



CONTRACT PROVISIONS

City of Maple Valley Project T57

T-57 SR 169 PEDESTRIAN BRIDGE

September 2026

T-57 SR 169 PEDESTRIAN BRIDGE

CIP Project T-57

Federal Aid No. TAPUL-0169(028)

September 2026

Prepared for

City of Maple Valley
Department of Public Works
22017 SE Wax Road, Suite 101
PO Box 320
Maple Valley, WA 98038



Table of Contents

INVITATION TO BID	1
INFORMATION AND CHECKLIST FOR BIDDERS	3
BID PROPOSAL FORM	7
BID PROPOSAL SIGNATURE PAGE	18
BID SECURITY	20
NONCOLLUSION AFFIDAVIT	21
STATEMENT OF BIDDER'S QUALIFICATIONS	22
CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES	27
PUBLIC WORKS AGREEMENT	28
PAYMENT BOND	41

PROJECT PLANS

PROJECT SPECIAL PROVISIONS

APPENDICES

- A Federal and State Wage Rates
- B City of Maple Valley Invoice Summary Form
- C Permitting Documents (NEPA and SEPA)
- D City and Utility Contact Information
- E Subcontractor Identification List
- F Geotechnical Report
- G Covington Water District – Water Relocation Plans
- H Covington Water District – Standards and Specifications
- J Standard Plans (refer to latest editions)
- K Draft Temporary Construction Easement for Tahoma School District

City of Maple Valley INVITATION TO BID

Sealed bids will be received by the City of Maple Valley, Washington, at the reception desk located at 22017 SE Wax Road, Suite 101, Maple Valley, Washington, until 1:00 p.m., October 14th, 2026. Bids will then be opened and publicly read on that same day at City Hall, 22017 SE Wax Road, Maple Valley, Washington, 98038 for:

T-57 SR 169 PEDESTRIAN BRIDGE

The Work shall be completed within 390 working days from the date of Notice to Proceed in which the City is prepared to issue as soon as December 2026.

The Work shall consist of furnishing all materials, equipment, tools, labor, and other work or items incidental thereto for:

The project will provide a pedestrian bridge across SR 169 near SE 258th Street and will include a new covered main span over the highway, ADA approach ramps on both sides, staircases, electrical, lighting, irrigation, landscaping, utility relocations, a new driveway cut onto SR 169, and a play area. The work includes, but is not limited to, the following:

- * Bridge and approach ramp construction, including piers and abutments
- * Drilled shaft construction
- * Civil site work
- * Landscaping and irrigation
- * Electrical and electrical coordination with PSE
- * Lighting
- * Railings
- * Signage
- * Stormwater conveyance and treatment facilities
- * Waterline Relocation
- * Coordination with Play Area Contractor

This project is federally, state, and locally funded. The City of Maple Valley appreciates partnerships with the Federal Highway Administration and the Transportation Alternatives Program, Washington State's Move Ahead Washington and Public Works Board, and King County Parks.

The estimated cost of this project is in the range of \$10 to \$12 million.

All bid proposals shall be accompanied by a bid proposal deposit in cash, certified check, cashier's check, or surety bond in an amount equal to five percent (5%) of the total amount of such bid proposal, including sales tax. Should the successful bidder fail to enter into such contract and furnish satisfactory payment and performance bonds within the time stated in the Contract Documents, the bid proposal deposit shall be forfeited to the City of Maple Valley.

Plans, Contract Provisions, addenda, and plan holders list for this project will be available online free-of-charge through Builders Exchange of Washington, Inc. at <http://www.bxwa.com>. Click on: "Posted Projects"; "Public Works"; "City of Maple Valley." Bidders are encouraged to "Register as a Bidder" in order to receive automatic email notification of future addenda and to be placed on the "Bidders List." Bidders that do not register will not be notified of addenda or other documents added. Contact Builders Exchange of Washington at (425) 258-1303 should you require further assistance.

The City of Maple Valley, in accordance with Title VI of the Civil Rights Act of 1964, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 Code of Federal Regulations Part 26 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or gender in consideration for an award.

The following is applicable to Federal-aid projects. The City of Maple Valley, in accordance with Title VI of the Civil Rights Act of 1964, (78 Stat. 252, 42 U.S.C. 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that in 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.

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 USDOT-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, or (4) Disqualifying the contractor from future bidding as non-responsible.

Small, minority and women-owned business are encouraged to participate in the bidding as prime contractors, subcontractors, or suppliers.

The City reserves the right to reject any and all bids and to waive any informalities or irregularities in the bid or in the bidding process, and make the award as deemed to be in the best interest of the City.

Dated at Maple Valley, Washington, this 16th day of September, 2026.

Andrew Dacuag
City Clerk

Dates of Publication:

Seattle Daily Journal of Commerce: September 16th and 23rd, and 30th, 2026.

Kent/Covington Reporter: September 16th and 23rd, and 30th, 2026.

INFORMATION AND CHECKLIST FOR BIDDERS

The following supplements the information in the Call for Bids:

1. Examination of Plans, Specifications, and Site

Before submitting his/her bid, it is the Contractor's duty to carefully examine each component of the Bid Documents prepared for the Work and any other available supporting data so as to be thoroughly familiar with all the requirements. However, neither the Owner nor Engineer nor Consulting Engineer will assume responsibility for variations of subsoil quality or condition at locations other than places shown and at the time investigation was made (if any). The availability of this information shall not relieve the Bidder of his/her duty to examine the project site nor of any other responsibility under the Contract.

It is the Bidder's duty to make an alert, heads-up, eyes-open reasonable examination of the project site and conditions under which the Work is to be performed, including but not limited to: overhead utilities; work proximity to existing homes; current site topography, soil and moisture conditions; underground obstructions; the obstacles and character of materials which may be encountered; traffic conditions; public and private utilities; the availability and cost of labor; and available facilities for transportation, handling, and storage of materials and equipment.

See Section 1-05.14 of the Special Provisions for identification of other work that may be performed on or near the project site by others.

2. Property Issues

All bidders shall base their bids upon full restoration of all property within the right-of-way and easements, and wherever Bidder has right of entry. The easements and right of entry documents that have been acquired are available for inspection and review. The Bidder is advised to review the conditions of the permits, easements, and rights of entry, as Bidder shall be required to comply with all conditions at no additional cost to the Owner. All other permits, licenses, etc., shall be the responsibility of the Bidder. The Bidder shall comply with the requirements of each.

3. Interpretation of Bid Documents

The Bidder shall promptly notify Owner of any discovered omissions, conflicts, ambiguities, or discrepancies in the Bid Documents. Questions or comments about these Bid Documents should be directed in writing only by email to the attention of: Tawni Dalziel, Public Works Director, tawni.dalziel@maplevalleywa.gov.

Questions received less than 4 business days prior to the date of bid opening may not be answered. Any interpretation or correction of the Bid Documents, if needed, will be made only by **addendum**, and a copy of such addendum will be posted on Builder's Exchange. It is the Bidder's responsibility to watch for and check all Addenda before submitting its bid. The Owner will not be responsible for any other explanations or interpretations of the Bid Documents. **No oral interpretations of, or changes to, any provision in the Bid Documents may be relied upon by any Bidder.** No oral statements shall in any way modify the Contract Documents, whether made before or after the letting of the Contract.

4. Wages

The State and Federal Prevailing Wages in effect for this project are provided and listed in Appendix A. Per the Standard Specifications section 1-07.9(1), when the project is subject to both State and Federal hourly minimum rates for wages and fringe benefits and when the two rates differ for similar kinds of labor, the Contractor shall not pay less than the higher rate unless the State rates are specifically preempted by Federal law. It is the Bidder's responsibility to obtain wage information for any work classifications that are not included. Certified payrolls will be required, as detailed in Section 1-07.9 of the Standard Specifications and Special Provisions.

5. Low Bidder Determination

The determination of who is low bidder will be determined on the basis of the TOTAL PRICE of Schedule A.

6. Bidding Checklist

All bids shall be submitted on the exact forms provided in these Bid Documents, and as listed below. Failure to submit any of these forms may be grounds for rejection of the bid.

Sealed bids for this proposal should be submitted as specified in the Invitation to Bid. Bid proposals are to be submitted in a **sealed envelope** with "**Bid Enclosed T-57 SR 169 Pedestrian Bridge**" marked on the outside of the envelope, and showing **the name and address of the Bidder**.

- a. **Bid Proposal** – Bidders must bid on all items contained in the Bid Proposal, including Additive items. If any unit price is left blank, the City may consider no charge for that bid item, regardless of what has been placed in the extension column, or may reject the bid as non-responsive. If there is a discrepancy between the unit price and the extension, the unit price will prevail, and the extension and totals corrected accordingly. The proposal must be signed and all other information on the Bid Proposal Signature Page completed.
- b. **Bid Security** – A Bid Bond is to be executed by the Bidder and the surety company unless the bid is accompanied by a cash deposit, cashier's or certified check, or postal money order. The amount of this bond shall be not less than five percent (5%) of the total bid, including sales tax, if applicable, and shall be shown in dollars or on a percentage basis. The Surety must be authorized to do business in the State of Washington, and must be on

the current Authorized Insurance List in the State of Washington per Section 1-02.7 of the Standard Specifications.

The bond form included in these Contract Provisions should be used; a substitute may not be accepted. If an attorney-in-fact signs the bond, a certified and effectively dated copy of their Power of Attorney must accompany the bond.

The deposit of the successful Bidder will be returned provided Bidder executes the Agreement, furnishes satisfactory performance and payment bonds covering the full amount of work, and provides evidence of insurance coverage within 10 days after Notice of Award. Should he/she fail or refuse to do so, the Bid Deposit or Bond shall be forfeited to the City of Maple Valley as liquidated damages for such failure.

The Owner reserves the right to retain the security of the three lowest bidders until the successful Bidder has executed the Agreement and furnished the bond.

- c. **Noncollusion Affidavit** – Must be filled in, signed, and notarized.
- d. **Statement of Bidder's Qualifications** – Must be filled in and signed. May be submitted with the Bid Proposal or will be required of the two apparent lowest bidders within 24 hours after bid opening. The Owner reserves the right to check all statements and to judge the adequacy of the bidder's qualifications.
- e. **Certification of Compliance with Wage Payment Statutes** – Must be filled in and signed.
- f. **Bid Addenda Acknowledgement** – Use acknowledgement space on Bid Proposal.
- g. **Subcontractors Identification List** in accordance with RCW 39.30.060 and WSDOT Form 271-015.

7. Contracting Checklist

Most contracting forms to be used are included in these Bid Documents and should be carefully examined by the Bidder.

The following forms are to be executed after the Contract is awarded by the City Council, by a person with authority to sign for the Bidder, which may be the Contractor's President or Vice-President (if a corporation), or by a partner (if a partnership). In the event another person has been duly authorized to execute contracts, a copy of the resolution or other documentation establishing this authority must be attached to the Proposal and Agreement documents.

- a. **Agreement** – Two copies to be executed by the successful Bidder.
- b. **Payment and Performance Bond** – Two copies to be executed by the successful Bidder and his/her surety company. The Payment and Performance bond is for 100% of the

contract price. The Performance Bond continues in effect for two years after Final Acceptance of the Work at 25% of its original value.

The bond form included in these Bid Documents should be used; a substitute may not be accepted. If an Attorney-in-fact signs the bond, a certified and effectively dated copy of their Power of Attorney must accompany the bond.

- c. **Certificates of Insurance** – To be executed by an insurance company acceptable to the Owner, on ACORD Forms. Insurance requirements are listed in Section 1-07.18 of the Special Provisions, including a list of who must be named as “Additional Insured” on the insurance policies.
- d. City of Maple Valley business license.

City of Maple Valley
BID PROPOSAL FORM
T-57 SR 169 Pedestrian Bridge

TO: City Clerk
City of Maple Valley, Washington

The undersigned (Bidder) hereby certifies that s/he has carefully examined and thoroughly understands the Bid Documents for the construction of the Project and the nature of the Work; that the Bidder has personally inspected the site, including subsurface information; that the Bidder has satisfied itself as to the quantities involved, including materials and equipment and conditions of work involved, that the description of the Work, as included herein, is brief and is intended only to indicate the general nature of the work, and that the Bidder thoroughly understands the nature of said Work; and the Bidder hereby proposes to undertake and complete all Work embraced in this improvement in accordance with these Contract Documents and at the following schedule of rates and prices.

The Bidder understands that the quantities mentioned herein are approximate only and are subject to increase or decrease, and hereby proposes to perform all quantities of work as either increased or decreased in accordance with the Contract Documents.

As evidence of good faith, the Bidder has provided, as part of its Bid, a bid bond, cash, cashier's check, certified check, or postal money order made payable to the City of Maple Valley equal to five percent (5%) of the base bid and all bid additives is attached hereto.

The Bidder agrees that if this proposal is accepted by the City Council, the Bidder will, within ten (10) calendar days after Notice of Award, sign the Contract with the City of Maple Valley in the form of Agreement included in these Contract Provisions, and will, at the time of signing, deliver to the City of Maple Valley the Performance and Payment Bond and all Certificates of Insurance required herein.

The Bidder agrees to hold its bid proposal open for 90 days after the actual date of Bid Opening. Bidder understands that, should this offer be accepted by Owner within 90 calendar days after the day of Bid Opening and the Bidder fails or refuses to enter into an Agreement and furnish the required performance and payment bonds and liability insurance within 10 calendar days after Notice of Award, the Contract shall be null and void and the Bid Deposit or Bond accompanying this Proposal shall be forfeited and become the property of Owner as liquidated damages, all as provided for in the Contract Documents.

The Bidder further agrees, if awarded the Contract, to begin work within ten (10) calendar days after Notice to Proceed, to furnish all labor, machinery, equipment, tools, apparatus, and other means of construction, to do the work in the manner, in the time, and according to the methods as specified in the Contract Documents and required by the Owner and its designees, and to complete the Work within 390 working days after the Notice to Proceed Date.

It is understood that Owner may accept or reject all bids.

BID SCHEDULE: T-57 SR 169 Pedestrian Bridge

Note: Unit prices for all items, all extensions, and the total amount of bid must be shown. Show unit prices in figures only (ink or typed). Enter dollars and cents to two decimal points. Where conflict occurs between the unit price and the total amount named for any item the unit price shall prevail, and totals shall be corrected to conform thereto.

Schedule A – Base Bid

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
General						
A-1	1-04	MINOR CHANGE	EST	200,000		
A-2	1-05	SURVEYING	LS	1		
A-3	1-05	RECORD DRAWINGS (MINIMUM BID \$5,000)	LS	1		
A-4	1-07	APPRENTICESHIP INCENTIVE	CAL C	10,000		
A-5	1-07	APPRENTICESHIP PENALTY	CAL C	(10,000)		
A-6	1-07	SPCC PLAN	LS	1		
A-7	1-09	MOBILIZATION	LS	1		
Site Preparation and Grading						
A-8	2-04	PROJECT TEMPORARY TRAFFIC CONTROL	LS	1		
A-9	2-04	TRAFFIC CONTROL SUPERVISOR	HR	520		
A-10	2-04	PEDESTRIAN TRAFFIC CONTROL	LS	1		
A-11	2-04	FLAGGERS	HR	920		
A-12	2-04	SEQUENTIAL ARROW SIGN	HR	2,400		
A-13	2-04	PORTABLE CHANGEABLE MESSAGE SIGN	HR	19,000		
A-14	2-04	UNIFORM POLICE OFFICERS	HR	160		
A-15	2-04	TEMPORARY CHAIN LINK FENCE	LF	750		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
A-16	2-04	WORKZONE SAFETY CONTINGENCY	FA	25,000		
A-17	3-01	CLEARING AND GRUBBING	LS	1		
A-18	3-01	TREE PROTECTION	LS	1		
A-19	3-02	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	1		
A-20	3-02	CEMENT CONC. PAVEMENT REMOVAL INCL. HAUL	SY	210		
A-21	3-02	ASPHALT PAVEMENT REMOVAL INCL. HAUL	SY	720		
A-22	3-03	SITE EXCAVATION INCL. HAUL	CY	380		
A-23	3-03	UNSUITABLE FOUNDATION EXCAVATION INCL. HAUL	CY	10		
A-24	3-07	STRUCTURE EXCAVATION CLASS B, INCL. HAUL	CY	445		
A-25	3-07	SHORING OR EXTRA EXCAVATION CLASS B, INCL. HAUL	LS	1		
A-26	4-04	CRUSHED SURFACING BASE COURSE	TON	570		
A-27	4-04	CRUSHED SURFACING BASE COURSE FOR TRENCH BACKFILL	TON	540		
A-28	5-04	HMA CL. 1/2" PG 58H-22	TON	100		
A-29	8-01	EROSION CONTROL AND WATER POLLUTION PREVENTION	LS	1		
A-30	8-01	TREE PROTECTION FENCE	LS	1		
A-31	8-01	INLET PROTECTION	EA	10		
A-32	8-01	STABILIZED CONSTRUCTION ENTRANCE	LS	1		
A-33	8-05	ADJUST UTILITY STRUCTURE TO GRADE	EA	6		
Approach Structures						
A-34	6-02	CAST-IN-PLACE SLAB - CLIMBING WALL	SF	650		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
A-35	6-02	CONCRETE RUNNING SURFACE	SF	1,700		
A-36	3-03	GRAVEL BORROW STRUCTURAL FILL	CY	400		
Substructure						
A-37	6-02	STRUCTURE EXCAVATION CLASS A INCL. HAUL	CY	280		
A-38	6-02	CONC. CLASS 4000 FOR BRIDGE (SPREAD FOOTINGS)	CY	65		
A-39	6-02	STEEL REINFORCING BAR FOR BRIDGE (SPREAD FOOTINGS)	LB	15,000		
A-40	6-02	CONC. CLASS 4000 FOR BRIDGE (ABUTMENTS AND PIERS)	CY	115		
A-41	6-02	STEEL REINFORCING BAR FOR BRIDGE (ABUTMENT AND PIERS)	LB	51,000		
A-42	6-03	STRUCTURAL CARBON STEEL - SUBSTR.	LS	1		
A-43	6-19	CONSTRUCTING 4.92 FT. DIAM SHAFT (TYPE 1)	LF	440		
A-42	6-19	CONSTRUCTING 7 FT. DIAM SHAFT (TYPE 2)	LF	110		
A-44	6-19	CONSTRUCTING 3.94 FT. DIAM SHAFT (TYPE 3)	LF	90		
A-45	6-19	QA SHAFT TEST	EA	12		
A-46	6-19	REMOVING SHAFT OBSTRUCTIONS	EST	50,000		
A-47	6-01	STRUCTURE SURVEYING	LS	1		
Superstructure						
A-48	6-02	CONC. CLASS 4000D FOR BRIDGE (BRIDGE DECK AND STAIRS)	CY	239		
A-49	6-02	CONC. CLASS 4000 FOR BRIDGE (GIRDERS)	CY	163		
A-50	6-02	STEEL REINFORCING BAR FOR BRIDGE - UNCOATED	LB	32,500		
A-51	6-02	STEEL REINFORCING BAR FOR BRIDGE - EPOXY (DECK)	LB	79,000		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
A-52	6-03	STRUCTURAL LOW ALLOY STEEL - SUPERSTR.	LS	1		
A-53	6-03	STRUCTURAL CARBON STEEL - SUPERSTR.	LS	1		
A-54	6-03	BRIDGE DECK (CORRUGATED STEEL DECKING)	SF	966		
A-55	6-02	ELASTOMERIC BEARINGS - SUPERSTR.	EA	4		
A-56	6-02	ISOLATION BEARINGS - SUPERSTR.	EA	4		
A-57	6-02	EXPANSION JOINT SYSTEM COMPRESSION SEAL - SUPERSTR.	LF	23		
A-58	6-02	DECK JOINT - COVER PLATE	EA	6		
A-59	6-02	DECK DRAINS	EA	6		
A-60	6-04	BRIDGE ROOF - TIMBER ELEMENTS, PLYWOOD SUBSTRATE, WATERPROOFING, METAL ROOFING	LS	1		
A-61	6-12	BRIDGE RAILING	LF	1,186		
A-62	6-12	BRIDGE THROW BARRIER - ARCH SUPERSTRUCTURE	LF	184		
A-63	6-12	FREESTANDING HANDRAIL	LF	344		
A-64	6-02	APPROACH SLAB	SY	31		
A-65	6-12	BURIED CURB	LF	205		
Civil and Utilities						
A-66	7-00	UTILITY POTHOLING	FA	10,000		
A-67	7-00	UTILITY COORDINATION	LS	1		
A-68	7-01	DRAIN PIPE 12 IN. DIAM.	LF	74		
A-69	7-01	DUCTILE IRON STORM SEWER PIPE 12 IN. DIAM.	LF	140		
A-70	7-01	DECK DRAIN	EA	2		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
A-71	7-05	ADJUST CATCH BASIN TO GRADE	EA	1		
A-72	7-05	CATCH BASIN TYPE 1	EA	7		
A-73	7-05	AREA DRAIN	EA	2		
A-74	7-05	CATCH BASIN TYPE 2, 48 IN. DIAM.	EA	2		
A-75	7-05	CONNECT EXISTING PIPE TO PROPOSED DRAINAGE STRUCTURE	EA	2		
A-76	7-05	CONNECT PROPOSED PIPE TO EXISTING DRAINAGE STRUCTURE	EA	1		
A-77	7-06	INFILTRATION FACILITY	CY	65		
A-78	7-15	PVC SANITARY SEWER PIPE, 6 IN. DIAM.	LF	170		
A-79	7-19	SEWER CLEANOUT	EA	2		
A-80	8-04	CEMENT CONC. TRAFFIC CURB AND GUTTER	LF	340		
A-81	8-04	CEMENT CONC. PEDESTRIAN CURB	LF	110		
A-82	8-04	CEMENT CONC. VERTICAL CURB	LF	50		
A-83	8-14	CEMENT CONC SIDEWALK	SY	830		
A-84	8-14	CEMENT CONC. RAMP	SY	99		
A-85	8-14	CEMENT CONC. BIKE RAMP	SY	62		
A-86	8-14	GREEN DETECTABLE WARNING STRIP	LF	60		
A-87	8-21	PERMANENT SIGNING	LS	1		
Landscaping						
A-88	8-02	TOPSOIL TYPE A	CY	475		
A-89	8-02	ARBORIST WOOD CHIP MULCH	SY	1610		
A-90	8-02	FINE COMPOST	CY	25		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
A-91	8-02	PSIPE Cercis canadensis 'Pink Pom Poms' / Pink Pom Poms Eastern Redbud; 1.5" Cal., 8'-10' Ht.	EA	5		
A-92	8-02	PSIPE Acer truncatum x platanoides 'JFS-KW187' / Urban Sunset Maple; 2" Cal., 10'-12' Ht.	EA	4		
A-93	8-02	PSIPE Cercidiphyllum japonicum 'Biringer' / Hanna's Heart Katsura; 1.5" Cal., 8'-10' Ht.	EA	4		
A-94	8-02	PSIPE Prunus x Yedoensis 'Akebono' / Akebono Yoshino Cherry; 2" Cal., 10'-12' Ht.	EA	3		
A-95	8-02	PSIPE Acer palmatum 'Wolff' / Emperor I Japanese Maple; 1.5" Cal., 10'-12' Ht.	EA	3		
A-96	8-02	PSIPE Pinus flexilis 'Vanderwolf's Pyramid' / Vanderwolf's Pyramid Limber Pine; 8'-10' Ht.	EA	1		
A-97	8-02	PSIPE Pinus contorta / Shore Pine; 8'-10' Ht.	EA	1		
A-98	8-02	PSIPE Pinus mugo 'Pumilio' / Dwarf Mugo Pine; 15 Gal. Cont.	EA	11		
A-99	8-02	PSIPE Acer palmatum 'Wolff' / Emperor I Japanese Maple; 15 Gal. Cont.	EA	2		
A-100	8-02	PSIPE Berberis thunbergii 'Concorde' / Concorde Japanese Barberry; 1 Gal. Cont.	EA	91		
A-101	8-02	PSIPE Cornus sericea 'Flaviramea' / Yellow Twig Dogwood; 2 Gal. Cont.	EA	44		
A-102	8-02	PSIPE Cornus sericea 'Kelseyii' / Kelsey's Dwarf Red Twig Dogwood; 2 Gal. Cont.	EA	40		
A-103	8-02	PSIPE Calluna vulgaris 'Wynanda' / Wynanda Heather; 1 Gal. Cont.	EA	26		
A-104	8-02	PSIPE Epimedium x perralchicum 'Frohnleiten' / Frohnleiten Epimedium; 1 Gal. Cont.	EA	143		
A-105	8-02	PSIPE Hakonechloa macra 'Aureola' / Golden Variegated Forest Grass; 1 Gal. Cont.	EA	257		
A-106	8-02	PSIPE Hydrangea quercifolia 'Munchkin' / Munchkin Oakleaf Hydrangea; 2 Gal. Cont.	EA	66		
A-107	8-02	PSIPE Nandina domestica 'Murasaki' / Flirt Heavenly Bamboo; 2 Gal. Cont.	EA	46		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
A-108	8-02	PSIPE Polystichum munitum / Sword Fern; 1 Gal. Cont.	EA	252		
A-109	8-02	PSIPE Rhododendron x 'Christmas Cheer' / Christmas Cheer Rhododendron 2 Gal. Cont.	EA	83		
A-110	8-02	PSIPE Rhododendron x 'Elviira' / Elviira Rhododendron; 2 Gal. Cont.	EA	47		
A-111	8-02	PSIPE Rosa x 'NOAMEL' / Flower Carpet Appleblossom Rose; 2 Gal. Cont.	EA	59		
A-112	8-02	PSIPE Rosa gymnocarpa / Baldhip Rose; 2 Gal. Cont.	EA	29		
A-113	8-02	PSIPE Sarcococca hookeriana var. humilis / Dwarf Himalayan Sweetbox; 2 Gal. Cont.	EA	70		
A-114	8-02	PSIPE Spiraea betulifolia 'Tor' / Birchleaf Spirea; 2 Gal. Cont.	EA	96		
A-115	8-02	PSIPE Vaccinium ovatum / Evergreen Huckleberry; 2 Gal. Cont.	EA	5		
A-116	8-02	PSIPE Narcissus x 'Dutch Master' / Dutch Master Daffodil; Bulb	EA	200		
A-117	8-02	PSIPE Aster x frikartii 'Monch' / Monch Frikart's Aster; 1 Gal. Cont.	EA	25		
A-118	8-02	PSIPE Coreopsis lanceolata / Lanceleaf Tickseed; 1 Gal. Cont.	EA	49		
A-119	8-02	PSIPE Geum x 'TNGEUTR' / Tempo Rose Geum; 1 Gal. Cont.	EA	78		
A-120	8-02	PSIPE Hemerocallis x 'Purple D'Oro' / Purple D'Oro Daylily; 1 Gal. Cont.	EA	40		
A-121	8-02	PSIPE Lavandula angustifolia 'Hidcote' / Hidcote English Lavender; 1 Gal. Cont.	EA	128		
A-122	8-02	PSIPE Leucanthemum x superbum 'Mount Hood' / Mount Hood Shasta Daisy; 1 Gal. Cont.	EA	68		
A-123	8-02	PSIPE Pennisetum alopecuroides 'Hameln' / Hameln Fountain Grass; 1 Gal. Cont.	EA	137		
A-124	8-02	PSIPE Rudbeckia fulgida sullivantii 'Goldsturm' / Goldsturm Coneflower; 1 Gal. Cont.	EA	52		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
A-125	8-02	PSIPE Verbena bonariensis 'Lollipop' / Lollipop Tall Verbena; 1 Gal. Cont.	EA	28		
A-126	8-02	ROOT BARRIER	LF	544		
A-127	8-02	LANDSCAPE BOULDER	EA	63		
A-128	8-02	LANDSCAPE LOG	EA	22		
A-129	8-02	TREE PLANTERS - MAIN SPAN	EA	2		
A-130	8-02	PROPERTY RESTORATION	FA	20,000		
A-131	8-03	IRRIGATION SYSTEM, COMPLETE	LS	1		
Site Furnishings						
A-132	8-12	WOOD POST & RAIL FENCE	LF	18		
A-133	8-12	PORTABLE RESTROOM ENCLOSURE FENCE	LF	32		
A-134	8-14	DECORATIVE SURFACE TREATMENT	SY	13		
A-135	8-14	METAL INLAY	LS	1		
A-136	8-19	REMOVEABLE BOLLARD	EA	5		
A-137	8-26	WOOD BENCH	EA	2		
A-138	8-26	EXISTING BENCH REINSTALLATION	EA	1		
A-139	8-26	STACKED WOOD BENCH STRUCTURE	EA	1		
A-140	8-27	PICNIC TABLE	EA	3		
A-141	8-28	EXISTING BIKE RACK REINSTALLATION	EA	7		
A-142	8-32	PET WASTE BAG DISPENSER	EA	1		
A-143	8-33	GRAVEL AREA	SY	75		
A-144	8-34	COORDINATION - PLAY EQUIPMENT AREA	LS	1		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
Misc. Non-Structural Items						
A-145	8-35	BRIDGE AND WALKWAY LIGHTING	LS	1		
A-146	8-35	UNDERGROUND POWER RELOCATIONS	LS	1		
A-147	2-04	PROJECT INFORMATIONAL SIGNS	LS	1		

TOTAL PRICE – SCHEDULE A – BASE BID \$ _____

Schedule B – Water Improvements

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
General						
B-1	1-04	MINOR CHANGE	EST	10,000		
B-2	1-05	SURVEYING	LS	1		
B-3	1-05	RECORD DRAWINGS (MINIMUM BID \$2,000)	LS	1		
B-4	1-09	MOBILIZATION	LS	1		
Site Preparation and Grading						
B-5	3-07	SHORING OR EXTRA EXCAVATION CLASS B, INCL. HAUL	LS	1		
Civil and Utilities						
B-6	7-00	UTILITY POTHOLING	FA	2000		
B-7	7-09	REMOVAL OF EXISTING WATER MAIN	LF	45		
B-8	7-09	STEEL CASING PIPE, 18 IN. DIAM	LF	30		
B-9	7-09	CL 52 DUCTILE IRON PIPE FOR WATER MAIN, 8 IN. DIAM.	LF	72		
B-10	7-09	CONNECTION TO EXISTING MAIN	EA	2		

Item No.	Spec. Sec. #	Item Description	Unit	Estimated Quantity	Unit Price	Amount
B-11	7-12	GATE VALVE, 8 IN.	EA	1		

TOTAL PRICE – SCHEDULE B (PRE-TAX) \$ _____
 SALES TAX (9.1%) \$ _____
 TOTAL PRICE – SCHEDULE B (WITH TAX) \$ _____

TOTAL BID PRICE \$ _____

BID PROPOSAL SIGNATURE PAGE

By signing below, Bidder acknowledges receipt and understanding of the following Addenda:

Addendum No.	Date of Receipt	Addendum No.	Date of Receipt
1	_____	3	_____
2	_____	4	_____
5	_____	6	_____

NOTE: Failure to acknowledge receipt of Addenda may be considered as an irregularity in the Bid Proposal and Owner reserves the right to determine whether the bid will be disqualified.

By signing below, Bidder certifies that:

1. Bidder has reviewed the insurance provisions of the Bid Documents and will provide the required coverage.
2. Bidder expressly agrees to all provisions of the WSDOT/APWA *Standard Specifications for Road Bridge and Municipal Construction* (2026 edition) except as modified in the Bid Documents, including all indemnity provisions and Title 51 waiver of immunity for workplace injuries contained in General Requirements Section 1-07.14.

The Surety Company which will furnish the required Payment and Performance Bonds is

_____ of _____
(Name) (Address)

Bidder: _____

Signature of Authorized Official: _____

Printed Name and Title: _____

Address: _____

Date: _____ Phone No.: _____ Fax No: _____

Email Address: _____

This address, phone/fax number, and email address is the one to which all communications regarding this proposal and the Contract (if awarded) should be sent.

Circle One: Individual/Partnership/ _____ State of Incorporation: _____
Joint Venture/Corporation

NOTES: 1. If the Bidder is a co-partnership, give firm name under which business is transacted; proposal must be executed by a partner. If the Bidder is a corporation, proposal must

be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign).

2. A bid must be received on all items. If any unit prices are left blank, they may be entered as \$0—no charge or the bid may be rejected as non-responsive.

BID SECURITY

☐ **Bid Deposit:** The undersigned Principal hereby deposits a Bid Deposit with the City of Maple Valley in the form of a cash deposit, certified check, or cashier's check in the amount of _____ dollars (\$_____).

☐ **Bid Bond:** The undersigned, _____ (Principal), and _____ (Surety), are held and firmly bound unto the City of Maple Valley (Owner) in the penal sum of _____ dollars (\$_____), which for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally. The liability of Surety under this Bid Bond shall be limited to the penal sum of this Bid Bond.

Conditions: The Bid Deposit or Bid Bond shall be an amount not less than five percent (5%) of the total bid, including applicable sales tax and is submitted by Principal to Owner in connection with a Proposal for **T-57 SR 169 Pedestrian Bridge** according to the terms of the Proposal and Bid Documents.

Now therefore,

- a. If the Proposal is rejected by Owner, or
- b. If the Proposal is accepted and Principal shall duly make and enter into an Agreement with Owner in accordance with the terms of the Bid Documents, and shall furnish bonds for the faithful performance of said Project and for the payment of all persons performing labor or furnishing materials in connection therewith, with Surety or Sureties approved by Owner, and shall furnish satisfactory evidence of insurance as required, then this Bid Security shall be released; otherwise it shall remain in full force and effect and Principal shall forfeit the Bid Deposit or Surety shall immediately pay and forfeit to Owner the amount of the Bid Bond, as penalty and liquidated damages.

We agree to be bound by the laws of the State of Washington and to be subject to the jurisdiction of the State of Washington. We further agree to venue in King County, Washington, for all demands, suits and actions of any kind initiated under this bond.

The obligations of Surety and its Bid Bond shall be in no way impaired or affected by any extension of time within which Owner may accept bids; and Surety does hereby waive notice of any such extension.

Signed and dated this _____ day of _____, 20_____.

Principal

Surety

Signature of Authorized Official

Signature of Authorized Official

Title

By _____
Attorney in Fact (*Attach Power of Attorney*)

Name, address, and phone no. of local
office of agent and/or Surety Company:

Surety companies executing bonds must appear on the current Authorized Insurance List in the State of Washington per Section 1-02.7 of the Standard Specifications.

NONCOLLUSION AFFIDAVIT

STATE OF WASHINGTON)
) SS
COUNTY OF KING)

The undersigned, being first duly sworn, on oath deposes and says that the person, firm, association, partnership, joint venture, or corporation named in the Bid Proposal has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in the preparation and submission of a proposal to the City of Maple Valley for consideration in the award of a contract for the project named: **T-57 SR 169 Pedestrian Bridge.**

Name of Firm

Signature of Authorized Official

Title

Signed and sworn to before me on this _____ day of _____, 20____.

Signature of Notary Public in and for the State of Washington, residing at _____

My appointment expires: _____

SEAL

CITY OF MAPLE VALLEY
STATEMENT OF BIDDER'S QUALIFICATIONS

To be considered Responsible Bidder, the Bidder must meet the bidder qualification criteria under RCW 39.04.350, and must complete the following:

1. Show evidence that Bidder has successfully completed, as a Prime Contractor, **at least three (3)** bridge construction projects of similar nature that are at least \$5,000,000 each, within the last five (5) years. Attach additional sheets, as needed. Fill out at least the following:

Project Name and Description	Owner	Year Completed	Reference (name, title, phone #)

2. Provide the names and resumes of the Bidder's proposed Project Manager and Superintendent who will be dedicated to this project (minimum 50% of their time). Provide experience for each named individual, which shall include at least three (3) relevant bridge projects with spans greater than 60 feet that the individual has worked in a similar capacity and/or role. Attach additional sheets, as needed.

Fill out at least the following for the proposed Project Manager:

Name of Project Manager (include designations, if any)			
Role at Company			
Years of Experience (minimum 8 years)			
Years at Company			
Relevant Experience			
Project Name and Owner	Hours/week spent on Project	Year Completed	Reference (name, title, phone #)

Fill out at least the following for the proposed Superintendent:

Name of Superintendent (include designations, if any)			
Role at Company			
Years of Experience (minimum 8 years)			
Years at Company			
Relevant Experience			
Project Name and Owner	Hours/week spent on Project	Year Completed	Reference (name, title, phone #)

3. Provide the names and firm resumes for each of the Bidder's proposed major subcontractors for this project, which may include subcontracts for the foundations, falsework, and steelwork fabrication and erection. Provide experience for each subcontractor using the following table, which shall include at least three (3) relevant bridge projects that the subcontractor has worked in a similar capacity and/or role. Attach additional sheets, as needed. Fill out at least the following:

Name of Subcontractor			
Contact Information			
Subcontracted Scope			
Approx. Percentage of Work to be Subcontracted			
Relevant Experience			
Project Name and Nature of Work	Owner	Year Completed	Reference (name, title, phone #)

4. Provide a baseline construction schedule with regard to the major construction activities listed below. Fill out the following schedule:

	2027												2028												
MONTH:	26-Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Notice to Proceed:																									
Mobilization:																									
Coordination with utilities:																									
Shop drawings/submittals:																									
Steel fabrication/delivery:																									
Site prep/staging areas:																									
Foundation construction:																									
Construct abutments/piers:																									
Falsework and west ramp/stairs CIP pours:																									
Falsework and east ramp/stairs CIP pours:																									
Roof truss fabrication:																									
Steel arch span and roof site assembly:																									
Main span lift and deck pour:																									
Electrical/railings/lighting:																									
Fill ramps, paths, driveway:																									
Play area (by others):																									
Restoration/landscaping:																									
Substantial Completion:																									
Project Closeout:																									

5. Complete the following:

WA State Contractor's Registration # _____
 UBI # _____
 Industrial Insurance Account # _____
 Employment Security Department # _____
 State Excise Tax Registration # _____
 Federal Tax ID # _____

I declare that the above statements are true to the best of my knowledge and that under penalty of perjury I am in compliance with the responsible bidder criteria requirement of subsection (1)(g) of RCW 30.04.350:

Bidder : _____

Authorized Signature: _____



CERTIFICATION OF COMPLIANCE WITH WAGE PAYMENT STATUTES

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (September 16th, 2026), the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I certify under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

Bidder’s Business Name (Please Print Clearly)

Signature of Authorized Official*

Printed Name

Title

Date

City

State

Check One:

Sole Proprietorship ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

State of Incorporation, or if not a corporation, State where business entity was formed:

If a co-partnership, give firm name under which business is transacted:

** If a corporation, proposal must be executed in the corporate name by the president or vice-president (or any other corporate officer accompanied by evidence of authority to sign). If a co-partnership, proposal must be executed by a partner.*

CITY OF MAPLE VALLEY
PUBLIC WORKS AGREEMENT FOR T57 – SR 169 Pedestrian Bridge
Contract No. _____
Contractor: Insert Contractors Name IN CAPS

This Agreement is entered into by and between the CITY OF MAPLE VALLEY, WASHINGTON, a municipal corporation hereinafter referred to as “City,” and Insert Contractors Name IN CAPS, a Insert State of Incorporation and Type of Entity – example: a Washington Corporation, a Washington Limited Liability Company, Sole Proprietorship, Municipal Corporation, etc., hereinafter referred to as “Contractor.”

WHEREAS, the City desires to have certain public works services performed for its citizens; and

WHEREAS, the City has selected the Contractor to perform the above-mentioned services;

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, to be kept, performed, and fulfilled by the respective parties hereto, and other valuable consideration, it is mutually agreed as follows:

1. **Scope of Services to be Performed by the Contractor.** The Contractor shall perform the services outlined in Exhibit “A” of this Agreement. In performing these services, the Contractor shall at all times comply with all federal, state, and local laws and regulations applicable to the performance of such services. The Contractor shall perform services diligently and completely and in accordance with professional standards of conduct and performance.

2. **Compensation.**

a. The City shall pay Contractor: According to the rates set forth in the Bid Proposal dated Insert Date, in an amount not to exceed \$Insert Amount, excluding approved change orders.

b. All invoices shall be accompanied by an Invoice Summary Form substantially in the form set forth in Exhibit “B.”

c. Each voucher claim submitted by Contractor shall state that the prevailing wages have been paid in accordance with the prefiled statement or statements of Intent to Pay Prevailing Wages on file with the City.

d. Vouchers are paid on the Tuesday following the second and fourth Mondays of each month, following City Council approval. Invoices must be received at least ten (10) days prior to the approval date. The Contractor shall be paid for services rendered and allowable expenses incurred, but in no case shall the total amount to be paid exceed the “not to exceed” amount of \$Insert Amount, unless the parties mutually agree to the payment of additional fees and expenses by Change Order as authorized by the City. The Contractor shall complete and return Exhibit “C,” Tax Identification Number, prior to execution of this Agreement.

e. Any change or modification to this Agreement for additional services as above referenced shall be by written Change Order and signed by the parties to this Agreement. Any compensation due for the

changes or modifications shall be on the same terms and conditions as set forth in this section or in a manner otherwise mutually agreed to by the parties by Change Order.

3. Termination.

a. The City reserves the right to terminate or suspend this Agreement at any time, with or without cause, upon fourteen (14) days' prior written notice.

b. In the event this Agreement is terminated or suspended, the Contractor shall be entitled to payment for all services performed and reimbursable expenses incurred up to the date of termination.

c. This Agreement may be canceled immediately if the Contractor's insurance coverage or financial guarantee provided to the City under this Agreement is canceled for any reason or if the Contractor is unable to perform the services called for by this Agreement.

d. The Contractor reserves the right to terminate this Agreement with not less than sixty (60) days' written notice.

e. This provision shall not prevent the City from seeking any legal remedies it may otherwise have for the violation or nonperformance of any provisions of this Agreement.

4. Duration of Agreement. This Agreement shall be in full force and effect for a period commencing upon execution by the last Party to sign this Agreement and ending Insert Date unless sooner terminated under the provisions of this Agreement. Time is of the essence of this Agreement in each and all of its provisions in which performance is required.

5. Prevailing Wages

a. The Contractor shall pay all workers performing services under this Agreement not less than the prevailing wage adopted by the Washington State Department of Labor and Industries. The State of Washington prevailing wage rates applicable for this public works project, which is located in King County, may be found at the following website address of the Department of Labor and Industries: <https://fortress.wa.gov/lni/wagelookup/prvWagelookup.aspx>. Based on the bid submittal deadline for this project, the applicable effective date for prevailing wages for this project is Insert Applicable Effective Date from L&I Website. A copy of the applicable prevailing wage rates are also available for viewing at City Hall, located at 22017 SE Wax Road, Suite 200, Maple Valley, Washington, 98038. Upon request, the City will mail a hard copy of the applicable prevailing wages for the project. The Contractor shall also comply with the prevailing wage laws codified under RCW Chapter 39.12 as written or hereinafter amended, and all applicable provisions of the Washington Administrative Code relating thereto. This Agreement shall not be construed as prohibiting the Contractor from taking advantage of any exemption from paying the prevailing wage rate under a special certificate issued by the Department of Labor and Industries ("L&I") for vocational handicapped workers or of any other exemption or exception authorized by law.

b. Upon execution of this Agreement, the Contractor, and all subcontractors under contract to the Contractor, shall file a "Statement of Intent to Pay Prevailing Wages" with L&I on forms approved by L&I and file a copy of the Statement of Intent to Pay Prevailing Wages with the City. The City shall not make any payments or reimbursements under the Agreement prior to receipt of an approved "Statement of Intent to Pay Prevailing Wages" form for the Contractor and all subcontractors under contract to the Contractor, by the industrial statistician of L&I. For all contracts with the City over \$10,000, the "Statement of Intent to Pay Prevailing Wages" shall include:

- (1) The Contractor's (and each Subcontractor's) registration certificate number; and
- (2) The prevailing rate of wages for each classification of workers entitled to prevailing wages under RCW 39.12.020 and the estimated number of workers in each classification.

Public improvement contracts involving the construction, alteration, repair, or improvement of any highway, road, or street funded in whole or in part by federal transportation funds shall rely upon the contract bond as referred to in Chapter 39.08 RCW for the protection and payment of: (i) The claims of any person or persons arising under the contract to the extent such claims are provided for in RCW 39.08.010; and (ii) the state with respect to taxes imposed pursuant to Titles 50, 51, and 82 RCW which may be due. The contract bond must remain in full force and effect until, at a minimum, all claims filed in compliance with chapter 39.08 RCW are resolved.

c. If a subcontractor to the Contractor fails to submit an Affidavit of Wages Paid form, the Contractor may file said form on behalf of the nonresponsive subcontractor. Such form(s) may only be filed on behalf of a nonresponsive subcontractor who has ceased operations or failed to file as required herein. Filings made on behalf of a subcontractor may not be accepted sooner than thirty-one days after the acceptance date of the work completed by the Contractor and the Contractor filing the Affidavit of Wages Paid form must accept responsibility for payment of prevailing wages unpaid by the subcontractor pursuant to RCW 39.12.020 and 39.12.065.

6. Independent Contractor.

a. The Contractor and the City agree that the Contractor is an independent contractor with respect to the services provided pursuant to this Agreement. The Contractor will solely be responsible for its acts and for the acts of its agents, employees, subcontractors, or representatives during the performance of this Agreement. Nothing in this Agreement shall be considered to create the relationship of employer and employee between the parties hereto.

b. The City shall not be responsible for withholding or otherwise deducting federal income tax or Social Security or contributing to the State Industrial Insurance Program, or otherwise assuming the duties of an employer with respect to Contractor or any employee of the Contractor.

7. Indemnification/Hold Harmless.

a. The Contractor shall defend, indemnify, and hold the City and its officers, officials, agents, employees, and volunteers harmless from any and all costs, claims, injuries, damages, losses, suits, or liabilities of any nature including attorneys' fees arising out of or in connection with the performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

b. Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the City, its officers, officials, employees, and volunteers, the Contractor's liability hereunder shall be only to the extent of the Contractor's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Contractor's waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

8. Bonding. Upon execution of this contract, as required by RCW 39.08, the Contractor shall furnish a payment and performance bond in the full amount of the contract price, plus state sales tax, which shall guarantee the faithful performance of the contract and the payment of all labor, mechanics, subcontractors,

and materialmen and all persons who supply them with provisions and supplies for carrying out the work under this contract. This bond shall be in force until completion of the contract and also upon such period thereafter during which the law allows liens to be filed and sued upon. This performance bond shall be furnished by a corporate surety company authorized to do business in the State of Washington, in a company acceptable to the City and on the form attached hereto. The bond must specify that the surety agrees to be bound by the laws of the State of Washington and be subject to jurisdiction of the state of Washington, and to venue in King County, Washington.

9. **Insurance.** The Contractor shall procure and maintain insurance, as required in this Section, without interruption, from commencement of the Contractor's work through the term of the agreement and for thirty (30) days after the Physical Completion date, unless otherwise indicated herein.

a. **No Limitation.** Contractor's maintenance of insurance, its scope of coverage and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the City's resources to any remedy available by law or equity.

b. **Minimum Scope of Insurance.** Contractor shall obtain insurance of the types and coverage as stated below:

(1) Automobile Liability insurance covering all owned, non-owned, hired, and leased vehicles. Coverage shall be at least as broad as Insurance Services Office (ISO) form CA 00 01. If necessary, the policy shall be endorsed to provide contractual liability coverage.

(2) Commercial General Liability insurance shall be at least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, independent contractors, products-completed operations, stop gap liability, and personal injury and advertising injury, and liability assumed under an insured contract. The Commercial General Liability insurance shall be endorsed to provide the Aggregate Per Project Endorsement ISO form CG 25 0305 09 or equivalent endorsement. There shall be no exclusion for liability arising from explosion, collapse, or underground property damage. The City shall be named as an additional insured under the Contractor's Commercial General Liability insurance policy with respect to the work performed for the City using ISO Additional Insured Endorsement CG 20 10 10 01 and Additional Insured-Completed Operations endorsement CG 20 37 10 01 or substitute endorsements providing at least as broad coverage.

(3) Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington

(4) Builders Risk insurance covering interests of the City, the Contractor, Subcontractors, and Sub-subcontractors in the work. Builders Risk insurance shall be on a all-risk policy form and shall insure against the perils of fire and extended coverage and physical loss or damage including flood and earthquake, theft, vandalism, malicious mischief, collapse, temporary buildings and debris removal. This Builders Risk insurance covering the work will have a deductible of \$5,000 for each occurrence, which will be the responsibility of the Contractor. Higher deductibles for flood and earthquake perils may be accepted by the City upon written request by the Contractor and written acceptance by the City. Any increased deductibles accepted by the City will remain the responsibility of the Contractor. The Builders Risk insurance shall be maintained until final acceptance of the work by the City.

c. **Minimum Amounts of Insurance.** Contractor shall maintain the following insurance limits:

(1) Automobile Liability insurance with a minimum combined single limit for bodily injury and property damage of \$1,000,000 per accident.

(2) Commercial General Liability insurance shall be written with limits no less than \$1,000,000 each occurrence, \$2,000,000 general aggregate, and a \$2,000,000 products-completed operations aggregate limit.

(3) Builders Risk insurance shall be written in the amount of the completed value of the project with no coinsurance provisions.

d. City Full Availability of Contractor Limits. If the Contractor maintains higher insurance limits than the minimums shown above, the City shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this contract or whether any certificate of insurance furnished to the City evidences limits of liability lower than those maintained by the Contractor.

e. Other Insurance Provisions. The insurance policies are to contain, or be endorsed to contain, the following provisions for Automobile Liability and Commercial General Liability insurance:

(1) The Contractor's insurance coverage shall be primary insurance as respects the City. Any insurance, self-insurance, or insurance pool coverage maintained by the City shall be in excess of the Contractor's insurance and shall not contribute with it.

(2) The Contractor's insurance shall be endorsed to state that coverage shall not be canceled by either party except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

f. Contractor's Insurance For Other Losses. The Contractor shall assume full responsibility for all loss or damage from any cause whatsoever to any tools, Contractor's employee owned tools, machinery, equipment, or motor vehicles owned or rented by the Contractor, or the Contractor's agents, suppliers, contractors, or sub-contractors as well as to any temporary structures, scaffolding and protective fences.

g. Waiver of Subrogation. The Contractor and the City waive all rights against each other any of their Subcontractors, Sub-subcontractors, agents and employees, each of the other, for damages caused by fire or other perils to the extent covered by Builders Risk insurance or other property insurance obtained pursuant to the Insurance Requirements Section of this Contract or other property insurance applicable to the work. The policies shall provide such waivers by endorsement or otherwise.

h. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best rating of not less than A: VII.

i. Verification of Coverage. Contractor shall furnish the City with original certificates and a copy of the amendatory endorsements, including, but not necessarily limited to, the additional insured endorsement, evidencing the insurance requirements of the Contractor before commencement of the work. Upon request by the City, the Contractor shall furnish certified copies of all required insurance policies, including endorsements, required in this contract and evidence of all subcontractors' coverage.

j. Notice of Cancellation. The Contractor shall provide the City with written notice of any policy cancellation, within two business days of their receipt of such notice.

k. Failure to Maintain Insurance. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five business days' notice to the Contractor to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due the Contractor from the City.

l. Subcontractors. Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the same insurance requirements as stated herein for the Contractor. The Contractor shall ensure that the City is an additional insured on each and every subcontractors' Commercial General Liability insurance policy using an endorsement at least as broad as ISA Additional Insured endorsement CG 20 38 04 13.

10. Delays. The Contractor is not responsible for delays caused by factors beyond the Contractor's reasonable control. When such delays beyond the Contractor's reasonable control occur, the City agrees the Contractor does not owe for damages, nor shall the Contractor be deemed to be in default of the Agreement.

11. Successors and Assigns. Neither the City nor the Contractor shall assign, transfer, or encumber any rights, duties, or interests accruing from this Agreement without the written consent of the other.

12. Discrimination Prohibited. The Contractor shall not discriminate against any employee or applicant for employment, or any person seeking the services of the Contractor under this Agreement, because of sex, age, race, color, religion, creed, national origin, marital status, sexual orientation, or the presence of any sensory, mental, or physical disability, unless based upon a bona fide occupational qualification.

13. Notices. Any notice required under this Agreement will be in writing, addressed to the appropriate party at the address which appears below (as modified in writing from time to time by such party), and given personally, by registered or certified mail, return receipt requested, by facsimile or by a nationally recognized overnight courier service. All notices shall be effective upon the date of receipt.

To the City:

City of Maple Valley
Laura K. Philpot, City Manager
P.O. Box 320 (mailing address)
22017 SE Wax Road, Suite 200
Maple Valley, WA 98038
425-413-8800; fax: (425) 413-4282

With a copy to:
City of Maple Valley
Attention: Project Manager
P.O. Box 320 (mailing address)
Maple Valley, WA 98038

To the Contractor:
Contractors Business Name
Contact Person Name
Mailing/Physical Address
City, State, Zip Code
Phone Number; Fax Number

14. Applicable Law; Venue; Attorneys' Fees. This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. In the event any suit, arbitration, or other proceeding is instituted to enforce any term of this Agreement, the parties specifically understand and agree that venue shall be exclusively in King County, Washington. The prevailing party in any such action shall be entitled to its attorneys' fees and costs of suit, which shall be fixed by the judge hearing the case, and such fees shall be included in the judgment.

15. General Administration and Management. The manager of this Agreement shall be Name of Project Manager of the Appropriate Department or his/her designee.

16. Severability. Any provision or part of the Agreement held to be void or unenforceable under any law or regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the City and the Contractor, who agree that the Agreement shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as reasonably possible to expressing the intention of the stricken provision.

17. Contract Documents. The Contract Documents, which set forth the terms of the contract between the City and the Contractor, and which are entered into by the acceptance of the Contractor's bid and the signing of this Agreement, consist of all the documents that are included within the Insert Name of Bid Proposal: i.e. Maple Valley Youth Center Specifications, Proposal and Contract Documents, G&O #06492, October 2006 materials, including all of the documents included within the Insert Name of Applicable Bid Documents: i.e. "Invitation to Bid, General Information and Documents, General Provisions, Special Provisions and Technical Provisions as well as all Appendices attached thereto, all of which are a part thereof as if herein set forth in full, and if not attached, as if hereto attached, and also including:

- a. Addenda; if any
- b. Change Orders, which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto; and

c. All modifications or changes issued pursuant to the Contract Documents.

There are no Contract Documents other than those above listed. The Contract Documents may only be amended by Change Order as provided in the Contract Provisions.

CITY OF MAPLE VALLEY

Name of Contractor IN CAPS

By: Laura K. Philpot

Title: City Manager

Date:

By:

Title:

Date:

Attest:

Andrew Dacuag, City Clerk

Approved as to form:

Patricia Taraday, City Attorney

Attachments: Exhibits "A," "B," "C," and "D"

Authorizing Resolution No. Insert number, delete if n/a

EXHIBIT A

SCOPE OF WORK

INSERT SCOPE OF WORK HERE YOU MAY REMOVE THIS PAGE IF NECESSARY

EXHIBIT B
CITY OF MAPLE VALLEY INVOICE SUMMARY FORM
Attn: Accounts Payable
P.O. Box 320, Maple Valley, WA 98038
(425) 413-8800; Fax (425) 413-4282 or
Scan Invoice to finance2@maplevalleywa.gov
AND cd-pw@maplevalleywa.gov

City Contract No: _____ Invoice No.: _____ Invoice Date: _____

Vendor: _____

Mailing Address: _____

Invoice Contact Name: _____ Telephone: _____

Reporting Period: _____

Amount of Invoice: \$ _____

Attach Invoice to describe services performed this period.

BUDGET SUMMARY:

Total Contract Amount \$ _____

Previously Submitted for Payment \$ _____

Current Request \$ _____

Total Requested to Date \$ _____

Balance Remaining \$ _____

Vendor Signature Date

Print Name Title

Vouchers are paid on the Tuesday following the second and fourth Mondays of each month, following City Council approval. Invoices must be received at least ten (10) days prior to the approval date. The Vendor shall be paid for services rendered and allowable expenses incurred, but in no case shall the total amount paid exceed the "not to exceed" amount of \$ **Insert Amount**, unless the parties mutually agree in writing to the payment of additional fees and expenses as authorized by the City. The Vendor shall complete and return Exhibit "C," Tax Identification Number, prior to execution of this Agreement.

For Department Use Only

Approved for Payment:

Vendor No.: _____ Budget No.: _____

Signature: _____

Date _____

Public Works Agreement –
Funded by Federal Transportation Funds
Exhibit B

Rev 09/2024

EXHIBIT C

Please print out completed W-9 form and include as Exhibit C

EXHIBIT D

(Appendix A of USDOT 1050.2A Standard Title VI Assurances)

During the performance of this Agreement, the Consultant/Contractor, for itself, its assignees, and successors in interest (hereinafter collectively referred to as the “Consultant/Contractor”) agrees as follows:

1. **Compliance with Regulations:** The Consultant/Contractor shall comply with the acts and regulations relative to nondiscrimination in federally-assisted programs of the United States Department of Transportation (USDOT), Title 49, Code of Federal Regulations, Part 21 (49 CFR 21), as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Agreement.
2. **Nondiscrimination:** The Consultant/Contractor, with regard to the work performed by it during the Agreement, shall not discriminate on the grounds of race, color, national origin, sex, age, disability, income-level, or LEP in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Consultant/Contractor shall not participate directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the Agreement covers any activity, project, or program set forth in Appendix B of 49 CFR 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the Consultant/Contractor for work to be performed under a subcontract, including procurement of materials, or leases of equipment, each potential subcontractor or supplier shall be notified by the Consultant/Contractor of the Consultant’s/Contractor’s/Vendor’s obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, national origin, sex, age, disability, income-level, or LEP.
4. **Information and Reports:** The Consultant/Contractor shall provide all information and reports required by the Regulations and directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the City or the appropriate state or federal agency to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a Consultant/Contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Consultant/Contractor shall so certify to the City, or state or federal agency, as appropriate, and shall set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of the Consultant’s/Contractor’s/Vendor’s noncompliance with the nondiscrimination provisions of this Agreement, the City shall impose such contract sanctions as it or the appropriate state or federal agency may determine to be appropriate, including, but not limited to:
 - Withholding of payments to the Consultant/Contractor under the Agreement until the Consultant/Contractor complies; and/or
 - Cancellation, termination, or suspension of the Agreement, in whole or in part.
6. **Incorporation of Provisions:** The Consultant/Contractor shall include the provisions of the above paragraphs one (1) through five (5) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The Consultant/Contractor shall take such action with respect to any subcontractor or procurement as the City or appropriate state or federal agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. **Provided**, that if the Consultant/Contractor becomes involved in, or is threatened with, litigation by a subcontractor or supplier as a result of such direction, the Consultant/Contractor may request that the City enter into such litigation to protect the interests of the City; or may request that the appropriate state agency enter into such litigation to protect the interests of the State of Washington. In addition, the Consultant/Contractor may request the appropriate federal agency enter into such litigation to protect the interests of the United States.

EXHIBIT D

(Appendix E of USDOT 1050.2A Standard Title VI Assurances)

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 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 U.S.C. § 471, Section 47123), 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 Person 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 the LEP person has 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.*).

CITY OF MAPLE VALLEY PAYMENT BOND

We, _____ (Principal) and _____ (Surety), a _____ corporation, and as a surety corporation authorized to become a surety upon Bonds of Contractors with municipal corporations in Washington State, are jointly and severally bound unto the City of Maple Valley, Washington (Contracting Agency), in the penal sum of: _____ Dollars (\$ _____), (Total Contract Amount) lawful money of the United States, for the payment of which sum well and truly to be made, on demand, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. This Payment Bond is provided to secure the payment and performance of Principal in connection with a contract dated _____, 20____, between Principal and Contracting Agency for a project entitled T-57 SR 169 Pedestrian Bridge. The initial penal sum shall equal 100% of the Total Bid Price, including sales tax, as specified in the Bid Proposal submitted by Principal.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bonded principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract, and shall pay all laborers, mechanics, subcontractors, and material persons, and all persons who shall supply such person or persons, or subcontractors, with provisions and supplies for the carrying on of such work, on his or their part, the claims of any person or persons arising under the contract to the extent such claims are provided for in RCW 39.08.010; the State of Washington with respect to taxes imposed pursuant to Titles 50, 51, and 82 RCW which may be due, and shall indemnify and save harmless the City of Maple Valley, Washington, their officers and agents from any claim for such payment, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

Said Surety, for value received, hereby further stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the Work to be performed hereunder or to the Contract Documents accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any change, extension of time, alterations or additions to the terms of the Contract or the Work or to the Contract Documents. Any such modifications or changes increasing the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this Bond in a like amount.

We agree to be bound by the laws of the State of Washington and to be subject to jurisdiction of the State of Washington. We further agree to venue in King County, Washington, for all demands, suits and actions of any kind initiated under this bond.

If Contracting Agency shall commence suit and obtain judgment against the Surety for recovery hereunder, then the Surety, in addition to such judgment, shall pay all costs and attorney's fees incurred by Contracting Agency in enforcement of its rights hereunder.

No right or action shall accrue on this bond to or for the use of any person or corporation other than Contracting Agency.

IN WITNESS WHEREOF, the said Principal and the said Surety have caused this bond and three (3) counterparts thereof to be signed by their duly authorized officers this _____ day of _____, 20____.

Principal: _____

ATTEST: (if Corporation)

By: _____

Signature of Authorized Official

By: _____

Signature

Title: _____

Printed

Title: _____

Printed

Surety: _____

*Name and address of local office/agent of
Surety is:*

By: _____

Signature of Authorized Official

By: _____

*Attorney in Fact
(Attach Power of Attorney)*

Approved As To Form:

City Attorney

*Surety companies executing bonds must appear on
the current Authorized Insurance List in the State of
Washington per Section 1-02.7 of 2025 WSDOT
Standard Specifications.*

CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Davis-Bacon and Related Act Provisions
- IV. Contract Work Hours and Safety Standards Act Provisions
- V. Subletting or Assigning the Contract
- VI. Safety: Accident Prevention
- VII. False Statements Concerning Highway Projects
- VIII. Implementation of Clean Air Act and Federal Water Pollution Control Act
- IX. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- X. Certification Regarding Use of Contract Funds for Lobbying
- XI. 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. Historically, contracting agencies using Federal-aid highway funds were required to ensure Form FHWA-1273 was physically incorporated into all contracts and subcontracts. Effective June 10, 2026, this requirement was eliminated [91 FR 25492]. Future use of Form FHWA-1273 is now optional on the part of the contracting agency using Federal-aid highway funds. FHWA continues to make Form FHWA-1273 available as a convenience to contracting agencies. Contracting agencies must continue to ensure compliance with the provisions cited in Form FHWA-1273 in accordance with the provisions regardless of the use of Form FHWA-1273. Accordingly, the contracting agency retains the authority to determine whether the contractor must use Form FHWA-1273 to physically incorporate required contract provisions in each subcontract and in lower tier contracts. Where permitted by the contracting agency, the contractor may choose other ways to include required contract provisions in each subcontract, besides incorporating Form FHWA-1273. Contract provisions in Form FHWA-1273 are not required to be physically included in subcontracts for design services on Federal-aid design-build contracts, or in purchase orders, rental agreements and other agreements for supplies or services.

The applicable provisions 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 or 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.

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.

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

The contractor and all subcontractors must comply with the following policies: 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, including any amendments thereto.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with 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, including any amendments thereto.

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.

1. Assurances Required:

a. The requirements of 49 CFR Part 26, including any amendments thereto, 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, including any amendments thereto, 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, including any amendments thereto, are incorporated by reference. 49 CFR Part 21.

III. 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;
- (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 2.a. of this section or Section IV, 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 procurement 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/WHDL/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.

(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 [29 CFR part 30](#), including any amendments thereto.

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 III. 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 in any subcontracts the clauses set forth in paragraphs (1) through (11) of this section, 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](#).

IV. 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 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.

* \$33 as of January 15, 2025 (See 90 FR 1859) 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 III 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 procurement 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.

V. 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 this section 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;

(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 this section 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 longstanding 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).

VI. 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).

VII. 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."

VIII. 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.

IX. 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.

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.

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 to 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 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.

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.

X. 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.

XI. 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.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS** (40 U.S.C. sections 14501(d) and 14701
and the Appalachian Regional Commission Code as
authorized under 40 U.S.C. section 14302)

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 40 U.S.C. 14501 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.

SPECIAL PROVISIONS

The following Special Provisions are made a part of this contract and supersede any conflicting provisions of the WSDOT 2026 Standard Specifications for Road, Bridge and Municipal Construction, and the foregoing Amendments to the Standard Specifications.

Several types of Special Provisions are included in this contract; General, Region, Bridges and Structures, and Project Specific. Special Provisions types are differentiated as follows:

(date)	General Special Provision
(*****)	Notes a revision to a General Special Provision and also notes a Project Specific Special Provision.
(Regions ¹ date)	Region Special Provision

General Special Provisions are similar to Standard Specifications in that they typically apply to many projects, usually in more than one Region. Usually, the only difference from one project to another is the inclusion of variable project data, inserted as a “fill-in”.

Region Special Provisions are commonly applicable within the designated Region. Region designations are as follows:

<u>Regions¹</u>	
ER	Eastern Region
NCR	North Central Region
NWR	Northwest Region
OR	Olympic Region
SCR	South Central Region
SWR	Southwest Region
WSF	Washington State Ferries Division

Utilities Special Provisions are included as follows:

CWD	Covington Water District General Special Provision
-----	--

Project Specific Special Provisions normally appear only in the contract for which they were developed.

Division 1 – General Requirements

DESCRIPTION OF WORK

(March 13, 1995 WSDOT GSP)

This Contract provides for the construction of a new pedestrian bridge consisting of a steel arch bridge with timber roof and reinforced concrete switchback ramps. The primary goal of the T-57 SR Maple Valley Pedestrian Bridge project (Project) is to construct a safe, accessible, and aesthetically pleasing grade-separated crossing over SR 169 near Rock Creek Elementary School and the Legacy Site.

The Project includes clearing and grubbing, excavation, utility relocations and coordination, paving with HMA and/or concrete, irrigation systems, erosion control, curb/gutter and sidewalk improvements, bridge structure construction, retaining walls, traffic control, pavement markings, lighting/electrical, landscaping, and play area coordination. All work will occur within existing City-owned real property and public right-of-way with the exception of a Temporary Construction Easement on the Tahoma School District property. The work will all be in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications.

1-01 DEFINITIONS AND TERMS

1-01.3 Definitions

(*****)

Delete the heading Completion Dates and the three paragraphs that follow it, and replace them with the following:

Dates

Bid Opening Date

The date on which the Contracting Agency publicly opens and reads the Bids.

Award Date

The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.

Contract Execution Date

The date the Contracting Agency officially binds the Agency to the Contract.

Notice to Proceed Date

The date stated in the Notice to Proceed on which the Contract time begins.

Substantial Completion Date

The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, any remaining traffic disruptions will be rare and brief, and only minor incidental work, replacement of temporary substitute facilities, plant establishment periods, or correction or repair remains for the Physical Completion of the total Contract.

Physical Completion Date

The day all of the Work is physically completed on the project. All documentation required by the Contract and required by law does not necessarily need to be furnished by the Contractor by this date.

Completion Date

The day all the Work specified in the Contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required by the Contract and required by law shall be furnished by the Contractor before establishment of this date.

Final Acceptance Date

The date on which the Contracting Agency accepts the Work as complete.

Supplement this Section with the following:

All references in the Standard Specifications or WSDOT General Special Provisions, to the terms "Department of Transportation", "Washington State Transportation Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters", and "State Treasurer" shall be revised to read "Contracting Agency".

All references to the terms "State" or "state" shall be revised to read "Contracting Agency" unless the reference is to an administrative agency of the State of Washington, a State statute or regulation, or the context reasonably indicates otherwise.

All references to "State Materials Laboratory" shall be revised to read "Contracting Agency designated location".

All references to "final contract voucher certification" shall be interpreted to mean the Contracting Agency form(s) by which final payment is authorized, and final completion and acceptance granted.

Additive

A supplemental unit of work or group of bid items, identified separately in the Bid Proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

Alternate

One of two or more units of work or groups of bid items, identified separately in the Bid Proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

Business Day

A business day is any day from Monday through Friday except holidays as listed in Section 1-08.5.

Contract Bond

The definition in the Standard Specifications for "Contract Bond" applies to whatever bond form(s) are required by the Contract Documents, which may be a combination of a Payment Bond and a Performance Bond.

Contract Documents

See definition for "Contract".

Contract Time

The period of time established by the terms and conditions of the Contract within which the Work shall be physically completed.

Notice of Award

The written notice from the Contracting Agency to the successful Bidder signifying the Contracting Agency's acceptance of the Bid Proposal.

Notice to Proceed

The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract time begins.

Traffic

Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

1-02 BID PROCEDURES AND CONDITIONS**1-02.1 Prequalification of Bidders**

Delete this section and replace it with the following:

1-02.1 Qualifications of Bidder

(*****)

Before award of a public works contract, a bidder shall meet at least the minimum qualifications of RCW 39.04.350(1) to be considered a responsible bidder and qualified to be awarded a public works project.

1-02.2 Plans and Specifications

(*****)

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed can be found in the Call for Bids (Advertisement for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

To Prime Contractor	Basis of Distribution
Contract Plans	Furnished automatically
Digital copy	upon award.

Contract Provisions Digital copy	Furnished automatically upon award.
-------------------------------------	--

The Contractor shall be responsible for printing out full-size Plans for use in the site trailer.

Additional plans and Contract Provisions may be obtained by the Contractor from the source stated in the Call for Bids, at the Contractor's own expense.

1-02.4 Examination of Plans, Specifications and Site of Work

1-02.4(1) General

(*****)

The first sentence of the ninth paragraph, beginning with "Prospective Bidder desiring...", is revised to read:

Prospective Bidders desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing soon enough to allow a written reply to reach all prospective Bidders before the submission of their Bids.

1-02.5 Proposal Forms

(*****)

Delete this section and replace it with the following:

The Proposal Form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes; acknowledgment of addenda; the bidder's name, address, telephone number, and signature; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable.

Bids shall be in legible numerals (not words) written in ink or typed and expressed in U.S. dollars. The required certifications are included as part of the Proposal Form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the Proposal Form unless otherwise specified.

1-02.6 Preparation of Proposal

(November 20, 2023 WSDOT GSP, Option 2)

The fourth and fifth paragraphs of Section 1-02.6 are deleted.

(November 4, 2025 WSDOT GSP, Option 7)

Bidder Questionnaire

The Bidder shall submit with their Bid a completed Bidder Questionnaire form (WSDOT Form #272-022). This shall be filled out for each firm who submitted a bid or quote in attempt to participate in the project whether they were successful or not and include the following information:

1. Firm name;
2. Firm address including ZIP code;
3. Firm's status as a DBE or non-DBE;
4. NAICS code applicable to each scope of work the firm sought to perform in its bid;
5. Age of the firm; and
6. The annual gross receipts of the firm. The Bidder may obtain this information by asking each firm to indicate into what gross receipts bracket they fit (less than \$1 million; \$1-3 million; \$3-6 million; \$6-10 million; \$10-20 million; \$20-30.72 million; or greater than \$30.72 million) rather than requesting an exact figure from the firm.

This form shall be received at the same location and no later than the time required for the delivery of the Proposal. Failure to return this completed form as part of the Bid Proposal package will cause this Bid to be considered irregular in accordance with Section 1-02.13.

The Contractor may correct errors to items 2 through 6 above on the Bidder Questionnaire form for a period up to 48 hours after bid opening. Bidder Questionnaire forms that are still incorrect after the correction period will be determined irregular. New Firm/Subcontractors may not be added to the form during the correction period. A Bidder Questionnaire form that fails to list a Firm/Subcontractor that appears on a different form will be considered irregular in accordance with Section 1-02.13.

(*****)

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price shall equal or exceed the minimum amount stated.

(*****)

Revise the fourth paragraph to read:

Subcontractor's List

The Bidder shall submit with the Bid the completed Subcontractor List included in the Contracting Agency Proposal Package. If a Subcontractor List Form is not included in the package, use DOT Form 271-015LP. The Form shall contain the following:

1. Subcontractors who will perform the Work of structural steel installation, rebar installation, heating, ventilation, air conditioning, and plumbing as described in RCW 18.106 and electrical as described in RCW 19.28.
2. The Work those subcontractors will perform on the Contract as described in RCW 39.04.350(1)(b-g), and
3. No more than one subcontractor for each category of Work identified, except, when subcontractors vary with Bid alternates, in which case the Bidder shall identify which subcontractor will be used for which alternate.

(*****)

Delete the last two paragraphs, and replace them with the following:

The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance form, provided by the Contracting Agency. Failure to return this certification as part of the Bid Proposal package will make this Bid Nonresponsive and ineligible for Award. A Contractor Certification of Wage Law Compliance form is included in the Proposal Forms.

The Bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any DBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any DBE requirements are to be satisfied through such an agreement.

1-02.7 Bid Deposit

(*****)

Supplement this section with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;

4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;
5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person shall accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

The Bidder shall use the bond form included in the Contract Provisions.

1-02.9 Delivery of Proposal

(*****)

Delete this section and replace it with the following:

Proposals that are received as required will be publicly opened and read as specified in Section 1-02.12. The Contracting Agency will not open or consider any Bid Proposal that is received after the time specified in the Call for Bids for receipt of Bid Proposals or received in a location other than that specified in the Call for Bids. The Contracting Agency will not open or consider any "Supplemental Information" (Written Confirmations Documents, or GFE Documentation) that is received after the time specified or received in a location other than that specified in the Call for Bids.

If an emergency or unanticipated event interrupts normal work processes of the Contracting Agency so that Proposals cannot be received at the office designated for receipt of bids as specified in Section 1-02.12 the time specified for receipt of the Proposal will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which the normal work processes of the Contracting Agency resume.

Supplemental bid information submitted after the Proposal submittal but within 48 hours of the time specified for receipt of Proposals, shall be submitted in a sealed envelope labeled the same as for the Proposal, with "Supplemental Information" added.

1-02.10 Withdrawing, Revising, or Supplementing Proposal

(*****)

Delete this section, and replace it with the following:

After submitting a physical Bid Proposal to the Contracting Agency, the Bidder may withdraw, revise, or supplement it if:

1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Bid Proposals;

2. The Contracting Agency receives the request before the time set for receipt of Bid Proposals; and
3. The revised or supplemented Bid Proposal (if any) is received by the Contracting Agency before the time set for receipt of Bid Proposals.

If the Bidder's request to withdraw, revise, or supplement its Bid Proposal is received before the time set for receipt of Bid Proposals, the Contracting Agency will return the unopened Proposal package to the Bidder. The Bidder shall then submit the revised or supplemented package in its entirety. If the Bidder does not submit a revised or supplemented package, then its bid shall be considered withdrawn.

Late revised or supplemented Bid Proposals or late withdrawal requests will be date recorded by the Contracting Agency and returned unopened. Mailed, emailed, or faxed requests to withdraw, revise, or supplement a Bid Proposal are not acceptable.

1-02.13 Irregular Proposals

(*****)

Delete this section and replace it with the following:

1. A Proposal will be considered irregular and will be rejected if:
 - a. The Bidder is not prequalified when so required;
 - b. The Bidder adds provisions reserving the right to reject or accept the Award, or enter into the Contract;
 - c. A price per unit cannot be determined from the Bid Proposal;
 - d. The Proposal form is not properly executed;
 - e. The Bidder fails to submit or properly complete a subcontractor list (WSDOT Form 271-015), if applicable, as required in Section 1-02.6;
 - f. The Bidder fails to submit the Bidder Questionnaire (DOT Form 272-022), if applicable as required by Section 1-02.6, or if the documentation that is submitted fails to meet the requirements of the Special Provisions; or
 - g. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation.
2. A Proposal may be considered irregular and may be rejected if:
 - a. The Proposal does not include a unit price for every Bid item;
 - b. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;
 - c. The authorized Proposal Form furnished by the Contracting Agency is not used or is altered;
 - d. The completed Proposal form contains unauthorized additions, deletions, alternate Bids, or conditions;
 - e. Receipt of Addenda is not acknowledged;
 - f. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or
 - g. If Proposal form entries are not made in ink.

1-02.14 Disqualification of Bidders

(*****)

Delete this section and replace it with the following:

A Bidder will be deemed not responsible if the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1), as amended, or does not meet the requirements for the Statement of Bidder's Qualifications in the Contract Provisions.

The Contracting Agency will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1) and the Statement of Bidder's Qualifications. To assess bidder responsibility, the Contracting Agency reserves the right to request documentation as needed from the Bidder and third parties concerning the Bidder's compliance with the mandatory bidder responsibility criteria.

If the Contracting Agency determines the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1) or the Statement of Bidder's Qualifications and is therefore not a responsible Bidder, the Contracting Agency shall notify the Bidder in writing, with the reasons for its determination. If the Bidder disagrees with this determination, it may appeal the determination within two (2) business days of the Contracting Agency's determination by presenting its appeal and any additional information to the Contracting Agency. The Contracting Agency will consider the appeal and any additional information before issuing its final determination. If the final determination affirms that the Bidder is not responsible, the Contracting Agency will not execute a contract with any other Bidder until at least two business days after the Bidder determined to be not responsible has received the Contracting Agency's final determination.

1-03 AWARD AND EXECUTION OF CONTRACT

1-03.1 Consideration of Bids

(*****)

Revise the first paragraph to read:

After opening and reading proposals, the Contracting Agency will check them for correctness of extensions of the prices per unit and the total price. If a discrepancy exists between the price per unit and the extended amount of any bid item, the price per unit will control. If a minimum bid amount has been established for any item and the bidder's unit or lump sum price is less than the minimum specified amount, the Contracting Agency will unilaterally revise the unit or lump sum price, to the minimum specified amount and recalculate the extension. The total of extensions, corrected where necessary, including sales taxes where applicable and such additives and/or alternates as selected by the Contracting Agency, will be used by the Contracting Agency for award purposes and to fix the Awarded Contract Price amount and the amount of the contract bond.

1-03.4 Contract Bond

(*****)

Delete the first paragraph and replace it with the following:

The successful bidder shall provide executed payment and performance bond(s) for the full contract amount. The bond may be a combined payment and performance bond; or be separate payment and performance bonds. In the case of separate payment and performance bonds, each shall be for the full contract amount. The bond(s) shall:

1. Be on Contracting Agency-furnished form(s);
2. Be signed by an approved surety (or sureties) that:
 - a. Is registered with the Washington State Insurance Commissioner, and
 - b. Appears on the current Authorized Insurance List in the State of Washington published by the Office of the Insurance Commissioner,
3. Guarantee that the Contractor will perform and comply with all obligations, duties, and conditions under the Contract, including but not limited to the duty and obligation to indemnify, defend, and protect the Contracting Agency against all losses and claims related directly or indirectly from any failure:
 - a. Of the Contractor (or any of the employees, subcontractors, or lower tier subcontractors of the Contractor) to faithfully perform and comply with all contract obligations, conditions, and duties, or
 - b. Of the Contractor (or the subcontractors or lower tier subcontractors of the Contractor) to pay all laborers, mechanics, subcontractors, lower tier subcontractors, material person, or any other person who provides supplies or provisions for carrying out the work;
4. Be conditioned upon the payment of taxes, increases, and penalties incurred on the project under titles 50, 51, and 82 RCW; and
5. Be accompanied by a power of attorney for the Surety's officer empowered to sign the bond; and
6. Be signed by an officer of the Contractor empowered to sign official statements (sole proprietor or partner). If the Contractor is a corporation, the bond(s) shall be signed by the president or vice president, unless accompanied by written proof of the authority of the individual signing the bond(s) to bind the corporation (i.e., corporate resolution, power of attorney, or a letter to such effect signed by the president or vice president).

(*****)

Supplement this Section with the following:

A construction contract bond will be provided by the contractor to Covington Water District (CWD) for the waterworks portion of the project. Contractor will warranty for minimum of 2 years after punch list items have been completed.

1-03.7 Judicial Review

(*****)

Revise this section to read:

All decisions made by the Contracting Agency regarding the Award and execution of the Contract or Bid rejection shall be conclusive subject to the scope of judicial review permitted under Washington Law. Such review, if any, shall be timely filed in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction.

1-04 SCOPE OF THE WORK

1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda

(*****)

Revise the second paragraph to read:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda, Field Directives, and Change Orders,
2. Proposal Form,
3. Special Provisions,
4. Contract Plans,
5. City of Maple Valley Standard Plans,
6. WSDOT 2026 Standard Specifications, and
7. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

1-04.4 Changes

(*****)

The first two sentences of the last paragraph of Section 1-04.4 are deleted.

1-04.4(1) Minor Changes

(*****)

Delete the first paragraph and replace it with the following:

Payments or credits for changes under Schedule A amounting to \$200,000 or less may be made under the Bid item "Minor Change" in Schedule A. Payments or credits for changes under Schedule B amounting to \$10,000 or less may be made under the Bid item "Minor Change" in Schedule B. At the discretion of the Contracting Agency, this procedure for Minor Changes may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes. All "Minor Change" work will be within the scope of the Contract Work and will not change Contract Time.

1-05 CONTROL OF WORK

1-05.1 Authority of the Engineer

1-05.1(2) Requests for Information (RFI)

The fourth paragraph of Section 1-05. 1(2) is revised to read:

(November 4, 2024 WSDOT GSP)

The Contractor may submit a RFI for one of the following reasons:

1. The Contractor believes there is information missing from the Contract Documents (Missing Information).
2. The Contractor believes a clarification of one or more of the Contract requirements is necessary (Clarification).
3. The Contractor needs to substitute a material that provides an equal or better level of performance as the one specified in the Contract (RFC - Material Substitution). Requests shall indicate the location(s), quantity, and shall describe how the material provides an equal or better level of performance as the material originally specified.
4. The Contractor requests a change to the Contract requirements for a reason other than one listed in items 1-3 of this Section (RFC - Other). To be considered, the request shall not meet the requirements of a Value Engineering Change Proposal. To be considered, the request shall qualify as a Minor Change in accordance with Section 1-04.4(1) and shall describe how the change is beneficial to the project.

1-05.3 Working Drawings

*(*****)*

Supplement this section with the following:

Working Drawings submittal for review shall not use the color red for edits. Red markups shall be reserved for the Engineer's use in providing comments.

1-05.4 Conformity with and Deviations from Plans and Stakes

*(*****)*

Supplement this section with the following:

The Contractor shall be responsible for the water main alignment surveying, as per CWD Standard and Specifications, 2024.

1-05.7 Nonconforming Work

*(*****)*

Supplement this section with the following:

If the Contractor fails to remedy defective or unauthorized work within the time specified in a written notice from the Engineer, or fails to perform any part of the work required by the Contract Documents, the Engineer may correct and remedy such work as may be identified in the written notice, with Contracting Agency forces or by such other means as the Contracting Agency may deem necessary.

If the Contractor fails to comply with a written order to remedy what the Engineer determines to be an emergency situation, the Engineer may have the defective and unauthorized work corrected immediately, have the rejected work removed and replaced, or have work the Contractor refuses to perform completed by using Contracting Agency or other forces. An emergency situation is any situation when, in the opinion of the Engineer, a delay in its remedy could be potentially unsafe, or might cause serious risk of loss or damage to the public.

Direct or indirect costs incurred by the Contracting Agency attributable to correcting and remedying defective or unauthorized work, or work the Contractor failed or refused to perform, shall be paid by the Contractor. Payment will be deducted by the Engineer from monies due, or to become due, the Contractor. Such direct and indirect costs shall include in particular, but without limitation, compensation for additional professional services required, and costs for repair and replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's unauthorized work.

No adjustment in contract time or compensation will be allowed because of the delay in the performance of the work attributable to the exercise of the Contracting Agency's rights provided by this Section.

The rights exercised under the provisions of this section shall not diminish the Contracting Agency's right to pursue any other avenue for additional remedy or damages with respect to the Contractor's failure to perform the work as required.

1-05.11 Final Inspection

Delete this section and replace it with the following:

1-05.11 Final Inspections and Operational Testing (*****)

1-05.11(1) Substantial Completion Date (*****)

When the Contractor considers the work to be substantially complete, the Contractor shall so notify the Engineer and request the Engineer establish the Substantial Completion Date. The Contractor's request shall list the specific items of work that remain to be completed in order to reach physical completion. The Engineer will schedule an inspection of the work with the Contractor to determine the status of completion. The Engineer may also establish the Substantial Completion Date unilaterally.

If, after this inspection, the Engineer concurs with the Contractor that the work is substantially complete and ready for its intended use, the Engineer, by written notice to the Contractor, will set the Substantial Completion Date. If, after this inspection the Engineer does not consider the work substantially complete and ready for its intended use, the Engineer will, by written notice, so notify the Contractor giving the reasons therefor.

Upon receipt of written notice concurring in or denying substantial completion, whichever is applicable, the Contractor shall pursue vigorously, diligently and without unauthorized interruption, the work necessary to reach Substantial and Physical Completion. The Contractor shall provide the Engineer with a revised schedule indicating when the Contractor expects to reach substantial and physical completion of the work.

The above process shall be repeated until the Engineer establishes the Substantial Completion Date and the Contractor considers the work physically complete and ready for final inspection.

1-05.11(2) Final Inspection and Physical Completion Date
(*****)

When the Contractor considers the work physically complete and ready for final inspection, the Contractor by written notice, shall request the Engineer to schedule a final inspection. The Engineer will set a date for final inspection. The Engineer and the Contractor will then make a final inspection and the Engineer will notify the Contractor in writing of all particulars in which the final inspection reveals the work incomplete or unacceptable. The Contractor shall immediately take such corrective measures as are necessary to remedy the listed deficiencies. Corrective work shall be pursued vigorously, diligently, and without interruption until physical completion of the listed deficiencies. This process will continue until the Engineer is satisfied the listed deficiencies have been corrected.

If action to correct the listed deficiencies is not initiated within seven (7) days after receipt of the written notice listing the deficiencies, the Engineer may, upon written notice to the Contractor, take whatever steps are necessary to correct those deficiencies pursuant to Section 1-05.7.

The Contractor will not be allowed an extension of contract time because of a delay in the performance of the work attributable to the exercise of the Engineer's right hereunder.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the Contracting Agency, in writing, of the date upon which the work was considered physically complete. That date shall constitute the Physical Completion Date of the contract but shall not imply acceptance of the work or that all the obligations of the Contractor under the contract have been fulfilled.

1-05.11(3) Operational Testing
(*****)

It is the intent of the Contracting Agency to have at the Physical Completion Date a complete and operable system. Therefore, when the work involves the installation of machinery or other mechanical equipment; street lighting, electrical distribution or signal

systems; irrigation systems; buildings; or other similar work it may be desirable for the Engineer to have the Contractor operate and test the work for a period of time after final inspection but prior to the physical completion date. Whenever items of work are listed in the Contract Provisions for operational testing they shall be fully tested under operating conditions for the time period specified to ensure their acceptability prior to the Physical Completion Date. During and following the test period, the Contractor shall correct any items of workmanship, materials, or equipment which prove faulty, or that are not in first class operating condition. Equipment, electrical controls, meters, or other devices and equipment to be tested during this period shall be tested under the observation of the Engineer, so that the Engineer may determine their suitability for the purpose for which they were installed. The Physical Completion Date cannot be established until testing and corrections have been completed to the satisfaction of the Engineer.

The costs for power, gas, labor, material, supplies, and everything else needed to successfully complete operational testing, shall be included in the unit contract prices related to the system being tested, unless specifically set forth otherwise in the proposal.

Operational and test periods, when required by the Engineer, shall not affect a manufacturer's guaranties or warranties furnished under the terms of the contract.

1-05.13 Superintendents, Labor and Equipment of Contractor

(*****)

Delete the sixth and seventh paragraphs of this section.

1-05.15 Method of Serving Notices

(*****)

Revise the second paragraph to read:

All correspondence from the Contractor shall be served and directed to the Engineer. All correspondence from the Contractor constituting any notification, notice of protest, notice of dispute, or other correspondence constituting notification required to be furnished under the Contract, shall be written in paper format, hand delivered or sent via certified mail delivery service with return receipt requested to the Engineer's office. Electronic copies such as e-mails or electronically delivered copies of correspondence will not constitute such notice and will not comply with the requirements of the Contract.

Add the following new section:

1-05.16 Water and Power

(*****)

The Contractor shall make necessary arrangements and shall bear the costs for power and water necessary for the performance of the work, unless the contract includes power and water as a pay item.

Add the following new section:

1-05.18 Record Drawings

(*****)

The Contractor shall maintain one set of full-size plans for Record Drawings, updated with clear and accurate red-lined field revisions on a daily basis, and within two (2) business days after receipt of information that a change in Work has occurred. The Contractor shall not conceal any work until the required information is recorded.

This Record Drawing set shall be used for this purpose alone, shall be kept separate from other Plan sheets, and shall be clearly marked as Record Drawings. These Record Drawings shall be kept on site at the Contractor's field office, and shall be available for review by the Contracting Agency at all times. The Contractor shall have available a digital copy of the Record Drawings at each progress meeting for review. Final Record Drawings shall be provided in digital format to the Engineer at the end of the project.

The preparation and upkeep of the Record Drawings is to be the assigned responsibility of a single, experienced and qualified individual. The quality of the Record Drawings, in terms of accuracy, clarity, and completeness, is to be adequate to allow the Contracting Agency to modify the computer-aided drafting (CAD) Contract Drawings to produce a complete set of Record Drawings for the Contracting Agency without further investigative effort by the Contracting Agency.

The Record Drawing markups shall document all changes in the Work, both concealed and visible. Items that shall be shown on the markups include but are not limited to:

- Actual dimensions, arrangement, and materials used when different than shown in the Plans.
- Changes made by Change Order, Requests for Information, or Field Order.
- Changes made by the Contractor.
- Accurate locations of storm sewer, sanitary sewer, water mains and other water appurtenances, structures, conduits, light standards, vaults, width of roadways, sidewalks, landscaping areas, building footprints, channelization and pavement markings, etc. Include pipe invert elevations, top of castings (manholes, inlets, etc.).

When the Contract calls for the Contractor to do the surveying/staking, the applicable tolerance limits include, but are not limited to the following:

	Vertical	Horizontal
As-built sanitary & storm invert and grate elevations	± 0.01 foot	± 0.01 foot
As-built monumentation	± 0.001 foot	± 0.001 foot
As-built waterlines, inverts, valves, hydrants	± 0.10 foot	± 0.10 foot
As-built ponds/swales/water features	± 0.10 foot	± 0.10 foot
As-built buildings (fin. Floor elev.)	± 0.01 foot	± 0.10 foot
As-built gas lines, power, TV, Tel, Com	± 0.10 foot	± 0.10 foot

As-built signs, signals, etc.

N/A

± 0.10 foot

Making Entries on the Record Drawings:

- Use erasable colored pencil (not ink) for all markings on the Record Drawings, conforming to the following color code:
- Additions - Red
- Deletions - Green
- Comments- Blue
- Dimensions - Graphite
- Provide the applicable reference for all entries, such as the change order number, the request for information (RFI) number, or the approved shop drawing number.
- Date all entries.
- Clearly identify all items in the entry with notes similar to those in the Contract Drawings (such as pipe symbols, centerline elevations, materials, pipe joint abbreviations, etc.).

The Contractor shall certify on the Record Drawings that said drawings are an accurate depiction of built conditions, and in conformance with the requirements detailed above. The Contractor shall submit final Record Drawings to the Contracting Agency. Contracting Agency acceptance of the Record Drawings is one of the requirements for achieving Physical Completion.

The Contractor shall maintain a separate set of redlines for the water plans (contractor redlines), they will keep track of the following:

- top of pipe elevation every 50' along the water line,
- top of pipe elevation at every fitting (tee, bend, sleeve, hydrant, etc)
- Changes in alignments

Upon completion of the work, the contractor redlines will be submitted to CWD. The CWD will provide the contractor redlines, along with the District inspector notes and GPS points. Engineer of Record to prepare the record drawing plan set.

Following District review the Record Drawing draft submittal, the Engineer of Record will then prepare the final submittal package based on District review comments and submit to the CWD. The final submittal package shall include a flash drive containing both electronic CADD base files (latest version of AutoCAD) and pdf files of the record drawing plan set.

Payment will be made for the following bid item:

Record Drawings – Schedule A (Minimum Bid \$5,000)	Lump Sum
Record Drawings – Schedule B (Minimum Bid \$2,000)	Lump Sum

Payment for this item will be made on a prorated monthly basis for work completed in accordance with this section up to 75% of the lump sum bid. The final 25% of the lump sum item will be paid upon submittal and approval of the completed Record Drawings set prepared in conformance with these Special Provisions.

A minimum bid amount has been entered in the Bid Proposal for this item. The Contractor shall bid at least that amount.

1-06 CONTROL OF MATERIAL

Section 1-06 is supplemented with the following:

Buy America Requirements

(March 20, 2025 WSDOT GSP Option 2A)

General Requirements

In accordance with Buy America requirements contained in 23 CFR 635.410 and 2 CFR 184, the following materials shall be produced in the United States:

1. All Iron or Steel Products used in the project. This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
2. All Manufactured Products used in the project. This means the manufactured product was manufactured in the United States.
3. All Construction Materials used in the project. This means that all manufacturing processes for the construction material occurred in the United States.

An article, material, or supply will be classified in one of four categories: 1) Iron or Steel Product, 2) Manufactured Product, 3) Construction Material, or 4) Excluded Material. Only a single category will apply to an item except as follows:

1. With respect to precast concrete products that are classified as Manufactured Products, the components of precast concrete products that consist wholly or predominantly of iron, steel, or combination of both shall meet the requirements for and be tracked as an Iron or Steel Product. The item shall also meet the requirements for a Manufactured Product, and the cost of the iron or steel components shall be included in determining if the Manufactured Product was produced in the United States.
2. With respect to intelligent transportation systems and other electronic hardware systems that are classified as Manufactured Products, the cabinets or other enclosures of such systems that consist wholly or predominantly of iron, steel, or a combination of both, shall meet the requirements for and be tracked as an Iron or Steel Products. The item shall also meet the requirements for a Manufactured Product and the cost of the iron or steel components shall be included in determining if the manufactured product was produced in the United States.

Some contract items are composed of multiple parts that may fall into different categories. Individual components will be categorized as a Construction Material, a Manufactured Product, an Iron or Steel Product, or an excluded material based on their composition when they arrive at the staging area or work site.

Definitions

1. Construction Material: Defined as any article, material, or supply brought to the construction site for incorporation into the final product. Construction materials include an article, material, or supply that is or consists primarily of:
 - a. Non-ferrous metals including all manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly;
 - b. Plastic and polymer-based products including 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);
 - c. Glass including all manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting);
 - d. Fiber optic cable (includes drop cable) including all manufacturing processes, from initial ribboning (if applicable), through buffering, fiber stranding and jacketing, (fiber optic cable also includes the standards for glass and optical fiber);
 - e. Optical fiber including all manufacturing processes, from the initial preform fabrication stage, through the completion of the draw;
 - f. Lumber including all manufacturing processes, from initial debarking through treatment and planing;
 - g. Drywall including all manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels; or
 - h. Engineered wood including all manufacturing processes from the initial combination of constituent materials until the wood product is in its final form.

If a Construction Material is not manufactured in the United States it shall be considered a Foreign Construction Material.

2. Excluded Material: A material where Buy America requirements do not apply. This includes the following:
 - a. Materials excluded by Section 70917(c) of the Buy America, Build America Act with respect to aggregates includes cement and cementitious materials, aggregates such as stone, sand, or gravel or aggregate binding agents or additives. These materials shall be classified as excluded materials based on the composition when brought to the work site. It also includes combinations of these excluded materials when mixtures of Excluded Materials are delivered to the work site without final form for incorporation into the project (i.e. wet concrete and HMA). If they are formed prior to delivery, they are a Manufactured Product and not an Excluded Material.

- b. Temporary materials that are not being permanently incorporated into the project.
 - c. Raw or minimal processed materials where the article, material, or supply does not fall into any of the categories, as it is not a Manufactured Product, an Iron or Steel Product, or a Construction Material and when these materials are delivered to the work site without final form for incorporation into the product (i.e. seed mix and topsoil). If they are formed prior to delivery, they are a Manufactured Product and not an Excluded Material.
3. Iron or Steel Product: An article, material, or supply that consist of wholly or predominantly of iron or steel or a combination of both. To be considered predominantly of iron or steel or a combination of both 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 based on a good faith estimate of the cost of the iron or steel components.
4. Manufactured Product: A Manufactured Product includes any item produced as a result of the manufacturing process. Items that should be treated as a manufactured product (rather than a construction material) are: 1) items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and 2) items that include at least one of the listed construction materials as defined above, combined with a material that is not listed through a manufacturing process.

If a product is not an Iron or Steel Product, a Construction Material, or an Excluded Material, it is a Manufactured Product.

5. United States: To further define the coverage, a domestic product is a manufactured steel construction material that was produced in one of the 50 states, the District of Columbia, Puerto Rico, or in the territories and possessions of the United States.

Iron or Steel Product Requirements

Iron or Steel Products that are permanently incorporated into the project shall consist of American-made materials only. Buy America requirements do not apply to temporary steel or iron items, e.g., temporary sheet piling, temporary bridges, steel scaffolding and falsework.

Minor amounts of foreign steel and iron may be utilized in this project provided the cost of the foreign material used does not exceed one-tenth of one percent of the total contract cost or \$2,500.00, whichever is greater.

American-made material is defined as material having all manufacturing processes occurring domestically.

If domestically produced steel billets or iron ingots are exported outside of the United States, as defined above, for any manufacturing process then the resulting product does not conform to the Buy America requirements. Additionally, products manufactured domestically from foreign source steel billets or iron ingots do not conform to the Buy America requirements because the initial melting and mixing of alloys to create the material occurred in a foreign country.

Manufacturing begins with the initial melting and mixing and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. The processes include rolling, extruding, machining, bending, grinding, drilling, welding, and coating. The action of applying a coating to steel or iron is deemed a manufacturing process. Coating includes epoxy coating, galvanizing, aluminizing, painting, and any other coating that protects or enhances the value of steel or iron. Any process from the original reduction from ore to the finished product constitutes a manufacturing process for iron.

Due to a nationwide waiver, Buy America requirements do not apply to raw materials (iron ore and alloys), scrap (recycled steel or iron), and pig iron ore processed, pelletized, and reduced iron ore.

The following are considered to be steel manufacturing processes:

1. Production of steel by any of the following processes:
 - a. Open hearth furnace.
 - b. Basic oxygen.
 - c. Electric furnace.
 - d. Direct reduction.
2. Rolling, heat treating, and any other similar processing.
3. Fabrication of the products:
 - a. Spinning wire into cable or strand.
 - b. Corrugating and rolling into culverts.
 - c. Shop fabrication.

A certification of materials origin will be required for all iron or steel products prior to such items being incorporated into the permanent work. The Contractor will not receive payment until the certification is received by the Engineer. The certification shall be on WSDOT Form 350-109 provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as WSDOT Form 350-109.

Manufactured Products

Due to a nationwide waiver, Buy America requirements do not apply to Manufactured Products except as follows:

1. When a precast concrete product is classified as a Manufactured Product, the components that are an Iron or Steel Product shall follow the "Iron and Steel Requirements" of this Specification.
2. When an electronic hardware system such as an intelligent transportation system is classified as a Manufactured Product, the cabinets and the other enclosures of such systems that are an Iron or Steel Product shall follow the "Iron and Steel Requirements" of this Specification.

Construction Material Requirements

A Contractor provided certification of materials origin will be required before each progress estimate or payment. The Contractor will not receive payment until the certification is received by the Engineer. The Contractor shall certify that all Construction Materials installed during the current progress estimate period meet the Buy America requirements. The certification shall be on WSDOT Form 350-111 provided by the Engineer, or such other form the Contractor chooses, provided it contains the same information as WSDOT Form 350-111.

Waiver for De Minimis Costs

Minor amounts of Foreign Construction Materials may be utilized in this project, provided that the total cost of the Foreign Construction Materials does not exceed \$1,000,000 and does not exceed 5 percent of the total applicable material costs calculated as follows:

$$\frac{\text{Total cost of Foreign Construction Materials}}{\text{Total applicable material costs}} < 0.05$$

The total applicable material costs shall be the sum of the costs all Construction Materials, all Iron or Steel Products, and all Manufactured Products. Total applicable material costs does not include Excluded Materials.

1-06.2 Acceptance of Materials

1-06.2(2)B Financial Incentive

(*****)

Replace the first sentence of this Section with the following:

The maximum Composite Pay Factor shall be 1.00.

1-06.6 Recycled Materials

(*****)

Delete this section, including its subsections, and replace it with the following:

The Contractor shall make their best effort to utilize recycled materials in the construction of the project. Approval of such material use shall be as detailed elsewhere in the Standard Specifications.

Prior to Physical Completion the Contractor shall report the quantity of recycled materials that were utilized in the construction of the project for each of the items listed in Section 9-03.21. The report shall include hot mix asphalt, recycled concrete aggregate, recycled glass, steel furnace slag and other recycled materials (e.g. utilization of on-site material and aggregates from concrete returned to the supplier). The Contractor's report shall be provided on DOT form 350-075 Recycled Materials Reporting.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.1 Laws to be Observed

(*****)

This section is supplemented with the following:

In cases of conflict between different safety regulations, the more stringent regulation shall apply.

The Washington State Department of Labor and Industries shall be the sole and paramount administrative agency responsible for the administration of the provisions of the Washington Industrial Safety and Health Act of 1973 (WISHA).

The Contractor shall maintain at the project site office, or other well-known place at the project site, all articles necessary for providing first aid to the injured. The Contractor shall establish, publish, and make known to all employees, procedures for ensuring immediate removal to a hospital, or doctor's care, persons, including employees, who may have been injured on the project site. Employees should not be permitted to work on the project site before the Contractor has established and made known procedures for removal of injured persons to a hospital or a doctor's care.

The Contractor shall have sole responsibility for the safety, efficiency, and adequacy of the Contractor's plant, appliances, and methods, and for any damage or injury resulting from their failure, or improper maintenance, use, or operation. The Contractor shall be solely and completely responsible for the conditions of the project site, including safety for all persons and property in the performance of the work. This requirement shall apply continuously, and not be limited to normal working hours. The required or implied duty of the Engineer to conduct construction review of the Contractor's performance does not, and shall not, be intended to include review and adequacy of the Contractor's safety measures in, on, or near the project site.

1-07.2 State Taxes

Delete this section, including its sub-sections, in its entirety and replace it with the following:

1-07.2 State Sales Tax

(*****)

The Washington State Department of Revenue has issued special rules on the State sales tax. Sections 1-07.2(1) through 1-07.2(3) are meant to clarify those rules. The Contractor should contact the Washington State Department of Revenue for answers to questions in this area. The Contracting Agency will not adjust its payment if the Contractor bases a bid on a misunderstood tax liability.

The Contractor shall include all Contractor-paid taxes in the unit bid prices or other contract amounts. In some cases, however, state retail sales tax will not be included. Section 1-07.2(2) describes this exception.

The Contracting Agency will pay the retained percentage (or release the Contract Bond if a FHWA-funded Project) only if the Contractor has obtained from the Washington State Department of Revenue a certificate showing that all contract-related taxes have been paid (RCW 60.28.051). The Contracting Agency may deduct from its payments to the Contractor any amount the Contractor may owe the Washington State Department of Revenue, whether the amount owed relates to this contract or not. Any amount so deducted will be paid into the proper State fund.

1-07.2(1) State Sales Tax — Rule 171

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., which are owned by a municipal corporation, or political subdivision of the state, or by the United States, and which are used primarily for foot or vehicular traffic. This includes storm or combined sewer systems within and included as a part of the street or road drainage system and power lines when such are part of the roadway lighting system. For work performed in such cases, the Contractor shall include Washington State Retail Sales Taxes in the various unit bid item prices, or other contract amounts, including those that the Contractor pays on the purchase of the materials, equipment, or supplies used or consumed in doing the work.

1-07.2(2) State Sales Tax — Rule 170

WAC 458-20-170, and its related rules, apply to the constructing and repairing of new or existing buildings, or other structures, upon real property. This includes, but is not limited to, the construction of streets, roads, highways, etc., owned by the state of Washington; water mains and their appurtenances; sanitary sewers and sewage disposal systems unless such sewers and disposal systems are within, and a part of, a street or road drainage system; telephone, telegraph, electrical power distribution lines, or other conduits or lines in or above streets or roads, unless such power lines become a part of a street or road lighting system; and installing or attaching of any article of tangible personal property in or to real property, whether or not such personal property becomes a part of the realty by virtue of installation.

For work performed in such cases, the Contractor shall collect from the Contracting Agency, retail sales tax on the full contract price. The Contracting Agency will automatically add this sales tax to each payment to the Contractor. For this reason, the Contractor shall not include the retail sales tax in the unit bid item prices, or in any other contract amount subject to Rule 170, with the following exception.

Exception: The Contracting Agency will not add in sales tax for a payment the Contractor or a subcontractor makes on the purchase or rental of tools, machinery, equipment, or consumable supplies not integrated into the project. Such sales taxes shall be included in the unit bid item prices or in any other contract amount.

1-07.2(3) Services

The Contractor shall not collect retail sales tax from the Contracting Agency on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

1-07.7 Load Limits

(March 13, 1995 WSDOT GSP, Option 6)

Section 1-07.7 is supplemented with the following:

If the sources of materials provided by the Contractor necessitates hauling over roads other than State Highways, the Contractor shall, at the Contractor's expense, make all arrangements for the use of the haul routes.

1-07.8 High Visibility Apparel

(November 4, 2024 WSDOT GSP, Option 1)

The third and fourth paragraphs of Section 1-07.8 are revised to read

High-visibility garments shall always be the outermost garments worn in a manner to ensure 360 degrees of uninterrupted background and retroreflective material encircling the torso.

High-visibility garments shall be labeled as, and in a condition compliant with the ANSI/ISEA 107-2015 publication entitled "American National Standard for High-Visibility Safety Apparel and Accessories," or equivalent revisions.

1-07.8(1) Traffic Control Personnel

(November 4, 2024 WSDOT GSP, Option 1)

Section 1-07.8(1) is revised to read:

All personnel performing the Work described in Section 1-10 (including traffic control supervisors, flaggers, and others performing traffic control labor of any kind) shall comply with the following:

1. During daylight hours with clear visibility, workers shall wear a high-visibility ANSI/ISEA 107 Type R Class 2 or 3 garment with background material that are fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color; and a high visibility hardhat that is white, yellow, yellow-green, orange, or red in color; and
2. During hours of darkness (½ hour before sunset to ½ hour after sunrise) or other low-visibility conditions (snow, fog, etc.), workers shall wear a high-visibility ANSI/ISEA 107 Type R Class 2 or 3 garment with background material that are fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color; a high-visibility lower garment meeting ANSI/ISEA 107 Class E, and a high visibility hardhat marked with at least 12 square inches of retroreflective material applied to provide 360 degrees of visibility.

1-07.9 Wages

1-07.9(1) General

(January 6, 2025 WSDOT GSP, Option 1)

Section 1-07.9(1) is supplemented with the following:

The Federal wage rates incorporated in this contract have been established by the Secretary of Labor under United States Department of Labor General Decision No. WA20250001.

The State rates incorporated in this contract are applicable to all construction activities associated with this contract.

1-07.9(5)A Required Documents

(*****)

This section is revised to read as follows:

All Statements of Intent to Pay Prevailing Wages, Affidavits of Wages Paid and Certified Payrolls, including a signed Statement of Compliance for Federal-aid projects, shall be submitted to the Engineer and to the State L&I online Prevailing Wage Intent & Affidavit (PWIA) system. When apprenticeship is a requirement of the contract, include in PWIA all apprentices.

1-07.12 Federal Agency Inspection

Section 1-07.12 is supplemented with the following:

(October 3, 2023 WSDOT GSP Option 1)

The Required Contract Provisions Federal Aid Construction Contracts (FHWA 1273) Revised October 23, 2023 and the amendments thereto supersede any conflicting provisions of the Standard Specifications and are made a part of this Contract; provided, however, that if any of the provisions of FHWA 1273, as amended, are less restrictive than Washington State Law, then the Washington State Law shall prevail.

The provisions of FHWA 1273, as amended, included in this Contract require that the Contractor insert the FHWA 1273 and amendments thereto in each subcontract, together with the wage rates which are part of the FHWA 1273, as amended. Also, a clause shall be included in each subcontract requiring the subcontractors to insert the FHWA 1273 and amendments thereto in any lower tier subcontracts, together with the wage rates. The Contractor shall also ensure that this section, REQUIRED FEDERAL AID PROVISIONS, is inserted in each subcontract for subcontractors and lower tier subcontractors. For this purpose, upon request to the Engineer, the Contractor will be provided with extra copies of the FHWA 1273, the amendments thereto, the applicable wage rates, and this Special Provision.

1-07.16 Protection and Restoration of Property

This Section is supplemented with the following:

(*****)

The south parking lot surface at the Legacy Site shall be protected during construction, or the Contractor shall be restored to the pre-construction condition following completion of the project.

The dumpsters shall be temporarily relocated to the south such that they remain outside of the Full-Time Construction Staging Area to facilitate refuse pickup. The Contractor shall ensure that the dumpsters are accessible by the waste management company during the scheduled pickup.

The Legacy Site portable toilets shall be temporarily relocated during construction to a location directed by the Engineer. Access to the portable toilets shall be provided for the maintenance company to clean and service the toilets during the duration of construction.

Security fencing shall provide access to the doors of the pavilion.

It is acceptable for the Contractor to plug into the pavilion outlets during construction, but the load on the circuits shall be approved by the Engineer.

1-07.17 Utilities and Similar Facilities

Section 1-07.17 is supplemented with the following:

(April 2, 2007 WSDOT GSP Option 1)

Locations and dimensions shown in the Plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification.

The following addresses and telephone numbers of utility companies known or suspected of having facilities within the project limits are supplied for the Contractor's convenience:

City and Utility Contact Information provided in Appendix

1-07.18 Public Liability and Property Damage Insurance

Delete this section in its entirety, and replace it with the following:

1-07.18 Insurance

*(*****)*

1-07.18(1) General Requirements

- A. The Contractor shall procure and maintain the insurance described in all subsections of section 1-07.18 of these Special Provisions, from insurers with a current A. M. Best rating of not less than A-: VII and licensed to do business in the State of Washington. The Contracting Agency reserves the right to approve or reject the insurance provided, based on the insurer's financial condition.
- B. The Contractor shall keep this insurance in force without interruption from the commencement of the Contractor's Work through the term of the Contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated below.

- C. If any insurance policy is written on a claims-made form, its retroactive date, and that of all subsequent renewals, shall be no later than the effective date of this Contract. The policy shall state that coverage is claims made and state the retroactive date. Claims-made form coverage shall be maintained by the Contractor for a minimum of 36 months following the Completion Date or earlier termination of this Contract, and the Contractor shall annually provide the Contracting Agency with proof of renewal. If renewal of the claims made form of coverage becomes unavailable, or economically prohibitive, the Contractor shall purchase an extended reporting period ("tail") or execute another form of guarantee acceptable to the Contracting Agency to assure financial responsibility for liability for services performed.
- D. The Contractor's Automobile Liability, Commercial General Liability and Excess or Umbrella Liability insurance policies shall be primary and non-contributory insurance as respects the Contracting Agency's insurance, self-insurance, or self-insured pool coverage. Any insurance, self-insurance, or self-insured pool coverage maintained by the Contracting Agency shall be excess of the Contractor's insurance and shall not contribute with it.
- E. The Contractor shall provide the Contracting Agency and all additional insureds with written notice of any policy cancellation, within two (2) business days of their receipt of such notice.
- F. The Contractor shall not begin work under the Contract until the required insurance has been obtained and approved by the Contracting Agency
- G. Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the Contracting Agency may, after giving five (5) business days notice to the Contractor to correct the breach, immediately terminate the Contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the Contracting Agency on demand, or at the sole discretion of the Contracting Agency, offset against funds due the Contractor from the Contracting Agency.
- H. All costs for insurance shall be incidental to and included in the unit or lump sum prices of the Contract and no additional payment will be made.
- I. Under no circumstances shall a wrap up policy be obtained, for either initiating or maintaining coverage, to satisfy insurance requirements for any policy required under this Section. A "wrap up policy" is defined as an insurance agreement or arrangement under which all the parties working on a specified or designated project are insured under one policy for liability arising out of that specified or designated project.

1-07.18(2) Additional Insured

All insurance policies, with the exception of Workers Compensation, and of Professional Liability and Builder's Risk (if required by this Contract) shall name the following listed entities as additional insured(s) using the forms or endorsements required herein:

- the Contracting Agency and its officers, elected officials, employees, agents, and volunteers

The above-listed entities shall be additional insured(s) for the full available limits of liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this Contract, and irrespective of whether the Certificate of Insurance provided by the Contractor pursuant to 1-07.18(4) describes limits lower than those maintained by the Contractor.

For Commercial General Liability insurance coverage, the required additional insured endorsements shall be at least as broad as ISO forms CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

1-07.18(3) Subcontractors

The Contractor shall cause each subcontractor of every tier to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by subcontractors.

The Contractor shall ensure that all subcontractors of every tier add all entities listed in 1-07.18(2) as additional insureds, and provide proof of such on the policies as required by that section as detailed in 1-07.18(2) using an endorsement as least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency evidence of insurance and copies of the additional insured endorsements of each subcontractor of every tier as required in 1-07.18(4) Verification of Coverage.

1-07.18(4) Verification of Coverage

The Contractor shall deliver to the Contracting Agency a Certificate(s) of Insurance and endorsements for each policy of insurance meeting the requirements set forth herein when the Contractor delivers the signed Contract for the work. Failure of Contracting Agency to demand such verification of coverage with these insurance requirements or failure of Contracting Agency to identify a deficiency from the insurance documentation provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

Verification of coverage shall include:

1. An ACORD certificate or a form determined by the Contracting Agency to be equivalent.
2. Copies of all endorsements naming Contracting Agency and all other entities listed in 1-07.18(2) as additional insured(s), showing the policy number. The Contractor may submit a copy of any blanket additional insured clause from its policies instead of a separate endorsement.
3. Any other amendatory endorsements to show the coverage required herein.
4. A notation of coverage enhancements on the Certificate of Insurance shall not satisfy these requirements – actual endorsements shall be submitted.

Upon request by the Contracting Agency, the Contractor shall forward to the Contracting Agency a full and certified copy of the insurance policy(s). If Builders Risk insurance is

required on this Project, a full and certified copy of that policy is required when the Contractor delivers the signed Contract for the work.

1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Contractor's maintenance of insurance, its scope of coverage, and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the Contracting Agency's recourse to any remedy available at law or in equity.

All deductibles and self-insured retentions shall be disclosed and are subject to approval by the Contracting Agency. The cost of any claim payments falling within the deductible or self-insured retention shall be the responsibility of the Contractor. In the event an additional insured incurs a liability subject to any policy's deductibles or self-insured retention, said deductibles or self-insured retention shall be the responsibility of the Contractor.

1-07.18(5)A Commercial General Liability

Commercial General Liability insurance shall be written on coverage forms at least as broad as ISO occurrence form CG 00 01, including but not limited to liability arising from premises, operations, stop gap liability, independent contractors, products-completed operations, personal and advertising injury, and liability assumed under an insured contract. There shall be no exclusion for liability arising from explosion, collapse or underground property damage.

The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit, using ISO form CG 25 03 05 09 or an equivalent endorsement.

Contractor shall maintain Commercial General Liability Insurance arising out of the Contractor's completed operations for at least three years following Substantial Completion of the Work.

Such policy shall provide the following minimum limits:

\$2,000,000	Each Occurrence
\$3,000,000	General Aggregate
\$3,000,000	Products & Completed Operations Aggregate
\$2,000,000	Personal & Advertising Injury each offence
\$2,000,000	Stop Gap / Employers' Liability each accident

1-07.18(5)B Automobile Liability

Automobile Liability shall cover owned, non-owned, hired, and leased vehicles; and shall be written on a coverage form at least as broad as ISO form CA 00 01. If the work involves the transport of pollutants, the automobile liability policy shall include MCS 90 and CA 99 48 endorsements.

Such policy shall provide the following minimum limit:

\$1,000,000	Combined single limit each accident
-------------	-------------------------------------

1-07.18(5)C Workers' Compensation

The Contractor shall comply with Workers' Compensation coverage as required by the Industrial Insurance laws of the State of Washington.

1-07.24 Rights of Way

(*****)

Delete this section and replace it with the following:

Street Right of Way lines, limits of easements, and limits of construction permits are indicated in the Plans. The Contractor's construction activities shall be confined within these limits unless arrangements for use of private property are made as described below.

Generally, the Contracting Agency will have obtained, prior to bid opening, all rights of way and easements, both permanent and temporary, necessary for carrying out the work. Exceptions to this are noted in the Bid Documents or will be brought to the Contractor's attention by a duly issued Addendum.

Whenever any of the work is accomplished on or through property other than public Right of Way, the Contractor shall meet and fulfill all covenants and stipulations of any easement agreement obtained by the Contracting Agency from the owner of the private property. Copies of the easement agreements may be included in the Contract Provisions or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

Whenever easements or rights of entry have not been acquired prior to advertising, these areas are so noted in the Plans. The Contractor shall not proceed with any portion of the work in areas where right of way, easements or rights of entry have not been acquired until the Engineer certifies to the Contractor that the right of way or easement is available or that the right of entry has been received. If the Contractor is delayed due to acts of omission on the part of the Contracting Agency in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that such delay shall not be a breach of contract.

Each property owner shall be given 48 hours' notice prior to entry by the Contractor. This includes entry onto easements and private property where private improvements shall be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the Contracting Agency, any additional land and access thereto that the Contractor may desire for temporary construction facilities, storage of materials, or other Contractor needs. However, before using any private property, whether adjoining the work or not, the Contractor shall file with the Engineer a written permission of the private property owner, and, upon vacating the premises, a written release from the property owner of each property disturbed or otherwise interfered with by reasons of construction pursued under this contract. The statement shall be signed by the private property owner, or proper authority acting for the owner of the private property affected, stating that permission has been granted to use the property and all necessary permits have been obtained or, in the

case of a release, that the restoration of the property has been satisfactorily accomplished. The statement shall include the parcel number, address, and date of signature. Written releases shall be filed with the Engineer before the Completion Date will be established.

1-08 PROSECUTION AND PROGRESS

Add the following new section:

1-08.0 Preliminary Matters

(*****)

Add the following new section:

1-08.0(1) Preconstruction Conference

(*****)

Prior to the Contractor beginning the work, a preconstruction conference will be held between the Contractor, the Engineer and such other interested parties as may be invited. The purpose of the preconstruction conference will be:

1. To review the initial progress schedule;
2. To establish a working understanding among the various parties associated or affected by the work;
3. To establish and review procedures for progress payment, notifications, approvals, submittals, etc.;
4. To review Apprenticeship Plans, when applicable.
5. To establish normal working hours for the work;
6. To review safety standards and traffic control; and
7. To discuss such other related items as may be pertinent to the work.

Prior to water improvement work, the Contractor shall schedule a separate preconstruction meeting with Covington Water District.

The Contractor shall prepare and submit at the preconstruction conference the following:

1. A breakdown of all lump sum items;
2. A preliminary schedule of working drawing submittals; and
3. A list of material sources for approval if applicable.

1-08.0(2) Hours of Work

(*****)

Except in the case of emergency or unless otherwise approved by the Engineer, the normal working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 5:00 p.m. Monday through Friday, exclusive of a lunch break. If the Contractor desires different than the normal working hours stated above, the request shall be submitted in

writing prior to the preconstruction conference, subject to the provisions below. The working hours for the Contract shall be established at or prior to the preconstruction conference.

All working hours and days are also subject to local permit and ordinance conditions (such as noise ordinances).

If the Contractor wishes to deviate from the established working hours, the Contractor shall submit a written request to the Engineer for consideration. This request shall state what hours are being requested, and why. Requests shall be submitted for review no later than five (5) working days prior to the day(s) the Contractor is requesting to change the hours.

If the Contracting Agency approves such a deviation, such approval may be subject to certain other conditions, which will be detailed in writing. For example:

1. On non-Federal aid projects, requiring the Contractor to reimburse the Contracting Agency for the costs in excess of straight-time costs for Contracting Agency representatives who worked during such times. (The Engineer may require designated representatives to be present during the work. Representatives who may be deemed necessary by the Engineer include, but are not limited to: survey crews; personnel from the Contracting Agency's material testing lab; inspectors; and other Contracting Agency employees or third party consultants when, in the opinion of the Engineer, such work necessitates their presence.)
2. Considering the work performed on Saturdays, Sundays, and holidays as working days with regard to the contract time.
3. Considering multiple work shifts as multiple working days with respect to contract time even though the multiple shifts occur in a single 24-hour period.
4. If a 4-10 work schedule is requested and approved, the non-working day for the week will be charged as a working day.
5. If Davis Bacon wage rates apply to this Contract, all requirements shall be met and recorded properly on certified payroll.

1-08.1 Subcontracting

(*****)

Section 1-08.1 is supplemented with the following:

Prior to any subcontractor or lower tier subcontractor beginning work, the Contractor shall submit to the Engineer a certification (WSDOT Form 420-004) that a written agreement between the Contractor and the subcontractor or between the subcontractor and any lower tier subcontractor has been executed. This certification shall also guarantee that these subcontract agreements include all the documents required by the Special Provision Federal Agency Inspection.

A subcontractor or lower tier subcontractor will not be permitted to perform any work under the contract until the following documents have been completed and submitted to the Engineer:

1. Request to Sublet Work (WSDOT Form 421-012), and

2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (WSDOT Form 420-004).

The Contractor shall submit to the Engineer a completed Monthly Retainage Report (WSDOT Form 272-065) within 15 calendar days after receipt of every monthly progress payment until every subcontractor and lower tier subcontractor's retainage has been released.

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the Contracting Agency during the life of the contract and for a period of not less than three years after the date of acceptance of the contract. The Contractor shall retain these records for that period. The Contractor shall also guarantee that these records of all subcontractors and lower tier subcontractors shall be available and open to similar inspection or audit for the same time period.

1-08.1(8)B Clauses Required in Subcontracts of All Tiers

(*****)

Delete item 8 of the second paragraph of Section 1-08.1(8)B.

1-08.3 Progress Schedule

1-08.3(2)B Type B Progress Schedule

(*****)

Revise the second paragraph to read:

The Contractor shall submit a preliminary Type B Progress Schedule at or prior to the preconstruction conference. The preliminary Type B Progress Schedule shall comply with all of these requirements and the requirements of Section 1-08.3(2), except that it may be limited to only those activities occurring within the first 60-working days of the project.

The Contractor shall submit one (1) hard and one (1) electronic copies of a Type B Progress Schedule depicting the entire project no later than 21-calendar days after the preconstruction conference.

The Contractor shall provide an updated Type B Progress Schedule whenever there is a substantial change in the timeline of activities, or every ninety (90) days, whichever occurs first.

1-08.3(2)E Weekly Look-Ahead Schedule

(*****)

Supplement this Section with the following:

The Contractor shall submit the look-ahead schedules at least twelve (12) hours prior to each weekly progress meeting. The look-ahead schedule shall provide details of activities to occur over the following three (3) weeks.

1-08.4 Prosecution of Work

Delete this section and replace it with the following:

1-08.4 Notice to Proceed and Prosecution of Work

(***)**

Notice to Proceed will be given after the contract has been executed and the contract bond and evidence of insurance have been approved and filed by the Contracting Agency. The Contractor shall not commence with the work until the Notice to Proceed has been given by the Engineer. The Contractor shall commence construction activities on the project site within ninety (90) calendar days of the Notice to Proceed Date, unless otherwise approved in writing. The Contractor shall diligently pursue the work to the physical completion date within the time specified in the contract. Voluntary shutdown or slowing of operations by the Contractor shall not relieve the Contractor of the responsibility to complete the work within the time(s) specified in the contract.

When shown in the Plans, the first order of work shall be the installation of high visibility fencing to delineate all areas for protection or restoration, as described in the Contract. Installation of high visibility fencing adjacent to the roadway shall occur after the placement of all necessary signs and traffic control devices in accordance with 1-10.1(2). Upon construction of the fencing, the Contractor shall request the Engineer to inspect the fence. No other work shall be performed on the site until the Contracting Agency has accepted the installation of high visibility fencing, as described in the Contract.

1-08.5 Time for Completion

Section 1-08.5 is supplemented with the following:

(March 13, 1995 WSDOT GSP)

This project shall be physically completed within 390 working days.

(***)**

Revise the third and fourth paragraphs to read:

Contract time shall begin on the first working day following the Notice to Proceed Date.

Each working day shall be charged to the contract as it occurs, until the contract work is physically complete. If substantial completion has been granted and all the authorized working days have been used, charging of working days will cease. Each week the Engineer will provide the Contractor a statement that shows the number of working days: (1) charged to the contract the week before; (2) specified for the physical completion of the contract; and (3) remaining for the physical completion of the contract. The

statement will also show the nonworking days and all partial or whole days the Engineer declares as unworkable. The statement will be identified as a Written Determination by the Engineer. If the Contractor does not agree with the Written Determination of working days, the Contractor shall pursue the protest procedures in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor is approved to work 10 hours a day and 4 days a week (a 4-10 schedule) and the fifth day of the week in which a 4-10 shift is worked would ordinarily be charged as a working day then the fifth day of that week will be charged as a working day whether or not the Contractor works on that day.

Revise the sixth paragraph to read:

The Engineer will give the Contractor written notice of the completion date of the contract after all the Contractor's obligations under the contract have been performed by the Contractor. The following events shall occur before the Completion Date can be established:

1. The physical work on the project shall be complete; and
2. The Contractor shall furnish all documentation required by the contract and required by law, to allow the Contracting Agency to process final acceptance of the contract. The following documents shall be received by the Engineer prior to establishing a completion date:
 - a. Certified Payrolls (per Section 1-07.9(5)),
 - b. Material Acceptance Certification Documents,
 - c. Monthly Reports in DMCS of the amounts paid including the final payment confirmation to all firms required by Section 1-08.1(7)A, if applicable,
 - d. Final Contract Voucher Certification,
 - e. Copies of the approved "Affidavit of Prevailing Wages Paid" for the Contractor and all Subcontractors,
 - f. A copy of the Notice of Termination sent to the Washington State Department of Ecology (Ecology); the elapse of 30 calendar days from the date of receipt of the Notice of Termination by Ecology; and no rejection of the Notice of Termination by Ecology. This requirement will not apply if the Construction Stormwater General Permit is transferred back to the Contracting Agency in accordance with Section 8-01.3(16), and
 - g. Property owner releases per Section 1-07.24.

1-08.9 Liquidated Damages

(*****)

Replace Section 1-08.9 with the following:

Time is of the essence of the Contract. Delays inconvenience the traveling public, obstruct traffic, interfere with and delay commerce, and increase risk to Highway users. Delays also cost tax payers undue sums of money, adding time needed for administration, engineering, inspection, and supervision.

Accordingly, the Contractor agrees:

1. To pay liquidated damages in the amount of \$1,400 for each working day beyond the number of working days established for Physical Completion, and
2. To authorize the Engineer to deduct these liquidated damages from any money due or coming due to the Contractor.

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine the Contract Work is Substantially Complete. The Engineer will notify the Contractor in writing of the Substantial Completion Date. For overruns in Contract time occurring after the date so established, liquidated damages identified above will not apply. For overruns in Contract time occurring after the Substantial Completion Date, liquidated damages shall be assessed on the basis of direct engineering and related costs assignable to the project until the actual Physical Completion Date of all the Contract Work. The Contractor shall complete the remaining Work as promptly as possible. Upon request by the Project Engineer, the Contractor shall furnish a written schedule for completing the physical Work on the Contract.

Liquidated damages will not be assessed for any days for which an extension of time is granted. No deduction or payment of liquidated damages will, in any degree, release the Contractor from further obligations and liabilities to complete the entire Contract.

