to the structural conditions, to avoid obstructions and to provide proper grading of lines. Exact locations of outlets, apparatus and connections thereto shall be determined by reference to detail Drawings, equipment Drawings, roughing-in Drawings, etc., by measurements at the building and in cooperation with other Contractors and, in all cases, shall be subject to the approval of the Engineer. Relocations necessitated by the conditions at the site or directed by the Engineer shall be made without any additional cost to the Owner or Engineer.
5. All conduit and boxes except those in the various equipment rooms, in unfurnished spaces or where specifically designated herein or on the Drawings shall be run concealed in furring, plenums, and chases. Wherever conditions exist which would cause any of these items to be exposed in finished spaces, the Contractor whose work is involved shall immediately call the situation to the attention of the Engineer and shall stop work in those areas until the Owner's Representative or General Contractor directs the resumption of the work. Submit for approval a Shop Drawing for any change in equipment placement, etc.
6. Equipment has been chosen to fit within the available space with all required Code and maintenance clearances and shall be installed as shown. Every effort has been made to also accommodate equipment of other approved manufacturers; however, since equipment and access space requirements vary, the final responsibility for installation access and proper fit of substituted equipment rests with the Contractor.
7. System interferences shall be handled by giving precedence to pipe lines that require a stated grade for proper operation. Where space requirements conflict, the following order of precedence shall, in general, be observed:
    a. Building Lines,
    b. Structural members,
    c. Soil and drain piping,
    d. Utility water piping,
    e. Electrical conduit.
8. Locate electrical equipment properly to provide easy access. Arrange entire electrical work with adequate code access for operation and maintenance.

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9. Advise other trades of openings required in their work for the subsequent move in of large units of electrical work (equipment).
10. Coordinate all items that will affect the installation of the work of this Division. This coordination shall include, but not be limited to: Voltage, ampacity, capacity, electrical connections, space requirements, sequence of construction, building requirements and special conditions.
11. When submitting Shop Drawings on the project, this Contractor is indicating that all necessary coordination has been completed and that the systems, products and equipment submitted can be installed and will operate as specified and intended, in full coordination with all other Contractors and Subcontractors.

1.15 MATERIAL AND WORKMANSHIP

A. General:
   1. Materials and equipment shall be new, of best grade and quality, and standard products of reputable manufacturers regularly engaged in the production of such materials and equipment.

B. Workmanship:
   1. Work shall be executed and materials installed in accordance with the best practice of the trades in a thorough, substantial, workmanlike manner by competent workmen, presenting a neat appearance when completed.

C. Manufacturer's Recommendations:
   1. With exceptions as specified or indicated on the Drawings or in the Specifications, apply, install, connect, erect, use, clean, and condition manufactured articles, materials, and equipment per manufacturer's current printed recommendations. Copies of such printed recommendations shall be kept at the job site and made available as required.

1.16 SPACE REQUIREMENTS

A. General:
   1. Determine in advance of purchase that the equipment and materials proposed for installation will fit into the confines indicated, leaving adequate code clearances for adjustments, repair, or replacement.

B. Clearance:
   1. Allow adequate space for clearance in accordance with requirements of the Code and local inspection department.

C. Scheduled Equipment:
   1. The design shown on the Drawings is based on the equipment scheduled.

D. Responsibility:
   1. Since space requirements and equipment arrangement vary for each manufacturer, the responsibility for initial access and proper fit rests with the Contractor.

E. Review:
   1. Final arrangement of equipment to be installed shall be subject to the Engineer's review.

1.17 SAFETY REGULATIONS

A. All electrical work shall be performed in compliance with all applicable and governing safety regulations. All safety lights, guards, signs, and other safety materials and provisions required for the performance of the electrical work shall be provided by and operated by the Electrical contractor.

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1.18 DELIVERY, STORAGE AND HANDLING OF MATERIALS

A. General:

1. Protect all materials and equipment to be installed under this Division from physical and weather damage.

B. Scope:

1. Work under this Division shall include, but not limited to:
   a) Shipping from point of manufacture to job site,
   b) Unloading, moving, and storage on site with appropriate protection as required to properly protect equipment from rust, drip, humidity, dust, or physical damage,
   c) Hoisting and scaffolding of materials and equipment included in this Division,
   d) Ensuring safety of employees, materials, and equipment using such hoisting equipment and scaffolding as is required for safety.

C. Coordination:

1. All large pieces of apparatus which are to be installed in the building and which are too large to permit access through doorways, stairways or shafts shall be brought to the job by the Contractor and shall be placed in the spaces before enclosing partitions and structure are completed. All apparatus shall be cribbed up from the floor or ground by Contractor and shall be covered with tarpaulins or other protective covering where required for protection.

1.19 NOISE AND VIBRATION

A. General:

1. One year warrants the electrical systems, and their component parts to operate without objectionable noise or vibration. Noise from systems or equipment that results in noise within occupied spaces above the recommended NC curves (refer to ASHRAE Standard) shall be considered objectionable. Vibration shall not be apparent to the senses in occupied areas of the building. Objectionable noise, vibration, or transmission thereof to the building shall be corrected.

1.20 CLEANING, ADJUSTING, AND START-UP

A. Clean up:

1. The Contractor shall clean away from the job site all debris, surplus material, and similar items, resulting from his work or operations, leaving the job and equipment in a clean condition. The Contractor shall thoroughly clean all pieces of equipment, conduit, boxes, fixtures, and similar items, leaving the installation in a first class condition.

B. Start-up Services:

1. Where specified for any individual item of electrical equipment, provide a factory-authorized representative for testing, start-up of equipment, and instruction of Owner's operating personnel. Certify that these services have been performed by including a properly executed invoice for these services, or a letter from the manufacturer.

C. Lubrication:

1. Provide means for lubricating all bearings and other machine parts. Extend a lubrication tube with suitable fitting to an accessible location and identify it where lubrication fittings are concealed or inaccessible. Lubricate all parts requiring lubrication and keep them adequately lubricated until final acceptance by the Owner.

D. Testing:

1. See Section 26 01 26 – Electrical Testing.

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E. Operation Prior to Completion:

1. When any piece of electrical equipment is operable and it is to the advantage of the Contractor to operate the equipment, he may do so, providing that he properly supervises the operation, and has the Engineer's written permission to do so. The warranty period shall, however, not commence until such time as the equipment is operated for the beneficial use of the Owner, or date of substantial completion, whichever occurs first. Regardless of whether or not the equipment has or has not been operated, the Contractor shall properly clean the equipment, properly adjust, and complete all deficiency list items before final acceptance by the Owner. The date of final acceptance and the start of the warranty may not be the same date.

1.21 FINAL REVIEW

A. General:

1. Upon completion of the Work, perform a final test of the entire system.
2. The system shall be operating properly and meet commissioning requirements.
3. After the final test, any changes or corrections noted as necessary for the Work to comply with these Specifications or the Drawings shall be accomplished without delay in order to secure final acceptance of the Work.
4. The date for the final test shall be sufficiently in advance of the Contract completion date to permit execution, before expiration of the Contract, of any adjustments or alterations that the final acceptance tests indicate as necessary for the proper functioning of all equipment. Any such modifications shall be completed within the time allotted for completion of the Contract. Retests shall be conducted as directed and shall be of such time duration as necessary to ensure proper functioning of adjusted and altered items. Retests shall not relieve the Contractor of completion date responsibility.
5. Certificates, including certificates of occupancy from local authorities and documents required herein, shall be completely in order and presented to the Engineer at least one week prior to the review.
6. Individuals knowledgeable of the systems and persons approved by the Engineer shall be present at this final inspection to demonstrate the system and prove the performance of the equipment.

1.22 OPERATION AND MAINTENANCE TRAINING (OWNER INSTRUCTION)

A. General:

1. The Contractor and appropriate factory-trained representatives shall instruct the Owner's representative in the proper operation and maintenance of all electrical and control systems and equipment, and shall explain all warranties.

B. Training Agenda Outline:

1. Prior to instruction of Owner Personnel, the Contractor shall prepare a typed outline, listing the subjects that will be included in this instruction, and shall submit the outline for review by the Engineer at least 2 weeks prior to the time of the training.

C. Training Requirements:

1. Training shall be provided per the specific requirements in other sections of these specifications. In addition to training required in other sections of the specifications, the Contractor shall conduct specifically organized training sessions in the overall operation and maintenance of the electrical and control system for personnel employed by the Owner. The training sessions shall be conducted to educate and train the personnel in operations and maintenance of all components of the electrical system outside the training requirements in the other Sections.

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2. Training shall include, but not be limited to, the following:
   a) Preventative maintenance procedures,
   b) Trouble-shooting,
   c) Calibration,
   d) Testing,
   e) Replacement of components,
   f) Equipment operation.
3. At a minimum, one training session, at least 2 hours in duration, shall be conducted at the facility after start-up of the electrical and control systems. The Contractor shall prepare and assemble specific instruction materials for each training session and shall supply such materials to the Owner at least 2 weeks prior to the time of the training.

D. Certification:
1. At the conclusion of the instruction period, the Contractor shall obtain the signature of each person being instructed on each copy of the approved training outline to signify that the personnel has a proper understanding of the operation and maintenance of the systems, and resubmit the signed outlines.

E. Other Requirements:
1. Refer to other Division 26 Sections for additional Operator Training requirements for specific pieces of equipment or specific systems.
2. The Contractor shall coordinate the Operator Training requirements listed above with the Owner Instruction requirements of Division 1.

1.23 CONTRACTOR WARRANTIES AND GUARANTEES

A. General:
1. Contractor shall guarantee all material and equipment installed by him against defects in workmanship and material for a period of 12 months after final acceptance of the work by the Owner. He shall repair or replace any materials or equipment developing such defects within that time promptly on due notice given him by the Owner and at Contractor's sole cost and expense.

B. Equipment:
1. All equipment bearing a manufacturer's guarantee, such as electrical equipment, devices, components, and similar items, shall be construed to have an extended guarantee to the Owner by the manufacturer. Any such equipment that proves defective in materials or workmanship within the guarantee period is to be replaced by the Contractor in accordance with the manufacturer's guarantee.

PART 2 PRODUCTS

2.1 NOT USED.

PART 3 EXECUTION

3.1 NOT USED.

END OF SECTION

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SECTION 26 00 01
ELECTRICAL SCOPE OF WORK

PART 1 GENERAL

1.1 SECTION INCLUDES

A. General Project Description

B. Summary of Electrical Scope of Work

1.2 PROJECT DESCRIPTION

A. This lift station renovation project includes but is not limited to:

1. The abandonment of an existing underground dry well pump station with two suction lift pumps and their replacement with new duplex submersible lift pumps and level monitoring and control instrumentation installed in the existing lift station wet well. Also included is coordinated staging of transition from one to the other, followed by demolition of the electrical equipment in the dry well and salvaging the pump motors and any other equipment requested by the Owner.
2. Underground conduit with a portion of concrete encased duct-bank for fiber optic cable, power wires, and spares with pull cords, from the Headworks Building at the Wastewater Treatment Facility across State Highway 8 to the lift station site.
3. Modifications, coordination for Engineer Furnished PLC programming, and reinstallation and reuse of the existing telemetry panel located at the site.
4. A pump control panel with variable frequency drives, a packaged control panel HVAC system, a graphic touchscreen OIT/HMI, coordination for Engineer Furnished OIT/HMI programming, and associated appurtenances for a complete control and monitoring system.
5. An externally mounted odor control system for the lift station wet well with a fan/blower.
6. Coordination for Engineer Furnished SCADA system programming to remotely monitor the lift station from the Wastewater Treatment Facility.
7. Site work lighting.
8. Vault mounted instrumentation including flowmeters, pressure transmitters, and intrusion monitoring.
9. NFPA Hazardous Area work including seal-offs, intrinsically safe systems, explosion proof equipment, junction boxes, and appurtenances.

1.3 DESCRIPTION OF WORK

A. Provide labor, materials, tools, machinery, equipment, fixtures, devices, and services necessary to complete the specified work of this and all other Divisions. Coordinate work with other trades to prevent conflicts without impeding job progress.

B. Project work includes, but is not limited to:

1. A complete power distribution system including, but not limited to:
   a) Mini power-zone/power center,
   b) Cable feeders,
   c) Overcurrent devices,
   d) Raceways,
   e) All other components shown on the Drawings, specified, or required for a fully operational system.

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2. A complete grounding system including, but not limited to:
   a) Ground rods,
   b) Bonding,
   c) Ground conductors,
   d) Raceways,
   e) All other components shown on the Drawings, specified or required for a fully operational system.
3. A complete lighting system including, but not limited to:
   a) Lighting fixtures,
   b) Switches,
   c) Branch circuit wiring,
   d) Raceways,
   e) All other components shown on the Drawings, specified, or required for a fully operational system.
4. A complete branch circuit distribution system including, but not limited to:
   a) Branch and circuit wiring,
   b) Raceways,
   c) Wiring devices,
   d) Connections to motors and equipment,
   e) All other components shown on the Drawings, specified, or required for a fully operational system.
5. A complete system of miscellaneous electric controls and control wiring as shown on the Drawings and specified.
6. Electrical testing and certification as specified.
   a) Outdoor equipment rack, concrete housekeeping pads and ductbank encasement, bollards, conduit supports, and other supports as required for electrical equipment and components.
7. Connections to equipment furnished by the General Contractor or other Divisions.
8. Additional items as shown on the Drawings or specified.

1.4 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 02 – Basic Materials and Methods
   3. Section 26 01 26 – Electrical Testing
   4. Section 26 05 19 – Wire and Cable
   5. Section 26 05 26 – Grounding
   6. Section 26 05 33 – Raceways
   7. Section 26 24 16 – Panelboards
   8. Section 26 27 26 – Wiring Devices
   9. Section 26 28 00 – Overcurrent Protective Devices
   10. Section 26 29 23 – Variable Frequency Motor Controllers
   11. Section 26 50 00 – Lighting
   12. Section 26 70 00 – Motors
   13. Section 26 90 21 – Control System
   14. Section 26 90 22 – Pump Control Panel

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PART 2 PRODUCTS

2.1 GENERAL

A. Refer to specific Sections of the Specification for equipment.

PART 3 EXECUTION

3.1 GENERAL

A. Installation shall be in accordance with the Specification section pertaining to the individual Equipment.

END OF SECTION

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SECTION 26 00 02
BASIC MATERIALS AND METHODS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Basic requirements for electrical systems, including but not limited to:
   1. Manner of running conduits
   2. Hangers and supports
   3. Attachment
   4. Openings, cutting, and patching
   5. Excavation, trenching, and backfilling
   6. Flame spread properties of materials
   7. Penetration flashing and seals
   8. Cleaning and painting of electrical work
   9. Electrical system identification
   10. Warning signs and operational tags
   11. Prohibited markings
   12. Equipment housekeeping pads and anchor bolts
   13. Wiring device and equipment mounting heights

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. This section covers the basic materials and methods of electrical construction as shown, scheduled, indicated, and specified.

1.3 DEFINITIONS

A. For the purposes of providing materials and installing electrical work, the following definitions shall be used:
   1. Outdoor Area: Exterior locations where the equipment is normally exposed to the weather and including below grade structures, such as vaults, manholes, handholes and in-ground pump stations.
   2. Hazardous areas: Class I, II or III areas as defined in NFPA 70.
   3. Shop Fabricated: Manufactured or assembled equipment for which a UL test procedure has not been established.

1.4 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 01 26 – Electrical Testing
   4. Section 26 05 19 – Wire and Cable
   5. Section 26 05 26 – Grounding
   6. Section 26 05 33 – Raceways
   7. Section 26 24 16 – Panelboards

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8. Section 26 27 26 – Wiring Devices
9. Section 26 28 00 – Overcurrent Protective Devices
10. Section 26 29 23 – Variable Frequency Motor Controllers
11. Section 26 50 00 – Lighting
12. Section 26 70 00 – Motors
13. Section 26 90 21 – Control System
14. Section 26 90 22 – Pump Control Panel

1.5 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

1.6 STANDARDS AND REFERENCES

A. American National Standards Institute (ANSI):
   1. C2, National Electrical Safety Code
   2. Z535.1, Safety Color Code
   3. Z535.2, Environmental and Facility Safety Signs
   4. Z535.3, Criteria for Safety Symbols
   5. Z535.4, Product Safety Signs and Labels.

B. National Fire Protection Association (NFPA):
   1. 70, National Electrical Code (NEC)
   2. 70E, Standard for Electrical Safety in the Workplace
   3. 79, Electrical Standard for Industrial Machinery
   4. 820, Standard for Fire Protection in Wastewater Treatment and Collection Facilities

C. Occupational, Health and Safety Administration (OSHA):
   1. 1910.145, Specification for Accident Prevention Signs and Tags

D. All materials and equipment specified herein shall fall within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

1.7 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.
   2. The Contractor shall submit to the Engineer, for review, a list of proposed manufacturers and product data on hangers, supports, and methods of attachment to the structure.
   3. The Contractor shall submit to the Engineer, for review, the details of fabrication of the lift station electrical equipment rack, and scale drawings of the equipment rack showing all equipment mounting locations, based on final approved equipment submittals. Final equipment rack sizing shall be based on the layout using approved equipment submittals.

1.8 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

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PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Refer to specific Division 26 sections and specific material paragraphs below.

B. Provide all components of a similar type by one manufacturer.

2.2 ELECTRICAL EQUIPMENT SUPPORTS

A. Approved manufacturers:
   1. Unistrut Building Systems
   2. B-Line
   3. Globe Strut

B. Material requirements:
   1. Galvanized steel: ASTM A123 or ASTM A153
   2. Stainless steel: AISI Type 316

2.3 NAMEPLATES

A. For labeling equipment enclosures and equipment that is visible with the enclosure door closed:
   1. Approved manufacturers catalog numbers:
      a) W. H. Brady Co., #B-1.
      b) Seton, “Setonply”.
   2. Materials: Phenolic, 2-ply engraved.
   3. Size:
      a) Surface: As required for the text.
      b) Thickness: 1/16 IN.
   4. Fabrication:
      a) Two layer laminated.
      b) Legend engraved through top lamination into bottom lamination.
      c) Drilled holes in each corner, for screw mounting.
   5. Colors: Black top surface, white core, unless otherwise indicated.
   6. Fasteners: Self-tapping stainless steel screws.

B. For labeling components inside equipment enclosures:
   1. Approved manufacturers catalog numbers:
      a) W. H. Brady Co., “Industrial Strength Tape” #42018
      b) Seton, “Component and General Identification Labels” #45553
      c) Panduit, “Standard Labeling Tape” LS4-33
   2. Materials: vinyl tape or vinyl cloth with printable topcoat.
   3. Colors: White background, black printing.

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2.4 WIRE MARKERS

A. For control panels, electrical gear, pull and junction boxes:
   1. Material: vinyl or polyester tape.
   2. Approved manufacturer's catalog numbers:
      a) W. H. Brady Co., Indoor/Outdoor Vinyl Tape, B-580
      b) Seton, “Self-Laminating Wire Marker Labels” M7340
      c) Panduit, LS4M “Industrial Labeling Tape”
   3. Material: Heat shrinkable polyolefin.
   4. Approved manufacturer's catalog numbers:
      a) Seton, Welded Wire Marking Sleeves
   5. Colors: White background, black printing.

B. For manholes, handholes and exterior pad mounted electrical gear:
   1. Material: Aluminum or stainless steel.
   2. Approved manufacturer's catalog numbers:
      a) Panduit META-X or META54-X
   3. Legend: Embossed.
   4. Fasteners: Stainless steel strap.

2.5 SAFETY SIGNS

A. Approved manufacturers catalog numbers:
   1. W. H. Brady Co., #B-302 or #B-120
   2. Seton, Pressure Sensitive Vinyl or Tedlar Coated Plastic
   3. Panduit, GMM Polyester Film (Type PPS) or GMPE1 Rigid Polyethylene (Type PRS)

B. Materials, size and fabrication:
   1. For indoor use: Polyester or vinyl, surface area as required by the text, 4 mil minimum thickness, self-adhesive.
   2. For outdoor use and on entrances to electrical rooms or stations: Fiberglass or coated plastic, surface area as required by the text, minimum area 7 x 10 IN, 60 mil thickness, drilled holes for screw mounting.

C. Color in accordance with ASME (ANSI Z535.1, .2, .3 and .4) and OSHA 1910.145.

D. Minimum letter size on indoor signs, 3/16 in.

E. Maximize the letter size on outdoor signs to sufficiently fill the printable area on the sign.

F. Standards: ASME/ANSI Z535.1, Z535.2, Z535.3 and Z535.4, OSHA 1910.145.

PART 3 EXECUTION

3.1 MANNER OF RUNNING CONDUITS

A. All conduits shall be concealed in pipe chases, walls, furred spaces, topping, or above the ceilings of the building unless otherwise indicated.

B. Conduit may be run exposed in mechanical rooms, duct and piping chases, but only where necessary. All exposed conduit shall be run in the neatest, most inconspicuous manner, and parallel or perpendicular to the building lines.

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C. All conduit and surface raceways shall be adequately and properly supported from the building structure by means recommended by the manufacturer, or by the use of hanger rods or clamps as herein specified.

D. Where limited space is available above the ceilings and below concrete beams or other deep projections, conduit shall be sleeved through the projection where it crosses rather than hung below them in a manner to provide maximum above-floor clearance.

E. Whenever possible, install horizontal conduit runs above water piping.

F. Install all conduit to allow for adequate maintenance and access clearances to all equipment.

G. The Contractor shall study all construction documents and carefully lay out all work in advance of fabrication and erection in order to meet the requirements of limited spaces. Where conflicts occur, the Contractor shall meet with all involved trades and the Construction Inspector and resolve the conflict prior to erection of any work in the area involved.

H. Conduit and raceway connections, rough-in, and stub-up locations for equipment shall be coordinated by the Contractor to provide locations in locations indicated on approved manufacturers equipment shop drawings. Connection, rough-in and stub-up locations shown on the Drawings are diagrammatic for general reference only.

3.2 HANGERS AND SUPPORTS

A. All supports required for the proper installation of equipment, wireway, and conduit shall be provided as hereinafter specified unless otherwise indicated on the Drawings.

B. All conduits shall be supported as specified in Section 26 05 33, unless specifically noted differently on the Drawings or in the Specifications, but in every case shall be adequate to support the raceway being suspended. The supports shall be from the structure to line of grade, with proper provision for expansion, contraction, vibration elimination, and anchorage.

C. Vertical conduits shall be supported from floor lines with riser clamps sized to fit the conduit and to adequately support their weight, with allowance for expansion and contraction. At the bases of conduit, where required for proper support, provide anchor base fittings or other approved supports.

D. Conduit shall not be supported from ductwork, piping, or equipment.

E. All electrical conduits and surface raceways exposed to view shall be run parallel to the adjacent building construction. All hangers shall be fastened to the building structure in a manner as hereinafter specified under "Attachment".

F. Single conduits running horizontally shall be supported by Caddy, Minerallac, or approved equal; adjustable conduit hangers from adequately sized rods (minimum 1/8") from the building structure. Refer to Section 26 05 33 for additional requirements.

G. Multiple conduits running horizontally shall be supported by trapeze channels suspended on rods or bolted to vertical building members. Channels shall be as manufactured by Unistrut, Superstrut, Kindorf, or approved equal. Conduits shall be secured to the channel with galvanized or stainless steel clamps. Refer to Section 26 05 33 for additional requirements.

H. Vertical conduits, both concealed and exposed, shall be supported by clamping to vertical surfaces or by means of clamps resting on adjacent beams, or floor slabs, or both as required by the installation. Refer to Section 26 05 33 for additional requirements.

I. Conduits and raceways run against building surfaces shall be supported by means recommended by the manufacturer, or by means of single or two-hole rigid conduit clamps. Two-hole clamps shall be provided where size of conduit and installation conditions warrant Refer to Section 26 05 33 for additional requirements.

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J. All auxiliary steel required for conduit, cable tray, and wire-way supports, etc. shall be provided by the Electrical Trades unless specifically indicated to be provided by others. All support steel and fasteners shall be galvanized.

K. Contractor shall review all Drawings, including Structural Drawings, for details regarding supports.

L. All supports shall be of type and arrangement to prevent excessive deflection, to avoid excessive bending stresses between supports, and to eliminate transmission of vibration.

M. Perforated strap shall not be used as a hanger material.

3.3 ATTACHMENT

A. The load and spacing on each hanger and/or insert shall not exceed the safe allowable load for any component of the support system, including the concrete that holds the inserts. Reinforcement at inserts shall be provided as required to develop the strength required.

B. All conduits not embedded in concrete or masonry shall be securely and independently supported so that no strain will be transmitted to outlet box and pull box supports, etc. Supports shall be rigid enough to prevent distortion of conduits during wire pulling.

C. Inserts shall be of a type which will not interfere with reinforcing, and which will not displace excessive amounts of structural concrete. All methods of attachment to the structure and the use of after-set inserts shall be approved in writing by the Engineer.

D. All conduit and equipment supports shall be designed and installed to avoid interference with other piping, hangers, ducts, conduit, supports, building structures, equipment, etc. All conduit, and wireway shall be installed with due regard to expansion and contraction and the type of hanger method of support, location of support, etc. shall be governed in part by this Specification.

E. Hangers shall be attached to structure as follows:

1. Poured-in-place Concrete:
   a) Where conduits, equipment, etc., are supported under poured-in-place concrete construction, each hanger rod shall be fitted with a nut at its upper end, which shall be set into a UL-listed universal concrete insert placed in the form work before concrete is poured.
   b) Where inserts are placed in the bottom faces of concrete joists which are too narrow to provide adequate strength of concrete to hold the insert properly, or where a larger insert would require displacement of a bottom joist steel, the hanger rod shall be suspended from the center of a horizontal angle iron, channel iron, I-beam, etc., spanning across to adjacent joist. The angle iron shall be bolted to nonadjustable concrete inserts of the "spot" type, of physical size small enough to avoid the bottom joist steel.
2. Steel Bar Joist:
   a) Where light loads are supported under bar joists, hanger rods may be run with a washer and two nuts.
   b) Where larger loads are supported beneath bar joists, hanger rods shall be secured to angle irons of adequate size; each angle shall span across two or more joists as required to distribute the weight properly and shall be welded to the joists or otherwise permanently fixed thereto.
3. Steel Beams: Where loads are supported under steel beams, approved type beam clamps shall be used.
4. Wood Framing: Where loads are supported from wood framing, hanger rods shall be attached to framing with side beam brackets or angle clips.

5. Miscellaneous Steel: All miscellaneous steel members, angles, rods, supports, and similar items specified or required for this project shall be galvanized for indoor use or hot dipped galvanized for exterior use and where exposed to ambient conditions. All required miscellaneous steel shall be provided by this Division.

F. Fastening of conduits, etc., shall be as follows: To wood members - by wood screws; to masonry - by threaded metal inserts, metal expansion screws, or toggle bolts, whichever is appropriate for the particular type of masonry; to steel – machine – screws or welding (when specifically permitted or directed), or bolts, and to concrete by suitable inserts anchored to reinforcing steel, and poured in place unless other means are indicated on the plans. Power-actuated fasteners (shooting) will not be acceptable under any circumstances unless approved by the Engineer in writing.

3.4 OPENINGS, CUTTING AND PATCHING

A. General:

1. The Contractor shall be responsible for coordinating openings in the building construction for installation of electrical systems. Comply with the requirements of Division 1 for the cutting and patching of other work to accommodate the installation or electrical work. Except as individually authorized by the Engineer, cutting and patching of electrical work to accommodate the installation of other work is not permitted.

B. Cut and Patch:

1. Cut and patch walls, floors, etc., resulting from work in existing construction or by failure to provide proper openings or recesses in new construction.

C. Methods or Cutting:

1. Openings cut through concrete and masonry shall be made with masonry saws and/or core drills and at such locations acceptable to the Engineer. Impact-type equipment may be used upon written approval of the Engineer. Openings in pre-cast concrete slabs for conduits, outlet boxes, etc., shall be core drilled to exact size.

D. Approval:

1. If holes or sleeves are properly installed and cutting and patching becomes necessary, it shall be done at no change in Contract amount. Undertake no cutting or patching without first securing written approval from the Engineer. Patching shall create a surface which is structurally and aesthetically equal to the surface surrounding the area patched and shall be performed by the trade whose work is involved at no change in the Contract amount.

E. Protection:

1. Openings through exterior walls or roofs shall be provided with suitable covers while they are left open to protect the property or materials involved. Any openings through walls below grade shall be properly protected to prevent entrance of water or other damaging elements.

F. Restoration:

1. All openings shall be restored to "as-new" condition under the appropriate Specification Section for the materials involved, and shall match remaining surrounding materials and/or finishes. Restoration work shall be performed by the trades who originally installed the work being restored and shall be performed at no cost to the Owner or Engineer.

G. Special Note:

1. No coring, boring, or excavating which will weaken the structure shall be undertaken.

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3.5 EXCAVATING, TRENCHING AND BACKFILLING

A. General:

1. The work hereunder includes whatever excavating and backfilling is necessary to install the electrical work. Coordinate the electrical work in the same area, including excavating and backfilling, dewatering, floor protection provisions, other temporary facilities needed for protection and proper performance of excavating and backfilling.

B. Standards:

1. Except as otherwise indicated, comply with the applicable provisions of Division 2 for electrical work excavating and backfilling. Refer instances of uncertain applicability to the Engineer for resolution before proceeding with the Work.

C. The bottoms of trenches shall be excavated to required depths, slope and grade. The bottom of the trench shall be accurately excavated to provide firm, uniform bearing for the bottom of the raceways and duct-banks. Where mud or unstable soil is encountered in bottom of trench, it shall be removed to firm-bearing and the trench shall be back filled with bedding sand to proper grade and tamped to provide uniform firm support.

D. The bottom of trenches shall be accurately graded to provide proper fall and uniform bearing and support for each section of the conduit on undisturbed soil or 2" of sand fill at every point along its entire length. In general, grading for electrical duct-banks and conduits shall be from building to manhole, and from a high point between manholes to each manhole.

E. Exercise care not to excavate below required depth, leaving a flat bed of undisturbed earth; firm and secure before laying cable and duct-banks. In the event rock is encountered, excavate 6" below required depth and backfill to required depth with bedding sand, and compact to minimum 95% compaction.

F. All grading in the vicinity of excavation shall be controlled to prevent surface ground water from flowing into the excavations. Any water accumulated in the excavations shall be removed by pumping or other acceptable method. During excavation, material suitable for backfilling shall be stacked in an orderly manner a sufficient distance back from edges of trenches to avoid overloading and prevent slides or cave-ins. Material unsuitable for backfilling shall be wasted and removed from the site and properly disposed of.

G. The Contractor shall be fully responsible for the safety of persons, materials and equipment in or near trenches or other excavations and provide all required sloping, shoring, railings and other protective provisions.

H. If any unknown and/or uncharted utilities are encountered during excavation, promptly notify Engineer and wait for his/her instruction before proceeding,

I. If such unknown utilities are encountered and work is continued without contacting the Engineer for instructions, and damage is caused to said utilities, the Contractor shall repair at his own expense, such damage to the satisfaction of the owner or utility company concerned.

J. Trenches shall not be backfilled until all required tests have been made by the Contractor and approved by the Engineer and any local authorities having jurisdiction.

K. Backfill shall be compacted or cement stabilized sand up to 6" above the top of conduit or duct-bank. Backfill up to grade shall be in maximum 6" lifts with minimum 95% compaction of lifts. Refer to Division 2 or elsewhere in Contract Documents for additional trenching and backfill requirements.

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L. Opening and Reclosing Pavement, Landscape Areas and Lawns: Where excavation requires the opening of existing walks, street, drives, other existing pavement or lawns; such surfaces shall be cut as required to install new conduit and to make new connections to existing conduits. The sizes of the cut shall be held to a minimum, consistent with the work to be accomplished. After the installation of the new work is completed and the excavation has been backfilled and flooded, the area shall be patched or replaced, using materials to match those cut out or removed. Patches shall thoroughly bond with the original surfaces; these shall be level with them and shall meet all the requirements established by the authorities having jurisdiction over such areas. All removed work shall be replaced by craftsmen who regularly install the types of work being replaced.

M. Excavation in Vicinity of Trees:

1. All trees, including low hanging limbs within the immediate area of construction, shall be adequately protected to a height of at least 5' to prevent damage from the construction operations and/or equipment. All excavation within the outermost limb radius of all trees shall be accomplished with extreme care. All roots located within this outermost limb radius shall be brought to the attention of the Engineer before they are cut or damaged in any way. The Engineer will give immediate instructions for the disposition of same. All stumps and roots encountered in the excavation that are not within the outermost limb radius of existing trees shall be cut back to a distance of not less than 18" from the outside of any concrete structure or pipeline. No chips, parts of stumps, or loose rock shall be left in the excavation. Where stumps and roots have been cut out of the excavation, clean, compacted, dry bank sand shall be backfilled and tamped.

3.6 FLAMESPREAD PROPERTIES OF MATERIALS

A. Materials and adhesives incorporated in this project shall conform to NFPA Standard 255, “Method of Test of Surface Burning Characteristics of Building Materials”. The classification shall not exceed a flame spread rating of 25 for all materials, adhesives, finishes, etc. specified for each system; and shall not exceed a smoke-developed rating of 50.

3.7 PENETRATION FLASHING AND SEALS

A. Conduits passing through walls where exposed to weather or below grade shall pass through water-stop sleeves (new construction) or core-drilled openings (existing construction). The space between the conduit and sleeve/opening shall be sealed using segmented annular seals to prevent the entry of water or foreign materials. Segmented annular seals shall be Thunderline Incorporated; Type LS Series, Style C insulating type link seals for temperatures up to 250 degrees Fahrenheit, or approved equal. Water-stop sleeves shall be Thunderline Corporation, Century-Line or equal non-corroding thermoplastic sleeves with a molded in water stop.

3.8 CLEANING AND PAINTING OF ELECTRICAL WORK

A. Prime, protective touch-up painting is included in the Work of this Division. Finish painting in equipment spaces, concealed locations, and other locations not exposed to the view of building occupants is included in the work of this Division. Finished painting in areas exposed to the view of building occupants is specified under Division 9.

B. All equipment and materials furnished by the electrical subcontractor shall be delivered to the job with suitable factory finish.

C. All equipment not finished at the factory shall be given a prime coat and then finish painted with two coats of enamel in color as directed by the Engineer. No nameplates on equipment shall be painted, and suitable protection shall be afforded such plates to prevent their being rendered illegible during the painting operations.

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D. The surfaces finish-painted shall first be prepared as follows:
   1. Galvanized and black steel surfaces shall first be painted with one coat of galvanized metal primer.
   2. Aluminum surfaces shall first be painted with one coat of zinc chromate primer.

E. All ferrous metal surfaces without protective finish and not galvanized, in exposed and concealed areas including chases, under floor and above ceilings, shall be painted with two coats of zinc chromate primer as the construction progresses to protect against deterioration.

F. Before painting, all surfaces to be painted shall be suitably prepared. This shall include removing all oil, rust, scale, dirt, and other foreign material. Surfaces shall be made smooth by grinding, filing, brushing, or other approved method. In the painting operations, the primer for metal surfaces shall be of the zinc dust type unless specified otherwise, and where finish painting is specified, it shall be painted using materials and colors selected and approved by the Engineer. Refer to Division 9 for additional requirements.

3.9 WARNING SIGNS AND OPERATIONAL TAGS

A. Warning Signs: Provide warning signs where there is hazardous exposure associated with access to or operation of electrical facilities. Provide text of sufficient clarity and lettering of sufficient size to convey adequate information at each location; mount permanently in an appropriate and effective location. Comply with recognized industry standards for color and design.

B. Operational Tags: Where needed for proper and adequate information on operation and maintenance of electrical systems, provide tags of plasticized card stock, either preprinted or hand printed.

3.10 EQUIPMENT HOUSEKEEPING PADS AND ANCHOR BOLTS

A. Concrete pads for electrical equipment (Housekeeping Pads) will be furnished under this Division.
   1. All concrete used in duct-bank encasementshall be 5 sack mix with 1/2" maximum aggregate and 3000 psi compressive strength when tested after 28 days in accordance with ASTM 039-44, "Standard Method of Test for Compressive Strength of Concrete".Refer to Division 3 for additional requirements.
   2. Add 8 pounds of. Sonneborn Sons, Inc. "Sonobrite Red" (or an approved equal dye) per cubic yard of wet mix duct-bank encasement concrete to form a uniform red color throughout the concrete.
   3. Equipment rack supports shall be formed using Sonatube or an approved equal forming system.
   4. Keep concrete wet at least 48 hours after forms are removed to ensure proper curing.
   5. Equipment pads and duct-banks shall be reinforced where noted on the Drawings. Refer to Division 3 for reinforcing steel.
   6. Duct-bank concrete shall be carefully spaded during the pouring to eliminate all voids under and between the ducts and to prevent honeycombing of the exterior surfaces. Power driven tampers or agitators shall not be used unless specifically designed for the application.
   7. Generally, each run of the duct-bank shall be poured in one continuous operation. Where more than one pour is necessary, each pour shall terminate in an angular plane, and reinforcing rod dowels shall be added as necessary to ensure a sound joint. Partial pours shall not terminate in horizontal or vertical planes.

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8. The concrete encasement covering the duct-bank may be poured directly against the sides of the trenches if the cut is clean enough, and free of loose material. All loose dirt and extraneous material shall be removed from the trenches before and during the pouring of the concrete to ensure sound envelopes. The trench bed shall be smooth and properly graded for the placement of the bottom row of spacers.

B. Pads shall be nominal 3-1/2" high and shall extend a minimum of 3" beyond all equipment and supports while generally conforming to the shape of the equipment, unless otherwise shown on the drawings.

C. Furnish galvanized anchor bolts with layout templates for installation in equipment pads. Bolts shall be of the size and quantity recommended by the manufacturer and where vibration isolators are used, they will be anchor bolted to the equipment pad.

3.11 WIRING DEVICE AND EQUIPMENT MOUNTING HEIGHTS

A. In general, unless noted otherwise on Electrical Drawings or directed by the Engineer, mounting heights to device centerline shall be as follow:

Wall Switches	48" above finished floor/grade.
Receptacles	18” above finished floor/grade.
Panelboards	72" from finish floor/grade to top of panel board.

B. All receptacles shall be mounted with their long axis vertical, unless noted otherwise.

3.12 DEMOLITION AND WORK AT EXISTING SITE

A. The Contractor shall be responsible for loss or damage to the existing facilities caused by him and his workmen, and shall be responsible for repairing or replacing such loss or damage. The Contractor shall send proper notices, make necessary arrangements, and perform other services required for the care, protection, and in-service maintenance of all electrical services for the new and existing facilities. The Contractor shall erect temporary barricades, with necessary safety devices, as required to protect personnel from injury, removing all such temporary protection upon completion of the work.

B. The Contractor shall provide temporary or new services to all existing facilities as required to maintain their proper operation when normal services are disrupted as a result of the work being accomplished under this project.

C. Where existing construction is removed to provide working and extension access to existing utilities, Contractor shall remove doors, conduit, outlet boxes, wiring, light fixtures, equipment, and similar items, to provide this access and shall reinstall same upon completion of work in the areas affected.

D. Outages of services as required by the new installation will be permitted but only at a time approved by the Owner. The Contractor shall allow the Owner 2 weeks in order to schedule required outages. The time allowed for Outages will not be during normal working hours, unless otherwise approved by the Owner. All costs of outages, including overtime charges, shall be included in the contract amount.

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E. The Contractor shall modify, remove, and/or relocate all materials and items so indicated on the Drawings or required by the installation of new facilities. All removals and/or dismantling shall be conducted in a manner as to produce maximum salvage. Survey the project with the Owners representative before demolition begins and determine all materials that the Owner specifically chooses to have salvaged. Pre-establish with the Owner locations where salvaged materials are to be stored. Salvage materials shall remain the property of the Owner, and shall be delivered to such destination as directed by the Owner. Materials and/or items scheduled for relocation and which are damaged during dismantling or reassembly operations shall be repaired and restored to good operative condition. The Contractor may, at his discretion and upon the approval of the Owner, substitute new materials and/or items of like design and quality in lieu of materials and/or items to be relocated.

F. All items which are to be relocated shall be carefully removed in reverse to original assembly or placement and protected until relocated. The Contractor shall clean and repair and provide all new materials, fittings, and appurtenances required to complete the relocations and to restore to good operative order. All relocations shall be performed by workmen skilled in the work and in accordance with standard practice of the trades involved.

G. When items scheduled for relocation are found to be in damaged condition before work has been started on dismantling, the Contractor shall call the attention of the Owner to such items and receive further instructions before removal. Items damaged in repositioning operations are the Contractor's responsibility and shall be repaired or replaced by the Contractor as approved by the Owner, at no additional cost to the Owner.

H. Service lines and wiring to items to be removed, salvaged, or relocated shall be removed to points indicated on the Drawings, specified, or acceptable to the Owner. Service lines and wiring not scheduled for reuse shall be removed to the points at which reuse is to be continued or service is to remain. Such services shall be sealed, capped, or otherwise tied-off or disconnected in a safe manner acceptable to the Owner. All disconnections or connections into the existing facilities shall be done in such a manner as to result in minimum interruption of services to adjacent occupied areas. Services to existing areas or facilities which must remain in operation during the construction period shall not be interrupted without prior specific approval of the Owner as hereinbefore specified.

I. Certain work during the demolition and alteration phases of construction may require overtime or nighttime shifts or temporarily evacuation of the occupants. Coordinate and schedule all proposed down time with tile 0wnerr's Representative at least 72 hours in advance.

J. Make every effort to minimize damage to the existing Owner's property. Repair, patch, or replace as required any damaged which might occur as a result of work at the site. Care shall be taken to minimize interference with the Owner's activities during construction. Cooperate with the Owner and other trades in scheduling and performance of the work.

K. Include in the contract price all rerouting of existing conduits, wiring, outlet boxes, fixtures, etc., and the reconnecting of existing fixtures as necessitated by field conditions to allow the installation of the new systems. Furnish all temporary conduit, wiring boxes, etc., as required to maintain lighting and power service for the existing areas with a minimum of interruption.

L. All existing lighting fixtures, switches, outlets, materials, equipment and appurtenances not included in the remodel or alteration areas are to remain in place and shall remain in service.

M. Electrical equipment, outlets, circuits to mechanical and building systems equipment, etc., which are to remain but which are' served by conduit and/or circuiting that is disturbed by the remodeling work, shall be reconnected in such a manner as to leave it in proper operating condition.

N. Existing branch circuit wiring which is to be removed, shall be pulled from the raceways and the empty conduit shall be removed to a point of permanent concealment

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O. New circuiting indicated to be connected to existing panels shall be connected to "spares" and/or "released" breakers as applicable, or new breakers provided where space is available. Contractor shall verify the existing panel load and feeder capacity prior to adding any additional loads.

P. Any salvageable equipment as determined by the Owner, shall be delivered to the Owner, and placed in storage at the location of his choice. All other debris shall be removed from the site immediately.

Q. No portion of the fire alarm system shall be turned off, modified or changed in any way without the express knowledge and written permission of the Owner's Representative.

R. Refer to "Demolition" and "Alteration" plans for actual location of walls, ceilings, etc. being removed and/or remodeled.

END OF SECTION

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SECTION 26 01 26
ELECTRICAL TESTING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Testing of electrical systems.

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. Provide testing of electrical work installed under Division 26, as specified herein and in other Division 26 sections. Feeders and equipment shall not be placed in service until they have been checked and tested, as applicable.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 05 19 – Wire and Cable
   5. Section 26 05 26 – Grounding
   6. Section 26 29 23 – Variable Frequency Motor Controllers
   7. Section 26 70 00 – Motors
   8. Section 26 90 21 – Control System
   9. Section 26 90 22 – Pump Control Panel

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall, within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. All materials and equipment specified herein shall conform with all applicable NEMA, ANSI and IEEE Standards

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

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1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

B. Testing Procedures: Submit proposed testing procedures to the Engineer for review at least 10 working days prior to conducting any testing on the project.

C. Reporting Forms: Submit proposed forms to be used in recording testing data and results to the Engineer for review at least 10 working days prior to conducting any testing on the project.

D. Calibration List: Submit a listing of testing devices to be used for the project to the Engineer for approval. Listing shall include documentation that the devices are properly calibrated.

E. Test Log: The Contractor shall maintain a test log at the site to document the results of all successful and unsuccessful testing as it is performed. This log shall be available for review by the Engineer and a copy of the log shall be submitted to the Engineer prior to the Substantial Completion inspection. A space shall be provided on the test log signoff by the Engineer or Owners representative.

F. Test Data and Results: Submit complete data and certified test results for each test performed, including, but not limited to:
   1. Test performed,
   2. Test procedure,
   3. System and area tested,
   4. Date(s) and time(s) of test,
   5. Weather conditions,
   6. Test criteria,
   7. Test results,
   8. Additional pertinent information.

G. Testing Certification: Certifications stating that submitted test data and results are true and correct shall be provided for all submittals under this section. Certification shall be executed by an authorized officer if the Contractor is a corporation, by a partner if the Contractor is a partnership, by the owner if the Contractor is a sole proprietorship or by the authorized representative if the Contractor is a joint venture.

H. Operational Certification: For Packaged, Vendor Supplied, Custom Engineered, systems or equipment submit an operational certification which documents that all equipment and systems have been fully tested to verify proper operation in accordance with the design shown in the Contract documents and manufacturer's recommendations.

1.7 NOTICE

A. Notify the Engineer in writing 10 working days prior to all scheduled testing to allow time for Engineer to schedule witnessing of testing, where elected by Engineer.

PART 2 PRODUCTS

2.1 TESTING MATERIALS

A. General: Provide all materials and test equipment required for testing of specified electrical systems, including re-testing until acceptable results are obtained.

B. Products: Tested products which fail to provide acceptable test results shall be repaired or replaced with suitable materials as required to obtain acceptable results.

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PART 3 EXECUTION

3.1 TESTING

A. General: Tests shall be made during the course of the construction as specified and as required by authorities having jurisdiction. Such test shall be conducted by this Division as part of the Work and shall include all personnel, material, and equipment required to perform test until satisfactory results are obtained. Any defects detected during testing shall be satisfactorily repaired or the equipment involved shall be replaced and the test re-executed.

B. Testing shall include but not be limited to all items in other Sections of this Division and the following:
   1. Feeders: Refer to Section 26 05 19.
   2. Ground Rods: Refer to Section 26 05 26.
   3. Motors: Refer to Section 26 70 00.
   4. Control System and Instrumentation: Refer to Section 26 90 21.

C. Test Reports (Attached)
   1. ELECTRICAL SYSTEM TEST REPORT - 600V CABLE
   2. ELECTRICAL GROUND ROD TEST REPORT
   3. MOTOR TEST REPORT
   4. TRANSMITTER CALIBRATION / TEST DATA FORM

END OF SECTION

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26 01 26 ELECTRICAL SYSTEM TEST REPORT - 600V CABLE

ELECTRICAL SYSTEM
DESCRIPTION DATA

SERVICE DESCRIPTION:
nominal voltage, phase to phase
phase to neutral - single or three phase-
number of conductors

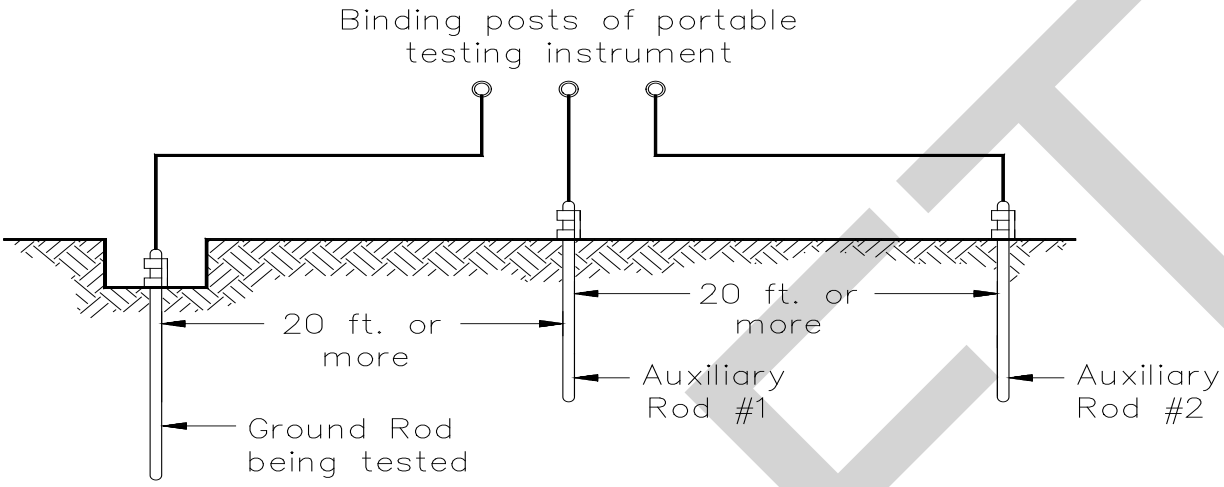
SERVICE CONDUCTORS:
phase size and insulation type
neutral size and insulation type
ground size and insulation type

SERVICE DISCONNECT DESCRIPTION:
circuit breaker or disconnect switch
size (amps)
fuse (amps)

MEASURED CONDITIONS		DATA
Operating Load Voltage	Volts	Vab_____ Vbc_____ Vca_____ Van_____ Vbn_____ Vcn_____
Operating Load Feeder Current	Amps	Ia_____ Ib_____ Ic_____
Conductor Insulation Resistance - record the measurement for each set of conductors in a single raceway for the following circuits: 1. Pump Control Panel Feeder 2. Motor Feeders	Megohms	a-b_____ b-c_____ c-a_____
	Megohms	a-g_____ b-g_____ c-g_____

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26 01 26 - ELECTRICAL GROUND ROD TEST REPORT



GROUND ROD RESISTANCE TESTING

PROCEDURE:
To measure ground resistance, two additional temporary grounds, consisting of short rods 2 or 3 feet long, shall be driven in the ground at least 20 feet away from the rod being tested. A direct-reading ground resistance tester shall then be connected to the three ground rods by means of insulated leads. The battery operated ground resistance tester reads the resistance of the ground rod being tested directly in ohms. The ground rod location / designation and its measured ohm value shall be recorded in chart below.

GROUND ROD LOCATION / DESIGNATION	OHM VALUE
1.	*
2.	*
3.	*
COMPOSITE GROUND	*

*Ohm value of a single ground rod shall not exceed 25 Ohms. If additional ground rod(s) are added, the "composite" ground electrode shall have a maximum acceptable reading of 15 Ohms which shall be recorded in chart above.

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26 01 26 - MOTOR DATA AND TEST REPORT

EQUIPMENT NAME AND NUMBER: _____

EQUIPMENT SPECIFICATION SECTION: _____

MOTOR STARTER LOCATION _____

CONTRACTORS REPRESENTATIVE _____ DATE _____

MOTOR NAMEPLATE DATA

MFR Name/Model No. _____
Voltage/Phase/HP _____
FLA/LRA _____
Service Factor _____
Efficiency Index (or percent) _____
NEMA Design _____
Code Letter _____
Insulation Type _____
Temperature Rise _____
Ambient Temperature _____
RPM _____
Enclosure _____
Thermal Trip Setting _____
Space HTR: Watts/Volts _____
Other Data _____

MOTOR STARTER INFORMATION
Manufacturer/Type _____
Overload Heater No _____

* RECORDED FULL LOAD DATA	VOLTS	A-G_____	B-G_____	C-G_____
FULL LOAD OPERATING VOLTAGE	VOLTS	A-B_____	B-C_____	C-A_____
FULL LOAD OPERATING CURRENT	AMPS	A_____	B_____	C_____
INSULATION RESISTANCE (deenergized)	MEGOHMS	A-G_____	B-G_____	C-G_____
MOTOR CIRCUIT RESISTANCE	OHMS	A-B_____	B-C_____	C-A_____

*VOLTAGE & CURRENT READINGS SHALL BE TAKEN AT THE CLOSEST ACCESSIBLE POINT TO THE LOAD

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26 01 26 - TRANSMITTER CALIBRATION / TEST DATA FORM

Tag. No. and/or Description:_____ Serial No._____
Make and Model No.:_____
Associated Panel: _____
Type of testing equipment used: _____
Input: _____
Output: _____
Range: _____ Scale: _____
Calibrated Value (flow/pressure/turbidity etc.) at 4mA _____
Calibrated Value (flow/pressure/turbidity etc.) at 20mA _____
Simulate process variable (flow, pressure, turbidity, etc.) and measure output with appropriate meter. Related value is (example: the level associated with the pressure).

% Range	Input (engr. units)	Related value	Expected Output	Actual Output
0				
25				
50				
75				
100				

COMMENTS:

TESTED BY_____ DATE:_____

OWNERS REPRESENTATIVE _____ DATE:_____

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SECTION 26 05 19
WIRE AND CABLE

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Building wire
   2. Power and control cable
   3. Instrumentation and data cable
   4. Fiber optic cable
   5. Wire connectors
   6. Insulating tape
   7. Pulling lubricant

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. Provide electrical wiring and connections as shown, scheduled, indicated, and specified.

B. All wiring shall be in raceways.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 01 26 – Electrical Testing
   5. Section 26 05 26 – Grounding
   6. Section 26 05 33 – Raceways
   7. Section 26 29 23 – Variable Frequency Motor Controllers
   8. Section 26 70 00 – Motors
   9. Section 26 90 21 – Control System
   10. Section 26 90 22 – Pump Control Panel

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

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1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall, within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. Products shall be designed, manufactured, tested, and installed in compliance with the following standards:

1. Insulated Cable Engineers Association:
   a) S-58-679, Control Cable Conductor Identification
2. Institute of Electrical and Electronic Engineers (IEEE):
   a) 518, Guide for the Installation of Electrical Equipment to Minimize Electrical Noise Inputs to Controllers from External Sources
3. National Electrical Manufacturers Association (NEMA):
   a) ICS 4, Terminal Blocks for Industrial Use
4. National Electrical Manufacturers Association/Insulated Cable Engineers Association (NEMA/ICEA):
   a) WC 70/ICEA S-95-658, Standard for Nonshielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
5. National Fire Protection Association (NFPA):
   a) 70, National Electrical Code (NEC)
   b) 262, Method of Test for Fire and Smoke Characteristics of Wires and Cables.
6. Underwriters Laboratories, Inc. (UL):
   a) 44, Thermoset-Insulated Wires and Cables
   b) 83, Thermoplastic-Insulated Wires and Cables
   c) 467, Grounding and Bonding Equipment
   d) 486A, Wire Connectors and Soldering Lugs for use with Copper Conductors
   e) 486C, Splicing Wire Connectors
   f) 510, Insulating Tape
   g) 1581, Reference Standard for Electrical Wires, Cables, and Flexible Cords

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

1.6 DEFINITIONS

A. Cable: Multi-conductor, insulated, with outer sheath containing either building wire or instrumentation wire.

B. Instrumentation Cable: Multiple conductor, insulated, twisted or untwisted, with outer sheath. The following are specific types of instrumentation cables:

1. Analog signal cable: Used for the transmission of low current (e.g., 4-20mA DC) or low voltage (e.g., 0-10 V DC) signals, using No. 16 AWG and smaller conductors. Commonly used types are defined in the following:
   a) UTP: Unshielded twisted pair,
   b) TSP: Twisted shielded pair, (or STP: Shielded twisted pair),
   c) TST: Twisted shielded triad.
2. Digital signal cable: Used for the transmission of digital signals between computers, PLC’s, RTU’s, etc.

C. Power Cable: Multi-conductor, insulated, with outer sheath containing building wire, AWG No. 8 and larger.

D. Control Cable: Multi-conductor, insulated, with outer sheath containing building wires, AWG No. 16, AWG No. 14, AWG No. 12 or AWG No. 10.

E. Building Wire: Single conductor, insulated, with or without outer jacket depending upon type.

1.7 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

PART 2 PRODUCTS

2.1 CONDUCTORS

A. Conductors shall be stranded copper. Sizes AWG No. 14, 12 and 10 for general purpose lighting and receptacle wiring and all wiring within circuit breaker panels may be solid. All other conductors shall be stranded. Insulation shall be THW-2, THWN-2, or THHN, (90˚F) chosen to satisfy environmental conditions. Conductors used for power circuits shall not be smaller than AWG No. 12. Control conductors may be AWG No. 14.

2.2 CONNECTORS

A. Ideal Industries “Wing Nut” or 3M Company “SCOTCHLOCK” pre-insulated connectors may be used for lighting and receptacle circuits for splices and taps in conductors AWG No. 10 and smaller. For AWG No. 8 and larger conductors, utilize Thomas & Betts compression connectors. Compress using recommended die and tools.

B. For connections of wire to cord to removable equipment provided with integral cords (such as floats, transducers, etc.) provide junction box with terminals and coat with liquid insulation.

C. For connections of wire to cord for submersible motors of all size wire use a water proof motor stub insulator: Thomas & Betts multi splice insulator MSLT112-4 or equal.

2.3 SPLICE INSULATION

A. Splice insulation shall be equal to the conductor utilized.

B. Insulate all permanent splices that are underground or in damp or corrosive environments with cast epoxy type insulation which covers the jacket of all cords and the insulation on all wire. Epoxy splice shall be Scotch #3570 or equal.

2.4 SHIELDED SIGNAL CABLE

A. Signal conductor cable shall be AWG No. 16 individually twisted, shielded pairs, BELDEN #8719, or equal. Conductors shall be tinned copper with color coded 90° C PVC insulation and individual conductor jacket of nylon. Shielding shall be aluminum polyester 100% shield coverage with drain wire. The cable shall have an overall PVC jacket.

2.5 FIBER OPTIC CABLE

A. Fiber optic cable shall be compatible with the existing Single Mode fiber: SM BIF 6 Fiber KQ0069641801 (UL) type OFNP FT6, or Engineer approved equal.

B. Fiber optic cable shall be suitable for applications between buildings, vaults, and equipment racks in outdoor/buried conduit runs and in a concrete encased duct-bank.

C. Provide all necessary accessory equipment for a complete installation as recommended by the Manufacturer for a complete installation.

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2.6 MOTOR TERMINAL SPLICE INSULATION

A. Provide motor terminal splice insulation in the motor connection box that will withstand constant vibration and abrasion without degrading the insulation of the splice. A product shall be used that is specifically designed for the purpose of motor terminations.

1. For motors in outdoor, damp, or corrosive environments, use a water proof motor stub insulator, Thomas & Betts multi splice insulator MSLT112-4 or equal. For splices using wire larger than AWG No. 8 it is also acceptable to use a heat shrinkable motor connection stub splices, RAYCHEM, MCK-V series or equal.

PART 3 EXECUTION

3.1 GENERAL

A. Splicing of power and control and signal wires or cables is not allowed. All wire transitions shall be done on terminals.

B. Keep all conductors within the allowable tension limits during installation. Lubricants for wire pulling, if used, shall be approved for the insulation and raceway material. Observe cable manufacturer's and industry standard cable bending radius recommendations.

C. Incoming conductors in panelboards, control panels, motor control centers, etc., AWG No. 6 and smaller, shall be bundled and laced at intervals not greater than 6 inches and neatly spread into trees and connected to their respective terminals.

D. Sufficient slack shall be allowed in conductors for alterations in terminal connections. Lacing shall be done with plastic cable ties using a tensioning tool designed for that purpose.

E. Conductors crossing hinges shall be made up into groups not exceeding twelve and shall be so arranged that they will be protected from chafing when the hinged member is moved.

F. Conductors installed in handholes shall be bundled and neatly racked to the side of the handhole. All splices (if allowed) shall be a minimum of 6 inches above the bottom of the handhole.

3.2 WIRE AND CABLE TERMINATION

A. Power conductors, AWG No. 8 and larger may be terminated directly in box-type lugs.

B. Solid conductors (when allowed for lighting and receptacle circuits) of AWG No. 10 and AWG No. 12 may be directly terminated to screw terminals.

C. For any power, control, or signal wire terminating on screw type terminals; provide spade or ring tongue type terminations.

D. Stranded control conductors may be directly terminated in box type terminals at control panels. Insulated terminals shall be used also on all stranded instrumentation wiring.

E. Special instrumentation cables shall be terminated in accordance with the recommendations of the manufacturer of the equipment and subject to review by the Engineer.

F. No splices shall be used in power, control and/or signal wiring. The wiring shall be continuous from point-to-point.

G. Terminals and connectors shall be installed with the compression tool recommended by the terminal manufacturer. Solid wire shall not be lugged, but shall be terminated with a full ring eye of the wire under the binding-head screw or saddle of the terminal block. Electrical spring connectors may be used only on lighting circuits.

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3.3 COLOR CODING

A. Wiring shall conform to the following color code.

B. Insulation on phase conductor sizes AWG No. 10 and smaller shall be colored, No.8 AWG and larger may have black insulation with plastic tape of the appropriate color from the table below.

C. Insulation on the grounded conductor (neutral) sizes AWG No. 8 and smaller shall be colored, AWG No. 6 and larger may have black insulation with plastic tape of white or gray in accordance with the table below.

Description	120/208/240V	277/480V	Control
Phase A (Left)	Black	Brown	--
Phase B (Center)	Red	Orange	--
Phase C (Right)	Blue	Yellow	--
Neutral	White	Gray	White
Ground	Green	Green	Green
120 VAC Control	--	--	Red
120 VAC Control	Neutral	--	White
DC Control (+)	--	--	Blue
DC Control (-)	--	--	Gray
External Source	--	--	Yellow

D. All control wiring in control panels or other enclosures that is powered from an external source and is not disconnected by the control panel disconnect shall be terminated at a disconnecting terminal block upon entering the enclosure. The color of the wire shall then be changed to yellow to identify it as being powered from an external source. Provide identification nameplate on exterior of enclosure to indicate sources of external power.

3.4 TERMINAL MARKING

A. All terminals in instrument and relay enclosures, motor control centers, control panels, instrument panels, field panels and control stations, as well as connections to mechanical equipment, shall have reference number and letter in accordance to the following:

1. h = Control power hot (usually 120V or 24V)
2. n = neutral
3. g = ground
4. x = PLC input (number shall correspond to the program input number)
5. y = PLC output (number shall correspond to the program output number)
6. ax = PLC signal/analog input (number shall correspond to the program input number)
7. ay = PLC signal/analog output (number shall correspond to the program output number)
8. c = control (use if none of the above letters apply)
9. p = power (usually 480V)
10. s = signal (usually 4-20ma or 1-5V) (use if none of the above letters apply)
11. B = DC + and -

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3.5 CONDUCTOR SPACING

A. Unless specifically shown otherwise on the Drawings, in all areas maintain a minimum 2-inch separation between all conductors of different voltages. For parallel runs over 6 feet maintain the following minimum separation between conductors:

1.	Signal (12/24) VDC and 120 VAC	6 inches
2.	Signal (12/24) VDC and 480 VAC	12 inches
3.	120 VAC control wire and 480 VAC	2 inches

3.6 WIRE BENDING RADIUS

A. The radius of bends in all wire (conductors and cables) shall not be less than five (5) times the outside diameter of the wire. Any wire installed with bends less than five times the diameter which the Engineer deems has caused that insulation to be damaged shall be removed and new wire shall be installed.

3.7 PULLING AND TERMINATING FIBER OPTIC CABLE

A. Pulling and termination of fiber shall be performed by technicians who have been certified in the use of tools and material for making a fiber optic termination by AT&T or Siecor or equal.

B. Provide a minimum of 20 feet of spare coiled fiber optic cable in all handholes or vaults containing fiber optic cable.

C. All terminations will be inspected via microscope by the Contractor to verify the polish, splice and connection is within specification.

D. Continuity of the fiber shall be verified prior to installation in conduit.

E. Bend Radius shall not be exceeded when pulling fiber.

3.8 VISUAL AND MECHANICAL INSPECTIONS

A. Inspect exposed section for physical damage.

B. Verify that cable is supplied and connected in accordance with Drawings and Specifications, and that phases are labeled correctly.

3.9 TESTING

A. See Section 26 01 26 – Electrical Testing.

END OF SECTION

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SECTION 26 05 26
GROUNDING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Grounding

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. This section covers furnishing and installing all grounding and/or bonding conductors, connectors, ground rods and terminations as required to meet these specifications and to comply with Article 250 of the National Electric Code.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 01 26 – Electrical Testing
   5. Section 26 05 19 – Wire and Cable
   6. Section 26 05 33 – Raceways
   7. Section 26 24 16 – Panelboards
   8. Section 26 27 26 – Wiring Devices
   9. Section 26 28 00 – Overcurrent Protective Devices
   10. Section 26 29 23 – Variable Frequency Motor Controllers
   11. Section 26 50 00 – Lighting
   12. Section 26 70 00 – Motors
   13. Section 26 90 21 – Control System
   14. Section 26 90 22 – Pump Control Panel

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall, within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

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B. Products shall be designed, manufactured, tested, and installed in compliance with the following standards:
   1. American National Standards Institute:
      a) ANSI/IEEE Standard 142 Recommended Practice for Grounding of Industrial and Commercial Power Systems.
   2. American Society for Testing and Materials (ASTM):
      a) B8, Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft.
   3. National Fire Protection Association (NFPA):
      a) 70, National Electrical Code (NEC).
   4. Underwriters Laboratories, Inc. (UL):
      a) 467, Electrical Grounding and Bonding Equipment.