1-09 MEASUREMENT AND PAYMENT

1-09.2 Weighing Equipment

1-09.2(1) General Requirements for Weighing Equipment

(*****)

Revise the third paragraph to read:

Scale Operations – “Contractor-provided scale operations” are defined as operations where a scale is set up by the Contractor specifically for the project and most, if not all, material weighed on the scale is utilized for Contract Work. In this situation, the Contractor shall provide, set up, and maintain the scales necessary to perform this Work. The Contracting Agency will provide a person to operate the project scale, write tickets, perform scale checks and prepare reports.

1-09.2(5) Measurement

(*****)

Revise the first paragraph to read:

Scale Verification Checks – At the Engineer’s discretion, the Engineer may perform verification checks on the accuracy of each batch, hopper, or platform scale used in weighing contract items of Work.

1-09.6 Force Account

(*****)

Supplement this section with the following:

The Contracting Agency has estimated and included in the Proposal, dollar amounts for all items to be paid per force account, only to provide a common proposal for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the Contracting Agency does not warrant expressly or by implication, that the actual amount of work will correspond with those estimates. Payment will be made on the basis of the amount of work actually authorized by the Engineer.

1-09.9 Payments

(*****)

Delete the fourth paragraph and replace it with the following:

Progress payments for completed work and material on hand will be based upon progress estimates prepared by the Engineer. A progress estimate cutoff date will be established at the preconstruction conference.

The initial progress estimate will be made not later than 30 days after the Contractor commences the work, and successive progress estimates will be made every month thereafter until the Completion Date. Progress estimates made during progress of the work are tentative, and made only for the purpose of determining progress payment. The progress estimates are subject to change at any time prior to the calculation of the Final Payment.

The value of the progress estimate will be the sum of the following:

1. Unit Price Items in the Bid Form — the approximate quantity of acceptable units of work completed multiplied by the unit price.
2. Lump Sum Items in the Bid Form — based on the approved Contractor's lump sum breakdown for that item, or absent such a breakdown, based on the Engineer's determination.
3. Materials on Hand — 100 percent of invoiced cost of material delivered to Job site or other storage area approved by the Engineer.
4. Change Orders — entitlement for approved extra cost or completed extra work as determined by the Engineer.

Progress payments will be made in accordance with the progress estimate less:

1. Retainage per Section 1-09.9(1), on non FHWA-funded projects;
2. The amount of Progress Payments previously made; and
3. Funds withheld by the Contracting Agency for disbursement in accordance with the Contract Documents.

Progress payments for work performed shall not be evidence of acceptable performance or an admission by the Contracting Agency that any work has been satisfactorily completed. The determination of payments under the contract will be final in accordance with Section 1-05.1.

1-09.9(1) Retainage

Section 1-09.9(1) content and title is deleted and replaced with the following:

(June 27, 2011 WSDOT GSP)
Vacant

1.09.11 Disputes and Claims

1-09.11(3) Time Limitation and Jurisdiction

*(*****)*

Revise this section to read:

For the convenience of the parties to the Contract it is mutually agreed by the parties that all claims or causes of action which the Contractor has against the Contracting Agency arising from the Contract shall be brought within 180 calendar days from the date of final acceptance (Section 1-05.12) of the Contract by the Contracting Agency; and it is further agreed that all such claims or causes of action shall be brought only in the Superior Court of the county where the Contracting Agency headquarters is located, provided that where an action is asserted against a county, RCW 36.01.050 shall control venue and jurisdiction. The parties understand and agree that the Contractor's failure to bring suit within the time period provided, shall be a complete bar to all such claims or causes of action. It is further mutually agreed by the parties that when claims or causes of action which the Contractor asserts against the Contracting Agency arising from the Contract are filed with the Contracting Agency or initiated in court, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

1-09.13 Claims Resolution

1-09.13(3)A Arbitration General

*(*****)*

Revise the third paragraph to read:

The Contracting Agency and the Contractor mutually agree to be bound by the decision of the arbitrator, and judgment upon the award rendered by the arbitrator may be entered in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims subject to arbitration are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. The decision of the arbitrator and the specific basis for the decision shall be in writing. The arbitrator shall use the Contract as a basis for decisions.

1-09.13(4) Venue for Litigation

(*****)

Revise this section to read:

Litigation shall be brought in the Superior Court of the county in which the Contracting Agency's headquarters is located, provided that where claims are asserted against a county, RCW 36.01.050 shall control venue and jurisdiction of the Superior Court. It is mutually agreed by the parties that when litigation occurs, the Contractor shall permit the Contracting Agency to have timely access to all records deemed necessary by the Contracting Agency to assist in evaluating the claims or action.

Division 2 – Temporary Features

2-03 Public Convenience and Safety

2-03.3(1) Construction Under Traffic

Section 2-03.3(1) is supplemented with the following:

(November 4, 2024 WSDOT GSP 2-03.3(1), Option 5)

Closures of highway shoulder and curb lane and school queuing lanes are only permitted as follows:

All traffic control plans should be set up per approved plans or approved by Engineer. Closures are permitted from 9:30 am to 3:15 pm Monday through Thursday and 9:30 am to 1:15 pm on Fridays. Special school hours may be designated by the Engineer.

If the Engineer determines the permitted closure hours adversely affect traffic, the Engineer may adjust the hours accordingly. The Engineer will notify the Contractor in writing of any change in the closure hours. Exceptions to these restrictions are listed below and when applicable take precedence over closures listed above. The Engineer may also consider on a case-by-case basis additional exceptions following a written request by the Contractor.

Lane, ramp, shoulder, and roadway closures are not allowed on any of the following:

1. A City holiday.
2. A City holiday weekend; holidays that occur on Friday, Saturday, Sunday or Monday are considered a holiday weekend. A holiday weekend includes Saturday, Sunday, the holiday, and the day before and after the holiday weekend.
3. After 1 pm on the day prior to a City holiday or City holiday weekend.
4. Before 9 am on the day after the City holiday or City holiday weekend.
5. The two-hour period prior to and the two-hour period after the following special events:
 - Annual Town Hall meeting (August)
 - Gnome Town Holidays (December)
 - Other events to be determined and identified by the Engineer.

It shall be the Contractor's responsibility to obtain the dates and times of all events.

The one-way school queue lane and school entrance driveways on east side of SR 169 shall remain open during the following times on Monday through Friday when school is in session, or as designated by the Engineer:

1. 8:30am to 9:30am (Monday through Friday)
2. 3:15pm to 4:15pm (Monday through Thursday)
3. 1:15pm to 2:15pm (Friday)

Full SR 169 Highway Closure

A full closure of SR 169 is permitted only for the following activities:

- Main span steelwork erection onto main piers
- Main span concrete deck pour

It is expected that each of these closures will take place over one evening per activity and during nighttime hours only (7:00 pm to 6:00 am).

Trucks are not permitted to utilize Witte Road during the full closure of SR 169 and shall be detoured via SR 18 and SR 516, or an alternate route approved by the Engineer.

The Contractor shall submit details of the proposed closure and detours shall be approved by the Engineer and WSDOT a minimum of four (4) weeks prior to the planned closure. Submittal shall include a "Go/No go" checklist and a contingency plan. A rehearsal shall be required for the main span steelwork erection.

Uniformed police officers shall be stationed at each end of the closure to help direct traffic.

Traffic Delays

When Automated Flagging Assistance Devices (AFADs) or flaggers are used to control traffic, traffic shall not be stopped for more than 10 minutes at any time. All traffic congestion shall be allowed to clear before traffic is delayed again.

If the delay becomes greater than 10 minutes, the Contractor shall immediately begin to take action to cease the operations that are causing the delays. If the 10 minute delay limit has been exceeded, as determined by the Engineer, the Contractor shall provide to the Engineer, a written proposal to revise their work operations to meet the 10 minute limit. This proposal shall be accepted by the Engineer prior to resuming any work requiring traffic control.

There shall be no delay to school and Metro buses, medical, fire, or other emergency vehicles. The Contractor shall alert all flaggers and personnel of this requirement.

General Restrictions

Construction vehicles using a closed traffic lane shall travel only in the normal direction of traffic flow unless expressly allowed in an accepted traffic control plan. Construction vehicles shall be equipped with flashing or rotating amber lights.

Roads or ramps that are designated as part of a detour shall not be closed or restricted during the implementation of that detour, unless specifically shown in the Plans.

Controlled Access

No special access or egress shall be allowed by the Contractor other than normal legal movements or as shown in the Plans.

Contractor's vehicles of 10,000 GVW or greater shall not exit or enter a lane open to public traffic except as follows:

Egress and ingress shall only occur during the hours of allowable lane closures, and:

1. For exiting an open lane of traffic, by decelerating in a lane that is closed during the allowable hours for lane closures.
2. For entering an open lane of traffic, by accelerating in a closed lane during the allowable hours for lane closures.

Traffic control vehicles are excluded from the gross vehicle weight requirement. If placing construction signs will restrict traveled lanes, then the work will be permitted during the hours of allowable lane closures.

As shown in the Plan sheet Construction Staging Areas, there is a requirement to allow public access to the south parking lot of the Legacy Site during weekends. The green shading indicates areas of the parking lot that can be used by the Contractor from Monday 6:00AM to Friday 6:00PM, but shall not be used to store vehicles, materials, equipment outside these hours unless approved in writing by the Engineer.

Advance Notification

The Contractor shall notify the Engineer in writing of any traffic impacts related to lane closure, shoulder closure, sidewalk closure, or any combination for the week by 12:00 p.m. (noon) Wednesday the week prior to the stated impacts.

The Contractor shall notify the Engineer in writing thirty (30) working days in advance of any traffic impacts related to full roadway closure, ramp closure, or both.

The Contractor shall notify the Engineer in writing of any changes to the stated traffic impacts a minimum of 72 hours prior to the traffic impacts.

(September 3, 2024 WSDOT GSP 2-03.3(1), Option 10)

If July 4 occurs on a Tuesday, the prior Monday is considered to be part of a holiday weekend. If July 4 occurs on a Thursday, the following Friday is considered to be part of a holiday weekend.

*(*****)*

Supplement this section with the following:

Fire hydrants on or adjacent to the work shall be kept accessible to firefighting equipment at all times. Provision shall be made by the Contractor to ensure the proper functioning of all gutters, sewer inlets, drainage ditches and culverts, irrigation ditches and natural water courses, and storm sewer facilities throughout the project. Temporary interruption of service will be allowed only with the permission of the Engineer.

The Maple Valley Police Department and Puget Sound Regional Fire Authority shall be notified at least four (4) hours in advance of any actions by the Contractor that may affect the functions of either the Police Department or the Fire Department.

2-04 TEMPORARY TRAFFIC CONTROL

2-04.3(1) Traffic Control Management

Section 2-04.3(1) is supplemented with the following:

(September 2, 2025 WSDOT GSP, Option 1)

Work Zone Safety Contingency

Enhancements to improve the effectiveness of the accepted traffic control plans to increase the safety of the work zones shall be discussed on a weekly basis between the Contractor and the Contracting Agency. Enhancements shall be mutually agreed upon by the Contractor and Engineer prior to performing any Work to implement the enhancement.

Enhancements do not include the use of Uniformed Police Officers or Washington State Patrol, address changes to the allowed work hour restrictions, or changes to the staging plans in the Contract (if applicable). If allowed by the Engineer, these items will be addressed in accordance with Section 1-04.4.

The Contractor shall be solely responsible for submitting any traffic control plan revision to implement the enhancement in accordance with Section 2-04.3(2).

Section 2-04.3 (1) is supplemented with the following:

(March 9, 2026 WSDOT GSP)

The Traffic Control Supervisor shall be certified by one of the following:

The American Traffic Safety Services Association
15 Riverside Parkway, Suite 100
Fredericksburg, Virginia 22406-1022
Training Dept. Toll Free (877) 642-4637
Phone: (540) 368-1701
<https://atssa.com/training>

Evergreen Safety Council
12545 135th Ave. NE
Kirkland, WA 98034-8709
1-800-521-0778
<https://www.esc.org>

Integrity Safety
13912 NE 20th Ave.
Vancouver, WA 98686
(360) 574-6071
<https://www.integritysafety.com>

K&D Services Inc.
2719 Rockefeller Ave.
Everett, WA 98201
(800) 343-4049
<https://www.kndservices.net>

The Northwest Laborers-Employers Training Trust
27055 Ohio Ave.
Kingston, WA 98346

(360) 297-3035
<https://www.nwlett.edu>

Trafficorp
5077 N Bldg Center Drive
Coeur d'Alene, ID 83815
(208) 665-4683
<https://trafficorp.com/contact-us/>

US Safety Alliance
(904) 705-5660
<https://www.ussafetyalliance.com>

2-04.3(6)C1 Portable Changeable Message Sign (PCMS)

(*****)

Supplement this section with the following:

Two (2) Portable Changeable Message Signs (PCMS) shall be provided for the duration of the project. Additional signs shall be in place a minimum of 2 weeks prior to the full closure occurring. Additional PCMS for construction activities requiring additional signage, such as the full closure of SR 169, shall be paid by Force Account through the Workzone Safety Contingency bid item.

Proposed locations shall be shown on Traffic Control Plan(s) submitted by the Contractor. Contractor shall submit proposed message(s) to be displayed and receive approval by the Engineer prior to placement. Contractor is responsible for programming of the approved message into the PCMS('s), set-up, placement, and removal upon project completion.

2-04.3(6)K Pedestrian Traffic Control

(*****)

Supplement this section with the following:

Pedestrian access shall be maintained to all properties adjacent to the construction site. Where sidewalks are required to be closed by construction, an alternate walkway shall be provided and the walkway shall be ADA compliant including curb ramps and detectable warnings. Physical barricades shall be installed to prevent visually impaired people from inadvertently entering a closed area.

Where it is necessary to divert pedestrians into the roadway, barriers shall be provided to separate the pedestrian walkway from the adjacent vehicular traffic lane. Appropriate signage shall be posted at the limits of construction and in advance of the closure at the nearest crosswalk or intersection to divert pedestrians across the street. Pedestrians shall not, at any time, be diverted into a portion of a street used concurrently by moving vehicular traffic.

At the Legacy Site, the sidewalk and bike lane along the southbound lanes of SR-169 shall be maintained during construction except as approved by the Engineer. The construction

access driveway to the south parking lot shall be temporarily paved connection for the sidewalk and bike lane across the construction driveway.

The new construction access driveway at the Legacy Site South Parking Lot shall be temporarily paved with temporary striping to provide a smooth, direct crossing of the driveway for the bike pathway and sidewalk. During shipment deliveries into the west construction staging area, flaggers shall be utilized to stop pedestrians and cyclists from crossing the driveway. These closures of the pathway shall be limited to 5 minutes duration without prior approval from the Engineer. If the pathway and sidewalk must be closed for longer than 5 minutes during a work day, a clear detour route with signage starting at the south and north roundabouts shall provide users with clearly marked alternative route that maintains similar safety and level of comfort as approved by the Engineer. These trail closures shall be limited between 9:00 am and 4:00 pm, except as approved by the Engineer. While the permanent driveway improvements are being constructed near the end of the project duration, pedestrian and cyclists shall be detoured using plans approved by the Engineer. While the sidewalk widening improvements are being constructed near the end of the project duration, pedestrians shall be detoured using plans approved by the Engineer. The sidewalk and bicycle path shall be reinstated on weekends using temporary asphalt ramps or other approved means.

The Contractor shall secure the staging area in the South Parking lot, as depicted on the Plans, by installing temporary fencing at the perimeter. The remaining parking lot and staging area as shown on the Plans can be secured by the Contractor during weekday working days from Monday at 6:00am to Friday at 10:00pm to use for Construction worker parking, material deliveries, storage, equipment parking but shall be available on holidays and weekends for public parking with any construction related materials and equipment stored in the primary secured staging area.

The multiuse trail on the east side of SR-169 between the queuing lane and school entrance may be closed for the duration of the project given an alternative route is provided. The Contractor shall discuss locating the temporary detour within the temporary construction easement with Tahoma School District. Alternative detour routes shall be approved by the Engineer. The accessibility shall be retained by providing access to the curb ramp at the queuing lane crossing. The Contractor shall install and maintain temporary construction fencing along the perimeter of the work zone on the east side of SR-169 as shown on the Plans or otherwise approved by the Engineer.

Add the following Section:

2-04.3(7) Project Informational Signs

(*****)

The Contractor shall furnish, erect, and maintain in good condition two (2) project signs. All costs for the project signs shall be included in the unit contract bid prices in the Proposal.

The signs shall be 3' x 5' in dimension. The signs shall be waterproof with an anti-graffiti clear-coat applied. Digital files of the project sign template provided by the Contracting Agency will be forwarded to Contractor after bid award at Contractor request.

Signs shall be placed using two count 4-inch by 4-inch pressure treated wood posts with a ¾" exterior marine grade plywood backing matching the dimensions of the sign to be mounted. The posts shall be buried a minimum of 3 feet below grade with the hole backfilled with CDF or concrete and the sign supports shall be structurally sound against wind loads and vandalism. The sign shall be mounted with a minimum edge distance of 9 inches to the fasteners. A minimum of three (3) through-bolt fasteners shall be provided equally through the sign at each support post.

2-04.5 Payment

"Project Informational Signs", lump sum. This shall be inclusive of materials, coordination efforts with the City, labor to install, and maintenance including graffiti management.

2-04.5(2) Item Bids with Lump Sum for Incidentals

Section 2-04.5(2) is supplemented with the following:

(November 2, 2022 WSDOT GSP, Option 7)

"Work Zone Safety Contingency", by force account.

All costs as authorized by the Engineer will be paid for by force account as specified in Section 1-09.6.

For purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount for the item "Work Zone Safety Contingency" in the Proposal to become a part of the Contractor's total bid.

The Engineer may choose to use existing bid items for the implementation of the agreed upon enhancement.

Division 3 – Earthwork

3-01 CLEARING AND GRUBBING

3-01.1 Description

Supplement this section with the following:

(*****)

The Contractor shall stake the proposed clearing limits at a minimum of 50' interval. The Contractor shall allow 48 hours for the Engineer to approve the clearing limits before commencing activities. At the direction of the Engineer, the limits shall be adjusted in the field. When staking the clearing limits, the Contractor shall strive to protect existing cement concrete sidewalk, cement concrete curb & gutter, ADA ramps, irrigation, signs, gates, Legacy Site Pavilion and associated pavement, existing trees and landscaping and other site items to remain from damage.

The work included in this section shall consist of removal of surface vegetation including, but not limited to, the top 2" of grass, sod, topsoil, trees and their stumps, shrubs, plants or other underbrush vegetation. Such operations shall be limited to only those that must be removed for the project construction.

The work shall also include protection of existing trees to remain within the project limits as shown on the plans and specified herein.

This work shall also include a preconstruction meeting with the Contracting Agency and Engineer prior to clearing and grubbing operation. The meeting shall consist of verifying extents of clearing and grubbing and layout of tree protection fencing.

Miscellaneous small items requiring removal have not been shown on the Plans and shall be incidental to the work.

3-01.2 Disposal of Usable Materials and Debris

3-01.2(2) Disposal Method No. 2 – Waste Site

Supplement this section with the following:

(*****)

No waste site has been provided for the disposal of excess or excavated materials. All material removed by clearing and grubbing operations shall be disposed of by the Contractor at a legal disposal site obtained by the Contractor. The Contractor shall make their own arrangements for obtaining wastes sites in accordance with Section 3-03.3(7)C of the Standard Specifications. All fees shall be borne by the Contractor.

3-01.3 Construction Requirements

Supplement this section with the following:

3-01.3(1) Clearing

(*****)

The Contractor shall remove all plants within the area to be cleared that are not designated for preservation. Trees and shrubs are not always shown in the Plans; it is the Contractor's responsibility to review site conditions to determine the extent of clearing required prior to bidding.

.

If the Contractor removes or damages any existing plant or plants not designated for removal because of any act, omission, neglect, or misconduct in the execution of the work, such plant(s) shall be restored or replaced by the Contractor to a condition similar or equal to that existing before such damage or removal.

All replacements shall be inspected and approved prior to planting. Planting procedures will be subject to approval. All replacements shall be guaranteed to survive in a healthy condition.

(*****)

3-01.3(3) Tree Protection

All existing trees called out for retention within the project limits shall be retained and protected during construction as shown on the Plans. Tree protection shall be installed where shown and as detailed on the Plans and shall be maintained and shall be maintained in place throughout the duration of construction activities. Adjustment of tree protection shall be only as approved by the Engineer. Tree protection shall be fixed into the ground so that it is not possible to shift the fencing during construction.

If the construction operation causes irreparable damage to the tree or its roots, the Contractor shall be responsible for all work and materials required to mitigate the damage, as directed by the Engineer.

The Contractor shall assign a Tree Protection Lead to the project and identify them at the pre-construction conference. This individual shall be listed on the emergency contact sheet and shall be an ISA Certified Arborist.

Tree Protection Area Establishment

No soil compaction or use of heavy equipment is permitted within the Tree Protection Area (TPA) during installation of protective fencing. Install diagonal bracing at corners and other necessary locations to ensure rigidity of tree protection fencing.

For areas within the tree dripline subject to heavy equipment use, install protection consisting of:

- A coir mat with 1" mesh opening
- 4 inches of wood chips
- Covered by steel plates or timber planking
- Maintain a 36-inch diameter mulch-free zone around the base of each protected tree.

Tree Protection Signage

Provide weather-resistant, fluorescent green or yellow signs, minimum 24" x 24" in size. Affix a minimum of one sign per fenced tree protection area. Additional signs may be required for extended fencing segments, as determined by the Engineer. A pre-mobilization inspection of tree protection measures shall be conducted by the Engineer and an ISA Certified Arborist to review fencing and assess potential limb conflicts with access routes.

Tree Protection Area Practices

No trenching within Tree Protection Areas unless performed by hand or with an air spade.

Under supervision of an ISA Certified Arborist, temporarily tie up flexible limbs and low branches that may interfere with equipment movement. Pruning is not permitted without written approval from the Engineer. The Contractor shall notify the Engineer in advance of any proposed tree trimming. Trimming shall:

- Be performed by an ISA Certified Arborist
- Follow ANSI A300 Pruning Standards

Prohibited Activities Within Protected Areas

Do not store potentially harmful materials within 30 feet of protected areas. These include, but are not limited to:

- Petroleum products
- Concrete and cement materials
- Paints, lime, waterproofing agents, form coatings
- Acids, detergents, or other cleaning agents

Do not alter grades within fenced protection areas. Control soil moisture to prevent flooding, and protect root zones from contamination by cement leachate, oil, fuel, or other pollutants.

Tree Protection Fencing Relocation and Removal

Notify the Engineer at least two (2) working days in advance if tree protection fencing shall be moved. Upon relocation, all protective measures shall remain in effect. Do not remove tree protection fencing until explicit approval is granted by the Engineer.

Root Treatment and Excavation Practices

Roots < 1.5 inches may be cut cleanly with a sharp blade along the edge of the trench or tunnel. Ripping or tearing of roots is not permitted.

Notify the Project Arborist immediately if roots greater than 1.5 inches in diameter are encountered.

Within the Critical Root Zone (CRZ):

- Hand-excavate around roots $\geq$ 1.5 inches in diameter to prevent tearing.
- Leave all roots $\geq$ 1.5 inches intact and undamaged.
- Exposed roots shall be kept moist using soil, wet mulch, burlap, or Arborist-approved alternatives.
- Use pneumatic excavation for all trenching within CRZs.

Enforcement

The Engineer may issue a stop work order if any of the following conditions occur:

- Landscape protection measures are not completed prior to construction;
- Unauthorized activity occurs within protected areas; and
- Tree protection fencing is not restored within 24 hours of notice.

3-01.4 Measurement

Supplement this section with the following:

(*****)

No specific unit of measure shall apply to the lump sum for tree protection.

No separate measurement for payment will be made for routine cleanup, but instead routine cleanup will be considered incidental to and included in the lump sum price for "Removal of Structures and Obstructions".

3-01.5 Payment

Supplement this section with the following:

(*****)

"Clearing and Grubbing", per lump sum.

The lump sum contract price for "Clearing and Grubbing" shall be full pay for all labor, tools, equipment, fees and materials necessary or incidental to perform the clearing, grubbing, and cleanup operations to complete the Work including disposal fees, processing and stockpiling logs and arborist wood chip mulch.

"Tree Protection", per lump sum.

The lump sum contract price for "Tree Protection" shall be full pay for all costs necessary to furnish, install, adjust and maintain the tree protection fencing, including installing signage, as required in these Specifications and as shown on the Plans.

3-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

3-02.1 Description

Supplement this section with the following:

(*****)

For the purpose of this Contract, "Removal of Structures and Obstructions" shall include the removing, protecting, storing, and salvaging, of miscellaneous objects required to complete the new construction.

The lump sum contract price for "Removal of Structures and Obstructions" shall be full compensation for furnishing all labor, tools, materials, and equipment necessary to:

- Satisfactorily remove and dispose of the specified items, backfill, and compact the resulting void.
- Satisfactorily salvage the items specified for re-use or to be returned to the property owner or the Contracting Agency.
- Satisfactorily remove and dispose of existing or abandoned utilities as required for utility and roadway installation.
- Satisfactorily remove storm pipe where shown on the Plans.
- Satisfactorily remove storm structures where shown on the Plans.
- All existing signs in conflict with construction shall be removed, retained, and delivered to the Contracting Agency. Contractor shall make accommodations for City crew to re-install prior to substantial completion.

Remove existing Tahoma School District brick wall and sign monument on south side of driveway entrance where shown on the Plans.

Quantities shown are approximate. Quantities are for the Contractor's convenience and should be verified prior to bidding.

If requested by a specific property owner, existing features (such as fencing, etc.) shall be protected, salvaged, and returned to the property owner.

The following items shall be removed, abandoned, or salvaged:

SCHEDULE A			
Item	Action	Approx. Location	Approx. Qty.
Curb and Gutter	Remove	See Site Prep Plan	240 LF
Boulders	Remove and Salvage	See Site Prep Plan	10 EA
Catch Basin	Remove	See Site Prep Plan	1 EA
Portable Restroom Washrooms and Wash Station	Remove and Reinstall	See Site Preparation Plan and Urban Design Plan	6 EA
Guard Post	Remove and Salvage	See Site Prep Plan	3 EA
Bike Racks	Remove and Reinstall	See Landscape and Urban Design Plans	7 EA
Bench	Remove and Relocate	See Landscape and Urban Design Plans	1 EA
Trees less than 12" dia.	Remove and Salvage Wood Chips per 3-02.3(5)	See Site Prep Plans and Landscaping Plans	5 EA
Trees for Transplant	Remove and Salvage for Replanting per 3-02.3(6)	See Site Prep and Landscaping Plans	13 EA
Trees 12" dia. or greater	Remove and Salvage Trunk and Wood Chips per 3-02.3(5)	See Site Prep and Landscaping Plans	7 EA
32" dia. Cedar Tree -Top at 8 ft and Salvage Cut Pieces over 8 In Diam. in 8 ft lengths to the Contracting Agency	Remove and Salvage as Noted	See Site Prep and Landscaping Plans	1 EA
Wheel Stop	Remove and Salvage	See Site Prep Plan	4 EA

Tahoma School District Brick Wall and Sign Monument	Remove	See Site Prep Plan	1 EA
---	--------	--------------------	------

3-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters

Supplement this section with the following:

(*****)

The Contractor shall remove existing asphalt concrete pavement, cement concrete pavement, curb and gutter, extruded curb, sidewalk, and other associated roadside elements as shown on the Plans and approved by the Engineer. Removal shall include excavation of the underlying soil as required to achieve the subgrade elevations shown on the Plans.

The north ramp of the crosswalk at the queuing lane may need to be removed to accommodate the construction of the drilled shaft at Pier P6. The preference of the Contracting Agency is to salvage the ramp if possible, but the needs of the Contractor will determine if it can be salvaged. If the ramp must be replaced, then it shall be replaced in kind. Payment for removal and replacement of the ramp will be paid through Force Account.

All pavement types shall be cut by means of full-depth sawcut to establish a neat vertical line and edge. If the clean vertical edge is damaged by the Contractor during construction activities, the Contractor will be required to saw cut the item again at no expense to the Contracting Agency. Existing sidewalk or curb and gutter shall be removed in full panel sections and shall be removed or saw cut at expansion/contraction joints where possible.

The thickness of any existing pavements throughout the project is unknown and may vary. Removal shall be accomplished by making a neat-line longitudinal vertical full depth cut along the boundaries of the area to be removed. The location of all saw cuts shall be preapproved by the Engineer before cutting of pavement. Pavement not designated to be removed that is damaged as a result of the Contractor's operations shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the Contracting Agency. The removed pavement shall become property of the Contractor and shall be promptly removed from the project.

All cuts shall be continuous and shall be made with saws specifically equipped for this purpose. No skip cutting will be allowed. All saw cutting shall be included in removal of structure and obstruction bid item.

Wheel cutting or jack hammering will not be considered an acceptable means of pavement removal. Any pavement that is damaged and not designated for removal as shown on the Plans or preapproved by the Contracting Agency, shall be repaired or replaced entirely at the Contractor's expense.

The Contractor shall be responsible for ensuring that special precautions are undertaken so that no concrete or concrete by-products, or products and by-products used in the saw cut of asphalt or concrete, are discharged into any storm drain or surface water system.

(*****)

Add the following Section 3-02.3(4)

3-02.3(4) Abandon or Removal of Existing Drainage Pipe and Structures

Where shown in the Plans or directed by the Engineer, existing drainage structures, culverts and pipes shall be abandoned by the following means:

1. Plugging pipe ends and filling pipes with Controlled Density Fill per 3-07.3(1)E Backfilling of the Standard Specifications or approved equal materials.
2. Removing the existing drainage structure to two (2') feet below finished subgrade and filling remaining pipes and structures with Controlled Density Fill per 3-07.3(1)E Backfilling of the Standard Specifications.
3. Full removal of structures, culverts and pipes.

Drainage structures and pipes indicated to be abandoned shall be removed if abandoned portions conflict with any of the proposed improvements.

Voids left by pipe and structure removal shall be backfilled and compacted in accordance with Section 3-03.3(14)K Select or Common Borrow Including Haul.

All materials removed shall become the property of the Contractor and shall be disposed of outside the project limits.

Add the following Section 3-02.3(5)

(*****)

3-02.3(5) Tree Removal and Salvage

For all trees removed on site, except as noted in the Plans, log sections greater than 12" diameter shall be stockpiled for reuse on site as Landscape Logs per the Plans and Section 9-14.10 of these Special Provisions.

Smaller woody material including side branches shall be chipped and stockpiled for reuse on site as Arborist Wood Chip Mulch per section 9-14.5(3)A of these Special Provisions.

Log sections in excess of the required quantity of Landscape Logs as shown in the Bid Proposal form, and any material not salvageable as Arborist Wood Chip Mulch or Landscape Logs shall be removed and disposed of off-site.

Add the following Section 3-02.3(6)

(*****)

3-02.3(5) Tree Transplanting

Contractor shall dig up existing trees as noted on the Plans, ball and burlap the root balls and provide to the City of Maple Valley for replanting elsewhere in the City. Tree digging shall be performed by a qualified landscape contractor with experience transplanting medium-size trees and shall be performed under the supervision of the project Tree Protection Lead and

the Engineer. Contractor shall provide a minimum of 48 hours' notice prior to beginning transplanting work.

Street trees shall be dug when the soil is moist; if digging occurs during dry weather, the trees shall be thoroughly watered 2-3 days prior to digging. Digging shall not occur during heavy rain when the soil is saturated. Prior to beginning digging, the contractor shall verify that the soil moisture is sufficient for obtaining a cohesive and stable root ball; if the soil is found to be too dry or saturated, digging operations shall be delayed.

Trees designated for transplanting shall be dug in such a manner as to provide a root ball that is sufficient to ensure survival of the tree when relocated. Root ball size shall be calculated according to the diameter of the tree at breast height (DBH), with 10-12" radius for each 1" of caliper of the tree; the ball depth shall be a minimum of 60% of the width.

A trench shall be dug at the radius indicated above; roots shall be cleanly cut and the ball shall be rounded to the correct depth indicated above. Root ball shall be carefully wrapped in damp burlap and secured with twine.

Trees shall be immediately provided to the City of Maple Valley for replanting. The Contractor shall coordinate with the Engineer on timing to ensure that City staff are available and ready to receive the trees for replanting. If trees are not immediately relocated and replanted, the balled-and-burlapped trees shall be temporarily stored in a shaded area and the root balls covered with moistened wood chips or damp straw to keep the trees in good condition until replanting. The maximum storage period shall be one week.

During removal, storage and transportation, the root ball and vegetative portions of the trees shall be protected from damage from wind or injury. Trees shall not be exposed to excessive drying after digging. Water for digging and storing (if required) trees shall be provided by the Contractor at their own expense.

(*****)

Replace Section 3-02.4 Vacant with the following Section:

3-02.4 Measurement

No specific unit of measurement shall be applied to the lump sum bid item "Removal of Structures and Obstructions". No measurement for payment shall be made for filling voids left after demolition.

"Cement Conc. Pavement Removal Incl. Haul" and "Asphalt Pavement Removal Incl. Haul" shall be measured per square yard.

No measurement for payment shall be made for saw cutting of any kind. Saw cutting shall be incidental to the other associated Bid items in the Proposal.

3-02.5 Payment

Supplement this section with the following:

(*****)

“Removal of Structures and Obstructions”, lump sum.

All items noted for removal/abandonment or salvage on the Plans to which other Bid items do not apply shall be considered included in the lump sum Bid item “Removal of Structures and Obstructions” including, but not limited to, the items shown on the Plans and those specified herein. Demolition, haul, and disposal of all structures and materials and dismantling/restoration of surface features to which this Bid item applies shall also be considered incidental.

“Cement Conc. Pavement Removal Incl. Haul”, square yard.

Payment for “Cement Conc. Pavement Removal Incl. Haul” shall be full compensation for all labor, tools, equipment, and materials necessary to complete the work where shown on the Plans including saw cutting, haul, and disposal of cement concrete sidewalk, and gutters and curbs as described within Section 3-02.3(3).

“Asphalt Pavement Removal Incl. Haul”, per square yard.

Payment for “Asphalt Removal Incl. Haul” shall be full compensation for all labor, tools, equipment, and materials necessary to complete the work where shown on the Plans including saw cutting, haul, and disposal of asphalt pavement as described within Section 3-02.3(3).

3-03 ROADWAY EXCAVATION AND EMBANKMENT

3-03.1 Description

Supplement this section with the following:

(*****)

This Work shall also consist of Site Excavation. Site Excavation includes excavation of existing base surfaces down to subgrade depth for that various proposed features of the project, including excavation for storm infiltration trenches.

The second paragraph of Section 3-03.1 is supplemented as follows:

(*****)

4. Removal items being paid for under Section 3-02 of these contract documents.

3-03.3 Construction Requirements

Supplement this section with the following:

(*****)

Site Excavation shall consist of any excavation defined by the plans and these special provisions as excavation of the site after clearing and grubbing has been completed and after surface materials noted in Section 3-02 have been removed. Site excavation shall be performed to the depths identified in the plans to achieve a suitable subgrade for proposed improvements.

Any excavation or embankment beyond the limits indicated in the Plans, unless ordered by the Engineer, shall not be paid for. All work and material required to return these areas to their original conditions, as directed by the Engineer, shall be provided by the Contractor at their sole expense.

All areas shall be excavated, filled, and/or backfilled as necessary to comply with the grades shown on the Plans. In filled and backfilled areas, fine grading shall begin during the placement and the compaction of the final layer. In cut sections, fine grading shall begin within the final six (6) inches of cut. Final grading shall produce a surface which is smooth and even, without abrupt changes in grade.

Add the following new Section:

(*****)

3-03.3(3)A Layout and Subgrade Protection for Infiltration Facilities

This Section applies to the excavation and subgrade preparation for infiltration trenches, infiltration beds, and infiltration rock galleries shown in the Plans.

Layout

Before beginning excavation for an infiltration trench, infiltration bed, or infiltration rock gallery, the Contractor shall stake or paint the horizontal limits of the top and bottom excavation areas shown in the Plans and detail drawings. The Contractor shall verify that the staked or painted limits match the dimensions, cell width, and side slopes shown in the Plans.

The Contractor shall notify the Engineer at least two (2) Working Days in advance of the scheduled excavation date so that the Engineer may review the staked or painted top and bottom limits.

The Contractor shall not begin excavation until the Engineer has reviewed the staked or painted layout. If the Engineer determines that the staked or painted limits do not conform to the Plans, the Contractor shall correct the layout before proceeding.

Protection of Infiltration Subgrade

The soil surface exposed at the bottom of an infiltration trench, infiltration bed, or infiltration rock gallery excavation is the infiltration receptor for the facility and shall remain uncompacted native material, except where the Plans specifically call for scarification or subgrade amendment.

The Contractor shall protect the exposed subgrade from over-compaction and contamination throughout excavation, geotextile and drain rock placement, and until the facility is accepted by the Engineer. The Contractor shall, at a minimum, do the following:

1. Excavate to an intermediate elevation established at least one (1) foot above the final bottom elevation of the infiltration facility. Complete excavation to the final bottom elevation using equipment operating from the intermediate elevation or from the adjacent surrounding grade, so that equipment does not operate directly on the final subgrade surface.
2. Where access to the final subgrade cannot be avoided, protect the subgrade from point loading by placing steel plates, timber mats, or other methods approved by the Engineer beneath the equipment.
3. Schedule excavation and subsequent geotextile and drain rock placement to limit the duration the subgrade remains exposed, and cover or otherwise protect the exposed subgrade if precipitation is forecast before placement can be completed.
4. Prevent sediment-laden runoff from adjacent disturbed areas, stockpiles, or haul routes from draining onto or ponding on the exposed subgrade.
5. Restrict access by other trades and construction traffic to the excavation area until geotextile and drain rock placement is complete.
6. No backfill shall be placed until the Engineer has inspected and approved the subgrade.

If the Engineer determines that the exposed subgrade has been over-compacted or contaminated by sediment such that infiltration capacity has been reduced, the Contractor shall scarify the affected subgrade to a depth directed by the Engineer, or remove and replace the affected material, at no additional cost to the Contracting Agency and with no adjustment to Contract time.

If subsurface conditions are encountered that differ materially from those indicated in the Plans or geotechnical report (such as groundwater, unsuitable soils, or obstructions) and the Contractor believes the differing conditions affect the Work, the Contractor shall notify the

Engineer in accordance with Section 1-05.1(2). Compensation for verified differing site conditions shall be addressed in accordance with Section 1-09.6.

3-03.3(7)B Haul

Supplement this section with the following:

(*****)

All costs in connection with hauling and disposal of surplus materials will be considered incidental to the various bid items of the project and no additional compensation will be made.

3-03.(14)E Unsuitable Foundation Excavation

Supplement this section with the following:

(*****)

Excavation required and approved by the Engineer to remove unsuitable subgrade materials shall be measured and paid under "Unsuitable Foundation Excavation Incl. Haul" for which a unit price bid item has been provided in the Proposal. This unit bid price is applicable for removal of unsuitable subgrade within the project limits.

The provisions of 3-03.3(14)E of the Standard Specifications shall apply except that Sub Excavation below grade described in 3-03.3(3) of the Standard Specifications and Removal of Unstable Base Material per 3-09.3(1)C of the Standard Specifications shall also be included in the "Unsuitable Foundation Excavation Incl. Haul" bid item. All excavated unsuitable foundation materials shall be disposed of by the Contractor.

Measurement and payment for "Unsuitable Foundation Excavation Including Haul" shall be limited to a depth of two (2) vertical linear feet beneath proposed subgrade surface. Backfill of unsuitable foundation shall be with materials meeting the requirements for crushed surfacing top course in accordance with Section 9-03.9(3) of the Standard Specifications and shall be paid under its respective bid item.

If excessive unsuitable foundation is encountered, and at the direction of the Engineer, the Contractor shall furnish and install Construction Geotextile for Separation per 3-09 of the Standard Specifications and it shall be considered incidental to the various bid items included in the Proposal and no further compensation will be made.

The Contractor is advised that "Unsuitable Foundation Excavation Incl. Haul" is contingent on the presence of unsuitable foundation materials. A quantity has been provided in the Bid Proposal solely to provide a common basis for bidders. The quantity may be greatly increased, decreased or reduced to zero. Payment shall be only for actual work performed based upon the unit contract price and shall be considered full compensation for the Work.

3-03.4 Measurement

Supplement this section with the following:

(*****)

Structure Excavation as defined in Section 3-07 shall not be measured or paid for as "Site Excavation".

Excavated material shall be disposed of. All cost associated with hauling and disposal of the excavated material shall be considered incidental to the unit contract price for "Site Excavation, Incl. Haul".

Any excavation beyond the set limits, unless ordered by the Engineer in writing, shall not be paid for. The Contractor, at Contractor expense, shall provide all work and material required to return these over excavated areas to their set limits or original conditions.

Measurement for Site Excavation Incl. Haul will be per cubic yard of excavation to achieve subgrade for improvements shown on the Plans.

Excavation and grading for infiltration trenches and infiltration beds shall be measured neatline per cubic yard as "Site Excavation, Incl. Haul".

"Unsuitable Foundation Excavation Incl. Haul" will be measured by the cubic yard (in place) of material removed as approved by the Engineer. Because the amount of such excavation is unknown, a quantity has been estimated to provide a common basis of bid. The unit price submitted shall be used for all such excavation. Excavated materials as defined in Section 3-02 and materials that fall under "Site Excavation", as described herein, shall not be considered as unsuitable foundation excavation.

Water used in placing and compacting backfill materials will not be measured for payment.

No separate measurement or payment will be made for fine grading or embankment compaction. All costs associated with fine grading and compaction work shall be included with the other various unit Bid prices in the Proposal.

No separate measurement or payment will be made for disposal of surplus materials. All costs associated with this work shall be included with the other various Bid items in the Proposal.

3-03.5 Payment

Supplement this section with the following:

(*****)

Payment shall be made for the following bid items:

"Site Excavation, Incl. Haul", per cubic yard.

The unit contract price per cubic yard for "Site Excavation, Incl. Haul" shall be full compensation for costs incurred for excavating, placing, compacting and grading material, and disposing of excess material, to satisfactorily complete the work defined in these Special Provisions, the Standard Specifications, and the particular items called for in the Plans.

All tools, labor and incidental items of work to complete excavation and sub-grade preparation for infiltration trenches and infiltration beds shall be considered site excavation and be paid for under the "Site Excavation Incl. Haul" bid item.

The unit Bid price for "Unsuitable Foundation Excavation Incl. Haul" shall be full compensation for the costs of all labor, tools, equipment, and materials necessary or incidental to remove, load, haul, and dispose of the unsuitable material off site at a Contractor-obtained legal disposal site.

Crushed surfacing used for backfill of "Unsuitable Foundation Excavation Incl. Haul" shall be measured and paid as "Crushed Surfacing Base Course", per ton.

3-04 HAUL

3-04.1 Description

Supplement this section with the following:

(*****)

In reference to the term "Haul" as used in Section 3-04 and Section 3-09.3(1)D of the Standard Specifications, all costs and expenses involved in haul will be considered incidental to the unit contract prices of the bid items and no additional compensation will be made.

3-07 STRUCTURE EXCAVATION

3-07.3 Construction Requirements

3-07.3(1) General Requirements

3-07.3(1)D Disposal of Excavated Material

Supplement this section with the following:

(*****)

All costs associated with disposing of, hauling, or stockpiling excavated material shall be considered incidental to the various bid items and no additional compensation will be considered.

3-07.4 Measurement

Supplement this section with the following:

(*****)

"Structure Excavation Class B, Incl. Haul" will be measured per cubic yard for the underground modular infiltration system and trench drains. No measurement will be made for any other structure excavation and shall be considered incidental to the improvement being installed.

No specific unit of measurement shall apply to the lump sum item "Shoring or Extra Excavation Class B, Inc. Haul."

3-07.5 Payment

Supplement this section with the following:

(*****)

"Structure Excavation Class B, Incl. Haul", cubic yard.

The unit Contract price for "Structure Excavation Class B, Incl. Haul" shall be full compensation for all costs necessary to complete the work as shown on the Plans and described herein, including all incidental materials, equipment, labor, haul and disposal.

“Shoring or Extra Excavation Class B, Incl Haul”, per lump sum.

The lump sum Contract price for “Shoring or Extra Excavation Class B” shall be full pay for all excavation, backfill, compaction, and other Work required when extra excavation is used in lieu of constructing shoring. If select backfill material is required for backfilling within the limits of the Structure excavation, it shall also be required as backfill material for the extra excavation at the Contractor’s expense.

END OF DIVISION 3

Division 4 – Aggregates and Bases

4-05 BALLAST AND CRUSHED SURFACING

4-05.1 Description

Supplement this section with the following:

(*****)

Crushed surfacing shall be placed in accordance with the Standard Specifications and the Plans, or as directed by the Engineer. This work includes any necessary subgrade preparation and compaction as directed by the Engineer and shall meet the provisions described in Standard Specification Section 3-05.

4-05.4 Measurement

Supplement this section with the following:

(*****)

The basis of measurement for “Crushed Surfacing Base Course”, will be by the ton based on certified truck tickets collected by the inspector at the end of each working day. Tickets will be accepted for payment after the end of each working day only when prior arrangements have been made with the inspector.

If the Contractor chooses to stockpile crushed surfacing materials on or near the site, the Contractor shall establish separate stockpile areas for:

1. Crushed surfacing materials that will be measured and paid for separately per ton.
2. Crushed surfacing materials that will be measured and paid for by cubic yard.
3. Crushed surfacing materials, which shall be incidental to other Bid items.

All materials stockpiled that are not signed and separated will be considered for use in items of work where the material is included in the unit price of the structure/item being installed such as pipe bedding, temporary maintenance rock, etc.

It is up to the Contractor to track crushed surfacing materials measured for separate payment and those not measured for payment by providing separate stockpiles or another method acceptable by the Engineer. Should the Contractor not provide separate stockpiles or other method as outlined above, crushed surfacing material paid for per Ton will not be based on certified truck tickets. The crushed surfacing will instead be measured by neat line to be converted to tons based on neat line measurements in the field and on the Typical Sections provided in the Plans and City Standard Details.

Crushed surfacing placed thicker than 1-inch over that which is specified on the Typical Sections will be measured in place and deducted from the accepted certified truck tickets. The in-place measurement will be by the square yard and converted to tons using the aggregate depth shown on the Typical Sections and the density value provided by the lab. It is the

Contractor's responsibility to ensure that the subgrade is graded to the proper elevations to avoid exceeding the compacted thickness shown on the Typical Sections.

Water used in placing and compacting surfacing materials will not be measured for payment.

"Crushed Surfacing Base Course", will be measured per the ton of import material placed, graded, and compacted to the limits and depths shown on the Plans.

"Crushed Surfacing Base Course for Trench Backfill" will be measured based on the calculated volume within the excavated neat line trench width and depth, not to exceed the neat line width payment limits for the length measured horizontally along the pipeline from top of pipe zone per WSDOT Standard Plan B-55.20 to bottom of finish subgrade elevation.

4-05.5 Payment

Supplement this section with the following:

(*****)

Payment shall be made in accordance with Section 1-04.1, for the following Bid items when included in the Proposal:

"Crushed Surfacing Base Course", per ton.

The Contract Bid price for "Crushed Surfacing Base Course" shall be full compensation for all labor, material, tools, and equipment necessary to satisfactorily complete the Work as defined in the Standard Specifications and these Special Provisions. Work elements shall include, but not be limited to, purchasing; procuring; hauling; stockpiling; placing; grading; compacting import crushed surfacing material.

"Crushed Surfacing Base Course for Trench Backfill," per ton.

The Contract Bid price for "Crushed Surfacing Base Course for Trench Backfill" shall be full compensation for all labor, material, tools, and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications and these Special Provisions. Work elements shall include, but not be limited to, purchasing; procuring; hauling; stockpiling; placing; grading; and compacting import crushed surfacing material for trench backfill to the neat line payment limits.

No measurement or payment will be made for backfill or compaction of suitable and approved native material used as trench backfill, but instead will be considered incidental and included in the unit bid price of structure or pipe being installed.

END OF DIVISION 4

Division 5 – Surface Treatments and Pavements

5-04 HOT MIX ASPHALT

5-04.4 Measurement

Supplement this section with the following:

(*****)

HMA Cl. ____ PG ____, and Commercial HMA will be measured by the ton in accordance with Section 1-09.2, with no deduction being made for the weight of asphalt binder, mineral filler, or any other component of the mixture. If the Contractor elects to remove and replace mix as allowed by Section 5-04.3(11), the material removed will not be measured.

5-04.5 Payment

Supplement this section with the following:

(*****)

Payment will be made for each of the following Bid items that are included in the Proposal:

“HMA Cl. ____ PG _____”, per ton.

The unit Contract price per ton for “HMA Cl. ____ PG _____” shall be full compensation for all costs, including anti-stripping additive, incurred to carry out the requirements of Section 5-04 except for those costs included in other items which are included in this Subsection and which are included in the Proposal.

END OF DIVISION 5

Division 6 – Structures

6-01 GENERAL REQUIREMENTS FOR STRUCTURES

6-01.5 Construction Staging

Replace this section with the following:

(*****)

This Work shall consist of all T-57 SR 169 Pedestrian Bridge site reconnaissance, preparation, coordination, mobilization, and demobilization to accommodate construction of the bridge substructure, approach spans, and bridge spans as required by the Plans.

CONSTRUCTION SEQUENCE

The anticipated sequence of construction is outlined below. The Contractor shall review all available information to determine appropriate methods for staging and sequencing the work to carry out construction. Working drawings and construction related submittals shall be submitted for the Engineer's review as required in Section 6-03.

Anticipated sequence of construction:

1. Install tree protection, install pedestrian and cyclist detour routes, and secure the site perimeters.
2. Clear and grub along temporary access routes and staging areas. Construct temporary access roads to facilitate construction.
3. Excavate as noted for the substructure and approaches.
4. Install drilled shaft foundations.
5. Complete abutment walls at A1 and A12.
6. Complete Piers P2 to P11 per the Plans.
7. Set up shoring and formwork to cast the concrete approach ramps in place.
8. Prefabricate steelwork off site and deliver to site for assembly in the staging area.
9. Install steel framing and complete the welded and bolted connections per the Plans. Apply paint mid- and top-coats in the field. Install the roof system while in the staging area.
10. During night closure, move the arch span onto the highway and place span on main piers using crane(s).
11. Cast concrete deck across main span.
12. Install railings and throw barriers per the Plans.
13. Install electrical and lighting.

The Contractor shall consider the following timeframes when sequencing the work:

- It is preferred that construction of the west ramp takes place outside of the summer months (i.e., avoid construction during July and August).
- It is preferred that construction of the east ramp takes place outside of school session (i.e., construct during July and August).

SHOP DRAWINGS

Suggested Construction Staging is shown on the Plans. The Contractor shall be responsible to submit Work Plan shop drawings to the Engineer for review. Work plan shop drawing shall include, but not limited to, the following:

1. Main span steel framing drawings shown on the Plans.
2. Include Erection Methods in accordance to Standard Specifications 6-03.3(7)A
3. The bridge construction staging areas shall be limited to the clearing limits shown on the Plans.

6-01.13 Structure Surveying

Replace this section with the following:

(*****)

The Contractor shall be responsible for setting, maintaining, and resetting all alignment stakes, slope stakes, and grades necessary for the construction of the bridge. Except for the survey control data to be furnished by the Contracting Agency, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility.

The Contractor shall inform the Engineer when monuments are discovered that were not identified in the Plans and construction activity may disturb or damage the monuments. All monuments noted on the Plans "DO NOT DISTURB" shall be protected throughout the length of the project or be replaced at the Contractor's expense.

Detailed survey records shall be maintained, including a description of the work performed on each shift, the methods utilized, and the control points used. The record shall be adequate to allow the survey to be reproduced. A copy of each day's record shall be provided to the Engineer within three (3) working days after the end of the shift.

The survey work by the Contractor shall include but not be limited to the following:

1. Establish, by placing hubs and/or marked stakes, the location with offsets of foundation shafts and piles.
2. Establish offsets to footing centerline for structure excavation.
3. Establish offsets to footing centerline for footing forms.
4. Establish wing wall horizontal alignment.
5. Establish top of embankment profile grade.
6. Establish elevation benchmarks for all substructure formwork.

7. Check elevations at top of footing concrete line inside footing formwork immediately prior to concrete placement.
8. Check column location and pier centerline of bearing at top of footing immediately prior to concrete placement.
9. Establish location and plumbness of column forms and monitor column plumbness during concrete placement.
10. Establish pier top and bottom elevations and centerline of bearing.
11. Check pier top and bottom elevations and centerline of bearing prior to and during concrete placement.
12. Establish grout pad locations and elevations.
13. Establish structure bearing locations and elevations, including locations of anchor bolt assemblies.
14. Establish girder alignment, profiles and locations.
15. Establish deck slab grades and provide dimensions from top of girder webs to top of deck slab. Set elevations for deck screed rails.
16. Establish curb profile.
17. Falsework should be set to the cambered elevation prior to the placement of any dead load or construction live load that may affect the girder's profile.

The Contractor shall provide the Contracting Agency copies of any calculations and staking data when requested by the Engineer.

The Contractor shall submit the computed elevations at the top of bridge decks as a Type 2 Working Drawing. The elevations shall be computed at tenth points along the centerline of each girder web at the intersection with the deck soffit.

The Contractor shall ensure a surveying accuracy within the following tolerances:

	<u>Vertical</u>	<u>Horizontal</u>
1. Stationing on structures		0.02 feet
2. Alignment on structures		0.02 feet
3. Superstructure elevations	0.01 feet variation from Plan elevation.	
4. Substructure	0.02 feet variation from Plan grades.	

The Contracting Agency may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking by the Contractor.

When staking the following items, the Contractor shall perform independent checks from different secondary control to ensure that the points staked for these items are within the specified survey accuracy tolerances:

- Shafts
- Footings

- Columns

The Contractor shall calculate coordinates for the points associated with shafts, footings and columns. The Engineer will verify these coordinates prior to issuing approval to the Contractor for commencing with the survey work. The Contracting Agency will require up to seven (7) calendar days from the date the data is received to issuing approval.

Add the following Section:

6-01.17 Measurement

(*****)

Construction Staging requirements for the bridge shall be considered incidental to the other bid items for construction of the bridge.

Construction staging shall include labor, tools, equipment, and materials necessary for the following:

- Prepare and submit Work Plan shop drawings;
- Mobilization and demobilization of construction cranes and other bridge construction equipment;
- Furnish, construct, and remove temporary access and surfacing for cranes, equipment, laydown, etc.;
- Measures to protect and not disturb existing utilities;
- Bridge construction safety measures;
- Contractor's consultant fees;
- Prepare agenda and host bridge pre-construction conference;
- Meeting all applicable permit conditions; and
- Other applicable work described in the Plans.

Traffic control associated with the mobilization/demobilization of cranes or heavy equipment shall be included under the applicable traffic control bid items.

Restoration following demobilization shall be included under applicable Mitigation bid items.

6-01.18 Payment

No separate payment will be made for construction staging.

"Structure Surveying", lump sum.

The lump sum bid price for "Structure Surveying" shall be full compensation for costs of all labor, equipment, tools, materials, and supervision necessary to perform the work specified, including any resurveying, checking, correction of errors, replacement of missing or damaged stakes, and coordination efforts.

6-02 CONCRETE STRUCTURES

6-02.2 Materials

Supplement this section with the following:

(*****)

Inserts and hardware for the hanging baskets shall be stainless steel.

6-02.3 Construction Requirements

6-02.3(2)A1 Contractor Mix Design for Concrete Class 4000D

Supplement this section with the following:

(*****)

Replace bullet point #1 in this Section with the following:

1. Aggregate shall use combined gradation in accordance with Section 9-03.1(5) with a nominal maximum aggregate size of 3/4 inches.

Any testing shall be conducted by the Contractor to comply with the Standard Specification requirements with adequate timing to avoid delaying any planned concrete work.

6-02.3(4) Ready-Mix Concrete

6-02.3(4)D TEMPERATURE AND TIME FOR PLACEMENT

Supplement this Section with the following:

(*****)

When air temperature is between 80 and 90 degrees F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 degrees F, reduce mixing and delivery time to 60 minutes.

6-02.3(5) Acceptance of Concrete

6-02.3(5)D Test Methods

Replace the second sentence with the following:

(*****)

Acceptance testing will be performed by the Contractor in accordance with the WSDOT Materials Manual M 46-01. The Contractor shall utilize a certified laboratory to conduct the testing.

6-02.3(5)G Sampling and Testing for Temperature, Consistency, and Air Content

Replace the first sentence with the following:

(*****)

The Contractor shall perform acceptance testing on all concrete for temperature and air content.

6-02.3(6) Placing Concrete

Supplement this section with the following:

(*****)

Contractor shall coordinate locations of conduit, junction boxes, and other embedded items with reinforcement locations prior to concrete pour in order to avoid conflicts. Contractor shall provide notice to allow the Engineer to inspect the work at least 24 hours prior to the planned pour time to allow time for any adjustments to be made. The Contractor shall plan their schedule to account for this timing requirement.

Contractor shall provide reinforcing shop drawings to show reinforcing layout overlaid with embedded elements for Engineer review prior to concrete placement.

If the bearing pressure from the superstructure formwork shoring exceeds the allowable pressures over buried utilities, the Contractor shall utilize road plates or other methods to ensure pressures are evenly distributed.

At the approach span columns, the embeds for the hanging baskets shall be coordinated with the exact bracket geometry before the column pour. Contractor shall provide the timing for when the City shall provide the brackets a minimum of ten (10) working days prior to the planned column pour.

Contractor shall provide a detailed pour sequence plan for all superstructure elements, including the approach structures, stairs, and main span deck. The pour plan shall clearly show the locations of proposed construction joints, and details on how those joints will be achieved. Additional construction joint locations proposed by the Contractor that are not shown on the Plans shall be submitted for approval by the Engineer.

At the main arch span, bridge deck concrete shall be placed on galvanized stay-in-place (SIP) corrugated steel deck forms as shown on the Plans, unless noted otherwise. Steel forms shall be secured using spot welds or mechanical fasteners to the steel superstructure framing prior to concrete pour. The forms shall be placed such that the wider flutes of the corrugations are placed along the bottom and filled with concrete, as shown on the Plans.

For the main span deck pour, all edges of the deck shall have concrete spill protection and containment fabric to a minimum height of 4' above finished concrete elevation along each edge to ensure containment of all wet concrete during deck pours. Contractor shall submit a spill prevention plan as a part of the concrete pour plan for Engineer's review. The plan shall show the details for how the fabric is secured along the bottom and upper edges.

Contractor shall notify the Engineer a minimum of three (3) working days prior to any concrete pour for the structure to allow the Engineer to conduct a reinforcement placement inspection a minimum of 24 hrs prior to the scheduled pour.

6-02.3(10)D5 Bridge Deck Concrete Finishing and Texturing

Supplement this section with the following:

(*****)

The fourth paragraph of Section 6-02.3(10)D5 is revised with the following:

The Contractor shall texture the concrete bridge deck surface in a transverse direction, perpendicular with centerline. The Contractor shall texture the bridge deck surface to within 1-inches minimum and 3-inches maximum of the edge of concrete at expansion joints, within 2-inches minimum and 4-inches maximum of the curb line, and within 1-inches minimum and 4-inches maximum of the perimeter of local dishing at bridge drain assemblies as shown in the Plans.

6-02.3(11) Curing Concrete

Supplement this section with the following:

(*****)

New concrete for pedestals shall cure for a minimum of 14 days or until the new concrete reaches the design 28-day compressive strength, whichever is longer, prior to placement of bearings and erection of bridge superstructure.

6-02.3(11)B2 Curing

The fourth paragraph of this Section is replaced with the following:

(*****)

Burlap and reflective sheeting shall be used for curing. Proprietary curing blanket systems shall not be permitted. Soaker hoses shall be used for providing water during the curing period.

6-02.3(13) Expansion Joints

Supplement this section with the following:

(*****)

The expansion joint system shall be installed in accordance with the manufacturer's written recommendations. The Contractor shall submit the manufacturer's written installation procedure to the Engineer prior to installing the expansion joint system.

(*****)

Cover plates, where shown on the Plans, shall be one of the following:

- Watson Bowman SafetyFlex Elastomeric Hinged Cover System
- Stainless steel cover plate with all walking surfaces receiving slip-resistant coating from one of the following suppliers:

- MEBAC #3 (www.ikg.com/mebac-anti-slip-floor-coating/)
- Algrip (www.gratingpacific.com/product/algrip-slip-resistant-floor-plate/)
- Slipnot Grade 2 (www.slipnot.com)
- Or approved equivalent.

The alternative stainless steel plates shall use chamfered edges at 2H:1V and be recessed to be flush with the walking surface as shown on the Plans. The plate shall be fit to the deck and any unevenness shall be ground down to the satisfaction of the Engineer to ensure the plates fit tight to the concrete surface. A Type 1 Shop Drawing shall be developed for the cover plates and approved by the Engineer.

6-02.3(14) Finishing Concrete Surfaces

Supplement this section with the following:

(*****)

The Contractor shall texture the concrete bridge deck surface with a medium broom finish in the transverse direction, perpendicular with the pathway centerline.

6-02.3(14)C Pigmented Sealer for Concrete Surfaces

Section 6-02.3(14)C is supplemented with the following:

The color of the pigmented sealer for all exposed concrete surfaces shall be: "Washington Gray".

For the vertical reveal at Piers 6 and 7, pigmented sealer in the color of "Cascade Green" shall be used. Any pipes mounted within the reveal shall be painted the same color green to match.

Unless noted otherwise, all exposed concrete faces, except the top of deck, shall receive pigmented sealer. The top surface of the abutment bearing seat and pedestals do not require pigmented sealer.

6-02.3(14)D Concrete Surface Finishes Produced by Form Liners

Section 6-02.3(14)D is supplemented with the following:

Abutment A1 and A12 concrete surfaces specified in the Plans shall receive a WSDOT Standard Variable Depth Random Board Finish oriented in a vertical orientation.

6-02.3(16) Plans for Falsework and Formwork

Section 6-02.3(19) is supplemented with the following:

Construction submittals for the falsework and shoring to cast the approach ramps superstructure and stairs shall be provided a minimum of twenty (20) working days prior to the start of construction for these items.

Falsework used to support the superstructure concrete pour shall have less than 1/4-inch of settlement as demonstrated by the Contractor's engineer. Ground pressures under the falsework support towers shall be kept below 300 psf.

This shall be achieved by one of the following approaches:

1. Ground preparation and use of standard steel roadway plates placed under support towers to distribute loads. The ground preparation shall follow clearing and grubbing to by compacting fill material to 95% Modified Proctor density, placement of geofabric, and temporary quarry spalls.
2. Designing the falsework to be supported from the columns and/or drilled shaft foundations.

Formwork for the girders in the curves shall utilize technology, such as CNC expanded polystyrene coated with epoxy hardening agent, to ensure the girder soffit profiles are smooth and uniform without seamlines. The 3D surface geometry of the girder and deck can be provided by the Engineer to the Contractor upon request. Smaller pieces of rigid foam may be assembled on site and secured to the falsework to ensure it does not float during the deck pour. Protection of the foam surface shall be maintained to avoid punching through the epoxy due to point loads. Foam or wood forms are acceptable in the tangent sections of the approach ramp structure but both shall be smooth curves in profile free of kinks.

6-02.3(19) Bridge Bearings

Section 6-02.3(19) is supplemented with the following:

Reinforced elastomer pad bearings shall be provided at locations as shown on the Drawings.

The Contractor shall design the bearing assemblies based on the current AASHTO LRFD Bridge Design Specifications, including latest interims, and also based on the following:

1. The bearing assembly design requirements for loads, movements, and rotations shall be as shown on the Drawings.
2. The bearing assembly shall be removable and replaceable by raising the bridge superstructure 1/8 inch maximum at the abutments. The main span bearings may be raised 1/2 inch.

The Contractor may submit design calculations for all the bearing components to the Engineer for approval. The design calculations shall accompany the shop Drawings. The calculations shall provide, but not be limited to the following information:

1. Compressive stresses in the bearing due to applied loads at maximum design load and eccentricity.
2. Concrete bearing pressure under the bearing at maximum bearing pressure and eccentricity.

The Contractor shall not begin bearing fabrication until receiving the Engineer's written approval of the calculations.

The Contractor shall submit shop drawings to the Engineer for approval in accordance with Section 6-03.3(7). These drawings shall include but not be limited to the following information:

1. Minimum and maximum horizontal and vertical service loads.
2. Magnitude and direction of movements at all bearing support points.
3. Minimum and maximum rotation capacity.
4. Construction rotation requirements, per the Contractor's approved construction sequence.
5. Plan and elevation of the assembled bearing and each of the components showing dimensions and tolerances.
6. Complete details of all components and sections showing all materials incorporated into the bearing.
7. All AASHTO, ASTM, and other material designations.
8. All surface finishes, including the corrosion protection method.
9. Bearing manufacturer's recommendations and procedures for bearing assembly shipment, storage, and installation.

The Contractor shall not begin fabricating the bearings until receiving the Engineer's approval of the shop drawings.

6-02.3(19)B Bridge Bearing Assemblies

Supplement this section with the following:

(*****)

Seismic Isolation Bearings

This work shall consist of furnishing Seismic Isolation Bearings and installing lead-rubber bearing assemblies at the locations shown on the plans in accordance with these specifications, the AASHTO LRFD Bridge Design and Construction Specifications, and the AASHTO Guide Specifications for Seismic Isolation Design. Bearing assemblies shall include the seismic isolation bearings (isolators), top and bottom mounting plates, tapered sole plates, base plates, anchor rods, and connection hardware.

The isolator dimensions shown on the Plans are based on the maximum footprint for the bearings, for the purpose of determining beam seat elevations and connection details. Final isolator dimensions may vary from that shown. The Contractor is responsible for making any necessary adjustments to accommodate final isolator dimensions.

Design Requirements

Isolation bearings shall be designed and constructed in accordance with the current AASHTO LRFD Bridge Design Specifications and AASHTO LRFD Bridge Construction Specifications for non-seismic loading conditions. Seismic design, performance, and testing shall be assessed in accordance with the current edition of the AASHTO Guide Specifications for Seismic Isolation Design.

Additionally, the Contractor shall design the bearing assemblies to the following requirements:

1. The bearing assembly design requirements for loads, movements, and rotations shall be as shown in the Plans.
2. The bearing assembly shall be removable and replaceable by raising the bridge superstructure 4 inches maximum.
3. The anchorage of the sole plates and base plates to the supporting structural elements shall be designed for the 1.25 times the maximum horizontal design force per bearing shown in the Plans.
4. The sole and base plates shall have leveling capabilities.

Seismic Isolation Bearings shall have the following characteristics:

1. All isolators shall be designed for the loads, deformations and characteristics shown in the Plans.
2. The allowable displacements under seismic loading combinations shall be limited to a target of 4.7 inches in the orthogonal (longitudinal and transverse) directions along the bridge.
3. The bearing shall transfer a force no greater than 60 kips in the orthogonal directions to the existing pier substructures under seismic loading combinations. Force deflection characteristics should be based on an assumed nominal bearing effective stiffness of 12 k/in.
4. The bearing assembly, including tapered sole plates and base plates, shall not exceed 10.5 inches in height. The plan dimensions of the bearing assembly, including sole plates, base plates, and accessories, shall not exceed 34 inches in the transverse or longitudinal directions.

Seismic forces and displacements for all structures generated using these parameters shall be substantiated using analyses per AASHTO LRFD specifications. Analytical results for each structure shall be submitted to the Engineer for approval at the time of the pre-construction conference. Conformance of alternate isolation systems shall be substantiated analytically, at no cost to the Contracting Agency, using the same methodology as the system shown in the Plans. The analysis model shall be an accurate representation of each bridge structure, the soil and foundations, and the isolation system.

Submittals

Design Calculations

Prior to fabrication, the Contractor shall submit design calculations for all the bearing assembly components, including the isolators, top and bottom mounting plates, tapered sole plates, base plates, welded attachment to arch knuckles, and anchor rod attachment to substructure

to the Engineer for approval. The submittal of calculations shall follow the requirements for Type 2E Working Drawings. The design calculations shall accompany the shop plans and shall be signed/sealed by a Professional Engineer registered in the State of Washington.

The calculations shall provide, but not be limited to the following information:

1. Bending stresses in the plates due to bearing pressure at maximum design load and eccentricity.
2. Concrete bearing pressure under the plates at maximum bearing pressure and eccentricity.
3. Bearing clearances at maximum load and rotation, including allowance for uncertainties per Section 14.4.2.2.2 of the AASHTO LRFD Bridge Design Specifications. The calculated clearances shall include the effects of anticipated initial set and modified center of rotation.
4. Design of all connections.

The Contractor shall not begin bearing fabrication until receiving the Engineer's written approval of the calculations.

Bearing Manufacturer Requirements

The seismic isolation bearing manufacturer shall have a minimum of five (5) years of experience in fabrication of seismic isolation bearings and shall meet additional testing requirements as specified in this Special Provision.

The Contractor shall submit the name of the seismic isolation bearing manufacturer with a certification of seismic isolation bearing manufacturing experience to the Engineer for approval. The certification of experience shall include a list of at least five (5) seismic isolation bearing installations performed by the bearing manufacturer on previous projects. The list shall include the following information for each installation:

1. Project Name and Location (include bridge name and highway number, if applicable).
2. Date of installation.
3. Contracting Agency.
4. Contact information of Contracting Agency's representative, including name, address, email, and phone number.
5. Type and size of bearing.
6. Total bearing count used on project.

The Contractor shall not begin preparation of the design calculations and shop plans until receiving the Engineer's written approval of the bearing manufacturer's certification of experience.

Shop Drawings

The Contractor shall submit shop drawings to the Engineer for approval in accordance with Section 6-03.3(7) as Type 2E Working Drawings. These drawings shall include but not be limited to the following information:

1. Bearing schedule identifying location and bearing type.
2. Minimum and maximum horizontal and vertical service loads.
3. Magnitude and direction of movements at all bearing support points.
4. Minimum and maximum rotation capacity.
5. Construction rotation requirements, per the Contractor's approved construction sequence.
6. Plan and elevation of the assembled bearing and each of the components showing dimensions and tolerances.
7. Connection details for attachment to structural assemblies above and below the isolators.
8. Complete details of all components and sections showing all materials incorporated into the bearing.
9. All AASHTO, ASTM, and other material designations.
10. All surface finishes, including the corrosion protection method.
11. Bearing manufacturer's recommendations and procedures for bearing assembly shipment, storage, and installation. This shall include the initial setting and adjustments at various temperatures.

The Contractor shall coordinate any required changes to adjacent elements from that shown on the plans based on final isolator dimensions. Contractor shall prepare calculations supporting the proposed changes and shall submit them together with the isolator shop drawings.

The Contractor shall not begin fabricating the bearings until receiving the Engineer's approval of the shop drawings.

Shop Inspection

The manufacturer shall provide for inspection. Inspection during the fabrication process shall ensure that the materials and workmanship meet the requirements of the contract.

Quality Assurance Inspection and Final Shop Inspection shall be performed by an independent inspection entity approved by the Engineer. The Contractor shall submit the name, address, phone number and contact person of the inspection entity performing the required certified shop inspection of the bearings to the Engineer for approval. The Contractor

shall not begin bearing fabrication until receiving the Engineer's written approval of the inspection entity for certified shop inspection.

Bearing Testing Procedure

The Contractor shall submit the name, address, phone number, and contact person of the testing entity performing the required bearing testing to the Engineer for approval.

The testing entity shall be one of the following:

1. An independent testing agency.
2. The bearing manufacturer, with independent verification by the inspection entity performing the certified shop inspection of the bearings.

The Contractor shall not begin bearing fabrication until receiving the Engineer's written approval of the testing entity.

Quality Control testing shall be performed in accordance with AASHTO Guide Specifications for Seismic Isolation Design.

Each bearing shall be visually examined both during and after testing. Any resultant defects, such as permanently extruded or severely deformed elastomer, shall be cause for rejection.

Bearing Assembly Inspection Reports and Certificates

The Contractor shall submit the daily inspection reports of the independent inspection entity performing the required certified shop inspection to the Engineer for approval. The daily inspection reports shall report on the shop fabrication and testing activities relating to the bearing assemblies, and their conformance to the specification requirements.

The Contractor shall submit material certifications, certificates of compliance, test results, and written documentation from the bearing manufacturer certifying that the bearing assemblies have been manufactured in full compliance with the specification requirements. If prototype tests are performed, Contractor shall submit both prototype test results and QC test results.

The Contractor shall not ship the bearing assemblies from the fabricator's facility until receiving the Engineer's approval of the certified shop inspection daily inspection reports and the bearing manufacturer's certificate of compliance.

Manufacturing Tolerances

Manufacturing tolerances for the bearings are as follows:

Sole and Base Plates

Plan dimensions:	-0.00, +3/16 inch
Thickness:	-0.00, +1/8 inch
Flatness:	Class A tolerance, side in contact with steel Class C tolerance, side in contact with grout or concrete

Overall Dimensions of Isolator Bearing

Total thickness:	-1/8, +1/4 inch
External plan dimensions	-1/4, +1/4 inch
Variation between top and bottom surface	<0.005 rad
Variation of sides from theoretical	-1/4, +1/4 inch

The edges of all components shall be ground so that there are no sharp edges.

Special Fabrication Requirements

When the following components are shown in the Plans as part of the seismic isolation bearing assembly, the following special fabrication requirements shall apply:

Tapered Sole Plate and Base Plate

The tapered sole plate and base plate shall be one (1) inch minimum thickness, unless otherwise shown in the Plans.

Corrosion Protection

Tapered sole plates and top plates shall be made of steel compatible with the main arch steel span. Steel surfaces including the base plate, except as otherwise specified, shall be painted in accordance with Section 6-07.3(9), and Section 6-03.3(30) as supplemented in these Special Provisions. Galvanized fastening hardware (anchor bolts, bolts, nuts and washers) shall be painted in accordance with Section 6-07.3(11)A.

All coats of paint as specified in Section 6-07.3(9)A for steel surfaces shall be applied in the shop. After the bearing assembly has been erected in its final position with the anchor bolt nuts installed, all surfaces with damaged paint shall be repaired in accordance with Section 6-07.3(9)I.

Each isolator shall be marked with the isolator serial number specified by the manufacturer.

Bearing Testing

The Contractor shall provide for testing of the bearings. The testing shall be performed by the testing entity submitted by the Contractor and approved by the Engineer as specified in the *Bearing Testing Procedure* subsection of this Special Provision.

All testing specified by this Special Provision performed by the bearing manufacturer shall be witnessed by the inspection entity performing the certified shop inspection of the bearings.

Prototype Tests:

Isolation system suppliers who have submitted characterization test results by means of the evaluation findings of the Highway Innovative Technology Evaluation Center shall perform prototype tests in accordance with Section 13.2.2 and 13.2.3; results shall be evaluated per Section 13.3 of the AASHTO Guide Specification for Seismic Isolation Design. Suppliers without HITEC results shall perform prototype tests in accordance with Section 13 in its entirety.

Prototype test results from similar isolators may be provided in lieu of tests performed on the isolators for the subject project. Tests shall have been performed on complete, assembled isolators.

Quality Control Tests:

Each isolator shall be tested and evaluated in accordance with the requirements of the AASHTO Guide Specifications for Seismic Isolation Design, Section 15.2. Only tests on complete isolator units will be accepted. Any bearing that fails to satisfy the requirements shall be rejected.

Bearing Inspection and Acceptance

Three levels of inspection shall be satisfied before the bearings are accepted. These are: Quality Control Inspection, Quality Assurance Inspection, and Final Shop Inspection. The manufacturer shall provide for both Quality Control and Quality Assurance Inspection. The manufacturer shall provide access for the Final Shop Inspection. The three levels of inspection are described below:

1. Quality Control Inspection

During the fabrication process of all major components, the manufacturer shall provide full time Quality Control Inspection to ensure that the materials and workmanship meet or exceed the minimum requirements of the contract. Quality Control Inspection shall be the responsibility of the manufacturer's quality control group that shall be independent of the fabrication group.

2. Quality Assurance Inspection

Quality Assurance Inspection shall be performed by the independent inspection entity performing the certified shop inspection, as submitted by the Contractor and approved by the Engineer. The independent inspection entity, the proposed Quality Assurance Inspection Program, and the forms to be used for the Quality Assurance Program shall be submitted to the Engineer for approval prior to the start of fabrication. Quality Assurance Inspection is not required to be full time inspection, but shall be done at all phases of the manufacturing process. The frequency of inspection shall be included in the Quality Assurance Inspection Program.

3. Final Shop Inspection

Prior to shipping the bearings to the job site, a representative number of bearings shall be inspected by the independent inspection entity at the manufacturer's facility. The manufacturer shall provide a clean, dry, and enclosed area for the bearing inspection. The manufacturer shall disassemble and reassemble the bearings for inspection by the Independent Inspection Agency. The independent inspection entity shall certify that the bearings have been inspected, and that the bearings have been manufactured in full compliance with the contract requirements.

The bearings shall satisfy each of the three levels of inspection described above before they will be accepted. Bearings that fail any one of the three levels of inspection shall be replaced or repaired as approved by the Engineer at no additional expense to the Contracting Agency.

All proposed corrective procedures shall be submitted by the Contractor to the Engineer for approval before beginning corrective work.

Bearing Component Assembly, Shipping, and Storage

Each bearing shall be fully assembled at the manufacturing plant and delivered to the construction site as a complete unit, ready for installation. Softeners shall be placed under the restraints to protect all painted surfaces. The Contractor shall not damage the painted surfaces while shipping, storing and installing the bearing assemblies.

All bearing assemblies including raised plates shall be marked with the following information prior to shipping:

1. Location of the bearing, including the bearing identifier from the Plans, pier number, and the specific location along the pier.
2. Direction arrow pointing in the upstation direction.

The above information shall be marked on the top plate of the upper unit of the bearing assembly. The marks shall be permanent and shall be visible after bearing installation.

The bearing assemblies shall have centerlines marked on both top plate for checking alignment in the field.

The bearing assemblies shall be shipped in light-proof, moisture-proof and dust-proof containers.

Bearing Assembly Field Inspection

Field inspection of a representative number of bearings assemblies will be performed by the Engineer. The Contractor shall provide a clean, dry and enclosed area at the site, spacious enough for the field inspection activities.

Bearings that fail the inspection shall be replaced or repaired by the Contractor, as approved by the Engineer, at no additional expense to the Contracting Agency. All proposed corrective procedures shall be submitted by the Contractor to the Engineer for approval before beginning corrective work.

Bearing Assembly Installation

The Contractor shall install the bearings in accordance with the installation procedure included with the shop drawing submittal as approved by the Engineer.

Bearings shall be installed in accordance with the alignment plan and installation scheme as shown on the Plans. The bearings shall be installed level and normal to gravity loads; superstructure gradients should be accommodated with tapered sole plates.

Installation shall take place within the ambient temperature range specified in the Plans. Installation outside this range shall be accommodated by imposing the appropriate offset for the temperature at the time of installation, or by determining if excess capacity is available in the isolator to withstand the additional imposed thermal deformation.

Under no circumstances shall the plate adjacent to the isolator be allowed to reach more than 200°F.

Upon final installation of the bearings, the Contractor shall inspect the bearing components to assure that they are level and squared to the alignment to within ± 0.005 radians. Any deviations in excess of the allowed tolerances shall be corrected.

Contractor shall provide a complete record of the location of each installed isolator, by serial number, to the Contracting Agency and Engineer.

There shall be no obstructions, including bolt extensions, which prevent the isolators from deforming horizontally in any direction. The area around each isolator shall be cleaned of all debris and construction material at the completion of the contract.

Future Bearing Assembly Maintenance and Inspection

The Contractor and bearing supplier shall provide maintenance and inspection requirements to ensure that the isolators will function properly during the design life and after seismic events.

6-02.3(24) Reinforcement

Section 6-02.3(24) is supplemented with the following:

(*****)

Prior to fabricating any reinforcing steel, the Contractor shall submit Type 2 Working Drawings (placing drawings and bending lists) for review by the Engineer. Working Drawings shall be prepared in accordance with the CRSI Manual of Standard Practice and the ACI Detailing Manual. Placing drawings shall show the location of all concrete construction joints and rebar lap splices.

Section 6-02.3(24)A is supplemented with the following:

(*****)

Do not field bend or field weld reinforcement except where indicated or authorized by the Engineer.

6-02.4 Measurement

Section 6-02.4 is supplemented with the following:

(*****)

“Elastomeric Bearing - Superstr.” will be measured per each for each bearing assembly furnished and installed.

"Isolation Bearing - Superstr." will be measured per each for each bearing assembly furnished and installed.

"Deck Joint – Cover Plate" will be measured per each for each cover plate assembly furnished and installed.

"Cast-in-Place Slab – Climbing Wall" will be measured per square foot for the slab underneath the climbing wall at the west approach embankment.

"Concrete Running Surface" will be measured per square foot for the concrete slabs at the approach embankments for the pathway on grade on either side of the bridge. The rubberized surface over the concrete, the climbing holds and bolts into the slab shall be installed under a separate contract.

"Approach Slab" contains the following approximate quantities of materials and work, but does not represent all work included in this item:

CIP Concrete (Class 4000A)	31 SY
Steel Reinforcing Bar Gr. 60	1700 LB

The quantities are listed only for the convenience of the Contractor to assist in determining the volume of work involved and are not guaranteed to be accurate. The prospective bidders shall verify these quantities before submitting a bid. No adjustments other than for approved changes will be made in the lump sum contract price for "Bridge Approach Slab" even though the actual quantities required may deviate from those listed.

6-02.5 Payment

Section 6-02.5 is supplemented with the following:

"Elastomeric Bearing - Superstr.", per each.

"Isolation Bearing - Superstr.", per each.

"Deck Joint – Cover Plate", per each. The average unit price of the two sizes at the abutment and pier shall be used.

"Cast-in-Place Slab – Climbing Wall", per square foot.

"Concrete Running Surface", per square foot.

For the purpose of payment, such bridge and structure items for which there is no pay item included in the proposal are considered as bridge and structure minor items. All costs in connection with furnishing and installing these minor items as shown and noted in the Plans and as outlined in these specifications and in the Standard Specifications shall be included in "Conc. Class 4000 for Bridge (Abutments and Piers)" and "Conc. Class 4000D for Bridge (Bridge Deck)".

Stainless steel threaded inserts for the hanging baskets, metal conduit attached to columns for routing irrigation hoses, stainless steel mounting attachments for irrigation to hanging baskets, and chains at bridge deck drains shall be considered minor items to be included with

the "Conc. Class 4000 for Bridge (Abutments and Piers)" bid item. The Contracting Agency will supply hanging baskets, metal brackets, and drain chains for Contractor to install, which shall be considered incidental to the "Conc. Class 4000 for Bridge (Abutments and Piers)" bid item. The Contractor shall install the irrigation lines.

No separate payment will be made for the Work to coordinate with all underground utility owners and to protect underground utilities that may be affected by the approach ramp construction. This Work shall be incidental to construction.

6-03 STEEL STRUCTURES

6-03.3 Construction Requirements

6-03.3(7) Shop Plans

Supplement this section with the following:

(*****)

The Contractor shall submit drawings and documents that identify interface items and maps out the fabrication process.

6-03.3(7)A Erection Methods

Supplement this section with the following:

(*****)

The Contractor shall conduct a Pre-Pick Safety Meeting with the Engineer after addressing comments on the Type 2E Working Drawings, and prior to erecting any steel members, to review the erection plan and procedures on site. Representatives of the Contractor, the Contracting Agency, and Engineer shall attend and participate in the Pre-Pick Safety Meeting to confirm the methods the Contractor intends to use are acceptable. Final review and approval of the Type 2E Working Drawings will not be completed until after this meeting.

6-03.3(9) Handling, Storage, and Shipping of Materials

Supplement this section with the following:

(*****)

Steel shall be handled to keep it clean of dirt and free of gouges, scratches or dents. Members shall be padded appropriately during transit and handled with slings. Chains shall not be used for handling the steel members.

For short-term storage, all members shall be raised off the ground a minimum 12 inches and placed on wood or metal blocking, skids, or platforms. If mud is present within 10-ft of the stored members, the Engineer may require mitigation measure to ensure mud splatter does not impact the stored members.

Steel shall be sloped to allow free drainage of water. Rolled beams shall be stored with the webs in an upright position. Surface finish of stored steel members shall be inspected periodically. Steel members awaiting erection shall minimize the time stored in yards or at the project site.

6-03.3(25) Welding and Repair Welding

The second paragraph of Section 6-03.3(25) is replaced with the following:

(*****)

All complete joint penetration welds shall be inspected by ultrasonic testing.

6-03.3(25)A1 Visual Inspection

Supplement the first paragraph with the following:

(*****)

All completed welds shall maintain a uniform amplitude less than 1/32 inch along their length.

6-03.3(25)A2 Radiographic Inspection

The first sentence of Section 6-03.3(25)A2 is deleted.

6-03.3(27) High-Strength Bolt Holes

The second paragraph of Section 6-03.3(27) is replaced with the following:

(*****)

Bolt hole sizing shall follow the requirements of AASHTO LRFD Bridge Design Specifications, unless otherwise noted on the Plans.

6-03.3(28) Shop Assembly

6-03.3(28)A Method of Shop Assembly

Section 6-03.3(28)A is supplemented with the following:

(*****)

Anchor bolt templates shall be fabricated in the same shop in which the arch is assembled, and then shipped to site with anchor bolts attached to template plate.

6-03.3(28)B Check of Shop Assembly

Section 6-03.3(28)B is supplemented with the following:

(*****)

If an assembly or stage of assembly is not accepted by the Engineer, deficiencies shall be corrected and the assembly or stage of assembly shall be resubmitted to the Engineer for acceptance. If the deficiency impacts the schedule, there shall be no delay claims by the Contractor.

6-03.3(30) Painting

Supplement this section with the following:

(*****)

Paint for the new steel, excluding Bridge Railing shall be applied in accordance with Section 6-07.3(9). The color of the top coat, when dry, shall match Federal Standard 595 Paint Specification Color: "Black" FS 17038.

A color swatch shall be submitted for approval prior to ordering the paint topcoat.

A mockup shall be submitted for approval, consisting of a painted 36" long section of the arch rib.

The primer coat shall be applied in the shop to all steelwork used in the arch span. The midcoat and topcoat shall be applied in the field for all bridge structural steel. Areas where field welds are required shall be masked off at least an inch from the splice.

For main arch floor beams, the top flange of the floor beams shall be painted with a weldable primer.

6-03.3(38) Placing Superstructure

Section 6-03.3(38) is supplemented with the following:

(*****)

Contractor shall submit a steel pick plan for the main arch span a minimum of twenty (20) working days prior to the date of the planned pick. The pick plan shall include, at minimum, details of the equipment required, pick points, anticipated load distributions, movement from the staging area to roadway in preparation of the main lift, and pertinent calculations on the structure and crane capacity.

6-03.4 Measurement

Section 6-03.4 is supplemented with the following:

(*****)

"Structural Carbon Steel – Substr." contains the following approximate quantities of materials and work as shown in the Plans for the east and west stairs, but does not represent all work included in this item:

Rectangular HSS	900 LBS
Steel Plate	375 LBS

"Structural Low Alloy Steel – Superstr." contains the following approximate quantities of materials and work as shown in the Plans for the superstructure, but does not represent all work included in this item:

Steel Plate	40,000 LBS
Rolled W Sections	49,000 LBS
Rolled WT Sections	500 LBS

"Structural Carbon Steel – Superstr." contains the following approximate quantities of materials and work as shown in the Plans for the superstructure, but does not represent all work included in this item:

Round HSS	3,800 LBS
Rectangular HSS	3,000 LBS

The quantities are listed only for the convenience of the Contractor to assist in determining the volume of work involved and are not guaranteed to be accurate. The prospective bidders shall verify these quantities before submitting a bid. No adjustments other than for approved changes will be made in the lump sum contract price for "Structural Carbon Steel – Substr.", "Structural Low Alloy Steel – Superstr.", and "Structural Carbon Steel – Superstr.", even though the actual quantities required may deviate from those listed.

6-03.5 Payment

Section 6-03.5 is supplemented with the following:

(*****)

"Structural Carbon Steel – Substr.", lump sum.

"Structural Low Alloy Steel – Superstr.", lump sum.

"Structural Carbon Steel – Superstr.", lump sum.

The lump sum bid prices for "Structural Carbon Steel - Substr.", "Structural Low Alloy Steel - Superstr.", and "Structural Carbon Steel - Substr." shall be full compensation for costs of all labor, tools, equipment, and materials necessary to furnish and install various steel components of the bridge associated with its respective bid item as described in section 6-03.4 and as shown on the Plans.

For the purposes of payment, such bridge and structures items as bolts, shear connectors, etc. for which there is no pay item included in the proposal, are considered as bridge and structures minor items. All costs in connection with furnishing, installing and testing these bridge and structures minor items as shown and noted in the Plans, the Standard Specifications, and these Special Provisions shall be included in "Structural Carbon Steel - Substr.", "Structural Low Alloy Steel - Superstr.", and "Structural Carbon Steel - Substr." bid items as they are associated.

6-04 TIMBER STRUCTURES

6-04.1 Description

Supplement this section with the following:

(*****)

The rafters shall be cut on their top surface to follow the longitudinal grade of the plywood. The cut surface shall be properly sealed prior to placing the plywood. Lightly sand with 60 to 80-grit sandpaper all surfaces of the Douglas fir elements to open up the grain to ensure adequate absorption of the stain. The Contractor shall stain all surfaces with:

- TWP-100 Clear or TWP-115 Honeytone;
- Armstrong Clark Wood Deck Semi-Transparent stain; or
- Approved equivalent.

The rafters shall be notched at their ends to accommodate the lighting if Schedule C is included in the contract. The final dimensions of the fixture shall be confirmed with the lighting supplier prior to cutting the notch. Ensure no overrun of the cut lines occurs at the notch by taking appropriate measures. A prototype shall be presented to the Engineer for acceptance prior to completing the notch cuts on the remaining rafters.

The plywood for the roof shall be placed in two layers over the rafters following the wood truss installation. The bottom plywood layer shall have the most attractive surface facing downward. Screws shall be installed from the top surface downward to avoid penetrating the bottom surface where it is visible off the rafter lines. The plywood will require warping and shall be secured tightly to the rafters without leaving a gap between the plywood and rafter surface.

Prior to placing the plywood, all cut surfaces shall be stained using the products used on the truss members. The intent is to have the sheets-of-plywood square to the rafters, meaning the longitudinal seams will not follow parallel to the peak of the roof.

The top plywood layer shall be placed with longitudinal seams staggered from the bottom layer. The transverse edges shall be staggered by one truss from the bottom layer. Glue shall be applied per the Plans while placing the top plywood layer to create composite action between the plywood sheets. The surface shall be cleaned and prepared per the glue manufacturer's requirements. The screws used to connect the top-sheet-to-the lower sheet shall not extend through the bottom surface of the lower plywood.

Bird deterrent shall be installed above each cross tie and tensioned so that the line is taut. The piano wire shall be anchored from the eye bolts. To tighten the wire, the eye-bolts can be screwed into the wood leaving a nominal 3"+/- ¼ above the top of wood.

The waterproof membrane shall be secured using means that do not require penetrating the membrane system. Seams shall overlap per manufacturer recommendations and the plywood surface shall be clean and free of dirt, dust and debris using preparation methods that follow the manufacturer recommendations.

Flashing shall be installed on the edges of the roof along the arch ribs as shown on the Plans. The ends of the roof shall utilize green flashing that matches the roof. This flashing shall wrap

around an end board cut per the Plans and attached to the underside of the plywood. Installation of this flashing shall be neat and orderly giving consideration to the highly visible location. The Engineer may require rectifying deficient work.

The standing seam roofing material shall utilize hidden fasteners. Standing seams between sheets shall be installed per the manufacturer requirements. The roofing shall have the standing seams clipped at the low edges and the roofing shall be bent to wrap around the end of the plywood as shown on the plans. A ridge cap shall be compatible with the standing seam roofing product and from the same manufacturer. It shall be secured to the standing seam to ensure it does not shift or uplift during future wind events.

The standing seam roof shall be factory coated with polyvinylidene fluoride (PVDF), using either Kynar 500 or Hylar 5000. The finished paint color shall be in accordance with Section 6-07.

Non-penetrating snow guards shall be installed at each standing seam to help prevent snow and ice from suddenly dislodging and potentially falling onto traffic. The snow guard product shall be durable, compatible with the standing seam product, and submitted for approval by the Engineer.

"Maple Valley" metal sign mounted on either end of the portal roof level will be supplied by the City. The signs shall be connected with grade 316 stainless steel chain 5/16" size, complete with threaded screw-lock quick links at each end for making the connection to the steelwork and sign holes. Contractor will be responsible for installing the sign on the structure.

6-04.4 Measurement

Supplement this section with the following:

(*****)

The lump sum contract price for "Bridge Roof – timber elements, plywood substrate, waterproofing, metal roofing" shall be full pay for all labor, equipment, materials required to furnish and install the roof structure on the main span as shown on the Plans and described in this section.

6-04.5 Payment

Supplement this section with the following:

(*****)

"Bridge Roof – timber elements, plywood substrate, waterproofing, metal roofing", lump sum.

6-06 BRIDGE RAILINGS

6-06.1 Description

Supplement this section with the following:

(*****)

This Work consists of fabricating and constructing powder-coated steel Bridge Railings along the main span, the west and east approach structures, and staircases as shown in the Plans. This Work includes longitudinal pipes, pickets, posts, saddles, and base plates.

The Freestanding Handrail shall be painted.

Anchor rods for the Bridge Railing and Freestanding Handrail shall be galvanized.

The Work includes fabricating, transporting, coating, and installing the Bridge Railings with grab rail, Freestanding Handrail, Throw Barrier, and associated fasteners, grouting, and any touchups per the Plans. The Work also includes the Buried Curb supports.

6-06.2 Materials

Supplement this section with the following:

(*****)

Bridge Railing material shall be as specified in these Special Provisions and in the Plans. Provide materials with smooth surfaces and edges that are ground to eliminate sharp edges and burrs. For metal fabrications exposed to view in the completed Work, provide materials without seam marks, roller marks, rolled trade names, or blemishes with welds neat and smooth.

Tamper resistant bolts shall be Type 316 stainless-steel fasteners for exterior use.

Bridge Railing and Freestanding Handrail shall be comprised of steel tubes and pipes. .

The Throw Barrier shall be Type 316 stainless steel.

6-06.3 Construction Requirements

6-06.3(2) Metal Railings

Supplement this section with the following:

(*****)

Bridge Railing and Freestanding Handrail post and picket orientation shall be plumb. Longitudinal pipe geometry for Bridge Railing shall be parallel to top of curb as represented in the Plans. Longitudinal pipe geometry for Grab Rail and Freestanding Handrail shall be parallel to the walking surface as represented in the Plans.

Railings along the curved portions of the ramps shall be fit up on site during fabrication. For tangent sections, field survey of the as-built conditions shall be used to confirm post lengths and base plate angles.

The Contractor shall shop fabricate and paint the railing panels and wrap the completed sections with protective material prior to shipping to the site to prevent damage to the finish during delivery, storage and construction. Prior to delivery of railing materials, the Contractor shall review and be thoroughly knowledgeable with the fabricator's care and handling recommendations.

Store on site in a location and manner to avoid damage. Stacking shall be done in a manner that will prevent bending. Store material in a clean, dry location away from uncured concrete, masonry, or mud. The Contractor shall protect the railing surfaces from organic solvents such as acetone, benzene, and paint thinner; petroleum-based solvents such as gasoline and diesel fuel; and open flames. Any protection on the railings during transportation shall remain until railing is installed but shall not retain water.

Keep handling on site to a minimum. Exercise caution to avoid damage to railing finish. Components with damage shall be replaced or repaired to satisfaction of the Engineer.

Railings shall be painted as required in the Special Provisions Section 6-07.

Working Drawings shall provide setting diagrams and templates for anchorages.

Add the following section:

(*****)

6-06.3(2)B Throw Barrier

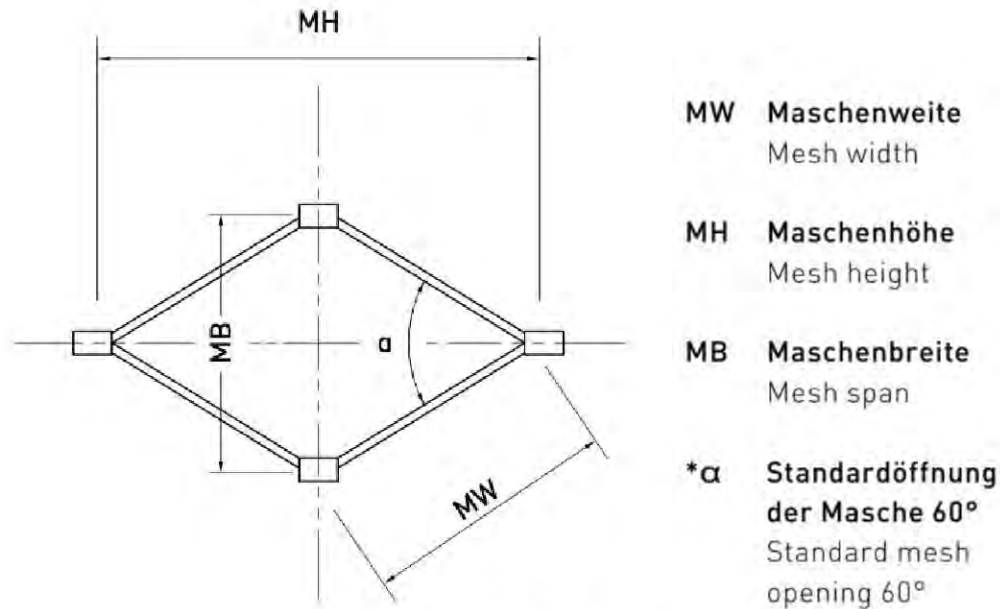
Stainless-Steel Mesh: Carl Stahl X-TEND® Stainless Steel Flexible Mesh Handrail Infill, Jakob Rope Webnet with sleeves, or approved equivalent.

Cable Diameter x Mesh Aperture Dimensions (Width) [x Mesh Height]:

- a. Lower Throw Barrier
 - i. 1.5mm x 60mm [x 104mm]
- b. Upper Throw Barrier
 - i. 1.5mm x 160mm [x 280mm]

Diamond openings shall have 60-degree apex angle with Direction (Grain) of mesh oriented in the horizontal direction.

Store materials at least 2-ft clear above the ground and ensure it is away from excessive dust, mud, and debris.



Reference Carl Stahl

Perimeter Finishes: Closed loops with loose ferrules for 'sewn-on' installation method.

Ferrule Style: seamless ASTM A492 316L stainless steel ferrule.

Attachment cable material: ASTM A492 Type 316 stainless steel 7x7 (or 7x19) wire rope joined with Type 316 stainless steel ferrules.

Accessories: Provide tensioning turnbuckles, grommet, bushings, washers, swaging ferrules, studs, receivers, fittings and other components as required for system installation, all in Type 316 stainless steel.

Installation: Install mesh infill system in accordance with manufacturer's instructions and the approved shop drawings. Mesh infill system shall follow the curvature of the deck of the main span and shall be taut. Terminate and tension mesh in accordance with manufacturer's instructions. Ensure mesh is clean, and without waves, kinks, or sags.

6-06.3(3) Sampling and Testing

Verification Samples: Prepare a mockup of the Bridge Railing representing actual products and finishes as follows:

- Typical railing panels with coating systems, complete with all attachments.
- Grab rail with mechanical attachments.

Mockup Size: Minimum of one 9-ft long module consisting of a minimum of four (4) posts. Do not proceed with remaining work until workmanship is approved by Engineer.

Rework the mock-up as required to produce workmanship that is approved by the Engineer.

Retain mock-up during construction as the quality standard to compare the rest of the work against.

The mock-up may be incorporated into final construction with approval of Engineer.

Submit to the Engineer a sample of the Upper and Lower Throw Barrier mesh in a 2 ft by 2 ft square laced around a frame to demonstrate the material, opening size, and quality.

Add the following section:

(*****)

6-06.3(4) Quality Assurance

Installer Qualifications: Experienced in performing work of this section that is similar to that required for this project.

Pre-Installation Meeting: After acceptance of mock-up, conduct meeting with Contractor, Engineer, Contracting Agency, Installer and Supplier whose work involves the railing system to verify project requirements, framing and support conditions, mounting surfaces, manufacturer's installation instructions, and warranty requirements.

Manufacturer's Warranty: Submit, for Contracting Agency's acceptance, manufacturer's standard warranty document executed by authorized company official. Include manufacturer's standard maintenance instructions.

Add the following section:

(*****)

6-06.3(5) Fabrication and Installation

General: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions for installation.

Site Verification of Conditions: Verify condition of railing posts as installed, to ensure it is acceptable for product installation in accordance with manufacturer's instructions. Do not begin installation until mounting surfaces are in satisfactory condition.

Preparation: Take field measurements after permanent end terminations are in place and prior to finalizing shop drawings and fabrication, to ensure fitting of work.

Installation: Railings shall have a constant sloped profile free of dips along the ramps, shall follow a uniform curved profile along the main span, and shall be free of out-of-plane wobble. Leveling nuts shall be utilized beneath the base plates. These nuts shall be installed on the anchor bolts with temporary foam or other means to create a depression in the concrete surface below the nut to enable the nuts to be drawn down to be below the top of concrete. The installed railing appearance shall be approved by the Engineer prior to commencing grouting under the base plates. Anchor railing system to mounting surfaces as indicated in the

Plans. The bridge railing anchor rods shall have their threads protected from splatter during the concrete pours by wrapping them in tinfoil or other approved means by the Engineer.

For Throw Barrier, use manufacturer's supplied mounting hardware. Separate dissimilar materials with bushings, nylon washers, or grommets to prevent electrolytic corrosion.

Cleaning: Clean installed products in accordance with manufacturer's instructions before Contracting Agency's acceptance. Do not use chlorine-based or abrasive cleaners.

6-06.4 Measurement

Supplement this section with the following:

(*****)

No separate measurement and payment shall be allowed for the work specified in this section. All work shall be incidental to the work to which it applies.

"Bridge Railing" per linear foot includes all railing on the bridge, approaches, and stairs.

"Throw Barrier" per linear foot includes all work for supplying and installing the throw barrier along the main span as shown on the Plans.

"Freestanding Handrail" per linear foot includes all work for fabricating and installing the handrail along the at-grade ramps leading up to the bridge as shown on the Plans.

"Buried Curb" per linear foot includes all work for constructing curb foundations for supporting the Freestanding Handrail along approaches.

6-06.5 Payment

Supplement this section with the following:

(*****)

"Bridge Railing.", per linear foot.

"Throw Barrier", per linear foot.

"Freestanding Handrail", per linear foot.

"Buried Curb", per linear foot.

6-07 PAINTING

6-07.2 Materials

Section 6-07.2 is supplemented with the following:

(*****)

Paint materials shall comply with the requirements in WSDOT Standard Specifications Section 9-08 unless described otherwise in this Section. Powder coating per WSDOT Standard Specifications is also acceptable for non-galvanized steel.

The Bridge Railing panels with posts, pickets, tubes, base plates, and brackets shall be powder coated.

The grab rail along the Bridge Railing shall be painted black using a 3-coat system.

The Freestanding Handrail shall be painted black using a 3-coat system.

Unless otherwise noted herein, the Contractor shall submit four (4) steel color coupon samples (three-inch by five-inch size) for all items in semi-gloss finish for Engineer's approval.

Paint for the Bridge Railing shall be applied in accordance with Section 6-07.3(9) and Section 6-07.3(11). The color, when dry, shall match the following:

- PMB-6495 Antique Bronze by Prismatic Powders, or approved equivalent

A color mock-up shall be submitted for approval prior to ordering the paint colors as follows:

- For the Bridge Railing, a mockup shall be submitted for approval, consisting of a powder coated 12" section of the HSS post section for the selected color.

Color samples (8" x 10" swatch) shall be submitted for approval prior to ordering the paint colors listed in the table below. Paint colors and paint systems shall be as shown in the following table for the following items:

Paint Color/Paint System Table

Specification Section	Item	Paint Color	Paint Swatch	Paint System
6-03	Main Span structural steelwork	"Black" FS 27038		3-coat paint system
6-03	Stair HSS columns/steelwork	"Black" FS 27038		3-coat paint system

6-06	Bridge Railings	Antique Bronze (as noted above in this Section 6- 07.2)		Powder coated paint system
6-06	Bridge Railing Grab Rail	RAL 6002 Leaf Green		3-coat paint system
6-06	Freestanding Handrail	RAL 6002 Leaf Green		3-coat paint system
8-19	Removable bollard: metal bollard, receiver	"Yellow"		Powder coated paint system per manufacturer
8-27	Picnic Table: seat/table supports, embedment post	RAL 6002 Leaf Green		Powder coated paint system per manufacturer
8-32	Pet Waste Bag Dispenser: waste bag dispenser and post	RAL 6002 Leaf Green		Powder coated paint system per manufacturer
6-04	Standing Seam Roof	RAL 6002 Leaf Green		Powder coated paint system per manufacturer
	Luminaires	RAL 6004 Blue Green		
	Tree Planter on Main Span	"Black" FS 27038		Powder coated paint system per manufacturer
	"Maple Valley" sign on main span	RAL 5007 Brilliant Blue		Powder coated paint system per manufacturer

Anti-Graffiti Coating:

- Removable bollards and steel stair columns shall have clear, UV resistant, non-sacrificial anti-graffiti coating.

- Contractor shall submit anti-graffiti coating product cut sheet for Engineer's approval prior to installation.
- Contractor shall provide two (2) gallons of touch-up paint in each color for Bridge Railing, Grab Rail, Freestanding Handrail, and Tree Planters – Main Span (and associated support shelf assembly) to the Contracting Agency.
- Contractor shall provide two (2) gallons of anti-graffiti coating to the Contracting Agency.

Painting plan submittals shall be per the Standard Specifications Section 6-07 Painting.

6-07.3(9) Painting New Steel Structures

Replace second sentence of second paragraph with the following:

(*****)

Stainless steel surfaces are not required to be painted, with the exception of coatings on stainless steel walking surfaces if noted on the Plans.

6-19 SHAFTS

6-19.3 Construction Requirements

Section 6-19.3 is supplemented with the following:

(*****)

The Contractor shall include costs associated with temporary access and temporary protections to any existing and relocated utilities in this pay item.

Oscillator method shall be used for drilled shaft construction. Contractor shall verify the location of all utilities to confirm no conflicts are present. Potholing required for the shafts is covered under the bid item "Utility Potholing". The Contractor shall be responsible for any repair/replacement to damaged utility lines during construction. The contractor shall perform a video inspection of the sewer pipes prior to the start of and after the end of construction to verify that the pipes have not been damaged. See Section 1-07.16(1) of the WSDOT Standard Specifications.

Drilled shaft construction at piers P5 and P6 is in close proximity to the relocated water line and Joint Utility Trench (JUT). Contractor shall be responsible for coordinating with utility owners of the JUT located along the piers on the east side of SR 169. Engineer shall be CC'd on correspondence and invited to any meetings with utility providers. Contractor shall control the expected pressures on the ground applied by construction equipment, such as the oscillator, over/adjacent to the JUT at Pier P5 and P6 by using a reaction frame with pin piles (or similar means) to avoid loading the JUT. The design of the pin piles and reaction frame shall be submitted to the Engineer for acceptance. The force shall be transmitted to the ground a minimum of 2-ft below the bottom of the JUT and water line as confirmed by the potholing. Installation of the reaction frame and pin piles shall use a means that minimizes ground vibrations. The details of said reaction frame shall be submitted for review and acceptance by the Engineer at least two (2) weeks prior to commencing drilled shaft construction.

At Piers P2, P3 and P4, the Contractor shall utilize temporary roadway plates to avoid excessive ground pressure near the JUT. The Contractor shall submit accurately scaled sketches and calculations showing the means of supporting the oscillator.

The Contractor shall submit accurately scaled staging plans of anticipated equipment placement and material delivery at each shaft location. The staging plans shall contain layout sketches of at a minimum: the drill rig, oscillator, power pack, support crane, cage delivery, pumper truck, baker tanks, concrete delivery, and any other applicable equipment for the drilling of each shaft. The plans shall also show utilities, trees, and pedestrian detours, as applicable.

6-19.3(1) Quality Assurance

6-19.3(1)A Shaft Construction Tolerances

The third row of the table in Section 6-19.3(1)A is revised to read:

(*****)

5 or larger	5
-------------	---

6-19.3(1)B Nondestructive Quality Assurance (QA) Testing of Shafts

The first paragraph in Section 6. 19.3(1)B is revised to read:

(*****)

The Contractor shall perform nondestructive QA testing of all shafts. Crosshole Sonic Log (CSL) testing in accordance with ASTM D 6760 shall be used.

6-19.3(3) Shaft Excavation

Section 6-19.3(3) is supplemented with the following:

(*****)

The Contractor shall provide as-built shaft plan locations and top of shaft elevations to the Engineer a minimum of five (5) days prior to completing the shaft-to-column splice pour.

6-19.3(3)B Temporary and Permanent Shaft Casing

Section 6-19.3(3)B is supplemented with the following:

(*****)

The Contractor shall furnish and install steel casing as prescribed in the Plans.

When installing required permanent casings between the upper and lower elevation limits, the casing shall be advanced prior to or concurrently with the excavation. In no case shall shaft excavation and/or casing placement extend below the bottom of shaft elevation prescribed in the Plans without approval from the Engineer.

Shaft casing shall be equipped with cutting teeth or a cutting shoe and installed by either rotating or oscillating the casing. Installing the casing by vibratory means will not be allowed.

Telescoping casing shall not be used.

6-19.3(3)E Shaft Obstructions

Supplement this section with the following:

(*****)

Removal of any existing sidewalk or roadway within the project area is considered a part of the demolition. Any work associated with demolition and drilling in the footprint of the existing sidewalk or roadway shall not be considered a shaft obstruction.

6-19.5 Payment

Section 6-19.5 is supplemented with the following:

(*****)

No separate payment will be made for the Work to coordinate with all underground utility owners and protect underground utilities that may be affected by the drilled shaft construction. This Work shall be considered incidental to construction.

Division 7 – DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS

GENERAL

For the convenience of the Contractor, the Plans show approximate locations of various existing utilities and other obstructions. This information, if shown, has been obtained from records and is not guaranteed to be accurate. The Contractor shall be responsible for checking for interferences by inquiry from the utilities and by exploration ahead of his excavation.

Any necessary design modifications resulting from potholing shall be returned to the Contractor within five (5) calendar days and shall constitute no basis for delay.

Potholing by the Contractor at utility crossing locations shown in the Plans and at other locations as directed by the Engineer shall be paid for as detailed in 2-02 of these Special Provisions. Potholing at locations which are not approved in advance by the Engineer are considered incidental to the lump sum contract prices, included herein and no additional compensation shall be made.

The Contractor shall excavate around and under utilities with care. When required, the contractor shall support and maintain utility and coordinate with utility owners.

The Contractor is further made aware of the provisions of RCW 19.122 and their responsibilities by performing excavation required by the Contractor Documents and Standard Specifications.

“Structure Excavation Class B” shall be considered incidental to and included in the unit contract prices of Division 7 items installed or removed in this Contract unless otherwise noted in the Special Provisions.

Add the following new Section:

7-00 POTHOLING

(*****)

7-00.1 Description

The Contractor shall physically locate underground utilities in areas where conflicts are evident from the field markings, or where requested by the Engineer using methods and equipment acceptable to the Engineer.

Pothole data has been previously recorded for locations along the Project limits for design purposes. This data has been provided in the Appendices for reference. These locations have not been surveyed. Contractor shall call locates and verify existing horizontal utility location at the surface to confirm previous pothole location. At a minimum, potholing shall be conducted for the existing water main, electrical line at P06, the joint utility trench between P05 and P06, for the PSE line between P08 and P09, and the water line feeding the fire hydrant north of the new south driveway.

Contractor shall prepare and submit their own Pothole Plan for approval by the Contracting Agency to supplement the existing provided pothole data at proposed crossings and parallel runs where pothole data is not known, to verify existing horizontal and vertical locations. This pothole plan and coordination with utility owners is incidental to the various utility bid items and no further compensation shall be made.

7-00.3 Construction Requirements

Prior to excavating for underground utility installation, the Contractor shall coordinate potholing of utility crossing conflicts with the Engineer. Upon approval of potholing plan and approved locations, the Contractor shall pothole crossing conflicts a minimum of 10 working days in advance of utility excavation. The Contractor shall measure and record the size and type of utility as well as the distance from existing surface to the utility crossing encountered. The Contractor shall provide the potholing data at the end of each workday to the Contracting Agency and Franchise Utility owners. All potholes shall be backfilled and patched by the end of each workday.

The Engineer reserves the right to suspend, add, or subtract potholing operations dependent on field conditions encountered. A minimum of four (4) utility potholes shall be completed per potholing equipment mobilization.

7-00.3(1) Utility Coordination

The Contractor shall coordinate activities and schedules with the Engineer and the franchise utilities including all aspects of electrical structure and/or transformer relocations and conduit relocations with the PSE Contractor, protection of existing electrical utilities including luminaires and power poles, coordination with the water district for water main replacement, and protection of all existing utilities to remain.

The Contractor shall request a pre-activity meeting with the Engineer and the franchise utility representatives to be held a minimum of 15 working days before any planned work that impacts the franchise utility facilities. Those attending the pre-activity meeting shall include the Contractor and Subcontractor in charge of the work, Engineer (or representative) and Project Inspectors for the work, Franchise Utility representative for each franchise utility.

The Contractor shall provide grade control and installation information to PSE Contractors for relocation of PSE structures.

7-00.4 Measurement

Utility Potholing shall be paid by force account.

When a utility is located within a duct bank or grouped cluster uncovered within one pothole area, it shall be measured as one each.

No unit of measurement will be assigned to "Utility Coordination" which shall be measured and paid per lump sum.

7-00.5 Payment

“Utility Potholing”, by force account.

The bid item for “Utility Potholing” shall be full payment for all costs associated with all work required to perform potholing, including but not limited to excavation, backfill, restoration, and other work as required.

For purpose of providing a common proposal for all bidders, the Contracting Agency has entered an amount for the item “Utility Potholing” in the Proposal to become a part of the Contractor’s total bid.

“Utility Coordination”, per lump sum.

The lump sum bid price for “Utility Coordination” shall include all costs to coordinate with franchise utility providers, regardless of the work to be performed and the Contractor performing the work.

7-01 DRAINS

7-01.1 Description

Supplement this section with the following:

(*****)

This Work shall also consist of installing perforated pipe and gravel backfill for infiltration beds and trenches as shown on the Plans.

This work shall also include installing deck drain systems to route bridge drainage using piping along support columns to surface discharge into area drains located at the base of the deck drain and columns, as shown on the Plans.

7-01.2 Materials

Supplement this section with the following:

(*****)

Polyvinyl Chloride (PVC) Drain Pipe per 9-05.1(5)).

Gravel Backfill for Drain per 9-03.12(4).

7-01.3(3) Deck Drain System

(*****)

Add the following new section:

The Contractor shall review bridge drawings, shop drawings, Plans, and manufacturers' information to verify routing, placement and anchorage for bridge deck drains and associated piping. The drain pipes associated with the deck drains from the bridge structure shall be aligned with the area drains. The Contractor shall provide the Engineer with written confirmation of deck drain assembly and precise locations to correctly route drainage to the area drains. The Contractor may propose modifications to the Plans when needed to align the deck drains for proper functioning; such revisions shall be reviewed by the Engineer for approval prior to constructing.

7-01.4 Measurement

Supplement this section with the following:

(*****)

Drain Pipe 12 In. Diam. will be measured per linear foot.

Gravel backfill placed in the construction of the infiltration trenches and beds shall not be measured for payment and shall be considered incidental to the "Infiltration Facility" Contract bid item in Section 7-06 herein.

Gravel backfill placed as part of construction items other than the infiltration trenches and beds shall be considered incidental to the bid item being installed and no additional payment shall be made.

No measurement will be made for coordination of the installation of properly functioning deck drains, including but not limited to drawing reviews, installation of pipe anchors and fittings, and attaching pipe to the structure. Deck drains shall be measured and paid per section 6-02.4. This work shall be incidental to the other pay items of the contract and no additional payment shall be made.

7-01.5 Payment

Supplement this section with the following:

(*****)

"Drain Pipe 12 In. Diam.", per linear foot.

The unit contract price, per linear foot, "Drain Pipe 12 In. Diam.", shall be full pay for all work to complete the installation of the drain pipe measured along the invert including but not limited to any saw cutting, structure excavation Class B including haul and disposal down to existing subgrade widths, lengths, and heights per the volume limits of the gravel infiltration trench properties shown in the Plans, gravel backfill for drainage, construction geotextile for trench drains, and supply and installation of all pipe, fittings, caps, and testing.

7-04 STORM SEWERS

7-04.1 Description

Supplement this section with the following:

(*****)

This work consists of constructing storm sewer systems as shown in the Plans and per the standard details.

7-04.2 Materials

Supplement this section with the following:

(*****)

Materials shall meet requirements of the Standard Specifications and shall be as specified on the Plans. All Schedule A Storm Sewer Pipe used for the project shall be comprised of the same material.

7-04.3 Construction Requirements

Supplement this section with the following:

(*****)

When new pipe is to be connected to existing, the Contractor shall verify and match the type of existing pipe and joint unless called out otherwise in the Plans. If couplings are necessary for connections to and extensions of existing storm drainpipes, coupling type shall be approved by the Engineer.

All connections to existing storm pipe and the appropriate couplers required shall be considered incidental to the various bid items.

7-04.3(1) Cleaning and Testing

Supplement this section with the following:

(*****)

Prior to inspection and acceptance of storm drainage work, pipes and storm drain structures shall be cleaned and flushed. Any obstructions to flow within the storm drain system, (such as rubble, mortar and wedged debris), shall be removed at the nearest structure. This work shall be performed in accordance with Section 7-07 Cleaning Existing Drainage Structures of the Standard Specifications.

Cleaning and flushing of the pipes and structures shall be considered incidental to and included in the various bid items and no additional payment will be made.

7-04.5 Payment

Supplement this section with the following:

(*****)

“Ductile Iron Storm Sewer Pipe __ In. Diam.”, per linear foot.

“Drain Pipe __ In. Diam.”, per linear foot

The unit Contract price shall be full compensation for all costs necessary and incidental to pipe installation, including but not limited to trench excavation and dewatering, disposal of excavated materials; furnish, haul, install and compact pipe zone bedding and backfill per WSDOT Standard Plan B-55.20; furnish, haul, install of controlled density fill (CDF) for storm pipes close to structures where noted in the Plans or where compaction with CSTC cannot be met, fittings, couplings for new to existing pipes, connection to new drainage structures, and hauling, placing, cleaning, and testing pipe.

All connections to existing storm pipe shall be considered incidental to the various bid items.

7-05 MANHOLES, INLETS, CATCH BASINS, AND DRYWELLS

7-05.1 Description

Supplement this section with the following:

(*****)

This work shall also consist of installing catch basin structures with risers, installing storm drain cleanouts, and adjusting vault lids and utilities to grade as shown on the Plans. All catch basin grated covers shall be bolt-locking ductile iron vaned grates with cast iron frames except where noted otherwise on plans and profiles. All grated covers shall have in raised letters "Outfall to Stream, Dump No Pollutants."

7-05.2 Materials

Supplement this section with the following:

(*****)

Materials shall meet applicable requirements of the Standard Specifications.

7-05.3 Construction Requirements

Supplement this section with the following:

(*****)

When connecting to a structure, openings shall be core drilled, unless an existing knockout is available. Connections shall be made with watertight rubber boots, sand collars, manhole adapter, or other approved rubber watertight connections to make a watertight fit.

Non-shrink Portland cement grout is not an acceptable watertight connection except for ductile iron and concrete storm sewer pipe connections.

All drainage structures over 5-feet deep shall have an access ladder installed.

All Type 1 Catch Basins shall be per WSDOT Std Plan B-5. 20-0.3 and shall have a vaned grate unless noted otherwise on the Plans.

All Type 2 Catch Basins shall be per WSDOT Std Plan B-10. 20-0.3 shall have a vaned grate unless noted otherwise on the Plans.

Add the following subsection:

7-05.3(5) New Pipe Connection to Existing Drainage Structure

(*****)

The locations, type, and size of the existing catch basins and storm lines have been determined from available records and are approximate; however, it is anticipated that connections to these existing facilities may be made, in general, as shown on the Plans. It shall be the responsibility of the Contractor to determine the exact location, type, and size of

the existing facilities prior to starting work on each connection, and to provide any alterations, as required at no additional cost to the Contracting Agency.

The Contractor shall clean and re-grout existing structures where connections are made.

When connecting a new pipe to an existing structure, openings shall be core drilled, unless an existing knockout is available. Connections shall be made with watertight rubber boots, sand collars, manhole adapter, or other approved rubber watertight connections to make a watertight fit.

Non-shrink Portland cement grout is not an acceptable watertight connection except for ductile iron and concrete storm sewer pipe connections.

Add the following subsection:

7-05.3(6) Existing Pipe Connection to New Drainage Structure

(*****)

The location, type and size of existing storm sewer pipe has been determined from available records and are approximate. However, it is anticipated that connection may be made, in general, as shown on the Plans. It shall be the responsibility of the Contractor to determine the exact location, type, and size of the existing facilities prior to starting work on each connection, and to provide any alterations, as required.

Connect existing pipe to a new concrete structure using a knockout, if available, or by core drilling the structure. Connections shall be made with watertight rubber boots, sand collars, manhole adapter, or other approved rubber watertight connections to make a watertight fit. Non-shrink Portland cement grout is not an acceptable watertight connection except for ductile iron and concrete storm sewer pipe connections.

7-05.4 Measurement

Supplement this section with the following:

(*****)

“Catch Basin Type 1” will be measured per each.

“Catch Basin Type 2, 48 In. Diam.” will be measured per each.

“Area Drain” shall be measured per each.

“Adjust Catch Basin to Grade”, shall be measured per each.

“Connect Existing Pipe to Proposed Drainage Structure”, shall be measured per each.

“Connect Proposed Pipe to Existing Drainage Structure”, shall be measured per each.

Shoring or Extra Excavation Class B, Inc. Haul will be measured as specified in Section 3-07.4.

7-05.5 Payment

Supplement this section with the following:

(*****)

“Catch Basin Type 1”, per each.

The unit Contract price per each for “Catch Basin Type 1” shall be full compensation for all costs necessary and incidental to furnish and install new the storm structures with grates and locking lids. Work elements include but are not limited to excavating and dewatering, compaction, foundation material, crushed surfacing structure backfill, watertight connections of inlet and outlet pipes, and ladders.

“Catch Basin Type 2 48 In. Diam.”, per each.

The unit Contract price per each for “Catch Basin Type 2 48 In. Diam.” shall be full compensation for all costs necessary and incidental to furnish and install new storm structures. Work elements include but are not limited to excavating and dewatering, compaction, foundation material, crushed surfacing structure backfill, watertight connections of inlet and outlet pipes, and ladders.

“Area Drain.”, per each.

The unit Contract price per each for “Area Drain” shall be full compensation for all costs necessary and incidental to furnish and install new storm structures. Work elements include but are not limited to excavating and dewatering, compaction, foundation material, crushed surfacing structure backfill, watertight connections of inlet and outlet pipes.

“Adjust Catch Basin to Grade” will be measured per each.

The unit Contract price per each for “Adjust Catch Basin to Grade” shall be full compensation for all costs necessary and incidental to adjust existing storm drainage structures to grade. This will be counted once. Any interim adjustments during construction will not be paid for and shall be considered incidental work.

“Connect Existing Pipe to Proposed Drainage Structure” will be measured per each.

The unit Contract price per each for “Connect Existing Pipe to Proposed Drainage Structure” shall be full compensation for all costs necessary and incidental to furnish coupling, core drill and make watertight connection.

“Connect Proposed Pipe to Existing Drainage Structure” will be measured per each.

The unit Contract price per each for “Connect Proposed Pipe to Existing Drainage Structure” shall be full compensation for all costs necessary and incidental to furnish coupling, core drill and make watertight connection.

7-06 STORMWATER INFILTRATION FACILITIES (NEW SECTION)

7-06.1 Description

This Work consists of constructing an infiltration trench, infiltration bed, or infiltration rock gallery consisting of an excavation backfilled with drain rock and wrapped in underground drainage geotextile, in accordance with the Plans, these Specifications, and the details shown on the Plans. The infiltration facility receives stormwater by sheet flow across the ground surface and discharge from bridge drains. The voids between the drain rock particles temporarily store the stormwater, which then infiltrates through the uncompacted native subgrade at the bottom of the excavation. Excavation, layout, and subgrade protection for the infiltration facility shall conform to Section 3-07.3(1)G.

7-06.2 Materials

Materials shall meet the requirements of the following Sections:

- Gravel Backfill for Drains – Section 9-03.12(4)
- Construction Geotextile for Underground Drainage – Section 9-33
- Landscape Boulders (where shown in the Plans) – Section 9-03.11(5), Streambed Boulders, Type One or Type Two, or as otherwise sized in the Plans

7-06.3 Construction Requirements

7-06.3(1) Layout and Subgrade Protection

The Contractor shall lay out the top and bottom limits of the infiltration facility and protect the exposed subgrade in accordance with Section 3-07.3(1)G before placing geotextile or drain rock.

7-06.3(2) Geotextile Placement

Underground drainage geotextile shall be placed against the excavation sidewalls in accordance with Section 3-09.3(1), extending from the bottom of the excavation to the elevation shown in the Plans. Geotextile shall not be placed across the bottom of the excavation unless shown otherwise in the drawings, so that the drain rock remains in direct contact with the native subgrade for infiltration. Infiltration trenches 2' or less in width may use a single width of geotextile to cover the sides and bottom of the trenches.

Geotextile panels shall be overlapped a minimum of 1 foot at all joints. The Contractor shall place drain rock in a manner that does not tear, puncture, or otherwise damage the geotextile, in accordance with the drop height limitations of Section 3-09.3.

7-06.3(3) Drain Rock Placement

Gravel backfill for drains shall be placed in the excavation without operating compaction or heavy placement equipment on the geotextile or on the subgrade at the bottom of the excavation. Drain rock shall be placed to the elevation, width, and side slopes shown in the Plans.

Drain rock shall be free of fines, dirt, and debris at the time of placement. The Contractor shall protect stockpiled drain rock from contamination by soil, sediment, or debris before and during placement, and until site soils have been permanently stabilized.

7-06.3(4) Landscape Boulders

Where shown in the Plans, landscape boulders shall be placed approximately 33 to 50 percent buried at the locations and spacing shown in the Plans. Locations shall be marked for Engineer review prior to placing boulders. Boulders shall be set at the orientations directed by the Engineer and to provide stable bearing on the drain rock without displacing or damaging the underlying geotextile.

7-06.3(5) Surface Restoration

Sidewalk, landscape surfacing, topsoil, planting, or other surface restoration adjacent to the infiltration facilities are incidental to this Work and shall be constructed in accordance with the applicable Sections of the Contract.

7-06.4 Measurement

"Infiltration Facility" will be measured by the cubic yard, computed using the neat line width, length, and depth of the drain rock shown in the Plans, from the bottom of the excavation to the top elevation of the drain rock.

Infiltration trenches will be measured and paid for as "Infiltration Facility" per cubic yard.

No separate measurement will be made for excavation, haul, gravel backfill for drains, underground drainage geotextile, landscape boulders, layout and staking, incidental restoration, or subgrade protection performed under Section 3-03.3(3)A.

7-06.5 Payment

Payment will be made for the following Bid item that is included in the Proposal:

"Infiltration Facility", per cubic yard.