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.
   2. See Section 26 01 26.
      a) After installation is complete:
         - Ground rod and system test results

1.7 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

PART 2 PRODUCTS

2.1 GENERAL

A. For each electrical grounding connection, provide a complete assembly of materials to construct a completely grounded electrical system.

B. Raceways for grounding conductors shall be as specified in Section 26 05 19.

C. Grounding cable, wire and connectors shall be as specified in Section 26 05 33.

D. Grounding conductors and jumpers shall be connected to each other and to items to be grounded by means of approved type pressure connectors, clamps, and other suitable methods approved by the Engineer. No solder connections shall be made.

2.2 GROUNDING ELECTRODE CONDUCTORS

A. All concrete encased or direct buried underground grounding electrode conductors shall be soft drawn stranded bare copper cable, conforming to ASTM B8.
   1. Sized as required by Table 250-66 of the NEC, except where a larger size conductor is shown on the Contract Drawings.

B. Equipment grounding conductor:
   1. Green copper conductor: Identical insulation to phase conductors.
   2. Sized as required by Table 250-122 of the NEC, except where a larger size conductor is shown on the Contract Drawings.

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2.3 GROUND ROD BOXES

A. Provide ground rod boxes for each ground rod. Ground rod boxes shall be concrete with concrete covers, Fogtite SP-1, or approved equal.

2.4 GROUNDING ELECTRODE RODS

A. Grounding electrode rods used shall be a minimum of ¾" diameter by 10' long, steel core and thick copper jacket (copperclad).

B. Heavy uniform coating of electrolytic copper molecularly bonded to a rigid steel core. Corrosion resistant bond between the copper and steel. Hard drawn for a scar-resistant surface. UL listed.
   1. Blackburn
   2. Thomas & Betts

2.5 GROUND CLAMPS

A. Ground clamps for connecting grounding conductors to copper, brass, steel or lead shall be made of copper. These clamps shall be designed to provide permanent and positive pressure. Use exothermic welds for connecting ground wires to ground rods for all below grade counterpoise grounds, grids, and elsewhere where noted on the Drawings.

B. High copper alloy content, compression type, noncorrosive.

C. UL 467 listed.
   1. Burndy
   2. ILSCO
   3. Thomas & Betts

2.6 EXOTHERMIC WELD CONNECTIONS

A. Use Cadweld or approved equal system of exothermic welding for welded grounding connections where shown on the Drawings or specified.
   1. Copper oxide reduction by aluminum process.
   2. Molds properly sized for each application.

PART 3 EXECUTION

3.1 INSTALLATION

A. Install products in accordance with manufacturer's instructions.

B. Remove paint, rust, or other nonconducting material from contact surfaces before making ground connections.

C. Where ground conductors pass through floor slabs or building walls, sleeves of intermediate metal conduit of the required size, shape, and length shall be provided, unless otherwise specified or shown on Drawings.

D. Grounding System
   1. Locate ground rods at approximate locations shown on Drawings.
   2. Install rods in firm soil outside of excavated areas.
   3. Drive top of rod to minimum depth of 6 IN below finished grade unless otherwise noted on Contract Drawings.

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4. Use driving studs or other suitable means to prevent damage to threaded ends of sectional rods.
5. Interconnect all ground rods with grounding electrode conductor:
6. Size per the NEC unless a larger size is shown on the Drawings.
7. Do not splice grounding electrode conductor.
8. Provide excavation required for installation of ground conductors buried in earth.
9. Allow sufficient slack to prevent conductor breakage during backfill or due to ground movement.
10. Leave taps, junctions, and splices uncovered until inspected by Engineer.
11. Backfill around grounding system completely, thoroughly tamping to provide good contact between backfill materials and ground rods and conductors.
12. Bond underground metal piping to the grounding system in accordance with NEC 250. Grounding clamps may be utilized on piping if exothermic welds may damage structural integrity.
13. All underground connections shall be exothermically welded.

E. Complete system resistance:
   1. 15 Ohms or less.

3.2 RACEWAY GROUNDING - CONDUIT

A. All metallic conduit shall be electrically continuous.

B. Provide grounding-type insulating bushings:
   1. For all equipment not supplied with a conduit hub.

C. Bond all conduit, at entrance and exit of equipment, to equipment ground bus or ground lug.

D. Use manufactured conduit hubs at all panels.

E. Provide bonding jumpers if conduit are installed in concentric knockouts.

F. Make all metallic raceway fittings and grounding clamps tight to ensure equipment grounding system will operate continuously at ground potential to provide low impedance current path for proper operation of overcurrent devices during possible ground fault conditions.

G. Provide bonding jumper from equipment ground lug to RGS conduit if flexible conduit is utilized for equipment connections.

H. Provide bonding jumpers identical in conductor size to the largest ground conductor run within the conduit.

3.3 EQUIPMENT GROUNDING

A. Ground all equipment supplied from distribution equipment through the distribution equipment ground bus. Provide an equipment grounding conductor connected to the ground bus and equipment ground lug.

B. Provide a minimum of two separate grounding electrode conductors for bonding all primary distribution equipment ground buses to the grounding system.

C. Bond equipment fed from other equipment to that equipment.

D. Consider control devices (switches, indicating lights, meters, starters, relays, etc.) mounted in control panels, or other metal enclosures to be adequately grounded, if the enclosure ground lug or ground bus is properly grounded.

E. Do not splice grounding conductors.

F. Run all equipment grounding conductors in conduit.

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G. Provide separate grounding conductors bonded to the grounding system for all DC equipment.

H. Ground unused and spare power and control cable at both ends.

I. Size all grounding conductors in accordance with Article of the NEC unless larger size is shown on the Drawings.

3.4 TESTING

A. Ground Resistance Test:
   1. See Section 26 01 26.

END OF SECTION

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SECTION 26 05 33
RACEWAYS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Conduits
   2. Conduit fittings
   3. Conduit supports
   4. Outlet boxes
   5. Pull and junction boxes
   6. Handholes and vaults

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. Provide electrical raceway and fitting work as shown, scheduled, indicated, and specified.

B. All electrical conductors shall be installed in conduit or surface metallic raceways. Conduit shall be as specified herein. In addition, empty conduit shall be installed as indicated on the Drawings and in the Specifications.

C. The types of electrical raceways and fittings required for the project include, but are not limited to, the following.
   1. Rigid metallic conduit (RMC) and intermediate metal conduit (IMC)
   2. Liquidtight flexible metal conduit
   3. Rigid nonmetallic conduit

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 05 19 – Wire and Cable
   5. Section 26 05 26 – Grounding
   6. Section 26 70 00 – Motors

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall, within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

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B. Products and installation shall comply with applicable sections of the following standards:
   1. American Iron and Steel Institute (AISI)
   2. American National Standards Institute (ANSI):
      a) C80.1, Rigid Steel Conduit - Zinc-Coated
      b) C80.6, Intermediate Metal Conduit - Zinc-Coated
   3. ASTM International (ASTM):
      a) A123, Standard Specification for. Zinc Coating (Hot-Dip Galvanized) Coatings on Iron and Steel Products
      b) A153, Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
      c) D1784, Standard Specification for Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (CPVC) Compounds
      d) D2564, Solvent Cements for PVC Plastic Pipe, Tubing, and Fittings
      e) E84, Standard Test Method for Surface Burning Characteristics of Building Materials
      f) F512, Standard Specification for Smooth-Wall PVC Conduit and Fittings for Underground Installation
   4. National Electrical Manufacturers Association (NEMA):
      a) FB 1, Fittings and Supports for Conduit and Cable Assemblies
      b) OS 1, Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports
      c) RN 1, PVC Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit
      d) TC 3, PVC Fittings for Use with Rigid PVC Conduit and Tubing
      e) 250, Enclosures for Electrical Equipment (1000 Volts Maximum)
   5. Underwriters Laboratories, Inc. (UL):
      a) 6, Rigid Metal Conduit
      b) 50, Standard for Safety Enclosures for Electrical Equipment
      c) 360, Liquid-Tight Flexible Steel Conduit
      d) 467, Grounding and Bonding Equipment
      e) 514A, Standard for Safety Metallic Outlet Boxes
      f) 514B, Fittings for Cable and Conduit
      g) 651, Schedule 40 and 80 Rigid PVC Conduit
      h) 870, Wireways, Auxiliary Gutters, and Associated Fittings
      i) 886, Outlet Boxes and Fittings for Use in Hazardous (Classified) Locations
      j) 1242, Intermediate Metal Conduit
      k) 1660, Liquid-Tight Flexible Nonmetallic Conduit

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

1.7 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

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PART 2 PRODUCTS

2.1 GENERAL

A. Provide metal conduit, tubing, and fittings of the type, grade, size, and weight (wall thickness) as shown and required for each service. Where type and grade are not indicated, provide proper selection determined by this Section to fulfill the wiring requirements and complying with the NEC for electrical raceways.

B. For each electrical raceway system indicated, provide a complete assembly of conduit, tubing, or duct with fittings, including, but not necessarily limited to, connectors, nipples, couplings, expansion fittings, bushings, locknuts, other components and accessories as needed to form a complete system of the type indicated.

C. Conduit fittings shall be designed and approved for the specific use intended. Conduit fittings, including flexible, shall have insulated throats or bushings. Rigid conduits shall have insulated bushings, except insulated throat grounding bushings shall be used on all conduits without ground conductors and where required by N.E.C. Article 250.

2.2 ACCEPTABLE MANUFACTURERS

A. Provide products complying with these specifications and produced by one of the following:
   1. Rigid metallic conduits:
      a) Allied Tube and Conduit Corporation
      b) Triangle PWC Inc.
      c) Western Tube and Conduit Corporation
      d) Wheatland Tube Company
      e) LTV Steel Company
   2. Liquidtight Flexible Metal:
      a) AFC
      b) Anaconda Metal Hose
      c) Electri-Flex Company
      d) Flexi-Guard, Inc.
      e) Triangle PWC, Inc.
      f) Wheatland
   3. Rigid Nonmetallic Conduit:
      a) Carlon
      b) Cantex
      c) Triangle PWC, Inc.
   4. Raceway Fittings:
      a) Appleton Electric Company
      b) Cantex (PVC)
      c) Carlon (PVC)
      d) Crouse Hinds
      e) Efcor Division
      f) ETP-Uni-Couple
      g) O.Z. Gedney Company
      h) Raco, Inc.
      i) Republic Steel Corporation
      j) Steel City
      k) Thomas and Betts

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5. Support systems:
   a) Unistrut Building Systems
   b) B-Line Systems Inc.
   c) Kindorf
   d) Minerallac Fastening Systems
   e) Caddy
6. Outlet, pull and junction boxes:
   a) Appleton Electric Co.
   b) Crouse-Hinds
   c) Killark
   d) O-Z/Gedney
   e) Steel City
   f) Raco
   g) Bell
   h) Hoffman Engineering Co.
   i) Wiegmann
   j) B-Line Circle AW
   k) Adalet
7. Ductbank Spacers:
   a) Formex.
   b) Carlon.
8. Precast Handholes, Pull Boxes and Accessories.
   a) Brooks.
   b) A.B. Chance.
   c) Utility Vault Company

2.3 RIGID METALLIC CONDUITS

A. Rigid Galvanized Steel Conduit (RGS):
   1. Mild steel with continuous welded seam,
   2. Metallic zinc applied by hot-dip galvanizing or electro-galvanizing; threads galvanized after cutting,
   3. Internal Coating: Baked lacquer, varnish or enamel for a smooth surface.
   4. Standards: ANSI C80.1, UL 6.

B. Intermediate Metal Conduit (IMC):
   1. Mild steel with continuous welded seam,
   2. Metallic Zinc Applied by Hot-Dip Galvanizing or Electro-Galvanizing; threads galvanized after cutting,
   3. Internal Coating: Baked lacquer, varnish or enamel for a smooth surface.
   4. Standards: ANSI C80.6, UL 1242.

2.4 RIGID NON-METALLIC CONDUIT

A. Schedules 40 (PVC-40) and 80 (PVC-80):
   1. Polyvinyl-chloride (PVC) plastic compound which meets, as a minimum, ASTM D1784 cell classification PVC 12233-A, B, or C,
   2. Rated for direct sunlight exposure,
   3. Fire retardant and low smoke emission,

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4. Shall be suitable for use with 90 Deg C wire and shall be marked "maximum 90 Deg C".
5. Standards: ASTM D1784, NEMA TC 2, UL 651.

2.5 FLEXIBLE CONDUIT

A. PVC-Coated Flexible Galvanized Steel (liquid-tight) Conduit (FLEX-LT):
1. Core formed of continuous, spiral wound, hot-dip galvanized steel strip with successive convolutions securely interlocked,
2. Extruded PVC outer jacket positively locked to the steel core,
3. Liquid- and vapor-tight.
4. Standard: UL 360.

2.6 CONDUIT FITTINGS AND ACCESSORIES

A. Fittings for Use with RGS and IMC:
1. In hazardous locations:
   a) Listed for use in Class I, Groups C and D locations.
2. Locknuts:
   a) Threaded steel or malleable iron,
   b) Gasketed or non-gasketed,
   c) Grounding or non-grounding type.
3. Bushings:
   a) Threaded, insulated metallic,
   b) Grounding or non-grounding type.
4. Hubs: Threaded, insulated and gasketed, metallic, for rain-tight connection.
5. Couplings:
   a) Threaded, straight-type: Same material and finish as the conduit with which they are used on.
   b) Threadless type: Gland compression or self-threading type, concrete tight.
6. Unions:
   a) Threaded galvanized steel or zinc plated malleable iron.
7. Conduit bodies:
   a) Body: Zinc plated cast iron or cast copper free aluminum with threaded hubs,
   b) Standard and mogul size.
   c) Cover: Clip-on type with stainless steel screws. Gasketed or non-gasketed galvanized steel, zinc plated cast iron or cast copper free aluminum.
8. Sealing fittings:
   a) Body: Zinc plated cast iron or cast copper free aluminum with threaded hubs,
   b) Standard and mogul size, with or without drain and breather.
   c) Fiber and sealing compound: UL listed for use with the sealing fitting.
9. Hazardous location flexible coupling:
   a) Bronze braided covering over flexible brass tubing,
   b) Liquid tight and arc resistant,
   c) Bronze end fittings and zinc-plated steel or malleable iron unions and nipples.
10. Expansion couplings:
   a) 2 IN nominal straight-line conduit movement in either direction,
   b) Galvanized steel with insulated bushing,
   c) Gasketed for wet locations,
   d) Internally or externally grounded.

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B. Fittings for Use with FLEX-LT:
   1. Connector:
      a) Straight or angle type,
      b) Metal construction, insulated and gasketed,
      c) Composed of locknut, grounding ferrule and gland compression nut,
      d) Liquid-tight.
   2. Standards: UL 467, 514B.

C. Fittings for Use with Rigid Non-Metallic Conduit:
   1. Coupling and adapters shall be of the same material, thickness, and construction as the conduits with which they are used.
      a) Standards: UL 651, NEMA TC 3.
   2. Solvent cement for welding fittings shall be supplied by the same manufacturer as the conduit and fittings.
      a) Standards: ASTM D2564.

D. Weather and Corrosion Protection Tape:
   1. PVC based tape, 20 mils thick,
   2. Protection against moisture, acids, alkalis, salts and sewage and suitable for direct burial,
   3. Used with appropriate pipe primer.

2.7 OUTLET BOXES

A. Cast Outlet Boxes:
   1. Zinc plated cast iron or die-cast copper free aluminum with manufacturer's standard finish,
   2. Threaded hubs and grounding screw,
   3. Styles:
      a) "FS" or "FD",
   4. Standards: UL 514A and 886.

B. See Section 26 27 26 for wiring devices, wallplates, and coverplates.

2.8 PULL AND JUNCTION BOXES

A. Enclosures and Boxes (in Hazardous Areas)
   1. Shall be rated for the area installed/serving,
   2. Iron alloy body, copper free aluminum cover,
   3. Stainless steel hinges, screws, bolts, and other hardware.
   4. Provide with neoprene gaskets.
      a) For pump and cord connections: CROUSE-HINDS GUB, or approved equal.

2.9 HANDHOLES AND VAULTS

A. Handholes and vaults shall be of reinforced concrete construction suitable for H-20 wheel loading and shall have concrete bottoms with sumps. All handholes and vaults shall be provided with galvanized "C" channels and galvanized irons. Reference standard details.
   1. Handhole HH-1 minimum size: 24" X 36" X 36"
   2. Handhole HH-2 minimum size: 36" X 36" X 36"

B. Frame and covers shall be hinged watertight made of 1/4" diamond plate aluminum and shall be suitable for H-20 wheel loading.

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C. Covers shall be provided with a piston for easy opening; piston and latching mechanism shall hold the cover in the open position at 90°.

D. Handholes, vaults and covers shall be constructed per standards and quality of LW Products HHS, or approved equal.

2.10 SUPPORT SYSTEMS

A. Multi-conduit surface or trapeze type support and pull or junction box supports:
   1. Material requirements.
      a) Galvanized steel: ASTM A123 or ASTM A153.
      b) Stainless steel: AISI Type 316.
      c) PVC coat galvanized steel: ASTM A123 or ASTM A153 and 20 mil PVC coating.

B. Single conduit and outlet box support fasteners:
   1. Material requirements:
      a) Zinc plated steel
      b) Stainless steel
      c) Malleable iron
      d) PVC coat malleable iron or steel: 20 mil PVC coating
      e) Steel protected with zinc phosphate and oil finish.

PART 3 EXECUTION

3.1 INSTALLATION

A. General:
   1. Install electrical raceways and fittings as shown in accordance with the manufacturer's written instructions, the applicable requirements of the NEC, and in accordance with recognized industry practices to ensure that products serve the intended function. Complete electrical raceway installation before starting the installation of wire and cable.

B. Conduit Size:
   1. Minimum conduit size for power wiring shall be ¾". Minimum conduit size for control wiring shall be ¾". Minimum conduit size for data wiring shall be 1".

C. Rigid Steel and Intermediate Metal Conduit:
   1. Use rigid steel or intermediate metal conduit to run all electrical raceway systems where exposed to weather; in damp or wet locations; where subject to physical damage; and where cast in concrete walls or floors slabs which have waterproof membranes. Use rigid steel or IMC conduit for all exposed raceways with the exception of dedicated grounds . IMC conduit shall not be used in sizes larger than 4". Use threaded type couplings and fittings. Split type couplings and fittings are not acceptable.

D. Liquidtight Flexible Metal:
   1. Use liquidtight flexible metal conduit and fittings for all unclassified area motor connections, and for other electrical equipment connections where subject to movement and vibration and when subject to one or more of the following conditions: (1) exterior locations, moist or humid atmosphere where condensation can be expected to accumulate; (2) corrosive atmosphere, subject to water spray; subject to dripping oil, grease or water. Install internal ground wire in flexible conduit with grounding bushings. Maximum length shall be 6'0" and minimum length shall be 3'0".

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E. Rigid Nonmetallic:
   1. Use PVC conduit directly buried in earth, concrete encased, cast in concrete slabs, and where subject to corrosive environments. Use Schedule 40 where direct buried and Schedule 80 where exposed for dedicated grounds only.

3.2 INTERIOR CONDUIT SYSTEM:

A. Ground all metallic conduit in accordance with the requirements of the latest edition of the NEC.

B. Install all conduit as a complete system without conductors, continuous from outlet to outlet and from fitting to fitting. Make up threaded joints of conduit carefully in such a manner as to ensure a tight joint. Field-cut threads shall be cold-galvanized after cutting. The entire conduit system shall be secured at all joints and boxes in such a manner that each system shall be electrically continuous throughout. Fasten the entire conduit system securely into position. A run of conduit between outlet and outlet, between fitting and fitting, or between outlet and fitting shall not contain more than the equivalent of four quarter bends, including those bends located immediately at the outlet or fitting.

C. Ream all ends of conduit properly to remove rough edges. Whenever a rigid steel or IMC conduit enters a switchboard, panelboard, enclosure, or box it shall be securely fastened by the use of a locknut inside and outside and an approved insulating bushing shall be installed. Insulated grounding bushings shall be installed on all conduits without ground conductors and where required by NEC Article 250. Lay out and install all conduit systems as to avoid all other services or systems, the proximity of which may prove injurious to the conduit or the wires or conductors which the conduit confines.

D. Conceal conduit systems in finished areas. Concealed metallic conduits shall be run in a direct manner, basically parallel to, and at right angles with the lines of the building, and with as long a bend as possible. Conduit may be exposed in mechanical rooms and where otherwise shown or indicated. On exposed systems, run the conduit parallel or perpendicular to the structural features of the building and rigidly support with malleable iron conduit clamps at intervals as required by NEC, or on conduit racks, neatly racked and bent in a smooth radius at corners insofar as practicable. All bends shall be field-made using an approved bending machine designed for the purpose, or using standard ells having a radius not less than that required by the National Electrical Code, and with approved fittings or connectors. All bends shall be free from dents or flattening.

E. All conduit shall be run without traps. Where traps are unavoidable, a junction or pull box shall be placed at the low point. Metallic conduit systems, which are exposed to the weather or water, shall be made watertight. As soon as conduit has been permanently installed in place, conduit shall be capped or plugged with standard accessories. All metallic conduit shall be swabbed after plaster and drywall is finished and dry.

F. Support exposed raceway or grouped concealed raceways on galvanized channel using compatible galvanized fittings (bolt, beam clamps, and similar items) and galvanized threaded rod pendants to secure raceway to channel and channel to structure. Support single conduit runs using a properly sized galvanized conduit hanger with galvanized closure bolt/nut and threaded rod. Support-spacing shall not exceed 10’ apart for all IMC conduit and rigid conduit 2” and smaller, and 15’ apart for rigid conduit 2-1/2” and larger and within 3’ from boxes and changes in direction. Support flexible conduit on maximum 4-1/2’ centers and within one foot (1’) of boxes. All raceway support system materials shall be galvanized and manufactured by Kindorf, Unistrut, Superstrut, Caddy, or Spring Steel Fasteners, Inc. Provide chrome or nickel-plated escutcheon plates on all conduit passing through walls and ceilings in finished areas.

G. Make all joints and connections to ensure mechanical strength and electrical continuity. PVC conduit shall be joined, or have fittings attached, by using a fusing (solvent) compound recommended by and applied as instructed by, the conduit manufacturer.

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H. Run conduit to avoid proximity to heat producing equipment, piping and flues, keeping a minimum of 8” clear. Whenever possible, install horizontal raceway runs above water piping. Unless shown otherwise, do not install conduit horizontally in concrete slabs without written approval. All roof penetrations shall be made in adequate time to allow the roofer to make proper flashings.

I. Carefully review architectural, structural, mechanical, plumbing, and electrical Drawings and place boxes and conduit to avoid conflicts with structural members or other general construction.

J. Furnish sleeves for timely placing in construction for all conduit passing through concrete walls, partitions, beams, floors, and roofs while same are under construction.

K. All conduit passing through the housing on connected equipment, shall pass through a cleanly cut hole protected with an approved grommet.

L. Metallic conduit installed below grade shall have its entire length wrapped with 20 Mil PVC tape. The entire length of metallic conduit, including fittings, shall be protected to a point 6” above finished grade (or concrete slab).

M. Install expansion fittings in all conduit as follows:

1. All conduits crossing building expansion joints; unless some other form of thermal expansion compensation is approved in writing by the Engineer,
2. All conduit straight runs in excess of 200’, and 400’ centers in all longer conduit runs,
3. Conduit entering environmental rooms,
4. Locations subject to thermal expansion and as required by NEC.
5. Unless expansion fitting has an integral bonding braid, an external braid approved for the purpose shall be installed around the fitting.

3.3 EXTERIOR CONDUIT SYSTEMS

A. Exterior conduit systems shall meet all of the general installation requirements for interior conduit systems.

B. All exterior conduit systems shall be completely watertight. All hangers, fasteners, and supports used with exterior conduit systems shall be stainless steel.

C. Install underground conduits with sealing glands equal to OZ Type “FSK” or approved equal exterior to entrance and OZ Type “CSB” or approved equal interior to entrance at points where conduits enter the building, to prevent water seepage.

D. Install conduits outside the building lines a minimum of 30” below grade, unless noted otherwise on the Drawing. Maintain 12” of earth or 2” of concrete separation between electrical conduits and other services or utilities below grade. Maintain 10’0” separation between parallel underground power and data conduits. Where power and data conduits cross below grade, crossing shall be at right angles (90 degrees) with a minimum 2’0” vertical separation.

3.4 HANDHOLES AND VAULTS

A. Sizes of handholes and vaults shown on the drawings are minimum sizes. If space allows the Contractor may upsize the structures for ease of pulling or if required by the NEC.

B. Conduits entering energized equipment shall have both conduit ends sealed with a waterproof duct sealing compound - WATERGUARD Industrial Encapsulant or equal. Where conduits enter through sides of handholes the penetration shall be made watertight.

C. Provide a minimum of 12” of drainage gravel under entire surface of all vaults and handholes.

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D. All wire installed in handholes and vaults shall be neatly bundled and racked to the handhole or vault side walls.

E. Provide welded stainless steel nameplate on each handhole and vault cover with the tag number and contents (480 Volt,120 Volt, Power, Control, Signal, etc.) clearly indicated.

3.5 POWER DUCTBANK SYSTEMS

A. Power ductbanks shall be of individual conduit encased in reinforced concrete. Conduit shall be rigid PVC Schedule 40 except that rigid steel conduit shall be used for all 90 degree elbows. Unless shown otherwise, the type of conduit used shall not be mixed in any one ductbank and shall be rectangular in cross section, having a minimum concrete thickness of 3". Conduit shall be separated by a minimum concrete thickness of 2", except that the light and power conduit shall be separated from control and signal conduits by a minimum concrete thickness of 3". Encasement concrete shall be red in color.

B. The power ductbank shall be routed underground and the top of the concrete envelope shall be not less than 30" below grade.

C. Changes in direction of ductbank runs exceeding a total of 10 degrees, either vertical or horizontal, shall be accomplished by long sweep bends having a minimum radius of curvature of 5'. All bends in a run shall be separated by a minimum of 10' of straight conduit, where possible.

D. During construction, partially completed ductbanks shall be protected from the entrance of debris such as mud, sand, and dirt by means of suitable conduit plugs. As each section of the ductbank is completed, a testing mandrel shall be drawn through each conduit. A brush with stiff bristles shall be drawn through each conduit is clear of all particles of earth, sand, or gravel. Conduit plugs shall then be immediately installed.

E. Ducts in concrete encased ductbanks shall be independently supported by interlocking module spacers by Carlon or equal. Spacers shall provide separation between adjacent ducts as specified herein above. Spacers shall be installed at 6' maximum intervals.

F. Ducts in concrete encased ductbanks shall be terminated in manholes, pull boxes, and vaults with interlocking terminators by Formex or equal. A watertight tapered plug shall be furnished and installed in unused duct openings. Where terminators are installed in new work, they shall be poured-in-place.

G. Furnish the exact dimensions and location of power ductbank to be encased in time to prevent delay in the concrete work.

3.6 EMPTY CONDUIT RACEWAY SYSTEMS

A. General: Empty conduit in which wire is to be installed by others shall have pull wires installed. The pull wire shall be No. 14 AWG zinc-coated steel, or plastic having not less than 200 pounds tensile strength. Not less than 12" of slack shall be left at each end of the pull wire.

3.7 IDENTIFICATION

A. See Section 26 00 02 for applicable labeling requirements.

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B. Conduit Markers

1. All conduits scheduled shall be identified at each end with a permanent metal tag. Conduits shall be labeled as identified on the Conduit and Wire Schedule. Attach tags to cables or conduit by using a stainless steel cable tie. Identify concealed conduits entering equipment, panelboards, or enclosures by attaching marker tag to cables as they exit the conduit. Embedded conduits and conduits routed underground shall be labeled also at all points of entry and exit including handholes and buildings, by attaching a marker tag to the exterior of the conduit.

3.8 FIELD INSPECTION

A. Prior to backfilling and encasing conduits installed underground or covering conduits concealed in walls and ceilings, all raceways shall be inspected by the Engineer. Engineer shall be contacted a minimum of one week in advance for field inspection of concealed raceway. No raceway shall be concealed or backfilled until inspected by the Engineer.

END OF SECTION

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SECTION 26 24 16
PANELBOARDS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Power distribution panelboards including mini power-zones/mini power centers
   2. Surge protection components

B. B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. This section covers furnishing and installing all panelboards and enclosure work, including cabinets, as shown, scheduled, indicated, and specified.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 05 19 – Wire and Cable
   5. Section 26 05 26 – Grounding
   6. Section 26 05 33 – Raceways
   7. Section 26 28 00 – Overcurrent Protective Devices

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall, within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. Products shall be designed, manufactured, tested, and installed in compliance with the following standards:
   1. National Electrical Manufacturers Association (NEMA):
      a) AB 1, Molded Case Circuit Breakers.
      b) PB 1, Panelboards.
      c) PB 1.1, Instruction for Safe Installation, Operation and Maintenance of Panelboards Rated 600 Volts or Less.
   2. Underwriters Laboratories, Inc. (UL):
      a) UL 1449, Standard for Surge Protective Devices.

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

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1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

1.7 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

B. Deliver panelboards in factory-fabricated, water-resistant wrapping.

C. Handle panelboards carefully to avoid damage to material component enclosure, and finish.

D. Store panelboards in a clean, dry space and protect from the weather.

PART 2 PRODUCTS

2.1 GENERAL

A. Panelboards shall be dead front safety type equipped with molded case circuit breakers as shown and scheduled.

2.2 ACCEPTABLE MANUFACTURERS

A. Provide products complying with these specifications and produced by one of the following:
   1. Schneider Electric (Square-D)
   2. Siemens
   3. Eaton

2.3 MATERIALS AND COMPONENTS

A. Busing Assembly
   1. Panelboard busing shall be tin-plated 55% conductivity aluminum, plated by the latest Alstan process. Bus structure and mains shall have ratings as shown and scheduled and shall be phase sequence construction. Such ratings shall be established by heat rise tests with maximum hot spot temperature on any connector or busbar not to exceed 65 degree Celsius rise above 40 degrees Celsius ambient. Heat rise test shall be conducted in accordance with UL 67. The use of conductor dimensions will not be accepted instead of actual heat tests. All bus joints shall be bolted with medium carbon steel, zinc, or cadmium plated hardware equipped with lock washers and torqued to the manufacturer's recommended settings (usually ASTM standards). All bolted connections shall have Belleville washers. Furnish a bare un-insulated, or an isolated, where noted, ground bus inside each panelboard enclosure and elsewhere where noted on the Drawings. Furnish an isolated full size neutral bus, insulated where noted, in all panels where the neutral is present.

B. Molded Case Circuit Breakers
   1. Circuit breakers shall be of the molded case; thermal magnetic type equipped with individually insulated, braced and protected connectors. The front faces of all circuit breakers shall be flush with each other. Tripped indication shall be clearly shown by the breaker handle taking a position between "ON" and "OFF". Provisions for additional breakers shall be such that no additional connectors will be required to add breakers. Circuit breakers shall bolt on the main bus. All 2 and 3-pole breakers shall have common trips.

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a) All single-pole circuit breakers shall be either ambient or case-compensated (calibrated 40 degrees Celsius) thermal-magnetic type breakers, with inverse time delay on overloads and instantaneous magnetic trip on short circuits.

b) All multiple-pole breakers shall be common trip, thermal-magnetic type (calibrated 40 degrees Celsius). Twin, tandem, and half-size single-pole breakers, and breaker tie handles are not acceptable.

c) The breakers shall employ quick-make, toggle mechanism for manual operation, as well as automatic operation. The breakers shall have provisions for manually testing the tripping mechanism with the breaker removed from the panel.

2. Provide panelboard circuit breakers with interrupting capacity as shown, but in no case less than the following symmetrical amperes RMS:

Voltage (volts)	Interrupting Capacity
120/240	18,000 AIC

3. Ground circuit fault interrupter (GFCI) circuit breakers, where shown, shall be 5 ma ground fault trip and shall include a TEST button.

C. Lugs

1. Panelboards and distribution panels shall be provided with main lugs, main over-current devices, and feed-thru lugs as noted on the Drawings. Lugs shall be suitable for use with the cable size and material installed. Panel wire-ways shall provide adequate space for wiring to all lugs.

D. Spaces

1. Where space for future breakers is shown, panelboards enclosure shall include removable blank panels or knockouts to allow installation of future breakers and panelboard busing shall be complete, including all required connectors.

E. Integrated Equipment Rating

1. Each panelboard, as a complete unit, shall have a short-circuit rating equal to the interrupting rating of the weakest over-current devices, and feed-thru lugs as noted on the Drawings, where applicable. Such ratings shall have been established by tests on similar panelboards with the circuit breakers installed.

F. Panelboard Enclosures

1. Provide NEMA 3R steel enclosures for outdoor locations, minimum 16 gauge thickness, minimum 20” width, with multiple knockouts, unless shown otherwise. Provide doors with concealed hinges, spring-loaded doors pulls, flush lock and key, all panelboard enclosures keyed alike, equipped with interior circuit directory frame, card and clear plastic covering. Door and trim shall be painted with manufacturers standard gray enamel finish over a rust inhibitor. Trim on flush mounted panels shall have concealed fasteners. Enclosure shall be for recessed or surface mounting as shown. Enclosures shall be fabricated by the same manufacturer as panelboards to be enclosed.

2.4 SURGE PROTECTIVE DEVICES

A. Panelboards shall be provided with a surge protection system for the protection of all AC electrical circuits from the effects of lightning-induced currents, substation switching transients, and internally generated transients resulting from inductive and/or capacitive load switching.

B. Surge protective devices shall be listed in accordance with UL 1449, Standard for Surge Protective Devices.

C. Surge protective devices shall be provided with dry contacts output to monitor alarm status.

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D. Visible indication of proper device connection and operation shall be provided and shall be visible without removal of the panel interior cover.

E. The mounting position of the device shall permit a straight and short lead length connection between the device and the point of connection to the main bus as possible.

F. Surge protective devices shall meet or exceed the following criteria:
   1. Peak Surge Current Rating Per Phase (based on 8/20us Waveform):

Voltage (volts)	Peak Surge Current Rating
120/240	60,000 Amps

   2. Maximum Clamping Voltage Rating (Tested to ANSI/IEEE C62.41-1980 Cat. B, 6000V, 1.2/50us, 3000A 8/20 us Waveforms): 600 Volt
   3. Transient Joule Rating/Phase (Based on 10/1000 µs Waveforms): 920 Joules

G. Units may be manufactured using Metal Oxide Varistors (MOV's) as primary protection component, or as a "hybrid" system using MOVs, Gas Tubes, Inductors, capacitors, and/or diodes. However, units relying solely on gas tubes or diodes are not acceptable.

H. Surge protective devices shall be of solid-state componentry and shall operate bidirectionally.

I. Surge protective devices shall be of the same manufacturer as the mini-power zone/mini-power center.

PART 3 EXECUTION

3.1 INSTALLATION OF PANELBOARDS AND ENCLOSURES

A. Install panelboards and enclosures as shown; including electrical connections, in accordance with the manufacturer’s written instructions, the applicable requirements of NEC, the NECAs “Standard of Installation”, and recognized industry practices to ensure that products serve the intended function.

B. Coordinate installation of panelboards and enclosures with cable and raceways installation work. Verify that wall thickness is adequate where recessed panels are shown.

C. Anchor enclosures firmly to walls and structural surfaces ensuring that they are permanently and mechanically secured.

3.2 TESTING

A. Prior to energization, check for continuity of circuits and for short circuits.

3.3 IDENTIFICATION

A. Refer to Section 26 00 02 for applicable labeling requirements and nameplates.

B. Circuit Index Card
   1. Type the enclosure’s circuit directory card upon completion of work.
   2. Refer to Section 26 00 02 for additional requirements.

END OF SECTION

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SECTION 26 27 26
WIRING DEVICES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Light switches
   2. Receptacles
   3. Device wallplates and coverplates

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. This section covers furnishing and installing all receptacles, switches and other wiring devices indicated on the drawings.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 01 26 – Electrical Testing
   5. Section 26 05 26 – Grounding
   6. Section 26 05 33 – Raceways

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall, within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. Products shall be designed, manufactured, tested, and installed in compliance with the following standards:
   1. National Electrical Manufacturers Association (NEMA):
      a) NEMA 250, Enclosures for Electrical Equipment (1000 Volts Maximum)
      b) NEMA WD-1, General Purpose Wiring Devices
      c) NEMA WD-5, Specific Purpose Wiring Devices
      d) NEMA WD-6, Wiring Devices – Dimensional Requirements

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2. Underwriters Laboratories, Inc. (UL):
   a) UL 20, General Use Snap Switches
   b) UL 498, Attachment Plugs and Receptacles
   c) UL 514A, Metallic Outlet Boxes
   d) UL 943, Ground-Fault Circuit-Interrupters

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

1.7 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

PART 2 PRODUCTS

2.1 GENERAL

A. Provide factory-fabricated wiring devices in the type, color, and electrical rating for the service indicated. Where type and grade are not indicated, provide proper selection to correspond with branch circuit wiring and over-current protection. Attachment of wires to devices shall be by screw pressure under the head of binding screws. Arrangements depending on spring pressure or tension are not acceptable. All binding screws shall be brass or bronze.

2.2 ACCEPTABLE MANUFACTURERS

A. Provide products complying with these specifications and produced by one of the following:
   1. Light switches and receptacles:
      a) Hubbell
      b) Bryant
      c) Pass & Seymour
      d) Arrow Hart
      e) General Electric
      f) Leviton
      g) Or approved equal.

2.3 LIGHT SWITCHES

A. General requirements unless modified in specific requirements paragraph of switches per designated areas or types:
   1. Toggle type, quiet action, Standard Specification grade,
   2. Self grounding with grounding terminal,
   3. Back and side wired,
   4. Solid silver cadmium oxide contacts,
   5. Rugged area housing and one-piece switch arm,
   6. Rated 20 A, 120/277 VAC,
   7. Switch handle color: Ivory,

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8. Types as indicated on the Drawings:
   a) Single pole
9. Standards: UL 20, 514A; NEMA WD-6

B. Exterior Locations:
1. Coverplate: Weather resistant zinc plated or aluminum, gasketed, self-closing cover using stainless steel spring.

2.4 RECEPTACLES

A. General requirements unless modified in specific requirements paragraph of receptacles per designated areas:
1. Straight blade, Standard Specification grade,
2. Brass triple wipe line contacts,
3. One piece grounding system with double wipe brass grounding contacts and self grounding strap,
4. Back and side wired,
5. Rated 20 A, 125 VAC,
6. High impact nylon body,
7. Receptacle body color:
   a) Normal power: Ivory
8. Types:
   a) Weatherproof ground fault circuit interrupter: Feed-through type with test and reset buttons
9. Duplex,
10. Configuration: NEMA 5-20R,
11. Standards: UL 498, 514A, 943; NEMA WD-1, WD-6.

B. Exterior Locations:
1. Coverplate: Weatherproof (NEMA 3R) while in use, gasketed, copper-fire aluminum, 2.5 IN minimum cover depth.

PART 3 EXECUTION

3.1 INSTALLATION

A. Mount devices where indicated on the Drawings.

B. Where more than one receptacle is installed, they shall be symmetrically arranged.

3.2 IDENTIFICATION

A. Refer to Section 26 00 02 for wiring device identification requirements.

3.3 TESTING

A. Prior to energization, check for continuity of circuits, for short circuits and check grounding connections. After energization, check each and every wiring device to demonstrate proper operation and receptacle polarization.

END OF SECTION

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SECTION 26 28 00
OVERCURRENT PROTECTIVE DEVICES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Fuses
   2. Circuit Breakers

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. This section covers furnishing and installing the furnishing and installation of all fuses and circuit breakers used in this project.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 05 26 – Grounding
   5. Section 26 24 16 – Panelboards
   6. Section 26 90 21 – Control System
   7. Section 26 90 22 – Pump Control Panel

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall, within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. Products shall be designed, manufactured, tested, and installed in compliance with the following standards:
   1. American National Standards Institute:
      a) ANSI/UL 198E Class R Fuses.
      b) ANSI/UL 198C High-interrupting-Capacity Fuses, Current-Limiting types, Class L.

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

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1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

1.7 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

PART 2 PRODUCTS

2.1 FUSES

A. Fuses shall be of the type and amperage indicated on the drawings. The voltage rating shall be appropriate for the application indicated. The fuse types indicated on the drawings imply a certain set of fuse characteristics. No substitutions of fuse types will be allowed without written approval from the Engineer.

B. All fuses used on the project shall be provided with “blown fuse” indicators.

C. Where fuses in motor circuits are indicated but not sized, provide Manufacturer's recommended fuse size based on actual motor installed.

D. Provide fuse puller or pullers for fuse sizes used.

E. Provide a minimum of two (2) spare fuses for each fuse used.

F. Acceptable Manufacturers:
   1. BUSSMAN
   2. GOULD SHAWMUT
   3. LITTLEFUSE
   4. RELIANCE

2.2 250/600 VOLT CURRENT-LIMITING FUSES:

A. General: Provide 300,000 amperes interrupting capacity (AIC) current-limiting fuses of the current ratings shown and with a voltage rating equal to or greater than the voltage at the point of application.

B. Types:
   1. Fuses in circuits supplying individual motors, groups of motors or loads including motors, 600 amperes or less, shall be UL Class RK1 true dual-element, time-delay fuses, unless otherwise shown. Dual-element fuses must hold 500% of rated current for a minimum of 10 seconds and clear 20 times rated current in 0.01 seconds or less.

2.3 MOLDED CASE CIRCUIT BREAKERS

A. Molded case circuit breakers shall be quick-make and quick-break type. They shall have wiping type contacts. Each shall be provided with arc chutes and individual trip mechanisms on each pole consisting of both thermal and magnetic trip elements. Two and three pole breakers shall be common trip. Circuit breakers utilizing handle ties shall not be allowed. All breakers shall be calibrated for operation in an ambient temperature of 40°C. Molded case circuit breakers shall be trip-free. Each breaker shall have trip indication independent of the ON or OFF positions.

B. Breakers shall have lugs UL listed for both copper and aluminum.

C. Circuit breakers shall be capable of accepting the cable shown on the drawings. Circuit breakers not capable of accepting the cable shown shall not be acceptable.

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D. Breakers shall have the interrupting rating and trip rating indicated on the drawings.

E. Circuit breakers 250-ampere frame and below shall be Cutler-Hammer type Westinghouse Series C with thermal-magnetic trip units and inverse time-current characteristics. A push-to-trip button on the front of the circuit breaker shall provide a local manual means to exercise the trip mechanism.

F. Circuit breakers 400-ampere through 1200-ampere frame shall be Cutler-Hammer type Westinghouse Series C with microprocessor based RMS sensing trip units. A push-to-trip button on the front of the circuit breaker shall provide a local manual means to exercise the trip mechanism.

2.4 USES

A. Breakers covered under this specification may be installed in switchboards, panelboards, motor control centers, control panels, and individual enclosures.

PART 3 EXECUTION

3.1 INSTALLATION

A. Fuses and circuit breakers shall be installed in their respective enclosures and locations in such a manner as to insure tight connections so as to preclude arcing and overheating.

B. Install fuses in fuse holders immediately prior to energization of the circuit in which the fuses are installed. Fuses shall not be installed and shipped with equipment.

C. Labels

1. Place fuse identification labels, showing fuse size and type installed, inside the cover of each switch or other location where fuses are installed.

END OF SECTION

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SECTION 26 29 23
VARIABLE FREQUENCY MOTOR CONTROLLERS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Variable frequency drives

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. This section covers furnishing and installing variable speed motor controller units, hereafter referred to as VFDs. VFDs shall provide an adjustable rate of speed for starting, stopping and operation of the motors shown to decrease starting current, eliminate hydraulic shock on both starting and stopping, and provide the process control as required by the Design.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 01 26 – Electrical Testing
   5. Section 26 05 19 – Wire and Cable
   6. Section 26 05 26 – Grounding
   7. Section 26 70 00 – Motors
   8. Section 26 90 21 – Control System
   9. Section 26 90 22 – Pump Control Panel

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 90 22	Pump Control System	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. All materials and equipment specified herein shall conform with all applicable NEMA, ANSI and IEEE Standards

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

D. Institute of Electrical and Electronics Engineers, Inc. - IEEE 519 - IEEE Standard Practices and Requirements for Harmonic Control in Electrical Power Systems.

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E. Manufacturer shall be ISO 9000, 9001, or 9002 certified.

1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

B. Submittals shall include the following information:
   1. Outline Dimensions plus exterior and interior equipment elevation drawings.
   2. Wiring diagrams with all interface points and terminal numbers clearly identified.
   3. Specific information on the VFDs components provided for this project and all optional equipment provided.
   4. Operations and programming manual.
   5. Maximum watt dissipated at nominal current for each VFD.
   6. Installation requirements for elimination of interference on signal and control wiring, such as: minimum of conductors, providing shielded wire, metallic raceways, etc.
   7. Additional equipment requirements for elimination of interference on signal and control wiring, such as: filtering, line terminators, reactors, etc.

1.7 COORDINATION

A. Coordinate all inputs and outputs with Control System Integrator in Section 26 90 21.

B. Coordinate the installation of the VFDs into the space provided and shown for them in the plans. Provide all additional equipment necessary for mounting and connection of all features and coordinate for the necessary space. If additional equipment is necessary for the proper operation of the VFDs including equipment for reducing the harmonic distortion and limit voltage reflections at the motor; it is the contractors and manufacturers responsibility to coordinate mounting and providing necessary space for this equipment.

1.8 WARRANTY

A. Warranty shall be 24 months from the date of certified start-up, not to exceed 30 months from the date of shipment. The warranty shall include all parts, labor, travel time, and expenses.

1.9 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

PART 2 PRODUCTS

2.1 GENERAL

A. Provide variable frequency drives (VFDs) to control the speed of variable torque or constant torque loads with horsepower ratings as indicated on the drawings.

B. The variable frequency drive (VFDs) motor controller shall convert 460 volt, three-phase, 60 Hertz utility power to adjustable voltage (0-460v) and frequency (0 - 120hz) three-phase, AC power for stepless motor speed control with a capability of 10:1 speed range. All general options and modifications shall mount within the standard adjustable frequency controller enclosure.

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C. The adjustable frequency drives (VFDs) shall be solid state, with a Pulse Width Modulated (PWM) output wave form (VVI, six-step, and current source drives are not acceptable). The VFD package as specified herein shall be completely assembled and tested by the manufacturer. The VFD shall employ a full wave rectifier (to prevent input line notching), DC Line Reactor, capacitors, and Insulated Gate Bipolar Transistors (IGBTs) as the output switching device (SCRs, GTOs and Darlington transistors are not acceptable). The drive efficiency shall be 97% or better at full speed and full load. Fundamental power factor shall be 0.95 or better at all speeds and loads.

D. The controller(s) shall be suitable for use with any standard NEMA-B squirrel-cage induction motor(s) having a 1.15 Service Factor or with existing standard NEMA-B squirrel-cage induction motor(s) with nameplate data as shown on the plans. At any time in the future, it shall be possible to substitute any standard motor (equivalent horsepower, voltage and RPM) in the field.

E. The VFD output to the motor shall have a dV/dT no greater than 1100 volts per 1 second.

F. The variable frequency control shall operate satisfactorily when connected to a bus supplying other solid state power conversion equipment which may be causing up to 10% total harmonic voltage distortion and commutation notches up to 36,500 volt microseconds, or when other VFDs are operated from the same bus.

G. The variable frequency control shall include transient voltage suppression to allow reliable operation on a typical industrial or commercial power distribution system.

2.2 SIZE AND QUANTITY

A. Drives shall be of the size, capacity and quantity as shown on the one line diagram accompanying this specification.

2.3 BASIC FEATURES

A. The Contractor shall coordinate between the VFD and motor manufacturers to provide a motor/VFD combination suitable for the application. Any line terminators, filtering devices, harmonic filters, line reactors, or other devices required for proper operation of the motor/VFD combination shall be provided and installed by the Contractor at no extra cost to the Owner.

B. All VFDs shall have the following standard features

1. The control panel interior enclosure door shall include a VFD fault light, a VFD run light, a fault reset push-button, a "Hand-OFF-AUTOMATIC" selector switch, Operator interface keypad and display unit, and a manual speed control potentiometer.
2. VFD speed shall be adjustable via the following separate inputs:
   a) Potentiometer.
   b) Two Analog inputs, each capable of accepting a 0-20mA, 4-20mA, 0-10V, 2-10V signal. Input shall be isolated from ground, and programmable via the keypad for different uses.
3. Analog inputs shall have a filter to remove any oscillation of the reference signal. The analog input should be able to be inverted, so that minimum reference corresponds to maximum speed, and maximum reference corresponds to minimum speed. The minimum and maximum values (gain and offset) shall be adjustable within the range of 0-20mA and 0-10 Volts.
4. All VFDs shall have the same customer interface, including digital display, keypad and customer connections; regardless of horsepower rating. The keypad is to be used for local control (start/stop, forward/reverse, and speed adjust), for setting all parameters, and for stepping through the displays and menus.

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5. The VFD shall be selectable to provide automatic restart after a trip condition resulting from overcurrent, overvoltage, undervoltage, or over-temperature. For safety, the drive shall shut down and require manual reset and restart if the automatic reset/restart function is not successful within a maximum of three attempts within a short time period.
6. Automatic restart after utility failure. Software selectable if not desired.
7. The VFD shall give the user the option of either (1) displaying a fault, or (2) running at a programmable preset speed if the input reference (4-20mA or 2-10V) is lost; as selected by the user.
8. The VFDs shall utilize plain English digital display (code numbers are not acceptable). All set-up parameters, indications, faults, warnings and other information must be displayed in words to allow the user to understand what is being displayed without the use of a manual or cross-reference table.
9. If available, the VFDs shall utilize pre-programmed application macro's specifically designed to facilitate start-up. The Application Macros shall provide one command to reprogram all parameters and customer interfaces for a particular application to reduce programming time.
10. The inverter output shall be generated by power transistors which shall be controlled by six identical base driver circuits. The VFD shall not induce excessive power losses in the motor. The worst case RMS motor line current measured at rated speed, torque and voltage shall not exceed 1.05 times the rated RMS motor current for pure sine wave operation.
11. The VFD shall have DC Link Choke or equal to reduce the harmonics to the power line.
12. Frequency resolution and accuracy shall be minimum 0.5%.
13. The VFD shall be optimized for a 3 kHz carrier frequency. The carrier frequency shall be adjustable from 3-9kHz.

2.4 SERVICE CONDITIONS

A. The controller shall be designed and constructed to operate within the following service conditions:
   1. Elevation: To 3300 feet
   2. Ambient Temperature Range: 0°C to 40°C
   3. Atmosphere: Non-Condensing relative humidity to 95%
   4. AC Line Voltage Variation: -10% to +10%
   5. AC Line Frequency Variation: +3 Hertz

2.5 KEY PAD \ DISPLAY UNIT

A. The VFD shall be supplied with a key pad unit for programming and changing parameters. The unit shall have a keypad and digital display which shall be mounted on the interior pump control panel door and be accessible without opening the interior enclosure door. The following operating adjustments and information shall be standard on the VFD control pad. The display shall be in complete English words (alpha-numeric codes are not acceptable):
   1. Display
      a) Output Frequency
      b) Motor Speed (RPM, % or Engineering units)
      c) Motor Current
      d) Calculated Motor Torque
      e) Calculated Motor Power
      f) DC Bus Voltage
      g) Output Voltage

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h) Analog Input Values
i) Elapsed Time Meter
j) kWh meter
k) Control Mode: Manual or Automatic
l) Adjustments

B. The controller shall have the following adjustments accessible through the control pad display unit:
1. Control mode: Manual or Automatic
2. Maximum Frequency: 60, 90 or 120 Hz.
3. Speed: Frequency-Max., Frequency-Min.
4. Independent acceleration/deceleration rates:2 - 120 seconds
5. Voltage Parameters: V-min, V-max, V/Hz.
6. Current Limit: 50 - 110% of drive rating
7. Inverse time overload, limit, time
8. Current Boost
9. Speed shedding current limit
10. Speed Profile: Entry, Exit, Min. Speed, Max. Speed
11. Auto Start: delay on/off, on/off levels
12. Inverse Profile
13. Selectable follower/setpoint control

C. All drive setting adjustments and operation parameters shall be stored in a parameter log which lists allowable maximum and minimum points as well as the current set values. This parameter log shall be accessible via a communication port as well as on the keypad.

2.6 ENCLOSURE

A. All VFD components shall be mounted and wired in the pump control panel as shown on the plans. (see Section 26 90 22). Separate freestanding enclosures will not be accepted. It is the contractor's responsibility to coordinate the installation of the VFDs into the pump control panel to provide a complete integrated system. The wiring and space requirements shall be met as shown on the plans. All accessory and related equipment for control and harmonic reduction shall also be mounted within the VFD enclosure space as shown on the plans.

2.7 PROTECTIVE FEATURES AND CIRCUITS

A. The VFD shall have the following protection circuits. In the case of a protective trip, the drive shall stop, and announce the fault condition in complete words (alpha-numeric codes are not acceptable).
1. Overcurrent trip 315% instantaneous (225% RMS) of the VFDs variable torque current rating.
2. Overvoltage trip 115% of the VFDs rated input voltage
3. Undervoltage trip 70% of the VFDs rated input voltage
4. Overtemperature +70 degrees C (ACS 501); +85 degrees C (ACS 502
5. Ground Fault either running or at start, the VFD shall have the ability to automatically restart an overcurrent, overvoltage, undervoltage, or loss of input signal protective trip. The number of restart attempts, trial time, and time between reset attempts shall be programmable. If the time between reset attempts is greater than zero, the time remaining until reset occurs shall count down on the display to warn an operator that a restart will occur.

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6. Single phase fault or 3-phase fault short circuit on VFD output terminals without damage to any power component. The VFD shall be rated minimum 35kAIC or for the AIC as shown on the one-line.
7. Static overspeed (overfrequency) protection
8. LED monitor lamps for each inverter stage
9. LED status indicators on regulator, printed circuit board face plates.
10. Individual transistor overcurrent protection
11. The VFD shall be capable of starting into a rotating load (forward or reverse) and accelerate or decelerate to setpoint without safety tripping or component damage (flying start).
12. The customer terminal strip shall be isolated from the line and ground.
13. The drive shall employ three current limit circuits or programmable functions to provide trip free operation:
    a) The Slow Current Regulation limit circuit shall be adjustable to 125% (minimum) of the VFDs variable torque current rating. This adjustment shall be made via the keypad, and shall be displayed in actual amps, and not as percent of full load.
    b) The Rapid Current Regulation limit shall be adjustable to 170% (minimum) of the VFDs variable torque current rating.
    c) The Current Switch-off limit shall be fixed at 220% (minimum, instantaneous) of the VFDs variable torque current rating.
14. The overload rating of the drive shall be 110% of its variable torque current rating for 1 minute every 10 minutes, and 140% of its torque current rating for 2 seconds every 15 seconds.
15. Solid State Adjustable Overload Relay. The Motor Overload protection shall protect the motor based on speed, load curve, and external fan parameter, and shall be UL listed.
16. Provide programmable carrier frequency and volts/hz.
17. Provide 1 second minimum power ride through.

B. The VFD shall have input line fuses installed in the pump control panel.

2.8 DIAGNOSTIC FEATURES AND FAULT HANDLING

A. The following conditions shall cause a safe drive shutdown:
1. Loss of input power
2. Undervoltage
3. Sustained gradual overload
4. Instantaneous severe overload
5. Power transistor overtemperature
6. Blown fuse
7. Logic power supply failure

B. The VFD shall include a comprehensive microprocessor based digital diagnostic system which monitors its own control functions and displays faults and operating conditions.
1. A "FAULT LOG" shall record the VFD operating mode, elapsed time, reset and mode or fault for the 8 most recent events.
2. A "HISTORIC LOG" shall record the actual drive control variables at 5 millisecond intervals for the 100 intervals immediately preceding a fault trip.
3. Fault log record shall be accessible line by line on the keypad display.

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2.9 DRIVE OPTIONS

A. Provide all necessary options for the drives to meet the power and control functions as shown and implied by the plans, specifications and programming statements and to meet the requirements of the total power and control system including the following: All options shall be factory mounted and wired within the VFD enclosure unless otherwise specified.

1. (3) programmable critical frequency lockout ranges to prevent the VFD from continuously operating at an adjustable speed.
2. PI Setpoint controller allowing a pressure or flow signal to be connected to the VFD, using the microprocessor in the VFD for the closed loop control; thus eliminating the need for external controllers.
3. Two (2) programmable analog inputs shall accept a current or voltage signal for speed reference, or for reference and actual signals for PI controller. Analog inputs shall include a filter to remove any oscillation in the input signal. The minimum and maximum values (gain and offset) shall be adjustable within the range of 0-20 mA and 0-10 Volts. Additionally, the reference must be able to be scaled so that maximum reference can represent a frequency less than 60 Hz, without lowering the drive maximum frequency below 60 Hz.
4. Six (6) programmable digital inputs for maximum flexibility in interfacing with external devices.
5. Two (2) programmable analog outputs proportional to Frequency, Motor Speed, Output Voltage, Output Current, Motor Torque, Motor Power, DC Bus voltage, or Active, or Active Reference.
6. Three (3) programmable digital relay outputs. The relays shall be rated for maximum switching current 8 amps at 24 VDC and 0.4 amps at 250 VAC; Maximum voltage 300 VDC and 250 VAC; Continuous current rating 2 amps RMS. Outputs must be true form C type contacts; open collector outputs are not acceptable.
7. Seven (7) programmable preset speeds.
8. Two independently adjustable accel. and decel. ramps. These ramp times shall be adjustable from 1 to 120 seconds.
9. The VFD shall Ramp or Coast to a stop, as selected by the user.
10. The VFD shall be able to communicate with PLC’s and touch-screen graphic operator panels/HMIs.
11. Accessories to be furnished and mounted by the drive manufacturer.
12. Customer Interlock Terminal Strip - provide a separate terminal strip for connection of freeze, fire, smoke contacts, and external start command or an on board configurable hardware enable circuit. All external interlocks and start/stop contacts shall remain fully functional whether the drive is in Hand, Auto or Bypass.
13. All wires to be individually numbered at both ends for ease of troubleshooting.
14. Door interlocked thermal magnetic circuit breaker which will disconnect all input power from the drive and all internally mounted options. The disconnect handle shall be thru-the-door type, and be padlockable in the “Off” position.

2.10 SYSTEM OPERATION

A. Provide all necessary components, inputs, outputs, and options such that the VFD will operate according to the following:

1. With the Keypad in manual control the VFD shall be controlled via the keypad.
2. With the Keypad in remote control then the VFD shall be controlled by the HOA switch mounted on the main control panel.
3. With the H-O-A switch in the "HAND" position, the drive shall be controlled by the manual speed potentiometer mounted on the pump control panel.

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4. With the H-O-A switch in "AUTOMATIC", the drive shall start when the PLC calls, and its speed shall be controlled by an isolated 4-20mA (or 0-10VDC) signal from the PLC.
5. With the H-O-A switch in the "OFF" position, the run circuit will be open and the VFD will not operate.

2.11 COMMUNICATIONS

A. Provide all necessary components, inputs, outputs, and options as shown on the drawings.

2.12 QUALITY ASSURANCE AND FACTORY TESTS

A. The controller shall be subject to, but not limited to, the following quality assurance controls, procedures and tests:
   1. Power transistors, SCRs and diodes shall be tested to ensure correct function and highest reliability.
   2. All printed circuit boards shall be tested at 50°C for 50 hours. The VFD manufacturer shall provide certification that the tests have been completed.
   3. Every controller will be functionally tested with a motor to ensure that if the drive is started up according to the instruction manual provided, the unit will run properly.

2.13 ACCEPTABLE MANUFACTURERS

A. The VFDs for this project were designed around the features of the Allen-Bradley PowerFlex 753.

B. Acceptable manufacturers shall provide equipment which meets all of the requirements of these specifications and fits within the space requirements. Acceptable manufacturers shall have a minimum of 3 installations of VFDs in Eastern Washington/Central Idaho, and shall be chosen from the list below:
   1. Allen-Bradley
   2. Schneider Electric (Square-D)
   3. Siemens
   4. Eaton

C. Other manufacturers not named above are acceptable if the equipment meets these specifications.

PART 3 EXECUTION

3.1 INSTALLATION

A. Installation shall be the responsibility of the Contractor. The Contractor shall install the drive in accordance with the contract drawings and as recommendations of the System Integrator and VFD manufacturer as outlined in the installation manual.

B. Power and control wiring shall be completed by the electrical Contractor. The Contractor shall complete all wiring in accordance with the recommendations of the System Integrator and VFD manufacturer as outlined in the installation manual.

3.2 START-UP

A. Certified factory start-up shall be provided for each drive by a factory authorized service center. A certified start-up form shall be filled out for each drive with a copy provided to the Engineer, Owner, and a copy kept on file at the manufacturer. Cost for this startup support shall be included in the VFD bid price. The Engineer shall be notified a minimum 2 weeks in advance of the scheduled start-up.

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3.3 OPERATION AND MAINTENANCE TRAINING

A. The Supplier shall conduct specifically organized training sessions in operation and maintenance of the VFD equipment for personnel employed by the Owner. The training sessions shall be conducted to educate and train the personnel in maintenance and operation of all components of the system. Training shall include, but not be limited to, the following:

1. Preventative maintenance procedures
2. Trouble-shooting
3. Calibration
4. Testing
5. Replacement of components.

B. At least (1) training session, of at least (2) hours in duration, shall be conducted after start-up of the system. The Supplier shall provide specific instruction materials for each training session and shall supply such materials to the Owner at least two (2) weeks prior to the time of the training.

END OF SECTION

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SECTION 26 50 00
LIGHTING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Outdoor area work lighting.
   2. Outdoor equipment rack canopy lighting.

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. The extent of lighting work is as shown and scheduled on the drawings, and as indicated by the requirements of this Section. The Contractor shall furnish all materials, accessories, and any other equipment necessary for the complete and proper installation of all lighting fixtures included in this Contract.

B. The types of lighting fixtures required for the project may include, but are not limited to:
   1. LED.

C. Specifications and scale drawings are intended to convey the salient features, function and character of the fixtures only, and do not undertake to illustrate or set forth every item or detail necessary for the work.

D. Minor details, not usually indicated on the Drawings nor specified, but that are necessary for the proper execution and completion of the fixtures shall be included, the same as if they were herein specified or indicated on the Drawings.

E. The Owner shall not be held responsible for the omission or absence of any detail, construction feature, etc. that may be required in the production of the fixtures. The responsibility of accurately fabricating the fixtures to the fulfillment of this specification rests with the Contractor.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 01 26 – Electrical Testing
   5. Section 26 05 19 – Wire and Cable
   6. Section 26 05 26 – Grounding
   7. Section 26 05 33 – Raceways
   8. Section 26 24 16 – Panelboards
   9. Section 26 27 26 – Wiring Devices

1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

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1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. Products shall be designed, manufactured, tested, and installed in compliance with the following standards:

1. National Electrical Manufacturers Association (NEMA):
   a) NEMA WD-1, General Purpose Wiring Devices.

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

1.6 SUBMITTALS

A. Shop Drawings

1. See Section 26 00 00.

1.7 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 60 00.

B. Deliver lighting fixtures individually wrapped in factory-fabricated fiberboard type containers.

C. Handle lighting fixtures carefully to prevent breakage, denting, and scoring the fixture finish. Do not install damaged lighting fixtures.

D. Store lighting fixtures in a clean, dry space and protect from the weather.

1.8 WARRANTY

A. All fixtures shall be provided with a two (2) year parts and labor warranty from the date of project acceptance.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Provide products produced by manufacturers as shown or scheduled for each type of lighting fixture. Identification on he drawings by means of manufacturers' names and catalog numbers is to facilitate establishment of basic features, construction, and performance standards. Any substitutions must, in the opinion of the Engineer, meet or exceed these standards.