The unit Contract price per cubic yard for "Infiltration Facility" shall be full compensation for all labor, tools, equipment, and materials necessary or incidental to complete the Work, including but not limited to: layout and staking; excavation, loading, hauling, and disposal or reuse of excavated material; protection of subgrade from over-compaction and contamination in accordance with Section 3-03.3(3)A; furnishing and placing underground drainage geotextile; and furnishing, hauling, and placing gravel backfill for drains and landscape boulders where shown in the Plans.

7-09 WATER MAINS

7-09.1 Description

Supplement this section with the following:

(*****)

This work consists of removing existing water line and constructing a new section of 8-inch diameter water main in accordance with the Plans; the Covington Water District (CWD) Standard Plans and Specifications; the Standard Specifications; these Special Provisions and the Plans, at the location shown on the Plans. For water main related work, the Covington Water District Standard Plans and Specifications shall take precedence.

All coordination and notifications for work and inspections for water utility work shall be made by the Contractor through Contracting Agency representatives.

At minimum, the Contractor shall have coordination meetings with CWD for the following:

- Kick-off meeting with CWD to review project requirements
- Coordination with CWD on construction work plan at least two (2) weeks prior to installation of water main

7-09.1(1)D Pipe Zone Backfill

Delete this section and replace with the following:

(*****)

Pipe zone backfill includes material placed above the gravel backfill for pipe zone bedding up to the depths shown in the CWD Standard Plans.

7-09.2 Materials

Supplement this section by adding the following:

(*****)

Pipe Zone Backfill	9-03.12(3)
Steel Casing	9-30.2(11)
Spacers and Seals for Steel Casing Pipe	9-30.2(12)

Trench Backfill

Paved areas shall require:

- Material meeting 9-03.19 requirements if approved native material is allowed, or
- CDF, or
- Gravel Borrow per 9-03.14(1). Gravel Borrow shall be allowed only if it meets 9-03.12(3) requirements for Gravel Backfill for Pipe Zone Bedding.

Unimproved areas shall be backfilled with granular or native material meeting 9-03.19.

Approved materials for all Covington Water District installations shall follow the 2024 Covington Water District Standards and Specifications – “Appendix C”, including materials in WSDOT Standard Specification Section 9-30.1 and its subsections, 9-30.2 and its subsections, 9-30.3, and 9-30.6. The “Appendix C” approved materials list from CWD shall take precedence. All materials shall be manufactured by an approved manufacturer as indicated in the most recent version of the approved Covington Water District Standards and Specifications – “Appendix C”.

7-09.3 Construction Requirements

7-09.3(1) General

Supplement this section with the following:

(*****)

All construction to be in accordance with Covington Water District Standards and Specifications.

Contractor shall submit a detailed work plan for the water line relocation. The work plan shall include details of all materials and equipment to be used, planned sequence, anticipated schedule, proposed shutdowns, and coordination required with CWD.

For shutdowns (outages), customers shall be notified a minimum of 48 hours before the shutdown. Contractor shall schedule a review of the work with a CWD inspector at least 10 working days before the day of the shutdown. Customers shall be notified with door hangers provided by CWD.

Where water mains cross other utilities and called for in the plans due to clearances, CDF shall be used for backfill around both utility pipes and extend out 5 feet in each direction of the point of crossing with a minimum of 6” of cover around each pipe (top, side and bottom) of CDF.

Minimum depth of CWD water pipe shall be as specified on the Contract Plans. All pipe construction shall be maintained within 6” of the plan defined alignment and profile unless approved by the Engineer and the CWD.

7-09.3(9) Bedding the Pipe

This section is deleted and replaced with the following:

(*****)

All backfill for pipe zone bedding shall be import. No native material shall be allowed for pipe zone bedding.

7-09.3(10) Backfilling Trenches

This section is deleted and replaced with the following:

(*****)

All backfill for trenches shall be import. No native material shall be allowed for trench backfill unless screened to specifications and approved by CWD and the Contracting Agency.

7-09.3(13) Handling of Pipe

Supplement this section with the following:

(*****)

The open ends of pipe shall be covered with temporary bags, caps or plugs from the manufacturer or supplier to the project site, and maintained by the contractor until such time as the pipe is installed in the trench or casing.

7-09.3(15)A Ductile Iron Pipe

The last sentence of the first paragraph in this section is deleted and replaced with the following:

(*****)

For water mains 12-inch diameter or less, pipe joint deflections shall not exceed 3-degrees per joint for unrestrained pipe and 1-1/2 degrees per joint for restrained pipe. Joint deflections shall not exceed 11 inches for every 18-feet of unrestrained pipe, or 5.5-inches for every 18-feet of restrained pipe. Joint deflection requirements for pipe larger than 12-inch diameter shall be at the discretion of the CWD Engineer. The use of short pipe segments to achieve a greater rate of deflection is prohibited. Angle fittings may be required to maintain proper water main alignment within public right-of-way easements.

Supplement this section with the following:

(*****)

Laying water main pipe shall comply with CWD Standards and Specifications section 5.25. When discrepancies between the plans and Specifications are present, the 2024 CWD Standards and Specifications shall prevail.

7-09.3(19)A Connections to Existing Mains

The first paragraph in this section is deleted and replaced with the following:

(*****)

Points of connection to existing water mains shall be exposed prior to trenching of the new mains, and not less than 48 hours prior to the anticipated connection time. The Contractor is responsible for giving at least five (5) working day notice to CWD for the required water main shutdown. Water main shutdown shall not be scheduled to take place on Fridays, or on the day before a holiday, unless otherwise approved by CWD. Only CWD staff shall operate valves in the existing system and shut down the water mains.

Connection to the existing water system shall be done only after the new mains are flushed and have passed pressure and purity tests. CWD may delay the planned shutdown if

complications to system operation is expected, and will notify the Contractor that alternate plans will be required. The Contractor shall submit a plan for providing immediate thrust restraint at connection points requiring thrust blocks. The plan shall be approved by CWD prior to commencing with the connection. All connections to the existing water system shall be approved by CWD and in the presence of the CWD inspector.

7-09.3(19)A Connections to Existing Mains

The second paragraph in this section is supplemented with the following:

(*****)

When connecting to Asbestos Cement Pipe, conform to Federal and State requirements for removal, handling and disposal of Asbestos Pipe.

Paragraphs five and six in this section are deleted and replaced with the following:

(*****)

If the connection to the existing system involves turning off the water, CWD shall plan the shutdown and notify the affected customers and Fire Authority.

Where cut-ins are required to be made in existing pipes, the work shall be conducted at such a time and in such a manner as to minimize the interruption of service. The necessary pipe, fittings and gate valves shall be assembled at the site ready for installation prior to shut-off of water in the existing main. The interiors of all pipe and fittings, particularly couplings and sleeves, to be used in the final cut-in connection shall be swabbed or sprayed with a minimum 12.5% hypochlorite solution before they are installed. The pipe and fittings to be treated by swabbing and spraying shall consist of less than one full stick of pipe. The remainder of the new main shall be disinfected and accepted as a whole, prior to the connection process. Flushing shall start as soon as repairs or connections are completed and shall be continued until discolored water and air is eliminated. Flushing shall be supervised by CWD.

Supplement this section with the following:

(*****)

In non-residential areas, all effort will be made not to interrupt service to a commercial business during business hours. Contractor shall accommodate temporary water service to businesses should they be out of service during business hours. Temporary water service shall be provided in accordance with requirements of the International Plumbing Code for potable water supply. Residential customers shall not be placed out of service for any period in excess of 8 hours.

The Contractor shall ensure that existing fittings are in accordance with the approved plans and that the connection can be made in accordance with the plans. The contractor shall immediately notify CWD Engineer and the Design Engineer if the connection cannot be made in accordance with the plans so that the connection details may be revised and approved by CWD.

Connections to the existing water system may be made under pressure with a tapping machine by determining the size and type of pipe and installing a tapping tee with a tapping gate valve for instances where valves are not being added at the tee. Tapping tees shall be installed as shown on the CWD's Standard Details; Appendix A. Work shall not start

until all materials, equipment, and labor are on-site and ready. The tapping tee and valve shall be installed in a horizontal position so that the valve stem is vertical. Once the water main has been shut off, the work shall be prosecuted vigorously and shall not be halted until the water main is back in service. CWD inspection shall be provided throughout the connection process and the Contractor shall compensate CWD for any required overtime to complete the work. Scheduling of the work shall be only as approved by CWD.

7-09.3(20) Detectable Marking Tape

Delete this section and replace with the following:

(*****)

A tracer wire shall be buried with nonmetallic water lines and service lines. Reference the latest version of CWD Standards and Specifications for details.

7-09.3(21) Concrete Thrust Blocking

Supplement this section with the following:

(*****)

Concrete thrust blocking will comply with CWD Standards and Specifications Section 3.15. When discrepancies between plans and Specifications are present, the 2024 CWD standards and specifications shall prevail.

7-09.3(23) Hydrostatic Pressure Test

Delete this section and replace with the following:

(*****)

Prior to calling the Inspector for pressure test, the Contractor shall have all equipment set up for operation and shall have successfully performed a pre-test to ensure that the pipe is capable of meeting test conditions. All service lines shall be flushed, before scheduling the pressure test.

Water main, appurtenances and service connections shall be tested in sections of convenient lengths under a hydrostatic pressure of 200 psi to 210 psi for 15 minutes.

Pumps, gauges, plugs, saddles, corporation stops, miscellaneous hose and piping, and measuring equipment necessary for performing the test shall be furnished and operated by the Contractor. The Contractor shall demonstrate the gauge is working properly before the testing begins.

Sections to be tested shall normally be limited to 1,000 feet.

Thrust blocking shall be in place for an adequate time for concrete to cure before testing and the pipe shall be backfilled sufficiently to prevent movement of the pipe under pressure. In no case shall pressure be applied before 48 hours cure time of thrust blocking. Where permanent blocking is not required, the Contractor shall furnish and install temporary blocking and remove it after testing. Thrust-blocking shall meet the performance requirements of the details shown in CWD's Standard Drawings for specific orientations of the main.

The Contractor shall use a meter cart rented from CWD to fill new water mains for testing and flushing. New water mains shall be filled and remain under 100 psi to 200 psi pressure for 24 to 48 hours to allow air to escape and the lining of the pipe to absorb water.

The pressure test shall be accomplished by pumping the main up to 200 psi to 210 psi and maintaining the pressure, stopping the pump for 15 minutes, and pumping the main up to the test pressure again. During the test, the section being tested shall be observed to detect any visible leakage.

A clean container shall be used for holding water for pumping up pressure on the main being tested. This makeup water shall be sterilized by the addition of chlorine to a concentration of 50 ppm.

The quantity of water required to restore the pressure shall be accurately determined by pumping through a positive displacement water meter. The meter shall be approved by CWD. Essentially no loss will be allowed.

There shall not be an appreciable or abrupt loss in pressure during the 15-minute test period. Any visible leakage detected shall be corrected by the Contractor regardless of the allowable leakage specified above. Should the tested section fail to meet the pressure test successfully as specified, the Contractor shall locate and repair the defects and then retest the pipeline. There shall be no additional cost to CWD for failed tests.

Tests shall be made with the hydrant auxiliary gate valves open and the hydrant valve in the closed position. Once the new line is successfully tested, each valve shall be tested by closing each in turn and relieving the pressure behind it. The mains shall be tested between valves.

Insofar as possible, no hydrostatic pressure shall be placed against the opposite side of the valve being tested. This test of the valve will be acceptable if there is no immediate loss of pressure on the gauge when the pressure comes against the valve being checked. The Contractor shall verify that the pressure differential across the valve does not exceed the rated working pressure of the valve. Valves shall be operated by CWD only.

Defective materials or workmanship discovered as a result of hydrostatic field test shall be replaced by the Contractor. Whenever it is necessary to replace defective material or correct the workmanship, the hydrostatic test shall be repeated to the satisfaction of CWD.

7-09.3(24) Disinfection of Water Mains

Delete this section in its entirety and replace with the following:

(*****)

Before being placed into service, new water mains and repaired portions of existing mains shall be chlorinated and thoroughly flushed followed by a minimum of two bacteriological samples at each sampling point collected consecutively 24 hours apart by CWD staff.

Water samples will be submitted to a certified laboratory and confirmation of satisfactory results will be received on a DOH approved form utilized by the certified laboratory. Disinfection of water mains shall be accomplished by the Contractor in accordance with the requirements of the Washington State Department of Health, AWWA Standard C651

and in a manner satisfactory to CWD. All filling and flushing shall be done through a hydrant meter cart rented from CWD. A chlorination apparatus capable of accurately introducing chlorine solution shall be used for the disinfection process. Refer to Section 7-09.3(19) for disinfection of connections and repairs. Flush and sample from the downstream flow. Sampling criteria shall be as follows: First day samples shall reflect flow through a hydrant meter to all end points and arterials. The system should set dormant for 24 hours and second set of samples taken which shall be representative of the water in the pipe; there should be no additional flushing in order to obtain a representative sample of water remaining in the pipe for 24 hours.

7-09.3(24)A Flushing

The section to be disinfected shall be first flushed to remove any solids or contaminated material that may have become lodged in the pipe at maximum flow established by CWD Engineer prior to chlorination. If a hydrant is not installed at the end of the water main, the Contractor shall provide a tap large enough to develop a flow velocity of at least 2.5 feet/sec in the water main or adequate flushing facilities such as a blow-off described in these specifications. The flushing period shall be approved by CWD Engineer.

The source water used for disinfection and pressure testing shall be flushed by CWD staff prior to its use to ensure that contaminants or debris are not introduced into the new pipe.

Taps for temporary or permanent release of air, introduction of chlorine or flushing purposes shall be provided by the Contractor as a part of the construction of water mains. Temporary taps shall be plugged after use with threaded brass plugs.

7-09.3(24)B Requirement of Chlorine

The section to be tested shall be chlorinated so that a free residual of no less than 25 ppm (parts per million) is measured at the end of all main arterials. At a minimum, flush each service line to disinfect those portions allowing the chlorinated water to remain in facilities, blow offs, hydrant spools, and service lines, etc. for a minimum of 24 hours. The initial chlorine content of the water shall not be less than 50 ppm nor more than 100 ppm. The forms of chlorine that may be used in the disinfection operations are liquid chlorine injection at 12.5%.

Liquid Chlorine: Chlorine shall be applied by solution fed at one end of the section with a Service or hydrant at the opposite end open sufficiently to permit a flow through during chlorine application. The chlorine solution shall be fed into the pipeline already mixed by an automatically proportioning applicator to provide a steady application target rate of 50 ppm chlorine. Hydrants, services and blow-offs along the chlorinated section shall be open during application until the presence of chlorine has definitely been detected in each hydrant and service run.

When a chlorine concentration no less than 25 ppm has been established throughout the line, the valves shall be closed and the line left undisturbed for 24 hours. If the chlorine concentration in the pipeline exceeds 100 ppm, the pipeline shall be flushed immediately and the process shall start over.

Granulated hypochlorite designed for pools and hot tubs are unacceptable for use on water mains.

The main shall be filled with water at a rate to ensure that the water within the main will flow at a velocity no greater than 1ft/s. Precautions shall be taken to ensure that air pockets are eliminated. When a chlorine concentration of not less than 25 ppm and not more than 100 ppm has been established throughout the line, the valves shall be closed and the line left undisturbed for 24 hours. If chlorine concentration exceeds 100ppm the Contractor will immediately effect a reduction in the concentration by properly flushing the main and removing chlorine at the discharge. If the water temperature is less than 41 degrees F, the water shall remain in the pipe for at least 48 hours to complete disinfection. The line shall then be thoroughly flushed and water samples taken. The Contractor shall exercise special care in flushing to avoid damage to surrounding property and to conform to CWD Standards. The Contractor shall provide an accurate written report of the procedure used to the construction inspector.

7-09.3(24)C Final Flushing and Testing

Following chlorination, chlorinated water shall be flushed from the new water main until the replacement water throughout its length shows residuals equal to background chlorine levels in the system.

After final flushing and before the new water main is connected to the distribution system, two consecutive sets of acceptable samples, taken at least 24 hours apart, shall be collected from the new main. The Contractor shall schedule the sample collection with CWD a minimum of three (3) work days in advance of test. The number of samples from the source and the number of representative sample points required will be determined by CWD. Appropriate sample taps shall be furnished by the Contractor. No hose or fire hydrant shall be used in the collection of samples unless directed by District Engineer.

At least one set of samples shall be collected from every 1,200 feet of the new water main, plus one set from the end of the line and at least one set from each branch. All samples shall be tested for total coliform bacteria and for heterotrophic bacteria by the heterotrophic plate count (HPC) analysis. The maximum allowable coliform content of the flushed sample shall be zero. The maximum allowable HPC population count in all source samples shall be 300/ml. Any source sample that exceeds a count of 300/ml shall be ruled as an indeterminate test and a new set of source and construction samples for analysis shall be required. The maximum allowable HPC population count from any construction sample shall be no greater than twenty (20) counts above the highest source HPC population count.

Before placing the lines into service, a satisfactory report shall be received by CWD from the certified laboratory evidencing successful tests on samples collected from representative points in the system extension.

Should the initial test result in an unsatisfactory bacteriological test, additional chlorination using the procedure as specified above shall be repeated by the Contractor until satisfactory results are obtained. The Contractor shall be responsible for disposal of treated water flushed from the mains including de-chlorination as necessary to protect the environment.

Chlorinated water shall never be flushed into the storm drain without local agency approval or to a natural body of water. This includes lakes, rivers, streams, storm drainage systems, and any and all other waters where fish or other natural aquatic life can be expected. Chlorinated water may be discharged to an available sanitary sewer system with the appropriate sewer CWD's approval and where the rate of discharge will not overload the sanitary sewer.

Add the following new sections:

(****)

7-09.3(25) Minor Change for Water Improvements (New Section)

Payments or credits for changes for items of Work under Schedule B amounting to \$10,000 or less may be made under the Bid item "Minor Change for Water Improvements." At the discretion of the Contracting Agency, this procedure for Minor Change for Water Facilities may be used in lieu of the more formal procedure as outlined in Section 1-04.4, Changes.

The Contractor will be provided a copy of the completed order for Minor Change for Water Facilities. The agreement for the Minor Change for Water Facilities will be documented by signature of the Contractor, or notation of verbal agreement. If the Contractor is in disagreement with anything required by the order for Minor Change for Water Facilities, the Contractor may protest the order as provided in Section 1-04.5.

7-09.3(26) Steel Casing

Water main casing method of installation shall be determined by the Contractor and submitted for Engineer approval.

Contractor Submittals

Submit all procedures or material descriptions requiring the Engineer's approval prior to mobilizing. Include the following information in the operations and design submittal:

Submittal requirements include, but are not limited to the following:

1. Verification of Line and grade calculations relative to diaphragm knockouts, to water main installation and final cement concrete approach slab thickness.
2. Copies of field notes used to establish grade.
3. Material list.
4. Details on casing spacer and end seal materials, dimensions and installation procedures and recommendations.

7-09.4 Measurement

Supplement this section with the following:

(****)

Removal of existing water main shall be measured per linear foot of water main that is cut, disconnected, removed from the ground and hauled off site or salvaged to CWD.

Steel casing pipe shall be measured per linear foot of steel casing installed and secured into place.

Connection to existing main shall be paid per each connection that is completed and approved by CWD.

7-09.5 Payment

Supplement this section with the following:

(*****)

“Removal of Existing Water Main”, per linear foot.

The unit contract price, per linear foot for “Removal of Existing Water Main”, shall be full pay for all work to excavate, remove, haul, and dispose of decommissioned water pipe (including any thrust blocking), and backfilling of the vacated trench to the final design grade using material and compaction standards required by the project owner.

“Steel Casing Pipe, 18 In. Diam.”, per linear foot.

The unit contract price, per linear foot for “Steel Casing Pipe, 18 In. Diam.” shall be full pay for all work to furnish and install the steel casing as shown on the plans and as described in the CWD Standard Specifications and Plans, including but not limited to: trench excavation, installing casing, providing casing spacers, end seal and link seal materials, splicing casings together, placement within end diaphragms, casing backfill and compaction around the casing, all necessary appurtenances, and other incidental items of work necessary to satisfactorily install the casing.

“Connection to Existing Main.”, per each.

The unit contract price, per each for “Connection to Existing Main” shall be full pay for all work to connect the new water main to the existing water main as shown on the Plans and as described in the CWD Standard Specifications and Plans, including but not limited to: structure excavation, furnishing and installing couplers, securing and testing the connection and other incidental items of work necessary to satisfactorily complete the connection.

“Ductile Iron Pipe for Water Main ____ In. Diam.”, per linear foot.

The unit contract price, per linear foot for “Ductile Iron Pipe for Water Main ____ In. Diam.” shall be full compensation for all Work to complete the installation of the water mains, including but not limited to, pipe, fittings, bends, restrained joints, installing the main through steel casing in the end and intermediate diaphragms, laying and jointing pipe and fittings, concrete thrust blocking, trench excavation, bedding the pipe, import pipe bedding material, backfilling

the pipe, import trench backfill material, backfilling compacting, concrete thrust blocking, testing, disinfection, flushing, dechlorination of disinfecting water, and cleanup.

Additionally, the contract price for "Ductile Iron Pipe for Water Main ____ In. Diam." shall be full compensation for all costs associated with removal, haul, and disposal of native material excavated from trench, trench dewatering (if needed), providing, placing and compacting import pipe bedding material, providing, placing and compacting import trench backfill material, deflecting pipe as required to cross buried utilities or maintain alignment, performing backfill compaction tests and furnishing test reports to the Engineer, hand digging that may be required to protect existing improvements and utilities.

The water line shall be tested, fully operational, approved by CWD and ready for use prior to payment of this bid item.

Revise the last sentence of the fourth paragraph of this section as follows:

(*****)

If no pay items for restoration are included in the Proposal, restoration shall be considered incidental to the Work of constructing the water main, and all costs thereof shall be included in the lump sum Contract price Bid for "Ductile Iron Pipe for Water Main ____ In. Diam.",

Delete the following two paragraphs of this section:

(*****)

"Removal and Replacement of Unsuitable Material", per cubic yard.

"Bank Run Gravel for Trench Backfill", per cubic yard.

Revise paragraph eleven to read:

(*****)

Shoring or Extra Excavation Class B, Inc. Haul will be measured as specified in Section 3-07.4.

Supplement this section with the following:

(*****)

"Connection to Existing Water Main", per each.

The unit contract price per each "Connection to Existing Water Main" shall be full compensation for all work to connect new water main to existing water main including but not limited to excavating and backfilling as shown on the contract plans. The measurement shall include removing existing pipe and fittings from connection point, removal of existing pipe casing as needed to complete the new water main connection, cleaning and disinfecting

mating surfaces, all transition couplings, pipe spools, thrust blocking, import pipe bedding material, import trench backfill material, miscellaneous material, equipment, and labor as set forth in Section 7-09.3(19)A except that, in addition, valves will be paid at their appropriate unit prices bid. All joints shall be mechanically restrained, in addition to thrust blocks and temporary blocks, to provide restraint following activation, and shall be incidental to the unit price. The unit price also includes abandonment, plugging and/or removal of existing waterline as shown on the Plans.

Additionally, the contract price shall be compensation for: removing and disposing of pavement, curbs, gutters, sidewalks and the like, trench dewatering (if needed), providing, placing and compacting import pipe bedding material, providing, placing and compacting import trench backfill material, performing backfill compaction testing and furnishing test reports to the Engineer, all costs associated with removal, haul, and disposal of native material excavated from trench, furnishing, installing and removing temporary two-inch feeders to maintain water service to affected parties, replacing, protecting, restoring and maintaining existing utilities, hand digging as required to complete construction and protect existing improvements and utilities.

The water line shall be tested, fully operational, approved by CWD and ready for use prior to payment of this bid item.

No separate payment will be made for the Work to coordinate with CWD and other underground utilities that may be affected by the approach ramp construction. This Work shall be incidental to construction.

7-12 VALVES FOR WATER MAINS

7-12.2 Materials

Supplement this section with the following:

(*****)

Gate valves for watermains will comply with CWD Standards and Specifications section 4.12, 5.29, 4.18 and 5.30. When Discrepancies between plans and specifications are present, the 2024 CWD Standards and Specifications shall prevail.

7-12.3 Construction Requirements

Supplement the first paragraph of this section with the following:

(*****)

Valves shall be inspected for approved part numbers/manufacturers; cleanliness of valve ports especially seating surfaces, handling damage and cracks. Defective valves shall be rejected.

A valve box or vault shall be provided for every valve.

Replace the last two sentences of the second paragraph of this section with the following:

(*****)

Backfill around valves shall be carefully compacted in 6-inch lifts for the full depth of the trench with the valve box in place. Valve box top sections shall be adjusted flush with the finished pavement, finished grade of landscaping and, in those areas to be excavated for future roadway grades, enough adjustment shall be provided in the valve box to allow the top of the box to be adjusted to the required grade. Provide a minimum of 3' x 3' x 4" asphalt or concrete collar for valves installed in gravel or unpaved areas as indicated in the Covington Water District Standard Details.

Supplement this section 7-12.3 with the following:

(*****)

Valves on active mains shall be accessible at all times for operation. Separate payment will not be made for maintaining accessibility to existing valves.

Valves 12-inch and larger shall be supported by a concrete block or "paver" stone on a sufficiently tamped trench bottom so that the pipe will not be required to support the weight of the valve. In no case shall valves be used to bring misaligned pipe into alignment during installation. Pipe and fittings shall be supported in such a manner as to prevent stress on the valve.

Where a valve operating nut is more than 3-feet below finished grade, a valve stem extension conforming to the Covington Water District Standard Details must be installed.

7-12.5 Payment

Delete Section 7-12.5 and replace with the following:

(*****)

The unit contract price per each for "Gate Valve ____ In." shall be full pay for all work to furnish and install the valve complete in place on the water main, including trenching, joining, blocking of valve, painting, disinfecting, hydrostatic testing, valve box and accessories, crushed rock backfill, operator extension if required, and adjustment of valve box (including collars) for temporary and permanent surfacing.

7-18 SIDE SEWERS

7-18.2 Materials

Supplement this section with the following:

(*****)

Materials shall conform to the Soos Creek Water and Sewer District (SCWSD) sewer construction plans and standard details.

7-18.3 Construction Requirements

Supplement this section with the following:

(*****)

Installation of sanitary side sewer shall conform to the SCWSD construction standards and details.

At minimum, the Contractor shall have coordination meetings with SCWSD for the following:

- Kick-off meeting with SCWSD to review requirements
- Coordination with SCWSD on construction work plan at least two (2) weeks prior to installation of side sewer

7-18.5 Payment

Supplement this section with the following:

(*****)

“PVC Sanitary Sewer Pipe, 6 In Diam.”, per linear foot.

The unit contract price, per linear foot for “PVC Sanitary Sewer Pipe, 6 In. Diam.” shall be full pay for all work to furnish and install the sanitary side sewer pipe as shown on the plans, including but not limited to structure excavation Class B including; furnishment, placement and compaction of pipe zone bedding, supply and installation of all pipe, wyes, fittings, tracer tape, toning wire, proofing, video inspection report, and testing.

7-19 SEWER CLEANOUTS

7-19.2 Materials

Supplement this section with the following:

(*****)

Materials shall conform to the SCWSD sewer construction plans and standard details.

7-19.3 Construction Requirements

Replace this section with the following:

Installation of sewer cleanouts shall be as described in Section 7-05 of the Standard Specifications as modified herein and per the SCWSD construction standards and details.

7-19.5 Payment

Supplement this section with the following:

(*****)

“Sewer Cleanout”, per each

The unit contract price for “Sewer Cleanout” shall be full pay for furnishing and installing sewer cleanouts, including but not limited to; structure excavation Class B and haul, placement and compaction of crushed backfill, connections to side sewer pipe, furnishing and placing wyes, pipe, pipe bends, pipe plug, castings, and collar as specified herein and other incidental items required to complete the work as shown on the Plans.

END OF DIVISION 7

Division 8 – Miscellaneous Construction

8-01 EROSION CONTROL AND WATER POLLUTION CONTROL

8-01.3 Construction Requirements

Supplement this section with the following:

(*****)

The Contractor shall take all necessary precautions and utilize the Department of Ecology's (ECY) Best Management Practices to prevent sediment and fugitive dust from construction activities from entering into storm water systems, natural waterways, or environmentally sensitive areas and from otherwise being carried away from the construction area by stormwater or air.

Temporary erosion protection shall be furnished, installed, and maintained for the duration of this Project to protect environmentally sensitive areas, sloped surfaces, adjacent areas and/or water bodies or conveyance systems. Temporary erosion protection may include the use of straw, jute matting, wattles, heavy plastic sheeting, or other forms of ground cover on areas disturbed by construction. Sloped surfaces shall be restored and protected in such a manner that surface runoff does not erode the embankments, slopes, or ground surfaces, nor create surface channels, or ruts.

Any damage caused by the Contractor's failure to keep the erosion materials maintained shall be borne by the Contractor alone.

8-01.3(1)A Submittals

Supplement this section with the following:

(*****)

Stormwater Pollution Prevention Plan

Prior to beginning Work, the Contractor shall prepare their own Erosion Control Plan and Stormwater Pollution Prevention Plan (SWPPP) as part of the Temporary Erosion and Sediment Control (TESC) Plan per the current King County Stormwater Pollution Prevention Standards.

The SWPPP is considered a "living" document that shall be revised by the Contractor to account for additional or different erosion control BMP's as necessary and implemented in the field to accommodate field conditions and/or construction methods. Contractor shall keep on-site a copy of the most current SWPPP at all times throughout the duration of construction. At the Contractor's preference, revisions to the SWPPP may be forwarded to the Engineer, rather than submitting the complete document. In any case, Contractor shall be responsible for submitting the most recent SWPPP version to the Engineer prior to implementation.

The Contractor shall incorporate the SWPPP implementation schedule into the Contractor's progress schedule. The SWPPP and implementation schedule shall be submitted in accordance with 1-05.3 and 1-08.3.

8-01.3(8) Street Cleaning

Supplement this section with the following:

(*****)

The Contractor shall remove and collect residual sediment and debris from SR 169 and affected side roads at a minimum of two (2) times per week, or as directed by the Engineer.

8-01.3(9)A Fencing

Add the following new sub-section:

(*****)

8-01.3(9)A4 Temporary Chain Link Fencing

The Contractor shall install temporary chain link fencing at the locations shown on the plans and per the details on the plans. The Contractor shall maintain fencing and ensure that the fencing is secure throughout the duration of the project.

8-01.3(9)D Inlet Protection

Supplement this section with the following:

(*****)

All catch basins grates within the project limits, immediately downstream of the project limits and adjacent areas shall have inlet protection installed to prevent sedimentation from entering the storm system. The inlet protection shall be routinely inspected and cleaned of sediment to prevent plugging. This sediment shall be regularly removed, loaded, and hauled as waste whenever it presents a potential surface accumulation problem or concern to the Contracting Agency. The collection and disposal of the sediment shall be the responsibility of the Contractor at no cost to the Contracting Agency.

8-01.3(16) Removal

Supplement this Section with the following:

(*****)

Removing Temporary Erosion / Water Pollution Control BMPs

The Contractor shall remove all Temporary Erosion / Water Pollution Control BMPs within twenty (20) days after final slope stabilization, landscape restoration, or after the BMPs are no longer needed. Trapped sediment shall be removed or stabilized on site.

Add the following new section:

(*****)

8-01.3(17) Suspension of Work

If at any time during the life of this Contract it becomes necessary to suspend work due to weather conditions or other constraints, it shall be the Contractor's obligation to meet the following requirements:

- The Contractor shall remain obligated to meet the Temporary Erosion / Water Pollution Control requirements of the Bid Documents during any suspension of work.
- The Contractor shall remain obligated to meet the Temporary Traffic Control (both vehicular and pedestrian) requirements of the Bid Documents during any suspension of work.
- The Contractor shall maintain vigilance and maintain a safe project area free of hazards to public safety and shall remedy all hazardous situations immediately.

All costs associated with maintenance during the Suspension of Work shall be considered incidental to the unit contract prices of the bid items and no additional compensation will be made unless the suspension of work is initiated by the Contracting Agency.

8-01.4 Measurement

Supplement this section with the following:

(*****)

No specific unit of measure will apply to erosion control and water pollution prevention which shall be measured per lump sum.

"Temporary Chain Link Fence" and "Tree Protection Fence" shall be measured per linear foot of fencing installed as shown on the plans.

8-01.5 Payment

Delete all paragraphs under this Section and replace with the following:

(*****)

Payments will be made in accordance with Section 1-09.9 for the following Bid Item(s):

"Erosion Control and Water Pollution Prevention", per lump sum

The lump sum contract price for "Erosion Control and Water Pollution Prevention" shall include all costs for preparing and implementation of the TESC and SWPPP plan: providing an ESC Lead, inspecting, documenting, testing, and notification as required by the project permits and all temporary erosion control and water pollution prevention as stated herein and as further indicated on the Plans that is not otherwise paid under separate contract items in the Proposal, including furnishing, installing, maintaining, reinstalling, and removal of erosion/water pollution prevention devices not shown on the Plans, including silt fencing, but necessary to meet the permit requirements and other requirements of the standard Specifications and these Special Provisions.

"Temporary Chain Link Fence", per linear foot

The unit contract price for "Temporary Chain Link Fence" shall be considered full pay for furnishing, installing, maintaining and removing the temporary chain link fence around the site. Payment for the "Temporary Chain Link Fence" shall be made once, regardless of the number of times the chain link fence is moved for access and constructability.

The unit contract price shall include all incidental tools and labor necessary to complete the work as shown on the plans and in the details.

"Stabilized Construction Entrance" per lump sum.

The lump sum contract price for "Stabilized Construction Entrance" shall be full compensation for furnishing, placing, compacting materials and maintaining the entrance as needed for the duration of the project.

8-02 ROADSIDE RESTORATION

8-02.1 Description

Supplement this section with the following:

(*****)

All plant materials required by the Bid Documents shall be plant species including plant establishment (PSIPE) per the Standard Specifications.

This work shall also consist of furnishing and installing landscape rocks and landscape logs from trees removed on site where shown and as detailed on the Plans.

8-02.2 Materials

Supplement this section with the following:

(*****)

Topsoil Type A	Section 9-14.2(1) of these Special Provisions
Fertilizer	Section 9-14.4 of these Special Provisions
Arborist Wood Chip Mulch	Section 9-14.5(3)A of these Special Provisions
Fine Compost	Section 9-14.5(8) of the Standard Specifications
Root Barrier	Section 9-14.9 of these Special Provisions
Landscape Rock	Section 9-03.11(5) of the Standard Specifications
Landscape Log	Section 9-14.11 of these Special Provisions

8-02.3 Construction Requirements

Supplement this section with the following:

(*****)

Landscape restoration will begin after curbs, sidewalks, and associated work have been completed or as directed by the Engineer.

Topsoil Type A shall be placed at locations and depths shown on the plans.

Contractor shall report to the Engineer deviation and conflicts between the Contract Documents and site conditions prior to proceeding with work. Extra work arising from failure to do so shall be done at the Contractor's expense.

Contractor is responsible for ensuring positive drainage in landscape areas.

Landscape materials shall not be installed until weather permits and installation has been authorized by the Engineer. If water restrictions are in force, planting landscape materials may be delayed.

All landscaping and pavement areas damaged during the Work by the Contractors activities shall be restored to original condition. Adequacy of the restoration shall be determined by the Engineer. This Work shall be performed solely at the Contractor's expense.

8-02.3(1) Responsibility During Construction

Supplement this section with the following:

(*****)

Throughout planting operations, the Contractor shall keep the premises clean, free of excess soils, plants, and other materials, including refuse and debris, resulting from the Contractor's work.

At the end of each workday, and as each planting area is completed, it shall be neatly dressed, and all surrounding walks and paved areas shall be cleaned to the satisfaction of the Engineer. No flushing will be allowed without approval of the Engineer. At the conclusion of work, the Contractor shall remove surplus soils, materials, and debris from the construction site and shall leave project in a clean condition.

Dumping or stockpiling of topsoil or bark mulch shall not be allowed on paved surfaces.

The Contractor shall locate all underground utilities (both new and existing) prior to starting work and shall not disturb or damage them. Promptly notify the Engineer of any conflict between the proposed work and any obstructions. The Contractor shall be responsible for making any and all repairs for damage caused by his or her activities.

8-02.3(2)A Roadside Work Plan

Section 8-02.3(2)A is supplemented with the following:

(*****)

The Contractor shall submit to the Contracting Agency a Roadside Work Plan meeting the requirements of the Standard Specifications a minimum of 15 calendar days prior to commencing the installation of topsoil, bark mulch, and landscape materials.

8-02.3(4) Topsoil

Section 8-02.3(4) is supplemented with the following:

(*****)

Thoroughly scarify subgrade in all areas to be planted or seeded to a minimum depth of eight inches (8"). Scarified subgrade shall be inspected and approved by the Engineer prior to placement of topsoil.

Areas around existing trees to remain shall not be cultivated within the limits of tree protection fencing or any other areas which appear to have a significant number of existing tree roots. Additional care shall be taken excavating around bridge columns.

Remove all construction debris and rocks over two inches (2") in diameter prior to the placement of topsoil. Upon approval of the subgrade by Engineer, planting areas shall be prepared as follows:

New Planter Areas: Topsoil Type A shall be installed in two lifts. The first six-inch (6") lift of Topsoil Type A shall be rototilled into the top six inches (6") of prepared subgrade, then the remaining Topsoil Type A shall be installed to achieve the minimum depth of Topsoil Type A as shown on the Plans.

Fill Slope Planter Areas: Topsoil Type A shall be installed in a single lift to achieve the minimum depth of Topsoil Type A as shown on the Plans. No tilling into subgrade required.

Existing Planter Areas: Native soil shall be amended with 3" of fine compost tilled into top 8" of prepared subgrade.

Roadway Planter Areas: Topsoil Type A shall be installed in a single lift to depth required to bring finish grade to 3" below adjacent paved surfaces.

Remove rocks, roots, and debris over one (1) inch in diameter. Lightly compact soil and establish a smooth and uniform finished grade that protects against obstruction to surface drainage and ponding. Finish grade after installation of topsoil shall be 1" plus the specified depth of mulch below the top of adjacent curbs or paved surfaces.

Topsoil Type A shall be used in any areas requiring additional soil to bring subgrade up to grade, prior to the placement of Topsoil Type A as noted on the plans.

Do not drive, park equipment, or place construction materials on prepared subgrades or installed Topsoil once placed.

The costs of removing all excess material and debris shall be considered incidental to and included in the unit contract prices of other items in this contract.

The Contractor shall coordinate installation of Root Barrier with topsoil installation where shown and as detailed on the Plans. Root Barrier shall meet the requirements of Section 9-14.5(9) Root Barrier of these special provisions and shall be supplied by a Contractor's supplied source, and as approved by the Engineer.

8-02.3(4)A Topsoil Type A

Section 8-02.3(4)A is supplemented with the following:

(*****)

Topsoil Type A shall conform to Section 9-14.2(1) Topsoil Type A of these Special Provisions and shall be supplied by a Contractor's supplied source, and as approved by the Engineer.

8-02.3(6)A Compost

Section 8-02.3(6)A is supplemented with the following:

(*****)

Per City of Maple Valley Municipal Code Chapter 14.15 Compost Procurement, all compost utilized on the project shall be sourced per following requirements:

Fine Compost shall comply with City of Maple Valley Municipal Code Chapter 14.15 Compost Procurement. Priority of Submittal and purchase for Engineer approval shall be:

1. Produce compost products locally;
2. Are certified by a nationally recognized organization like the US Composting Council; and
3. Produce compost products that are derived from municipal solid waste compost programs and meet quality standards comparable to standards adopted by the Department of Transportation or adopted by rule by the Department of Ecology

In the event fine compost products are not available within a reasonable time or distance from the project, compost products that are available do not comply with existing purchasing standards, compost products that are available do not comply with federal, state, or local health, quality and safety standards, or compost purchase prices are not reasonable or competitive, the Contractor shall submit a source that meet Fine Compost material per Standard Specification 9-14.5(8).

Within 30 calendar days after Physical Completion, the Contractor shall report source(s), volumes and cost of procurement for all compost utilized on the project per RCW 43.19A. The document shall be submitted as a Type 2 Working Drawing. The report shall not include labor and cost of haul.

8-02.3(6)B Fertilizers

Section 8-02.3(6)B is supplemented with the following:

(*****)

Trees and shrubs shall be fertilized at a rate according to manufacturer's recommendations. Fertilizer tablets shall be considered incidental to and included in the unit contract price for trees and shrubs.

Fertilizers shall be as specified in Section 9-14.4 Fertilizer, of these Special Provisions.

8-02.3(8) Planting

8-02.3(8)A Dates and Conditions for Planting

Section 8-02.3(8)A is supplemented with the following:

(*****)

All plant material except ground cover shall be legibly tagged. Tagging may be by species or variety with minimum of one tag per ten trees, shrubs, or vines. Remove all tagging prior to final acceptance.

The Contracting Agency shall reserve the option of selecting and inspecting plant material at the nursery. The Contractor shall provide the Contracting Agency with at least one week notice prior to preparing plants for shipping and delivery. The Contractor shall neither deliver to site nor install plant materials until authorized by the Contracting Agency.

If planting is delayed more than 24 hours after delivery, set balled and burlapped plants on the ground, well protected with soil or wet peat. Adequately cover all roots of bare root material with soil or wet peat. Protect rootballs from freezing, sun, drying winds or mechanical damage.

The Contractor shall provide supplemental water to all plants as necessary to keep moisture levels appropriate to the species' horticultural requirements. Plants shall not be allowed to dry out. All plants shall be watered thoroughly immediately upon installation. Soak all containerized plants thoroughly prior to installation. Plants whose roots have dried out from exposure will not be accepted at installation inspection. All rejected plants shall be immediately removed from the site.

Plants shall not be stored for more than one (1) week. Longer storage period at project site will result in rejection of plant materials by the Contracting Agency.

Plant substitutions, including or larger or smaller sized plants, are not permitted without the permission of the Contracting Agency.

8-02.3(8)B Plant Installation

Section 8-02.3(8)B is supplemented with the following:

(*****)

All plant material shall be planted as detailed on the Plans.

Thoroughly scarify sides and bottom of planting pits prior to planting.

Set plant material upright and face to give best appearance or relationship to adjacent structures and hold rigidly in position until planting soil has been backfilled and tamped firmly around the root ball or roots.

Balled and burlapped plants shall be placed in the planting pits with the burlap intact; the binding shall be removed and all of the burlap or cloth wrapping materials shall be removed from the root ball. Remove all plastic, twine and ropes. The plant shall be rejected if the root ball is cracked or broken during removal of wrapping or during the planting process.

When the pit is backfilled halfway, place the specified quantity of fertilizer, unless otherwise specified on the plans. Evenly spread fertilizer adjacent to, the root system at a depth that is between the middle and the bottom of the root system. Do not injure root system. Carefully place and compact topsoil to avoid injury to roots; fill all voids. Tree root crowns to be 1 inch (1") higher than finished grade to allow for settlement.

When pit is three-quarters (3/4) backfilled, completely fill with water and allow water to soak away. If water does not drain within ½ hour notify Engineer; tree planting pits which do not drain properly may require drain rock sump to facilitate drainage. Fill pits with additional topsoil to finish grade and continue backfilling as detailed on plans.

8-02.3(11)D Arborist Mulch

Arborist Mulch shall be placed where noted and to the depth shown on the Plans. Thoroughly water and hose down plants with a fine spray to wash the leaves of the plants immediately after application.

Arborist Mulch shall be sourced from trees removed on site. If additional quantity of Arborist Mulch beyond what can be sourced on site is required, it shall meet the requirements of Section 9-14.5(3)A Arborist Wood Chip Mulch of these special provisions and shall be supplied by a Contractor's supplied source, and as approved by the Engineer.

8-02.3(13) Plant Establishment

Section 8-02.3(13) is supplemented with the following:

(*****)

Plant establishment shall consist of caring for all plants planted within the project limits for one (1) calendar year. The Contractor shall guarantee and warranty all plant materials covered under this Contract for a period of one (1) year. The Contractor is required to submit a plant establishment and maintenance plan for the calendar year.

Maintenance plan and activities shall include, but not limited to:

1. Removing and replacing dead plants; plant replacements shall be per Section 8-02.3(14) of the Standard Specifications.
2. Pruning, cultivating fertilizing and performing other necessary operations for healthy and continued growth of plant material. Pruning shall occur at minimum once every 6 months.
3. Maintaining and adjusting staking materials, supports, guys, intact and in good serviceable condition.
4. Weeding all planting areas at minimum two (2) times per month from May 1st to September 30th.
5. Hand watering any plant material not covered by automatic irrigation system at minimum two times per week from May 1st to September 30th, or more frequently as required to establish plants in a thriving condition.
6. Perform other work, including but not limited to eradication of weeds to maintain all planting areas in a healthy, vigorous and weed-free condition throughout the Plant Warranty Period.

The plant establishment shall begin immediately upon written notification from the Engineer of the acceptance of initial planting for the entire project.

During the plant establishment period the Contractor shall meet with the Contracting Agency monthly for the purpose of jointly inspecting the plant material.

Plant establishment shall be paid for under the contract price for "PSIPE_____" per each.

Add the following new section:

(*****)

8-02.3(17) Property Restoration

Property restoration shall consist of placement of additional plant materials, sod, seed, bark mulch, slope restoration behind sidewalks, and other work not currently identified on the plans, as directed by the Engineer.

All materials shall conform to Sections 9-14 Erosion Control and Roadside Planting and 9-15 Irrigation System of the Standard Specifications.

The Contractor is specifically reminded that any unnecessary damage caused by construction activities will be repaired at the Contractor's expense.

Restore all disturbed areas to original condition or better. Grass areas shall be restored with hydroseed unless otherwise directed.

Removal of tree roots outside the limits of construction, as directed by the Engineer and performed under the supervision of a certified arborist, shall be paid for under "Property Restoration".

Topsoil shall be Type A and mulch shall be arborist mulch.

The force account item provided for property restoration also includes any adjustments and/or replacements of existing irrigation systems not covered under Section 8-03 Irrigation Systems of the Special Provisions. This work shall also consist of modifying existing landscape lighting systems as may become necessary by these improvements.

The Contractor is advised that protecting existing landscape areas and irrigation from damage does not constitute a basis for claim or extra work. "Property Restoration" has been provided as a basis for modifications or improvements to irrigation systems that may become necessary but could not be foreseen prior to construction.

Add the following new section:

(*****)

8-02.3(18) Landscape Boulders

Landscape Boulders shall be installed where shown and as detailed on the plans.

The Contractor shall provide images showing shape, coloration and scale of landscape boulders for approval prior to delivery to the site.

Landscape Boulders layout shall be approved in the field by the Engineer prior to installation.

Landscape Boulders shall consist of a 50-50 mix of Type Three and Type Four Streambed Boulders meeting the requirements of Section 9-03.11(5) Streambed Boulders of the Standard Specifications and shall be supplied by a Contractor's supplied source, and as approved by the Engineer.

Crushed Surfacing Base Course for landscape boulders installation shall meet the requirements of Section 9-03.9(3) of the Standard Specifications and shall be considered incidental to and included in the unit costs for landscape rocks.

Add the following new section:

(*****)

8-02.3(19) Landscape Logs

Landscape Logs shall be installed where shown and as detailed on the Plans.

Landscape Logs shall be sourced from trees removed and on site and shall meet the requirements of Section 9-14.10 Landscape Logs of these special provisions. Trees selected for use as landscape logs shall be approved in the field by the Engineer prior to processing into approved lengths.

Crushed Surfacing Base Course for landscape log installation shall meet the requirements of Section 9-03.9(3) of the Standard Specifications and shall be considered incidental to and included in the unit costs for landscape logs.

8-02.4 Measurement

Section 8-02.4 is supplemented with the following:

(*****)

Topsoil and compost will be measured by the cubic yard in the haul conveyance at the point of delivery.

Arborist mulch will be measured by the square yard of mulch spread to the required depth where shown on the Plans.

The pay quantities for plant materials will be determined by count of the number of satisfactory plants accepted by the Engineer.

Root barrier will be measured by the linear foot of root barrier installed and accepted by the Engineer.

Landscape boulders and logs will be measured per each boulder or log installed and accepted by the Engineer.

No specific unit of measure will apply to the force account for property restoration.

8-02.5 Payment

Section 8-02.5 is supplemented with the following:

(*****)

Payment will be made for the following bid item:

“Topsoil Type A”, per cubic yard

The unit contract price per cubic yard for “Topsoil Type A” shall be full pay for all costs necessary to furnish and install the topsoil as required in these Specifications and as shown on the Plans.

“Arborist Wood Chip Mulch”, per square yard.

The unit contract price per cubic yard for “Arborist Wood Chip Mulch” shall be full pay for all costs necessary to install the arborist wood chip mulch as required in these Specifications and as shown on the Plans. The cost for chipping and stockpiling arborist wood chip mulch shall be considered incidental to and included in other bid items as part of this contract.

“Fine Compost”, per cubic yard.

The unit contract price per cubic yard for “Fine Compost” shall be full pay for all costs necessary to furnish and install the compost as required in these Specifications and as shown on the Plans. The unit contract price shall also include documenting compliance with state compost requirements per RCW 43.19A and as specified herein.

“PSIPE_____”, per each.

The unit contract price for “PSIPE_____”, per each, shall be full compensation for all materials, labor, tools, equipment, and supplies necessary to fine grade, produce, plant, cultivate and cleanup for the particular items called for in the plans. Tree staking/bracing and fertilizer shall be incidental to the above bid items and all costs shall be included in the unit contract prices. All costs associated with the maintenance of the landscaping, including weeding, mowing, pruning and caring for planted areas, during the first-year plant establishment shall be considered incidental to and included in the unit contract price.

“Property Restoration” per force account.

“Property Restoration” will be any work, equipment or materials required to restore property to original condition not covered by other bid items, measured per force account.

“Root Barrier” per linear foot.

The unit contract price per linear foot for “Root Barrier” shall be full compensation for all costs necessary and incidental to furnish and install root barrier, as required in these Specifications and as shown on the Plans.

“Landscape Boulder” per each.

The unit contract price per each for “Landscape Boulder” shall be full compensation for all costs necessary and incidental to furnish and install landscape rocks, including but not limited to procuring, hauling, excavating, furnishing and installing CSBC, and setting rock in its final location.

“Landscape Log” per each.

The unit contract price per each for "Landscape Log" shall be full compensation for all costs necessary and incidental to install landscape logs as required in these Specifications, including but not limited to processing to length and to remove side branches; hauling, excavating, furnishing and installing CSBC, and setting log in its final location. The cost for removing and stockpiling log sections shall be considered incidental to and included in other bid items as part of this contract.

8-03 IRRIGATION SYSTEMS

8-03.1 Description

Supplement this section with the following:

(*****)

This work shall consist of installing a new and functioning irrigation system, including connection to an existing double check valve assembly (DCVA) per the Bid Documents.

The Contractor shall connect to existing meter and DCVA, and extend mainline to location as shown on the Plans.

Irrigation shall be temporary for the portion of the project on the Tahoma School District property, while the plantings within the City of Maple Valley right-of-way shall have permanent irrigation.

8-03.3 Construction Requirements

Supplement this section with the following:

(*****)

Backfilling of irrigation piping shall be in accordance with Section 7-08.3(3) Backfilling of these Special Provisions.

8-03.3(3) Piping

Supplement this section with the following:

(*****)

All irrigation sleeves shall be Schedule 40 and sized and located as shown on the Plans. Sleeve size shall be a minimum of two times the diameter of all pipe and control wire to be placed in the sleeve.

Hanging baskets attached to the columns and Tree Planters installed on the main span arch knuckles shall be irrigated utilizing flexible plastic lines (black Polyethylene Tubing - Size: 1/2" with 0.600" ID x 0.700" OD) routed through the rigid metal conduit attached to the columns. At the hanging baskets, the tubing shall split into two lines that provide drip irrigation to the planters secured and staked in the pot.

At the arch, the line shall be routed across the top of the pier and up to the Tree Planter using clips secured to one of the south threaded rods to provide irrigation. The tubing shall be routed to avoid conflicts with the TADAS shear key and bearings. Any attachment requirements shall be per supplier requirements and coordinated by the Contractor with approval from the Engineer.

PVC Pipe and Fittings

Due to the nature of PVC pipe and fittings, the Contractor shall exercise care in handling, loading, unloading and storing pipe to avoid damage. The pipe and fittings shall be stored under cover

and shall be transported in a vehicle with a bed long enough to allow the length of pipe to lie flat so as not to be subject to undue ending or concentrated external load at any point. Any pipe that has been dented or damaged shall be set aside until such damage has been cut out and pipe is rejoined with a coupling.

Solvent welded joints shall be performed as a two-step process using P70 primer and 711 glue. In each case, both fittings and pipes shall be given the following applications. Both shall first be primed, then be glued, then pressed together while giving a quarter turn and held together for 30 seconds. Give at least 15 minutes set-up time before moving or handling. Pipe shall be partially center loaded to prevent arching and slipping. No water shall be permitted in the pipe until at least 10 hours have elapsed for the weld to set and cure.

Backfilling shall be done when pipe is not in an expanded condition due to heat or pressure. Cooling of the pipe can be accomplished by operation the system for a short time before backfill, or by backfilling in the early part of the morning before the heat of day.

Before pressure testing, soluble weld joints shall be given at least 24 hours curing time.

No PVC pipe may be threaded or connected to a threaded fitting without an adapter.

Great care shall be taken to ensure that the inside of the pipe is absolutely clean. Any pipe ends not being worked on shall be protected and not left open.

8-03.3(4) System Operation

Supplement this section with the following:

(*****)

The irrigation system operation shall be guaranteed, maintained and operated by the Contractor for the full duration of the plant establishment required by the Bid Documents.

The system shall be designed to be winterized.

8-03.3(7) Flushing and Testing

Supplement this section with the following:

(*****)

The Contractor shall advise the Engineer at least 48 hours before pressure tests are to be conducted and shall have the approval of the Engineer before backfilling, both main lines and lateral lines and system shall pass an electrical resistance test. The pressure reducing valves shall also be inspected at this time.

Before backfilling, main lines and automatic valves shall be flushed twice, once prior to placement of valves and the second after placement of the valves.

Main Line Test (Hydrostatic Pressure Test)

With all valves in place and closed, and all joints exposed.

Attach test pump to head of main line after twin check.

Attach gate valve to opposite end of main line.

Open gate valve at end of main line and open main shut-off valve until all air is removed from main line.

Close gate valve at end of main line and install pressure gauge and reopen gate valve.

Close main shut-off valve and apply 150 psi test to main line. Hold for one hour. Maximum allowable drop is 10 psi.

At the end of test close gate valve at end of mainline and remove pressure gauge. Open gate valve and slowly remove pressure from line.

Lateral Line Test

With all valves and swing joints in place.

Apply 100 psi test to lateral lines for one hour. Maximum allowable drop is 10 psi.

Rejected systems or portions of shall be repaired and retested. Any leakage noted shall be corrected and the test repeated until the system is air-tight, at the Contractor's expense.

To be valid, all tests shall be performed under the direction and supervision of authorized Contracting Agency personnel, or authorized representative.

The location, inspection and testing provisions of these specifications will be strictly adhered to. If for any reason any part of the sprinkler system is backfilled before being authorized by the Engineer, it shall be completely uncovered and exposed until approved for backfilling by the Engineer.

8-03.3(10) As-Built Plans and System Orientation

Supplement this section with the following:

(*****)

A set of drawings shall be maintained at the job site by the Contractor, showing any deviations from the original design, including reconnection and new valve locations for the existing system. All changes shall be shown in red and provided to the Contracting Agency at completion of construction.

8-03.3(11) System Operation

Supplement this section with the following:

(*****)

The irrigation system operation shall be guaranteed, maintained and operated by the Contractor for the full duration of the plant establishment required by the Bid Documents. Should any trouble develop within the one-year period, which in the opinion of the Engineer,

is due to faulty material or workmanship, the trouble shall be corrected, without delay, to the satisfaction of the Engineer at the Contractor's expense.

Before the irrigation system will be accepted, the Contractor, in the presence of the Engineer, shall perform a water coverage test to determine if the water coverage and operation of the system is complete and satisfactory. If any part of the system is inadequate it shall be repaired or replaced at the Contractor's expense and the test repeated until accepted.

8-03.3(14) Irrigation Electrical Service

Supplement this section with the following:

(*****)

Connect to the existing power source as noted on the Plans.

Contractor shall utilize the rigid metal conduit attached to Piers P6 and P7 and embedded in the main span deck to run the irrigation control line from the west to east side of the highway. All labor and materials and trenching associated with this Work shall be included under the "Irrigation System, Complete" bid item.

8-03.5 Payment

Supplement this section with the following:

(*****)

"Irrigation System, Complete", per lump sum.

The lump sum price for "Irrigation System, Complete" shall be full compensation for furnishing all labor, materials, tools, and equipment necessary or incidental to the construction of the complete and operable sprinkler irrigation system as shown in the Plans or as directed by the Engineer. All costs for furnishing and installing plastic valve boxes where indicated and as detailed in the Plans and all costs of inspections and tests performed on Double Check Valve Assembly shall also be considered incidental to and included in the lump sum price for "Irrigation System, Complete". No separate payments shall be made for excavation, pipe bedding, backfilling, compaction, connection to electrical services, or restoration of materials associated with the installation of the Irrigation System.

8-04 CURBS, GUTTERS, AND SPILLWAYS

8-04.1 Description

Supplement this section with the following:

(*****)

This work shall also include installation of vertical curb to the lines and grades shown on the Plans and per the details on the Plans.

8-04.2 Materials

Supplement this section with the following:

(*****)

All curbs and gutters shall be Class 4000 with a maximum 4-inch slump, in accordance with Section 6-02 of the Standard Specifications.

8-04.3 Construction Requirements

Add the following new section:

8-04.3(3) Vertical Curb

(*****)

Vertical curbs shall be constructed per the requirements in Section 8-04 of the Standard Specifications and as detailed on the plans.

8-04.4 Measurement

Supplement this section with the following:

(*****)

“Cement Conc. Vertical Curb” shall be measured per linear foot along the line and slope of the completed curb, including bends.

8-04.5 Payment

Supplement this section with the following:

(*****)

“Cement Conc. Vertical Curb”, per linear foot.

The unit contract price per linear foot for “Cement Conc. Vertical Curb” shall include but not be limited to grading, furnishing of concrete, forming, and placement of vertical curb as shown on the Plans.

8-05 UTILITY ADJUSTMENTS (NEW SECTION)

8-05.1 Description

(*****)

This work shall consist of adjusting various existing utility structures to finished grade. Slip resistant coating shall be applied to all utility structures that are adjusted to grade.

8-05.2 Materials

(*****)

Materials used for utility structure adjustments shall be as specified per the City of Maple Valley standards.

The permanent marking shall be 1/8 inch line thickness formed by engraving, stamping or with a stainless steel weld bead.

8-05.3 Construction Requirements

(*****)

Utility adjustments shall be performed per the requirements of the City of Maple Valley standards.

If utility structures are adjusted to finished grade prior to the day of paving operations the Contractor shall be responsible for protecting the utility structure until final paving has been completed. The Contractor may need to provide temporary HMA wedges along the structure in order to protect the structure. Temporary HMA wedges shall be constructed so as to allow vehicles driving over the structure if the structure is within the travelled roadway.

8-05.4 Measurement

(*****)

Utility structure adjustments to final grade shall be measured per each structure completely adjusted to final grade and painted with slip resistant coating, regardless of size and type of structure.

8-05.5 Payment

(*****)

Payment will be made in accordance with Section 1-04.1 for the following bid items when included in the proposal:

“Adjust Utility Structure to Grade”, per each.

The unit contract price for “Adjust Utility Structure to Grade” shall be full compensation for all labor, material, equipment, haul necessary to complete the utility adjustment to grade including but not limited to: grade rings, concrete collars, crushed surfacing top course, HMA patching, temporary HMA wedges, procurement and application of slip resistant coating and other incidental items of work.

8-12 CHAIN LINK FENCE AND WIRE FENCE

8-12.1 Description

Supplement this section with the following:

(*****)

This work shall also consist of furnishing “Wood Post & Rail Fence” and “Portable Restroom Enclosure Fence” in accordance with the Plans and these Special Provisions.

8-12.2 Materials

Supplement this section with the following:

(*****)

Material shall meet the requirements of the following sections:

Timber and Lumber 9-09

All timber for “Wood Post & Rail Fence” and “Portable Restroom Enclosure Fence” shall be sealed with a transparent, UV resistant, weatherproofing wood sealant prior to construction. The Contractor shall stain all surfaces of the wood with:

- TWP-101 Cedartone;
- Armstrong Clark Wood Deck Semi-Transparent stain; or
- Approved equivalent.

The Contractor shall install the anchor post, bolts, 4”x4” pressure treated wood post and concrete (CIP) footings as detailed per the Plans. Concrete for post installation shall be Commercial Concrete per Standard Specification Section 6-02.3(2)B.

Materials for “Wood Post & Rail Fence” and “Portable Restroom Enclosure Fence” shall be per Plans.

8-12.3 Construction Requirements

Supplement this section with the following:

(*****)

Contractor shall provide material sizing, type and installation methods for Wood Post & Rail Fence and Portable Restroom Enclosure Fence work for approval by Engineer prior to installation.

Portable Restroom Enclosure Fence shall be constructed of pressure treated posts, caps, framing, and compatible hardware to avoid corrosion as shown on the Plans. Board members shall be of WRCLA Western Red Cedar, Rough Sawn, Standard and better.

Wood Post & Rail Fence and Portable Restroom Enclosure Fence shall be installed as shown on the Plans. Post holes shall be excavated in a manner to ensure that no rocks or soils enter any adjacent ditch or sensitive areas. The Contractor shall use Crushed Surfacing Base

Course for post backfill. Post backfill materials shall be installed in lifts no greater than 6-inches and compacted as approved by the Engineer. Deeper lifts may be approved if contractor can demonstrate that the post will be stable as determined by the Engineer.

Contractor shall provide specifications and cut sheets for wood sealer and stain for Engineer's approval.

Contractor shall submit layout drawings of Wood Post & Rail Fence and Portable Restroom Enclosure Fence including concrete footing locations, including indication of all materials specified, dimensions, relationship to proposed sidewalk and planting area grades for Engineer's approval prior to construction. The approval of these layout drawings shall be understood to be an acceptance of the character and sufficiency of the details and not a check of the dimensions.

8-12.4 Measurement

Supplement this section with the following:

(*****)

"Wood Post & Rail Fence" shall be measured per linear foot of completed fence, along the ground line.

"Portable Restroom Enclosure Fence" shall be measured per linear foot of constructed and installed fence, along the ground line.

8-12.5 Payment

Supplement this section with the following:

(*****)

Payment shall be made for the following Bid items:

"Wood Post & Rail Fence", per linear foot.

"Portable Restroom Enclosure Fence", per linear foot.

The unit price per linear foot of "Wood Post & Rail Fence" and "Portable Restroom Enclosure Fence" shall include full compensation for all materials, labor, tools, and equipment required to install complete, in-place the type of fence specified herein and in the Plans, including but not limited to excavation post holes, concrete foundations, all wood, wood sealer/stain, hardware, fasteners, and clean-up.

8-14 CEMENT CONCRETE SIDEWALKS

8-14.1 General Requirements

Supplement this section with the following:

The work described in this section shall consist of constructing Cement Conc. Sidewalks and Cement Conc. Plaza with light broom finish and saw cut scoring in locations as shown on Plans.

This work also includes decorative surface treatment, metal inlay on Cement Conc. Plaza and green detectable warning strip as shown on the Plans and in the details.

8-14.2 Materials

Supplement this section with the following:

(*****)

The concrete in the sidewalks shall be air entrained concrete Class 4000, with a maximum 4-inch slump, in accordance with Section 6-02 of the Standard Specifications.

Green detectable warning strips shall be green Tactile Directional Indicators by:

- Vanguard
- TufTile
- Traffic Safety Supply Company
- Or Approved Equal

Metal Inlay shall be a mix of least three (3) unique cast bronze pieces (18 total). Sizes shall be as shown per Plans, cast bronze plaque including flat relief graphic, recessed flat and sand textured face. Cast bronze shall be Silicon Bronze – Herculoy Regular per UNS# C87610 (92% copper, 4% zinc, 4% silicon).

Curing compound and sealer shall be water based, non-flammable, matte, non-yellowing, non-clouding, and resistant to wear. Compound and sealer shall protect against water damage, oil and common stains, formulated for exterior use.

8-14.3 Construction Requirements

Supplement this section with the following:

(WSDOT GSP, Option 1 October 3, 2022)

The Contractor shall request a pre-construction meeting with the Engineer to be held two (2) to five (5) working days before any work can start on cement concrete sidewalks, curb ramps

or other pedestrian access routes to discuss construction requirements. Those attending shall include:

1. The Contractor and subcontractor in charge of constructing forms, and placing, and finishing the cement concrete.
2. Engineer (or representative) and Project Inspectors for the cement concrete sidewalk, curb ramp or pedestrian access route Work.

Items to be discussed in this meeting shall include, at a minimum, the following:

1. Slopes shown on the Plans.
2. Inspection
3. Traffic control
4. Pedestrian control, access routes and delineation
5. Accommodating utilities
6. Formwork
7. Installation of detectable warning surfaces
8. Contractor ADA survey and ADA Feature as-built requirements
9. Cold Weather or Hot Weather Protection

(WSDOT GSP, Option 3, January 7, 2019)

Layout and Conformance to Grades

Using the information provided in the Contract documents, the Contractor shall lay out, grade, and form each new curb ramp, sidewalk, and curb and gutter.

Cement Conc. Sidewalk shall be installed per WSDOT Standard Plan F-30.10-04, which includes contraction/expansion joint, sawcut scoring and light broom finish as shown layout to limits provided in the Plans.

Cement Conc. Plaza shall be installed per Plans and includes contraction/expansion joint, sawcut scoring, light broom finish, surface treatment and metal inlay as shown detailed in the Plans and per these special provisions.

All finished grade of Cement Conc. Sidewalk and Cement Conc. Plaza slopes shall be installed per conformity with the lines, grades, thicknesses, and typical cross-sections as shown on the Plans.

The Contractor shall have the subgrade prepared and the line or formwork for all concrete placed at least 24 hours prior to installing cement concrete sidewalk and pathway. Compliance shall be checked by the prime contractor when forms are set and when concrete is poured. Grading shall be ADA compliant and shall be approved by the Engineer.

The work to revise the lines, formwork and subgrade for minor adjustments shall be considered incidental to the bid price for Cement Conc. Sidewalk If the lines and formwork

are not in conformance with the Plans, all adjustments, regardless of size, shall be at the sole expense of the Contractor. Adjustments to the lines and grades shall not constitute a basis for claims for additional contract time or expenses. Contractor to coordinate concrete pour work and location(s) for vehicles and equipment during concrete installation with Engineer to occur during agreed upon hours/days. Pour work will be required to occur during temperatures to meet standard specifications for cure requirements. There shall be no placement of concrete between 12pm and 4pm, without Engineer approval.

Qualified and competent workman shall have a minimum five (5) years of work experience for same paving type installation and placement of concrete.

Metal Inlay Manufacturer and Trade Contractor shall have a minimum of 5 years of successful experience on projects of similar magnitude and complexity to that indicated project. Manufacturer shall furnish certification attesting that materials meet specification requirements. Contractor shall provide the following information from Metal Inlay Manufacturer:

- Five or more projects installed where metal inlay in similar scale and size has been installed into the concrete outdoors.
- List of five projects with the address of the installation, the date of the installation, the point of contact for the project and their phone number.
- Two photos of each project listed above representing the project/installation.
- Each installation listed above representing the installation. Photo #1 shall show the approximate size of the installation. Photo #2 shall be taken approximately 2 to 3 feet from the paving surface. Minimum size of each individual installation shall be 800 square feet.
- Manufacturing company to have been in business 10 years or more. Provide three (3) references with phone numbers.

Submittal

The Contractor shall submit surface retardant manufacturer information and technical specifications for Engineer's approval.

The Contractor shall submit photographs of constructed work from four (4) similar projects completed within the past five (5) years, with a minimum of two (2) photographs per project, for the Engineer's review and approval of the Contractor's qualifications.

The Contractor shall submit Joint Layout Plan to Engineer for approval at least five (5) working days prior to the commencement of any cement concrete flatwork construction. The Joint Layout Plan shall show layout and dimensions for all architectural scoring, construction joint, contraction joint, expansion joint as well as areas delineated for Cement Conc. Sidewalk and Cement Conc. Plaza.

Contractor shall submit (1) one physical sample of metal inlay 'leaf' at minimum of 4" for Engineer's approval prior to fabrication.

Contractor shall submit technical information including manufacturer's name, color, bronze finish, dimensions and electronic linework of all metal inlay designs (indicating stud locations) for Engineer's approval prior to installation.

Mock-Up Samples

Prior to start of pavement work the Contractor shall provide one (1) four (4) foot by six (6) foot (24 square feet) mock-up sample of concrete with construction, expansion joint, contraction joint, score joint, and broom finish for Engineer's approval.

Prior to start of pavement work the Contractor shall provide a total of two mock-up samples in three (3) foot by six (6) foot (18 square feet) concrete mock-up areas of decorative surface treatment showing one per each evenly dispersed medium sandblast finish and deep-heavy sandblast finish of surface retardant treatment with clear matte sealer per these special provisions and design plans.

The approved samples shall be the standard for the balance of the rest of the work installed and shall be protected from damage until final acceptance and approval. Any additional mock-up sample provided for approval by Engineer shall be incidental to and included in respective unit bid prices for "Cement Conc. Sidewalk" and "Decorative Surface Treatment" per these Special Provisions.

No additional concrete shall be placed prior to the test panel being approved by the Engineer.

Asphalt mastic joint fillers shall be 3/8" x 4" and of the same material as that used in the curb with matching expansion joint locations.

Engineer to field verify the final layout of the Decorative Surface Treatment area and placement of the metal inlays within the cement conc. plaza prior to installation.

Metal Inlay shall be installed with edges flush to finish grade in locations as detailed and shown on the Plans.

Contractor shall ensure all Metal Inlay and surrounding work surface area to be wiped clean of any grout work.

The third paragraph of Section 8-14.3(3) is revised to read as follows:

(*****)

Placing and Finishing Concrete

Full depth expansion joints for sidewalk shall match the full depth expansion joint location of the adjacent curb and gutter and shall be constructed per the details in the Plans. Cement Conc. Sidewalk SHALL NOT have 4" (inch) wide, smooth troweled perimeter. Architectural joints for cement conc. sidewalk and cement conc. plaza shall be constructed by sawcut only at a maximum distance of 5 feet from each full depth expansion joint and shall be constructed per the details in the Plans.

Sawcut scoring pattern on sidewalk segments shall be scored perpendicular and on center in equal proportion to the width of the sidewalk. Contractor shall provide sidewalk scoring layout in the field for Engineer to verify all architectural joint locations prior to installation.

The final layout of Cement Conc. Sidewalk and Cement Conc. Plaza shall be determined in field and approved by Engineer.

The final layout of Decorative Surface Treatment on Cement Conc. Plaza shall be determined in field and approved by Engineer.

Decorative surface treatment for cement concrete plaza area shall be achieved using water-based, polymerized high-performance top surface retardant in medium to deep sand blast texture, or approved equal.

Apply surface retardant in Engineer's approved sandblast finish to exposed concrete surfaces as indicated per Plans.

Apply surface retardant after placement of properly prepared concrete, during dry weather at a duration per manufacturer's recommendation. Coordinate with formwork construction, concrete placement schedule, and formwork removal to ensure that surfaces to receive surface retardant provides uniform results throughout the concrete surfaces.

When using the surface retardants, it is generally better to remove the retarder the same day for best results or generally within 8 to 12 hours of finishing in warm weather. Surface retarders shall be installed according to the manufacturer's recommendations.

Applicator Qualifications for Decorative Surface Treatment shall be applied by qualified surface retardant applicator(s) as appropriate for the system scheduled and acceptable to the Engineer. Applicators shall have experience in the concrete surface preparation, application and removal for and application of surface retardant for sandblast finish on cement concrete flatwork similar in extent to this Contract.

8-14.3(5) Detectable Warning Surface

Supplement this section with the following:

(*****)

Detectable warning surface shall be furnished and installed on all sidewalk ramps and as shown in the Plans.

Detectable warning surfaces shall be furnished as follows:

Color: Federal Yellow.

Add the following sub-section:

8-14.3(6) Curb Ramps

(*****)

The curb ramp on this project has been modified from the standard details to fit the project conditions while meeting current ADA requirements. Contractor shall take special care to ensure that the ramps are constructed in conformance with ADA requirements that ramp shall be built to maximum extent feasible (MEF).

Compliance with ADA Standards is of utmost importance and minor modifications to the dimensions shown on the Plans may be required to meet current standards. Therefore, prior to pouring concrete at the curb ramp locations, the Contractor shall demonstrate to the inspector that the forms are set in compliance with ADA Standards, or maximum extent feasible where shown on the Plans. Ramps poured that do not meet current ADA standards and note identified for maximum extent feasible shall be removed and replaced at the Contractor's expense.

Add the following sub-section:

8-14.3(7) Tactile Direction Indicator

(*****)

Tactile direction indicators (TDI) shall be installed per the manufacturer's recommendations and shall be fully ADA compliant.

A sample section will be required for TDIs if the manufacturer is not listed by name under the materials section. The Engineer may require in situ testing of the sample to determine the material's long-term viability before approving it for use.

Installation methods for TDIs shall be approved by the Engineer prior to ordering materials.

8-14.4 Measurement

Supplement this section with the following:

(*****)

"Cement Conc. Sidewalks" shall be measured per square yard, regardless of scoring pattern and finish.

Cement concrete poured for the plaza area shall be measured and paid as "Cement Conc. Sidewalk".

"Cement Conc. Curb Ramps" and "Cement Conc. Bike Ramps" shall be measured per square yard regardless of type of ramp installed (pedestrian or bicycle), including detectable warning surface.

"Decorative Surface Treatment" shall be measured per square yard of finished surface retardant treatment of cement concrete plaza areas including sealer.

No specific unit of measure shall apply to the lump sum for "Metal Inlay".

"Green Detectable Warning Strip" shall be measured per linear foot of TDI completely installed and approved by the Engineer.

8-14.5 Payment

Supplement this section with the following:

(*****)

“Cement Conc. Sidewalk”, per square yard.

The unit contract bid price above, including all incidental work, shall be full compensation for all labor, materials, tools and equipment necessary to satisfactorily complete the work as shown on the Plans and defined in the Standard Specifications and these Special Provisions. This unit cost shall also include vertical curbs and any transition ramps from sidewalks.

“Cement Conc. Sidewalk”, per square yard.

The unit contract bid price above, including all incidental work, shall be full compensation for all labor, materials, tools and equipment necessary to satisfactorily complete the work as shown on the Plans and defined in the Standard Specifications and these Special Provisions. This unit cost shall also include construction of the integral thickened edge.

“Cement Conc. Curb Ramp”, per square yard.

The unit contract bid price for “Cement Conc. Curb Ramp”, including all incidental work, shall be full compensation for all labor, materials, tools and equipment necessary to satisfactorily complete the work as shown on the Plans and defined in the Standard Specifications and these Special Provisions. This unit cost shall also include detectable warming surfaces.

“Cement Conc. Bike Ramp”, per square yard.

The unit contract bid price for “Cement Conc. Bike Ramp”, including all incidental work, shall be full compensation for all labor, materials, tools and equipment necessary to satisfactorily complete the work as shown on the Plans and defined in the Standard Specifications and these Special Provisions. This unit cost shall also include detectable warming surfaces.

“Decorative Surface Treatment”, per square yard.

The unit contract price, per each, for “Decorative Surface Treatment” shall be full compensation for all labor, material including surface retardant, sealer, mock-ups, tools and equipment, supplies, incidental work, with all appurtenances, to satisfactorily complete the surface area work in cement conc. plaza areas as defined in these Special Provisions, Standard Specifications, and the particular items called for in the Plans.

“Metal Inlay”, per lump sum.

The lump sum Contract price for “Metal Inlay” shall be full pay for all Work associated with furnishing, installing metal inlay with studs epoxied into cement concrete plaza area as detailed on the Plans and these Special Provisions.

“Green Detectable Warning Strip”, per linear foot.

The unit contract bid price for “Green Detectable Warning Strip”, including all incidental work, shall be full compensation for all labor, materials, tools and equipment necessary to

satisfactorily complete the work as shown on the Plans and defined in the Standard Specifications and these Special Provisions.

Add the following new section:

8-19 REMOVABLE BOLLARD (NEW SECTION)

8-19.1 Description

This work shall consist of the Contractor providing and installing Removable Bollard with paint finish in locations as shown on the Plans and as specified herein.

8-19.2 Materials

Removable Bollards shall consist of WSDOT standard removable bollard Type 1 complete with receiver cover, lock well cover, padlock, concrete footing as per the WSDOT Standard Plan H-60.10.01.

Reflective tape bands shall be per the Plans.

8-19.3 Construction Requirements

Contractor shall submit catalog cut sheet including product information, dimensioning and details for Removable Bollard, including color sample, for Engineer's approval prior to installation.

Install removable bollard, embed mounting with receiver, lock well, lock tab and concrete footing per manufacturer's recommendations in locations as shown detailed in the Plans.

Any damage due to Contractor's negligence before the end of the project shall be replaced by the Contractor.

Removable bollard may require a minimum of 6 weeks lead time.

8-19.4 Measurement

"Removable Bollard" shall be measured per each bollard installed, including embed mounting with receiver, lock well, lock tab, and concrete footing.

8-19.5 Payment

Payment shall be made for the following bid item:

"Removable Bollard", per each.

The unit price bid shall be full compensation for all labor, materials, tools and equipment, supplies, incidental work, to satisfactorily complete the work defined in the Standard Specifications and these Special Provisions.

8-21 PERMANENT SIGNING

8-21.1 Description

Supplement this section with the following:

(*****)

This work shall consist of reinstalling the salvaged permanent signing for the park rules sign, including new post and footing.

8-21.2 Materials

Supplement this section with the following:

(*****)

Materials shall be as detailed on the Plans.

All signs shall have diamond grade reflective sheeting.

Provide materials free from surface blemishes where exposed to view in the finish installation.

8-21.3 Construction Requirements

Supplement this section with the following:

(*****)

Signs shall be installed per the details in the plans.

8-21.4 Measurement

Supplement this section with the following:

(*****)

No specific unit of measurement will apply to the lump sum item "Permanent Signing".

8-21.5 Payment

Supplement this section with the following:

(*****)

Payment will be made for the following bid item:

"Permanent Signing", per lump sum.

The lump sum price shall be full compensation of all labor, material, tools and equipment, supplies, incidental work, to satisfactory complete the work as defined in the Standard Specifications, these Special Provisions and the items called for in the Plans. No separate payments will be made for removal, backfilling, and compaction of materials associated with the installation of the "Permanent Signing".

8-26 BENCH (NEW SECTION)

8-26.1 Description

This Work shall consist of furnishing and installing Wood Bench and Stacked Wood Bench Structure as shown on the Plans in accordance with details shown in Plans and as specified in these Special Provisions.

8-26.2 Materials

Wood Bench shall be TimberCraft Model No. 2215-6 available from Columbia Cascade Company 700 NE Fourth Ave., Suite 201, Camas, WA 98607-0039 U.S.A., telephone: 503-223-1157, or approved equal.

Wood Bench shall consist of half-round log seat made of peeled hand-hewn Douglas-Fir natural half-rounds on log bases, and anchoring material.

Stacked Wood Bench Structure shall be Timberform Colossus giant timber seat Model No. 2219-16 available from Columbia Cascade Company, 700 NE Fourth Ave., Suite 201, Camas, WA 98607-0039 U.S.A. telephone: 503-223-1157, or approved equal.

Stacked Wood Bench Structure shall consist of 16' nominal length timber materials with wood seat base and anchoring devices.

8-26.3 Construction Requirements

Wood Bench and Stacked Wood Bench Structure shall require 8 to 10 weeks lead time.

Contractor shall submit catalog cut sheet including product information, dimensioning and details for Wood Bench and Stacked Wood Bench Structure for Engineer's approval prior to installation.

Install Wood Bench and Stacked Wood Bench Structure with approved anchor bolt according to the manufacturer's installation instructions and as shown on the Plans. Install all Wood Bench and Stacked Wood Bench Structure level and plumb.

Any damage due to the Contractor's negligence before the end of the project shall be repaired to original condition by the Contractor with no additional compensation allowed.

8-26.4 Measurement

Wood Bench shall be measured per each for each, installed wood bench.

Existing Bench Reinstallation shall be measured per each for each, existing bench installation.

Stacked Wood Bench Structure shall be measured per each for each, installed stacked wood bench structure.

8-26.5 Payment

Payment will be made for the following bid item:

“Wood Bench”, per each

“Existing Bench Reinstallation”, per each.

“Stacked Wood Bench Structure”, per each

The unit price bid for “Wood Bench”, “Existing Bench Reinstallation”, and “Stacked Wood Bench Structure” shall be full compensation for all labor, material, tools, and equipment, supplies, incidental work, with all appurtenances, to satisfactorily complete the work defined in the Standard Specifications, Special Provisions and the particular items called for in the Plans.

8-27 PICNIC TABLE (NEW SECTION)

8-27.1 Description

This Work shall consist of furnishing and installing Picnic Table in locations as shown on the Plans and as specified herein.

8-27.2 Materials

Picnic table shall be Timberform Parkway Tables Model No. 2056-8484 available from Columbia Cascade Company, 700 NE Fourth Ave., Suite 201, Camas, WA 98607-0039 U.S.A. telephone: 503-223-1157, or approved equal.

Picnic Table shall consist of kiln dried Douglas Fir picnic tabletop and seat slats, seat arms/support, frame, direct embedment post and concrete footings. Steel components must meet the requirements for the Build America, Buy America Act.

Paint system shall be per manufacturer. Color shall be per Section 6-07.2, Painting.

8-27.3 Construction Requirements

Picnic Table shall require 6 to 8 weeks lead time.

Contractor shall submit Picnic Table Type 1 and Picnic Table Type 2 catalog cut sheet including product information, dimensioning and details for bench for Engineer's approval prior to installation.

Install picnic tables according to the manufacturer's installation instructions and as shown on the Plans. Install picnic tables level and plumb.

Any damage due to the Contractor's negligence before the end of the project shall be repaired to original condition by the Contractor with no additional compensation allowed.

Touch up for scratches for field applications shall be per recommendations from coating manufacturer.

8-27.4 Measurement

"Picnic Table" shall be measured per each for each, installed picnic table.

8-27.5 Payment

Payment will be made for the following bid item:

"Picnic Table", per each.

The unit price bid for "Picnic Table" shall be full compensation for all labor, material, tools, and equipment, supplies, incidental work, with all appurtenances, to satisfactorily complete the work defined in the Standard Specifications, Special Provisions and the particular items called for in the Plans.

8-28 BIKE RACK (NEW SECTION)

8-28.1 Description

This work shall consist of existing bike rack reinstallation as shown on the Plans in accordance with details shown in Plans and as specified in these Special Provisions.

8-28.2 Materials

Reinstalling salvaged bike rack shall be as shown detailed on the Plans.

Surface mount shall include 3/8" concrete wedge anchor, tamper resistant nuts and concrete spikes.

8-28.3 Construction Requirements

Install bike rack in accordance with Association of Pedestrian and Bicycle Professionals (APBP) recommendations for location and spacing.

Contractor to verify final location and orientation of all salvaged bike racks with Engineer.

The Contractor shall be responsible for ensuring the mounting surface and installation method are adequate to support and secure the salvaged bike rack.

Any damage due to the Contractor's negligence before the end of the project shall be repaired to original condition by the Contractor with no additional compensation allowed.

8-28.4 Measurement

Existing Bike Rack Reinstallation shall be measured per each for each reinstalled salvaged bike rack.

8-28.5 Payment

Payment will be made for the following bid item:

"Existing Bike Rack Reinstallation" per each.

Unit contract price for "Existing Bike Rack Reinstallation", shall be full compensation for all labor, material, tools and equipment, supplies, incidental work, to satisfactorily complete the work defined in the Standard Specifications, Special Provisions and the particular items called for in the Plans.

8-32 PET WASTE BAG DISPENSER (NEW SECTION)

8-32.1 Description

This work shall consist of Pet Waste Bag Dispenser as shown on the Plans in accordance with details shown in Plans and as specified in these Special Provisions.

8-32.2 Materials

Pet Waste Bag Dispenser Sign shall be DOGIPOT® QUIK Pet Station Model: DP-1011-MINI consisting of an aluminum sign, dispenser made of tough, powder-coated aluminum with locking front panel, 2 rolls of 200 pet waste bags, 8 ft. 2x2 steel mounting powder coated post provided by the following, or approved equal:

Belson Outdoors, LLC
627 Amersale Drive
Naperville, IL 60563
phone: (630) 897-8489

Paint system shall be per manufacturer. Color shall be per Section 6-07.2, Painting.

8-32.3 Construction Requirements

The dog waste bag dispenser shall be assembled and installed where shown and as detailed on the Plans and details. Assembly shall be per manufacturer's recommendations.

Contractor shall submit catalog cut sheet including materials, sizing, type and installation methods for Engineer's approval prior to procurement and installation.

8-32.4 Measurement

"Pet Waste Bag Dispenser" shall be paid for per each.

8-32.5 Payment

Payment will be made for the following bid item:

"Pet Waste Bag Dispenser" per each.

The unit Contract price for "Dog Waste Bag Dispenser" shall be full compensation for all labor, tools, equipment, and materials necessary or incidental to install dog bag dispenser and foundation as specified on the Plans. Work shall include, but not be limited to; coordinating with to installing post; installing footing; furnishing, assembling and installing dispenser and sign; and all associated hardware.

8-33 GRAVEL RESTROOM AREA (NEW SECTION)

8-33.1 Description

This work shall consist of furnishing and installing gravel restroom area including decomposed granite and crushed aggregate with stabilizing solution in locations at the restroom area per details as shown on the plans and in conformance with these special provisions, and as directed by the Engineer.

8-33.2 Materials

Gravel restroom area shall meet the requirements of the following applicable standards and WSDOT Standard Specifications unless noted:

Ballast and Crushed Surfacing	4-04
Aggregate	9-03
Structural Steel and Related Materials	9-06

Rock Base

Rock base shall conform to Standard Specifications Section 9-03.

Crushed Aggregate and Decomposed Granite

Decomposed granite shall be 3/8" to 1/4" minus crushed aggregate screening material and shall conform to the following:

Sand and crushed stone shall consist of inert materials that are hard and durable, with stone free from surface coatings and deleterious materials.

Gradation requirements shall be as follows:

Crushed Aggregate Sieve Analysis Percentage of Weight Passing a Square Mesh Sieve
AASHTO T11-82 and T2782

1/4" MINUS AGGREGATE GRADATION

U.S. Sieve No.	Percent Passing by Weight
# 3/8"	100
# 4	90-100
# 8	75-80
# 16	55-65
# 30	40-50
# 50	25-35
# 100	15-20
#200	10-15

The color of decomposed granite shall be gray.

The color of crushed aggregate shall be beige.

Stabilizer Solution

Stabilizer solution for decomposed granite and crushed aggregate shall be non-toxic, organic natural binder that is a colorless and odorless concentrated powder that binds decomposed granite or crushed 3/8" or 1/4" minus aggregate.

Product shall have 64% pre-consumer recycled content.

Product shall have 25 years of experience at same formulation.

8-33.3 Construction Requirements

The contractor shall coordinate irrigation and landscape with Gravel Restroom Area installation.

Gravel Restroom Area shall be installed in locations as shown and as detailed per the Plans.

Submittal and Sample

Contractor shall submit a 5-pound sample of decomposed granite to the Engineer for approval prior to delivery of materials to the site.

The contractor shall submit stabilizer solution catalog cut sheets with technical specifications for Engineer's approval prior to installation.

Mock-Ups

Decomposed granite for the permanent work shall not be placed on the project prior to approval by the Engineer of mock-up(s) prepared by the Contractor.

The contractor shall provide four (4) foot x four (4) foot. mock-up of decomposed granite with stabilizer solution at location specified by the Engineer.

Additional mock-ups shall be constructed at no additional cost as directed by the Engineer until a mock-up sample is produced which conforms to the requirements herein.

Placement

Rock base shall be spread and compacted to a depth as shown on the plans and in conformance Standard Specifications Section 9-03.

Edge of gravel restroom area shall be installed to delineate the limits of the gravel restroom area and as shown on the plans and as specified in these special provisions.

Prior to placement of decomposed granite, the subgrade surface shall be smooth, firm, stable and free of rocks, clods, foliage, or other material greater than 1 inch in diameter.

Stabilizer solution shall be thoroughly and uniformly mixed throughout the decomposed granite per the manufacturer's recommendations. Material shall be mixed in the field using portable mixing equipment, or delivered in mixer trucks from a local ready-mixed plant. Decomposed granite shall be placed in two 2-inch layers.

Stabilizer solution shall be installed per manufacturer's recommendations.

Each layer of decomposed granite shall be raked to evenly blend various materials, sizes forming a smooth uniform surface. Decomposed granite shall be moistened sufficiently to obtain the

required compaction. Each layer of decomposed granite shall be brought to a relative compaction of not less than 90 percent by compaction equipment such as a double drum roller, single drum roller, or vibratory tamp. After placement of decomposed granite, compaction shall not begin less than 6 hours after placement, nor later than 48 hours.

Decomposed granite areas shall receive a final application of stabilizer solution as recommended by the manufacturer. The Contractor shall prevent runoff or overspray of stabilizer solution onto adjacent paved or planting areas.

When work is complete, the surface shall be smooth and uniform; maintaining original flow lines, slope gradient and contours of the project site.

If the top surface of the decomposed granite has in excess of 1/4-inch of loose aggregate, the loose material shall be redistributed evenly over the surface. These decomposed granite areas shall be moistened to a depth of 1 inch and compacted with a 1000 lb. roller. A diluted topcoat of stabilizer solution shall be applied at the same rate used for the final application at installation or as recommended by the manufacturer.

If cracks develop in the surface of the decomposed granite, loose fines shall be swept into the cracks, watered thoroughly and hand tamped. A final topcoat of stabilizer solution shall be applied at the same rate used for the final application at installation or as recommended by the manufacturer.

8-33.4 Measurement

“Gravel Restroom Area” will be measured by the square foot of finished installed gravel surface, including decomposed granite, crushed aggregate and stabilizer solution.

8-33.5 Payment

Payment will be made for the following bid item:

“Gravel Restroom Area” per square foot.

The unit Contract price for “Gravel Restroom Area” shall be full compensation for all labor, tools, equipment, and materials necessary or incidental to furnish and install gravel restroom area composed of decomposed granite, crushed aggregate and stabilizer solution as specified on the Plans.

8-34 PLAY EQUIPMENT AND AREA COORDINATION (NEW SECTION)

8-34.1 Description

This work shall include coordination of installation work for the spiral slide, embankment slide, embankment climb, PIP surfacing, and all equipment within the main play area, as procured and installed by others.

8-34.3 Construction Requirements

The Contractor shall coordinate with the play area installer for them to schedule their work. The Contractor shall allow access to the upper west stair landing for installation of the slide, the rubber surfacing, climbing wall surfacing, holds, rope course, and small slope slide.

At minimum, the Contractor shall have coordination meetings for the following:

- Kick-off meeting with play area contractor to review requirements
- Coordination with play area contractor at least one (1) week prior to installation of concrete slab at play area
- Coordination on play equipment attachments, including climbing wall and slides

8-34.4 Measurement

No specific unit of measure shall apply to the lump sum for play equipment and area coordination.

8-34.5 Payment

Payment will be made for the following bid item:

“Play Equipment and Area Coordination” per lump sum.

Payment for “Play Equipment and Area Coordination” shall be made at the lump sum contract price and shall be full compensation for all coordination, and incidentals necessary for the work by others to be completed. This coordination includes, but is not limited to, work relating to pouring, finishing, and curing the slab on the slope of the lower access ramp along with required coordination with the Contracting Agency and play area installers.

8-35 BRIDGE AND WALKWAY LIGHTING (NEW SECTION)

8-35.1 Description

Bridge and walkway lighting in the base bid shall include but is not limited to all poles, luminaires, poles, anchor bolts, foundations (refer to the structural Plans for luminaire foundations on the bridge), conduit, boxes, work in building, breakers, surge protection and wiring as shown on the Plans. Work includes PSE transformer relocation, conduit relocation around Pier P6 to power existing street light pole, and related work noted on the drawings.

8-35.2 Materials

Conduit:

- **Metallic Conduit:** Use above ground only. Transition from PVC to metallic conduit shall be made at grade with a suitable threaded connector and RPVC to steel conduit adaptor.
- **Rigid Galv Conduit (RGC)** and noted on drawings as RGC: ANSI C80.1, galvanized.
- **RPVC Conduit:** Schedule 80 (UL651, rated for use with 90°C conductors and NEMA TC2 rated). Solvent and Primer: Use product specifically designed for RPVC conduit.
- **Coreline PVC Electrical Non-Metallic Conduit (NEMA TC-13)**
- **Liquid Tight Flexible Metallic Conduit** – Where noted on drawings.
- All underground conduits shall be a minimum two-inch standard trade size unless otherwise noted on the drawings.
- **Expansion/deflection fittings:** Where noted on the drawings.

Junction Boxes (Hand Holes):

- In-ground boxes shall be standard duty concrete type as per WSDOT plan drawing J-10.10-04 and meeting WSDOT requirements
- Boxes on or cast into the bridge curb shall be as noted on the drawings and meeting the requirement of WSDOT 9-29.2(3)
- Tamper resistant screws shall be provided for all covers
- Junction boxes cast into the bridge curbs shall include drain tubes as indicated on the Plans
- Tamper resistant fasteners shall be used to secure the lids on junction boxes

Conductors:

- All feeder circuit conductors shall be stranded copper 600-volt with THWN-2 insulation rated at 90 degrees C.
- **Equipment Grounding Conductors:** Insulated stranded copper with green color insulation.
- **Grounding-Electrode Conductors:** Stranded copper.
- **Underground Grounding Conductors:** Bare, tinned, stranded, except as otherwise indicated.

- DMX Cables and Connectors – Refer to drawings.
- CAT 6 Cables - Refer to drawings.
- Bonding Jumpers: Braided steel type with bolted compression connections.
- Bond all FMC and rigid steel conduit.
- Connectors and Splices: UL-listed factory-fabricated wiring connectors of size, ampacity rating, material, and type and class for application and for service indicated. Splices will only be allowed where noted in the Plans.
- Conductor Tags and Labeling: Sleeve type labels shall be used at all access points in panels, poles and junction boxes and poles. Labels shall indicate conductor panel circuit

Poles:

- The pole design shall meet AASHTO standards for local wind speeds with luminaires and banners and / or cameras where noted. Shop drawings and design criteria shall be sealed by a Professional Engineer registered in Washington State.
- Supplied with banner brackets arms where noted on the drawings.
- Made from a one-piece, 4" round (102 mm) high-tensile carbon steel shaft sealed by a rolled and flattened vertical weld seam and welded over a high-tensile carbon-steel pole base. The assembly is welded to both the top and bottom of a steel anchor plate. A 4-1/2" x10" maintenance opening is complete with cover and copper ground lug.
- Powder coat finished in Federal Standard 595 Paint Specification Color: "Black" FS 17038.
- Anti-theft security locks shall be provided on hand hole covers.

Luminaires on Poles:

- Shall be LED
- Edge-lit optics via diffusing lens to help reduce perceived glare and overall brightness
- Rated life – 100,000 hours at 25-degree C.
- Input voltage 100-277VAC
- IES Type 2 distribution
- Operating temperature -40° C to +40° C
- Correlated Color Temperature (CCT): 3000K
- CRI ≥70
- UL listed
- Min 3G vibration rating
- Warranty – Minimum 10 years
- Surge – 10kA/20kV
- Optical system – IP66
- Total Harmonic Distortion (THD): ≤ 20%

- Black to match poles
- 0-10 dimming with 7 pin NEMA receptacle and shorting cap and or photocell where defined
- Anti-theft security locks shall be provided on hand hole covers.

Under Ramp Luminaires:

- Shall be LED
- Rated life – 90,000 hours at 25-degree C.
- Input voltage 100-277VAC
- Operating temperature -40° C to +40° C
- Correlated Color Temperature (CCT): 3000K
- CRI ≥80
- Beam Type: Symmetric, wide beam [W]
- Impact resistance IK07
- UL listed UL-1598
- Warranty – Minimum 10 years
- Surge – 10kA/20kV
- Optical system – IP65
- Total Harmonic Distortion (THD): ≤ 20%
- 0-10V dimming
- Black (AL9004)

8-35.3 Construction Requirements

8-35.3(1) General Requirements

Install electrical and lighting for the base bid as shown in the Contract Drawings and as specified by the manufacturer.

8-35.3(2) Submittals

Product Data: Provide manufacturer's standard catalog data for specified products demonstrating compliance with referenced standards. Provide list of fittings being provided with descriptions, load capabilities, and either photographs or drawings for each type.

Shop Drawings shall be provided for review and acceptance by the Engineer for the following items at a minimum:

- Poles and anchor bolts
- Luminaires and mounting brackets
- Down lights
- All conduit and related fittings

- Junction Boxes
- Cabling and conductors
- Fuses and breakers

Work Plan: Provide a detailed work plan for the PSE transformer relocation. Contractor shall provide a new concrete pad for the relocated transformer. Supply the materials and labor required to conduct the trenching work to extend the underground power conduit to the new transformer pad location. The work plan shall include details of materials, equipment, and sequencing required for the relocation, along with any coordination hold points required for the Work.

The Contractor shall coordinate with PSE on the timing of the power shutdowns and power ons, and relocation of the transformer, including re-running the conductor through the lengthened duct runs.

At minimum, the Contractor shall have coordination meetings with PSE for the following:

- Kick-off meeting with PSE to review requirements
- Coordination with PSE on construction work plan at least two (2) weeks prior to relocation work for transformer
- Coordination with PSE on timing of power switchovers at least two (2) weeks prior to relocation work for the transformer

8-35.4 Measurement

Measurement of bridge and walkway lighting as described in this Section and the Contract Plans will be measured as lump sum. Contractor shall provide a breakdown of the luminaire lighting and grazer aesthetic lighting for reference upon request.

8-35.5 Payment

Payment will be made for the following bid item:

“Bridge and Walkway Lighting”, lump sum.

“Underground Power Relocations”, lump sum. Includes underground extensions of power to new transformer and relocation of conduit serving the existing streetlight around pier P6.

Payment will be made at the lump sum price bid and shall be full compensation for all labor, material, tools, and equipment, supplies, incidental work, with all appurtenances, to satisfactorily complete the work defined in the Standard Specifications, Special Provisions and the particular items called for in the Plans. All communications conduit and related boxes to feed cameras shall be included in this item.

8-36 GRAZER LIGHTING (NEW SECTION)

8-36.1 Description

Grazer lighting is part of the "Bridge and Walkway Lighting" bid item for the Work. Grazer lighting shall include LED RGBW grazer lights, drivers and DCU's connectors, in curb and structure mounted boxes specifically for grazer lighting and lighting controls for grazer lighting as noted on the drawings. Any joint use conduit and boxes which are required to feed the cameras shall be included under Section 8-35.

The work shall include all labor, material, tools, and equipment, supplies, incidental work, with all appurtenances, to satisfactorily complete the work defined in the Standard Specifications, Special Provisions and the particular items called for in the Plans.

8-36.2 Materials

Luminaires shall be:

- RGBW (RGB40)
- UV resistant PVC
- Designed for continuous connection and illumination with no loss of illumination at
- connectors
- Outdoor - IP67 rated
- 24V DC
- Distribution 15-30 °
- Minimum 36 lumen/W
- Control – DMX/RDM
- Maximum – 5.6W/ft
- Min 1" x 0.76"
- Bend radius – side 20" top 14 inches
- Rated life – 50,000 hours
- Operating temperature -20° C to +60° C
- CRI ≥80
- UL listed
- Mounting channel which allows for bending
- Warranty – Minimum 5 years

LED drivers and DCU's shall meet the following requirements:

- Full control and color changing
- Class 1 rated as per NEC Article 725.136 so driver and DCU/DMX can go in the same box without a barrier. If rated class 2 then a barrier is required.

- Sizes – Ensure equipment is in boxes is sizes to fit in the boxes in the curb and can be removed via the gap between the top of the box and the railing on the bridge (approx. 3.5" gap)
- Rated life – 100,000 hours
- UL Listed - outdoor wet location rated
- Drivers shall have a minimum efficiency of 85%.
- Starting Temperature: -40 degrees C
- Input Voltage: 100 to 270 ($\pm 10\%$) VAC.
- Power Factor (PF): ≥ 0.90 .
- Surge Protection: $\geq 10\text{KA}$
- Total Harmonic Distortion (THD): $\leq 20\%$.
- Comply with FCC Title 47 CFR Part 18 Non-consumer RFI/EMI Standards
- Driver Current $\leq 500\text{mA}$
- Warranty – Minimum 5 years

Controls

- Refer to Contract Plans
- Designed to operate as system with fully programmable lighting effects (color changing, dimming, chasing, flashing, etc.)
- Manufacturer shall set up 4 programmed lighting shows to be approved by the Contracting Agency and shall undertake training of Contracting Agency staff who will operate the system and shall undertake all testing, set-up and commissioning.

8-36.3 Construction Requirements

8-36.3(1) General Requirements

Install electrical and lighting for the grazer lighting as shown in the Contract Drawings and as specified by the manufacturer.

8-35.3(2) Submittals

Provide mock-ups and samples of luminaires and mounting for Engineer review and acceptance.

Shop Drawings and product data sheets:

- Luminaires and drivers/DCU's
- Cabling
- Controls
- Mounting channel

- Lighting controls

8-36.4 Measurement

Measurement of grazer lighting shall be included with the "Bridge and Walkway Lighting" lump sum bid item.

8-36.5 Payment

No separate payment will be made for the Work to supply and install the grazer lighting. This Work shall be incidental to the bid item for "Bridge and Walkway Lighting".

8-37 BRIDGE PLANTER (NEW SECTION)

8-37.1 Description

This work shall include procuring and installing planters, securing them to the bridge structure where shown and as detailed on the Plans, and filling them with planting soil.

8-37.2 Materials

Bridge Planter shall be square Wilshire Planter by Tournesol Siteworks, [www. tournesol.com](http://www.tournesol.com), phone: 800.542.2282, or approved equal.

Bridge Planter shall consist of 32" x 32" x 48" high, powder coated, marine-grade aluminum with welded stiffeners, color black, with manufacturer-supplied Tree Tie-Downs. Factory-drilled drain holes shall be located in the center of the planter.

All planter pot hardware (bolts, nuts, screws, washers, etc.) needed to complete the installation shall be corrosion resistant, 316 grade stainless steel tamperproof anchor and tabs.

Insulation shall be 1" thick, extruded polystyrene rigid foam insulation board. It shall have a minimum value of R-5 and shall be resistant to moisture and mildew, with a minimum compressive strength of 25 psi. Contractor shall submit manufacturer's cut sheet for approval.

Geotextile shall be Non-Woven Geotextile for Separation per Section 9-33.2(1), Table 1, of the Standard Specifications.

Drain rock for shall be 7/8" washed drain rock. Contractor shall provide one cubic foot sample for approval.

Soil shall conform to Section 9-14.2(4) Potting Soil of these Special Provisions and shall be supplied by a Contractor's supplied source, and as approved by the Engineer.

8-37.3 Construction Requirements

Bridge planters shall be installed where shown and as detailed on the Plans.

Before fabricating Bridge Planter components, the Contractor shall submit shop drawings of planters including dimensions, layout, installation method, and paint/finish specifications to the Engineer for approval. The approval of the shop drawings shall be understood to be an acceptance of the character and sufficiency of the details and not a check of the dimensions.

Coordinate Bridge Planter fabrication schedule with construction progress to avoid delay of work.

Prevent galvanic action and other forms of corrosion by isolating dissimilar materials from each other.

Exposed mechanical fastenings shall be flush tamper-proof countersunk screws or bolts; unobtrusively located; consistent with design of component, except where specifically noted otherwise.

Touch up for scratches for field applications shall be per recommendations from coating manufacturer.

Insulation shall be installed on all four vertical sides of planter, tight to corners with no gaps greater than one quarter inch (1/4").

Geotextile, drain rock and planting soil shall be installed as detailed on the plans. Do not puncture or damage installation or geotextile when installing planting soil or rock.

Tree shall be planted as detailed on the Plans. Plant materials shall meet the requirements of Section 9-14.7 of these Special Provisions. Tree Tie-Downs shall be installed per manufacturer's recommendations.

8-37.4 Measurement

Bridge planters shall be measured per each bridge planter installed and accepted by the Engineer.

8-37.5 Payment

Payment will be made for each of the following Bid items that are included in the Proposal:

“Bridge Planter” per each.

The unit bid price for “Bridge Planter” shall be full compensation for all labor, materials, tools, equipment and supplies necessary to complete the work in accordance with the Plans and Specifications. This includes, but is not limited to, work relating to attaching planter to the bridge including any required modifications to prefabricated planter, insulating and filling planter with soil, cleanup, and all required coordination. Planting soil, insulation, geotextile and drain rock shall be considered incidental to and included in the unit cost per each for the planters.

END OF DIVISION 8

Division 9 – Materials

9-01 CEMENT

9-01.1 Types of Cement

9-01.2 Specifications

9-01.2(1) Portland Cement

Supplement this section with the following:

(*****)

Portland cement shall conform to ASTM C150 Type 1 (normal/general purpose). All cement shall come from the same manufacturing plant and be certified as to quality.

9-01.2(3) Blended Hydraulic Cement (GSP 09-30-14)

Replace the first part of the first paragraph with the following:

Blended hydraulic cement shall be either Type IP, Type IS, Type IL or Type IT cement conforming to AASHTO M 240 or ASTM C 595, except that the blended hydraulic cement must not contain more than 0.75-percent alkalis by weight calculated as Na_2O plus $0.658 \text{ K}_2\text{O}$ and the content of Tricalcium Aluminate (C3A) must not exceed 8-percent by weight calculated as $2.650\text{Al}_2\text{O}_3$ minus $1.692\text{Fe}_2\text{O}_3$ and meet the following additional requirements:

9-03 AGGREGATES

9-03. 8(7) HMA Tolerances, Specification Limits and Adjustments

The second paragraph of item number 1 of Section 9-03.8(7) is revised to read:

(WSDOT GSP Option 1, September 8, 2020)

These tolerance and specification limits constitute the allowable limits as described in Section 1-06.2. The tolerance limit for aggregate shall not exceed the limits of the control points, except the No. 8 tolerance is $\pm 4\%$ from the JMF, the No. 200 tolerance is $\pm 2.0\%$ from the JMF with a minimum of 2% and a maximum of 8.0% passing the No. 200 sieve, other tolerance limits for sieves designated as 100 percent passing will be 99-100.

9-06 STRUCTURAL STEEL AND RELATED MATERIALS

Supplement this section with the following:

(*****)

9-06.4 Arch and Miscellaneous Steel

Material for main arch elements, including arch rib, tie chord, bracing, gussets, end-beams, and floor-beams, and other miscellaneous steel shall be as defined on the General Notes sheet on the Plans.

9-14 EROSION CONTROL AND ROADSIDE PLANTING

9-14.2 Topsoil

9-14.2(1) Topsoil Type A

Supplement this section with the following:

(*****)

Topsoil Type A mix shall be a 50%/50% mixture of pure compost, and sand or sandy loam. The soil shall be high in organic content and comprised of fully composted and mature organic materials.

Refer to Section 9-14.4(8) Compost of the Standard Specifications for compost requirements. No fresh sawdust or other fresh wood by-products shall be added to extend the volume after the composting process.

Chemical and physical characteristic of Topsoil Type A shall comply with the following:

Screen Size	7/16" Maximum (Approximate Particle Size)
Total Nitrogen	0.25% Minimum
Organic Matter	10% Minimum
pH Range	5.5 to 7.5
Conductivity	5 mmhos/cm Maximum

The Contractor shall provide a complete analysis of Topsoil Type A with one cubic foot sample for review and approval.

Add the following new section:

(*****)

9-14.2(4) Potting Soil Mix

Potting Soil Mix shall be a three-way mix consisting of approximately one third (1/3) peat, one third (1/3) composted organics, and one third (1/3) sand, specifically blended for planter pots.

Source should be a commercial operation with expertise in production of topsoil, an established method for screening materials to verify no pollutant contamination and that all materials are biodegradable.

The Contractor shall provide a complete analysis of Potting Soil Mix with one cubic foot sample for review and approval.

9-14.3 Seed

Supplement this section with the following:

(*****)

The grass seed dealer shall mix the grass seed only. The Contractor shall furnish the Engineer with a dealer's guaranteed statement of the composition, mixture, and the percentage of purity and germination of each variety. Hydroseeded lawn shall be composed of the following varieties mixed in the proportions indicated:

Mixture Proportions			
Name	% by Weight	% Purity	% Germination
Chewings Fescue (Longfellow, Waldorf, Bargreen)	30%	98%	90%
Hard Fescue	20%	98%	90%
Perennial Rye (blend of two – Fiesta II, Prelude II, Palmer II, Commander)	50%	95%	90%

All seed mixes shall be certified as 99% weed-free and 90% viable seeds by germination tests and by age specifications by species. Apply hydroseed mulch, tackifier, seed and fertilizer per supplier's recommendations.

9-14.4 Fertilizer

Supplement this section with the following:

(*****)

Fertilizer for trees and shrubs shall be Best-Paks Biodegradable Packet, 20-10-5, or approved equal. Apply per manufacturer's recommendations.

9-14.5(3)A Arborist Wood Chip Mulch

Supplement this section with the following:

(*****)

Arborist Mulch shall be coarse ground wood chips derived from the mechanical grinding or shredding of the above-ground portion of trees removed on site as part of this Contract. It may contain wood, wood fiber, bark, branches, and leaves; but may not contain visible amounts of soil and shall be free of weeds and weed seeds.

Arborist much shall be stockpiled on site and allowed to mature for a minimum of six weeks prior to use on site.

The acceptable size range of arborist mulch material is ½" to 3" with maximum of 20% passing the ½" screen. No particles may be longer than 6".

9-14.7 PLANT MATERIAL

9-14.7(2) Quality

Section 9-14.7(2) is supplemented with the following:

(*****)

Plants shall be normal in pattern of growth, healthy, well branched, vigorous, with well-developed root systems, and free of pests and disease. Damaged, diseased, pest-infested, scraped, bruised, dried-out, burned, broken, or defective plants will be rejected. Plants with pruning wounds over 1 inch in diameter will be rejected.

Plant material shall be free from disfiguring knots, swollen grafts, sunscald injuries, bark abrasions, evidence of improper pruning or other objectionable disfigurement.

Potted and container stock shall be well rooted and vigorous enough to ensure survival and healthy growth. Shrubs shall have full foliage (not leggy). Container stock shall be grown in its delivery container for not less than six (6) months, but not for more than two (2) years. Root bound or broken containers will not be accepted. Bare root, liner and root stock with dried or shriveled roots from exposure will not be accepted.

Trees will be provided with untapped, straight, single leaders, except for multiple stem (clump) trees. Trees shall have full crowns and balanced branching.

Measurements, caliper, branching, grading, quality, balling and burlapping shall follow the Code of Standards of the American Associate of Nurserymen in the American Standard for Nursery Stock, ANSI 260.1, latest edition. Measurements shall be taken with all branches in their normal growing position. Plants shall not be pruned prior to delivery to site.

9-14.7(3) Handling and Shipping

Section 9-14.7(3) is supplemented with the following:

(*****)

Plants shall be handled so as to avoid all damage, including breaking, brushing, root damage, sunburn, drying, freezing, or other injury. Plants shall be covered during transport. Plants shall not be bound with wire or rope in a manner that could damage branches. Protect plant roots with shade and wet soil in the time period between delivery and installation. Do not lift container stock by trunks, stems, or tops. Do not remove from containers until ready to plant.

Add the following new section:

(*****)

9-14.9 Root Barrier

Root Barrier shall be 24" depth, flexible interlocking panels with half-inch (1/2") raised vertical reinforcing ribs, horizontal ground-lock tabs to prevent lifting and double top edge. Panels shall be made from injection molded High Impact Polypropylene (HIPP) with built-in UV inhibitors and a minimum thickness of 0.080 inches.

Add the following new section:

(*****)

9-14.10 Landscape Log

Landscape Logs shall be sourced from trees removed on site. Logs shall be cut to 8-12' lengths, minimum 12" trunk diameter. Branches and trunk sections smaller than 12" diameter shall be removed and chipped for use on site as Arborist Mulch. Branches shall be cut flush with the trunk and smoothed to avoid sharp points or edges. Bark shall be left intact.

Rotted or decaying sections of log shall not be accepted for reuse as landscape logs.

9-15 IRRIGATION SYSTEM

9-15.1 Pipe, Tubing and Fittings

Supplement this section with the following:

(*****)

All pipe shall be PVC or approved equal. All fittings shall be Schedule 80 PVC. All sleeving shall be Schedule 40 PVC.

All tubing shall be polyethylene.

9-15.1(2) Polyvinyl Chloride Pipe and Fittings

Supplement this section with the following:

(*****)

PVC pipe shall be Schedule 40 PVC pipe for the main, laterals and sleeves.

9-15.3 Automatic Controller

Supplement this section with the following:

(*****)

The existing Automatic controller is located within the Existing Legacy Site Pavilion as shown on the Plans.

9-15.4 Irrigation Heads

Supplement this section with the following:

(*****)

Pop-up spray heads shall be as shown on the Plans or approved equal.

9-15.5 Valve Boxes And Protective Sleeves

Supplement this section with the following:

(*****)

Valve boxes for quick coupler shall be light duty HDPE with UV inhibitors, 10" diameter flared box with bolt down cover.

Valve boxes for control valves shall be grey flared box, HDPE construction with UV inhibitors, heavy duty seat collar, drop in locking, 17'L x 24" D x 12" W with green HDPE drop in locking lid.

Valve boxes for Double Check Valve Assembly shall be grey heavy duty polymer concrete, top dimensions 25"L x 15-16"W and 24" D designed to withstand H-10 and H-20 loading in incidental and non-deliberate traffic areas. Valve box shall be compliant with AASHTO H-10 Design Load; ASTM C 857-95 Design Load of A-8, 8,000lbs. Box shall be alkaline, acid and weather resistant, with flush locking polymer concrete cover. Verify size to fit Double Check Valve Assembly.

All automatic control valves, flow control valves, and pressure reducing valves shall be provided with valve boxes. Valve boxes shall be sized as appropriate to allow efficient access to components and approved by the Engineer prior to installation. Valve boxes shall be extendable to obtain the depth required. All manual drain valves and manual control valves shall be equipped with a protective sleeve and cap as shown on Plans.

9-15.17 Electrical Wire and Splices

Supplement this section with the following:

(*****)

Electrical Wire shall be #14 UF wire. Utilize 3M DBY splice kits.

9-30 WATER DISTRIBUTION MATERIALS

9-30.1 Pipe

Supplement this section with the following:

(*****)

The pipe manufacturer shall test all pipe and fittings as required by these Specifications and the standards referenced. The pipe manufacturer shall submit to the Engineer two copies of all test results, including a certification that material to be delivered is represented by the samples tested and that such delivered materials meet or exceed the specified requirements. No pipe shall be delivered until test results and certifications are received by the Engineer.

The Engineer shall have free access to all testing and records pertaining to material to be delivered to the job site. The Engineer may elect to be present at any or all material testing operations.

In addition all water main pipe for this project shall be per CWD Standards and Specifications section 4.01 and 4.02.

9-30.1(1) Ductile Iron Pipe

Delete Section 9-30. 1(1) and replace with the following:

(*****)

Ductile iron pipe shall be cement-lined unless otherwise specified and shall conform to AWWA C151 standards. Ductile iron pipe shall be thickness class 52 or greater. Standard thickness of cement-mortar lining shall be in accordance with AWWA C104 standards. Greater thickness or pressure class may be required where the pipe will be exposed to high external loads, depth of bury outside of District Standards or as directed by the District Engineer. Special design submittal will be required in such circumstances. Ductile iron pipe shall be manufactured by an approved manufacturer as indicated in the most recent version of the Covington Water District Standards and Specifications Approved Materials List; Appendix C.

Push-on joint gaskets are not interchangeable between brands, and shall be of the same manufacturer as the pipe provided. The Contractor shall assure the use of correct gaskets.

9-30.2 Fittings

Supplement this section with the following:

(*****)

In addition all water main pipe fittings for this project shall be per CWD Standards and Specifications Section 4.08.

9-30.2(1) Ductile Iron Pipe

Supplement this section with the following:

(*****)

All fittings for ductile iron and PVC pipe shall be ductile iron with cement-mortar lining conforming to AWWA C104. Mechanical joint fittings shall be compact fittings conforming to AWWA C153, with ductile iron follower gland conforming to AWWA C111. Flanged fitting shall conform to AWWA C110. Fittings shall utilize gaskets and hardware in accordance with AWWA C111.

Ductile iron fittings shall be manufactured by an approved manufacturer as indicated in the most recent version of the Covington Water District Standards and Specifications Approved Materials List; Appendix C.

Gaskets shall be rubber, either ring or full face and 1/8-inch thick unless otherwise specified. Gaskets shall fully comply with AWWA C111/A21.11-00.

Restraining devices provided shall be intended for the pipe material on which they are installed (D.I. or PVC).

9-30.2(6) Restrained Joints

Delete Section 9-30.2(6) and replace with the following:

(*****)

Restrained joints shall be either bolted or boltless design and flexible after assembly. Any device utilizing set screws is not permitted. Restrained joint devices shall not be used on plain end fittings. Use of shackle rods on ductile iron bell-and-spigot pipe is not permitted. Thrust blocks shall be provided in addition to the joint restraint system unless otherwise approved by the District. Restrained joint waterlines greater than 16-inches are specialty design which may require additional considerations not addressed in this specification.

Boltless designs shall utilize gripping gaskets suitable for a 350 psi working pressure.

Gripping gaskets shall be rubber gaskets with stainless steel teeth for wedging action on bell-and-spigot DI pipe, 16-inch diameter and smaller. Gasket material and dimensions shall conform to AWWA C111. Gaskets shall only be used on compatible pipe as recommended by the manufacturer.

Bolted joint restraint systems shall utilize multiple gripping wedges incorporated into a ductile iron retainer gland. The gland body and wedges shall be cast from grade 65-45-12 ductile iron in conformance with ASTM A536. Glands for mechanical joints shall be compatible with all mechanical joints conforming to AWWA C111. Split designs are only allowed on mid-pipe installations for embedment into concrete for thrust restraint. The working pressure of the joint restraint system when used on ductile iron pipe shall be a minimum of 350 psi for pipe diameters of 16-inches or less. Wedge-action joint restraint systems used on PVC pipe shall have a working pressure rating equal to the pipe rating with a minimum safety factor of two.

Bolted restraint for C900 and C905 PVC bell-and-spigot pipe joints shall utilize a full-circle bell restraint harness with stainless steel clamping hardware. Harnesses shall be split design, provide full 360 degree contact and support of pipe and incorporate serrations on the inner face to provide full restraint. Restraint harnesses shall be epoxy coated grade 65-45-12 ductile iron. Use of a back-up ring against the pipe bell is prohibited. Threaded thrust rods and nuts used to connect the harnesses over the bell shall be constructed of high strength low alloy steel in accordance with AWWA C111. After assembly, thrust restraint hardware shall be field coated with an epoxy designed for underground conditions. Bell-and-spigot restraint systems used on PVC pipe shall have a working pressure rating equal to the pipe rating with a minimum safety factor of two. Wedge-action retainers designed for PVC pipe meeting the requirements herein may be utilized in lieu of serrated harnesses.

Joint Restraint Systems shall be manufactured by an approved manufacturer as indicated in the most recent version of the Covington Water District Standards and Specifications Approved Materials List; Appendix C.

9-30.2(11) Steel Casing

Delete Section 9-30.2(11) and replace with the following:

(*****)

Steel casing shall be black steel pipe conforming to ASTM A 53. Before installation, coat casing exterior with shop-applied anticorrosive coating conforming to AWWA C210. Minimum coating thickness shall be 16 mils dry film thickness (DFT); however, thickness shall not exceed manufacturer's recommended thickness. Coating type shall be a polyamide epoxy-coal tar equal to Tnemec Hi-Build Theme-Tar, Series 46H-413.

Casing wall thickness shall be 0.50 inch minimum for casings 18 inch in diameter.

Add the following new section:

(*****)

9-30.2(12) Spacers and Seals for Casing Pipe

Casing spacers shall be "centered positioning" type bands at least 12 inch in width, and shall be either stainless steel or heavy duty fusion bonded epoxy coated steel. Runners shall be 2-inch wide glass reinforced plastic securely bonded to the spacer, and shall be aligned on the spacer along the axis of insertion of the water main into the casing pipe. Runner length shall approximate the width of the spacer. Securing the spacer to the water main shall be in accordance with the manufacturer's instruction. The height of the risers and runners combined shall be sufficient to keep the carrier pipe bell, couplings or fittings at least 0.75 inch from the casing pipe wall at all times and provide at least 1-inch clearance between the runners and the top of the casing wall, to prevent jamming during installation.

Acceptable spacers and end seals manufacturers are Pipeline Seal and Insulator model S12G-2 for stainless steel and model C12G-2, C8G-2 for fusion-bonded and coated steel, Cascade Waterworks Mfg. Co., Advance Products & Systems, Inc. or approved equal.

9-30.3(4) Valve Boxes

Supplement this section with the following:

(*****)

All valve boxes shall be as per CWD Standards and Specifications Section 4.16. When discrepancies between plans and specifications are present, the 2024 CWD Standards and Specifications shall prevail.

9-30.3(5) Valve Marker Posts

Supplement this section with the following:

(*****)

All valve marker posts shall be as per CWD Standards and Specifications Section 4.15. When discrepancies between plans and Specifications are present, the 2024 CWD Standards and Specifications shall prevail.

9-30.3(6) Valve Stem Extensions

Supplement this section with the following:

(*****)

All valve stem extensions shall be as per CWD Standards and Specifications detail sheet 9.

9-31 FABRICATED BRIDGE BEARING ASSEMBLIES

Supplement this section with the following:

(*****)

9-31.13 Lead Rubber Isolation Bearings

Steel reinforcing plates shall, as a minimum, conform to ASTM A1011 Grade 36. Minimum reinforcing plate thickness shall be 11 ga.

Internal or external load plates shall, as a minimum, conform to ASTM A1011, Grade 36. The purity of lead shall be established from a sample of lead used in the isolators and shall demonstrate a minimum of 99.9% purity.

All elastomer in the bearings shall be a minimum of Grade 3 Natural Rubber.

Results showing performance within the stated parameters shall be provided for each elastomer formulation used in the isolators. Tests performed within the previous 12 months are acceptable for the following tests:

1. Compression Set (ASTM D395) at 70°C for 22 hours:
Maximum permissible set = 40%
2. Bond Strength (ASTM D429, Method B):
Minimum bond strength = 40lb/in, 100% rubber tear
3. Heat Resistance (ASTM D573) at 70°C for 7 days:
Maximum permissible change in tensile strength = -25%
Maximum permissible change in ultimate elongation = -25%
Maximum permissible change in durometer hardness = +10%
4. Ozone Resistance (ASTM D1149)
Representative strips of material shall be prepared in accordance with ASTM D1149, Method B1.
The tests shall be performed at a concentration of 50±5 parts per hundred million, at 20% strain after conditioning at 38°C±1 for 100 hours. No cracks shall be visible using 7X magnification.
5. Low Temperature Compression Set (ASTM D1229) at -10°C for 7 days:
Maximum permissible set = 65%
Results from tests performed on each batch of elastomer used in the isolators shall demonstrate compliance with the following requirements:
6. Tensile Strength (ASTM D412)
Minimum permissible tensile strength = 2200 psi
7. Elongation at break (ASTM D412)
Minimum permissible elongation at break = 500%

8. Shear Modulus (ASTM D4014, Method A)
Measure and report secant stiffness between 25% and 75% shear strain

9-34 PAVEMENT MARKING MATERIALS

9-34.2 Paint

9-34.2(2) Prohibited Materials (GSP 10-09-17)

Delete the contents of this Section and replace it with the following:

Traffic paint shall not contain mercury, lead, chromium, toluene, chlorinated solvents, hydrolysable chlorine derivatives, polychlorinated biphenyls (PCBs), ethylene-based glycol ethers and their acetates, nor any other EPA hazardous waste material over the regulatory levels per CFR 40 Part 261.24.

END OF DIVISION 9

END OF SPECIAL PROVISIONS

APPENDIX A

FEDERAL AND STATE WAGE RATES

State of Washington
Department of Labor & Industries
Prevailing Wage Section - Telephone 360-902-5335
PO Box 44540, Olympia, WA 98504-4540

Washington State Prevailing Wage

The PREVAILING WAGES listed here include both the hourly wage rate and the hourly rate of fringe benefits. On public works projects, worker's wage and benefit rates must add to not less than this total. A brief description of overtime calculation requirements are provided on the Benefit Code Key.