2.2 MATERIALS AND COMPONENTS

A. Provide lighting fixtures, of the size, type, and rating indicated on the Drawings or Luminaire Schedule; complete with, but not limited to reflectors, lamps, diffusers, and wiring. Fixtures shall be furnished with all required accessories, including poles, mounting hardware and hold-down clips as required for complete installation in the application shown on the drawings.

1. Lighting equipment shall be complete, wired, and include supporting means.
2. Lighting fixtures shall be designed for highest relative efficiency and service.

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3. Lighting fixtures shall be constructed and installed in accordance with local building codes and shall bear label of approved testing agent. Materials shall be new and of the best grade of approved manufacturing standards. Workmanship shall be of highest order.
4. Ferrous fixture components shall receive treating to ensure corrosion resistance and paint adherence. Aluminum parts, unless made of alloys having inherent corrosion resistance shall be anodized or coated with oxidation-preventing treatment. Finish shall be baked enamel where color is indicated.
5. Plastic shall be 100% virgin acrylic.

B. General Fixture Construction:
1. All materials, accessories, and other related fixture parts shall be new and free from defects which in any manner may impair their character, appearance, strength, durability and function, and protected from any damage or injury from the time of fabrication to the time of delivery and until final acceptance of the work.
2. Housings shall be so constructed that all electrical components are easily accessible and replaceable without removing fixtures from their mountings or disassembly of adjacent construction.
3. All fixtures shall be completely wired at the factory.
4. Fixtures for use outdoors or in areas designated as wet locations shall be suitably gasketed to prevent the entrance of moisture. Provide approved wire mesh screens for ventilation openings. Damp location fixtures to be of corrosion resistant parts and hardware.
5. In application and mounting condition specified, fixtures must operate within the temperature limits of their design and as specified by Underwriters' Laboratories, Inc.

C. Lenses:
1. Plastic for lenses and diffusers shall be formed of colorless 100% virgin acrylic. Acrylic plastic lenses and diffusers shall be properly cast, molded or extruded as specified, and shall remain free of any dimensional instability, discoloration, embrittlement, or loss of light transmittance or at least 15 years.
2. Glass used for lenses, refractors, and diffusers in LED lighting fixtures shall be tempered for impact and heat resistance; the glass shall be crystal clear with a transmittance of not less than 88%.
3. All lenses, louvers, or other light diffusing elements shall be removable, but positively held so that hinging or other normal motion will not cause them to drop out.
4. All lenses shall be clean and free of dust at the time of substantial completion.

D. Finishes
1. Painted Surfaces: Synthetic enamel with acrylic, alkyd, epoxy, polyester, or polyurethane base. Light stabilized, bake on at 350 degrees Fahrenheit minimum, catalytically or photo-chemically polymerized after application.
2. White Finishes: Minimum of 85% reflectance.
3. Frames: Ceiling opening frames shall either be manufactured of nonferrous metal, or be suitably rustproof after fabrication.
4. Undercoat: Except for stainless steel, provide ferrous metal surfaces with a five-stage phosphate treatment or other acceptable base bonding treatment before final painting and after fabrication.
5. Unpainted Surfaces: Unpainted non-reflecting surfaces shall be satin-finished and coated with a baked-on clear lacquer to preserve the surface. Where aluminum surfaces are treated with an anodic process, the clear lacquer coating may be omitted.

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E. Wiring:
   1. Generally use SF-2 insulated wire for rewiring existing or new wire at replicated light fixture. SF-1 may be substituted in those locations where space will not permit the installation of SF-2 and where the load is 6 amps or less. Provide 600-volt insulation.
   2. Factory-wire all fixtures. Provide leads no shorter than 1'0" or as required to suit the project application.

2.3 POLE-MOUNTED LIGHTING FIXTURES

A. Provide pole mounted lighting fixtures and poles of the types indicated on the Drawings.

B. Fixture manufacturers shall be as scheduled on the Drawings. Fixtures shall be furnished with all required accessories and trim as required for a complete installation.

C. Fixtures shall be complete with lamps of the type, color, wattage, and size indicated on the Drawings, or as specified by the lighting fixture. Unless otherwise noted, all LED lamps shall be clear.

D. Fixtures shall be provided with suitable lenses to provide protection from lamp breakage.

E. Fixtures shall be supplied with all fixture couplings and/or other accessories required by the manufacturer for proper installation to the pole.

F. Poles shall be installed plumb and true.

G. Poles shall be painted to match luminaries and shall be of the color indicated on the Drawings or as specified by the Owner.

PART 3 EXECUTION

3.1 INSTALLATION

A. General: Install lighting fixtures of the types indicated, where shown, and at the indicated heights in accordance with the fixture manufacturer's written instruction and recognized industry practices to ensure that the fixtures comply with the requirements and serve the intended purposes. Do not scale drawings for exact location of the lighting fixtures.

B. Standards: Comply with NEMA standards and with applicable portions of the NEMA "Standard of Installation".

C. Mounting: Fasten fixtures securely to the structural support members of the rack. Check to ensure that fixtures are parallel to the rack roof.

D. Appurtenances: Install each fixture properly and safely. Furnish and erect hangers, rods, mounting brackets, supports, frames, and other equipment required.

E. Coordination: Furnish lighting fixtures complete with appurtenances required for the proper, safe, and distortion-free installation in the various surfaces in which they appear. Determine surface types from the drawings.

F. Cleanup: At the time of final acceptance by the Owner, all lighting fixtures shall have been thoroughly cleaned with materials and methods recommended by the manufacturers, all broken parts shall have been replaced, and all lamps shall be operative. Replace blemished, damaged, or unsatisfactory fixtures as directed by the Engineer.

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3.2 TESTING

A. General: Upon completion of installation of lighting fixtures, apply electrical energy to demonstrate proper operation of lighting fixtures and controls. When possible, correct malfunctioning units at the site, then retest to demonstrate proper operation; otherwise, remove and replace with new units and proceed with retesting.

B. Pre-inspection Tasks: Immediately before final inspection, thoroughly clean all fixtures inside and out, including plastics and glassware, adjust all trim to properly fit adjacent surfaces, replace broken or damaged parts and lamp, and test all fixtures for electrical and mechanical operation. Any fixtures or parts of fixtures, which have begun to shown signs of rust or corrosion at the time of completion of the job, shall be removed and replaced with properly protected metal parts.

END OF SECTION

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SECTION 26 70 00
MOTORS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Motors

B. B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. This section covers motors which are supplied with and as part of connected equipment specified in other sections of this specification.

B. Special provisions, requirements and/or revisions to this Specification and/or Bid Item(s) may be included on the Drawings or Details.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:

Section 26 00 00 – Electrical General Provisions

Section 26 00 01 – Electrical Scope of Work

Section 26 00 02 – Basic Materials and Methods

Section 26 01 26 – Electrical Testing

Section 26 05 19 – Wire and Cable

Section 26 05 26 – Grounding

Section 26 05 33 – Raceways

Section 26 29 23 – Variable Frequency Motor Controllers

Section 26 90 22 – Pump Control Panel

Section 44 42 56 – Submersible Sewage Pumps

1.4 MEASUREMENT AND PAYMENT

A. A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 00 00	Electrical (General)	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. All materials and equipment specified herein shall conform with all applicable NEMA, ANSI and IEEE Standards

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

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1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.
   2. Drawings and Data: Catalog information and complete name-plate and efficiency information.
   3. Motor wiring and connection diagrams for all provided external connections including power, overtemp contacts, space heaters, moisture sensors, etc.
   4. Physical drawing showing electrical connection.
   5. Motor terminal connection box size.
   6. Refer to individual equipment specification requirements.
   7. Submit the motor manufacturer's certification of conformance to the specified bearing life on all motors 20 horsepower and larger. Also submit, upon the Engineer's request, certification of bearing life on smaller motors.
   8. For motors provided with cords, provide complete information on the cord including:
      a) Length, number and size of conductors, overall diameter, materials, ratings, etc.
   9. For motors with special requirements for protection such as overtemp, moisture, overtorque, etc. from electrical controls or components, submit detailed information on equipment, installation, and control wiring requirements.
   10. For motors on VFD's,
      a) Provide data on expected speed range of load being served.
      b) Provide proof of inverter duty rating and insulation rating as specified.

1.7 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

PART 2 PRODUCTS

2.1 GENERAL

A. Unless specifically excepted, all motors shall be "premium efficiency" type which meet the minimum efficiencies required by the current Energy Policy Act. Normal efficiency motors shall not be supplied. In addition, all motors shall have a minimum power factor rating of .85 at full load, motors rated at a lower power factor shall not be supplied.

B. Provide motors in accordance with standard NEMA type classifications as specified. The use of industry standard sub classifications such as "Mill and Chemical" motors and similar "standard" heavy-duty designs are encouraged where they meet or exceed the specified minimum requirements.

C. All Motors shall be suitable both electrically and mechanically to drive the connected equipment under any and all modes of operation. The speed, horsepower, torque, base, bearing, shaft, insulation, and enclosure shall be closely coordinated with equipment requirements specified herein and in other portions of this specification so as to provide a satisfactory, efficient drive without overloading, overheating, abnormal noise or vibration.

D. All Motors shall be designed and built for long, trouble-free life in industrial service and shall be capable of operating successfully under the following application conditions:
   1. 40° C maximum ambient temperature to -20° C minimum ambient temperature,
   2. 3,300 ft. maximum elevation above sea level,
   3. Voltage variations to plus or minus 10% of nameplate rating,
   4. Frequency variations to plus or minus 5% of nameplate rating,

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5. Variable speed motors shall be suitable for use with variable speed controller,
6. .85 minimum full load power factor.

E. All motors shall be rated for full voltage starting, NEMA Design B, normal torque, normal starting current, unless otherwise required by the driven equipment or specified.

F. All motors shall be suitable for the environment in which they are to be installed.

2.2 ENCLOSURES

A. Totally enclosed fan cooled (TEFC) unless otherwise specified.

B. Hazardous areas - explosion proof non-ventilated - (XPNV) or fan cooled (XPFC).

C. Cast iron stator frames and end shields, rigid construction.

D. Heavy fabricated steel, or cast iron for single phase motors.

2.3 MOTOR ACCESSORIES

A. Motor Leads: Provide motor leads compatible with motor insulation system, permanently identified.

B. Eyebolts: Provide drilling and tapping for eyebolts on all motors weighing more than 83 pounds.

C. Nameplates: Provide two engraved stainless steel stamped metal nameplates (one for the motor and one for mounting in the motor starter enclosure), with the information required by NEMA-MG1 and the following additional information:

1. Maximum ambient temperature for which motor is rated,
2. Class of insulation,
3. Service factor,
4. Bearing part number,
5. Motor connection diagram if more than three leads,
6. Power rating in kW if driven equipment ratings are given in metric units,
7. Inverter Duty Rating label.

D. All single-phase motors shall be self-protected unless specified "for separate protection", and the self-protection characteristic shall be indicated on the motor nameplate. Protection shall be manual or automatic-reset type as specified or required by safety considerations of the equipment served.

E. Single phase motors shall be provided with start capacitors if necessary for proper operation of the motor. The start capacitors shall be located within the motor housing.

F. Enclosed Motors: Provide drain plugs for non-explosion proof motors and drain and breather for explosion proof motors.

G. Finish: Provide a prime and final finish of the manufacturer's standard colors.

2.4 MOTOR TERMINAL CONNECTION BOX

A. Provide a terminal connection box two sizes larger than normal to allow extra room for motor feeder splices.

1. Refer to Section 26 05 19 – Wire and Cable.
   a) Motor Terminal Splice Insulation

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B. Conduit Entrance: Provide conduit entrance box on the right-hand side of all horizontal motors, when facing motor end opposite shaft extension unless otherwise detailed on the drawings or required by the unique characteristics of the equipment served. Provide conduit entrance box size and drilling to conform to the conduit or wiring requirements indicated on the electrical drawings. Include motor leads and all accessory leads in a common conduit entrance box.

2.5 INSULATION CLASS

A. Provide NEMA Class B insulation with additional nonhygroscopic moisture protection which will maintain a minimum resistance of 1.0 megohms after 168 hours of exposure at 100% humidity.

B. Class F insulation with additional nonhygroscopic moisture protection as specified above may be utilized at the Contractor's option, however, the temperature rise as measured by resistance when operating at rated service factor and load shall conform to the limiting observable temperatures in NEMA-MGI, for class B insulation.

C. Class A insulating materials shall not be utilized.

2.6 MOTORS ON VARIABLE FREQUENCY DRIVES (VFD'S)

A. Motors for use with VFD's shall be inverter duty rated. Inverter duty rated motors shall meet the requirements of NEMA MG1, Part 31. Insulation rating shall be 2100V minimum. The Contractor shall coordinate between the VFD and motor manufacturers to provide a motor/VFD combination suitable for the application.

B. Provide motors with adequate cooling for the lowest expected speed for load served.

C. Any line terminators, filtering devices, harmonic filters, line reactors, or other devices required for proper operation of the motor/VFD combination shall be provided and installed by the Contractor at no additional cost to the Owner.

2.7 SERVICE FACTOR

A. The rated nameplate horsepower of the motor, when operating at a service factor of 1.0, shall be equal to or greater than the horsepower required to drive the connected equipment under any and all modes of operation.

B. Provide motors with a 1.15 service factor.

C. Submersible Motors

1. Definite purpose submersible motors shall conform to the following:
   a) Motor shall be designed for service in a liquid temperature of 25° C. Set controls to permit operation only when fully submerged unless specifically rated for non submerged duty.
   b) Motor shall have two mechanical seals; the lower one outside the motor and protecting the upper one which shall be in an oil filled chamber.
   c) Provide embedded thermostats for thermal alarm or motor cut-out.
   d) Provide water detector probes in seal oil chamber.
   e) Provide one or more multiconductor cables of approved construction and suitable length to extend from the motor to the indicated receptacle or junction box. Provide strain relief for the cable.
   f) Separate cables shall be provided for power and alarm conductors.
   g) Provide control wiring connection diagram and all necessary components, relays, etc. for the required and proper control and shutdown of the motor. Provide descriptive information to the Engineer and/or System Integrator on the control of the equipment.

2.8 POWER RATINGS

A. Motor horsepower, if indicated in the detailed equipment specifications, are minimum size acceptable.

B. Ratings indicated on the electrical drawings are for guidance only and do not limit the equipment size.

C. Frame/hp relationships shall conform to the latest NEMA standards for "T" or "U" frames, and all dimensions shall meet NEMA standards.

2.9 SYNCHRONOUS SPEED

A. In general, the motor speed indicated is the rated synchronous speed. Provide motor rated full-load speeds which are compatible with the specified performance of the driven equipment.

2.10 STANDARD RATED VOLTAGE PHASE AND FREQUENCY

A. Provide motors nameplate-rated for 60 hertz power supply as follows unless otherwise specified or shown on the drawings:

1. Motors less than 1/6 hp, single-phase, 115V.
2. Motors 1/6 hp to 1/2 hp, single-phase, 115/230V.
3. Motors 1/2 hp through 100 hp, three-phase 230/460V.
4. Multi-speed and part winding start motors may have single voltage rating if manufacturer's standard.

B. Conform to the specified service conditions and the equipment specifications without reduction in the service factor.

2.11 BEARINGS & SHAFTS

A. All bearings shall be anti-friction-type AFBMA standard sizes. All motors shall provide a minimum bearing life of 20,000 hours. All motors shall have thrust ratings not less than the combined static and dynamic loads to be imposed.

B. Shafts shall be in accordance with NEMA "T" or "TS" dimensions. Long shafts shall be suitable for belt, chain or gear drive within limits established by good industrial practice and documented by NEMA. Short shafts shall be used for direct connection. Vertical motors shall be the solid-shaft type except where application requires a hollow-shaft design.

C. Balance and Vibration: Conform to NEMA standard, MG1, latest revision.

2.12 DUTY CYCLE

A. Provide motors rated for continuous duty unless otherwise specified.

2.13 LUBRICATION

A. Horizontal polyphase motors shall be grease lubricated. The bearing housing shall be large enough to hold sufficient lubricant to minimize the need for frequent re lubrication but facilities shall be provided for adding new grease and draining out old grease without major motor disassembly. Motors 180T frame and smaller may utilize grease release fitting in lieu of grease drain plug. The bearing housing shall have long, tight, running fits or rotating seals to protect against the entrance of foreign matter into the bearings or leakage of grease out of the bearing cavity.

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B. Vertical polyphase motor lubrication shall conform to the motor manufacturer's recommendations. Except as otherwise recommended, guide bearings shall be ball bearings, grease lubricated; thrust bearings shall be grease lubricated through frame 280T, oil lubricated in larger frame sizes.

2.14 EFFICIENCY

A. Efficiency shall be determined by testing production motors with a dynamometer at rated output, voltage and frequency in accordance with IEEE Specification 112A, Paragraph B.

2.15 SHOP TESTS

A. Each polyphase motor shall be given a routine test to determine that it is free from electrical or mechanical defects and provide assurance that it meets the specifications. The routine test shall conform to applicable NEMA and IEEE Standards latest revision.

B. Copies of the test report will not be required unless actual operation and installation suggest the motors' performance should be verified, in which case certified copies of the test report shall be submitted upon the Engineer's request.

PART 3 EXECUTION

3.1 INSTALLATION

A. Motors shall be factory installed on common bases, stands, etc., with the driven equipment. Provide suitable couplings and guards between motor and driven equipment.

B. Align and connect to driven equipment.

C. Provide suitable personnel guards over all shafts, couplings, or other exposed moving parts.

D. Connect motors to power supply and controllers.

E. Verify correct rotation of equipment.

F. Connect motor leads with a splice kit specifically designed for motor lead connection.

1. Refer to Section 26 05 19 – Wire and Cable.

3.2 INSTALLATION CHECK

A. Provide services of an experienced, competent, and authorized representative of manufacturer to visit site of work to inspect, check, adjust if necessary, and approve equipment installation for motors.

B. Ensure that equipment manufacturer's representative is present when equipment is placed in operation.

C. Verify that equipment representative revisits job site as often as necessary until all trouble is corrected and equipment installation and operation are satisfactory, at discretion of Engineer.

D. Verify that motor overcurrent protection is in accordance with the NEC.

E. Verify the motor protection and control is in accordance with the equipment manufacturer’s requirements.

F. The Contractor shall open each motor terminal box for inspection by the Engineer.

3.3 TESTS

A. The Contractor shall simulate all motor alarm and shutdown conditions to test that the motor control is operating correctly. These tests shall be witnessed and verified by the Engineer.

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B. The Contractor shall perform voltage, current and resistance tests as required to complete the Motor Test Report.
   1. Refer to Section 26 01 26 – Testing.
   2. The Contractor shall inform the Engineer a minimum of 3 days in advance of testing and shall only perform tests with the Engineer or Owner's representative present.

C. If the test results indicate corrective measures are required, the Contractor shall undertake all such corrective measures until the electrical system is accepted by the Engineer. No additional compensation will be paid for corrective measures.

END OF SECTION

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SECTION 26 90 21
CONTROL SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Description of Work

B. Definitions

C. Related Sections

D. Measurement and Payment

E. Standards and References

F. Submittals

G. Operations and Maintenance Manuals

H. Delivery, Storage and Handling

I. Products

J. Execution

1.2 DESCRIPTION OF WORK

A. This section covers furnishing and installing the system for control and monitoring of motor driven pumps and equipment and all component instruments and sensing devices, including but not limited to:

1. Modification, re-UL certification, relocation, and reuse of the existing telemetry panel with added components and modified wiring as needed per the design drawings and specifications.
2. Provision of all control system hardware, software, variable frequency drive and instrumentation configuration, control system integration, and coordination with the Engineer Furnished programmer is to be provided by the Contractor and is to be included in the bid price.
    a) All PLC, OIT/HMI, and SCADA system programming is Engineer Furnished and shall not be included in the bid price.

1.3 DEFINITIONS

A. For the purposes of describing the control system and associated electrical work the following definitions shall be used.

1. "**Contractor**" is the party who furnishes and installs all tools, materials and equipment. This includes the Prime Contractor, the Electrical Contractor and all other Contractors and Sub Contractors.
2. "**Control System Integrator (CSI)**" is the Party that furnishes and integrates all control components and designs the detailed control wiring diagrams plus the layout and assembly of the custom control panels. The CSI is also responsible for VFD and instrumentation programming (configuration) and start-up of the system.
3. "**Control System Programmer (Programmer)**" is the Party that performs all PLC, OIT/HMI, and SCADA control system programming, not including the VFD or instrumentation.

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4. "**Control System**" includes all equipment, instruments and wiring for control and monitoring of all operating pumps and equipment. This includes custom control panels, packaged control panels, and control equipment furnished with other systems and mechanical equipment. All sensing, transmitting, indicating, control and recording of all functions as specified and shown are also included in the control system.

1.4 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 01 26 – Electrical Testing
   5. Section 26 05 19 – Wire and Cable
   6. Section 26 05 26 – Grounding
   7. Section 26 28 00 – Overcurrent Protective Devices
   8. Section 26 90 22 – Pump Control Panel

1.5 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 90 22	Pump Control System	LS

1.6 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. International Society for Measurement and Control (ISA):
   1. S5.1, Instrumentation Symbols and Identification.
   2. S5.2, Binary Logic Diagrams for Process Operations.
   3. S5.3, Graphic Symbols for Distributed Control/Shared Display Instrumentation, Logic and Computer Systems.
   4. S5.4, Standard Instrument Loop Diagrams.
   5. S20, Standard Specification Forms for Process Measurement and Control Instruments, Primary Elements and Control Valves.
   6. RP7.1-56, Pneumatic Control Circuit Pressure Test.

C. National Electrical Manufacturers Association (NEMA):
   1. ICS 2, Standards for Industrial Control Devices, Controllers and Assemblies.
   2. ICS 4, Terminal Blocks for Industrial Use.
   3. ICS 6, Enclosures for Industrial Controls and Systems.

D. National Fire Protection Association (NFPA):
   1. 70, National Electric Code (NEC).

E. Underwriters Laboratories Inc. (UL):
   1. 508, Industrial Control Equipment.

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F. National Institute of Standards and Technology (NIST).

1.7 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

B. Equipment Submittals:
   1. Product Submittals are to be submitted to Engineer for review and approval prior to fabrication for all major system components including but not limited to:
      a) PLC I/O cards
      b) Terminals
      c) Relays
      d) Wire
   2. Provide reference numbering on all cut sheets to relate them to the bill of materials. Provide same reference numbering by the equipment shown on the shop drawings.
   3. Submittals shall be original printed material or clear unblemished photocopies of original printed material. Facsimile information is not acceptable.

C. Product technical data including:
   1. Acknowledgement that products submitted meet requirements of standards referenced.
   2. Equipment catalog cut sheets.
   3. Instrument data sheets:
      a) ISA S20 or approved equal.
   4. Materials of construction.
   5. Size and weight.
   6. Electrical power requirements and wiring diagrams.
   7. NEMA rating of housings.
   8. Submittals shall be marked with arrows to show exact features to be provided.
      a) Signal levels and ranges.
      b) Device location.
      c) Energy sources designating voltage, pressure, and other applicable requirements.
      d) Enough process lines and equipment to clearly show the process side of the loop and provide clarity of control action.
      e) Reference to supplementary records and drawings to show inter-relation to other control loops.
      f) Controller action.
      g) Control valve action upon electronic, hydraulic, or pneumatic failure.
   9. Comprehensive set of point-to-point wiring diagrams showing all interconnections between packaged systems or equipment control panels, motor control centers, instrumentation and all other electrical equipment as required to depict a complete and functional plant-wide electrical control system. Instrumentation wiring already shown on loop diagrams need not be included on point-to-point wiring diagrams.

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a) Diagrams shall provide the following minimum information:
   i. Terminal block identification (includes terminals on remote equipment furnished by Others).
   ii. Wire identification number.
   iii. Wire size.
   iv. Wire type.
   v. Wire color.
   vi. Wire shielding and insulation type.
   vii. Conductor quantities and associated conduit size.
   viii. Conduit identification.
   ix. Ground points.
   x. Interconnection requirements to existing systems or equipment furnished by Others.

b) Diagrams shall be provided on Drawings of sufficient size so as to minimize the number of drawings.
   i. Maximum drawing size: 11 x 17 IN.
   ii. Minimum drawing size: 8 x 11 IN.

10. Electrical schematic control diagrams. Diagrams shall include:
    a) Terminal identification.
    b) Unique identification of all control devices and contacts.
    c) Utilize Owner's device identification numbers where applicable.
    d) Wire identification.
    e) Equipment identification.
    f) Indication of remote and local devices and wiring.
    g) Overcurrent protection indication.
    h) Voltage.
    i) All control logic.
11. Panel fabrication and wiring drawings.
12. PLC equipment drawings.
13. Graphic layouts.
14. Graphic component construction.
15. Nameplate layout drawings.
16. Drawings, systems, and other elements are represented schematically in accordance with ISA S5.1 and S5.3. The nomenclature, tag numbers, equipment numbers, panel numbers, and related series identification contained in the Contract Documents shall be employed exclusively throughout submittals.
17. Certifications:
    a) Approvals from independent testing laboratories or approval agencies, such as UL, FM or CSA. Certification documentation is required for all equipment for which the specifications require independent agency approval.
18. Testing and quality control reports.

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1.8 OPERATION AND MAINTENANCE MANUALS

A. See Section 26 00 00.

B. The Control System Integrator shall prepare and assemble detailed operation and maintenance manuals in accordance with the project general requirements. The manuals shall include, but not be limited to, the following:

1. Preventative maintenance procedures
2. Trouble-shooting
3. Calibration
4. Testing
5. Replacement of components
6. Automatic mode operation (provided by Owner)
7. Programming for VFD
8. Manual mode operation
9. System schematics / shop drawings
10. Electronic copy on disk of all shop drawings in AUTOCAD, latest version
11. As-built wiring diagrams of cabinet and enclosure contained assemblies
12. As-built wiring diagrams of overall system
13. Hardware and software versions

C. Updated system schematics and wiring diagrams shall be included as described in the Shop Drawing and Submittal sections of this specification.

1. Catalog data and complete parts list for all equipment and control devices
2. Listing of recommended spare parts
3. Listing of recommended maintenance tools and equipment.

D. Electronic program and configuration files.

1.9 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

PART 2 PRODUCTS

2.1 GENERAL

A. Design and Assembly

1. All equipment and materials utilized in the system shall be the products of reputable, experienced manufacturers with at least five (5) years experience in the manufacture of similar equipment. Similar items in the system shall be the products of the same manufacturer. All equipment shall be of industrial grade and of standard construction, shall be capable of long, reliable, trouble-free service, and shall be specifically intended for control and monitoring of operation of motor-driven pumps and equipment. All equipment shall be of modular design to facilitate interchangeability of parts and to assure ease of servicing. All equipment, where practical, shall be of solid state, integrated circuit design.
2. The system shall be completely assembled in the shop by the Control System Integrator. All components and equipment shall be prewired to the maximum extent possible.

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3. All components, including both internally and face-mounted instruments and devices, shall be clearly identified with phenolic nameplates of white background with black letters. Nameplates on the interior of panels shall be White Polyester with printed thermal transfer lettering and permanent pressure sensitive acrylic; TYTON 822 or equal.

B. Interconnecting Wiring/terminals

1. See Section 26 05 19.
2. The Control System Integrator shall determine all requirements for field-installed interconnecting wiring between control system components, sensors, pumps and equipment. The Control System Integrator shall determine the number, size, and type of wires and the number, size, type, and location of conduits and wireways.
3. The wire and conduit shown on the plans shall be considered only as general guidelines for signal and control circuits. The Control System Integrator shall determine all specific requirements and shall confirm or modify the wiring and conduit shown on the plans to conform to such requirements.
4. All interconnecting wires installed by the manufacturer and installer shall be numbered at each end using custom pre-printed heat shrink sleeve markers. Terminations shall be made using solderless pressure connectors at all terminations. All conductors shall be stranded wire with thermoplastic insulation and shall be cabled to groups and supported so as to prevent breaking and to present an orderly arrangement and neat appearance. All outgoing wiring shall be terminated on a marked terminal strip capable of connection of at least 2 No. 14 wires and all terminal connections shall be numbered consecutively throughout the system.
5. Provide 5 spare terminals in each enclosure that has terminals or 10% whichever is the greater amount. In addition, provide extra DIN rail with enough space for 20% more terminals.
6. For all energized circuits (power and control) powered from the panel and extend outside of the panel provide an individual fused terminal with appropriate fast blow fuse. Provide one fused terminal for each group of digital inputs associated with the control of a motor load.
7. (1/2 amp for PLC inputs) and “blown fuse” indicator light for each circuit.
8. For all signal circuits that extend outside of the panel provide an individual fused terminal with appropriate fusing and integral blown fuse indication. All 4 to 20 mA circuits shall be individually fused with a 1/16 amp fast blow fuse.
9. For all energized circuits powered outside of the panel which extend into the panel, provide a disconnecting terminal to isolate each individual circuit.
10. In general all control wiring shall be #14 AWG except PLC I/O wiring between the PLC cards and the terminal strips within the same cabinet shall be #18 AWG.
11. Provide wire ways as necessary in the enclosure to contain all internal wiring and all field wiring. Size wireways such that there is ample room for the wiring required by this contract. Wireways shall be filled to a maximum of 70% to allow 30% more future wire.
12. Low voltage DC control and signal conductors shall be bundled separately from alternating current circuits. Separate raceways and wire gutters shall be dedicated for AC and DC wiring, and labeled as such on the shop drawings. Wiring may cross at right angles if necessary. Special caution shall be used for PLC I/O card wiring and field terminations to accommodate the separation of AC and DC circuits. Intrinsically safe wiring shall be physically separated from non intrinsically safe wiring.
13. All wiring shall be neatly tied in position with nylon cable ties. Instruments with portable cord connections shall be fed through the instrument panel plug strip which shall be located near the top of the panel directly above the instruments. Instrument supply cords shall be the only panel wiring which is not continuously supported and tied.

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14. All wiring and tubing crossing hinges shall be installed in a manner to prevent chafing. Bundles of similar conductors shall be clamped securely to the door and to the panel, and the bundles shall run parallel to the hinge for at least 12 inches. Spiral nylon cable wrap shall be provided in the hinge section of the bundle to fully protect the conductors or tubing against chafing.

C. Wireways
   1. Provide molded plastic wireways, slotted for wire connections for all wiring in the panels. They shall be complete with covers. Wireways shall be manufactured by Panduit or Taylor.

D. Terminals
   1. Provide terminals for all wire connections to field wiring and internal power distribution. Analog loops that are 24 VDC powered shall have a knife switch to disable the loop if necessary. Connections shall have box type lugs capable of terminating 2 #14 AWG stranded wires. Terminals shall be strip mounted as manufactured by Phoenix Contact or equal.
   2. Provide terminals on a 1-1/2” raised track in control cabinets. Track shall be aluminum and bonded to the cabinet.
   3. Fuse terminal blocks shall be hinged disconnect level type with “blown fuse” indicators. PHOENIX CONTACT UK 5 series or equal.
   4. Disconnecting terminal blocks shall be knife type with light indicator PHOENIX CONTACT type MTK or equal.
   5. Provide 1 spare, or 3% whichever is the greater amount, spare (noninstalled) replacement terminals for each type used.

2.2 PROGRAMMABLE CONTROL EQUIPMENT

A. Programmable Logic Controllers (PLC’s)
   1. Existing Allen-Bradley Compact Logix L30 PLC is being used. See Appendix A for additional information.
      a) Provide, install, and wire an Allen Bradley 1769-OF8 analog output 8 channel module in the existing telemetry panel.
      b) System shall consist of all necessary devices, modules, cards, connections, interconnections, terminations and associated equipment to form a complete and fully functional system per the drawings.
      c) I/O Terminals:
         1) The I/O terminals respond on the network as nodes/slaves. Each terminal contains one or more inputs or outputs for wiring to field devices.
         2) Units shall be Beckhoff Analog/Digital I/O Terminals or as shown on the drawings.

B. Programming of Programmable Controller
   1. Programming shall be Engineer Furnished.

C. Terminals
   1. Provide terminals for all wire connections to field wiring and internal power distribution. Analog loops that are 24 VDC powered shall have a knife switch to disable the loop if necessary. Connections shall have box type lugs capable of terminating 2 #14 AWG stranded wires. Terminals shall be strip mounted as manufactured by Phoenix Contact or equal.
   2. Provide terminals on a 1-1/2” raised track in control cabinets. Track shall be aluminum and bonded to the cabinet.
   3. Fuse terminal blocks shall be hinged disconnect level type with “blown fuse” indicators. PHOENIX CONTACT UK 5 series or equal.

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4. Disconnecting terminal blocks shall be knife type with light indicator PHOENIX CONTACT type MTK or equal.
5. Provide 1 spare, or 3% whichever is the greater amount, spare (noninstalled) replacement terminals for each type used.

2.3 OPERATOR INTERFACE DEVICES

A. All operator interface devices shall be rated for the environment in which they will be located. In general, devices mounted on indoor panels shall be NEMA 13 rated. Operator devices mounted outdoors, or in wet or corrosive environments shall be NEMA 4X rated.

B. Outdoor Alarm Beacon

1. The outdoor alarm beacon shall be a vandal resistant, bracket mount fixture suitable for wet locations. The beacon shall be 24VDC/120VAC powered flashing type LED with red colored globe, protective wire guard, and mounting bracket. Beacon shall be Edward Signaling 125 Class, or approved equal.
2. Provide all required mounting hardware so that beacon can be seen over the lift station fence from the administration building at the wastewater treatment facility across the street.

2.4 PANEL POWER DISTRIBUTION

A. Control Panel Circuit Breakers

1. Control panel circuit breakers shall be thermal-magnetic type, supplementary overcurrent devices. Circuit breakers shall be snap mountable on five different types of mounting rails. Circuit breakers shall be sized for actual circuit load or as shown on the drawings. Provide 1 spare circuit breaker of each size used, or the number of spares shown on the drawings, whichever is greater.
2. Control panel circuit breakers shall be Allen-Bradley 1492-CB or 1492-GH, match existing breakers, or equal.

B. Fuses

1. Provide fuses, spares, fuse pullers, and etc. in accordance to Section 26 28 00.
2. Provide blown fuse indicators on all fuses.

2.5 RELAYS

A. Relays For General Purpose

1. Relays for general purpose use shall have, 10 Amp contacts with the appropriate coil voltage for the application. All relays shall have an integral indicating light to show if there is coil voltage present. They shall have an 8-pin/blade base and matching socket. Units shall be Allen-Bradley 700 type HA, HB, Idec RH Series, or equal. Appropriate relay shall be selected based on application from the control wiring diagrams.

2.6 FLOAT-TYPE LEVEL SWITCHES (LSHH-100, LSH-100, LSL-100, LSLL-100)

A. Switches shall have a permanently encapsulated polypropylene housing, with mercury free mechanically activated narrow angle switch, and SPDT contacts rated at 1 Amp. The switch shall be internally weighted. Cable shall be 3 #18 AWG, stranded, with SJOW jacket, integral to the float with sufficient length to terminate on the intrinsically safe relays, without splicing. Float switches shall be SJE Rhombus Megamaster,or approved equal.

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B. Accessories for Installation:
   1. The floats shall be suspended from stainless steel Kellems grips and a one-piece stainless steel mounting bracket with individual hooks for each float.
   2. Fasteners used for mounting the float mounting bracket in the wet well shall be stainless steel.

2.7 SUBMERSIBLE LEVEL TRANSMITTERS (LT-101)

A. The level sensor shall consist of a submersible level transducer suspended on 1/8" diameter SS cable in an 8" diameter PVC stilling well. The transducer shall be connected via an unspliced cable to a bellows or desiccant filter located the in a control and signal junction box. The transducer shall be a variable capacitance type activated from a ceramic diaphragm, via an internal oil filled assembly. The system shall be a 24V DC powered with an output signal of 4-20m ADC. The level sensor shall be NOSHOK 612, with breather assembly.

2.8 PRESSURE GAUGES (PI-100)

A. Unless already provided in other sections, pressure gauges shall be provided for each pressure switch and transmitter. Mount gauge near sensor. Pressure gauges shall be provided with a range and working rating for the application. Gauges shall be stainless steel with 1.5" face and minimum 2.5% accuracy. Noshok 400/500 series or approved equal.

2.9 PRESSURE TRANSMITTERS (PT-100)

A. Unit shall be pipe, with weatherproof/dustight housing transmitting a proportional 4-20 mA signal. NOSHOK PT20 series, or equal.

2.10 ELECTROMAGNETIC FLOW TRANSMITTER (FIT-100)

A. Flow transmitter shall have the following features:
   1. Power Supply: 24VDC.
   2. Flow Rate Output at high scale GPM to PLC.
   3. Flow Totalizer Output to PLC and displayed on HMI.
   4. Repeatability +/- 0.1% full scale Accuracy, +/- 0.5% of rate.
   5. Remote mount the transmitter inside the Pump Control Panel.

B. Endress+Hauser Proline 400, to match the Promag W flow sensor, or approved equal.

C. The transmitter shall be compatible with and the same brand as the flow meter supplied.

2.11 LIMIT SWITCHES (ZS-100)

A. Hazardous Areas:
   1. Rated for Class I, Division 1 and 2, Groups B, C, and D and Class II, Division 1 and 2 areas, Groups E, F, and G.
   2. Plunger head with limit switch enclosed in separate sealing chamber. Sealing chamber has prewired factory sealed pigtail leads.
   3. Standards: UL 894.
   4. Mode of operation: hatch open - alarm on.
   5. Honeywell LSX series or equal.

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2.12 SPARE PARTS

A. In addition to spare parts mentioned elsewhere in this section, the Contractor shall supply the following spare parts for use by the Owner:
   1. Qty 1 8 pt Analog output module.
   2. Install new batteries in all PLCs at startup.
   3. Qty 1 Relay of each type used or 10 % whichever is the greater amount.
   4. Qty 200% spare fuses (two spare fuses for each fuse supplied).
   5. Provide 10 spare nameplates 3” square or less with 20 letters 1/2” or less to be specified by the Owner.
   6. Provide 2 spare level float switches.

B. Spare parts shall be shipped with the control panels.

PART 3 EXECUTION

3.1 OPERATING DEVICE LOCATION

A. Operating devices shall be mounted no higher than 6' - 4" and no lower than 4' - 0" above finished floor when panel is installed unless otherwise approved by the Engineer. Operating devices with displays (such as PLC interface and power monitoring devices) shall be mounted so that the display is between 5’-3” and 5’-8” above finished floor unless otherwise approved by the Engineer.

B. All pipe mounted pressure monitoring devices shall be installed along with air bleed valves consistent with control device manufacturer recommendations in order to remove unwanted air from the system that may interfere with proper device operation.

3.2 MECHANICAL INTERFACE REQUIREMENTS

A. Provide a pressure gauge (if not already provided) to measure the same system pressure for pressure switches and transmitters.

B. Provide an in line isolation valve for each pressure gauge, transmitter and switch.

C. Provide a test TEE with a plug in the pipe between the isolation valve and the pressure switch or transmitter.

D. Provide factory glycol (or equal) filled isolation switches and transmitters with isolation diaphragms when measuring pressures of corrosive materials.

3.3 APPLICATION SPECIFIC PROGRAMMING FUNTIONALITY

3.3.1 ELAPSED TIME METERS

A. Elapsed run timers shall be provided for all pumps and motors that are controlled or monitored by the PLC. These timers shall reside in the PLC, and their values shall be displayed on the PLC operator interface.

3.3.2 START COUNTERS

A. Start counters shall be provided for all pumps and motors that are controlled or monitored by the PLC. These counters shall reside in the PLC, and their values shall be displayed on the PLC operator interface.

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3.3.3 EQUIPMENT STATUS

A. All facility equipment and process sequences that are controlled from, or monitored by the PLC shall have their associated status displayed on the PLC operator interface.

3.3.4 EQUIPMENT AUTO MODE FEEDBACK

A. All equipment and sequences with automatic control modes shall report to the PLC when their respective control switch is in the AUTO position. The AUTO status shall be displayed on the PLC operator interface.

3.3.5 EQUIPMENT FAILURE DETECTION

A. All process equipment and sequences controlled through the PLC shall be monitored for failure. The failure routine shall be based on a command/report back sequence. This sequence shall activate a failure alarm if the process equipment ON status signal is not received by the PLC within a timeout period after the PLC issues the RUN command. All failure alarms shall be displayed on the PLC operator interface.

3.3.6 PROCESS STATUS

A. All facility process values that are monitored by the PLC shall have their associated status displayed on the PLC operator interface.

3.3.7 PROCESS VARIABLE ALARMS

A. All facility process signals monitored by the PLC shall be monitored for high or low level and loss of signal alarms. The high or low level alarms shall have an adjustable deadband to prevent nuisance alarming. All process signal alarms shall be displayed on the PLC operator interface.

3.3.8 FLOW TOTALIZERS

A. All process flow variable data shall be totalized in the PLC and displayed on the PLC operator interface.

3.4 FACTORY TESTING

A. The Control System Integrator shall perform operational testing of the complete control system at the project site. Testing shall be conducted in two phases. The initial testing of the control system shall include verification of the PLC system configuration followed by energizing and testing each digital input and output and simulating each analog input and output using a loop simulator and calibrator. Circuits not energized shall be tested for continuity. Energized circuits shall be tested through all components from the terminal blocks in the control panel to the hardware I/O memory locations in the PLC. Initial testing of the control system shall be considered completed only after the control system has operated continuously, 24 hours per day, for at least 2 days.

B. After completion of initial testing, the Control System Integrator shall conduct subsequent testing for witness and inspection by the Engineer. All control functions and all status and alarm monitoring and indication shall be demonstrated under simulated operating conditions. Simulating equipment shall be provided and wired into the control system for this testing. The Control System Integrator shall revise, modify, and adjust the system as required by the Engineer during the testing period. Testing shall be continued for the time period required by the Engineer to observe and verify proper operation of the control system and any necessary revisions required as a result of the witness testing.

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C. The Control System integrator shall provide an I/O checklist for all points in the control panel. The list shall include for each point, the tag name of the points, a description of the point, comments, date and time of the test, and a signature line for the person performing the test. Show that each Digital point was set and reset. Show verification of all analog points at 0%, 25%, 50%, and 100% of range. The I/O checklist format shall be submitted Engineer for review and approval 1 week prior to the scheduled witness testing.

3.5 INSTALLATION

A. The control system equipment shall not be shipped to the site until a suitable environment is available for installation of the equipment. A suitable environment for the purposes of this contract shall be dry, covered and heated to maintain a minimum ambient temperature of 60°F. Prior to shipment of control equipment, the Contractor shall contact the Engineer for field verification of a suitable environment.

B. The control system shall be upgraded/installed in accordance with the installation drawings and instructions prepared by the Control System Integrator. Installation shall be performed by workers who are skilled and experienced in the installation of electrical instrumentation and control systems.

C. Installation shall include all elements and components of control system and all conduit and interconnecting wiring between all elements, components, sensors and valve operators. All wiring between control cabinets, sensors, pumps and equipment shall be multiple color coded for ease of servicing. All terminations shall be made with solderless pressure connectors. All wiring shall be in accordance with the requirements of Section 26 05 19. Intrinsically safe wiring shall be separated with barriers per NEC requirements.

3.6 FIELD TESTING OF THE CONTROL SYSTEM

A. The Control System Integrator and Electrical Contractor shall perform operational testing of the complete control system in the field. Testing shall be conducted in two phases. The initial testing shall include, but not be limited to, operation of all input and output (I/O) points, control devices and motor controls. Subsequent startup testing of the system shall include, but not be limited to, testing of the PLC and PLC operator interface programs.

B. The initial testing of the control system shall include testing of PLC system and its communications equipment, energizing each digital input and output and simulating each analog input and output using a loop simulator and calibrator. The I/O shall be tested in conjunction with the Electrical Contractor who is installing the instrumentation and control wiring. Circuits not energized shall be tested for continuity. Energized circuits shall be tested through all components from the field instrument to the hardware I/O memory locations in the PLC. If a point cannot be verified within 5 minutes of starting the check that point shall be noted as a punch list item to be corrected and re-tested at a later time.

C. The Control System integrator shall provide an I/O checklist for all points in the control panel. The list shall include for each point, the tag name of the points, a description of the point, comments, date and time of the test, and a signature line for the person performing the test. Show that each Digital point was set and reset. Show verification of all Analog points at 0%, 25%, 50%, and 100% of range. The Checklist shall be submitted to the Engineer 1 week prior to the startup of the control system. The Control System Integrator and the Electrical Contractor shall both be present for the verification of the I/O system by the Engineer.

D. The Control System Integrator shall coordinate with the contractor to ensure that control panels have been installed correctly prior to the commencement of the system startup. Startup testing shall not begin until the control panel installation has been completed and verified by the Engineer.

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3.7 CALIBRATION AND START-UP

A. All components of the control system shall be calibrated by the Control System Integrator after completion of installation. Each component shall be adjusted to be within the manufacturer's required range and for the specific application.

B. Components that cannot be properly calibrated or that are found to exceed the manufacturer's specified range or accuracy shall be removed and replaced at no additional cost to the Owner.

C. The control system shall be placed into operation by the Control System Integrator.

D. All components shall be recorded on loop check-off forms and shall be witnessed tested by the Engineer or Owner’s representative.

3.8 SYSTEM VALIDATION

A. When the installation is substantially complete, the Contractor shall commence integration testing of the control system. This shall determine that all system components connect up correctly to each other so that the system works as designed.

B. The Control System Integrator shall calibrate all instruments, indicators, recorders, loops, etc. and fill out appropriate test forms provided at the end of this section. Test forms shall be received by the Engineer prior to validation testing.

C. After the integration testing is complete, validation testing shall be by the Control System Integrator and Contractor, with the Owner and Engineer present. Validation testing shall include operation and verification of all control components and features of the entire control system. The Contractor shall inform the Engineer of the testing schedule at least one week prior to the commencement of testing. Validation testing shall be considered complete when the Owner and Engineer have determined that all of the original system requirements have been met.

D. The manufacturer shall revise, modify, adjust and reprogram the system as required during and following start-up to provide the operation required by the Engineer.

E. Note: the Engineer shall not be called out by the Contractor for validation testing on equipment until all components are installed, all wiring points have been checked, and operation **has been** tested **and verified** by the Contractor.

3.9 SYSTEM MAINTENANCE

A. The Control System Integrator shall be solely and completely responsible for all maintenance of the hardware system from time of start-up to the date of acceptance, by formal action of the Owner, of all work under the contract. The Control System Integrator shall correct all deficiencies and defects and make any and all repairs, replacements, modifications, and adjustments as malfunctions or failures occur. The Control System Integrator shall perform all such work required or considered to be required by the Owner to cause and maintain proper operation of the system and to properly maintain the system.

B. The Contractor and the Control System Integrator shall anticipate that the Owner may delay acceptance of all work under the contract if, in the judgment of the Owner, malfunctions or failures in operation of the control system repeatedly occur after start-up. Both the Contractor and the Control System Integrator shall not be entitled to an extension of time or to any claim for damages because of hindrances, delays or complications caused by or resulting from delay by the Owner in accepting the work because of malfunctions or failures in operation of the control system.

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3.10 OPERATION AND MAINTENANCE TRAINING

A. The Control System Integrator shall conduct specifically organized training sessions in operation and maintenance of the control system for personnel employed by the Owner. The training sessions shall be conducted to educate and train the personnel in maintenance and operation of all components of the control system. Training shall include, but not be limited to, the following:
   1. Preventative maintenance procedures
   2. Trouble-shooting
   3. Calibration
   4. Testing
   5. Replacement of components
   6. Automatic mode operation
   7. Manual mode operation

B. At least 2 separate training sessions, each at least 4 hours in duration, shall be conducted at the facility after start-up of the system. The Control System Integrator shall prepare and assemble specific instruction materials for each training session and shall supply such materials to the Owner at least (2) weeks prior to the time of the training.

END OF SECTION

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SECTION 26 90 21 – APPENDIX A
EXISTING TELEMTRY PANEL SHOP DRAWINGS

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CITY OF MOSCOW WATER SYSTEM TELEMETRY UPGRADE
MOSCOW, IDAHO: PALOUSE MALL LIFT STA. PANEL

SHEET NO.	TITLE	REV.
PML-GEN:G01	PALOUSE MALL LIFT STA. TELEM. PANEL, INDEX, PARTS LIST, FUSE TABLE	0
PML:P01	PALOUSE MALL LIFT STA. TELEM. PANEL, PANEL LAYOUT	0
PML:P02	PALOUSE MALL LIFT STA. TELEM. PANEL, PANEL LAYOUT DETAIL A	0
PML:P03	PALOUSE MALL LIFT STA. TELEM. PANEL, PANEL LAYOUT DETAIL B, PLC	0
PML:P04	PALOUSE MALL LIFT STA. TELEM. PANEL, PANEL LAYOUT DETAILS C,D, &E	0
PML:E01	PALOUSE MALL LIFT STA. TELEM. PANEL, CONTROL POWER SCHEMATIC	0
PML:E02	PALOUSE MALL LIFT STA. TELEM. PANEL, PLC SLOT 1, DI-1 (DISCRETE INPUT)	0
PML:E03	PALOUSE MALL LIFT STA. TELEM. PANEL, PLC SLOT 2, DI-2 (DISCRETE INPUT)	0
PML:E04	PALOUSE MALL LIFT STA. TELEM. PANEL, PLC SLOT 3, DO1 (DISCRETE OUTPUT)	0
PML:E05	PALOUSE MALL LIFT STA. TELEM. PANEL, PLC SLOT 4, AI-1 (ANALOG INPUT)	0

PALOUSE MALL LIFT STA. TEMEMETRY PANEL PARTS LIST

ITEM #	QUANTITY	PART #	MANUFACTURER	DESCRIPTION
4	1	SCE-36P30	SAGINAW	BACK PANEL FOR 36X30" ENCLOSURE
7	1	SCE-36EL3012SSLP	SAGINAW	36"X30"X16" DEEP STAINLESS STEEL ENCLOSURE
8	2	SCE-ELPL	SAGINAW	PADLOCKING HANDLE
9	1	SCE-ELMFK4SS	SAGINAW	N4X MOUNTING FEET
10	1	SCE-DS30SS	SAGINAW	N4X DRIP SHIELD
13	1	028219-06	STEGO	250W PANEL HEATER
16	1	SNAP-12SC-SM	DINSPACE	FIBER PATCH PANEL
17	1	102MCE-SC-15	NTRON	FIBER TO COPPER CONVERTER
19	1	105TX	NTRON	5 PORT E-NET SWITCH-UNMANAGED
20	1	1769-L30ER	ALLEN BRADLEY	COMPACTLOGIX L30 PROCESSOR
21	1	1769-PB4	ALLEN BRADLEY	COMPACTLOGIX 24VDC POWER SUPPLY (2A@24VDC)
22	1	1769-IF8	ALLEN BRADLEY	COMPACTLOGIX ANALOG INPUT MODULE, 8 CHANNEL
23	2	1769-IQ16	ALLEN BRADLEY	COMPACTLOGIX 24VDC DISCRETE INPUT MODULE, 16PT
24	1	1769-OB8	ALLEN BRADLEY	COMPACTLOGIX 24VDC OUTPUT MODULE
25	1	1769-ECR	ALLEN BRADLEY	COMPACTLOGIX RIGHT END CAP
26	1	1492-AIFM8-F-5	ALLEN BRADLEY	8 CHANNEL ANALOG IFM, 24V BLOWN FUSE INDICATORS,
27	2	1492-CAB010B69	ALLEN BRADLEY	IFM WIRING MODULE CABLE FOR DIGITAL IFM
28	2	1492-IFM20D24A-2	ALLEN BRADLEY	20 PT IFM MODULE FOR 1769-IQ16
29	1	1492-ACAB010ED69	ALLEN BRADLEY	IFM WIRING MODULE CABLE FOR ANALOG IFM
30	1	4983-DC120-20	ALLEN BRADLEY	4983 SURGE AND FILTER PROTECTION, 120V, 20A
31	1	CS10.241	PULS	10A POWER SUPPLY
32	1	UB10.242	PULS	DC UPS MODULE
33	1	UZK12.071	PULS	7AH BATTERY PACK
34	1	1489-M1C200	ALLEN BRADLEY	20 AMP UL 489 CIRCUIT BREAKER
35	1	1489-M1C100	ALLEN BRADLEY	10 AMP UL 489 CIRCUIT BREAKER
36	1	1489-M1C050	ALLEN BRADLEY	5 AMP UL 489 CIRCUIT BREAKER
37	1	1489-M1C030	ALLEN BRADLEY	3 AMP UL 489 CIRCUIT BREAKER
38	3	1492-JG4	ALLEN BRADLEY	GROUND TERMINAL BLOCK
39	1	1492-N37	ALLEN BRADLEY	FUSE TERMINAL BLOCK END BARRIER
40	12	1492-J4	ALLEN BRADLEY	SINGLE CKT THROUGH TERMINAL
41	2	1492-CJJ6-10	ALLEN BRADLEY	TERMINAL JUMPER, 10GANG
42	2	1492-EBJ3	ALLEN BRADLEY	TERMINAL END BARRIER
43	18	1492-EAJ35	ALLEN BRADLEY	DIN RAIL END HOLDER
44	90	199-DR1	ALLEN BRADLEY	DIN RAIL IN INCHES
46	8	1492-H5	ALLEN BRADLEY	FUSE HOLDER WITH INDICATOR FOR 24V CKT
47	1	1492-REC15G	ALLEN BRADLEY	15 AMP RATED GFCI RECEPT.
48	8	700-HLT12Z24	ALLEN BRADLEY	DPDT TERMINAL STYLE RELAY
49	6	1492-GM35	ALLEN BRADLEY	TERMINAL BLOCK GROUP MARKER
50	1	ATOF 30A	LITTLE FUSE	30A AUTOMOTIVE STYLE FUSE
51	8	GGC2	MERSEN	2A GLASS FUSE, 1/4" X 1" FAST ACTING
52	8	GGM1/4	MERSEN	1/4A GLASS FUSE, 5X20MM FAST ACTING
54	78	F1X3WH6	PANDUIT	1" WIDE PLASTIC WIRE WAY, 3" HIGH (IN INCHES)
55	78	C1WH6	PANDUIT	COVER FOR 1" WIRE WAY (IN INCHES)
56	86	F2X3WH6	PANDUIT	2" WIDE PLASTIC WIRE WAY, 3" HIGH (IN INCHES)
57	86	C2WH6	PANDUIT	COVER FOR 2" WIRE WAY (IN INCHES)

FUSE TABLE (PALOUSE MALL LIFT STA. PANEL)

FUSE NO.	LOCATION	CURRENT	TYPE	VOLTAGE	SIZE	FEEDS
BAT-FU1	BATTERY	20A	ATOF (AUTOMOTIVE)	12VDC	BLADE	PS2
FU1	TB-24V	2A	FAST ACTING	24VDC	1/4" X 1-1/4"	PLC POWER
FU2	TB-24V	2A	FAST ACTING	24VDC	1/4" X 1-1/4"	ENET SWITCH
FU3	TB-24V	2A	FAST ACTING	24VDC	1/4" X 1-1/4"	F-X CNV
FU4	TB-24V	2A	FAST ACTING	24VDC	1/4" X 1-1/4"	DISCRETE INPUTS 1
FU5	TB-24V	2A	FAST ACTING	24VDC	1/4" X 1-1/4"	DISCRETE INPUTS 2
FU6	TB-24V	2A	FAST ACTING	24VDC	1/4" X 1-1/4"	DISCRETE OUTPUTS
FU7	TB-24V	2A	FAST ACTING	24VDC	1/4" X 1-1/4"	ANALOG INPUTS
FU8	TB-24V	2A	FAST ACTING	24VDC	1/4" X 1-1/4"	SPARE
B2	AIFM-AI1	1/4A	FAST ACTING	24VDC	5X20MM	SPARE
B3	AIFM-AI1	1/4A	FAST ACTING	24VDC	5X20MM	SPARE
B4	AIFM-AI1	1/4A	FAST ACTING	24VDC	5X20MM	SPARE
B5	AIFM-AI1	1/4A	FAST ACTING	24VDC	5X20MM	SPARE
B6	AIFM-AI1	1/4A	FAST ACTING	24VDC	5X20MM	SPARE
B7	AIFM-AI1	1/4A	FAST ACTING	24VDC	5X20MM	SPARE
B8	AIFM-AI1	1/4A	FAST ACTING	24VDC	5X20MM	SPARE
B9	AIFM-AI2	1/4A	FAST ACTING	24VDC	5X20MM	SPARE

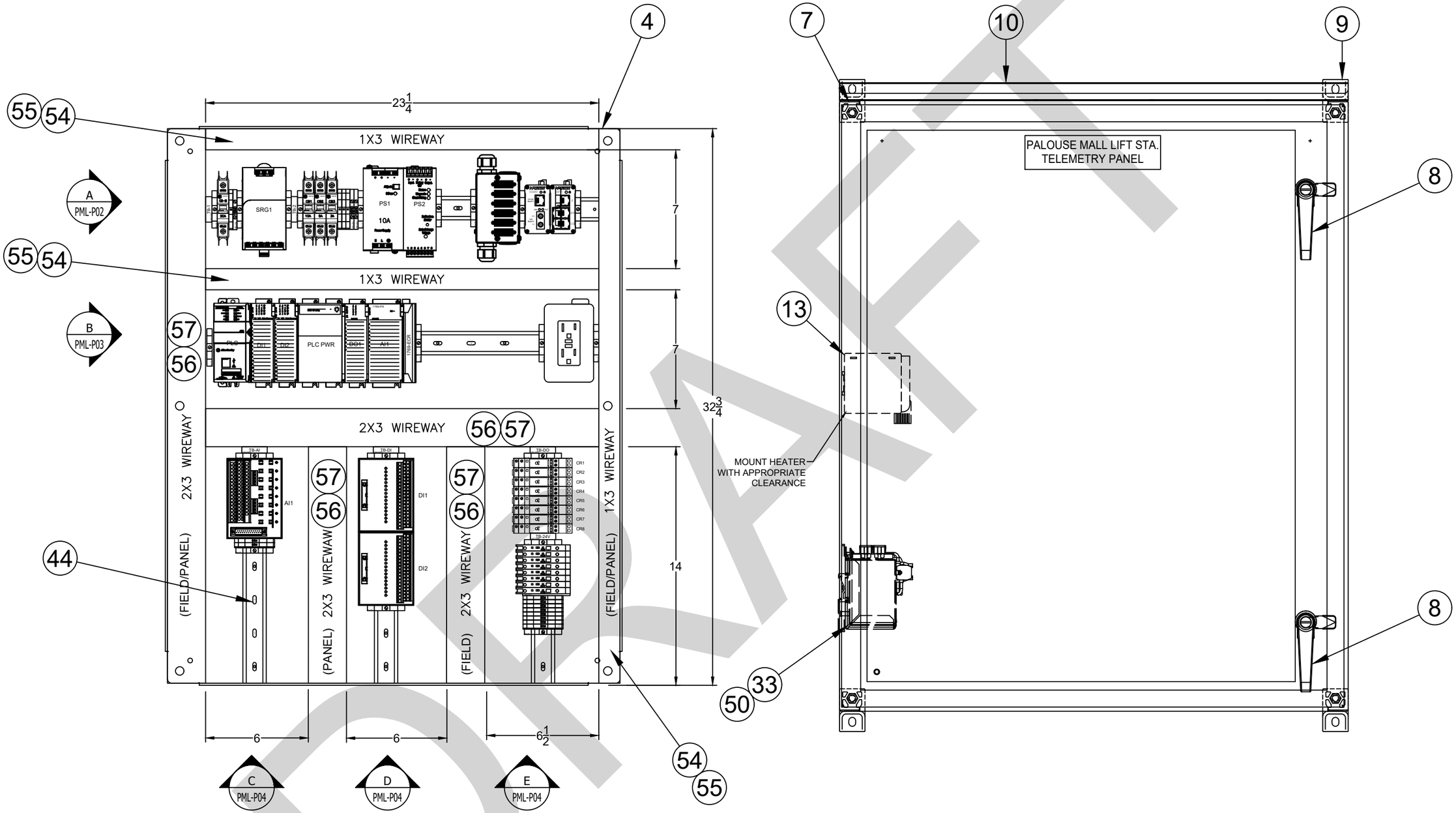
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TAURUS
POWER & CONTROLS INC.
9999 S.W. Avery ST – Tualatin, Oregon 97062
Ph: (503) 692-9004 – FAX (503) 692-9273

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0	08-24-2017	FINAL AS INSTALLED	KRW

BY: CHF
DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE: PALOUSE MALL LIFT STA. TELEM. PANEL, INDEX, PARTS LIST, FUSE TABLE
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: NTS
REV: 0
SHEET NO: PML-GEN:G01



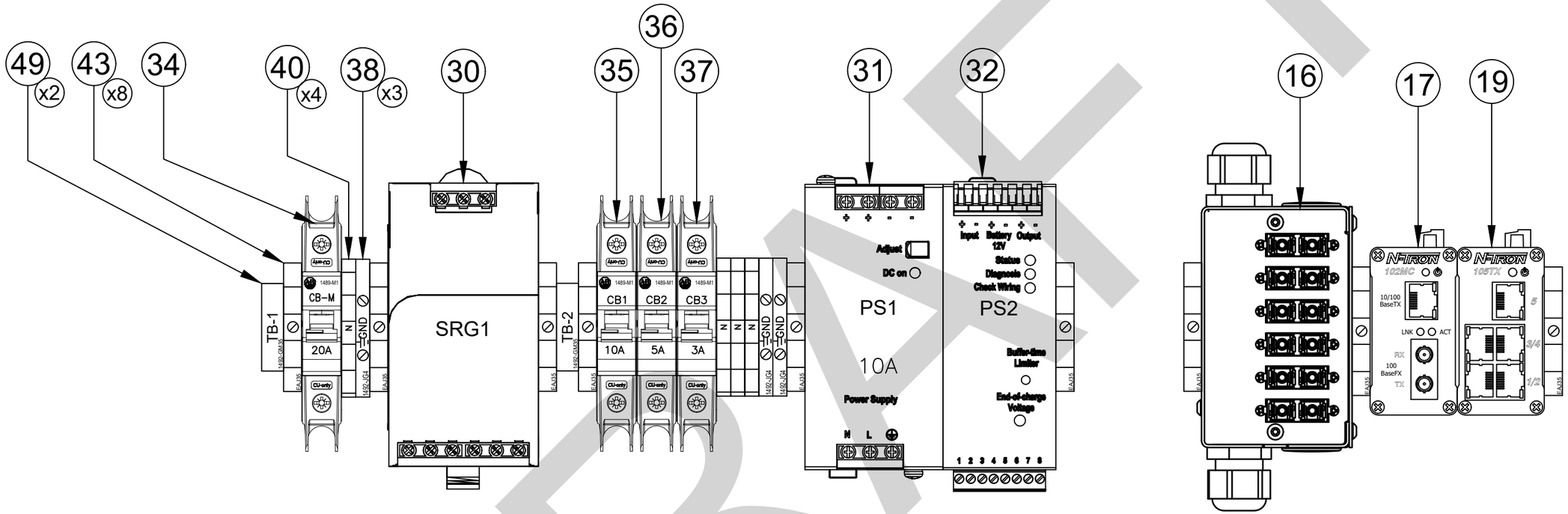
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TAURUS
POWER & CONTROLS INC.
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BY: CHF
DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE: PALOUSE MALL LIFT STA. TELEM. PANEL, PANEL LAYOUT
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: 1:6
REV: 0
SHEET NO: PML:P01