Journey Level Prevailing Wage Rates for the Effective Date: 10/14/2026

King County

Trade	Job Classification	Wage	Holiday	Overtime	Note	Risk Class
Asbestos Abatement Workers	Journey Level	\$71.10	5D	1H		View
Boilermakers	Journey Level	\$80.89	5N	1C		View
Brick Mason	Journey Level	\$82.00	7E	1N		View
Brick Mason	Pointer-Caulker-Cleaner	\$82.00	7E	1N		View
Building Service Employees	Janitor	\$32.78	5S	2F		View
Building Service Employees	Traveling Waxer/Shampooer	\$32.98	5S	2F		View
Building Service Employees	Window Cleaner (Non-Scaffold)	\$35.58	5S	2F		View
Building Service Employees	Window Cleaner (Scaffold)	\$36.58	5S	2F		View
Cabinet Makers (In Shop)	Journey Level	\$22.74		1		View
Carpenters	Acoustical Worker	\$87.71	15J	11U		View
Carpenters	Bridge Dock and Wharf Carpenter	\$89.38	15J	11U	9L	View
Carpenters	Floor Layer & Floor Finisher	\$87.71	15J	11U		View
Carpenters	General Carpenter	\$87.71	15J	11U		View
Carpenters	Scaffold Erector	\$87.71	15J	11U		View
Cement Masons	Application of all Composition Mastic	\$86.70	15J	4U		View
Cement Masons	Application of all Epoxy Material	\$86.18	15J	4U		View

Cement Masons	Application of all Plastic Material	\$86.70	15J	4U	View
Cement Masons	Application of Sealing Compound	\$86.18	15J	4U	View
Cement Masons	Application of Underlayment	\$86.70	15J	4U	View
Cement Masons	Building General	\$86.18	15J	4U	View
Cement Masons	Composition or Kalman Floors	\$86.70	15J	4U	View
Cement Masons	Concrete Paving	\$86.18	15J	4U	View
Cement Masons	Curb & Gutter Machine	\$86.70	15J	4U	View
Cement Masons	Curb & Gutter, Sidewalks	\$86.18	15J	4U	View
Cement Masons	Curing Concrete	\$86.18	15J	4U	View
Cement Masons	Finish Colored Concrete	\$86.70	15J	4U	View
Cement Masons	Floor Grinding	\$86.70	15J	4U	View
Cement Masons	Floor Grinding/Polisher	\$86.18	15J	4U	View
Cement Masons	Green Concrete Saw, self-powered	\$86.70	15J	4U	View
Cement Masons	Grouting of all Plates	\$86.18	15J	4U	View
Cement Masons	Grouting of all Tilt-up Panels	\$86.18	15J	4U	View
Cement Masons	Guniting Nozzleman	\$86.70	15J	4U	View
Cement Masons	Hand Powered Grinder	\$86.70	15J	4U	View
Cement Masons	Journey Level	\$86.18	15J	4U	View
Cement Masons	Patching Concrete	\$86.18	15J	4U	View
Cement Masons	Pneumatic Power Tools	\$86.70	15J	4U	View
Cement Masons	Power Chipping & Brushing	\$86.70	15J	4U	View
Cement Masons	Sand Blasting Architectural Finish	\$86.70	15J	4U	View
Cement Masons	Screed & Rodding Machine	\$86.70	15J	4U	View
Cement Masons	Spackling or Skim Coat Concrete	\$86.18	15J	4U	View
Cement Masons	Troweling Machine Operator	\$86.70	15J	4U	View

Cement Masons	Troweling Machine Operator on Colored Slabs	\$86.70	15J	4U		View
Cement Masons	Tunnel Workers	\$86.70	15J	4U		View
Divers & Tenders	Bell/Vehicle/Submersible Operator (not under pressure)	\$149.22	15J	11T	9I	View
Divers & Tenders	Dive Supervisor	\$150.72	15J	11T	9I	View
Divers & Tenders	Diver	\$149.22	15J	11T	9I	View
Divers & Tenders	Diver Tender	\$95.55	15J	11T	9I	View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 0-30.00 PSI	\$120.22	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 30.01-44.00 PSI	\$130.16	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 44.01 - 54.00 PSI	\$140.11	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 54.01 - 60.00 PSI	\$150.05	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 60.01 - 64.00 PSI	\$160.00	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 64.01 - 68.00 PSI	\$169.94	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 68.01 - 70.00 PSI	\$179.88	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 70.01 - 72.00 PSI	\$189.83	15J	11U		View
Divers & Tenders	Hyperbaric Worker - Compressed Air Worker 72.01 - 74.00 PSI	\$199.77	15J	11U		View
Divers & Tenders	Lead Diver (Dive Master)	\$110.01	15J	11T	9I	View
Divers & Tenders	Manifold Operator (Life Support Technician)	\$100.55	15J	11U	9I	View
Divers & Tenders	Remote Operated Vehicle Operator/Technician	\$95.55	15J	11U	9I	View
Divers & Tenders	Remote Operated Vehicle Operator/Technician	\$95.55	15J	11T	9I	View
Divers & Tenders	Remote Operated Vehicle Tender	\$89.25	15J	11T	9I	View

Divers & Tenders	Stand-by Diver	\$105.01	15J	11T	9I	View
Dredge Workers	Assistant Engineer	\$93.71	15Q	3F		View
Dredge Workers	Assistant Mate (Deckhand)	\$92.99	15Q	3F		View
Dredge Workers	Boatmen	\$93.71	15Q	3F		View
Dredge Workers	Engineer Welder	\$95.52	15Q	3F		View
Dredge Workers	Leverman, Hydraulic	\$97.45	15Q	3F		View
Dredge Workers	Mates	\$93.71	15Q	3F		View
Dredge Workers	Oiler	\$92.99	15Q	3F		View
Drywall Applicator	Journey Level	\$84.77	150	11S		View
Drywall Tapers	Journey Level	\$84.77	150	11S		View
Electrical Fixture Maintenance Workers	Journey Level	\$42.69	5L	1E		View
Electricians - Inside	Cable Splicer	\$122.23	7C	4E		View
Electricians - Inside	Cable Splicer (tunnel)	\$131.06	7C	4E		View
Electricians - Inside	Certified Welder	\$118.22	7C	4E		View
Electricians - Inside	Certified Welder (tunnel)	\$126.65	7C	4E		View
Electricians - Inside	Construction Stock Person	\$56.78	7C	4E		View
Electricians - Inside	Journey Level	\$114.21	7C	4E		View
Electricians - Inside	Journey Level (tunnel)	\$122.23	7C	4E		View
Electricians - Motor Shop	Journey Level	\$48.68	5A	1B		View
Electricians - Powerline Construction	Cable Splicer	\$107.31	5A	4D		View
Electricians - Powerline Construction	Certified Line Welder	\$98.45	5A	4D		View
Electricians - Powerline Construction	Groundperson	\$61.75	5A	4D		View
Electricians - Powerline Construction	Heavy Line Equipment Operator	\$98.45	5A	4D		View
Electricians - Powerline Construction	Journey Level Lineperson	\$98.45	5A	4D		View

Electricians - Powerline Construction	Line Equipment Operator	\$84.94	5A	4D		View
Electricians - Powerline Construction	Meter Installer	\$61.75	5A	4D	8W	View
Electricians - Powerline Construction	Pole Sprayer	\$98.45	5A	4D		View
Electricians - Powerline Construction	Powderperson	\$72.81	5A	4D		View
Electronic Technicians	Journey Level	\$75.47	7E	1E		View
Elevator Constructors	Mechanic	\$119.17	7D	4A		View
Elevator Constructors	Mechanic In Charge	\$128.95	7D	4A		View
Fabricated Precast Concrete Products	All Classifications - In-Factory Work Only	\$21.34	5B	1R		View
Fence Erectors	Fence Erector	\$60.82	15J	11X	9N	View
Fence Erectors	Fence Laborer	\$60.82	15J	11X	9N	View
Flaggers	Journey Level	\$60.82	15J	11X	9N	View
Glaziers	Journey Level	\$88.41	7L	1Y		View
Heat & Frost Insulators And Asbestos Workers	Journey Level	\$100.83	15H	11C		View
Heating Equipment Mechanics	Journey Level	\$107.92	7F	1E		View
Hod Carriers & Mason Tenders	Journey Level	\$75.00	15J	11X	9N	View
Industrial Power Vacuum Cleaner	Journey Level	\$17.13		1		View
Inland Boatmen	Boat Operator	\$71.28	5B	1K		View
Inland Boatmen	Cook	\$69.70	5B	1K		View
Inland Boatmen	Deckhand	\$70.00	5B	1K		View
Inland Boatmen	Deckhand Engineer	\$69.55	5B	1K		View
Inland Boatmen	Launch Operator	\$71.23	5B	1K		View
Inland Boatmen	Mate	\$89.12	5B	1K		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Cleaner Operator	\$58.17	15M	110		View

Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Foamer Operator	\$58.17	15M	110		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Grout Truck Operator	\$58.17	15M	110		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Head Operator	\$56.10	15M	110		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	Technician	\$49.90	15M	110		View
Inspection/Cleaning/Sealing Of Sewer & Water Systems By Remote Control	TV Truck Operator	\$53.00	15M	110		View
Insulation Applicators	Journey Level	\$87.71	15J	11U		View
Ironworkers	Journeyman	\$94.82	15K	11N		View
Laborers	Air, Gas Or Electric Vibrating Screed	\$71.10	15J	11X	9N	View
Laborers	Airtrac Drill Operator	\$73.18	15J	11X	9N	View
Laborers	Ballast Regular Machine	\$71.10	15J	11X	9N	View
Laborers	Batch Weighman	\$60.82	15J	11X	9N	View
Laborers	Brick Pavers	\$71.10	15J	11X	9N	View
Laborers	Brush Cutter	\$71.10	15J	11X	9N	View
Laborers	Brush Hog Feeder	\$71.10	15J	11X	9N	View
Laborers	Burner	\$71.10	15J	11X	9N	View
Laborers	Caisson Worker	\$73.18	15J	11X	9N	View
Laborers	Carpenter Tender	\$71.10	15J	11X	9N	View
Laborers	Cement Dumper-paving	\$73.18	15J	11X	9N	View
Laborers	Cement Finisher Tender	\$71.10	15J	11X	9N	View
Laborers	Change House Or Dry Shack	\$71.10	15J	11X	9N	View
Laborers	Chipping Gun (30 Lbs. And Over)	\$72.33	15J	11X	9N	View
Laborers	Chipping Gun (Under 30 Lbs.)	\$71.10	15J	11X	9N	View
Laborers	Choker Setter	\$71.10	15J	11X	9N	View

Laborers	Chuck Tender	\$71.10	15J	11X	9N	View
Laborers	Clary Power Spreader	\$72.33	15J	11X	9N	View
Laborers	Clean-up Laborer	\$71.10	15J	11X	9N	View
Laborers	Concrete Dumper/Chute Operator	\$73.18	15J	11X	9N	View
Laborers	Concrete Form Stripper	\$71.10	15J	11X	9N	View
Laborers	Concrete Placement Crew	\$73.18	15J	11X	9N	View
Laborers	Concrete Saw Operator/Core Driller	\$72.33	15J	11X	9N	View
Laborers	Crusher Feeder	\$60.82	15J	11X	9N	View
Laborers	Curing Laborer	\$71.10	15J	11X	9N	View
Laborers	Demolition: Wrecking & Moving (Incl. Charred Material)	\$71.10	15J	11X	9N	View
Laborers	Ditch Digger	\$71.10	15J	11X	9N	View
Laborers	Diver	\$73.18	15J	11X	9N	View
Laborers	Drill Operator (Hydraulic, Diamond)	\$72.33	15J	11X	9N	View
Laborers	Dry Stack Walls	\$71.10	15J	11X	9N	View
Laborers	Dump Person	\$71.10	15J	11X	9N	View
Laborers	Epoxy Technician	\$71.10	15J	11X	9N	View
Laborers	Erosion Control Worker	\$71.10	15J	11X	9N	View
Laborers	Faller & Bucker Chain Saw	\$72.33	15J	11X	9N	View
Laborers	Fine Graders	\$71.10	15J	11X	9N	View
Laborers	Firewatch	\$60.82	15J	11X	9N	View
Laborers	Form Setter	\$73.18	15J	11X	9N	View
Laborers	Gabian Basket Builders	\$71.10	15J	11X	9N	View
Laborers	General Laborer	\$71.10	15J	11X	9N	View
Laborers	Grade Checker & Transit Person	\$75.00	15J	11X	9N	View

Laborers	Grinders	\$71.10	15J	11X	9N	View
Laborers	Grout Machine Tender	\$71.10	15J	11X	9N	View
Laborers	Groutmen (Pressure) Including Post Tension Beams	\$72.33	15J	11X	9N	View
Laborers	Guardrail Erector	\$71.10	15J	11X	9N	View
Laborers	Hazardous Waste Worker (Level A)	\$73.18	15J	11X	9N	View
Laborers	Hazardous Waste Worker (Level B)	\$72.33	15J	11X	9N	View
Laborers	Hazardous Waste Worker (Level C)	\$71.10	15J	11X	9N	View
Laborers	High Scaler	\$73.18	15J	11X	9N	View
Laborers	Jackhammer	\$72.33	15J	11X	9N	View
Laborers	Laserbeam Operator	\$72.33	15J	11X	9N	View
Laborers	Maintenance Person	\$71.10	15J	11X	9N	View
Laborers	Manhole Builder-Mudman	\$72.33	15J	11X	9N	View
Laborers	Material Yard Person	\$71.10	15J	11X	9N	View
Laborers	Mold Abatement Worker	\$71.10	15J	11X	9N	View
Laborers	Motorman-Dinky Locomotive	\$75.05	15J	11X	9N	View
Laborers	nozzleman (concrete pump, green cutter when using combination of high pressure air & water on concrete & rock, sandblast, gunite, shotcrete, water blaster, vacuum blaster)	\$75.00	15J	11X	9N	View
Laborers	Pavement Breaker	\$72.33	15J	11X	9N	View
Laborers	Pilot Car	\$60.82	15J	11X	9N	View
Laborers	Pipe Layer (Lead)	\$75.00	15J	11X	9N	View
Laborers	Pipe Layer/Tailor	\$72.33	15J	11X	9N	View
Laborers	Pipe Pot Tender	\$72.33	15J	11X	9N	View
Laborers	Pipe Reliner	\$72.33	15J	11X	9N	View

Laborers	Pipe Wrapper	\$72.33	15J	11X	9N	View
Laborers	Pot Tender	\$71.10	15J	11X	9N	View
Laborers	Powderman	\$73.18	15J	11X	9N	View
Laborers	Powderman's Helper	\$71.10	15J	11X	9N	View
Laborers	Power Jacks	\$72.33	15J	11X	9N	View
Laborers	Power Washer	\$71.10	15J	11X	9N	View
Laborers	Railroad Spike Puller - Power	\$72.33	15J	11X	9N	View
Laborers	Raker - Asphalt	\$75.00	15J	11X	9N	View
Laborers	Re-timberman	\$73.18	15J	11X	9N	View
Laborers	Remote Equipment Operator	\$72.33	15J	11X	9N	View
Laborers	Rigger/Signal Person	\$72.33	15J	11X	9N	View
Laborers	Rip Rap Person	\$71.10	15J	11X	9N	View
Laborers	Rivet Buster	\$72.33	15J	11X	9N	View
Laborers	Rodder	\$73.18	15J	11X	9N	View
Laborers	Scaffold Erector	\$71.10	15J	11X	9N	View
Laborers	Scale Person	\$71.10	15J	11X	9N	View
Laborers	Sloper (Over 20")	\$72.33	15J	11X	9N	View
Laborers	Sloper Sprayer	\$71.10	15J	11X	9N	View
Laborers	Spreader (Concrete)	\$73.18	15J	11X	9N	View
Laborers	Stake Hopper	\$71.10	15J	11X	9N	View
Laborers	Stock Piler	\$71.10	15J	11X	9N	View
Laborers	Swinging Stage/Boatswain Chair	\$60.82	15J	11X	9N	View
Laborers	Tamper & Similar Electric, Air & Gas Operated Tools	\$72.33	15J	11X	9N	View
Laborers	Tamper (Multiple & Self-propelled)	\$72.33	15J	11X	9N	View

Laborers	Timber Person - Sewer (Lagger, Shorer & Cribber)	\$72.33	15J	11X	9N	View
Laborers	Toolroom Person (at Jobsite)	\$71.10	15J	11X	9N	View
Laborers	Topper	\$71.10	15J	11X	9N	View
Laborers	Track Laborer	\$71.10	15J	11X	9N	View
Laborers	Track Liner (Power)	\$72.33	15J	11X	9N	View
Laborers	Traffic Control Laborer	\$64.78	15J	11X	9P	View
Laborers	Traffic Control Supervisor	\$68.42	15J	11P	9C	View
Laborers	Traffic Control Supervisor	\$68.42	15J	11X	9P	View
Laborers	Truck Mounted Attenuator	\$64.78	15J	11X	9P	View
Laborers	Truck Spotter	\$71.10	15J	11X	9N	View
Laborers	Tugger Operator	\$72.33	15J	11X	9N	View
Laborers	Tunnel Work-Compressed Air Worker 0-30 psi	\$254.08	15J	11X	9Q	View
Laborers	Tunnel Work-Compressed Air Worker 30.01-44.00 psi	\$259.24	15J	11X	9Q	View
Laborers	Tunnel Work-Compressed Air Worker 44.01-54.00 psi	\$263.01	15J	11X	9Q	View
Laborers	Tunnel Work-Compressed Air Worker 54.01-60.00 psi	\$268.85	15J	11X	9Q	View
Laborers	Tunnel Work-Compressed Air Worker 60.01-64.00 psi	\$271.02	15J	11X	9Q	View
Laborers	Tunnel Work-Compressed Air Worker 64.01-68.00 psi	\$276.25	15J	11X	9Q	View
Laborers	Tunnel Work-Compressed Air Worker 68.01-70.00 psi	\$278.20	15J	11X	9Q	View
Laborers	Tunnel Work-Compressed Air Worker 70.01-72.00 psi	\$280.25	15J	11X	9Q	View
Laborers	Tunnel Work-Compressed Air Worker 72.01-74.00 psi	\$282.30	15J	11X	9Q	View
Laborers	Tunnel Work-Guage and Lock Tender	\$75.05	15J	11X	9N	View

Laborers	Tunnel Work-Miner	\$75.05	15J	11X	9N	View
Laborers	Vibrator	\$73.18	15J	11X	9N	View
Laborers	Vinyl Seamer	\$71.10	15J	11X	9N	View
Laborers	Watchman	\$55.62	15J	11X	9N	View
Laborers	Welder	\$72.33	15J	11X	9N	View
Laborers	Well Point Laborer	\$72.33	15J	11X	9N	View
Laborers	Window Washer/Cleaner	\$55.62	15J	11X	9N	View
Laborers - Underground Sewer & Water	General Laborer & Topman	\$71.10	15J	11X	9N	View
Laborers - Underground Sewer & Water	Pipe Layer	\$72.33	15J	11X	9N	View
Landscape Construction	Landscape Construction/Landscaping Or Planting Laborers	\$55.62	15J	11X	9N	View
Landscape Construction	Landscape Operator	\$96.28	15J	11G	8X	View
Landscape Maintenance	Groundskeeper	\$17.87		1		View
Lathers	Journey Level	\$84.77	150	11S		View
Marble Setters	Journey Level	\$82.00	7E	1N		View
Metal Fabrication (In Shop)	Fitter/Certified Welder	\$42.17	15I	11E		View
Metal Fabrication (In Shop)	General Laborer	\$30.07	15I	11E		View
Metal Fabrication (In Shop)	Mechanic	\$43.63	15I	11E		View
Metal Fabrication (In Shop)	Welder/Burner	\$39.28	15I	11E		View
Millwright	Journey Level	\$88.94	5A	1B		View
Modular Buildings	Cabinet Assembly	\$17.13		1		View
Modular Buildings	Electrician	\$17.13		1		View
Modular Buildings	Equipment Maintenance	\$17.13		1		View
Modular Buildings	Plumber	\$17.13		1		View

Modular Buildings	Production Worker	\$17.13		1		View
Modular Buildings	Tool Maintenance	\$17.13		1		View
Modular Buildings	Utility Person	\$17.13		1		View
Modular Buildings	Welder	\$17.13		1		View
Painters	Journey Level	\$58.84	6Z	11J		View
Pile Driver	Crew Tender	\$80.50	15J	11U	9L	View
Pile Driver	Journey Level	\$89.43	15J	11U		View
Plasterers	Journey Level	\$81.34	7Q	1R		View
Plasterers	Nozzleman	\$85.44	7Q	1R		View
Playground & Park Equipment Installers	Journey Level	\$17.13		1		View
Plumbers & Pipefitters	Journey Level	\$113.59	6Z	1G		View
Power Equipment Operators	Asphalt Plant Operators	\$97.88	15J	11G	8X	View
Power Equipment Operators	Assistant Engineer	\$92.02	15J	11G	8X	View
Power Equipment Operators	Barrier Machine (zipper)	\$96.99	15J	11G	8X	View
Power Equipment Operators	Batch Plant Operator: concrete	\$96.99	15J	11G	8X	View
Power Equipment Operators	Boat Operator	\$96.51	7A	11H	8X	View
Power Equipment Operators	Bobcat	\$92.02	15J	11G	8X	View
Power Equipment Operators	Brokk - Remote Demolition Equipment	\$92.02	15J	11G	8X	View
Power Equipment Operators	Brooms	\$92.02	15J	11G	8X	View
Power Equipment Operators	Bump Cutter	\$96.99	15J	11G	8X	View
Power Equipment Operators	Cableways	\$97.88	15J	11G	8X	View
Power Equipment Operators	Chipper	\$96.99	15J	11G	8X	View
Power Equipment Operators	Compressor	\$92.02	15J	11G	8X	View
Power Equipment Operators	Concrete Finish Machine - Laser Screed	\$92.02	15J	11G	8X	View

Power Equipment Operators	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$96.28	15J	11G	8X	View
Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$97.88	15J	11G	8X	View
Power Equipment Operators	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$96.99	15J	11G	8X	View
Power Equipment Operators	Conveyors	\$96.28	15J	11G	8X	View
Power Equipment Operators	Cranes Friction: 200 tons and over	\$99.42	7A	11H	8X	View
Power Equipment Operators	Cranes, A-frame: 10 tons and under	\$90.77	7A	11H	8X	View
Power Equipment Operators	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$97.46	7A	11H	8X	View
Power Equipment Operators	Cranes: 20 tons through 44 tons with attachments	\$95.64	7A	11H	8X	View
Power Equipment Operators	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$98.47	7A	11H	8X	View
Power Equipment Operators	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$99.42	7A	11H	8X	View
Power Equipment Operators	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$96.51	7A	11H	8X	View
Power Equipment Operators	Cranes: Friction cranes through 199 tons	\$98.47	7A	11H	8X	View
Power Equipment Operators	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$94.93	7A	11H	8X	View
Power Equipment Operators	Crusher	\$96.99	15J	11G	8X	View
Power Equipment Operators	Deck Engineer/Deck Winches (power)	\$96.99	15J	11G	8X	View
Power Equipment Operators	Derricks, On Building Work	\$96.51	7A	11H	8X	View
Power Equipment Operators	Dozers D-9 & Under	\$96.28	15J	11G	8X	View
Power Equipment Operators	Drill Oilers: Auger Type, Truck Or Crane Mount	\$96.28	15J	11G	8X	View
Power Equipment Operators	Drilling Machine	\$98.87	15J	11G	8X	View

Power Equipment Operators	Elevator and man-lift: permanent and shaft type	\$92.02	15J	11G	8X	View
Power Equipment Operators	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$96.99	15J	11G	8X	View
Power Equipment Operators	Forklift: 3000 lbs and over with attachments	\$96.28	15J	11G	8X	View
Power Equipment Operators	Forklifts: under 3000 lbs. with attachments	\$92.02	15J	11G	8X	View
Power Equipment Operators	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$96.99	15J	11G	8X	View
Power Equipment Operators	Gradechecker/Stakeman	\$92.02	15J	11G	8X	View
Power Equipment Operators	Guardrail Punch	\$96.99	15J	11G	8X	View
Power Equipment Operators	Hard Tail End Dump Articulating Off-Road Equipment 45 Yards. & Over	\$97.88	15J	11G	8X	View
Power Equipment Operators	Hard Tail End Dump Articulating Off-road Equipment Under 45 Yards	\$96.99	15J	11G	8X	View
Power Equipment Operators	Horizontal/Directional Drill Locator	\$96.28	15J	11G	8X	View
Power Equipment Operators	Horizontal/Directional Drill Operator	\$96.99	15J	11G	8X	View
Power Equipment Operators	Hydralifts/Boom Trucks Over 10 Tons	\$94.93	7A	11H	8X	View
Power Equipment Operators	Hydralifts/boom trucks: 10 tons and under	\$90.77	7A	11H	8X	View
Power Equipment Operators	Leverman	\$99.88	15J	11G	8X	View
Power Equipment Operators	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$97.88	15J	11G	8X	View
Power Equipment Operators	Loader: Overhead 8 yards and over	\$98.87	15J	11G	8X	View
Power Equipment Operators	Loaders, Overhead Under 6 Yards	\$96.99	15J	11G	8X	View
Power Equipment Operators	Loaders, Plant Feed	\$96.99	15J	11G	8X	View
Power Equipment Operators	Loaders: Elevating Type Belt	\$96.28	15J	11G	8X	View
Power Equipment Operators	Locomotives, All	\$96.99	15J	11G	8X	View
Power Equipment Operators	Material Transfer Device	\$96.99	15J	11G	8X	View

Power Equipment Operators	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$98.87	15J	11G	8X	View
Power Equipment Operators	Motor Patrol Graders	\$97.88	15J	11G	8X	View
Power Equipment Operators	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$97.88	15J	11G	8X	View
Power Equipment Operators	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$92.02	15J	11G	8X	View
Power Equipment Operators	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$96.28	15J	11G	8X	View
Power Equipment Operators	Overhead, bridge type Crane: 20 tons through 44 tons	\$95.64	7A	11H	8X	View
Power Equipment Operators	Overhead, bridge type: 100 tons and over	\$97.46	7A	11H	8X	View
Power Equipment Operators	Overhead, bridge type: 45 tons through 99 tons	\$96.51	7A	11H	8X	View
Power Equipment Operators	Pavement Breaker	\$92.02	15J	11G	8X	View
Power Equipment Operators	Pile Driver (other Than Crane Mount)	\$96.99	15J	11G	8X	View
Power Equipment Operators	Plant Oiler - Asphalt, Crusher	\$96.28	15J	11G	8X	View
Power Equipment Operators	Posthole Digger, Mechanical	\$92.02	15J	11G	8X	View
Power Equipment Operators	Power Plant	\$92.02	15J	11G	8X	View
Power Equipment Operators	Pumps - Water	\$92.02	15J	11G	8X	View
Power Equipment Operators	Quad 9, Hd 41, D10 And Over	\$97.88	15J	11G	8X	View
Power Equipment Operators	Quick tower: no cab, under 100 feet in height base to boom	\$94.93	7A	11H	8X	View
Power Equipment Operators	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$97.88	15J	11G	8X	View
Power Equipment Operators	Rigger and Bellman	\$90.77	7A	11H	8X	View
Power Equipment Operators	Rigger/Signal Person, Bellman(Certified)	\$94.93	7A	11H	8X	View
Power Equipment Operators	Rollagon	\$97.88	15J	11G	8X	View
Power Equipment Operators	Roller, Other Than Plant Mix	\$92.02	15J	11G	8X	View

Power Equipment Operators	Roller, Plant Mix Or Multi-lift Materials	\$96.28	15J	11G	8X	View
Power Equipment Operators	Roto-mill, Roto-grinder	\$96.99	15J	11G	8X	View
Power Equipment Operators	Saws - Concrete	\$96.28	15J	11G	8X	View
Power Equipment Operators	Scraper, Self Propelled Under 45 Yards	\$96.99	15J	11G	8X	View
Power Equipment Operators	Scrapers - Concrete & Carry All	\$96.28	15J	11G	8X	View
Power Equipment Operators	Scrapers, Self-propelled: 45 Yards And Over	\$97.88	15J	11G	8X	View
Power Equipment Operators	Service Engineers: Equipment	\$96.28	15J	11G	8X	View
Power Equipment Operators	Shotcrete/Gunite Equipment	\$92.02	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$96.28	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$97.88	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$96.99	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$98.87	15J	11G	8X	View
Power Equipment Operators	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$99.88	15J	11G	8X	View
Power Equipment Operators	Slipform Pavers	\$97.88	15J	11G	8X	View
Power Equipment Operators	Spreader, Topsider & Screedman	\$97.88	15J	11G	8X	View
Power Equipment Operators	Subgrader Trimmer	\$96.99	15J	11G	8X	View
Power Equipment Operators	Tower Bucket Elevators	\$96.28	15J	11G	8X	View
Power Equipment Operators	Tower Crane: over 175' through 250' in height, base to boom	\$98.47	7A	11H	8X	View
Power Equipment Operators	Tower crane: up to 175' in height base to boom	\$97.46	7A	11H	8X	View
Power Equipment Operators	Tower Cranes: over 250' in height from base to boom	\$99.42	7A	11H	8X	View
Power Equipment Operators	Transporters, All Track Or Truck Type	\$97.88	15J	11G	8X	View

Power Equipment Operators	Trenching Machines	\$96.28	15J	11G	8X	View
Power Equipment Operators	Truck Crane Oiler/Driver: 100 tons and over	\$95.64	7A	11H	8X	View
Power Equipment Operators	Truck crane oiler/driver: under 100 tons	\$94.93	7A	11H	8X	View
Power Equipment Operators	Truck Mount Portable Conveyor	\$96.99	15J	11G	8X	View
Power Equipment Operators	Vac Truck (Vector Guzzler, Hydro Excavator)	\$96.99	15J	11G	8X	View
Power Equipment Operators	Welder	\$97.88	15J	11G	8X	View
Power Equipment Operators	Wheel Tractors, Farmall Type	\$92.02	15J	11G	8X	View
Power Equipment Operators	Yo Yo Pay Dozer	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Asphalt Plant Operators	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Assistant Engineer	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Barrier Machine (zipper)	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Batch Plant Operator, Concrete	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Boat Operator	\$96.51	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Bobcat	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Brokk - Remote Demolition Equipment	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Brooms	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Bump Cutter	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Cableways	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Chipper	\$96.99	15J	11G	8X	View

Power Equipment Operators- Underground Sewer & Water	Compressor	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Concrete Finish Machine - Laser Screed	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Concrete Pump - Mounted Or Trailer High Pressure Line Pump, Pump High Pressure	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Over 42 M	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Concrete Pump: Truck Mount With Boom Attachment Up To 42m	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Conveyors	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes Friction: 200 tons and over	\$99.42	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes, A-frame: 10 tons and under	\$90.77	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes: 100 tons through 199 tons, or 150' of boom (including jib with attachments)	\$97.46	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes: 20 tons through 44 tons with attachments	\$95.64	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes: 200 tons- 299 tons, or 250' of boom including jib with attachments	\$98.47	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes: 300 tons and over or 300' of boom including jib with attachments	\$99.42	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes: 45 tons through 99 tons, under 150' of boom(including jib with attachments)	\$96.51	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes: Friction cranes through 199 tons	\$98.47	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Cranes: through 19 tons with attachments, a-frame over 10 tons	\$94.93	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Crusher	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Deck Engineer/Deck Winches (power)	\$96.99	15J	11G	8X	View

Power Equipment Operators- Underground Sewer & Water	Derricks, On Building Work	\$96.51	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Dozers D-9 & Under	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Drill Oilers: Auger Type, Truck Or Crane Mount	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Drilling Machine	\$98.87	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Elevator and man-lift: permanent and shaft type	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Finishing Machine, Bidwell And Gamaco & Similar Equipment	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Forklift: 3000 lbs and over with attachments	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Forklifts: under 3000 lbs. with attachments	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Grade Engineer: Using Blue Prints, Cut Sheets, Etc	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Gradechecker/Stakeman	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Guardrail Punch	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off- Road Equipment 45 Yards. & Over	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Hard Tail End Dump Articulating Off- road Equipment Under 45 Yards	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Horizontal/Directional Drill Locator	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Horizontal/Directional Drill Operator	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Hydralifts/boom trucks: 10 tons and under	\$90.77	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Hydralifts/boom trucks: over 10 tons	\$94.93	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Leverman	\$99.88	15J	11G	8X	View

Power Equipment Operators- Underground Sewer & Water	Loader, Overhead, 6 Yards. But Not Including 8 Yards	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Loader: Overhead 8 yards and over	\$98.87	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Loaders, Overhead Under 6 Yards	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Loaders, Plant Feed	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Loaders: Elevating Type Belt	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Locomotives, All	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Material Transfer Device	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Mechanics: All (Leadmen - \$0.50 per hour over mechanic)	\$98.87	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Motor Patrol Graders	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Mucking Machine, Mole, Tunnel Drill, Boring, Road Header And/or Shield	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Oil Distributors, Blower Distribution & Mulch Seeding Operator	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Outside Hoists (Elevators and Manlifts), Air Tuggers, Strato	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type Crane: 20 tons through 44 tons	\$95.64	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type: 100 tons and over	\$97.46	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Overhead, bridge type: 45 tons through 99 tons	\$96.51	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Pavement Breaker	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Pile Driver (other Than Crane Mount)	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Plant Oiler - Asphalt, Crusher	\$96.28	15J	11G	8X	View

Power Equipment Operators- Underground Sewer & Water	Posthole Digger, Mechanical	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Power Plant	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Pumps - Water	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Quad 9, Hd 41, D10 And Over	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Quick tower: no cab, under 100 feet in height base to boom	\$94.93	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Remote Control Operator On Rubber Tired Earth Moving Equipment	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Rigger and Bellman	\$90.77	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Rigger/Signal Person, Bellman(Certified)	\$94.93	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Rollagon	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Roller, Other Than Plant Mix	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Roller, Plant Mix Or Multi-lift Materials	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Roto-mill, Roto-grinder	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Saws - Concrete	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Scraper, Self Propelled Under 45 Yards	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Scrapers - Concrete & Carry All	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Scrapers, Self-propelled: 45 Yards And Over	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Service Engineers: Equipment	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Shotcrete/Gunite Equipment	\$92.02	15J	11G	8X	View

Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe, Tractors Under 15 Metric Tons	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoe: Over 30 Metric Tons To 50 Metric Tons	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes, Tractors: 15 To 30 Metric Tons	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 50 Metric Tons To 90 Metric Tons	\$98.87	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Shovel, Excavator, Backhoes: Over 90 Metric Tons	\$99.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Slipform Pavers	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Spreader, Topsider & Screedman	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Subgrader Trimmer	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Tower Bucket Elevators	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Tower Crane: over 175' through 250' in height, base to boom	\$98.47	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Tower crane: up to 175' in height base to boom	\$97.46	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Tower Cranes: over 250' in height from base to boom	\$99.42	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Transporters, All Track Or Truck Type	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Trenching Machines	\$96.28	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Truck Crane Oiler/Driver: 100 tons and over	\$95.64	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Truck crane oiler/driver: under 100 tons	\$94.93	7A	11H	8X	View
Power Equipment Operators- Underground Sewer & Water	Truck Mount Portable Conveyor	\$96.99	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Vac Truck (Vactor Guzzler, Hydro Excavator)	\$96.99	15J	11G	8X	View

Power Equipment Operators- Underground Sewer & Water	Welder	\$97.88	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Wheel Tractors, Farmall Type	\$92.02	15J	11G	8X	View
Power Equipment Operators- Underground Sewer & Water	Yo Yo Pay Dozer	\$96.99	15J	11G	8X	View
Power Line Clearance Tree Trimmers	Journey Level In Charge	\$69.62	5A	4A		View
Power Line Clearance Tree Trimmers	Spray Person	\$65.89	5A	4A		View
Power Line Clearance Tree Trimmers	Tree Equipment Operator	\$69.62	5A	4A		View
Power Line Clearance Tree Trimmers	Tree Trimmer	\$62.19	5A	4A		View
Power Line Clearance Tree Trimmers	Tree Trimmer Groundperson	\$45.73	5A	4A		View
Refrigeration & Air Conditioning Mechanics	Journey Level	\$107.19	6Z	1G		View
Residential Brick Mason	Journey Level	\$82.00	7E	1N		View
Residential Carpenters	Journey Level	\$65.88		1		View
Residential Cement Masons	Journey Level	\$46.64		1		View
Residential Drywall Applicators	Journey Level	\$78.76	15J	4C		View
Residential Drywall Tapers	Journey Level	\$84.77	150	11S		View
Residential Electricians	Journey Level	\$48.80		1		View
Residential Glaziers	Journey Level	\$38.70		1		View
Residential Insulation Applicators	Journey Level	\$70.54		1		View
Residential Laborers	Journey Level	\$29.73		1		View
Residential Marble Setters	Journey Level	\$27.38		1		View
Residential Painters	Journey Level	\$33.77		1		View
Residential Plumbers & Pipefitters	Journey Level	\$61.87		1		View
Residential Refrigeration & Air Conditioning Mechanics	Journey Level	\$107.92	7F	1E		View
Residential Sheet Metal Workers	Journey Level	\$107.92	7F	1E		View

Residential Soft Floor Layers	Journey Level	\$49.91	15J	4C	View
Residential Sprinkler Fitters (Fire Protection)	Journey Level	\$63.61		1	View
Residential Stone Masons	Journey Level	\$82.00	7E	1N	View
Residential Terrazzo Workers	Journey Level	\$73.71	7E	1N	View
Residential Terrazzo/Tile Finishers	Journey Level	\$24.39		1	View
Residential Tile Setters	Journey Level	\$21.04		1	View
Roofers	Journey Level	\$70.70	5A	3H	View
Roofers	Using Irritable Bituminous Materials	\$74.15	5A	3H	View
Sheet Metal Workers	Journey Level (Field or Shop)	\$107.92	7F	1E	View
Shipbuilding & Ship Repair	New Construction Boilermaker	\$63.08	7X	4J	View
Shipbuilding & Ship Repair	New Construction Carpenter	\$51.85	7X	4J	View
Shipbuilding & Ship Repair	New Construction Crane Operator	\$44.29	7V	1	View
Shipbuilding & Ship Repair	New Construction Electrician	\$63.26	7X	4J	View
Shipbuilding & Ship Repair	New Construction Heat & Frost Insulator	\$100.83	15H	11C	View
Shipbuilding & Ship Repair	New Construction Laborer	\$62.85	7X	4J	View
Shipbuilding & Ship Repair	New Construction Machinist	\$63.08	7X	4J	View
Shipbuilding & Ship Repair	New Construction Operating Engineer	\$44.29	7V	1	View
Shipbuilding & Ship Repair	New Construction Painter	\$62.94	7X	4J	View
Shipbuilding & Ship Repair	New Construction Pipefitter	\$64.14	7X	4J	View
Shipbuilding & Ship Repair	New Construction Rigger	\$63.08	7X	4J	View
Shipbuilding & Ship Repair	New Construction Sheet Metal	\$63.02	7X	4J	View
Shipbuilding & Ship Repair	New Construction Shipwright	\$51.85	7X	4J	View
Shipbuilding & Ship Repair	New Construction Warehouse/Teamster	\$44.29	7V	1	View

Shipbuilding & Ship Repair	New Construction Welder / Burner	\$63.08	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Boilermaker	\$63.08	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Carpenter	\$51.85	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Crane Operator	\$45.06	7Y	4K	View
Shipbuilding & Ship Repair	Ship Repair Electrician	\$63.26	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Heat & Frost Insulator	\$100.83	15H	11C	View
Shipbuilding & Ship Repair	Ship Repair Laborer	\$62.85	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Machinist	\$63.08	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Operating Engineer	\$45.06	7Y	4K	View
Shipbuilding & Ship Repair	Ship Repair Painter	\$62.94	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Pipefitter	\$64.14	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Rigger	\$63.08	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Sheet Metal	\$63.02	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Shipwright	\$51.85	7X	4J	View
Shipbuilding & Ship Repair	Ship Repair Warehouse / Teamster	\$45.06	7Y	4K	View
Sign Makers & Installers (Electrical)	Journey Level	\$66.86	0	1	View
Sign Makers & Installers (Non-Electrical)	Journey Level	\$42.58	0	1	View
Soft Floor Layers	Journey Level	\$70.17	15J	4C	View
Solar Controls For Windows	Journey Level	\$17.13		1	View
Sprinkler Fitters (Fire Protection)	Journey Level	\$107.94	5C	1X	View
Stage Rigging Mechanics (Non Structural)	Journey Level	\$17.13		1	View
Stone Masons	Journey Level	\$82.00	7E	1N	View
Street And Parking Lot Sweeper Workers	Journey Level	\$19.09		1	View

Surveyors	Assistant Construction Site Surveyor	\$94.93	7A	11H	8X	View
Surveyors	Chainman	\$90.77	7A	11H	8X	View
Surveyors	Construction Site Surveyor	\$96.51	7A	11H	8X	View
Surveyors	Drone Operator (when used in conjunction with survey work only)	\$90.77	7A	11H	8X	View
Surveyors	Ground Penetrating Radar Operator	\$90.77	7A	11H	8X	View
Telecommunication Technicians	Journey Level	\$75.47	7E	1E		View
Telephone Line Construction - Outside	Cable Splicer	\$42.62	5A	2B		View
Telephone Line Construction - Outside	Hole Digger/Ground Person	\$27.97	5A	2B		View
Telephone Line Construction - Outside	Telephone Equipment Operator (Light)	\$35.60	5A	2B		View
Telephone Line Construction - Outside	Telephone Lineperson	\$40.28	5A	2B		View
Terrazzo Workers	Journey Level	\$73.71	7E	1N		View
Tile Setters	Journey Level	\$71.71	7E	1N		View
Tile, Marble & Terrazzo Finishers	Finisher	\$62.54	7E	1N		View
Traffic Control Stripers	All cleanup required in connection with traffic control stripers work (Group 1)	\$98.49	15L	1K		View
Traffic Control Stripers	Handling, painting and installing of all car stops, stop signs and any other type sign (Group 2)	\$62.69	15L	1K		View
Traffic Control Stripers	Installation of guard rail and posts and similar protective devices (Group 2)	\$62.69	15L	1K		View
Traffic Control Stripers	Installation of parking gates, ticket spitters and other mechanical and automatic control devices (Group 2)	\$62.69	15L	1K		View
Traffic Control Stripers	Installation of plastic metal or composition button, or lines used instead of paint (Group 1)	\$98.49	15L	1K		View
Traffic Control Stripers	Line removal; chemical sand and hydro-blast, paint and button (Group 1)	\$98.49	15L	1K		View
Traffic Control Stripers	Manufacturing and installation of all car stops and control devices and similar traffic regulators (Group 2)	\$62.69	15L	1K		View

Traffic Control Stripers	Manufacturing, painting, stenciling, servicing, repairing, placing and removal of traffic safety and control devices/barricades (Group 2)	\$62.69	15L	1K		View
Traffic Control Stripers	Painting and installing lines, arrows, bumpers, curbs, etc., on parking lots, air fields, highways, game courts (Group 1)	\$98.49	15L	1K		View
Traffic Control Stripers	Preparation and maintenance of all surfaces (Group 1)	\$98.49	15L	1K		View
Traffic Control Stripers	Seal coating, slurry coating and other surface protection (Group 2)	\$62.69	15L	1K		View
Truck Drivers	Asphalt Mix Over 16 Yards	\$86.95	15J	11M	8L	View
Truck Drivers	Asphalt Mix To 16 Yards	\$86.11	15J	11M	8L	View
Truck Drivers	Dump Truck	\$86.11	15J	11M	8L	View
Truck Drivers	Dump Truck & Trailer	\$86.95	15J	11M	8L	View
Truck Drivers	Other Trucks	\$86.95	15J	11M	8L	View
Truck Drivers - Ready Mix	Transit Mix	\$86.95	15J	11M	8L	View
Well Drillers & Irrigation Pump Installers	Irrigation Pump Installer	\$17.71		1		View
Well Drillers & Irrigation Pump Installers	Oiler	\$17.13		1		View
Well Drillers & Irrigation Pump Installers	Well Driller	\$18.00		1		View

Overtime Codes

Overtime calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

1. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
 - B. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - D. The first two (2) hours before or after a five-eight (8) hour workweek day or a four-ten (10) hour workweek day and the first eight (8) hours worked the next day after either workweek shall be paid at one and one-half times the hourly rate of wage. All additional hours worked and all worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
 - G. The first ten (10) hours worked on Saturdays and the first ten (10) hours worked on a fifth calendar weekday in a four-ten hour schedule, shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - H. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions or equipment breakdown) shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
 - I. All hours worked on Sundays and holidays shall also be paid at double the hourly rate of wage.
 - J. The first two (2) hours after eight (8) regular hours Monday through Friday and the first ten (10) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage.
 - K. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
 - M. All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

- 1. N. All hours worked on Saturdays (except makeup days) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- O. The first ten (10) hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays, holidays and after twelve (12) hours, Monday through Friday and after ten (10) hours on Saturday shall be paid at double the hourly rate of wage.
- P. All hours worked on Saturdays (except makeup days if circumstances warrant) and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- Q. The first two (2) hours after eight (8) regular hours Monday through Friday and up to ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of ten (10) hours per day Monday through Saturday and all hours worked on Sundays and holidays (except Christmas day) shall be paid at double the hourly rate of wage. All hours worked on Christmas day shall be paid at two and one-half times the hourly rate of wage.
- R. All hours worked on Sundays and holidays shall be paid at two times the hourly rate of wage.
- U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays (except Labor Day) shall be paid at two times the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage.
- V. All hours worked on Sundays and holidays (except Thanksgiving Day and Christmas day) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Thanksgiving Day and Christmas day shall be paid at double the hourly rate of wage.
- X. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked over twelve (12) hours Monday through Saturday, Sundays and holidays shall be paid at double the hourly rate of wage. When holiday falls on Saturday or Sunday, the day before Saturday, Friday, and the day after Sunday, Monday, shall be considered the holiday and all work performed shall be paid at double the hourly rate of wage.
- Y. All hours worked outside the hours of 5:00 am and 5:00 pm (or such other hours as may be agreed upon by any employer and the employee) and all hours worked in excess of eight (8) hours per day (10 hours per day for a 4 x 10 workweek) and on Saturdays and holidays (except labor day) shall be paid at one and one-half times the hourly rate of wage. (except for employees who are absent from work without prior approval on a scheduled workday during the workweek shall be paid at the straight-time rate until they have worked 8 hours in a day (10 in a 4 x 10 workweek) or 40 hours during that workweek.) All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and Labor Day shall be paid at double the hourly rate of wage.
- Z. All hours worked on Saturdays and Sundays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid the straight time rate of pay in addition to holiday pay.

Overtime Codes Continued

2. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- B. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.
- F. The first eight (8) hours worked on holidays shall be paid at the straight hourly rate of wage in addition to the holiday pay. All hours worked in excess of eight (8) hours on holidays shall be paid at double the hourly rate of wage.
- M. This code appears to be missing. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage.
- R. All hours worked on Sundays and holidays and all hours worked over sixty (60) in one week shall be paid at double the hourly rate of wage.
- U. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked over 12 hours in a day or on Sundays and holidays shall be paid at double the hourly rate of wage.
3. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.
- F. All hours worked on Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sunday shall be paid at two times the hourly rate of wage. All hours worked on paid holidays shall be paid at two and one-half times the hourly rate of wage including holiday pay.
- H. All work performed on Sundays between March 16th and October 14th and all Holidays shall be compensated for at two (2) times the regular rate of pay. Work performed on Sundays between October 15th and March 15th shall be compensated at one and one half (1-1/2) times the regular rate of pay.
- J. All hours worked between the hours of 10:00 pm and 5:00 am, Monday through Friday, and all hours worked on Saturdays shall be paid at a one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- K. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

Overtime Codes Continued

4. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

- A. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturdays, Sundays and holidays shall be paid at double the hourly rate of wage
- C. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay. On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay. All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.
- D. All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at double the hourly rate of wage. All hours worked on Saturday, Sundays and holidays shall be paid at double the hourly rate of pay. Rates include all members of the assigned crew.

EXCEPTION:

On all multipole structures and steel transmission lines, switching stations, regulating, capacitor stations, generating plants, industrial plants, associated installations and substations, except those substations whose primary function is to feed a distribution system, will be paid overtime under the following rates:

The first two (2) hours after eight (8) regular hours Monday through Friday of overtime on a regular workday, shall be paid at one and one-half times the hourly rate of wage. All hours in excess of ten (10) hours will be at two (2) times the hourly rate of wage. The first eight (8) hours worked on Saturday will be paid at one and one-half (1-1/2) times the hourly rate of wage. All hours worked in excess of eight (8) hours on Saturday, and all hours worked on Sundays and holidays will be at the double the hourly rate of wage.

All overtime eligible hours performed on the above described work that is energized, shall be paid at the double the hourly rate of wage.

- E. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one and one half (1½) times the regular shift rate for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- G. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- I. The First eight (8) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) per day on Saturdays shall be paid at double the hourly rate of wage. All hours

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. J. The first eight (8) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked in excess of eight (8) hours on a Saturday shall be paid at double the hourly rate of wage. All hours worked over twelve (12) in a day, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- K. All hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage, so long as Saturday is the sixth consecutive day worked. All hours worked over twelve (12) in a day Monday through Saturday, and all hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- L. The first twelve (12) hours worked on a Saturday shall be paid at one and one-half times the hourly rate of wage. All hours worked on a Saturday in excess of twelve (12) hours shall be paid at double the hourly rate of pay. All hours worked over twelve (12) in a day Monday through Friday, and all hours worked on Sundays shall be paid at double the hourly rate of wage. All hours worked on a holiday shall be paid at one and one-half times the hourly rate of wage, except that all hours worked on Labor Day shall be paid at double the hourly rate of pay.
- S. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, work performed in excess of (10) hours shall be paid at one and one half (1-1/2) times the hourly rate of pay. On Monday through Friday, work performed outside the normal work hours of 6:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations).
- All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.
- Multiple Shift Operations: When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. Special Shifts: The Special Shift Premium is the basic hourly rate of pay plus \$2.00 an hour. When due to conditions beyond the control of the employer or when an owner (not acting as the contractor), a government agency or the contract specifications require more than four (4) hours of a special shift can only be performed outside the normal 6am to 6pm shift then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday).
- U. The first four (4) hours after eight (8) regular hours Monday through Friday and the first twelve (12) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. (Except on makeup days if work is lost due to inclement weather, then the first eight (8) hours on Saturday may be paid the regular rate.) All hours worked over twelve (12) hours Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

Overtime Codes Continued

4. X. All hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage. Work performed outside the normal shift of 6 am to 6pm shall be paid at one and one-half the straight time rate, (except for special shifts or three shift operations). All work performed on Sundays and holidays shall be paid at double the hourly rate of wage. Shifts may be established when considered necessary by the Employer.

The Employer may establish shifts consisting of eight (8) or ten (10) hours of work (subject to WAC 296-127-022), that shall constitute a normal forty (40) hour work week. The Employer can change from a 5-eight to a 4-ten hour schedule or back to the other. All hours of work on these shifts shall be paid for at the straight time hourly rate. Work performed in excess of eight hours (or ten hours per day (subject to WAC 296-127-022) shall be paid at one and one-half the straight time rate.

When due to conditions beyond the control of the Employer, or when contract specifications require that work can only be performed outside the regular day shift, then by mutual agreement a special shift may be worked at the straight time rate, eight (8) hours work for eight (8) hours pay. The starting time shall be arranged to fit such conditions of work.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

11. ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

B. After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

C. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other overtime hours worked, except Labor Day, and all hours on Sunday shall be paid at double the hourly rate of wage. All hours worked on Labor Day shall be paid at three times the hourly rate of wage. All non-overtime and non-holiday hours worked between 4:00 pm and 5:00 am, Monday through Friday, shall be paid at a premium rate of 15% over the hourly rate of wage.

D. All hours worked on Saturdays and holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

E. The first two (2) hours after eight (8) regular hours Monday through Friday, the first ten (10) hours on Saturday, and the first ten (10) hours worked on Holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked over ten (10) hours Monday through Saturday, and Sundays shall be paid at double the hourly rate of wage.

After an employee has worked eight (8) hours, all additional hours worked shall be paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.

Overtime Codes Continued

11. F. The first two (2) hours after eight (8) regular hours Monday through Friday and the first eight (8) hours on Saturday shall be paid at one and one-half times the hourly rate of wage. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- On a four-day, ten-hour weekly schedule, either Monday thru Thursday or Tuesday thru Friday schedule, all hours worked after ten shall be paid at double the hourly rate of wage. The Monday or Friday not utilized in the normal four-day, ten hour work week, and Saturday shall be paid at one-half times the hourly rate of wage for the first eight (8) hours. All other hours worked Monday through Saturday, and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- G. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.
- All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of nine (9) hours or more. When an employee returns to work without at least nine (9) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the nine (9) hours rest period.
- H. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 5 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage.
- All work performed after 6:00 pm Saturday to 5:00 am Monday and Holidays, and all hours worked in excess of twelve (12) hours in a single shift shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of ten (10) hours or more. When an employee returns to work without at least ten (10) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the ten (10) hours rest period.
- J. All hours worked on holidays shall be paid at double the hourly rate of wage.
- K. On Monday through Friday hours worked outside 4:00 am and 5:00 pm, and the first two (2) hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked over 10 hours per day Monday through Friday, and all hours worked on Saturdays, Sundays, and Holidays worked shall be paid at double the hourly rate of wage.
- L. An employee working outside 5:00 am and 5:00 pm shall receive an additional two dollar (\$2.00) per hour for all hours worked that shift. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at one and one-half times the hourly rate of wage.

Overtime Codes Continued

11. M. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.
- Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of a multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 am to 6:00 pm, then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten shifts.
- On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay. All work performed after 6:00 pm Saturday to 5:00 am Monday, all work performed over twelve (12) hours, and all work performed on holidays shall be paid at double the straight time rate of pay.
- Shift Pay Premium: In an addition to any overtime already required, all hours worked between the hours of 6:00 pm and 5:00 am shall receive an additional two dollars (\$2.00) per hour.
- N. All work performed over twelve hours in a shift and all work performed on Sundays and Holidays shall be paid at double the straight time rate.
- Any time worked over eight (8) hours on Saturday shall be paid double the straight time rate, except employees assigned to work six 10-hour shifts per week shall be paid double the straight time rate for any time worked on Saturday over 10 hours.
- O. All work performed on Saturdays, Sundays, and Holidays shall be paid at one and one half (1-1/2) times the straight time rate of pay.

Overtime Codes Continued

11. P. Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.
- Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.
- In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.
- When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.
- Q. All hours worked between the hours of 6:00 pm and 6:00 am, Monday through Saturday, shall be paid at a premium rate of 35% over the hourly rate of wage. Work performed on Sundays shall be paid at double time. All hours worked on holidays shall be paid at double the hourly rate of wage.
- R. On Monday through Saturday hours worked outside 6:00 am and 7:00 pm, and all hours after eight (8) hours worked shall be paid at one and one-half times the hourly rate. All hours worked on Sundays and Holidays shall be paid at double the hourly rate of wage.
- When a holiday falls on a Saturday, the Friday before shall be the observed holiday. When a holiday falls on a Sunday, the following Monday shall be the observed holiday.
- S. The first ten (10) hours worked on Saturdays shall be paid at one and one-half times the hourly rate of wage. In the event the job is down due to weather conditions, or other conditions beyond the control of the Employer, then Saturday may be worked at the straight time rate, for the first eight (8) hours, or the first ten (10) hours when a four day ten hour workweek has been established.
- All hours worked Monday through Saturday over twelve (12) hours and all hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.
- When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Overtime Codes Continued

11. T. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.
- On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.
- All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.
- U. On Monday through Friday, the first four (4) hours of overtime after eight (8) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay, unless a four (4) day ten (10) hour workweek has been established. On a four (4) day ten (10) hour workweek scheduled Monday through Thursday, or Tuesday through Friday, the first two (2) hours of overtime after ten (10) hours of straight time work shall be paid at one and one half (1-1/2) times the straight time rate of pay.
- On Saturday, the first twelve (12) hours of work shall be paid at one and one half (1-1/2) times the straight time rate of pay, except that if the job is down on Monday through Friday due to weather conditions or other conditions outside the control of the employer, the first ten (10) hours on Saturday may be worked at the straight time rate of pay.
- All hours worked over twelve (12) hours in a day and all hours worked on Sunday and Holidays shall be paid at two (2) times the straight time rate of pay.
- If, due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a Special Shift may be worked, Monday through Friday, at the straight-time rate. The starting time of work for the Special Shift will be arranged to fit such conditions of work. Such Special Shift shall consist of eight (8) hours of work for eight (8) hours of pay or ten (10) hours of work for ten(10) hours of pay on a four-ten workday schedule.
- V. All hours worked on Saturdays and Sundays (except make-up days due to conditions beyond the control of the employer) shall be paid at one and one-half times the hourly rate of wage. All hours worked on holidays shall be paid at double the hourly rate of wage.
- W. Work performed in excess of eight (8) hours of straight time per day, or ten (10) hours of straight time per day when four ten (10) hour shifts are established, or forty (40) hours of straight time per week, Monday through Friday, or outside the normal 6 am to 6pm shift, and all work on Saturdays shall be paid at one and one-half times the hourly rate of wage. All work performed on Sundays and Holidays shall be paid at double the hourly rate of wage.
- After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours or more.
- When an employee returns to work without at least eight (8) hours time off since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until he/she shall have the eight (8) hours rest period.

- X. Overtime Calculations are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

Work performed in excess of ten (10) hours of straight time per day when four ten (10) hour shifts are established and all work on Saturdays, except for make-up days shall be paid at time and one-half (1 ½) the straight time rate.

Work performed outside the normal work hours of 5:00 a.m. and 6:00 p.m. shall be paid at one and one-half (1-1/2) times the straight time rate, (except for special shifts or multiple shift operations). When the first shift of multiple shift (a two or three shift) operation is started at the basic straight time rate or at a specific overtime rate, all shifts of that day's operation shall be completed at that rate. When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift of 5:00 a.m. to 6:00 p.m., then a special shift may be worked at the straight time rate, plus the shift pay premium when applicable. The starting time of work will be arranged to fit such conditions of work. Such shifts shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten-hour shifts.

In the event the job is down due to weather conditions, then Saturday may, be worked as a voluntary make-up day at the straight time rate. However, Saturday shall not be utilized as a make-up day when a holiday falls on Friday. All work performed on Sundays and holidays and work in excess of twelve (12) hours per day shall be paid at double (2x) the straight time rate of pay.

After an employee has worked eight (8) hours at an applicable overtime rate, all additional hours shall be at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

When an employee returns to work without a break of eight (8) hours since their previous shift, all such time shall be a continuation of shift and paid at the applicable overtime rate until such time as the employee has had a break of eight (8) hours.

Special Shifts: When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a special shift may be worked at the straight time rate. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay or ten (10) hours work for ten (10) hours pay for four ten- hour shifts.

- Y. **Overtime calculations** are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

When due to conditions beyond the control of the Employer or when contract specifications require that work can only be performed outside the regular day shift, then a special shift may be worked at the straight time rate. The starting time of work will be arranged to fit such conditions of work. Such shift shall consist of eight (8) hours work for eight (8) hours pay.

Special Shift Premium for Prevailed work in Washington is basic hourly rate plus \$2.00 per hour. When conditions

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that more than four (4) hours of the special shift can only be performed outside the normal 6 a.m. – 6 p.m. shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an Employee works on a special shift, they shall be paid the special shift premium for each hour worked unless they are in overtime or double-time status. Shift premium will only apply on the second shift of a two-shift operation when the language above is met.

- Z. **Overtime calculations** are based on the hourly rate actually paid to the worker. On public works projects, the hourly rate must be not less than the prevailing rate of wage minus the hourly rate of the cost of fringe benefits actually provided for the worker.

ALL HOURS WORKED IN EXCESS OF EIGHT (8) HOURS PER DAY OR FORTY (40) HOURS PER WEEK SHALL BE PAID AT ONE AND ONE-HALF TIMES THE HOURLY RATE OF WAGE.

All hours worked on Saturdays (except makeup days if work is lost due to inclement weather conditions) shall be paid at one and one-half times the hourly rate of wage. All hours worked on Sundays and holidays shall be paid at double the hourly rate of wage.

SPECIAL SHIFT: A special shift may be established at any time, at the option of the Employer, on any job or project.

Holiday Codes

5. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, and Christmas Day (7).
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, the day before Christmas, and Christmas Day (8).
- C. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).
- D. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8).
- H. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Day after Thanksgiving Day, And Christmas (6).
- I. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- K. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9).
- L. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (8).
- N. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, The Friday After Thanksgiving Day, And Christmas Day (9).

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday And Saturday After Thanksgiving Day, The Day Before Christmas, And Christmas Day (9). If A Holiday Falls On Sunday, The Following Monday Shall Be Considered As A Holiday.
- Q. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6).
- R. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day After Thanksgiving Day, One-Half Day Before Christmas Day, And Christmas Day. (7 1/2).
- S. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, And Christmas Day (7).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8).

Holiday Codes Continued

- 6. G. Paid Holidays: New Year's Day, Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and Christmas Eve Day (11).
- H. Paid Holidays: New Year's Day, New Year's Eve Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday After Thanksgiving Day, Christmas Day, The Day After Christmas, And A Floating Holiday (10).
- T. Paid Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Last Working Day Before Christmas Day, And Christmas Day (9).
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). If a holiday falls on Saturday, the preceding Friday shall be considered as the holiday. If a holiday falls on Sunday, the following Monday shall be considered as the holiday.

Holiday Codes Continued

- 7. A. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any Holiday Which Falls On A Sunday Shall Be Observed As A Holiday On The Following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- B. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- C. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

- D. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (8). Unpaid Holidays: President's Day. Any paid holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any paid holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- E. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- F. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the last working day before Christmas day and Christmas day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Holiday Codes Continued

- 7. G. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- J. Holidays: New Year's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day and Christmas Day (6). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- L. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Last Work Day before Christmas Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. When Christmas falls on a Saturday, the preceding Friday shall be observed as a holiday.
- P. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, And Christmas Day (7). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

- Q. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- S. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Friday after Thanksgiving Day, Christmas Day, the Day after Christmas, and A Floating Holiday (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- V. Holidays: New Year's Day, President's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, the day before or after Christmas, and the day before or after New Year's Day. If any of the above listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- W. Holidays: New Year's Day, Day After New Year's, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, Christmas Day, the day after Christmas, the day before New Year's Day, and a Floating Holiday.

Holiday Codes Continued

7. X. Holidays: New Year's Day, Day before or after New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Day, and the day before or after Christmas day. If a holiday falls on a Saturday or on a Friday that is the normal day off, then the holiday will be taken on the last normal workday. If the holiday falls on a Monday that is the normal day off or on a Sunday, then the holiday will be taken on the next normal workday.
- Y. Holidays: New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day. (8) If the holiday falls on a Sunday, then the day observed by the federal government shall be considered a holiday and compensated accordingly.
- Z. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, Christmas Eve, and Christmas Day (9). Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday. Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.

Holiday Codes Continued

15. G. New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, the last scheduled workday before Christmas, and Christmas Day (9). If any of the listed holidays falls on a Sunday, the day observed by the Nation shall be considered a holiday and compensated accordingly.
- H. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, the Last Working Day before Christmas Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- I. Holidays: New Year's Day, President's Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, The Friday After Thanksgiving Day, The Day Before Christmas Day And Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

observed as a holiday on the preceding Friday.

- J. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- K. Holidays: New Year's Day, Memorial Day, Independence Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.
- L. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.
- M. Holidays: New Year's Day, Martin Luther King Jr. Day, Independence Day, Memorial Day, Labor Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day and Christmas Day (9). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. If any of the listed holidays falls on a Saturday, the preceding Friday shall be a regular work day.

Holiday Codes Continued

- 15. N. Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, the Friday after Thanksgiving Day, and Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- O. Holidays: New Year's Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the Friday and Saturday after Thanksgiving Day, the day before Christmas day, and Christmas Day (10). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday.
- P. Holidays: New Year's Day, Memorial Day, Labor Day, Independence Day, Thanksgiving Day, the Friday after Thanksgiving Day, Christmas Eve Day, And Christmas Day (8). Any holiday which falls on a Sunday shall be observed as a holiday on the following Monday. Any holiday which falls on a Saturday shall be observed as a holiday on the preceding Friday.

Note Codes

- 8. D. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.
- L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$0.75, Level B: \$0.50, And Level C: \$0.25.
- M. Workers on hazmat projects receive additional hourly premiums as follows: Levels A & B: \$1.00, Levels C & D: \$0.50.
- N. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

- S. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- T. Effective August 31, 2012 – A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.
- U. Workers on hazmat projects receive additional hourly premiums as follows – Class A Suit: \$2.00, Class B Suit: \$1.50, And Class C Suit: \$1.00. Workers performing underground work receive an additional \$0.40 per hour for any and all work performed underground, including operating, servicing and repairing of equipment. The premium for underground work shall be paid for the entire shift worked. Workers who work suspended by a rope or cable receive an additional \$0.50 per hour. The premium for work suspended shall be paid for the entire shift worked. Workers who do “pioneer” work (break open a cut, build road, etc.) more than one hundred fifty (150) feet above grade elevation receive an additional \$0.50 per hour.

Note Codes Continued

- 8. V. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - \$2.00 per foot for each foot over 50 feet. Over 101' to 150' - \$3.00 per foot for each foot over 101 feet. Over 151' to 220' - \$4.00 per foot for each foot over 220 feet. Over 221' - \$5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25' to 300' - \$1.00 per foot from entrance. 300' to 600' - \$1.50 per foot beginning at 300'. Over 600' - \$2.00 per foot beginning at 600'.
- W. Meter Installers work on single phase 120/240V self-contained residential meters. The Lineman/Groundmen rates would apply to meters not fitting this description.
- X. Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, and Class D Suit: \$0.50. Special Shift Premium: Basic hourly rate plus \$2.00 per hour.

When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 5 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)
- Y. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

Swinging Stage/Boatswains Chair: Employees working on a swinging state or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate..

- Z. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as a contractor), a government agency or the contract specifications require that more than (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they will be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Note Codes Continued

9. A. Workers working with supplied air on hazmat projects receive an additional \$1.00 per hour.

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications require that more than four (4) hours of a special shift can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic straight time for the entire shift. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in overtime or double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

Certified Crane Operator Premium: Crane operators requiring certifications shall be paid \$0.50 per hour above their classification rate.

Boom Pay Premium: All cranes including tower shall be paid as follows based on boom length:

(A) – 130' to 199' – \$0.50 per hour over their classification rate.

(B) – 200' to 299' – \$0.80 per hour over their classification rate.

(C) – 300' and over – \$1.00 per hour over their classification rate.

- B. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

- C. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

- D. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, bridges, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.
- E. Heavy Construction includes construction, repair, alteration or additions to the production, fabrication or manufacturing portions of industrial or manufacturing plants, hydroelectric or nuclear power plants and atomic reactor construction. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$1.00, Level B: \$0.75, Level C: \$0.50, And Level D: \$0.25.

Note Codes Continued

- 9. F. Industrial Painter wages are required for painting within industrial facilities such as treatment plants, pipelines, towers, dams, power generation facilities and manufacturing facilities such as chemical plants, etc., or anywhere abrasive blasting is necessary to prepare surfaces, or hazardous materials encapsulation is required.
- H. One (1) person crew shall consist of a Party Chief. (Total Station or similar one (1) person survey system). Two (2) person survey party shall consist of a least a Party Chief and a Chain Person. Three (3) person survey party shall consist of at least a Party Chief, an Instrument Person, and a Chain Person.
- I. In addition to the hourly wage and fringe benefits, the following depth and enclosure premiums shall be paid. The premiums are to be calculated for the maximum depth and distance into an enclosure that a diver reaches in a day. The premiums are to be paid one time for the day and are not used in calculating overtime pay.

Depth premiums apply to depths of fifty feet or more. Over 50' to 100' - \$2.00 per foot for each foot over 50 feet. Over 101' to 150' - \$3.00 per foot for each foot over 101 feet. Over 151' to 220' - \$4.00 per foot for each foot over 220 feet. Over 221' - \$5.00 per foot for each foot over 221 feet.

Enclosure premiums apply when divers enter enclosures (such as pipes or tunnels) where there is no vertical ascent and is measured by the distance travelled from the entrance. 25' to 300' - \$1.00 per foot from entrance. 300' to 600' - \$1.50 per foot beginning at 300'. Over 600' - \$2.00 per foot beginning at 600'.

Employees may be required to perform any combination of work within the Diving team/crew, (with the exception of dive Supervisor) provided they are paid at the highest rate at which he/she has worked for the shift.
- L. Workers on hazmat projects receive additional hourly premiums as follows -Level A: \$0.75, Level B: \$0.50, And Level C: \$0.25.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.
- M. Certified Crane Operator Premium: Crane operators requiring certifications shall be paid \$1.50 per hour above their classification rate.

Workers on hazmat projects receive additional hourly premiums as follows - Class A Suit: \$2.00, Class B Suit: \$1.50, Class C Suit: \$1.00, and Class D Suit: \$0.50.

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

Special Shift Premium: Basic hourly rate plus \$2.00 per hour. When due to conditions beyond the control of the Employer or when an owner (not acting as the contractor), a government agency or the contract specifications requires that work can only be performed outside the normal 6 am to 6pm shift, then the special shift premium will be applied to the basic hourly rate. When an employee works on a special shift, they shall be paid a special shift premium for each hour worked unless they are in OT or Double-time status. (For example, the special shift premium does not waive the overtime requirements for work performed on Saturday or Sunday.)

- N. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay.

Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

When Laborers are required to work in or with live sanitary sewage, they will receive a premium payoff forty (\$40.00) dollars per day above their regular daily classification pay. Further, the employer will pay all necessary inoculations to prevent disease if requested by the employee and as recommended by the Department of Labor and Industries (Industrial Safety and Health Division).

- O. Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. This classification is only effective on or after August 31, 2012.

Any laborer working in Live Sewers shall receive forty dollars (\$40.00) per day in addition to regular pay.

- P. Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Effective August 31, 2012 – A Traffic Control Supervisor shall be present on the project whenever flagging or spotting or other traffic control labor is being utilized. A Traffic Control Laborer performs the setup, maintenance and removal of all temporary traffic control devices and construction signs necessary to control vehicular, bicycle, and pedestrian traffic during construction operations. Flaggers and Spotters shall be posted where shown on approved Traffic Control Plans or where directed by the Engineer. All flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. These classifications are only effective on or after August 31, 2012.

When Laborers are required to work in or with live sanitary sewage, they will receive a premium payoff forty (\$40.00) dollars per day above their regular daily classification pay. Further, the employer will pay all necessary inoculations to prevent disease if requested by the employee and as recommended by the Department of Labor and Industries (Industrial Safety and Health Division)

- Q. The highest pressure registered on the gauge for an accumulated time of more than fifteen (15) minutes during the shift shall be used in determining the scale paid.

Tide Work: When employees are called out between the hours of 6:00 p.m. and 6:00 a.m. to work on tide work (work located in the tide plane) all time worked shall be at one and one-half times the hourly rate of pay. Swinging Stage/Boatswains Chair: Employees working on a swinging stage or boatswains chair or under conditions that require them to be tied off to allow their hands to be free shall receive seventy-five cents (\$0.75) per hour above the classification rate.

Benefit Code Key – Effective 9/2/2026 thru 3/2/2027

When Laborers are required to work in or with live sanitary sewage, they will receive a premium payoff forty (\$40.00) dollars per day above their regular daily classification pay. Further, the employer will pay all necessary inoculations to prevent disease if requested by the employee and as recommended by the Department of Labor and Industries (Industrial Safety and Health Division).

Washington State Department of Labor and Industries
Policy Statement
(Regarding the Production of "Standard" or "Non-standard" Items)

Below is the department's (State L&I's) list of criteria to be used in determining whether a prefabricated item is "standard" or "non-standard". For items not appearing on WSDOT's predetermined list, these criteria shall be used by the Contractor (and the Contractor's subcontractors, agents to subcontractors, suppliers, manufacturers, and fabricators) to determine coverage under RCW 39.12. The production, in the State of Washington, of non-standard items is covered by RCW 39.12, and the production of standard items is not. The production of any item outside the State of Washington is not covered by RCW 39.12.

1. Is the item fabricated for a public works project? If not, it is not subject to RCW 39.12. If it is, go to question 2.
2. Is the item fabricated on the public works jobsite? If it is, the work is covered under RCW 39.12. If not, go to question 3.
3. Is the item fabricated in an assembly/fabrication plant set up for, and dedicated primarily to, the public works project? If it is, the work is covered by RCW 39.12. If not, go to question 4.
4. Does the item require any assembly, cutting, modification or other fabrication by the supplier? If not, the work is not covered by RCW 39.12. If yes, go to question 5.
5. Is the prefabricated item intended for the public works project typically an inventory item which could reasonably be sold on the general market? If not, the work is covered by RCW 39.12. If yes, go to question 6.
6. Does the specific prefabricated item, generally defined as standard, have any unusual characteristics such as shape, type of material, strength requirements, finish, etc? If yes, the work is covered under RCW 39.12.

Any firm with questions regarding the policy, WSDOT's Predetermined List, or for determinations of covered and non-covered workers shall be directed to State L&I at (360) 902-5330.

**WSDOT's
Predetermined List for
Suppliers - Manufactures - Fabricator**

Below is a list of potentially prefabricated items, originally furnished by WSDOT to Washington State Department of Labor and Industries, that may be considered non-standard and therefore covered by the prevailing wage law, RCW 39.12. Items marked with an X in the "YES" column should be considered to be non-standard and therefore covered by RCW 39.12. Items marked with an X in the "NO" column should be considered to be standard and therefore not covered. Of course, exceptions to this general list may occur, and in that case shall be evaluated according to the criteria described in State and L&I's policy statement.

ITEM DESCRIPTION	YES	NO
1. Metal rectangular frames, solid metal covers, herringbone grates, and bi-directional vaned grates for Catch Basin Types 1, 1L, 1P, and 2 and Concrete Inlets. See Std. Plans		X
2. Metal circular frames (rings) and covers, circular grates, and prefabricated ladders for Manhole Types 1, 2, and 3, Drywell Types 1, 2, and 3 and Catch Basin Type 2. See Std. Plans		X
3. Prefabricated steel grate supports and welded grates, metal frames and dual vaned grates, and Type 1, 2, and 3 structural tubing grates for Drop Inlets. See Std. Plans.		X
4. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes smaller than 60 inch diameter.		X
5. Concrete Pipe - Plain Concrete pipe and reinforced concrete pipe Class 2 to 5 sizes larger than 60 inch diameter.		X
6. Corrugated Steel Pipe - Steel lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, 1 thru 5.		X
7. Corrugated Aluminum Pipe - Aluminum lock seam corrugated pipe for culverts and storm sewers, sizes 30 inch to 120 inches in diameter. May also be treated, #5.		X

ITEM DESCRIPTION	YES	NO
8. Anchor Bolts & Nuts - Anchor Bolts and Nuts, for mounting sign structures, luminaries and other items, shall be made from commercial bolt stock. See Contract Plans and Std. Plans for size and material type.		X
9. Aluminum Pedestrian Handrail - Pedestrian handrail conforming to the type and material specifications set forth in the contract plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).	X	
10. Major Structural Steel Fabrication - Fabrication of major steel items such as trusses, beams, girders, etc., for bridges.	X	
11. Minor Structural Steel Fabrication - Fabrication of minor steel items such as special hangers, brackets, access doors for structures, access ladders for irrigation boxes, bridge expansion joint systems, etc., involving welding, cutting, punching and/or boring of holes. See Contract Plans for item description and shop drawings.	X	
12. Aluminum Bridge Railing Type BP - Metal bridge railing conforming to the type and material specifications set forth in the Contract Plans. Welding of aluminum shall be in accordance with Section 9-28.14(3).		X
13. Concrete Piling--Precast-Prestressed concrete piling for use as 55 and 70 ton concrete piling. Concrete to conform to Section 9-19.1 of Std. Spec..	X	
14. Precast Manhole Types 1, 2, and 3 with cones, adjustment sections and flat top slabs. See Std. Plans.		X
15. Precast Drywell Types 1, 2, and with cones and adjustment Sections. See Std. Plans.		X
16. Precast Catch Basin - Catch Basin type 1, 1L, 1P, and 2 With adjustment sections. See Std. Plans.		X

ITEM DESCRIPTION	YES	NO
17. Precast Concrete Inlet - with adjustment sections, See Std. Plans		X
18. Precast Drop Inlet Type 1 and 2 with metal grate supports. See Std. Plans.		X
19. Precast Grate Inlet Type 2 with extension and top units. See Std. Plans		X
20. Metal frames, vaned grates, and hoods for Combination Inlets. See Std. Plans		X
21. Precast Concrete Utility Vaults - Precast Concrete utility vaults of various sizes. Used for in ground storage of utility facilities and controls. See Contract Plans for size and construction requirements. Shop drawings are to be provided for approval prior to casting.		X
22. Vault Risers - For use with Valve Vaults and Utilities Vaults.		X
23. Valve Vault - For use with underground utilities. See Contract Plans for details.		X
24. Precast Concrete Barrier - Precast Concrete Barrier for use as new barrier or may also be used as Temporary Concrete Barrier. Only new state approved barrier may be used as permanent barrier.		X
25. Reinforced Earth Wall Panels – Reinforced Earth Wall Panels in size and shape as shown in the Plans. Fabrication plant has annual approval for methods and materials to be used. See Shop Drawing. Fabrication at other locations may be approved, after facilities inspection, contact HQ. Lab.	X	
26. Precast Concrete Walls - Precast Concrete Walls - tilt-up wall panel in size and shape as shown in Plans. Fabrication plant has annual approval for methods and materials to be used	X	

ITEM DESCRIPTION	YES	NO
27. Precast Railroad Crossings - Concrete Crossing Structure Slabs.	X	
28. 12, 18 and 26 inch Standard Precast Prestressed Girder – Standard Precast Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials To be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
29. Prestressed Concrete Girder Series 4-14 - Prestressed Concrete Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A.	X	
30. Prestressed Tri-Beam Girder - Prestressed Tri-Beam Girders for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
31. Prestressed Precast Hollow-Core Slab – Precast Prestressed Hollow-core slab for use in structures. Fabricator plant has Annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A.	X	
32. Prestressed-Bulb Tee Girder - Bulb Tee Prestressed Girder for use in structures. Fabricator plant has annual approval of methods and materials to be used. Shop Drawing to be provided for approval prior to casting girders. See Std. Spec. Section 6-02.3(25)A	X	
33. Monument Case and Cover See Std. Plan.		X

ITEM DESCRIPTION	YES	NO
34. Cantilever Sign Structure - Cantilever Sign Structure fabricated from steel tubing meeting AASHTO-M-183. See Std. Plans, and Contract Plans for details. The steel structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	X	
35. Mono-tube Sign Structures - Mono-tube Sign Bridge fabricated to details shown in the Plans. Shop drawings for approval are required prior to fabrication.	X	
36. Steel Sign Bridges - Steel Sign Bridges fabricated from steel tubing meeting AASHTO-M-138 for Aluminum Alloys. See Std. Plans, and Contract Plans for details. The steel Structure shall be galvanized after fabrication in accordance with AASHTO-M-111.	X	
37. Steel Sign Post - Fabricated Steel Sign Posts as detailed in Std Plans. Shop drawings for approval are to be provided prior to fabrication		X
38. Light Standard-Prestressed - Spun, prestressed, hollow concrete poles.	X	
39. Light Standards - Lighting Standards for use on highway illumination systems, poles to be fabricated to conform with methods and materials as specified on Std. Plans. See Special Provisions for pre-approved drawings.	X	
40. Traffic Signal Standards - Traffic Signal Standards for use on highway and/or street signal systems. Standards to be fabricated to conform with methods and material as specified on Std. Plans. See Special Provisions for pre-approved drawings	X	
41. Precast Concrete Sloped Mountable Curb (Single and Dual Faced) See Std. Plans.		X

ITEM DESCRIPTION	YES	NO
42. Traffic Signs - Prior to approval of a Fabricator of Traffic Signs, the sources of the following materials must be submitted and approved for reflective sheeting, legend material, and luminum sheeting. NOTE: *** Fabrication inspection required. Only signs tagged "Fabrication Approved" by WSDOT Sign Fabrication Inspector to be installed.	X	X
	Custom Message	Std Signing Message
43. Cutting & bending reinforcing steel		X
44. Guardrail components	X	X
	Custom End Sec	Standard Sec
45. Aggregates/Concrete mixes	Covered by WAC 296-127-018	
46. Asphalt	Covered by WAC 296-127-018	
47. Fiber fabrics		X
48. Electrical wiring/components		X
49. treated or untreated timber pile		X
50. Girder pads (elastomeric bearing)	X	
51. Standard Dimension lumber		X
52. Irrigation components		X

ITEM DESCRIPTION	YES	NO
53. Fencing materials		X
54. Guide Posts		X
55. Traffic Buttons		X
56. Epoxy		X
57. Cribbing		X
58. Water distribution materials		X
59. Steel "H" piles		X
60. Steel pipe for concrete pile casings, standard		X
Steel pipe for concrete pile casings, custom	X	
61. Steel pile tips, standard		X
62. Steel pile tips, custom	X	

Prefabricated items specifically produced for public works projects that are prefabricated in a county other than the county wherein the public works project is to be completed, the wage for the offsite prefabrication shall be the applicable prevailing wage for the county in which the actual prefabrication takes place.

It is the manufacturer of the prefabricated product to verify that the correct county wage rates are applied to work they perform.

See RCW [39.12.010](#)

(The definition of "locality" in RCW [39.12.010](#)(2) contains the phrase "wherein the physical work is being performed." The department interprets this phrase to mean the actual work site.

WSDOT's List of State Occupations not applicable to Heavy and Highway Construction Projects

This project is subject to the state hourly minimum rates for wages and fringe benefits in the contract provisions, as provided by the state Department of Labor and Industries.

The following list of occupations, is comprised of those occupations that are not normally used in the construction of heavy and highway projects.

When considering job classifications for use and / or payment when bidding on, or building heavy and highway construction projects for, or administered by WSDOT, these Occupations will be excepted from the included "Washington State Prevailing Wage Rates For Public Work Contracts" documents.

- Building Service Employees
- Electrical Fixture Maintenance Workers
- Electricians - Motor Shop
- Heating Equipment Mechanics
- Industrial Engine and Machine Mechanics
- Industrial Power Vacuum Cleaners
- Inspection, Cleaning, Sealing of Water Systems by Remote Control
- Laborers - Underground Sewer & Water
- Machinists (Hydroelectric Site Work)
- Modular Buildings
- Playground & Park Equipment Installers
- Power Equipment Operators - Underground Sewer & Water
- Residential *** ALL ASSOCIATED RATES ***
- Sign Makers and Installers (Non-Electrical)
- Sign Makers and Installers (Electrical)
- Stage Rigging Mechanics (Non Structural)

The following occupations may be used only as outlined in the preceding text concerning "WSDOT's list for Suppliers - Manufacturers - Fabricators"

- Fabricated Precast Concrete Products
- Metal Fabrication (In Shop)

Definitions for the Scope of Work for prevailing wages may be found at the Washington State Department of Labor and Industries web site and in WAC Chapter 296-127.

**Washington State Department of Labor and Industries
Policy Statements
(Regarding Production and Delivery of Gravel, Concrete, Asphalt, etc.)**

WAC 296-127-018 Agency filings affecting this section

Coverage and exemptions of workers involved in the production and delivery of gravel, concrete, asphalt, or similar materials.

(1) The materials covered under this section include but are not limited to: Sand, gravel, crushed rock, concrete, asphalt, or other similar materials.

(2) All workers, regardless of by whom employed, are subject to the provisions of chapter 39.12 RCW when they perform any or all of the following functions:

(a) They deliver or discharge any of the above-listed materials to a public works project site:

(i) At one or more point(s) directly upon the location where the material will be incorporated into the project; or

(ii) At multiple points at the project; or

(iii) Adjacent to the location and coordinated with the incorporation of those materials.

(b) They wait at or near a public works project site to perform any tasks subject to this section of the rule.

(c) They remove any materials from a public works construction site pursuant to contract requirements or specifications (e.g., excavated materials, materials from demolished structures, clean-up materials, etc.).

(d) They work in a materials production facility (e.g., batch plant, borrow pit, rock quarry, etc.) which is established for a public works project for the specific, but not necessarily exclusive, purpose of supplying materials for the project.

(e) They deliver concrete to a public works site regardless of the method of incorporation.

(f) They assist or participate in the incorporation of any materials into the public works project.

(3) All travel time that relates to the work covered under subsection (2) of this section requires the payment of prevailing wages. Travel time includes time spent waiting to load, loading, transporting, waiting to unload, and delivering materials. Travel time would include all time spent in travel in support of a public works project whether the vehicle is empty or full. For example, travel time spent returning to a supply source to obtain another load of material for use on a public works site or returning to the public works site to obtain another load of excavated material is time spent in travel that is subject to prevailing wage. Travel to a supply source, including travel from a public works site, to obtain materials for use on a private project would not be travel subject to the prevailing wage.

(4) Workers are not subject to the provisions of chapter 39.12 RCW when they deliver materials to a stockpile.

(a) A "stockpile" is defined as materials delivered to a pile located away from the site of incorporation such that the stockpiled materials must be physically moved from the stockpile and transported to another location on the project site in order to be incorporated into the project.

(b) A stockpile does not include any of the functions described in subsection (2)(a) through (f) of this section; nor does a stockpile include materials delivered or distributed to multiple locations upon the project site; nor does a stockpile include materials dumped at the place of incorporation, or adjacent to the location and coordinated with the incorporation.

(5) The applicable prevailing wage rate shall be determined by the locality in which the work is performed. Workers subject to subsection (2)(d) of this section, who produce such materials at an off-site facility shall be paid the applicable prevailing wage rates for the county in which the off-site facility is located. Workers subject to subsection (2) of this section, who deliver such materials to a public works project site shall be paid the applicable prevailing wage rates for the county in which the public works project is located.

[Statutory Authority: Chapter 39.12 RCW, RCW 43.22.051 and 43.22.270. 08-24-101, § 296-127-018, filed 12/2/08, effective 1/2/09. Statutory Authority: Chapters 39.04 and 39.12 RCW and RCW 43.22.270. 92-01-104 and 92-08-101, § 296-127-018, filed 12/18/91 and 4/1/92, effective 8/31/92.]

APPENDIX B

CITY OF MAPLE VALLEY INVOICE SUMMARY FORM

**EXHIBIT B
CITY OF MAPLE VALLEY INVOICE SUMMARY FORM**

**Attn: Accounts Payable
P.O. Box 320, Maple Valley, WA 98038
(425) 413-8800; Fax (425) 413-4282 or
Scan Invoice to finance2@maplevalleywa.gov AND cd-pw@maplevalleywa.gov**

City Contract No: _____ Invoice No.: _____ Invoice Date: _____

Vendor: _____

Mailing Address: _____

Invoice Contact Name: _____ Telephone: _____

Reporting Period: _____

Amount of Invoice: \$ _____

Attach Invoice to describe services performed this period.

BUDGET SUMMARY:

Total Contract Amount \$ 0.00

Previously Submitted for Payment \$ _____

Current Request \$ _____

Total Requested to Date \$ _____

Balance Remaining \$ _____

Vendor Signature Date

Print Name Title

Vouchers are paid on the Tuesday following the second and fourth Mondays of each month, following City Council approval. Invoices must be received at least ten (10) days prior to the approval date. The Vendor shall be paid for services rendered and allowable expenses incurred, but in no case shall the total amount paid exceed the "not to exceed" amount of \$ _____, unless the parties mutually agree in writing to the payment of additional fees and expenses as authorized by the City. The Vendor shall complete and return Exhibit "C," Tax Identification Number, prior to execution of this Agreement.

For Department Use Only

Approved for Payment:

Vendor No.: _____

Budget No.: _____

Signature: _____

Date: _____

APPENDIX C

PERMITTING DOCUMENTS (NEPA AND SEPA)



SEPA Environmental Checklist

Department of Economic and Community Development

Purpose of checklist

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants

This environmental checklist asks you to describe some basic information about your proposal. Answer each question briefly, accurately and carefully, giving the most precise information and description to the best of your knowledge. You may use "not applicable" or "does not apply" only when you can explain why it does not apply. If you really do not know the answer, write "do not know." In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. You may also attach or incorporate by reference additional studies or reports. Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for non-project proposals

For non-project proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus Part D, the supplemental sheet for non-project actions. Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

Complete this checklist for non-project proposals, even though questions may be answered "does not apply." In addition, complete For non-project actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A Background

Project Name SR 169 Pedestrian Bridge
Address SR 169 at SE 258th Street, Maple Valley, WA
Parcel Number(s) SR 169 ROW with staging in Parcel 272269159
Zone Legacy
Property Size _____

Project Contact Schaun Valdovinos
Address 2212 Queen Anne Avenue N, Suite 530
City/State/Zip Seattle, WA 98109
Phone (206) 880-1533 E-mail schaun@vm-structural.com

Applicant Name City of Maple Valley, Tawni Dalziel, P.E.
Address 22017 SE Wax Rd #101
City/State/Zip Maple Valley, WA 98038
Phone (425) 413-6624 E-mail Tawni.Dalziel@maplevalleywa.gov
Date checklist prepared 3-26-26
Agency requesting checklist City of Maple Valley Public Works

Proposed timing or schedule (including phasing, if applicable)Address _____
December 2026 - December 2028

Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. No.

List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. _____

NEPA Categorical Exclusion Form, Surface Water Technical Memo,
Critical Areas Reconnaissance Letter Report, Archaeology Survey,
Geotechnical Report, Contamination Database Review Memo

Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. _____

None known.

List any government approvals or permits that will be needed for your proposal, if known. _____

NEPA Approval, Clearing and Grading Permit

Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) _____

The project consists of construction of a pedestrian bridge over SR 169 from a
city-owned parcel (Parcel No. 2722069159), referred to as the Legacy Site, at 25719
Maple Valley-Black Diamond Road SE, Maple Valley, Washington 98038. The
proposed pedestrian bridge spans over SR 169, connecting the Legacy Site located
west of SR 169 with Rock Creek Elementary and adjacent neighborhoods to the east.

Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. _____

The project is within Section 27 of Township 22 North, Range 06 East of the Willamette
Meridian. The specific location is within the ROW for SR 169 from a city-owned parcel
(Parcel No. 2722069159) referred to as the Legacy Site at 25719 Maple Valley-Black
Diamond Road SE, Maple Valley, Washington 98038. The proposed pedestrian bridge
spans over SR 169, connecting the Legacy Site located west of SR 169 with the ROW
adjacent to Rock Creek Elementary and adjacent neighborhoods to the east.

B Environmental Elements

1 Earth

General description of the site (circle one) Flat, rolling, hilly, steep slopes, mountainous,
other _____

What is the steepest slope on the site (approximate percent slope) _____

The steepest slope documented in the work area is 5 percent or less.

What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. _____

According to the Natural Resources Conservation Service soil survey data, the project area is in the Everett very gravelly sandy loam, 8 to 15 percent slopes soil map unit. These soils are somewhat excessively well drained, very gravelly sandy loam and loamy sands that have no hydric component and are considered farmland of statewide importance.

Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. None documented.

Describe the purpose, type, approximate quantities and total affected area of any filling, excavation or grading proposed. Indicate source of fill. _____

Approximately 960 CY of material will be cut and hauled off site with approximately 430 CY of material imported, consisting of imported gravel borrow. Fill and grading activities are proposed over approximately a 6,000 SF area. Additional landscaping and pathway upgrades over an area of 18,000 SF are proposed requiring minimal regrading, but not necessarily requiring import or export of material.

Could erosion occur as a result of clearing, construction, or use? If so, generally describe ____

Erosion is not anticipated as part of this project because the alignment is predominantly located within the fill prism of a paved street. Construction will employ temporary erosion and sediment control (TESC) and Best Management Practices (BMPs) to prevent and manage temporary impacts from erosion.

About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt, concrete or buildings)? _____

Approximately 8,000 sq. ft. of impervious cover will be created as part of this project. However there will be a net reduction of pollution generating impervious cover of approximately 6,000 sq. ft.

Proposed measures to reduce or control erosion, or other impacts to the earth, if any _____

BMPs anticipated to be utilized during construction include, but are not limited to, construction limits, securing temporary stockpiles, use of silt fencing and/or straw wattles, and daily site cleanup. Construction will follow City standard TESC measures and project-specific recommendations included on the plans and specifications. These standard TESC measures are based on the methodology outlined in the Stormwater Management Manual for Western Washington (Washington State Department of Ecology, August 2019, Publication No. 19-10-021).

2 Air

What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known. _____

Temporary exhaust and dust emissions from construction equipment and vehicles are anticipated during construction. The constructed project will not involve any emissions.

Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe None known.

Proposed measures to reduce or control emissions or other impacts to air, if any _____

Construction equipment and vehicles shall conform to Washington State standards for air quality, including using properly functioning equipment and vehicles that have passed emissions testing, using clean-burning fuels when possible, limiting diesel exhaust, limiting vehicle idling, etc.

3 Water

Surface water

Is there any surface water body on or in the immediate vicinity of the site (including ear-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into _____

Lake Wilderness is located approximately 2,300 feet west of the work area.

Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. No.

Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. None proposed.

Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known No.

Does the proposal lie within a 100-year floodplain? If so, note location on the site plan _____

No Federal Emergency Management Agency (FEMA) mapped flood zones occur on or within proximity to the project area.

Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge _____

None proposed.

Groundwater

Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. _____

No.

Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve _____

None proposed. Not applicable to this project.

Water runoff (including stormwater)

Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. _____

The primary source of hydrology in the project area is precipitation that is infiltrated into the soil or occurs as stormwater runoff

Could waste materials enter ground or surface waters? If so, generally describe No.

Proposed measures to reduce or control surface, ground, and runoff water impacts, if any ____

BMPs will be implemented to avoid and minimize potential impacts to nearby areas during construction. Project design will be completed to adhere to applicable local, state, and federal regulations that provide standards to reduce and control impacts to surface, ground, and storm waters and drainage patterns.

4 Plants

Check types of vegetation found on the site

Deciduous tree: ☒ alder ☒ maple ☐ aspen
☐ other _____

Evergreen tree: ☒ fir ☒ cedar ☐ hemlock ☐ pine
☐ other _____
☐ other _____

Ground cover: ☒ shrubs ☒ grass ☒ herbaceous
☐ other _____

Crops: ☐ orchard ☐ vineyards ☐ pasture ☐ cropland
☐ other _____

Wet soil plants: ☐ cattails ☐ buttercup ☐ rushes ☐ skunk cabbage
☐ other _____

Water plants: ☐ water lily ☐ eelgrass ☐ milfoil
☐ other _____

What kind and amount of vegetation will be removed or altered? _____

Vegetation adjacent to the roadway includes manicured grasses and landscaped shrubs and some mature trees. Several trees in close proximity to the bridge footprint will require removal and several will need to be trimmed.

List threatened or endangered plant species known to be on or near the site _____

No listed species occur within the footprint or vicinity of the project.

Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any _____

Potted trees are proposed on bridge supports adjacent to the section of the bridge spanning SR 169. In addition, fill slopes that support the inclined bridge approach will be re-vegetated.

5 Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site

Birds: ☐ hawk ☐ heron ☐ eagle ☒ songbirds
☐ other American crow

Mammals: ☐ deer ☐ bear ☒ elk ☐ beaver ☐ rodents
☐ other _____

Fish: ☐ bass ☐ salmon ☐ trout ☐ herring ☐ shellfish
☐ other None observed.

List any threatened or endangered wildlife species known to be on or near the site _____

No listed species occur within the footprint or vicinity of the project.

Is the site part of a migration route? If so, explain _____

The project area is within the Pacific Flyway migration route; therefore, it may provide habitat for migratory bird species. USFWS data indicates 8 migratory species recognized as Birds of Conservation Concern may be found within the area of the project.

Proposed measures to preserve or enhance wildlife, if any _____

None proposed. The construction of the pedestrian bridge will occur in an established ROW and roadway fill prism that does not support wildlife habitat.

6 Energy and natural resources

What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc. _____

Gasoline and oil will be used to fuel construction equipment for the project.

Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe _____

No.

What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any _____

None.

7 Environmental Health

Environmental hazards

Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe _____

No.

Describe special emergency services that might be required as a result _____

No special emergency services are anticipated.

Proposed measures to reduce or control environmental health hazards, if any _____

No additional measures beyond those mentioned previously.

Noise

What types of noise exist in the area which may affect your project (for example traffic, equipment, operation, other)? _____

Vehicle noise associated with SR 169 is present in the area but not expected to affect the project.

What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example traffic, construction, operation, other)? _____

Temporary noise disturbance will occur with construction activities, including noise from construction vehicles and excavation. The contractor will need to follow regulations set forth in Chapter 9.05 of the Maple Valley Municipal Code.

Indicate what hours noise would come from the site _____

Noise is anticipated during standard working hours while construction lasts.

Proposed measures to reduce or control noise impacts, if any _____

Construction activities and proposed site improvements shall comply with the noise regulations of the City.

8 Land and shoreline use

What is the current use of the site and adjacent properties? _____

The project alignment currently consists of the associated ROW from SR169 and the Legacy parcel which is currently used for recreational purposes. Adjacent properties are single family residential and Rock Creek Elementary School. The project is not anticipated to affect current land uses on nearby or adjacent properties.

Has the site been used for agriculture? If so, describe _____

No.

Describe any structures on the site None.

Will any structures be demolished? If so, what? No.

What is the current zoning classification of the site? LEG - Legacy Site

What is the current comprehensive plan designation of the site? LEG - Legacy Site

If applicable, what is the current shoreline master program designation of the site? _____

Not applicable. No shoreline designation at this site.

Has any part of the site been classified as an "environmentally sensitive" area? If so, specify

No.

Approximately how many people would reside or work in the completed project? None.

Approximately how many people would the completed project displace? None.

Proposed measures to avoid or reduce displacement impacts, if any None proposed.

Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any None proposed.

9 Housing

Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing None.

Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing None.

Proposed measures to reduce or control housing impacts, if any None proposed.

10 Aesthetics

What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? _____

Approximately 40 feet; concrete and steel

What views in the immediate vicinity would be altered or obstructed? _____

No scenic views will be altered or obstructed. However, the view from the existing school of the Legacy Site will be partially obstructed with the construction of the pedestrian bridge.

Proposed measures to reduce or control aesthetic impacts, if any _____

Potted trees are proposed along the portion of the bridge that will span SR 169 as well as vegetation of the fill slopes that will support the ramps to the portion of the bridge spanning SR 169.

11 Light and Glare

What type of light or glare will the proposal produce? What time of day would it mainly occur? _____

Color changing flood lights are proposed above the bridge deck to illuminate the pedestrian walkway. No glare is expected from the completed project.

Could light or glare from the finished project be a safety hazard or interfere with views? _____

No.

What existing off-site sources of light or glare may affect your proposal? None.

Proposed measures to reduce or control light and glare impacts, if any None.

12 Recreation

What designated and informal recreational opportunities are in the immediate vicinity? _____

The Legacy site to which this project connects is an informal recreation area utilized by Maple Valley residents.

Would the proposed project displace any existing recreational uses? If so, describe _____

No.

Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any None proposed.

13 Historic and Cultural Preservation

Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe _____

No historic buildings, structures, or sites were documented in an archaeological survey completed by ERCI in July 2025 within the immediate vicinity of the project site.

Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site None known.

Proposed measures to reduce or control impacts, if any _____

No impacts to historic resources are expected to occur. Design specifications will utilize standard Inadvertent Discovery Plan language to guide the contractor if any artifacts or remains are inadvertently uncovered during project construction.

14 Transportation

Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any _____

The project is located in the ROW for SR 169 and connects the neighborhood to the east of SR 169 to the Legacy Site. Connection to the local sidewalks and the parking lots on each side of SR 169 will take place as part of the project.

Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop? _____

Public transit stops are currently available at the intersection of SR 169 and SE 260th Street, approximately 0.16-miles south of the project location.

How many parking spaces would the completed project have? How many would the project eliminate? None known.

Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private)

A new driveway entrance to the Legacy Site is proposed as part of the project.

Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe _____

No.

How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur None.

Proposed measures to reduce or control transportation impacts, if any _____

None proposed.

15 Public services

Would the project result in an increased need for public services (for example fire protection, police protection, health care, schools, other)? If so, generally describe. _____

No.

Proposed measures to reduce or control direct impacts on public services, if any _____

None proposed.

16 Utilities

Circle utilities currently available at the site electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other _____

Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed None proposed.

C SignatureApplicant's Signature Ta R Date 4/8/26

Agent's Signature _____ Date _____

By affixing my signature hereto, I certify under penalty of perjury that the information furnished herein is true and correct to the best of my knowledge and that I am the owner of the premises where the work is to be performed or am acting as the owner's authorized agent. I further agree to hold harmless the City of Maple Valley as to any claim (including costs, expenses and attorney's fees incurred in the investigation of such claim) which may be made by any person, including the undersigned, and filed against the City of Maple Valley, but only where such claim arises out of the reliance of the City, including its officers and employees, upon the accuracy of the information provided to the City as a part of this application.

D. Supplemental Sheet for Non-project Actions

(do not use this sheet for project actions). Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment. When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise? _____

Proposed measures to avoid or reduce such increases are _____

How would the proposal be likely to affect plants, animals, fish, or marine life? _____

Proposed measures to protect or conserve plants, animals, fish, or marine life are _____

How would the proposal be likely to deplete energy or natural resources? _____

Proposed measures to protect or conserve energy and natural resources are _____

How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands? _____

Proposed measures to protect such resources or to avoid or reduce impacts are _____

How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans? _____

Proposed measures to avoid or reduce shoreline and land use impacts are _____

How would the proposal be likely to increase demands on transportation or public services and utilities? _____

Proposed measures to reduce or respond to such demand(s) are _____

Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment _____



Notice of SEPA Determination of Non-Significance (DNS)

T-57 – SR 169 Pedestrian Bridge near SE 258th Street SEPA (MLU-26-8)

Effective Date: May 28, 2026
Project: T57 – SR 169 Pedestrian Bridge near SE 258th Street SEPA
Applicant: City of Maple Valley, 22017 SE Wax Road, Maple Valley, WA, 98038
Owner: City of Maple Valley, 22017 SE Wax Road, Maple Valley, WA, 98038
Location: Citywide
Tax Parcel(s): The project is located within the City of Maple Valley crossing SR 169 at SE 258th Street
Zoning: City Right of Way, LEG and R-6
Prepared by: Amy Taylor, Senior Planner

Proposal

On April 14, 2026, the Department of Economic and Community Development received the above-referenced application for land-use review and approval of a proposal to construct a covered, semi-open, grade separated pedestrian bridge over SR 169 with ADA ramps on both sides and accessory play area, lighting, and landscaping.

Notice of SEPA Determination of Non-Significance (DNS)

The Department of Economic and Community Development received an application for a SEPA threshold determination for the above referenced proposal. The City of Maple Valley, as lead agency, is issuing a DNS for this project based on review of the SEPA environmental checklist and other documents submitted with the application. A public comment period was held from May 6, 2026 to May 21, 2026. During that time, the City received no written comment.

Contact Person:

Amy Taylor, AICP
Senior Planner
22017 SE Wax Rd, Suite 200, Maple Valley, WA 98038
425-413-8800

CORE VALUES

Belonging • Healthy • Stewards • Authentic

Responsible Official:

Matt Torpey, Designated SEPA Official
Community Development Manager
22017 SE Wax Rd, Suite 200, Maple Valley, WA. 98038;
425-413-8800

Date of Decision: May 28, 2026

Matt Torpey
Matt Torpey
Community Development Manager

5/28/26
Date

You may appeal this determination.

Pursuant to MVMC 14.10.170.A.3, there shall be no administrative appeal of threshold determinations of legislative decisions, and the only avenue of appeal therefrom shall be through judicial review of such threshold determination. Pursuant to MVMC 14.10.170.B.2, appeals of the City's final decision shall be filed in superior court (or the Growth Management Hearings Board, as applicable).

CORE VALUES

Belonging • Healthy • Stewards • Authentic



Federal Aid Project Number	NEPA Start Date 03-24-2025	Intent of Submittal ☐ Preliminary ☒ Final ☐ Re-Evaluate
Agency City of Maple Valley	Project Title SR 169 Pedestrian Bridge	
County King		
Beginning terminus: <u>10.87</u>	Township(s): <u>22 North</u>	
Ending terminus: <u>10.89</u>	Range(s): <u>06 East</u>	
Miles: <u>.02</u>	Section(s): <u>27</u>	

Part 1 - Project Description (Attach Vicinity Map)

The primary goal of the SR 169 Pedestrian Bridge project is to construct a safe, accessible, and aesthetically pleasing grade-separated crossing over SR 169 near Rock Creek Elementary School and the City's Legacy Site. The proposed bridge is located at SR 169 near S 258th St, in Maple Valley, Washington. The bridge will connect at-grade sidewalks with ADA ramps on both sides.

See Attachment 1 for vicinity map, Attachment 2 for preliminary project design drawings, and Attachment 3 for a project description with additional details.

Part 2 - Categorical Exclusion & STIP

- Identify one CE from 23 CFR 771.117 (CE Guidebook - Appendix A) that fits the entire project (C)(3) Bike/Ped Facilities
- Per 23 CFR Part 452(l) identify the subsequent project phase identified on the STIP? ☐ ROW ☒ Construction
- Attach a copy of the STIP page to the CE documentation form. **See Attachment 4 for STIP page**

NEPA Approval Signatures

	5/4/26		Digitally signed by Melanie Vance Date: 2026.05.05 09:17:38 -07'00'
Local Agency Approving Authority	Date	Local Programs Environmental Engineer	Date
 Mehrdad Moini, PE	Digitally signed by Mehrdad Moini, PE Date: 2026.05.04 12:22:05 -07'00'	CE per PA	5/5/26
Regional Local Programs Engineer	Date	Federal Highway Administration	Date

Completed By (Print Official's Name)	Telephone (include area code)	E-mail Address
--------------------------------------	-------------------------------	----------------

Part 3 - Permits, Approvals & Right of Way (ROW)					
Yes	No	Permit or Approval	Yes	No	Permit or Approval
☐	☒	Corps of Engineers ☐ Sec. 10 ☐ Sec. 404 ☐ Nationwide Type _____ ☐ Individual Permit No. _____	☐	☒	Water Quality Certification - Section 401 Issued By _____
☐	☒	Coastal Zone Management Certification	☐	☒	Tribal Permit(s) (if any) _____
☐	☒	Critical Areas Ordinance (CAO) Permit	☐	☒	Other Permits (List) _____
☐	☒	Forest Practices Act Permit	☐	☒	Is permanent ROW acquisition needed? If yes, amount needed: <u>N/A</u> (acres/sq. ft.).
☐	☒	Hydraulic Project Approval	☒	☐	Is any temporary ROW needed?
☒	☐	Local Building or Site Development Permits	☐	☒	Is relocation required?
☒	☐	Local Clearing and Grading Permit	☐	☒	Has ROW (property and/or property interests) been acquired <u>for this project</u> prior to the NEPA start date? If yes, documentation demonstrating compliance with 23 CFR 710.501 may be required.
☐	☒	National Pollutant Discharge Elimination System (NPDES) Baseline General for Construction	☒	☐	Is a detour required? If yes, please attach detour information. See Attachment 5
☐	☒	Shoreline Permit			
☐	☒	State Waste Discharge Permit			
☐	☒	Water Rights Permit			

U.S. Coast Guard Permitting

- a. Does the project propose any new or modify **any** existing bridges or culverts crossing a waterway? ☐ Yes ☒ No
- b. If Yes, attach a copy of the jurisdictional determination email or letter from the U.S. Coast Guard.

Other Federal Agencies - Does the project involve any federal properties, approvals or funding from other/additional federal agencies? ☐ Yes ☒ No If Yes, please describe. N/A

Part 4 - Environmental Considerations

**Will the project involve work in or affect any of the following? Identify proposed mitigation.
Attach additional pages or supplemental information if necessary.**

1. Air Quality - Identify any anticipated air quality issues.

Is the project exempt from Air Quality conformity requirements? ☒ Yes ☐ No

- a. If Yes, identify exemption - please refer to Appendix G in the CE Guidebook for a list of exemptions.

Pedestrian bridge, "Safety Project" listed under Regional Exemption under 40 CFR 93.127 -

- b. Is the project located in an Air Quality Non-Attainment Area or Maintenance Area for carbon monoxide, ozone or PM 10 or PM 2.5? ☐ Yes ☒ No

2. Critical and Sensitive Areas

See Attachment 6

- a. Is this project within a sole source aquifer? ☐ Yes ☒ No

If located within a sole source aquifer, is the project exempt from EPA approval?

If Yes, please list exemption: N/A

If No, date of EPA approval: N/A

- b. Will this project impact Species/Habitat other than ESA listed species? ☐ Yes ☒ No Explain your answer.

- c. Is this project within one mile of a Bald Eagle nesting territory, winter concentration area or communal roost?

☐ Yes ☒ No If Yes, the local agency must go to the US Fish & Website (<https://www.fws.gov/story/do-i-need-eagle-take-permit>) and review the information under When is a permit recommended?. Please explain why a permit is or is not needed:
N/A

Please attach a copy of the permit if needed.

- d. Are wetland present within the project area? ☐ Yes ☒ No If Yes, estimate the impact in acres: N/A

Please attach a copy of the proposed mitigation plan.

3. Cultural Resources/Historic Structures - Identify any historic, archaeological or cultural resources present within the project's Area of Potential Effects.

Does the project fit into any of the exempt types of projects listed in Appendix J of the CE Guidebook?

☐ Yes ☒ No If Yes, note exemptions below. **See Attachment 7**

If No: Date of DAHP concurrence: 9/4/25

Date of Tribal consultation(s) (if applicable): 6/17/25

Adverse effects on cultural/historic resources? ☐ Yes ☒ No

If Yes, date of approved Section 106 MOA: _____

4. Floodplains and Floodways

- a. Is the project located in a 100-year floodplain? ☐ Yes ☒ No
- b. If Yes, is the project located within a 100-year floodway? ☐ Yes ☒ No
- c. Will the project impact a 100-year floodplain? ☐ Yes ☒ No If Yes, describe impacts.

5. Hazardous and Problem Waste - Identify potential sources and type(s). **See Attachment 8**

- a. Does the project require excavation below the existing ground surface? ☒ Yes ☐ No
- b. Will groundwater be encountered? ☒ Yes ☐ No
- c. Will any properties be acquired as part of this project? ☐ Yes ☒ No
- d. Is this site located in an undeveloped area (i.e. no buildings, parking, storage areas or agriculture)? ☐ Yes ☒ No
- e. Is the project located within a one-mile radius of a known Superfund Site? ☐ Yes ☒ No
- f. Is this project located within a ½-mile radius of a site or sites listed on any of the following Department of Ecology databases?
☐ Yes ☒ No If Yes, check the appropriate boxes below.
- ☐ Voluntary Cleanup Program (VCP), State Cleanup Site (SCS), or Independent Cleanup Program (ICP)
- ☐ Underground Storage Tank (UST)
- ☐ Leaking Underground Storage Tank (LUST)
- ☐ Confirmed and Suspected Contaminated Sites List (CSCSL)
- g. Has site reconnaissance (windshield survey) been performed? ☒ Yes ☐ No (Please identify any properties not identified in the Ecology or ERS database search as an attachment – name, address and property use).
- h. Based on the information above and project specific activities, is there a potential for the project to generate, acquire or encounter contaminated soils, groundwater or surface water? ☐ Yes ☒ No

Please explain:

A Hazardous Materials database search, data review, and windshield survey has been completed, included as Attachment 8. Based on this review, no contamination is anticipated to be encountered.

If you responded Yes to any of these questions above (5A - 5F or 5H), contact your Region LPE for assistance as a "Right-Sized" HazMat Analysis Report/Memorandum most likely will be required.

6. Noise

- a. Does the project involve constructing a new roadway? ☐ Yes ☒ No
- b. Is there a change in the vertical or horizontal alignment of the existing roadway? ☐ Yes ☒ No
- c. Does the project increase the number of through traffic lanes on an existing roadway? ☐ Yes ☒ No
- d. Is there a change in the topography? ☐ Yes ☒ No
- e. Are there auxiliary lanes extending 1-½ miles or longer being constructed as part of this project? ☐ Yes ☒ No
- f. If you answered Yes to any of the preceding questions, identify and describe any potential noise receptors within the project area and subsequent impacts to those noise receptors. Please attach a copy of the noise analysis if required.

NA

If impacts are identified, describe proposed mitigation measures.

NA

7. 4(f)/6(f) Resources: parks, recreation areas, wildlife refuges, historic properties, wild & scenic rivers, scenic byways

- a. Please identify and 4(f) properties within the project limits and the areas of impacts.

The Legacy Site, a City-owned parcel, is eligible for protection under Section 4(f). The project is anticipated to have a de minimus impact on the Legacy Site. Attachment 8 includes a de minimus form, a letter of support from the Parks and Rec director, and public outreach details. **De minimis signed by FHWA 10/22/25**

- b. Please identify any properties within the project limits that used funds from the Land & Water Conservation Fund Act.

NA

- c. Please list any Wild and Scenic Rivers and Scenic Byways within the project limits.

NA

8. Agricultural Lands -

- a. Are there agricultural lands within 300 feet of the project limits? ☐ Yes ☒ No If Yes, describe impacts:

- b. Are impacted lands considered to be unique and prime farmland? ☐ Yes ☒ No

If Yes, date of project review by Natural Resource Conservation Service (NRCS): _____

9. Rivers, Streams (continuous or intermittent) or Tidal Waters

- a. Identify all waterbodies within 300 feet of the project limits or that will otherwise be impacted.

NA

- b. Identify stream crossing structures by type.

NA

10. Tribal Lands - Identify whether the project will occur within any Tribal lands, including reservation, trust and fee lands. Please do no list usual and accustomed area.

NA

11. Water Quality/Stormwater **See Attachment 10**

- a. Will this project's proposed stormwater treatment facility be consistent with the guidelines provided by either WSDOT's HRM, DOE's stormwater management manual for eastern/western Washington or a local agency equivalent manual?

☒ Yes ☐ No

Explain proposed water quality/quantity treatment for the new and any existing pollution generating impervious surface associated with the proposed project.

- b. Amount of existing pollution generating impervious surface within the project limits: 10,225 SF
- c. Net new pollution generating impervious surface to be created as a result of this project: -5,942 SF
- d. Amount of proposed post-project untreated pollution generating impervious surface: 0 SF

12. Previous Environmental Commitments

Describe previous environmental commitments that may affect or be affected by the project - if any.

None

13. Environmental Justice - Does the project meet any of the exemptions noted in Appendix L of the CE Documentation Guidebook?

If Yes, please note the exemption and appropriate justification in the space below.

This CE Form section no longer applies consistent with Executive Orders 14154 and 14173 issued on January 21, 2025. EO 14154 revokes EOs 11991 and 14096 and EO 14173 revokes EO 12898.

If No, attach Appendix M and supporting documentation as required per the decision matrix. This will include at least two demographic information sources and possibly a description of anticipated project impacts.

Please refer to the CE Guidebook for more information.

Part 5 - Biological Assessments and EFH Evaluations

- 1. Do any listed species potentially occur in the project's action area and/or is any designated critical habitat present within the project's action area?** ☐ Yes ☒ No Attach species listings.

Affected ESA Listed Species	2. Will any construction work occur within 0.25 mile of any of the following?	3. Does the project involve blasting, pile driving, concrete sawing, rock-drilling or rock-scaling activity within one mile of any of the following?
Oregon Spotted Frog proposed critical habitat or suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Yellow-billed Cuckoo suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Spotted Owl management areas, designated critical habitat or suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Marbled Murrelet nest or occupied stand, designated critical habitat or suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Western Snowy Plover designated critical habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Is the project within 0.25 mile of marine waters? If Yes explain potential effects on Killer Whales and on Marbled Murrelet foraging areas.	☐ Yes ☒ No	☐ Yes ☒ No

Killer Whale designated critical habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Grizzly Bear suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Gray Wolf suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Canada Lynx habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Columbia White-tailed Deer suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Woodland Caribou habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Streaked Horned Lark designated critical habitat or suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Taylor's Checkerspot designated critical habitat or suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Mazama Pocket Gopher designated critical habitat or suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Eulachon designated critical habitat or suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
Rockfish proposed critical habitat or suitable habitat?	☐ Yes ☒ No	☐ Yes ☒ No
A mature coniferous or mixed forest stand?	☐ Yes ☒ No	☐ Yes ☒ No

4. Will the project involve any in-water work?	☐ Yes ☒ No
5. Will any construction work occur within 300 feet of any perennial or intermittent waterbody that either supports or drains to waterbody supporting listed fish?	☐ Yes ☒ No
6. Will any construction work occur within 300 feet of any wetland, pond or lake that is connected to any permanent or intermittent waterbody?	☐ Yes ☒ No
7. Does the action have the potential to directly or indirectly impact designated critical habitat for salmonids (including adjacent riparian zones)?	☐ Yes ☒ No
8. Will the project discharge treated or untreated stormwater runoff or utilize water from a waterbody that supports or drains into a listed-fish supporting waterbody?	☐ Yes ☒ No
9. Will construction occur outside the existing pavement? If Yes go to 9a.	☒ Yes ☐ No
9a. Will construction activities occurring outside the existing pavement involve clearing, grading, filling or modification of vegetation or tree-cutting?	☒ Yes ☐ No
10. Are there any Federally listed Threatened or Endangered plant species located within the project limits? If Yes, please attach a list of these plant species within the action area.	☐ Yes ☒ No
11. Does a mature coniferous or mixed forest stand occur within 200' of the project site?	☐ Yes ☒ No

Analysis for No Effects Determination – If there are any Yes answers to questions in Part 5, additional analysis is required. Attach additional sheets if needed.

Vegetation impacts are limited to existing roadway habitats that do not provide suitable or designated habitat for terrestrial species. No listed species occur within the footprint or vicinity of the project. See Attachment 6 for further details on existing conditions and assessment of habitats supporting the responses provided in Section 5 above. An IPaC species list is included as Attachment 11. The project is not likely to jeopardize the continued existence of Monarch Butterfly because suitable habitat will not be impacted by the project and there are no known biotic detections of this species in the vicinity of the project. In the event the species becomes listed prior to project completion the provisional effect determination for Monarch Butterfly is No Effect.

The project is not likely to jeopardize the continued existence of Suckley's Cuckoo Bumble Bee because suitable habitat will not be impacted by the project and there are no known biotic detections of this species in the vicinity of the project. In the event the species becomes listed prior to project completion the provisional effect determination for Suckley's Cuckoo Bumble Bee is No Effect.

The project is not likely to jeopardize the continued existence of Northwestern Pond Turtle because suitable habitat will not be impacted by the project and there are no known biotic detections of this species in the vicinity of the project. In the event the species becomes listed prior to project completion the provisional effect determination for Northwestern Pond Turtle is No Effect.

Analysis for RRMP ESA 4(d) determination for NMFS – A local agency must be certified by the Regional Road Maintenance Forum to utilize 4(d).

Maintenance Category (check all that apply)

- | | | |
|--|---|---|
| ☐ 1. Roadway Surface | ☐ 6. Stream Crossings | ☐ 11. Emergency Slide/Washout Repair |
| ☐ 2. Enclosed Drainage Systems | ☐ 7. Gravel Shoulders | ☐ 12. Concrete |
| ☐ 3. Cleaning Enclosed Drainage Systems | ☐ 8. Street Surface Cleaning | ☐ 13. Sewer Systems |
| ☐ 4. Open Drainage Systems | ☐ 9. Bridge Maintenance | ☐ 14. Water Systems |
| ☐ 5. Watercourses and Streams | ☐ 10. Snow and Ice Control | ☐ 15. Vegetation |

Describe how the project fits in the RRMP 4(d) Program:

Effect Determinations for ESA and EFH

If each of the questions in the preceding section resulted in a "No" response or if any of the questions were checked "Yes," but adequate justification can be provided to support a "no effect" determination, then check "No Effect" below. If this checklist cannot be used for Section 7 compliance (i.e., adequate justification cannot be provided or a "may effect" determination is anticipated), a separate biological assessment document is required.

OK per HP	NMFS	USFWS	EFH Determination
☒ No Effect	<u>9/9/25</u>	<u>9/9/25</u>	☒ No Adverse Effect
☐ NLTA - Date of Concurrence	_____	_____	☐ Adverse Effect - Date of NMFS concurrence _____
☐ LTAA - Date BO Issued	_____	_____	
☐ RRMP 4(d)	_____	_____	☐ Not Applicable

Part 6 - FHWA Comments

APPENDIX D

CITY AND UTILITY CONTACT INFORMATION

APPENDIX D
CITY AND UTILITY CONTACT INFORMATION

Name	Company	Telephone	Email Address
City of Maple Valley			
Tawni Dalziel	Public Works Director	425-413-8800	tawni.dalziel@maplevalleywa.gov
Steven Chen	Deputy Director/City Engineer, Public Works	425-413-6640	Steven.Chen@maplevalleywa.gov
Laura Philpot	City Manager	425-413-8800	laura.philpot@maplevalleywa.gov
Utilities			
Joseph Xi	Project Engineer, Covington Water District	253-545-1337	joseph.xi@covingtonwaterwa.gov
Tom Malphrus	CIP Supervisor, Covington Water District	253-867-0906	tom.malphrus@covingtonwater.com
Keely Hogan	Development Supervisor, Soos Creek Water & Sewer District	253-630-9900 ext. 107	khogan@sooscreek.com
Gregory G. Hill	Operations Manager, Soos Creek Water & Sewer District	253-630-9900 ext. 115	ghill@sooscreek.com
Todd Zimny	Comcast (JUT)		Todd_Zimny@comcast.com
Brenda Carlberg	Comcast (JUT)	253-236-5293	brenda_fields@comcast.com
	Zayo (JUT)		zayo.relo.washington@zayo.com
Randy Blackie	Senior Project Manager, Puget Sound Energy (JUT)	425-457-2614	Randy.Blackie@pse.com
Mohammed Al Masri	Project Manager, Puget Sound Energy		Mohammed.almasri@pse.com
Jason Schaefer	Project Manager, Puget Sound Energy	425-320-6926	Jason.Schaefer@pse.com
John Reid	Network Implementation Program Manager, Lumen	253-458-6572	John.Reid@lumen.com
Other Departments			
Sean Kelly	Director of Operations, Tahoma School District	206-510-2818	SKelly@TahomaSD.US
Bill Hernandez	CFO, Tahoma School District	425-413-3432	bhernand@tahomasd.us
Mark Hoben	Maple Valley Farmers Market	206-604-5691	info@maplevalleyfarmersmarket.com

APPENDIX E

SUBCONTRACTOR IDENTIFICATION LIST



To Be Submitted with the Bid Proposal

Project Name _____

Failure to list subcontractors with whom the bidder, if awarded the contract, will directly subcontract for performance of the work of structural steel installation, rebar installation, heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical, as described in Chapter 19.28 RCW or naming more than one subcontractor to perform the same work will result in your bid being non-responsive and therefore void.

Subcontractor(s) with whom the bidder will directly subcontract that are proposed to perform the work of structural steel installation, rebar installation, heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical as described in Chapter 19.28 RCW must be listed below. The work to be performed is to be listed below the subcontractor(s) name.

If RCW 39.30.060 requires a proof of license, the license number of that Subcontractor is required. To the extent the Project includes one or more categories of work referenced in RCW 39.30.060, and no subcontractor is listed below to perform such work, the bidder certifies that the work will either (i) be performed by the bidder itself, or (ii) be performed by a lower tier subcontractor who will not contract directly with the bidder.

Subcontractor Name
(and License Number if required) _____

Work to be performed

Subcontractor Name
(and License Number if required) _____

Work to be performed

Subcontractor Name
(and License Number if required) _____

Work to be performed

Subcontractor Name
(and License Number if required) _____

Work to be performed

Subcontractor Name
(and License Number if required) _____

Work to be performed

* Bidder's are notified that it is the opinion of the enforcement agency that PVC or metal conduit, junction boxes, etc, are considered electrical equipment and therefore considered part of electrical work, even if the installation is for future use and no wiring or electrical current is connected during the project.



FA # _____ LOCAL AGENCY _____

PROJECT NAME _____

BIDDER: _____

Bidders must list on this Subcontractor Form any Subcontractor(s) with whom the bidder will directly subcontract that are proposed to perform the work of structural steel installation, rebar installation, heating, ventilation and air conditioning, plumbing, as described in Chapter 18.106 RCW, and electrical, as described in Chapter 19.28 RCW or indicate when the Prime Contractor chooses to self-perform any of the work described herein.

Failure to list subcontractors with whom the bidder, if awarded the contract, will directly subcontract for performance of the work or naming more than one contractor to perform the same work will result in your bid being non-responsive.

Bidders are notified that it is the opinion of the contracting agency that PVC or metal conduit, junction boxes, etc, are considered electrical work. **For Federal Aid Projects, bidders are not required to submit proof of license at the time of bid.**

Trade	You must select one box for each trade.
Heating, Ventilation & Air Conditioning (HVAC)	☐ Name of Sub: _____ ☐ N/A (this project does not include this work) ☐ Bidder will self-perform this work
Plumbing	☐ Name of Sub: _____ ☐ N/A (this project does not include this work) ☐ Bidder will self-perform this work
Electrical	☐ Name of Sub: _____ ☐ N/A (this project does not include this work) ☐ Bidder will self-perform this work
Structural Steel Installation	☐ Name of Sub: _____ ☐ N/A (this project does not include this work) ☐ Bidder will self-perform this work
Rebar Installation	☐ Name of Sub: _____ ☐ N/A (this project does not include this work) ☐ Bidder will self-perform this work

APPENDIX F

GEOTECHNICAL REPORT

Geotechnical Design Report

T-57 SR 169 Pedestrian Bridge
Maple Valley, Washington

for

City of Maple Valley c/o V+M Structural Design, Inc.

June 19, 2026

17425 NE Union Hill Road, Suite 250
Redmond, Washington 98052
425.861.6000



Geotechnical Design Report

T-57 SR 169 Pedestrian Bridge Maple Valley, Washington

File No. 8388-010-00
June 19, 2026

Prepared for:

City of Maple Valley
c/o V+M Structural Design, Inc.
2212 Queen Anne Avenue North, #530
Seattle, Washington 98109

Attention: Schaun Valdovinos, PE, P.Eng and Chelene Wong, PE, P.Eng

Prepared by:

GeoEngineers, Inc.
17425 NE Union Hill Road, Suite 250
Redmond, Washington 98052
425.861.6000



Michael A. Gray, PE
Associate Geotechnical Engineer



Debra C. Overbay, PE
Geotechnical Associate

MAG:DCO:lm:ijm

Disclaimer: Any electronic form, facsimile, or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.



Table of Contents

1.0 Introduction	1
2.0 Purpose and Scope	1
3.0 Project Description.....	2
4.0 Field Explorations and Laboratory Testing	2
4.1 Field Explorations.....	2
4.2 Laboratory Testing	2
5.0 Previous Site Evaluations	3
6.0 Surface Conditions.....	3
7.0 Subsurface Conditions	3
7.1 Geology.....	3
7.2 Subsurface Soils	3
7.3 Groundwater Conditions.....	4
8.0 Conclusions and Recommendations	5
8.1 Earthquake Engineering.....	5
8.1.1 Regional Seismicity	5
8.1.2 Ground Motion Parameters	6
8.1.3 Liquefaction Potential	9
8.1.4 Other Seismic Hazards.....	9
8.2 Bridge Foundations.....	9
8.2.1 Drilled Shafts	10
8.2.2 Lateral Capacity.....	11
8.2.3 Construction Considerations	12
8.3 Earthwork and Ramp embankments.....	13
8.3.1 Temporary Slopes.....	13
8.3.2 Structural Fill.....	13
8.4 Abutment and Stair Walls.....	15
8.4.1 Lateral Earth Pressures	15
8.4.2 Allowable Bearing.....	15
8.4.3 Drainage.....	16
8.5 Construction Vibrations and Pre-Construction Surveys of Adjacent Structures.....	16
8.6 Infiltration Testing and Design Rates	16
8.7 Erosion and Sedimentation Control.....	17
8.8 Recommended Additional Geotechnical Services	17
9.0 Limitations.....	18
10.0 References.....	18

List of Figures

Figure 1. Vicinity Map

Figure 2. Site Plan

Figures 3 through 5. Drilled Shaft Axial Resistance Plots

Figures 6 through 8. Drilled Shaft Lateral Resistance Output Plots

Appendices

Appendix A. Field Explorations

Figures A-1 – Key to Exploration Logs

Figures A-2 and A-5 – Log of Borings

Figures A-6 and A-7 – Logs of Infiltration Test Pits

Figures A-8 and A-9 – Infiltration Testing

Appendix B. Laboratory Testing

Figures B-1 through B-4 – Sieve Analysis Results

Appendix C. Boring Logs From Previous Studies

Appendix D. Laboratory Testing From Previous Studies

Appendix E. Report Limitations and Guidelines for Use

1.0 Introduction

This report presents the results of our geotechnical engineering services in support of final design of the T-57 SR 169 Pedestrian Bridge project located in Maple Valley, Washington. The location of the project site is shown on the Vicinity Map, Figure 1.

Our services were completed in general accordance with the professional services subconsultant agreement dated July 31, 2024, between V+M Structural Design, Inc. and GeoEngineers, Inc. (GeoEngineers), executed on August 27, 2024, and Supplement #2 for Phase 3A 90% design services, executed on November 5, 2025.

In addition to geotechnical design services, GeoEngineers is also providing environmental permitting support as summarized in separate reports.

2.0 Purpose and Scope

The purpose of our geotechnical final design services is to complete supplemental explorations for the selected bridge alignment and final engineering analyses incorporating the findings of supplemental borings and PITs (pilot infiltration tests). Our scope of final design services includes the following:

- Coordinate with the design team to develop the exploration plan, including site access constraints, permit applications, traffic control, and utility locates.
- Complete two supplemental borings near the northern bridge foundations to characterize subsurface soil and groundwater conditions.
- Complete geotechnical laboratory tests on selected soil samples obtained from the explorations.
- Complete two small-scale Pilot Infiltration Tests PITs to support the design of potential shallow infiltration facilities.
- Provide final design recommendations and analyses for the following:
 - Options and design recommendations for retaining walls for bridge abutment and ramp fills, including conventional concrete walls and other wall types, as appropriate;
 - Recommendations for shallow foundations, where appropriate;
 - Complete analyses to evaluate the axial and lateral capacities and develop design recommendations for drilled shafts supporting the proposed bridge structure;
 - Recommendations for seismic design in accordance with the 2024 American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Bridge Design Specifications, 10th Edition (AASHTO 2024). Evaluate the potential for liquefaction and lateral spreading of site soils and provide estimates of liquefaction-induced settlement;
 - Recommendations for site preparation, structural fill, and hardscape, as appropriate;
 - Site drainage recommendations, including design infiltration rates for the proposed facilities;
 - Erosion control considerations; and
 - Comment on construction considerations for the project.
- Prepare a draft and final geotechnical design report.