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A POWER TERMINATIONS AND ENET FIBER/COPPER TERMINATIONS

PML-P01

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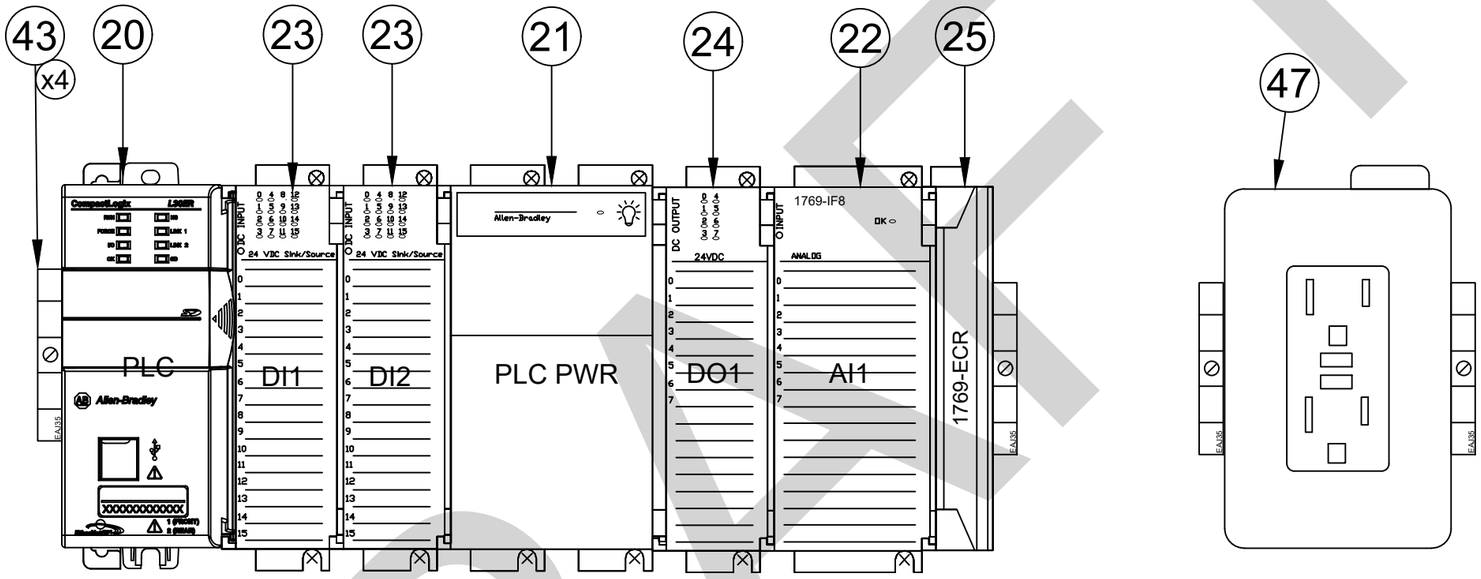
TAURUS
POWER & CONTROLS INC.
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BY: CHF
DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE: PALOUSE MALL LIFT STA. TELEM. PANEL, PANEL LAYOUT DETAIL A
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: 1:2
REV: 0
SHEET NO: PML:P02



B

PLC: ALLEN BRADLEY COMPACT LOGIX 1769

PML-P01

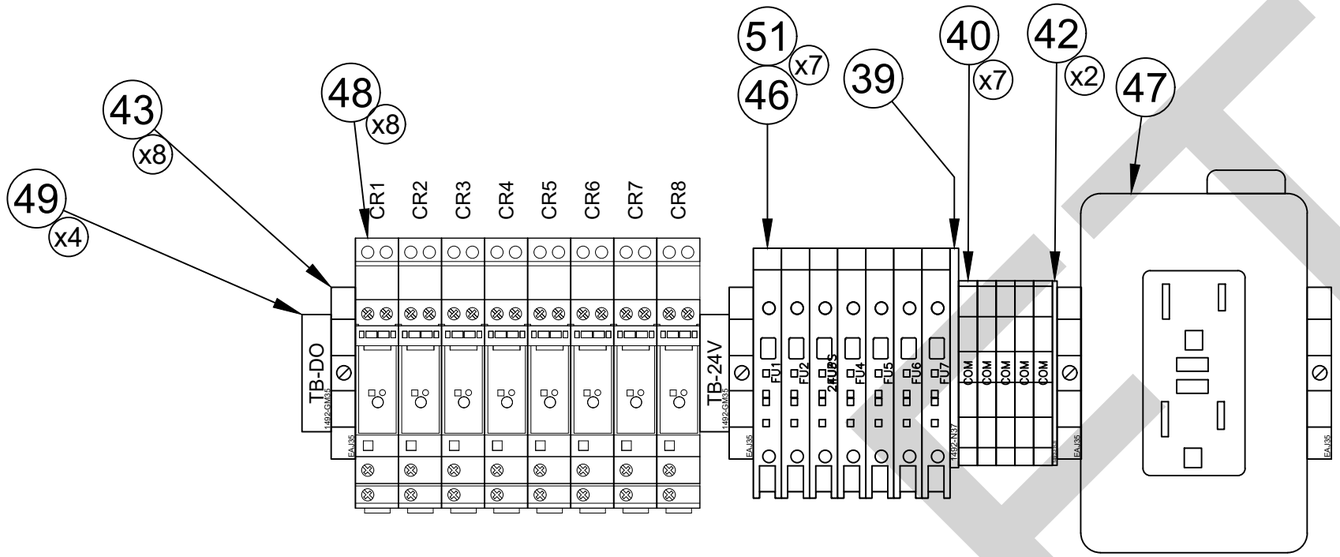
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TAURUS
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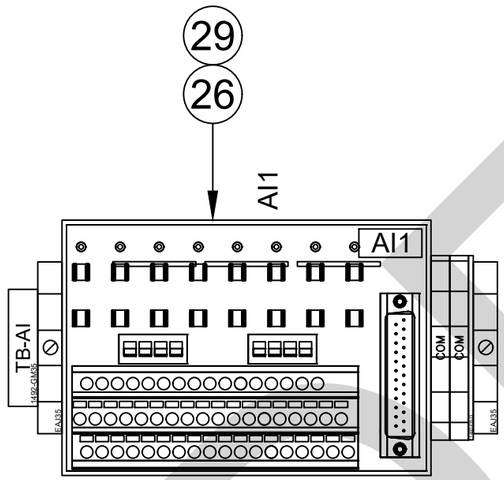
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DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE: PALOUSE MALL LIFT STA. TELEM. PANEL, PANEL LAYOUT DETAIL B, PLC
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: 1:2
REV: 0
SHEET NO: PML:P03



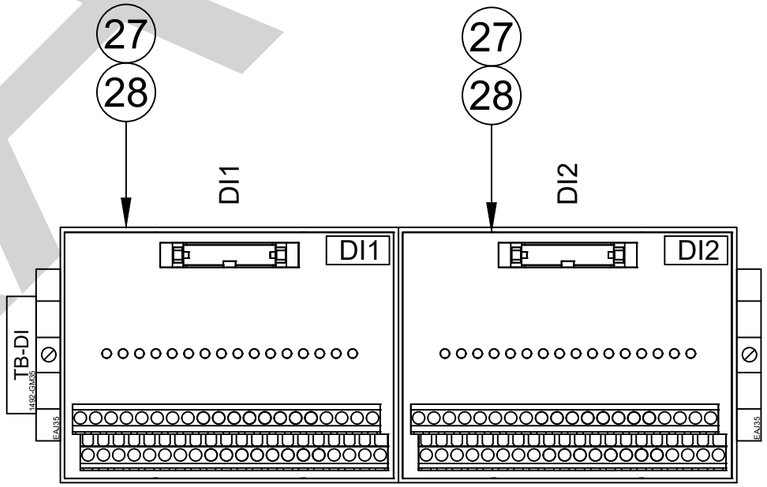
E DISCRETE OUTPUTS, 24V TERMINALS, AND OUTLET

PML-P01



C ANALOG INPUTS

PML-P01



D DISCRETE INPUTS

PML-P01

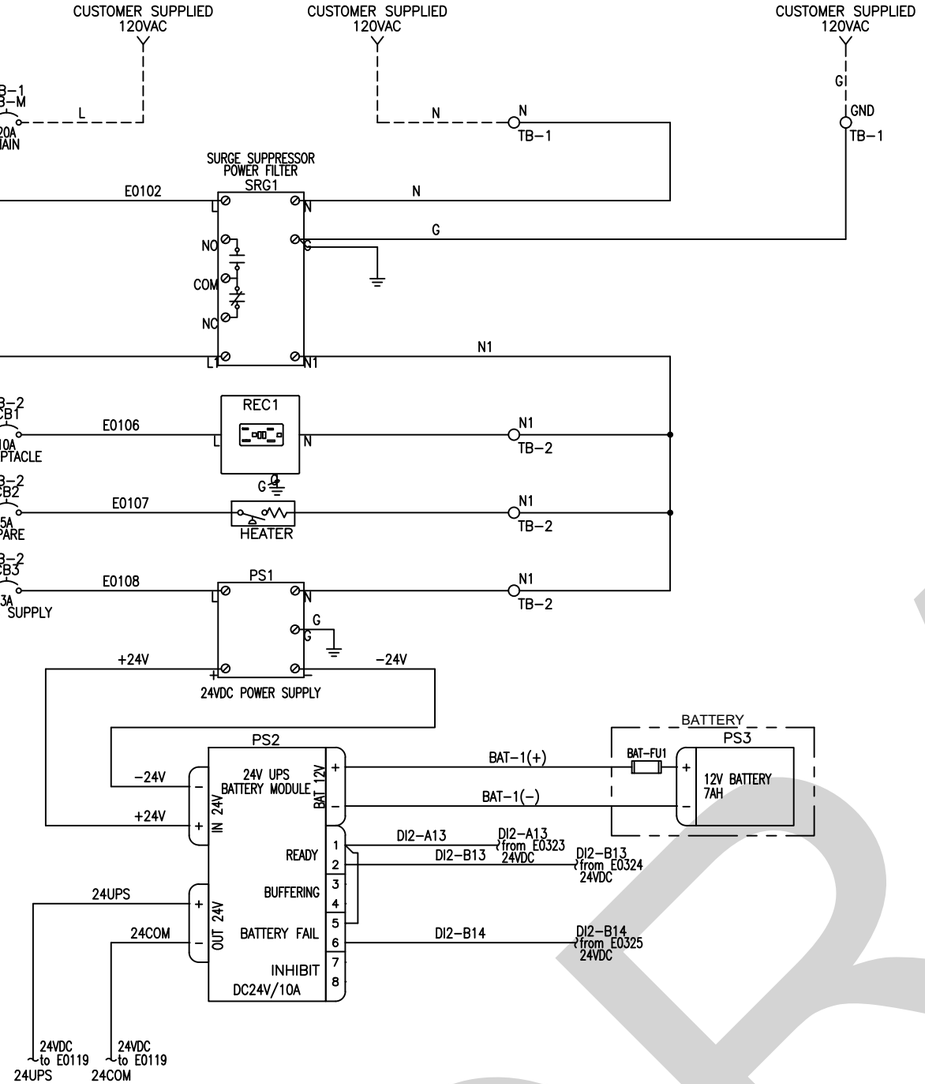
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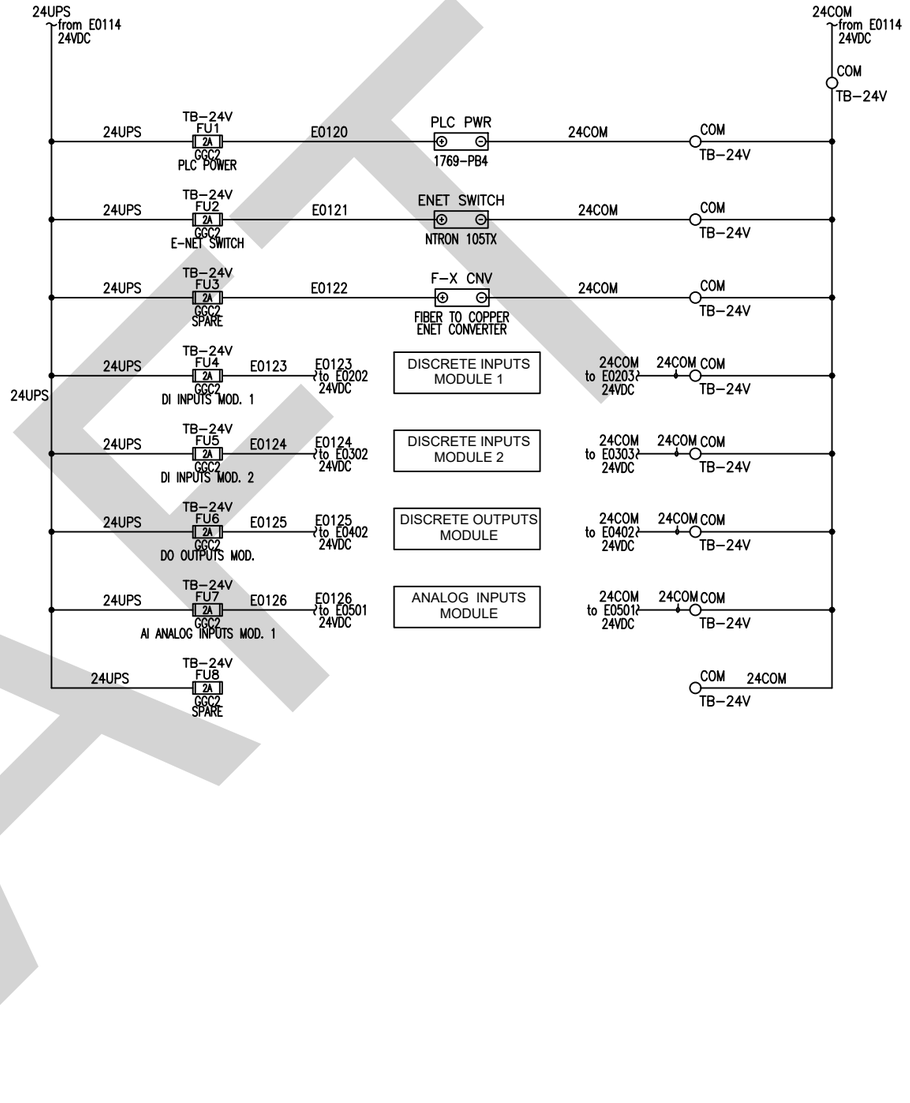
TAURUS POWER & CONTROLS INC.
9999 S.W. Avery ST – Tualatin, Oregon 97062
Ph: (503) 692-9004 – FAX (503) 692-9273

BY: CHF
DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE: PALOUSE MALL LIFT STA. TELEM. PANEL, PANEL LAYOUT DETAILS C,D, &E
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: 1:2
REV: 0
SHEET NO: PML:P04

DRAFT





WIRE COLOR CHART		
DESCRIPTION	WIRE COLOR	COLOR SYMBOL
120VAC CONTROL POWER	RED	RED
120VAC NEUTRAL	WHITE	WHT
GROUND	GREEN	GRN
DC HOT	PURPLE	PRP
DC COMMON	GRAY	GRY
FOREIGN VOLTAGES	YELLOW	YEL

DRAFT

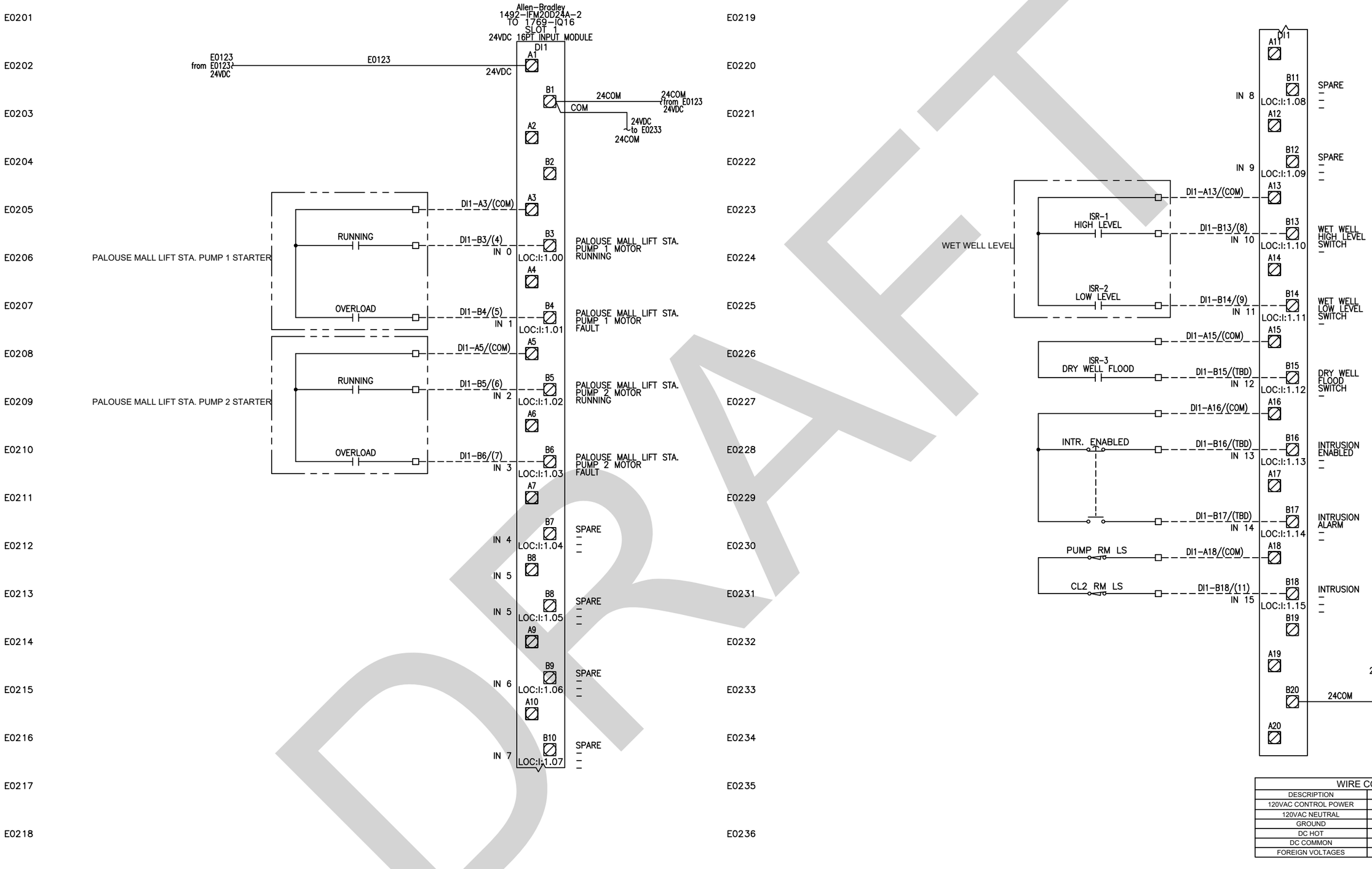
TAURUS POWER & CONTROLS INC.
9999 S.W. Avery ST – Tualatin, Oregon 97062
Ph: (503) 692-9004 – FAX (503) 692-9273

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0	08-24-2018	FINAL AS INSTALLED	KRW

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BY: CHF
DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE: PALOUSE MALL LIFT STA. TELEM. PANEL, CONTROL POWER SCHEMATIC
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: NTS
REV: 0
SHEET NO: PML:E01



WIRE COLOR CHART		
DESCRIPTION	WIRE COLOR	COLOR SYMBOL
120VAC CONTROL POWER	RED	RED
120VAC NEUTRAL	WHITE	WHT
GROUND	GREEN	GRN
DC HOT	PURPLE	PRP
DC COMMON	GRAY	GRY
FOREIGN VOLTAGES	YELLOW	YEL

DRAFT

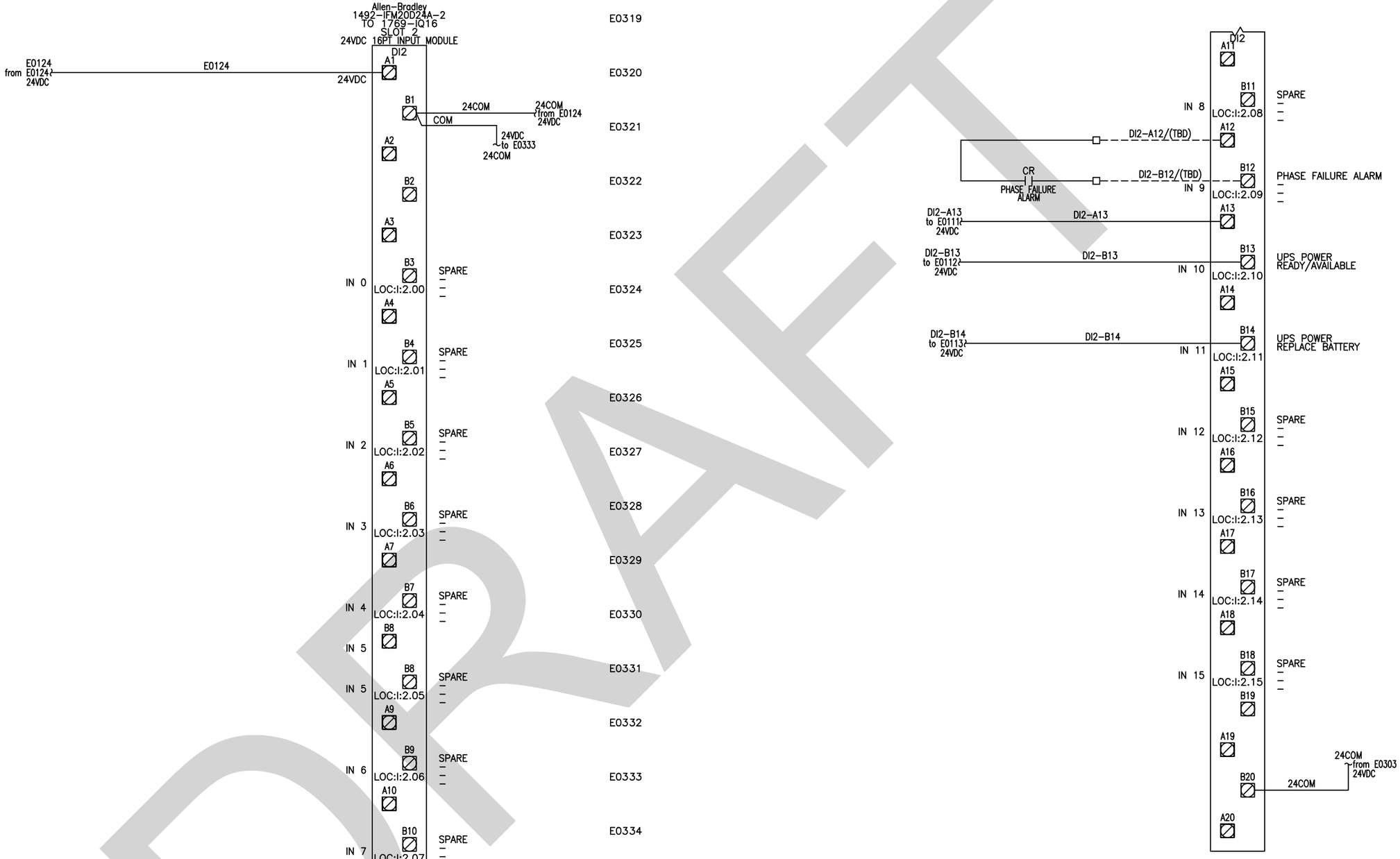
TAURUS
POWER & CONTROLS INC.
9999 S.W. Avery ST – Tualatin, Oregon 97062
Ph: (503) 692-9004 – FAX (503) 692-9273

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0	08-24-2018	FINAL AS INSTALLED	KRW

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BY: CHF
DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE:
PALOUSE MALL LIFT STA. TELEM. PANEL, PLC SLOT 1, DI-1 (DISCRETE INPUT)
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: NTS
REV: 0
SHEET NO: PML:E02



WIRE COLOR CHART		
DESCRIPTION	WIRE COLOR	COLOR SYMBOL
120VAC CONTROL POWER	RED	RED
120VAC NEUTRAL	WHITE	WHT
GROUND	GREEN	GRN
DC HOT	PURPLE	PRP
DC COMMON	GRAY	GRY
FOREIGN VOLTAGES	YELLOW	YEL

TAURUS
POWER & CONTROLS INC.
9999 S.W. Avery ST – Tualatin, Oregon 97062
Ph: (503) 692-9004 – FAX (503) 692-9273

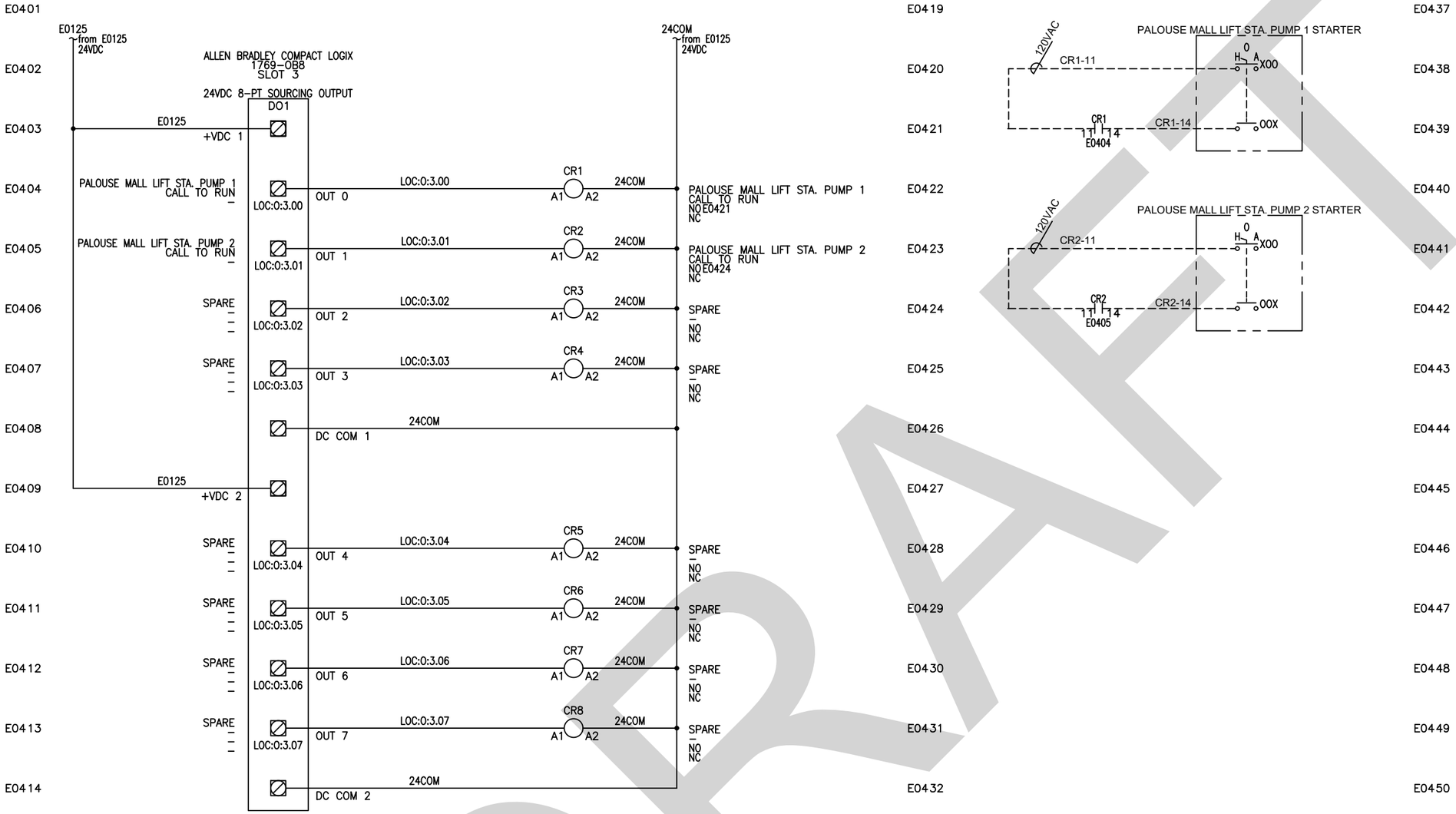
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0	08-24-2017	FINAL AS INSTALLED	KRW

REV	DATE:	DESCRIPTION:	BY:
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BY: CHF
DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE: PALOUSE MALL LIFT STA. TELEM. PANEL, PLC SLOT 2, DI-2 (DISCRETE INPUT)
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: NTS
REV: 0
SHEET NO: PML:E03

DRAFT



WIRE COLOR CHART		
DESCRIPTION	WIRE COLOR	COLOR SYMBOL
120VAC CONTROL POWER	RED	RED
120VAC NEUTRAL	WHITE	WHT
GROUND	GREEN	GRN
DC HOT	PURPLE	PRP
DC COMMON	GRAY	GRY
FOREIGN VOLTAGES	YELLOW	YEL

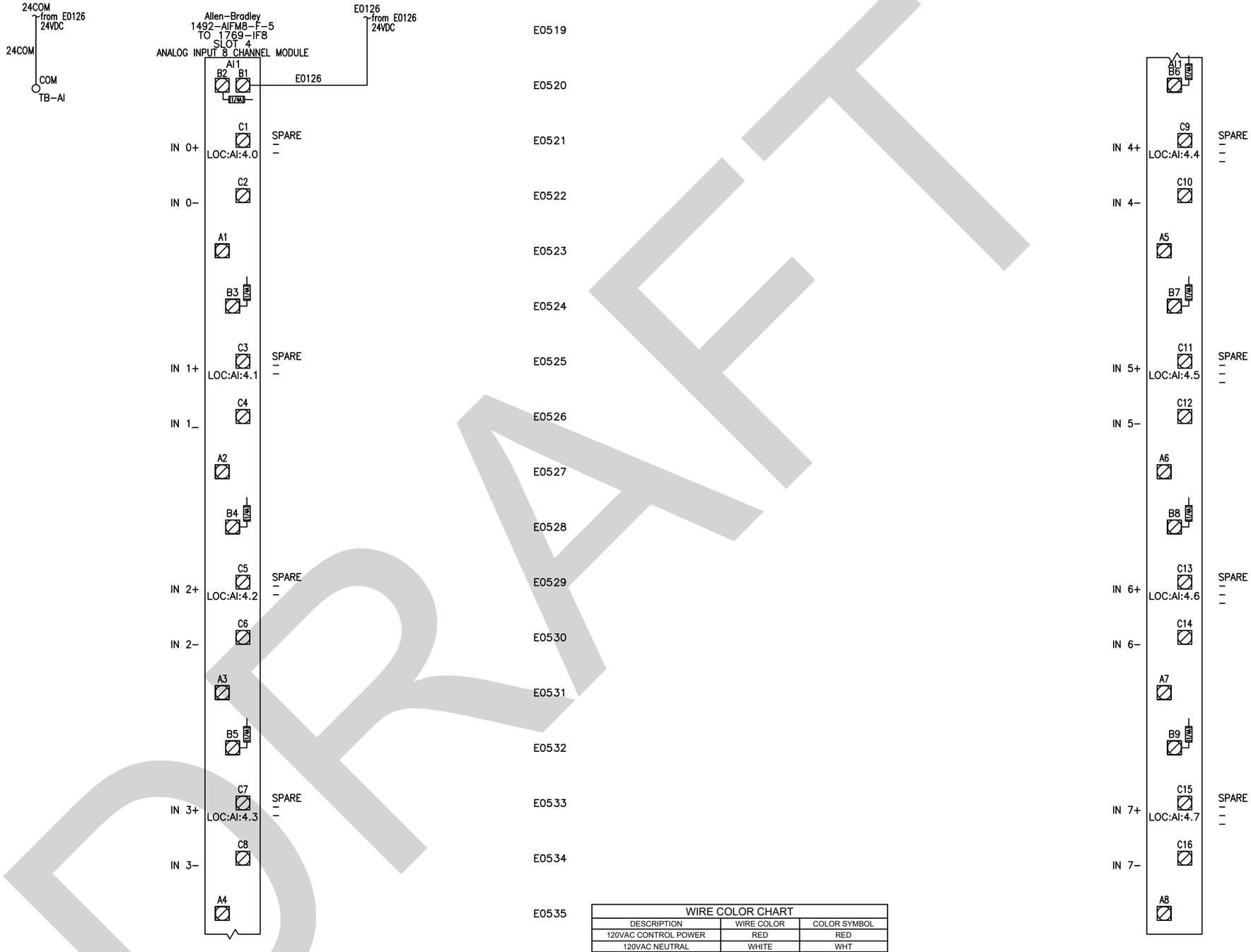
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TAURUS POWER & CONTROLS INC.
9999 S.W. Avery ST – Tualatin, Oregon 97062
Ph: (503) 692-9004 – FAX (503) 692-9273

REV	DATE:	DESCRIPTION:	BY:
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0	08-24-2018	FINAL AS INSTALLED	KRW

BY: CHF
DATE: 09-01-2017
JOB NUMBER: 17-2132

TITLE:
PALOUSE MALL LIFT STA. TELEM. PANEL, PLC SLOT 3, DO1 (DISCRETE OUTPUT)
WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO
SCALE: NTS
REV: 0
SHEET NO: PML:E04



WIRE COLOR CHART		
DESCRIPTION	WIRE COLOR	COLOR SYMBOL
120VAC CONTROL POWER	RED	RED
120VAC NEUTRAL	WHITE	WHT
GROUND	GREEN	GRN
DC HOT	PURPLE	PRP
DC COMMON	GRAY	GRY
FOREIGN VOLTAGES	YELLOW	YEL

DRAFT

TAURUS
POWER & CONTROLS INC.
9999 S.W. Avery ST – Tualatin, Oregon 97062
Ph: (503) 692-9004 – FAX: (503) 692-9273

REV	DATE:	DESCRIPTION:	BY:
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0	08-24-2017	FINAL AS INSTALLED	KRW

BY: CHF

DATE: 09-01-2017

JOB NUMBER: 17-2132

TITLE: PALOUSE MALL LIFT STA. TELEM. PANEL, PLC SLOT 4, AI-1 (ANALOG INPUT)

WATER SYSTEM TELEMETRY UPGRADE
CITY OF MOSCOW
MOSCOW, IDAHO

SCALE: NTS

REV: 0

SHEET NO: PML:E05

SECTION 26 90 22
PUMP CONTROL PANEL

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Material and installation requirements for:
   1. Pump Control Panel
   2. Intrinsically Safe Junction Box

B. Measurement and Payment

1.2 DESCRIPTION OF WORK

A. This section covers the custom UL 508A Pump Control Panel and UL 698A Intrinsically Safe Junction Box indicated on the drawings and specified herein. The control components included in Section 26 90 21 shall be supplied and installed as an integrated system which includes all accessories necessary for operation.

B. The manufacturer of the pump control system shall assemble the system to provide the control functions and sequences indicated by the drawings and these specifications. The work shall include, but not be limited to the following:
   1. Provide a complete pump control system including but not limited to a main panel disconnect circuit breaker, individual pump circuit breakers, variable frequency drives (VFDs), a NEMA starter and solid state overload relay, an OIT/HMI, , pump status equipment, control power distribution circuit breakers and associated control equipment, relays, indicating lights, selector switches, and side mounted air conditioning unit with an integral anti-condensation panel heater.
   2. Provide control and monitoring equipment, wiring and terminal blocks for alarm and status interface to the alarm system and telemetry system.

C. The pump control panel shall be designed and assembled to:
   1. Provide the capabilities indicated and implied by these specifications and drawings and such additional capabilities as may be necessary for proper operation of the pumps and pump station equipment.

1.3 RELATED SECTIONS

A. Related Sections include but are not necessarily limited to:
   1. Section 26 00 00 – Electrical General Provisions
   2. Section 26 00 01 – Electrical Scope of Work
   3. Section 26 00 02 – Basic Materials and Methods
   4. Section 26 01 26 – Electrical Testing
   5. Section 26 05 19 – Wire and Cable
   6. Section 26 05 26 – Grounding
   7. Section 26 28 00 – Overcurrent Protective Devices
   8. Section 26 29 23 – Variable Frequency Motor Controllers
   9. Section 26 70 00 – Motors
   10. Section 26 90 21 – Control System

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1.4 MEASUREMENT AND PAYMENT

A. This section shall be paid under the following Pay Items:

Pay Item	Description	Pay Unit
26 90 22	Pump Control System	LS

1.5 STANDARDS AND REFERENCES

A. All materials and equipment specified herein shall within the scope of UL Examination Services, be approved by the Underwriter's Laboratories for the purpose for which they are used and shall bear the UL label.

B. All equipment and materials shall conform to the latest revised editions of applicable standards published by the following organizations:
   1. American National Standards Institute (ANSI).
   2. Institute of Electrical and Electronic Engineers (IEEE).
   3. National Electrical Manufacturers Association (NEMA).
   4. Underwriters' Laboratories (U/L).
   5. Instrument Society of America (ISA).

C. All materials and equipment specified herein and their installation methods shall conform to the latest published version of the National Electrical Code, NEC.

D. All control panels shall bear a label by an approved testing authority for the completed assembled panel.

1.6 SUBMITTALS

A. Shop Drawings
   1. See Section 26 00 00.

B. The pump control panel manufacturer shall develop all shop drawings required for design, fabrication, assembly and installation of the control system. Shop drawings shall include all drawings required in manufacture of specialized components and for assembly and installation of them. Shop drawings shall be CAD drawn and include the following:
   1. System schematic diagrams for the entire pump control panel and intrinsically safe junction box including, but not limited to: all sensors, control panels components, network, and motor control equipment; with all components and their locations indicated. Wire and terminal numbers shall be included on the schematic diagrams.
   2. Technical data sheets for all components with the complete part number of the component clearly designated with all required options.
   3. Arrangement drawings of all panel front and internal-mounted instruments, switches, devices, and equipment indicated. Show all panel mounting details required. Include outer dimensions of all panels on the drawing. Deviations from approved arrangements require re-submittal and approval prior to installation.
      a) Arrangement drawings shall be drawn to scale using standard Architectural or Engineering scales.
   4. Shop drawings shall be provided on sheets no larger that 11” X 17”. Shop drawings shall include specific product detail such as rating, size, and number of contacts, etc. Wiring diagrams shall be included for all components in the system including control equipment supplied with mechanical devices.

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5. Installation details shall include the size, number, type and location of interconnecting wiring and conduit, installation of cabinets and enclosures, installation of sensors, instruments, limit switches, and other installation requirements. Shop drawings shall be submitted to the Contractor for review and approval. After approval by the Contractor, copies of all shop drawings shall be submitted to the Engineer.

C. Descriptive text on wire markers to be used.

D. Cut sheets for all products with a bill of materials showing quantity, manufacturer, catalog number, and the supplier name and phone number. Relate the bill of materials to the submitted product index.

E. Explanatory text which describes in detail the operation of the entire control system and all components.

1.7 OPERATION AND MAINTENANCE DATA

A. The manufacturer of the pump control panel shall prepare and assemble detailed operation and maintenance manuals in accordance with the requirements of Section 26 00 00 and 26 90 21. The manuals shall include, but not limited to the following:

1. Preventative maintenance procedures
2. Trouble-shooting
3. Calibration
4. Testing
5. Replacement of components
6. Automatic mode operation
7. Manual mode operation
8. System schematics
9. As-built wiring diagrams
10. As-built configuration setting for all electronic equipment
11. Catalog data and complete parts list for all equipment and control devices
12. Listing of recommended spare parts
13. Listing of recommended maintenance tools and equipment
14. Listing of all hardware and software license and versions used

1.8 DELIVERY, STORAGE, AND HANDLING

A. See Section 26 00 00.

1.9 RESPONSIBILITY OF CONTRACTOR & CONTROL SYSTEM INTEGRATOR

A. The Control System Integrator shall be fully and completely responsible for the design and assembly of the complete system as specified herein. The assignment of specific responsibilities herein to the Control System Integrator shall not, in any way and under any conditions, diminish or usurp the Contractor's full and complete responsibility for all work performed and all materials installed under the contract. The system shall be designed to provide the control capabilities and functions indicated and implied by these specifications and to provide trouble-free operation with minimum maintenance. The system shall readily enable manual operation of any and all functions in the event of failure of any one component.

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B. The Contractor shall be solely and completely responsible for coordination and integration of pump control panel with the control system, the Engineer's programmer, and other related equipment. The Contractor shall communicate directly with the manufacturer(s) and supplier(s) of all related equipment to determine all intended details of the equipment which may influence or affect the control system. The Contractor and Control System Integrator shall determine all requirements for and shall cause integration of the control system and all other control equipment into a unified operating system. The Contractor and Control System Integrator shall define all requirements for all interfacing equipment and shall supply all appurtenances, accessories and all such devices which may be required for proper interfacing as part of the control system.

C. The Contractor shall be responsible to obtain submittal information on equipment which may be supplied by other disciplines and gather field information on existing equipment and to integrate them into the control system to form a complete working package as outlined by the contract documents. This includes but is not limited to the following list of major pieces of equipment:

1. Pumps
2. Odor control fan system
3. Existing telemetry panel
4. Wastewater Treatment Facility vaults and raceways
5. Wastewater Treatment Facility Headworks Building electrical room power, control, and network components

1.10 INTERFACE WITH EXISTING TELEMETRY PANEL

A. The manufacturer of the pump control panel shall include in the pump control panel all devices and equipment required for interface to the existing telemetry system and for any future telemetry panel options.

B. Reference drawings for required interface points.

1.11 WARRANTY

A. In accordance with the general requirements of these specifications, the Contractor shall guarantee the control system to be free of defects in design, materials and workmanship for a period of one (1) year following the date of acceptance, by formal action of the Owner, of all work under the contract.

B. As part of the guarantee, the Contractor and the manufacturer of the pump control panel and intrinsically safe junction box shall indemnify and hold harmless the Owner, the consultant and their officers, agents and employees against and from all claims and liability arising from all damage and injury due to defects in the control system.

C. The Contractor shall cause the manufacturer of the pump control pane and intrinsically safe junction box to make any and all repairs, replacements, modifications and adjustments within thirty-six (36) hours of notification. Should the manufacturer fail to begin the work within twelve (12) hours or complete the work within thirty-six (36) hours, the Owner may proceed to undertake or complete the work. In such event, the Contractor and his surety shall be liable for all costs incurred by the Owner.

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PART 2 PRODUCTS

2.1 GENERAL

A. The pump control system shall use advanced variable frequency drive technology. The integrated variable frequency drives and control system shall be capable of operating the pumps at varying speeds for duplex lead-lag-alternate operation. The system shall have a secondary mode to maintain a wetwell level setpoint.

B. The following components shall be per the requirements of specification Section 26 90 21:
   1. Design and assembly
   2. Interconnecting wiring and terminals
   3. Wireways
   4. Panel power distribution
   5. General purpose relays

2.2 PUMP CONTROL PANEL EQUIPMENT ENCLOSURE

A. Pump control panel enclosure shall be NEMA 4 mild steel construction with a swing out interior panel door. On enclosures 36 inches or larger the latching mechanism shall be a 3-point draw roller type with a stainless steel handle. Enclosure shall be manufactured by Hoffman, Inc. nVent or equal.
   1. Provide all pump control cabinets with a data pocket and insert the cabinet drawings in the pocket when shipped to the site.
   2. Folding Shelf / Door Stop
      a) Provide a 12”x12” folding shelf on the inside of the door to all cabinets with remote I/O or PLC’s for supporting a laptop computer. Hoffman A-CSHELF12 or equal.
      b) Mount the shelf so that when the cabinet is installed, the shelf will be 42”–46” above the floor.
      c) On all cabinet doors with a folding shelf, provide a doorstop mounted at the top of the cabinet. Hoffman A-DSTOPK or equal.

B. Door latches shall be fast operating type 3-point latch door handle; or where a 3-point latch will not meet rating requirements use fast operating clamp assembles (maximum of two latches per enclosure), Hoffman Bulletin A-80 or equal. The latch handle shall operate toward the center of the panel to open the door, and point down when closed and locked. Enclosure shall be lockable.

C. Panel Light and Panel Interface Connector/Ethernet Programming Port
   1. Provide a light with automatic motion activated switch in pump control panels that contain VFDs, relays, or other equipment that would require troubleshooting or operator access for normal operation.
   2. Provide a panel interface connector/ethernet programming port ”GracePort” in all pump control panel interior doors that require a computer or other maintenance tools that may need an ethernet connection. Grace Technologies or equal.

2.3 INTRINSICALLY SAFE JUNCTION BOX ENCLOSURES

A. Sizes of enclosures shown on the drawings are minimum – Integrator shall upsize the enclosures for the installed components as necessary If approved by the Engineer and the larger enclosure will fit within the space dedicated to the enclosure.

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B. All terminal, pull, & junction boxes and control stations:
   1. installed in damp, or corrosive or outdoor areas shall be NEMA 4 steel construction with.
      a) Screws, bolts, and other hardware shall be stainless steel
      b) The hinges shall have stainless steel pins
   2. Provide with hinges when available. All enclosures with covers more than 1sq foot total area shall be hinged.
   3. Enclosure shall be manufactured by Hoffman, Inc. or equal.

2.4 CIRCUIT BREAKERS

A. Circuit breakers shall be molded case thermal-magnetic type. Circuit breakers shall be capable of being padlocked in the open position. Circuit breakers shall be quick-make and quick-break type, and shall have wiping type contacts. Each shall be provided with arc chutes, individual trip mechanisms on each pole. Two (2) and three (3) pole breakers shall be common trip. All breakers shall be calibrated for operation in an ambient temperature of 40 degrees C. Molded case circuit breakers shall be trip-free. Each breaker shall have separate trip indication independent of the ON or OFF positions.

B. Breakers shall have lugs UL listed for both copper and aluminum.

C. Breakers shall have the interrupting rating and trip rating appropriate for the application indicated.

D. Breakers shall also meet the requirements of Section 26 28 00 - Overcurrent Protective Devices.

2.5 VARIABLE FREQUENCY DRIVES AND APPURTENANCES

A. Reference specification Section 26 29 23.

2.6 MOTOR CONTROLLERS

A. Combination Starters, shall be non-reversing, full voltage, NEMA type with circuit breaker protection, Allen-Bradley Bulletin 305, or equal, and solid state overload relays, Allen-Bradley E300, or approved equal.

2.7 SURGE PROTECTIVE DEVICE (SPD)

A. Provide an SPD, with indicator, in the control panel(s) to protect against overvoltage transients. Unit shall have ratings as shown the drawings. Unit shall be provided with electrically isolated contact closure for remote status monitoring of suppressor. Surge suppressor shall be Transtector I2R IEP, or equal.

2.8 AIR CONDITIONER WITH PANEL HEATER

A. Provide a NEMA 4, thermostatically controlled, side-mounted, enclosure air conditioner with integral heater. Heaters and air conditioners shall be sized to keep control enclosure at temperatures acceptable to meet the operational requirements of the enclosed equipment. Heaters shall be 150 watt minimum. The thermostat shall be adjustable between 40°F. and 65°F. Shall have cleanable and reusable mesh filters. Air conditioners shall be manufactured by nVent Hoffman, or equal.

2.9 POWER SUPPLIES

A. Power supplies for 24 VDC and 12 VDC power shall be linear type, sized to be able to supply the demand. The power supply for the current loops shall be separate from the other DC loads. Units shall be open frame type and have overvoltage and overcurrent protection. Acceptable manufacturers are Allen-Bradley, SOLA, Schneider Electric or approved equal.

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2.10 OPERATOR INTERFACE (OIT/HMI)

A. All operator interface devices shall be rated for the environment in which they will be located. In general, devices mounted on indoor panels shall be NEMA 13 rated.

B. Shall be Allen-Bradley 2711P-T10C22D9P PanelView Plus 7 Graphic terminal.

C. Match drivers to existing Compact Logix L30 PLC.

D. Mount in pump control panel inside door.

E. Programming shall be Engineer Furnished.

2.11 ETHERNET SWITCH

A. Switch shall have the following features:

1. Full SNMP and Web Browser Management
2. Eight 10/100BaseTX RJ-45 Ports
3. -40C to 85C Operating temperature
4. ESD and Surge Protection Diodes on all Ports
5. Auto Sensing 10/100BaseTX, Duplex, and MDIX
6. Store-and-Forward Technology
7. DIN-Rail Enclosure
8. Redundant Power Inputs (10-30 VDC)
9. Configurable Alarm Contact
10. Configurable Bi-Color Fault Status LED

B. N-Tron, 708TX, or equal.

2.12 ALTERNATING RELAYS

A. Relays shall have a integral indicating lights to show load 1 or status. They switch to select between loads. Units shall be Allen-Bradley 700 type HTA Series, or equal. Appropriate relay shall be selected based on application from the control wiring diagrams.

2.13 SUPERVISION RELAYS

A. Supervision relays shall be provided to monitor for overtemperature and moisture leakage conditions in the lift station submersible pump motor. Supervision relays shall have two form C dry contacts, one for overtemperature and one for moisture leakage, for interface with the pump motor controls. Supervision relays shall have LED alarm indicating lights for indication of contact changeover. Supervision relays shall be Flygt MiniCAS II, or approved equal.

B. Supervision relays shall be mounted in the Pump Control Panel as indicated on the drawings.

C. All operator interface devices shall be rated for the environment in which they will be located. In general, devices mounted on indoor panels shall be NEMA 13 rated.

2.14 SELECTOR SWITCHES

A. Selector switches shall be shall be 30mm in diameter, NEMA 13, or NEMA 4X as required by mounting location. Selector switches shall be 2, 3, or 4 position as required by the application. Units shall be heavy duty type.

2.15 PUSHBUTTONS AND INDICATING LIGHTS

A. Pushbuttons and indicating lights shall be 30mm in diameter, NEMA 12 oiltight, dust tight or NEMA 4X heavy duty type with detachable contact blocks. Indicating lights shall be press-to-test 24 VDC or 120VAC transformer type as required.

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2.16 POTENTIOMETER UNITS

A. Potentiometer Units shall be 30 mm NEMA 12, or NEMA 4X as required by mounting location. Provide with resistance values to meet operation requirements. Units shall be heavy duty type Allen-Bradley 800H or 800T or equal.

2.17 ELAPSED TIME METER WITH START CYCLE COUNTER

A. Elapsed Time Meters (ETM or run time (RTM)) with start cycle counter (SCC) on control panels shall be 1-1\2"X 3/4" nominal size, case type for flush panel mounting. The meter face shall be of the style that most closely resembles the indicating instruments and shall have black trim with white or aluminized face. The elapsed time meter shall have a minimum of a 6-digit non-reset register with the last digit indicating tenths of an hour. The start cycle counter shall have a minimum of a 7-digit non-reset register. Eaton CEC-55PM-406,or approved equal.

B. All operator interface devices shall be rated for the environment in which they will be located. In general, devices mounted on indoor panels shall be NEMA 13 rated.

2.18 INTRINSICALLY SAFE REPEATER RELAYS (ISR)

A. Intrinsically safe repeater relays shall be provided with N.O. and/or N.C. contacts as required. Acceptable manufacturers are IMO GEMS SAFE-PAK or R. STAHL INTRINSIC Safety Repeater Relays No. 9230. Provide enclosures or barriers as required.

2.19 INTRINSICALLY SAFE BARRIERS (ISB)

A. Intrinsically safe barriers shall be GEMS "SAFE-PAK" ZENER Barrier 54800 series as manufactured by TRANSAMERICA DELAVAL.

2.20 SPARE PARTS

A. In addition to spare parts mentioned elsewhere in this section, the Contractor shall supply the following spare parts for use by the Owner:
   1. Qty 1 Relay of each type used or 10 percent, whichever is the greater amount.
   2. Qty 10 lamps of each type used or 100 percent, whichever is the greater amount.
   3. Qty 200 percent spare fuses (two spare fuses for each fuse supplied).
   4. Qty 5 ventilation/AC fan filters of each type used.

PART 3 EXECUTION

3.1 FACTORY TESTING

A. Operation of the pump control panel shall be tested at the factory by the Manufacturer. Testing shall be conducted in two phases. The initial testing shall include, but not be limited to, operation of all input and output sensor and control equipment. The subsequent testing shall include, but not be limited to, powering motor controllers with rated incoming voltage.

B. All control functions and all status and alarm monitoring and indication shall be demonstrated under simulated operating conditions. Simulating equipment shall be provided and wired into the control system for this testing. Testing shall be continued for the time period required to observe and verify proper operation.

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3.2 INSTALLATION

A. The pump control panel shall be installed by the Contractor in accordance with the installation drawings and instructions prepared by the manufacturer. Installation shall be performed by workers who are skilled and experienced in the installation of electrical instrumentation and control systems.

B. Installation shall include all elements and components of the panel and all interconnecting wiring between all equipment, components, and sensors. All wiring between panels, sensors and equipment shall be labeled at both ends for ease of servicing. All terminations shall be made with solderless pressure connectors. All wiring shall be in accordance with the requirements of Section 26 05 19.

C. Operating devices shall be mounted no higher than 6' - 4" and no lower than 4' - 0" above finished floor when panel is installed unless otherwise approved by the Engineer. Operating devices with displays (such as HMI interface and power monitoring devices) shall be mounted so that the display is between 5’-3” and 5’-8” above finished floor unless otherwise approved by the Engineer.

3.3 INSPECTION AND VERIFICATION OF INSTALLATION

A. After completion of the installation of the panel, the Owner (and/or Engineer) shall inspect the installation and verify that all components and wiring are correctly installed. The Owner (and/or Engineer) shall determine the exact scope and nature of work required to correct deficiencies and errors in the work and shall supervise the performance of such work.

3.4 CALIBRATION AND START-UP

A. All components of the panel shall be calibrated by the Contractor after completion of installation. Each component shall be adjusted to be within the required range and for the specific application. Components that cannot be properly calibrated or that are found to exceed the specified range or accuracy shall be removed and replaced.

B. After completion of construction of the pump station, the panel shall be placed into operation by the Contractor.

C. The Contractor shall be required to demonstrate the complete operation electrically and mechanically of the duplex alternating pump system including removal of the pumps, and reinstallation of the pumps.

D. The Contractor shall be solely and completely responsible for all maintenance of the system from time of start-up to the date of acceptance, by formal action of the Owner, of all work under the contract. The Contractor shall correct all deficiencies and defects and make any and all repairs, replacements, modifications, and adjustments as malfunctions or failures occur. The Contractor shall perform all such work required or considered to be required by the Owner to cause and maintain proper operation of the system and to properly maintain the systems.

E. The Contractor and the manufacturer of the pump control panel shall anticipate that the Owner may delay acceptance of all work under the contract if, in the judgment of the Owner, malfunctions or failures in operation of the panel occur after start-up. Both the Contractor and the manufacturer shall not be entitled to an extension of time or to any claim for damages because of hindrances, delays or complications caused by or resulting from delay by the Owner in accepting the work because of malfunctions or failures in operation of the panel.

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3.5 OPERATION AND MAINTENANCE TRAINING AND DOCUMENTATION

A. The Contractor shall conduct specifically organized training sessions in operation and maintenance of the panel for personnel employed by the Owner. The training sessions shall be conducted to educate and train the personnel in maintenance and operation of all components of the panel. Training shall include, but not be limited to, the following:

1. Preventative maintenance procedures
2. Trouble-shooting
3. Calibration
4. Testing
5. Replacement of components
6. Automatic mode operation
7. Manual mode operation

B. One (1) separate training session at least four (4) hours in duration, shall be conducted at the pump station (after start-up of the system) concerning instruction and operation of the pump control panel, and all associated electrical equipment and devices. The manufacturer shall prepare and assemble specific instruction materials for each training session and shall supply such materials to the Owner at least two (2) weeks prior to the time of the training.

END OF SECTION

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DIVISION 31 00 00 - EARTHWORK

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SECTION 31 23 19 - DEWATERING

MODIFICATION TO

ISPWC SECTION 205 – DEWATERING

PART 1 GENERAL

NO MODIFICATION

PART 2 MATERIALS

NO MODIFICATION

PART 3 WORKMANSHIP

NO MODIFICATION

PART 4 MEASUREMENT AND PAYMENT

Remove Part 4.1 in its entirety and replace with the following:

4.1 No separate measurement and payment will be made for the work under this Section. All costs incurred under this section by the Contractor shall be incidental to all other bid items. Includes all labor, materials, and equipment required to create the dewatering plan, obtain required permits, dewater construction areas, and treat dewatering effluent as necessary.

END OF SECTION

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DIVISION 32 00 00 - EXTERIOR IMPROVEMENTS

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SECTION 32 11 23 - AGGREGATE BASE COURSES

MODIFICATION TO

ISPWC SECTION 802 – CRUSHED AGGREGATES

PART 1 GENERAL

Amend Part 1.3 to include:

C. City of Moscow, Standard Construction Specifications, most recent edition as of the project's first advertising date.

D. Idaho Transportation Department Standard Specifications for Highway Construction, most recent edition as of the project's first advertising date.

PART 2 MATERIALS

Delete the entirety of Part 2.

2.1 CRUSHED ROCK BASE

All Materials and Test Methods for Crushed Rock Base and Type I Aggregate shall conform with the City of Moscow ES-7 Crushed Rock Base.

PART 3 WORKMANSHIP

Onsite Crushed Aggregate

Delete the entirety of Parts 3.1-3.4. Preparation for Placement, Placement, Mixing, and Compaction shall conform with the City of Moscow ES-7 Crushed Rock Base.

PART 4 MEASUREMENT AND PAYMENT

NO MODIFICATION

END OF SECTION

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SECTION 32 12 16 - ASPHALT PAVING

MODIFICATION TO

ISPWC SECTION 810 – PLANT MIX PAVEMENT

PART 1 GENERAL

Amend Part 1.3 to include:

F. City of Moscow, Standard Construction Specifications, most recent edition as of the project's first advertising date.

G. City of Moscow, Standard Construction Drawings, most recent edition as of the project's first advertising date.

H. Idaho Transportation Department Standard Specifications for Highway Construction, most recent edition as of the project's first advertising date.

PART 2 MATERIALS

Amend Part 2 to include the following:

2.9 HOT MIX ASPHALT, SURFACE COURSE

A. Materials and Testing Methods shall conform with the City of Moscow ES-15 Superpave Hot Mix Asphalt, ½" Superpave HMA Pavement CL SP-2 (Surface Course) for pavement requirements in areas outside of State Highway 8.

2.10 STATE HIGHWAY ASPHALT MIX

A. Materials and Testing Methods for State Highway 8 repair shall conform with Idaho Transportation Department Standard Specification Section 702 – Asphalt.

2.11 PATHWAY

A. Materials and Testing Methods shall conform with the City of Moscow Standard Detail 7 noted in the construction drawings. All materials including but not limited to asphalt, geotextile, crushed basalt base, and weedkill shall conform to City of Moscow Specifications and the latest edition of the ISPWC requirements.

2.12 HIGHWAY TYPICAL SECTION

A. Highway typical section includes 0.5-ft hot mix asphalt specified herein, 0.5-ft ¾" aggregate base specified in Section 321123, and ITD Type II geotextile fabric. Hot mix asphalt shall be applied in two lifts.

PART 3 WORKMANSHIP

Amend Part 3 to include:

Delete Parts 3.1-3.5, 3.7-3.9 and 3.13. Weather Limitations, Hauling Equipment, Pavers, Rollers, Mixing Plant, Spreading and Finishing, Joints, Rollings, and Surface Smoothness shall conform with the Idaho

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Department Standard Specifications for Highway Construction, Section 405.

PART 4 MEASUREMENT AND PAYMENT

Amend Part 4 to include the following:

4.3 Any items required by this section to complete the project that are not listed in the bid schedule are to be considered incidental to other bid items.

END OF SECTION

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SECTION 32 16 13 CURBS AND GUTTERS

MODIFICATION TO

ISPWC SECTION 706 – OTHER CONCRETE CONSTRUCTION

PART 1 GENERAL

Amend Part 1.3 to include:

C. City of Moscow, Standard Construction Specifications, most recent edition as of the project's first advertising date.

D. City of Moscow, Standard Construction Drawings, most recent edition as of the project's first advertising date.

PART 2 MATERIALS

Remove the entirety of Part 2.4 and replace with the following:

2.4 PORTLAND CEMENT CONCRETE

Portland Cement Concrete, including concrete curb, shall conform to the requirements outlined in the City of Moscow Standard Construction Specifications, Engineering Specification, ES-11 Concrete.

PART 3 WORKMANSHIP

Add the following to Part 3:

3.14 CONCRETE AND CONCRETE CURB

Work pertaining to concrete curb shall conform to the requirements outlined in the City of Moscow Standard Construction Specifications, Engineering Specification, ES-13 Concrete Curb and ES-12 Concrete Construction Requirements.

PART 4 MEASUREMENT AND PAYMENT

NO MODIFICATIONS

END OF SECTION

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SECTION 32 17 23 - PAVEMENT MARKINGS

MODIFICATION TO

ISPWC SECTION 1104 - PERMANENT PAVEMENT MARKINGS

PART 1 GENERAL

Amend Section 1.3 to include the following

F. Idaho Transportation Department Standard Specifications for Highway Construction, most recent edition as of the project's first advertising date.

G. ITD Standard Drawing 630-1, Pavement Markings – Example Urban Highway Pavement Markings.

PART 2 MATERIALS

Delete the entirety of Part 2 and replace with the following:

2.5 PAVEMENT MARKINGS

A. All Materials and Testing shall conform with the Idaho Transportation Department Standard Specifications, Section 603 – Pavement Markings.

PART 3 WORKMANSHIP

Amend Part 3.3 to include the following:

O. Waterborne Paint

1. Waterborne paint application shall conform to the Construction Requirements outlined in Idaho Transportation Department Standard Specifications, Section 603.03.A – Waterborne Paint.

Remove Part 3.4 in its entirety and replace with the following:

3.4 THERMOPLASTIC PAVEMENT MARKING APPLICATION

A. Thermoplastic Pavement Marking Application shall conform to the Construction Requirements outlined in Idaho Transportation Department Standard Specifications, Section 603.03.B – Preformed Thermoplastic.

PART 4 MEASUREMENT AND PAYMENT

Delete the entirety of Part 4 and replace with the following:

4.1 PAVEMENT MARKINGS

A. Pavement Line Paint or Painted Pavement Markings: By the linear foot measured on a horizontal basis. Includes full compensation for all materials including the painting, testing, labor, and equipment necessary for completing the work. Measurement and Payment of pavement markings shall conform with the Methods of Measurement and Basis of Payment

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outlined in the Idaho Transportation Department Standard Specifications, Section 603 – Pavement Markings.

3. Bid Schedule Payment Reference: 1104.4.1.A.1
4. Bid Schedule Description: Pavement Line Paint or Painted Pavement Markings …linear foot (LF)

END OF SECTION

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SECTION 32 31 13 – CHAIN LINK FENCES AND GATES

MODIFICATION TO

ISPWC SECTION 2040 FENCING

PART 3 GENERAL

Amend Part 1.3 to include the following:

K. ASTM A 392: Zinc-Coated Steel Chain-Link Fence Fabric.

Delete Part 1.4.A and replace with the following:

A. Type, height, post spacing, and gates shall match the existing site fencing. Refer to Construction Drawing Details for Swing Gate, Pedestrian Gate, and Fence details.

PART 4 MATERIALS

Delete the entirety of Part 2.1.C and include the following:

B. Chain Link Fabric

1. Chain link fabric to be 2-inch diamond mesh woven from stainless steel wire 11-gauge coated as follows:

    a. Zinc coating per ASTM A 392 requirements.

2. Fabric shall match the existing fence fabric height.

3. The weight of coating for galvanized fabric to be 1.2 ounce/square foot.

4. Fabric selvage shall be twist at both end.

C. Privacy Slats

1. Privacy slats shall be white and the same width as the existing privacy slats.

D. Top Rails

1. Top Rail size and type shall match the existing fence's top rail.

PART 5 WORKMANSHIP

Amend Part 3.1 to include the following:

B. The fence shall be constructed in accordance with the plans and as specified using new materials. All work shall be performed in a workmanlike manner satisfactory to the Engineer. Prior to beginning the work, Contractor shall mark out the fence line.

C. The new fence shall be permanently tied to the terminal of the existing fences. The finished fence shall be plumb, taut, true to line and ground contour, and complete in every detail.

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Amend Part 3.2.B to include the following:

1. Posts should be spaced not more than 10 feet apart and be set at a minimum of 36 inches in concrete footings as shown on the construction drawings. If the frost depth is greater than 36 inches, the posts should be set accordingly. The post holes shall be in proper alignment so that there is a minimum of 3 inches of concrete on all sides of the posts.

Amend Part 3.2.C to include the following:

1. The concrete shall be thoroughly compacted around the posts by tamping or vibrating and shall have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts shall be set plumb and to the required grade and alignment. No materials shall be installed on the posts, nor shall the posts be disturbed in any manner within 7 days after the individual post footing is completed.

Delete Part 3.2.E in its entirety and replace with the following:

E. Should rock be encountered at a depth less than the planned footing depth, a hole 2 inches larger than the greatest dimension of the posts shall be drilled to a depth of 12 inches. After the posts are set, the remainder of the drilled hole shall be filled with grout, composed of one part Portland cement and two parts mortar sand. Ant remaining space above the rock shall be filled with concrete described in the manner described above.

   1. In lieu of drilling, the rock may be excavated to the required footing depth. No extra compensation shall be made for rock excavation.

   2. No extra compensation shall be made for excavating post holes larger than specified or as shown on the plans due to the presence of cobbles or rock. If necessary to enlarge post holes because of the nature of the material excavated, the post holes shall be filled with concrete. No extra compensation shall be made for additional concrete in enlarged post holes.

Amend Part 3.2 to include the following:

M. The top rail shall be continuous and shall pass through the post tops. The coupling used to join the top rail lengths shall allow for expansion.