- Provide review and respond to geotechnical questions during final design.

3.0 Project Description

The T-57 SR 169 Pedestrian Bridge will consist of a non-motorized bridge conforming to AASHTO Shared-Use Path Guidelines, spanning SR 169 in Maple Valley, Washington. The bridge will provide an elevated connection between Red Rock Elementary School to the east and Maple Valley Farmers Market and New Gnome Trail to the west. The proposed bridge alignment and site features are shown in the Site Plan, Figure 2.

The concept for the bridge includes:

- Fill approach embankments, roughly 60 to 80 feet in length and up to about 6 feet in height, that run parallel to SR 169. Vegetated 2H:1V (horizontal to vertical) fill slopes are planned for the ramp approaches. A recreational climbing wall, slides, and play area are planned for a portion of the west approach adjacent to the Farmers Market.
- The ramps transition to the bridge abutment and an elevated deck and switchback structure that parallels the approach ramp back to the crossing.
- Stairways are planned at the northern ends of the structure.
- Concrete columns will be supported on drilled shafts for the approach deck and steel arched main span.
- Proposed infiltration facilities are planned beneath the approach decks on both sides of SR 169.

4.0 Field Explorations and Laboratory Testing

4.1 FIELD EXPLORATIONS

Subsurface conditions at the site were evaluated by drilling two borings (GEI-1 and GEI-2) during the preliminary phase and two additional borings (GEI-3 and GEI-4) during the current design phase. Total boring depth ranges from approximately 60½ and 80½ feet below existing site grades. The approximate locations of the explorations are shown in Figure 2. Descriptions of the field exploration program and the boring logs are presented in Appendix A, Field Explorations.

4.2 LABORATORY TESTING

Soil samples were obtained during drilling and were taken to GeoEngineers' laboratory for further evaluation. Selected samples were tested for the determination of moisture content, fines content (material passing the U.S. No. 200 sieve), grain-size distribution (sieve analyses), cation exchange, and organic content. A description of the laboratory testing and the test results are presented in Appendix B, Laboratory Testing, and on the exploration logs in Appendix A.

5.0 Previous Site Evaluations

We reviewed the logs of several explorations from a previous site evaluation in the project vicinity. The logs of selected explorations from previous projects that are located within the extents of the project site plan are presented in Appendix C. The approximate locations of these explorations are shown on Figure 2.

We also reviewed laboratory testing completed from a previous site evaluation in the project vicinity. The previous laboratory testing is presented in Appendix D.

6.0 Surface Conditions

The bridge alignment parallels and crosses SR 169 (Maple Valley Black Diamond Road SE) near the 257th block. The Maple Valley farmers market is located on the west side of SR 169 and the Tahoma School District and Rock Creek Elementary are located on the east. Site grades are relatively flat and vary between approximate Elevations 564 and 570 feet, per North American Vertical Datum of 1988 (NAVD88), which is consistent with elevations referenced throughout this report. Recent site grading has been completed as part of the SR 169 road widening project that may affect some of the elevations in this report.

7.0 Subsurface Conditions

7.1 GEOLOGY

Geologic maps of the site and vicinity (Booth 2007, Schuster 2015, Mullineax 1965) identify near surface soils as recessional outwash and stratified drift. The recessional outwash deposits consist primarily of stratified sand and gravel and are subdivided into three stages of deposition. Outwash near the site is mapped as the oldest of the deposits, Stage 1, deposited when the ice margin had retreated from its maximum position but still occupied most of the Maple Valley quadrangle. This deposit may be underlain by glacial till or advance outwash. Glacial till is a dense to very dense mixture of silt, clay, sand, and gravel, is generally impermeable and acts as an aquitard. Vashon advance outwash is a dense to very dense mixture of sand and gravel with some silt. This material was deposited by, and subsequently over-ridden by, the advancing glacial ice sheet and is also mapped in nearby higher elevations.

Geologic descriptions are consistent with conditions encountered in our recent borings. We encountered dense to very dense gravelly outwash overlying hard/very dense interlayered silt and silty sand and gravel (interpreted as glacial till). Details of subsurface conditions encountered in the field explorations are described below.

7.2 SUBSURFACE SOILS

GeoEngineers' understanding of subsurface conditions is based on completion of four borings, two test pits for completion of PITs, and review of existing geotechnical information for the site and nearby vicinity. The soils encountered at the site consists of relatively shallow fill overlying interlayered gravel and sand outwash with variable silt content. The approximate locations of the explorations completed for this study, as well as previous explorations, are shown on Figure 2. We interpret the fill and geologic units to consist of:

- **Fill** was encountered within the upper 1 to 8 feet of the current borings, consisting of fine to coarse gravel with silt and sand (fill derived from outwash). The fill was deeper within the road Right-of-way where past grading and utility excavations have occurred.
- **Recessional Outwash** was encountered below the fill consisting of dense interlayered gravel and sand with variable silt. Based on the geologic mapping, this layer is the oldest recessional outwash layer of three stages. Due to the gravel content and the sampler size, the blow counts are likely overstated.
- **Glacial Till** or stratified drift generally underlies the outwash. We interpret the top of this layer to be roughly 50 to 75 feet below the existing ground surface in our borings and to consist primarily of very dense silty sand with variable gravel content.

7.3 GROUNDWATER CONDITIONS

Groundwater was observed at similar depths/elevations in borings GEI-1 and GEI-2 at the time of drilling. Monitoring wells were installed in GEI-3 and GEI-4 to measure long-term groundwater conditions. The approximate groundwater elevations observed at time of drilling and measured within the monitoring wells are summarized in Table 1.

TABLE 1. GROUNDWATER OBSERVATIONS

BORING ID	APPROXIMATE GROUND SURFACE ELEVATION (FEET)	APPROXIMATE TOP OF CASING ELEVATION (FEET)	DATE AND APPROXIMATE GROUNDWATER DEPTH/ELEVATION (FEET) ³			
			03/17/25	03/18/25	12/19/25	03/10/26
GEI-1 ¹	567	-	15/552	-	-	-
GEI-2 ¹	568	-	-	15/553	-	-
GEI-3 ²	567	566.53	-	-	10.95/555.58	12.49/554.04
GEI-4 ²	565	564.51	-	-	9.40/555.11	11.75/552.76

Notes:

¹ Boring only, groundwater observation during drilling

² Monitoring Well, measured groundwater

³ Reported as approximate NAVD88 Elevations from site contours, groundwater measurements taken to 0.01 foot. Can be updated following monument survey.

Groundwater was not encountered during drilling of the previous borings B-8 and B-9 by PBS Engineering and Environmental, Inc. (PBS). These borings were terminated at 12 to 14 feet due to refusal (advanced using hollow-stem auger). Groundwater level measurements can be inaccurate when measured at the time of drilling due to the limited time the hole is left open and the influence of drilling techniques. Groundwater below the site likely varies seasonally and from year to year depending on precipitation, snow melt, and other forms of natural and artificial groundwater recharge.

8.0 Conclusions and Recommendations

A summary of the primary geotechnical considerations for the project is provided below. The summary is presented for introductory purposes only and should be used in conjunction with the complete recommendations presented in this report.

- Based on the SPT data in our borings and our interpretation of the overstated blow counts due to gravel content, we recommend seismic Site Class CD and D per the AASHTO LRFD Bridge Design Specifications (AASHTO 2024). Based on the conditions encountered in site borings and the results of our analyses, subsurface soils at the site have low potential for liquefaction.
- We understand the current bridge alternative will include fill embankment approaches transitioning to the bridge abutment and an elevated deck and switchback structure that parallels the approach ramps back to the crossing. 12 individual piers will support the bridge and abutments.
- Based on the subsurface soil conditions encountered and the estimated bridge loads, large diameter drilled shaft foundations will provide suitable support for the bridge. Shaft diameters, pier designations, and recommended axial resistance and lateral capacities are provided in a subsequent section.
- Concrete panel walls with welded wire tie-backs and conventional concrete walls are planned to support the abutment walls and stair approach walls, respectively. Vegetated slopes are planned to support portions of the approach fill ramps. We recommend the fill embankments be constructed of Gravel Borrow as discussed below. Retaining walls should be embedded a sufficient depth and founded on suitable native bearing soils or on compacted structural fill.
- Imported structural fill will be required to construct the approach ramps. We recommend Washington State Department of Transportation (WSDOT) Standard Specification 9-03.14(4) Gravel Borrow for Structural Earth Wall be utilized for construction of the tie-back abutment walls. Gravel Borrow Specification 9-03.14(1) should be used in other embankment areas. Additional detailed recommendations for subgrade preparation, drainage material, and structural fill placement are provided in a subsequent section.
- Stormwater infiltration is proposed between the piers in the north project area. Two small-scale PITs were completed in accordance with the 2021 King County Surface Water Design Manual (KCSWDM) adopted by City of Maple Valley. The results of the tests indicate high infiltration rates such that the maximum allowed by KCSWDM of 20 inches per hour is appropriate for design.
- Effective erosion and sedimentation control measures must be implemented during construction so that potential impacts to adjacent areas are reduced. The erosion and sedimentation control measures used for this project should be in accordance with the requirements of the City of Maple Valley.

8.1 EARTHQUAKE ENGINEERING

8.1.1 Regional Seismicity

The Puget Sound region is located at the convergent continental boundary known as the Cascadia Subduction Zone (CSZ), which extends from mid-Vancouver Island to Northern California. The CSZ is the zone where the westward advancing North American Plate is overriding the subducting Juan de Fuca Plate. The interaction of these two plates results in three potential seismic source zones: (1) a shallow crustal source zone; (2) the Benioff source zone; and (3) the CSZ interplate source zone.

The shallow crustal source zone is used to characterize shallow crustal earthquake activity within the North American Plate at depths ranging from 3 to 19 miles below ground surface. The Seattle Fault Zone is considered a shallow crustal source zone. The site is located about 8 miles south of the southernmost strand of the east-west trending Seattle Fault Zone. The most recent major earthquake on the Seattle Fault Zone is estimated to have occurred about 1,100 years ago.

The Benioff source zone is used to characterize intraplate, intraslab or deep subcrustal earthquakes. Benioff source zone earthquakes occur within the subducting Juan de Fuca Plate at depths between 20 and 40 miles. In recent years, three large Benioff source zone earthquakes occurred that resulted in some liquefaction in loose alluvial deposits and significant damage to some structures. The first earthquake, which was centered in the Olympia area, occurred in 1949 and had a Richter magnitude of 7.1. The second earthquake, which was centered between Seattle and Tacoma, occurred in 1965 and had a Richter magnitude of 6.5. The third earthquake, which was located in the Nisqually Valley north of Olympia, occurred in 2001 and had a Richter magnitude of 6.8.

The CSZ interplate source zone is used to characterize rupture of the convergent boundary between the subducting Juan de Fuca Plate and the overriding North American Plate. The depth of CSZ earthquakes is greater than 40 miles. No earthquakes on the CSZ have been instrumentally recorded; however, through the geologic record and historical records of tsunamis in Japan, it is believed that the most recent CSZ event occurred in 1700.

8.1.2 Ground Motion Parameters

We understand seismic design of the bridge will be completed using the design criteria presented in the AASHTO LRFD Bridge Design Specifications (AASHTO 2024). The document references the United States Geological Survey (USGS) 2018 Seismic Hazard Model for determining the peak ground (bedrock) acceleration (PGA) and spectral acceleration coefficients for design. The acceleration coefficients for design are based on a limit state of incipient collapse at a targeted risk of approximately 1.5 percent over 75 years.

We estimated the period-dependent site class based on the average shear wave velocities, v_s , derived from standard penetration test (SPT) blow count correlations from the current borings completed at the site. When the site class is estimated using correlation models, Section 3.10.3.1 of AASHTO 2024 requires the site class to be derived using v_s , $v_s/1.3$, and $1.3v_s$. If the different average velocities result in different site classes, the most critical of the site classes for ground motion analysis at each period will be used to create the envelope for the spectrum. The results of our evaluation indicate Site Classes CD and D. Tables 2 and 3 present the multi-period design response spectrum. Two seismic hazard levels were evaluated as defined in the 2025 WSDOT Bridge Design Manual, the Safety Evaluation Earthquake (SEE) and the Functional Evaluation Earthquake (FEE). The AASHTO web service tool provides the design spectrum for the SEE, representing a targeted risk of incipient collapse of approximately 1.5 percent in 75 years. The FEE hazard level corresponds to a uniform hazard ground motion based on a 30 percent probability of exceedance in 75 years (210-year return period).

TABLE 2. DESIGN SPECTRUM FOR SAFETY EVALUATION EARTHQUAKE (SEE)^{1,2}

PERIOD, T (SECONDS)	SPECTRAL ACCELERATION, SA (g)		
	SITE CLASS CD	SITE CLASS D	ENVELOPE
0	0.473	0.479	0.479
0.01	0.474	0.481	0.481
0.02	0.484	0.490	0.490
0.03	0.514	0.508	0.514
0.05	0.600	0.568	0.600
0.075	0.768	0.712	0.768
0.1	0.948	0.878	0.948
0.15	1.117	1.045	1.117
0.2	1.168	1.129	1.168
0.25	1.120	1.131	1.131
0.3	1.067	1.141	1.141
0.4	0.928	1.087	1.087
0.5	0.797	0.971	0.971
0.75	0.589	0.729	0.729
1	0.458	0.571	0.571
1.5	0.302	0.386	0.386
2	0.221	0.287	0.287
3	0.139	0.182	0.182
4	0.099	0.130	0.130
5	0.076	0.099	0.099
7.5	0.047	0.060	0.060
10	0.036	0.045	0.045

Notes:

1. Safety Evaluation Earthquake (SEE), targeted risk of incipient collapse of approximately 1.5 percent in 75 years
2. Data obtained from the USGS Risk-Targeted Ground Motion Toolbox, Latitude 47.37079, Longitude -122.02306

TABLE 3. UNIFORM HAZARD-BASED SEISMIC PARAMETERS AT FEE HAZARD LEVEL

PERIOD, T (SECONDS)	SPECTRAL ACCELERATION, S_a (g)		
	SITE CLASS CD	SITE CLASS D	ENVELOPE
0	0.226	0.238	0.238
0.01	0.227	0.239	0.239
0.02	0.232	0.244	0.244
0.03	0.245	0.252	0.252
0.05	0.288	0.285	0.288
0.075	0.365	0.354	0.365
0.1	0.452	0.441	0.452
0.15	0.531	0.527	0.531
0.2	0.555	0.572	0.572
0.25	0.526	0.568	0.568
0.3	0.493	0.562	0.562
0.4	0.420	0.518	0.518
0.5	0.352	0.454	0.454
0.75	0.250	0.326	0.326
1	0.187	0.241	0.241
1.5	0.115	0.150	0.150
2	0.080	0.104	0.104
3	0.046	0.059	0.059
4	0.030	0.039	0.039
5	0.021	0.026	0.026
7.5	0.010	0.013	0.013
10	0.007	0.008	0.008

Notes:

1. Functional Evaluation Earthquake (FEE), uniform hazard ground motion based on a 30 percent probability of exceedance in 75 years (210-year return period)
2. Data obtained from the USGS Static Hazard Curve Toolbox, Latitude 47.37079, Longitude -122.02306

AASHTO 2024 defines S_{D1} as 90 percent of the maximum value of the product of T and S_a , but not less than 100 percent of the value of S_a at 1 second. S_{D1} and PGA_M are presented in Table 4.

TABLE 4. AASHTO 2024 SEISMIC DESIGN PARAMETERS

PARAMETER	SEISMIC HAZARD EVALUATION LEVEL	
	SEE	FEE
S_{D1}	0.571	0.241
PGA_M	0.479	0.238

8.1.3 Liquefaction Potential

Liquefaction refers to the condition by which vibration or shaking of the ground, usually from earthquake forces, results in the development of excess pore pressures in saturated soils with subsequent loss of strength in the deposit of soil. In general, soils that are susceptible to liquefaction include very loose to medium dense clean to silty sands and some silts that are below the water table.

The evaluation of liquefaction potential is a complex procedure and is dependent on numerous site parameters, including soil grain size, soil density, site geometry, static stress, and the design ground acceleration. Typically, the liquefaction potential of a site is evaluated by comparing the cyclic stress ratio (CSR), which is the ratio of the cyclic shear stress induced by an earthquake to the initial effective overburden stress, to the cyclic resistance ratio (CRR), which is the soils resistance to liquefaction. We evaluated the liquefaction triggering potential (Youd et al. 2001; Idriss and Boulanger 2014) and liquefaction-induced settlement (Tokimatsu and Seed 1987; Ishihara and Yoshimine 1992; Idriss and Boulanger 2014) for soil conditions in the borings completed at the site. Based on the conditions encountered in site borings and results of the above analyses methods, soils that underlie the site have low potential for liquefaction.

8.1.4 Other Seismic Hazards

Lateral spreading involves lateral displacement of large surficial blocks of soil as the underlying soil layer liquefies. Lateral spreading can occur on near-level ground as blocks of surface soils are displaced relative to adjacent blocks. Lateral spreading also occurs as blocks of surface soils are displaced toward a nearby slope or free-face by movement of the underlying liquefied soil. Due to the topography in the immediate site vicinity and low liquefaction potential, it is our opinion that the risk of lateral spreading occurring at the site is low.

The closest mapped faults in the vicinity are traces of the Seattle Fault Zone located more than 8 miles to the northwest as defined by the Washington Department of Natural Resources and USGS. Based on the available data and distance to known faults, the risk of adverse impacts resulting from seismically induced differential settlement or surface displacement due to faulting is low.

8.2 BRIDGE FOUNDATIONS

Based on the subsurface soil conditions encountered and anticipated bridge loads, large-diameter drilled shaft foundations will provide suitable support for the bridge. 12 individual piers will be supported on variable diameter drilled shafts. Pier designations are shown in Figure 2 and shaft diameters are listed in Table 5. We understand each shaft will be installed with partial depth permanent casing extending to a depth of 15 feet.

TABLE 5. PIER DESIGNATION AND SHAFT DIAMETER

PIER	SHAFT DIAMETER (FEET)
AD1	3.94
P02	4.92
P03	4.92
P04	4.92
P05	4.92
P06	7.22
P07	7.22
P08	4.92
P09	4.92
P10	4.92
P11	4.92
A12	3.94

8.2.1 Drilled Shafts

8.2.1.1 AXIAL CAPACITY

We evaluated axial shaft capacity using the methods presented in the AASHTO LRFD Bridge Design Specifications (AASHTO 2024). Due to the consistency of soil information observed in the borings, we developed a simplified soil profile for use with each drilled shaft. The shaft diameters as described above for the various piers were included for analyzing axial capacities. The compressive and uplift axial shaft capacities for Service, Strength, and Extreme Limit loading states are provided in Figures 3 through 5. The capacity values presented in this report assume partial depth permanent steel casing will be installed in each shaft per coordination with the structural engineer. The capacity charts do not include a reduction for non-redundant shafts. Appropriate reductions should be made for those shafts, as appropriate.

Based on the liquefaction analyses completed for the project, the soil present at the site is not estimated to be potentially liquefiable, therefore, downdrag loads do not need to be considered in design. Axial reduction factors for group effects should be considered if multiple shafts are spaced closer than three shaft diameters on center (which is not anticipated at this time).

The resistance factors assumed for design are summarized in Figures 3 through 5 as well as in Table 6 below.

TABLE 6. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS DRILLED SHAFT RESISTANCE FACTORS

SOIL TYPE	STRENGTH			EXTREME		SERVICE
	SIDE	UPLIFT	END	COMPRESSION	UPLIFT	
Sand	0.55	0.45	0.50	1	0.8	1

8.2.2 Lateral Capacity

Lateral capacities of single drilled shafts were estimated using the computer software program LPILE produced by Ensoft, Inc. Soil parameters were developed based on subsurface conditions in the borings. LPILE input parameters used in the analyses are summarized in Table 7.

TABLE 7. LPILE SOIL PARAMETERS

SOIL ID	MODEL TYPE	DEPTH RANGE (FEET)	EFFECTIVE UNIT WEIGHT (PCF)	FRICTION ANGLE (DEG.)	K (PCI)	UNDRAINED COHESION (PSF)	STRAIN FACTOR E_{50}
Medium Dense Gravel	Sand (Reese)	0 - 5	125 (Above GWT)	34	100	-	-
Dense Outwash	Sand (Reese)	5 - 9	130 (Above GWT)	38	200	-	-
Dense Outwash	Sand (Reese)	>9	67 (Below GWT)	38	120	-	-

Note:

pcf = pounds per cubic foot; deg = degrees; psf = pounds per square foot

Using this soil profile, we ran three cases for each drilled shaft diameter. We recommend that appropriate corrosion rates for the permanent steel casing be considered in design. Per the 2025 WSDOT Bridge Design Manual, a corrosion rate of 0.0015 inches per year is appropriate for Non-Marine, Non-Corrosive soils at the site.

The cases included variable loading and structural properties (including structural reinforcing information) provided by the structural engineer. Figures 6 through 8 show results for specified displacement, moment, and shear for the 3.94, 4.92, and 7.22-foot diameter drilled shafts, respectively. The loading and structural properties assumed for design are summarized on the figures.

Piles spaced five pile diameters apart or closer (as measured center-to-center), will experience group effects that will result in a lower lateral load capacity for trailing rows of piles with respect to leading rows of piles for an equivalent deflection/direction. We recommend that the soil lateral load capacity, as calculated using LPILE, for piles in a pile group spaced five pile diameters apart, or less, be reduced in accordance with the factors in Table 8.

TABLE 8. SHAFT P-MULTIPLIERS, P_m , FOR MULTIPLE ROW SHADING

SHAFT SPACING ¹ (IN TERMS OF SHAFT DIAMETER)	P-MULTIPLIERS, P_m ^{2, 3}		
	ROW 1 (LEADING ROW)	ROW 2 (1ST TRAILING ROW)	ROW 3 AND HIGHER (2ND TRAILING ROW)
3D	0.8	0.4	0.3
5D	1.0	0.85	0.7

Notes:

¹The P-multipliers in the table above are a function of the center-to-center spacing of shafts in the group in the direction of loading expressed in multiples of the shaft diameter, D.

²The values of P_m were developed for vertical shafts only per AASHTO LRFD Bridge Design Specifications (AASHTO 2024) Table 10.7.2.4-1.

³The P-multipliers are dependent on the shaft spacing and the row number in the direction of the loading to establish values of P_m for other shaft spacing values, interpolation between values should be conducted.

Based on the pier layout, we do not anticipate that P-Multiplier reductions will be necessary for the project. If spacing is revised to be 5D, or closer, GeoEngineers can provide revised LPILE analyses that include appropriate P-Multipliers.

Additional lateral resistance can be provided from passive soil pressure against the foundation cap using an equivalent fluid density of 300 pounds per cubic foot (pcf). This value assumes soil adjacent to the foundation consists of structural fill compacted to a minimum of 95 percent of the maximum dry density (MDD) per ASTM D-1557 or dense native soils. This value also includes a factor of safety of 1.5 and assumes a minimum lateral deflection of 1 inch to fully develop the passive resistance. Deflections that are less than 1 inch will not fully mobilize the passive resistance in the soil.

8.2.3 Construction Considerations

Based on our understanding of the bridge demand loading, drilled shafts will likely extend to depths of up to 60 feet below existing site grades. The drilled shafts will extend well below the observed static groundwater elevations.

Based on the anticipated shaft depths, location of the static groundwater elevations, and the tendency for the outwash gravels to ravel, we recommend the shafts be installed using temporary casing that extends to the bottom of the shaft. We understand partial-depth permanent casing will be incorporated in design. We also recommend the shafts be excavated using oscillator or rotator methods. This technology incorporates high torque casing oscillators and rotators to advance heavy wall steel casing into the ground concurrent with the excavation with minimal vibration or ground loss.

Drilled shafts should be excavated with equipment that reduces the amount of loose cuttings or slough at the bottom of the drilled hole. Slough and loose cuttings should be removed from the hole prior to placing shaft concrete. We recommend the drilled shafts be constructed using the tremie method for concrete placement. Non-destructive testing of shafts using Cross-Hole Sonic Logging (CSL) and/or Thermal Integrity Profiling (TIP) is recommended for all drilled shafts completed for the project.

Some of the borings encountered zones of granular soils containing cobbles. Although not encountered in the borings, boulders could also be encountered within the soil profile. The contractor should be prepared to advance the drilled shafts through and/or remove cobbles, boulders, and debris (if encountered) during

drilled shaft construction. The contractor should also be prepared to address heaving conditions in the finer-grained sand deposits while advancing the drilled shaft holes.

8.3 EARTHWORK AND RAMP EMBANKMENTS

Earthwork for the project will include construction of the approach embankments, backfill against the abutment retaining wall and stair support walls, excavation and backfill to construct the post seismic column base shoring, and excavation and construction of the infiltration facilities. The approach embankments will be roughly 60 to 80 feet in length and up to about 6 feet in height. Embankment slopes will be vegetated and inclined at 2H:1V (horizontal to vertical).

8.3.1 Temporary Slopes

Relatively shallow excavations are anticipated for the project (up to about 5 feet). We recommend temporary slopes in the upper medium dense gravel deposits be inclined at 1H:1V or flatter. Flatter cut slopes may be necessary depending on control of groundwater seepage and potential raveling of the gravel slopes. In addition, we recommend the following procedures for open cuts at the site:

- No traffic, construction equipment or supplies should be allowed at the top of cut slopes for a distance of at least 10 feet from the top of the cut.
- Exposed soil along temporary cut slopes should be protected from surface erosion using waterproof tarps or visqueen, when appropriate.
- Construction should be scheduled so that the length of time the temporary cut is left open is minimized.
- Erosion control measures should be constructed as appropriate to reduce runoff from the site.
- Surface water flow should be diverted away from all excavations.
- The general condition of the temporary cut slopes should be observed periodically by the geotechnical engineer to identify potential problems.

If temporary cut slopes experience excessive sloughing or raveling during construction, it may become necessary to modify the cut slopes to maintain safe working conditions and protect adjacent facilities or structures. Slopes experiencing excessive sloughing or raveling can be flattened, supported with shoring, or additional dewatering can be provided if the poor slope performance is related to groundwater seepage.

8.3.2 Structural Fill

Structural fill soils should be free of organic matter, debris, man-made contaminants and other deleterious materials with no individual particles larger than 4 inches in greatest dimension. Particles sizes larger than 3 inches should be excluded from the top 1 foot of fill.

The suitability of soil for use as structural fill depends on its gradation and moisture content and the location where it will be placed. As the percentage of fines (particles passing the No. 200 sieve) increases, soil becomes increasingly more sensitive to changes in moisture content and adequate compaction becomes more difficult to achieve, particularly during wet weather or on wet subgrades and trenches. Generally, soils containing more than 5 percent fines cannot be properly compacted when the moisture content is more than a few percent above optimum. If placement is done during wet weather, the fines content of fill soils should generally be limited to less than 5 percent by weight relative to the fraction passing the ¾-inch sieve.

We recommend specifying materials using the 2026 Washington State Department of Transportation (WSDOT) Standard Specifications, as recommended below.

8.3.2.1 FILL CRITERIA

Recommended structural fill criteria varies depending upon its use as described below:

- Structural fill placed to construct the approach embankments, below pavement areas, and to backfill below-grade structures should consist of Gravel Borrow, WSDOT Standard Specification 9-03.14(1), with the additional restriction that the fines content be limited to no more than 5 percent for placement in wet weather or on wet surfaces. For placement in extended dry weather conditions, the fines content may be somewhat higher provided the exposed subgrade on which the fill will be placed is moist, not wet, and generally firm.
- Structural fill placed within the reinforced zone of the abutment backfill should consist of Gravel Borrow for Structural Earth Wall, WSDOT Standard Specification 9-03.14(4).
- Backfill for drainage behind walls should consist of Gravel Backfill for Walls, Standard Specification 9-02.12(2).

8.3.2.2 FILL PLACEMENT AND COMPACTION CRITERIA

Structural fill should be mechanically compacted to the criteria listed below. Structural fill should be placed in horizontal loose lifts not exceeding 12 inches in thickness if using heavy compactors and 6 inches if using hand operated compaction equipment. The actual lift thickness will be dependent on the structural fill material used and the type and size of compaction equipment. Each lift should be conditioned to within 2 percent of the optimum moisture content and compacted to the specified density before placing subsequent lifts.

Structural fill should be compacted to the following criteria:

- Structural fill placed to construct the approach embankments should be compacted to 95 percent of the MDD in accordance with ASTM D-1557. We recommend that the fill slope be overbuilt to achieve the specified compaction and then graded to match the pre-construction grades.
- Structural fill placed below and against below-grade structural elements should be compacted to at least 95 percent of the MDD estimated using the ASTM D 1557 test method.
- Structural fill in new pavement and hardscape areas, including utility trench backfill, should be compacted to at least 90 percent of the MDD, except that the upper 2 feet of fill below final subgrade level should be compacted to at least 95 percent of the MDD.
- Structural fill placed as CSBC below pavements should be compacted to at least 95 percent of the MDD.
- Non-structural fill, such as fill placed in landscaped areas, should be compacted to at least 90 percent of the MDD.

We recommend site preparation and earthwork be observed by a representative from our firm to confirm the procedures comply with our recommendations. An adequate number of in-place moisture and density

tests should be performed during the placement and compaction of structural fill to evaluate whether the specified degree of compaction is being achieved.

8.4 ABUTMENT AND STAIR WALLS

We understand concrete panel walls with welded wire tie-backs will be utilized to retain the abutment fill, and concrete walls will support the upper stair footing and lower landing for stair access. Lateral soil pressures, allowable bearing pressure, and backfill considerations are provided below.

8.4.1 *Lateral Earth Pressures*

For walls that are free to yield at the top at least 0.1 percent of the height of the wall, soil pressures will be less than if movement is limited by such factors as wall stiffness or bracing. Assuming that the walls are backfilled, and drainage is provided as outlined in the following paragraphs, we recommend that yielding walls supporting horizontal backfill be designed using an equivalent fluid density of 35 pcf (triangular distribution) and that non-yielding walls supporting horizontal backfill be designed using an equivalent fluid density of 55 pcf (triangular distribution). For seismic loading conditions, a rectangular earth pressure equal to $9H$ psf, where H is the height of the wall, should be added to the active/at-rest pressures. For lateral earth pressure due to surcharge loads, a rectangular earth pressure equals to $0.2q$, where q is the uniform surcharge pressure on top of wall, should be added to the active/at-rest pressures.

Lateral resistance for conventional cast-in-place walls can be provided by frictional resistance along the base of the wall and passive resistance in front of the wall. For footings and slabs founded on structural fill placed and compacted in accordance with our recommendations, the allowable frictional resistance may be computed using a coefficient of friction of 0.35 applied to vertical dead-load forces. The allowable passive resistance on the face of footings or other embedded foundation elements may be computed using an equivalent fluid density of 300 pcf (triangular distribution) if these elements are cast in direct contact with undisturbed medium dense native soils or structural fill. The above coefficient of friction and passive equivalent fluid density values include a factor of safety of about 1.5.

The above soil pressures assume that wall drains will be installed to prevent the buildup of hydrostatic pressure behind the walls. Positive drainage should be provided behind cast-in-place retaining walls as summarized in the drainage section below.

8.4.2 *Allowable Bearing*

We recommend shallow foundations be supported on a minimum 2-foot thickness of structural fill compacted to a minimum of 95 percent of the MDD in accordance with ASTM D 1557. The existing on-site soils may be suitable for support provided they can be compacted to the minimum criteria. The structural fill zone should form a prism below each footing which extends a minimum distance of 2 feet beyond the edges of the footing. Footings should have a minimum embedment of 18 inches for frost protection.

We recommend that the soils exposed in footing excavations be evaluated by the geotechnical engineer before placement of structural fill to determine that the footing subgrade is acceptable. An allowable bearing pressure of 3,000 pounds per square foot (psf) is appropriate for design of footings founded as described above.

8.4.3 Drainage

Walls that are subjected to potential seepage/hydrostatic pressure should have adequate drainage consisting of a minimum 18-inch thickness of Gravel Backfill for Walls or a suitable drainage mat. The drainage zone or mat should be connected to a perforated drainpipe enveloped with a minimum thickness of 6 inches of Gravel Backfill for Drains (2025 WSDOT Standard Specification 9-03.12[4]). The drainage material should be wrapped with a non-woven moderate survivability geotextile conforming to Table 1 per WSDOT Specification 9-33.2(1) and shall be Class B per Table 2. The drain should be sloped to direct water into the stormwater drainage system or other suitable discharge point.

8.5 CONSTRUCTION VIBRATIONS AND PRE-CONSTRUCTION SURVEYS OF ADJACENT STRUCTURES

We recommend a detailed pre-construction condition damage survey of nearby structures be completed to document pre-existing structural and cosmetic building conditions. This should include photographs, videotaping, and other means to establish existing conditions.

Survey reference points should be established on nearby buildings and surveys should be completed before and during construction to determine if any settlement of the structures has occurred. Vibration monitoring can also be completed during construction to document actual vibrations experienced during the work. Base line vibration measurements should be established prior to any construction or rerouting of traffic to determine what average vibrations and typical traffic patterns may create in the project area.

8.6 INFILTRATION TESTING AND DESIGN RATES

We understand that infiltration facilities are being designed in accordance with the 2021 KCSWDM and 2021 Maple Valley Addendum to the KCSWDM. Small-scale PITs were completed at the two proposed infiltration pond areas as summarized in detail in Appendix A. Very high measured rates were observed during testing as expected within the outwash sand and gravel. Measured infiltration rates from the PITs and design infiltration rates for the proposed facilities incorporating estimated correction factors are summarized in Table 9.

TABLE 9. MEASURED AND RECOMMENDED DESIGN INFILTRATION RATES¹

LOCATION	MEASURED INFILTRATION RATE (INCHES/HOUR)	CORRECTED INFILTRATION RATE (INCHES/HOUR)	RECOMMENDED DESIGN INFILTRATION RATE (INCHES/HOUR)
GEI-PIT-1	109	49	20
GEI-PIT-2	293	132	20

Notes:

¹ Correction factors include 0.5 for F_{testing} (small-scale PIT), 1.0 for F_{geometry} (pond geometry) and 0.9 for F_{plugging} (medium sand/gravel for plugging) for a total correction factor of 0.45. However, KCSWDM recommends a maximum design infiltration rate of 20 inches per hour which governs for this facility.

Based on groundwater level measurements in the adjacent monitoring wells (GEI-3 and GEI-4), we estimate the seasonal high groundwater level at both locations will be at least 5 feet below the bottom of the proposed facilities (which will be approximately 4 feet below existing ground surface). We also understand the facilities will serve less than 1 acre of tributary area. Therefore, groundwater mounding analyses are not required for the proposed infiltration facility sites.

8.7 EROSION AND SEDIMENTATION CONTROL

In our opinion, the erosion potential of the near surface on-site soils is low to moderate.

Construction activities, including stripping and grading, will expose soils to the erosion effects of wind and water. The amount and potential impacts of erosion are partly related to the time of year construction occurs. Wet weather construction will increase the amount and extent of erosion and potential sedimentation.

Potential sources or causes of erosion and sedimentation depend on construction methods, slope length and gradient, amount of soil exposed and/or disturbed, soil type, construction sequencing, and weather. Implementing an erosion and sedimentation control plan will reduce project impacts on erosion-prone areas. The plan should be designed in accordance with applicable City of Maple Valley and other regulatory standards. The plan should incorporate basic principles, including:

- Scheduling grading and construction to reduce soil exposure;
- Retaining existing vegetation whenever feasible;
- Revegetating or mulching denuded areas;
- Directing runoff away from denuded areas;
- Reducing the length and steepness of slopes with exposed soils;
- Decreasing runoff velocities;
- Preparing drainage paths and outlets to handle concentrated or increased runoff;
- Confining sediment to the project site; and
- Inspecting and maintaining control measures frequently and in accordance with the requirements of the City of Maple Valley.

8.8 RECOMMENDED ADDITIONAL GEOTECHNICAL SERVICES

Throughout this report, recommendations are provided where we consider additional geotechnical services to be appropriate. These additional services are summarized below:

- GeoEngineers will review the final project plans and specifications when complete to confirm that our design recommendations have been implemented as intended.
- During construction, GeoEngineers should observe drilled shaft installation, evaluate subgrades, backfill placement and compaction of the ramp and walls, installation of subsurface drainage measures, and provide a summary letter of our construction observation services. We will also provide performance testing of the constructed infiltration facilities as required by KCSWDM. The purposes of GeoEngineers' construction phase services are to confirm that the subsurface conditions are consistent with those observed in the explorations and other reasons described in Appendix E, Report Limitations and Guidelines for Use.

9.0 Limitations

We have prepared this report for the exclusive use of the City of Maple Valley and V+M Structural Design, Inc. and their authorized agents for the T-57 SR 169 Pedestrian Bridge project in Maple Valley, Washington.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of geotechnical engineering in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Please refer to Appendix E for additional information pertaining to use of this report.

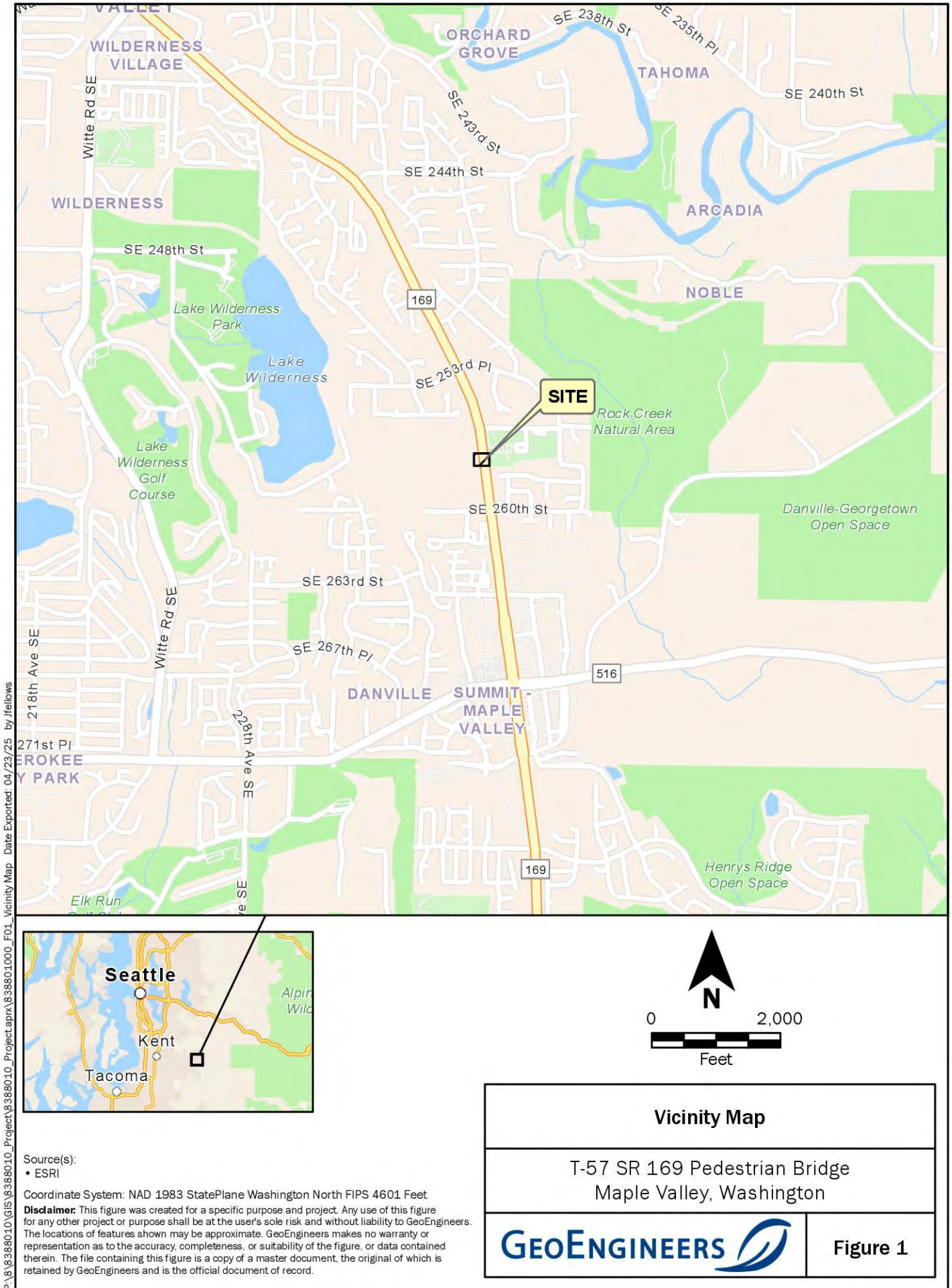
10.0 References

- American Association of State Highway and Transportation Officials, 2024, Load and Resistance Factor Design (LRFD) Bridge Design Specifications, 10th Edition.
- Booth, D. B., Troost, K. A., Wisher, A. P., 2007, "Geologic Map of King County."
- Boulanger, R. W. and Idriss, I. M., 2014. "CPT and SPT Based Liquefaction Triggering Procedures."
- Idriss, I.M. and Boulanger, R.W., 2008. "Soil Liquefaction During Earthworks." Earthquake Engineers Research Institute MNO-12.
- Ishihara, K., and Yoshimine, M., 1992. "Evaluation of Settlements in Sand Deposits Following Liquefaction During Earthquakes," Soils and Foundations, 32(1), pp. 173-188.
- King County, 2021. Surface Water Design Manual.
- City of Maple Valley, 2021, "City of Maple Valley, Surface Water Design Manual Addendum."
- Mullineaux, D. R., 1965. "Geologic Map of the Black Diamond Quadrangle, King County, Washington."
- PBS Engineering and Environmental, Inc., 2023. "Geotechnical Engineering Report, Project #T-45, SR 169 Widening – 4, SE 253rd Place to SE 260th Street, Maple Valley, Washington."
- Schuster, J. E., Cabibbo, A. A., Schilter J. F., Hubert, I. J., 2015, "Geologic Map of the Tacoma 1:100,00-scale Quadrangle, Washington."
- Tokimatsu K., Seed H.B., 1987. "Evaluation of settlements in sands due to earthquake shaking," Journal of Geotechnical Engineering, 1987, vol. 113, pp. 861-878.
- Washington State Department of Transportation, Bridge Design Manual, M 23-50.23, July 2024.
- Washington State Department of Transportation, Geotechnical Design Manual, M 46-03.16, February 2022.

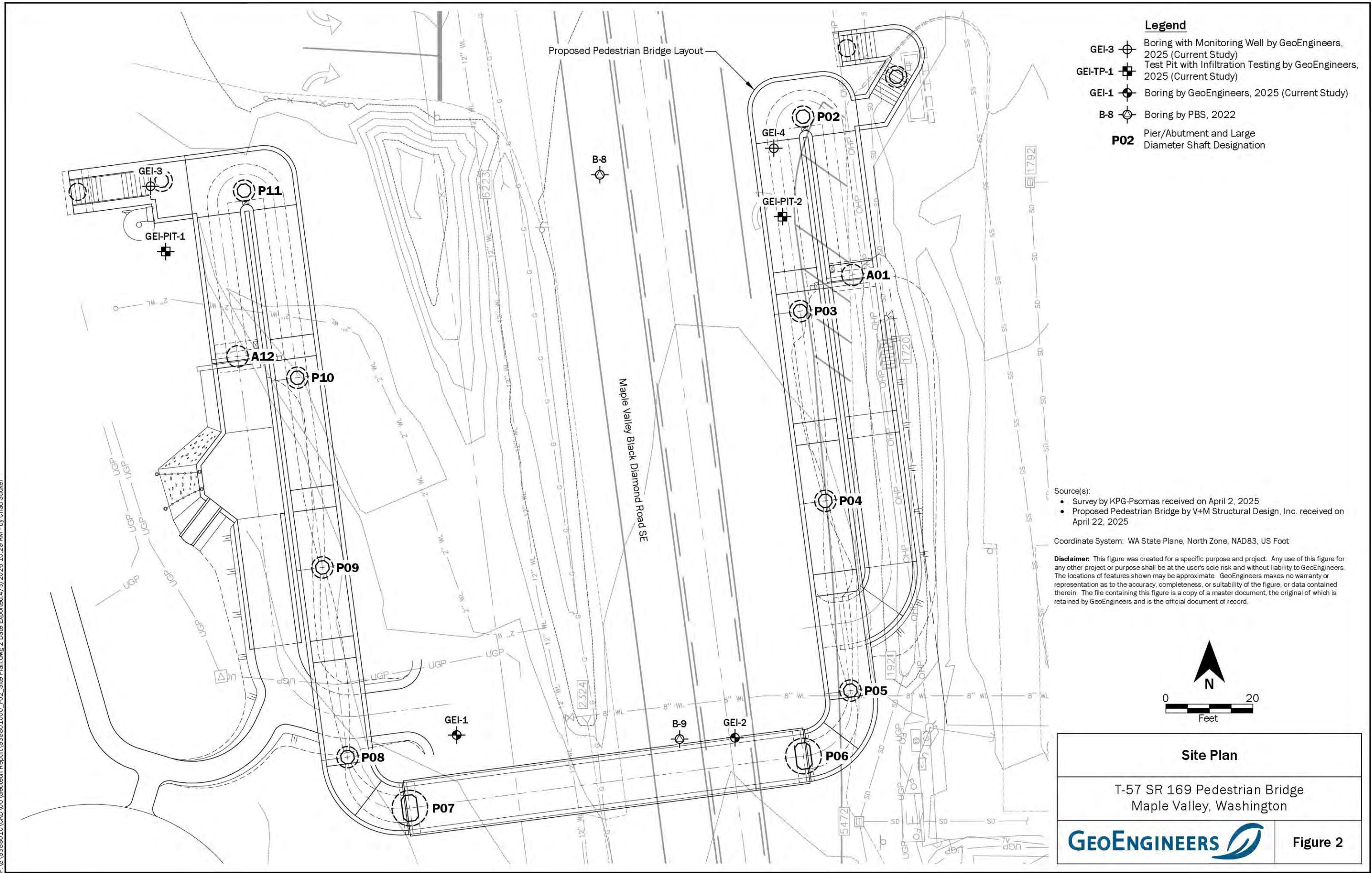
Washington State Department of Transportation, 2025. "Standard Specifications for Road, Bridge and Municipal Construction." M 41-10

Youd, T. L. and Idriss, I. M. 2001. "Liquefaction Resistance of Soils: Summary Report from the 1996 NCEER and 1998 NCEER/NSF Workshops on Evaluation of Liquefaction Resistance of Soils," Journal of Geotechnical and Geoenvironmental Engineering, Vol. 127, No. 4, April 2001, pp. 298-313.

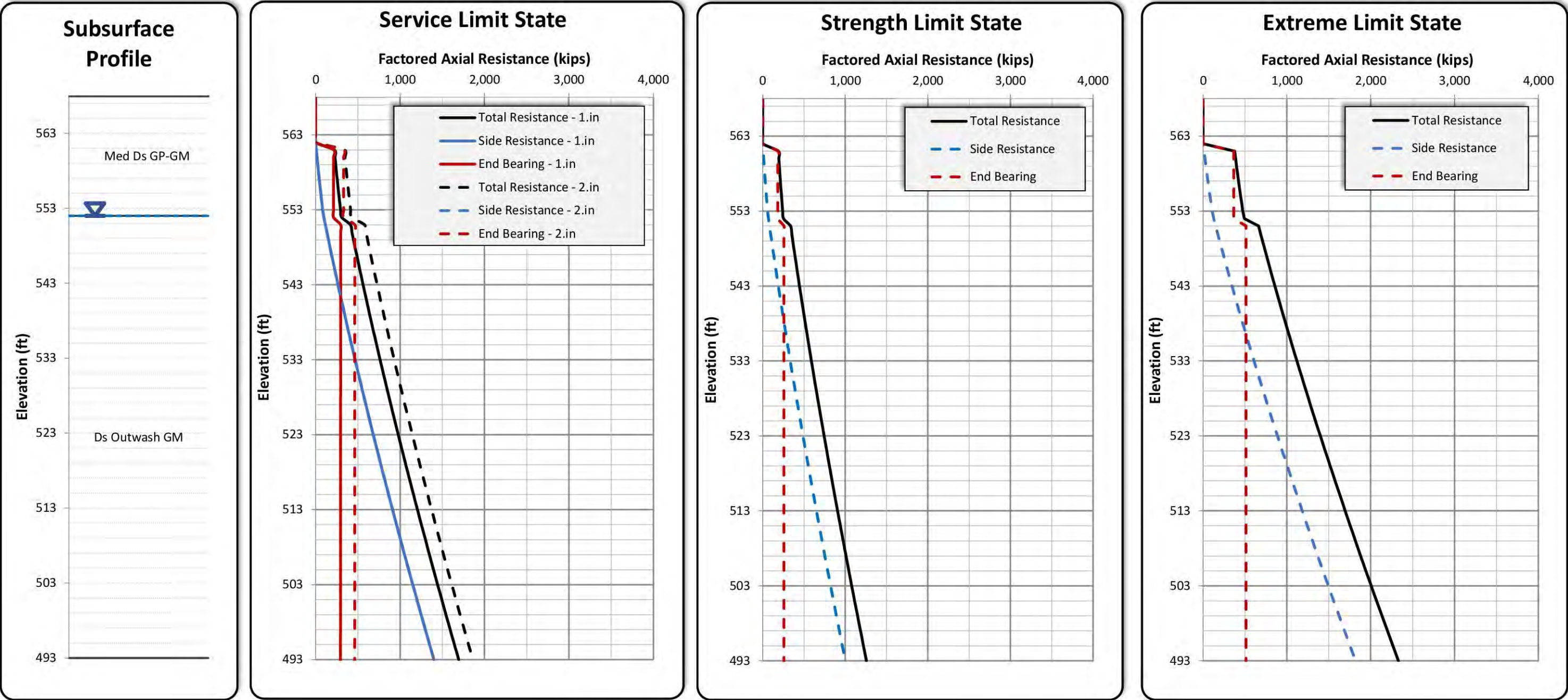
Figures



P:\8388010\CAD\00\Geotech Report\838801000_F02_Site Plan.dwg 2 Date Exported 4/3/2026 10:29 AM - by Chad Stickle



Project Number: 8388-010-00 Date Exported: 06/18/2026

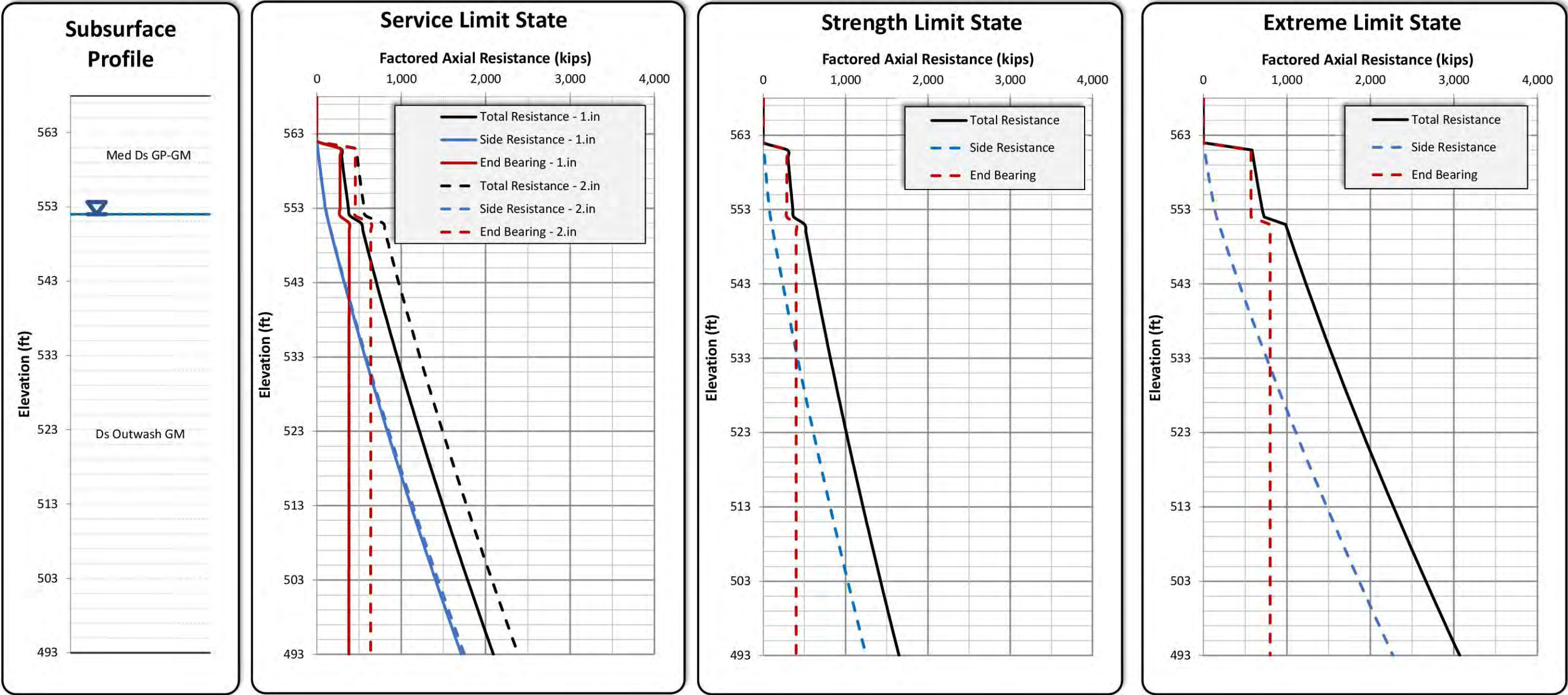


General Notes

1. Axial shaft resistance was developed in accordance with the 2024 AASHTO LRFD Bridge Design Manual (9th Edition) and the 2022 WSDOT Geotechnical Design Manual (GDM).
2. The axial resistances include resistance factors shown on the adjacent table for Strength, Extreme, and Service Limit States. Axial resistances are based on a single non-redundant shaft. A 20% reduction in the Strength Limit State resistance factors was applied to the axial resistances.
3. Unfactored downdrag load for the Extreme Limit State is estimated to be 0 kips. A load factor of 1.0 should be applied with post-earthquake loading conditions in accordance with the 2024 AASHTO LRFD Bridge Design Manual.
4. Axial resistances assume permanent steel casing to a depth of 15 feet of permanent steel casing below the ground surface. The geotechnical engineer should re-evaluate axial shaft resistance if permanent steel casing length or top of shaft elevation changes.

Resistance Factors						
Soil Type	Strength			Extreme		Service
	Side	Uplift	End	Comp.	Uplift	
Sand	0.55	0.45	0.5	1	0.8	1
Clay	0.45	0.35	0.4			
Rock	0.55	0.4	0.5			

3.94-ft Diameter	
AASHTO Drilled Shaft Factored Axial Resistance	
T-57 SR 169 Pedestrian Bridge	
Maple Valley, Washington	
GEOENGINEERS	Figure 3



General Notes

1. Axial shaft resistance was developed in accordance with the 2024 AASHTO LRFD Bridge Design Manual (9th Edition) and the 2022 WSDOT Geotechnical Design Manual (GDM).
2. The axial resistances include resistance factors shown on the adjacent table for Strength, Extreme, and Service Limit States. Axial resistances are based on a single non-redundant shaft. A 20% reduction in the Strength Limit State resistance factors was applied to the axial resistances.
3. Unfactored downdrag load for the Extreme Limit State is estimated to be 0 kips. A load factor of 1.0 should be applied with post-earthquake loading conditions in accordance with the 2024 AASHTO LRFD Bridge Design Manual.
4. Axial resistances assume permanent steel casing to a depth of 15 feet of permanent steel casing below the ground surface. The geotechnical engineer should re-evaluate axial shaft resistance if permanent steel casing length or top of shaft elevation changes.

Resistance Factors						
Soil Type	Strength			Extreme		Service
	Side	Uplift	End	Comp.	Uplift	
Sand	0.55	0.45	0.5	1	0.8	1
Clay	0.45	0.35	0.4			
Rock	0.55	0.4	0.5			

4.92-ft Diameter

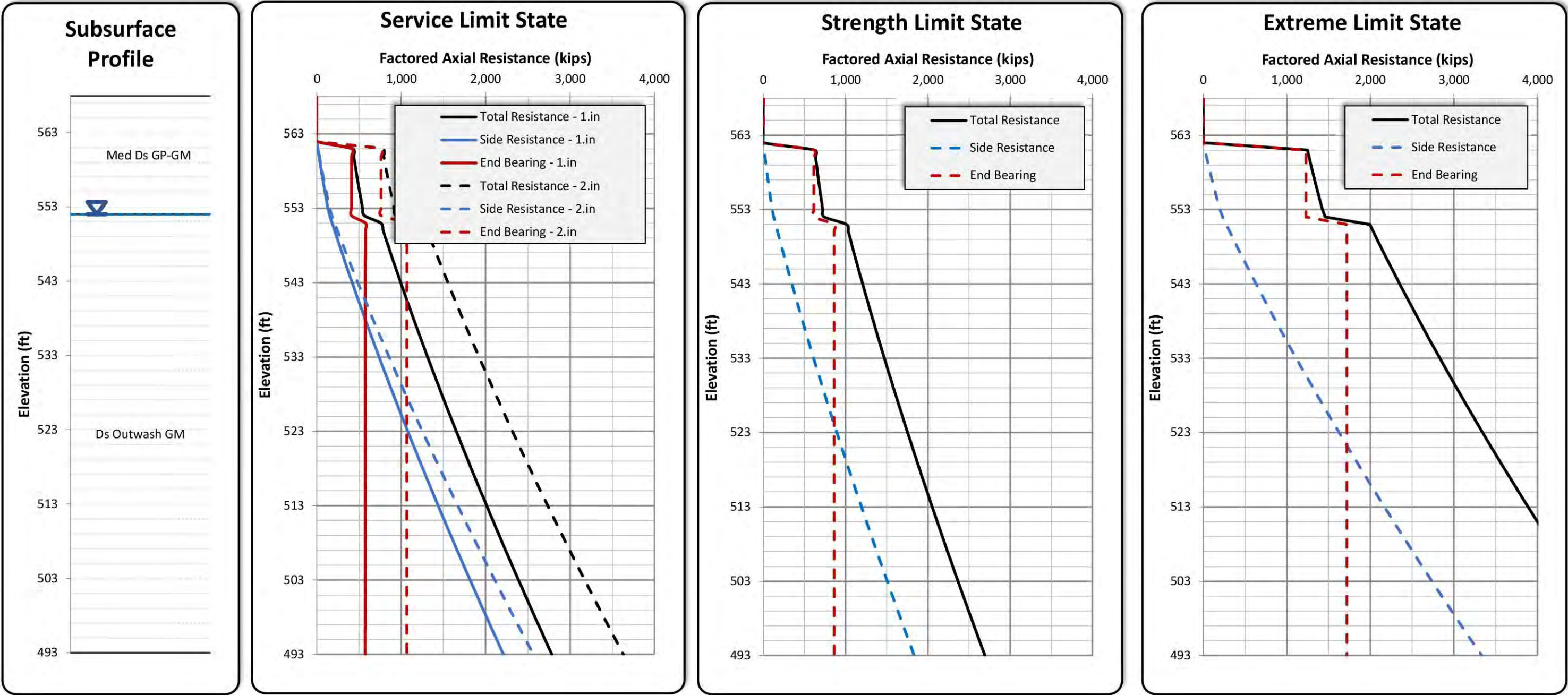
AASHTO Drilled Shaft Factored Axial Resistance

T-57 SR 169 Pedestrian Bridge

Maple Valley, Washington

Figure 4

Project Number: 8388-010-00 Date Exported: 04/02/2026



General Notes

1. Axial shaft resistance was developed in accordance with the 2024 AASHTO LRFD Bridge Design Manual (9th Edition) and the 2022 WSDOT Geotechnical Design Manual (GDM).
2. The axial resistances include resistance factors shown on the adjacent table for Strength, Extreme, and Service Limit States. Axial resistances are based on a single non-redundant shaft. A 20% reduction in the Strength Limit State resistance factors was applied to the axial resistances.
3. Unfactored downdrag load for the Extreme Limit State is estimated to be 0 kips. A load factor of 1.0 should be applied with post-earthquake loading conditions in accordance with the 2024 AASHTO LRFD Bridge Design Manual.
4. Axial resistances assume permanent steel casing to a depth of 15 feet of permanent steel casing below the ground surface. The geotechnical engineer should re-evaluate axial shaft resistance if permanent steel casing length or top of shaft elevation changes.

Soil Type	Resistance Factors					
	Strength			Extreme		Service
	Side	Uplift	End	Comp.	Uplift	
Sand	0.55	0.45	0.5	1	0.8	1
Clay	0.45	0.35	0.4			
Rock	0.55	0.4	0.5			

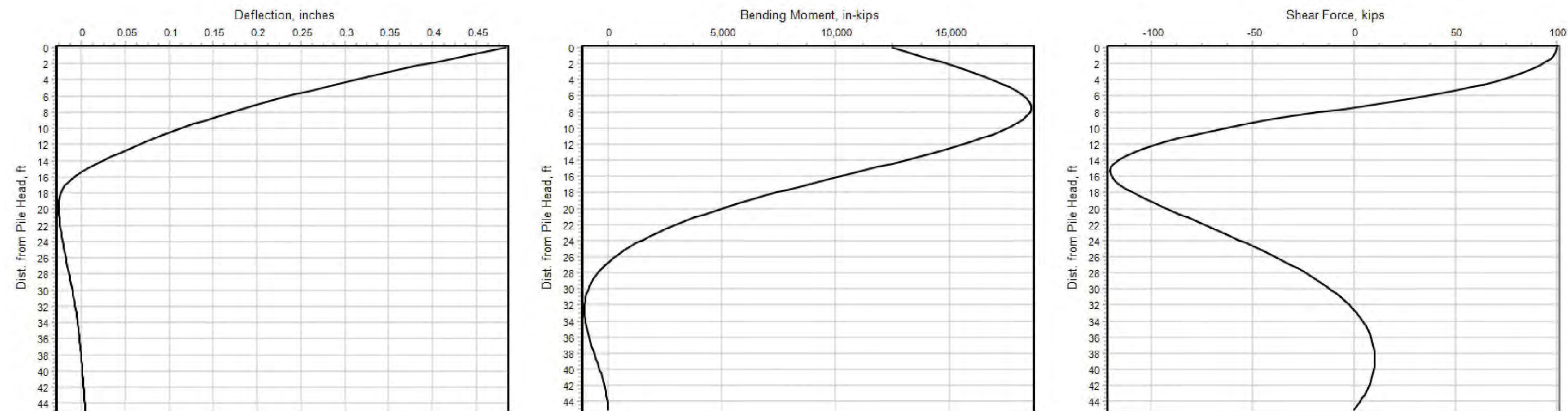
7.22-ft Diameter

AASHTO Drilled Shaft Factored Axial Resistance

T-57 SR 169 Pedestrian Bridge

Maple Valley, Washington

Figure 5



Assumptions

Pile Diameter = 47.25"
Pile Length = 45'
Head = Specify Shear and Moment
Permanent Casing Length = 15'
Permanent Casing Thickness = 0.625"
Permanent Casing Yield Stress = 36,000 psi
Concrete Compressive Strength = 5,000 psi
Longitudinal Steel Reinforcing = 12 - #11 Bars
Transverse Steel Reinforcing = Spiral, #6, 6" Pitch
Steel Reinforcing Yield Stress = 60,000 psi
Cover = 4"
P Multiplier = None (No Group Effects)

Legend

Load Case 1 (Black)
- Axial Load = 210,000 lbs
- Shear Load = 100,000 lbs
- Moment = 12,500,000 lb-in

Notes:

- Top of shaft elevation assumed to be embedded 2 feet below the ground surface.

Disclaimer: Any electronic form, facsimile, or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

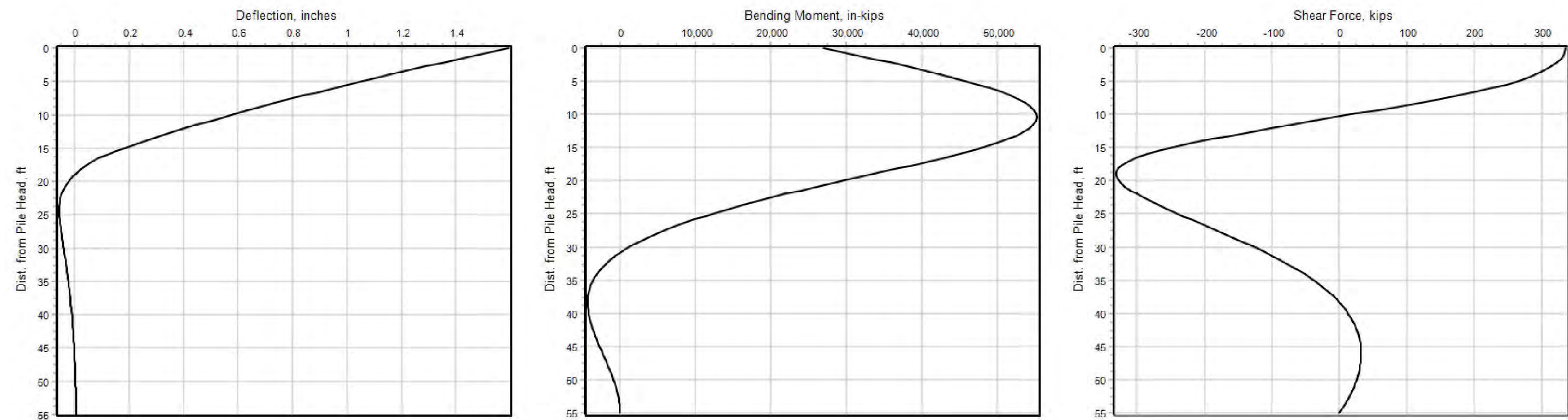
Reference: LPILE v2019.11.02 (Ensoft)

LPILE Output Plots - 3.94 Foot Diameter

T-57 SR 169 Pedestrian Bridge
Maple Valley, Washington



Figure 6



Assumptions

Pile Diameter = 59"
Pile Length = 55'
Head = Specify Shear and Moment
Permanent Casing Length = 15'
Permanent Casing Thickness = 0.625"
Permanent Casing Yield Stress = 36,000 psi
Concrete Compressive Strength = 5,000 psi
Longitudinal Steel Reinforcing = 20 - #11 Bars
Transverse Steel Reinforcing = Spiral, #6, 6" Pitch
Steel Reinforcing Yield Stress = 60,000 psi
Cover = 4"
P Multiplier = None (No Group Effects)

Legend

Load Case 1 (Black)
- Axial Load = 300,000 lbs
- Shear Load = 335,000 lbs
- Moment = 27,000,000 lb-in

Notes:

- Top of shaft elevation assumed to be embedded 2 feet below the ground surface.

Disclaimer: Any electronic form, facsimile, or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

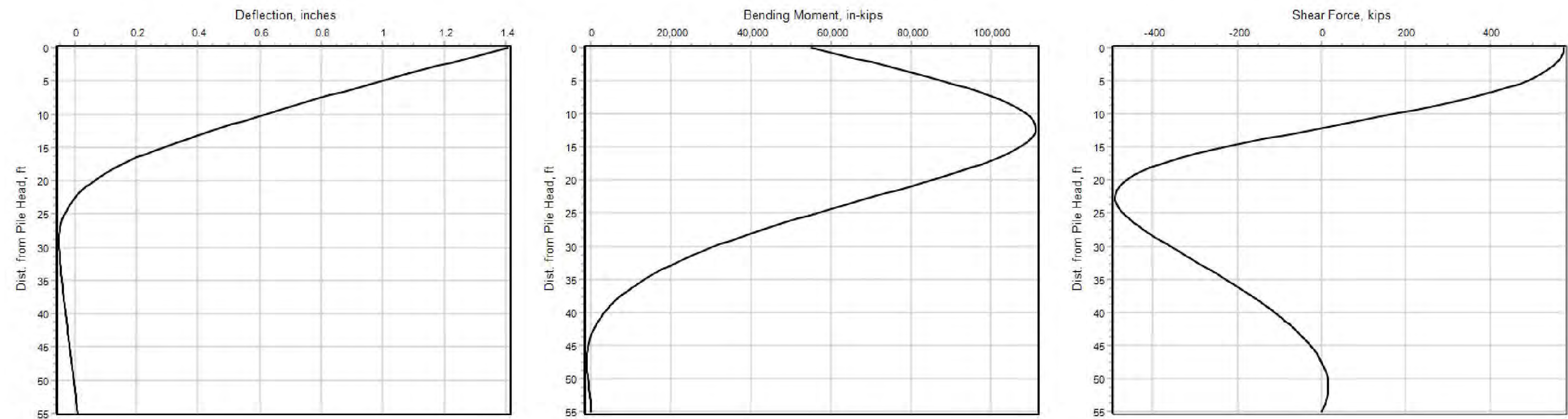
Reference: LPILE v2019.11.02 (Ensoft)

LPILE Output Plots - 4.92 Foot Diameter

T-57 SR 169 Pedestrian Bridge
Maple Valley, Washington



Figure 7



Assumptions

Pile Diameter = 86.64"
Pile Length = 55'
Head = Specify Shear and Moment
Permanent Casing Length = 15'
Permanent Casing Thickness = 0.625"
Permanent Casing Yield Stress = 36,000 psi
Concrete Compressive Strength = 5,000 psi
Longitudinal Steel Reinforcing = 24 - #14 Bars
Transverse Steel Reinforcing = Spiral, #6, 6" Pitch
Steel Reinforcing Yield Stress = 60,000 psi
Cover = 6"
P Multiplier = None (No Group Effects)

Legend

Load Case 1 (Black)
- Axial Load = 300,000 lbs
- Shear Load = 575,000 lbs
- Moment = 55,000,000 lb-in

Notes:

- Top of shaft elevation assumed to be embedded 2 feet below the ground surface.
- Load demands are representative of the Extreme II Collision Load.

Disclaimer: Any electronic form, facsimile, or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Reference: LPILE v2019.11.02 (Ensoft)

LPILE Output Plots – 7.22 Foot Diameter	
T-57 SR 169 Pedestrian Bridge Maple Valley, Washington	
GEOENGINEERS 	Figure 8

Appendices

Appendix A

Field Explorations

Appendix A

Field Explorations

Subsurface soil and groundwater conditions were evaluated by completing two borings (GEI-1 and GEI-2) to depths of approximately 80 and 80½ feet below existing site grades on March 17 and 18, 2025, two supplemental borings (GEI-3 and GEI-4) on December 19, 2025, and two small-scale pilot infiltration test pits (PIT-1 and PIT-2) on December 16 and 17, 2025. The borings were completed by Anderson Environmental Contracting, LLC. and the test pits were excavated by Northwest Excavating & Trucking.

The locations of the explorations were estimated by taping/pacing from existing site features. The approximate exploration locations are shown in Figure 2.

BORINGS

The borings were completed using track-mounted sonic core drilling equipment. The borings were continuously monitored by a geotechnical technician from our firm who examined and classified the soils encountered, obtained representative soil samples, observed groundwater conditions, and prepared a detailed log of each exploration. The test pits were excavated to complete small-scale infiltration testing as summarized in the following section.

In addition to the sonic drilling that was completed full depth, the soils encountered in the borings were also sampled at 2½- and 5-foot vertical intervals with a 2-inch outside diameter split-barrel standard penetration test (SPT) sampler. The disturbed samples were obtained by driving the sampler 18 inches into the soil with a 140-pound hammer free-falling 30 inches. The number of blows required for each 6 inches of penetration were recorded. The blow count ("N-value") of the soil was calculated as the number of blows required for the final 12 inches of penetration. This resistance, or N-value, provides a measure of the relative density of granular soils and the relative consistency of cohesive soils. Where very dense soil conditions precluded driving the full 18 inches, the penetration resistance for the partial penetration was entered on the logs. The blow counts are shown on the boring logs at the respective sample depths.

Soils encountered in the borings were visually classified in general accordance with the classification system described in Figure A-1, Key to Exploration Logs. A key to the boring log symbols is also presented in Figure A-1. The logs of the borings are presented in Figures A-2 through A-5. The boring logs are based on our interpretation of the field and laboratory data and indicate the various types of soils and groundwater conditions encountered. The logs also indicate the depths at which these soils or their characteristics change, although the change may actually be gradual. If the change occurred between samples, it was interpreted. The densities noted on the boring logs are based on the blow count data obtained in the borings and judgment based on the conditions encountered.

Observations of groundwater conditions were made during drilling and are presented on the boring logs. Groundwater conditions observed during drilling represent a short-term condition and may or may not be representative of the long-term groundwater conditions at the site. Monitoring wells were installed in GEI-3 and GEI-4 for long-term groundwater monitoring. A summary of groundwater conditions is provided in the body of the report.

PILOT INFILTRATION TESTING

Two small-scale PITs were conducted in test pits following the general guidance provided in the 2021 King County Surface Water Design Manual (KCSWDM) at the approximate locations shown in Figure 2. Logs of the test pits completed for the testing are included as Figures A-6 and A-7.

For each PIT, a graduated yard stick was driven into the floor of the test pit as a visual reference for monitoring water levels during testing. A piezoelectric pressure transducer was secured to the bottom of the yard stick to provide accurate water level records in 60-second intervals throughout the duration of the tests.

The first phase of a PIT is the “pre-soak phase” in which the test pit is filled and a water depth of at least one foot is maintained for approximately 6 hours or until a stabilized infiltration rate has been achieved. During pre-soak, water is added in a series of successive falling head stages as necessary to keep the water depth in the test pit between approximately 12 and 14 inches with the rate of water level decline in each stage reflecting the apparent infiltration rate. The pre-soak phase is intended to fully saturate the soil below the test pit. Water must be added more frequently to the PITs with higher infiltration rates.

The second phase performed was the “testing phase” in which the water depth in the test pit is kept at a lower approximately constant head (comparable with proposed operational conditions for the planned infiltration facility) and the infiltration rate is measured. Infiltration rates are dependent on the water depth in the pit because the hydraulic head of the water column ‘pushes’ water into the ground. For this reason, the testing phase requires a constant, or near-constant, water depth. Ideally, water is added to the pit at a rate that would maintain the water depth for a period of 1 hour with water inflow volume measurements taken every 15 minutes. During the testing phase, the water level is allowed to decline over a small, approximately 2-inch interval before being refilled. The infiltration rate is calculated by finding the slope of each declining stage over the same small head range.

The third phase performed was the “drain-down phase” in which the PITs are left undisturbed until the water drains away completely. The drain-down period shows how infiltration changes over a continuous range of declining water depths. Graphs of the infiltration testing are presented in Figures A-8 and A-9.

Measured rates during the testing phase, corrected rates using factors recommended by KCSWDM, and recommended design infiltration rates are summarized in the body of the report.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS
				SP	POORLY-GRADED SANDS, GRAVELLY SAND
SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)			SM	SILTY SANDS, SAND - SILT MIXTURES	
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS, ROCK FLOUR, CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS AND SILTS OF MEDIUM TO HIGH PLASTICITY
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: Multiple symbols are used to indicate borderline or dual soil classifications

Sampler Symbol Descriptions

	Modified California Sampler (6-inch sleeve) or Dames & Moore
	Standard Penetration Test (SPT)
	Shelby tube
	Piston
	Direct-Push
	Bulk or grab
	Continuous Coring

Blowcount is recorded for driven samplers as the number of blows required to advance sampler 12 inches (or distance noted). See exploration log for hammer weight and drop.

"P" indicates sampler pushed using the weight of the drill rig.

"WOH" indicates sampler pushed using the weight of the hammer.

NOTE: The reader must refer to the discussion in the report text and the logs of explorations for a proper understanding of subsurface conditions. Descriptions on the logs apply only at the specific exploration locations and at the time the explorations were made; they are not warranted to be representative of subsurface conditions at other locations or times.

ADDITIONAL MATERIAL SYMBOLS

SYMBOLS		TYPICAL DESCRIPTIONS
GRAPH	LETTER	
	AC	Asphalt Concrete
	CC	Cement Concrete
	CR	Crushed Rock/Quarry Spalls
	SOD	Sod/Forest Duff
	TS	Topsoil

Groundwater Contact



Measured groundwater level in exploration, well, or piezometer



Measured free product in well or piezometer

Graphic Log Contact



Distinct contact between soil strata



Approximate contact between soil strata

Material Description Contact



Contact between geologic units



Contact between soil of the same geologic unit

Laboratory / Field Tests

%F	Percent fines
%G	Percent gravel
AL	Atterberg limits
CA	Chemical analysis
CP	Laboratory compaction test
CS	Consolidation test
DD	Dry density
DS	Direct shear
EI	Expansion index
HA	Hydrometer analysis
MC	Moisture content
MD	Moisture content and dry density
Mohs	Mohs hardness scale
OC	Organic content
PM	Permeability or hydraulic conductivity
PI	Plasticity index
PL	Point load test
PP	Pocket penetrometer
SA	Sieve analysis
TX	Triaxial compression
UC	Unconfined compression
UU	Unconsolidated undrained triaxial compression
VS	Vane shear

Sheen Classification

NS	No Visible Sheen
SS	Slight Sheen
MS	Moderate Sheen
HS	Heavy Sheen

Key to Exploration Logs



Figure A-1

Start Drilled 3/17/2025	End 3/17/2025	Total Depth (ft) 80	Logged By Checked By SSO MAG	Driller Anderson Environmental Contracting, LLC	Drilling Method Sonic
Surface Elevation (ft) Vertical Datum	567 NAVD88	Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Terrasonic D107
Latitude Longitude	47.37079 -122.02295	System Datum	WA State Plane North NAD83 (feet)	See "Remarks" section for groundwater observed	
Notes:					

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Interval Depth (feet)	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
565	0				1		CR	Crushed gravel at ground surface			
							GW-GM	Gravel with Silt and Sand (GW-GM), dark brown, moist; fine to coarse gravel; organics. [Fill]			
							GW-GM	Gravel with Silt and Sand (GW-GM), medium dense, brown, moist; fine to coarse gravel. [Recessional Outwash]			
560	6	19			2						
	11	29			3A 3B SA				4	6	
	11	34			4		SM	Silty Sand with Gravel (SM), dense, brown, moist; fine to coarse sand.			
	13	27			5A 5B		GP-GM	Gravel with Silt and Sand (GP-GM), medium dense, brown, wet; fine to coarse gravel.			
555											
	2	50/2"			6		SM	Silty Sand with Gravel (SM), very dense, gray, moist; fine to coarse sand.			Groundwater encountered at a depth of approximately 15 feet during drilling
550											
	0	50/0"			7A SA		GM	Silty Gravel with Sand (GM), very dense, brown, moist; fine to coarse gravel.	5	20	Heave observed during drilling Blow counts may be overstated due to gravel content
545											
	5	50/5"			8						
540											
30											

Note: See Figure A-1 for explanation of symbols.

Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

Log of Boring GEI-1



Project: T-57 SR 169 Pedestrian Bridge
Project Location: Maple Valley, Washington
Project Number: 8388-010-00

Figure A-2
Sheet 1 of 3

Date: 4/2/26 Path: P:\8388\8010\GINT\8388-010-00.GPJ DELIBRARY\Library\GEOENGINEERS_DF_5TD_US_JUNE_2017\GLB\GEBR_GEO TECH_STANDARD_36F_NO_GW

Date: 4/2/26 Path: P:\8388\8010\GINT\838801000.GPJ DELIBRARY\Library\GEOTECH\STANDARD_MF_NO_SW

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
30		5	50/5"		9A				13	25	
33.5											
35		4	50/4"		10						
33.0											
40		5	50/5"		11						
32.5											
45		5	50/5"		12						
32.0											
50		5	50/5"		13			Grades to with sand and cobbles.			
31.5											
55		5	50/5"		14						
31.0											
60		3	50/5"		15						
30.5											
65		4	50/5"		16A		SM	Silty Sand with Gravel (SM), very dense, light brown.			

Log of Boring GEI-1 (continued)



Project: T-57 SR 169 Pedestrian Bridge
 Project Location: Maple Valley, Washington
 Project Number: 8388-010-00

Figure A-2
 Sheet 2 of 3

Date: 4/2/26 Path: P:\8388\8010\GINT\8388\01000.GPJ DELIBRARY\Library\GEOTECH\STANDARD_361_INQ.GW

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
500								moist, fine to coarse sand. [Glacial Till]			
					16B		ML	Silt with Sand (ML), hard, brown, moist.			
70		11	50/5"		17A		SM	Silty Sand (SM), very dense, brown, moist, fine sand.			
495					17B		GM	Silty Gravel (GM), very dense, brown, moist, fine to coarse gravel.			
75		2	50/2"		18A		SPSM	Gravelly Sand with Silt (SP-SM), very dense, brown, moist.			
490					18B		SM	Silty Sand with Gravel and Cobbles (SM), very dense, brown, moist, fine to coarse sand.			
80		0	50/0"		19		GP-GM	Gravel with Silt and Sand (GP-GM), very dense, gray, moist, fine to coarse gravel.			

Log of Boring GEI-1 (continued)



Project: T-57 SR 169 Pedestrian Bridge
 Project Location: Maple Valley, Washington
 Project Number: 8388-010-00

Figure A-2
 Sheet 3 of 3

Start Drilled	3/18/2025	End 3/18/2025	Total Depth (ft)	80.5	Logged By Checked By	SSO MAG	Driller	Anderson Environmental Contracting, LLC	Drilling Method	Sonic
Surface Elevation (ft) Vertical Datum	568 NAVD88				Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop			Drilling Equipment	Terrasonic D107
Latitude Longitude	47.37079 -122.02321				System Datum	WA State Plane North NAD83 (feet)			See "Remarks" section for groundwater observed	
Notes:										

Elevation (feet)	FIELD DATA					Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Interval Depth (feet)	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing						
568	0				1		GP-GM	Gravel with Silt and Sand (GP-GM), medium dense to dense, gray, moist; fine to coarse gravel. [Fill]			
565	4	35			2						
560	10	25			3						
	5										
	5	50/5"			4A		SM	Sand with Silt and Gravel (SM), very dense, gray, moist. [Recessional Outwash]			
					4B SA		SP	Sand with Gravel (SP), very dense, gray, moist; medium to coarse sand; trace silt.	6	3	
	10	62/8"			5		SM	Silty Sand (SM), very dense, gray, moist; fine to coarse sand.			
555							SM	Silty Sand with Gravel and Cobbles (SM), very dense, gray, moist; fine to coarse sand.			
	15	50/4"			6		GM	Silty Gravel with Sand (GM), very dense, brown, wet; fine to coarse gravel.			Groundwater encountered at a depth of approximately 15 feet during drilling
550											Hard drilling
	20	50/3"			7A		SM	Silty Sand with Gravel and Cobbles (SM), very dense, gray, moist; fine to coarse sand.			
545											
							SP	Sand with Silt (SP), very dense, gray, moist; 3-inch lens of fine to medium sand; trace silt.			
	25	50/3"			8 SA		SM	Sand with Gravel (SM), very dense, gray, moist; fine to medium sand.	8	25	
540											
30											

Note: See Figure A-1 for explanation of symbols.

Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

Log of Boring GEI-2



Project: T-57 SR 169 Pedestrian Bridge
Project Location: Maple Valley, Washington
Project Number: 8388-010-00

Figure A-3
Sheet 1 of 3

Elevation (feet)	FIELD DATA					Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
	Depth (feet)	Interval Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					
30		4	50/3"		9					
33										
35		5	50/5"		10	GM	Silty Gravel with Sand (GM), very dense, light brown, moist; fine gravel. [Glacial Till]			Blow counts may be overstated due to gravel content
38										
40		16	59/11"		11 SA			11	25	
43										
45		4	50/4"		12					
48										
50		5	50/5"		13					
53										
55		0	50/1"		14					
58										
60					15		Encountered large cobble and boulder.			No SPT taken due to boulder; sample taken from sonic core
63										
65		1	50/1"		16					

Log of Boring GEI-2 (continued)



Project: T-57 SR 169 Pedestrian Bridge
 Project Location: Maple Valley, Washington
 Project Number: 8388-010-00

Figure A-3
 Sheet 2 of 3

Date: 4/2/26 Path: P:\8388\8010\GINT\838801000.GPJ DELIBRARY\Library\GEOENGINEERS_DF STD_US_JUNE_2017\GLB\GER_GEO TECH_STANDARD_36".indd 5W

Date: 4/22/26 Path: P:\8388\8010\GINT\8388\01000.GPJ DELIBRARY\Library\GEOTECH\STANDARD_MF_NO_SW

Elevation (feet)	Depth (feet)	FIELD DATA				Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Interval	Recovered (in)	Blows/foot	Collected Sample	Sample Name Testing					
500											
70		5	50/5"			17 SA			9	27	
495											
75		5	50/5"			18A	ML	Silt with Gravel (ML), hard, brown, moist; trace sand. [Glacial Till]			
						18B					
490							GM	Silty Gravel with Sand (GM), very dense, brown, moist; fine to coarse gravel.			
80		5	50/5"			19	SM	Silty Sand with Gravel (SM), very dense, brown, wet; fine to coarse sand.			

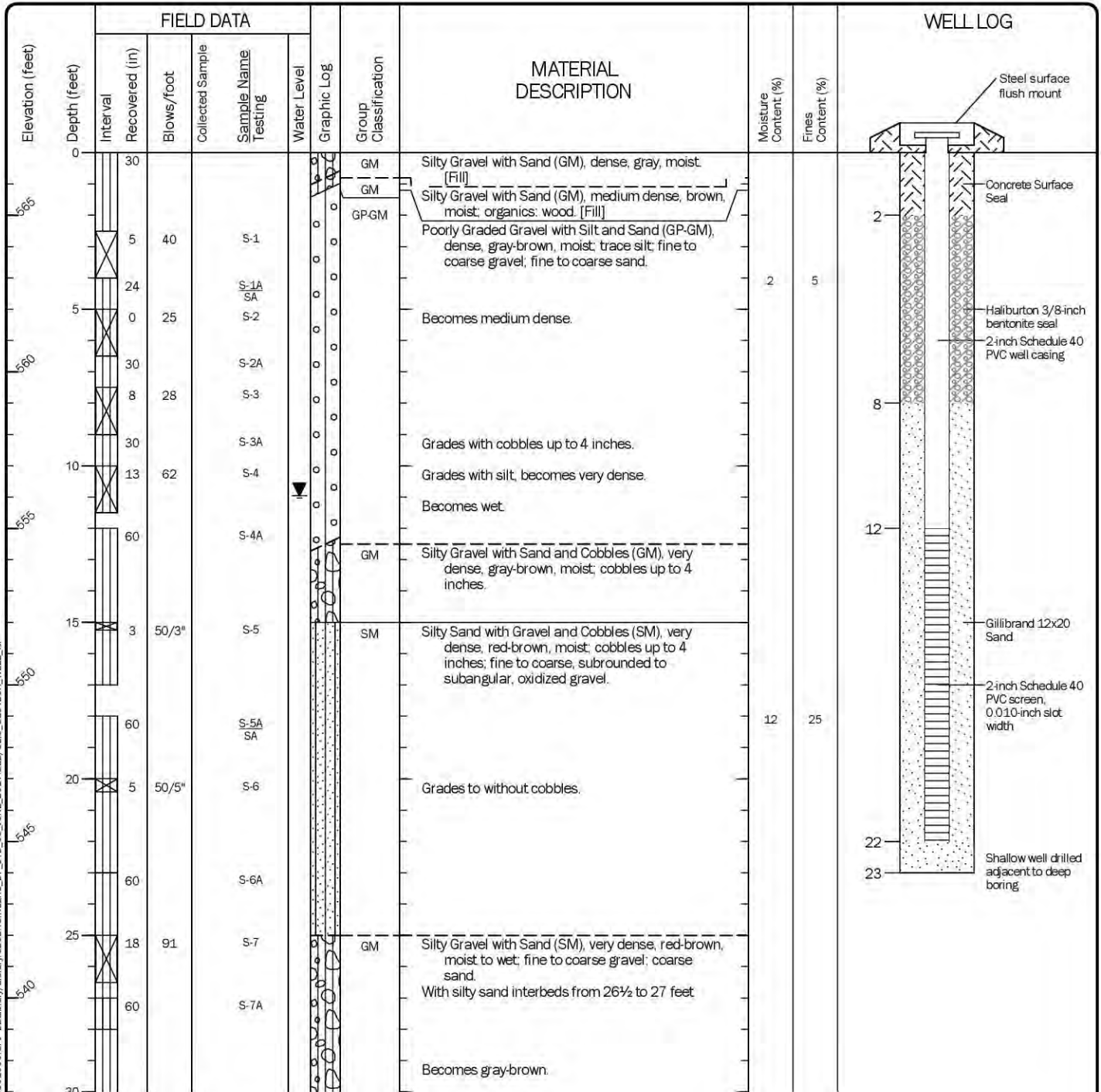
Log of Boring GEI-2 (continued)



Project: T-57 SR 169 Pedestrian Bridge
 Project Location: Maple Valley, Washington
 Project Number: 8388-010-00

Figure A-3
 Sheet 3 of 3

Start Drilled 12/19/2025	End 12/19/2025	Total Depth (ft) 60.25	Logged By Checked By	Driller	Drilling Method Sonic
Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment Terrasonic 150cc		DOE Well I.D.: BRR 512 A 2-in well was installed on 12/19/2025 to a depth of 23 ft.	
Surface Elevation (ft) Vertical Datum	567 NAVD88	Top of Casing Elevation (ft) 566.53		Groundwater Date Measured 12/19/2025	
Latitude Longitude	47.371136 -122.023504	Horizontal Datum WA State Plane North NAD83 (feet)		Depth to Water (ft) 10.95	Elevation (ft) 555.58
Notes:					



Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

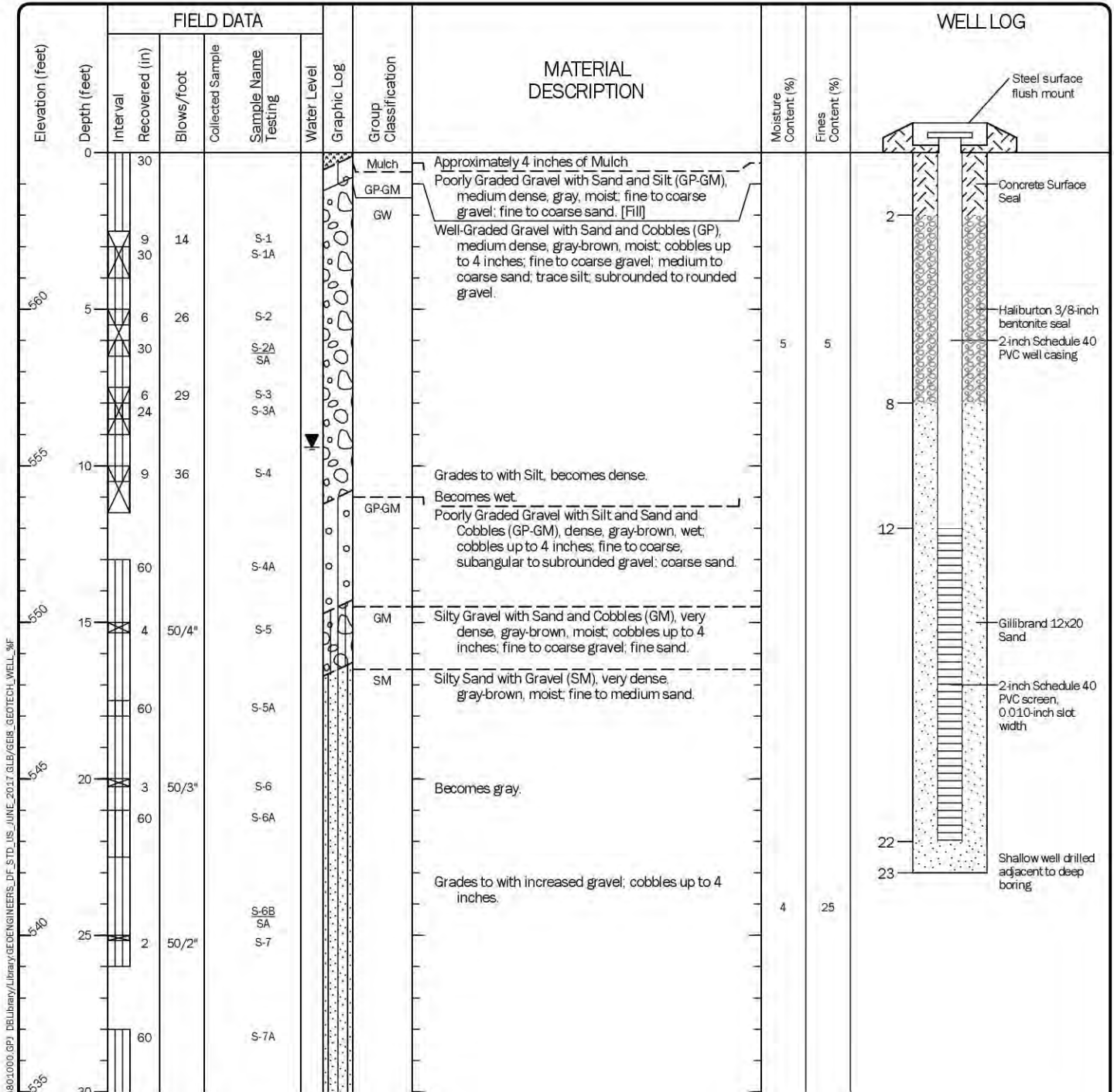
Log of Monitoring Well GEI-3



Project: T-57 SR 169 Pedestrian Bridge
Project Location: Maple Valley, Washington
Project Number: 8388-010-00

Figure A-4
Sheet 1 of 2

Start Drilled 12/19/2025	End 12/19/2025	Total Depth (ft) 60.25	Logged By Checked By	Driller	Drilling Method Sonic
Hammer Data	Autohammer 140 (lbs) / 30 (in) Drop	Drilling Equipment	Terrasonic 150cc		DOE Well I.D.: BRR 513 A 2-in well was installed on 12/18/2025 to a depth of 23 ft.
Surface Elevation (ft) Vertical Datum	565 NAVD88	Top of Casing Elevation (ft)	564.51		Groundwater Date Measured
Latitude Longitude	47.371166 -122.022926	Horizontal Datum	WA State Plane North NAD83 (feet)		Depth to Water (ft) Elevation (ft)
				12/19/2025	9.40 555.11
Notes:					



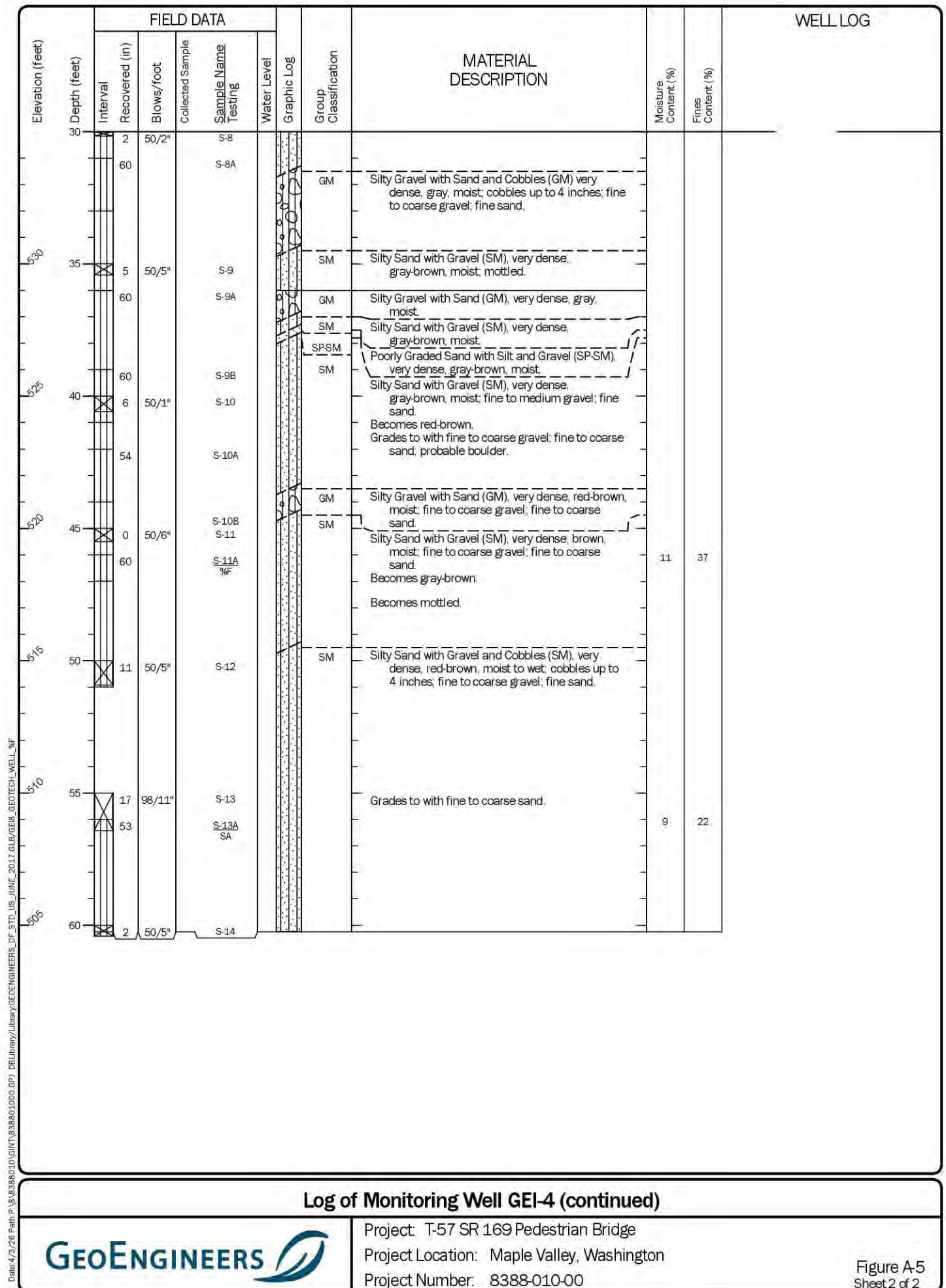
Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

Log of Monitoring Well GEI-4



Project: T-57 SR 169 Pedestrian Bridge
Project Location: Maple Valley, Washington
Project Number: 8388-010-00

Figure A-5
Sheet 1 of 2



Date Excavated	12/16/2025	Total Depth (ft)	7.5	Logged By	PLS	Excavator	Bobcat E60 R2	Groundwater not observed	See "Remarks" section for caving observed
Surface Elevation (ft)	567	Latitude	47.371095	Coordinate System	WA State Plane North	Vertical Datum	NAVD88	Horizontal Datum	NAD83 (feet)

Elevation (feet)	Depth (feet)	SAMPLE		Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Testing Sample	Sample Name Testing						
566	1			o	GP	Poorly Graded Gravel with Sand (GP), dense, black, moist. [Fill]			
565	2			o	GP	Poorly Graded Gravel with Sand (GP), dense, brown, moist; organics: wood. [Fill]			
564	3		S-1	o	GP	Poorly Graded Gravel with Sand (GP), dense, brown, moist; fine to coarse gravel; fine to medium sand; trace silt.			Moderate caving observed at approximately 2 feet
563	4			o					
562	5		S-2	o			5	2	PIT performed at approximately 4 feet bgs Organic Content = 2% Cation Exchange = 4.6 meq/100g
561	6			o					
560	7			o					
			S-4	o					

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

Log of Test Pit GEI-PIT-1



Project: T-57 SR 169 Pedestrian Bridge
Project Location: Maple Valley, Washington
Project Number: 8388-010-00

Figure A-6
Sheet 1 of 1

Date Excavated	12/17/2025	Total Depth (ft)	7.5	Logged By	PLS	Excavator	Bobcat E60 R2	Groundwater not observed	See "Remarks" section for caving observed
Surface Elevation (ft)	565	Latitude	47.371123	Coordinate System	WA State Plane North	Vertical Datum	NAVD88	Horizontal Datum	NAD83 (feet)

Elevation (feet)	Depth (feet)	SAMPLE		Graphic Log	Group Classification	MATERIAL DESCRIPTION	Moisture Content (%)	Fines Content (%)	REMARKS
		Testing Sample	Sample Name Testing						
564	1			Mulch	Mulch				
563	2			GM	GM	Silty Gravel with Sand (GM), medium dense, gray, moist			
562	3		S-1	GW	GW	Well-Graded Gravel with Sand (GW), dense, gray-brown, moist; fine to coarse gravel; medium to coarse sand; trace silt.			Minor caving observed at approximately 1 1/2 feet.
561	4								
560	5		S-2				4	2	PIT performed at approximately 4 feet bgs Organic Content = 1% Cation Exchange = 3.7 meq/100g
559	6								
558	7		S-4						

Note: See Figure A-1 for explanation of symbols.
Coordinates Data Source: Horizontal approximated based on Topographic Survey. Vertical approximated based on Topographic Survey.

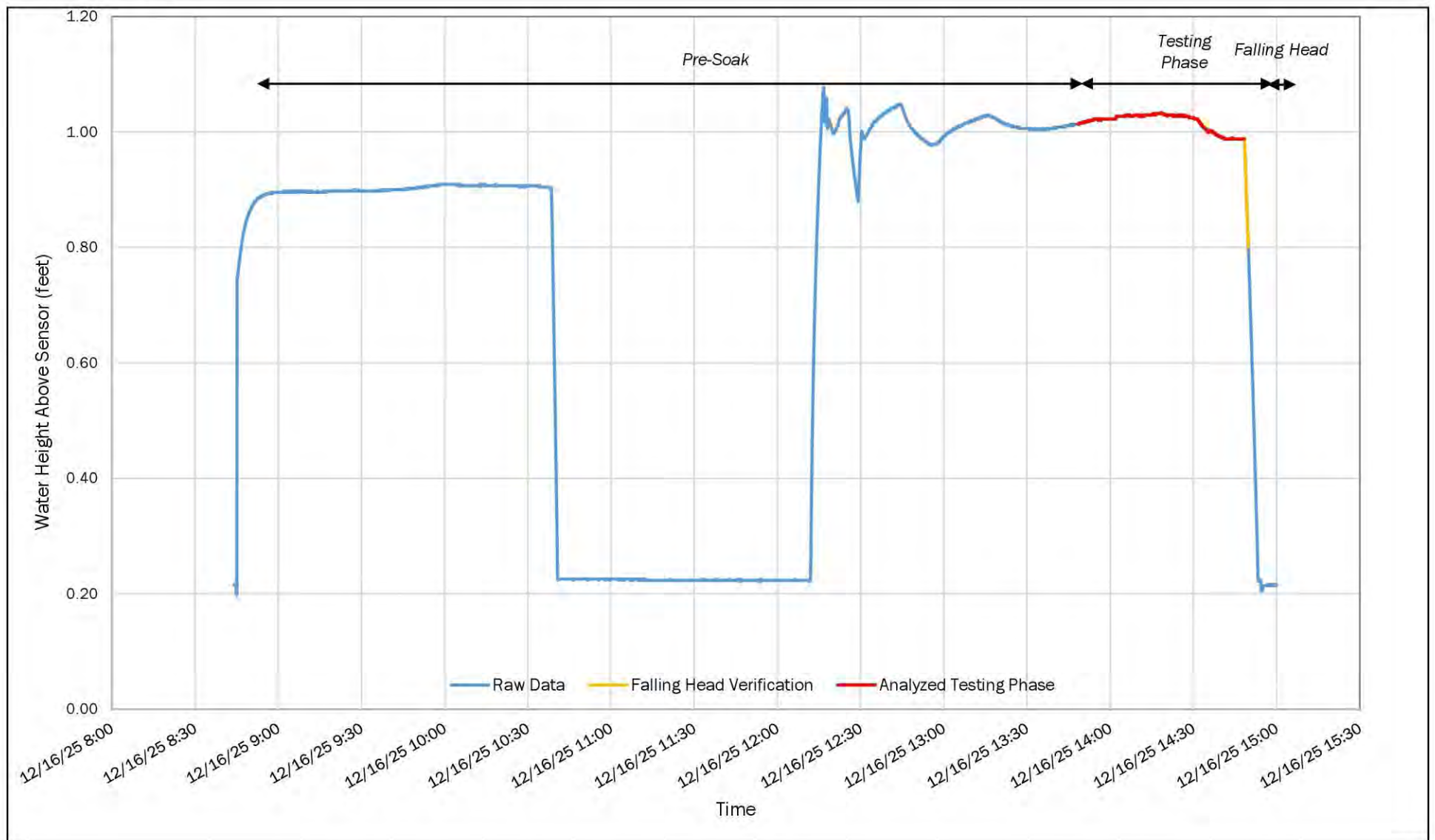
Log of Test Pit GEI-PIT-2



Project: T-57 SR 169 Pedestrian Bridge
Project Location: Maple Valley, Washington
Project Number: 8388-010-00

Figure A-7
Sheet 1 of 1

Date: 4/2/26 Path: P:\8388\8010\GINT\8388\01000.GPJ DBLibrary\Library\GEOENGINEERS_DF_5TD_US_JUNE_2017\GLB\GER_TESTPIT_1P_GEOITEC_MF



Note(s):

1. The PIT in GEI-TP-2 was completed on December 16, 2025.
2. The infiltration rate was calculated during the 1-hour testing period and verified in the falling head phase.
3. The water truck was refilled between 10:40am and 12:11 pm.

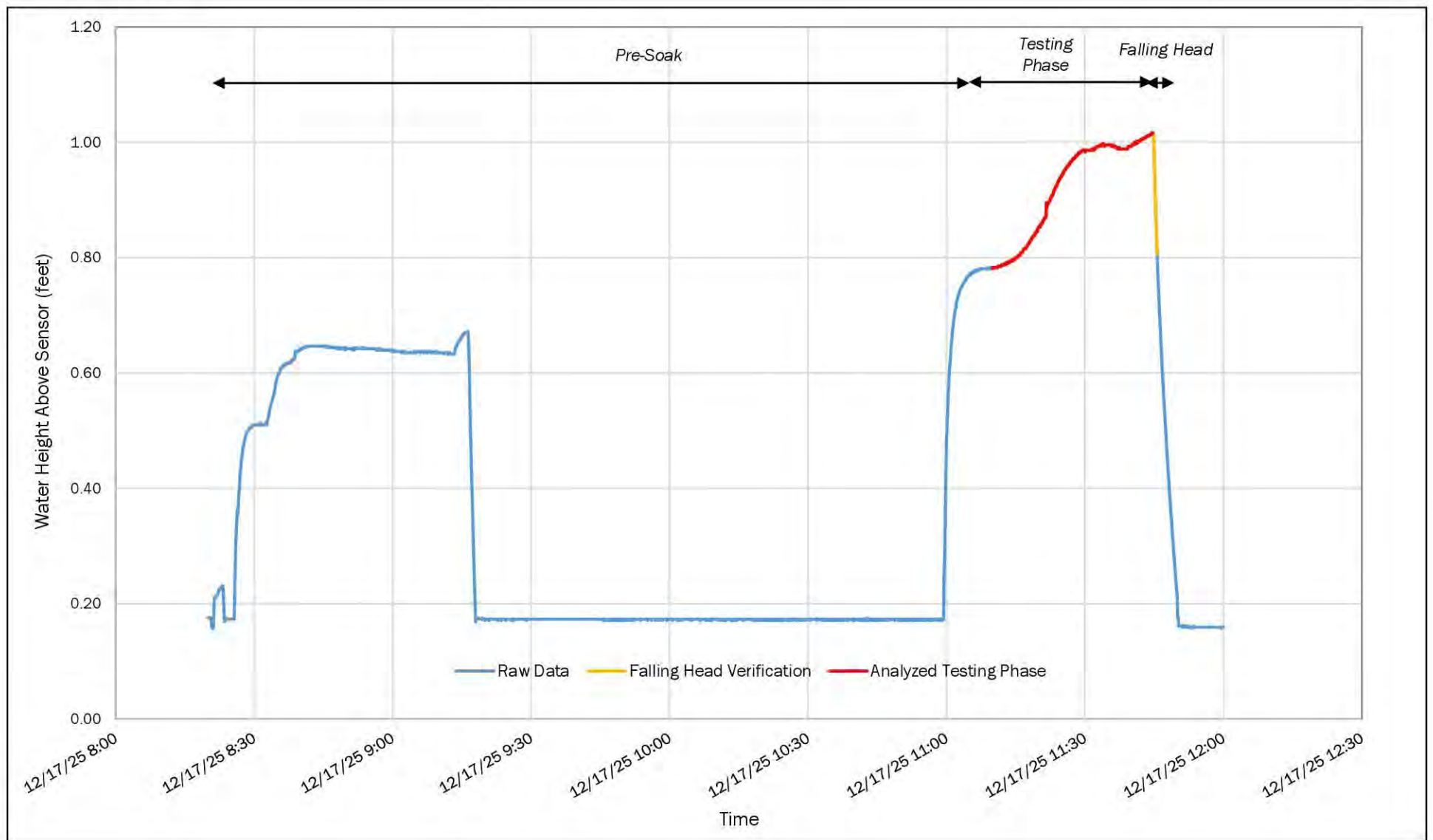
Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

GEI-PIT-1 Infiltration Testing

T-57 SR 169 Pedestrian Bridge
Maple Valley, Washington

GeoENGINEERS

Figure A-8



Note(s):

1. The PIT in GEI-TP-2 was completed on December 17, 2025.
2. The infiltration rate was calculated during the testing period and verified in the falling head phase.
3. The infiltration rates were too high to achieve the 6-hour pre-soak or full 1-hour testing phase.
4. The water truck was refilled between 9:18am and 10:58 am.

Disclaimer: This figure was created for a specific purpose and project. Any use of this figure for any other project or purpose shall be at the user's sole risk and without liability to GeoEngineers. The locations of features shown may be approximate. GeoEngineers makes no warranty or representation as to the accuracy, completeness, or suitability of the figure, or data contained therein. The file containing this figure is a copy of a master document, the original of which is retained by GeoEngineers and is the official document of record.

GEI-PIT-2 Infiltration Testing

T-57 SR 169 Pedestrian Bridge
Maple Valley, Washington

GeoENGINEERS

Figure A-9

Appendix B

Laboratory Testing

Appendix B

Laboratory Testing

Soil samples obtained from the explorations were transported to our laboratory and examined to confirm or modify field classifications, as well as to evaluate engineering properties of the soil samples. Representative samples were selected for laboratory testing consisting of moisture content, organic content, fines content and grain-size distribution (sieve analyses). The tests were performed in general accordance with test methods of ASTM International (ASTM) or other applicable procedures.

The sieve analysis results are presented in Figures B-1 through B-4. The results of the moisture content and percent fines determinations are presented at the respective sample depths on the exploration logs in Appendix A.

MOISTURE CONTENT (MC)

Moisture content tests were completed in general accordance with ASTM D 2216 for representative samples obtained from the explorations. The results of these tests are presented on the exploration logs in Appendix A at the depths at which the samples were obtained.

PERCENT PASSING U.S. NO 200 SIEVE (%F)

Selected samples were “washed” through the U.S. No. 200 mesh sieve to determine the relative percentages of coarse- and fine-grained particles in the soil. The percent passing values represent the percentage by weight of the sample finer than the U.S. No. 200 sieve. These tests were conducted to verify field descriptions and to determine the fines content for analysis purposes. The tests were conducted in general accordance with ASTM D 1140, and the results are shown on the exploration logs in Appendix A at the representative sample depths.

SIEVE ANALYSES (SA)

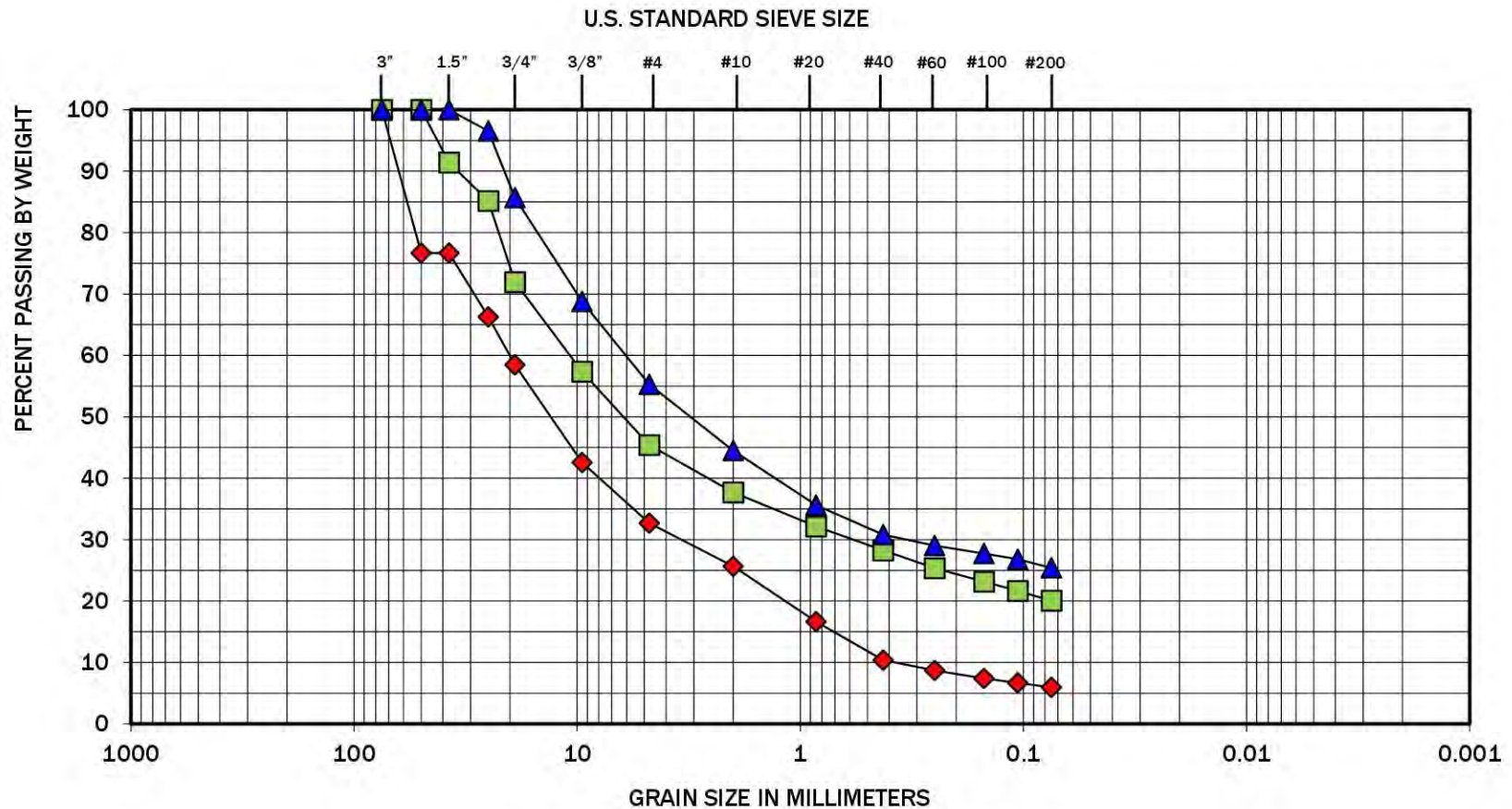
Sieve analyses were performed on selected samples in general accordance with ASTM D 6913 and C 136. The wet sieve analysis method was used to determine the percentage of soil greater than the U.S. No. 200 mesh sieve. The results of the sieve analyses were plotted and classified in general accordance with the Unified Soil Classification System (USCS) and are presented in Figures B-1 through B-4.

ORGANIC CONTENT TESTS

Organic content tests were conducted on two samples from the infiltration test pits using the ASTM D 2974 test method. This test method evaluates the percent by weight of organic matter in the soil. The test results are indicated on the logs (Figures A-6 and A-7).

CATION EXCHANGE CAPACITY TESTS

Cation exchange capacity tests (CEC) of two soil samples from infiltration test pits were measured by Soil Test Farm Consultants, Inc. under subcontract to GeoEngineers. This test evaluates the total capacity of a soil to hold exchangeable cations. The results of the CEC tests are presented on the logs (Figures A-6 and A-7).



COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Symbol	Boring Number	Depth (feet)	Moisture (%)	Soil Description
◆	B-1	5.5	4	Well-graded gravel with silt and sand (GW-GM)
■	B-1	20	5	Silty gravel with sand (GM)
▲	B-1	30	13	Silty gravel with sand (GM)

Note: This report may not be reproduced, except in full, without written approval of GeoEngineers, Inc. Test results are applicable only to the specific sample on which they were performed, and should not be interpreted as representative of any other samples obtained at other times, depths or locations, or generated by separate operations or processes.

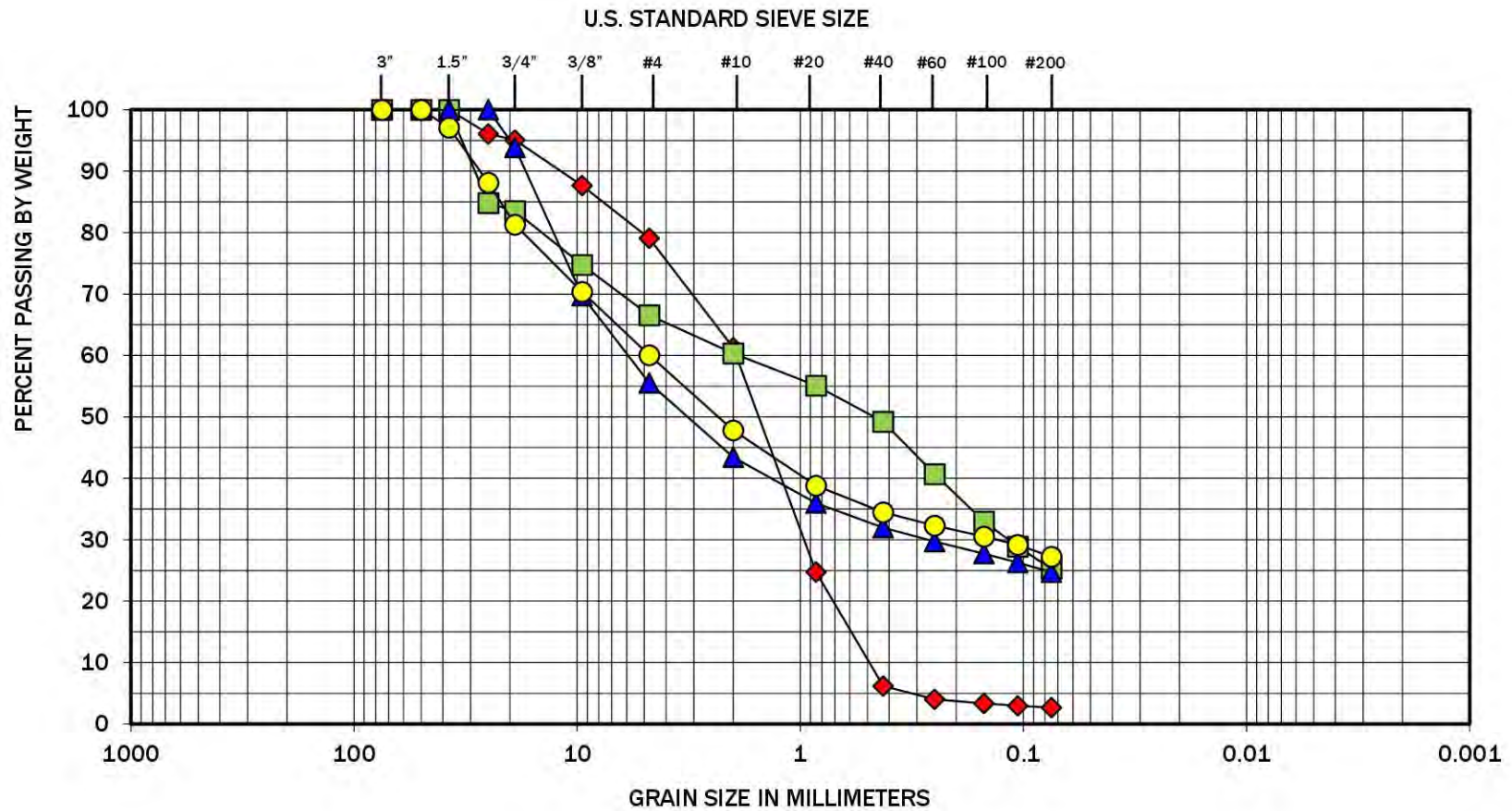
The grain size analysis results were obtained in general accordance with ASTM D 6913.

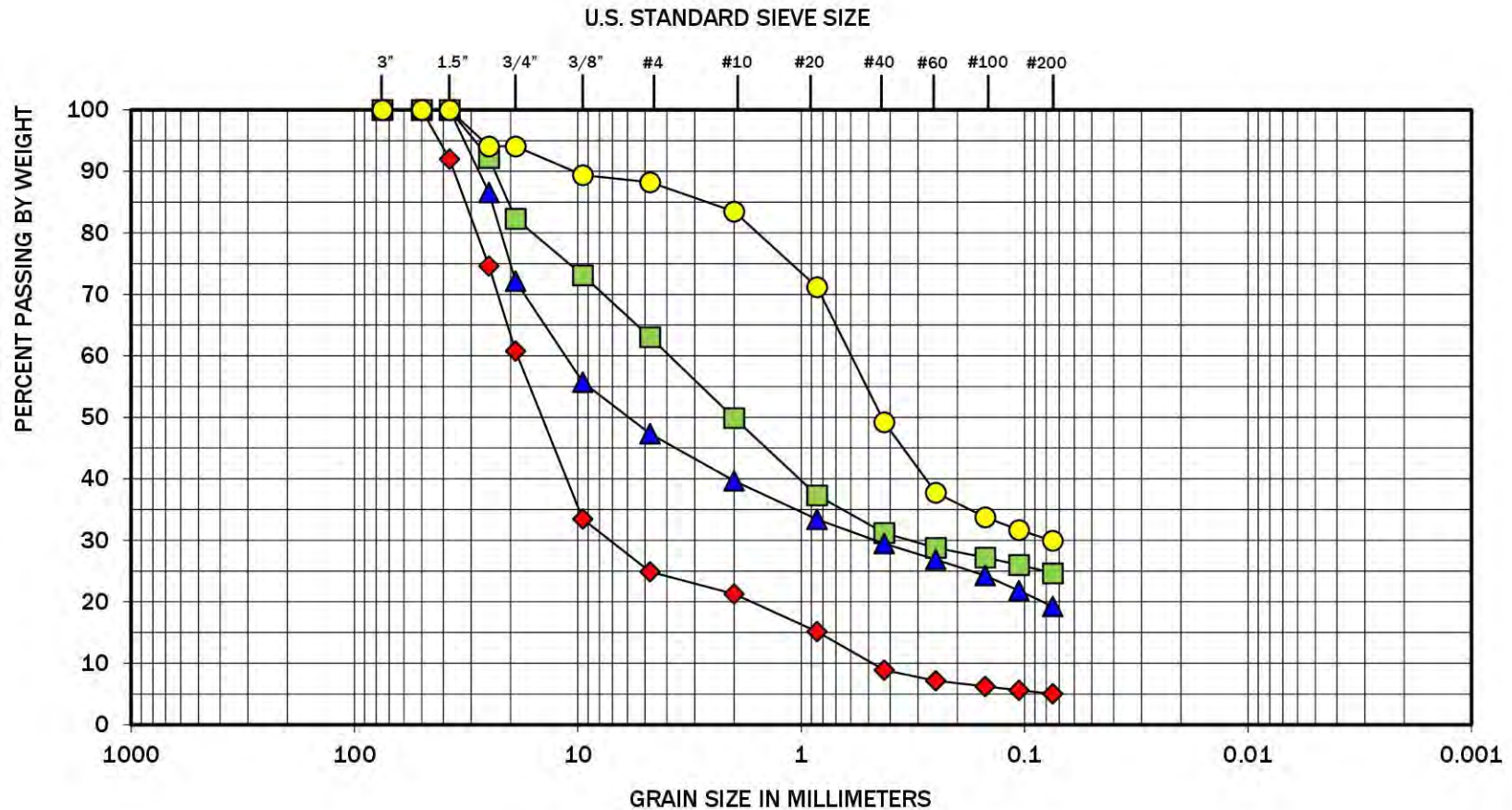
Sieve Analysis Results

T-57 SR 169 Pedestrian Bridge
Maple Valley, Washington



Figure B-1





COBBLES	GRAVEL		SAND			SILT OR CLAY
	COARSE	FINE	COARSE	MEDIUM	FINE	

Symbol	Boring Number	Depth (feet)	Moisture (%)	Soil Description
◆	GEI-3	4	2	Poorly graded gravel with silt and sand (GP-GM)
■	GEI-3	18	12	Silty sand with gravel (SM)
▲	GEI-3	35	7	Silty gravel with sand (GM)
●	GEI-3	58	14	Silty sand (SM)

Note: This report may not be reproduced, except in full, without written approval of GeoEngineers, Inc. Test results are applicable only to the specific sample on which they were performed, and should not be interpreted as representative of any other samples obtained at other times, depths or locations, or generated by separate operations or processes.

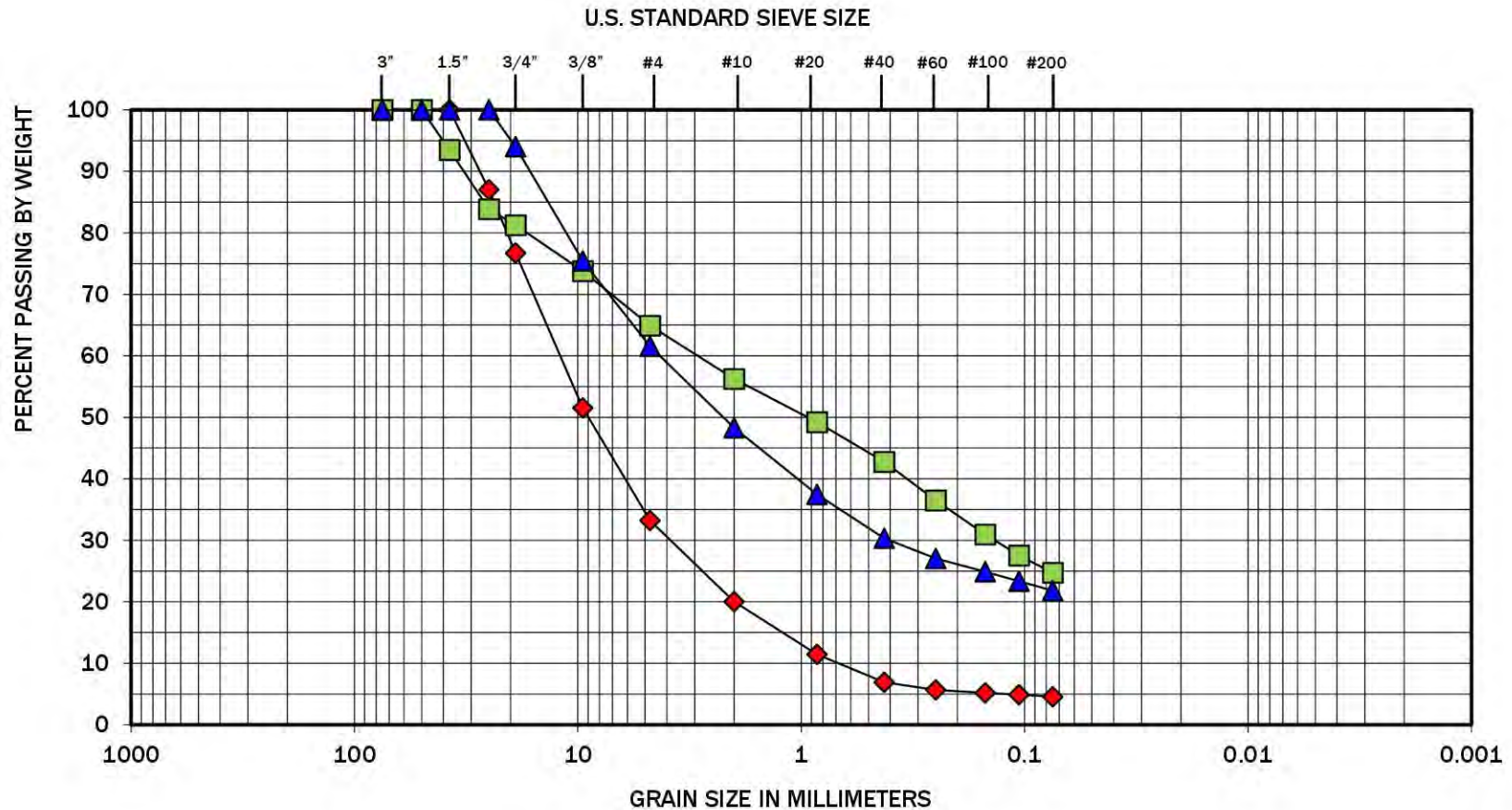
The grain size analysis results were obtained in general accordance with ASTM D 6913.