N. The wire fabric shall be firmly attached to the posts and braced in the manner shown on the plans. All wire shall be stretched taut and shall be installed to the required elevations. The fence shall generally follow the contour of the ground, with the bottom of the fence fabric on less than 1 inch or no more than 4 inches from the ground surface. Grading shall be performed where necessary to provide a neat appearance.

PART 6 MEASUREMENT AND PAYMENT

NO MODIFICATIONS

END OF SECTION

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DIVISION 33 00 00 - UTILITIES

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SECTION 33 05 63 - CONCRETE VAULTS AND CHAMBERS

PART 1 GENERAL

1.1 DESCRIPTION

A. This item shall consist of the work necessary to furnish and install the new valve vault and flow meter manhole. The valve vault and flow meter manhole consists of underground, precast concrete structures in accordance with this specification and with the dimensions, design, and details shown in the construction plans. This item shall include the installation of the precast concrete vault and flow meter manhole and the related accessories for the precast concrete structures.

1.2 RELATED SECTIONS

1. The work under this section shall conform to the requirements of the latest edition of the Idaho Standards for Public Works Construction (ISPWC), Section 500, Sewer and related sections as amended, supplemented, or modified herein or on the drawings.
2. Electrical, Division 26
3. 00 31 32 – Geotechnical Data
4. Section 01 33 00 – Submittals Procedures
5. Section 01 45 00 – Quality Control
6. Section 01 60 00 – Product Requirements
7. Section 33 37 23 – Flow Regulators
8. ISPWC Section 201 – Clearing and Grubbing and Removal of Obstructions
9. ISPWC Section 202 – Excavation and Embankment
10. ISPWC Section 401 – Water Pipe and Fittings
11. ISPWC Section 402 – Hydraulic Valves
12. ISPWC Section 505 – Pressure Sewer
13. ISPWC Section 704 – Precast Concrete

1.3 SUBMITTALS

A. Comply with Section 01 33 00 – Submittal Procedures

B. The contractor shall submit complete manufacturer's information including dimensional drawings and performance specifications for all flow control devices proposed to be utilized on this project.

C. Submit a copy of this specification section, with addendum updates included, with each paragraph clearly marked to indicate specification compliance. If deviations from the specifications are indicated and therefore requested by the Contractor, the submittal shall be in accordance with the procedure and requirements outlined in Section 01 33 00 Submittal Procedures and the requirements defined in Article 6.05 of the General Conditions. Failure

to include a copy of the marked-up specification requirements with the submittal shall be cause for rejection of the entire submittal with no further consideration. The Owner retains the right to reject any proposed deviations in favor of this specification, as written.

D. The contractor shall submit complete manufacturer's information including dimensional drawings and performance specifications

PART 2 MATERIALS

2.1 VALVE VAULT

A. Vault structure shall be 96" x 96" precast concrete. Valve vault structure shall be installed on 6" of ¾" crushed aggregate (Type I) for bedding.

2.2 VALVE VAULT HATCH

A. Access frames and covers shall be pedestrian traffic rated aluminum single leaf, with lockable access door and stainless-steel hardware. Hatches shall be 54"x 48" Halliday Hatch Model Series H2C or approved equal.

2.3 FLOW METER MANHOLE

A. The manhole structure shall be a 60" diameter precast concrete manhole. Flow meter manhole structure shall be installed on 6" of ¾" crushed aggregate (Type I) for bedding.

2.4 FLOW METER MANHOLE HATCH

A. Access frames and covers shall be pedestrian rated, composite manhole lid per the City of Moscow detail on the construction drawings. Access cover shall be in 30" diameter and shall not exceed 30 lbs.

2.5 WET WELL COVER AND HATCH

A. Wet well cover shall be 114" outside diameter precast concrete with a minimum 37"x74" hatch opening. Precast concrete cover and hatch shall adhere to ISPWC Section 502 standards. Wet well hatch shall be Halliday hatch type W1S or approved equal with pedestrian traffic rating. Hatch door not to exceed 30 lbs in weight.

2.6 PIPING AND FITTINGS

A. Contractor shall refer to construction drawings for all associated pipes, fittings, and valves required to provide a fully functional system. Contractor to adhere to ISPWC Division 401 – Water Pipe and fittings, Division 402 – Hydraulic Valves, and Division 505- Pressure Sewer for all pipes and fittings.

2.7 PIPE PENETRATIONS

A. Pipe penetrations through existing and proposed concrete structures shall utilize LinkSeal, Conseal, or approved equal to ensure proper watertight seal.

2.8 WET WELL CONCRETE FILL

A. Wet well floor base shall be filled with concrete to the designated elevations in the construction drawings and per pump manufacturer's recommendations for pump bases.

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2.9 FLOOR DRAIN

A. Floor Drain shall be 6” Diameter Cast Iron with P-Trap & PVC Drain. A 6” link seal or approved equal shall be used to connect P-Trap to Wet Well. A 6” Tideflex “Checkmate” or “TF-1” with Stainless Steel clamp check valve or approved equal.

2.10 BYPASS PUMPING ASSEMBLY, VALVES, AND FITTINGS

A. Assembly and fittings designated for permanent bypass pumping include all valves, fittings, vertical spools, couplings, and miscellaneous piping and supports described within the Bypass Assembly detail within the construction plans. Bypass assembly, valves, and fittings shall be ductile iron.

1. Bypass Pumping Camlock Fitting Assembly:

a. Camlock fittings for the bypass pumping assembly shall be a 6” coupler and female thread with a 6” dust plug. Camlock fittings shall be PT Brand or an approved equal. All other requirements of the camlock fittings and bypass pumping assembly are listed in the construction plans.

B. Bypass assembly, valves, and fittings includes an 8” hot tap connection to the existing 8” force main. Hot tap connection material includes a saddle/sleeve, 8” gate valve, and all other appurtenances required to complete the work.

PART 3 WORKMANSHIP

3.1 INSTALLATION

A. Field Verification Requirements: The Contractor shall perform field verification of the following conditions prior to submitting materials for approval and prior to installation:

1. Wet Well Cover Dimensions

a. The Contractor shall confirm that the wet well cover is of the correct size and diameter for installation onto the existing wet well structure prior to ordering wet well cover material.

2. Wet Well Hatch Opening and Location

a. The Contractor shall verify that the proposed hatch opening size and hatch location within the new concrete cover are sufficient to allow appropriate clearance for the removal of pumps from the wet well using the rail system prior to ordering wet well hatch material.

b. Pumps and rail systems shall be installed strictly in accordance with the manufacturer’s recommendations. Reference Specification Section 333211 for additional requirements regarding lift station pumps.

3. Wet Well Hatch and Cover Minimum Clearance Requirement

a. The hatch opening shall provide a minimum clearance of six (6) inches between the pumps and the edge of the hatch in all directions.

b. The Contractor shall promptly notify the Engineer of any discrepancies between the

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project plans and the specified hatch location and/or size requirements for pump installation. The Contractor and Engineer shall review such discrepancies together to determine whether adjustments to the hatch location and/or size are necessary. Any required adjustments must be identified and agreed upon prior to the Contractor's submission of materials for approval.

4. 8" Hot Tap Connection

    a. Contractor shall perform field verification to confirm that the proposed sleeve material for the bypass assembly connection is compatible with the existing force main material prior to submittal review.

B. Installation of the valve vault shall adhere to manufacturer's recommendations. Contractor to adhere to material warranty requirements and the Idaho Standards for Public Works and Construction (ISPWC) Division 704.

C. Excavation, rock excavation, and backfill of valve vault shall conform to requirements and recommendations according to SPWC Division 202 – Excavation and Embankment.

D. Installation of valve vault drain includes provided outlet pipe connection to approved pipe, fittings, and valves in the configuration outlined in the construction plans.

E. Installation of all piping, valves, fittings, and appurtenances shall follow the standards and requirements set forth in ISPWC Division 401 - Water Pipe and Fittings, Division - 402 Hydraulic Valves, and Division 505 - Pressure Sewer. Layouts shall match the Construction Drawings.

F. Existing wet well cover and hatches shall be removed and replaced with new precast concrete cover with hatch integrated onto cover. Contractor to refer to construction drawings for additional demolition information.

G. Contractor to coordinate with all utilities prior to installation of concrete structures and mechanical piping, valves, fittings, and appurtenances.

H. Contractor shall core pipe penetrations in existing and proposed concrete structures in the field only.

3.2 TESTING

A. Contractor is responsible for coordination with the precast vault manufacturer to ensure all testing requirements are met.

B. Contractor to utilize electrical specifications for control and sensor testing requirements for start-up procedures and routine operation.

C. Contractor to complete all valve, meter, pipe, and fitting testing required by manufacturer, ISPWC Division 401 - Water Pipe and Fittings, Division - 402 Hydraulic Valves, and Division 505 - Pressure Sewer.

D. Contractor to complete all testing requirements noted in the construction plans.

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3.3 PERMITS AND INSPECTIONS

A. The contractor shall obtain and pay for all necessary permits and inspections in connection with this work, as required by State and local laws, as the work progresses.

3.4 STORAGE AND PROTECTION OF MATERIALS

A. Provide storage for materials and assume complete responsibility for losses due to any cause.

B. Protect completed work, work under way and materials against loss or damage. Close circuit openings with caps or plugs during installation. Cover fixtures and equipment and protect against damage caused by water, chemicals, or mechanical accident.

3.5 8" HOT TAP CONNECTION

A. Contractor shall field verify location of force main as well as force main material prior to installation of hot tap connection to the existing 8" force main and the proposed bypass assembly.

PART 4 MEASUREMENT AND PAYMENT

A. Valve Vault: By the lump sum. Includes full compensation for all materials, labor, tools and equipment necessary to perform the work including the precast concrete structure, access hatch, floor drain, check valve, p-trap configuration, check valve, excavation, backfill, Type I aggregate bedding, testing, and testing equipment.

1. Bid Schedule Payment Reference: SP-330563.A

2. Bid Schedule Description: Valve Vault and Hatch…lump sum (LS)

B. Flow Meter Vault: By the lump sum. Includes full compensation for all materials, labor, tools and equipment necessary to perform the work including the precast concrete structure, access hatch, excavation, backfill, Type I aggregate bedding, testing, and testing equipment.

1. Bid Schedule Payment Reference: SP-330563.B

2. Bid Schedule Description: Flow Meter Vault and Hatch…lump sum (LS)

C. Wet Well Concrete Cover and Hatch: By the lump sum. Includes full compensation for all materials, labor, tools and equipment necessary to perform the work including the precast concrete cover, access hatch, excavation, backfill, bedding, testing, and testing equipment.

1. Bid Schedule Payment Reference: SP-330563.C

2. Bid Schedule Description: Wet Well Concrete Cover and Hatch…lump sum (LS)

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D. Bypass Pumping Assembly, Valves, and Fittings: Includes full compensation for all materials, labor, tools and equipment necessary to perform the work including the precast concrete structure and rings, frame, lid, pipes, camlock, fittings, valves, valve boxes, hot tap connection, excavation, backfill, bedding, testing, and testing equipment.

1. Bid Schedule Payment Reference: SP-330563.D

2. Bid Schedule Description: Bypass Pumping Assembly, Valves, and Fittings …lump sum (LS)

E. Any items required by this section to complete the project that are not listed in the Bid Schedule are to be considered incidental to other Bid Items.

END OF SECTION

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SECTION 33 32 11 – FIELD-ERECTED WASTEWATER PUMPING STATIONS

PART 1 GENERAL

1.1 DESCRIPTION

A. This item shall consist of the work necessary to furnish and install replacement pumps and appurtenances in accordance with this specification at the location and in accordance with the dimensions, designs, and details shown in the plans. This item shall include the installation of all pumps, motors, guide rails, concrete work, electrical wiring, conduits, controls, and related accessories for the lift station.

1.2 RELATED INFORMATION:

1. Work under this section shall conform to the requirements of the latest edition of the Idaho Standards for Public Works Construction (ISPWC), Section 500, Sewer and related sections as amended, supplemented, or modified herein or on the drawings.
2. Electrical, Division 26
3. Section 01 33 00 – Submittals Procedures
4. Section 01 45 00 – Quality Control
5. Section 01 60 00 - Product Requirements
6. Section 09 97 23 – Concrete and Masonry Coatings
7. ISPWC Section 506 - Pressure Sewer
8. ISPWC Section 512 - Sewage Bypass Systems
9. Other sections of the specifications, not referenced above, shall also apply to the extent required for proper performance of this work.

1.3 SUBMITTALS

A. Comply with Section 01 33 00 - Submittal Procedures

B. The Contractor shall submit complete manufacturer's information including dimensional drawings and performance specifications for all pumping and flow control devices proposed to be utilized on this project.

C. Submit a copy of this specification section, with addendum updates included, with each paragraph clearly marked to indicate specification compliance. If deviations from the specifications are indicated and, therefore requested by the Contractor, the submittal shall be in accordance with the procedure and requirements outlined in Section 01 33 00 Submittal Procedures and the requirements defined in Article 6.05 of the General Conditions. Failure to include a copy of the marked-up specification requirements with the submittal shall be cause for rejection of the entire submittal with no further consideration. The Owner retains the right to reject any proposed deviations in favor of this specification, as written. Standard submittal data for approval must consist of:

1. Manufacturer’s Certificate: Certify that products meet or exceed specific requirements

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and are suitable for the use intended. Pumps and motors specified for variable speed operation through a variable frequency controller shall be capable of operating at low reduced speed for extended periods of time without overheating and to operate without excessive vibrations or harmonies at any speed.

2. Pump and Motor Performance data
3. Pump Curves showing operation points
4. Net Positive Suction Head (NPSHR) Curve
5. Submergence requirements
6. Brake horsepower (BHP) and Efficiencies
7. Variable Frequency Drive (VFD) Analysis
8. Shop drawings showing pump dimensions, weights, materials of construction and assembly.
9. Station Drawing for Accessories
10. Electrical Motor Data
11. Control Drawing and Data
12. Access Frame Drawing
13. Typical Installation Guides
14. Technical Manuals
15. Parts List
16. Provide written copies of manufacturer's warranties on products described in this specification section.
17. Manufacturer's Equipment Storage Recommendations
18. Manufacturer's Standard Recommended Start-Up Report Form
19. Submit pump and motor testing reports, per this section. Submit proposed pump and motor testing procedures and protocol.
20. Clog Free Guarantee
21. Mix-Flush System

1.4 QUALITY ASSURANCE

A. The pump manufacturer shall have a minimum of 10,000 heavy-duty submersible wastewater pumps installed and operating for no less than five years in the United States. The pump, mechanical seals and motor shall be from the same manufacturer. The pump, mechanical seals and motor manufacturer shall be Flygt or approved equal.

B. Install and operate pumps and motors in accordance with the manufacturer's recommendations.

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C. The pump(s) shall be heavy duty, electric submersible, centrifugal non-clog units designed for handling raw, unscreened sewage and wastewater and shall be fully guaranteed for this use. The pumps provided shall be capable of operating in an ambient liquid temperature of 104 degrees F. Since the high temperature of 104 degrees F is specified by the National Electrical Manufacturers Association (NEMA) and Factory Mutual (FM), motors with a maximum ambient temperature rating below 104 degrees F shall not be acceptable.

D. The pump and motor unit shall be suitable for continuous operation at full nameplate load while the motor is completely submerged, partially submerged or totally non-submerged. The use of shower systems, secondary pumps or cooling fans to cool the motor shall not be acceptable.

E. The pump, mechanical seals and motor units provided under this specification shall be from the same manufacturer in order to achieve standardization of operation, maintenance, spare parts, manufacturer's service and warranty.

1.5 MAINTENANCE SERVICE

A. Furnish service and maintenance of the pumps and motors for one (1) year from the date of substantial completion. Factory-Approved service facilities with qualified factory-trained mechanics shall be available for prompt emergency and routine service.

1.6 WARRANTY AND PERFORMANCE AFFIDAVIT

A. Warranty: The contractor shall submit manufacturer’s standard warranty and a performance affidavit for equipment to be furnished in accordance with this section. The warranty for workmanship and material shall be manufacturer’s standards for one year from startup.

B. Performance Affidavit: In the performance affidavit, the manufacturer must certify to the Contractor and Owner, that the Contract Documents have been examined, and that the equipment will meet in every way the performance requirements set forth in the Contract Documents for the Engineer of an acceptable performance affidavit. The performance affidavit must be signed by an officer of the company manufacturing the equipment and witnessed by a notary public. The performance affidavit must include a statement that the equipment will not clog or bind on solids typically found in the application set forth.

C. Clog Free Guarantee: Pump supplier shall provide a 1-Year Clog Free Guarantee for operation in standard sewage. If clogging occurs in standard sewage the pump manufacturer shall pay to pull and unclog the pump in the first year of operation.

PART 2 MATERIALS

2.1 SOLIDS HANDLING PUMP SYSTEM

A. Pumps shall be submersible Flygt NP 3153 LT-3 414, 17 HP, 60 HZ, 480 V, 3 Ph. Individual pumps capable of delivering 1,955 GPM at 23’ of TDH or approved equal. Pumps shall also be furnished with compatible motor, suction elbow, mix-flush system, and related and required accessories.

B. REQUIREMENTS - Contractor shall furnish and install 2 submersible non-clog wastewater pump(s). Each pump shall be equipped with a 17 HP submersible electric motor, connected for operation on 480 volts, 3 phase, 60 hertz, 3 wire service, with 75 feet of submersible cable

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(SUBCAB) suitable for submersible pump applications. The power cable shall be sized according to National Electric Code and Insulated Cable Engineers Association (ICEA) standards and also meet with Pipeline and Hazardous Materials Safety Administration (MSHA) Approval. Pumps shall be installed with Mix-Flush System for automatic wet-pit flushing during initial operation of the pump.

C. PUMP DESIGN CONFIGURATION - The pump shall be supplied with a mating cast iron 8" discharge connection and be capable of delivering 1,955 GPM at 23 feet total dynamic head (TDH). The pump(s) shall be automatically and firmly connected to the discharge connection, guided by no less than two guide bars extending from the top of the station to the discharge connection. There shall be no need for personnel to enter the wet-well. Sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal to metal watertight contact. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be acceptable. No portion of the pump shall bear directly on the sump floor. Each pump shall be fitted with stainless steel lifting chain and/or stainless-steel cable. The working load of the lifting system shall be at minimum 6,000 LBS.

D. PUMP CONSTRUCTION - Major pump components shall be of grey cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes or other irregularities. The lifting handle shall be of stainless steel. All exposed nuts or bolts shall be of stainless steel 316 construction. All metal surfaces coming into contact with the pumpage, other than stainless steel or brass, shall be protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump.

Sealing design shall incorporate metal-to-metal contact with machined surfaces. Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of specific torque limit. Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered as adequate or equal. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.

E. COOLING SYSTEM - Motors are sufficiently cooled by the surrounding environment or pumped media. A water jacket is not required.

F. CABLE ENTRY SEAL - The cable entry shall consist of a single cylindrical elastomer grommet, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter and compressed by the body containing a strain relief function, separate from the function of sealing the cable. The assembly shall provide ease of changing the cable when necessary using the same entry seal. The cable entry junction chamber and motor shall be separated by a stator lead sealing gland or terminal board, which shall isolate the interior from foreign material gaining access through the pump top. Epoxies, silicones, or other secondary sealing systems shall not be considered acceptable.

G. MOTOR - The pump motor shall be a NEMA B design, induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber. The stator windings shall be insulated with moisture resistance Class H insulation rated for 180 degrees C (356 degrees F). The stator shall be insulated by the trickle impregnation method using Class H monomer-free polyester resin resulting in a winding fill factor of at least 95 percent. The motor shall be inverter duty rated in accordance with NEMA MG1, Part 31. The stator shall be heat-shrink

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fitted into the cast iron stator housing. The use of multiple step dip and bake-type stator insulation process is not acceptable. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. The motor shall be designed for continuous duty handling pumped media of 40 degrees C (104 degrees F) and capable of no less than 30 evenly spaced starts per hour. The rotor bars and short circuit rings shall be made of cast aluminum. Thermal switches set to open at 125 degrees C (260 degrees F) shall be embedded in the stator end coils to monitor the temperature of each phase winding. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection and shall be connected to the control panel. The junction chamber containing the terminal board, shall be hermetically sealed from the motor by an elastomer compression seal. Connection between cable conductors and stator leads shall be made with threaded compression type binding posts permanently affixed to a terminal board. The motor and the pump shall be produced by the same manufacturer.

The combined service factor (combined effect of voltage, frequency and specific gravity) shall be a minimum of 1.15. The motor shall have a voltage tolerance of plus or minus 10 percent. The motor shall be designed for operation up to 40 degrees C (104 degrees F) ambient and with a temperature rise not to exceed 80 degrees C. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no-load characteristics.

The power cable shall be sized according to NEC and ICEA standards and shall be of sufficient length to reach the junction box without the need of any splices. The outer jacket of the cable shall be an oil resistant chlorinated polyethylene rubber. The motor and cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.

The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

The power cable shall be sized according to the NEC and ICEA standards and shall be of sufficient length to reach the junction box without the need of any splices. The power cable shall be of a shielded design in which an overall tinned copper shield is included, and each individual phase conductor is shielded with an aluminum coated foil wrap. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber. The cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.

H. BEARINGS - The pump shaft shall rotate on two bearings. Motor bearings shall be permanently grease lubricated. The upper bearing shall be a single deep groove ball bearing. The lower bearing shall be a two-row angular contact bearing to compensate for axial thrust and radial forces. Single row lower bearings are not acceptable. The minimum L10 bearing life shall be 50,000 hours at any usable portion of the pump curve.

I. MECHANICAL SEALS - Each pump shall be provided with a tandem mechanical shaft seal system consisting of two totally independent seal assemblies. The seals shall operate in a lubricant reservoir that hydro-dynamically lubricates the lapped seal faces at a constant rate. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary and one positively driven rotating, corrosion and abrasion resistant tungsten-carbide ring. The upper, secondary seal unit, located between the lubricant

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chamber and the motor housing, shall contain one stationary and one positively driven rotating, corrosion and abrasion resistant tungsten- carbide seal ring.

Each seal interface shall be held in contact by its own spring system. The seals shall require neither maintenance nor adjustment nor depend on direction of rotation for sealing. The position of both mechanical seals shall depend on the shaft. Mounting of the lower mechanical seal on the impeller hub will not be acceptable. For special applications, other seal face materials shall be available.

The following seal types shall not be considered acceptable or equal to the dual independent seal specified: shaft seals without positively driven rotating members, or conventional double mechanical seals containing either a common single or double spring acting between the upper and lower seal faces. No system requiring a pressure differential to offset pressure and to effect sealing shall be used.

Each pump shall be provided with a lubricant chamber for the shaft sealing system. The lubricant chamber shall be designed to prevent overfilling and to provide lubricant expansion capacity. The drain and inspection plug, with positive anti-leak seal shall be easily accessible from the outside. The seal system shall not rely upon the pumped media for lubrication. The motor shall be able to operate dry without damage while pumping under load.

Where a seal cavity is present in the seal chamber, the area about the exterior of the lower mechanical seal in the cast iron housing shall have cast in an integral concentric spiral groove. This groove shall protect the seals by causing abrasive particulate entering the seal cavity to be forced out away from the seal due to centrifugal action.

Seal lubricant shall be non-hazardous.

J. PUMP SHAFT - The pump shaft and motor shall be the same unit. The pump shaft is an extension of the motor shaft. Couplings shall not be acceptable. The shaft shall be stainless steel ASTM A479 S43100-T. If a shaft material of lower quality than stainless steel ASTM A479 S43100-T is used, a shaft sleeve of stainless-steel ASTM A479 S43100-T is used to protect the shaft material. However, shaft sleeves only protect the shaft around the lower mechanical seal. No protection is provided in the oil housing and above. Therefore, the use of stainless-steel sleeves will not be considered equal to stainless steel shafts.

K. IMPELLER - The impeller shall be of Hard-IronTM (ASTM A-532 (Alloy III A) 25 percent chrome cast iron), dynamically balanced, semi-open, multi-vane, back-swept, non-clog design. The impeller vane leading edges shall be mechanically self-cleaned upon each rotation as they pass across a spiral groove located on a replaceable insert ring.

The impeller shall have vanes hardened to Rc 45 and shall be capable of handling solids, fibrous materials, heavy sludge and other matter found in wastewater. The screw shape of the impeller inlet shall provide an inducing effect for the handling of sludge and rag-laden wastewater. The impeller shall be capable of momentarily moving axially upwards a distance of 15mm/0.6-in. to allow larger debris to pass through and immediately return to normal operating position

L. VOLUTE/SUCTION COVER - The pump volute shall be a single piece grey cast iron, ASTM A-48, Class 35B, non-concentric design with smooth passages of sufficient size to pass any solids that may enter the impeller. Minimum inlet and discharge size shall be as specified. The

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volute shall have a replaceable suction cover insert ring in which are cast spiral-shaped, sharp-edged groove(s). The spiral groove(s) shall provide trash release pathways and sharp edge(s) across which each impeller vane leading edge shall cross during rotation so to remain unobstructed. The insert ring shall be cast of Hard- IronTM (ASTM A-532 (Alloy III A) 25 percent chrome cast iron) and provide effective sealing between the multi-vane semi-open impeller and the volute housing.

M. PROTECTION - All stators shall incorporate thermal switches in series to monitor the temperature of each phase winding. The thermal switches shall open at 125 degrees C (260 degrees F), stop the motor and activate an alarm.

A leakage sensor shall be available as an option to detect water in the stator chamber. The Float Leakage Sensor (FLS) is a small float switch used to detect the presence of water in the stator chamber. When activated, the FLS will stop the motor and send an alarm both local and/or remote. Use of voltage sensitive solid-state sensors and trip temperature above 125 degrees c (260 degrees f) shall not be allowed.

The thermal switches and FLS shall be connected to a Mini CAS (Control and Status) monitoring unit. The Mini CAS shall be designed to be mounted in any control panel.

N. MODIFICATIONS – Explosion-proof Pumps (X).

O. PUMP RETRIEVAL – Furnish with each submersible pump one pump lift system provided by the same manufacturer as the pump. All pump retrieval equipment (consisting of but not limited to pump rails, high tensile strength stainless steel lifting chain, hardware) shall be non-sparking as a system. Metals shall be stainless steel 304. Provide the necessary connections to connect the pump retrieval system to the City's lift device (which is a truck mounted hoist by others). The system shall be appropriately sized to lift the weight of the specified pump.

P. MIX-FLUSH SYSTEM - The Mix-Flush System for automatic wet-pit flushing during initial operation of the pump. The system shall be manufactured by the same manufacturer as the pump manufacturer. The system consists of a flush valve (Flygt 4901 Flush Valve is basis of design), impeller and volute. The operation of the valve shall depend only on the pump flow and pressure. No electrical components or cables shall be used to control the valve. The valve shall be intrinsically safe and suitable for pumps used in hazardous locations Class 1, Division 1, Groups C and D. The powerful stream of water exiting the valve shall violently churn up the liquid in the sump thus re-suspending any built-up sludge. The system is based on the ejector principle with a ball closing the valve in a period of 20 to 50 seconds. A means of adjustment is provided on the outside of the valve to obtain the desired flushing period.

2.2 PUMP CONTROL

A. Pump control shall include a submersible depth/pressure transducer level control with a full backup float system. Floats shall be attached to PVC pipe and float tree shall be removable Pump control shall be as specified in the electrical plans and as per Division 26 Electrical Specifications.

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PART 3 WORKMANSHIP

3.1 EXAMINATION

A. Verify that all pumps, motors, and materials are present and meet the requirements of these Specifications.

3.2 INSTALLATION PERSONNEL

A. The Contractor shall employ qualified competent personnel for the installation, testing, and startup of all pumps. Contractor shall include as part of the contract, the services of a factory representative from the firm supplying the pumping equipment to supervise the installation and start-up of all pumps. After installation and before startup, all pumps shall be realigned within the manufacturer's specifications by the representative. The field representative shall remain on the job until each pump is operating satisfactorily at no additional cost to the Owner.

3.3 LUBRICANTS

A. The Contractor shall furnish all necessary oils, lubricants, grease guns, or other necessary applicators and shall lubricate the mechanical equipment prior to initial operation. The grade of oil and grease furnished by the Contractor shall be in accordance with the recommendation of the equipment manufacturer. The Contractor shall supply a 12-month supply of each lubricant.

3.4 COORDINATION OF RELATED EQUIPMENT

A. Contractor shall carefully coordinate pump, pump motor, variable frequency drive, and controller manufacturers so that the completed system operates satisfactorily under all operating conditions.

3.5 INSTALLATION

A. Install pumps and motors in accordance with shop drawings and manufacturer's recommendations.

B. Interface with suction and discharge piping to provide a complete waterproof seal.

C. Set pumps to provide a constant centerline alignment through all discharge and suction piping.

D. Install electrical and pump controls in accordance with the manufacturer's recommendations and the electrical division of these Technical Specifications.

E. See construction plans for all information regarding bypass pumping.

3.6 TESTING

A. Testing improved on each pump shall include the following inspections:

1. Impeller, motor rating and electrical connections shall be checked for compliance with this specification.

2. Motor and cable insulation shall be tested for moisture content or insulation defects.

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B. Upon request, a written quality assurance record confirming the above testing/inspections shall be supplied with each pump at the time of shipment.

C. Each pump (when specified) shall be tested in accordance with the latest test code of the Hydraulic Institute (H.I.) at the manufacturer to determine head vs. capacity and kilowatt draw required. Witness tests shall be available at the factory upon request.

3.7 START-UP SERVICES

A. The equipment manufacturer shall furnish the services of a qualified factory trained field service engineer for 8-hour working day(s) at the site to inspect the installation and instruct the owner's personnel on the operation and maintenance of the pumping units. After the pumps have been completely installed and wired, the contractor shall have the manufacturer do the following:

1. Megger stator and power cables.
2. Check seal lubrication.
3. Check for proper rotation.
4. Check power supply voltage.
5. Measure motor operating load and no-load current.
6. Check level control operation and sequence.

B. During this initial inspection, the manufacturer's service representative shall review recommended operation and maintenance procedures with the owner's personnel.

C. Provide five (5) copies of Equipment Operation and Maintenance Manuals to the Owner per Section 01 78 30.

D. The pump manufacturer shall analyze the complete pump and piping system and recommend such supports and modifications as necessary to eliminate harmonics and vibration in the system when operated over the operational speed range. Pump bases and foundations, as well as piping and shaft supports as shown on the plans shall be modified and enlarged as necessary to provide adequate support and vibration control.

E. The installed pumping units shall operate without excessive vibration. Balance of rotating parts shall be maintained throughout the pumps rated performance curve, which will include shutoff points. Vibration amplitude shall not exceed Hydraulic Institute limits, at any operating point along pump curve. Contractor shall be responsible to make required adjustments to ensure vibration is less than the maximum allowable amount. Excessive vibration will be defined as that which exceeds the limits outlined by the Hydraulic Institute.

F. Perform hydraulic testing for each pump verifying performance on the pump curve. Data shall include flow measurement and discharge pressure at three different operation points for each pump. Data shall also include voltage, amperage and motor speed for each pump taken at each of the recorded operating points.

G. Lift Station Bypass Pumping: Contractor Is responsible for submitting a sewage bypass plan per the requirements set forth in ISPWC Section 512, Sewage Bypass Systems.

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3.8 PERMITS AND INSPECTIONS

A. The Contractor shall obtain and pay for all necessary permits and inspections in connection with this work, as required by State and local laws, as the work progresses.

3.9 STORAGE AND PROTECTION OF MATERIALS

A. Provide storage for material and assume complete responsibility for losses due to any cause.

B. Protect completed work, work under way and materials against loss or damage. Close circuit openings with caps or plugs during installation. Cover fixtures and equipment and protect against damage caused by water, chemicals, or mechanical accident.

3.10 SPARE PARTS

A. All spare parts shall be properly protected for long-term storage and packed in clearly marked containers. The following spare parts shall be provided:

1. One spare impeller and insert ring.

PART 4 MEASUREMENT AND PAYMENT

A. Lift Station Pump System: By the lump sum. Includes lift station pumping system including submersible pumps, motors, guide rail assemblies, and all other related appurtenances. Includes full compensation for all materials, labor, testing, and equipment necessary for completing the work.

1. Bid Schedule Payment Reference: SP-333211.A

2. Bid Schedule Description: Lift Station Pump System…lump sum (LS)

B. Misc. Pipe, Fittings, and Supports: By the lump sum. Includes full compensation for all materials, labor, testing, and equipment necessary for completing the work.

1. Bid Schedule Payment Reference: SP-333211.B

2. Bid Schedule Description: Lift Station Misc. Piping, Fittings, and Supports…lump sum (LS)

C. Measurement and payment for Sewage Bypass Systems shall be per the latest edition of ISPWC Section 512.

D. Any items required by this section to complete the project that are not listed in the Bid Schedule are to be considered incidental to other Bid Items.

END OF SECTION

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SECTION 33 37 23 - FLOW REGULATORS

MODIFICATION TO
ISPWC SECTION 402 - HYDRAULIC VALVES

PART 1 GENERAL

Amend Part 1.2 to include the following:

D. Special Provisions Section 26 90 21 – Control System

PART 2 MATERIALS

Amend Part 2 to include the following:

A. All materials shall be new, of the highest quality, compatible with existing piping as required, and conform to the specifications hereinafter. Piping and associated materials needed to complete the contract but not specifically called out in these specifications shall be of high quality, suited for its intended usage.

Delete Part 2.2 in its entirety and replace with the following:

1. Gate Valves shall be American Flow Resilient Wedge Seat Gate Valve Part #2500-1 or approved equal and sized per the construction plans.

Amend Part 2 to include the following:

2.9 FLOW METER

A. Flow meters shall be velocity sensing electromagnetic type, microprocessor-based signal converter, sealed housing, flanged tube meters for full vacuum to 290 psi working pressure, and CSA approved. The meters shall be manufactured to highest standard available for magmeters. The meters shall be Endress+Hauser Promag Model W400 fixed flange, 0 x DN inlet/outlet run, full bore, IP 68, Type 6P submergence rated, listed for installation in Class I, Division 2 Hazardous Areas, electrode cleaning circuit flow meter or approved equal with a digital indicator having a range of 0 to 7500 gpm and shall be equipped with six-digit digital totalizer reading in units of gallons and shall be accurate within .5% of true flow. The meter assembly shall operate within a range of .2FPS to 49 FPS. The meter shall have a zero straight run pipe requirement. The sensor shall be temporary watertight up to 10ft.

B. Meter Tube shall be fabricated stainless steel pipe and use 150 lb. AWWA Class “D” flat face steel flanges. The internal and external of the meter tube shall be blasted to near white metal and lined with 40 mils of NSF approved fusion bonded epoxy coating, applied by the fluidized bed method. Meter tubes shall have a constant nominal inside diameter offering no obstruction to the flow.

C. Mag Shield shall be welded to the tube providing a completely sealed environment for all coils, electrode connections and wiring harness capable of submerged or buried operation (NEMA 6P).

D. Signal Converter shall be pulsed dc coil excitation type with auto zeroing. The converter shall indicate direction of flow and provide a flow rate indication and totalization of flow volume for both forward and reverse directions. Both forward and reverse totalizers shall be

electronically resettable. The converter shall provide an isolated 4-20 mA output into 800 ohm load, and a frequency output of a maximum of 0-800 Hz and a scaled pulse output. The microprocessor-based signal converter shall have a self-diagnostic test mode and a backlit display that continuously displays “Rate of Flow” and “Total Volume”. The converter shall be remotely mounted up to 300/ft. from sensor and shall be supplied in a sealed NEMA 4X case with all calibration complete for desired requirements. Converter shall be supplied with a programmable low flow drop out and empty pipe zero return.

2.10 AIR RELEASE VALVE ASSEMBLY

A. Manual air release valve assemblies shall be installed per the details outlined in the construction documents including the installation of a 1-inch eccentric ball valve for manually controlling the assembly, pipes, fittings, and all other appurtenances.

2.11 PRESSURE GAUGE

A. Pressure gauges shall be direct reading gauges graduated with the pressure ranges specified on the drawings. Accuracy shall be ±½% at mid-range. Pressure gauges shall be capable of withstanding an over-pressure of 150% of full scale without requiring re-calibration. Dials shall be 4½-inch diameter and have adjustable pointers. Pressure gauges shall be installed with shut-off cocks rated at least 250 psi working pressure. Pressure gauges shall be manufacturer by 3D Instruments or approved equal.

PART 3 WORKMANSHIP

Amend Part 3.2 to include the following:

G. All valves and appurtenances shall be properly supported to avoid any strain on the equipment. Supports shall be as indicated on the drawings or as approved by the Engineer.

H. Testing of all flow regulators shall be conducted in conjunction with testing and operational evaluation of pipelines, pumping systems, and all other systems of which they are an integral part. Test pressures for in-line flow regulators shall be as specified for related pipeline pressure testing. Non- pipeline flow regulators shall be tested at normal operating heads or greater if directed by the Engineer.

PART 4 MEASUREMENT AND PAYMENT

Amend Part 4 to include the following:

B. Flow Meter: By the lump sum. Includes full compensation for all materials, installation, testing, labor, and equipment necessary for completing the work.

1. Bid Schedule Payment Reference: 402.4.1.B.1

2. Bid Schedule Description: Flow Meter…each (EA)

C. Air Release Valve Assembly: By the lump sum. Includes full compensation for all materials, installation, testing, labor, and equipment necessary for completing the work.

3. Bid Schedule Payment Reference: 402.4.1.C.1

4. Bid Schedule Description: Air Release Valve Assembly…each (EA)

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D. Pressure Gauge Assembly: By the lump sum. Includes full compensation for all materials, installation, testing, labor, and equipment necessary for completing the work.

3. Bid Schedule Payment Reference: 402.4.1.D.1

4. Bid Schedule Description: Pressure Gauge Assembly…each (EA)

END OF SECTION

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DIVISION 44 00 00 – POLLUTION AND WASTE CONTROL

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SECTION 44 31 16 – ACTIVATED CARBON ABSORPTION ODOR CONTROL SYSTEMS

PART 1 GENERAL

1.1 DESCRIPTION

A. This item shall consist of the work necessary to install an odor control system. This section specifies a carbon odor control system for removal of air from a wastewater lift station. This section describes the work required to install carbon canisters, blowers, a motor, sound attenuation enclosure, and any related piping for the system.

1.2 SUBMITTALS

A. **Shop Drawings:** Submit, in accordance with Section 01 33 00, for approval the following:

1. Dimensions and required clearances
2. Details of construction
3. Wiring and control diagrams
4. Manufacturers literature, illustrations, specifications, and engineering data.
5. Certified sound level data
6. Complete description
7. Weights
8. Motor data sheet
9. Performance curves
10. Layout drawing for all equipment including installation details
11. Manufacturers' warranty

B. Two (2) copies of each manufacturer's maintenance and operating instructions manual shall be provided with the equipment at the time of delivery. Any revisions during start-up or operating instructions shall be made in each of the three (3) final copies of the Operation and Maintenance Manuals.

1.3 SUBSTITUITIONS

A. The substitution of the Odor Control System of equal quality of construction and performance will be considered when the words "or approved equal" are inserted following the specific manufacturer's name and/or model number.

1.4 QUALITY ASSURANCE

A. Comply with all applicable provisions and recommendations of the following or equivalent IEC standards, except as otherwise shown or specified.

1. National Electric Code (NEC)
2. National Electrical Manufacturers Association (NEMA)

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3. Occupational Safety and Health Act (OSHA)
4. American Society of Testing and Materials (ASTM)
    a. ASTM D1785-99 Standards Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
    b. ASTM D2466-01 Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fitting, Schedule 40.
5. American Welding Society (AWS)
6. American Institute of Steel Construction (AISC)

PART 2 MATERIALS

2.1 ODOR CONTROL SYSTEM

A. The odor control system shall consist of 4" Schedule 40 PVC vent pipe and fittings, one blower, and an Carbtrol, model GC2-3B450 or approved equal as described in the construction plans. Nuts, bolts, and anchors shall be Type 304 stainless steel. 1'4" thick neoprene pad shall be furnished at duct and support contact locations.

B. DESIGN CRITERIA:

1. Capacity: 450 cfm
2. Maximum Horsepower: ¾ HP
3. Electrical Characteristics: 460-volt 3 phase, 60 Hz

C. BLOWER:

1. Blower shall be a centrifugal with a flanged suction and direct drive.
2. Blower shall be cast with commercial grade cast aluminum with rounded inlets and outlets. Blower shall be equipped with an explosion-proof 3 phase, 460-volt 3450 RPM rated motor.
3. Blower fans shall be a minimum of 12-gauge steel.
4. Blower orientation shall be horizontally mounted with a cast iron aluminum curve wheel.
5. Blower shall be Cincinnati Fan and Ventilating Co., Model PB-10A or approved equal.

D. CARBON:

1. The carbon within the canisters shall be pelletized catalytic carbon with a sieve size of 4mm, US Sieve.
2. The catalytic carbon shall include high activity H2S capacity of 0.20 (min) with an apparent density of 0.50 g/cc and a maximum 5% moisture rating.
3. Catalytic carbon shall be Carbtrol Type CAT2 or approved equal.
4. Backup carbon canister shall be Model GC2-3B or approved equal.

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E. CANISTERS:

1. The odor control system shall include two UN 1A2/Y300/S classification, 16 gauge steel canisters with an interior paint, (2) coats, 60% epoxy / 40% phenolic, and an exterior coat, Azko coating with white baked enamel. Canisters shall have removable covers and steel closure rings.

2. Each canister shall be equipped with a 4”-inch diameter air inlet connection furnished with a 4-inch diameter 8’-0” long suction hose. A ¾-inch drain connection shall Schedule 40 PVC with ball valve shut off. Canisters shall carry 150 lbs. of catalytic carbon.

3. Canisters shall carry 150 lbs. of pelletized catalytic activated carbon.

4. Each canister shall be equipped with a 4-inch diameter screen.

5. Two (2) additional canisters for future use.

F. SOUND ATTENUATION:

1. A weather shroud/enclosure housing made of 20-gauge galvanized steel construction shall be installed over each the blower and canister.

2. The weather shroud shall include 1” thick polyurethane sound attenuation foam encasing the interior of the enclosure.

G. PIPING AND FITTINGS

1. Piping between the wet well and odor control system shall be 4” Schedule 40 PVC

2.2 CORROSION PROTECTION:

A. Exposure: All odor control system elements shall be appropriate for outdoor installation with full exposure to all possible weather conditions.

B. Motor: Coated with original manufacturer’s standard machinery enamel.

C. Sound Enclosure: Receives one (1) shop prime coat of chromate free primer followed by two (2) finish coats of white enamel.

PART 3 WORKMANSHIP

3.1 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Delivery of Material:

1. Manufacture’s recommendations for rigging of units shall be complied with.

2. Unit shall be structurally designed to withstand the stresses of hoisting.

3. Unit shall be protectively crated as required.

B. Storage of Material:

1. Store unit in clean, dry area, out of weather.

2. Unit shall remain in original crate until time of actual installation.

3. Until shall be tightly covered to protect against dirt, water, mechanical or chemical

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damage.

3.2 INSTALLATION

A. Blower: Blower installation shall be to manufacturer's standards and requirements

B. Canister: Canisters shall be placed in the designated location according to the construction plans. Two canisters shall be placed side by side in the assigned location. Contractor to coordinate with the City to determine storage location for additional canisters.

C. Sound Attenuation Enclosure: Enclosure installation shall be to manufacturer's standard and requirements.

D. Piping and fittings: Installation of all associated piping and fittings shall be installed according to the Construction Plans.

E. Trenching, Bedding, and Backfill of the associated piping shall conform to requirements and recommendations according to ISPWC Section 301 – Trench Excavation, Section 305 – Pipe Bedding, and Section 306 - Trench Backfill.

F. Wet Well coring shall be done in a manner to accommodate the size of pipe and utilize the appropriate sealing method.

G. Contractor shall refer to Division 26 00 00 – Electrical for installation and material requirements.

PART 4 MEASUREMENT AND PAYMENT

A. Payment for the odor control system shall be paid for on a lump sum basis per the Odor Control System bid item and shall include all costs associated with the furnishing and installing a complete system. Limits of payment include all items within the odor control system and associated spare parts.

1. Bid Schedule Payment Reference: SP- 443116

2. Bid Schedule Description: Odor Control System…lump sum (LS)

END OF SECTION

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Attachment "B"

SECTION 00 43 13 - BID BOND (PENAL SUM FORM)

Bidder Name: DW Excavating, Inc. Address *(principal place of business)*: P.O. Box 1089 Davenport, WA 99122	**Surety** Name: Old Republic Surety Company Address *(principal place of business)*: P.O. Box 1635 Milwaukee, WI 53201
Owner Name: **City of Moscow** Address *(principal place of business)*: **206 E Third Street, Moscow, ID83843**	**Bid** Project *(name and location)*: **Palouse Mall Lift Station Rehabilitation Project, Moscow ID** Bid Due Date: February 17, 2026

Bond

Penal Sum: Five Percent of Amount Bid - 5%

Date of Bond: February 11, 2026

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

Bidder	Surety
DW Excavating, Inc. *(Full formal name of Bidder)*	Old Republic Surety Company *(Full formal name of Surety) (corporate seal)*
By: _____ *(Signature)*	By: _____ *(Signature) (Attach Power of Attorney)*
Name: Lars Hendrickson *(Printed or typed)*	Name: Jennifer Martinez Ibarra *(Printed or typed)*
Title: President	Title: Attorney-in-Fact
Attest: _____ *(Signature)*	Attest: _____ *(Signature)*
Name: TONY WILLIAMSON *(Printed or typed)*	Name: Liliana Castrejon Perez *(Printed or typed)*
Title: EMPLOYEE	Title: Witness

Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.

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1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
   3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
   3.2. All Bids are rejected by Owner, or
   3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the

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provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

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OLD REPUBLIC SURETY COMPANY

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That OLD REPUBLIC SURETY COMPANY, a Wisconsin stock insurance corporation, does make, constitute and appoint:

Jennifer Martinez Ibarra

its true and lawful Attorney(s)-in-Fact, with full power and authority for and on behalf of the company as surety, to execute and deliver and affix the seal of the company thereto (if a seal is required), bonds, undertakings, recognizances or other written obligations in the nature thereof, ***(other than bail bonds, bank depository bonds, mortgage deficiency bonds, mortgage guaranty bonds, guarantees of installment paper and note guaranty bonds, self-insurance workers compensation bonds guaranteeing payment of benefits, or black lung bonds),*** as follows:

ALL WRITTEN INSTRUMENTS

Principal: DW Excavating, Inc.
Obligee: City of Moscow

and to bind OLD REPUBLIC SURETY COMPANY thereby, and all of the acts of said Attorneys-in-Fact, pursuant to these presents, are ratified and confirmed. This appointment is made under and by authority of the board of directors at a special meeting held on February 18, 1982.

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following resolutions adopted by the board of directors of the OLD REPUBLIC SURETY COMPANY on February 18,1982.

RESOLVED that, the president, any vice-president or assistant vice president, in conjunction with the secretary or any assistant secretary, may appoint attorneys-in-fact or agents with authority as defined or limited in the instrument evidencing the appointment in each case, for and on behalf of the company to execute and deliver and affix the seal of the company to bonds, undertakings, recognizances, and suretyship obligations of all kinds; and said officers may remove any such attorney-in-fact or agent and revoke any Power of Attorney previously granted to such person.

RESOLVED FURTHER, that any bond, undertaking, recognizance, or suretyship obligation shall be valid and binding upon the Company

(i) when signed by the president, any vice president or assistant vice president, and attested and sealed (if a seal be required) by any secretary or assistant secretary; or

(ii) when signed by the president, any vice president or assistant vice president, secretary or assistant secretary, and countersigned and sealed (if a seal be required) by a duly authorized attorney-in-fact or agent; or

(iii) when duly executed and sealed (if a seal be required) by one or more attorneys-in-fact or agents pursuant to and within the limits of the authority evidenced by the Power of Attorney issued by the company to such person or persons.

RESOLVED FURTHER that the signature of any authorized officer and the seal of the company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the company; and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, OLD REPUBLIC SURETY COMPANY has caused these presents to be signed by its proper officer, and its corporate seal to be affixed this 20th day of September, 2022.

OLD REPUBLIC SURETY COMPANY

Karen J. Haffner
Assistant Secretary

Alan Pavlic
President

STATE OF WISCONSIN, COUNTY OF WAUKESHA - SS

On this 20th day of September, 2022, personally came before me, Alan Pavlic and Karen J Haffner, to me known to be the individuals and officers of the OLD REPUBLIC SURETY COMPANY who executed the above instrument, and they each acknowledged the execution of the same, and being by me duly sworn, did severally depose and say: that they are the said officers of the corporation aforesaid, and that the seal affixed to the above instrument is the seal of the corporation, and that said corporate seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority of the board of directors of said corporation.

Kathryn R. Pearson
Notary Public

My Commission Expires: September 28, 2026
(Expiration of notary's commission does not invalidate this instrument)

CERTIFICATE

I, the undersigned, assistant secretary of the OLD REPUBLIC SURETY COMPANY, a Wisconsin corporation, CERTIFY that the foregoing and attached Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the board of directors set forth in the Power of Attorney, are now in force.

Signed and sealed at the City of Brookfield, WI this 11th day of February, 2026.

Karen J. Haffner
Assistant Secretary

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SECTION 00 43 73 - PROPOSED SCHEDULE OF VALUES

Bidder acknowledges receipt of the following Addenda:

1 - 2/13/2026

2 - 2/27/2026

BID SCHEDULE A

City of Moscow
Palouse Mall Lift Station Rehabilitation
206 E Third Street, Moscow ID, 83843
Section 12, Township 39 North, Range 6 West, Boise Meridian
February 13, 2026

ADDENDUM #1

Item No.	Item Description	Estimated Quantity	Unit Measure	Unit Price	Extended Price
2010.4.1.A.1	MOBILIZATION (10% MAX) @	1	LS	$ 72,000.00	$ 72,000.00
SP-012116	FORCE ACCOUNT WORK @	1	FA	$100,000.00	$100,000.00
SP-014500	QUALITY CONTROL @	1	LS	$ 13,400.00	$ 13,400.00
SP-015000	FENCE, TEMPORARY CONSTRUCTION FENCE @	620	LF	$ 9.40	$ 5,828.00
SP-015726	DUST CONTROL @	1	LS	$ 16,200.00	$ 16,200.00
SP-017123	CONSTRUCTION SURVEYING (CONTRACTOR PROVIDED) @	1	LS	$ 7,650.00	$ 7,650.00
SP-099723	CONCRETE AND MASONRY COATINGS @	1	LS	$ 48,700.00	$ 48,700.00
SP-260000	GENERAL ELECTRICAL @	1	LS	$ 125,050.00	$ 125,050.00
SP-260021	CONTROL SYSTEM @	1	LS	$ 38,600.00	$ 38,600.00
SP-260022	PUMP CONTROL PANEL @	1	LS	$ 61,100.00	$ 61,100.00

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SP-330563.A	VALVE VAULT AND HATCH @	1	LS	$ 36,250.00	$ 36,250.00
SP-330563.B	FLOW METER VAULT AND HATCH @	1	LS	$ 9,500.00	$ 9,500.00
SP-330563.C	WET WELL CONCRETE COVER AND HATCH @	1	LS	$ 8,400.00	$ 8,400.00
SP-330563.D	BYPASS ASSEMBLY, VALVES, AND FITTINGS @	1	LS	$ 28,800.00	$ 28,800.00
SP-333211.A	LIFT STATION PUMP SYSTEM @	1	LS	$ 182,100.00	$ 182,100.00
SP-333211.B	LIFT STATION MISC. PIPING, FITTINGS, AND SUPPORTS @	1	LS	$ 44,100.00	$ 44,100.00
SP-443116	ODOR CONTROL SYSTEM @	1	LS	$ 25,100.00	$ 25,100.00
201.4.1.B.1	CLEARING AND GRUBBING @	1	LS	$ 8,000.00	$ 8,000.00
201.4.1.C.1	REMOVAL OF OBSTRUCTIONS @	1	LS	$ 10,650.00	$ 10,650.00
202.4.1.A.1	EXCAVATION @	95	CY	$ 35.00	$ 3,325.00
301.4.1.D.1	SERVICE/UTILITY TRENCH EXCAVATION W/ 2" CONDUIT @	40	LF	$ 19.00	$ 760.00
302.4.1.B.1	ROCK EXCAVATION @	51	LF	$ 95.00	$ 4,845.00
401.4.1.B.1	WATER MAIN FITTING - SIZE 12" DUCTILE IRON 90 ELBOW @	1	EA	$ 3,400.00	$ 3,400.00
401.4.1.B.2	WATER MAIN FITTING - SIZE 12" STAINLESS STEEL 90 ELBOW @	2	EA	$ 7,000.00	$ 14,000.00
401.4.1.B.3	WATER MAIN FITTING - SIZE 12" DUCTILE IRON TEE @	1	EA	$ 4,700.00	$ 4,700.00
401.4.1.B.4	WATER MAIN FITTING - SIZE 12" X 8" SS ECCENTRIC REDUCER @	2	EA	$ 5,600.00	$ 11,200.00
401.4.1.B.5	WATER MAIN FITTING - SIZE 12" X 16" ECCENTRIC REDUCER @	1	EA	$ 5,300.00	$ 5,300.00
401.4.1.B.8	WATER MAIN FITTING - SIZE 16" HDPE 22.5 ELBOW @	2	EA	$ 950.00	$ 1,900.00
401.4.1.B.9	WATER MAIN FITTING - SIZE 16" HDPE 45 ELBOW @	4	EA	$ 980.00	$ 3,920.00

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401.4.1.B.10	WATER MAIN FITTING - SIZE 16" DUCTILE IRON 90 ELBOW @	1	EA	$ 5,800.00	$ 5,800.00
401.4.1.B.11	WATER MAIN FITTING -SIZE 16" X 10" ECCENTRIC REDUCER @	1	EA	$ 5,600.00	$ 5,600.00
401.4.1.B.12	WATER MAIN FITTING - SIZE 12" X 8" ECCENTRIC REDUCER @	1	EA	$ 2,700.00	$ 2,700.00
401.4.1.B.13	WATER MAIN FITTING - SIZE 10" DUCTILE IRON 45 ELBOW @	1	EA	$ 2,300.00	$ 2,300.00
402.4.1.A.1	VALVE - SIZE 12" - TYPE RESILIENT WEDGE GATE VALVE, WITH OPERATING HANDWHEEL @	2	EA	$ 5,100.00	$ 10,200.00
402.4.1.A.2	VALVE - SIZE - 12" - TYPE BALL CHECK VALVE @	2	EA	$ 19,200.00	$ 38,400.00
402.4.1.A.3	VALVE - SIZE - 16" - TYPE GATE VALVE @	2	EA	$ 17,100.00	$ 34,200.00
402.4.1.A.4	FLOW METER @	1	EA	$ 9,500.00	$ 9,500.00
402.4.1.A.5	AIR RELEASE VALVE ASSEMBLY @	1	EA	$ 1,500.00	$ 1,500.00
402.4.1.A.6	PRESSURE GAUGE ASSEMBLY @	1	EA	$ 5,700.00	$ 5,700.00
505.4.1.B.1	PRESSURE SEWER PIPE - SIZE 12", TYPE C900 DR-18 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.) @	28	LF	$ 220.00	$ 6,160.00
505.4.1.B.2	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.) @	209	LF	$ 190.00	$ 39,710.00
505.4.1.B.3	PRESSURE SEWER PIPE - SIZE 12", TYPE DUCTILE IRON (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.) @	8	LF	$ 1,700.00	$ 13,600.00
505.4.1.B.4	PRESSURE SEWER PIPE - SIZE 10", TYPE C900 DR-18 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.) @	3	LF	$ 2,400.00	$ 7,200.00

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505.4.1.B.5	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 WITHIN ROADWAY PRISM (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.) @	70	LF	$ 260.00	$ 18,200.00
505.4.1.B.6	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 WITHIN CREEK CROSSING (INCLUDES EXCAVATION, BEDDING, ROCK BACKFILL, CONCRETE, ETC.) @	43	LF	$ 520.00	$ 22,360.00
507.4.1.D.1	12" COUPLING @	6	EA	$ 1,200.00	$ 7,200.00
512.4.1.A.1	SEWAGE BYPASS SYSTEMS @	1	LS	$ 32,500.00	$ 32,500.00
706.4.1.A.7	CURB AND GUTTER, TYPE B COMBINATION @	15	LF	$ 120.00	$ 1,800.00
802.4.1.A.1	CRUSHED AGGREGATE BASE TYPE I @	40	CY	$ 180.00	$ 7,200.00
802.4.1.A.1	CRUSHED AGGREGATE BASE TYPE I FOR IMPORTED TRENCH CLASS F BACKFILL MATERIAL @	86	CY	$ 97.00	$ 8,342.00
810.4.1.A.1	PLANT MIX PAVEMENT @	44	TON	$ 578.00	$ 25,432.00
1001.4.2.B.1	STABILIZED CONSTRUCTION ENTRANCE @	1	EA	$ 1,700.00	$ 1,700.00
1003.4.1.C.1	SILT FENCE @	120	LF	$ 6.50	$ 780.00
1007.4.1.B.1	SEEDING @	815	SY	$ 3.00	$ 2,445.00
1103.4.1.A.1	CONSTRUCTION TRAFFIC CONTROL @	1	LS	$ 18,900.00	$ 18,900.00
1104.4.1.A.1	PAVEMENT LINE PAINT OR PAINTED PAVEMENT MARKINGS @	180	LF	$ 17.00	$ 3,060.00
2040.4.1.A.1	FENCE, 8' CHAINLINK W/PRIVACY SLATS @	65	LF	$ 212.00	$ 13,780.00
2040.4.1.B.1	GATES, PEDESTRIAN GATE @	2	EA	$ 2,300.00	$ 4,600.00
2040.4.1.B.2	GATES, 16' DOUBLE SWING GATE @	1	EA	$ 1,400.00	$ 1,400.00

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BID SCHEDULE A TOTAL = $ 1,247,047.00

Respectfully Submitted:

DW Excavating Inc.

(Bidder)

By

(Signature)

President

(Title)

PO Box 1089, Davenport, WA 99122

(Address)

3/03/2026

(Date)

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SECTION 00 43 93 - BID SUBMITTAL CHECKLIST

The Bidder's Check List is offered to the prospective bidder as a means of checking that his/her bid Proposal is a complete Bid free from omissions and errors that could possibly lead to rejection of the bid.

Check off when completed:

1. ✓ Are all blank spaces filled out on Bid Form? Is a complete set of Bid Proposal documents intact?
2. ✓ Have questions arising from the bidding, contract specifications, or plans been submitted to the proper authority and resolved in the proper manner?
3. ✓ Are Bid amounts shown correctly as well as extensions and totals? Recheck for errors or omissions.
4. ✓ Are authorized signatures properly affixed to the Bidding Documents, giving also title, Idaho Public Works Contractor license number, etc.?
5. ✓ Per Idaho Code 67-2310, have all electrical, plumbing, and HVAC subcontractors to whom work will be awarded been listed, as well as their Idaho Public Works Contractor license number?
6. ✓ A Bid Bond, Certified or Cashier's Check in the amount of five percent (5%) of the Total Base Bid must be included.
7. ✓ Have all Addenda been received and acknowledged with the proper signature on the Bid Proposal and included with the Bid?
8. ✓ All Bidding Documents shall be placed in properly addressed, sealed envelope, and delivered to the specified authority prior to the time designated for the bid opening.
9. ✓ Has the original and a copy of the Bid Proposal plus all forms and attachments been included?

The City may reject all Bids not containing the mandatory submittals as non-responsive.

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SECTION 00 45 19 - NON-COLLUSION AFFIDAVIT

(THIS FORM TO BE EXECUTED BY EACH BIDDER AND SUBMITTED WITH BID)

State of Washington)
:ss
County of Lincoln)

Lars Hendrickson, being duly sworn, deposes and says that

he/she is President
(sole owner, a partner, president, secretary, etc.)

Of DW Excavating Inc.,

the party making the foregoing bid, that such Bid is not made in the interest of or on behalf of any undisclosed person, partnership, company association, organization or corporation; that such Bid is genuine and not collusive or sham; that said Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a shame bid, nor that anyone shall refrain from bidding; that said Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of said Bidder or of any other bidder, nor to fix any overhead, profit, or cost advantage against the public body awarding the contract or anyone interested in the proposed contract; that all statement contained in such Bid are true; and, further, that said Bidder has not directly or indirectly, submitted its bid price or any breakdown thereof, nor the contents thereof, nor divulged information or data relative thereto, not paid and will not pay fee in connection therewith to any corporation, partnership, company, association, organization, bid depository, nor to any member or agent thereof, nor to any other individual except to such person or persons as have a partnership or other financial interest with said bidder in his/her general business.

Signed: _____

Title: President

Subscribed and sworn to before me this 3rd day of March, 2026.

GINA MARTIN
NOTARY PUBLIC
STATE OF WASHINGTON
COMM # 25029364
APPOINTMENT EXPIRES September 26, 2029

_____
Notary Public in and for the State

Of Washington

Residing at: 215 Park St, Davenport WA 99122

My Commission expires: Sept 26, 2029

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SECTION 00 46 01 - AFFIDAVIT OF PAYMENT OR SECUREMENT OF ALL TAXES

State of Washington)
:ss
County of Lincoln)

Lars Hendrickson, being first duly sworn, deposes and says that they [are] [are not]

are in conformance with Idaho Code 63-15-2; affiant states that

DW Excavating Inc. has paid or secured to the satisfaction of the respective taxing units all taxes for which they or their property is liable now due or delinquent including assessments, excises, and license fees levied by the State of Idaho or any taxing unit within the State of Idaho.

Signed: _____

Title: President

Subscribed and sworn to before me this 3rd day of March, 20 26.

_____
Notary Public in and for the State

Of Washington

Residing at: 215 Park St, Davenport WA 99122

My Commission expires: Sept 26, 2029

GINA MARTIN
NOTARY PUBLIC
STATE OF WASHINGTON
COMM # 25029364
MY APPOINTMENT EXPIRES September 26, 2029

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SECTION 00 46 02 - ANTI-DISCRIMINATION AFFIDAVIT

State of Washington)
:ss
County of Lincoln)

The Bidder hereby covenants, stipulates and agrees that no person shall be discriminated against in the bidding of the services and/or materials herein under and that the Bidder shall no refuse to hire any person therefore because of such person's race, creed, sex, color, or national origin, unless based on a bona fide occupation qualification. Also, the Bidder will in no manner discriminate against any person because of such person's race, creed, sex, color, or national origin. Any such discrimination shall be deemed a violation of this Bid and shall render this Bid subject to forfeiture.

Signed: _____

Title: President

Subscribed and sworn to before me this 3rd day of March, 20 26.

_____
Notary Public in and for the State

Of Washington

Residing at: 215 Park St, Davenport WA 9122

My Commission expires: Sept 26, 2029

GINA MARTIN
APPOINTMENT EXPIRES September 26, 2029
NOTARY PUBLIC
COMM # 25029364
STATE OF WASHINGTON

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SECTION 00 41 00 - BID FORM

PROJECT IDENTIFICATION:	Palouse Mall Lift Station Rehabilitation Project
CONTRACT IDENTIFICATION AND NUMBER:	111-024
THIS BID IS SUBMITTED TO OWNER:	City of Moscow 206 E Third Street Moscow, ID 83843

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

2. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid Security. Bidder will sign the Agreement and submit the Contract Security and other documents required by the Contract Documents within 10 days after the date of Owner's Notice of Award.

3. In submitting this Bid, Bidder represents, as more fully set forth in the Agreement, that:

   a. Bidder has examined copies of all the Contract Documents and of the following addenda:

Addendum Date:	Number of Addendum:
1	2/13/2026
2	2/27/2026

   (Receipt of all of which is hereby acknowledged) and also copies of the Advertisement or Invitation to Bid and the Instructions to Bidders;

   b. Bidder has examined the site and locality where the Work is to be performed, the legal requirements (Federal, State and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as Bidder deems necessary;

   c. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

   d. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the

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price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

e. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder. Bidder has verified the viability of any plans and specifications for accuracy and completeness.

f. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

g. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

h. Bidder certifies that:

   A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;

   B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

   C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

   D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 3.h.D:

      1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;

      2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

      3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and

      4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

i. The Bidder and all Subcontractors currently possess the appropriate Idaho Public Works Contractor's License.

   Idaho Contractors License No. 031540-AAA-1-3-4

j. All Subcontractors currently possess the appropriate Idaho Public Works Contractor's

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License.

4. Bidder will complete the Work per the prices established in the attached Bid Schedule:

   BID SCHEDULE SUMMARY:

Title	Total Schedule Price
Schedule A	$ 1,247,047.00
Total Price	$ 1,247,047.00

   Bidder acknowledges that (1) each bid unit price includes an amount considered by bidder to be adequate to cover contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of bids, and final payment for all unit price bid items will be based on actual quantities, determined as provided in the contract documents.

5. Bidder agrees that the:

   a. Work will be Substantially Complete and Complete on or before the dates or within the number of calendar days indicated in Article 3 of the Agreement.

   b. Bidder accepts the provisions of Article 3 of the Agreement as to Liquidated Damages in the event of failure to complete the Work on time.

   c. Bidder agrees to comply with Idaho Code 44-1001 through 44-1005, regarding employment of Idaho residents.

6. The following documents are attached to, and made a condition of, and incorporated by reference into this Bid if not attached.

   a. Bid Bond

   b. Proposed Subcontractors Form

   c. Bid Schedule A

   d. Bid Submittal Checklist

   e. Non-Collusion Affidavit

   f. Affidavit of Payment or Securement of All Taxes

   g. Anti-Discrimination Affidavit

7. Communications concerning this Bid shall be addressed to:

   The address of Bidder indicated below:

   DW Excavating Inc., PO Box 1089, Davenport, WA 99122

8. The terms used in this Bid which are defined in the General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions, and as may be amended.

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9. Bid Opening: March 3, 2026 (Date) 2:00 PM (Time)

Submitted on March 3, 2026.

If Bidder is:

A Corporation

DW Excavating Inc.
(Corporation Name)

Washington
(State of Incorporation)

By _____
(Signature of Person Authorized to Sign)

Lars Hendrickson, President
(Name and Title of Person Authorized to Sign)

Attest _____
(Secretary)

Business Address 215 Park Street
PO Box 1089
Davenport, WA 99122

Phone No. 509-904-1313

A Joint Venture

By _____
(Signature)

_____
(Name)

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_____

(Address)

By_____

(Signature)

_____

(Name)

_____

(Address)

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

Attest_____

(Secretary)

Business Address_____

_____

_____

Phone No._____

A Partnership

_____

(Firm Name)

_____

(Signature of General Partner)

_____

(Name of General Partner)

Business address_____

_____

_____

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Phone No._____

Attest_____
(Secretary)

Business Address_____

_____

_____

Phone No._____

An Individual

By_____
(Signature of Individual)

By_____
(Individual's Name)

Doing business as_____

Business address_____

_____

_____

Phone No._____

Attest_____
(Secretary)

Business address_____

_____

_____

Phone No._____

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EJCDC® C-430, Bid Bond (Penal Sum Form).
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and American Society of Civil Engineers. All rights reserved.

SECTION 00 43 36 - PROPOSED SUBCONTRACTORS FORM

The Bidder's attention is directed to the provisions of Idaho Code Section 67-2310 which requires subcontractors who will perform mechanical, electrical or plumbing work to be named on the bid of the general contractor. The Contractor shall not name more than one subcontractor for each work item. If the Contractor intends to perform mechanical and/or electrical work under the provisions of their own license, they shall name themselves providing they are properly licensed. Plumbing and HVAC are not anticipated on this project.

The Contractor shall not, without written consent of the Owner, make any substitution, alterations, or additions to the following list of subcontractors which is made a material part of this Bid.

The following is a complete list of the proposed Subcontractors: (Attach additional sheets if necessary.)

Name and Address	Approximate Amount of Subcontract or Value of Materials	Idaho Public Works Contractor License No.	Type Work To Be Done
Gropp Heating Air & Electric LLC	$200,000.00	PWC-C-14557-AA-4	Electrical
225 West A, Moscow ID [redacted]			HVAC
N/A			Plumbing

DW Excavating Inc.
(Name of Firm)

3/3/2026
(Date)

(Signature)

President
(Title)

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Attachment "C"

ARDURRA

MEMORANDUM

TO: Plan holders for
Palouse Mall Lift Station Rehabilitation
City of Moscow

FROM: Zach Thompson, P.E.

DATE: February 13, 2026

SUBJECT: Transmittal of Documents

Transmitted herewith are the following:

1. Addendum Number One dated February 13, 2026.
2. Pre-Bid Meeting Minutes dated February 12, 2026.

Signed,

Ardurra Group, Inc.

Zach Thompson, P.E.
Senior Project Manager

PROFESSIONAL ENGINEER
REGISTERED
16087
02/13/2026
STATE OF IDAHO
ZACHARY J. THOMPSON

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ADDENDUM NUMBER ONE
Date: February 13, 2026

PROJECT TITLE: **Palouse Mall Lift Station Rehabilitation Project**

OWNER: City of Moscow

ENGINEER: Ardurra Group, Inc.
7950 N. Meadowlark Way
Coeur d'Alene, Idaho 83815
(208) 762-3644
Attn: Zach Thompson, P.E.

BIDS DUE: 2:00 PM Tuesday, March 3, 2026

The Contract Documents for the project identified above, dated January 2026, are amended as follows:

CLARIFICATIONS:

1. Engineer's Estimate: $2,115,992.50

2. Pre-bid Meeting Minutes: The attached meeting minutes include all topics discussed at the pre-bid meeting.

3. Bid opening date has been revised. Bid opening shall be Tuesday, March 3, 2026. See Invitation to Bid revision below for additional details.

SPECIFICATIONS:

1. SECTION 00 11 16 – INVITATION TO BID

   REPLACE Section 00 11 16 – Invitation to Bid in its entirety with attached, revised Section 00 11 16 – Invitation to Bid.

2. SECTION 00 43 73 – PROPOSED SCHEDULE OF VALUES

   REPLACE Section 00 43 73 – Proposed Schedule of Values in its entirety with attached, revised Section 00 43 73 – Proposed Schedule of Values.

3. SECTION 00 52 00 – CONSTRUCTION AGREEMENT

   REPLACE Section 00 52 00 – Article 3. Contract Time/Substantial Completion in its entirety and insert the following in its place:

   The work to be performed pursuant to this Agreement shall be substantially completed within 155 calendar days and final completion within 170 calendar days as well as completed on or before October 23, 2026, unless adjustment of the Agreement time is made in accordance with

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the provisions of the Contract Documents. CONTRACTOR shall begin work in conformance with the Contract Documents.

CONTRACTOR and CITY recognize that time is of the essence and that CITY will suffer financial loss if the Project is not completed within the time specified above, unless approved extensions thereof are permitted in accordance with the terms of the Contract Documents. The Parties also recognize the delays, expense, and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by CITY if the Project is not completed on time. Accordingly, instead of requiring any such proof, CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay CITY One Tenth of One Percent (0.1%) of the Contract Sum for each day that expires after the time specified above for Substantial Completion until the Project is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Project within the Time of Completion or by any proper extension thereof granted by CITY, CONTRACTOR shall pay CITY One Tenth of One Percent (0.1%) of the Contract Sum for each day that expires after the time specified above for completion, until the Project is completed and ready for final payment.

CONSTRUCTION PLANS:

1. SHEET C4.0, FORCE MAIN PLAN AND PROFILE

   ADD the following note to the Permits Notes:

   7. CONTRACTOR MAY SHIFT TRAFFIC TO EITHER THE NORTH OR SOUTH SIDE OF THE HIGHWAY; HOWEVER, ONE LANE OF TRAFFIC IN EACH DIRECTION MUST REMAIN OPEN AT ALL TIMES. CONTRACTOR TO COORDINATE WITH THE CITY PRIOR TO TRAFFIC CONTROL PLAN SUBMITTAL.

2. SHEET C4.1, BYPASS PUMPING PLAN

   ADD the following note to the Sewage Bypass Notes:

   4. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT BYPASS PUMPING SYSTEM CAN CROSS MALL ENTRANCE WITHOUT IMPEDING THE FLOW OF TRAFFIC. MALL ENTRANCE SHALL REMAIN OPEN FOR PUBLIC USE THROUGHOUT THE PROJECT.

3. SHEET C4.3, GENERAL DETAILS, DETAIL 2 – WATER MAIN CREEK CROSSING (CITY OF MOSCOW DRAWING NUMBER 32),

   ADD the following note to the “Approved Creek Bedding” callout:

   Approved Creek Bedding - D_{50} of 6-8” graded riprap

END OF ADDENDUM

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SECTION 00 11 16 - INVITATION TO BID

ADDENDUM #1

OWNER: City of Moscow
206 E Third Street
Moscow, ID 83843

Separate sealed Bids for the construction of **The City of Moscow Palouse Mall Lift Station Rehabilitation Project** will be received at the Community Development Building (Engineering Division) at 504 South Washington Street, Moscow, Idaho 83843, and clearly marked "Bid Enclosed - PALOUSE MALL LIFT STATION REHABILITATION PROJECT" until 2:00 p.m., prevailing local time, Tuesday, March 3, 2026. At 2:05 p.m., on the same day, all proposals will be publicly opened and read aloud in the Community Development Building, Main Floor Conference Room, at 504 South Washington Street, Moscow, ID 83843. A non-mandatory pre-bid meeting will be held at the Moscow Council Chambers (City Hall Second floor, 206 E 3rd St), at 10:00 a.m. prevailing local time on Thursday, February 12th, 2026.

Work associated with the proposed project is generally described as follows:

> **Schedule A:** Rehabilitation of the existing Palouse Mall lift station includes replacing the wet well cover and hatch, replacing of the existing pumps with submersible pumps, new electrical/control, upgrading the existing force main out of the wet well, fence upgrades, and the installation of a new valve vault and flow meter vault.

Interested bidders may obtain bid documents at https://www.questcdn.com/. Download the digital documents for $22.00 by inputting **Quest Number: 10020344** on the website's Bid Posting search page after login. To be considered a plan holder and to receive automatic addenda and bid updates, register with QuestCDN.com for a free Regular membership. Please contact QuestCDN Customer Support at 952-233-1632 or support@questcdn.com for assistance in membership registration and downloading digital bid documents. Complete digital Project Manual and Project Plans, may be viewed at questcdn.com via the link provided on The City of Moscow Website at: www.ci.moscow.id.us – click on "Business" / "Bid Opportunities" / "Palouse Mall Lift Station Rehabilitation Project".

A Bid Guaranty of 5 percent of the Bid Amount is required. Separate Performance and Payment Bonds each in the amount of 100 percent of the Contract Amount will be required. Each bidder must supply all the information required by the Bid Documents and Specifications.

This Project is not financed by Federal Aid Funds. All contractor, subcontractor, or specialty contractor shall be required to have a current license as a Public Works Contractor in the State of Idaho in order to submit a bid or proposal on this project.

The City, in accordance with Title VI of the Civil Rights Act of 1964, 78 stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary Part 21, Nondiscrimination in Federally-assisted programs of the Department of Transportation issued pursuant to such Act, hereby notifies all applicants that it will affirmatively ensure that in any contract entered into pursuant to the advertisement, disadvantaged business enterprises as defined at 49 CFR Part 23 will be afforded full opportunity to submit offers in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an

award.

All prospective bidders are directed to the Instructions for Bidders for discussion of Bid policies, procedures, and requirements. The Owner reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the successful Bidder, and the right to disregard all non-conforming, non-responsive or conditional Bids.

All questions shall be directed in writing to Meghann Kolb at Ardurra, (208) 762-3644, mkolb@ardurra.com.

Owner: City of Moscow
Tyler Palmer, Public Works Director

PUBLICATION DATE:
Saturday, January 24th, 2026
Saturday, January 31st , 2026

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SECTION 00 43 73 - PROPOSED SCHEDULE OF VALUES

Bidder acknowledges receipt of the following Addenda:

_____

_____

_____

BID SCHEDULE A

City of Moscow
Palouse Mall Lift Station Rehabilitation
206 E Third Street, Moscow ID, 83843
Section 12, Township 39 North, Range 6 West, Boise Meridian
February 13, 2026

ADDENDUM #1

Item No.	Item Description	Estimated Quantity	Unit Measure	Unit Price	Extended Price
2010.4.1.A.1	MOBILIZATION (10% MAX) @	1	LS	$	$
SP-012116	FORCE ACCOUNT WORK @	1	FA	$100,000.00	$100,000.00
SP-014500	QUALITY CONTROL @	1	LS	$	$
SP-015000	FENCE, TEMPORARY CONSTRUCTION FENCE @	620	LF	$	$
SP-015726	DUST CONTROL @	1	LS	$	$
SP-017123	CONSTRUCTION SURVEYING (CONTRACTOR PROVIDED) @	1	LS	$	$
SP-099723	CONCRETE AND MASONRY COATINGS @	1	LS	$	$
SP-260000	GENERAL ELECTRICAL @	1	LS	$	$
SP-260021	CONTROL SYSTEM @	1	LS	$	$
SP-260022	PUMP CONTROL PANEL @	1	LS	$	$

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SP-330563.A	VALVE VAULT AND HATCH @	1	LS	$	$
SP-330563.B	FLOW METER VAULT AND HATCH @	1	LS	$	$
SP-330563.C	WET WELL CONCRETE COVER AND HATCH @	1	LS	$	$
SP-330563.D	BYPASS ASSEMBLY, VALVES, AND FITTINGS @	1	LS	$	$
SP-333211.A	LIFT STATION PUMP SYSTEM @	1	LS	$	$
SP-333211.B	LIFT STATION MISC. PIPING, FITTINGS, AND SUPPORTS @	1	LS	$	$
SP-443116	ODOR CONTROL SYSTEM @	1	LS	$	$
201.4.1.B.1	CLEARING AND GRUBBING @	1	LS	$	$
201.4.1.C.1	REMOVAL OF OBSTRUCTIONS @	1	LS	$	$
202.4.1.A.1	EXCAVATION @	95	CY	$	$
301.4.1.D.1	SERVICE/UTILITY TRENCH EXCAVATION W/ 2" CONDUIT @	40	LF	$	$
302.4.1.B.1	ROCK EXCAVATION @	51	LF	$	$
401.4.1.B.1	WATER MAIN FITTING - SIZE 12" DUCTILE IRON 90 ELBOW @	1	EA	$	$
401.4.1.B.2	WATER MAIN FITTING - SIZE 12" STAINLESS STEEL 90 ELBOW @	2	EA	$	$
401.4.1.B.3	WATER MAIN FITTING - SIZE 12" DUCTILE IRON TEE @	1	EA	$	$
401.4.1.B.4	WATER MAIN FITTING - SIZE 12" X 8" SS ECCENTRIC REDUCER @	2	EA	$	$
401.4.1.B.5	WATER MAIN FITTING - SIZE 12" X 16" ECCENTRIC REDUCER @	1	EA	$	$
401.4.1.B.8	WATER MAIN FITTING - SIZE 16" HDPE 22.5 ELBOW @	2	EA	$	$
401.4.1.B.9	WATER MAIN FITTING - SIZE 16" HDPE 45 ELBOW @	4	EA	$	$

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401.4.1.B.10	WATER MAIN FITTING - SIZE 16" DUCTILE IRON 90 ELBOW				
	@	1	EA	$	$
401.4.1.B.11	WATER MAIN FITTING -SIZE 16" X 10" ECCENTRIC REDUCER				
	@	1	EA	$	$
401.4.1.B.12	WATER MAIN FITTING - SIZE 12" X 8" ECCENTRIC REDUCER				
	@	1	EA	$	$
401.4.1.B.13	WATER MAIN FITTING - SIZE 10" DUCTILE IRON 45 ELBOW				
	@	1	EA	$	$
402.4.1.A.1	VALVE - SIZE 12" - TYPE RESILIENT WEDGE GATE VALVE, WITH OPERATING HANDWHEEL				
	@	2	EA	$	$
402.4.1.A.2	VALVE - SIZE - 12" - TYPE BALL CHECK VALVE				
	@	2	EA	$	$
402.4.1.A.3	VALVE - SIZE - 16" - TYPE GATE VALVE				
	@	2	EA	$	$
402.4.1.A.4	FLOW METER				
	@	1	EA	$	$
402.4.1.A.5	AIR RELEASE VALVE ASSEMBLY				
	@	1	EA	$	$
402.4.1.A.6	PRESSURE GAUGE ASSEMBLY				
	@	1	EA	$	$
505.4.1.B.1	PRESSURE SEWER PIPE - SIZE 12", TYPE C900 DR-18 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)				
	@	28	LF	$	$
505.4.1.B.2	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)				
	@	209	LF	$	$
505.4.1.B.3	PRESSURE SEWER PIPE - SIZE 12", TYPE DUCTILE IRON (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)				
	@	8	LF	$	$
505.4.1.B.4	PRESSURE SEWER PIPE - SIZE 10", TYPE C900 DR-18 (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)				
	@	3	LF	$	$

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505.4.1.B.5	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 WITHIN ROADWAY PRISM (INCLUDES EXCAVATION, BEDDING, BACKFILL, ETC.)				
	@	70	LF	$	$
505.4.1.B.6	PRESSURE SEWER PIPE - SIZE 16", TYPE HDPE DR-9 WITHIN CREEK CROSSING (INCLUDES EXCAVATION, BEDDING, ROCK BACKFILL, CONCRETE, ETC.)				
	@	43	LF	$	$
507.4.1.D.1	12" COUPLING				
	@	6	EA	$	$
512.4.1.A.1	SEWAGE BYPASS SYSTEMS				
	@	1	LS	$	$
706.4.1.A.7	CURB AND GUTTER, TYPE B COMBINATION				
	@	15	LF	$	$
802.4.1.A.1	CRUSHED AGGREGATE BASE TYPE I				
	@	40	CY	$	$
802.4.1.A.1	CRUSHED AGGREGATE BASE TYPE I FOR IMPORTED TRENCH CLASS F BACKFILL MATERIAL				
	@	86	CY	$	$
810.4.1.A.1	PLANT MIX PAVEMENT				
	@	44	TON	$	$
1001.4.2.B.1	STABILIZED CONSTRUCTION ENTRANCE				
	@	1	EA	$	$
1003.4.1.C.1	SILT FENCE				
	@	120	LF	$	$
1007.4.1.B.1	SEEDING				
	@	815	SY	$	$
1103.4.1.A.1	CONSTRUCTION TRAFFIC CONTROL				
	@	1	LS	$	$
1104.4.1.A.1	PAVEMENT LINE PAINT OR PAINTED PAVEMENT MARKINGS				
	@	180	LF	$	$
2040.4.1.A.1	FENCE, 8' CHAINLINK W/PRIVACY SLATS				
	@	65	LF	$	$
2040.4.1.B.1	GATES, PEDESTRIAN GATE				
	@	2	EA	$	$
2040.4.1.B.2	GATES, 16' DOUBLE SWING GATE				
	@	1	EA	$	$

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BID SCHEDULE A TOTAL = $_____

Respectfully Submitted:

_____

(Bidder)

By_____

(Signature)

_____

(Title)

_____

(Address)

_____

(Date)

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PRECONSTRUCTION MEETING
PALOUSE MALL LIFT STATION REHABILITATION

THURSDAY, FEBRUARY 12, 2026, 10:00AM
CITY HALL SECOND FLOOR, 206 E 3RD ST, MOSCOW, IDAHO 83843

ATTENDANCE

NAME	COMPANY	SIGNATURE	PHONE
ELAN TIMMER	CITY OF MOSCOW		208-883-7091
Zack Gray	Germer Construction		208-596-8128
Mike SAMS	City of Moscow		208 790 9015
Marc Branscome	City of Moscow		208-640-4874
Taylor Tompkins	Simco		(208) 610-4536
Tyler Hall	CK excavation		(208) 816-2156
KIRAN WEBB	CENTURY WESTERN		208-417-2963
Meghann Kolb	Ardurra		208-755-0094
JASON HENDRICKSON	WHITNEY EQUIP.		509-774-7965
TONY WILLIAMSON	DW EXCAVATING INC		509-721-0150
Matt Thom	M L Albright		208 791-9265
Austin Lassiter	Strom Electric		208-835-2189
STACY COSTON	CITY of moscow		208-421-0245
Cory Woody	Valley Electric		208 743-3419
David Busto	Concrete mason		509-216-9969
DARIAN CLEMENS	WESTERN CONST.		253-341-8147

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CITY OF MOSCOW

PRE-BID-MEETING
PALOUSE MALL LIFT STATION REHABILITATION

THURSDAY, FEBRUARY 12, 2026, 10:00AM
CITY HALL SECOND FLOOR, 206 E 3RD ST, MOSCOW, IDAHO 83843

MINUTES

1. Personnel Introductions
    A. Purpose
        a. Discuss Scope of Work
        b. Answer Questions/Comments
    B. Owner: City of Moscow
        a. City Representative: Evan Timar, (Public Utility Manager)
        b. City Representative: Scott Bontrager, (City Engineering Manager)
        c. City Representative: Mike Sams, (Water Reclamation Conveyance Supervisor)
        d. City Representative: Marc Branscome, (Water Reclamation Facility Supervisor)
    C. Engineer: Ardurra & Century West
        a. Project Manager: Zach Thompson, P.E.
        b. Project Engineer: Meghann Kolb, E.I.
        c. Electrical Engineer: Grady Weisz, P.E., Century West
    D. Attendees

2. Project Introduction
    A. Schedule A – Rehabilitation of the existing Palouse Mall Lift Station includes replacing the wet well cover and hatch, replacing the existing pumps with submersible pumps, new electrical/control, replacing and upsizing the existing force main, fence upgrades, and the installation of a new valve vault and flow meter vault.
    B. Standards - All work must comply with the following:
        a. Most current edition of the Idaho Standards for Public Works Construction (ISPWC) and as amended, supplemented, or modified in the contract documents.
        b. The City of Moscow Standard Construction Drawings and Specifications

3. Administrative/Bidding
    A. Successful Bidder = lowest responsive bidder for work to be awarded
    B. Bid Security – 5% Bond on Bid
    C. Submission of bids by:
        a. Bids are received by the City of Moscow Community Development Building (Engineering Division) at 504 South Washington Street, Moscow, Idaho
        b. Bid Opening Tuesday, February 17, 2026, 2:05pm, at the Community Development Building, Main Floor, Conference Room, 504 South Washington Street, Moscow, Idaho 83843.

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4. Contract
    A. Funding/Award
        a. This project is not funded by federal funds.
        b. The Owner has the right to delete all or part of individual items, in order to meet budgetary constraints. However, it is the intent to award all bid items.
        c. The City is open to Materials on Hand, see project specifications.
    B. Project Schedule
        a. Pre-Bid Meeting: February 12, 2026 (10:00 AM)
        b. Bid Opening: February 17, 2026 (2:05 pm)
        c. Pre-Construction Meeting: TBD
        d. Anticipated Notice to Proceed: TBD
    C. Construction Window: 170 calendar days to Final Completion as well as completed on or before September 18, 2026.
    D. From the date of the Notice to Proceed the Contractor shall have 170 days to Final Completion. Once started, Contractor must remain on site to finish work.
        a. This project has a final completion date of no later than September 18, 2026.
    E. Liquidated Damages
        a. 0.1% of the Contract Sum per day after Substantial Completion
        b. 0.1% of the Contract Sum per day after Final Completion
    F. Pay Applications
        a. Procedure
        b. Retainage
            1) 5% Retainage until issuance of Final Completion.
            2) Mobilization
                a. 60% of the Contract Price will be paid on the first monthly progress estimate.
                b. 40% of Mobilization retained until issuance of Substantial Completion.
5. Construction
    A. Staging Area, BMPs, and Temporary Construction Fencing
        b. Adjacent property access not to be hindered.
            1) Mall Entrance
            2) Chik-Fil-A Parking Lot and Drive thru
    B. Construction Access
        a. Lift station will need to be accessible to operators at all times for regular maintenance.
    C. Surveying
        a. Contractor to provide surveying
    D. ITD Encroachment Permit and Traffic Control Plans
        a. City to obtain permit and provide to Contractor.
        b. Traffic Control Plan to be provided to City by Contractor. City will need approved Traffic Control Plan to apply for ITD permit.
        c. Contractor to notify ITD a minimum of 5 working days prior to starting permitted work.
        d. All permitted work must be completed within 30 days.
    E. Army Corps Permit for Trenching
        a. Permit Number: NWW-2025-00373
        b. Permit for trenching available.

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c. Permit is not required for boring.
d. Turbidity monitoring is only required when activities cause a visible sediment plume.
Contractor shall review the permit requirements within the contract documents for applicable information to the project.

F. Bypass Pumping
   a. The lift station will need to remain operational for the duration of the project.
   b. Bypass pumping plan must be submitted to Engineer and Owner at preconstruction meeting.

G. Lift Station
   a. Pump Replacement – *Existing dry pit/wet well system is being replaced with a submersible pumping system. The dry pit will be gutted of all equipment and material and the main structure will be abandoned in place. The submersible system requires a valve vault and flow meter.*
   b. Valve Vault – *Valve vault and flow meter vault are located south of the existing lift station location.*
   c. Flow Meter Assembly
   d. Wet Well Rehabilitation – *Rehabilitation is to assist with water intrusion in the structure during groundwater.*
   e. Electrical / Control
   f. Site Improvements / Demolition – *Site improvements include moving the fence line 2-ft to the east and changing the vehicle entrance to the north side of the project site.*

H. Force Main
   a. Geotechnical report in specifications indicates estimated groundwater and bedrock elevations.
   Piezometer readings were located on both sides of the creek throughout the last year and the monthly readings are provided in the technical specifications.
   b. Alignment crosses through the following existing utilities:
      1) Water Main north of highway
      2) Water Main south of highway
      3) Gas
      4) Power
      5) Telecommunication power pole

      Utility crossings are noted in the construction plans. Water crossings will require locating the water mains prior to starting to trench. The plan and profile in the construction drawings notes areas that need to remain open when trenching in the area to ensure that the existing water main is not disturbed.
   c. Alignment crosses through the following:
      1) State Highway 8
      2) Palouse Trail
      3) Paradise Creek
      4) Old Railroad (No longer in use)

I. Discharge Structure/Splitter Box
   a. Tie-in at wastewater treatment plant
   b. Connecting into existing discharge structure – *Entrance of the proposed force main shall be above an existing sluice gate that is no longer being used.*

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J. Utility Coordination
    a. Contractor must coordinate with all affected utilities for related work 4 weeks in advance.
K. Testing / Inspection / Start-up Requirements to be reviewed – *All requirements are noted in the plans. Please review and reach out if clarification is needed.*

6. Safety/Security
    A. Contractor staging areas to be determined by the Contractor and approved by the City. Staging is available adjacent to the Lift Station.
    B. Temporary construction fencing and signage will be required for the project and is noted on the plans. All gates must be secured at all times.
    C. Trenches and excavations shall be surrounded by approved barriers at all times. The site is located adjacent to areas accessible by the public, security is always important, but Contractor shall pay special attention to safety and security on the project site as there is heightened chance of public interaction and accessibility.

7. Miscellaneous
    A. Addendum #1 – *Will be sent out this Friday, February 13, 2026, with the meeting minutes and noted changes to liquidated damages, bid schedule changes, and engineer's estimate.*

8. Questions/Comments
    A. Do you have expected flows (to help determine bypass pumping requirements. – Flows can be found on Sheet C4.1.
    B. When does the addendum (1) come out? Can the bid date be moved out? – This is something we can look at doing. We will clarify in Friday's addendum if we choose to push the bid opening.
    C. Is the fiber to be Owner furnished or Contractor furnished? GW: Contractor furnished. The spec says the fiber installer should be Siecor certified, would another certification like Legrand be acceptable? GW: I will look into this and answer in the addendum.

DRAFT

Attachment "D"

ARDURRA

MEMORANDUM

TO: Plan holders for
Palouse Mall Lift Station Rehabilitation
City of Moscow

FROM: Zach Thompson, P.E.

DATE: February 27, 2026

SUBJECT: Transmittal of Documents

Transmitted herewith are the following:

1. Addendum Number Two dated February 27, 2026.

Signed,

Ardurra Group, Inc.

Zach Thompson, P.E.
Senior Project Manager

PROFESSIONAL ENGINEER
REGISTERED
16087
02/27/2026
STATE OF IDAHO
ZACHARY J. THOMPSON

DRAFT

ADDENDUM NUMBER TWO
Date: February 27, 2026

PROJECT TITLE: **Palouse Mall Lift Station Rehabilitation Project**

OWNER: City of Moscow

ENGINEER: Ardurra Group, Inc.
7950 N. Meadowlark Way
Coeur d'Alene, Idaho 83815
(208) 762-3644
Attn: Zach Thompson, P.E.

BIDS DUE: 2:00 PM Tuesday, March 3, 2026

The Contract Documents for the project identified above, dated January 2026, are amended as follows:

SPECIFICATIONS:

1. SECTION 32 31 13 – CHAIN LINK FENCE AND GATES

   REPLACE Section 323113.4.B.1 in its entirety with the following:

   1. Chain link fabric to be 2-inch diamond mesh woven from galvanized wire 9-gauge coated as follows:
      a. Zinc coating per ASTM A 392 requirements

2. SECTION 32 12 16 – ASPHALT PAVING

   REPLACE Section 321216.2.9.A in its entirety with the following:

   2.9 HOT MIX ASPHALT, SURFACE COURSE
   A. Materials and Testing Methods shall conform with the City of Moscow ES-15 Superpave Hot Mix Asphalt, ½" Superpave HMA Pavement CL SP-3 (Surface Course) for pavement requirements in areas outside of State Highway 8.

CONSTRUCTION PLANS:

1. SHEET C0.1, STREET NOTES, NOTE 5

   REPLACE Note 5 in its entirety with the following:

   ASPHALT PAVEMENT SHALL CONFORM WITH IDAHO TRANSPORTATION DEPARTMENT (ITD) SPECIFICATIONS FOR SUPERPAVE. PAVEMENT SHALL BE SP3 PG 64-28 WITH ½" MAX AGGREGATE SIZE. PAVEMENTS WITH A SECTION OF 3" OR LESS MAY BE PLACED WITH 1 LIFT. PAVEMENTS WITH A SECTION GREATER THAN 3" SHALL BE PLACED WITH MULTIPLE LIFTS. MINIMUM LIFT THICKNESS OF 1.5" AND MAXIMUM THICKNESS OF 3".

DRAFT

2. SHEET C4.0, FORCE MAIN PLAN AND PROFILE

   REPLACE Keynote 3 in its entirety with the following:

   ASPHALT CUT REPAIR TO BE CITY OF MOSCOW DETAIL 34 -STREET/ALLEY CUT REPAIR. HIGHWAY TYPICAL SECTION REQUIREMENTS SHALL FOLLOW CITY OF MOSCOW DETAIL 1F - MINOR ARTERIAL. CONTRACTOR TO MATCH EXISTING ASPHALT SURFACE DEPTH FOR REPAIR. PER ITD, CORES FROM THIS SECTION INDICATE 0.5' OF ASPHALT. ASPHALT MIX TO BE PG 64-28 FOR SUPERPAVE HMA PAVEMENT, CLASS SP-3. SEE DETAIL 17, SHEET C5.3.

3. SHEET C5.1, GENERAL DETAILS, DETAIL 6 – SWING GATE

   REPLACE the callout "6' FABRIC TYPE A STAINLESS STEEL (9 GAGE), W/PRIVACY SLATS TO MATCH EXISTING" in its entirety with the following:

   "8' FABRIC TYPE A GALVANIZED STEEL (9 GAUGE), W/PRIVACY SLATS TO MATCH EXISTING"

4. SHEET C5.1, GENERAL DETAILS, DETAIL 8 – PEDESTRIAN GATE

   REPLACE the dimension of the overall fence height from 7' to 8'.

5. SHEET C5.1, GENERAL DETAILS, DETAIL 7 – FENCE DETAIL

   REPLACE the callout "6' FABRIC TYPE A STAINLESS STEEL (9 GAGE), W/PRIVACY SLATS TO MATCH EXISTING" in its entirety with the following:

   "8' FABRIC TYPE A GALVANIZED STEEL (9 GAUGE), W/PRIVACY SLATS TO MATCH EXISTING"

END OF ADDENDUM

DRAFT

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, April 6, 2026

AGENDA ITEM TITLE

Woodbury Replat Development Agreement Amendment and Monumentation Agreement (ACTION ITEM) - Bob Buvel

RESPONSIBLE STAFF

Bob Buvel, Senior Civil Engineer

ADDITIONAL PRESENTER(S)

DESCRIPTION

Levi Wintz, on behalf of Woodbury Land, LLC., has submitted to the City a final replat of the Woodbury 1st Addition to The City of Moscow. On February 02, 2026, the City Council approved the Final Replat of this property. The final replat is titled Replat of Woodbury 1st Addition. As Council approved the final replat, development and monumentation agreements will be required prior to recording the document with Latah County. The development agreement amendment is necessary to address changes in construction of public improvements associated with the replat and assigning maintenance of portions of the infrastructure. The Monumentation Agreement is required as the interior property corners will not be set until after the final plat has been filed, the earthwork has been completed, and the utilities have been installed. In such instances, an agreement obligating the establishment of these interior corners is required by Idaho Code. Staff has prepared both the Amendment to the Development Agreement and the Amended Monumentation Agreement for the Council's approval. The agreements were reviewed by the Administrative Committee on March 23, 2026 and recommended for approval.

REVIEWED BY

The Development Agreement Amendment and Amended Monumentation Agreement for the Replat of Woodbury 1st Addition were reviewed by the Administrative Committee on March 23, 2026 and recommended for approval.

PROPOSED ACTIONS

PROPOSED ACTIONS: Approve the Development Agreement Amendment and Amended Monumentation Agreement for the Replat Woodbury 1st Addition, or take other action deemed appropriate.

STAFF RECOMMENDATION

Recommend approval of the Development Agreement Amendment and the Amended Monumentation Agreement for the Replat Woodbury 1st Addition.

OTHER RESOURCES

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. Third Amendment to Development Agreement - Woodbury 1st Addition Phasing Rev RHB3
2. Amendment to Monumentation Agreement - Woodbury 1st Addition_final

THIRD AMENDMENT TO DEVELOPMENT
AGREEMENT BETWEEN WOODBURY LAND LLC
AND CITY OF MOSCOW, IDAHO

THIS SECOND AMENDMENT TO DEVELOPMENT AGREEMENT BETWEEN WOODBURY LAND LLC AND CITY OF MOSCOW, IDAHO (hereinafter "Second Amendment") is entered into this _____ day of _____, 2026, by and between Woodbury LLC, whose current address is 1004 Dairy Lane, Moscow, Idaho, 83843, being the Developer of real property as described in the Development Agreement (hereinafter "DEVELOPER"), and the City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY").

WITNESSETH:

WHEREAS, CITY and DEVELOPER originally executed a Development Agreement Between Woodbury Land LLC and City of Moscow, Idaho for the Woodbury 1st Addition Subdivision on November 16, 2022, (hereinafter "Agreement"); and

WHEREAS, the Agreement authorizes modifications upon request by DEVELOPER, accompanied by a complete set of development plans, and acceptance of such modification by City Council; and

WHEREAS, DEVELOPER and CITY executed an Amendment to the Agreement on October 20, 2023, attached as Attachment "1" (hereinafter "Amendment"); and

WHEREAS, CITY approved the Replat of the Woodbury 1st Addition Subdivision on February 3, 2026; and

WHEREAS, DEVELOPER and CITY agree to further modify the Agreement by repealing the Second Amendment and replacing it with this Third Amendment, amending Section II PUBLIC IMPROVEMENTS and Section X. PHASING of the Agreement to update the phases of development, including an amendment to the Phasing Plan Illustration of the relevant Attachment "C"; and

NOW, THEREFORE, DEVELOPER and CITY agree that all matters stated above are found to be true and correct and are incorporated herein by reference as if copied in their entirety and shall be adopted with the following amendments of the Agreement:

A. Section II PUBLIC IMPROVEMENTS, is hereby amended to add subsections E and F with the following:

E. All pavers installed as part of the required public improvements (the "Pavers") shall be installed upon a continuous, properly designed and constructed concrete or other approved alternate supporting base. The approved base shall be of sufficient thickness, strength, and reinforcement, as determined by the Project Engineer and approved by CITY, to prevent settling or displacement of the Pavers.

F. Prior to acceptance of the public improvements, Developer shall enter into a separate written maintenance agreement, in form and substance acceptable to CITY, providing that the long-term maintenance, repair, replacement, and upkeep of the Pavers shall be the sole responsibility of the Developer and/or the applicable Homeowners' Association ("HOA").

B. The Second Amendment to the Agreement shall hereby be repealed and replaced with this Third Amendment to the Agreement, specifically modifying Section X. PHASING, which shall be replaced with the following:

X. PHASING:

Pursuant to the approval of the Moscow City Council, DEVELOPER may develop the real property described herein in the following six (6) Phases, reflected in Attachment "C".

1. Phase I – Completion of the Mountain View Road turning lane and Mountain View Road widening and public improvements described in Section II. B and C of this Agreement. Additionally, all public improvements and appurtenances shown as Phase I on the Phasing Plan included as Attachment "C", and as required by Moscow City Code Sections 5-1-4 and 5-1-5, and Section II. A of this Agreement. Upon completion of the public improvements as described in Section II. A. of this Agreement, DEVELOPER is authorized to obtain up to 15 building permits within the Phase I boundary prior to the full completion of the Mountain View Road turning lane and Mountain View Road widening and public improvements described in Section II. B and C of this Agreement.

2. Phase II – Completion of the public improvements described in Section II. D of this Agreement. Additionally, all public improvements and appurtenances shown as Phase II on the Phasing Plan included as Attachment "C", and as required by Moscow City Code Sections 5-1-4 and 5-1-5, and Section II. A of this Agreement.

3. Phase III – Completion of all public improvements and appurtenances shown as Phase III on the Phasing Plan included as Attachment "C", and as required by Moscow City Code Sections 5-1-4 and 5-1-5, and Section II. A of this Agreement.

4. Phase IV – Completion of all public improvements and appurtenances shown as Phase IV on the Phasing Plan included as Attachment "C", and as required by Moscow City Code Sections 5-1-4 and 5-1-5, and Section II. A of this Agreement.

5. Phase V – Completion of all public improvements and appurtenances shown as Phase V on the Phasing Plan included as Attachment "C", and as required by Moscow City Code Sections 5-1-4 and 5-1-5, and Section II. A of this Agreement.

6. Phase VI – Completion of all public improvements and appurtenances shown as Phase VI on the Phasing Plan included as Attachment "C", and as required by Moscow City Code Sections 5-1-4 and 5-1-5, and Section II. A of this Agreement.

7. Phase VII – Completion of all public improvements and appurtenances shown as Phase VII on the Phasing Plan included as Attachment "C", and as required by Moscow City Code Sections 5-1-4 and 5-1-5, and Section II. A of this Agreement.

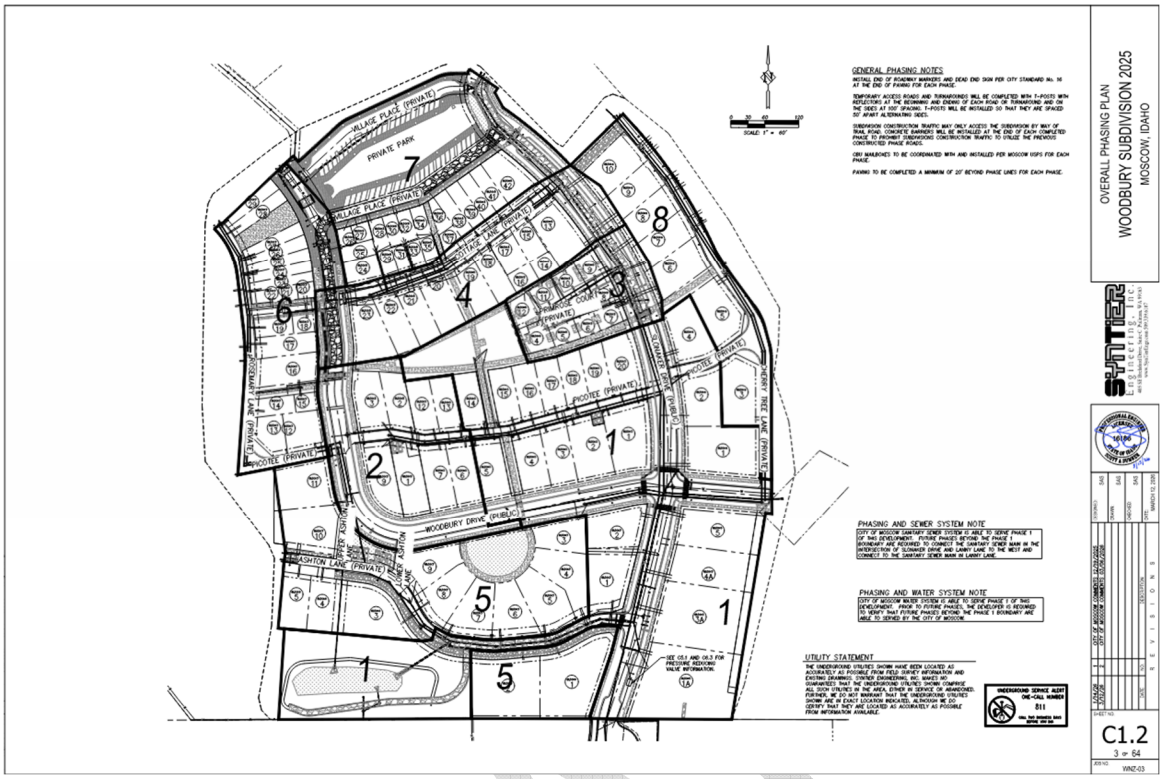
8. Phase VIII – Completion of all public improvements and appurtenances shown as Phase VIII on the Phasing Plan included as Attachment "C", and as required by Moscow City Code Sections 5-1-4 and 5-1-5, and Section II. A of this Agreement.

No building permit shall be issued for any phase of this development until after all public improvements, related to each preceding phase of this development, are completed, installed and accepted by CITY in accordance with this Agreement.

All proposed phasing of this development has been submitted and approved of prior to the execution of this Agreement and shall not be modified unless agreed in writing and specifically approved by the City Council. Separate construction plans and specifications shall be prepared and shall be submitted for each Phase of this subdivision prior to construction of each phase.

C. Attachment "C" is hereby amended to delete the existing relevant Attachment "C" of the Second Agreement and shall be replaced with the following:

DRAFT



D. All other terms and conditions of the Agreement that are not modified by this Third Amendment shall remain in full force and effect.

IN WITNESS WHEREOF, the Parties have executed this Third Amendment to be effective the date first above written.

I, Mark Wintz, certify under penalty of perjury pursuant to the law of the State of Idaho, that I am an authorized agent to bind Woodbury Land LLC to this Third Amendment.

DEVELOPER:

Woodbury Land LLC

CITY:

City of Moscow, Idaho

_____
Mark Wintz, Manger

_____
Hailey Lewis, Mayor

ATTEST:

_____
Laurie M. Hopkins, City Clerk

ACKNOWLEDGMENT

STATE OF IDAHO)
) ss.
COUNTY OF LATAH)

On this _____ day of_____, 2026, before me, a Notary Public in and for said State, appeared Mark Wintz, known to me to be the person named above and acknowledged that he executed the foregoing document as the duly authorized representative of Woodbury Land LLC.

_____
Notary Public for the State of Idaho

Residing at_____

My commission expires_____

DRAFT

AMENDED MONUMENTATION AGREEMENT
BETWEEN WOODBURY LAND LLC, AND
CITY OF MOSCOW, IDAHO

THIS AMENDED MONUMENTATION AGREEMENT (hereinafter "Amendment") is entered into this ____ day of _____, 2026 by and between Woodbury Land LLC, 1004 Dairy Lane, Moscow, Idaho, 83843(hereinafter "DEVELOPER"), and the City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY") for the purpose of subdividing real property within CITY.

W I T N E S S E T H:

WHEREAS, DEVELOPER is the owner of certain premises located in CITY, commonly known as The Woodbury 1st Addition; and

WHEREAS, DEVELOPER has not, at this time, set interior monuments as required by Idaho Code Section 50-1303; and

WHEREAS, DEVELOPER desires to record the final plat of The Woodbury 1st Addition; and

WHEREAS, Idaho Code Sections 50-1331 through 50-1333 allow the setting of interior monuments for subdivisions following the recording of the final plat;

WHEREAS, the Parties mutually desire to ensure that such monuments be installed; and

WHEREAS, the Parties executed a Monumentation Agreement on November 16, 2022, for the Woodbury 1st Addition (hereinafter "Agreement"). DEVELOPER has since changed the number of property corners within the subdivision that requires this Amendment to the Agreement to reflect the change in cost to install the interior monuments as required by Idaho Code;

NOW THEREFORE, for and in consideration of the following mutual promises, DEVELOPER and CITY hereby agree and covenant as follows:

1. PROPERTY AFFECTED: Property which is subject to this Amendment is described as Woodbury 1st Addition (hereinafter "Subdivision"), as shown by the plat herein, included as Attachment "A" and incorporated herein by reference.

2. PROFESSIONAL LAND SURVEYOR: For the purpose of this Amendment, the Professional Land Surveyor (hereinafter "Surveyor") for the platting of Subdivision is Jason Vonlindern, License No. 19293, State of Idaho Professional Land Surveyor.

3. CONDITIONS OF RECORDING WITHOUT MONUMENTATION: Pursuant to Idaho Code Section 50-1333, DEVELOPER may record the final plat of Subdivision if:

   A. The exterior monuments have been set;

   B. The Subdivision plat includes a certification by Surveyor that the interior monuments for Subdivision shall be set in accordance with Idaho Code Section 50-1303, on or before a specified date and the said interior monuments shall be referenced on the Subdivision plat with a unique symbol. The time for setting the interior monuments shall not exceed one (1) calendar year from the date the Subdivision plat is recorded or as otherwise specified by written agreement with CITY; and

   C. DEVELOPER furnishes to CITY a cash deposit in the amount equal to One Hundred Twenty percent (120%) of the estimated cost of performing the work for the interior monumentation for Subdivision. The estimated cost of performing such work will be determined by the Surveyor.

4. DEVELOPER'S COVENANT. DEVELOPER agrees as follows:

   A. To have installed, at DEVELOPER's expense, all interior monuments within the Subdivision, as required by Idaho law;

   B. To have the interior monuments set by Surveyor, except as allowed otherwise under Section 7 of this Agreement;

   C. To have installed all required interior monuments on or before the date specified on the Subdivision plat; and

   D. To furnish CITY with a cash deposit in the amount of Four Thousand Eight Hundred Dollars ($4,800), which is equal to the One Hundred Twenty percent (120%) of the Four Thousand Dollars ($4,000) estimated by Surveyor to set Subdivision interior monuments.

5. CITY COVENANT. That upon the compliance of DEVELOPER with the terms and conditions of this Amendment, CITY shall advise the Latah County Recorder that the requirements of Idaho Code Sections 50-1331 through 50-1333 have been met and security in the amount of Four Thousand Eight Hundred Dollars ($4,800) has been deposited with CITY as required by Section 4. D. of this Agreement.

6. RETURN OF DEPOSIT. If DEVELOPER pays Surveyor for performing the interior monumentation work and furnishes CITY with proof of such payment, CITY shall, within two (2) months after such notice, return the cash deposit upon a finding that such payment has been made, or CITY may, upon written request of DEVELOPER, pay Surveyor from moneys within a cash deposit held by CITY for such purpose, and return the excess amount of the cash deposit, if any, to DEVELOPER.

7. FAILURE OF SURVEYOR TO PERFORM MONUMENTATION. In the event that the death, disability, retirement of Surveyor, or upon the failure of Surveyor to set such monuments in accordance with law, CITY may direct the County Surveyor in their official capacity, or may contract with an Idaho professional land surveyor in private practice, to set such monuments and reference such monuments for recording as provided in Idaho Code Sections 50-1331 through 50-1333. The fees of the County Surveyor or private surveyor shall be paid by DEVELOPER in accordance with the terms of this Amendment.

8. FAILURE OF DEVELOPER TO PAY FOR MONUMENTATION. In the event DEVELOPER fails or refuses to authorize the payment for interior monumentation, Surveyor may request payment from CITY, and upon inspection by CITY of such interior monumentation, CITY shall pay Surveyor from the proceeds of the cash deposit. Any costs associated with the installation of such monuments in excess of the security shall be borne by DEVELOPER.

9. TERM. This Amendment shall supersede and replace the Agreement executed on November 16, 2022, and shall remain in effect until all monuments as described herein have been installed and accepted by CITY.

10. COVENANTS TO RUN WITH LAND. This Amendment shall run with the land and benefits and burdens herein described shall be binding on the parties, heirs, assigns and successors and interest.

IN WITNESS WHEREOF, the Parties have executed this Agreement to be effective the date first above written.

I, Mark Wintz, certify under the penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct and that I am an authorized agent to bind Woodbury Land LLC to this Agreement.

Developer:

_____
Mark Wintz, Woodbury Land LLC

City of Moscow:

_____
Hailey Lewis, Mayor

ATTEST:

_____
Laurie M. Hopkins, City Clerk

Approved as to Form:

_____
Mia Bautista, City Attorney

ACKNOWLEDGMENT

STATE OF IDAHO)
) ss.
COUNTY OF LATAH)

On this _____ day of _____, 2026, before me, the undersigned, a Notary in and for said State, personally appeared Mark Wintz known to me to be the Authorized Registered Agent of Wintz Company LLC, the Authorized Registered Agent of Woodbury Land LLC who is the owner of the affected property.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year hereinabove written.

_____
NOTARY PUBLIC for the State of _____
Residing at _____
My Commission expires:_____

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION,
LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5,
TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO

ACKNOWLEDGMENTS:

STATE OF IDAHO)
) S.S.
COUNTY OF LATAH)

ON THIS _____DAY OF _____, 2026, BEFORE THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE AFORESAID STATE, PERSONALLY APPEARED BEFORE ME DAN MADER, GOVERNOR OF WOODBURY LAND, LLC, AN IDAHO LIMITED LIABILITY PARTNERSHIP, THE COMPANY THAT EXECUTED THE WITHIN AND FOREGOING INSTRUMENT; WHO ACKNOWLEDGED SAID EXECUTION TO BE THE FREE AND VOLUNTARY ACT OF SAID COMPANY FOR THE PURPOSES MENTIONED THEREIN AND STATED ON OATH THAT HE IS AUTHORIZED TO EXECUTE SAID INSTRUMENT AND THE SEAL AFFIXED (IF ANY) IS THE COMPANY SEAL OF SAID COMPANY.

_____
SIGNED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

_____
PRINTED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

MY COMMISSION EXPIRES _____

ACKNOWLEDGMENTS:

STATE OF IDAHO)
) S.S.
COUNTY OF LATAH)

ON THIS _____DAY OF _____, 2026, BEFORE THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE AFORESAID STATE, PERSONALLY APPEARED BEFORE ME BRIAN SCHMIDT, PRESIDENT OF JURGENS & CO., P.A., GOVERNOR OF WOODBURY LAND, LLC, AN IDAHO LIMITED LIABILITY PARTNERSHIP, THE COMPANY THAT EXECUTED THE WITHIN AND FOREGOING INSTRUMENT; WHO ACKNOWLEDGED SAID EXECUTION TO BE THE FREE AND VOLUNTARY ACT OF SAID COMPANY FOR THE PURPOSES MENTIONED THEREIN AND STATED ON OATH THAT HE IS AUTHORIZED TO EXECUTE SAID INSTRUMENT AND THE SEAL AFFIXED (IF ANY) IS THE COMPANY SEAL OF SAID COMPANY.

_____
SIGNED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

_____
PRINTED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

MY COMMISSION EXPIRES _____

ACKNOWLEDGMENTS:

STATE OF IDAHO)
) S.S.
COUNTY OF LATAH)

ON THIS _____DAY OF _____, 2026, BEFORE THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE AFORESAID STATE, PERSONALLY APPEARED BEFORE ME MARK WINTZ, MANAGER OF WINTZ COMPANY LLC, GOVERNOR OF WOODBURY LAND, LLC, AN IDAHO LIMITED LIABILITY PARTNERSHIP, THE COMPANY THAT EXECUTED THE WITHIN AND FOREGOING INSTRUMENT; WHO ACKNOWLEDGED SAID EXECUTION TO BE THE FREE AND VOLUNTARY ACT OF SAID COMPANY FOR THE PURPOSES MENTIONED THEREIN AND STATED ON OATH THAT HE IS AUTHORIZED TO EXECUTE SAID INSTRUMENT AND THE SEAL AFFIXED (IF ANY) IS THE COMPANY SEAL OF SAID COMPANY.

_____
SIGNED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

_____
PRINTED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

MY COMMISSION EXPIRES _____

DESCRIPTION

BLOCKS 1 AND 2, LOTS 8, 10, 11, 21-40 OF BLOCK 3, TRACTS A, B, C, D, E, G, H, J, AND I, ALL OF WOODBURY FIRST ADDITION TO THE CITY OF MOSCOW, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF LATAH COUNTY, IDAHO.

EXCEPT THE SOUTH 5 FEET OF LOTS 1 AND 2, SAID BLOCK 1.

TOGETHER WITH THOSE PORTIONS OF WOODBURY DRIVE AND ASHTON LANE VACATED PER CITY OF MOSCOW ORDINANCE NO. 2025-07.

TOGETHER WITH THE UNPLATTED PORTION OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, LATAH COUNTY IDAHO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 10, BLOCK 2, WOODBURY FIRST ADDITION, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF SAID LATAH COUNTY;

THENCE ALONG AN EXTENSION OF THE SOUTH LINE OF SAID LOT 10 NORTH 82°01'03" WEST A DISTANCE OF 18.73 FEET;

THENCE NORTH 00°00'02" EAST A DISTANCE OF 134.11 FEET TO THE NORTHWEST CORNER OF LOT 11 OF SAID BLOCK 2;

THENCE SOUTH 07°43'37" EAST A DISTANCE OF 137.97 FEET ALONG THE WEST LINES OF SAID LOTS 10 AND 11 TO THE POINT OF BEGINNING.

CONTAINING: 540,307 SQUARE FEET OR 12.40 ACRES OF LAND, MORE OR LESS.

DEDICATION:

KNOW ALL MEN BY THESE PRESENTS: THAT WOODBURY LAND, LLC., AN IDAHO LIMITED LIABILITY COMPANY, OWNER IN FEE SIMPLE, HAVE WITH THEIR FREE CONSENT AND IN ACCORDANCE WITH THEIR DESIRES CAUSED THE LAND HEREIN DESCRIBED TO BE SUBDIVIDED AND PLATTED AS REPLAT OF WOODBURY 1ST ADDITION AND DO HEREBY ADOPT THE SURVEY OF SYNTIER ENGINEERING AS THE OFFICIAL SURVEY OF WOODBURY 1ST ADDITION; AND THEY DO HEREBY DEDICATE TO THE CITY OF MOSCOW AND THE PUBLIC USE FOREVER ALL PUBLIC RIGHTS-OF-WAY, ALLEYS, EASEMENTS, AND TRACT C AS PLATTED AND SHOWN HEREON; AND DO HEREBY CERTIFY THAT THEY ARE THE OWNER OF AND THE ONLY PARTY HAVING ANY INTEREST IN THE LANDS SO DIVIDED, AND THAT THE PROPERTY SHOWN HEREON IS NOT ENCUMBERED BY ANY DELINQUENT TAXES OR ASSESSMENTS; AND THAT THEY ARE AUTHORIZED TO SIGN THIS DEDICATION.

IN WITNESS WHEREOF WE HAVE SET OUR HANDS THIS ___ DAY OF _____, 2026.

BY:

_____
MARK WINTZ, MANAGER OF WINTZ COMPANY LLC,
GOVERNOR OF WOODBURY LAND, LLC

_____
BRIAN SCHMIDT, PRESIDENT OF JURGENS & CO., P.A.,
GOVERNOR OF WOODBURY LAND, LLC

_____
DAN MADER, GOVERNOR OF WOODBURY LAND, LLC

OWNER'S CONTACT INFORMATION
NAME: MARK WINTZ
ADDRESS: 1004 DAIRY LANE
MOSCOW, ID 83843
EMAIL: MARK@WINTZCOMPANY.COM
PHONE: 208.596.5555

SURVEYOR'S CONTACT INFORMATION
NAME: JASON VONLINDERN, PLS
ADDRESS: 405 SE BRELSFORD DRIVE, SUITE C
PULLMAN, WA 99163
EMAIL: WWW.SYNTIERENGR.COM
PHONE: 509.339.6187

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____, 20____
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
AT THE REQUEST OF _____
_____ LATAH COUNTY RECORDER
_____ DEPUTY

APPROVALS

1. APPROVAL OF THIS PLAT BY THE CITY OF MOSCOW CERTIFIES AGREEMENT TO ALLOW CONNECTION OF THE ABOVE DESCRIBED PROPERTY TO THE MUNICIPAL WATER SYSTEM AND SATISFIES SECTION 50-1334, IDAHO CODE.

EXAMINED AND APPROVED BY ACTION OF THE MOSCOW PLANNING AND ZONING COMMISSION AT A REGULAR MEETING WITH A QUORUM PRESENT THE ___ DAY OF _____, 2026.

_____
CHAIR, PLANNING AND ZONING COMMISSION

EXAMINED AND APPROVED BY ACTION OF THE MOSCOW CITY COUNCIL AT A REGULAR MEETING WITH A QUORUM PRESENT THE ____ DAY OF _____, 2026. DEDICATION OF ALL PUBLIC STREETS, EASEMENTS, AND PARKLAND DESCRIBED ON THIS PLAT IS HEREBY ACCEPTED IN ACCORDANCE WITH SECTION 50-1313, IDAHO CODE.

_____ _____
CLERK MAYOR, CITY OF MOSCOW

EXAMINED AND APPROVED BY THE CITY ENGINEER THIS ____ DAY OF _____, 2026.

_____
CITY ENGINEER, CITY OF MOSCOW

EXAMINED AND APPROVED BY THE LATAH COUNTY SURVEYOR THIS _____ DAY OF _____, 2026.

_____
LATAH COUNTY SURVEYOR

I HEREBY CERTIFY THAT TAXES AND ASSESSMENTS ON PROPERTY SHOWN HEREON HAVE BEEN PAID FOR ____ AND PRECEDING YEARS AS OF THIS ___ DAY OF _____, 2026.

_____
LATAH COUNTY TREASURER

SANITARY RESTRICTIONS AS REQUIRED BY IDAHO CODE, TITLE 50, CHAPTER 13 HAVE BEEN SATISFIED BASED ON THE DEQ APPROVAL OF THE DESIGN PLANS AND SPECIFICATIONS AND THE CONDITIONS IMPOSED ON THE DEVELOPER FOR CONTINUED SATISFACTION OF THE SANITARY RESTRICTIONS. BUYER IS CAUTIONED THAT AT THE TIME OF THIS APPROVAL, NO DRINKING WATER OR SEWER/SEPTIC FACILITIES WERE CONSTRUCTED. BUILDING CONSTRUCTION CAN BE ALLOWED WITH APPROPRIATE BUILDING PERMITS IF DRINKING WATER OR SEWER FACILITIES HAVE SINCE BEEN CONSTRUCTED OR IF THE DEVELOPER SIMULTANEOUSLY CONSTRUCTING THOSE FACILITIES. IF THE DEVELOPER FAILS TO CONSTRUCT FACILITIES OR MEET THE OTHER CONDITIONS OF DEQ, THEN SANITARY RESTRICTIONS MAY BE REIMPOSED, IN ACCORDANCE WITH SECTION 50-1326, IDAHO CODE, BY THE ISSUANCE OF A CERTIFICATE OF DISAPPROVAL, AND NO CONSTRUCTION OF ANY BUILDING OR SHELTER REQUIRING DRINKING WATER OR SEWER/SEPTIC FACILITIES SHALL BE ALLOWED.

SANITARY RESTRICTION SATISFIED, TITLE 50, CHAPTER 13, IDAHO CODE.

_____ _____
NORTH CENTRAL HEALTH DISTRICT DATE

SURVEYOR'S CERTIFICATE:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF IDAHO STATUTE 55-1904 AT THE REQUEST OF MARK WINTZ IN APRIL OF 2025.

_____
JASON MICHAEL VONLINDERN, PLS 19293 DATE

PROFESSIONAL LAND SURVEYOR LICENSED 19293 STATE OF IDAHO JASON VONLINDERN

	By	Date
Surveyed	OBB	08/24
Drawn	TMH	04/25
Checked	JMV	11/25
Approved		
Accepted		

Scale: N/A
Date: March 17, 2026
Drawing Name: WH255-PLAT 2025.DWG
Sheet 1 of 5

SYNTIER Engineering, Inc.
405 SE Brelsford Drive, Suite C
Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO

REPLAT OF WOODBURY 1ST ADDITION
BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION,
LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5,
TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____, 20____
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
AT THE REQUEST OF _____
_____ LATAH COUNTY RECORDER
_____ DEPUTY

OFFICIAL DOCUMENTS:

R1 WARRANTY DEED INSTRUMENT NO. 618411, GRANTOR: TRAIL FAMILY, LLC, GRANTEE: WOODBURY LAND, LLC, 09/21/2021.
R2A CPFR INSTRUMENT NO. 321963 QUARTER CORNER, SECTIONS 5 & 4, 1982, SURVEYOR: TAGGART.
R2B CPFR INSTRUMENT NO. 449147 COMMON CORNER, SECTIONS 4, 5, 8, 9, 2000, SURVEYOR: KINNEY.
R3 WOODBURY 1ST ADDITION PLAT, INSTRUMENT NO. 630759, 2023, SURVEYOR: VONLINDERN.
R4 BLACKWOOD 1ST ADDITION PLAT, INSTRUMENT NO. 497958, 2005, SURVEYOR: HAMMOND.
R5 SURVEY FOR: DAVID TRAIL, INSTRUMENT NO. 464347, 2002, SURVEYOR: HODGE.
R6 SURVEY FOR: JOANNE REECE & BILL VOLKMAN, INSTRUMENT NO. 579750, 2016, SURVEYOR: DUNN.

CORNER NOTES:

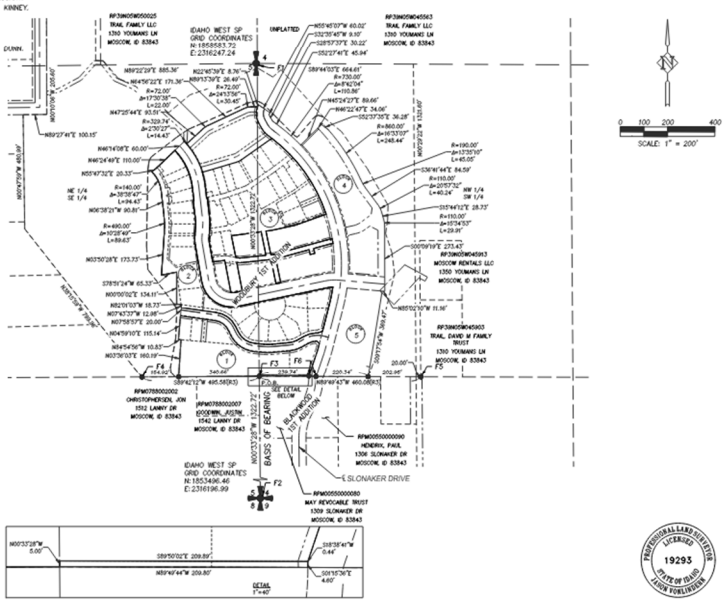
F1 FOUND 1" PIPE WITH A PLASTIC CAP MARKED "TAGGART 17687, PER R2A
F2 FOUND 5/8" REBAR WITH AN ALUMINUM CAP MARKED "T39N R5W BM, 4, 5, 8, 9 2000 PE/PLS 1969", PER R2B.
F3 FOUND 5/8" REBAR WITH A YELLOW PLASTIC CAP MARKED "HODGE 3003".
F4 FOUND 5/8" REBAR WITH AN ALUMINUM CAP MARKED "SURVEY MONUMENT, RIMROCK PLS 10962".
F5 FOUND 5/8" REBAR WITH NO CAP.
F6 FOUND 1/2" REBAR WITH CAP MARKED "PLS 2102".