Sieve Analysis Results

SR 169 Pedestrian Bridge
Maple Valley, Washington



Figure B-3



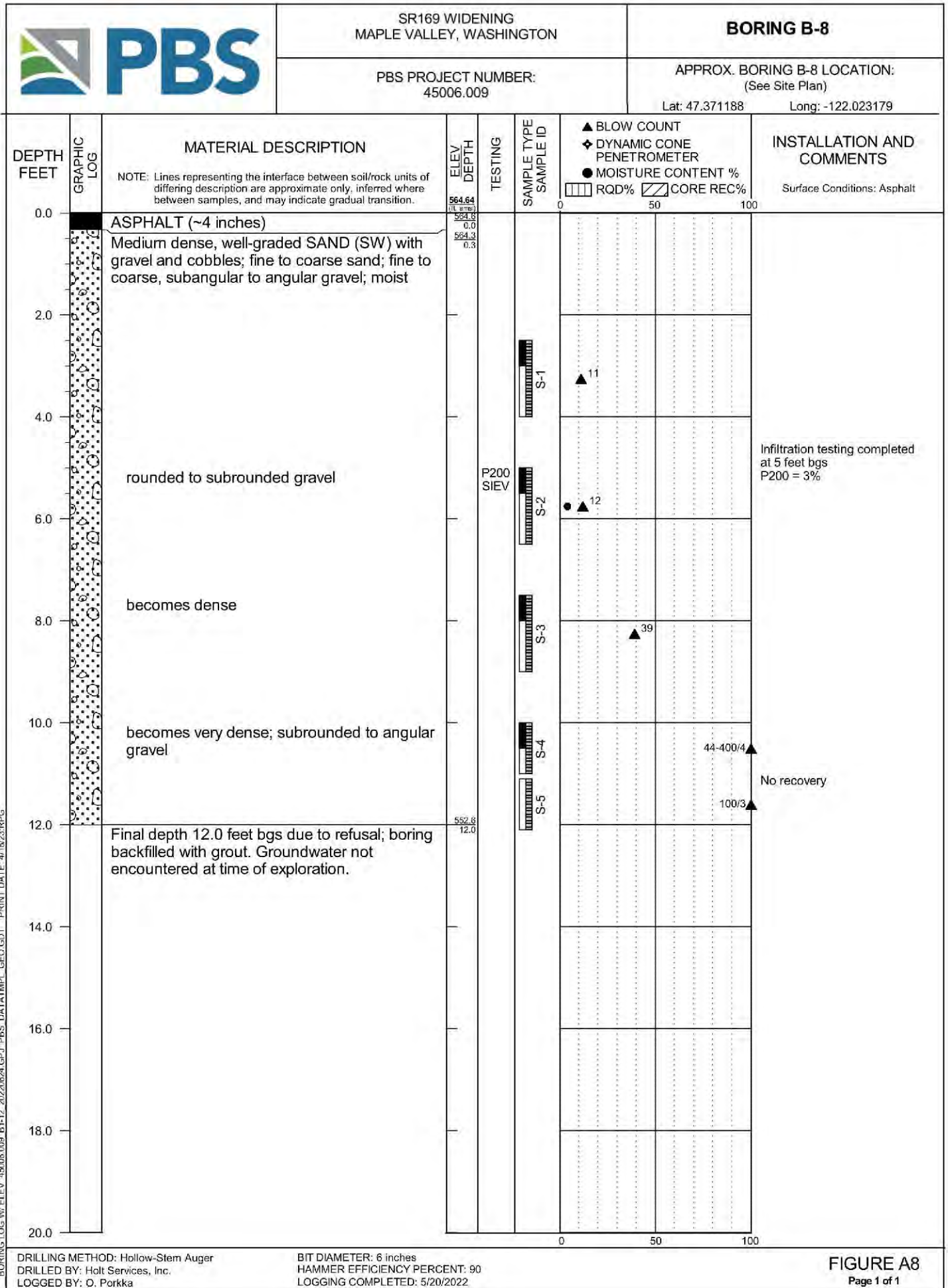
Appendix C

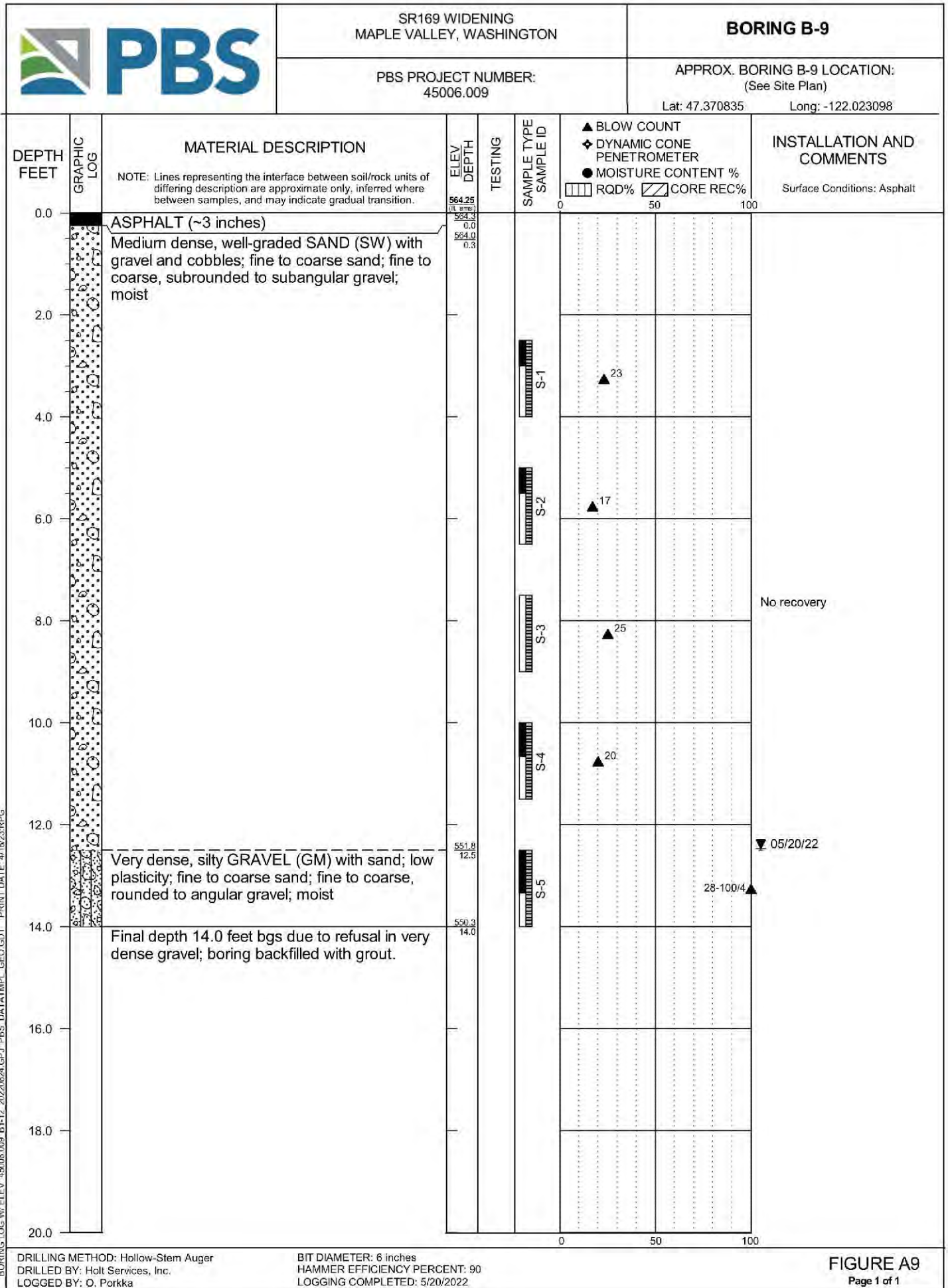
Boring Logs from Previous Studies

Appendix C

Boring Logs From Previous Studies

Included in this section are the logs of two borings (B-8 and B-9) completed by PBS Engineering and Environmental Inc. in 2022 for the SR 169 Widening project. The approximate locations of these explorations are shown in Figure 2.





Appendix D

Laboratory Testing from Previous Studies

Appendix D

Laboratory Testing From Previous Studies

Included in this section are grain-size analyses completed by PBS Engineering and Environmental Inc. in 2022 for the SR 169 Widening project.

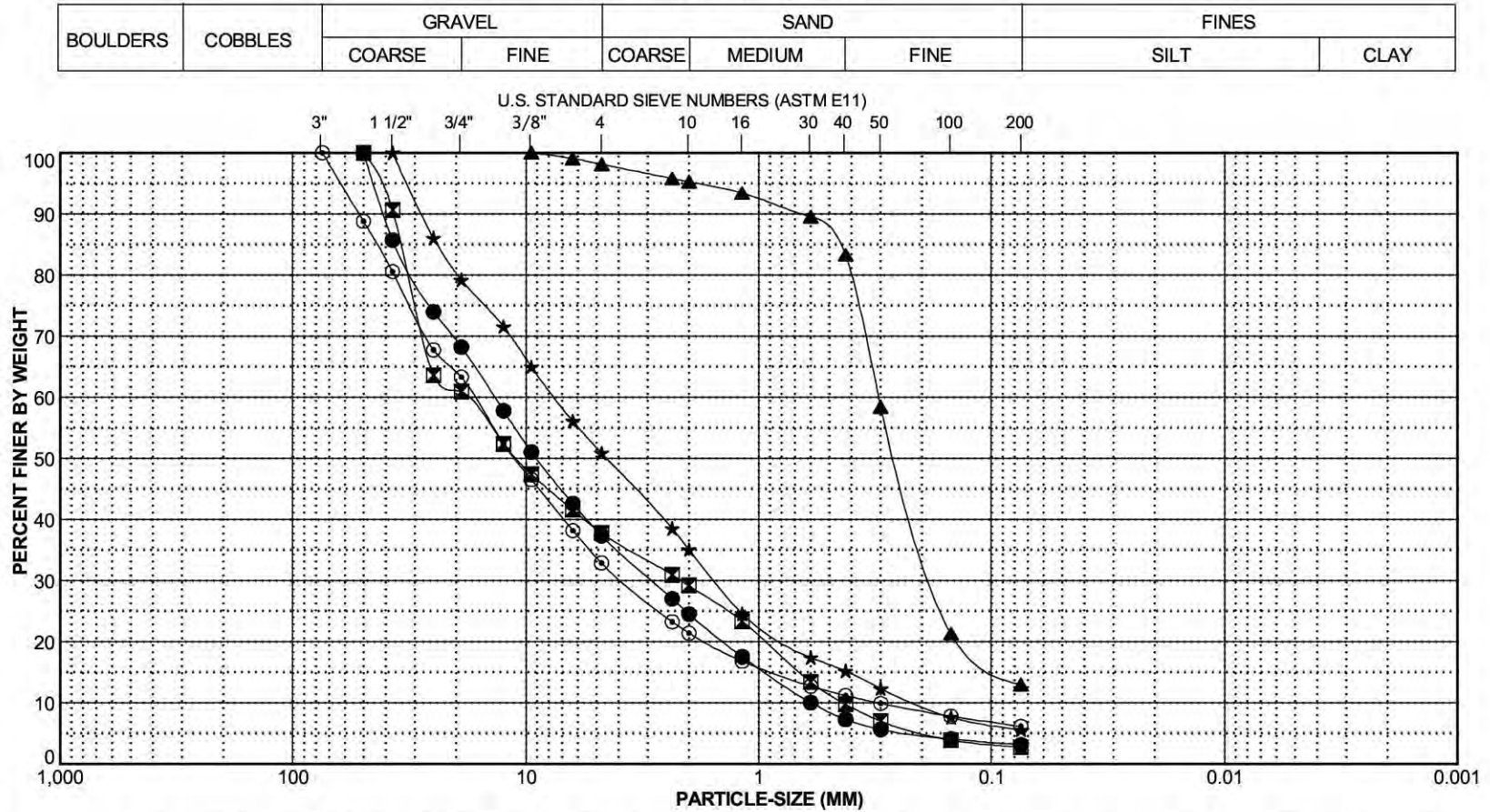


PARTICLE-SIZE ANALYSIS TEST RESULTS (continued)

SR169 WIDENING
MAPLE VALLEY, WASHINGTON

PBS PROJECT NUMBER:
45006.009

TEST METHOD: ASTM C136/D422



KEY	EXPLORATION NUMBER	SAMPLE NUMBER	SAMPLE DEPTH (FEET)	MOISTURE CONTENT (PERCENT)	D90 (MM)	D60 (MM)	D30 (MM)	D10 (MM)	D5 (MM)	GRAVEL (PERCENT)	SAND (PERCENT)	FINES (PERCENT)
●	B-8	S-2	5.0	4	40.9	13.7	2.9	0.598	0.2	63	34	3
■	B-10	S-2	5.0	4	37.1	18.2	2.2	0.435	0.2	62	35	3
▲	B-11	S-2	5.0	13	0.7	0.3	0.2			2	85	13
★	B-11	S-4	10.0	5	28.0	7.6	1.6	0.213		49	45	6
⊙	B-12	S-2	5.0	4	52.2	16.7	3.9	0.310		67	27	6

FIGURE B1
Page 2 of 2



SUMMARY OF LABORATORY DATA

SR169 WIDENING
MAPLE VALLEY, WASHINGTON

PBS PROJECT NUMBER:
45006.009

SAMPLE INFORMATION

MOISTURE
CONTENT
(PERCENT)

DRY
DENSITY
(PCF)

SIEVE

ATTERBERG LIMITS

EXPLORATION
NUMBER

SAMPLE
NUMBER

SAMPLE
DEPTH
(FEET)

ELEVATION
(FEET)

GRAVEL
(PERCENT)

SAND
(PERCENT)

P200
(PERCENT)

LIQUID
LIMIT
(PERCENT)

PLASTIC
LIMIT
(PERCENT)

PLASTICITY
INDEX
(PERCENT)

B-1

S-2

5

556.3

2.8

74

24

2

B-3

S-3

7.5

557.3

2.8

62

33

4

B-4

S-2

5

559.3

5.6

46

50

3

B-7

S-2

5

557.7

3.7

64

31

5

B-8

S-2

5

559.6

3.9

63

34

3

B-10

S-2

5

563.2

4.2

62

35

3

B-11

S-2

5

564.7

13.4

2

85

13

B-11

S-4

10

559.7

5.5

49

45

6

B-12

S-2

5

567.8

3.6

67

27

6

FIGURE B2
Page 1 of 1

Appendix E

Report Limitations and Guidelines For Use

Appendix E

Report Limitations and Guidelines For Use¹

This appendix provides information to help you manage your risks with respect to the use of this report.

READ THESE PROVISIONS CLOSELY

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) rely on professional judgment and opinion to a greater extent than other engineering and natural science disciplines, where more precise and/or readily observable data may exist. To help clients better understand how this difference pertains to our services, GeoEngineers includes the following explanatory “limitations” provisions in its reports. Please confer with GeoEngineers if you need to know more how these “Report Limitations and Guidelines for Use” apply to your project or site.

GEOTECHNICAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES, PERSONS AND PROJECTS

This report has been prepared for the City of Maple Valley, V+M Structural Design, Inc., and other project team members for the project specifically identified in this report. The information contained herein is not applicable to other sites or projects.

GeoEngineers structures our services to meet the specific needs of our clients. For example, a geotechnical or geologic study conducted for a civil engineer or architect may not fulfill the needs of a construction contractor or even another civil engineer or architect that are involved in the same project. Because each geotechnical or geologic study is unique, each geotechnical engineering or geologic report is unique, prepared solely for the specific client and project site. Our report is prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree in advance to such reliance in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted geotechnical practices in this area at the time this report was prepared. This report should not be applied for any purpose or project except the one originally contemplated.

A GEOTECHNICAL ENGINEERING OR GEOLOGIC REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

This report has been prepared for the T-57 SR 169 Pedestrian Bridge project located in Maple Valley, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- Not prepared for you,
- Not prepared for your project,

¹ Developed based on material provided by GBA, GeoProfessional Business Association; www.geoprofessional.org.

- Not prepared for the specific site explored, or
- Completed before important project changes were made.

For example, changes that can affect the applicability of this report include those that affect:

- The function of the proposed structure;
- Elevation, configuration, location, orientation or weight of the proposed structure;
- Composition of the design team; or
- Project ownership.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

SUBSURFACE CONDITIONS CAN CHANGE

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying a report to determine if it remains applicable.

MOST GEOTECHNICAL AND GEOLOGIC FINDINGS ARE PROFESSIONAL OPINIONS

Our interpretations of subsurface conditions are based on field observations from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ, sometimes significantly, from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

GEOTECHNICAL ENGINEERING REPORT RECOMMENDATIONS ARE NOT FINAL

Do not over-rely on the preliminary construction recommendations included in this report. These recommendations are not final, because they were developed principally from GeoEngineers' professional judgment and opinion. GeoEngineers' recommendations can be finalized only by observing actual subsurface conditions revealed during construction. GeoEngineers cannot assume responsibility or liability for this report's recommendations if we do not perform construction observation.

Sufficient monitoring, testing and consultation by GeoEngineers should be provided during construction to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should the conditions revealed during the work differ from those anticipated, and to evaluate whether or not earthwork activities are completed in accordance with our recommendations. Retaining GeoEngineers for construction observation for this project is the most effective method of managing the risks associated with unanticipated conditions.

A GEOTECHNICAL ENGINEERING OR GEOLOGIC REPORT COULD BE SUBJECT TO MISINTERPRETATION

Misinterpretation of this report by other design team members can result in costly problems. You could lower that risk by having GeoEngineers confer with appropriate members of the design team after submitting the report. Also retain GeoEngineers to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering or geologic report. Reduce that risk by having GeoEngineers participate in pre-bid and preconstruction conferences, and by providing construction observation.

DO NOT REDRAW THE EXPLORATION LOGS

Geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering or geologic report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable but recognize that separating logs from the report can elevate risk.

GIVE CONTRACTORS A COMPLETE REPORT AND GUIDANCE

Some owners and design professionals believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering or geologic report, but preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with GeoEngineers and/or to conduct additional study to obtain the specific types of information they need or prefer. A pre-bid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might an owner be in a position to give contractors the best information available, while requiring them to at least share the financial responsibilities stemming from unanticipated conditions. Further, a contingency for unanticipated conditions should be included in your project budget and schedule.

CONTRACTORS ARE RESPONSIBLE FOR SITE SAFETY ON THEIR OWN CONSTRUCTION PROJECTS

Our geotechnical recommendations are not intended to direct the contractor's procedures, methods, schedule or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and to adjacent properties.

READ THESE PROVISIONS CLOSELY

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering or geology) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

GEOTECHNICAL, GEOLOGIC AND ENVIRONMENTAL REPORTS SHOULD NOT BE INTERCHANGED

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

APPENDIX H

COVINGTON WATER DISTRICT – STANDARDS AND SPECIFICATIONS



Standards and Specifications



18631 S.E. 300th Place
Covington, WA 98042
Phone: (253) 631-0565
Fax: (253) 631-5823

website: www.Covingtonwater.com

Standards and Specifications

January 2024

COVINGTON WATER DISTRICT

King County, Washington

18631 SE 300th Place
Covington, WA 98042

Phone: 253-631-0565

Fax: 253-631-5823

WWW.COVINGTONWATER.COM

**These Standards and Specifications
were prepared under the direction
of a registered professional engineer
and approved by Board Resolution 4654
on December 19, 2023.**

TABLE OF CONTENTS

CHAPTER 1 – GENERAL REQUIRMENTS

- 1.01 PURPOSE
- 1.02 DEFINITIONS
- 1.03 ABBREVIATIONS
- 1.04 REFERENCE STANDARDS
- 1.05 GOVERNMENTAL AGENCY REQUIREMENTS

CHAPTER 2 – PLAN REVIEW AND APPROVAL

- 2.01 GENERAL
- 2.02 PRE-DESIGN MEETING
- 2.03 PLAN FORMAT
- 2.04 CALLOUTS
- 2.05 ENGINEER STAMP
- 2.06 GENERAL NOTES
- 2.07 PLAN SUBMISSIONS
- 2.08 PLAN MODIFICATION APPROVALS
- 2.09 RECORD DRAWINGS

CHAPTER 3 – DESIGN STANDARDS

- 3.01 HYDRAULIC REQUIRMENTS
- 3.02 PLANNING CRITERIA
- 3.03 WATER MAIN LAYOUT
- 3.04 WATER MAIN LOCATION
- 3.05 HORIZONTAL SEPARATION
- 3.06 VERTICAL SEPARATION
- 3.07 SETBACK DISTANCE FROM BUILDINGS AND STRUCTURES

- 3.08 WATER MAIN SIZING
- 3.09 PIPE MATERIAL
- 3.10 PIPE FITTINGS
- 3.11 STEEL CASING
- 3.12 COVER DEPTH
- 3.13 SLOPES
- 3.14 CORROSION PROTECTION
- 3.15 THRUST RESTRAINT
- 3.16 ASBESTOS CONCRETE PIPE CROSSING
- 3.17 VALVES
- 3.18 FIRE HYDRANTS
- 3.19 COMBINATION AIR VALVES
- 3.20 BLOW-OFFS
- 3.21 CONNECTIONS TO EXISTING SYSTEM
- 3.22 JOINING DISSIMILAR METALS
- 3.23 EASEMENTS
- 3.24 SERVICE CONNECTIONS
- 3.25 EXISTING WATER MAIN ABANDONMENT
- 3.26 PRESSURE REDUCING STATIONS
- 3.27 BACKFLOW PREVENTION
- 3.28 PRIVATE WELLS
- 3.29 PLAN EXPIRATION
- 3.30 RECORD DRAWINGS

CHAPTER 4 – MATERIAL STANDARDS

- 4.01 GENERAL
- 4.02 ALTERNATIVE METHODS OR MATERIAL REQUESTS
- 4.03 DUCTILE IRON PIPE
- 4.04 POLYVINYL CHLORIDE PIPE
- 4.05 HIGH DENSITY POLYETHYLENE PIPE
- 4.06 GALVANIZED STEEL PIPE
- 4.07 POLYETHYLENE ENCASEMENT
- 4.08 FITTINGS
- 4.09 RESTRAINED JOINTS
- 4.10 COUPLINGS
- 4.11 BOLTS AND NUTS
- 4.12 GATE VALVES
- 4.13 BUTTERFLY VALVES
- 4.14 CHECK VALVES (2"AND LARGER)
- 4.15 VALVE MARKER POSTS
- 4.16 VALVE BOXES
- 4.17 VALVE VAULTS
- 4.18 COMBINATION AIR VALVES
- 4.19 BLOW-OFF ASSEMBLIES
- 4.20 FIRE HYDRANTS
- 4.21 TAPPING SLEEVES
- 4.22 COPPER SERVICE LINES
- 4.23 PLASTIC SERVICE LINES
- 4.24 SADDLES AND CORPORATION STOPS

- 4.25 BOXES FOR METERS, AIR VALVES AND BLOW-OFFS
- 4.26 GENERAL FACILITIES
- 4.27 INDIVIDUAL PRESSURE REDUCING VALVES (RESIDENTIAL)
- 4.28 INDIVIDUAL PRESSURE REDUCING VALVES
(NON-RESIDENTIAL 2' AND SMALLER)
- 4.29 REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA)
- 4.30 DOUBLE CHECK VALVE ASSEMBLY (DCVA)
- 4.31 STEEL CASING
- 4.32 CASING SPACERS AND END SEALS
- 4.33 CONCRETE
- 4.34 BEDDING MATERIAL
- 4.35 CONTROLLED DENSITY FILL
- 4.36 TRENCH BACKFILL
- 4.37 TRACER WIRE

CHAPTER 5 – CONSTRUCTION STANDARDS

- 5.01 GENERAL REQUIREMENTS
- 5.02 MATERIAL SUBMITTALS
- 5.03 PRE-CONSTRUCTION CONFERENCE
- 5.04 CONSTRUCTION SCHEDULE
- 5.05 EASEMENTS
- 5.06 PERMITS
- 5.07 STOP WORK NOTICE
- 5.08 HANDLING OF PIPE
- 5.09 STAKING

- 5.10 DEVIATION FROM PLANS
- 5.11 INSPECTION AND TESTING
- 5.12 SURFACE WATER QUALITY
- 5.13 DUST CONTROL
- 5.14 TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL
- 5.15 CONSTRUCTION ON EXISTING EASEMENTS
- 5.16 PRE-CONSTRUCTION PHOTOS FOR DISTRICT CAPITAL PROJECTS
- 5.17 PROTECTION OF PROPERTY
- 5.18 UNDERGROUND UTILITIES
- 5.19 TRENCH EXCAVATION
- 5.20 SHEETING AND SHORING
- 5.21 TRENCH DEWATERING
- 5.22 BEDDING PIPE
- 5.23 CONCRETE THRUST BLOCKING
- 5.24 TRENCH BACKFILL AND COMPACTION
 - 5.24.1 AREAS SUBJECT TO VEHICLE TRAFFIC
 - 5.24.2 AREAS NOT SUBJECT TO VEHICLE TRAFFIC
- 5.25 LAYING WATER MAIN PIPE
- 5.26 CORROSION PROTECTION
- 5.27 INSTALLING GALVANIZED IRON PIPE
- 5.28 FIRE HYDRANT INSTALLATION
- 5.29 VALVE INSTALLATION
- 5.30 COMBINATION AIR VALVE INSTALLATION

5.31 BLOW-OFF ASSEMBLIES

5.32 VALVE MARKER INSTALLATION

5.33 SERVICE LINES

5.33.1 NEW SERVICE INSTALLATIONS

5.33.2 RECONNECTING EXISTING SERVICES

5.34 PRESSURE REDUCING STATION

5.35 INDIVIDUAL PRESSURE REDUCING VALVE

5.36 CONNECTION TO EXISTING WATER MAIN

5.37 SCHEDULE OF TESTS

5.38 HYDROSTATIC PRESSURE TESTS

5.39 DISINFECTION AND FLUSHING OF WATER MAINS

5.39.1 FLUSHING

5.39.2 CHLORINATION

5.39.3 FINAL FLUSHING AND TESTING

5.40 ADJUSTING EXISTING STRUCTURE TO GRADE

5.40.1 VAULT COVER ADJUSTMENT

5.40.2 VALVE BOX ADJUSTMENT IN PAVED AREAS

5.40.3 VALVE BOX ADJUSTMENT IN UNIMPROVED AREAS

5.41 ABANDONING FACILITIES

5.41.1 ABANDONMENT OF WATER MAIN

5.41.2 ABANDONMENT OF SERVICES

5.41.3 ABANDONMENT OF STRUCTURES

5.41.4 ABANDONMENT OF FITTINGS OR APPURTENANT FACILITIES

5.42 LAWN REMOVAL AND REPLACEMENT

5.43 BORING UNDER ROOTS

5.44 BORING AND JACKING

5.45 WORKING WITH ASBESTOS CEMENT PIPE

5.46 ASBESTOS CEMENT WATER MAIN CROSSINGS

5.47 CONTROLLED DENSITY FILL

5.48 VAULT INSTALLATION

5.49 UTILITY CROSSING

5.50 CONSTRUCTION REDLINES AND RECORD DRAWINGS

CHAPTER 6 – LANDSCAPING AND WATER USE

6.01 GENERAL

6.02 LOCAL JURISDICTIONS

6.03 RECOMMENDATIONS

APPENDICES

APPENDIX - A

STANDARD DETAILS

APPENDIX - B

SAMPLE PLAN TITLE SHEET

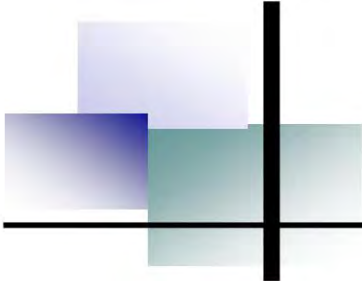
APPENDIX – C

APPROVED MATERIALS LIST

APPENDIX – D

STANDARD FORMS

- Certificate of Substantial Completion
- Chlorine Injection Box Rental Agreement – District Project
- Chlorine Injection Box Rental Agreement – Private Development
- Confined Space Entry Permit
- Easement for Water Pipeline
- Hydrant Meter Application
- Notice of Award
- Notice to Proceed
- Overtime Authorization Form
- Stop Work Notice



Chapter 1

General Requirements



CHAPTER 1 GENERAL REQUIREMENTS

1.01 PURPOSE

The purpose of these Standards and Specifications is to provide minimum standards and guidelines for design and construction of Covington Water District (District) developer extension and capital projects. No extension or modification to the District's water system shall be made without the District's approval of construction plans prepared in accordance with these Standards and the District Administrative Code (DAC). All construction of developer extensions shall conform to these Standards, applicable American Water Works Association (AWWA) Specifications and the WSDOT/APWA Standard Specifications (Washington State Department of Transportation). The District Engineer shall be the final authority in all matters related to design, location, and specifications.

These Standards do not include design of the District's general facilities such as wells, pump stations or storage tanks. General Facility improvements require special design considerations and will be reviewed and approved by the District based on factors unique to each project.

Compliance with these Standards does not relieve the Design Engineer of the responsibility to apply conservative and sound professional judgement. These are minimum standards and are intended to assist, but not substitute, for competent work by design professionals. The District may, at its sole discretion due to special conditions and/or environmental constraints, require more stringent requirements than required under these Standards.

Revisions to these Standards will be made from time to time. The users shall be responsible to ensure that they are using the latest edition of District Standards and Specifications.

1.02 DEFINITIONS

Board – The Board of Commissioners of Covington Water District.

Contractor – The individual, firm, partnership, corporation, or joint venture entering into a contract with a Developer or the District to perform the work under these documents. The term shall also include the Contractor's agents, employees and subcontractors.

Developer– The property owner that has made, or intends to make, an application to the District for permission to construct a water system connection, extension, or modification to the District's water system. (Also see RCW 39.92.020). An individual, group of individuals, partnership, corporation, association, municipal corporation, state agency or other person undertaking development and their successors and assigns.

Development- The subdivision, or short platting of land, or the construction or reconstruction of residential, commercial, industrial, public, or any other building, building space or land.

Developer's Engineer or Design Engineer – The professional engineer or engineering firm entering into a contract with the Developer and representing the Developer to prepare construction documents and provide other engineering services to perform a developer extension project. The term shall also include its employees and subcontractors.

Developer Extension – A water main and/or other water facility to be connected to and extending the District's system. Previously known as a System Extension.

District – Covington Water District.

District Engineer – District Engineer of Covington Water District or duly authorized representative.

District Standards or these Standards – Covington Water District Standards and Specifications, latest edition.

District Standard Details or Standard Details - Covington Water District standard detail drawings.

Equipment - Machinery, accessories, appurtenances and manufactured articles to be furnished and/or installed under the Project.

Inspector – A representative of the District Engineer authorized to perform construction inspection and tests.

Material or Materials – These shall include machinery, manufactured or fabricated articles, and natural substance to be furnished in connection with the Project.

Non-Residential- Applies to any building or development for the purpose of occupancy and use other than a single family or duplex residential use.

Plans – The plans, profiles, cross-sections and details approved by the District Engineer, which show the design and details of the project.

Project – All work planned or approved for construction, reconstruction or relocation of water mains and/or other structures proposed or under contract within a limited area.

Reference Standards and Specifications – The technical standards and specifications of other agencies incorporated or referred to herein.

Separation – Clear distance between District facilities and other utilities or structures measured from outside wall to outside wall where the distance is least.

Structures – Foundation of any kind, buildings, sheds, retaining walls, rockeries, vaults or fences over 6' in height. Also includes obstructions such as poles, eaves, cornices, awnings or trellis.

System – The District's water system including mains, wells, pump stations, storage tanks, telemetry and all other facilities.

UPC – Uniform Plumbing Code – Current version of the code adopted by the local municipal jurisdiction.

Water System Plan – The current Water System Plan (WSP) for the Covington Water District, required by State and County law, as amended.

Words and Phrases - Whenever the words, “as directed”, “as required”, “as permitted”, or words of like effect are used, it shall be understood that the direction, requirement or permission of the District Engineer is intended. The words, “sufficient”, “necessary”, “proper”, and the like shall mean sufficient, necessary or proper in the judgment of the District Engineer. The words “approved”, “acceptable”, “satisfactory”, or similar words shall mean approved by, acceptable to, or to the satisfaction of the District Engineer.

WSDOT Standard Specifications - Standard Specifications for Road, Bridge and Municipal Construction, latest English edition, Washington State Department of Transportation and the American Public Works Association, including all amendments.

APWA Standards and Standard Specifications – Standards and specifications published by the American Public Works Association, latest version, including all amendments.

AWWA Standards – Standards published by the American Water Works Association.

1.03 ABBREVIATIONS

The following acronyms or abbreviations, which may appear, shall have the meanings indicated herein:

AASHTO	- American Association of the State Highway and Transportation Officials
AC	- Asbestos Cement
ANSI	- American National Standards Institute, Inc.
APWA	- American Public Works Association
ARRA	- American Recovery & Reinvestment Act
ASTM	- American Society for Testing and Materials
ATSSA	- American Traffic Safety Services Association
AWWA	- American Water Works Association
CWD	- Covington Water District
DAC	- Covington Water District Administrative Code
DEA or DE	- Developer Extension Agreement
DOE	- Washington State Department of Ecology
DOH	- Washington State Department of Health
ESA	- Endangered Species Act
OSHA	- Occupational Safety and Health Administration
MUTCD	- Manual Uniform Traffic Control Devices
NSF	- National Science Foundation
PSAPCA	- Puget Sound Air Pollution Control Agency
RCW	- Revised Code of Washington
UPC	- Uniform Plumbing Code

WAC	- Washington Administrative Code
WISHA	- Washington Industrial Safety and Health Act
WSDOT	- Washington State Department of Transportation
WSP	- (Covington Water District) Water System Plan

1.04 REFERENCE STANDARDS

The latest editions of the AWWA, WSDOT/APWA and AMSI reference standards govern design and construction within the Covington Water District, unless otherwise specified, and shall be adhered to as if they were included verbatim within the District Standards. However, the District shall not be responsible for furnishing these reference standards to the Developer, Design Engineer, or Contractor.

The latest editions of these additional standards for governing design are also incorporated within this set of standards:

ASME/ANSI B16.3 Malleable Iron Threaded Fittings

CWD Water System Plan (WSP) and District Administrative Code (DAC)

ASTM A53/A53M 04A Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless

Recommended Standards for Water Works, Great Lakes-Upper Mississippi River Board of State Public Health

Sizing Guidelines for Public Water Supplies, DOH Guidelines

Rules and Regulations Relating to Fire Hydrants and Water Mains, King County Department of Planning and Community Development

Cross Connection Control Manual, Accepted Procedure and Practice. Current Edition, PNWS-AWWA Cross Connection Control Committee

King County Road Standards, King County Department of Public Works

Standard Specifications for Road, Bridge, and Municipal Construction, Washington State Department of Transportation

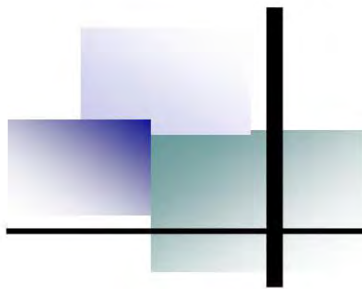
Manual of Uniform Traffic Control Devices (MUTCD)

NSF/ANSI Standard 61 for Drinking Water System Components with lead content.

1.05 GOVERNMENTAL AGENCY REQUIREMENTS

All construction within Cities, County or State and their rights-of-way shall be performed in accordance with the applicable standards and requirements and in accordance with franchise agreements and/or permit requirements. The Contractor is responsible for

determining these requirements prior to construction and meeting the requirements during construction.



Chapter 2

Plan Review & Approval



CHAPTER 2 PLAN REVIEW AND APPROVAL

2.01 GENERAL

Following these Standards for design of water system extensions will help ensure a timely review of the plans and keep review costs to a minimum. Plans not conforming to standards may take longer to review and increase the costs to the Developer. The District Engineer's decision to approve, reject or modify plans shall be based on:

- plans conforming to the District's Water System Plan
- meeting or exceeding the requirements of these Standards
- meeting or exceeding applicable locally adopted codes
- not adversely affecting the water system
 - water quality
 - safety
 - operation or maintenance
 - reliability

Plans for extension to the District's water system within proposed developments shall be prepared by the developer's Design Engineer and include features such as water mains, pressure reducing valves, hydrants, valves, meters, backflow prevention and other appurtenances within a proposed subdivision. The plans will be reviewed by the District Engineer and approved prior to start of construction of any water system extension.

The Design Engineer is responsible for any errors and omissions in the plans. The District Engineer's review or approval of Plans does not relieve any of the Design Engineer's responsibility or liability imposed upon it by law or by contract.

Plans may be rejected at the District's sole discretion and without detailed review, if they are of poor quality or contain a significant amount of errors and omissions and are not in conformance with these standards.

The District Engineer's plan review, plan approval, and construction inspection do not relieve the Developer of any responsibility to conform to the District Administrative Code (DAC) and these Standards.

Water system features such as booster stations, reservoirs, water treatment facilities, transmission mains or other water system features outside the boundaries of a proposed development will be designed by the District and constructed through award of a construction contract by the District Board of Commissioners. Award shall be to the appropriate bidder through a public bidding process in accordance with WAC and RCW requirements. All costs of design, contracting, construction, inspection and administration by the District shall be directly reimbursed by the developer according to terms of a formal Developer Extension Agreement (DEA).

2.02 PRE-DESIGN MEETING

After the Developer enters into a developer extension agreement with the District, the Developer's Engineer shall schedule a pre-design meeting with District staff. The Developer or their representative is required to attend the pre-design meeting along with

the Developer's Engineer. District staff will assist in water main layout and sizing, and providing appropriate record drawings, mapping, and reference to the District web site at www.covingtonwater.com for current Standard Details (see Appendix A).

2.03 PLAN FORMAT

Separate Plan Set – Water Developer Extension Plans shall be produced separate from other utility plans. A typical Water Plan Set includes Title Sheet/ Key Map/Legend/Notes/ Plan & Profile/ and Standard Details for the project.

Drafting – Plans shall be prepared using the current adopted version of AutoCAD™. Hand drawn submittals (including corrections or alterations) and pasted pieces will not be accepted. All construction Plans for the District's Developer Extensions shall be black/white on 24"×36" standard drafting paper.

Drawing Quality — The drawings must be easy to read, with all lines and letters dark enough to provide good contrast with the paper. The base map showing existing features shall be screened to one-half tone.

Drafting Standards/Symbols – Drafting standards and symbols shall conform to Details shown in Appendix A. Symbols not shown shall conform to Washington State APWA Chapter CAD Standards.

Text Font/Size – Text font shall be SIMPLEX font using AutoCAD. Text identifying existing features shall be 0.08" in height, text identifying street names shall be 0.24" in height, and text for instructions and callouts for proposed water facilities shall be 0.1" in height.

Title Sheet/Title Block – Title sheet shall include a project title, generally centered on the top of the sheet, which include the project name, District assigned project identification number, section, township, range, the number of lots or units for a residential development, and the water system pressure zone(s). The title block shall include the name of the project as well as the names, addresses and phone numbers of the Developer and the Design Engineer. Title sheet and title block shall conform to the District format as shown in Appendix B. Proposed service shall be summarized and shown in table format by size and use with corresponding fixture count converted to GPM in accordance with UPC.

Vicinity Map – The vicinity map shall be shown on the title sheet and shall cover the project site and surrounding streets and property within a minimum of 600 feet of the project site. Adjacent developments, existing and proposed, are to be shown in sufficient detail to indicate effects on the water system layout. The project name, highway/streets, major public properties (such as schools, fire stations, etc.), and quarter section corners shall be shown in the map. The map shall be 8"W×6"H. with a scale from 1" = 1,000' to 1" = 2,000'.

Key Map – If the plan set has more than two plan and profile sheets, a key map showing the entire project site at a smaller scale and the boundaries showing the areas covered by all plan and profile sheets shall be provided. The key map shall show all proposed and existing water mains (with sizes), valves, meters, air valves, blow-offs, and hydrants

within a minimum of 600 feet of the project site. Call out details should not be shown on this map.

Street Names – Official Street/road names in the Project shall be used if known. Otherwise, name street/road by letters (such as Street A, Road B, Tract C, etc.) in construction plans and convert to official street/road names in record drawings.

Legend – The key map sheet shall include a legend of symbols for proposed and existing items for clarity. Legend must show symbols for other plan features such as utilities, structures, poles, etc., within the project area.

North Arrow – Include north arrows on all plan view drawings. Where possible, north arrow shall face up or to the left of each drawing. A north arrow and bar scale shall be shown at the upper left-hand corner of the drawing.

Datum –Horizontal datum shall be NAD-83-91 and vertical datum shall be NAVD 88 control and shall be indicated on the Plans. Plans shall not mix datum – all features shall be according to the same datum. Plans shall reference a local benchmark for control. Design shall reference WA State Plane Coordinate System, North Zone.

Benchmarks – Show locations and elevations of permanent and temporary benchmarks on plan drawings.

Stationing – Stationing on plan and profile should proceed from left to right in 50-foot increments or from bottom to top, where appropriate. Other more detailed increments due to larger projects with longer profiles may only be used with the District Engineer's approval.

Right-of-Way, Easement, and Property Data – The drawings shall include all right-of-way lines, property lines, dimensions, lot numbers, block numbers, plat names, and street names. If the street is private, it shall be identified as such. Show existing and proposed easements and rights of way.

Drawing Layout – Drawings shall be laid out in a logical order for reasonable understanding. Plans will not be approved if the layout is inconsistent with District requirements. Plan layout for a large project shall be discussed at a pre-design meeting with District staff. The plan view and profile for segments of water main shall be shown on the same plan sheet with the plan view on top of the sheet. The profile shall be located and oriented directly below the plan view wherever possible. When the Plan for a short branch of water main (such as a water main in a tract) is shown on a sheet, the profile for the tract and water main shall be shown on the same sheet. Fire hydrant laterals and fire service lines will require a profile view on a separate sheet dedicated to appurtenant features.

Profiles shall be accurate in callouts for elevation to avoid need for system adjustments during construction. For larger Developer extensions, match lines shall be provided showing stations and sheet numbers at all appropriate locations. Other utilities and structures, existing and proposed, shall be shown to a level of detail to allow the District to identify potential conflicts or constructability issues during design.

Hydrant Location Plan – Prior to plan approval, Design Engineer must submit plan showing hydrant locations approved by the appropriate local Fire Marshal.

Plan View Information – The plan view shall indicate and identify all existing and proposed buildings, structures, utilities (water, sewer, storm drain, power, phone, gas, fiber optics and cable TV), road/street right-of-way, easements, curbs, gutters, driveways, sidewalks, planters, streams, wetlands, mailboxes, structural features, topographic data, and other known physical features within the project area, which may affect the design and construction of the water mains. Show all existing and proposed water facilities including water mains, valves, hydrants, blow-offs, air/vacuum valves, meters, cross connection control assemblies, fire sprinkler vaults, fire department connections, etc. Fitting callouts shall be shown on the plan view and not repeated on the profile view. If an existing pipe is greater than 12 inches in diameter, the pipe may be drawn in its actual width, depending on the scale. All callouts shall include the station number.

Profile Information – Profiles shall accurately show existing and finished grades. All existing and proposed utilities shall be shown. Each utility crossing shall be accurately depicted and a calculated clearance shall be shown. All physical characteristics of the utilities shall be shown true to scale. This shall include, but is not limited to, waterline deflection, fittings, valves, fire hydrants, blow-offs, air valves, pipe length/diameter/material, pipe slope, storm water catch basin inverts, sewer manhole inverts, etc. Separate profiles are required for hydrant runs and fire lines from the main to the vault or hydrant, including the finished grade elevations.

Pressure Zone – If the Project covers more than one pressure zone, Plans shall show all pressure zone boundaries, pressure reducing valves, normal flow directions, booster pumps, check valves and isolation valves.

Scale – Indicate scales in the drawing area and title block on each sheet, utilizing a consistent format. Bar scales shall be used in drawing areas for Plan reproduction integrity. The horizontal scale for plan and profile sheets shall be 1" = 10', 1" = 20', or 1" = 30'. Smaller horizontal scales (1" = 40' or 1" = 50') may be used only with approval by the District Engineer. The vertical scale for profiles shall be 1" = 5'. Architectural scaled drawings will not be accepted.

Details – The Design Engineer shall provide design details (and calculation where appropriate) for the District's review and approval for details not included in District Standards or altered to fit a specific project need. Standard Detail numbers shall be used for callouts.

2.04 CALLOUTS

Callouts shall include but are not limited to the following:

Street Names - Use official street/road names wherever possible.

Easement Callouts - Dimension and ownership of existing and proposed easements (e.g. 20' CWD WATER EASEMENT).

Existing Water Main Callouts - Size and material of all existing water mains (e.g. EX. 12" D.I.).

Proposed Water Main Callouts - Pipe length (from center-of-fitting to center-of-fitting), size, and material alongside of each pipe in both plan and profile (e.g. 150 L.F. 8" D.I.). The plans shall include centerline stationing and offsets for all water mains and appurtenances.

Structure Callouts – All structures within 20-feet of the water main or District facility shall be identified. The Design Engineer shall demonstrate minimum clearances are met.

Tie-In Callouts – For connection to an existing water main, callouts shall include size and material of new and existing water mains, method of tie-in, and fittings, valves, adaptors, sleeves and all other items to be used. Indicate "COORDINATE W/CWD".

Fitting Callouts – Station, offset, size, type, and attachment of fittings such as tees, crosses, bends, restrained pipe lengths, and sleeves shall be shown in plan view (e.g. STA. 18+55.6, 3.5' RT, 12"×8" TEE (FL×MJ) W/CONCRETE BLOCK). If valves, reducers, adapters and sleeves are used at the fitting, all the items shall be listed.

Valve Callouts – Station, offset, number, size, type, and attachment, (e.g. STA. 18+55.6, 3.5' RT, 12" GATE VALVE (FL×MJ)). Existing valve callouts shall be described and location shown on plans. If plan drawings are not able to provide the location on plan, then the direction and distance shall be depicted on plan view.

Hydrant Callouts – Sequential number and station of fire hydrant and all restrained fittings and parts for the fire hydrant assembly. Hydrants shall be shown on the plans where the hydrant is to be located with respect to property lines and easements that will be provided.

Air/Vac and Blow-off Callouts – The sequential number of each item and refer to the sheet where the details are shown. If they are labeled as "AIR/VAC No. 1 AT HIGH POINT" or "BLOW-OFF NO. 5", the approximate stationing shall be shown.

Utilities Crossing Callouts – Where a water main crosses or potentially conflicts with other utilities, show location in the plan and the callout station, calculated pipe elevations, and demonstrate minimum wall to wall clearance requirement is met in the profile.

Other Utilities Callouts – Existing and proposed utilities shall be shown in plans and profiles if information is available. Callouts shall include stationing, offsets, sizes, material, and invert elevations where impact on water line design or installation may exist. Separation shall be based upon wall to wall clearance; measurement from centerlines is not acceptable.

Meter Callouts – Single family residential meters do not need callouts if standard sizes (5/8") are used. However, the location, service line size, size and type of each meter (including domestic, irrigation and fire sprinkler meters) shall be shown for non-residential developments. Refer to Standard Details.

Individual PRV – If the area has a high static pressure (above 80 psi), the plans shall include the Statement that individual PRV is required.

Backflow Prevention/Premise Isolation – Size and apparatus for backflow prevention directly behind the meters shall be clearly identified as required by the District. Refer to appropriate Standard Details for callouts.

Landscape and Irrigation Plans – Landscaping plans and features shall be shown in sufficient detail to indicate irrigation system configuration and plumbing arrangements. Plans must show existing and proposed District water system features, including easements. Irrigation systems shall be modified where a conflict is presented between existing or proposed District facilities.

Abandoned Facilities – Plans shall clearly identify existing system components that will be abandoned. Abandoned meters, hydrants, blow-off assemblies, air-vacs and other above ground features shall be called out.

In home fire tank system shall provide appropriate RPBA at the back of the domestic meter.

2.05 ENGINEER STAMP

Plans shall be prepared by a professional engineer with current registration in the State of Washington. All Plan sheets submitted to the District for review shall be stamped and dated by the Design Engineer. The Design Engineer shall indicate “SUBMITTED TO CWD FOR REVIEW, NOT FOR CONSTRUCTION” clearly at the lower right corner on each preliminary Plan sheet prior to approval by the District. The Design Engineer shall make copies of District Standard Details available to the Contractor as appropriate to complete the project.

A Final Plan set shall be submitted for the District Engineer’s approval to construct. The Final Plan set shall be wet stamped, signed in blue ink and dated by the Design Engineer. The plan sheets shall each contain a signature block labeled “Approved for Construction” to accommodate signature by the District Engineer.

2.06 GENERAL NOTES

The following General Notes shall be incorporated on the key map sheet. All the notes on the list may not pertain to every Project. The Design Engineer should include only those notes that are relevant to the Project and may omit non-relevant notes; replace deleted notes with “Not Used”. However, the remaining General Notes shall not be re-numbered. If additional notes are needed, they shall be added under the title of “SPECIAL NOTES” next to the General Notes.

General Notes:

1. All work shall be in accordance with approved Plans and District Standards and Specifications. Any changes to the design without District approval may jeopardize the acceptance of the Project by the District.

2. The Developer/Contractor shall schedule a pre-construction conference with Covington Water District at least two weeks in advance of delivery of materials on-site or start of any work.
3. The Contractor shall keep a copy of the Approved plans, Standards and Specifications on the jobsite at all times during construction.
4. All materials shall conform to the District Standards and Specifications and shall be approved by the District prior to delivery to the job site.
5. The District shall have first right of refusal for salvage of any water system features. Specific items of salvage may be called out on the plans or within contract documents.
6. All service locations shall be field approved by the District prior to installation.
7. It is the Contractor's responsibility to locate underground utilities by calling One-Call Underground Utility Locator (1-800-424-5555 or 811) 48 hours prior to construction.
8. The District shall be notified at least 48 hours prior to commencing work on the water system and confirm contact with the District's construction inspector. Failure to provide adequate notice will result in delay of work on the system.
9. Adequate trench sheeting and/or shoring shall be provided by the Contractor as required by OSHA and WISHA.
10. The pipe shall be installed by following the finished grade profile wherever possible. The cover depths shall be 42 inches (3.5 feet) typical; 36 inches (3 feet) minimum, and 60 inches (5 feet) maximum when approved by the District Engineer. Water mains under State Highways travel lanes shall be 60 inches (5 feet) minimum cover depths when required by the jurisdictional permit; or as otherwise required by WSDOT. Cover depth is measured from finished grade to the top of pipe.
11. Pipe joint deflections shall not exceed 3-degrees of deflection for unrestrained pipe and 1- 1/2 degrees for restrained pipe and no more than 11-inches deflection per 18-feet of horizontal pipe. Bends may be required to maintain proper water main alignment within easements or public right-of-way.
12. Water main shall not be placed under sidewalk, curbs, gutters, or any permanent structures without the prior approval of the District Engineer.
13. No connections to the District's system are allowed until the new construction passes pressure and purity tests. No more than 5 working days shall pass between testing of extensions and connection to the system. All pipe disinfection and verification shall conform to AWWA 651. Verification shall be repeated if more than 5 days pass between testing and connection to the system.
14. Prior to making connections to the existing system, contractor shall field verify the

location, depth and material of existing water mains at the point of connection. All main line valves shall be maintained so as to be accessible during project construction and all valve stem tops having over 48 inches of cover require an extension in accordance with CWD Standards.

15. All water lines shall maintain a minimum of 10 feet horizontal clearance from sanitary sewers. When water lines cross sewer lines, the minimum vertical clearance shall be 1.5 feet (wall to wall).
16. Contractor shall contact the District for inspection of flushing, pressure test and purity testing process. To fill the main for flushing, pressure and purity tests, the contractor is required to rent a hydrant cart from the District. The hydrant shall remain in the full open position during use to prevent back-siphon through the drain hole. After successful testing, as determined by the District inspector, the contractor will tie into the existing system, using disinfected sleeves and spool pieces. Connection to the District water system shall be in accordance with AWWA 651.
17. The Contractor shall contact the District for valve operation. Only authorized representatives of the District shall operate valves in the District water system.
18. Tapping – Tapping sleeves shall be pressure tested in an approved manner in the field in the presence of the District construction inspector, prior to tapping the main line. Tapping of the main line shall not proceed unless a District inspector is present. Existing main exterior must be thoroughly cleaned and disinfected before installing tapping sleeve. No size-on-size tapping is allowed.
19. Shut down or tapping of existing water lines to facilitate connection to the existing facilities shall be coordinated with the District inspector at least 72 hours in advance to allow for customer notice of service interruption. Any relocation of existing facilities is subject to approval of the District Engineer.
20. Water will be supplied only through a hydrant cart with proper backflow prevention and meter. Contractor shall obtain the hydrant cart apparatus at District headquarters upon payment of a deposit. Water usage and daily fee for use will be billed in accordance with current rate structure.
21. The Contractor is hereby notified that, since filling and flushing will be done through a cross-connection control device, low velocity flows may be encountered. Therefore, every attempt shall be made to keep the pipe clean during installation. This may include swabbing the pipe with chlorinated water.
22. The Contractor shall perform temporary soil erosion and sedimentation control, dust control, noise control, and traffic control as required by the District and applicable jurisdictional permits.
23. Cutting and patching of public road rights-of-way shall conform to the requirements of the permit agency.
24. Water service shall be maintained for commercial services during their normal

business hours. The Contractor shall coordinate service interruption impacting commercial customers to occur during non-operating business hours.

25. Disinfection of newly constructed main shall be performed through a chlorine injection apparatus which accurately doses chlorine into the main. This apparatus shall be rented from the District and obtained at District Headquarters by contacting customer service and paying deposits for damage and a daily use fee.
26. The project shall follow the District's latest version of Premise Isolation Program requirements. The manual is available via the District's website.
27. Connections to existing water mains shall be via a cut-in tee. All joints must be restrained unless otherwise approved by the District Engineer.
28. The Developer/Contractor shall arrange for compaction testing to be performed by a certified technician. The Developer/contractor shall provide the Engineer and the District with one copy of the compaction test report within 24 hours of test completion.
29. The Developer/Contractor shall maintain construction redline plans with actual field measurements, field changes, and top of pipe elevations every 50 linear feet and at every fitting installed. Construction redlines shall be sent to the District. Incomplete, inaccurate, illegible or poor-quality drawings will be rejected.

2.07 PLAN SUBMISSIONS

The first Plan submittal to the District for review shall be submitted as PDF and AutoCAD files to scale and include civil plans with final grading, sewer and storm information, landscaping Plans, and soils report for the Project. Plans shall be prepared in accordance with Chapter 3 of these Standards.

Subsequent submissions shall include PDF copies of revised Plans and return comment form indicating how review comments and corrections have been addressed.

Fire Marshal Approval –The applicant's Design Engineer shall be responsible for obtaining local Fire Authority approval of plans prior to submitting plans to the District for a second review. Prior to Plan approval, the Design Engineer shall submit an electronic copy of **the** fire hydrant location plan stamped approved by the Fire Marshal of local jurisdiction, if the Project requires fire hydrant installation. The District reserves the right to require additional fire protection measures or modify sizes as deemed necessary.

Easements - If any off-site easement is required on a property not owned by the Developer or District and outside of public right-of-way, the developer must acquire an acceptable easement before Plans will be approved by the District. Easements shall be obtained for water facilities including, but not limited to, water mains, hydrants, meter boxes and backflow prevention devices.

Geotechnical Reports – Any geotechnical investigations on the project site shall be submitted as support for trench design assumptions.

For final submission of approved Plans for District Engineer's signature, include an electronic set of original Plans signed and stamped (blue ink preferred) by the Design Engineer. Remove all "NOT FOR CONSTRUCTION" notes. Include a signature block for the District Engineer's approval for construction.

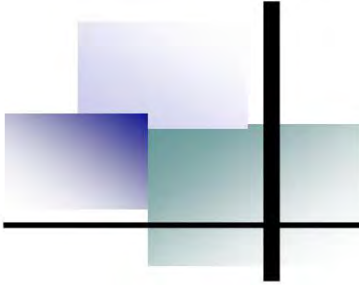
2.08 PLAN MODIFICATION APPROVALS

Any changes to the scope of the work outlined in approved plans shall be documented on the "Plan Change Request" form provided by the District accompanied by a PDF copy of plan change drawings which clearly identify and illustrate the proposed change. The District Engineer shall review and give approval of all changes prior to commencing any work related to the change. Constructing water system components not identified on the approved plans may jeopardize project acceptance by the District. During construction, changes deemed minor by the District Engineer, shall be noted and accounted for in the record drawings.

2.09 RECORD DRAWINGS

After construction completion and at final approval of as-builts, the Developer's Engineer shall provide signed record drawings (as-built plans) to the District for permanent records. The District requires one (1) set of drawings on mylar, one (1) set on bond paper, final CAD files, and a PDF record drawing to scale with original paper size. The digital format shall be current release of AutoCAD[™] adopted by the District ".DWG" files and in a pdf format. The AutoCAD[™] files shall include all Plans, profiles, notes, and details of the Developer Extension. Drawings shall be spatially referenced and all external references (ex. ref) and base mapping must be included. The plot style table (pen assignments) file shall also be included so that the drawings are reproducible at the District.

See Section 3.30 for specific requirements for record drawings.



Chapter 3

Design Standards



CHAPTER 3 DESIGN STANDARDS

3.01 HYDRAULIC REQUIREMENTS

All water mains, including those not designed to provide fire protection, shall be sized following a hydraulic analysis based on flow demands and pressure requirements. The system shall be designed to maintain a minimum pressure of 20 psi at ground level at all points in the distribution system under maximum day flow demands plus fire flow and 30 psi under peak hour demand. Fire flow demand will be established by the District and shall not be less than the demand determined by the local jurisdictional fire marshal. The desired working pressure in the distribution system during Maximum Day flow conditions shall be not less than 30 psi, and not greater than 125 psi. Pipe network shall be designed not to exceed a sustained flow of 8 feet per second during maximum day demand without fire flow demand. Flow velocities in water mains shall not exceed 10 feet per second during the maximum day demand plus fire flow, as determined by the District hydraulic model. An individual PRV is required when the District's static pressure at the ground level exceeds 80 psi.

3.02 PLANNING CRITERIA

Planning criteria for developer extensions are established in the currently adopted District Water System Plan (WSP). Criteria presented in the plan include average daily usage by customer class and peaking factors. Minimum requirement for developer extension are determined by hydraulic modeling and are made conditions of the Water Availability Certificate. The hydraulic model utilizes the planning criteria set forth in the Water System Plan for assessing the impact of proposed developer extensions. Minimum Fire flow requirements for buildings are established by the local fire marshal for the jurisdiction. Necessary improvements to reliably provide fire flow are subject to District approval. The District's minimum fire demand during maximum day demand is 1,500 gpm for residential and 3,000 gpm for non-residential development within UGAs (Urban Growth Areas), but in no case less than the fire flow as established by the fire marshal at maximum day demand, whichever is greater. Rural Fire Flow shall be a minimum of 1,000 gpm for 2-hour duration. Existing water system infrastructure impacted by finish grade modifications shall be brought to current standards as part of project construction. Failure of the design engineer to identify such impacts or for District Plan Review to identify such impacts does not relieve the contractor or developer of the requirement to bring the system to standard.

3.03 WATER MAIN LAYOUT

Residential –District Administrative Code (DAC) requires that anyone who desires water service for more than one single family residence, including single family and multi-family structures, must extend the District's System to, and past, at least one full side of the property. In addition, the water mains must be installed through all internal streets; loop to all adjacent mains which will, in the District's opinion, extend past or through the property in the future; and stub to the property line where it is likely that they will be needed to connect to future mains. Depending on the property size, shape and the Water System Plan, the District may require mains to be constructed on more than one, and up to all,

full sides of the property. The District also reserves the right to require that extra service lines be installed, at the District's discretion, to be used for sampling stations.

Non-Residential Properties –DAC requires that anyone who desires water service to non-residential (commercial, industrial or public) property must extend the District's System to, and past, the entire perimeter of the property and/or stub or connect to present and future mains. The District also reserves the right to require that extra service lines be installed, at the District's discretion, to be used for sampling stations.

Developer extensions shall be designed as a looped network to provide increased reliability of service, improved water quality and reduced pressure losses under high demand conditions, such as fire flow. Dead end mains are permitted only under limited circumstances and only at the discretion of the District Engineer. Dead end mains, when allowed, shall be fully restrained.

3.04 WATER MAIN LOCATION

Where practical, water mains shall be within the right-of-way of public streets and roads. New water mains within public right-of-way shall be located on north and east sides of the centerlines. Whenever possible water mains shall be approximately 15 feet off the property lines, in the shoulder of the roadway for rural roads, and approximately midway between centerline and curb for urban streets and may be deflected to avoid concrete bus lanes, cross-gutters and other obstacles. Water mains in the roadway or parking lots shall be a minimum 6 feet from curbs or edges of parking lanes. Exceptions to this requirement may be made in order to minimize the cutting and replacing of pavement, to avoid conflicts with other underground facilities, to permit sanitary sewers to be installed on the "low side" of streets, or for other reasons approved by the District. Mains shall be installed on a street with the distance from the property line and/or centerline varied as little as practical. Water mains shall not be located under or behind parking lanes, curbs, gutters, or sidewalks.

In an easement crossing paved areas on private property, water mains shall be installed in driving lanes (not under parking stalls). Easements on non-residential properties shall be minimum 20-feet wide. Residential areas shall provide designated tracts for water main that are not within public right of way. Such tracts shall be minimum 20-feet width and dedicated for access and utility use with ownership by established homeowner associations. Such tracts are typical for looping mains from cul-de-sac streets.

Water mains 12-inch diameter or less may be laid along road/street curves using pipe joint deflection. Pipe joint deflections shall not exceed 3-degrees per joint for unrestrained pipe and 1-1/2 degrees per joint for restrained pipe. Larger diameter pipe joint deflection requirements shall be at the discretion of the District Engineer. Joint deflections shall not exceed 11 inches for every 18-feet of unrestrained pipe, or 5.5 inches for every 18-feet of restrained pipe. Use of short pipe segments to achieve a greater rate of deflection is prohibited. Angle fittings may be required to maintain proper water main alignment within public right-of-way or easements.

3.05 HORIZONTAL SEPARATION

Washington State Department of Health and Department of Ecology regulations and guidelines shall be adhered to at all times for separation of water main and sanitary sewer. Variations shall be at the discretion of the District Engineer and shall not exceed formal criteria established by the Department of Ecology Manual entitled Criteria for Sewage Works Design.

Water mains shall be separated at least 10 feet horizontally (outside wall to outside wall) from any existing or proposed sanitary sewer, septic tank and/or absorption field. The distance shall be measured at the least point of separation. In cases where it is not practical to maintain a 10-foot separation, the District may allow deviation on a case-by-case basis using DOE criteria. Water service connections and side sewers shall have minimum horizontal separation of 10 feet unless otherwise approved by the District.

The horizontal separation between water mains and other utility features such as storm drains, gas, power, other water mains, telephone, utility poles, fiber optics, cable TV, and utility vaults, shall be a minimum of 5 feet when situated in public right-of-way. Separation from structures shall be 10 feet within easement areas or tracts.

3.06 VERTICAL SEPARATION

Washington State Department of Health and Department of Ecology regulations and guidelines shall be adhered to at all times for separation of water main and sanitary sewer. Variations shall be at the discretion of the District Engineer and shall meet criteria established by the Department of Ecology Manual entitled Criteria for Sewage Works Design.

Where practical, water mains shall cross other utilities at right angles. If this is not possible, the crossing angle shall be maintained between 45 and 90 degrees. Water mains crossing sewers shall be laid to provide a minimum vertical distance of 18 inches between the outer wall of the water main and the outer wall of the sewer. Wherever practical, the water main shall be above the sewer main. Where a water main crosses over a sanitary sewer, one full length of water pipe shall be used with the pipe centered over the sewer for maximum joint separation. When the above conditions cannot be met, the District has the right to approve a variance in accordance with DOE criteria. However, where water main crosses below a sanitary sewer, the District shall require that the sewer be constructed of ductile iron and be pressure tested before being put on line. The District may also require the sewer be encased in concrete, as the District Engineer deems necessary.

The vertical clearances between water mains and storm drains shall be a minimum of 12 inches. Whenever practical, the water main shall be above storm drains. The vertical clearances between water mains and other utilities such as gas, power, telephone, fiber optics, and cable TV shall be at least 12 inches. Contractor shall call for inspections to verify separations for utility crossings installed subsequent to completion of water main.

3.07 SETBACK DISTANCE FROM BUILDINGS AND STRUCTURES

Water mains shall be located a minimum of 10 feet from covered parking or walkways, 15 feet minimum from buildings and 10 feet from retaining walls. A 20-foot-wide minimum easement shall be provided for a water main between buildings. When passing under retaining walls or rockery, water main shall be placed in a steel casing in accordance with District Standards. Water main shall not be placed under buildings. (See 1.02 for definition of "Structure").

3.08 WATER MAIN SIZING

Transmission mains, non-residential developments, and specific areas outlined in the District's Water System Plan require 12-inch or larger water mains. Water main that is greater than 16-inch diameter shall require specific design and evaluation for approval by the District Engineer. The District does not use 10-inch pipe as water distribution main. When providing supply to residential areas for distribution, 8-inch or larger pipe is required. The District uses 6-inch pipe as part of the distribution system only as fire hydrant runs (not longer than 50 feet). With District approval, 4-inch pipe may be used to serve water to a tract serving 4-8 single family parcels or the end of a cul-de-sac beyond the last fire hydrant and when no future extension is anticipated, as determined by the District Engineer. The length of the 4-inch water main shall not exceed 200 feet and shall serve no less than 4 and no more than 8 residential units.

Pipeline design for water main extensions greater than 16-inch diameter is a specialty design requiring measures beyond those contained in these standards and conditions. Design Engineers shall provide assumptions and calculations for such specialty design to the District for review.

3.09 PIPE MATERIAL

Water mains shall be cement-mortar lined ductile iron Class 52, unless otherwise specified. Water mains within high voltage power easements shall be polyvinyl chloride (PVC) AWWA C-909 or C-905, pressures class 200 pipe with 10 gauge insulated locate wires. High density polyethylene (HDPE) and other pipe materials may be used only with District Engineer's approval. Designs that require PVC or HDPE water mains must include tracer wire and test station installations. The Design Engineer will provide a test station detail for District approval. Test station locations must be clearly shown on the design drawings.

3.10 PIPE FITTINGS

Pipe shall be furnished with mechanical joints or rubber gasket push-on joints unless flanged joints or restrained joints are required. Vertical bends shall be used when vertical alignment cannot be achieved using joint deflections of 1.5-degree with restrained joints and 3-degrees without restraint. All reducers shall be eccentric with the flat side installed at the top to maintain equal grade line at both ends of the reducer.

3.11 STEEL CASING

Ductile iron pipe shall be encased in a steel casing when crossing under a rockery or wall so that maintenance of the water main will not disturb the structures. Casings are required when crossing (1) under rockeries; (2) under retaining wall footings; and (3) under reinforced earth retaining walls (both wall and reinforcing material). Casings shall extend a minimum of 5 feet past each edge of the structure, or a distance equal to the depth of pipe, whichever is greater.

The carrier pipe shall be installed with casing spacers. Minimum vertical clearance between the bottom of the wall or footing and top of the pipe or casing shall be 2 feet. The pipe trench at the casing shall be backfilled with trench backfill material (see typical trench detail in Appendix A) when the vertical clearance is less than 3 feet.

Ductile iron pipe shall be restrained and encased in a steel casing when crossing under a railroad or state highway. Casings shall extend beyond the edges of the right-of-way. The casing pipe and carrier pipe shall be installed in accordance with the applicable federal, state and local regulations. In the case of railroad crossings, the casing and pipe shall also comply with requirements established by the railroad company.

For all installations, casing spacers shall be placed on the carrier pipe to ensure approximate centering within the casing pipe and to prevent damage during installation. At a minimum, 1-inch clearance between the carrier pipe bell and casing pipe shall be maintained. (See Appendix A - Pipe Casing Standard Detail). Each end of the casing shall be sealed using rubber end caps as a preferred method with controlled density fill (CDF) per the Districts discretion. The contractor shall refer to the District Standard Details for additional information.

Steel, AWWA 909, or HDPE casing may also be required when a water main crosses a creek or wetlands. Water main extended through casings shall be restrained-joint construction.

3.12 COVER DEPTH

Cover depths above the top of water mains shall be typically 42 inches (3.5 feet). Pipes 8 inches and smaller shall have a maximum depth of 60 inches (5 feet) to the bottom of the pipe. Pipes 12 inches and larger shall have a maximum depth of 66 inches (5.5 feet) to the bottom of pipe. Depth of bury shall routinely remain between 36 inches and 42 inches to avoid 'roller-coaster' variations in the pipe grade. "Roller Coaster" effect is described as 18" dip or rise in pipe depth per 200 feet horizontal distance. In no case shall main depth to the top of the pipe exceed 60 inches (5 feet). The cover depth may be a minimum of 36 inches (3 feet) with the approval of the District Engineer.

Cover depths shall be 60 inches (5 feet) under the traveled lanes of State highways, when required by WSDOT or the local jurisdiction.

3.13 SLOPES

Where slopes are 20% or greater, pipe joints shall be restrained. Anchor blocks shall be used in conjunction with joint restraint where slopes are 20% or greater.

3.14 CORROSION PROTECTION

Ductile iron fittings shall be protected by 8-mil polyethylene encasement in accordance with AWWA/ANSI C105/A21.5, as directed by the District Engineer. Polyethylene Encasement shall be required for fittings to protect from contact with concrete thrust blocking. Pipe installed in highly corrosive soils shall conform to AWWA C909 materials or provide other means of cathodic protection.

3.15 THRUST RESTRAINT

Use horizontal and vertical concrete blocking and show locations and types of blocking on plan and profile. Concrete blocking is required on all fittings, including restrained joint fittings. See District Standard Details, Appendix A.

No change in horizontal direction or diameter shall occur within 36 feet of the vertical bend. Special blocking or joint restraint designs may be necessary for poor soil, conflicting utility, etc. Specially designed blocking and restrained pipe shall be required for conditions as determined by the District Engineer. Conditions where installation is within or adjacent to fill material, close proximity to other existing or proposed utilities or utility trenches, inside pipe casings, critical or sensitive areas, or dead end conditions are typical circumstances requiring such special design. Design Engineer shall submit the appropriate Ductile Iron Pipe Research Association (DIPRA) calculations defining the restraint required and show the restrained limit on the plans and profiles. The Design Engineer shall also submit the support documentation to the calculations and assumptions such as geotechnical reports and soil classification data.

3.16 ASBESTOS CONCRETE PIPE CROSSING

When a proposed water main crosses existing asbestos concrete (AC) pipe, the District may require removal and replacement of the AC pipe with ductile iron pipe. The AC pipe to be removed shall be disposed of in accordance with the Puget Sound Air Pollution Control Agency (PSAPCA) requirements. A permit from PSAPCA to perform the AC pipe removal is required prior to construction drawing approval. Personnel performing the removal must be certified to perform the work. The permit shall be obtained by the contractor and provided to the District before notice to proceed is given.

3.17 VALVES

Sufficient valves shall be provided on water mains so that interrupted service and sanitary hazards will be minimized during repairs, construction and maintenance. Line valves shall be located at no more than 500-foot intervals in non-residential, industrial and multi-family

areas and at no more than one block or 800-foot intervals in other areas. Where the system serves widely scattered customers and where future development is not expected, the valve spacing shall not exceed one quarter (1/4) mile. At water main intersections, valves shall be placed on all legs at each cross and all legs at each tee (unless tapping an existing water main). The valves shall be spaced so that no more than two fire hydrants are removed from service with any separate main shut-down. The final determination of valve spacing and location shall be determined by the District Engineer.

An auxiliary valve shall be installed on each hydrant run at the tee. Provide a valve at each end of an easement. Additional valves may be required for area isolation and uni-directional flushing.

Zone separation valves shall have a blow-off located on both sides of the valve or consist of two valves with a hydrant between them to facilitate flushing and prevent dead end mains.

Valves on water mains shall, where practical, be located within or immediately adjacent to the edge of the street outside of wheel paths for vehicles or bicycle lanes. A valve box or vault chamber shall be provided for every valve.

Generally, valve sizes shall be the same as the water main. All valves 12-inch and smaller shall be resilient seat gate valves and all valves larger than 12-inch shall be side-mount actuated. If a valve is installed in gravel or unpaved area, a 3' x 3' x 4" asphalt pad shall be set around each valve box at finished grade.

Following transfer and acceptance by Bill of Sale, a developer extension is formally accepted by the Board of Commissioners. All valves are then property of the District and shall be opened, closed or otherwise operated ONLY by qualified and authorized District personnel.

3.18 FIRE HYDRANTS

These fire hydrant specifications satisfy Covington Water District's process for approval. Fire hydrants shall be shown on plans where the hydrant is to be located with respect to property lines and where easements will be needed or provided. Building footprint or pad areas shall also be shown relative to the water system features. Fire hydrants shall be installed for buildings where water is served by the District. The final number of hydrants and their locations shall be approved by the Fire Marshal designated for the local jurisdiction. Bollards for protection of hydrants shall be placed only upon approval by the District Engineer.

The minimum number of fire hydrants shall not be less than the required flow divided by one thousand two hundred fifty (1250), rounded off to the nearest whole number. In no case shall the fire flow be reduced below that required by these rules and regulations as a result of this computation.

Fire hydrants serving multi-family, plats, and non-residential lots shall be located not more than 300 feet on center and shall be located so that at least one hydrant is located within 150 feet of all structures or uses. Fire hydrants shall not be closer than 50 feet from multi-

family or non-residential buildings. Additional hydrants may be required as directed by the District.

Any hydrant run exceeding 50 feet in length shall be 8 inches in diameter. The joints of hydrant runs shall be restrained (see Standard Detail in Appendix A). No more than one hydrant shall be installed on any permanent dead-end 8-inch water main. No domestic or fire sprinkler water service will be permitted on any hydrant branch. Fire hydrants shall be installed at the ends of each dead-end line more than 300 feet in length. Such fire hydrants may be removed to conform to standard spacing requirements when the main is again extended with the District Engineer's approval. Such runs shall pass a specific purity sample obtained for the run.

Fire hydrants shall be located near the beginning of curb return or at lot lines. No fire hydrant shall be placed within 3 feet of a driveway. A hydrant shall be installed within 50 feet of a Fire Department Connection (FDC). FDC may be placed on buildings instead of at the fire control vault, as approved by local Fire Marshal. Hydrants shall not be closer than 50 feet to any structure; unless approved by the Fire Marshal.

Hydrants shall be designed for standard bury depths; extension kits shall not be permitted to adjust new hydrant installations to finished grade. Bends shall not be permitted in fire hydrant mains.

Prior to CWD approval, a separate, stamped fire district approval is required.

3.19 COMBINATION AIR VALVES

Combination air valves shall be installed on high points of new water mains which are 12-inch diameter or larger, where the elevation difference between the high point and the next low point exceeds one (1) pipe diameter, or as required by the District Engineer. The typical valve size shall be 2 inches. However, supporting calculations per AWWA Manual M51 shall be provided for the site-specific slope and maximum flow rate through the pipe to verify proper valve sizing.

The air valves shall be located outside the traveled portion of the roadway, preferably behind the curb or sidewalk and within the public right-of-way and the District easement. The depth of the water main near the air and vacuum release valve shall be deep enough to achieve at least the minimum upslope (2%) to the release valve. Where practical, water main profile shall be adjusted to eliminate the use of combination valves.

3.20 BLOW-OFFS

Each dead-end main shall be provided with a fire hydrant if more than four residential units are served or with an approved flushing hydrant or a blow-off assembly for flushing purposes. Flushing devices shall be sized to provide flows that will give a velocity of at least 4 feet per second in the water main being flushed. No flushing device shall be directly connected to any sewer. Blow-off assemblies shall be located outside the traveled portion of the roadway, behind the curb or sidewalk, and within the public right-of-way or water line easement. Blow-offs shall be installed on dead end mains unless fire hydrant is required by the District Engineer. Avoid multiple blow-offs through strategic hydrant

placement.

3.21 CONNECTIONS TO EXISTING SYSTEM

Connections to existing mains shall be made via cut-in per standard detail in Appendix A.

3.22 JOINING DISSIMILAR METALS

Connections between dissimilar metals (i.e. brass to iron) shall utilize dielectric unions or insulating gaskets to eliminate electrical connectivity between the fittings.

3.23 EASEMENTS

All water mains, valves, fire hydrants, meters, air/vacuum valves, blow-offs, and other appurtenances not in public right-of-way shall have easements designated on submitted plans to provide the District with permanent access to these mains and appurtenances, as well as easements for future line connections, as required. The easement for the water mains shall be 20 feet in width and 10 feet on all sides of pipelines and a minimum of 5 feet on each side of appurtenances (such as hydrants, meters, air/vac, blow-offs, etc) or as directed by the District Engineer.

Provide easement boundaries on plans and identify their widths. If an easement is defined as a constant width on each side of the water main, then show an easement callout and label it as typical (TYP.).

An easement running parallel with a lot line shall not be split so as to occur on two lots. The easement, title report and legal descriptions with accompanying sketch and plans shall be prepared by the applicant's engineer, a digital copy of which shall be sent to the District Engineer, or easements for the District facilities shall be shown within a tract or plat map. Easements shall be shown on the construction plans and short plat documents.

Design Engineer shall provide digital copies of the easement description and sketch to the District Engineer for review. When acceptable, two additional copies of the description and sketch, signed by a registered Professional Land Surveyor, shall be submitted along with a current (within 30 days) title report for the property reflecting all deeds of trust and encumbrances and subordinations, signed by the trustees shown on the title report. If documentation is not acceptable, the District Engineer will return the documents with the required corrections noted.

Before the project is accepted by the District, easements shall be recorded using the District Easement Form. Easement drawing and legal description shall be included as exhibits. Exhibits shall be 8-1/2-inch by 11-inch with 1-inch borders. The easement sketch must contain a vicinity map showing the location of the easement in relation to major streets and highways. The sketch should also depict easement boundaries with bearings, distances, points of beginning from the description, north arrow and other information required to review the easement for accuracy in relation to District facilities. Easement exhibits shall be consistent with record drawings indicating the location of District facilities

to ensure proper accommodation for the facilities.

If off-site easements are required on properties not owned by the Developer or outside the public right-of-way, the Developer shall acquire the easements before construction plans are approved by the District.

3.24 SERVICE CONNECTIONS

Service connections including saddle, service line, meter box and appurtenances shall be installed as part of the construction of all new water developer extensions. All services shall have a designated parcel and owner for the service. Each building requires a separate domestic use meter.

METERS

The District shall install all residential meters up to 2-inch (not including compound meters). Positive displacement meters shall be used for 2-inch residential meters. All non-residential meters 2-inch and larger types shall be determined by the District and shall be installed by the contractor. Other non-residential meters sizes shall be installed by the contractor with the inspector present. The stops for both the bypass line and the meter on large settlers shall be locked in an off position, by the District Inspector once the meter is installed. Meter stops will be unlocked when the system is accepted for service. Outside use meters are required for all non-residential developments with a landscape irrigation system and for buildings with hose bibbs. A separate fire sprinkler meter and fire service line shall be provided if fire sprinkler system supported by the District system is required by the Fire Marshal for a structure. Irrigation systems, fire sprinkler systems and non-residential connections must be protected by the appropriate type of DOH approved backflow prevention assembly. The District requires all non-residential domestic uses to install a Reduced Pressure Backflow Assembly (RPBA). Irrigation or fire protection uses require a Double Check Valve Assembly (DCVA). Domestic residential meters with fire tanks in the house shall provide an RPBA on back of the domestic meter. Flow through meters are allowed in the District, however, the full volume used of the flow through meter will be charged for the connection fee. Alternative meters may be required per the District Engineer.

For residential developments, meter boxes shall be located in front of the lot to be served unless otherwise approved by the District. They shall be close to the property line, within public right-of-way or water easement, and not in paved areas such as sidewalk or driveway. Meters for two neighboring lots shall be installed near the common lot line to ease meter reading. Meters located close to driveways shall use boxes with traffic rating. The distance from the water main to the meter box shall not exceed 60 feet. Service lines shall be perpendicular to the water main. Any deviation from this requirement must be approved by the District Engineer.

Each non-residential building shall be metered. The District Engineer may require non-residential meters 2-inch and larger to be AMR type meters, or as determined by the District. For non-residential and multi-family developments, meters shall be located behind the back of a curb or sidewalk and not behind parking space or other obstructions. Compound meters shall have the recommended approach and discharge piping

commonly requiring installation in a vault or buried enclosure. Alternative meters such as ultrasonic may be required per the District Engineer.

The standard meter size is 5/8" for a single-family residential house. Non-Residential services and meter sizes shall be determined by the building official of the applicable jurisdiction per the Uniform Plumbing Code, and the plans shall show the locations and sizes of the services and meters. An owner shall supply the appropriate fixture unit counts converted to gallons per minute (gpm) to support the meter sizes included on the plans.

SERVICE LINES

Minimum allowable service lines from mains to meters shall be 1.5" for new single family residential buildings and 2" for multi-family or non-residential buildings. Each building shall be served by separate services and meters. Non-residential irrigation and fire sprinklers shall be served by separate services and meters unless otherwise approved by the District. A minimum pressure of 20 psi at the meter shall be maintained in the main during fire flow plus maximum day flow demand. If friction losses will cause the pressure at the building to drop below the minimum, the service line size shall be increased or private booster pump installed.

Static service pressures at ground floor elevation shall be determined at all lots/buildings to ensure compliance with system pressure standards. Plans shall identify lots/buildings where the builder/owner should install individual pressure reducing valves (PRV's) in accordance with the plumbing code on the customer side of service lines (after water meter box) when service pressures exceed 80 psi.

3.25 EXISTING WATER MAIN ABANDONMENT

Existing water mains out of service on private property shall be removed as required by the District or the local jurisdiction. Existing water mains out of service in public right-of-way shall be removed or abandoned. If water mains are to be abandoned in place, the ends of the abandoned water mains shall be plugged by filling with Class 2,500 psi concrete for a minimum length of 12 inches. A cap or plug may also be used with mechanical restraint.

3.26 PRESSURE REDUCING STATIONS

If a development is located in two or more pressure zones, the District may require pressure reducing stations be designed and installed by a Developer. In these circumstances, developers shall also pay for design, construction, and start up of the station(s).

3.27 BACKFLOW PREVENTION

The District strictly prohibits interconnection of other water supplies with the District's water system. When there is a conflict with backflow requirements stated in CWD specifications, the Cross-Connection Control Manual supersedes.

Irrigation systems, fire sprinkler systems, non-residential service connections, private wells and other water uses which create a potential or will cause contamination of the District Water System by backflow, shall be required to install approved backflow prevention assemblies, and/or otherwise meet the requirements of the WAC 246-290-490 "Cross-Connection Control Regulation in Washington State", and the recommendations of the PNWS-AWWA Cross-Connection Control Manual, latest edition. Premise isolation is required unless variation is approved by the District Engineer.

Auxiliary water supply on or available to a consumer's premises is not acceptable to the District. The District requires that if an auxiliary supply is situated on the site, premise isolation in the form of a reduced pressure backflow assembly (RPBA) shall be installed on any and all services from the District's main, even if such auxiliary water supply is not interconnected or proposed for interconnection. RPBA units require annual testing for proper operation and reporting to the District (WAC 246-290-490(2) (a)).

Fire sprinkler system connections to the District's water system shall be owned and maintained by the property owner, beginning immediately downstream of an exterior inlet vault face, residential meter or valve where the fire sprinkler system connects to the District's water main. The backflow prevention assembly on irrigation and residential fire sprinkler system connections shall be located immediately downstream of the meter connection on the owner's property. The assembly shall be owned and maintained by the property owner and inspected and tested annually by a certified backflow assembly tester (BAT) for backflow devices. The assembly design and construction shall be approved by the Cross-Connection Control Coordinator and/or District Engineer. Prior to use of a new meter with a backflow assembly, the backflow assembly shall be tested and results provided to the District.

A master meter for multiple services requires double check valve assemblies, or Reduced Pressure Backflow Assemblies (RPBA) (minimum), depending upon hazard level, and determined by the Cross-Connection Control Coordinator and/or District Engineer, and a bypass with equal backflow prevention to avoid loss of service during maintenance and repair. All backflow assemblies must be tested prior to project acceptance and introduction of water service to a facility.

3.28 PRIVATE WELLS

See the DAC for District policies regarding private wells.

3.29 PLAN EXPIRATION

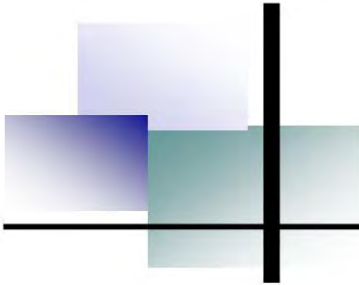
District's approval of plans shall be valid for a period of one (1) year subsequent to date of approval shown on the plans. If construction is not completed within that time, the District may require plan revision depending on changes occurring since the approval date. The Developer shall pay all costs resulting from plan change requirements.

3.30 RECORD DRAWINGS

The record drawings (as-built plans) shall be required prior to Bill of Sale and revised to incorporate information pertaining to the water system improvement as constructed. The record drawings shall meet the following minimum requirements:

- Show official street and road names.
- Show the size, length and material of the as-constructed pipelines between fittings.
- Show the size and joint type of each fitting and appurtenance actually installed.
- Indicate the actual location of the water main including depth of bury or elevation at all fittings and appurtenances.
- Show the actual constructed water main fittings and appurtenances, correcting the location data provided in the drawings as necessary.
- Indicate the size, location and type (whether single or double) of all water service connections.
- Indicate areas of non-standard cover and any other unique feature of the project.
- The easements shown in the record drawings shall match the final legal descriptions of the easements granted to the District, and match the plat.
- Show vertical separations with all other utilities.
- Provide electronic CAD files at final engineering plan approval for District to pre-check coordinates.

Final, approved record drawings shall be submitted electronically in AutoCAD and PDF format.



Chapter 4

Material Standards



CHAPTER 4 MATERIAL STANDARDS

4.01 GENERAL

All materials shall be new and undamaged. Domestic pipe and fitting materials are required when reasonably available. Domestic shall mean manufactured in the United States or Canada. For federally funded projects, the Contractor shall supply materials complying with 'Made in USA/Build America Buy America (BABA)' requirements. The same manufacturer of each item shall be used throughout the project. All materials specifically referenced shall comply with applicable sections of ANSI, ASTM, AWWA or the WSDOT/APWA Standard Specifications and approved by the District.

NSF/ANSI 61: National Science Foundation/American Standards Institute performance-based standard established to measure contaminants introduced into drinking water from products. The contaminants include regulated metals including lead and copper, organics and pesticides. The Reduction of Lead in Drinking Water Act adopted in January, 2011 reduces the allowable lead content in plumbing fittings, including meters. The effective date is July 1, 2012.

Approved manufacturers and model numbers of various materials are listed in Appendix C of these Standards. When specific manufacturers or models are listed, no substitutions will be allowed without prior approval by the District Engineer. If required by the District, the Contractor shall furnish certification from the manufacturer of the materials being supplied that the inspection and all of the specified tests have been made and the results thereof comply with the requirements of the reference Standards.

4.02 ALTERNATIVE METHODS OR MATERIAL REQUESTS

These Standards shall be construed as the minimum requirements of the District and shall be applicable to all work performed on water system improvements under its jurisdiction. Although these Standards are intended to apply to all work on the District's water system, these Standards will not apply for all situations. Compliance with these Standards does not relieve the designer of the responsibility to apply conservative and sound professional judgment. As minimum Standards, they are intended to assist but not substitute for competent work by design professionals. The District may at its sole discretion require more stringent requirements than would normally be required under these Standards, due to special conditions and/or environmental constraints.

4.03 DUCTILE IRON PIPE

Ductile iron pipe shall be cement-lined unless otherwise specified and shall conform to AWWA C151 standards. Ductile iron pipe 12" diameter and smaller shall be minimum thickness class 52 and pipe greater than 12-inch diameter to 16-inch shall be thickness class 51 or 52. Standard thickness of cement-mortar lining shall be in accordance with AWWA C104 standards. Higher thickness or pressure class pipe may be required where the pipe will be exposed to high external loads, depth of bury outside of District standards

or as directed by the District Engineer. Special design submittal will be required in such circumstances.

4.04 POLYVINYL CHLORIDE PIPE

Polyvinyl chloride (PVC) pipe 12" diameter and smaller shall conform to AWWA C909. Minimum pressure class shall be rated 210 psi, or as directed by the District Engineer. PVC pipe shall have the same outside dimensions as ductile iron pipe. Fittings for PVC pipe shall be ductile-iron. Pipe joints shall be made with a rubber ring and thickened bell. Solvent welded joints will not be permitted.

4.05 HIGH DENSITY POLYETHYLENE PIPE

High density polyethylene (HDPE) pipe shall conform to AWWA C906. The pressure rating shall be determined by the District on a case-by-case basis. HDPE pipe shall be used only as approved by the District Engineer.

4.06 GALVANIZED STEEL PIPE

Galvanized steel pipe less than 4 inches in diameter shall conform to ASTM A53, Schedule 40 and shall be hot dip galvanized inside and outside, including the couplings. The couplings shall be malleable iron with thread (IPT) couplings in accordance with ANSI B16.3.

4.07 POLYETHYLENE ENCASEMENT

Polyethylene encasement, as required, shall be eight-mil tube and comply with AWWA/ANSI C105/A21.5.

4.08 FITTINGS

All fittings for ductile and PVC pipe shall be ductile iron with cement-mortar lining conforming to AWWA C104. Mechanical joint fittings shall be compact fittings conforming to AWWA C153, with ductile iron follower gland conforming to AWWA C111. Flanged fittings shall conform to AWWA C110. Fittings shall utilize gaskets and hardware in accordance with AWWA C111.

4.09 RESTRAINED JOINTS

Restrained joints shall be either bolted or boltless design and flexible after assembly. Any device utilizing set screws are not permitted. Restrained joint devices shall not be used on plain end fittings. Use of shackle rods on ductile iron bell-and-spigot pipe is not permitted. Thrust blocks shall be provided in addition to the joint restraint system unless otherwise approved by the District. Restrained joint waterlines greater than 16-inches

are specialty design which may require additional considerations not addressed in this specification.

Boltless designs shall utilize gripping gaskets suitable for a 350 psi working pressure. Gripping gaskets shall be rubber gaskets with stainless steel teeth for wedging action on bell-and-spigot DI pipe, 16-inch diameter and smaller. Gasket material and dimensions shall conform to AWWA C111. Gaskets shall only be used on compatible pipe as recommended by the manufacturer.

Bolted joint restraint systems shall utilize multiple gripping wedges incorporated into a ductile iron retainer gland. The gland body and wedges shall be cast from grade 65-45-12 ductile iron in conformance with ASTM A536. Glands for mechanical joints shall be compatible with all mechanical joints conforming to AWWA C111. Split designs are only allowed on mid-pipe installations for embedment into concrete for thrust restraint. The working pressure of the joint restraint system when used on ductile iron pipe shall be a minimum of 350 psi for pipe diameters of 16-inches or less. Wedge-action joint restraint systems used on PVC pipe shall have a working pressure rating equal to the pipe rating with a minimum safety factor of two.

Bolted restraint for C909 and C905 PVC bell-and-spigot pipe joints shall utilize a full-circle bell restraint harness with stainless steel clamping hardware. Harnesses shall be split design, provide full 360° contact and support of pipe and incorporate serrations on the inner face to provide full restraint. Restraint harnesses shall be epoxy coated grade 65-45-12 ductile iron. Use of a back-up ring against the pipe bell is prohibited. Threaded thrust rods and nuts used to connect the harnesses over the bell shall be constructed of high strength low alloy steel in accordance with AWWA C111. After assembly, thrust restraint hardware shall be field coated with an epoxy designed for underground conditions. Bell-and-spigot restraint systems used on PVC pipe shall have a working pressure rating equal to the pipe rating with a minimum safety factor of two. Wedge-action retainers designed for PVC pipe meeting the requirements herein may be utilized in lieu of serrated harnesses.

4.10 COUPLINGS

Flexible coupling and transition coupling cast components shall be long-body style ductile iron. Bolts and nuts shall be in accordance with ASTM A536-80, Grade 65-45-12. Bolts shall be high strength, low alloy steel track head bolts with national course rolled thread and heavy hex nuts. Gaskets shall meet AWWA/ANSI C111/A21.11 composition specifications.

4.11 BOLTS AND NUTS

Bolts, nuts and washers used for securing fittings shall be of similar materials. Steel bolts shall meet the requirements of AWWA C111, ASTM A307 or ASTM F568 for carbon steel or ASTM F593 or ASTM F738 for stainless steel. Nuts shall meet the requirements ASTM A563 for carbon steel or ASTM F594 or ASTM F836 for stainless steel. Iron bolts and nuts shall meet the requirements of ASTM A536, grade 65-45-12.

4.12 GATE VALVES

All gate valves 2" through 12" shall be resilient seated gated valves conforming to the latest revision of AWWA C515. All gate valves shall be epoxy coated and turn counter-clockwise to open. All gate valves shall have ANSI flanges or mechanical joints ends.

Buried gate valves shall be non-rising stem suitable for installation with the type and class of pipe being installed. Operating stems shall be equipped with standard 2-inch operation nut, and O-ring stem seals. Valves in vaults shall have hand wheels.

All gate valves larger than 12-inch shall be resilient wedge, side-mount actuated, and require a minimum 4-foot of cover, see Appendix C for Approved Materials List.

4.13 BUTTERFLY VALVES

Butterfly valves will not be allowed.

4.14 CHECK VALVES (2" AND LARGER)

Check valves 2-inches and larger shall be non-slamming swing check conforming to AWWA C508. Valves 2 to 12-inches in diameter shall be rated for a working pressure of 175 psi and valves larger than 12-inches shall have a 150 psi working pressure rating. Valve body and cover shall be cast or ductile iron and epoxy coated conforming to AWWA C550. The ductile iron hinge arm shall pivot on a 304 stainless steel hinge pin. The valve shall be resilient seated; metal to metal seating is not allowed. The valve disc shall be bronze, cast iron, ductile iron or stainless steel with Buna-N rubber facing; valves 3-inches and smaller may have a valve disc constructed entirely from Buna-N rubber. Valve ends shall be class 125 flanged in accordance with AWWA C110 or mechanical joint conforming to AWWA C111.

Valves may use a weight or spring to dampen the closing force during flow reversal. Valves deemed to be slamming in the opinion of the District shall be retrofitted with a dampening device. Valves shall be equipped with a steel lever arm connected to an extended stainless-steel hinge pin, or be flexible in design to allow for a field installed lever arm, for the purpose of retrofitting the valve if required. Where provided, the lever-weight or lever-spring assembly shall be field adjustable for site-specific conditions.

4.15 VALVE MARKER POSTS

Valve marker posts shall be provided and placed in accordance with Approved Materials (Appendix C) and Standard Details (Appendix A).

Markers will be supplied to the Contractor by the District to be installed by the Contractor at locations specified by the District. Markers shall be "Tri-view" manufactured by Rhino Marking and Protection Systems, Hem #TVF36BB. Markers shall be manufactured with Tri-Grip anchor system consisting of pre-cut anchor barbs that fold out from the post.

4.16 VALVE BOXES

Valve Boxes shall be installed on all buried valves. The box and lid shall be cast iron, 2-piece slip type. The cover shall have the word "WATER" cast in the upper surface. Valve box lids shall be East Jordan 8555 current model Valve box paving risers shall be cast iron suitable for H-20 traffic loading. All castings shall be coated with asphaltic varnish.

A valve operating nut extension shall be furnished and installed on all valves where the finished grade is more than 36 inches above the valve operating nut. Extensions are to be a minimum of 12" with only one extension per valve. The operating nut extension shall extend into the top section of the valve box.

4.17 VALVE VAULTS

Valve vault designs in public right-of-way shall be approved by the District Engineer and dimensioned and sized for valve removal and replacement. Vaults shall be furnished in pre-cast concrete sections with sufficient strength to withstand H-20 traffic loading together with access frames and covers.

4.18 COMBINATION AIR VALVES

Combination air valves shall be designed to operate with potable water under pressure to permit discharging a surge of air from an empty line when filling and relieve the vacuum when draining the system. The air valves shall also release an accumulation of air when the system is under pressure. This shall be accomplished in a single valve body designed to withstand a pressure of 300 psi.

The body and cover shall be cast iron conforming to ASTM A48, Class 30. Floats shall be stainless steel conforming to ASTM A 240 and designed to withstand 1,000 psi. Seats shall be Buna N rubber. Internal parts shall be stainless steel or bronze. Combination air valves shall conform to AWWA C512.

4.19 BLOW-OFF ASSEMBLIES

Blow-off assemblies shall be as shown in the Standard Details.

4.20 FIRE HYDRANTS

Fire hydrants shall be 5 ¼ MVO, meet or exceed the requirements of AWWA C502 as well as the following:

- (1) Hydrant shall have a standard 4 ½" NST pumper port and two 2½" NST side ports, all opening by turning counter-clockwise with 1-¼" operating nut;
- (2) Hydrant shall be painted with two coats of hi-gloss safety yellow enamel paint;
- (3) 5" Storz adaptors are required for Fire District #43(Maple Valley Fire) and Fire District #37(Covington Fire). 4" Storz adaptors are required for Fire District #44(Black Diamond

Fire) as specified by the appropriate Fire Marshall.

Hydrant Locking Mechanisms will be applied to all new hydrants installed in the District in commercial areas only. Locks are specific to the District and to the particular hydrant. The District will obtain and install the locks at the developer or owner's cost.

Fire hydrants shall be the "Traffic Model" type with approved breakaway features. Every effort will be made to avoid angle fittings in the hydrant branch.

Hydrants shall be exercised/opened and flushed by the District for rocks with developer coordinating flushing activity to Fire Authority.

4.21 TAPPING SLEEVES

Tapping sleeves shall be used in lieu of cut-in tees except at the direction of the District. No size-on-size taps on ductile or cast-iron pipe shall be allowed. Tapping valves shall be epoxy coated and resilient seat.

4.22 COPPER SERVICE LINES

No longer used for private development projects. Information below is provided for maintenance of existing systems.

All service lines shall be seamless copper tubing conforming to ASTM B88, Type K, annealed or polyethylene rated for 200 psi. The tubing shall be coupled using compression fittings having a positive external gripping feature, conforming to the requirements of AWWA C800, minimum 150 psi working pressure.

4.23 PLASTIC SERVICE LINES

SDR 9 Plastic service lines shall be high density polyethylene pipe conforming to AWWA C901. Municipex Crosslinked Polyethylene (PEXa) piping, produced in accordance with AWWA 904 may be used. Service lines shall be copper-tube size with a minimum pressure rating of 200 psi, and a standard dimension ratio not to exceed 9. The pipe shall be either black with blue striping or blue in color. Stainless steel stiffening inserts are required at all connection points.

4.24 SADDLES AND CORPORATION STOPS

Service saddles shall be as provided in Appendix C. Saddles shall have stainless steel double straps.

Corporation stops for use with the saddle shall be of bronze in accordance with AWWA Standard C800 with AWWA tapered thread (CC) inlet by compression fitting for 1" copper outlet, complete with compression nuts for copper service. Corporation stops shall be the ball valve type.

4.25 BOXES FOR METERS, AIR VALVES AND BLOW-OFFS

Boxes for meters (with hinged reader lids), air valves and blow-offs shall be boxes as listed in the Approved Materials list in Appendix C and shown on Standard Details in Appendix D. Refer to the approved materials listing for sizes and part numbers. Boxes placed in travel areas shall have traffic lids with corrosion resistant coating. Every effort shall be made to avoid placement in vehicle or pedestrian travel areas.

4.26 GENERAL FACILITIES

General system facilities, such as pressure reducing stations, pump stations and storage tanks shall be designed for the specific application. Material requirements for individual facility components will be established during design to maintain consistency within the water system.

Developer's Engineer shall prepare a specific design for general facilities for a project. The design will be submitted to the District for approval, including a Preliminary Design Report.

4.27 INDIVIDUAL PRESSURE REDUCING VALVES (RESIDENTIAL)

When installed, PRVs for single family residential lots shall be direct-acting, piston-type with integral strainer and bypass. The PRV body shall be bronze with a threaded outlet end and integral union on the inlet end. The PRVs shall be line-sized with a spring range from 25 to 75 psi. All individual PRVs shall be installed in a box as described in the Approved Materials list (Appendix C) and shown in the Standard Details (Appendix A). The individual PRV and box shall be owned and maintained by the property owner.

4.28 INDIVIDUAL PRESSURE REDUCING VALVES (NON-RESIDENTIAL 2" AND SMALLER)

Individual PRVs for non-residential developments shall be equipped with a pressure relief valve at the discharge side, unless otherwise shown in the plans. The contractor shall construct the PRV in accordance with the Standard Details. The PRV shall be direct-acting piston type with integral strainer and bypass. The PRV body shall be bronze with a threaded outlet end and an integral union on the inlet end. PRVs shall be line-sized with a spring range from 25 to 75 psi.

Pressure relief valve shall be a 3/4" hydraulically or pneumatically operated, diaphragm actuated globe valve. It shall be direct-acting, adjustable, spring loaded and designed to permit flow when pressure exceeds the spring setting. Spring range shall be from 20 to 200 psi

4.29 REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA)

All RPBAs shall be as listed on the most current copy of "Accepted Cross-Connection Control Assemblies" published by DOH. The assembly shall include a tightly closing resilient seated shut-off valve on each end of the body and each assembly shall be fitted

with four properly located resilient seated test cocks. The RPBA shall be installed in a secure above ground enclosure located immediately back of the meter. Unless otherwise approved by the District.

4.30 DOUBLE CHECK VALVE ASSEMBLY (DCVA)

All Double Check Valve Assemblies (DCVAs) shall be as listed on the most current copy of "Accepted Cross-Connection Control Assemblies" published by DOH. The assembly shall include a tightly closing resilient seated shut-off valve on each end of the body and each assembly shall be fitted with four properly located resilient seated test cocks. All DCVAs shall be located immediately back of the meter.

4.31 STEEL CASING

Steel casing shall be black steel pipe conforming to ASTM A53. Minimum casing wall thickness shall be 0.250 inch for casings 24 inches or smaller and 0.375 inch for casings larger than 24 inches in diameter. Project conditions may warrant additional thickness. Casing pipe shall be welded steel. Cathodic protection may be required.

4.32 CASING SPACERS AND END SEALS

Casing spacers shall be sized for pipe being installed. Materials are specified in the Approved Materials list, Appendix C.

4.33 CONCRETE

Thrust blocking, encasement, or slope anchor concrete shall be mixed from materials acceptable to the District and shall have a 30-day compressive strength of not less than 2,500 psi. The mix shall contain five (5) sacks of cement per cubic yard and shall be of such consistency that the slump is between 1 inch and 5 inches. All concrete shall be mechanically mixed.

4.34 BEDDING MATERIAL

Pipe Zone bedding material shall be as specified in Section 9-03.12(3) "Gravel Backfill for Pipe Zone Bedding" of the WSDOT Standard Specifications.

4.35 CONTROLLED DENSITY FILL

Controlled density fill (CDF) shall be a mixture of Portland cement, admixture (optional), Fly Ash, aggregates and water. It shall be proportioned to provide a grout-like, non-segregating; free flowing, self-consolidating and "excavatable" material that will result in a non-settling- fill which has measurable unconfined compressive strength. Compressive strength shall not exceed 1,500 psi.

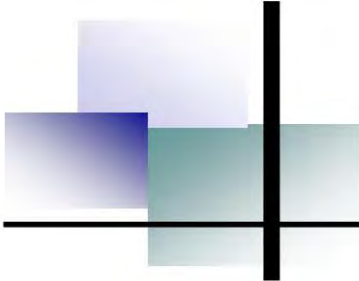
When CDF is required, material and installation shall conform to the standards of the applicable jurisdiction.

4.36 TRENCH BACKFILL

Trench backfill shall conform to Section 9.03.19 "Bank Run Gravel for Trench Backfill" of the WSDOT Standard Specifications. Material may be either naturally occurring with sieve analysis tested at every 100-foot of trench or processed to meet the 2-1/2"-minus gradation specified. Pipe Zone material may be used as an alternate for trench backfill.

4.37 TRACER WIRE

Tracer wire shall be designed for direct bury; use of THHN is prohibited. Size of the conductor shall be 10 AWG consisting of solid copper wire. The insulating jacket shall be high density polyethylene (HDPE), color-coded blue and minimum thickness of 30 mils.



Chapter 5

Construction Standards



CHAPTER 5 CONSTRUCTION STANDARDS

5.01 GENERAL REQUIREMENTS

The Project shall be constructed as shown on the Plans and in accordance with these Standards. Materials shall be installed in compliance with the manufacturer's instructions and specifications, except where a higher quality of workmanship is required by the Plans and these Standards. All work shall be in accordance with any applicable regulations of the State, County and local jurisdictions. The Contractor shall arrange for such inspection by these agencies and shall submit evidence of their approval, if requested by the District. Contractors shall have a copy of the District Standards document on site during construction. A printed copy of the District Standards shall be available to the Contractor at the Pre-Construction Conference for this purpose.

Contractors shall accept responsibility for compliance with all OSHA and WISHA requirements to providing a safe work area. Where situations require entry to District facilities considered "confined spaces", Contractor shall comply with District requirements for entry and work within such spaces. District requirements and practices are defined in an adopted confined space program available from the District upon request.

5.02 MATERIAL SUBMITTALS

The Developer/Contractor shall provide material submittals to the District for approval after the Plans are approved for construction. The Developer/Contractor shall assume the risk for material or equipment, which is fabricated or delivered prior to the District's approval of material submittals. Use of materials in the Approved Materials List does not require submittal of cut-sheets. Submit a summarized bulleted list of the product description, manufacturer, model number, size, and fitting type when applicable. Organize the list in accordance with the material category designation below.

Electronic submission of material submittals is required. The District shall either approve or otherwise indicate the reasons for disapproval. One set will be returned electronically to the Developer/Contractor. Disapproved submittals shall be revised and electronically resubmitted to the District.

District's review of material submittals covers only general conformity to the Plans and these Standards. The Developer/Contractor is responsible for quantity determination. No quantities are to be verified by the District. The Developer/Contractor is responsible for any errors, omissions or deviations from the contract requirements. Review and approval of submittals by the District does not relieve the Developer/Contractor from his obligation to furnish required items in accordance with the Plans and these Standards. Materials delivered to the construction site shall conform to approved submittal information maintaining consistency with regard to manufacturer and model numbering. Poor quality materials shall be rejected by the inspector and removed from the site by the Developer/Contractor each. "Material Submittal" section shall follow a Material Submittal Form indicating the specific part number(s) which shall be checked or highlighted along with its specific purpose. The following shows the preferred order to list the material categories:

-
1. Pipe, Fittings, Pipe Restraints and Casing
 2. Valves (Gate Valves, Butterfly Valves, Air Valves, Blow-off Drain Valves, and Valve Boxes)
 3. Hydrants and Attachments
 4. Service Fittings, Copper Pipe, Saddles, Ball Valves, Corps, Sleeves, U-Bolts, etc.)
 5. Boxes for Meters, Blow-offs, and Air Valve Assemblies
 6. Cross Connection Control Assemblies (DDCVA, RPBA, DCVA)
 7. Bedding Material with Sieve Analysis
 8. Concrete
 9. Vaults, hatches, and ladders
 10. Other items if required.

5.03 PRE-CONSTRUCTION CONFERENCE

The Developer/Contractor shall contact the District to schedule a pre-construction conference after the District confirms right-of-way permits are approved. The conference shall include the Developer, Developer's Engineer, Contractor's Foreman or Job Superintendent, representatives from the permit agencies, and District representatives. The Contractor shall demonstrate ownership of a set of District Standards and Specifications document to have on the construction site or a set shall be provided and the cost charged to the Developer's Receivable Account. The amount charged is prescribed by Rate Table II for District services, which is updated annually. The Contractor shall not be issued Notice to Proceed until appropriate submittals and permits have been approved for work to commence.

5.04 CONSTRUCTION SCHEDULE

The Developer/Contractor shall provide the District with a written construction schedule a minimum of five (5) work days prior to start of water developer extension construction to arrange staking and inspection. Contractor shall allow permitting agency and District a minimum of two (2) work days notice to customers of construction impacts. The Developer/Contractor shall abide by the District's normal working schedule from Monday to Friday. Friday construction is permitted for non-trenching type construction and if easily inspect-able on Monday. If trenching is requested on Fridays, then the contractor shall contact the District for approvals to trench with conditions.

5.05 EASEMENTS

Prior to start of water developer extension construction, the Developer/Contractor must acquire any necessary permanent easements for construction of any water mains or facilities not located in existing public right-of-way, in District easements, or on the Developer's property. Easements shall be specifically in the District's name.

5.06 PERMITS

The District is responsible to road agencies for excavations in the right-of-way for water

system work under the franchise. The District shall make application for all public right-of-way permits for water developer extensions, at the project's expense when the District has received a traffic control plan from the Developer/Contractor and approved by the affected agency. Traffic control plan shall be prepared by the Design Engineer, or Contractor possessing an ATSSA Certification. The Developer/Contractor shall apply for and obtain all other permits such as electrical, plumbing, King County DDES Water Main Extension Permit, King County Fire System Permit, and any other required permits. All permits shall be in hand prior to beginning excavation for water system work.

5.07 STOP WORK NOTICE

The District shall issue a Stop Work Notice upon observing construction which does not comply with these standards or approved plan documents. If any work is covered contrary to the request of the District Inspector or Engineer, it must, if requested by the Inspector, be uncovered for the Inspector's observation and replaced or resumed at Contractor's expense. If 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 plans and specifications, the District may order the Contractor to stop the work or any portion thereof, until the cause of such order has been eliminated.

5.08 HANDLING OF PIPE

All types of pipe shall be handled in a manner that prevents damage to the pipe, pipe lining or coating. Pipe shall be bagged or plugged from manufacturer before unloading at the site. Pipe and fittings arriving without protective covering including plugged or bagged pipe ends shall be rejected or the Contractor shall disinfect and bag pipe immediately for storage on-site until installation.

Pipe and fittings shall be loaded and unloaded using forks or cable choker in a manner to avoid shock or damage, and under no circumstances shall they be dropped, skidded, or rolled against other pipe. Damaged pipe will be rejected, and the Contractor shall immediately place all damaged pipe apart from the undamaged and shall remove the damaged pipe from the project site within 24 hours.

Pipe shall be stacked in such a manner as to prevent damage to the pipe, to prevent dirt and debris from entering the pipe, and to prevent any movement of the pipe. The bottom tiers of the stack shall be kept off the ground on timbers, rails or other similar supports. Pipe on succeeding tiers shall be alternated by bell and plain end. Timbers of 4"×4" shall be placed between tiers and chocks shall be placed at each end to prevent movement. Each size of pipe shall be stacked separately.

Threaded pipe ends shall be protected by couplings or other means until the pipe is installed. Dirt or other foreign material shall be prevented from entering the pipe or pipe joints during handling and installation. When pipe installation is not in progress, the open ends of the pipe shall be closed by a watertight plug or by other means approved by the District to ensure cleanliness inside the pipe.

5.09 STAKING

Staking shall be performed by or under the direct supervision of the Developer's land surveyor licensed in the State of Washington. Provide the District with two (2) work days notice to inspect construction staking before construction begins.

Staking shall be placed in 50' intervals and at all fittings on base line or edge of easement with stationing, hub elevations, finish elevations, and cuts to top of pipe.

5.10 DEVIATION FROM PLANS

No deviations from the approved Plans and these Standards shall be allowed without the District's written approval. Minor changes may be approved by the District Engineer. If major changes are required, the Developer's Engineer shall revise and sign the plans for the District's approval prior to restart of construction or construction of affected work.

If the District is aware of any deviation from the approved Plans and determines that it is not acceptable, the District shall give a written notice to the Developer. The Project will not be accepted unless the deviation is corrected.

5.11 INSPECTION AND TESTING

The District Inspector shall have access to the project site for the purpose of inspections and testing at all times. The Contractor shall provide proper facilities for such access, inspection, and testing.

If any work is covered without approval or consent of the Inspector, it must be uncovered for inspection as required by the Inspector. This requirement shall be specifically applied to all utility crossings of the water distribution system.

Before a pressure test is to be observed by the Inspector, the Contractor shall make whatever preliminary tests to ensure that the material and/or equipment are in accordance with the Plans and these Standards.

Written and/or verbal notices of deficiency shall be given to the Contractor. The Contractor shall correct such deficiencies before final inspection by the District Inspector.

The standard work hours for the District are 8:00 am to 5:00 pm, Monday through Friday. Friday is limited inspection day (no trenching and pipe to be constructed). Work days are defined in WSDOT 1-08.05. Should the Developer elect to work on Saturdays, Sundays, or holidays, he/she shall be responsible for paying overtime charges for the District personnel involved. The Developer shall obtain approval from the District Engineer and sign a form entitled "Construction Inspectors Overtime Compensation Authorization" prior to commencing any overtime work.

5.12 SURFACE WATER QUALITY

The Contractor is required to implement water pollution controls in accordance with ESA regulations as called out on the plans and maintain these until the Project is accepted by the District. The Contractor shall familiarize themselves with the requirements of the DOE,

King County Roads and other regulatory agencies having jurisdiction over such matters.

Water with chlorine residual shall be disposed of through sanitary sewers with sewer agency's approval, containment and aerating or percolation into the ground. Water containing chlorine residual shall not be discharged into any waterway. Water containing chlorine shall not be disposed of into lakes, rivers, streams, creeks or other water where fish or other natural water life could be expected. Contractor shall provide proof of authorization from the local agency before discharge of any water to any storm water facility. Other agents for neutralization may be approved for discharge to containment areas on a case-by-case basis upon request. Water with zero chlorine residual may be achieved by applying Vitamin C or other acceptable agent approved by the District for neutralization and discharge of containment. The disposal of chlorinated water shall be observed by the District Inspector.

Oil, fuel and chemical storage area shall be enclosed with a dike. There shall be no disposal of waste oil or oil products on the project site. The Contractor shall provide a waste oil disposal tank if needed.

5.13 DUST CONTROL

The Contractor shall sprinkle water as necessary to minimize fugitive dust. Sprinkling shall be maintained until the project is accepted. Sprinkling shall be kept to a minimum and not produce runoff from the site. On paved streets, if dust becomes a nuisance when backfilling is completed, the Contractor shall vacuum sweep the portions of streets being used for traffic. Flushing of streets shall not be permitted without prior approval of the local jurisdiction and the District.

5.14 TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL

Temporary soil erosion and sedimentation control measures shall be taken in accordance with the local agency requirements.

5.15 CONSTRUCTION ON EXISTING EASEMENTS

All work on the District's easements shall be performed in accordance with easement provisions. Easements shall be restored equal to or better than the original conditions. The Contractor shall not work on easement areas until specifically authorized by the District Engineer. The District and the Contractor shall coordinate with the property owner(s).

5.16 PRE-CONSTRUCTION PHOTOS FOR DISTRICT PROJECTS

(Not Applicable to a Developer's On-Site Project)

Before commencing any construction work as described in the plans, the Contractor shall provide photographs of pre-existing conditions of the area that will be disturbed during construction operations. Photographs will be obtained as follows:

1. 25-foot interval in easements up station and down station
1. 50-foot interval in easements up station and down station

-
2. Any other locations as directed by the District Inspector
 3. Audio/Video recording is also acceptable
 4. Photographs shall be submitted via thumb drive or an FTP/ZIP file.

5.17 PROTECTION OF PROPERTY

Trees, shrubs, fences, and all other properties and surface structures shall be protected during construction, unless their removal is shown in the Plans and approved by the property owner in writing. Any disturbed property shall be restored as nearly as practical to its original condition. Any cutting of tree roots or branches shall be done only if approved by the District or a qualified arborist approved by the District. An approval from the local jurisdictions may be required.

Temporary support, adequate protection, and maintenance of all underground and surface structure, drains, sewers, and other obstructions encountered in the progress of the work shall be provided by the Contractor in accordance with these Standards or applicable regulations, or as directed by the District.

5.18 UNDERGROUND UTILITIES

The Plans show the approximate locations of various existing utilities known to the Design Engineer such as gas lines, water mains, storm drainage, power lines, telephone lines, TV cables, fiber optics, and other obstructions based on information obtained from various sources. This information is not guaranteed to be accurate, and the Contractor is responsible to check for interferences and obstructions by inquiry from the different utilities and by underground exploration before commencing excavation.

The Contractor shall request field locates and notify the owners of underground utilities about the scheduled commencement of excavation through the one-call system 811. If the utility is not included in the one-call number system service, notice shall be provided individually to those owners of underground utilities known to or suspected of having underground utilities within the area of proposed excavation.

Notice shall be made to owners of underground utilities not less than two (2) business days or more than ten (10) business days prior to scheduled date of commencement of excavation.

Test pits, for the purpose of locating underground utilities or structures in advance of the construction, shall be excavated and backfilled by the Contractor. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the applicable agency. The Contractor shall excavate around and under active utilities with special care and shall support and maintain them in service. Where it is necessary to cut, move or reconnect any service lines, arrangements shall be made with the respective utility owners.

The Contractor shall coordinate with utility owners, arrange for the movement or adjustment, either temporary or permanent, and notify the District, in advance, of any conflicts affecting the work schedule, and/or possible cost increase to the District if the project is a District capital improvement project. The Contractor shall be responsible for any damage of utilities or services resulting from his operations and shall hold the District

harmless from any claims resulting from disruption of or damage to same.

5.19 TRENCH EXCAVATION

Trench Excavation and Backfill Operations within State Right-of-Way: All excavation and backfill within state right-of-way shall adhere to the WSDOT Standard Specifications.

Trench Excavation and Backfill Operations within County Right-of-Way: Excavation within King County right-of-way shall conform first to King County Road Standards, and secondly to standards set forth by the WSDOT.

Trench Excavation and Backfill Operations within City Right-of-Way: Excavation within City right-of-way shall conform to the applicable City design and construction standards and specifications.

Trench Excavation in all cases shall comply with WISHA standards.

Before commencement of trenching provide gabions or filter fabric placed in all downhill storm drain catch basins for temporary sediment trap at curb inlets. Plastic sheeting must be available on-site. Cover and secure any stockpiled material at the time of heavy rains or flooding. Employ Best Management Practices (BMPs) for erosion control and maintain measures at all times.

Clearing and grubbing limits may be established by the governing agency or the District for certain areas and the Contractor shall confine his operations within those limits. Debris resulting from the clearing and grubbing shall be disposed of by the Contractor.

Trenches shall be excavated to the line and grade shown in the plans or designated by the District. Where higher strength pipe or special bedding is required because of excess trench width, it shall be furnished.

Unsuitable material below the depth of the bedding shall be removed to the extent approved by the Inspector and replaced with satisfactory materials as determined by the District Engineer. The length of trench excavation in advance of laying pipe shall be kept to a minimum and shall not exceed more than 100 feet without written approval of the District Engineer.

When trenching operations take place in the public right-of-way, the pavement and all other improvements shall be restored as required by the right-of-way permit.

When excavation of rock is encountered, all rock shall be removed to provide a clearance below and on each side of all pipe, valves, and fittings of at least 6 inches for pipe sizes 24 inches or smaller and 9 inches for pipe sizes 30 inches and larger. Material removed shall be replaced with appropriate backfill material, which shall be compacted to 95% standard proctor.

5.20 SHEETING AND SHORING

The Contractor shall provide and install sheeting and shoring as necessary to protect workers, the work and existing utilities and other properties in compliance with OSHA and

WISHA requirements. All sheeting and shoring shall be removed prior to backfilling. Removal of the sheeting and shoring shall be accomplished in such a manner that there will be no damage to the work or to other properties.

5.21 TRENCH DEWATERING

The Contractor shall maintain sufficient pumping equipment on the project site to keep the trench free from standing water. Surface runoff shall not be allowed to flow to the trench. The trench water or other deleterious materials shall not be allowed to enter the pipe at any time. If, at any time, water is found to be entering the new water main, the contractor shall plug the water main and cease working until the trench water is completely pumped out or otherwise controlled, to the satisfaction of the Inspector. Dewatering and its methods shall be the responsibility of the Contractor. Any method used must be in accordance with the specifications and requirements of the DOE and the local jurisdiction, including discharge location and quality. More extensive purity testing measures may be imposed for installations in which facilities have been contaminated by trench water.

5.22 BEDDING PIPE

Bedding material, as specified and required by the District, shall be as specified in Chapter 4.34 of these Standards and WSDOT Standard Specification 9-03.12(3). For the type of pipe (rigid or flexible) to be installed, pipe zone bedding is defined as 6 inches below the pipe and around the pipe, and 12 compacted inches above the pipe. Pipe zone bedding above the pipe shall be placed evenly and carefully in 12-inch lifts before being compacted to a minimum height of 12 inches of bedding material above the pipe. Gravel backfill for pipe zone bedding shall be compacted to 95 percent maximum dry density per ASTM D1557 by approved methods (hand-held tools), so as to provide firm and uniform support for the full length of the pipe, valves, and fittings. Use of native material is not allowed within the pipe zone. Pipe zone bedding shall conform to plan drawings and District Standard Details.

5.23 CONCRETE THRUST BLOCKING

Bends, tees, plugs, and caps, unless otherwise specified, shall be blocked in accordance with the Standard Details. All poured in place blocking shall have a minimum measurement of twelve inches (12") between the pipe and the undisturbed soil. Concrete blocking shall have a minimum of 1/4 square foot bearing against the fitting. The Contractor shall install blocking which is adequate to withstand full test pressure as well as to continuously withstand operating pressure under all conditions of service. All concrete shall be 2,500 psi minimum and mechanically mixed.

Blocking, unless otherwise shown or directed, shall be **formed** and placed so that pipe and fittings will be accessible for repair. Eight-mil polyethylene sheets shall be installed around the fitting and all bolts, nuts, and glands for future dismantling.

In the rare circumstance and event of a shut down where time does not permit the proper setting of the concrete blocking, only upon approval of the District Engineer, ecology blocks shall be installed with concrete poured around the connection point of the fitting

and the blocks. This circumstance is only when sufficient restrained joints for temporary blocking are unavailable for connections.

Installation shall be as shown in the Plans and the Standard Details.

5.24 TRENCH BACKFILL AND COMPACTION

Trench backfill shall be done above the pipe zone bedding. All backfill material shall be free from cinders, ashes, refuse, vegetable or organic material, boulders, rocks or stones, frozen soil, or other unsuitable material. Trench backfill material shall be as specified in Chapter 4.36 of these Standards and 9-03.19 of WSDOT Standard Specifications.

Compaction of the backfill shall, at the minimum, be accomplished by mechanical tamper, by vibrating, by rolling, or by a combination of these methods, as approved by the permitting agency having jurisdiction and the District Engineer. Water settling is not permitted. The Contractor shall provide the services of a testing laboratory acceptable to the District Engineer to perform on-site density tests to show that the specified density has been obtained. The approval of the compaction method and the achievement of the specified density shall, in no way, relieve the Contractor of responsibility for all repairs caused by settlement of the backfill prior to acceptance and during the two-year period after acceptance of the project.

Where the excavated materials has a California Bearing Ratio for compacted and soaked sample of less than seven (7) or, for other reasons, cannot be compacted as specified, the Contractor shall replace the excavated material with approved trench material.

Prior to backfilling, form lumber and debris shall be removed from the trench. Sheeting used by the Contractor shall be removed just ahead of the backfilling. From one foot above the top of the pipe, materials specified in Chapter 4.36 may be used, unless otherwise specified.

Backfill shall not be deposited in the trench in any manner which will damage or disturb the pipe or the initial backfill. Care shall be taken to prevent any damage to the pipe or its protective coating.

After the initial pipe zone bedding is placed, the remaining backfill material shall be placed in successive layers not exceeding 1 foot in loose thickness, and each layer shall be compacted to the density specified. Unless otherwise provided, the work shall meet the following requirements:

5.24.1 Areas Subject to Vehicle Traffic

A. Asphalt pavement restoration shall be either by a patch or overlay method as required and noted on the right-of-way permit. When a patch method is used, the trench limits shall be saw cut prior to the final patch.

B. All finish pavement cuts shall be made by saw cuts. The final saw cuts shall be a minimum of one foot outside the trench width or to undisturbed soil. If the permit requires an overlay, then the Contractor may use a jackhammer for cutting the existing pavement. Grinding may be required.

C. All trenching shall be backfilled in accordance with the Standard Details. All trench backfill materials shall be compacted to ninety-five percent (95%) maximum dry density, as determined by ASTM procedure for Standard Proctor.

When the trench is perpendicular to the traveled lane or any driveways, the full depth shall be backfilled with crushed surfacing top course material. When the trench is parallel, the top 4 feet must be backfilled with crushed surfacing top course material. Controlled Density Fill (CDF) may be required by the permitting agency. Backfill compaction shall be performed in 12 inch lifts. The Contractor shall perform compaction tests in four-foot (4') vertical increments maximum. The test results shall be given to the District for review and approval prior to paving. Tests shall be performed at maximum intervals of 50 feet along the length of the trench.

5.24.2 Areas Not Subject to Vehicle Traffic

The backfill shall be compacted to a minimum of ninety percent (90%) of maximum dry density, as determined by ASTM procedures for Standard Proctor, as described above.

5.25 LAYING WATER MAIN PIPE

Work shall be accomplished in accordance with AWWA C600 and the manufacturer's recommendations.

Depths of pipe shall conform to approved plans. The typical cover depth of pipe is 42 inches (3.5 feet) measured from finished grade to top of pipe as indicated in section 3.12.

The bottom of the trench shall be finished to grade in such a manner that the pipe will have bearing along the entire length of the barrel. Bolts on mechanical pipe and fittings shall be tightened uniformly with a "Torque" wrench which measures the torque for mechanical joints to manufacturer's recommendation but in no case less than measured torque as follows:

2" - 3" pipe sizes 5/8" Bolts	40 - 60 ft-lbs
4" - 24" pipe size 3/4" Bolts	60 - 90 ft-lbs

Except where restrained joint systems are required, mechanical or push-on joints shall be used. Installation of push-on joint pipe shall be in accordance with the manufacturer's instructions.

When it is necessary to deflect pipe from a straight line in either the horizontal or vertical plane, the amount of joint deflection shall not exceed 3-degrees for unrestrained and 1 ½ -degree for restrained joints and no more than 11 inches per 18 feet horizontal distance of pipe. The Contractor shall submit to the District the pipe manufacturer's joint deflection recommendations prior to pipe installation, as a part of the Material Submittals.