SURVEYOR'S NARRATIVE:

1. WE ACCEPTED R3 AS THE BASIS OF THIS SURVEY.

LEGEND:

- REPLAT BOUNDARY LINE
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- PROPOSED LOT LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT LINE
- SECTION CORNER AS NOTED
- 1/4 SECTION CORNER AS NOTED
- FOUND 5/8" REBAR WITH OPC MARKED "VONLINDERN, PLS 19293", PER (R3) UNLESS OTHERWISE NOTED SEE CORNER NOTES
- SET 5/8" REBAR WITH OPC MARKED "VONLINDERN, PLS 19293"
- CALCULATED ANGLE POINT, NOTHING SET
- (R1) RECORD INFORMATION SEE OFFICIAL DOCUMENTS
- OPC ORANGE PLASTIC CAP



PROFESSIONAL LAND SURVEYOR LICENSED 19293 STATE OF IDAHO JASON VONLINDERN

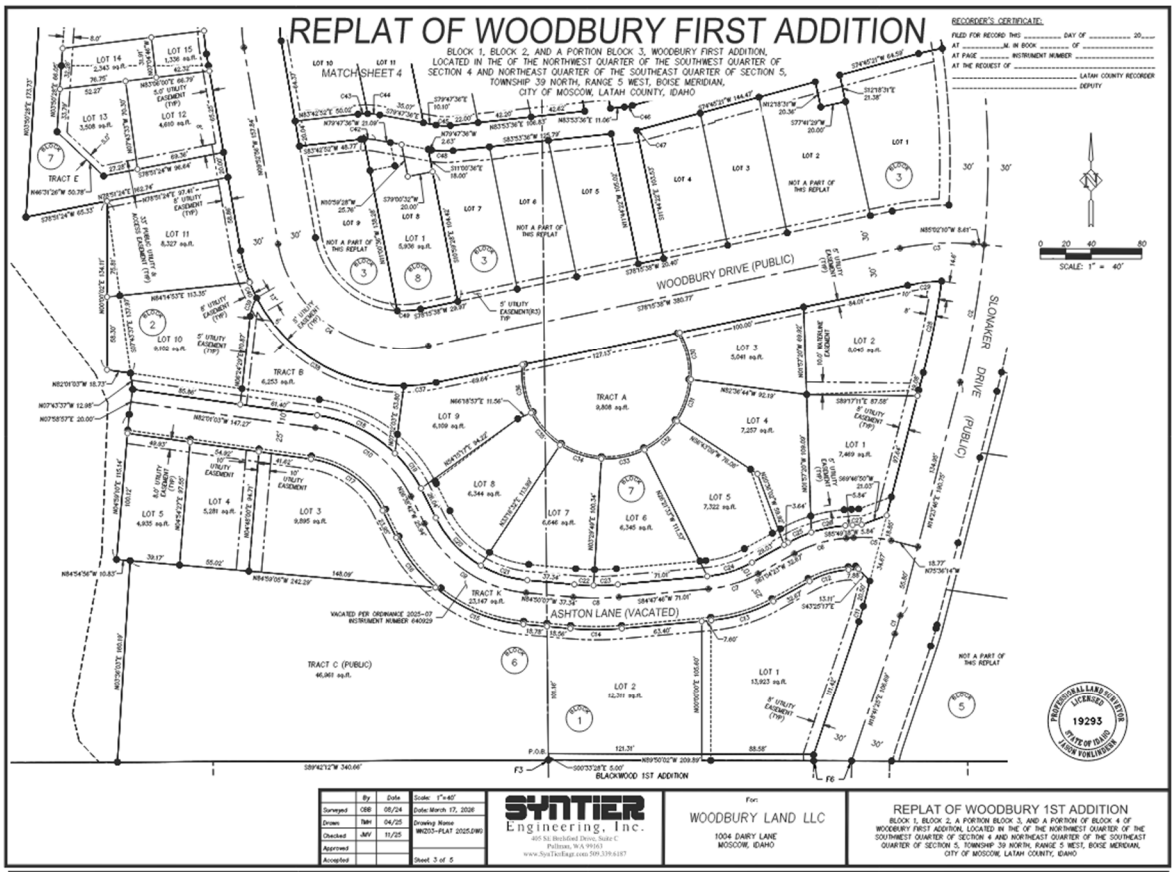
	By	Date
Surveyed	OBB	08/24
Drawn	TMH	04/25
Checked	JMV	11/25
Approved		
Accepted		

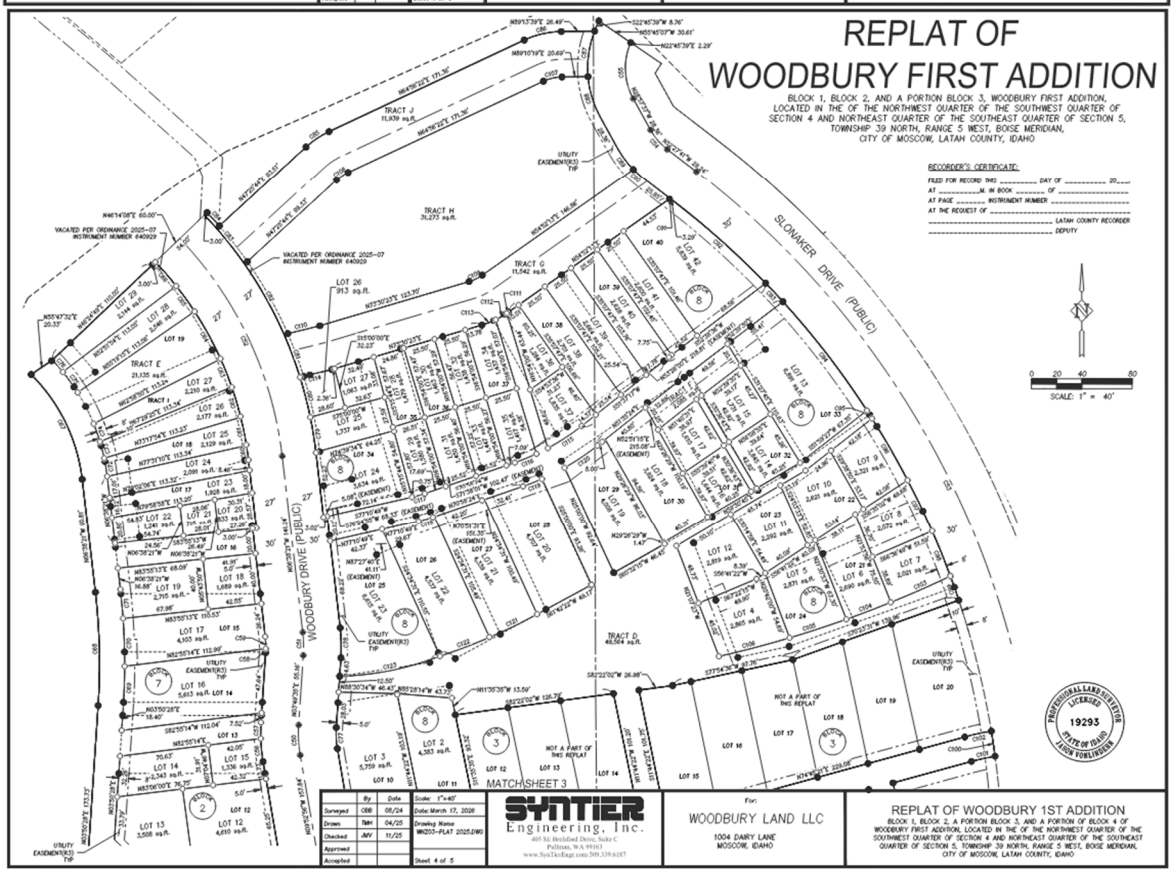
Scale: 1"=200'
Date: March 17, 2026
Drawing Name: WH255-PLAT 2025.DWG
Sheet 2 of 5

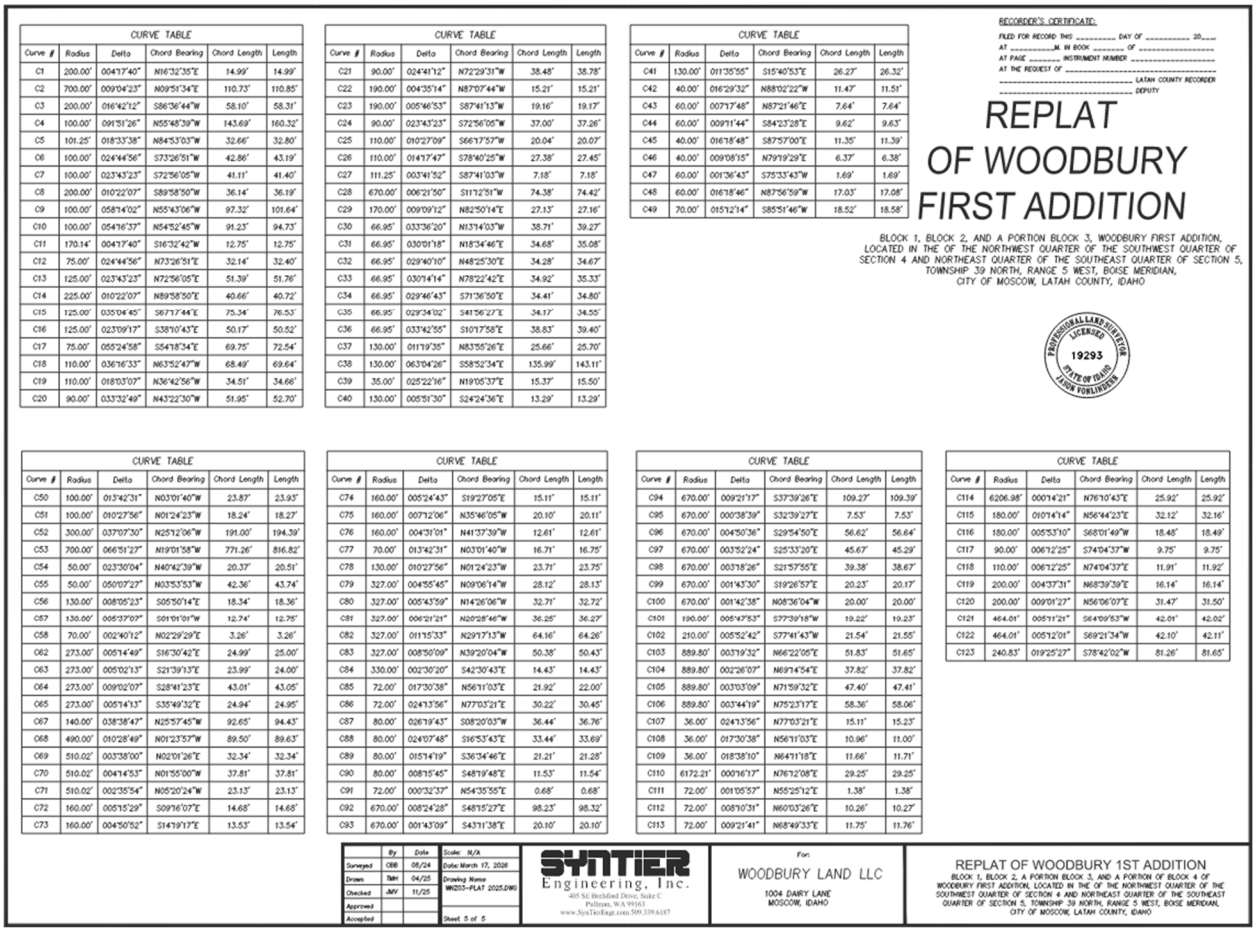
SYNTIER Engineering, Inc.
405 SE Brelsford Drive, Suite C
Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO

REPLAT OF WOODBURY 1ST ADDITION
BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO


REPLAT OF WOODBURY FIRST ADDITION
BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION,
LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5,
TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO
RECORDER'S CERTIFICATE:
MATCHSHEET 4
WOODBURY DRIVE (PUBLIC)
SLOWAKER DRIVE (PUBLIC)
ASHTON LANE (VACATED)
TRACT A 8,808 sq.ft.
TRACT B 6,253 sq.ft.
TRACT C (PUBLIC) 46,961 sq.ft.
TRACT K 23,147 sq.ft.
VACATED PER ORDINANCE 2025-07 INSTRUMENT NUMBER 640929
NOT A PART OF THIS REPLAT
BLACKWOOD 1ST ADDITION
SCALE: 1" = 40'
PROFESSIONAL LAND SURVEYOR LICENSED 19293 STATE OF IDAHO JASON FOWLKES
SYNTIER Engineering, Inc.
405 SE Bishop Blvd Drive, Suite C
Pullman, WA 99163
www.SynTierEngr.com 509.339.6187
For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO
REPLAT OF WOODBURY 1ST ADDITION
BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION BLOCK 4 OF
WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE
SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST
QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO
Surveyed CBB 08/24
Drawn TMH 04/25
Checked JMV 11/25
Approved
Accepted
Scale: 1"=40'
Date: March 17, 2026
Drawing Name: WH203-PLAT 2025.DWG
Sheet 3 of 5


REPLAT OF
WOODBURY FIRST ADDITION
BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION,
LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5,
TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO
RECORDER'S CERTIFICATE:
WOODBURY DRIVE (PUBLIC)
SLOWAKER DRIVE (PUBLIC)
TRACT H 31,273 sq.ft.
TRACT J 11,939 sq.ft.
TRACT G 11,542 sq.ft.
TRACT D 46,504 sq.ft.
TRACT E 21,135 sq.ft.
VACATED PER ORDINANCE 2025-07 INSTRUMENT NUMBER 640929
MATCHSHEET 3
NOT A PART OF THIS REPLAT
SCALE: 1" = 40'
PROFESSIONAL LAND SURVEYOR LICENSED 19293 STATE OF IDAHO JASON FOWLKES
SYNTIER Engineering, Inc.
405 SE Bishop Blvd Drive, Suite C
Pullman, WA 99163
www.SynTierEngr.com 509.339.6187
For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO
REPLAT OF WOODBURY 1ST ADDITION
BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION BLOCK 4 OF
WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE
SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST
QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO
Surveyed CBB 08/24
Drawn TMH 04/25
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Approved
Accepted
Scale: 1"=40'
Date: March 17, 2026
Drawing Name: WH203-PLAT 2025.DWG
Sheet 4 of 5



CURVE TABLE

Curve #	Radius	Delta	Chord Bearing	Chord Length	Length
C1	200.00'	004°17'40"	N16°32'35"E	14.99'	14.99'
C2	700.00'	009°04'23"	N09°51'34"E	110.73'	110.85'
C3	200.00'	016°42'12"	S86°36'44"W	58.10'	58.31'
C4	100.00'	091°51'26"	N55°48'39"W	143.69'	160.32'
C5	101.25'	018°33'38"	N84°53'03"W	32.66'	32.80'
C6	100.00'	024°44'56"	S73°26'51"W	42.86'	43.19'
C7	100.00'	023°43'23"	S72°56'05"W	41.11'	41.40'
C8	200.00'	010°22'07"	S89°58'50"W	36.14'	36.19'
C9	100.00'	058°14'02"	N55°43'06"W	97.32'	101.64'
C10	100.00'	054°16'37"	N54°52'45"W	91.23'	94.73'
C11	170.14'	004°17'40"	S16°32'42"W	12.75'	12.75'
C12	75.00'	024°44'56"	N73°26'51"E	32.14'	32.40'
C13	125.00'	023°43'23"	N72°56'05"E	51.39'	51.76'
C14	225.00'	010°22'07"	N89°58'50"E	40.66'	40.72'
C15	125.00'	035°04'45"	S67°17'44"E	75.34'	76.53'
C16	125.00'	023°09'17"	S38°10'43"E	50.17'	50.52'
C17	75.00'	055°24'58"	S54°18'34"E	69.75'	72.54'
C18	110.00'	036°16'33"	N63°52'47"W	68.49'	69.64'
C19	110.00'	018°03'07"	N36°42'56"W	34.51'	34.66'
C20	90.00'	033°32'49"	N43°22'30"W	51.95'	52.70'

CURVE TABLE

Curve #	Radius	Delta	Chord Bearing	Chord Length	Length
C21	90.00'	024°41'12"	N72°29'31"W	38.48'	38.78'
C22	190.00'	004°35'14"	N87°07'44"W	15.21'	15.21'
C23	190.00'	005°46'53"	S87°41'13"W	19.16'	19.17'
C24	90.00'	023°43'23"	S72°56'05"W	37.00'	37.26'
C25	110.00'	010°22'09"	S66°17'57"W	20.04'	20.07'
C26	110.00'	014°17'47"	S78°40'25"W	27.38'	27.45'
C27	111.25'	003°41'52"	S87°41'03"W	7.18'	7.18'
C28	670.00'	006°21'50"	S11°12'51"W	74.38'	74.42'
C29	170.00'	009°09'12"	N82°50'14"E	27.13'	27.16'
C30	66.95'	033°36'20"	N13°14'03"W	38.71'	39.27'
C31	66.95'	030°01'18"	N18°34'46"E	34.68'	35.08'
C32	66.95'	029°40'10"	N48°25'30"E	34.28'	34.67'
C33	66.95'	030°14'14"	N78°22'42"E	34.92'	35.33'
C34	66.95'	029°46'43"	S71°36'50"E	34.41'	34.80'
C35	66.95'	029°34'02"	S41°56'27"E	34.17'	34.55'
C36	66.95'	033°42'55"	S10°17'58"E	38.83'	39.40'
C37	130.00'	011°19'35"	N83°55'26"E	25.66'	25.70'
C38	130.00'	063°04'26"	S58°52'34"E	135.99'	143.11'
C39	35.00'	025°22'16"	N19°05'37"E	15.37'	15.50'
C40	130.00'	005°51'30"	S24°24'36"E	13.29'	13.29'

CURVE TABLE

Curve #	Radius	Delta	Chord Bearing	Chord Length	Length
C41	130.00'	011°35'55"	S15°40'53"E	26.27'	26.32'
C42	40.00'	016°29'32"	N88°02'22"W	11.47'	11.51'
C43	60.00'	007°17'48"	N87°21'46"E	7.64'	7.64'
C44	60.00'	009°11'44"	S84°23'28"E	9.62'	9.63'
C45	40.00'	016°18'48"	S87°57'00"E	11.35'	11.39'
C46	40.00'	009°08'15"	N79°19'29"E	6.37'	6.38'
C47	60.00'	001°36'43"	S75°33'43"W	1.69'	1.69'
C48	60.00'	016°18'46"	N87°56'59"W	17.03'	17.08'
C49	70.00'	015°12'14"	S85°51'46"W	18.52'	18.58'

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____, 20____
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
AT THE REQUEST OF _____
_____ LATAH COUNTY RECORDER
_____ DEPUTY

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

PROFESSIONAL LAND SURVEYOR LICENSED 19293 STATE OF IDAHO JASON VORLIMPER

CURVE TABLE

Curve #	Radius	Delta	Chord Bearing	Chord Length	Length
C50	100.00'	013°42'31"	N03°01'40"W	23.87'	23.93'
C51	100.00'	010°27'56"	N01°24'23"W	18.24'	18.27'
C52	300.00'	037°07'30"	N25°12'06"W	191.00'	194.39'
C53	700.00'	066°51'27"	N19°01'58"W	771.26'	816.82'
C54	50.00'	023°30'04"	N40°42'39"W	20.37'	20.51'
C55	50.00'	050°07'27"	N03°53'53"W	42.36'	43.74'
C56	130.00'	008°05'23"	S05°50'14"E	18.34'	18.36'
C57	130.00'	005°37'07"	S01°01'01"W	12.74'	12.75'
C58	70.00'	002°40'12"	N02°29'29"E	3.26'	3.26'
C62	273.00'	005°14'49"	S16°30'42"E	24.99'	25.00'
C63	273.00'	005°02'13"	S21°39'13"E	23.99'	24.00'
C64	273.00'	009°02'07"	S28°41'23"E	43.01'	43.05'
C65	273.00'	005°14'13"	S35°49'32"E	24.94'	24.95'
C67	140.00'	038°38'47"	N25°57'45"W	92.65'	94.43'
C68	490.00'	010°28'49"	N01°23'57"W	89.50'	89.63'
C69	510.02'	003°38'00"	N02°01'26"E	32.34'	32.34'
C70	510.02'	004°14'53"	N01°55'00"W	37.81'	37.81'
C71	510.02'	002°35'54"	N05°20'24"W	23.13'	23.13'
C72	160.00'	005°15'29"	S09°16'07"E	14.68'	14.68'
C73	160.00'	004°50'52"	S14°19'17"E	13.53'	13.54'

CURVE TABLE

Curve #	Radius	Delta	Chord Bearing	Chord Length	Length
C74	160.00'	005°24'43"	S19°27'05"E	15.11'	15.11'
C75	160.00'	007°12'06"	N35°46'05"W	20.10'	20.11'
C76	160.00'	004°31'01"	N41°37'39"W	12.61'	12.61'
C77	70.00'	013°42'31"	N03°01'40"W	16.71'	16.75'
C78	130.00'	010°27'56"	N01°24'23"W	23.71'	23.75'
C79	327.00'	004°55'45"	N09°06'14"W	28.12'	28.13'
C80	327.00'	005°43'59"	N14°26'06"W	32.71'	32.72'
C81	327.00'	006°21'21"	N20°28'46"W	36.25'	36.27'
C82	327.00'	011°15'33"	N29°17'13"W	64.16'	64.26'
C83	327.00'	008°50'09"	N39°20'04"W	50.38'	50.43'
C84	330.00'	002°30'20"	S42°30'43"E	14.43'	14.43'
C85	72.00'	017°30'38"	N56°11'03"E	21.92'	22.00'
C86	72.00'	024°13'56"	N77°03'21"E	30.22'	30.45'
C87	80.00'	026°19'43"	S08°20'03"W	36.44'	36.76'
C88	80.00'	024°07'48"	S16°53'43"E	33.44'	33.69'
C89	80.00'	015°14'19"	S36°34'46"E	21.21'	21.28'
C90	80.00'	008°15'45"	S48°19'48"E	11.53'	11.54'
C91	72.00'	000°32'37"	N54°35'55"E	0.68'	0.68'
C92	670.00'	008°24'28"	S48°15'27"E	98.23'	98.32'
C93	670.00'	001°43'09"	S43°11'38"E	20.10'	20.10'

CURVE TABLE

Curve #	Radius	Delta	Chord Bearing	Chord Length	Length
C94	670.00'	009°21'17"	S37°39'26"E	109.27'	109.39'
C95	670.00'	000°38'39"	S32°39'27"E	7.53'	7.53'
C96	670.00'	004°50'36"	S29°54'50"E	56.62'	56.64'
C97	670.00'	003°52'24"	S25°33'20"E	45.67'	45.29'
C98	670.00'	003°18'26"	S21°57'55"E	39.38'	38.67'
C99	670.00'	001°43'30"	S19°26'57"E	20.23'	20.17'
C100	670.00'	001°42'38"	N08°36'04"W	20.00'	20.00'
C101	190.00'	005°47'53"	S77°39'18"W	19.22'	19.23'
C102	210.00'	005°52'42"	S77°41'43"W	21.54'	21.55'
C103	889.80'	003°19'32"	N66°22'05"E	51.83'	51.65'
C104	889.80'	002°26'07"	N69°14'54"E	37.82'	37.82'
C105	889.80'	003°03'09"	N71°59'32"E	47.40'	47.41'
C106	889.80'	003°44'19"	N75°23'17"E	58.36'	58.06'
C107	36.00'	024°13'56"	N77°03'21"E	15.11'	15.23'
C108	36.00'	017°30'38"	N56°11'03"E	10.96'	11.00'
C109	36.00'	018°38'10"	N64°11'18"E	11.66'	11.71'
C110	6172.21'	000°16'17"	N76°12'08"E	29.25'	29.25'
C111	72.00'	001°05'57"	N55°25'12"E	1.38'	1.38'
C112	72.00'	008°10'31"	N60°03'26"E	10.26'	10.27'
C113	72.00'	009°21'41"	N68°49'33"E	11.75'	11.76'

CURVE TABLE

Curve #	Radius	Delta	Chord Bearing	Chord Length	Length
C114	6206.98'	000°14'21"	N76°10'43"E	25.92'	25.92'
C115	180.00'	010°14'14"	N56°44'23"E	32.12'	32.16'
C116	180.00'	005°53'10"	S68°01'49"W	18.48'	18.49'
C117	90.00'	006°12'25"	S74°04'37"W	9.75'	9.75'
C118	110.00'	006°12'25"	N74°04'37"E	11.91'	11.92'
C119	200.00'	004°37'31"	N68°39'39"E	16.14'	16.14'
C120	200.00'	009°01'27"	N56°06'07"E	31.47'	31.50'
C121	464.01'	005°11'21"	S64°09'53"W	42.01'	42.02'
C122	464.01'	005°12'01"	S69°21'34"W	42.10'	42.11'
C123	240.83'	019°25'27"	S78°42'02"W	81.26'	81.65'

	By	Date
Surveyed	CDB	08/24
Drawn	TMH	04/25
Checked	JMV	11/25
Approved		
Accepted		

Scale: N/A
Date: March 17, 2026
Drawing Name: WH200-PLAT 2025.DWG
Sheet 5 of 5

SYNTIER Engineering, Inc.
405 SE Bishford Drive, Suite C
Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO

REPLAT OF WOODBURY 1ST ADDITION
BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, April 6, 2026

AGENDA ITEM TITLE

2025 Water, Sewer, and Stormwater Utility Rate Study (ACTION ITEM) - Tyler Palmer

RESPONSIBLE STAFF

Tyler Palmer, Deputy City Supervisor

ADDITIONAL PRESENTER(S)

Brooke Tacia

DESCRIPTION

In January 2025, the City of Moscow retained FCS Group to conduct comprehensive rate studies for the City's Water, Sewer, and Stormwater utilities. These periodic studies are essential to ensure that utility revenues remain sufficient to support current and future operations, maintenance, and capital improvements, while also allocating costs equitably among system users. To incorporate community input, a Citizen Rate Committee (CRC) was convened on April 8, 2025. The CRC included representatives from residential, commercial, institutional, and nonprofit sectors. Over the course of three formal meetings, supplemented by ongoing communication and review materials, the committee evaluated rate scenarios, financial projections, and cost-of-service analyses. At the conclusion of its work, the CRC unanimously approved recommendations for each utility. The committee also recommended that the City explore the development of utility rate relief programs to assist low-income customers. City staff supports the CRC's recommendations. Adoption of the recommended rate structures will provide the revenues necessary to fund utility operations, maintenance, and planned capital projects identified in the City's adopted Capital Improvement Program. The phased adjustments will ensure long-term financial stability of the Water, Sewer, and Storm utilities while aligning rates with the cost of service and regulatory requirements. This was reviewed by the Administrative Committee on March 23, 2026, and recommended for approval.

REVIEWED BY

Administrative Committee

PROPOSED ACTIONS

PROPOSED ACTIONS: Approve the 2025 Water, Sewer, and Stormwater Utility Rate Study recommendations, or take other action deemed appropriate.

STAFF RECOMMENDATION

Approve the 2025 Water, Sewer, and Stormwater Utility Rate Study recommendations.

OTHER RESOURCES

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. FINAL City of Moscow Utility Rate Study Report
2. 2025 Water Sewer Utility Rate Study Report FINAL

CITY OF MOSCOW

Water, Sewer, and Stormwater Utilities Comprehensive Rate Study

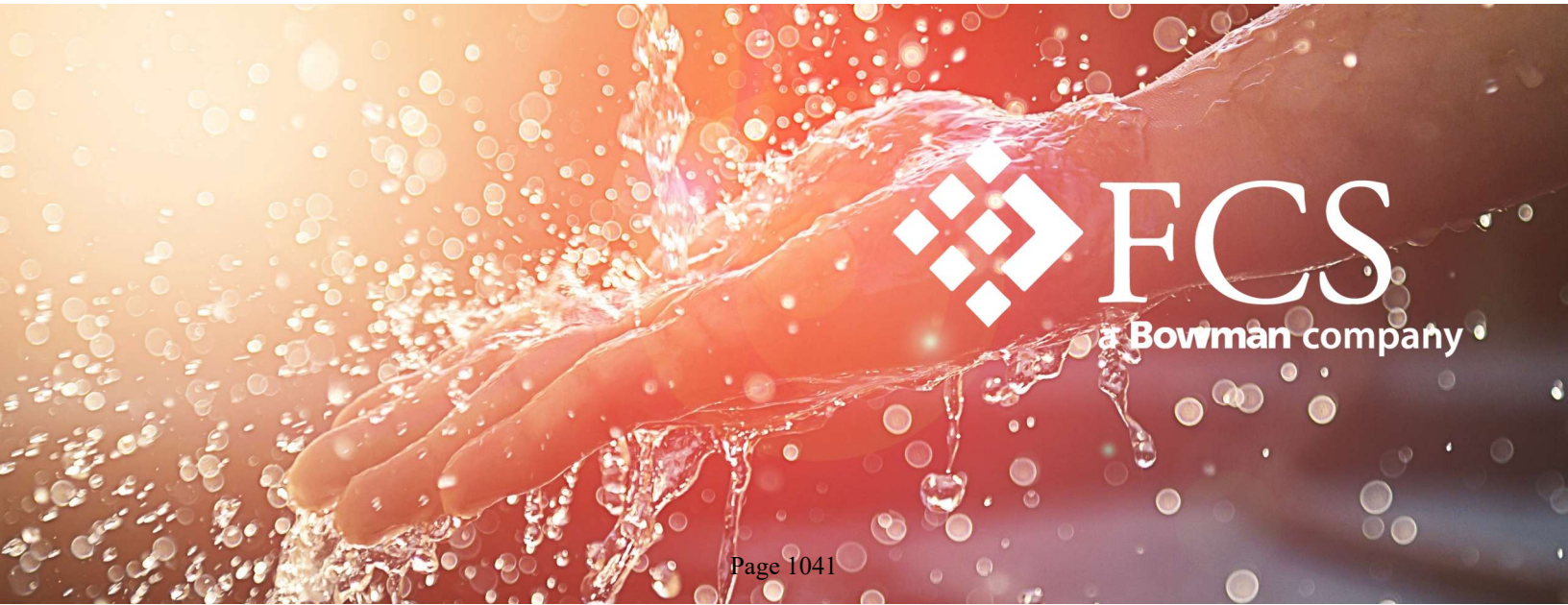
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206 E 3rd St
Moscow, ID 83843
P: 208.883.7000

March 2026



March 4, 2026

Tyler Palmer
Public Works Director – Deputy City Supervisor
City of Moscow
206 E Third Street
Moscow, ID 83843

Subject: Water, Sewer and Stormwater Utilities Comprehensive Rate Study

Dear Mr. Palmer:

FCS is pleased to submit this final report summarizing the results of the water, sewer and stormwater utilities comprehensive rate study for the City of Moscow. The table below summarizes the annual recommended rate revenue adjustments to be effective on October 1 of every year of the plan. These overall increases are projected to provide the utilities with the revenue necessary to fully fund each system on a self-supporting basis, considering operating and maintenance expenditures, capital funding needs, debt requirements, and fiscal policy objectives.

Annual Rate Increases	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Water	4.00%	5.15%	5.15%	5.15%	5.15%	5.15%
Sewer	2.25%	2.80%	2.80%	2.80%	2.80%	2.80%
Stormwater	3.00%	29.00%	29.00%	15.00%	6.00%	6.00%

As part of the study, a cost-of-service analysis was performed to identify potential rate adjustments for each water and sewer customer class, and the sewer rate structure was modified to include a multi-family volume charge.

It has been a pleasure working with the City project team on this effort. Please let me know if you have any questions or need additional information on this report. I can be reached at (425) 502-6452.

Yours very truly,

Sergey Tarasov
Principal

Brooke Tacia
Senior Project Manager

Devin Tryon
Senior Analyst

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1.0 Introduction

Purpose

In 2025, the City of Moscow (City) contracted with FCS, a Bowman company (FCS), to perform a water, sewer and stormwater utility comprehensive rate study and to provide a cost-of-service update for the City's water and sewer utilities. The rate analysis builds upon a study completed in 2019. The results of this study establish a blueprint for achieving strong financial performance in the future while delivering efficient and effective services to the City's customers.

Approach

The methods used to complete the study are based on analytical principles that are generally accepted and widely followed throughout the industry – rates and charges should generate enough revenue to maintain self-supporting and financially viable utilities.

Throughout the study, FCS worked with the City, and the City's Citizen's Rate Committee, to arrive at rate conclusions that meet forecasted utility financial obligations, achieve City goals and policies, comply with legal requirements, and adhere to industry best practices. Meetings were held with City staff and Committee representatives to validate input parameters, review interim findings and receive policy direction.

Scope

The scope of the project included the following key elements:

- Develop a forecast of operating revenues and expenses to reflect the most recently approved budgets. Incorporate the most recent capital plans identifying the capital projects required to maintain each system in good repair. Develop a capital funding analysis that balances available funding from rate revenue, reserve funds, contributions, and additional debt, if needed.
- Evaluate cash flow needs to meet existing and anticipated new annual debt service requirements and debt coverage requirements. Test the sufficiency of each system's current revenues in meeting all annual system obligations. Identify any projected shortfalls over the forecast period.
- Design a rate implementation strategy that meets each system's financial obligations over the multi-year planning horizon and provides a smooth and moderated impact to ratepayers.
- Perform a cost-of-service analysis (COSA) establishing a defensible basis for assigning "cost shares" and determining "equity" for system customers based on industry best practices and methodologies that are tailored to the City's unique systems and customer characteristics. Identify the cost to serve each customer class within the water and sewer systems. Depending on the outcomes of the analysis, develop a multi-year phase-in strategy gradually moving classes towards cost-of-service.
- Evaluate existing rate structures for alignment with the City's current and / or recommended fiscal policies, generate sufficient revenue to meet the revenue requirement forecast, and continue to resolve the remaining differences between current revenue collection versus the cost to provide service to each customer class.

The methodology, key factors, conclusions, and recommendations for each of the key task areas of the study are summarized in this executive level report. The full rate study can be found in the detailed rate models provided to the City.

2.0 Rate Study Methodology

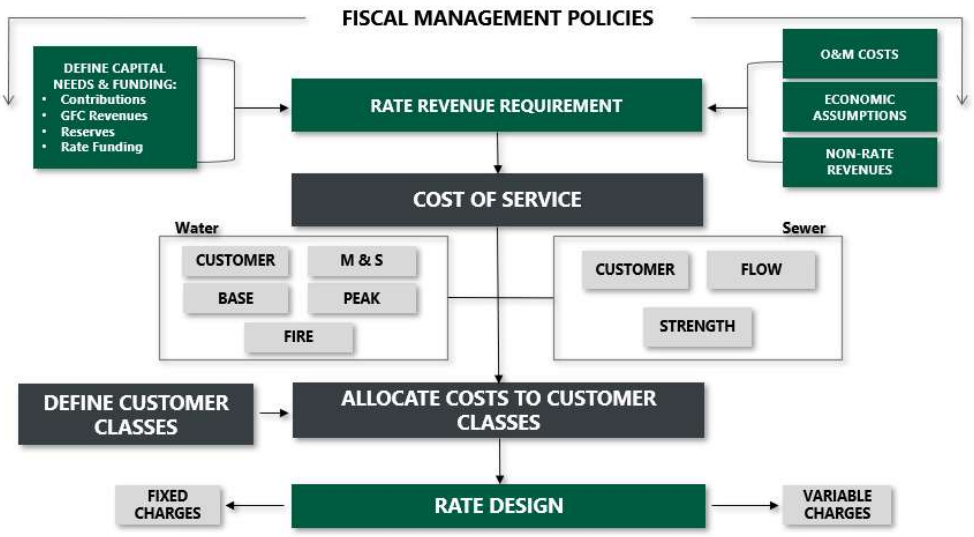
The methods used to establish water, sewer, and stormwater rates are based on principles that are generally accepted and widely followed throughout the utility industry. These principles are designed to produce rates that equitably recover costs from each class of customers by setting the appropriate level of revenue to be collected from ratepayers and establishing a rate structure to equitably collect those revenues.

Exhibit 1 illustrates the key components for the utility rate study including:

- ***Revenue Requirement***. This analysis identifies the overall needs to fully fund each system on a self-supporting basis, considering operating and maintenance expenditures, capital funding needs, debt requirements, and fiscal policy objectives.
- ***Cost of Service Analysis (water and sewer utilities)***. This analysis equitably distributes costs to customer classes of service based on their proportional demand and use of each system.
- ***Rate Design Analysis***. This analysis includes the development of rates that generate sufficient revenue to support the revenue requirement and addresses the City's policy goals and objectives.

The revenue requirement and rate design analyses were completed for all utilities. A cost-of-service analysis was also performed for the water and sewer utilities.

Exhibit 1. Rate Study Process Overview



Fiscal Policies

The foundation for evaluating utility revenue needs consists of a set of fiscal policies. These policies, which can address a variety of topics including cash management, capital funding strategy, financial performance, and rate equity, are intended to promote long-term financial viability for the City's utilities.

Reserves

Reserves are a key component of any utility financial strategy, as they provide flexibility to manage variations in costs and revenues that could otherwise have an adverse impact on ratepayers. When evaluating fund reserve levels and objectives, it is important to recognize that the value of reserves lies in their potential use. A reserve

strategy that deliberately avoids any use of reserves negates their purpose. Fluctuation of reserve levels may indicate that the system is working, while lack of variation over many years strongly suggests that the reserves are, in fact, unnecessary. For the purpose of financial planning, resources for each utility are separated into the following reserve categories:

- ***Operating Reserve***. An operating reserve is designed to provide a liquidity cushion; it protects the utility from the risk of short-term variation in the timing of revenue collection or payment of expenses. Like other types of reserves, operating reserves also serve another purpose: they can help smooth rate increases over time. Target funding levels for an operating reserve are generally expressed as a certain number of days of operating and maintenance (O&M) expenses, with the minimum day requirement varying with the expected revenue volatility of the utility.

  The City's financial policies, as stated in Resolution No. 2024-24, dictate minimum fund balances for the water, sewer and stormwater utilities of three months, or 90 days, of O&M expenses. This minimum target is within industry best practices for both utilities.
- ***Capital Reserve***. A capital contingency reserve is an amount of cash set aside in case of an emergency should a piece of equipment or a portion of the utility's infrastructure fail unexpectedly. The reserve can also be used for other unanticipated capital needs including capital project cost overruns. Industry practices range from maintaining a balance equal to 1 to 2 percent of fixed assets, an amount equal to a 5-year rolling average of CIP costs, or an amount determined sufficient to fund equipment failure (other than catastrophic failure). The final target level should balance industry practices with the risk level of the City.

  For this study, each utility maintains a capital reserve target of 1 percent of the original cost of the utility's fixed assets.

System Reinvestment

A utility's infrastructure (e.g., treatment facilities, distribution and collection mains, pumps) is a critical element of providing utility service. Establishing a financial plan for the eventual replacement of these assets ensures system reliability and integrity. This practice is known as system reinvestment funding. Target system reinvestment funding levels are commonly linked to annual depreciation expense in the absence of a formal asset management plan. Depreciation expense is a measure of the decline in asset value associated with routine use of the system.

Particularly for utilities that do not already have an explicit system reinvestment policy in place, implementing a funding level based on full depreciation expense could significantly impact rates. A common alternative benchmark is annual depreciation expense net of debt principal payments on outstanding debt. This approach recognizes that customers are still paying for certain assets through the debt component of their rate and intends to avoid simultaneously charging customers for an asset and its future replacement. The specific benchmark used to set system reinvestment funding targets is a matter of policy that must balance various objectives including managing rate impacts, keeping long-term costs down, and promoting "generational equity" (i.e. not excessively burdening current customers with paying for facilities that will serve a larger group of customers in the future).

The City's financial policies dictate that utility rates be designed to provide for accumulation of resources to replace or renovate aging infrastructure, though the policy does not define a specific funding level. For this study, the water and sewer utilities target system reinvestment equal to annual depreciation expense. The stormwater

utility is a newly formed utility and will consider implementing a similar system reinvestment target in the future. In the interim, the stormwater utility assumes that any cash above the minimum operating target balance is transferred to the capital fund as cash-funded capital.

Debt Management

Debt financing is one available tool for capital funding. Compared with pay-as-you-go funding, debt smooths out the rate impact of a capital program by spreading costs over time. It also creates intergenerational equity – it is sometimes called "pay-as-you-use" because future customers who use the assets are the ones paying for them. However, debt should not be relied on too heavily as it carries the risk of default. Debt also reduces budget flexibility – cash-funded capital projects can be delayed if there is a revenue shortfall, but once the utility has issued debt, the debt service must be paid in good times or bad. While debt is a useful part of the capital funding toolbox, it needs to be monitored to ensure that the system does not become overly leveraged. The debt service coverage metric is used to evaluate the City's debt level.

- ***Debt Service Coverage***. Debt service coverage is typically a requirement associated with revenue bonds and some State loans and is a financial measure assessing the ability to repay debt.

  A typical minimum coverage requirement stated in utility revenue bond covenants is 1.25. If the City issues debt, this coverage requirement essentially requires that the City collect enough revenue to meet operating expenses and not only pay debt service but collect an additional 25 percent above the bonded debt service. The extra revenue is a cushion that assures bondholders that the City has the financial resources to meet its debt service obligations. The City's sewer revenue bonds carry a coverage requirement of 1.25. Achieving a bonded debt service coverage level greater than the minimum required level is a positive signal to bond rating agencies and can result in more favorable terms when the City enters the bond market.

Revenue Requirement

A revenue requirement analysis forms the basis for a long-range financial plan and multi-year rate management strategy for each system. It also enables the City to set utility rate structures which fully recover the total cost of operating each system: capital improvement and replacement, operations, maintenance, general administration, fiscal policy attainment, cash reserve management, and debt repayment. Linking rate levels to a financial plan such as this helps enable sound financial performance for the City's utilities. It also establishes a clear and reasonable relationship between the costs imposed on utility customers and the costs incurred to provide service.

A revenue requirement analysis includes the following core elements to form a complete portrayal of each utility's financial obligations.

- ***Fiscal Policy Analysis***. Identifies formal and informal fiscal policies of the City to ensure fiscal sustainability and consistent financial management. Policies considered include reserve levels, capital / system replacement funding and debt management.
- ***Capital Funding Plan***. Defines a strategy for funding the City's capital improvement program, including an analysis of available resources from rate revenues, debt financing, and any special resources that may be readily available (e.g., grants, outside contributions).
- ***Operating Forecast***. Identifies future annual non-capital costs associated with the operation, maintenance, and administration of the systems.

- ***Sufficiency Testing***. Evaluates the sufficiency of revenues in meeting all financial obligations, including any coverage requirements associated with long-term debt.
- ***Strategy Development***. Designs a forward-looking strategy for adjusting rates to fully fund all financial obligations on a periodic or annual basis over the forecast period.

Cost-of-Service

The purpose of a cost-of-service analysis is to provide a rational basis for distributing the costs of providing utility service to each customer class of service in proportion to the demands they place on the system. Detailed cost allocations, along with appropriate customer class designations, help to sharpen the degree of equity that can be achieved in the resulting rate structure design. The cost-of-service step is performed for the water and sewer utilities only. The key analytical steps of the cost-of-service analysis are as follows:

- ***Functional Cost Allocation***. Apportions the annual revenue requirement to the major functions of service required to deliver water and sewer service:
  - ✓ Water: base (average water use), peak (water use during peak periods), fire protection (hydrants and system upsizing for fire flow requirements), meters & services, and customer (general administrative costs).
  - ✓ Sewer: flow (collection), customer, and two indicators of sewer strength: biochemical oxygen demand (BOD) and total suspended solids (TSS).
- ***Customer Class Designation***. Identifies the customer classes that will be evaluated as part of the study. Existing as well as new or revised customer classes or class definitions may be considered. It is appropriate to group customers that exhibit similar usage characteristics and service requirements.
- ***Customer Cost Allocation***. Allocates the costs from the functional cost allocation to each customer class based on their unique demands for each service as defined by system planning documents, industry practices, and recorded user history (billing data). The results identify shifts in cost recovery by customer class from that experienced under the existing rate structure.

Rate Design

The principal consideration of rate design is for the rate structure to generate sufficient revenue for the system which is reasonably commensurate with the cost of providing service. The pricing structure is largely dictated by the objectives of the system. Most rate designs consist of fixed and variable charges. Fixed charges typically attempt to cover costs of the system that do not vary while variable costs will fluctuate with a change in user demand.

No one rate structure will work well for every utility nor will one rate structure work equally well for all customer classes within a single utility. As a result, the rate design process develops fixed and variable rates that can be specific to each customer class of service. These fixed and variable rates are designed and tested to meet multiple objectives. Examples of these objectives may include:

- Revenue Sufficiency.
- Revenue Stability.
- Philosophical Continuity.
- Cost Alignment.

- Conservation & Efficiency.
- Fairness & Equity.
- Feasibility.
- Simplicity.
- Legal Defensibility.
- Affordability.

3.0 Water Utility

The City of Moscow owns and operates its water system. The system provides water to customers within the City limits, apart from the University of Idaho which maintains a separate water system. Water service is provided to more than 6,200 active points of service, delivering an average of two million gallons of potable water per day. The City of Moscow Water System consists of approximately 6 wells and 3 storage tanks with approximately 4.5 million gallons of water capacity. The utility maintains 99 miles of mainline, 1,000 hydrants, and 3,000 valves. Moscow's water infrastructure meets or exceeds all industry standards and ensures that the public water system maintains compliance with applicable water quality and delivery standards.

Revenue Requirement

The revenue requirement analysis evaluates the amount of revenue that a utility's rates must generate to meet its various financial obligations. This analysis has two main purposes – it serves as a means of evaluating the utility's fiscal health and adequacy of current rate levels, and it sets the revenue basis for near-term and long-term rate planning. The analysis is defined as the net difference between total revenue needs and the revenue generated through non-rate sources. Therefore, the revenue requirement analysis involves defining and forecasting both needs and resources.

Operating Forecast

The purpose of the operating forecast is to determine whether the existing rates and charges are sufficient to recover the costs the utility incurs to operate and maintain the water system. The operating forecast was developed for the fiscal year (FY) 2025 through FY2035 period, though the focus of the study and this report is FY2025 through FY2031. Actual revenue *collected* in FY2024 forms the starting point for the forecast of rate revenue, while the budgeted expenses for FY2025 form the starting point for the expense forecast. The operating forecast includes future projections for revenues, operating expenses, debt service, and financial reserve requirements. The following sections describe each component of the operating forecast.

Financial Reserves

- ***Operating Reserve***. An operating reserve is designed to provide a liquidity cushion; it protects the utility from the risk of short-term variation in the timing of revenue collection or payment of expenses and can help smooth rate increases over time. The City's financial policies dictate a minimum fund balance of three months (90 days) of O&M expenses for the water utility. The minimum reserve target ranges from approximately $1.5 million in FY2025 to $1.8 million in FY2031.

Operating Revenues

- ***Rate Revenue.*** Based on actual detailed customer accounts and usage statistics from the City's billing system. Data from FY2024 was used to project revenues for the forecast period.
- ***Customer Growth.*** Based on discussions with City staff and the City's recent historical GFC collections, growth for all customer classes was assumed at 0.85 percent per year except for the cemetery classification of service, for which no growth was assumed.
- ***Non-Rate Revenue.*** Non-rate revenue consists primarily of investment earnings, turn on / off fees, meter installations, and refunds and reimbursements.

- ***Interest Earnings.*** Based on the City's recent Morton Investment Pool returns, the rate used to calculate interest earnings for the forecast period ranges from 4.00 percent in FY2025 and FY2026, decreasing to 2.00 percent in FY2027 and thereafter.

Operating and Maintenance (O&M) Expenses

- ***General Cost Inflation.*** 3.00 percent per year; based on historical consumer price inflation index and discussion with City staff.
- ***Construction Cost Inflation***. 3.00 percent per year; based on the Engineering News-Record (ENR) construction cost index and discussions with City staff.
- ***Labor Cost Inflation.*** 5.00 percent per year; based on discussion with City staff.
- ***Benefit Cost Inflation.*** 7.00 percent per year; based on discussion with City staff.
- ***Insurance Cost Inflation.*** 10.00 percent per year; based on discussion with City staff.
- ***General Fund Transfer Inflation.*** 5.00 percent per year; based on discussion with City staff.
- ***Street Fund Transfer Inflation.*** 5.00 percent per year; based on discussion with City staff.

Debt Service

- ***Existing Debt.*** The City has two existing loans from the Idaho Department of Environmental Quality (DEQ). Each loan is repaid over a 20-year period, and the principal and interest payments for the combined loans total $536,000 annually.
- ***New Debt.*** No further debt financing is assumed for the forecast period.

System Reinvestment

System reinvestment funding ensures system integrity through ongoing repair and replacement. As discussed in Section 2.0 Rate Study Methodology, the City's financial policies dictate that utility rates be designed to provide for accumulation of resources to replace or renovate aging infrastructure. The policy does not define a specific funding level. For this study the water utility funds system reinvestment equal to annual depreciation expense. Additionally, the forecast assumes that any funds available over the minimum operating reserve target will be transferred to the capital reserve to be made available for capital projects. Dedicated annual rate funded system reinvestment averages $1.1 million per year over the study period.

Capital Funding Plan

The water utility capital plan anticipates $13.6 million in capital costs from FY2025 to FY2031, escalated to the year of construction. Funding for the identified capital projects includes cash from system reinvestment and existing reserves, as well as general facilities charge revenue and grant funding. **Exhibit 2** provides a summary of the funding sources for the capital expenditures. Based on this funding plan, the City would finance approximately 18 percent of the capital plan from grants and GFCs; the remaining 82 percent of project costs would be funded by cash from system reinvestment and existing reserves.

Exhibit 2. Water Capital Funding Summary

Capital Funding Summary	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	Total
Capital Project Costs	**$ 1,370,811**	**$ 1,193,519**	**$ 2,968,994**	**$ 2,202,376**	**$ 1,699,660**	**$ 3,609,002**	**$ 567,158**	**$ 13,611,521**
Funding Sources								
Cash	$ 898,784	$ 770,301	$ 2,720,506	$ 1,817,257	$ 1,431,538	$ 3,224,489	$ 277,851	$ 11,140,725
General Facilities Charges	289,527	239,218	248,489	258,119	268,122	278,513	289,307	1,871,295
Grant Funding	182,500	184,000	-	127,000	-	106,000	-	599,500
Total Funding Sources	**$ 1,370,811**	**$ 1,193,519**	**$ 2,968,994**	**$ 2,202,376**	**$ 1,699,660**	**$ 3,609,002**	**$ 567,158**	**$ 13,611,521**

Summary of Revenue Requirement

The operating forecast components come together to form the multi-year projection. The analysis compares the overall revenue available to the water system to the expenses and evaluates the sufficiency of current rates on an annual basis. **Exhibit 3** illustrates a summary of the revenue requirement findings, while **Exhibit 4** and **Exhibit 5** summarize the utility's projected fund balances based on current rate levels.

Exhibit 3. Water Revenue Requirement Summary Before Increases

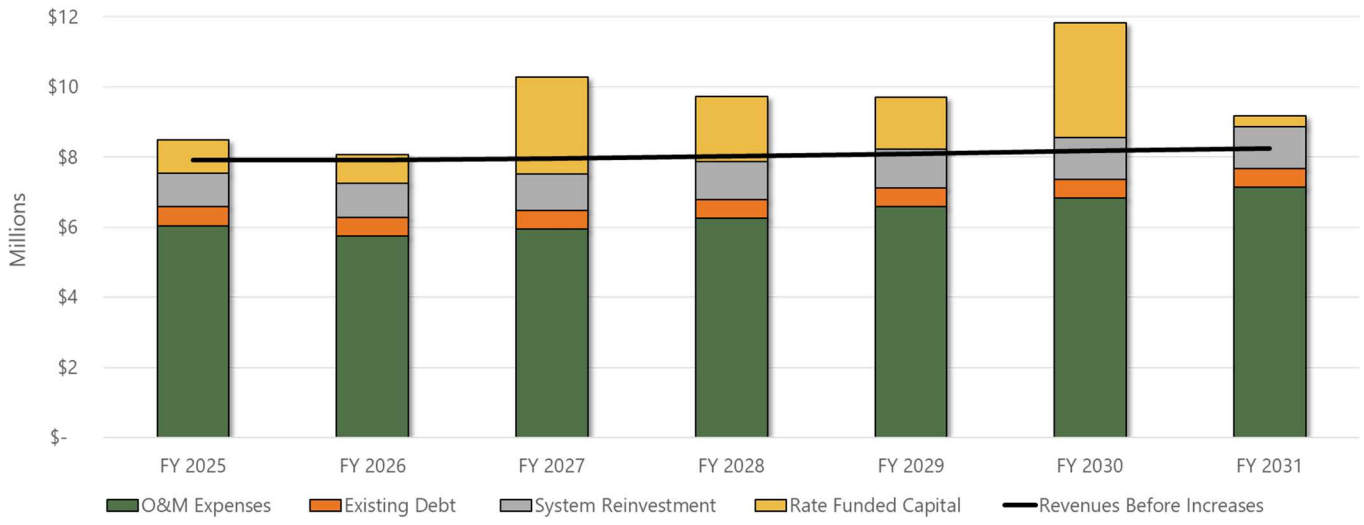


Exhibit 4. Water Operating Reserve Summary Before Increases

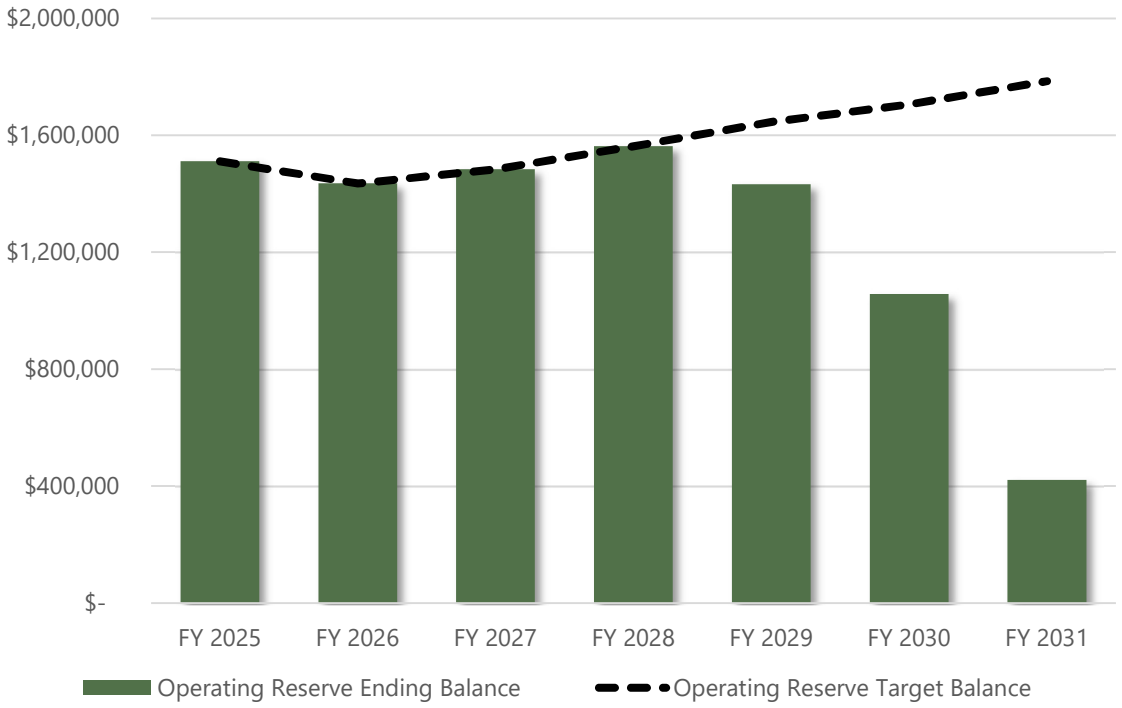
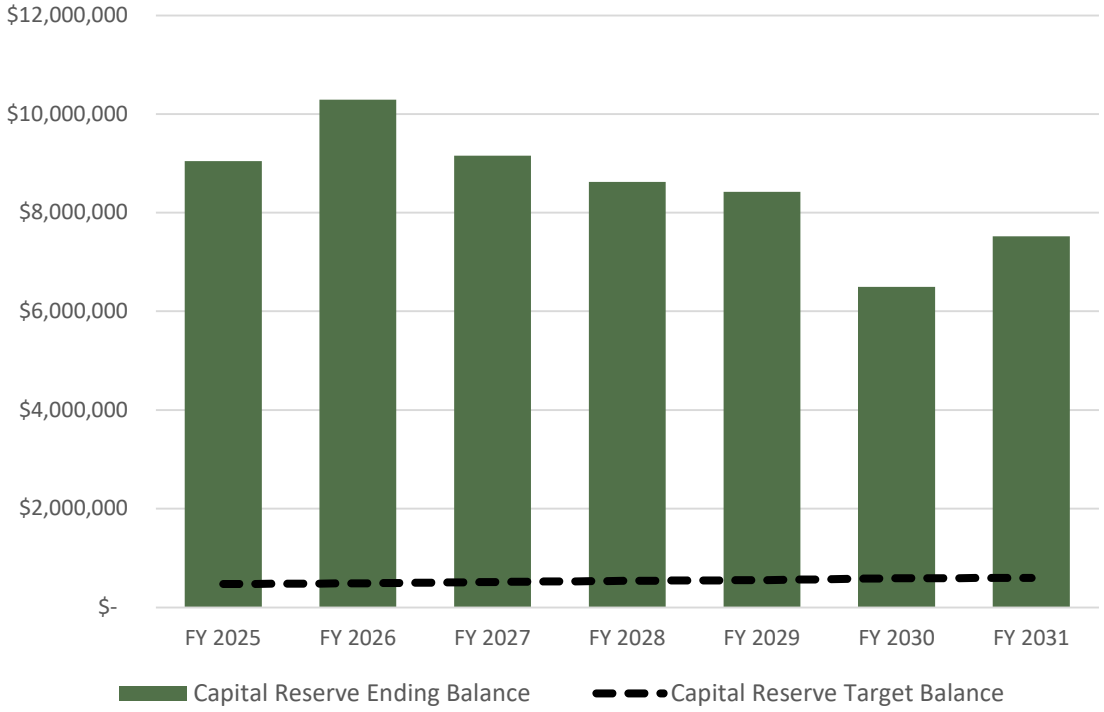


Exhibit 5. Water Capital Reserve Summary Before Increases



Key observations of the revenue requirement before rate increases include:

As identified in **Exhibit 3** revenues at existing rates are sufficient to meet cash operating expenses, existing debt service, and system reinvestment in FY2025. Beginning in FY2029, rate revenues are no longer able to fully fund depreciation-level system reinvestment.

- The water operating reserve balance, as expressed in **Exhibit 4,** drops below target levels starting in FY2029.
- The water capital reserve balance remains above the minimum target throughout the forecast period. The utility's existing cash reserves, with the addition of GFC revenue and system reinvestment funding, fully cover the capital improvement plan from FY2025 through FY2031.
  - ✓ It should be noted that while the discussion primarily focuses on the FY2025 through FY2031 rate setting period, the operating forecast was developed through FY2035. The long-term forecast identifies additional capital infrastructure investment requirements outside of FY2031. Projecting through FY2035 indicates that revenues at existing levels are not sufficient to fund the entire long-term forecast.

To meet the projected financial obligations and financial policy targets, including system reinvestment, annual rate revenue adjustments are needed. Based on discussions with City staff and the Citizen Rate Committee, the revenue adjustment includes the adopted 4.00 percent increase for FY2026 followed by proposed 5.15 percent annual increases through FY2031. With these rate revenue adjustments, the utility will be able to:

- Meet or exceed minimum operating and capital reserve targets throughout the forecast period.
- Fund system reinvestment at 100 percent of depreciation levels.
- Build capital reserves to address short-term and long-term capital requirements.

Cost of Service Analysis

As discussed in Section 2 Rate Study Methodology, a cost-of-service analysis determines the equitable allocation of costs to customers given their service needs and characteristics. The study consists of the following fundamental steps to allocate the revenue requirement to each customer class and helps inform the development of final rates:

1. Functional Cost Allocation
2. Customer Class Designation
3. Customer Cost Allocation

The procedure applied, and the assumptions used to complete the steps of the cost-of-service process are discussed in detail in the remainder of this section.

Functional Cost Allocation

The first step of the cost-of-service analysis is to functionalize both plant assets and expenses into major functions of service. The functions of service to which water plant and expenses were allocated are listed below:

- ***Customer.*** These are the costs associated with establishing, maintaining, and serving water customers and tend to include administrative and billing costs and customer service. These costs are generally uniform by customer regardless of their meter size and demand placed on the water system.

- ***Meters & Services.*** These costs are associated with installation, maintenance, and repair of meters and services.
- ***Base.*** These costs relate to providing capacity to meet "base" or average water demands and are essentially correlated with year-round water consumption.
- ***Peak.*** These costs relate to providing additional capacity to meet incremental water demand during peak demand periods, which usually occur during the summer months.
- ***Fire Protection.*** These are the costs associated with operating and maintaining facilities that are used to provide fire protection service. This includes both facilities that are directly related to fire protection (e.g. hydrants) and facilities that are oversized to accommodate fire flow (e.g. mains, reservoirs, pump stations).

The individual fixed assets of the water system were reviewed and classified into seven asset categories: supply & treatment, pumping, storage, transmission & distribution, meters & services, hydrants, and general plant. Each category was then allocated among the functions of service that most closely align with the operational purpose of that asset category:

- ***Supply & Treatment.*** These assets were allocated between the base and peak functions based on the ratio of max day demand to average day demand provided in the City's Comprehensive Water System Plan (CWSP).
- ***Pumping.*** These assets were allocated among the base, peak, and fire protection functions based on an analysis of the operational purpose and pumping capacity of each of the City's booster pump stations.
- ***Storage.*** These assets were allocated among base, peak, and fire protection based on an analysis of the operational, equalizing, emergency, and fire suppression storage requirements provided in the CWSP.
- ***Transmission & Distribution.*** These assets were allocated among base, peak, and fire protection based on an analysis of pipe length and diameter. The proportional approach was used to allocate the fire increment to those pipes that are between 6" and 12" in diameter. Under this approach, the fire increment is considered to be the area of the pipe that is upsized in order to provide fire protection. For example, for a 10" pipe the allocation considers 8" for domestic purposes and the remainder is allocated to fire. The portion related to this one size increment is calculated by determining the percent of the pipe that is oversized for fire needs by calculating the change in hydraulic capacity.
- ***Meters & Services.*** These assets were allocated 100 percent to the meters & services function.
- ***Hydrants.*** These assets were allocated 100 percent to the fire protection function.
- ***General Plant.*** These assets were allocated among the functions based on the overall allocation of all other plant.

The functional allocation of water system assets is summarized in **Exhibit 6.**

Exhibit 6. Functional Allocation of Water System Assets

Functionalization of Water Assets	Customer	M&S	Base	Peak	Fire	Total
Supply & Treatment	$ -	$ -	$ 4,188,066	$ 4,640,830	$ -	$ 8,828,897
Pumping	-	-	1,892,078	2,096,627	4,861,291	8,849,995
Storage	-	-	186,046	292,339	1,062,521	1,540,906
Transmission & Distribution	-	-	4,192,355	4,645,582	9,067,347	17,905,284
Meters & Services	-	5,032,193	-	-	-	5,032,193
Hydrants	-	-	-	-	782,464	782,464
General Plant	-	357,974	743,987	830,549	1,122,085	3,054,595
Total Plant In Service	**$ -**	**$ 5,390,167**	**$ 11,202,532**	**$ 12,505,927**	**$ 16,895,707**	**$ 45,994,333**

The next step in the functional cost allocation is to allocate the detailed line items that comprise the utility's revenue requirement to functions of service. While certain line items may be directly attributable to a specific service function, many are not and must be allocated to functions based on an allocation of system assets or another representative metric. Most of the water utility expenses were allocated based on the overall allocation of system assets. The following exceptions were accounted for in the expense functionalization process:

- Salaries and benefits were allocated based on a separate functionalization of labor, with employee salaries and benefits allocated based on the function of each position.
- Postage, printing, and binding were allocated 100 percent to the customer function.
- Lab supplies, chemicals, and utilities were allocated 100 percent to the base function.
- The water conservation program was allocated 100 percent to the supply & treatment function.
- Capital outlays for water meters were allocated 100 percent to the meters & services function.
- The transfer out to the General Fund was allocated partially to the customer function to account for utility billing costs, with the remainder allocated as system assets.
- Transfers out to the Street Fund, Parks & Recreation Fund, Fleet Fund, and Information Systems Fund were allocated as all other water utility expenses.
- Net cash flow was allocated as all other revenue requirement.

Once the expenses are allocated, the utility's non-rate revenues are allocated among functions and subtracted from the expenses to determine the rate revenue requirement.

A summary of the functional allocation of the FY2026 revenue requirement is shown in **Exhibit 7**.