Where field conditions require deflection or curves not anticipated on the Plans, the method of achieving deflection shall be subject to District approval for use of fittings vs. deflection.

When rubber-gasketed pipe is installed on a curve, the pipe shall be jointed in a straight alignment and then deflected to the curved alignment. Trenches shall be made wider on curves for this purpose in order to maintain clearance for pipe zone bedding as prescribed by these specifications.

Whenever it becomes necessary to cut a length of pipe, the cut shall be done in conformance with all safety recommendations of the cutting equipment manufacturer. Cutting shall be done in a safe manner without creating damage to the pipe or cement-mortar lining. The cut shall be made by an abrasive pipe saw or an approved pipe cutter. The outside of slip joint pipes shall be beveled and smoothed so that good connections can be made without gasket damage.

All parts of the pipe ends, couplings, fittings and appurtenances shall be cleaned to remove oil, grit, or other foreign matters from the joint. Care shall be taken to keep the joint from contacting the soil.

Connections to the existing system shall be performed as prescribed in Section 3.21 of these specifications.

Installation of PVC and HDPE Pipe - requires continuous tracer wire for underground locates. Tracer wire shall conform to the requirements of Chapter 4.37. The wire shall be wrapped around the length of the pipe and taped to the pipe at regular intervals, not to exceed 10-feet. Splices shall be completed using a waterproof wire connector designed for underground installations; use of electrical tape to complete splices is prohibited.

5.26 CORROSION PROTECTION

Installation of polyethylene encasement shall be in accordance with the latest AWWA Standard C105. All Ductile iron fittings shall be wrapped in polyethylene encasement, except as specifically excluded in the plans or in these Standards.

5.27 INSTALLING GALVANIZED IRON PIPE

Galvanized pipe may be used only under special circumstances or in vaults. The galvanized iron pipe, valves and fittings shall be threaded. Joints shall be made in accordance with IBC plumbing practice. Threads shall be wrapped with Teflon tape or liquid sealant before connecting. Pipe and fittings shall be coated with high gloss safety yellow paint, sealing joints and covering voids in galvanized coating. Coating shall be the same as provided for fire hydrants with primer and like paint materials. Paint must be suitable to adhere to shop coat as well as painted surface.

5.28 FIRE HYDRANT INSTALLATION

Fire hydrants shall be set as shown in the Standard Details and AWWA Standard C600. The hydrant run shall be restrained jointed.

The portion of the hydrants above the ground shall be painted with two coats of high gloss yellow paint. Paint shall be applied by spray or brush to an acceptable appearance.

Ensure the paint will adhere to shop coat and painted surfaces.

All hydrants shall stand plumb and shall have their nozzles parallel with or at right angles to the curb, subject to the Fire Marshall's discretion. The steamer port shall be pointed toward the street, or where directed, toward the paved vehicle approach area.

Hydrants shall be set to the established grade, with the centerline of the lowest nozzle at least 18" but no greater than "24" above the surrounding ground or as directed by the District Engineer. Traffic model hydrants shall be installed such that the breakaway flange shall be installed not less than 4 inches, or more than 8 inches, above finished grade.

When a dry barrel hydrant is set in soil that is pervious, drainage shall be provided at the base of the hydrant by placing at least one (1) cubic yard of 1 ½" washed rock from the bottom of the trench to at least 6" above the drain-port opening in the hydrant and to a distance of 1 foot around the elbow. Where ground water rises above the drain port or when the hydrant is located within 10 feet horizontally (or the distance required by the applicable regulatory agency) of a sanitary sewer main, the drain port shall be plugged and water pumped from the hydrant where freezing may occur. Hydrants with plugged drain holes shall be specifically identified for District personnel to mark them and map the locations.

When a dry-barrel hydrant with an open drain port is set in clay or other impervious soil, or at the discretion of the District's representative, a drainage pit 2'x2'x2' shall be excavated around each hydrant. The drainage pit shall be lined with geotextile material allowing water to exfiltrate and then filled with 1 ½" washed rock around the elbow of the hydrant and to a level of 6" above the drain port. A hydrant pad shall be installed, with minimum dimensions of 5'x5'x6", or to neat edges between curb and sidewalk. Concrete pad shall be poured at or near the ground line around the hydrant barrel to provide adequate resistance to avoid transmitting shock moment to the lower barrel and inlet connection in the case of vehicle impact. The center of the hydrant shall be at the center of the concrete pad. Prior to pouring concrete, the ground shall be compacted according to the section of Trench Backfill and Compaction in these Standards. Woven wire mesh reinforcing (9 ga.) shall be placed and suspended 2" above the bottom of the slab.

Additional information regarding placement of hydrants can be found in AWWA Manual M17.

When fire hydrants are located in parking lots, hydrant guard posts shall be installed where the

hydrant is not otherwise protected by a concrete curb (or extruded curb per Standard Details) on all sides where vehicles may have access. Guard posts shall be installed according to the minimum dimensions shown in the Standard Details.

Engineer and Contractor shall exercise care in establishing and placing hydrants at specified elevations to avoid adjustments during construction. No extension kits shall be allowed for new construction. Hydrants not installed properly will be removed and re-set to proper grades.

5.29 VALVE INSTALLATION

Prior to installation, valves shall be inspected for approved part numbers/manufacturers;

cleanliness of valve ports especially seating surfaces, handling damage, and cracks. Defective valves shall be rejected.

The valve and valve box shall be set plumb and centered on the valve. Valves 12" and larger shall be supported by a concrete block or "paver" stone on a sufficiently tamped trench bottom so that the pipe will not be required to support the weight of the valve. In no case shall valves be used to bring misaligned pipe into alignment during installation. Pipe and fittings shall be supported in such a manner as to prevent stress on the valve.

Valves shall be installed in closed position. Where valve operating nut is more than 3 feet below finished grade, a valve stem extension conforming to the Standard Details must be installed. Tapping valves shall be water tested prior to tapping water main. Testing the tapping assembly and valve with air prior to performing tap is also acceptable. Valves larger than 12 inches shall be installed with a minimum cover of 4 feet to ensure proper valve operation.

A valve box or vault shall be provided for every valve. Valve box top sections shall be adjusted flush with the finished pavement, finished grade of landscaping and, in those areas to be excavated for future roadway grades, enough adjustment shall be provided in the valve box to allow the top of the box to be adjusted to the required grade.

Backfill around valves shall be carefully compacted in 6-inch lifts for the full depth of the trench with the valve box in place. Provide a minimum of 3' x 3' x 4" asphalt or concrete collar for valves installed in gravel or unpaved areas as indicated in Standard Details, Appendix A.

5.30 COMBINATION AIR AND VACUUM RELEASE VALVE INSTALLATION

Location of the air/vac shown in the plans is approximate. The contractor shall set the air valves at the high points of the water main. The water main profile may need adjustment so that the high point and air/vac is installed in a convenient location with Inspector's approval. Installation shall be as shown in the Standard Details, Appendix A.

5.31 BLOW-OFF ASSEMBLIES

All pipes between the water main and the gate valve shall be polyethylene pipe. All compression fittings shall be brass. Valve marker post shall be installed as directed by the District. Installation shall be by the Contractor as shown on Standard Details in Appendix A

5.32 VALVE MARKER INSTALLATION

Vinyl marker posts shall be set for all valves or valve clusters as directed by the District Engineer, except auxiliary hydrant valves and air vacs. The marker shall be set on a line through the valve or valve cluster at right angles to the center line of the road. The marker shall generally be set at the property line unless the District decides another location is safer or more appropriate. Installation shall be by the Contractor as shown in the Standard Details, Appendix A. at locations designated on the plans. In general, marker posts are required for facilities in easements, along arterial streets and at critical system control

points.

Markers damaged during construction shall be replaced with new markers. The District may also request replacement of additional valve markers on a project. All markers set or reset are to be new; unused previously. Vinyl posts shall be supplied by the District and installed by the Contractor at project expense.

5.33 SERVICE LINES

5.33.1 New Service Installations

Single Non-Residential service lines, only, may be installed under District supervision by Contractors instead of the District as “dig-in” services. Contractor shall be listed on the District’s small works roster or meet the qualifications for registry to the District small works roster before performing the work. Owner/Developer shall obtain necessary right-of-way permit for such installations and submit the required Water Availability application. Contractor shall call for inspection and approval of the tapping process. Single residential services shall be installed by the District through its “dig-in” procedure. Generally, corporation stops are located at ten o’clock or two o’clock positions on the circumference of the pipe. All taps shall be installed with saddles. When more than one tap in an existing pipe is necessary to deliver the required flow, the taps should be staggered around the circumference at least 12 inches apart (not in line). Service line must be pressure tested Per Section 5.38 before placing in service. Corporation stops with IPT threads are not acceptable, unless approved by the District or are used on taps larger than 2-inch. Service installation shall be as shown in the Standard Details, Appendix A.

Tracer wire shall be provided with poly service lines. The tracer wire shall be wrapped around the service line and taped every 3-foot to prevent movement. For installations on ductile iron mains, connect the tracer wire to the corp stop and wrap in tape for protection. Installation on PVC mains requires the service line tracer wire to be spliced with the water main tracer wire; the splice must be waterproof using a wire connector design for underground installations. The end of the tracer wire shall be connected to the meter setter or angle stop and wrapped in tape for protection.

5.33.2 Reconnecting Existing Services

Service connections shall be installed as shown in the approved Plans and Standard Details. Services may be installed in paved areas under sidewalks and curbs by boring and tunneling. Damages to water appurtenances shall be repaired by the Contractor within the work day that damage occurs. Surface restoration shall take place in a timely manner and not more than 48 hours hence. No street damage shall be allowed to remain without adequate warning and traffic control in place. Provide 30" minimum cover on service lines from the corporation to the meter box. Install service at 90 degrees horizontally to the main to intercept the existing meters. A maximum deviation of 3 degrees is allowed. Blow off the service prior to connection to the meter.

Install ball-angle stops, setters (if required) and boxes as shown in the Standard Details or as directed by the District. Setters are required on 2-inch taps.

Existing service connections shall not be transferred to the new main until the new main

has been successfully flushed, disinfected and tested. When transferring services from the existing main to the new main, the Contractor shall take sanitary precautions to protect the potable water supply in the existing, new mains and services.

5.34 PRESSURE REDUCING STATION

Installation shall be as shown in the Standard Details, in approved plans, and in accordance with the manufacturer's recommendations. The pressure reducing valves, strainers, pressure relief, pipe and fittings shall be constructed in accordance with the applicable AWWA and International Plumbing Code requirements. Pressure reducing valves 4" and larger shall be supported by pipe supports. Supports shall be bolted to the vault floor. Do not drive bolts completely through the vault floor.

Pressure relief discharge pipe shall be placed in a location that will not be subject to damage or erosion during discharge of water.

5.35 INDIVIDUAL PRESSURE REDUCING VALVE

When specified or included on the plans, an individual PRV shall be installed on the discharge side of the water meter, and shall be contained inside a separate box. Each PRV shall be installed, as shown in the Standard Details, in accordance with the latest edition of the International Plumbing Code.

5.36 CONNECTION TO EXISTING WATER MAIN

Points of connection to existing water mains shall be exposed prior to trenching of the new mains, and not less than 48 hours prior to the anticipated connection time. Unless specifically provided for elsewhere in these Standards, the Contractor is responsible for giving at least five (5) work days notice to the District. The District shall be responsible for notifying the customers and the Fire District affected by the shut-off. Water main shut-off shall not be scheduled to take place on Fridays, or on the day before a holiday, unless otherwise approved by the District.

In non-residential areas, all effort will be made not to interrupt service to a commercial business during business hours. Contractors shall accommodate temporary water service to businesses should they be out of service during business hours. Temporary water service shall be provided in accordance with requirements of the International Plumbing Code for potable water supply. Residential customers shall not be placed out of service for any period in excess of 8 hours. Only authorized District representatives shall operate valves in the existing water system.

The Contractor shall ensure that existing fittings are in accordance with the approved plans and that the connection can be made in accordance with the Plans. The Contractor shall immediately notify the District Engineer and the Design Engineer if the connection cannot be made in accordance with the plans so that the connection details may be revised and approved by the District.

Connection to the existing water system shall be done only after the new mains are flushed and have passed pressure and purity tests. All connections to the existing water

system must be approved by the District and in the presence of the District Inspector.

Connections to the existing water system shall be made by cut-in following the Districts Standard Detail in Appendix A. The work shall be conducted at such a time and in such a manner as to minimize the interruption of service. Necessary pipe, fittings, and gate valves shall be assembled at the site ready for installation prior to the shut-off of water in the existing main. Work shall not commence until all materials, equipment, and labor are on-site and ready, and in certain cases, excavation must be completed. Pipe and fittings to be treated by swabbing and spraying shall consist of less than one full stick of pipe. The remainder of the extension shall be disinfected and accepted as a whole, prior to the connection process. Once the water main has been shut off, the work shall be prosecuted vigorously and shall not be halted until the water main is back in service. District inspection shall be provided throughout the connection process and the Developer shall compensate the District for any required overtime to complete the work. Scheduling of the work shall be only as approved by the District.

The interiors of all pipe and fittings, particularly couplings and sleeves, to be used in final cut-in connection shall be swabbed or sprayed with a minimum 12.5% hypochlorite solution before they are installed.

Flushing shall start as soon as repairs or connections are completed and shall be continued until discolored water and air are eliminated. Flushing shall be supervised by the District.

Valves and hydrants shall be operated only by approved District personnel, unless an emergency exists and requires immediate operation of a valve to control water loss and an inspector is not available.

5.37 SCHEDULE OF TESTS

The Contractor shall notify the District Inspector at least 2 work days before a section of water main is ready for inspection and pressure test. The District recommends chlorination of the new main upon first fill to reduce water consumption and flushing excessive chlorinated water. The Inspector shall inspect and observe the hydrostatic test. The Contractor shall contact the District at least 2 work days prior to sterilization and flushing and the Contractor shall be present at the project site when the District Representative takes water samples.

5.38 HYDROSTATIC PRESSURE TESTS

Prior to calling the Inspector for pressure test, the Contractor shall have all equipment set up for operation and shall have successfully performed a pre-test to ensure that the pipe is capable of meeting test conditions. All service lines shall be flushed as indicated in Section 5.36 above before scheduling a pressure test.

Water main, appurtenances and service connections shall be tested in sections of convenient lengths under a hydrostatic pressure of 200 psi to 210 psi for 15 minutes.

Pumps, gauges, plugs, saddles, corporation stops, miscellaneous hose and piping, and measuring equipment necessary for performing the test shall be furnished and operated

by the Contractor. The Contractor shall demonstrate the gauge is working properly before the testing begins.

Sections to be tested shall be limited to 1,000 feet.

Thrust blocking shall be in place for an adequate time for concrete to cure before testing and the pipe shall be backfilled sufficiently to prevent movement of the pipe under pressure. In no case shall pressure be applied before 48 hours cure time of thrust blocking. Where permanent blocking is not required, the Contractor shall furnish and install temporary blocking and remove it after testing.

Thrust-blocking shall meet the performance requirements of the details shown in Standard Drawings for specific orientations of the main.

The Contractor shall use a meter cart, with cross connection control, rented from the District to fill new water mains for testing and flushing. New water mains shall be filled and remain under 100 psi to 200 psi pressure for 24 to 48 hours to allow air to escape and the lining of the pipe to absorb water.

The pressure test shall be accomplished by pumping the main up to 200 psi to 210 psi and maintaining the pressure, stopping the pump for 15 minutes, and pumping the main up to the test pressure again. During the test, the section being tested shall be observed to detect any visible leakage.

A clean container shall be used for holding water for pumping up pressure on the main being tested. This makeup water shall be sterilized by the addition of chlorine to a concentration of 50 ppm.

The quantity of water required to restore the pressure shall be accurately determined by pumping through a positive displacement water meter. The meter shall be approved by the District. Essentially no loss will be allowed.

There shall not be an abrupt loss in pressure during the 15-minute test period. Any visible leakage detected shall be corrected by the Contractor regardless of the allowable leakage specified above. Should the tested section fail to meet the pressure test successfully as specified, the Contractor shall locate and repair the defects and then retest the pipeline. There shall be no additional cost to the District for failed tests.

Tests shall be made with the hydrant auxiliary gate valves open and the hydrant valve in the closed position. Once the new line is successfully tested, each valve shall be tested by closing each in turn and relieving the pressure behind it. The mains shall be tested between valves. Insofar as possible, no hydrostatic pressure shall be placed against the opposite side of the valve being tested. This test of the valve will be acceptable if there is no immediate loss of pressure on the gauge when the pressure comes against the valve being checked. The Contractor shall verify that the pressure differential across the valve does not exceed the rated working pressure of the valve. Valves shall be operated by the District only.

Defective materials or workmanship discovered as a result of hydrostatic field test shall be replaced by the Contractor. Whenever it is necessary to replace defective material or correct the workmanship, the hydrostatic test shall be repeated to the satisfaction of the District.

5.39 DISINFECTION AND FLUSHING OF WATER MAINS

Before being placed into service, new water mains and repaired portions of existing mains shall be chlorinated and thoroughly flushed followed by a minimum of two bacteriological samples at each sampling point collected consecutively 24 hours apart by CWD staff. Water samples will be submitted to a certified laboratory and confirmation of satisfactory results will be received on a DOH approved form utilized by the certified laboratory. Disinfection of water mains shall be accomplished by the Contractor in accordance with the requirements of the Washington State Department of Health, AWWA Standard C651 and in a manner satisfactory to the District. All filling and flushing shall be done through a hydrant meter cart rented from the District. A chlorination apparatus capable of accurately introducing chlorine solution shall be used for the disinfection process. Refer to Section 5.36 for disinfection of connections and repairs. Flush and sample from the downstream flow. Sampling criteria shall be as follows: First day samples shall reflect flow through a hydrant meter to all end points and arterials. The system should set dormant for 24 hours and second set of samples taken which shall be representative of the water in the pipe; there should be no additional flushing in order to obtain a representative sample of water remaining in the pipe for 24 hours.

It is the owner's responsibility to obtain or perform, and pay for, water main tests prior to acceptance of the extension by the District Board of Commissioners. When District staff time, materials and laboratory costs are accrued for the developer's project, then the developer will pay for the time and materials related to the testing.

5.39.1 Flushing

The section to be disinfected shall be first flushed to remove any solids or contaminated material that may have become lodged in the pipe at maximum flow established by the District Engineer prior to chlorination. Where dry calcium hypochlorite tablets are used for disinfection of the pipe, flushing shall be done after disinfection. If a hydrant is not installed at the end of the water main, the Contractor shall provide a tap large enough to develop a flow velocity of at least 2.5 feet/sec in the water main or adequate flushing facilities such as a blow-off described in these specifications. The flushing period must be approved by the District Engineer.

The source water used for disinfection and pressure testing shall be flushed by District Staff prior to its use to ensure that contaminants or debris are not introduced into the new pipe.

Taps for temporary or permanent release of air, introduction of chlorine or flushing purposes shall be provided by the Contractor as a part of the construction of water mains. Temporary taps shall be plugged after use with threaded brass plugs.

5.39.2 Chlorination (Reference WSDOT 7-09.3(24))

The section to be tested shall be chlorinated so that a free residual of no less than 25 ppm (parts per million) is measured at the end of all main arterials. At a minimum, flush each service line to disinfect those portions allowing the chlorinated water to remain in facilities, blow-offs, hydrant spools, and service lines, etc. for a minimum of 24 hours. The initial chlorine content of the water shall not be less than 25 ppm no more than 100 ppm.

The forms of chlorine that may be used in the disinfection operations are liquid chlorine injection at 12.5%.

A. Liquid Chlorine: (WSDOT 7-09.3(24) E) Chlorine shall be applied by solution fed at one end of the section with a service or hydrant at the opposite end open sufficiently to permit a flow through during chlorine application. The chlorine solution shall be fed into the pipeline already mixed by an automatically proportioning applicator to provide a steady application rate no less than 25 ppm chlorine. Hydrants, services and blow-offs along the chlorinated section shall be open during application until the presence of chlorine has definitely been detected in each hydrant and service run. When a chlorine concentration no less than 25 ppm has been established throughout the line, the valves shall be closed and the line left undisturbed for 24 hours.

Granulated hypochlorite designed for pools and hot tubs is not acceptable for use in disinfecting water mains.

The main shall be filled with water at a rate to ensure that the water within the main will flow at a velocity no greater than 1ft/sec. Precautions shall be taken to ensure that air pockets are eliminated. When a chlorine concentration of not less than 25 ppm and not more than 100 ppm has been established throughout the line, the valves shall be closed and the line left undisturbed for 24 hours. If chlorine concentration exceeds 100 ppm the Contractor will immediately effect a reduction in the concentration by properly flushing the main and removing chlorine at the discharge.

Water temperature shall be measured and recorded by the District Inspector. If the water temperature is less than 41 degrees F, the water shall remain in the pipe for at least 48 hours to complete disinfection.

The line shall then be thoroughly flushed and water samples taken. The Contractor shall exercise special care in flushing to avoid damage to surrounding property and to conform to these Standards. The Contractor shall provide an accurate written report of the procedure used to the construction inspector.

5.39.3 Final Flushing and Testing

Following chlorination, chlorinated water shall be flushed from the new water main until the replacement water throughout its length shows residuals equal to background chlorine levels in the system.

After final flushing and before the new water main is connected to the distribution system, two consecutive sets of acceptable samples, taken at least 24 hours apart, shall be collected from the new main. The Contractor shall schedule the sample collection with the District a minimum of three (3) work days in advance of test. The number of samples from the source and the number of representative sample points required will be determined by the District. Appropriate sample taps shall be furnished by the Contractor. No hose or fire hydrant shall be used in the collection of samples unless directed by District Engineer.

At least one set of samples shall be collected from every 1,200 feet of the new water main, plus one set from the end of the line and at least one set from each branch. All samples shall be tested for total coliform bacteria and for heterotrophic bacteria by the

heterotrophic plate count (HPC) analysis. The maximum allowable coliform content of the flushed sample shall be zero. The maximum allowable HPC population count in all source samples shall be 300/ml. Any source sample that exceeds a count of 300/ml shall be ruled as an indeterminate test and a new set of source and construction samples for analysis shall be required. The maximum allowable HPC population count from any construction sample shall be no greater than twenty (20) counts above the highest source HPC population count.

Before placing the lines into service, a satisfactory report shall be received by the District from the certified laboratory evidencing successful tests on samples collected from representative points in the developer extension.

Should the initial test result in an unsatisfactory bacteriological test, additional chlorination using the procedure as specified above from Section 5.39.2 and shall be repeated by the Contractor until satisfactory results are obtained. The Contractor shall be responsible for disposal of treated water flushed from the mains including de-chlorination as necessary to protect the environment. Chlorinated water shall never be flushed into the storm drain without local agency approval or to a natural body of water. This includes lakes, rivers, streams, storm drainage systems, and any and all other waters where fish or other natural aquatic life can be expected. Chlorinated water may be discharged to an available sanitary sewer system with the appropriate sewer district's approval and where the rate of discharge will not overload the sanitary sewer.

5.40 ADJUST EXISTING STRUCTURE TO GRADE

5.40.1 Vault Cover Adjustment

Existing vault covers affected by a pavement overlay, or adjustment in surface grade, shall be adjusted to grade within three (3) work days after pavement overlay or temporary asphalt placement. Adjustments shall be made as frequently as necessary to keep the system fully accessible for operation. Vault covers in pedestrian areas shall be ductile iron and non-slip. No additional payment beyond the unit quantity in the bid schedule shall be made for multiple efforts required of the contractor for adjustments. Adjustment to final grade prior to placement of asphalt overlay is acceptable to the District when adjustment meets the final grade criteria as specified below.

5.40.2 Valve Box Adjustment in Paved Areas

For street overlay, Contractor shall provide access to all active, critical operating valves at all times and at the direction of the District Engineer. Contractor shall provide access to all valves as directed by the District and critical operating valves shall be identified on the plans or in the field by the District Inspector.

Raising the existing valve box and cover less than 2" for road re-surfacing shall be accomplished by adjusting the existing top section of the valve box or by inserting a valve box paving riser into the existing valve box top section. Paving risers shall not be used on new construction. When paving risers are used, they shall be permanently anchored to the valve box.

Raising the existing valve box cover 2" or more, for new construction and final overlay, shall be accomplished by adjusting the existing top section. Valve boxes shall not be located in curbs, gutters, or wheel paths.

If the valve box base section needs to be extended, the Contractor shall install a 4" diameter cast iron soil pipe, with the bell-end of the soil pipe inserted over the top of the existing valve box base section. The spigot-end of the soil pipe shall be located a minimum of 6" and maximum of 9" below finished grade. The valve box top section shall be slipped over the soil pipe and adjusted to the final grade. A polyethylene sheet, 8-mil thick, shall be placed between the valve box and soil pipe to prevent metal to metal contact where the sections overlap.

The final box adjustment shall leave the top of the valve box no higher than final grade, and no lower than 0.25" below final grade (zero/-1/4")

In asphalt concrete pavement overlay areas, excavation of the valve box to be raised shall be accomplished by saw cutting or neat-line jack hammering the pavement a minimum of 12" around the perimeter of the valve box. The final adjustment of working valve boxes shall be made within three (3) calendar days following the final overlay or as directed by the District Engineer for critical operating valves. The final adjustment of non-active valve boxes shall be made within twenty (20) days following the placement of asphalt at the valve. Excavation patches shall be sealed with asphalt sealant following adjustment in final placement of asphalt.

5.40.3 Valve Box Adjustment in Unimproved Areas

Adjustment of valve box covers located in unpaved areas shall be accomplished using a 12" valve box adjusting sleeve inserted into the existing valve box top section. Valve centering rings shall be used as required per the Standard Detail in Appendix A.

Provide a minimum of 3'x3'x4" asphalt or concrete pad at the surface as indicated in the Standard Details for valve installations. Delete collar and follow standard drawing details for facilities situated in landscape areas, such as air vac and blow-off installations.

5.41 ABANDONING FACILITIES

5.41.1 Abandonment of Water Main

Water mains no longer in service shall be removed and disposed of by the Contractor. The water main may be abandoned in-place only with the approval of the District Engineer. Mains abandoned in place shall be shown on record drawings. When water mains are abandoned, the ends of the pipe and fittings shall be plugged with concrete (2500 psi min.) 12" minimum length or fitted with MJ cap.

The District may require the Contractor to fill the abandoned water mains with sand or cement grout to comply with local agency requirements depending on the size, material, and location of the water main. Mains abandoned in critical roadways or streams may require additional measures to abandon in place.

5.41.2 Abandonment of Services

For service lines with existing saddles and corporation stops, the contractor shall remove the existing saddle and corporation stop and a new saddle with a plug shall be installed. For existing service lines with a direct tap, the contractor shall install a new saddle and plug. The remainder of the service line shall be abandoned in place.

5.41.3 Abandonment of Structures

Abandonment of structures shall be completed only after water facilities have been properly abandoned or removed. Unless specified otherwise, it will be sufficient to remove vault lids and the first section of the vault (12 inches or more) and fill the abandoned vault with pit run gravel or sand.

5.41.4 Abandonment of Fittings or Appurtenant Facilities

The District shall have right of first refusal for salvage of hydrants, fittings, valves, meters or other appurtenant features. Plans may specifically identify salvage items for the Contractor to deliver to the District operations yard. Contractor must contact the District before start of construction for clarification of any item Contractor proposes for salvage.

5.42 LAWN REMOVAL AND REPLACEMENT

Any lawn damaged by the Contractor shall be restored to conditions existing prior to construction. The contractor shall minimize the area of disturbance and restore any disturbed area to as close to the original condition as possible. Established lawn areas shall be sodded or seeded.

5.43 BORING UNDER ROOTS

Boring under the root systems of trees shall be accomplished by excavating a trench or pit on each side of the tree, being careful to avoid root injury, and then hand digging or pushing the pipe through the soil under the tree. The pit walls shall be outside the drip line and root ball of the tree and shall have sufficient depth to lay the pipe at the grade shown on the plan and profile. The Contractor shall employ the services of a qualified arborist at the direction of the District Engineer when conditions warrant extra care. Costs of an arborist's services shall be paid by the project Owner. Contractor shall not cut roots over 2-inches in diameter without an arborist's recommendation for treating the damaged roots.

5.44 BORING AND JACKING (SEE Special Provisions of Project Document)

The Contractor shall verify the vertical and horizontal location of existing utilities. If required to avoid conflicts and maintain minimum clearances, adjustment shall be made to the grade of the casing pipe.

The pipe shall be bored and jacked where indicated. The Contractor shall remove or penetrate all obstructions encountered. If groundwater is found to be a problem during boring operations, the Contractor shall do all that is necessary to control or divert flow sufficiently to protect the excavation, pipe and equipment so that the work is not impaired. Any pipe damaged during the boring and jacking operation shall be repaired by the Contractor in a manner approved by the District Engineer.

Special care shall be taken during the installation of the bored and jacked pipe to ensure that no settlement or caving is caused to the surface above. Any such caving caused by the placement of the pipe shall be the Contractor's responsibility and the Contractor shall repair any area affected as directed by the District Engineer. In the event the District Engineer determines additional soils or geotechnical analysis is required, the project owner shall obtain such services at the owner's expense.

During the jacking operations, particular care shall be exercised to prevent caving ahead of the pipe which will cause voids outside of the pipe. If voids exist, the Contractor shall drill through the wall of the pipe and fill the voids by pumping cement grout. All voids shall be filled to the satisfaction of the District Engineer.

The carrier pipe shall be installed in the casing as shown in the District Standard Details. The Contractor shall support carrier pipe with casing spacers as shown in the Standard Details.

The casing spacers shall conform to Chapter 4 of these Standards. The material shall be resistant to abrasion and sliding wear. There shall be a minimum of two spacers per length of pipe, and the spacing between spacers shall be as shown in the Standard Details.

Boring and receiving pits shall be backfilled with select native material approved by the District Engineer and compacted to 95% maximum dry density as determined by ASTM D-1557. The Contractor shall provide sufficient select backfill material to make up for the rejected material.

All disturbed ground shall be restored to its original condition or better.

5.45 WORKING WITH ASBESTOS CEMENT PIPE

When working with existing asbestos cement pipe (AC) in the ground, the Contractor is required to minimize human exposure to asbestos material below the exposure limit as prescribed in WAC 296-62-07705 State/Federal Guidelines and Certification. The Contractor shall provide laborers who are certified by the Department of Labor and Industries (L&I) in accordance with WAC 296-65-010 and in accordance with the correct class of work.

5.46 ASBESTOS CEMENT WATER MAIN CROSSINGS

Where a new utility line crosses below an existing asbestos cement (AC) water main, the AC water main shall be replaced with DI pipe to 3 feet past each side of the trench as shown on the Standard Detail. Alternatively, where directed by the District Engineer, the trench shall be backfilled with CDF from the bottom of the trench to the bottom of the AC main.

5.47 CONTROLLED DENSITY FILL

Controlled Density Fill (CDF) can be proportioned to be flowable, non-segregating, or excavatable by hand or machine. CDF shall have a maximum compressive strength of 1,500 psi, unless specified otherwise. Desired flow-ability shall be achieved with a high water/cement ratio to meet the following guidelines:

Low Flow-ability	below 6-inch slump
Normal Flow-ability	6 - 8-inch slump
High Flow-ability	8-inch slump or greater

Level of flow-ability shall be "Normal" or as specified on the plans. CDF shall be placed by any reasonable means into the area to be filled. CDF patching, mixing and placing may be started if weather conditions are favorable, when the temperature is at 34 degrees F and rising. At the time of placement, CDF must have a temperature of at least 40 degrees F. Mixing and placing shall stop when temperature is 38 degrees F or less and falling. Each filling stage shall be as continuous as possible. CDF shall not be placed on frozen ground. *Local agency requirements for CDF material may supersede District and strength characteristics defined in this specification outside the pipe zone.

Trench section to be filled with CDF shall be contained at either end of the trench section by bulkhead or earth fill.

When used to support existing AC pipe, the "flow able" CDF shall be brought up uniformly to the bottom of the AC pipe, as shown on the plans, or as directed by the District Engineer.

The contractor shall provide steel plates to span utility trenches and prevent traffic contact with CDF for at least 24 hours after placement or until CDF is compacted or hardened to prevent rutting by construction equipment or traffic.

If CDF is used for trench backfill on ductile iron, pipe shall be encased in 5/8" minus crushed rock or 1-1/2" WSDOT standard material and services shall be encased in 5/8" minus material with high content of fines. **CDF shall not be placed in the pipe zone.**

5.48 VAULT INSTALLATION

Vaults for water facilities (pressure reducing stations, valves, water service, flow meters, backflow prevention devices, etc.) shall be installed at the locations shown in the plan and as staked. It shall be constructed as shown in the Plans, Standard Details and as directed by the District Engineer.

The excavation shall have minimum one (1) foot clearance between the vault outer surfaces and the earth bank. The Contractor shall use foundation gravel (WSDOT 9-03.12(3)) on top of undisturbed soil to support the vault. The vault shall be plumb and watertight. The access cover shall be seated properly to prevent rocking and shall be adjusted to match the finished grade.

The vault floor shall free drain to discharge, or to location shown on the Plans. Gravity

drain pipe shall be a minimum of 3" diameter.

Where knock-outs coincide with pipe location, the voids shall be sealed with concrete or non-shrink grout. Where knockout locations for pipe do not coincide with locations of pipe penetrations into the vault, the Contractor shall core drill openings for pipe.

Sump pumps shall be installed per the Standard Details, Appendix A. Installation of the sump and drain is required for all vaults. When electrical service is not available within 300 feet, the sump, pump and power cord will be installed for District use with portable generator.

5.49 UTILITY CROSSING

Minimum vertical distance between utility pipes shall be no less than 12 inches. In the event a separation of less than 12 inches is encountered, additional measures may be necessary to ensure system integrity and may be required as evaluated by the District on a case-by-case basis. Coordination of the utilities involved will be the responsibility of the project Owner.

*Note: Neoprene pads are not approved for use as a substitute for distance in separating utilities involving the District's water system.

5.50 CONSTRUCTION REDLINES AND RECORD DRAWINGS

Construction redline drawings refer to the hardcopy paper/bond set of the final approved plans that the Developer/Contractor retains throughout the construction process and contain redline changes of as-built information. The following is required for a complete construction redline set.

WATER MAINS:

Labels on water mains shall include the horizontal length of pipe from center of fitting to center of fitting, pipe diameter and material, class of pipe, joint restraint type and length including starting and ending stations if applicable, size and location of trust blocks, pipe manufacturer and year installed. The depth to the top of pipe shall be recorded at every 50 feet.

VALVES:

Callouts shall include valve size, type (gate valve, check valve, etc.), joint type (MJ, PO, etc.), and year installed. See example below "FITTINGS".

FITTINGS:

Callout number of fittings, diameter, type of fitting (22.5° bend, 8"x8" Tee, etc.), top of fitting elevation, fitting manufacturer and joint type.

For example:

1-8"x8" TEE (FL)

3-8"x8" GATE VALVES (FLxMJ)

1-CONCRETE BLOCKING

Tyler Union

T/P=200.0'

SERVICES:

Size and location of service shall be shown. Include length of service from main to meter and size and material for saddle, service line, curb stop and setter.

HYDRANTS:

Note the distance from foot valve to hydrant, depth of bury at the hydrant (ex. "5' bury"), year installed, fire hydrant manufacturer and model and the size of port.

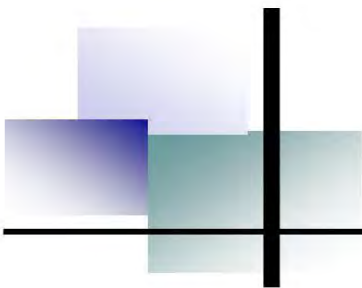
Record top of pipe elevation every 50 linear feet along the water main alignment at and at every fitting.

Cross out any proposed items not constructed or abandoned. Use bold line types for all installed pipes, structures, etc.

TIMING AND PROCESSING

After completion of construction, the Developer/Contractor shall submit the construction redline drawings to the District for review and comment. After the District has concurred that the construction redline drawings reflect the as-built conditions, the District will send a final set of construction redlines to the Design Engineer (engineer on record) and Developer for final as-builts.

Incomplete, inaccurate, illegible, or poor-quality drawings will be rejected and will require resubmittal prior to developing Bill of Sale. All plan sheets must have a "Record Drawing" stamp block.



Chapter 6

Landscape and Water Use



CHAPTER 6 LANDSCAPING AND WATER USE

6.01 GENERAL

The need for greater efficiency in water use has become paramount in our region as rising population increases the demand for water and drought cycles decrease availability. The District encourages water conservation on multiple levels.

The Washington State Legislature passed the Municipal Water Supply – Efficiency Requirements Act of 2003, better known as the Municipal Water Law. One of the obligations is to comply with the Water Use Efficiency Rule (WUER). The WUER is designed to help conserve water for the environment and future generations and requires water suppliers to develop a rate structure that encourages efficient use of water. The District has long recognized the need to encourage efficient water use and first introduced conservation pricing with a tiered rate structure in 1997. The goal of this conservation pricing is to reduce excessive discretionary water use, especially excessive outdoor irrigation, by making water increasingly more expensive as greater amounts are used. A copy of the District's current rate structure is available at www.covingtonwater.com.

6.02 LOCAL JURISDICTIONS

Please refer to the appropriate local jurisdiction's ordinances and code requirements for specification details for landscape installations.

6.03 RECOMMENDATIONS

The following recommendations would be helpful for homeowners and developers in reducing water consumption.

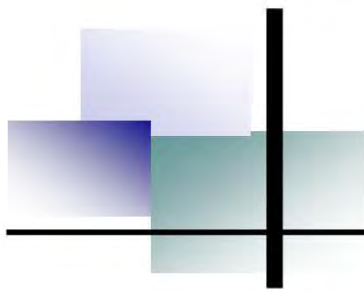
1. Good soil is vital to efficient water conservation in the landscape. A minimum of six (6) inches of quality topsoil consisting of 20 to 25% organics should be applied to turf and landscape areas. Poor soils, which are typical in our area, will greatly benefit from the addition of compost material. In addition to adding nutrients, compost-amended soils will have greater moisture retention capability, which make better use of applied water.
2. Due to its high-water requirement, fine ornamental lawn areas (not including non-irrigated native grasses, pasture lands and other grasses) should be limited to no more than 1,000 square feet for each Lot. Lawns should not be planted in planting strips less than five feet in width.
3. Not less than 95% of the remaining landscape area (non-turf areas) should be planted with low water requiring plants. Plants utilized should be climate-friendly, drought-tolerant varieties, planted in the appropriate location to suit their needs. Plants with similar water use characteristics should be grouped together into hydro zones for more efficient irrigation.
4. In order to reduce irrigation requirements, it is recommended that landscapes be installed in spring or fall, rather than in the heat of summer.

-
5. Planting beds should be mulched with three (3) inches of mulch and replenished as needed to maintain this level.
 6. Lawns should be top dressed with ½ inch of fine screened compost in the spring or fall on a yearly basis.
 7. To reduce runoff and ensure adequate recharge of the groundwater supply, homeowners are encouraged to minimize the amount of hard surfaces, such as asphalt and concrete driveways and patios. Permeable surfaces are preferable.
 8. Irrigation systems should:
 - a. be designed by an Irrigation Association (IA) Certified Designer or a registered Landscape Architect;
 - b. include automatic shutoff or override capabilities using rain or soil moisture sensors;
 - c. utilize a Smart Controller which reduces water use by monitoring and using information about site conditions (such as soil moisture, rain, wind, slope, soil, plant type, and more), and applying the right amount of water based on those factors;
 - d. be professionally programmed;
 - e. include a backflow prevention assembly suitable to the District, which must be tested annually by a certified backflow assembly tester, as required by State law. The assembly shall be placed immediately back of the meter.
 9. The following water efficient techniques are provided to further aid homeowners/residents:
 - a. Water established lawns once a week deeply – soil should be moist six inches down. This will typically take up to a week to dry out. Lawns are considered established after several mowings. New lawns may be watered more often but for shorter durations (less deeply) during the first growing season. Deep watering inhibits thatch build-up.
 - b. Water established native, climate-friendly plants only when needed. Once a month deeply will probably suffice, twice a month if it's been particularly hot and dry.
 - c. Water in the early morning or in the evening when evaporation is least likely to occur. Do not water in the heat of the day, as up to half the water applied is wasted to evaporation. Do not water on windy or rainy days.
 - d. Do not apply water more rapidly than the soil can absorb it. Turn off the sprinkler at the first sign of saturation or runoff to allow the water to soak in. Water again in half an hour if necessary to adequately moisten the root zone.
 - e. The use of a shut-off nozzle on water hoses is highly encouraged.
 10. The waste of water supplied by the District is discouraged at all times. Waste of water includes, but is not limited to: the continuous application of water to lawns or landscaping with results in puddling or runoff of water; failure to repair leaking water service lines and irrigation systems; application of water to impervious surfaces other than for cleaning purposes; watering in the heat of the day or when it is raining or windy; and all other applications of water which do not result in a beneficial use.

Resource recommendation for irrigation system installations:

The Irrigation Association has developed *Turf and Landscape Irrigation Best Management Practices (BMPs)* that will save and extend our water supply while protecting water quality.

<http://www.irrigation.org/gov/default.aspx?pg=BMPs.htm&id=104>



Standard Details

Appendix A

INDEX TO STANDARD DETAILS

<u>DETAIL NO.</u>	<u>DESCRIPTION</u>
1	WATER SYMBOLS
2	TYPICAL TRENCH DETAIL
3	CUT-IN FOR AC PIPE
4	CUT-IN FOR CI, DI, OR PVC
5	HORIZONTAL CONCRETE THRUST BLOCKING
6	VERTICAL THRUST BLOCKING TABLE
7	FIRE HYDRANT INSTALLATION
8	FIRE HYDRANT INSTALLATION (CONT.)
9	FIRE HYDRANT LOCATIONS
10	VALVE MARKER POST
11	VALVE BOX AND NUT EXTENSION DETAIL
12	4" BLOW-OFF ASSEMBLY AT END OF MAIN
13	2" BLOW OFF ASSEMBLY AT END OF MAIN
14	2" COMBINATION AIR VALVE ASSEMBLY
15	RESIDENTIAL-METER INSTALLATION LAYOUT
16	NON-RESIDENTIAL METER INSTALLATION LAYOUT
17	METER BOX LOCATIONS
18	5/8"x3/4", 3/4", & 1" STANDARD METERS EXISTING SERVICE REPLACEMENT
19	5/8"x3/4", 3/4", & 1" STANDARD METERS
20A, 20B	5/8"x3/4", 3/4", & 1" STANDARD METERS AND 1" RESIDENTIAL FIRE METERS
21	2" AND SMALLER NON-RESIDENTIAL METERS
22	2" & LARGER METER INSTALLATION
23	2" & SMALLER PRESSURE REDUCING VALVE (PRV)
24A, 24B	ZONE SEPARATION PRESSURE REDUCING VALVE (PRV)
25	REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA)
26	2" & SMALLER DOUBLE CHECK VALVE ASSEMBLY (DCVA)
27	3" & LARGER DOUBLE CHECK VALVE ASSEMBLY (DCVA) & VAULT
28	DOUBLE DETECTOR CHECK VALVE ASSEMBLY (DDCVA) & VAULT W/ FDC
29	SUMP PUMP INSTALLATION
30	PIPE CASING
31	TRANSITION SLEEVE
32	TEMPORARY BLOW-OFF ASSEMBLY (3" SIZE)

LAST REVISED AS/FT 12/23		STANDARD DETAILS INDEX	
APPROVED BY			
01/24			
STEVE LEE-DISTRICT ENGINEER			

STANDARD SYMBOLS

FITTINGS W/ END CONNECTION

USE ON PLANS
EXIST. PROP.

USE ON PLANS
EXIST. PROP.

		CAP/PLUG	
		COUPLING	(CPL)
		REDUCER	(RED)
		THRUST BLOCK	(TB)
		WATER METER	(WM)

FIRE HYDRANTS:

		3-NOZZLE	(FH)
--	--	----------	------

JOINTS:

		FLANGE/BLIND FL	(FL)
		MECHANICAL	(MJ)
		PUSH-ON/HUB	
		THREAD	(THD)

VALVES:

		AIR/VAC	(AIR)
		BLOW-OFF	(BO)
		BUTTERFLY	(BF)
		CHECK	(CK)
		GATE/GENERAL	(WV)
		PLUG VALVE	(PV)
		PRESSURE REDUCING VALVE	(PRV)

	50 LF 8" D.I.	WATER MAIN
		WATER SERVICE
	W	EX WATER MAIN
		EX WATER SERVICE
		EASEMENT

		ADAPTER, FL.xM.J.
		90 DEGREE BEND, FL.
		45 DEGREE BEND, FL.
		22.5 DEGREE BEND, FL.
		11.25 DEGREE BEND, FL.

		90 DEGREE BEND, M.J.
		45 DEGREE BEND, M.J.
		22.5 DEGREE BEND, M.J.
		11.25 DEGREE BEND, M.J.

		VERTICAL BEND, FL.
		VERTICAL BEND, M.J.

		REDUCERS: REDUCER, FL.
		REDUCER, M.J.
		REDUCER, M.J.xFL.
		REDUCER, M.J.xP.E.
		REDUCER, P.E.xM.J./FL.xM.J.

		TEES: TAPPING TEE & VALVE, FL.xM.J.
		TEE, FL.
		TEE, M.J.
		TEE, M.J.xFL.

		VALVES: BUTTERFLY VALVE, FL.xM.J.
		BUTTERFLY VALVE, M.J.
		GATE VALVE, FL.xM.J.
		GATE VALVE, M.J.

LAST REVISED AS/FT 12/23

APPROVED BY

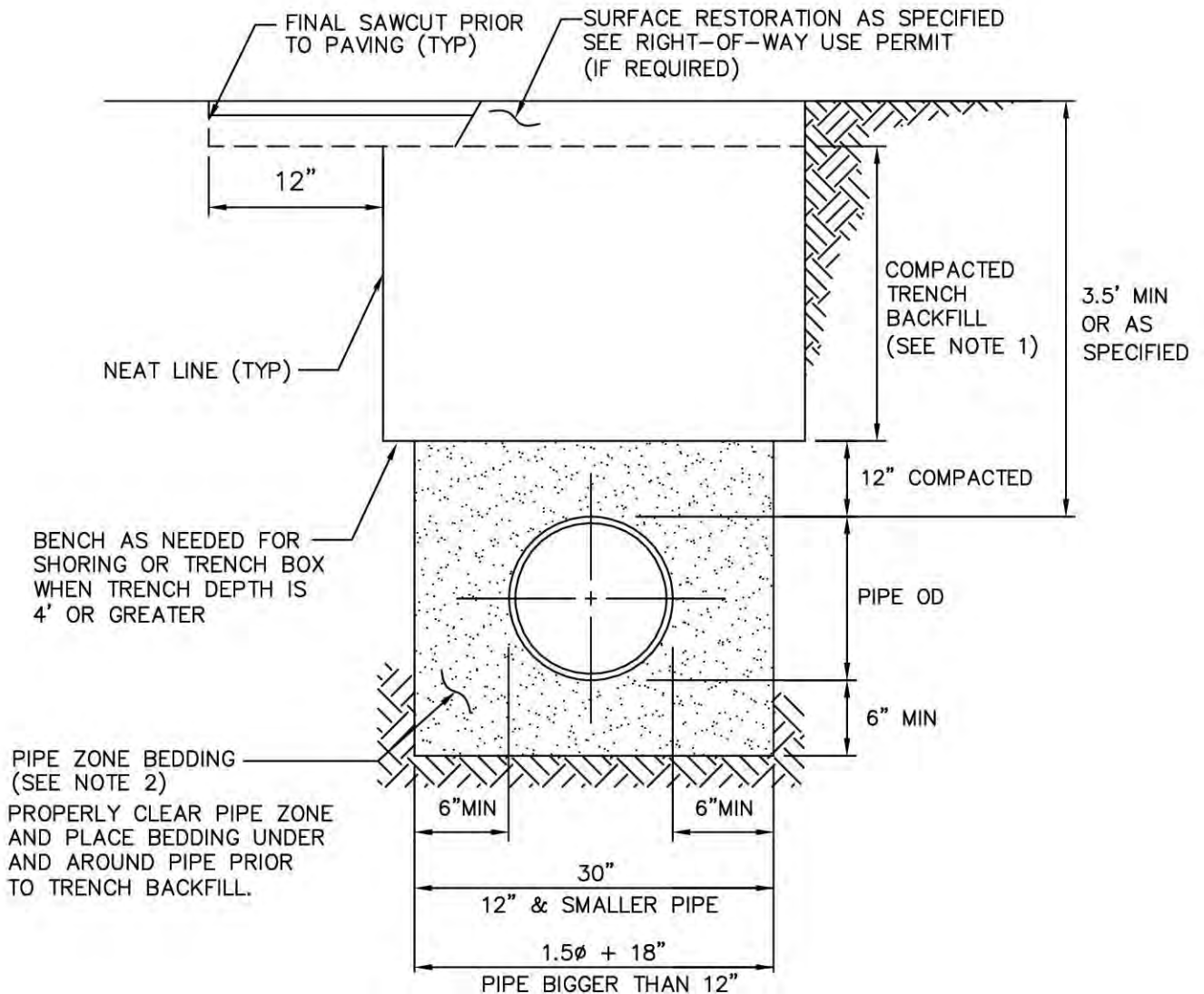
01/24

STEVE LEE-DISTRICT ENGINEER



WATER SYMBOLS

1



NOTES:

1. TRENCH BACKFILL SHALL BE

- PAVED AREA: GRANULAR BACKFILL AS APPROVED BY LOCAL AGENCY, OR PER WSDOT* 9-03.12(3), CDF WHEN SPECIFIED, OR APPROVED NATIVE MATERIAL FREE OF ORGANIC MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY. APPROVED NATIVE MATERIAL WILL GENERALLY MEET WSDOT 9-03.19
- UNIMPROVED AREA: SELECT GRANULAR MATERIAL WITH MAXIMUM DIMENSION OF 2-1/2" PER WSDOT 9-03.19, COMPACTED TO 90% OF MAXIMUM DENSITY.

2. GRAVEL BACKFILL FOR PIPE ZONE BEDDING SHALL BE SELECT GRANULAR MATERIAL PER WSDOT 9-03.12(3), WITH MAXIMUM DIMENSION OF 1-1/4" COMPACTED TO 95% OF MAXIMUM DENSITY BY APPROVED HAND-HELD TOOLS.

3. EXCAVATE FOR THE PIPE BELL TO ENSURE UNIFORM SUPPORT FOR THE PIPE BARREL.

4. TRENCH AND PAVEMENT RESTORATION SHALL BE DONE PER RIGHT-OF-WAY USE PERMIT.

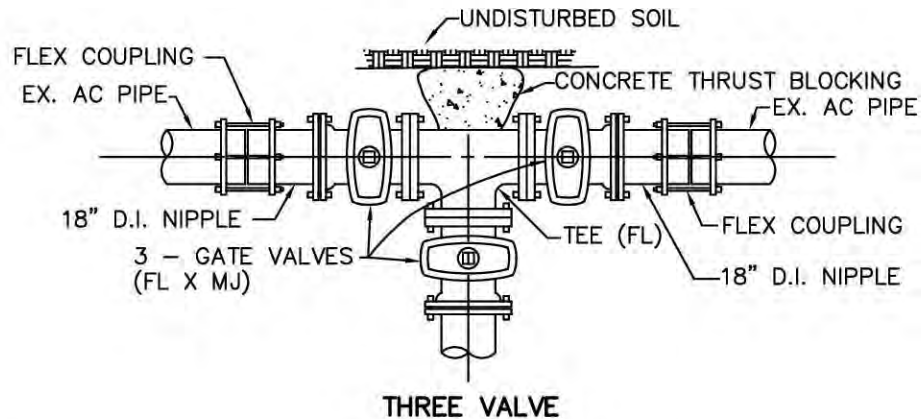
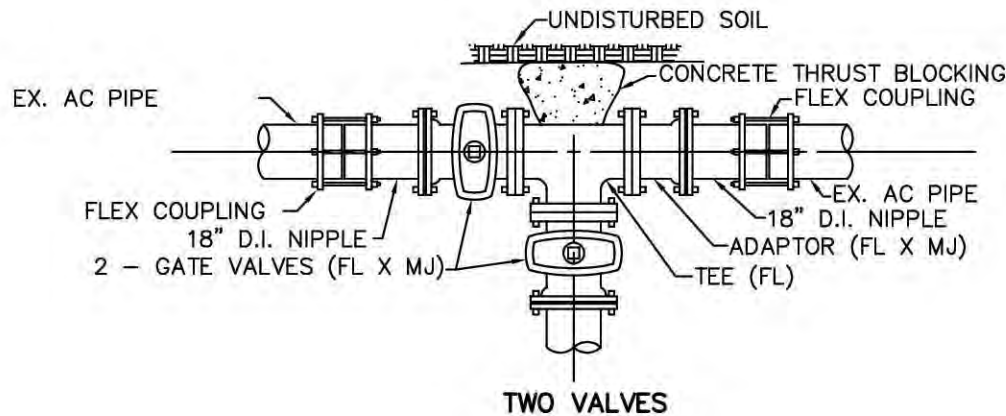
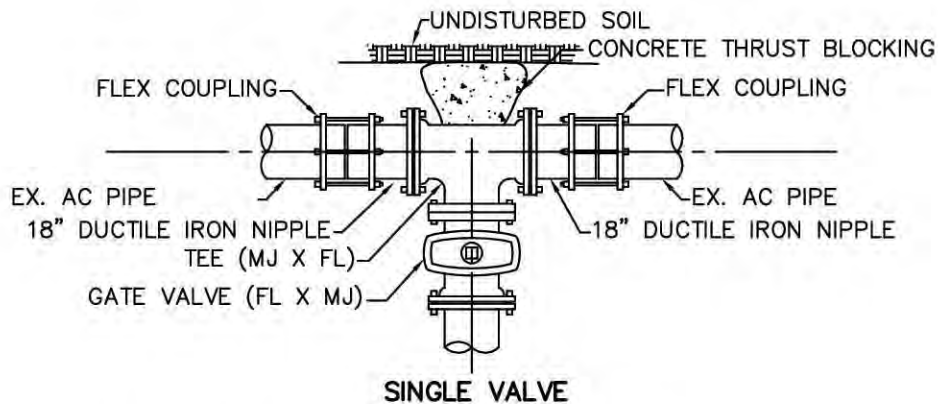
*WSDOT: CURRENT REVISION OF STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



TYPICAL TRENCH DETAIL

2



NOTES:

1. PROVIDE CONCRETE SUPPORT BLOCK UNDER EX. PIPES AND FITTINGS BEFORE "CUT-IN" TO EX. WATER MAIN. INSTALL CEDAR WEDGES BETWEEN THE SUPPORT BLOCK AND THE FITTING TO ADJUST ALIGNMENT. BLOCK VALVE AND COUPLING ONLY. POUR THRUST BLOCK BEHIND TEE.
2. CONCRETE SUPPORT BLOCK SHALL BE INSTALLED ON UNDISTURBED TRENCH BOTTOM OR COMPACTED FOUNDATION MATERIAL. VOIDS UNDER PIPES, VALVES, & FITTINGS SHALL BE FILLED WITH CDF. PROVIDE PLASTIC FILM WRAP AROUND PIPES, FITTINGS, AND COUPLINGS TO PREVENT EXPOSURE TO CONCRETE AND BACKFILLING. AVOID ENCASING PIPE OR FITTINGS WITH CONCRETE.
3. ALL CONNECTIONS TO EXISTING MAINS SHALL BE MADE WITH THE PRESENCE OF AN AUTHORIZED CWD REPRESENTATIVE AFTER REQUIRED TESTING.
4. A 3'x3'x4" CONCRETE OR ASPHALT COLLAR IS REQUIRED IF VALVE BOX IS SET IN GRAVEL OR UNPAVED SURFACE.
5. VALVE MARKER POST SHALL BE INSTALLED WHERE DIRECTED BY DISTRICT ENGINEER.
6. ALL FITTINGS SHALL BE SWABBED WITH A MINIMUM 12.5% HYPOCHLORITE SOLUTION.

LAST REVISED AS/FT 12/23

APPROVED BY

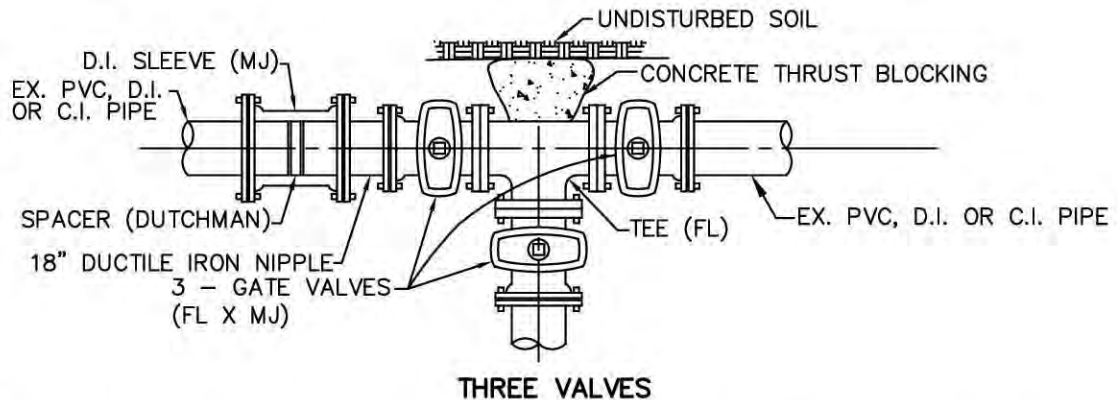
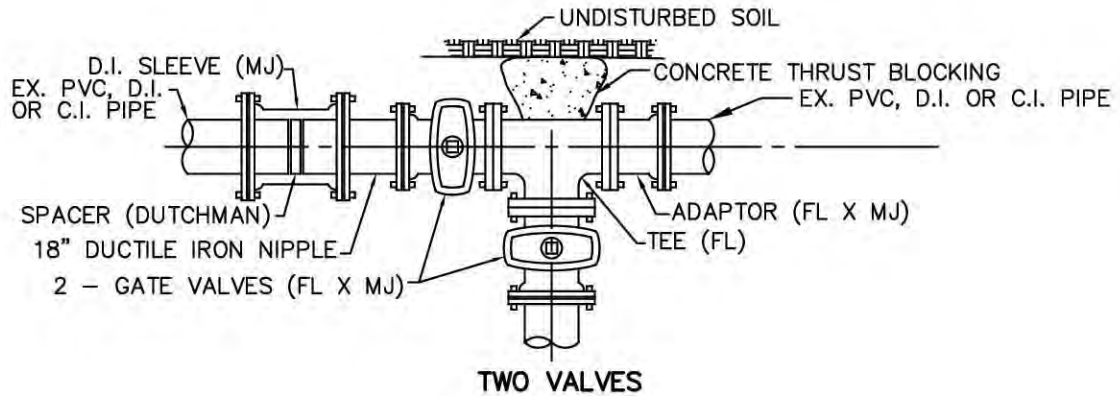
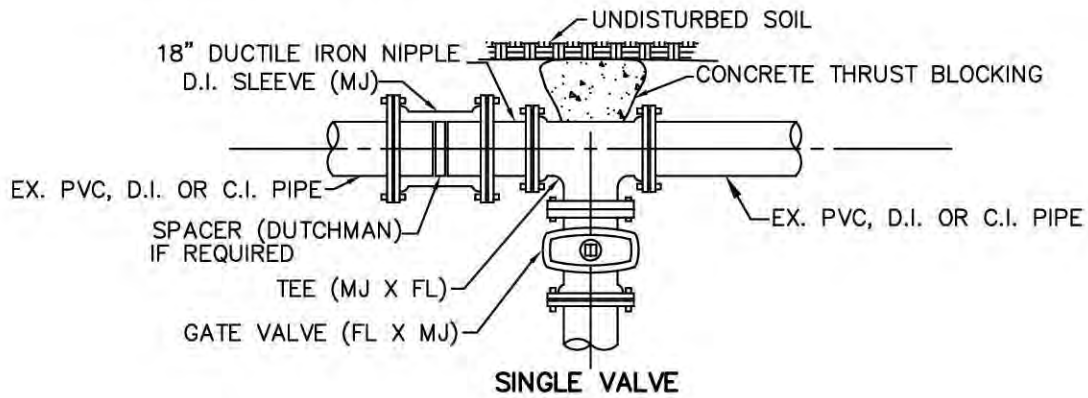
01/24

STEVE LEE-DISTRICT ENGINEER



CUT-IN FOR AC PIPE

3



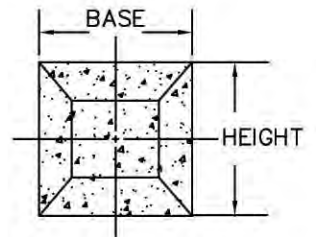
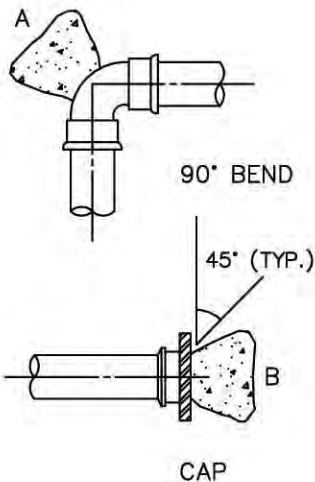
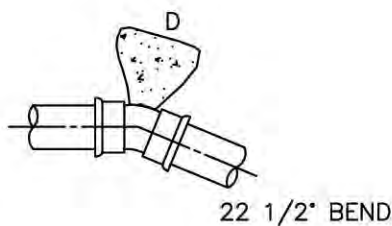
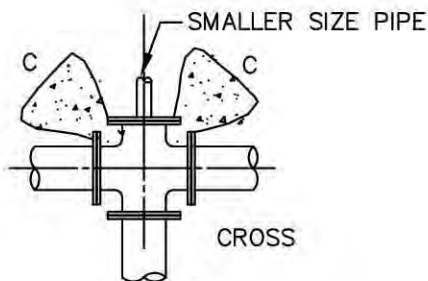
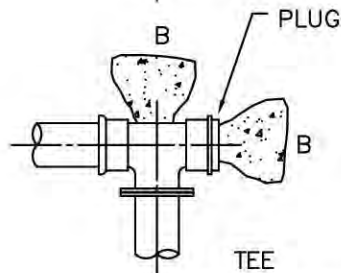
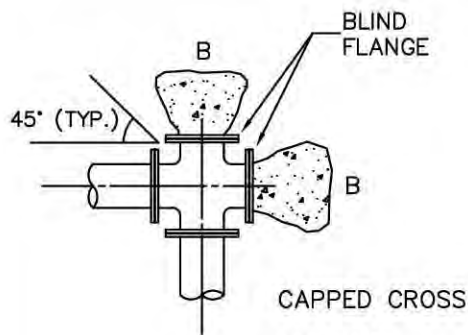
NOTES:

1. PROVIDE CONCRETE SUPPORT BLOCK UNDER EX. C.I. PIPES AND NEW FITTINGS BEFORE "CUT-IN" TO EX. WATER MAIN. INSTALL CEDAR WEDGES BETWEEN THE SUPPORT BLOCK AND THE FITTING TO ADJUST ALIGNMENT. BLOCK VALVES AND COUPLING ONLY. POUR THRUST BLOCK BEHIND TEE.
2. CONCRETE SUPPORT BLOCK SHALL BE INSTALLED USING A PLYWOOD FORM ON UNDISTURBED TRENCH BOTTOM OR COMPACTED FOUNDATION MATERIAL. VOIDS UNDER PIPES, VALVES, & FITTINGS SHALL BE FILLED WITH CDF. PROVIDE PLASTIC FILM WRAP AROUND PIPES, FITTINGS, AND COUPLINGS TO PREVENT EXPOSURE TO CONCRETE AND BACKFILLING. AVOID ENCASING PIPE OR FITTINGS WITH CONCRETE.
3. ALL CONNECTIONS TO EXISTING MAINS SHALL BE MADE WITH THE PRESENCE OF AN AUTHORIZED CWD REPRESENTATIVE AFTER REQUIRED TESTING.
4. A 3'x3'x4" CONCRETE OR ASPHALT COLLAR IS REQUIRED IF VALVE BOX IS SET IN GRAVEL OR UNPAVED SURFACE.
5. VALVE MARKER POST SHALL BE INSTALLED WHERE DIRECTED BY DISTRICT ENGINEER.
6. ALL FITTINGS SHALL BE SWABBED WITH A MINIMUM 12.5% HYPOCHLORITE SOLUTION CONCENTRATION.

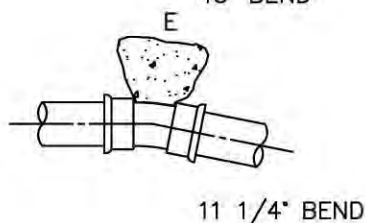
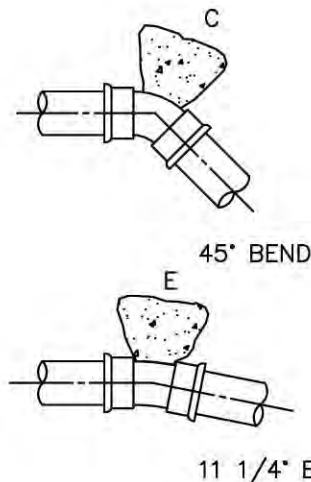
LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



**CUT-IN FOR
CI, DI, OR PVC**



THRUST BLOC IS A FORMED PILLAR WITH DIMENSIONS AS SHOWN BELOW AND SIDE ANGLE NOT TO EXCEED 45°.



HORIZONTAL THRUST BLOCKING — TABLE
MIN. BEARING AREA AGAINST UNDISTURBED SOIL
(SQUARE FEET)

PIPE SIZE	DEAD END (CONDITION B)				90° BEND (CONDITION A)				45° BEND (CONDITION C)				22.5° BEND (CONDITION D)				11.25° BEND (CONDITION E)			
	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)
4"	3.00	2.00	1.50	1.50		2.50	1.50	1.50	2.19	1.75	1.25	1.50	1.25	1.25	1.00	1.50	0.50	1.00	0.50	1.50
6"	6.00	3.00	2.00	1.50	7.88	3.50	2.25	1.50	4.38	2.50	1.75	1.50	2.19	1.75	1.25	1.50	1.25	1.25	1.00	1.50
8"	9.38	3.75	2.50	1.50	13.50	4.50	3.00	2.00	7.88	3.50	2.25	1.50	3.75	2.50	1.50	1.50	2.19	1.75	1.25	1.50
10"	14.25	4.75	3.00	2.00	20.63	5.50	3.75	2.50	11.00	4.00	2.75	2.00	6.00	3.00	2.00	1.50	3.00	2.00	1.50	1.50
12"	20.63	5.50	3.75	2.50	29.25	6.50	4.50	2.75	15.44	4.75	3.25	2.00	7.88	3.50	2.25	1.50	3.75	2.50	1.50	1.50
16"	36.25	7.25	5.00	3.00	50.31	8.75	5.75	3.50	27.63	6.50	4.25	2.50	13.50	4.50	3.00	2.00	7.31	3.25	2.25	1.50

A=AREA B=BASE H=HEIGHT D=DEPTH

RESTRAINED JOINTS ARE REQUIRED WHERE BEARING SOILS OR FILL MATERIAL ARE DETERMINED BY THE ENGINEER / CWD TO BE UNSUITABLE TO PROVIDE ADEQUATE BEARING LOAD, OR SOIL HAS BEEN DISTURBED

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE—DISTRICT ENGINEER	

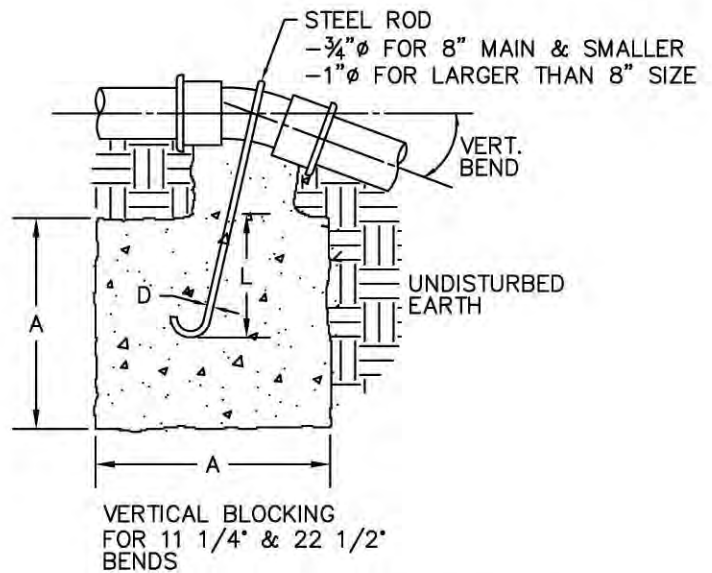


HORIZONTAL CONCRETE THRUST BLOCKING

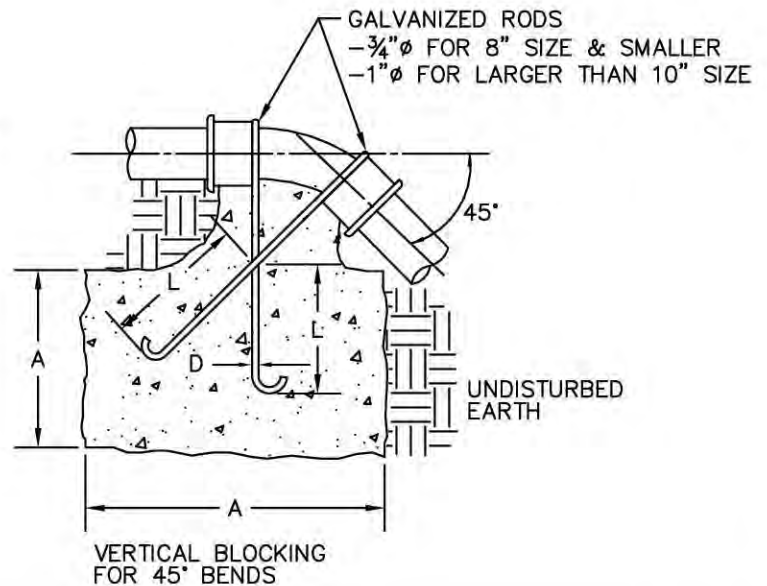
NOTES:

1. BEARING AREA OF CONC. THRUST BLOCKING BASED ON 200 PSI WATER PRESSURE, SOIL BEARING CAPACITY OF 2,000 LBS/FT² AND 1.5 FACTOR OF SAFTY. THE DESIGN ENGINEER IS TO VERIFY BLOCK SIZING IS ADEQUATE FOR SPECIFIC SITE CONDITIONS
2. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZES, PRESSURES AND SOIL CONDITIONS.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.
4. BLOCKING SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT REMOVING OR DISMANTLING OF JOINT.
5. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATION PRESSURE UNDER ALL CONDITIONS OF SERVICE.
6. CONCRETE SHALL BE 2500 PSI MIN.
7. INSTALL PLASTIC TYPE SHEETING (MIN. 6 MIL.) AROUND THE FITTING ALL BOLTS, NUTS, AND GLANDS FOR FUTURE DISMANTLING.
8. THRUST BLOCKING FOR PIPE LARGER THAN 16" WILL REQUIRE ENGINEERED DESIGN FOR SPECIFIC CONDITIONS.
9. DIMENSION "A" IN THE VERTICAL THRUST BLOCK DETAIL IS THE DIMENSION FOR ALL SIDES OF BLOCK.

VERTICAL THRUST BLOCKING FOR 11 1/4", 22 1/2", 45° BENDS					
PIPE SIZE	V B	CU FT	A	D	L
4"	11 1/4"	8	2.00'	3/4"	1.5'
	22 1/2"	16	2.50'	3/4"	2.0'
	45°	27	3.00'	3/4"	2.0'
6"	11 1/4"	16	2.50'	3/4"	2.0'
	22 1/2"	27	3.00'	3/4"	2.5'
	45°	53	3.75'	3/4"	2.5'
8"	11 1/4"	27	3.00'	3/4"	2.5'
	22 1/2"	53	3.75'	3/4"	3.0'
	45°	91	4.50'	3/4"	3.5'
10"	11 1/4"	43	3.50'	1"	3.0'
	22 1/2"	77	4.25'	1"	3.5'
	45°	145	5.25'	1"	4.0'
12"	11 1/4"	53	3.75'	1"	3.0'
	22 1/2"	107	4.75'	1"	4.0'
	45°	190	5.75'	1"	4.5'
16"	11 1/4"	91	4.50'	1 1/8"	3.5'
	22 1/2"	190	5.75'	1 1/8"	4.5'
	45°	343	7.00'	1 1/8"	4.5'



90° VERTICAL BENDS ARE NOT ALLOWED WITHOUT DISTRICT APPROVAL OF ENGINEERED DESIGN SUBMITTAL



LAST REVISED AS/FT 12/23

APPROVED BY

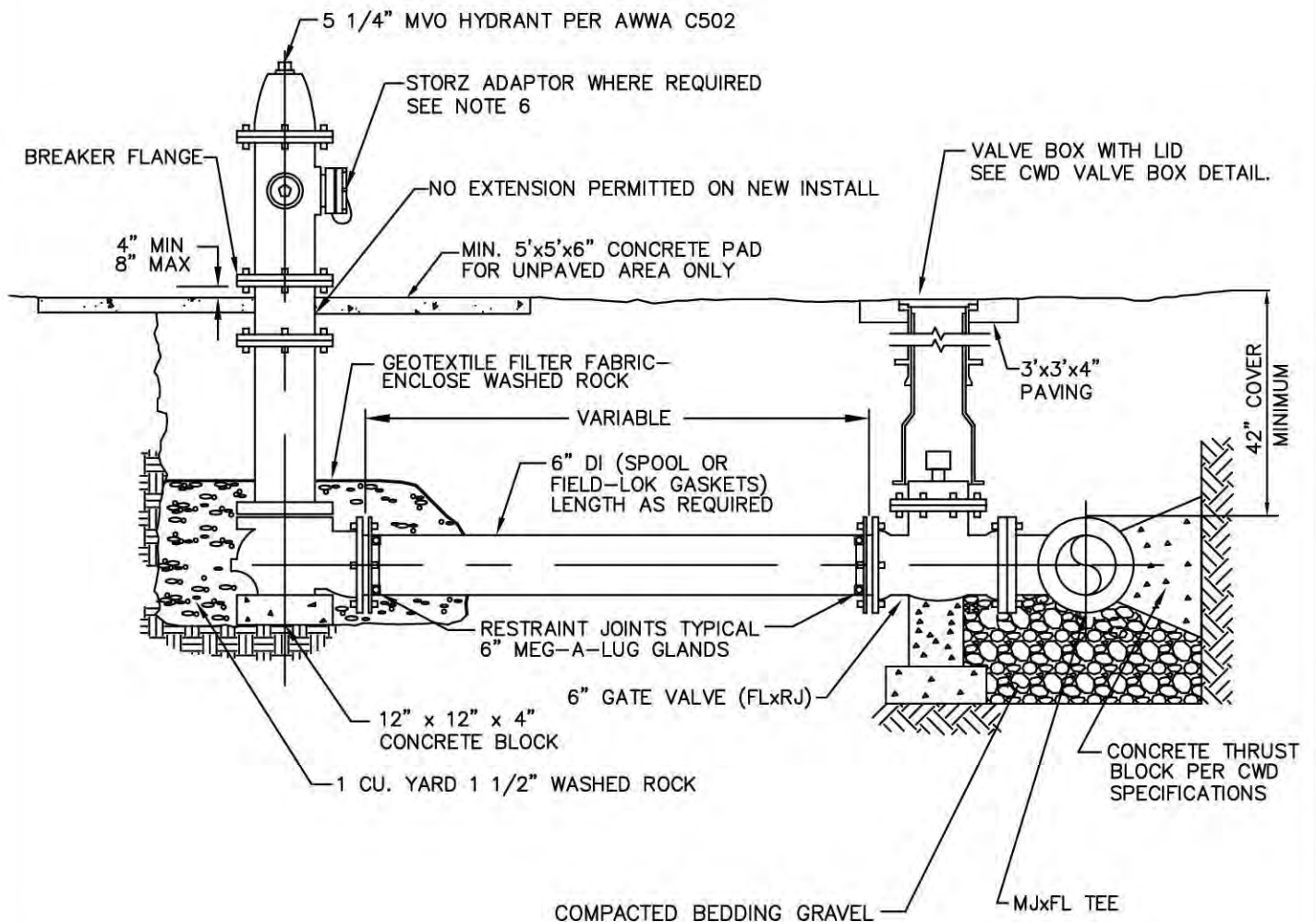
01/24

STEVE LEE-DISTRICT ENGINEER



VERTICAL THRUST
BLOCKING TABLE

6



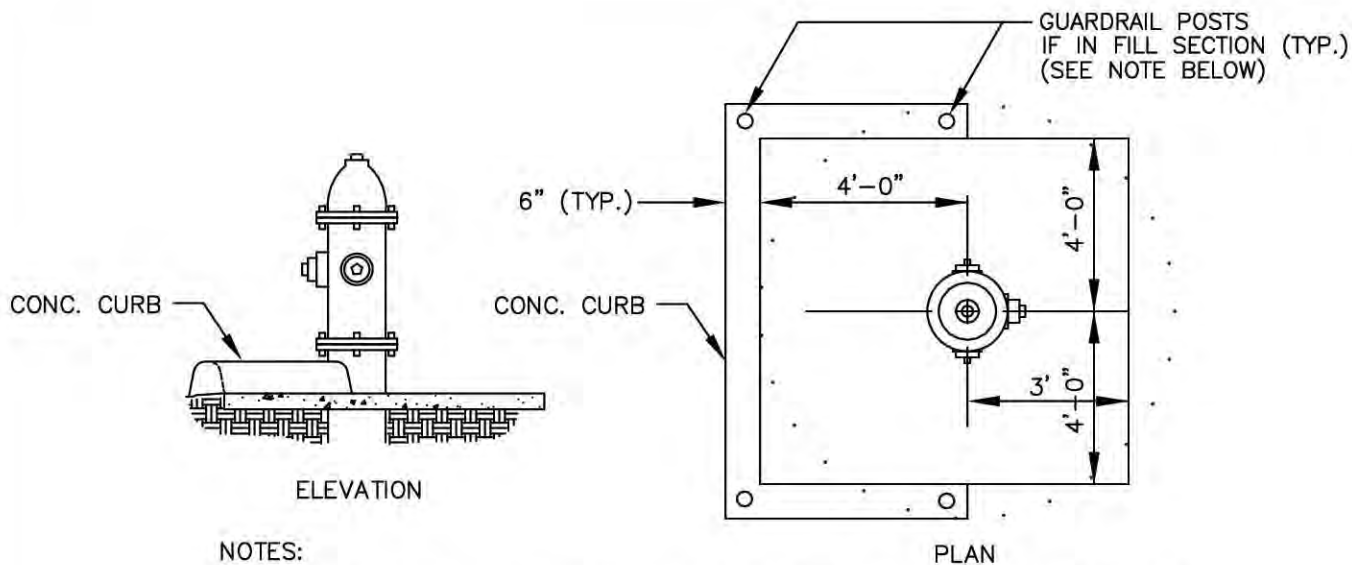
NOTES:

1. PAINT HYDRANT WITH 2 COATS OF SAFETY YELLOW PAINT—SEE APPROVED MATERIALS
2. MEG-A-LUGS OR OTHER APPROVED JOINT RESTRAINT SYSTEM.
3. FIRE HYDRANT SHALL HAVE A STANDARD 4 1/2" NST PUMPER PORT AND TWO 2 1/2" NST SIDE PORTS, ALL OPENING BY TURNING COUNTER CLOCKWISE WITH 1 1/4" OPERATING NUT.
4. WHEN HYDRANT FAILS TO DRAIN (HIGH WATER TABLE), DRAIN HOLE SHALL BE TAPPED AND PLUGGED.
5. FACE STEAMER PORT TOWARD STREET RIGHT-OF-WAY OR AS DIRECTED BY LOCAL DISTRICT FIRE MARSHALL.
6. COORDINATE WITH LOCAL JURISDICTION FIRE MARSHAL REQUIREMENTS ON STORZ SIZE. 5" STORZ ADAPTER IS REQUIRED FOR FIRE DISTRICT #43 (MAPLE VALLEY FIRE) AND FIRE DISTRICT # 37 (COVINGTON FIRE). 4" STORZ ADAPTER IS REQUIRED FOR FIRE DISTRICT # 44 (BLACK DIAMOND FIRE) AS SPECIFIED BY THE APPROPRIATE FIRE MARSHAL
7. PRIOR TO COVINGTON WATER DISTRICT APPROVAL, A SEPARATE, STAMPED FIRE DISTRICT APPROVAL IS REQUIRED.
8. THE DISTRICT SHALL HAVE ADDITIONAL HYDRANTS REQUIRED SEPARATE FROM FIRE DISTRICT APPROVAL.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE—DISTRICT ENGINEER	



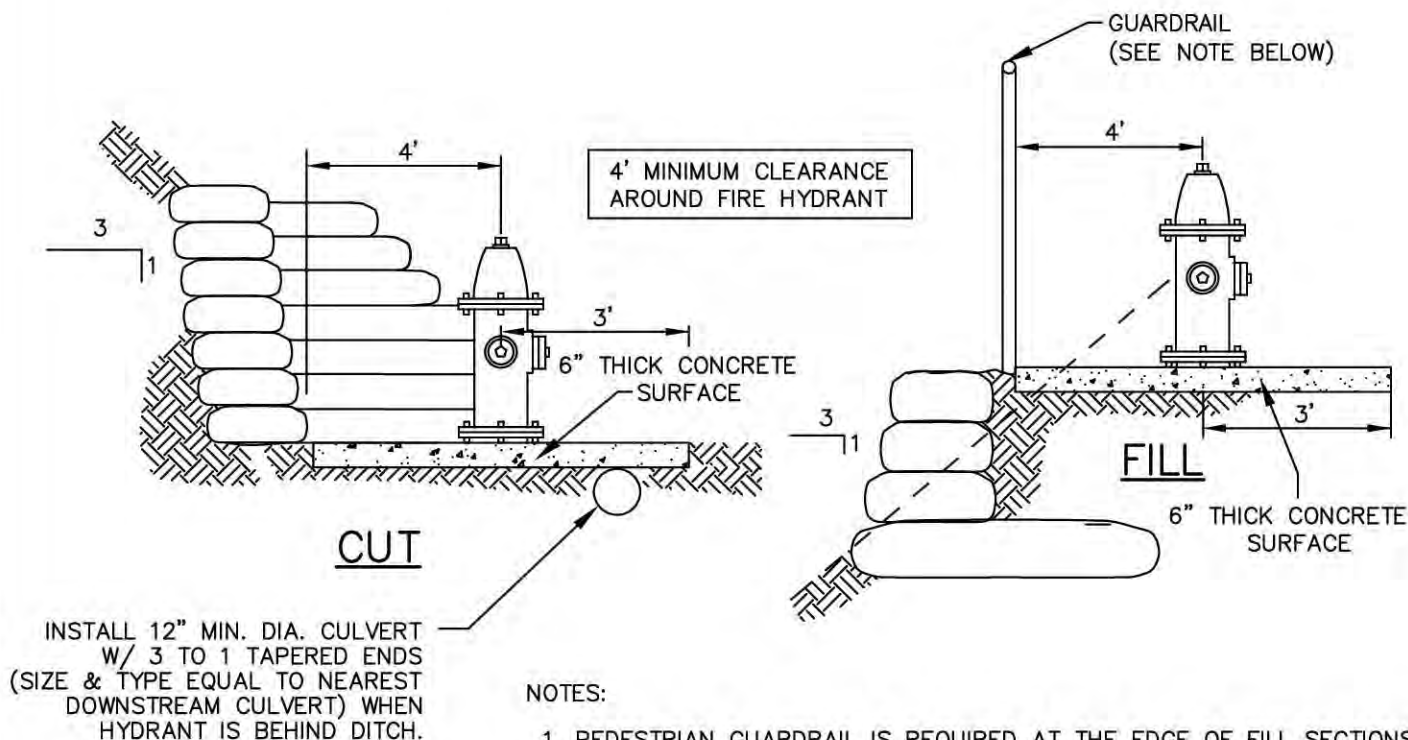
FIRE HYDRANT INSTALLATION



NOTES:

1. FIRE HYDRANTS SHALL BE PROTECTED BY 6" HIGH CONTINUOUS EXTRUDED CURBING WHERE DIRECTED BY DISTRICT ENGINEER. THE SHAPE OF THE CURBING MAY VARY TO BLEND WITH SURROUNDING LANDSCAPE.

EXTRUDED CURBING DETAIL

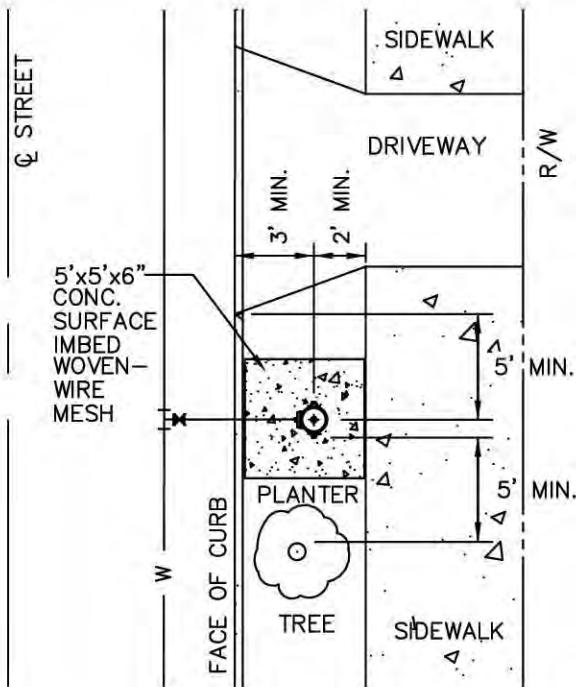


NOTES:

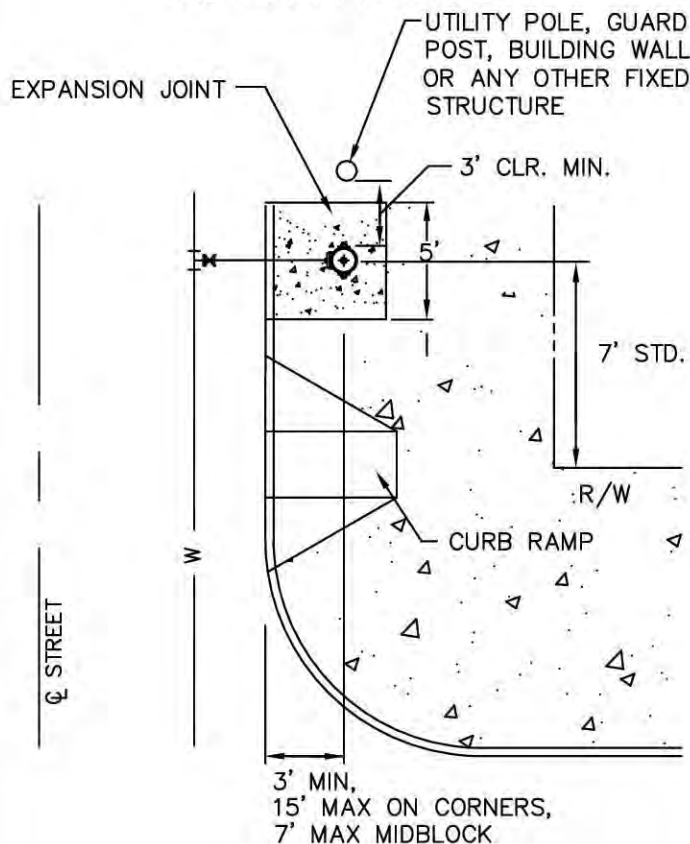
1. PEDESTRIAN GUARDRAIL IS REQUIRED AT THE EDGE OF FILL SECTIONS.
2. GUARDRAIL SHALL BE ALUMINUM OR GALVANIZED STEEL 24" HEIGHT.
3. MATERIAL, SIZE, AND LOCATION OF GUARDRAIL SHALL MEET REQUIREMENTS OF OSHA AND LOCAL JURISDICTION.
4. IF REQUIRED BY COVINGTON WATER DISTRICT, ADD BLOCK WALLS.

FIRE HYDRANT LOCATION IN CUT OR FILL SECTIONS

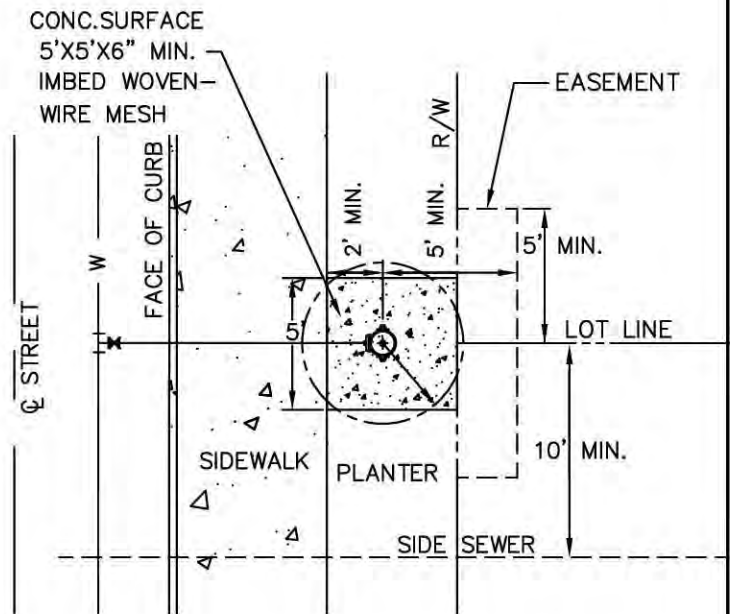
LAST REVISED AS/FT 12/23		FIRE HYDRANT INSTALLATION (CONT.)	8
APPROVED BY			
01/24			
STEVE LEE-DISTRICT ENGINEER			



FIRE HYDRANT IN PLANTER



FIRE HYDRANT AT STREET CORNER



FIRE HYDRANT BEHIND SIDEWALK/MID BLOCK

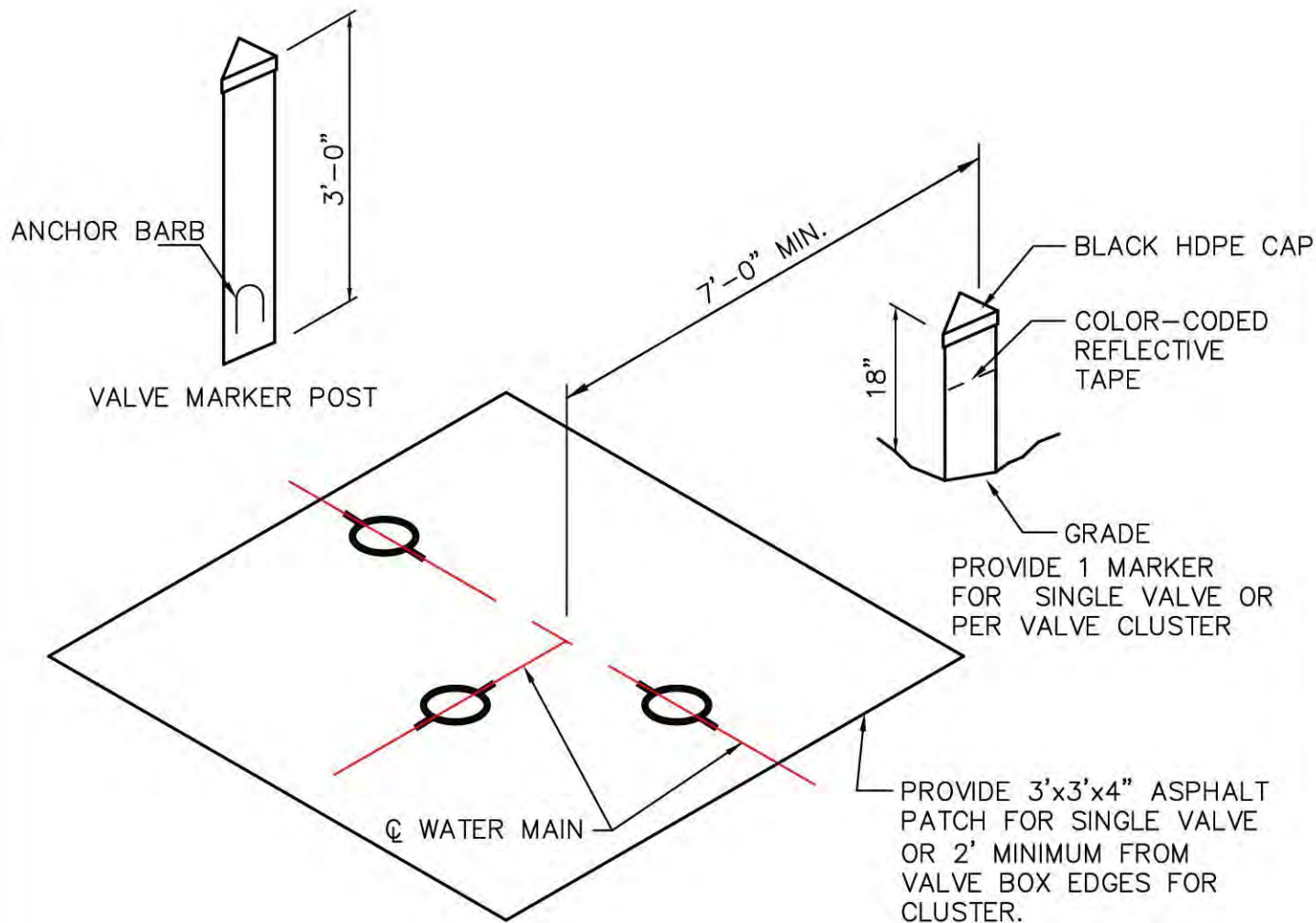
NOTES:

1. PROVIDE FLAT SURFACE AT LEAST 4 FEET AROUND FIRE HYDRANT.
2. PROVIDE WATER EASEMENT TO COVER AT LEAST 5 FEET FROM CENTER OF FIRE HYDRANT.
3. MINIMUM DISTANCE FROM THE CENTER OF HYDRANT TO FACE OF CURB SHALL BE 3 FEET.
4. MINIMUM DISTANCE FROM CENTER OF FIRE HYDRANT TO EDGE OF SIDEWALK SHALL BE 2 FEET.
5. MINIMUM DISTANCE FROM CENTER OF FIRE HYDRANT TO EDGE OF DRIVEWAY AT CURB SHALL BE 5 FEET.
6. MINIMUM DISTANCE FROM CENTER OF FIRE HYDRANT TO EDGE OF CURB RAMP SHALL BE 2 FEET.
7. LOCATION OF FIRE HYDRANT TO BE DETERMINED BY LOCAL JURISDICTION AND FIRE MARSHAL AND THESE SPECIFICATIONS.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



FIRE HYDRANT LOCATIONS



NOTES:

1. VALVE MARKER POST SHALL BE TRIVIEW MANUFACTURED BY RHINO MARKING AND PROTECTION SYSTEMS, ITEM #TVF36BB. MARKER SHALL INCLUDE TRIGRIP ANCHOR SYSTEM CONSISTING OF ANCHOR BARBS THAT FOLD OUT FROM POST. THE POST SHALL BE SUPPLIED WITHOUT ANY WARNING OR IDENTIFICATION STICKERS.
2. VALVE MARKER SHALL BE INSTALLED WHERE DIRECTED BY DISTRICT ENGINEER.
3. VALVE MARKER POST SHALL BE A MINIMUM 36" LONG AND SHALL BE INSTALLED AS DIRECTED BY DISTRICT ENGINEER. THE EXPOSED LENGTH SHALL ALWAYS BE 18", REGARDLESS OF OVERALL LENGTH.
4. THE POST SHALL BE SET TO POINT CORNER AT THE VALVE OR CENTER OF CLUSTER AND SHALL BE SITUATED IN A SAFE AND REASONABLY CONSPICUOUS LOCATION.
5. THE SOILS SUPPORTING POST SHALL BE TIGHTLY COMPACTED AROUND ANCHOR BARBS TO SECURE POST IN THE GROUND.
6. DISTRICT WILL PROVIDE STENCILING AND REFLECTIVE TAPE.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



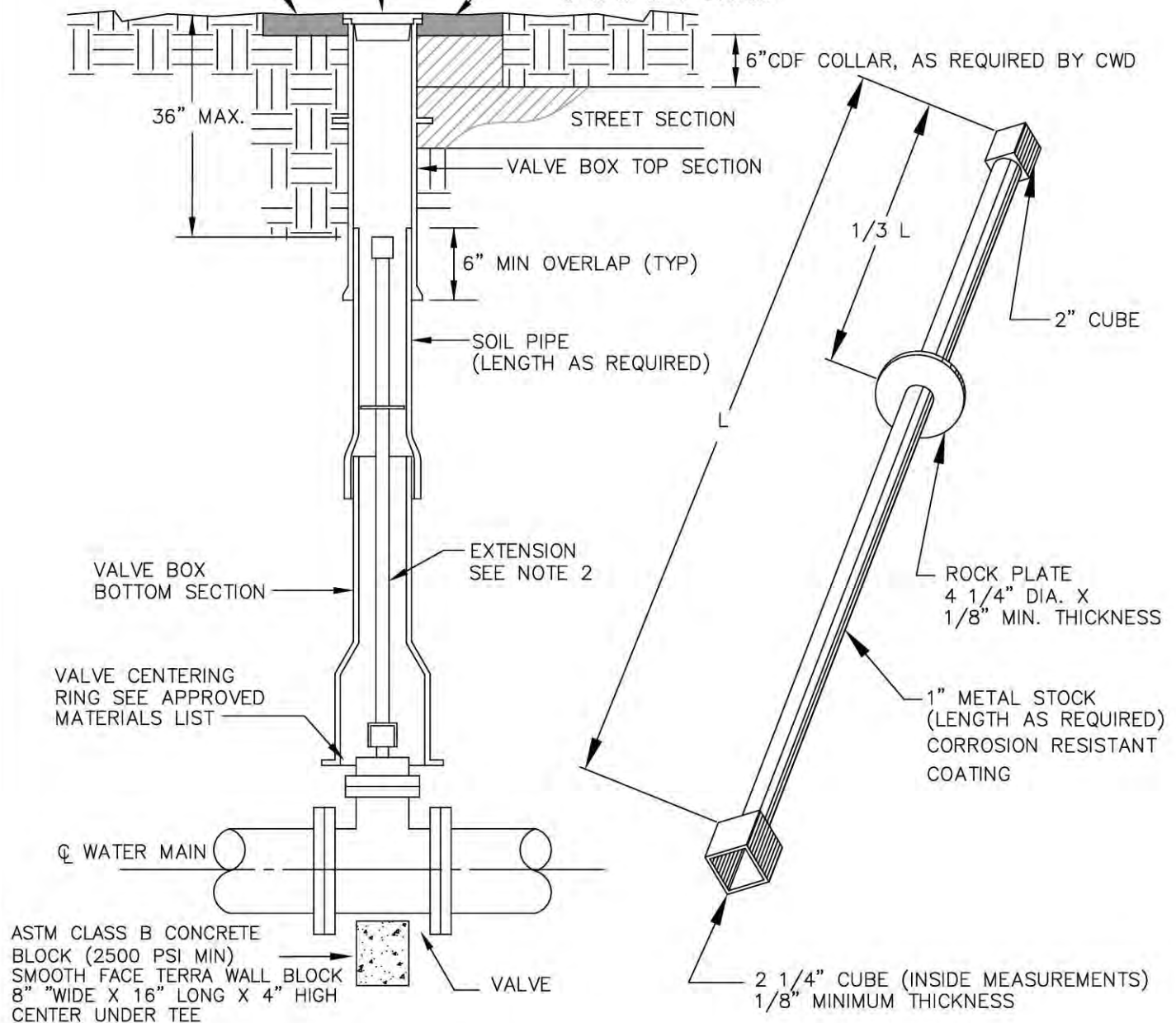
VALVE MARKER POST

10

CONCRETE OR ASPHALT
COLLAR W/ WIRE MESH.
FORM & PLACE _____
(3' X 3' X 4")

PAVED SURFACE

FINISHED GRADE
3' X 3' X 4" PATCH



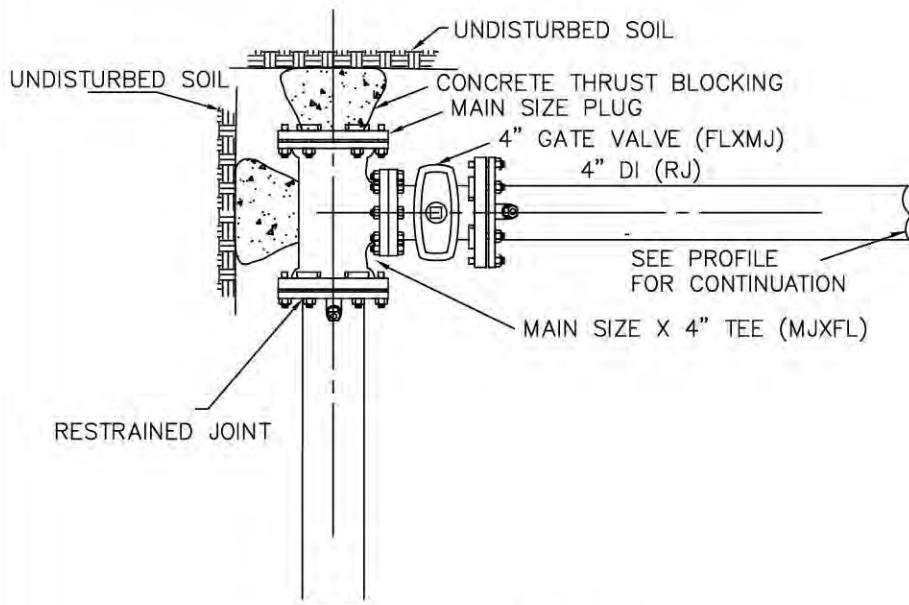
1. EXTENSION IS REQUIRED WHEN THE VALVE NUT IS MORE THAN THREE (3) FEET BELOW FINISHED GRADE (MIN. = 1').

2. ONE EXTENSION, IF REQUIRED, IS TO BE USED PER VALVE.
3. ALL EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO (2) COATS OF ENAMEL PAINT.
4. VALVE BOX AND LID - H-20 LOADING; MARKED "WATER".
5. USE ASPHALT COLLAR WHEN VALVE BOX IS INSTALLED IN GRAVEL OR TRAVEL ZONE.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE—DISTRICT ENGINEER	



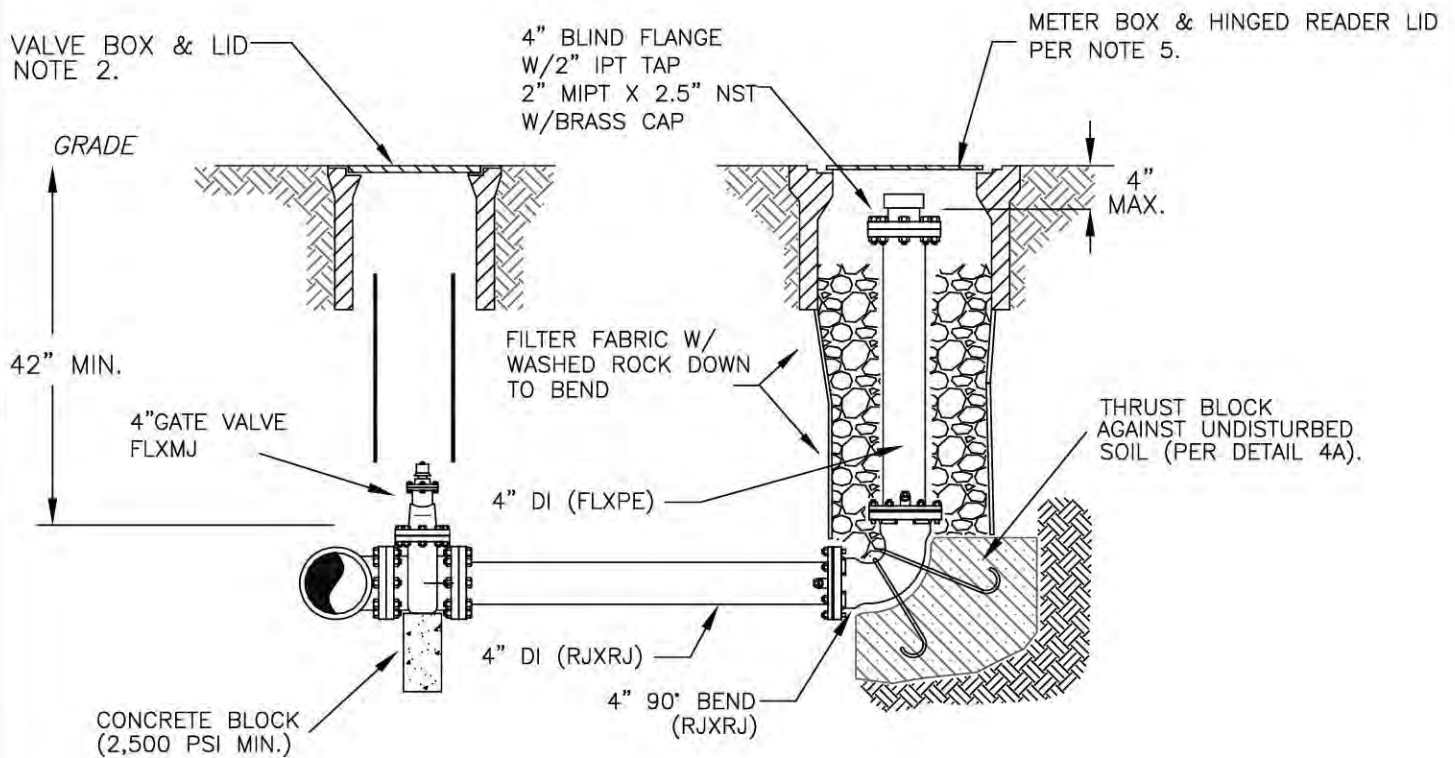
VALVE BOX AND NUT EXTENSION DETAIL



PLAN VIEW
NTS

NOTES:

1. ALL JOINTS SHALL BE RESTRAINED
2. VALVE BOX AND LID PER DETAIL 9
3. PIPE BEDDING AND TRENCH BACKFILL PER DETAIL 5
4. THRUST BLOCK SIZE MAY BE REDUCED BY HALF ON FULLY RESTRAINED DEAD END MAIN.
5. 13X24 BOX AND HINGED READER LID OR HIGH DENSITY POLYETHYLENE (HDPE) BOX AND HEAVY DUTY HDPE LID.



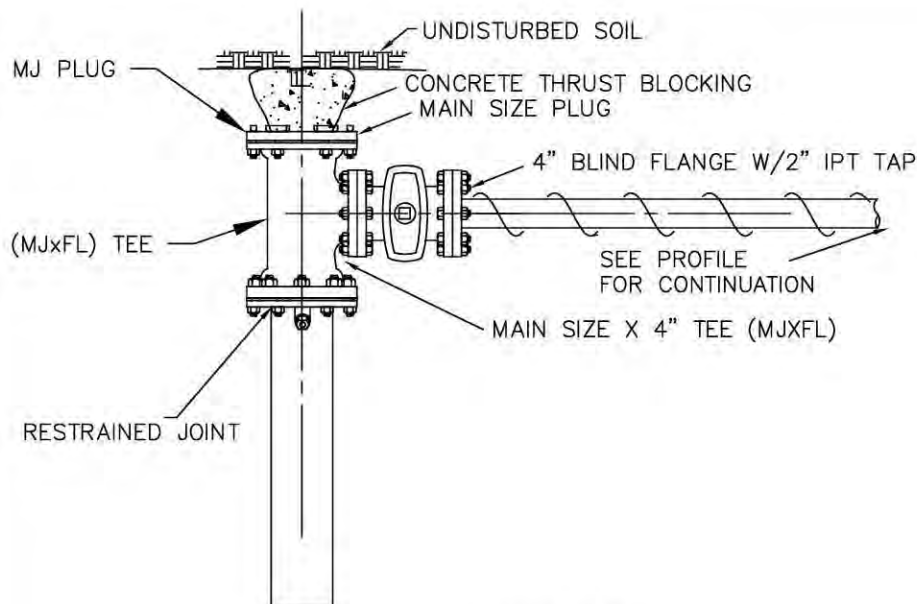
PROFILE VIEW
NTS

LAST REVISED AS/FT 12/23
APPROVED BY
01/24
STEVE LEE-DISTRICT ENGINEER



4" BLOW OFF
ASSEMBLY –
END OF MAIN

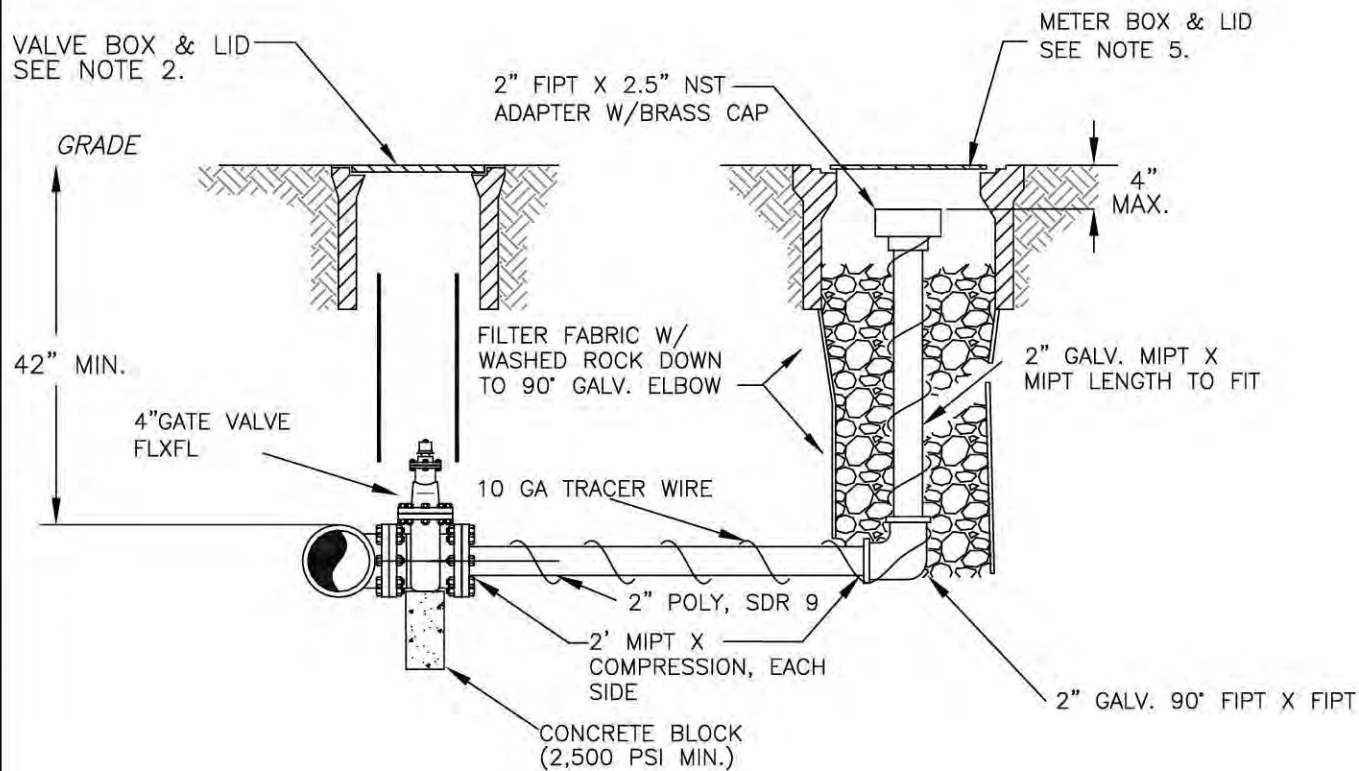
12



PLAN VIEW
NTS

NOTES:

1. VALVE BOX AND LID PER DETAIL 11
2. PIPE BEDDING AND TRENCH ZONE BACKFILL PER DETAIL 5
3. THRUST BLOCK SIZE MAY BE REDUCED BY HALF WHEN INSTALLED ON FULLY RESTRAINED DEAD END MAIN.
4. MAINTAIN POSITIVE UPWARD SLOPE FROM VALVE TO 90°.
5. 13X24 BOX AND HINGED READER LID OR HIGH DENSITY POLYETHYLENE (HDPE) BOX AND HEAVY DUTY HDPE LID.



PROFILE VIEW
NTS

LAST REVISED AS/FT 12/23

APPROVED BY

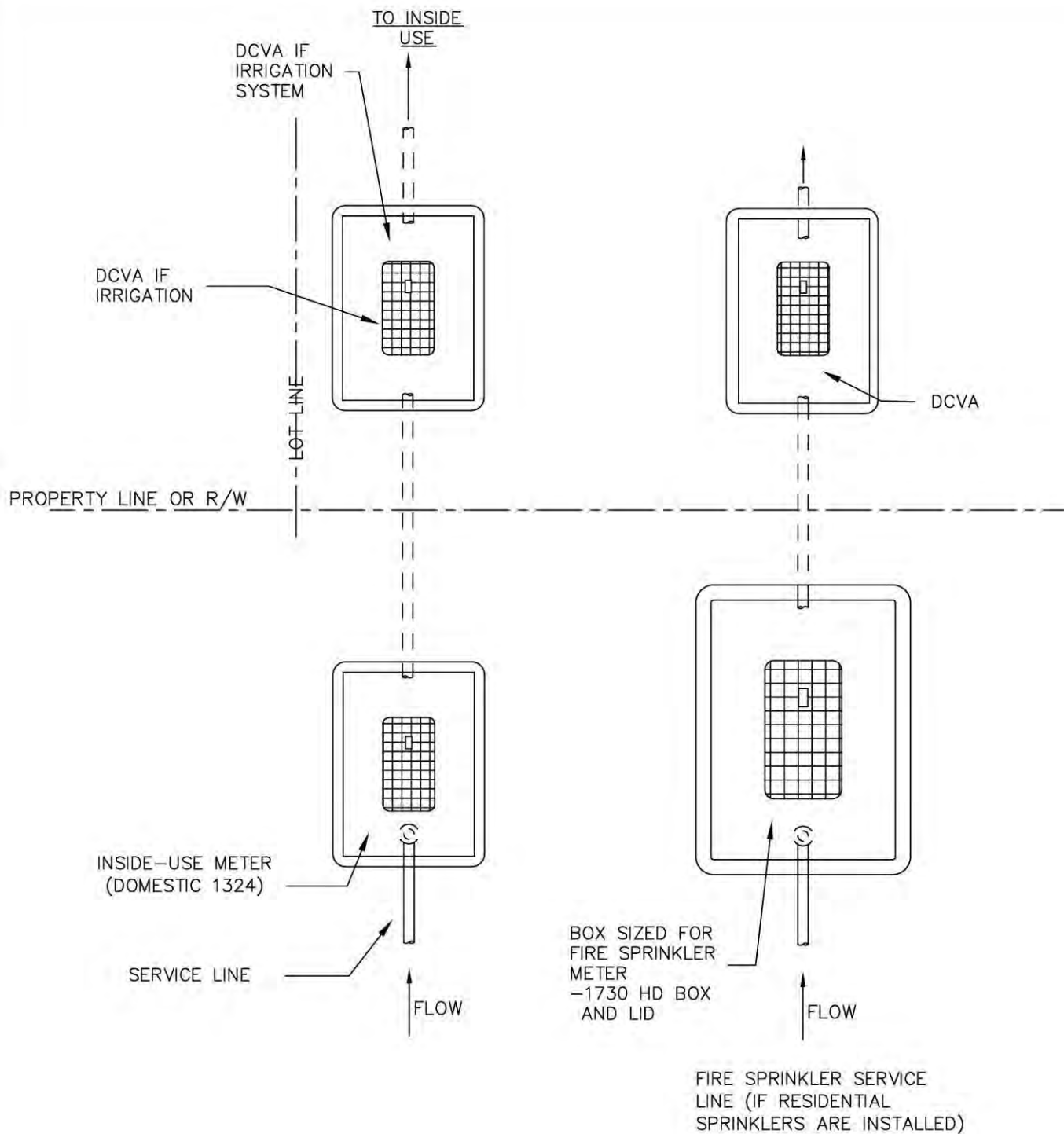
01/24

STEVE LEE-DISTRICT ENGINEER



2" BLOW OFF ASSEMBLY
AT END OF MAIN

13



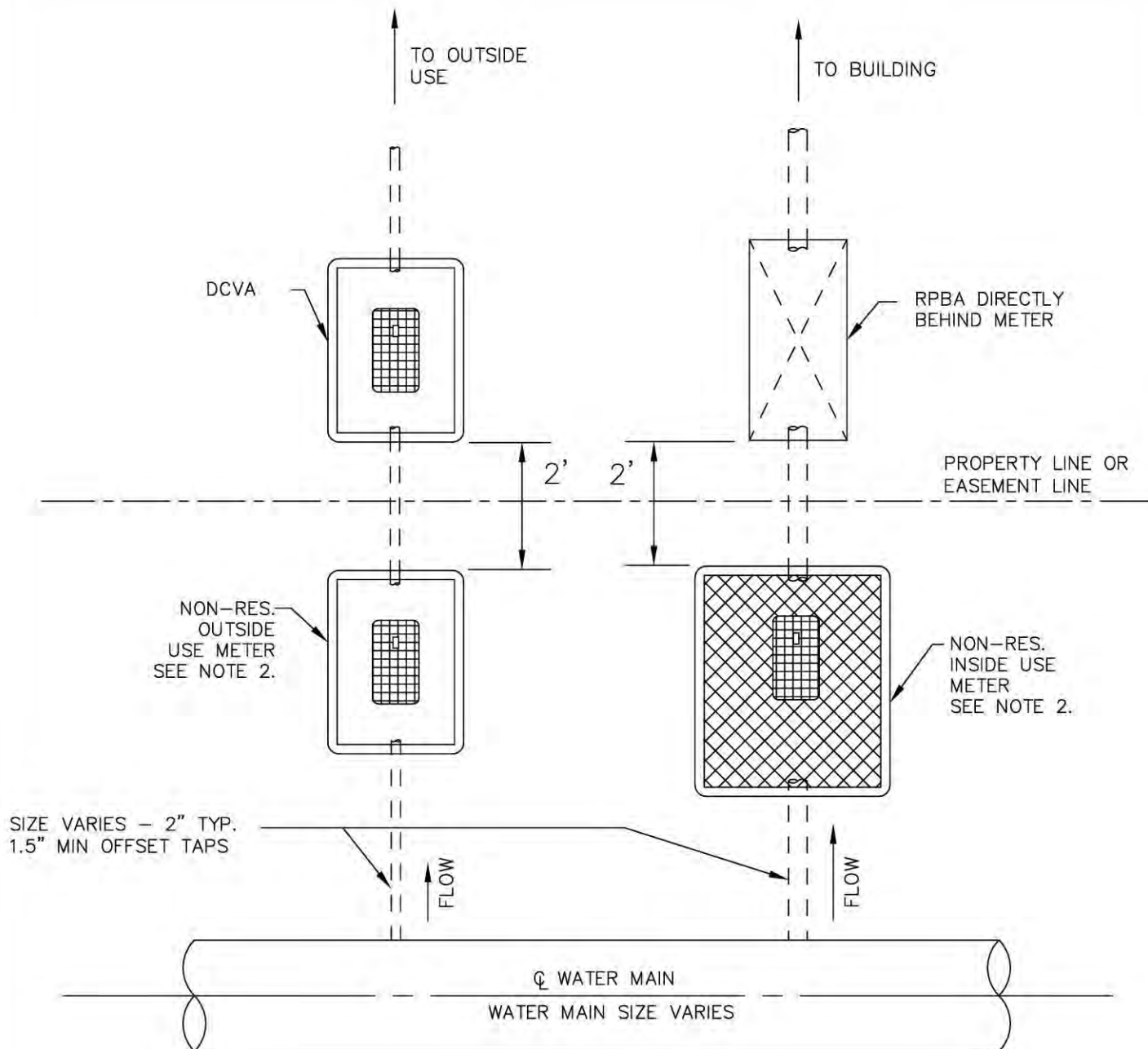
NOTES:

1. METER SERVICE SHALL BE INSTALLED AS SHOWN ON THIS DETAIL
2. A PRESSURE REDUCING VALVE (PRV) SHALL BE INSTALLED ON INDOOR USE SERVICE WHERE PRESSURE EXCEEDS 80 PSI (AND OUTSIDE USE IF REQUIRED BY UPC).
3. D.O.H. APPROVED DOUBLE CHECK VALVE ASSEMBLY (DCVA) IS REQUIRED FOR IRRIGATION AND FIRE SERVICE LINE.
4. SEE CWD PREMISE ISOLATION PROGRAM MANUAL

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



RESIDENTIAL-METER
INSTALLATION LAYOUT



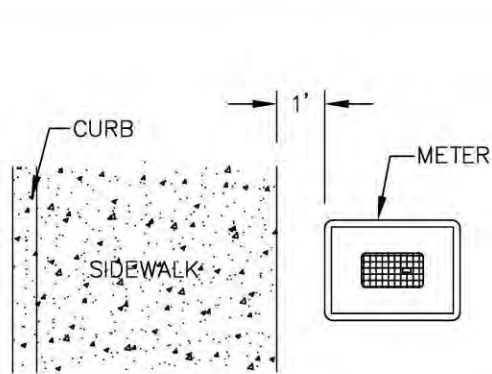
NOTES:

1. SEPARATED SERVICE LINES ARE REQUIRED FOR EACH NON-RESIDENTIAL METER.
2. SEE CWD METER DETAILS FOR CONFIGURATIONS OF METERS AND SERVICE LINES.
 - A. IRRIGATION/OUTSIDE-USE METER SIZE 1" & SMALLER: CWD STD. METER DETAIL.
 - B. IRRIGATION/OUTSIDE-USE METER SIZE 1½" & 2": CWD NON-RES. METER DETAIL.
 - C. NON-RES. INSIDE-USE METER SIZE 2": CWD NON-RES. METER DETAIL.
3. INSTALLATIONS OF NON-RESIDENTIAL OUTSIDE USE AND IRRIGATION METERS SHALL BE APPROVED BY DISTRICT ENGINEER.
4. 1.5" CHECK WITH DISTRICT ENGINEER ONLY

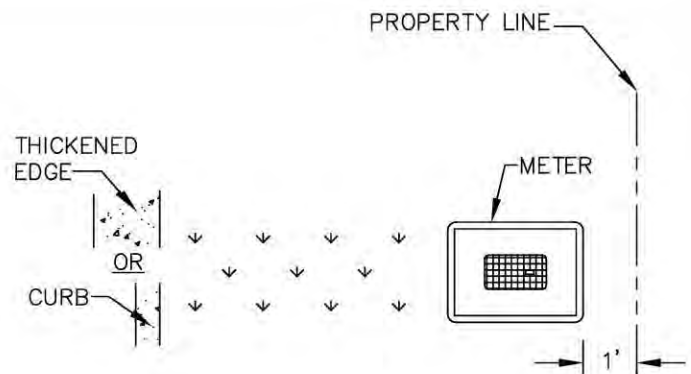
LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



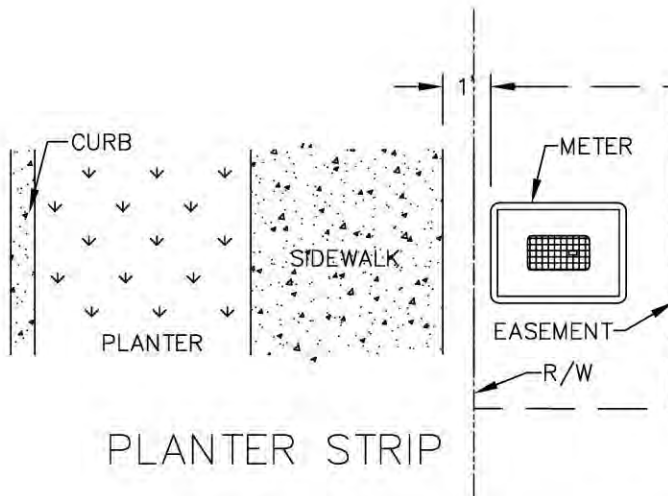
NON-RESIDENTIAL METER
INSTALLATION LAYOUT



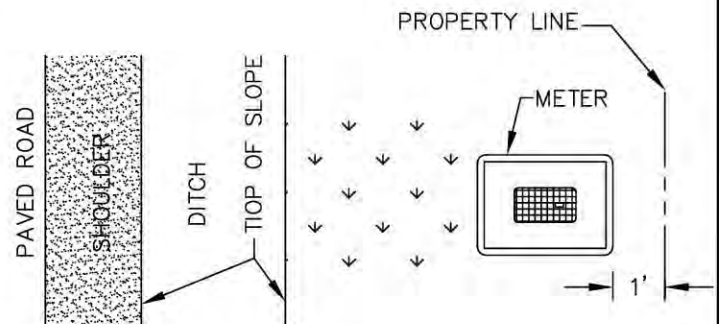
CURB AND SIDEWALK



CURB OR THICKENED EDGE



PLANTER STRIP



DITCH

AN EASEMENT IS REQUIRED TO PLACE WATER BOX OUTSIDE RIGHT-OF WAY

NOTES:

1. METER BOX SHALL BE INSTALLED PERPENDICULAR TO THE SIDEWALK, EASEMENT OR STREET; MATCHING GRADE AND SLOPE OF THE SIDEWALK, ASPHALT, SHOULDER, OR CURB TO AVOID STORM WATER GETTING INTO THE METER BOX.
2. SIDEWALKS BEHIND PLANTER STRIP – 1' BEHIND EDGE OF SIDEWALK UNLESS APPROVED BY CWD.
3. CURB, ROLLED CURB OR THICKENED EDGE WITH NO SIDEWALK – 1' FROM PROPERTY LINE.
4. SHOULDERS – 1' FROM PROPERTY LINE.
5. SPECIAL CIRCUMSTANCES – AS DIRECTED BY DISTRICT ENGINEER.
6. METER BOX TO BE ADJACENT TO LOT LINE OR APPROVED BY CWD FOR LARGE LOTS
7. SERVICE LINE SHALL BE PERPENDICULAR TO THE WATER MAIN STRAIGHT/LEVEL AS POSSIBLE AND LOCATED TO AVOID CONFLICTS WITH OTHER UTILITIES.
8. METER BOX SHALL NOT BE LOCATED IN DRIVEWAY UNLESS APPROVED BY DISTRICT ENGINEER AND LOCAL JURISDICTION. USE TRAFFIC RATED BOX AND LID IN VEHICULAR TRAVEL AREA OR WITHIN 1' FROM DRIVEWAY WITHOUT SIDEWALK.
9. WHEN SERVICE LINE CROSSES A NEW OR EXISTING SIDEWALK A 4" PVC CASING SHALL BE REQUIRED.
10. FOR AREAS OF CUT OR FILL, BLOCK WALL SHALL BE REQUIRED.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	

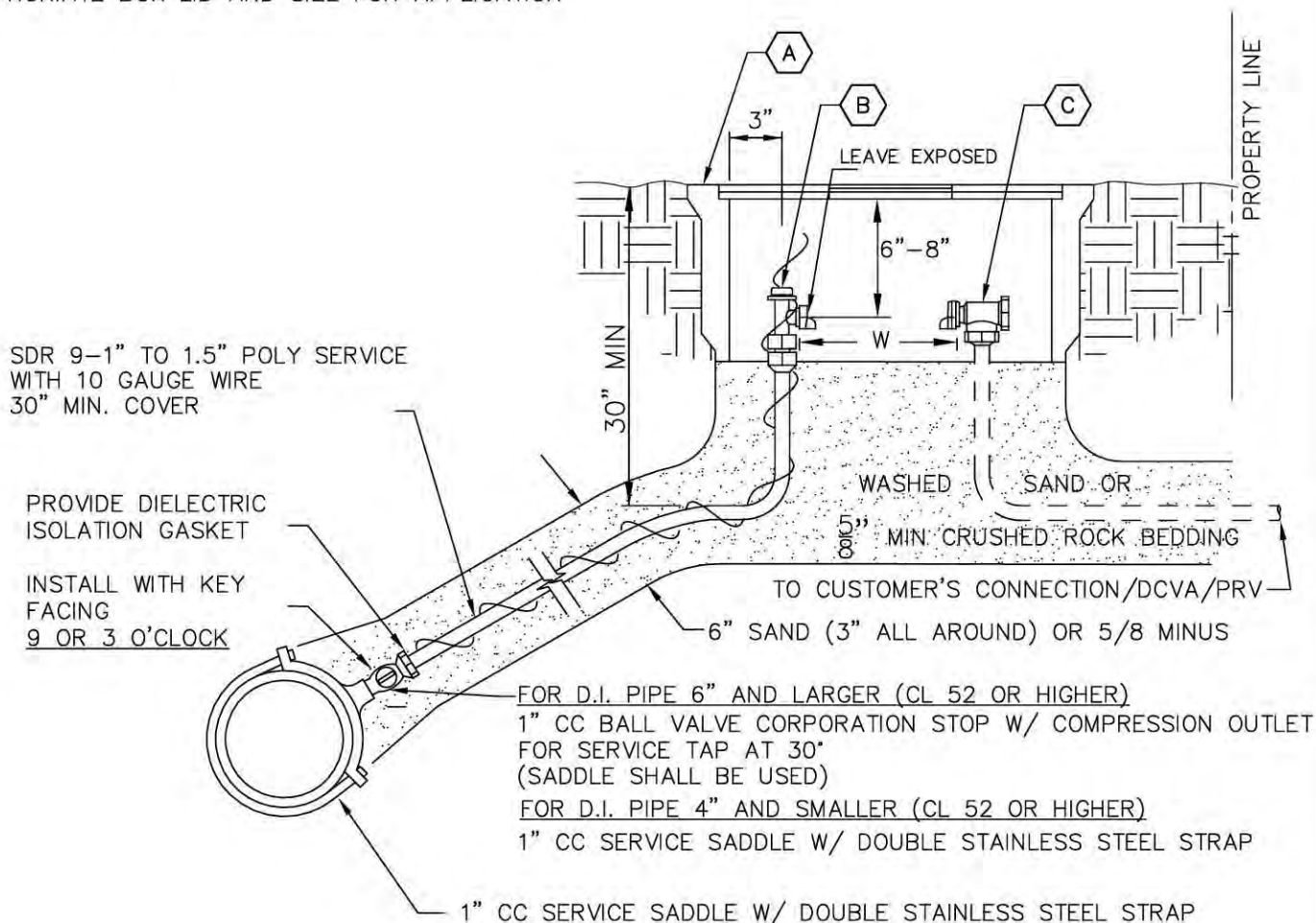


METER BOX
LOCATIONS

- A** METER BOX (2) WITH LID:
 1. BOX AND HINGED READER LID OR
 2. HIGH DENSITY POLYETHYLENE (HDPE) BOX AND
 HEAVY DUTY HDPE LID, SIZE 1324.