Exhibit 7. Functional Allocation Summary of Test Year Water Revenue Requirement (FY2026)

Revenue Requirement	Customer	M&S	Base	Peak	Fire	Total
Salaries & Benefits	$ 80,110	$ 35,258	$ 454,179	$ 503,840	$ 620,272	$ 1,693,658
Contractual Expenses	-	49,468	109,118	121,702	141,821	422,108
Commodities	15,450	148,894	779,019	406,377	426,870	1,776,609
Capital Outlays	-	392,035	13,313	14,848	17,303	437,500
Transfers Out	162,990	138,151	291,481	289,868	375,518	1,258,008
Contingency	-	18,106	39,939	44,545	51,909	154,500
Debt Service	-	62,864	130,641	145,765	197,151	536,421
System Reinvestment	-	114,114	237,147	264,600	357,879	973,740
Net Cash Flow	33,927	113,777	281,051	245,039	299,363	973,156
Total Expenses	**$ 292,477**	**$ 1,072,669**	**$ 2,335,888**	**$ 2,036,583**	**$ 2,488,085**	**$ 8,225,701**
Less: Non-Rate Revenue	(12,832)	(134,853)	(19,315)	(16,840)	(20,573)	(204,413)
Total Revenue Requirement	**$ 279,645**	**$ 937,816**	**$ 2,316,573**	**$ 2,019,743**	**$ 2,467,511**	**$ 8,021,289**

Customer Class Designation

The City's current customer classes consist of residential (including single family, duplexes, and triplexes with individual meters per unit), non-residential (including multi family with one meter serving multiple units and commercial), and the cemetery. Although the multi family class is presented separately from the commercial class in the City's rate schedule, the rate schedules are the same. Based on feedback from City staff, these classes were combined for the cost-of-service evaluation.

The cost-of-service analysis was completed for the following classes:

- Residential
- Non-residential
- Cemetery

Customer Cost Allocation

Once the customer classes are defined, the functional allocation costs pools (shown in **Exhibit 7**) were then allocated to these customer classes based on the service requirements each class places on the system. To complete this task, the analysis consisted of first developing allocation factors that identified customer characteristics including number of accounts, consumption levels, peak demand patterns, and fire flow requirements. The allocation factors are intended to equitably allocate costs to those benefiting from the service. For this study, the costs were allocated based on the following:

- ***Customer.*** Actual number of customer accounts by customer class.
- ***Meters & Services.*** Customer accounts weighted by MSEs, meter factors that recognize the differences in the cost of meters and associated maintenance for different meter sizes.
- ***Base.*** Total annual water usage.
- ***Peak.*** Total water usage during the class-specific peak period.
- ***Fire Protection.*** Customer accounts weighted by fire flow requirements identified in the CWSP.

Exhibit 8 summarizes the allocation factors used to distribute costs to the classes of service.

Exhibit 8. Summary of Class Based Water Allocation Factors

Class	Customer	M&S	Base	Peak	Fire
	Accounts	MSEs	Use	Peak Use	w. Accounts
Residential	4,864	4,864	435,598	66,362	7,295,359
Non-Residen	1,572	2,425	493,331	61,062	7,501,955
Cemetery	1	6	12,565	4,378	-
Total	**6,437**	**7,294**	**941,494**	**131,801**	**14,797,313**
Residential	75.56%	66.68%	46.27%	50.35%	49.30%
Non-Residen	24.43%	33.24%	52.40%	46.33%	50.70%
Cemetery	0.02%	0.08%	1.33%	3.32%	0.00%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Cost-of-Service Summary

The cost-of-service results are calculated by applying the allocation factors to the functional allocation cost pools. **Exhibit 9** shows a comparison of the current rate revenue distribution between classes of service and the results of the cost-of-service analysis.

Exhibit 9. Water Cost of Service Summary

Class	FY2026		Difference	
	Existing	COSA	$	%
Residential	$ 4,184,049	$ 4,141,854	$ (42,195)	-1.0%
Non-Residential	3,477,262	3,780,628	303,366	8.7%
Cemetery	51,466	98,806	47,340	92.0%
Total	**$ 7,712,778**	**$ 8,021,289**	**$ 308,511**	**4.00%**

Given the need to make a host of assumptions to complete a cost-of-service analysis, the margin of error for class-specific results is typically considered to be plus or minus 10.00 percent, relative to the system average. Because costs fluctuate year to year, the needed increases by different classes of service can also fluctuate and interclass rate changes are not suggested unless the class specific revenue difference is outside of the 10.00 percent threshold. Based on these guidelines, the cost-of-service comparison indicates that the cemetery class is underpaying relative to cost of service. All other classes are within cost of service.

Based on feedback from City staff and the Citizen Rate Committee, a multi-year strategy was developed to transition the classes of service towards cost-of-service. **Exhibit 10** shows the proposed increases by class of service.

Exhibit 10. Water Utility Cost of Service Phase in Schedule

Class	Proposed Increases					
	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Residential	4.00%	5.15%	4.97%	4.95%	4.92%	4.89%
Non-Residential	4.00%	5.15%	5.15%	5.15%	5.15%	5.15%
Cemetery	4.00%	5.15%	20.00%	20.00%	20.00%	20.00%
Total	**4.00%**	**5.15%**	**5.15%**	**5.15%**	**5.15%**	**5.15%**

Rate Design

Overview

The principal objective of the rate design stage of the analysis is to implement a rate structure that collects the appropriate level of revenue, is cost-based, and aligns with the utility's goals and objectives. Rate design is typically the final step in a rate study process. There are many different rate structure options, but ultimately rates should reflect the types of costs the utility incurs and generate the required levels of revenue. This section will review the existing and proposed rates for the water utility.

Existing Rates

For most classes, the existing water rates are composed of a monthly fixed charge based on water meter size and a volume charge assessed on a per hundred cubic feet (ccf) basis. Volume charges for residential customers are assessed on an inclining block basis. The first 7.0 ccf of water used per month is charged at one rate, water use between 7.01 and 20 ccf is charged at a higher rate, and water use beyond 20 ccf is charged at the highest rate. **Exhibit 11** provides a summary of existing rates as of FY2025.

Exhibit 11. Existing Water Rates

Description	FY2025
Monthly Fixed Charge	
Residential	$ 43.06
Non-Residential	
5/8"	$ 43.06
1"	53.85
1.5"	107.42
2"	171.90
3"	322.36
4"	543.18
Volume Charge (ccf)	
Residential	
Block 1 (0-7ccf)	$ 3.20
Block 2 (8-20ccf)	3.80
Block 3 (20+ccf)	6.44
Non-Residential	$ 4.21
Cemetery	$ 3.58

Proposed Rates

To maintain consistency with the findings of the cost-of-service analysis, fixed and volume charges for each class of service were increased by the class specific phase-in percentage annual increase as identified in **Exhibit 10.** The proposed rates gradually transition the cemetery class towards its cost-of-service target.

Exhibit 12 details the proposed fixed and volume rates for water utility customers for FY2026 to FY2031 considering the phase-in strategy throughout the rate period.

Exhibit 12. Proposed Water Utility Rates

Description	Existing	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Monthly Charges							
Residential	$ 43.06	$ 44.78	$ 47.09	$ 49.52	$ 52.07	$ 54.75	$ 57.57
Non Residential							
5/8"	$ 43.06	$ 44.78	$ 47.09	$ 49.52	$ 52.07	$ 54.75	$ 57.57
1"	53.85	56.00	58.88	61.91	65.10	68.45	71.98
1.5"	107.42	111.72	117.47	123.52	129.88	136.57	143.60
2"	171.90	178.78	187.99	197.67	207.85	218.55	229.81
3"	322.36	335.25	352.52	370.67	389.76	409.83	430.94
4"	543.18	564.91	594.00	624.59	656.76	690.58	726.14
Volume Charges (ccf)							
Residential							
Block 1 (0-7ccf)	$ 3.20	$ 3.33	$ 3.50	$ 3.66	$ 3.83	$ 4.01	$ 4.19
Block 2 (8-20ccf)	3.80	3.95	4.16	4.35	4.55	4.76	4.98
Block 3 (20+ccf)	6.44	6.70	7.04	7.37	7.72	8.07	8.43
Non Residential	4.21	4.38	4.61	4.85	5.10	5.36	5.64
Cemetery	3.58	3.72	3.91	4.78	5.83	7.08	8.60

4.0 Sewer Rates

The City of Moscow owns and operates an advanced secondary treatment wastewater treatment plant that was completely replaced in 2002 with a Biological Nutrient Removal (BNR) process. Post replacement, effluent filters were added to enhance phosphorus removal. The City is regulated under the Environmental Protection Agency National Pollutant Discharge Elimination System (NPDES) permit and discharges the treated wastewater into Paradise Creek on the west side of Moscow. The collection system services all of the City of Moscow, the SE Moscow Water and Sewer District, and the University of Idaho (U of I). More than 88 miles of pipeline, 1,960 manholes, and 6 lift stations complete the collection system.

Revenue Requirement

Similar to the water utility, a revenue requirement was completed for the sewer utility and forms the basis for the long-range financial plan and multi-year financial management strategy.

Operating Forecast

The purpose of the operating forecast is to determine whether the existing rates and charges are sufficient to recover the costs the utility incurs to operate and maintain the sewer system. The operating forecast was for FY2025 through FY2037 period, though the focus of the study and this report is FY2025 through FY2031. Actual revenue *collected* in FY2024 forms the starting point for the forecast of rate revenue, while the budgeted expenses for FY2025 form the starting point for the expense forecast. The operating forecast includes future projections for revenues, operating expenses, debt service, and financial reserve requirements. The following sections describe each component of the operating forecast.

Financial Reserves

- ***Operating Reserve***. An operating reserve is designed to provide a liquidity cushion; it protects the utility from the risk of short-term variation in the timing of revenue collection or payment of expenses and can help smooth rate increases over time. The City's financial policies dictate a minimum fund balance of three months (90 days) of O&M expenses for the sewer utility. The minimum reserve target ranges from approximately $1.5 million in FY2025 to $1.9 million in FY2031.

Operating Revenues

- ***Rate Revenue.*** Based on actual detailed customer accounts and usage statistics from the City's billing system. Data from FY2024 was used to project revenues for the forecast period.
- ***Customer Growth.*** Based on discussions with City staff and the City's recent historical GFC collections, growth for all customer classes was assumed at 0.75 percent per year except for the U of I, for which no growth is assumed.
- ***Non-Rate Revenue.*** Non-rate revenue consists of investment earnings, sewer tap fees and refunds and reimbursements.
- ***Interest Earnings.*** Based on the City's recent Morton Investment Pool returns, the rate used to calculate interest earnings for the forecast period ranges from a high of 4.00 percent in FY2025, decreasing to 2.00 percent by FY2027 and thereafter.

Operating and Maintenance (O&M) Expenses

- ***General Cost Inflation.*** 3.00 percent per year; based on historical consumer price inflation index and discussion with City staff.
- ***Construction Cost Inflation***. 3.00 percent per year; based on the Engineering News-Record (ENR) construction cost index and discussions with City staff.
- ***Labor Cost Inflation.*** 5.00 percent per year; based on discussion with City staff.
- ***Benefit Cost Inflation.*** 7.00 percent per year; based on discussion with City staff.
- ***Insurance Cost Inflation.*** 10.00 percent per year; based on discussion with City staff.
- ***General Fund Transfer Inflation.*** 5.00 percent per year; based on discussion with City staff.
- ***Parks & Recreation Fund Transfer Inflation.*** 5.00 percent per year; based on discussion with City staff.

Debt Service

- ***Existing Debt.*** The City has one outstanding sewer revenue bond. The bond carries average annual principal and interest payments of $404,000 and is fully repaid in FY2028. The bond carries a minimum debt service coverage requirement of 1.25.
- ***New Debt.*** No new debt financing is assumed for the forecast period.

System Reinvestment

System reinvestment funding ensures system integrity through ongoing repair and replacement. As discussed in Section 2 Rate Study Methodology, the City's financial policies dictate that utility rates be designed to provide for accumulation of resources to replace or renovate aging infrastructure. The policy does not define a specific funding level. For this study the sewer utility funds system reinvestment equal to annual depreciation expense. Additionally, the forecast assumes that any funds available over the minimum operating reserve target will be transferred to the capital reserve to be made available for capital projects. Dedicated annual rate funded system reinvestment averages $1.6 million per year over the study period.

Capital Funding Plan

The sewer utility capital plan anticipates $45.1 million in capital costs from FY2025 through FY2031, escalated to the year of construction. Funding for the identified capital projects includes cash from system reinvestment, existing reserves, operating reserve transfers, general facilities charge revenue and grants. **Exhibit 13** provides a summary of the funding sources for the capital expenditures. Based on this funding plan, the City would finance approximately 5 percent of the capital plan from GFCs and grant funding; the remaining 95 percent of project costs would be funded by cash from system reinvestment, existing reserves, and transfers from the operating reserve to the capital reserve.

Exhibit 13. Sewer Capital Funding Summary

Capital Funding Summary	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	Total
Capital Project Costs	**$ 3,472,668**	**$ 4,753,506**	**$ 11,746,726**	**$ 6,707,406**	**$ 7,200,426**	**$ 5,865,263**	**$ 5,363,095**	**$ 45,109,088**
Funding Sources								
Cash	$ 3,097,668	$ 4,498,184	$ 11,481,771	$ 6,432,456	$ 6,915,104	$ 5,569,177	$ 5,055,839	$ 43,050,199
General Facilities Charges	185,000	255,322	264,954	274,950	285,322	296,086	307,256	1,868,890
Grant Funding	190,000	-	-	-	-	-	-	190,000
Total Funding Sources	**$ 3,282,668**	**$ 4,753,506**	**$ 11,746,726**	**$ 6,707,406**	**$ 7,200,426**	**$ 5,865,263**	**$ 5,363,095**	**$ 45,109,088**

Summary of Revenue Requirement

The operating forecast components come together to form the multi-year projection. The analysis compares the overall revenue available to the sewer system to the expenses and evaluates the sufficiency of current rates on an annual basis. **Exhibit 14** illustrates a summary of the revenue requirement findings, while **Exhibit 15** and **Exhibit 16** summarize the utility's projected fund balances based on current rate levels.

Exhibit 14. Sewer Revenue Requirement Before Increases

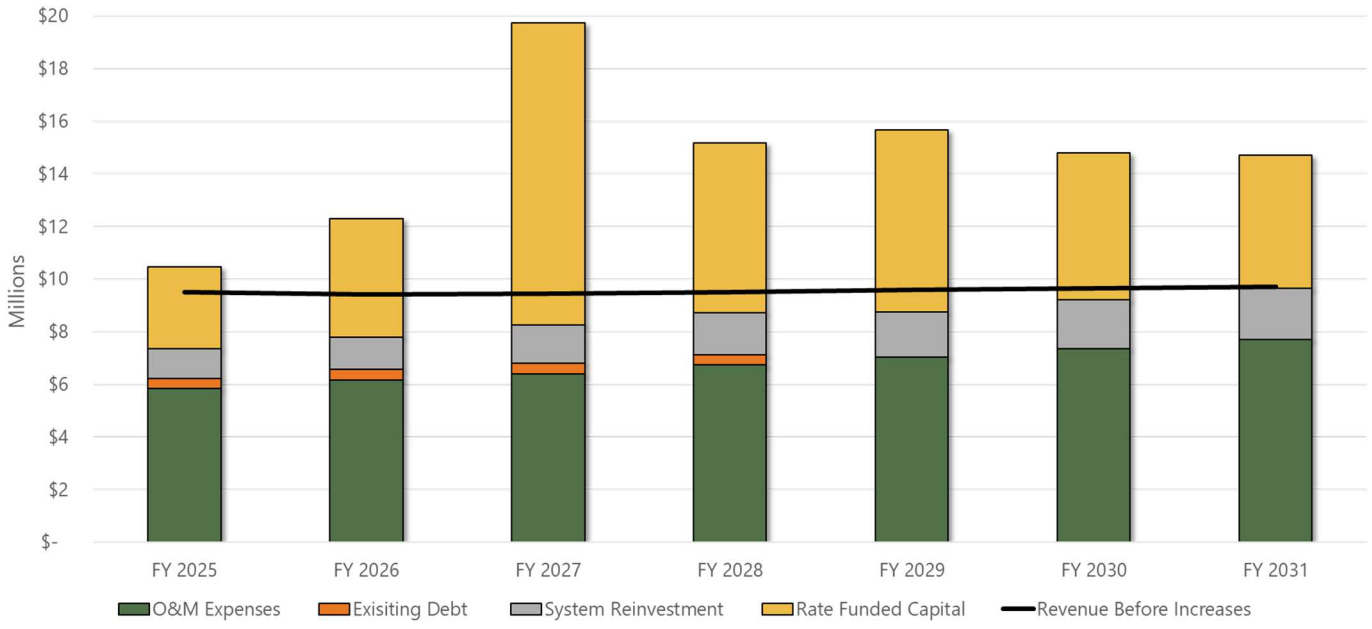


Exhibit 15. Sewer Operating Reserve Summary Before Increases

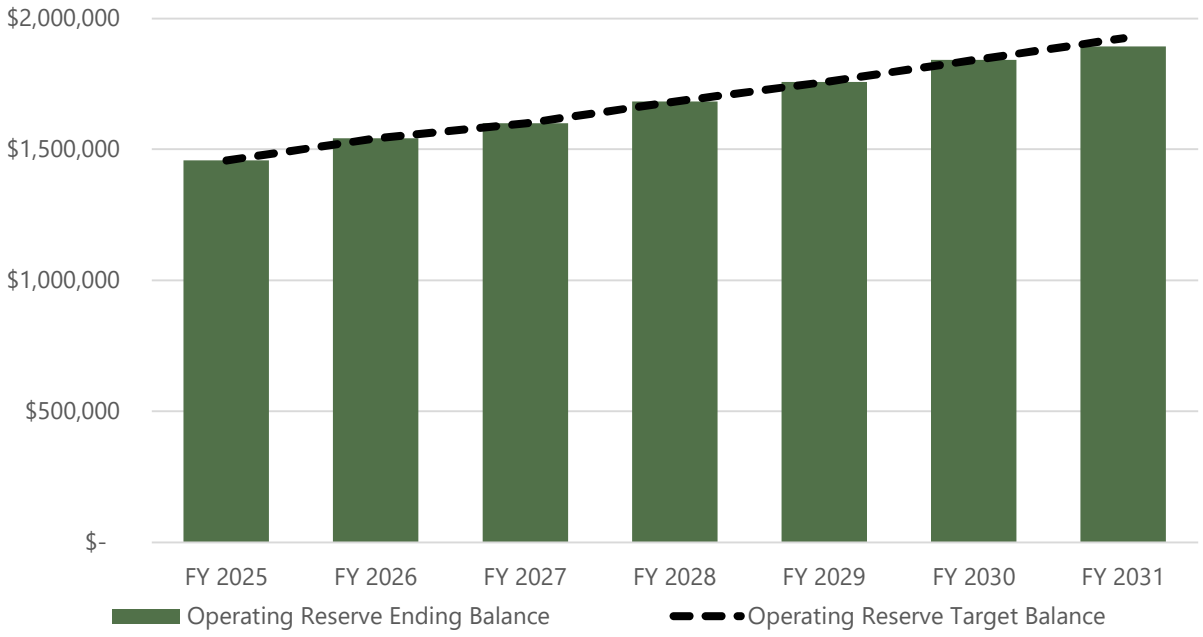
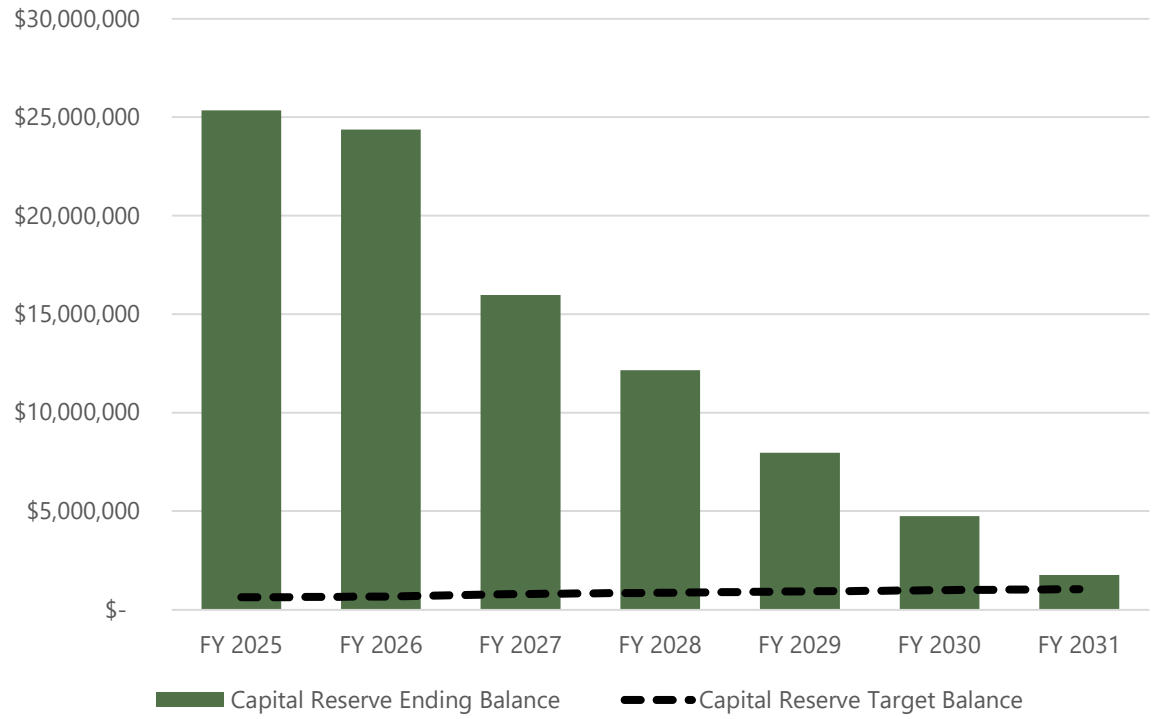


Exhibit 16. Sewer Capital Reserve Summary Before Increases



Key observations of the revenue requirement before rate increases include:

As identified in **Exhibit 14,** revenues at existing rates are sufficient to meet cash operating expenses, system reinvestment, and debt service throughout the forecast period. However, by 2031, much of the excess capital funding capacity is depleted without rate action.

- The operating reserve balance, as expressed in **Exhibit 15,** meets the target balance throughout the forecast period with the exception of FY2031, when the balance is projected to decrease to 98 percent of target levels.
- The sewer capital reserve balance, as expressed in **Exhibit 16**, remains above the minimum target throughout the forecast period. With the addition of GFC revenue and system reinvestment funding the reserves are utilized to fully fund the utility's capital plan, remaining slightly above the reserve target at the end of the forecast period in FY2031.
  - ✓ It should be noted that while the discussion primarily focuses on the FY2025 through FY2031 rate setting period, the operating forecast was developed through FY2037. The long-term forecast identifies additional capital infrastructure investment requirements outside of FY2031. Projecting through FY2037 indicates that revenues at existing levels are not sufficient to fund the entire long-term forecast.

To meet the projected short-term and long-term financial obligations of the utility, annual rate revenue adjustments are needed. Based on discussions with the Citizen Rate Committee and City Staff, the revenue adjustment includes the 2.25 percent increase adopted for FY2026, followed by proposed 2.80 percent annual increases through FY2031. With these rate revenue adjustments the utility will be able to:

- Meet or exceed minimum operating and capital reserve targets throughout the forecast period.
- Fund system reinvestment at 100 percent of depreciation levels.
- Build capital reserves to address short-term and long-term capital requirements.

Cost of Service Analysis

As discussed in Section 2 Rate Study Methodology, a cost-of-service analysis determines the equitable allocation of costs to customers given their service needs and characteristics. The study consists of the following fundamental steps to allocate the revenue requirement to each customer class and helps inform the development of final rates:

1. Functional Cost Allocation
2. Customer Class Designation
3. Customer Cost Allocation

The procedure applied, and the assumptions used to complete the steps of the cost-of-service process are discussed in detail in the remainder of this section.

Functional Cost Allocation

The first step of the cost-of-service analysis is to functionalize both plant assets and expenses into major functions of service. The functions of service to which sewer plant and expenses were allocated are listed below:

- ***Customer.*** These costs are associated with providing services to customers regardless of sewer flow contribution, such as billing and office support.

- ***Flow.*** These costs relate to actual and estimated sewer volume processed within the system in a year.
- ***Strength.*** These costs reflect the strength of sewage processed. Strength is tracked by two measurements – biochemical oxygen demand (BOD) and total suspended solids (TSS). BOD is the parameter used to characterize the organic strength of wastewater and TSS is the parameter that measures the amount of particles suspended in water that will not pass through a filter and require treatment.
- The individual fixed assets of the sewer system were reviewed and classified into four asset categories: treatment, collection, pumping, and general plant. Each category was then allocated among the functions of service that most closely align with the operational purpose of that asset category:
- ***Treatment.*** These assets were allocated based on an analysis of the City's treatment processes (e.g., headworks, aeration), with each process allocated among flow, BOD, and TSS based on the operational purpose of that treatment process.
- ***Collection.*** These assets were allocated 100 percent to the flow function.
- ***Pumping.*** These assets were allocated 100 percent to the flow function.
- ***General Plant.*** These assets were allocated among the functions based on the overall allocation of all other plant.

The functional allocation of sewer system assets is summarized in **Exhibit 17.**

Exhibit 17. Functional Allocation of Sewer System Assets

Functionalization of Sewer Assets	Customer	Flow	BOD	TSS	Total
Treatment	$ -	$ 10,272,287	$ 7,134,078	$ 6,253,373	23,659,738
Collection	-	29,870,449	-	-	29,870,449
Pumping	-	2,079,448	-	-	2,079,448
General Plant	-	2,753,701	465,280	407,841	3,626,822
Total Plant In Service	**$ -**	**$ 44,975,886**	**$ 7,599,357**	**$ 6,661,213**	**$ 59,236,457**

The next step in the functional cost allocation is to allocate the detailed line items that comprise the utility's revenue requirement to functions of service. While certain line items may be directly attributable to a specific service function, many are not and must be allocated to functions based on an allocation of system assets or some other metric. Most of the sewer utility expenses were allocated based on the overall allocation of system assets. The following exceptions were accounted for in the expense functionalization process:

- Salaries and benefits were allocated based on a separate functionalization of labor, with employee salaries and benefits allocated based on the function of each position.
- Postage, printing, and binding were allocated 100 percent to the customer function.
- Lab supplies and chemicals were allocated 100 percent to the treatment function.
- Biosolids disposal was allocated 40 percent to the BOD function and 60 percent to the TSS function.
- The transfer to the General Fund was allocated partially to the customer function to account for utility billing costs, with the remainder allocated as system assets.
- Transfers to the Street Fund, Parks & Recreation Fund, Street Fund, Fleet Fund, and Information Systems Fund were allocated as all other sewer utility expenses.

- The utility's debt service, which repays bonds that were issued for treatment plant improvements, was allocated 100 percent to the treatment function.
- Net cash flow was allocated as all other revenue requirement.

Once the expenses are allocated, the utility's non-rate revenues are allocated among functions and subtracted from the expenses to determine the revenue requirement.

A summary of the functional allocation of the FY2026 revenue requirement is shown in **Exhibit 18**.

Exhibit 18. Functional Allocation Summary of Test Year Sewer Revenue Requirements (FY2026)

Revenue Requirement	Customer	Flow	BOD	TSS	Total
Salaries & Benefits	$ 153,377	$ 1,045,277	$ 255,598	$ 224,045	$ 1,678,297
Contractual Expenses	-	384,830	65,023	56,996	506,849
Commodities	7,455	1,220,060	403,915	420,808	2,052,238
Capital Outlays	-	125,126	21,142	18,532	164,800
Transfers Out	204,025	1,044,928	190,478	170,321	1,609,752
Contingency	-	117,306	19,821	17,374	154,500
Debt Service	-	175,249	121,710	106,685	403,644
System Reinvestment	-	928,217	156,836	137,475	1,222,527
Net Cash Flow	83,989	1,183,606	290,149	270,809	1,828,553
Total Expenses	**$ 448,846**	**$ 6,224,599**	**$ 1,524,672**	**$ 1,423,044**	**$ 9,621,160**
Less: Non-Rate Revenue	(9,509)	(33,309)	(6,940)	(6,477)	(56,234)
Total Revenue Requirement	**$ 439,337**	**$ 6,191,290**	**$ 1,517,732**	**$ 1,416,567**	**$ 9,564,926**

Customer Class Designation

A class of service is a group of utility customers with similar usage characteristics who are served at similar costs. Classes of service can be defined based on several factors such as flow, strength, service requirements, geography, or other factors. A cost-of-service analysis determines the proportional recovery of costs from each class of service based on these unique demands. The customer classes evaluated as part of the sewer rate study are based on the City's existing rates and include:

- Single family
- Multi family
- Non-residential low strength
- Non-residential medium strength
- Non-residential high strength
- University of Idaho

Customer Cost Allocation

Once the customer classes are defined, the functional allocation costs pools (shown in **Exhibit 18**) were then allocated to these customer classes based on the service requirements each class places on the system. To complete this task, the analysis consisted of first developing allocation factors that identified customer characteristics including number of accounts, sewer flow contribution, and strength. The allocation factors are intended to equitably allocate costs to those benefiting from the service. For this study, the costs were allocated based on the following:

- ***Customer.*** Actual number of customer accounts by customer class.

- ***Flow.*** Annual flow contributed to the sewer system, both billed and estimated. Flows were adjusted for estimated inflow & infiltration (I&I).
  - ✓ Billed flow was used for commercial customers with a consumption charge under the existing rate schedule.
  - ✓ Single family flow was estimated based on winter water usage per account, adjusted down by 10 percent based on the assumption in Chapter 4 of the City's Comprehensive Sewer System Plan that approximately 90 percent of winter water usage makes it to the sewer system.
  - ✓ Similar to single family, multi family flow was based on winter water usage per unit, adjusted down by 10 percent based on the assumption that approximately 90 percent of winter water usage makes it into the sewer system as discussed in the City's Comprehensive Sewer System Plan.
- ***BOD & TSS.*** Strength related costs were allocated based on average flow adjusted for the estimated strength factors associated with each customer class.
  - ✓ Single family and multi-family have an assumed strength of 250 milligrams per liter (mg/l) for BOD and TSS.
  - ✓ Non-residential low, medium, and high have assumed BOD and TSS strengths of 200 mg/l, 400 mg/l, and 600 mg/l, respectively.
  - ✓ The University of Idaho has an assumed strength of 250 mg/l for BOD and TSS.

Exhibit 19 summarizes the allocation factors used to distribute costs to the classes of service.

Exhibit 19. Summary of Class-Based Sewer Allocation Factors

Class	Customer	Flow	BOD	TSS
	Accounts	ccf	w. ccf	w. ccf
Single Family	4,886	245,726	61,431,554	61,431,554
Multi Family	869	209,774	52,443,421	52,443,421
Non-Residential (BOD/TSS)				
Low (0-200 mg/l)	501	88,740	17,748,068	17,748,068
Medium (201-400 mg	67	39,288	15,715,083	15,715,083
High(401+ mg/l)	59	27,733	16,639,718	16,639,718
Uofl	1	108,614	27,153,426	27,153,426
Total	**6,383**	**719,875**	**191,131,270**	**191,131,270**
Single Family	76.55%	34.13%	32.14%	32.14%
Multi Family	13.61%	29.14%	27.44%	27.44%
Non-Residential (BOD/TSS)				
Low (0-200 mg/l)	7.85%	12.33%	9.29%	9.29%
Medium (201-400 mg	1.05%	5.46%	8.22%	8.22%
High(401+ mg/l)	0.92%	3.85%	8.71%	8.71%
Uofl	0.02%	15.09%	14.21%	14.21%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Cost of Service Summary

The cost-of-service results are calculated by applying the allocation factors to the functional allocation cost pools. **Exhibit 20** shows a comparison of the current rate revenue distribution between classes of service and the results of the cost-of-service analysis.

Exhibit 20. Sewer Cost of Service Summary

Class	FY2026		Difference	
	Existing	COSA	$	%
Single Family	$ 3,363,109	$ 3,392,792	$ 29,684	0.88%
Multi Family	2,922,677	2,669,100	(253,576)	-8.68%
Non-Residential (BOD/TSS)				
Low (0-200 mg/l)	1,008,508	1,070,188	61,679	6.12%
Medium (201-400 mg/l)	388,818	583,754	194,936	50.14%
High(401+ mg/l)	345,427	498,022	152,594	44.18%
Uofl	1,325,912	1,351,069	25,158	1.90%
Total	**$9,354,451**	**$9,564,926**	**$ 210,475**	**2.25%**

Given the need to make a host of assumptions to complete a cost-of-service analysis, the margin of error for class-specific results is typically considered to be plus or minus 10.00 percent, relative to the system average. Because costs fluctuate year to year, the increases needed by different classes of service can also fluctuate and interclass rate changes are not suggested unless the class-specific revenue difference is outside of the 10.00 percent threshold. Based on these guidelines, the cost-of-service comparison indicates that the medium and high strength non-residential classes are under paying relative to cost of service and the multi family class is over paying relative to cost of service. All other classes are within cost of service.

Based on feedback from City staff and the Citizen Rate Committee, a multi-year strategy was developed to gradually transition the classes of service towards cost-of-service. **Exhibit 21** shows the proposed increases by class of service.

Exhibit 21. Sewer Utility Cost of Service Phase in Schedule

Class	Proposed Increases					
	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Single Family	2.25%	2.74%	2.71%	2.69%	2.66%	2.63%
Multi Family	2.25%	2.10%	2.10%	2.10%	2.10%	2.10%
Low (0-200 mg/l)	2.25%	2.80%	2.80%	2.80%	2.80%	2.80%
Medium (201-400 mg/l)	2.25%	6.00%	6.00%	6.00%	6.00%	6.00%
High(401+ mg/l)	2.25%	5.75%	5.75%	5.75%	5.75%	5.75%
Uofl	2.25%	2.80%	2.80%	2.80%	2.80%	2.80%
Total	**2.25%**	**2.80%**	**2.80%**	**2.80%**	**2.80%**	**2.80%**

Rate Design

Overview

As discussed in the water utility section, the principal objective of the rate design stage is to implement rate structures that collect the appropriate level of revenue as outlined by the revenue requirement and cost of service.

Existing Rates

The existing sewer rates consist of a fixed flat rate for some classes and a fixed rate plus volume rate per hundred cubic feet (ccf) of flow (metered water used as surrogate) for other classes.

- Single family customers pay a fixed monthly charge per account.
- Multi family customers pay a fixed charge per unit.
- Low, medium, and high strength non-residential customers pay a fixed charge per account, as well as a volume charge for all flow. The volume rate increases with the strength of contributed flow.
- University of Idaho pays a fixed annual rate based on their cost-of-service allocation.

All non-residential customer accounts are reviewed by City staff and assigned to low, medium, or high, depending on the assumed sewer strength of each customer. A customer may appeal their classification to the City by providing evidence that they belong in a lower strength category.

Exhibit 22 provides a summary of existing rates as of FY2025.

Exhibit 22. Existing Sewer Rates

Description	Monthly Fixed Charge	Volume (ccf)
Single Family	$ 57.22	
Multi Family (per unit)	42.08	
Non-Residential (BOD/TSS)		
Low (0-200 mg/l)	78.61	5.93
Medium (201-400 mg	78.61	8.21
High(401+ mg/l)	78.61	10.07

Proposed Rates

In addition to the proposed phase-in strategy referenced in **Exhibit 21** above, City Staff and the Citizen Rate Committee expressed interest in a volume-based rate structure for the multi-family class of service. This rate structure allows customers additional control of their monthly bill by creating a direct nexus between the amount paid and the sewer flow contributed to the system.

The proposed multi family rate structure recovers approximately 50 percent of revenue through the fixed monthly charge, with the remainder recovered through the volume component. To avoid impacting any specific customer due to the structure change, and to allow customers time to adjust, the new rates will be phased in gradually. Starting in FY2028 the new structure would take effect by recovering 90 percent of revenues from fixed monthly charges, moving to 75 percent revenue recovery in FY2029 and full implementation of 50 percent revenue recovery from fixed charges in FY2030. All other classes and associated rates will be adjusted on an

across the board basis based on the class-specific cost-of-service phase-in. **Exhibit 23** below provides a summary of the proposed sewer rates for the rate setting period, including the new multi family volume-based structure and phase-in.

Exhibit 23. Proposed Sewer Utility Rates

Description	Proposed Rates					
	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
Monthly Fixed Charge						
Single Family	$ 58.51	$ 60.11	$ 61.74	$ 63.40	$ 65.08	$ 66.80
Multi Family	43.03	43.93	40.37	34.35	23.38	23.87
Non-Residential (BOD/TSS)						
Low (0-200 mg/l)	80.38	82.63	84.94	87.32	89.77	92.28
Medium (201-400 mg/l)	80.38	82.63	84.94	87.32	89.77	92.28
High(401+ mg/l)	80.38	82.63	84.94	87.32	89.77	92.28
Volume Charge (ccf)						
Multi Family	$ -	$ -	$ 1.47	$ 3.74	$ 7.64	$ 7.80
Non-Residential (BOD/TSS)						
Low (0-200 mg/l)	$ 6.06	$ 6.25	$ 6.43	$ 6.61	$ 6.79	$ 6.98
Medium (201-400 mg/l)	8.39	8.93	9.52	10.14	10.81	11.51
High(401+ mg/l)	10.30	10.86	11.54	12.27	13.04	13.85

5.0 Stormwater Rates

The City of Moscow owns and operates a stormwater system that conveys precipitation and surface water runoff to local water bodies, which are Hogg Creek, Paradise Creek, and the South Fork of the Palouse River. In October 2019, the EPA designated Moscow's storm sewer system as a regulated small "Municipal Separate Storm Sewer System," or MS4.

The City's stormwater network includes more than 2,000 inlets and catch basins, about 1,000 manholes, nearly 100 miles of underground pipe, 10 miles of open ditches, and over 40 detention basins and ponds.

Revenue Requirement

The stormwater utility revenue requirement was established similar to the other utilities; it is developed by completion of an operating forecast that identifies future annual operating costs and a capital funding plan that defines a strategy for funding the capital improvement needs of the stormwater utility on a standalone basis.

Operating Forecast

The purpose of the operating forecast is to determine whether the existing rates and charges are sufficient to recover the costs the utility incurs to operate and maintain the stormwater system. The operating forecast was developed for the FY2025 through FY2045 period, though the focus of the study and this report is FY2025 through FY2031. Actual revenue collected in FY2024 forms the starting point for the forecast of rate revenue, while the budgeted expenses for FY2025 form the starting point for the expense forecast. The operating forecast includes future projections for revenues, operating expenses, and financial reserve requirements. The following sections describe each component of the operating forecast.

Financial Reserves

- ***Operating Reserve***. An operating reserve is designed to provide a liquidity cushion; it protects the utility from the risk of short-term variation in the timing of revenue collection or payment of expenses and can help smooth rate increases over time. The City's financial policies dictate a minimum fund balance of three months (90 days) of O&M expenses for the stormwater utility. The minimum reserve target ranges from approximately $0.3 million in FY2025 to $0.4 million in FY2031.

Operating Revenues

- ***Rate Revenue.*** Based on actual detailed customer accounts and equivalent service unit (ESU) statistics from the City's billing system. Data from FY2024 was used to project revenue for the forecast period.
- ***Customer Growth.*** Based on discussions with City staff, growth for all customer classes was assumed at 0.75 percent per year
- ***Non-Rate Revenue.*** Non-rate revenue consists of refunds and reimbursements.
- ***Interest Earnings.*** Based on the City's recent Morton Investment Pool returns, the rate used to calculate interest earnings for the forecast period ranges from 4.00 percent in FY2025 decreasing to 2.00 percent in FY2027 and thereafter.

Operating and Maintenance (O&M) Expenses

- ***General Cost Inflation.*** 3.00 percent per year; based on historical consumer price inflation index and discussion with City staff.
- ***Construction Cost Inflation***. 3.00 percent per year; based on the Engineering News-Record (ENR) construction cost index and discussions with City staff.
- ***Labor Cost Inflation.*** 5.00 percent per year; based on discussion with City staff.
- ***Benefit Cost Inflation.*** 7.00 percent per year; based on discussion with City staff.
- ***Insurance Cost Inflation.*** 10.00 percent per year; based on discussion with City staff.
- ***General Fund Transfer Inflation.*** 5.00 percent per year; based on discussion with City staff.
- ***Street Fund Transfer Inflation.*** 5.00 percent per year; based on discussion with City staff.

Debt Service

- ***Existing Debt.*** The City does not currently have any outstanding debt for its stormwater utility.
- ***New Debt.*** No new debt financing is assumed for the forecast period.

System Reinvestment

System reinvestment funding ensures system integrity through ongoing repair and replacement. As discussed in Section 2 Rate Study Methodology, the City's stormwater utility is a newly formed utility and will consider implementing a similar system reinvestment target as the water and sewer utilities in the future. In the interim, the stormwater utility assumes that any cash above the minimum operating target balance is transferred to the capital fund as cash-funded capital. The annual transfers are projected to average $0.75 million per year over the study period.

Capital Funding Plan

The stormwater utility capital plan anticipates $4.6 million in capital costs from FY2025 through FY2031, escalated to the year of construction. Funding for the identified capital projects includes cash from existing reserves, and operating reserve transfers. **Exhibit 24** provides a summary of the funding sources for the capital expenditures.

Exhibit 24. Stormwater Capital Funding Summary

Capital Funding Summary	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	Total
Capital Project Costs	**$ -**	**$ 159,135**	**$ 482,179**	**$ 753,926**	**$ 1,004,226**	**$ 878,822**	**$ 1,349,172**	**$ 4,627,461**
Funding Sources								
Cash	$ -	$ 159,135	$ 482,179	$ 753,926	$ 1,004,226	$ 878,822	$ 1,349,172	$ 4,627,461
Total Funding Sources	**$ -**	**$ 159,135**	**$ 482,179**	**$ 753,926**	**$ 1,004,226**	**$ 878,822**	**$ 1,349,172**	**$ 4,627,461**

Summary of Revenue Requirement

The operating forecast components come together to form the multi-year projection. The analysis compares the overall revenue available to the stormwater system to the expenses and evaluates the sufficiency of current rates on an annual basis. **Exhibit 25** illustrates a summary of the revenue requirement findings, while **Exhibit 26** and **Exhibit 27** summarize the utility's projected fund balances based on current rate levels.

Exhibit 25. Stormwater Revenue Requirement Before Increases

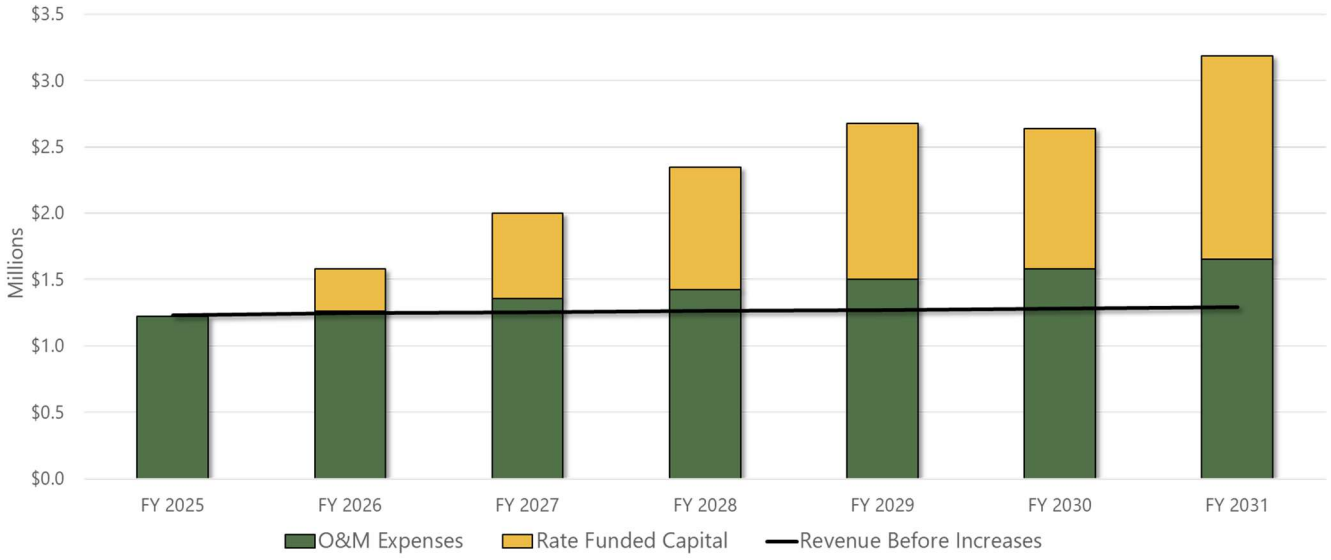


Exhibit 26. Stormwater Operating Reserve Summary Before Increases

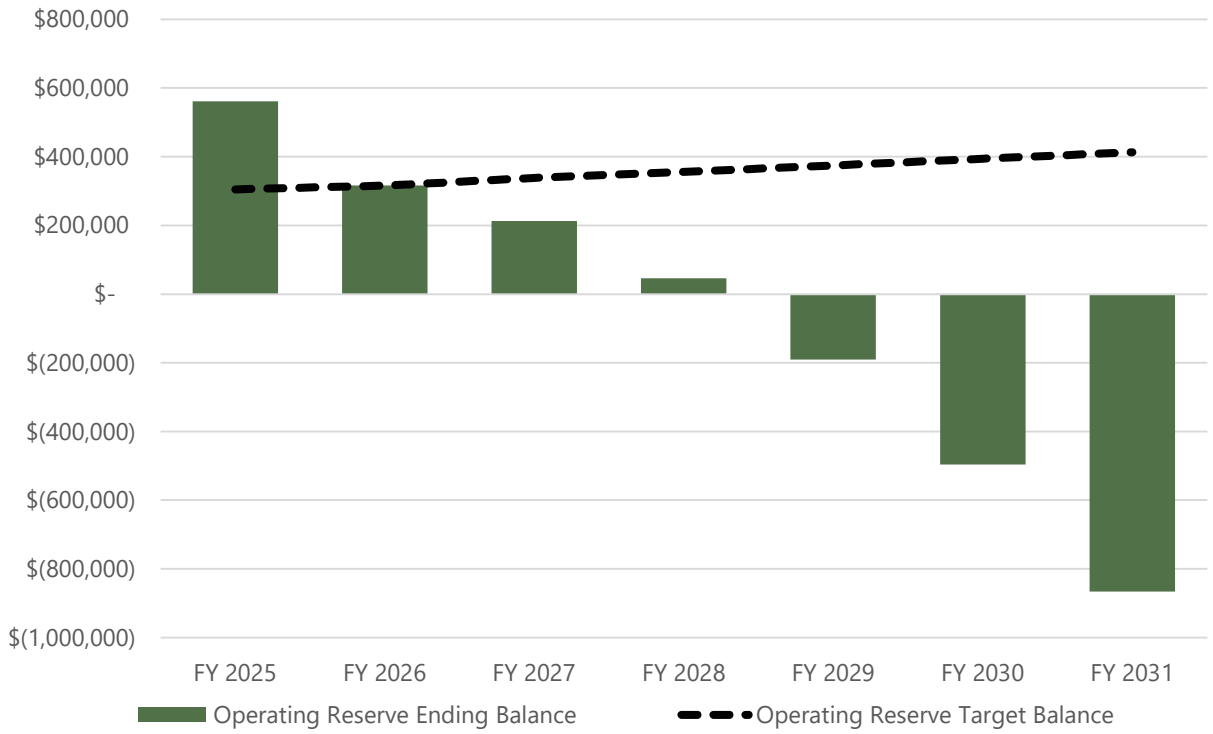
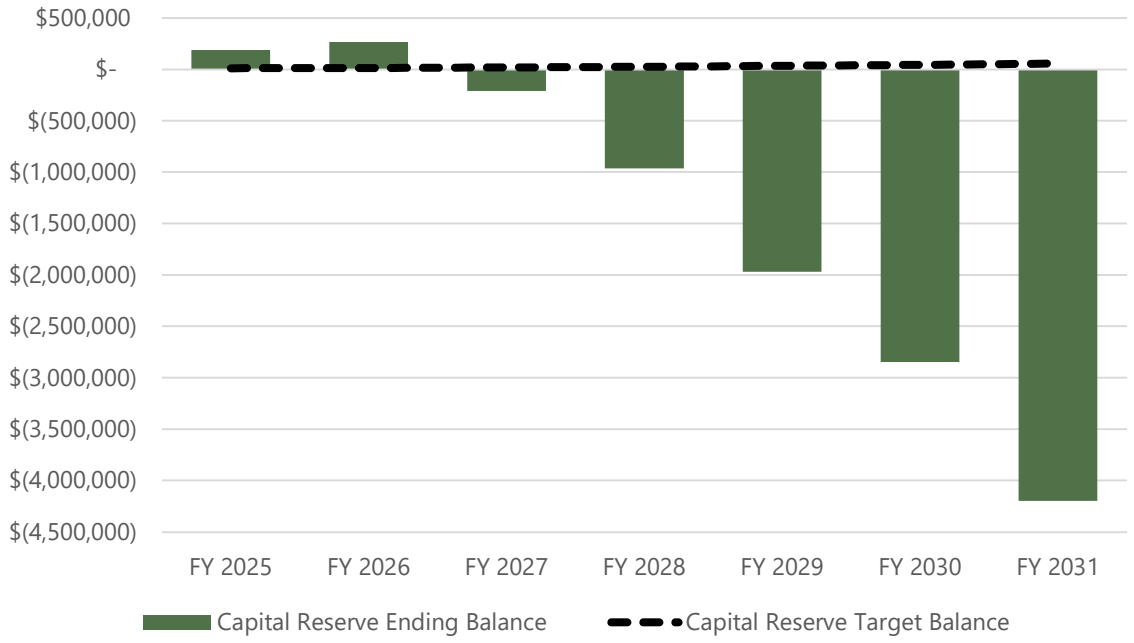


Exhibit 27. Stormwater Capital Reserve Summary Before Increases



Key observations of the revenue requirement before rate increases include:

As identified in **Exhibit 25** revenues at existing rates are sufficient to meet cash operating expenses in FY 2025. Starting in FY2026, revenue becomes insufficient to fund ongoing operating expenses and that deficit continues to grow in the future with no rate action.

- The operating reserve balance, as expressed in **Exhibit 26,** drops below the minimum target starting in FY2027, and becomes negative by FY2029.
- Without rate adjustments, revenues are insufficient to support the capital improvement plan. The capital reserve balance is projected to become negative beginning in FY2027, as shown in **Exhibit 27.**

To meet the total projected financial obligations of the stormwater utility, annual rate revenues adjustments are needed. Based on discussions with City staff and the Citizen Rate Committee, the proposed revenue adjustment includes the adopted 3.00 percent increase in FY2026, followed by a 29.00 percent annual increase in FY2027 and FY2028, a 15.00 percent increase in FY2029 and 6.00 percent increases through FY2031. With these rate revenue adjustments the utility will be able to:

- Meet or exceed minimum operating and capital reserve targets throughout the forecast period.
- Build capital reserves to address short-term and long-term capital requirements.

Rate Design

Overview

As discussed in the water and sewer utility sections, the principal objective of the rate design stage is to implement rate structures that collect the appropriate level of revenue as outlined by the revenue requirement and cost of service.

Existing Rates

The existing stormwater rate is a monthly flat fee that is charged to each customer per equivalent service unit (ESU). Each single family customer is considered one (1) ESU. All non-single family customers are charged based on the total amount of impervious surface area on site. The average single family residential lot has 3,340 square feet of impervious surface area. The total impervious surface area for a non-single family lot is divided by 3,340 to calculate the number of ESUs for that account. Discounted monthly rates are provided for MS4 Operators and K-12 Educational Activities.

Exhibit 28 provides a summary of existing rates as of FY2025.

Exhibit 28. Existing Stormwater Rates

Class	Existing
Monthly Charges per ESU	
Standard User Fee	$ 8.40
MS4 Owner/Operator	6.72
K-12 Educational Activities	6.72

Proposed Rates

No rate structure changes were proposed for the stormwater utility at this time. The proposed rate increases discussed as a part of the revenue requirement are applied to each rate component across the board. **Exhibit 29** shows a forecast of proposed rates for the stormwater utility.

Exhibit 29. Proposed Stormwater Rates

Class	Existing	Proposed					
		FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Monthly Charges per ESU							
Standard User Fee	$ 8.40	$ 8.65	$ 11.16	$ 14.40	$ 16.56	$ 17.55	$ 18.60
MS4 Owner/Operator	6.72	6.92	8.93	11.52	13.25	14.05	14.89
K-12 Educational Activities	6.72	6.92	8.93	11.52	13.25	14.05	14.89

6.0 Meetings and Workshops

Introduction

A key component of the rate study was the involvement of the Citizen Rate Committee (CRC). The City has historically convened a Committee to obtain customer feedback and engagement in the rate setting process. For this study, the CRC was formally convened in March 2025, with a mission to assemble diverse perspectives that represent the community to evaluate and advise on the City's utility rate structures. The CRC represented the constituency of the City's customers and stakeholders including residents, the business community, environmental interests, the University of Idaho, and the Moscow City Council. The intention of this chapter is to provide a timeline tracking the presentations given, feedback received, and recommendations provided.

Meetings and Workshop Timeline

During the course of the study, FCS and the City project team met with the CRC at key milestones to share results, gain feedback, and to incorporate suggestions. The material presented and resulting feedback from the CRC is detailed below.

April 8th, 2025: Citizen Rate Committee – Rate Setting Fundamentals

Items Presented:

- Background on prior rate study completed.
- Overview of the rate study process.
  - Revenue requirement.
  - Cost of service.
  - Rate design.

Feedback Provided:

- Committee provided input regarding preferred rate structure alternatives to be evaluated as part of the overall rate study.

May 29th, 2025: Citizen Rate Committee – Revenue Requirement and Cost of Service Review

Items Presented:

- Presentation focused on the outline of the revenue requirement and preliminary cost of service results for the water and sewer utilities. Topics discussed included the following:
  - Revenue requirement –
    - ✓ Fiscal policies.
    - ✓ Key elements (e.g., revenue and expense forecast).
    - ✓ Key assumptions.
    - ✓ Revenue requirement results – presented between two and four scenarios per utility for consideration focusing on alternative capital timing and funding options.
  - Cost-of-service –
    - ✓ Presented preliminary findings for the water and sewer utilities.

- ✓ Presented a phase-in to move classes towards cost-of-service.

Feedback Provided:

- A follow-up survey was provided to the members of the CRC to gather votes on the preferred rate and capital funding scenario for each utility. Feedback received included:
  - ✓ Prioritize cash financing and avoid new debt service
  - ✓ Plan for future needs beyond six-year rate setting period
  - ✓ Staff will continue to work on sewer operations, potentially delaying the need for WRF improvements beyond twenty years
  - ✓ Gradually build up stormwater rates to support capital reinvestment
- The CRC provided guidance on their preference to phase in the cost-of-service changes over time.

July 29th, 2025: Citizen Rate Committee – Rate Design

Items Presented:

- The presentation focused on summarizing the revenue requirements for all utilities and the cost-of-service phase-in strategies for water and sewer, based on feedback provided by the CRC.

  Water:
  - ✓ Cash fund the CIP and target Well 10 improvements in FY2035.
  - ✓ Phase in cost-of-service adjustments, beginning in FY2028.

  Sewer:
  - ✓ Cash fund the CIP and extend the timeline associated with reclamation facility improvements.
  - ✓ Phase in cost-of-service adjustments beginning in FY2027.

  Stormwater:
  - ✓ Cash fund the CIP based on a reduced maintenance program of $150,000/year.
- Presented rate design focusing on across-the-board rate adjustments based on cost-of-service class specific phase-in schedules for water and sewer and across-the-board adjustments for stormwater. A multi-family sewer variable rate structure was developed for consideration. Impacts to the multi-family class were provided.

Feedback Provided:

- The Committee provided guidance regarding the phase-in timeframe for multi-family sewer rate design changes, identifying a three-year phase in to achieve revenue recovery of 50 percent through the variable charge by FY2030.

7.0 Conclusion

This section provides an overall summary of the rate study process and results for the water, sewer and stormwater utilities. We recommend the City revisit the study findings during the budget cycle to check that the assumptions used are still appropriate and no significant changes have occurred that would alter the results of the study. The City should use the study findings as a living document, continuously comparing the study outcomes to actual revenue and expenses. Any significant or unexpected changes will require adjustments to the rate strategy proposed.

Methodology

The rate study process consists of three main elements: revenue requirement, cost-of-service, and rate design.

- **Revenue requirement.** Based on the City's operating budgets for each utility as well as each utility's capital improvement plan, the total revenue requirements were projected for each year across the short- and long-term planning horizon. This revenue requirement provided the necessary rate adjustment in each year to cover the full cost of each utility, including operating costs, debt service costs, system reinvestment funding, and the funding needed to comply with fiscal policies.
- **Cost-of-service.** Using industry allocation practices, each budget line item and other rate requirement elements were assigned to each utility's functions of service. Then, the cost of each function of service was allocated to customer classes based on their different service requirements. This resulted in overall adjustments for each class to bring them into line with their cost-of-service.
    - ✓ For water, those functions of service were base water demand, peak water demand, fire flow requirements, customer costs, and meter and services costs. The classes analyzed were residential, non-residential and cemetery.
    - ✓ For sewer, those functions included flow, BOD treatment, TSS treatment, and customer costs. The classes analyzed were single family, multi family, non-residential low, non-residential medium, non-residential high and the University of Idaho.

  A cost-of-service analysis was not completed for the stormwater utility.
- **Rate Design.** Using the overall revenue needs in each year from FY2026 through FY2031, and the cost-of-service for each class, a rate schedule was designed for each utility through FY2031. These rate schedules were intended to bring each class closer to its cost-of-service while ensuring revenue collection was sufficient to fund the requirements of each utility.

Rate Study Results

The rate study results are summarized for each utility below.

- **Water Utility.** The results of the revenue requirement indicate that the water utility will need annual increases to satisfy all fiscal obligations, including the identified capital improvement program. Revenue adjustments for the water utility consist of the adopted 4.00 percent increase in FY2026, followed by proposed 5.15 percent increases from FY2027 through FY2031. The cost-of-service analysis identified cost differences between revenue collection and cost allocation, with the largest difference appearing for the cemetery class. In order to address the findings of the cost-of-service a phase-in strategy was developed to progress the cemetery class towards the cost-of-service range of reasonableness over a multi-year period. Lastly, the rate design analysis developed fixed and variable charges recovering the overall

revenue targets as identified in the class-based cost-of-service phase-in, keeping the overall rate structure unchanged.

- **Sewer Utility.** Similar to the water utility, the results of the revenue requirement indicate that the sewer utility will need annual increases to satisfy all fiscal obligations, including the identified capital improvement program. Revenue adjustments for the sewer utility consist of the adopted 2.25 percent increase in FY2026, followed by proposed 2.80 percent increases from FY2027 through FY2031. The cost-of-service analysis identified cost differences between revenue collection and cost allocation, with the largest difference appearing for the multi-family and non-residential medium and high classes. A phase-in strategy was developed to progress classes towards the cost-of-service range of reasonableness over a multi-year period. The rate design analysis focused on implementing the cost-of-service phase-in and restructured the multi-family rates to include a volume component.
- **Stormwater Utility.** The stormwater utility revenue requirement analysis also indicated a need for annual rate increases to satisfy all fiscal obligations. Revenue adjustments for the stormwater utility consist of the adopted 3.00 percent in FY2026, followed by annual 29.00 percent increases in FY2027 and FY2028, a 15.00 percent in FY2029 and 6.00 percent annual increases in FY2030 and FY2031. These increases are primarily needed to recover costs associated with operating and maintenance and funding of the short- and long-term capital plans. Rate design was administered on an across-the-board basis.

During the course of the study, FCS and City staff met with the Citizen Rate Committee to gather feedback and incorporate guidance for each of the elements of revenue requirement, cost of service and rate design. The outcomes discussed in this report summarize the CRC recommendations for approval by the City Council.

2025 Water & Sewer Utility Rate Study
Citizen Rate Committee Report

In support of the **2025 Water and Sewer Rate Study**,
a report on the process and outcomes of the Citizen Rate Committee
review of the proposed rate and structure adjustments.

Developed by:
Tyler Palmer, Public Works Director – Deputy City Administrator
September 15, 2025

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Executive Summary

In January 2025, the City of Moscow engaged FCS Group to conduct rate studies for the City's Water, Sewer, and Storm utilities. These studies are performed periodically to ensure that utility revenues align with the cost of providing services, and that those costs are distributed as fairly as possible among system users.

A key element of this process is review by a Citizen Rate Committee (CRC). The CRC was formally convened on April 8, 2025, with the mission of bringing together diverse perspectives from across the community to evaluate and advise on the City's water and sewer rate structures. The Committee's work focused on three primary objectives:

1. Representing and communicating the views of the community
2. Providing input on rate structure options and the associated customer impacts
3. Formulating a recommendation for the Moscow City Council

The CRC reflects the City's customer and stakeholder base, including residents, businesses, environmental interests, and the University of Idaho. All members are either Moscow ratepayers themselves or represent entities that are. Meeting minutes and supporting materials are available to the public on the City's website. **Committee members include:**

Lee Espey
University of Idaho

Kara Besst
Gritman Medical Center

Dan Schoenberg
Rentals/Property Management

Mike O'Brien
University Inn Best Western

Shawn Tiegs
Moscow School District

Erich Hanisch
Safeway/Eastside Mall

Sage Francetich
Realtor

Sara Beth Hume
One World Café

Samantha Martinet
Moscow Chamber of Commerce

John Hendrickson
SEL Printed Circuit Board Factory

The Committee was supported by City staff from Administration, Water, Sewer, Environmental Services, Storm, and Finance Departments along with representatives from FCS Group, a public sector utility and financial consulting firm.

CRC Activities

City staff distributed an explanatory video to provide a basic understanding of the utilities in the study and give foundational information on the rate setting process. This was followed by three meetings with both in person and online attendance options. Between these meetings, information was distributed, questions fielded, and several one-on-one meetings were held with individual committee members at their request to help explain aspects of the process.

The following table lists the **activities of the CRC**:

Event	Date (2025)	Activity
#1	February 10	Welcome letter distributed with expectations for the process outlined.
#2	March 18	Introductory message, link to orientation video provided. General instructions and goals presented.
#3	April 8	First CRC meeting (in-person and online). Fielding of general questions. FCS presentation on rate setting fundamentals.
#4	April 10	Presentation materials distributed along with link to a recording of Meeting #1.
#5	April 15	Distribution of the in-depth rate presentation along with a detailed allocation spreadsheet.
#6	May 23	Presentation for second meeting distributed.
#7	May 29	Second CRC meeting (in-person and online). Presentation on revenue requirements and cost of service analysis. General group discussion. Individual comments, concerns, and recommendations. Discussions of potential rate scenarios for each utility.
#8	June 5	Meeting #2 recording distributed. Ranked-choice poll indicating preferences for rate scenarios distributed along with additional information on cost of service requested by the Committee.
#9	July 23	Distribution of meeting #3 agenda and presentation along with rate study survey results.
#10	July 29	Third CRC meeting held (in-person and online). Presentation on rate design. General group discussion of a recommendation from the Committee.
#11	July 30	Meeting #3 recording distributed along with a poll to allow committee to vote on discussed recommendation.

CRC Recommendation

The CRC voted unanimously in support of **Water Scenario 1 (S1)** with a 2-year hiatus for the accelerated cemetery rate increases; **Sewer Scenario 2 (S2)** and recommend implementing a consumption-based rate for multi-family customers over years 2–4, using a stepped approach: 90/10 → 75/25 → 50/50 split between base and consumption charges; and **Storm Scenario 2 (S2)**.

In addition, the CRC recommends that the City explore utility rate relief programs for low-income customers.

Comments Included in Voting Form

- "With the caveat that communication and implementation on this be done in the Summer/early Fall of each year, while most students are gone so lease terms can be adjusted prior."
- "In support of the proposals. In the end, I would still be interested in seeing if ending with a 50-50 split is truly the ideal place to land at the end of year 4."
- "Informing the multi-family owners/property managers of the function changes in sewer rates each needs be a high priority along with communications to the cemetery customers. The circuit breaker for seniors needs to be developed for those customers that pay the City direct. There are some property owners/managers that bill out customers for WSG each month, usually where there is only a single meter. Trying to account for this situation would be far too complex a process. Thank you for all the work."

Additional Online Resources

Additional resources relating to the study can be accessed via the City of Moscow website at: https://www.ci.moscow.id.us/1167/2025-Utility-Rate-Study. These resources include video recaps of all three committee meetings, detailed spreadsheets, all presentations given during the study, and other related links and resources.