- B** LOCKING ANGLE BALL METER VALVE STOP,
 1" COMPRESSION BY 5/8".
- C** ANGLE CHECK ON METER OUTLET (2)
 (SUPPLIED BY CWD)

REFERENCE APPROVED MATERIALS LIST FOR
 APPROPRIATE BOX LID AND SIZE FOR APPLICATION



NOTES:

1. FOR SINGLE SERVICE, CONNECT SERVICE DIRECTLY TO LOCKING ANGLE BALL VALVE STOP WITH 1" COMPRESSION INLET.
2. DEVELOPER SHALL MAKE APPLICATION FOR METER WITH CWD. WATER METER TO BE PURCHASED FROM CWD.
3. METER BOX SHALL BE INSTALLED FLUSH WITH FINAL GRADE (TOP OF SIDEWALK, LANDSCAPE, ASPHALT, SHOULDER, OR CURB) AND MUST BE SIZED TO ALLOW FOR MIN. CLEARANCE REQUIREMENTS.
4. 1" SERVICE LINE SHALL NOT EXCEED 50' UNLESS APPROVED BY DISTRICT ENGINEER.
5. PRESSURES OVER 80 PSI REQUIRE PRV DOWNSTREAM OF METER.
6. ADAPTORS FOR METER SETTER SHALL BE PROVIDED BY OWNER PRIOR TO METER INSTALLATION.

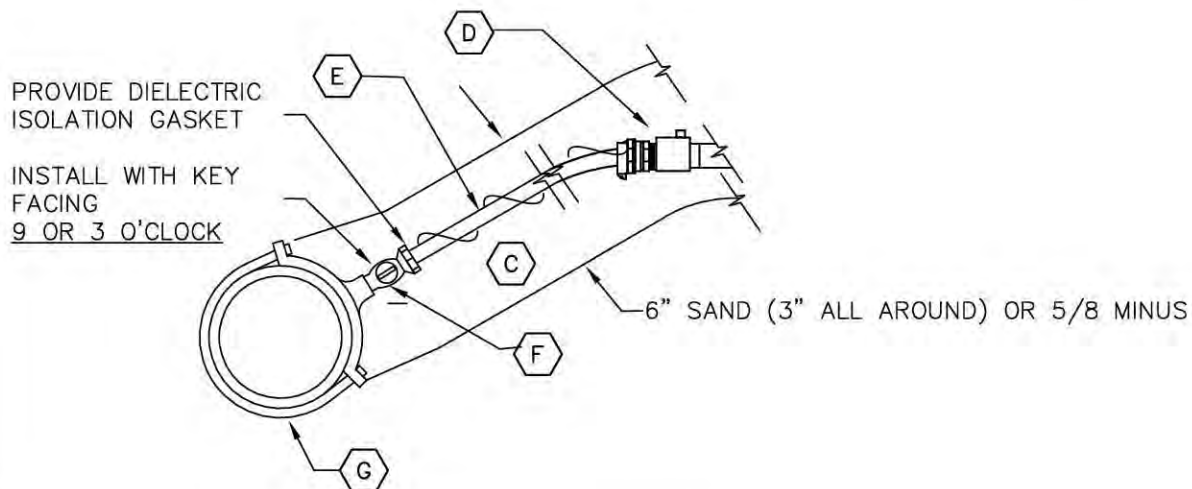
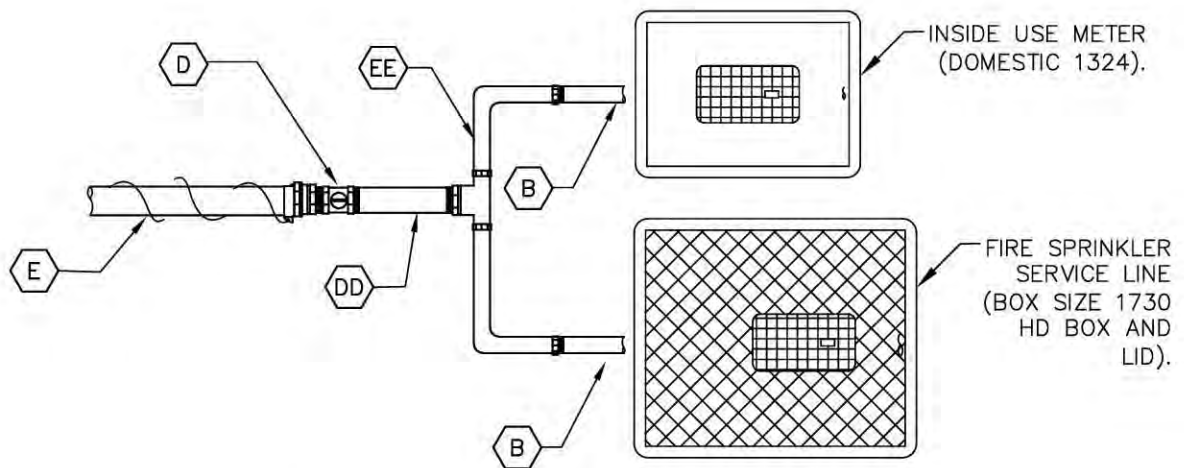
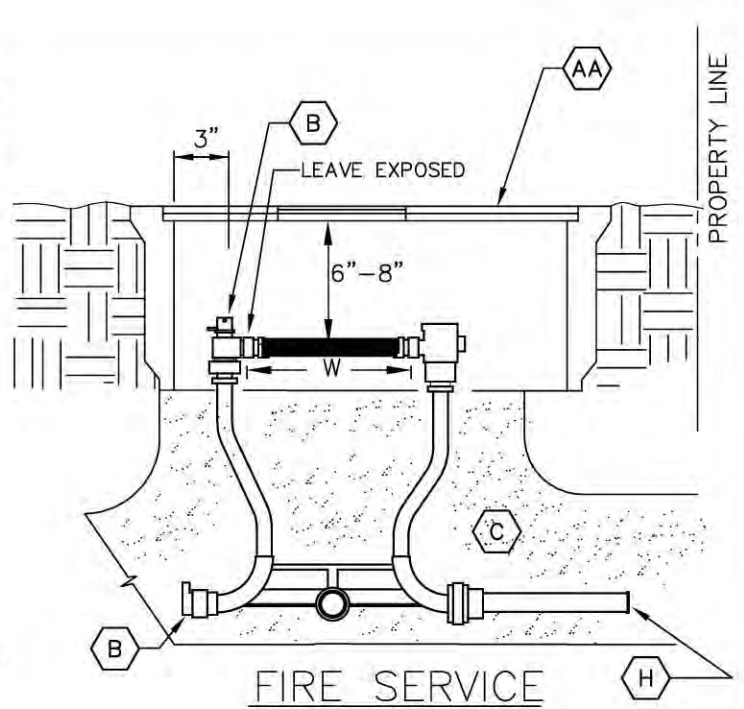
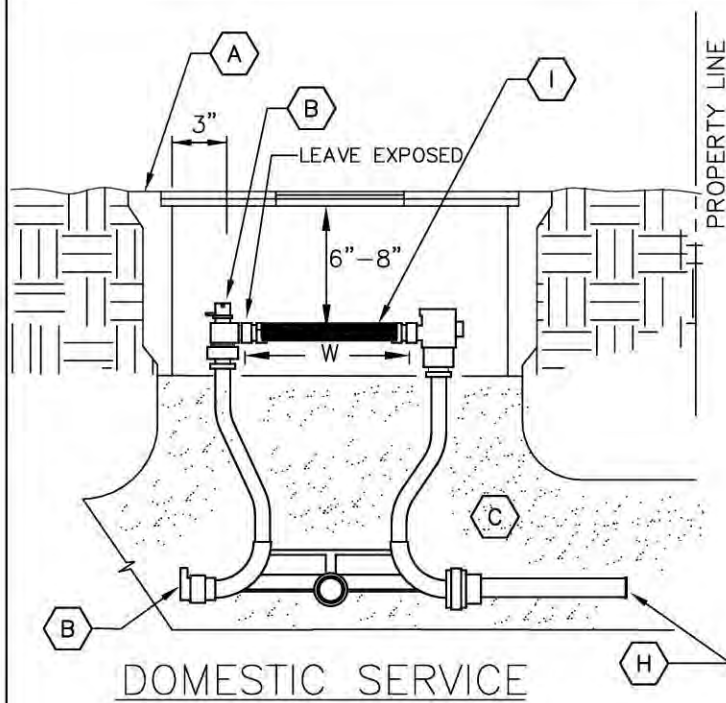
LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



5/8"x3/4", 3/4", & 1"
 STANDARD METERS
 EXISTING SERVICE REPLACEMENT

-  PVC SPACER PIPE W/HOLE IN SPACER

- Provided to Builders Exchange of WA, Inc. For usage Conditions Agreement see www.bxwa.com - Always Verify Scal



LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



5/8"x3/4", 3/4", & 1"
STANDARD DOUBLE METER

20A

- A** METER BOX (2) WITH LID:(DOMESTIC SERVICE)
1. BOX AND HINGED READER LID OR
2. HIGH DENSITY POLYETHYLENE (HDPE) BOX AND HEAVY DUTY HDPE LID, SIZE 1324.
- AA** METER BOX (2) WITH LID:(FIRE SPRINKLER SERVICE)
1. BOX AND HINGED READER LID OR
2. HIGH DENSITY POLYETHYLENE (HDPE) BOX AND HEAVY DUTY HDPE LID, SIZE 1730.
- B** 1" METER SETTER W/LOCKING ANGLE BALL
METER VALVE STOP ANGLE CHECK ON METER,
OUTLET W/ADAPTERS FOR 5/8"x3/4", 3/4",
1" METERS
- C** WASHED SAND OR $\frac{5}{8}$ " MIN
CRUSHED ROCK BEDDING
- D** 1.5" FIP X CTS QUICK JOINT COUPLING
1.5" CURB STOP W/ RED TO 1"
1" BRASS NIPPLE
- DD** 1.5" BRASS NIPPLE
- EE** U-BRANCH:
1- $\frac{1}{2}$ " MIPT INLET X 1" MIPT OUTLET X 22" WIDE

- E** SDR 9-1.5" POLY SERVICE
WITH 10 GAUGE WIRE
30" MIN. COVER
- F** FOR D.I. PIPE 6" AND LARGER
(CL 52 OR HIGHER)
1.5" CC BALL VALVE CORPORATION STOP
W/ COMPRESSION OUTLET FOR SERVICE
TAP AT 30° (SADDLE SHALL BE USED)
FOR D.I. PIPE 4" AND SMALLER
(CL 52 OR HIGHER)
1.5" CC SERVICE SADDLE
W/ DOUBLE STAINLESS STEEL STRAP
- G** 1.5" CC SERVICE SADDLE
W/ DOUBLE STAINLESS STEEL STRAP
- H** 1" BRASS NIPPLE W/TEMP PVC CAP
TO CUSTOMER'S CONNECTION/DCVA/PRV
- I** PVC SPACER PIPE W/HOLE IN SPACER

NOTES:

1. FOR SINGLE SERVICE, CONNECT SERVICE DIRECTLY TO LOCKING ANGLE BALL VALVE STOP WITH 1" COMPRESSION INLET.
2. DEVELOPER SHALL MAKE APPLICATION FOR METER WITH CWD. WATER METER TO BE PURCHASED FROM CWD.
3. METER BOX SHALL BE INSTALLED FLUSH WITH FINAL GRADE (TOP OF SIDEWALK, LANDSCAPE, ASPHALT, LANDSCAPING, SHOULDER, OR CURB) AND MUST BE SIZED TO ALLOW FOR MIN. CLEARANCE REQUIREMENTS.
4. NO SERVICE LINE SHALL NOT EXCEED 50' UNLESS APPROVED BY DISTRICT ENGINEER.
5. PRESSURES OVER 80 PSI REQUIRES PRV DOWNSTREAM OF METER
6. REFERENCE APPROVED MATERIALS LIST FOR APPROPRIATE BOX LID AND SIZE FOR APPLICATION
7. ADAPTORS AND GASKETS FOR METER SETTER SHALL BE PROVIDED BY OWNER BEFORE METER INSTALLATION
8. PRIOR TO TWO YEAR MAINTENANCE BOND RELEASE, OWNER SHALL RESTORE METER BOX COMPONENTS WHEN DIRECTED BY THE DISTRICT.

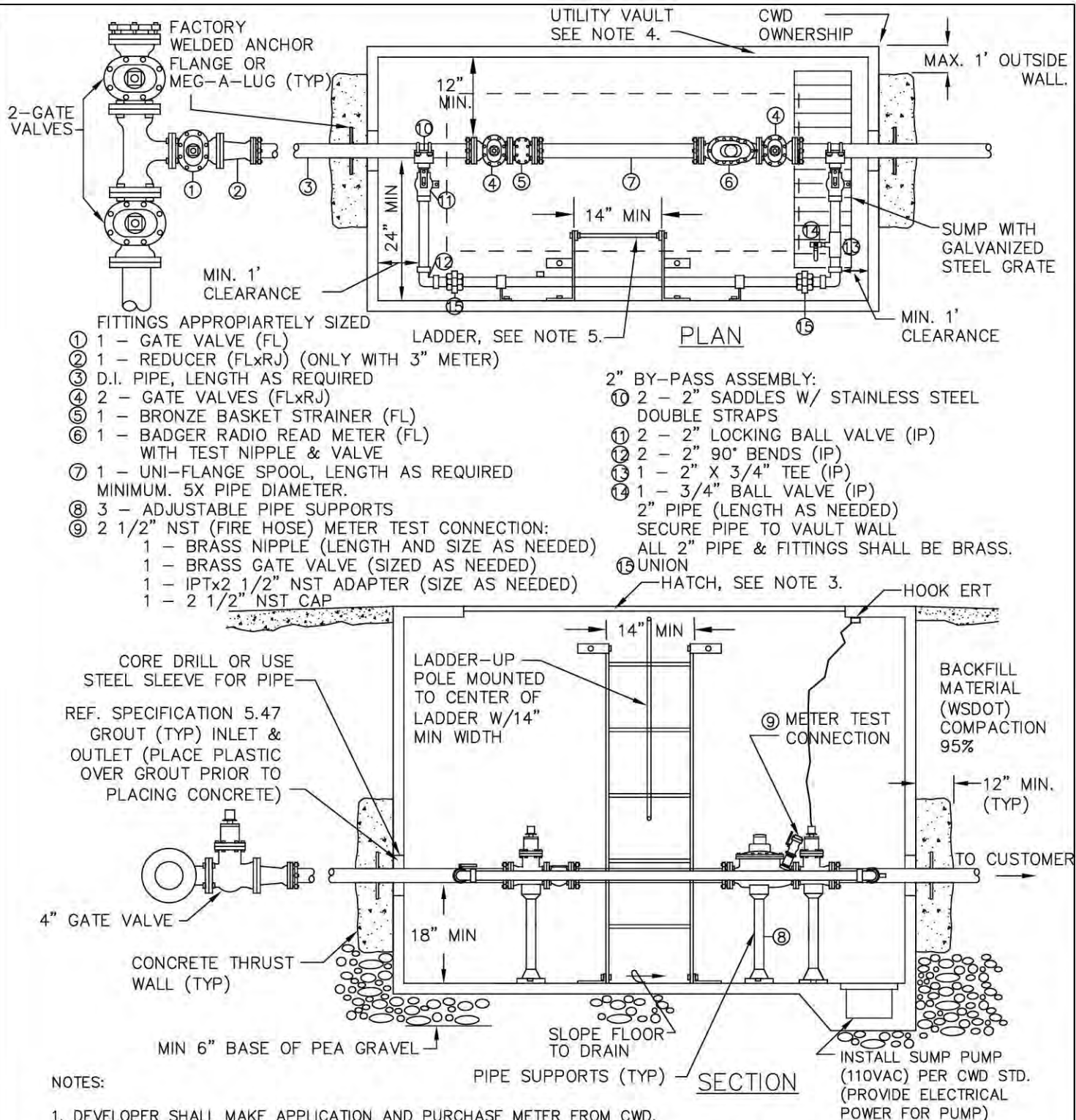
LAST REVISED AS/FT 12/23		5/8"x3/4", 3/4", & 1" STANDARD DOUBLE METER	20B
APPROVED BY			
01/24			
STEVE LEE-DISTRICT ENGINEER			

- ① PADLOCK WINGS ON BALL VALVE
- ② ANGLE CHECK ON METER OUTLET
- ③ COMPRESSION ADAPTOR ON SETTER INLET



1. DEVELOPER SHALL MAKE APPLICATION AND PURCHASE METER FROM CWD.
2. COPPER SETTER SHALL BE SET LEVEL AND CENTERED IN THE METER BOX.
3. METER BOX SHALL BE INSTALLED FLUSH W/ FINAL GRADE AND MUST BE SIZED TO ALLOW FOR MINIMUM CLEARANCE REQUIREMENTS.
4. INSTALL 2" IDLER IN METER SETTER TO SECURE ALIGNMENT DURING CONSTRUCTION.
5. POSITIVE DISPLACEMENT METERS ARE TO BE INSTALLED UNLESS OTHERWISE DIRECTED BY DISTRICT ENGINEER.
6. ALL BOXES SHOULD BE HDPE 1730-1B AND HDPE HEAVY DUTY LID W/HINGED READER
7. SEE BACKFLOW ASSEMBLY WITH RPBA
8. PRESSURES OVER 80 PSI REQUIRES PRV DOWNSTREAM OF METER
9. ADAPTORS AND GASKETS FOR METER SETTER SHALL BE PROVIDED BY OWNER BEFORE METER INSTALLATION.
10. PRIOR TO TWO YEAR MAINTENANCE BOND RELEASE, OWNER SHALL RESTORE METER BOX COMPONENTS WHEN DIRECTED BY THE DISTRICT.

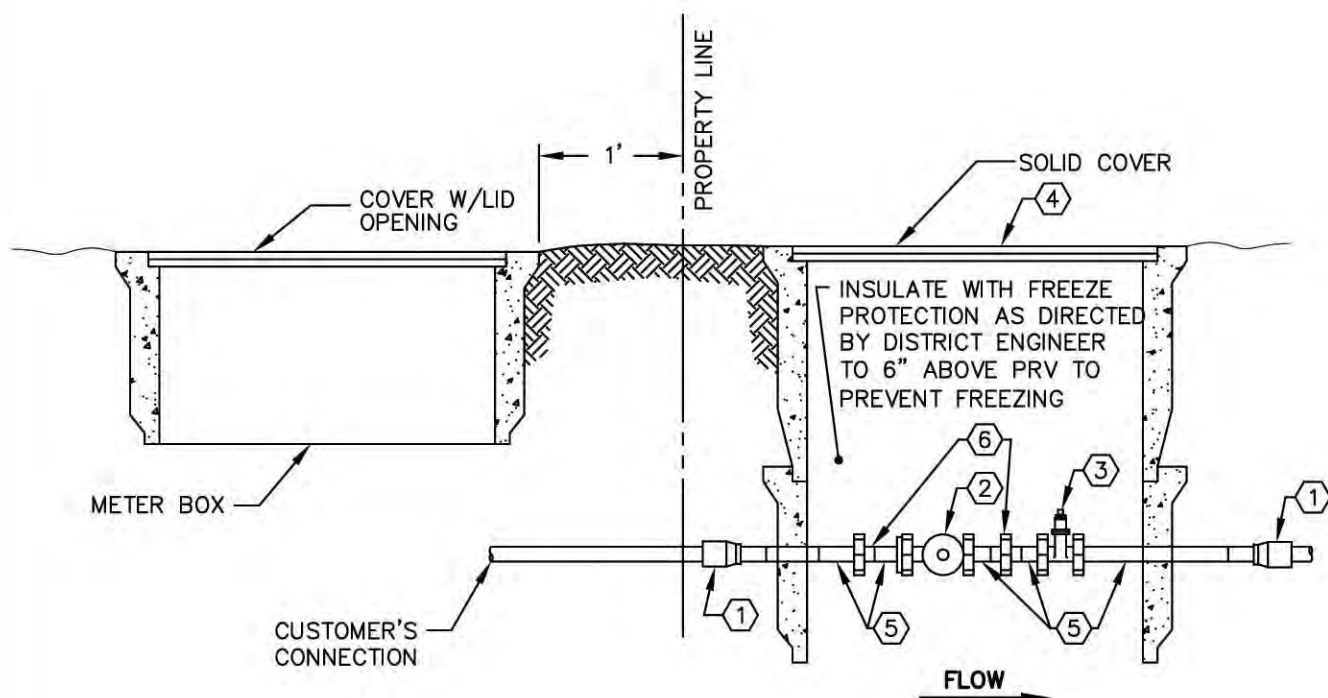
LAST REVISED AS/FT 12/23		2" AND SMALLER NON-RESIDENTIAL METERS	21
APPROVED BY			
01/24			
STEVE LEE-DISTRICT ENGINEER			



LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



2\" COMPOUND METER & LARGER METER INSTALLATION



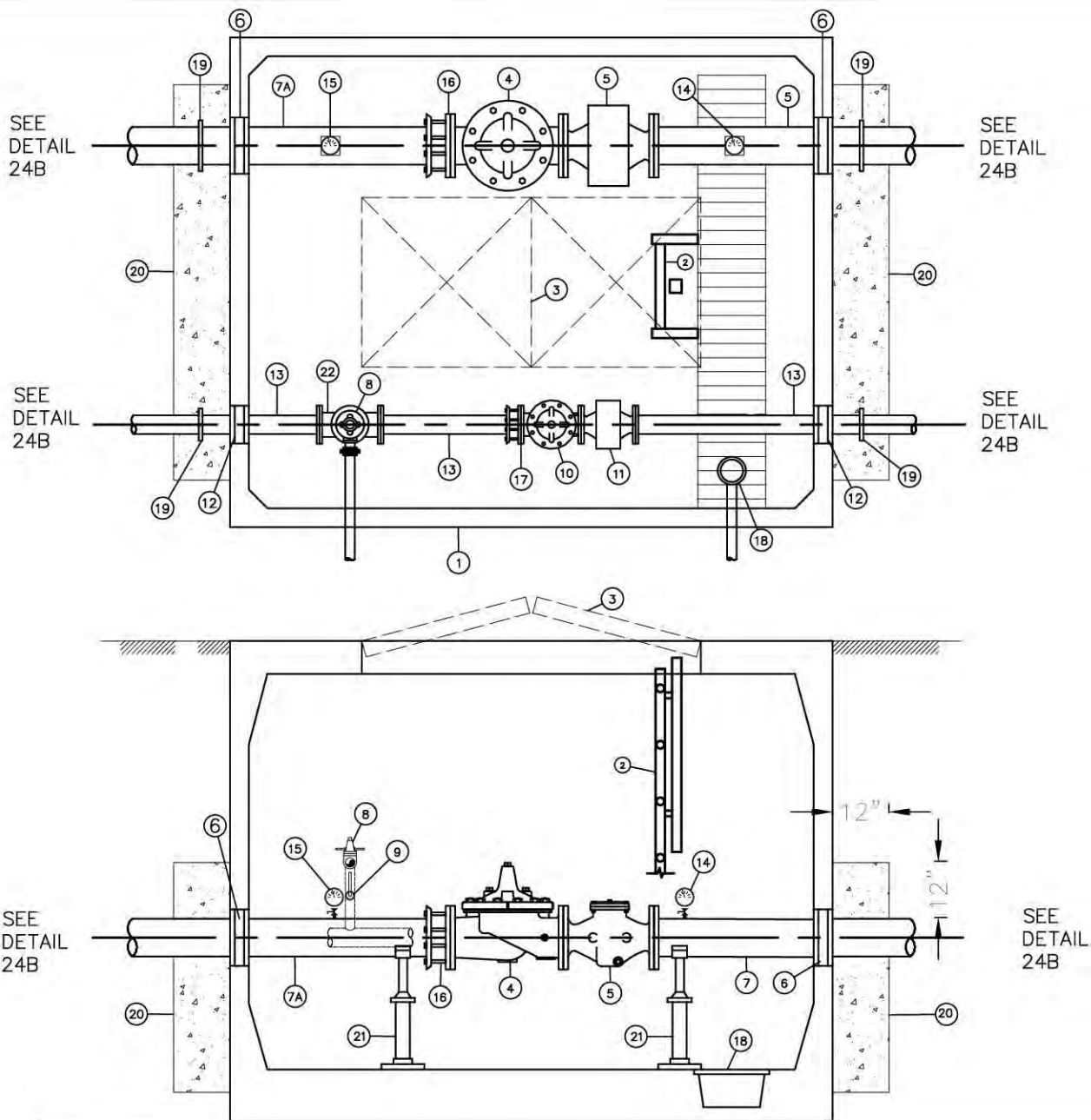
SEE APPENDIX C FOR APPROVED MATERIALS LIST

- ① COMPRESSION COUPLING.
- ② PRESSURE REDUCING VALVE – 3/4" WITH UNION COUPLING ON THE INLET; INSTALL SIDEWAYS TO ALLOW ACCESS TO ADJUSTING SCREW.
- ③ BRASS BALL VALVE W/ HANDLE
- ④ METER BOXES – 1 W/SOLID COVER ~ 1 W/LID OPENING TRAFFIC STEEL BOX AND LID IF IN VEHICULAR TRAVEL AREA (COORDINATE WITH CWD INSPECTOR AND APPENDIX C FOR MATERIAL SELECTION)
- ⑤ BRASS PIPE, LENGTH AS NEEDED
- ⑥ BRASS UNION

NOTES:

1. THE PRESSURE REDUCING VALVE (PRV) SHALL BE LOCATED NEAR THE METER BOX ON THE CUSTOMER'S PROPERTY "DOWNSTREAM" OF THE METER BOX.
2. IT IS THE PROPERTY OWNER'S RESPONSIBILITY TO INSTALL, OPERATE, AND MAINTAIN THE PRV AND BOXES.
3. CONTRACTOR TO VERIFY PLUMBING REQUIREMENTS WITH LOCAL BUILDING OFFICIALS.

LAST REVISED AS/FT 12/23		2" & SMALLER PRESSURE REDUCING VALVE (PRV)	23
APPROVED BY			
01/24			
STEVE LEE-DISTRICT ENGINEER			



MATERIALS LIST		
ITEM	QTY	DESCRIPTION
1	1	PRECAST 8'x10' (INTERIOR) CONCRETE VAULT BY OLDCASTLE PRECAST OR APPROVED EQUAL
2	1	GALVANIZED 16" LADDER WITH LADDER SAFETY POST (BILCO MODEL LU-2 OR APPROVED EQUAL)
3	1	EAST JORDAN DOUBLE DUCTILE IRON 6'x3' HATCH RATED FOR H-20 LOADING WITH SLIP RESISTANT TREATMENT AND LOCKING HASP
4	1	8" CLA-VAL 90-01 PRESSURE REDUCING VALVE W/TEST COCKS AND CLA-VAL X144D INSERTION METER
5	1	8" CLA-VAL X43H STRAINER W/1-1/4" BRONZE BALL VALVE
6	2	LINK SEAL ASSEMBLY FOR 8" PIPE
7	1	8" FLXPE SPOOL DI PIPE
7A	1	8" PE SPOOL DI PIPE
8	1	2" CLA-VAL 50G-01KC PRESSURE RELIEF VALVE (THREADED, ANGLE PATTERN)
9	1	2" LOCKING BALL VALVE (THREADED)
10	1	4" CLA-VAL 90-01 PRESSURE REDUCING VALVE W/TEST COCKS, CRDL BYPASS AND CLA-VAL X144D INSERTION METER
11	1	4" CLA-VAL X43 STRAINER W/ 1-1/4" BRONZE BALL VALVE
12	2	LINK SEAL ASSEMBLY FOR 4" PIPE
13	3	4" FLXPE SPOOL DI PIPE
14	1	8" UPSTREAM PRESSURE TRANSMITTER (SIEMENS SITRANS P320 OR APPROVED EQUAL)
15	1	8" DOWNSTREAM PRESSURE TRANSMITTER (SIEMENS...)
16	1	8" DISMANTLING JOINT
17	1	4" DISMANTLING JOINT
18	1	SUMP PUMP ASSEMBLY (PER CWD STD. DTL 24, SHEET C3.6) AND METAL GRATE ABOVE
19	4	LOCKING MJ GLAND (MEGALUG OR ROMAC)
20	1	CONCRETE BLOCK (MIN. 2500 PSI)
21	4	ADJUSTABLE SADDLE STYLE PIPE SUPPORTS
22	1	4"x4" TEE (FL)
23	1	4" BLIND FLANGE WITH 2" IPT TAP
	1	FLOOD SWITCH (SEE ELECTRICAL PLANS)
	1	OPERATOR-IN-TROUBLE PUSH BUTTON (SEE ELECTRICAL PLANS)
	1	ACCESS HATCH INTRUSION SWITCH (SEE ELECTRICAL PLANS)

LAST REVISED AS/FT 12/23

APPROVED BY

01/24

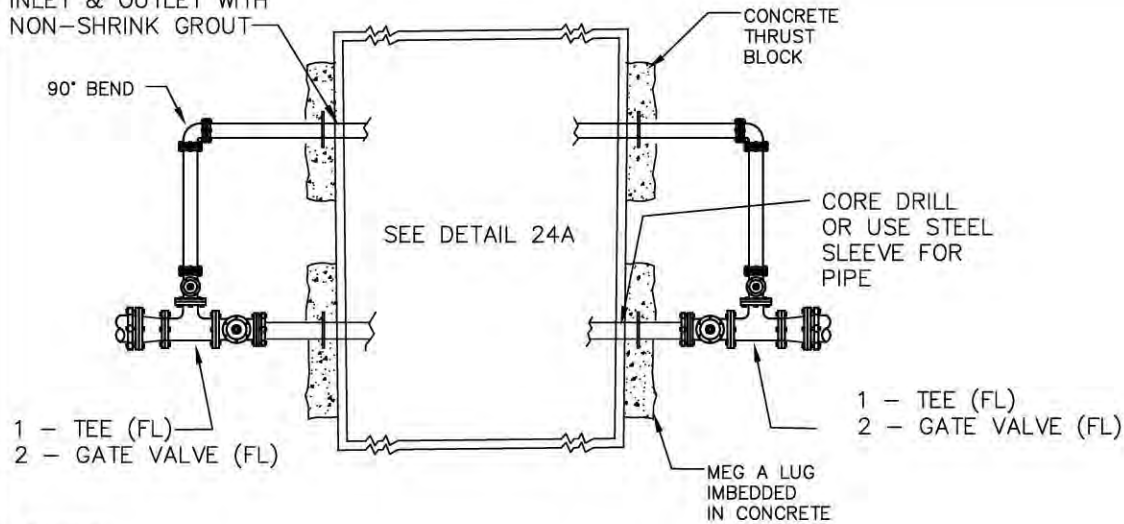
STEVE LEE-DISTRICT ENGINEER



PRESSURE REDUCING
VALVE (PRV)

24A

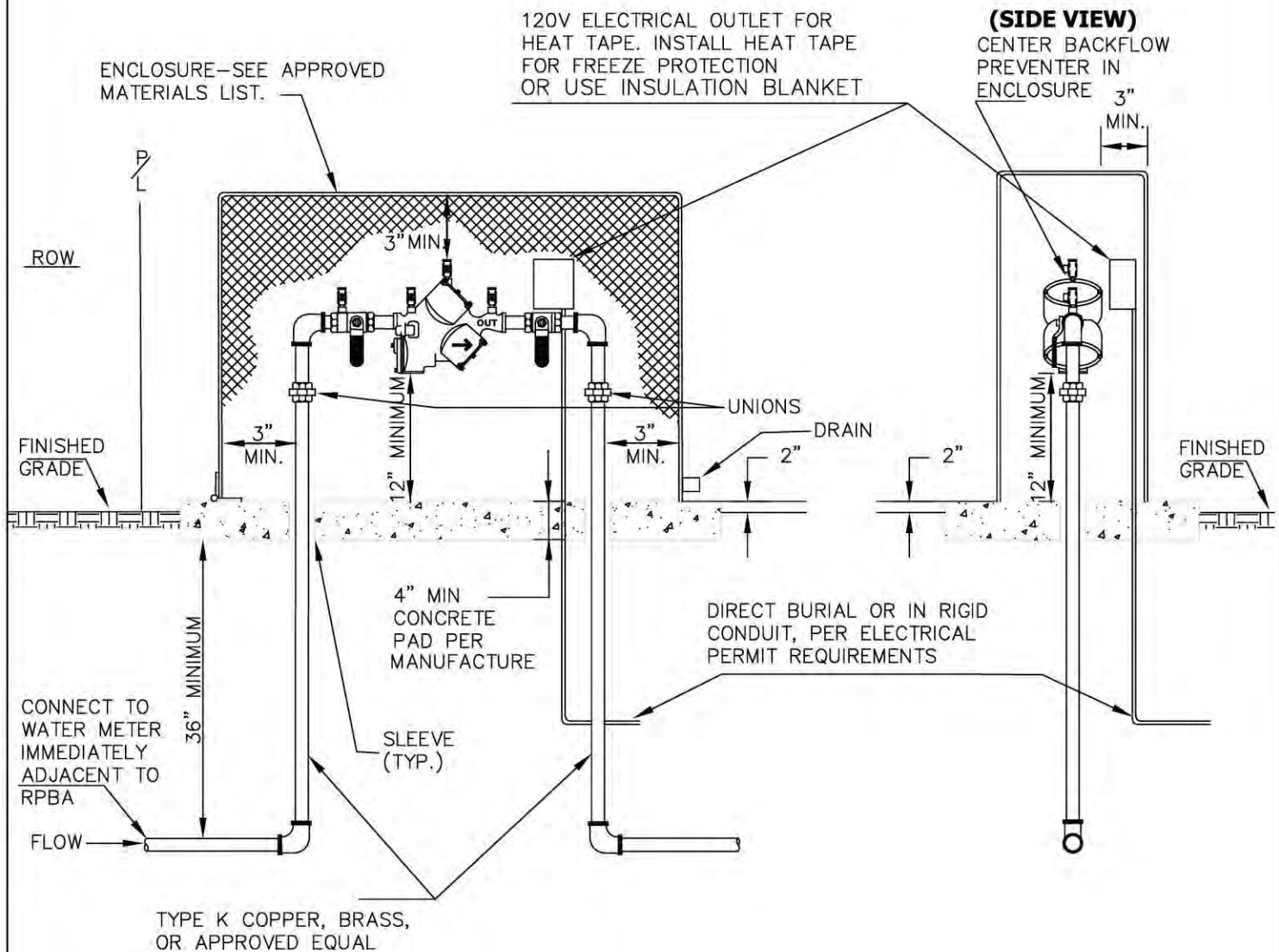
GROUT TO WATER TIGHT
INLET & OUTLET WITH
NON-SHRINK GROUT



NOTES:

1. THE DESIGN ENGINEER MUST SUBMIT A SPECIFIC DESIGN BASED ON THE TYPICAL LAYOUT FOR EACH INSTALLATION FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION AND SUBMITTALS FOR ALL MATERIALS.
2. THE REQUIRED PRESSURE REDUCING STATION CAPACITY AND SIZE SHALL BE DETERMINED BY CWD.
3. THE DESIGN ENGINEER TO NOTE FLOW DIRECTION AND PRESSURE SETTING ON THE PLANS.
4. INSIDE DIMENSIONS OF VAULT VARY DEPENDING ON PIPE SIZE. THE DESIGN ENGINEER MUST SPECIFY VAULT SIZE CONSISTENT WITH THE MINIMUM DIMENSIONS SHOWN IN THE DETAILS.
5. THE BYPASS PRV, PIPING, AND FITTINGS MAY BE LARGER THAN 2" AS APROVED BY THE DISTRICT ENGINEER.
6. ABOVE-GROUND SCADA CABINET W/TEMP AND VOLTAGE TRASMITTERS AND SCADA INTEGRATION TO BE COORDINATED WITH DISTRICT.
7. GALVANIZED LADDER TO BE SECURED TO VAULT AT TOP AND BOTTOM.
8. ALL PRVs SHALL HAVE OPENING/CLOSING SPEED CONTROL, EPOXY COATED BODY AND VALVE POSITION INDICATION.
9. PILOT CONTROLS SHALL BE ON SIDE OF PRV FACING INTERIOR OF VAULT TO PROVIDE EASY ACCESS.
10. ALL CLA--VAL PRVs AND PRESSURE RELIEF VALVES SHALL BE EQUIPPED W/STAINLESS STEEL TRIM (SEAT, STEM A COVER BEARING).
11. SEAL ALL PIPE PENETRATIONS THROUGH VAULT W/ LINK SEAL MODULAR SEALS.
12. PRESSURE RELIEF DISCHARGE DOWNSPOUT SHALL DIRECT WATER TOWARDS CENTER OF INLET GRATE.
13. HATCH AND LADDER PER DETAIL ON THIS SHEET.
14. PROVIDE LADDER-- UP EXTENSION, BILCO MODEL LU--2, OR APPROVED EQUAL.
15. MINIMUM 2' OF LEVEL, UNOBSTRUCTED AREA AROUND HATCHES.
16. PROVIDE CAST OR FIELD CORE DRILLED HOLES THROUGH VAULT WALLS FOR PIPE PENETRATIONS (NO KNOCK--OUTS).
17. DI PIPING TO BE CLASS 52.
18. ALL LADDER PARTS TO BE GALVANIZED CONFORMING TO ASTM A 123.
19. LOCATE PRESSURE RELIEF DRAIN OUTSIDE PEDESTRIAN AND TRAFFIC AREAS.
20. LADDER--UP ATTACHMENT REQUIRED ON ALL VAULT LADDERS. BILCO MODEL LU--2, OR APPROVED EQUAL

LAST REVISED AS/FT 12/23		PRESSURE REDUCING VALVE (PRV)	24B
APPROVED BY			
01/24			
STEVE LEE--DISTRICT ENGINEER			



NOTES

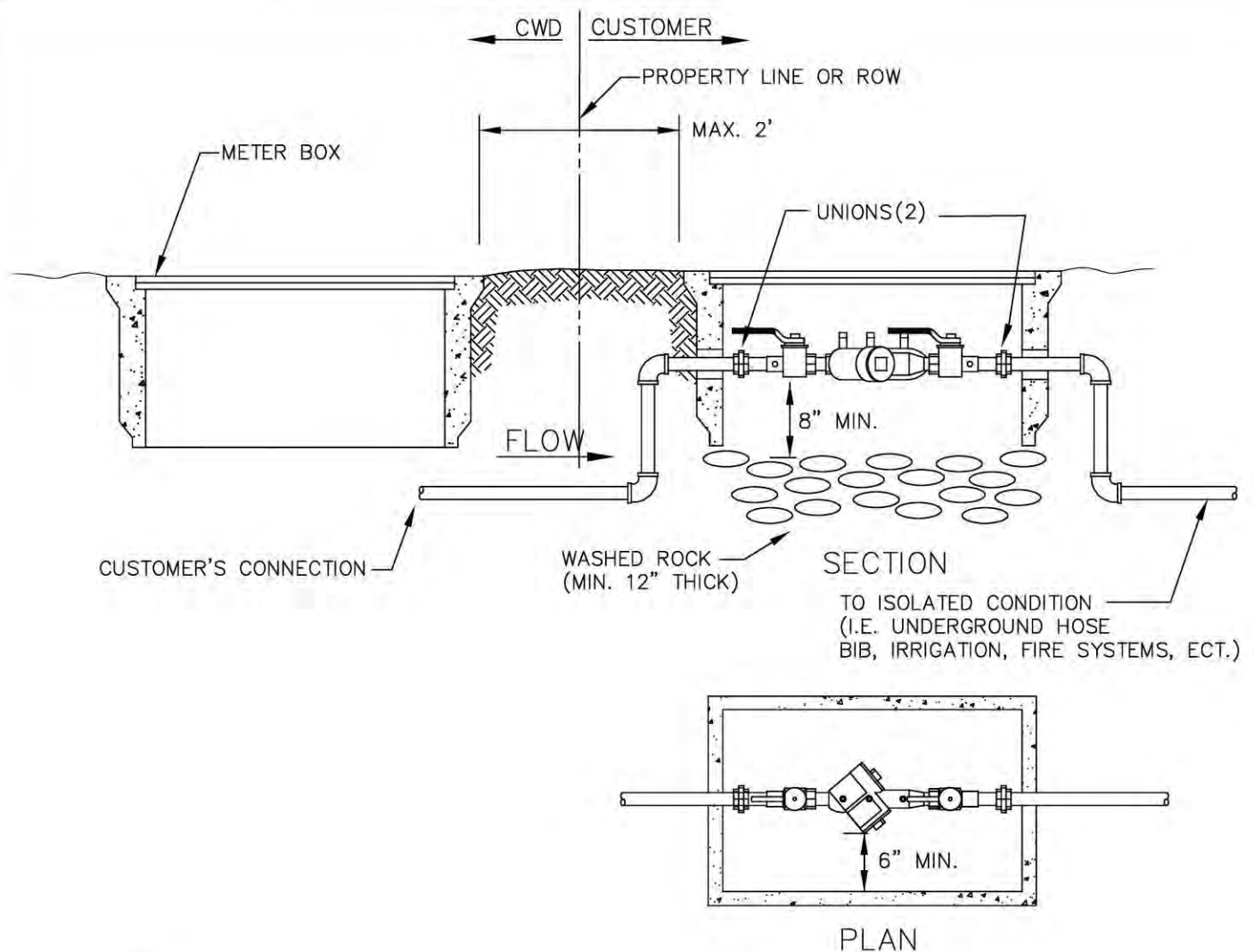
1. PROVIDE DISTRICT APPROVED SUPPORT AND OUTSIDE ENCLOSURES FOR ASSEMBLIES LARGER THAN 2" DIAMETER.
2. OWNER SHALL FURNISH, INSTALL, TEST AND MAINTAIN THE RPBA AND ALL PIPING AND APPURTENANCES SHOWN ON THIS PLAN. THE RPBA SHALL BE ACCESSIBLE TO THE DISTRICT AT ALL TIMES.
3. THE ASSEMBLY MUST BE PROTECTED FROM FREEZING, OTHER SEVERE WEATHER, AND FROM ACCIDENTAL DAMAGE. (ALSO LOCATED IMMEDIATELY BACK OF METER)
4. DRAIN SHALL BE SIZED IN ACCORDANCE WITH AWWA CROSS CONNECTION CONTROL MANUAL 6-8.
5. RPBA MUST BE ON WASHINGTON STATE DOH APPROVED LIST, MUST BE TESTED UPON INSTALLATION BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER, INSTALLED PER MANUFACTURER SPECS TO RETAIN WARRANTIES, AND MUST BE TESTED ANNUALLY THEREAFTER. SUCCESSFUL TEST RESULT MUST BE REPORTED ANNUALLY TO THE DISTRICT.
6. RPBA MUST BE TESTED IF MOVED OR REPAIRED.
7. FACILITY IS OWNED AND MAINTAINED BY PROPERTY OWNER FOLLOWING CONSTRUCTION.
8. NOTE DISTRICT'S PREMISE ISOLATION PROGRAM REQUIREMENTS. (MANUAL ONLINE)
9. NO CONNECTIONS SHALL BE MADE BEFORE BACKFLOW PREMISE ISOLATION.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE—DISTRICT ENGINEER	



REDUCED PRESSURE
BACKFLOW ASSEMBLY
(RPBA)

25



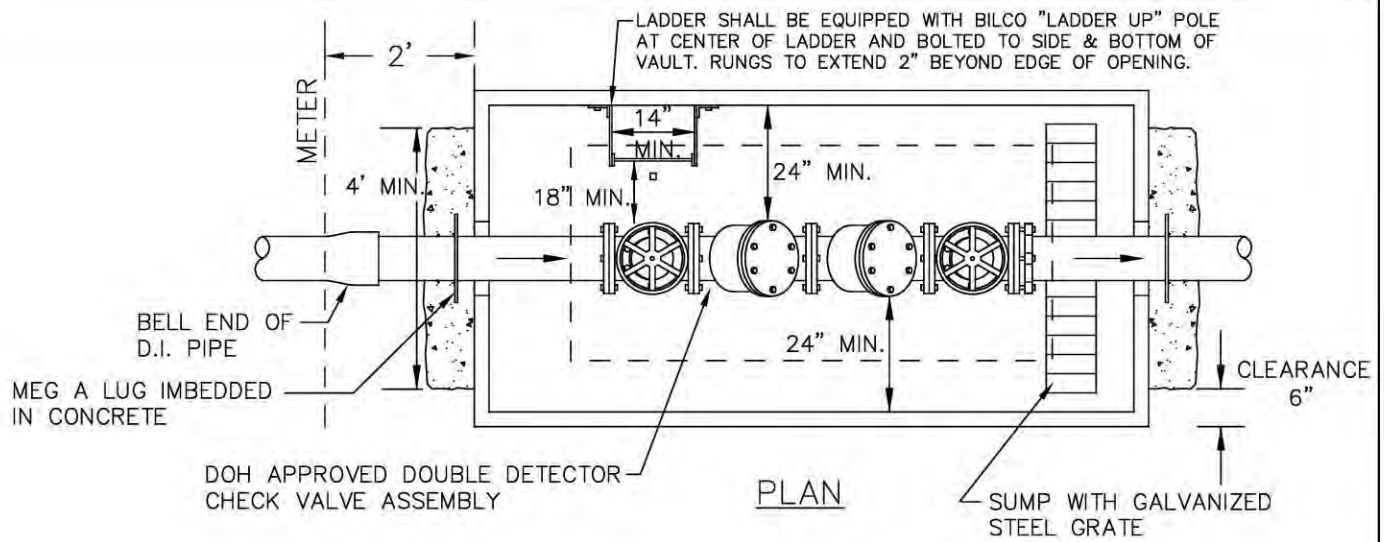
NOTES:

1. THE BACKFLOW ASSEMBLY BOX/ENCLOSURE WILL BE SET AT THE SAME GRADE AS THE METER BOX UNLESS OTHERWISE APPROVED BY DISTRICT PERSONNEL.
2. ADDITIONAL ROOM MAY BE REQUIRED FOR TESTING & MAINTENANCE.
3. WHEN TEST COCKS ARE FACING SIDWAYS THERE MUST BE A MIN. OF 6" CLEARANCE BETWEEN THEM AND SIDE OF BOX.
4. FOR INSTALLATIONS EXPOSED TO FREEZING, PROTECTION MAY BE REQUIRED.
5. TEST COCKS MUST BE PLUGGED.
6. IF BOX/INCLOSURE IS SUBJECT TO FLOODING A DAY LIGHT DRAIN IS REQUIRED.
7. DCVA MUST BE ON WASHINGTON STATE DOH APPROVED LIST, MUST BE TESTED UPON INSTALLATION BY A WASHINGTON STATE CERTIFIED BACKFLOW ASSEMBLY TESTER, AND MUST BE TESTED ANNUALLY THEREAFTER.
8. DCVA MUST BE TESTED IF MOVED OR REPAIRED.
9. FOR VEHICULAR TRAVEL AREA, USE TRAFFIC STEEL BOX AND LID. COORDINATE WITH CWD INSPECTOR FOR MATERIAL SELECTION.
10. NOTE DISTRICT'S PREMISE ISOLATION PROGRAM REQUIRED. (MANUAL SEP.)
11. NO CONNECTIONS TO BE MADE BEFORE BACKFLOW PREMISE ISOLATION PRIOR TO TESTING.

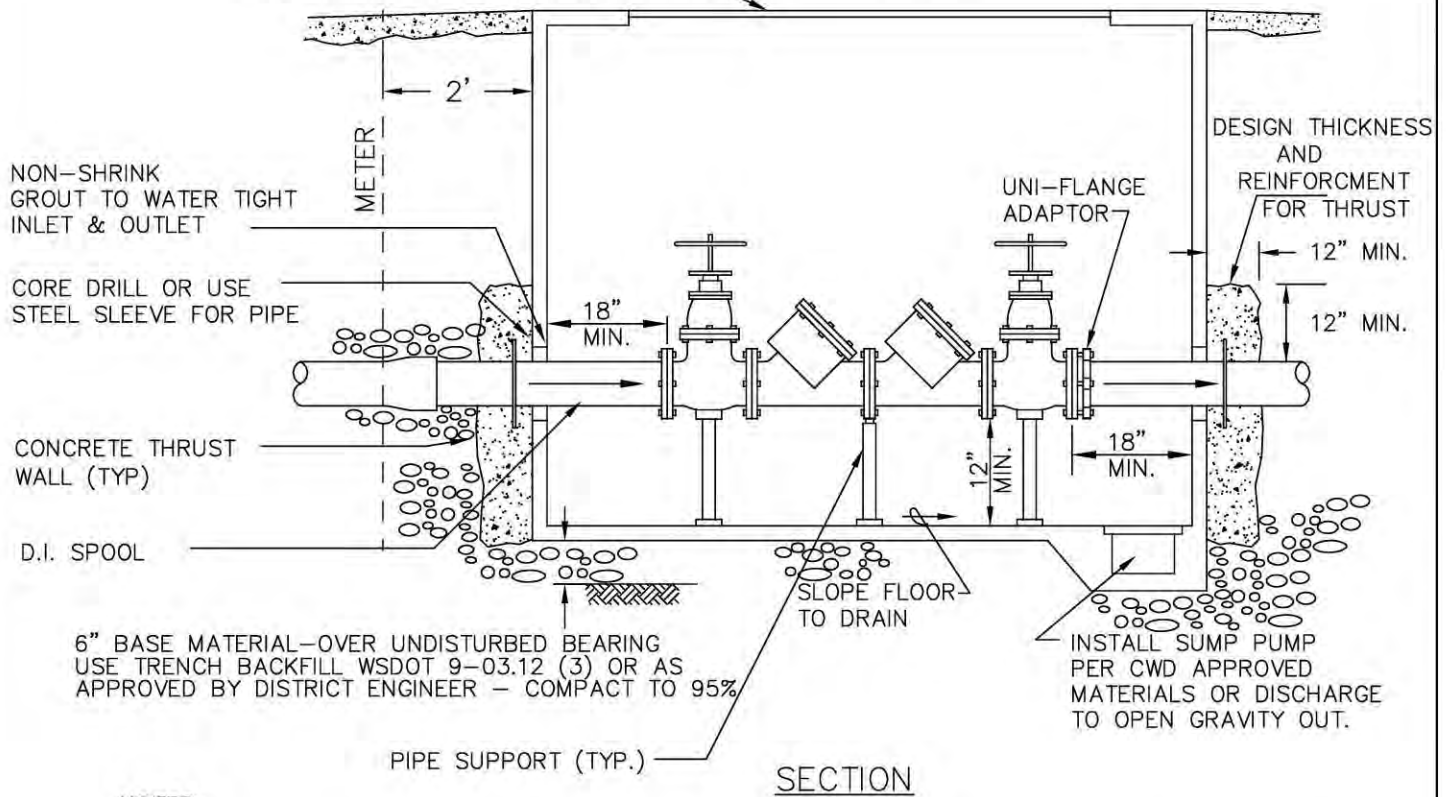
LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



2" & SMALLER DOUBLE CHECK VALVE ASSEMBLY (DCVA)



ENCLOSED BY HYDRAULICALLY ASSISTED EAST JORDAN DUCTILE IRON DOUBLE DOORS, SELF DRAINING WITH H-20 VEHICLE RATING & LOCKING HASP.



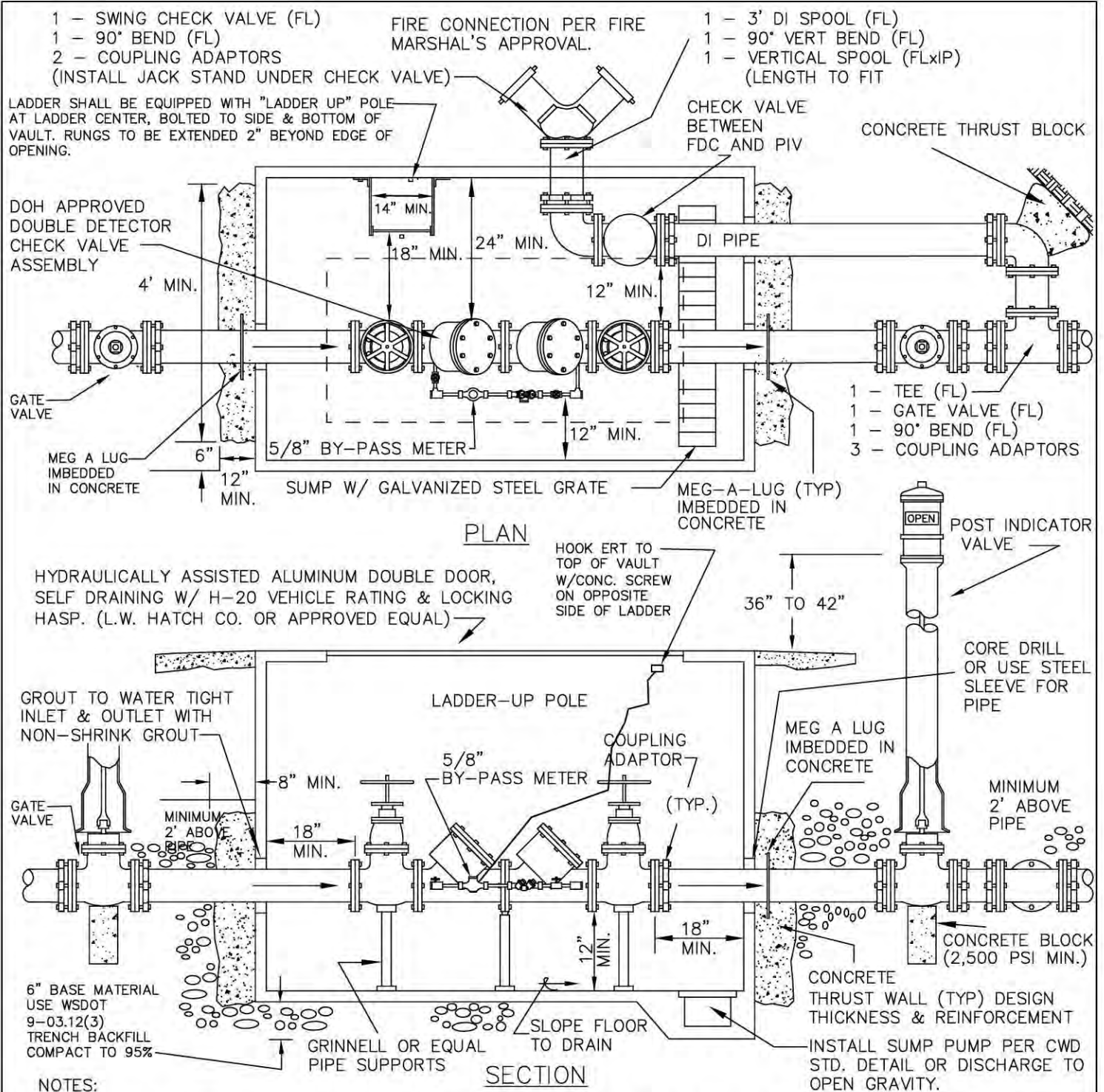
NOTES:

1. COVER SHALL NOT EXTEND MORE THAN 6" ABOVE GRADE WHEN VAULT IS NOT IN TRAFFIC AREA.
2. VAULT SHALL NOT BE INSTALLED IN TRAFFIC AREA UNLESS APPROVED BY THE DISTRICT ENGINEER. SLOPE PAVEMENT AWAY FROM COVER.
3. VAULT SHALL BE OF ADEQUATE HEIGHT TO PROVIDE MIN. 6" CLEARANCE TO O,S&Y VALVE WHEN VALVE IS FULLY OPEN.
4. VAULTS SHALL BE AS SPECIFIED IN APPROVED MATERIALS—APPENDIX C AND SHALL BE STRUCTURALLY DESIGNED FOR THE PROPOSED INSTALLATION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE VAULT SIZE CONSISTENT WITH THE MINIMUM DIMENSIONS SHOWN IN THE DETAILS.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE—DISTRICT ENGINEER	



3" & LARGER DOUBLE
CHECK VALVE ASSEMBLY
(DCVA) & VAULT



NOTES:

1. COVER SHALL NOT EXTEND MORE THAN 2" ABOVE GRADE WHEN VAULT IS NOT IN TRAFFIC AREA.
2. VAULT SHALL NOT BE INSTALLED IN TRAFFIC AREA UNLESS APPROVED BY THE DISTRICT ENGINEER. SLOPE PAVEMENT AWAY FROM COVER.
3. VAULT SHALL BE OF ADEQUATE HEIGHT TO PROVIDE MIN. 6" CLEARANCE TO O,S&Y VALVE WHEN VALVE IS FULLY OPEN.
4. INSTALL ALARM SYSTEM AS REQUIRED BY FIRE DISTRICT.
5. 5/8" BY-PASS METER SHALL BE PURCHASED FROM CWD.
6. VAULTS SHALL BE AS SPECIFIED IN APPROVED MATERIALS-APPENDIX C AND SHALL BE STRUCTURALLY DESIGNED FOR THE PROPOSED INSTALLATION.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE VAULT SIZE CONSISTENT WITH THE MINIMUM DIMENSIONS SHOWN IN THE DETAILS.
8. OWNER RESPONSIBLE FOR VAULT MAINTENANCE.

LAST REVISED AS/FT 12/23

APPROVED BY

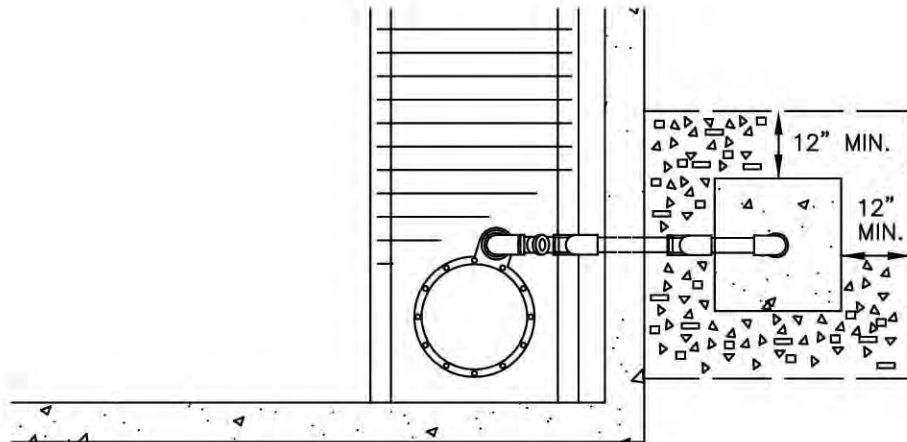
01/24

STEVE LEE-DISTRICT ENGINEER

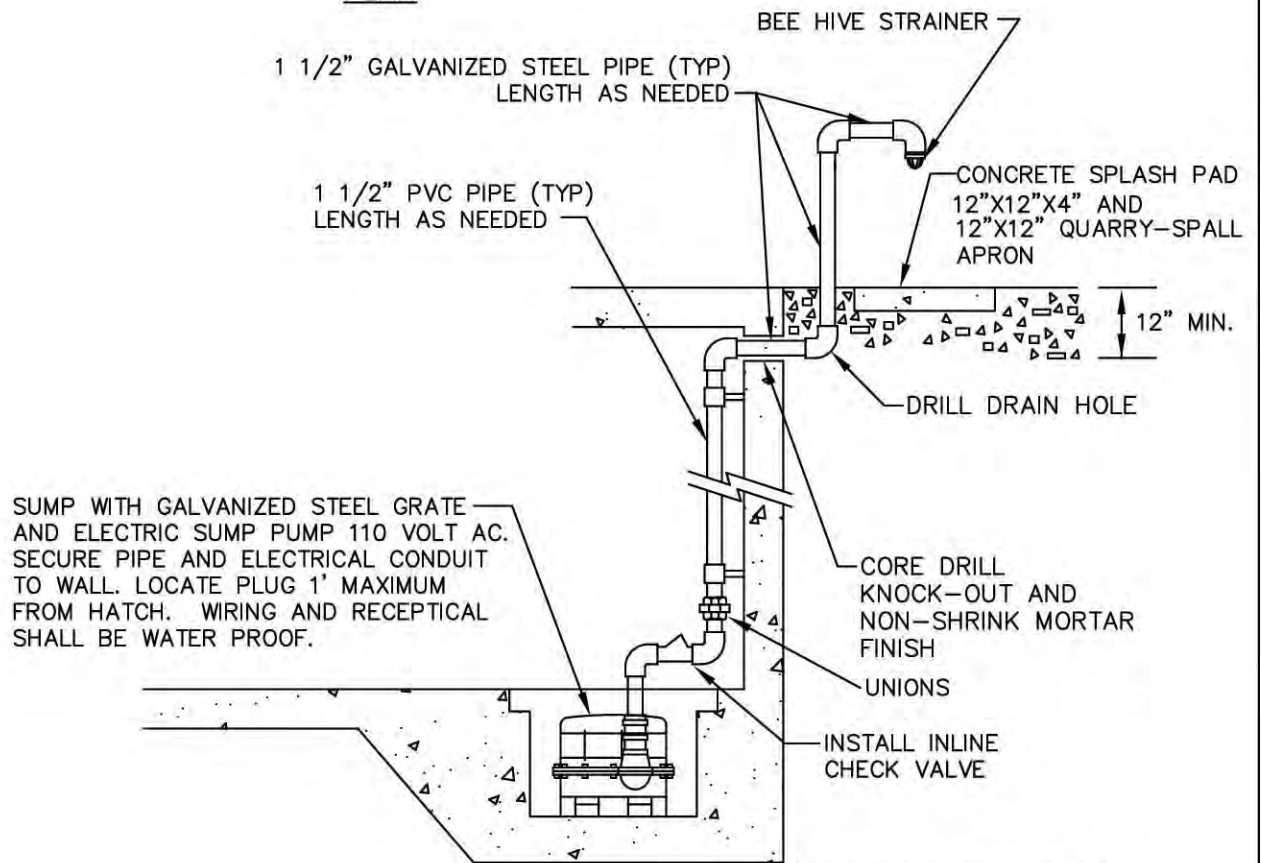


DCVA DOUBLE
CHECK VALVE ASSEMBLY
& VAULT W/FDC

28



PLAN



PROFILE

PROVIDE SUMP AND PIPE WITH RECEPTACLE POWER CORD WHEN POWER IS UNAVAILABLE TO VAULT. SEE SPECIFICATION FOR "AVAILABLE" POWER DETERMINATION. (POWER SHALL BE PROVIDED FOR PRIVATE INSTALLATIONS)

LAST REVISED AS/FT 12/23

APPROVED BY

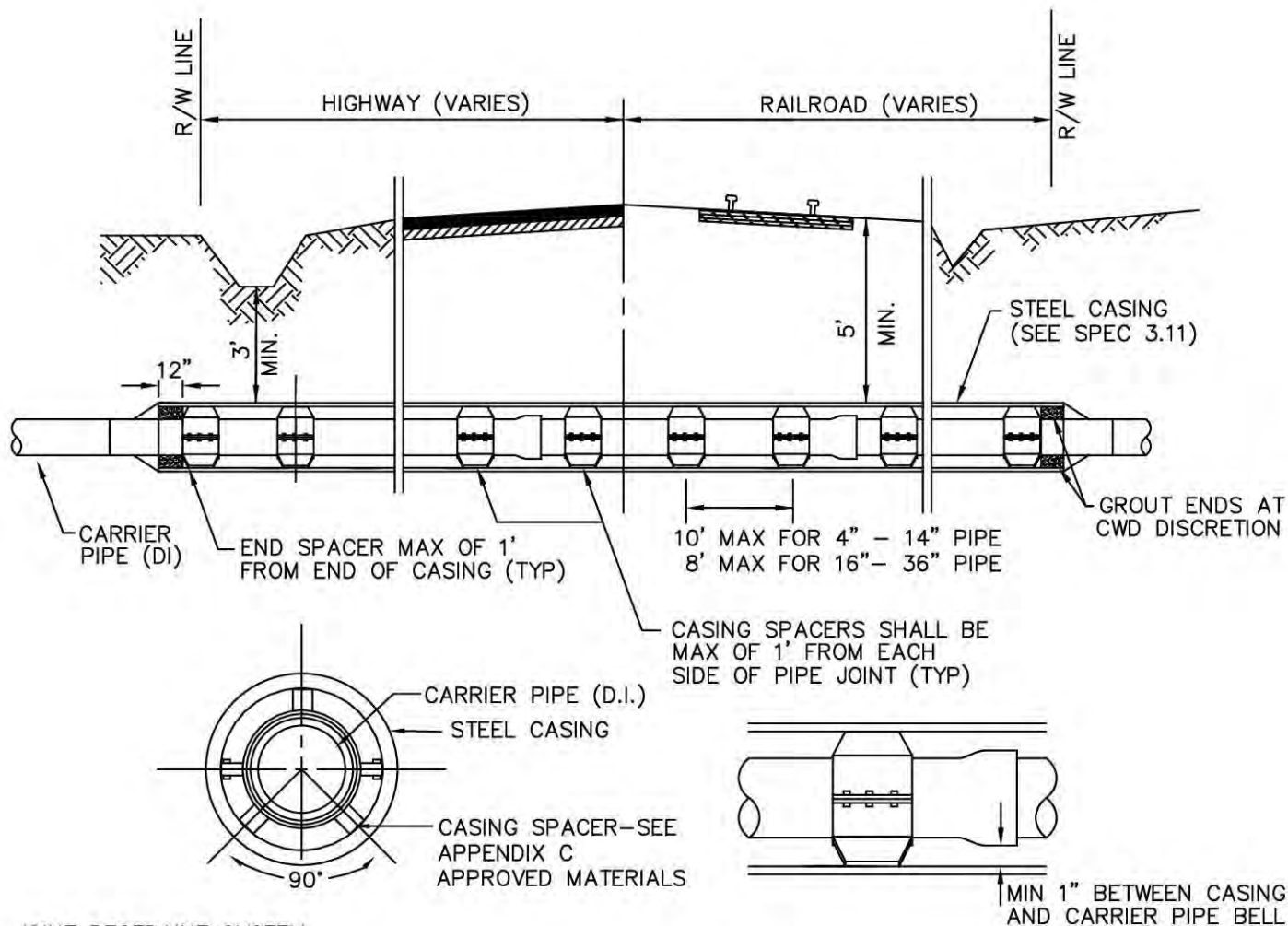
01/24

STEVE LEE-DISTRICT ENGINEER



SUMP PUMP INSTALLATION

29



JOINT RESTRAINT SYSTEM
FOR CARRIER PIPE TO BE
APPROVED BY DISTRICT
ENGINEER

MINIMUM CASING SIZE AND THICKNESS					
PIPE SIZE	4"	6"	8"	10-14"	16-18"
STEEL CASING SIZE	14"	16"	18"	24"	30"
WALL THICKNESS	CONFIRM SIZE & THICKNESS ACCORDING TO DESIGN LOADING				

NOTES:

1. CASING SIZE AND MINIMUM THICKNESS OF CASING SHALL BE AS SHOWN ON THE CONTRACT DRAWINGS. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE THICKNESS CONSISTENT WITH INSTALLATION OPERATION.
2. RUBBER END SEALS WITH STAINLESS STEEL BANDS PREFERRED AT EACH END.
3. MINIMUM COVER OVER CASING SHALL BE 3' OR AS SPECIFIED.
4. CASING PIPE SPECIFIED FOR HIGHWAYS OR RAILROAD CROSSINGS SHALL BE COMPLETED IN ACCORDANCE WITH REGULATIONS OF APPLICABLE FEDERAL, STATE, LOCAL JURISDICTION AND RAILROAD COMPANY.
5. THIS IS A TYPICAL PIPE CASING DETAIL. ANY MODIFICATIONS SHALL BE APPROVED BY DISTRICT ENGINEER.
6. CONSULT WITH PIPE MANUFACTURER TO ASSURE PROPER SUPPORT OF PIPE.
7. MINIMUM SEPARATION BETWEEN TOP OF CASING AND BOTTOM OF ANY STRUCTURAL FOOTING SHALL BE 18 INCHES

LAST REVISED AS/FT 12/23

APPROVED BY

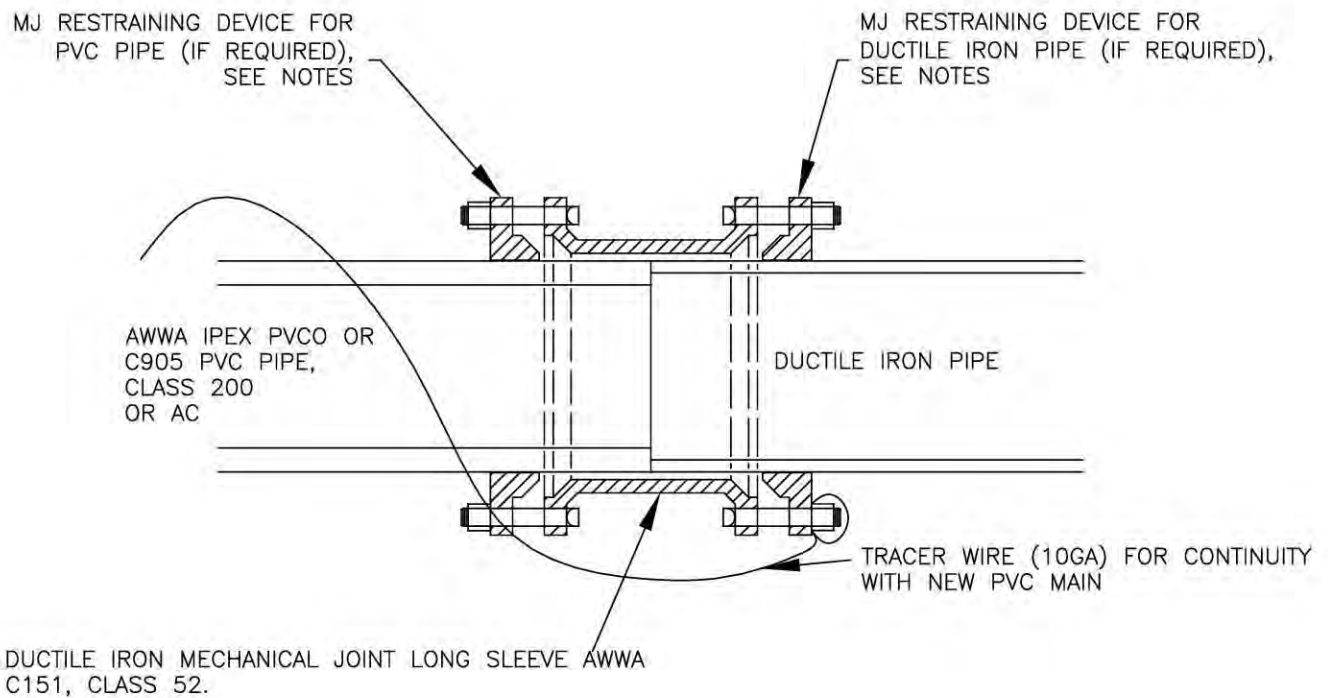
01/24

STEVE LEE-DISTRICT ENGINEER



PIPE CASING

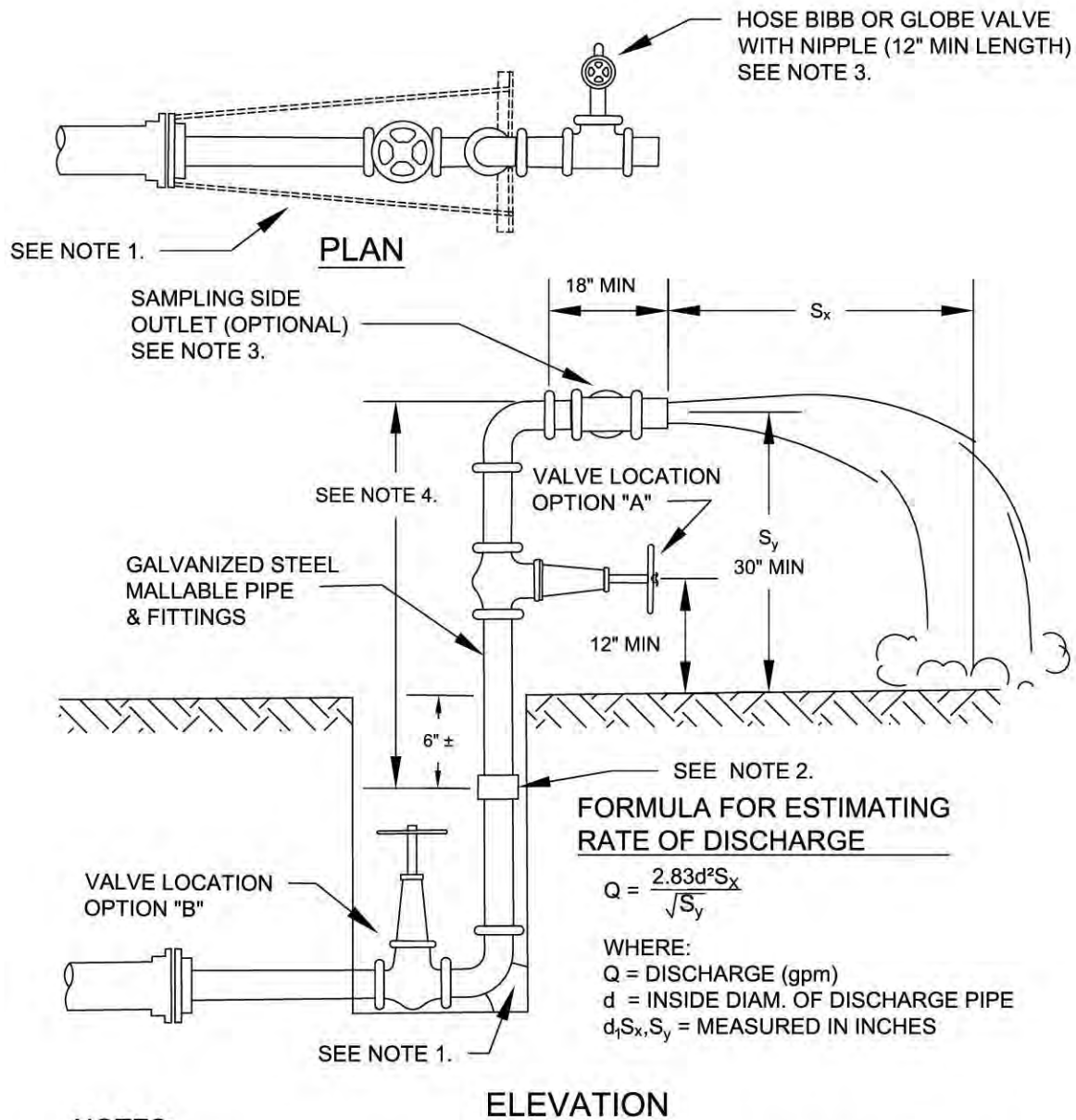
30



NOTES:

1. THIS DETAIL SHALL BE USED AT ALL TRANSITIONS BETWEEN PVC OR AC PIPE AND DUCTILE IRON PIPE.
2. TRANSITIONS SHALL BE LOCATED OUTSIDE OF RESTRAINED AREAS, UNLESS APPROVED BY CWD.
3. TRANSITIONS LOCATED WITHIN RESTRAINED AREAS SHALL BE RESTRAINED. RESTRAINING DEVICE FOR THE PVC PIPE SIDE AND RESTRAINING DEVICE FOR THE DUCTILE IRON PIPE SIDE SHALL BE AS DESCRIBED IN SECTION 4.08 OF CWD STANDARDS.
4. RESTRAINING DEVICES NOT REQUIRED IF TRANSITION IS NOT IN A RESTRAINED AREA.

LAST REVISED AS/FT 12/23		TRANSITION SLEEVE	31
APPROVED BY			
01/24			
STEVE LEE-DISTRICT ENGINEER			



NOTES:

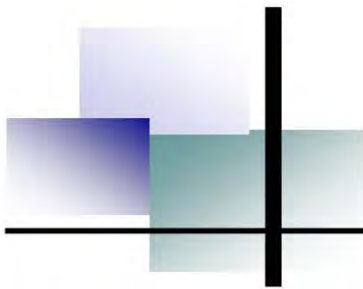
1. PROVIDE TEMPORARY THRUST RESTRAINT SYSTEM (CONC. THRUST BLOCK, WOOD OR STEEL BLOCKING) SUFFICIENT TO WITHSTAND PRESSURE TEST
2. IF ASSEMBLY PLACED IN HAZARDOUS LOCATION, PROVIDE COUPLING AND PLUG FOR REMOVAL OF STANDPIPE OUTSIDE TIMES OF TESTING. VALVE LOCATION "B" SHALL BE USED WITH TEMPORARY VALVE BOX AND SQUARE NUT OPERATOR.
3. IF HOSE IS REQUIRED FOR FLOW DISPOSAL, A SAMPLING SIDE OUTLET SHALL BE INSTALLED
4. THIS STANDPIPE CONFIGURATION SHALL BE USED ON PERMANENT BLOWOFF ASSEMBLIES DURING THE DISINFECTION AND TESTING PROCEDURE.
5. SIZING OF TEMPORARY BLOWOFF ASSEMBLY PIPING SHALL MEET THE SAME CRITERIA AS THAT FOR PERMANENT BLOWOFF ASSEMBLY.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



TEMPORARY BLOWOFF
ASSEMBLY (3" SIZE)

32



Sample Title Sheet

Appendix B



COVINGTON WATER DISTRICT
WATER SYSTEM EXTENSION PLAN
PROJECT TITLE
SECTION 29, TOWNSHIP 22 N., RANGE 06 E., W.M.
CWD PROJECT NO. DE ####-##
(PRESSURE ZONE ###)
CONSTRUCTION START DATE

SURVEY

STATE NAME OF FIRM THAT COMPLETED SURVEY AND
PROJECT-SPECIFIC SURVEY NOTES.

BENCHMARK

VERTICAL DATUM

NAVD 88

SITE BENCHMARKS

XXXXXXXXXXXXXXXXXXXX

(ESTABLISHED BY WGN GPS NETWORK OBSERVATION)

HORIZONTAL DATUM

NAD 83(2011)

BASIS OF BEARINGS

XXXXXXXXXXXXXXXXXXXX

INSTRUMENTATION

XXXXXXXXXXXXXXXXXXXX

WATER LINE NOTE

XXXXXXXXXXXXXXXXXXXX

UTILITIES/SERVICES:

WATER:

COVINGTON WATER DISTRICT
18631 S.E. 300TH PLACE
COVINGTON, WA 98042
(253) 631-0565

SEWER:

SOOS CREEK WATER AND SEWER DISTRICT
14618 S.E. 192ND STREET
RENTON, WA 98058-1039
(253) 630-9900

POWER/GAS:

PUGET SOUND ENERGY
8001 SOUTH 212TH STREET
KENT, WA 98032
(253) 395-7065

PHONE:

CENTURY LINK
23315 66TH AVENUE SOUTH
KENT, WA 98032
(253) 372-5388

FIRE:

PUGET SOUND REGIONAL FIRE AUTHORITY
24511 116TH AVE. SE
KENT, WA 98030
(253) 556-4300
<http://pugetsoundfire.org/>



VICINITY MAP:
IN
CITY OF COVINGTON
KING COUNTY, WASHINGTON



LOCATION	USE	SIZE	FIXTURE COUNT, FLOW
BUILDING A	INSIDE	1.5 INCH	# FIXTURE UNITS = # GPM
BUILDING A	OUTSIDE	1-INCH	N / A
BUILDING B	INSIDE	2-INCH	# FIXTURE UNITS = # GPM
BUILDING B	FIRE	5/8-INCH	N / A
BUILDING C	INSIDE	3-INCH	# FIXTURE UNITS = # GPM
BUILDING C	OUTSIDE	1.5-INCH	N / A

INDEX OF SHEETS:

- W1 TITLE SHEET
W2 KEY MAP, LEGEND AND NOTES
W3 WATERMAIN EXTENSION PLAN AND PROFILE
W4 WATERMAIN EXTENSION PLAN AND PROFILE
W5 WATERMAIN EXTENSION PLAN AND PROFILE

DEVELOPER

DEVELOPER'S NAME:
DEVELOPER'S ADDRESS:
PHONE: (###) ###-####
CONTACT: NAME:
EMAIL: EMAIL ADDRESS

ENGINEER

FIRM NAME:
FIRM ADDRESS:
PHONE: (###) ###-####
CONTACT: ENGINEER OF RECORD:
EMAIL: EMAIL ADDRESS

UTILITY CONFLICT NOTE: CAUTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, DIMENSION, AND DEPTH OF ALL EXISTING UTILITIES WHETHER SHOWN ON THESE PLANS OR NOT BY POT-HOLING THE UTILITIES AND SURROUNDING THE HORIZONTAL AND VERTICAL LOCATION PRIOR TO CONSTRUCTION. THIS SHALL INCLUDE CALLING UTILITY LOCATE @ 1-800-424-6886 AND THEN POT-HOLING ALL OF THE EXISTING UTILITIES AT LOCATIONS OF NEW UTILITY CROSSINGS TO PHYSICALLY VERIFY WHETHER OR NOT CONFLICTS EXIST. LOCATIONS OF SAID UTILITIES AS SHOWN ON THESE PLANS ARE BASED UPON THE UNVERIFIED PUBLIC INFORMATION AND ARE SUBJECT TO VARIATION. IF CONFLICTS SHOULD OCCUR, THE CONTRACTOR SHALL CONSULT CWD ENGINEER DEPT. TO RESOLVE ALL PROBLEMS PRIOR TO PROCEEDING WITH CONSTRUCTION.

NOTE:

THESE PLANS ARE IN ACCORDANCE WITH CWD STANDARDS AND SPECIFICATIONS DATED JANUARY 2024.

COVINGTON WATER DISTRICT
ALL BILLS, NOTES, AND SPECIFICATIONS INFORMATION SHOWN
HEREON ARE THE PROPERTY OF THE DISTRICT AND ARE NOT TO BE
REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS
ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING,
OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.
2. THESE DOCUMENTS SHOWN ON THESE DOCUMENTS
ARE OWNED BY COVINGTON WATER DISTRICT.
4.
Author's/ Recording Number
Recording Date

COVINGTON WATER DISTRICT
THESE DOCUMENTS HAVE BEEN REVIEWED FOR
CONFORMANCE TO DISTRICT DESIGN AND
CONSTRUCTION STANDARDS AND ARE HEREBY
APPROVED FOR CONSTRUCTION
Approved Engineer
Date

P.E.
STAMP

BY
DATE
REVISIONS

DESIGN FIRM
NAME AND LOGO

PROJECT NO.
OP 2024-18
DESIGNED BY:
F. YAMADA
CHECKED BY:
F. YAMADA
DATE:
ETL

PROJECT TITLE
TITLE SHEET
(PRESSURE ###)

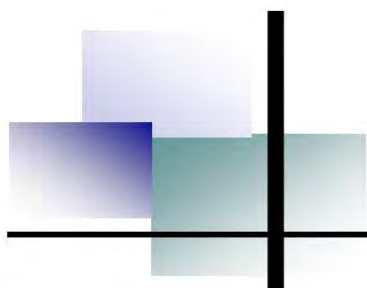
SHEET
W1

CWD PROJECT NO.:
DE ###-##



Know what's below.
Call before you dig.

CALL TWO BUSINESS DAYS
BEFORE YOU DIG
1-800-424-5555



Approved Materials List

Appendix C

APPENDIX C APPROVED MATERIALS LIST

The following manufacturers have been approved for use on water works construction. Where specific manufacturers are listed, no other manufacturer may be used without prior approval by the District.

Domestic pipe and fitting materials are required when reasonably available. Domestic shall mean manufactured in the United States or Canada. See Section 4.01 for general material requirements.

Approved materials do not require full cut-sheet submittals. State the manufacturer, product name, size and fitting type when applicable, in a summary letter for District approval. See Section 5.02 for complete submittal requirements.

1) PIPE, FITTINGS, PIPE RESTRAINTS, CASING

DUCTILE IRON PIPE

American Cast Iron Pipe Company
U.S. Pipe & Foundry Company
McWane Cast Iron Pipe Company

POLYVINYL CHLORIDE PIPE (PVCO C909 REQUIRED)

Diamond Plastics
JM Eagle Blue Brut
JM Eagle Ultra Blue PVCO C909
PW Eagle
Vinyltech
IPEX Bionax
Westlake

DUCTILE IRON FITTINGS

American Cast Iron Pipe Co.
U.S. Pipe & Foundry Co.
Tyler Pipe/Union Foundry
McWane Ductile

GALVANIZED IRON PIPE & FITTINGS

Christy's (pipe wrap tape)
Matco-Norca (fittings)
Siam fittings co. (fittings)

JOINT RESTRAINT SYSTEMS

American Cast Iron Pipe Company (Fast-Grip Gasket for 16" and smaller DI produced by ACIPCO)
EBBA Iron (Mega-Lug Series 1100, 1100S, 1100SDB, 1500, 1600, 2000PV, 2000SV, 2200, 2800; Series 2100 Megaflange)
Ford Meter Box Company (Uni-Flange Series 1390, 1400, 1500)
McWane (Sure Stop 350 for 16" and smaller DI produced by Pacific States)
Romac Industries (RomaGrip, PVC-RomaGrip, RFCA, Style 611 Pipe Restraint System)
US Pipe (Field Lok 350 for 16" and smaller DI produced by US Pipe)

COUPLINGS

Romac
Smith-Blair (Rockwell)
Dresser HYMAX

CASING

Pacific States Pipe Company
Reference detail for casing sizes.

CASING SPACERS

CALPICO Company unless otherwise approved by the district.

TAPPING SLEEVE

Romac Industries
JCM
US Pipe

TRACER WIRE

Copperhead Industries, LLC (#10 AWG HS-CCS)
Pro-Line Safety Products Company (Pro-Trace HF-CCS PE30)
Regency Wire

2) SYSTEM VALVES

GATE VALVES, RESILIENT SEATED

American AVK Co. (Series 25, 45)
Clow Valve Co. (Models 2638, 2639, 2640)
Kennedy Valve Co. (Models KS-FW, KS-RW)
M&H Valve Co. (Styles 4067)
Mueller Water Products Inc. (Series 2361, Series 2362)

GATE VALVES, SIDE-MOUNT ACTUATOR VALVES

Kennedy Valve Co.
M&H Valve Co.
Mueller Water Products, Inc.
American AVK Co.
East Jordan

CHECK VALVES

APCO Valves (Series 6000 CP, 6000CLW, 6000CLS)
Kennedy Valve Company (Series 1106A, 1106LW, 1106AS, 106A, 106LW, 106AS)
M&H Valve Company (Styles 59-02, 159, 259-02)
Mueller Water Products Inc. (Series 2602, 8001)
Val-Matic (Series 7800)

AIR AND VACUUM RELEASE VALVES

Val-Matic (Model 202C.2) **Preferred product**
APCO (Series 145C)
Crispin (Model No. UL-20)
Paint: Apply Metal Primer and Parker Comex Alkaline Enamel # A30 Safety Yellow Gloss

VALVE BOXES (H-20 Loading Top, Bottom, and Lid)

Olympic Foundry Inc
East Jordan Iron Works, Inc.
Tyler Pipe (soil pipe)
East Jordan 8555 (valve box lid)

VALVE MARKER POST

"Triview" manufactured by Rhino Markings & Protection Systems – TVF 36BB
(District Supplied – Contractor Installed)

VALVE STEM EXTENSION

Olympic Foundry Inc.

3) HYDRANTS AND ATTACHMENTS (ADAPTERS, BLIND CAPS)

FIRE HYDRANTS

East Jordan Watermaster
M&H AWWA C502 Model 929 Traffic Model;
Mueller Super Centurion
American AVK 2780 Nostalgic
Kennedy K81D

FIRE HYDRANT ATTACHMENTS

Harrington Permanent Hydrant Adapter
American AVK Storz nozzles and Adapters
4" STORZ Adapter x 4.5"F (Fire District 44)
5" STORZ Adapter x 4.5"F (Fire Districts #37 & #43)

FIRE HYDRANT PAINT

Sherwin Williams Hi Gloss Safety Yellow Industrial Enamel
Parker Comex Alkaline Enamel # A30 Safety Yellow Gloss (May be allowed only with prior District Approval)

FIRE HYDRANT LOCK

McGard

4) SERVICE FITTINGS, SERVICE PIPE, SADDLES, ANGLE BALL METER VALVE STOP, CORP, SLEEVE, ETC.

SERVICE SADDLES

Romac (202S, 202NS, 305)
Ford (Styles FS202, FC202)
Smith-Blair (317 Style)

CORPORATION BALL STOPS

1" or 1.5" size:

Ford
Mueller
A.Y McDonald MFG. CO.

2" size, IPT Ball Valve Corp w/ compression Adapter for Blow Off and Air/Vac Assemblies:
Ford 2" Inlet, 2" Outlet 2" MIP, FB500-7
Mueller 300 Ball Corp B-2996 Inlet AWWA taper, "cc" threat, MIP Outlet

COPPER SERVICE LINE

CERRO brand or equal. Type K Heavy wall, soft temper.
Reading, Howell Metals.

HDPE SERVICE LINES

SDR9, 200 psi minimum
Municipex Crosslinked Polyethylene (PEXa)

ANGLE BALL METER VALVES, LOCKING

For inside, outside, and irrigation meters:

1" Service line to 5/8"x3/4" meter or 3/4" meter, (3/4" FIPT inlet by 5/8"):

Ford

Mueller

A.Y. McDonald MFG. CO.

1" Service line to 1" meter:

Ford, Mueller, or equal.

BRASS WATER SERVICE FITTINGS AND VALVES

Ford

Mueller

AY McDonald MFG. Co.

MATCO-NORCA

Merit Brass

Lee Brass

SERVICE COUPLINGS

Shall be compression. Gripper Joints are not allowed.

A.Y. McDonald MFG. CO.

Ford

Mueller

METER SETTERS (12-inch height and High Bypass Option (add HB to part number)

1.5" & 2" Domestic Non-Residential:

Ford

Mueller

A.Y. McDonald MFG. CO.

METER ADAPTOR

1.5" & 2" Domestic Non-Residential:

Ford

A.Y. McDonald MFG. CO.

Mueller

5) METERS, METER BOXES & LIDS, BOXES FOR BLOW-OFFS AND AIR/VAC ASSEMBLIES

METERS

Badger Meter Inc., "Radio Read" purchased through the District.

METER BOXES

Old Castle – Carson – 1324-12 BCF

Approved for:

- Residential and Irrigation, 5/8"x3/4" or 3/4" meter
- 1" Residential Meter

In non-traffic areas only.

Old Castle – Carson – 1730-12 BCF

Approved for:

- Blow-Off Assembly
- 1", 1-1/2", and 2" Domestic or Irrigation meter
- Air/Vac Assembly

In non-traffic areas only.

METER BOX LIDS

NDS 13x24 #121CDMCIF
NDS 17x30 #123CDMCIF

Raven 13x24 #N1324BLKWAT-R
Raven 17x30 #N1730BLKWAT-R

DFW 13x24 #DFW1324C-12-1C-LID
DFW 17x30 #DFW1730C-12-1C-LID

6) CROSS CONNECTION CONTROL DEVICES (DDCVA, RPBA, DCVA)

REDUCED PRESSURE BACKFLOW ASSEMBLIES (RPBA)

As approved on the most current Department of Health list for cross connection devices.

RPBA ENCLOSURE

"Hot Box"

DOUBLE CHECK VALVE ASSEMBLIES

As approved on the most current Department of Health list for cross connection devices.

7) OTHER EQUIPMENT, VAULTS, PRVS

PRV STATION

Reference the separate material section of these standards for the approved manufacturers of the individual components.

INDIVIDUAL PRESSURE REDUCING VALVES (Residential, 2" and Smaller)

Wilkins #600
WATTS #U5B.

INDIVIDUAL PRESSURE REDUCING VALVES (Non-residential)

Wilkins #600

VAULTS

Utility Vault Co. (Oldcastle Precast)
GP Granite Vaults

VAULT LADDER

"Bilco" Ladder-up

VAULT HATCH DOOR

East Jordan

VAULT EQUIPMENT SUPPORTS

Standon model S92 saddle support or S89

APPROVED PRODUCTS COMMITTEE

Introduction

Through previous investigation, testing and usage by the District, certain types, brands and models of some products and materials have established a satisfactory record for certain services. These products have been tabulated by manufacturer's names and identifying numbers on Approved Products Lists (APL). Construction-related APLs have been assembled into the District's "Approved Products List". The Approved Products List should not be interpreted as being pre-approved lists of products necessarily meeting the requirements for a given construction project and products included in the lists shall not be substituted unless they are approved by the District Engineer. Contractors electing to use products from the APLs shall submit a list of products and the corresponding APL number, together with the approvals for their use.

Products in use by the District are subject to ongoing consideration and evaluation by the Approved Products Committee. When changes, deletions or additions become necessary and are approved by the District Engineer, the product list will be revised and included in updates to the Approved Products List.

Questions concerning the District's Approved Products List may be addressed to the Approved Products Committee Chairperson at 18631 SE 300th Place, Covington, WA or call (253)867-0918.

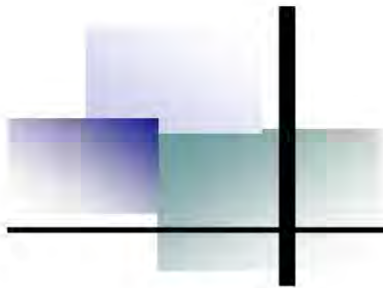
Covington Water District Approved Product Approval Process

- A. Product and equipment manufacturers shall submit a written request for consideration to the District Approved Products Committee chairperson. This request shall comprise a complete submittal, in a single package, and include the following:
- Product description, technical specifications and catalog information.
 - All applicable product standards (AWWA, ASTM, ANSI, NFPA and others) and related manufacturer's certifications.
 - Test results showing compliance with applicable standards, including independent laboratory test results, if necessary.
 - Manufacturer's installation procedures for the particular product.
 - Product availability, delivery time and manufacturer's location.
 - Maintenance requirements, special equipment and procedures and recommended maintenance schedules.
 - Product references (municipal or public users) shall include user's name, address and telephone number, product application and number of years in use, and name and telephone number of a contact person having knowledge of the particular usage.
- Material safety data sheet (MSDS), if applicable.
- Recent product revisions or improvements.
 - Explanation of how the product benefits the District in terms of prolonged service life, reduced maintenance, reduced life-cycle cost and other relevant aspects.
- B. If the submittal is acceptable, the chairperson shall submit it for consideration to the committee. Products may be requested for testing or field evaluation.
- C. Following review of the submittals the committee may request a presentation by the manufacturer at a regularly scheduled committee meeting to demonstrate the product or provide additional information.

- D. A database listing all testing locations, time of test and results shall be compiled and periodically updated. From this information, the Approved Products Committee will recommend approval or disapproval of the products.
- E. A majority vote by the committee is required to accept any new product. The District will advise the applicant of the Approved Committee's decision regarding the product.
- F. The newly accepted product will be added to the appropriate Approved Products List (APL).
- G. Problems regarding accepted products shall be submitted to the Standards committee for review. Such review may lead to a recommendation to rescind approval. The District shall inform the product manufacturer of the reasons for removal from the APL.

Product and Purchase Specification Review

All purchase specifications and each APL will be reviewed at least every five (5) years. Products will be under constant evaluation as they are used in the water system.



Standard Forms

Appendix D

Use of Standard Forms

The Standard Forms included in Appendix D are marked “Sample” in order to communicate the form expected to be completed for various contract management functions. Actual forms completed and submitted shall be the most current form obtained from the District which may show additional information or changes over time.

Steve Lee

Engineering Manager

Index To Forms

Certificate of Substantial Completion

Chlorine Injection Box Rental Agreement – District Project

Chlorine Injection Box Rental Agreement – Private Development

Confined Space Entry Permit

Easement for Water Pipeline

Hydrant Meter Application

Notice of Award

Notice to Proceed

Overtime Authorization Form

Plan Submittal Form

Stop Work Notice



Certificate of Substantial Completion

Project:	Owner: Covington Water District	Owner's Contract No.:
Contract Description:		
Contractor:		Date of Contract:

This Tentative Certificate of Substantial Completion applies to:

☐ All Work under the Contract Documents:

☐ The following specified portions:

Date of Substantial Completion:

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor and Engineer, and found to be Substantially Complete (WSDOT 1-01.3).

A definitive list of corrective items, or "punchlist", shall be provided to the Contractor as needed. 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. Warranty periods **shall not commence** until the Completion Date has been established and the project is accepted by the owner, by Resolution.

Originated by Project Engineer

Date

Executed by District Engineer

Date

Accepted by Contractor

Date

COVINGTON WATER DISTRICT
18631 SE 300th Place
Covington, WA 98042
Phone: (253) 631-0565

CHLORINE INJECTION BOX RENTAL APPLICATION / AGREEMENT – FOR DISTRICT PROJECTS

CONTRACTOR: _____ DATES RESERVED: _____

OFFICE/MAILING ADDRESS: _____

CONTACT PERSON: _____ TELEPHONE: _____

LOCATION OF SERVICE: _____

DEPOSIT RECEIVED (Staff Initial): _____ CHECK NUMBER: _____ DATE RECEIVED: _____

METER #: _____ START READ: _____ END READ : _____

ACTUAL DATE EQUIPMENT ISSUED: _____ ACTUAL DATE EQUIPMENT RETURNED: _____

DAMAGE? (Yes/No): _____ NATURE OF DAMAGE: _____

AGREEMENT

Contractor agrees to pay the District the following:

- 1) A \$5,000.00 damage/security deposit for the Chlorine Injection Box, and
- 2) The amount indicated above is payable in full prior to equipment issuance.

Upon return of the equipment, and in the absence of any damage based upon an inspection conducted by and to the satisfaction of the District, the deposit will be returned to Contractor. If damage is noted upon the District's inspection, any refund will be processed for the difference between the deposit and the actual cost of repair. The processing time for a refund is approximately 3 weeks following the date of final repair.

Contractor understands and agrees that the District is not responsible for water quality after it leaves the District hydrant. Contractor agrees to indemnify, defend and hold harmless the District for any injuries, damages or water quality problems that may occur after water leaves the hydrant.

Contractor further agrees to protect the equipment and the service where the equipment connects against damage and to assume full financial responsibility for the repairs made necessary by such damage.

In the event suit or other action is commenced to enforce any provision of this Agreement, Contractor agrees that jurisdiction and venue for any such action shall be in King County Superior Court or King County District Court, Renton Division.

The person signing this Agreement on behalf of Contractor represents and warrants that he/she has full and complete authority to enter into this Agreement and that he/she has been fully authorized to execute this Agreement on behalf of Contractor.

CONTRACTOR

COVINGTON WATER DISTRICT

DATE _____

DATE _____

Deposit Returned: _____

Date: _____

Contractor

COVINGTON WATER DISTRICT
18631 SE 300th Place
Covington, WA 98042
Phone: (253) 631-0565

CHLORINE INJECTION BOX RENTAL APPLICATION / AGREEMENT – FOR PRIVATE DEVELOPMENT

DEVELOPER: _____ DATES RESERVED: _____

OFFICE/MAILING ADDRESS: _____

CONTACT PERSON: _____ TELEPHONE: _____

LOCATION OF SERVICE: _____

DEPOSIT: _____ RECEIPT: _____

METER #: _____ START READ: _____ END READ: _____

ACTUAL DATE EQUIPMENT ISSUED: _____ ACTUAL DATE EQUIPMENT RETURNED: _____

DAMAGE? (Yes/No): _____ NATURE OF DAMAGE: _____

AGREEMENT

Developer agrees to pay the District the following:

- 1) A \$5,000.00 damage/security deposit for the Chlorine Injection Box, and
- 2) A daily fixed charge of \$100.00 for the total number of days the equipment is reserved, and
- 3) The amounts indicated above are payable in full prior to equipment issuance.

In addition to the damage/security deposit and the daily fixed charge for use of the equipment, a charge shall be assessed for the volume of water used in accordance with the District's current water rate as set forth in Rate Table I. The consumption charge will be applied to the Developer's System Extension Agreement (SEA) account.

Upon return of the equipment and in the absence of any damage based upon an inspection conducted by and to the satisfaction of the District, the District will process a deposit refund to the Developer (allow for a processing time of approximately 3 weeks).

Developer understands and agrees that charges relating to the use of this equipment and water is subject to the same collection and lien procedures as other District rates and charges as provided in RCW 57.08.081.

Developer understands and agrees that the District is not responsible for water quality after it leaves the District hydrant. Developer agrees to indemnify, defend and hold harmless the District for any injuries, damages or water quality problems that may occur after water leaves the hydrant.

Developer further agrees to protect the equipment and the service where the equipment connects against damage and to assume full financial responsibility for the repairs made necessary by such damage.

In the event of failure to pay the billings and charges due under this Agreement, Developer agrees to pay all costs of collection, including reasonable attorneys' fees and costs. If signing as a corporate official, the undersigned agrees to be personally liable for the billings and charges.

In the event suit or other action is commenced to enforce any provision of this Agreement, Developer agrees that jurisdiction and venue for any such action shall be in King County Superior Court or King County District Court, Renton Division.

The person signing this Agreement on behalf of Developer represents and warrants that he/she has full and complete authority to enter into this Agreement and that he/she has been fully authorized to execute this Agreement on behalf of Developer.

DEVELOPER

COVINGTON WATER DISTRICT

DATE _____

DATE _____

No. 288 09/10

Covington Water District
CONFINED SPACE ENTRY PERMIT
 Front Page

ADMINISTRATIVE		
Work Order #:		
Site #	Space Description:	Location of Space:
Purpose of Entry:		
Duration of Authorized Entry:		
Potential/Probable Hazard Exposure:		
☐ Falls ☐ Toxic Atmosphere ☐ Low Oxygen ☐ Engulfment ☐ Electrical Shock ☐ Traffic		
PERSONNEL		Currently trained in Confined Entry Procedure and use of appropriate equipment?
Entry Supervisor:		No
Attendant(s):		YES NO
		No
Authorized Entrant(s):		YES NO
		No
		No
		No
REQUIRED HAZARD CONTROL MEASURES		
☐ Secure Area (Post & Flag)	☐ Communications Equipment	
☐ Standby Safety Personnel	☐ Fire Extinguishers	
☐ Line(s) Broken-Capped-Blanked	☐ Full Body Harness w/"D" Ring	
☐ Lock Out/De-energize/Tag Out	☐ Gas Detector (Sniffer)	
☐ Purge-Flush & Vent	☐ Tripod / Winch	
☐ Mechanical Fresh Air Ventilator	☐ Davit / Winch	
☐ Protective Clothing	☐ Burning & Welding Permit	
☐ Lighting	☐ Personal Protective Equipment	
☐ Respirator (Air Purifying)	☐ Traffic Control Plan # _____	
☐ Other – Describe		
COMMUNICATIONS PLAN		
Emergency Exit Signal:		
EMERGENCY / RESCUE PLAN		
ENTRY RESCUE by King County Zone 3 Technical Rescue team only. Call 9-1-1 . Non-entry rescue approved where practical. Do not enter the confined space. Call 9-1-1 to start their response for follow-up medical assistance and assessment. Remove entrant(s) with retrieval system only if there is no danger to the entrant or the attendant. Provide First Aid or CPR as required until emergency responders arrive.		

ATMOSHPERIC MONITORING											
Gas Detector ID#:					Calibration Date:						
Substance	Permissible Entry Level (WAC 296-841-20025, Table 3)	Monitoring Results									
		Pre Entry	15 min	30 min	45 min	1 hr	1 hr 15 min	1 hr 30 min	1 hr 45 min	2 hr	
Oxygen	19.5% to 23.5%										
Hydrogen Sulfide	TWA ⁽⁸⁾ – 10 ppm STEL – 15 ppm (15 min.)										
Carbon Monoxide	TWA ⁽⁸⁾ – 35ppm STEL – 200 ppm (5 min.)										
Explosive Gases	Less than 10%										
SPECIAL CONDITIONS											
Sample											
APPROVAL											
All conditions for safe entry and operations have been satisfied. Entry Approved.		Entry Supervisor Signature:					Date / Time:				
		Attendant Signature:					Date / Time:				
Date and Time Issued:											
PERMIT LOG											
Entrant				Time IN	Time OUT	Time IN	Time OUT	Time IN	Time OUT	Time IN	Time OUT
CONFINED ENTRY COMPLETION											
Operations complete – Personnel clear of space – Area secure				Attendant Signature:					Date/Time:		
				Entry Supervisor Signature:					Date/Time:		

AFTER RECORDING, PLEASE RETURN TO:

District Engineer
Covington Water District
18631 S.E. 300th Place
Covington, WA 98042

Document Title: Easement for Water Pipeline

Grantor(s): _____

Grantee: COVINGTON WATER DISTRICT

Abbreviated Legal Description: _____

(Complete legal description on Exhibit A)

Assessor's Property Tax
Parcel/Account Number(s): _____

Reference Number(s) of
Documents Assigned
or Released: N/A

EASEMENT FOR WATER PIPELINE

The undersigned, _____ ("Grantor"), for and in consideration of good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, hereby grants and conveys to Covington Water District, a Washington municipal corporation in King County, Washington ("Grantee"), and its successors and assigns, a permanent easement for a water pipeline and appurtenances thereto ("Easement") as follows:

1. Nature and Location of Easement. Grantor owns that certain real property legally described in **Exhibit "A"**, attached hereto and incorporated herein by this reference ("Real Property"). The Easement granted by Grantor herein shall be a permanent easement for the benefit of Grantee over, upon, across, through and under a portion of the Real Property, such Easement being legally described on **Exhibit "B"** and depicted on **Exhibit "C"**, attached hereto and incorporated herein by this reference, for the purposes of installing, laying, constructing, maintaining, inspecting, repairing, removing, replacing, renewing, using and operating water lines, together with all facilities, connectors and appurtenances ("Water Lines"), including the right of ingress and egress with all necessary vehicles and equipment for said purposes.

2. Right of Entry. Grantee shall have the right, without notice and without prior institution of any suit or proceeding at law or equity, at all times as may be necessary to enter upon the Real Property to install, lay, construct, maintain, inspect, repair, remove, replace, renew, use and operate the Water Lines for the purposes of serving the Real Property and other properties with utility service. Grantee agrees to restore the Real Property as nearly as reasonably possible to its condition prior to any material disturbance from construction, operation, maintenance, repair, or replacement of the Water Lines.
3. Encroachment/Construction Activity. Grantor shall not undertake, authorize, permit or consent to any construction or excavation including, without limitation, digging, tunneling, or other forms of construction activity on or near the Easement which might in any fashion unearth, undermine, or damage the Water Lines or endanger the lateral or other support of the Water Lines without Grantee's prior written approval. Grantor further agrees that no structure or obstruction including, without limitation, fences and rockeries shall be erected over, upon or within the Easement, and no trees, bushes or other shrubbery shall be planted or maintained within the Easement, provided Grantor shall have full use of the surface of the Real Property within the Easement, so long as such use does not interfere with the Easement or the Water Lines.
4. Future Change of Grade. If, in the future, the surface grade of the Real Property is changed by the Grantor, the then owner of the property agrees to pay the District the cost of relocating the Water Lines so that the amount of earth covering the same (the depth thereof) meets the District's then minimum standards and specifications.
5. Binding Effect/ Warranty of Title. The Easement and the covenants, terms, and conditions contained herein are intended to and shall run with the Real Property and shall be binding upon Grantor and Grantee, and their respective successors, heirs and assigns. Grantor warrants that Grantor has good title to the Real Property and warrants the Grantee title to and quiet enjoyment of the Easement.
6. Indemnity. By accepting and recording this Easement, Grantee agrees to indemnify and hold harmless Grantor from any and all claims for injuries or damages suffered by any person or property which may be caused by the Grantee's exercise of the rights granted herein; provided, that Grantee shall not be responsible to Grantor for any injuries or damages suffered by any person or property caused by acts or omissions of Grantor or its agents.
7. Attorneys' Fees. If either party brings any suit or other proceeding arising out of or in connection with this Easement, the prevailing party (as determined by the court or other authority before which such suit or proceeding is commenced) shall, in addition to such other relief as may be awarded, be entitled to recover reasonable attorneys' fees and costs.

8. Recording. Upon its execution, the Easement shall be recorded with the Department of Records and Elections, King County, Washington.

Dated this _____ day of _____, 20XX.

GRANTOR:

GRANTEE:

COVINGTON WATER DISTRICT

By: _____

Its: _____

STATE OF WASHINGTON)

) ss

COUNTY OF KING)

INDIVIDUAL

I certify that I know or have satisfactory evidence that _____
is the person who appeared before me, and said person acknowledged that he/she signed this
instrument and acknowledged it to be his/her free and voluntary act for the uses and purposes
mentioned in the instrument.

DATED: _____

NAME: _____

(Print Name)

Notary Public in and for the State of Washington

Commission Expires: _____

If the legal owner of the Real Property is not an individual, please complete the following
signature verification information:

Signature Verification – Representative Capacity

I hereby certify that I am the authorized signatory for the legal owner of the Real Property.
Attached herewith is verification of my authority to sign on behalf of the:

() Corporation
() Limited Liability Company
() Joint Venture
() Partnership
() Other – Specify: _____

Signature

Signature

STATE OF WASHINGTON)
) ss
COUNTY OF KING)

REPRESENTATIVE

I certify that I know or have satisfactory evidence that _____
is the person(s) who appeared before me, and said person acknowledged that he/she/they
signed this instrument, and acknowledged it as the _____ of _____
_____ to be the free and voluntary act of such entity for the uses and purposes mentioned in
the instrument.

DATED: _____

NAME: _____
(Print Name)

Notary Public in and for the State of Washington

Commission Expires:

STATE OF WASHINGTON)
) ss
COUNTY OF KING)

I certify that I know or have satisfactory evidence that _____
is the person who appeared before me, and said person acknowledged that he/she/they signed
this instrument, on oath stated that he/she/they was authorized to execute the instrument, and
acknowledged it as the _____ of Covington Water District to be
the free and voluntary act of such entity for the uses and purposes mentioned in the instrument.

DATED: _____

NAME: _____

(Print Name)

Notary Public in and for the State of Washington

Commission Expires: _____

EXHIBIT A

LEGAL DESCRIPTION
OF REAL PROPERTY

Sample

EXHIBIT B

LEGAL DESCRIPTION
OF EASEMENT AREA

Sample

EXHIBIT C

DEPICTION OF EASEMENT AREA

Sample



18631 SE 300th Place
Covington, WA 98042
Phone: (253) 631-0565

For Office Use Only

Account Number: _____

METER #: _____ HYDRANT #: _____

DATE RENTED: _____ DATE RETURNED: _____

START READ: _____ END READ: _____

DEPOSIT: _____ RECEIPT: _____

HYDRANT METER RENTAL APPLICATION / AGREEMENT

Customer Information

COMPANY NAME: _____ CONTACT PERSON: _____

OFFICE/MAILING ADDRESS: _____

TELEPHONE: _____ EMAIL: _____

PROJECT NAME & LOCATION OF SERVICE: _____

PURPOSE: _____

I, the Renter, agree to pay the District the following:

- 1) \$150.00 deposit for fill ups at CWD per day or \$2,500.00 deposit for the use of a backflow cart. Upon return of the meter, the District will apply the deposit towards payment of the water bill.
- 2) The daily fixed charge of \$57.80 or the weekly fixed charge of \$106.00, plus the usage of water at current cubic foot rates. Charges are payable upon receipt of the bill and will be considered delinquent nine (9) days after the due date.

I understand that the use of this meter and water is subject to the same collection and lien procedures under the law that regulates the water districts as provided in RCW 57.08.080.

I understand that the District is not responsible for water quality after it leaves the District hydrant and I agree to hold the District harmless for any water quality problems that may occur after the hydrant.

I further agree to protect the meter and the service where meter connects against damage and assume financial responsibility for the repairs made by such damage.

In the event of failure to pay the billings in the time specified above, the below signed agrees to pay all costs of collection, including reasonable attorney fees and costs. If signing as a corporate official, the below signed agrees to be personally liable for the billing.

In the event legal or other action is commenced to enforce any provision of this agreement, I agree that jurisdiction and venue may be had and laid in King County Superior Court or King County District Court, Kent Division.

Failure to use the District's hydrant meter cart for temporary connection to the water system is considered water theft and subject to a fine established by District Administrative Code 4.24.060.

WATER IS NOT TO BE TAKEN OUT OF THE DISTRICT SERVICE BOUNDARIES

RENTER

COVINGTON WATER DISTRICT



To: _____
Company: _____
Street Address: _____
City/State/Zip: _____

NOTICE OF AWARD
(Project Name)

Covington Water District has considered the BID submitted by you for the above-described WORK in response to its Call for Bids dated _____.

You are hereby notified that your BID has been accepted for items in the amount of _____ (\$), **not including** Washington State Sales Tax.

Under separate enclosure, _____ will provide **five (5)** contracts for signature on the above-referenced project. Since _____ was the low bidder for this project, we are asking that you execute the contracts per the Contract Specifications.

Once the documents are executed on behalf of _____, return this letter and the documents to the District with the Bond as specified in the instructions to Bidders.

If you fail to execute said Agreement and to furnish said Bond within TEN (10) days from the date of this Notice, the District will be entitled to consider all your rights arising out of the District's acceptance of your BID as abandoned. The District will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the District.

Dated this ____ day of _____.

OWNER: Covington Water District, Covington, Washington

BY: _____

TITLE: Steve Lee, PE, Engineering Manager

ACCEPTANCE OF NOTICE

RECEIPT OF THE ABOVE NOTICE OF AWARD IS HEREBY ACKNOWLEDGED

By: _____ (Contractor) this the ____ day of _____, 20__.

By: _____

Title: _____

NOTICE TO PROCEED

TO: Contractor Name
Address

DATE: _____
PROJECT: _____

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 20__ on or before _____, and you are to complete the WORK within ____ consecutive working days thereafter.

The date of completion of all work is therefore _____.

OWNER: Covington Water District

BY: _____
TITLE: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by

CONTRACTOR: _____
DATE: _____
BY: _____
TITLE: _____
EMPLOYER IDENTIFICATION NUMBER: _____



18631 S.E. 300th Place
Covington, Washington 98042

OVERTIME AUTHORIZATION FORM

DISTRICT PERSONNEL APPROVAL FOR OVERTIME WORK ON PROJECTS

Developer/Contractor Instructions:

If the Developer needs the District to authorize overtime as reasonably necessary, the completed form must be signed and returned to the District before the work needs to occur. This authorization will be kept on file for the duration of project unless revoked by Developer / Contractor in writing. All charges for overtime inspection will be applied to the Developers Accounts Receivable Account.

Please note: All overtime hours must be **pre approved** by the employee's District Manager **prior to** any overtime hours being worked (except in cases of emergency), based on the employment policies of the Covington Water District Employee Handbook.

Project Name: _____
CWD Project No.: _____
Developer: _____
Contractor: _____
Description of Work: _____

- ☐ This is a one-time request.
Date of Work: _____ Work Hours: _____
- ☐ This authorization is valid throughout this project.

The Project Owner or authorized representative of the referenced project hereby acknowledges this request for District staff work beyond regular work hours and understands charges will be applied by the District based on rates outlined in the District's Rate Table II which are subject to change annually. 2015 overtime rates for Engineering staff time range between \$95-\$115 per hour, depending on whether the inspection is performed by an Engineering Technician or an Engineer. For exact hourly rates please inquire.

Signature: _____ Date: _____
Print Name: _____ Phone: _____

STOP WORK NOTICE

COVINGTON WATER DISTRICT

Project Name: {DEVELOPMENT}

Date:

CWD I.D.: {SID #}

Defective Work

Deficient Skilled Labor

Material Defects

Faulty Performance Method

Work Will Not Meet Specifications

District Inspector has identified one or more of the above conditions exists and hereby orders the Contractor to stop work on the following improvements until the cause for the order has been eliminated:

Condition Warranting Stop Work Order:

REQUIRED CORRECTIVE ACTION(S):

If any work is covered, contrary to the direction of the Engineer or Inspector, it must, if required by the Inspector or Engineer, be uncovered for observation and/or replaced at the Contractor's Expense.

Promptly after STOP WORK NOTICE is Issued, 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 or Material that is not defective. Contractor shall pay all claims, costs, losses, and damages.

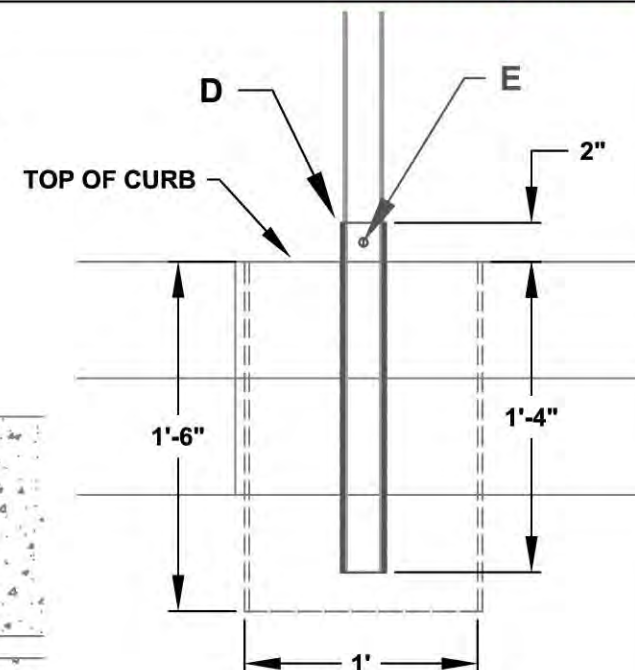
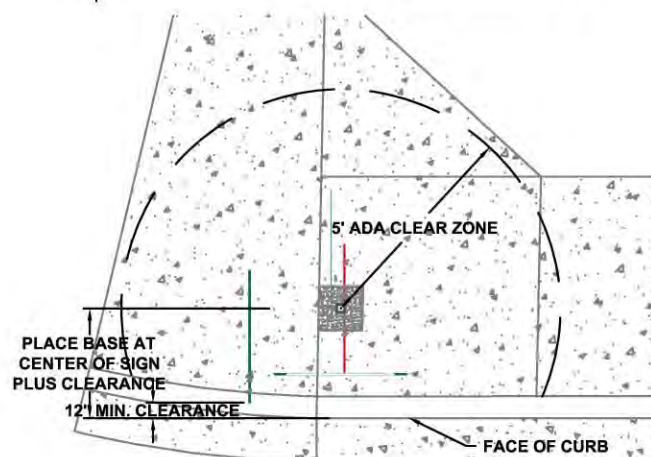
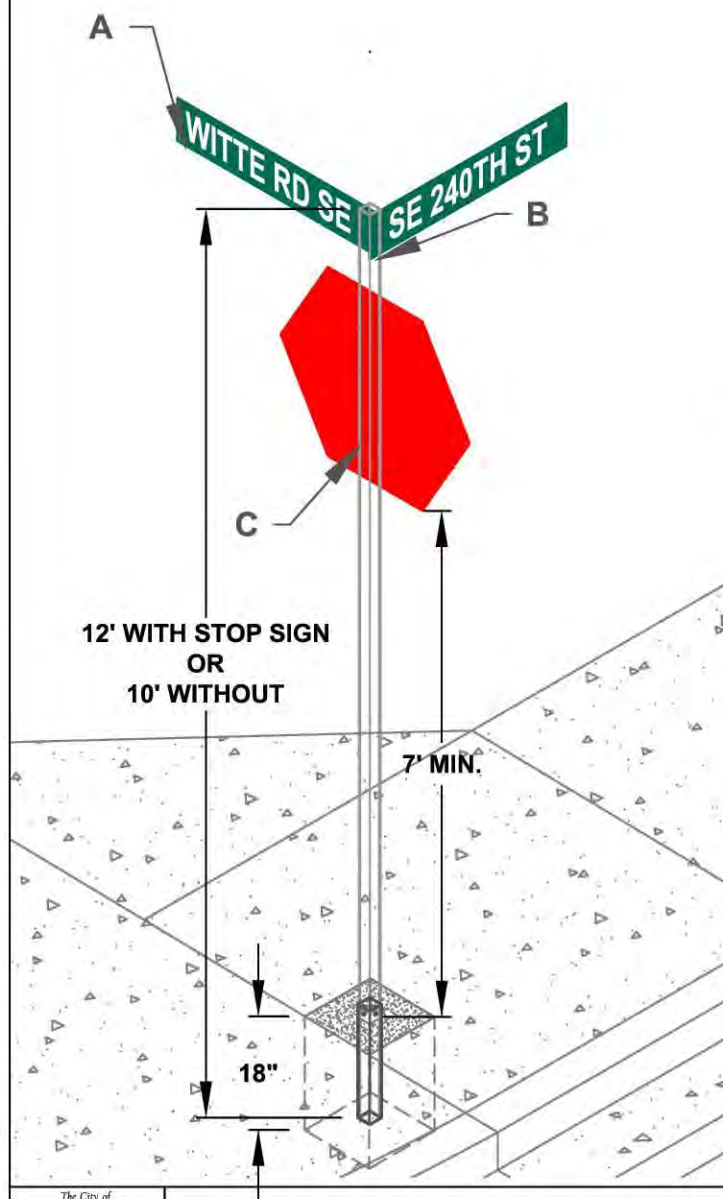
Covington Water District

Inspector

Date

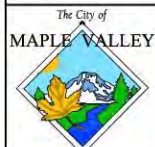
APPENDIX J

STANDARD PLANS (REFER TO LATEST EDITIONS)

ASSEMBLY**TYPICAL POST PLACEMENT**

- Standard Sign Blade** shall be flat 0.090" thick, Green #342, Extrusion Anodized Aluminum, 6-3/4" tall by 24", 30", 36" or 42" long with 3M High Intensity Prismatic Reflective Sheeting on both faces or equivalent. Letter shall 4-1/2" tall, White, Rounded Style, made of 3M High Intensity Prismatic Reflective Sheeting or equivalent. **Highway Sign Blade** shall be 9" Tall with 6" letters.
- Post** shall be galvanized, 14 guage steel, 2"x2"x12ft with 7/16" holes on 1" centers from top to bottom on all four sides.
- Post Base** shall be galvanized, 12 guage steel, 2-1/4" x 2-1/4" x 18" with one(1) row of 7/16" holes from the top. Base shall be place in the center of a 12" x 12" x 18" hole filled with cement concrete. Base shall be exposed by 3" from finished grade with holes showing.
- Post** shall be riveted to base, one in each side.
- Signs** directly attached to post shall be riveted.

DETAILED SUBMITALS ARE REQUIRED FOR ALL PARTS OF A SIGN INSTALLATION



STREET NAME SIGN DETAILS NEW INSTALLATIONS

The CITY OF MAPLE VALLEY

STANDARD PLAN NO. MV- 5-015

STANDARD SYMBOLS

FITTINGS W/ END CONNECTION

USE ON PLANS
EXIST. PROP.

USE ON PLANS
EXIST. PROP.

		CAP/PLUG	
		COUPLING	(CPL)
		REDUCER	(RED)
		THRUST BLOCK	(TB)
		WATER METER	(WM)

FIRE HYDRANTS:

		3-NOZZLE	(FH)
--	--	----------	------

JOINTS:

		FLANGE/BLIND FL	(FL)
		MECHANICAL	(MJ)
		PUSH-ON/HUB	
		THREAD	(THD)

VALVES:

		AIR/VAC	(AIR)
		BLOW-OFF	(BO)
		BUTTERFLY	(BF)
		CHECK	(CK)
		GATE/GENERAL	(WV)
		PLUG VALVE	(PV)
		PRESSURE REDUCING VALVE	(PRV)

	50 LF 8" D.I.	WATER MAIN
		WATER SERVICE
	W	EX WATER MAIN
		EX WATER SERVICE
		EASEMENT

		ADAPTER, FL.xM.J.
		90 DEGREE BEND, FL.
		45 DEGREE BEND, FL.
		22.5 DEGREE BEND, FL.
		11.25 DEGREE BEND, FL.

		90 DEGREE BEND, M.J.
		45 DEGREE BEND, M.J.
		22.5 DEGREE BEND, M.J.
		11.25 DEGREE BEND, M.J.

		VERTICAL BEND, FL.
		VERTICAL BEND, M.J.

		REDUCERS:
		REDUCER, FL.
		REDUCER, M.J.
		REDUCER, M.J.xFL.
		REDUCER, M.J.xP.E.

		TEES:
		TAPPING TEE & VALVE, FL.xM.J.
		TEE, FL.
		TEE, M.J.
		TEE, M.J.xFL.

		VALVES:
		BUTTERFLY VALVE, FL.xM.J.
		BUTTERFLY VALVE, M.J.
		GATE VALVE, FL.xM.J.
		GATE VALVE, M.J.

LAST REVISED AS/FT 12/23

APPROVED BY

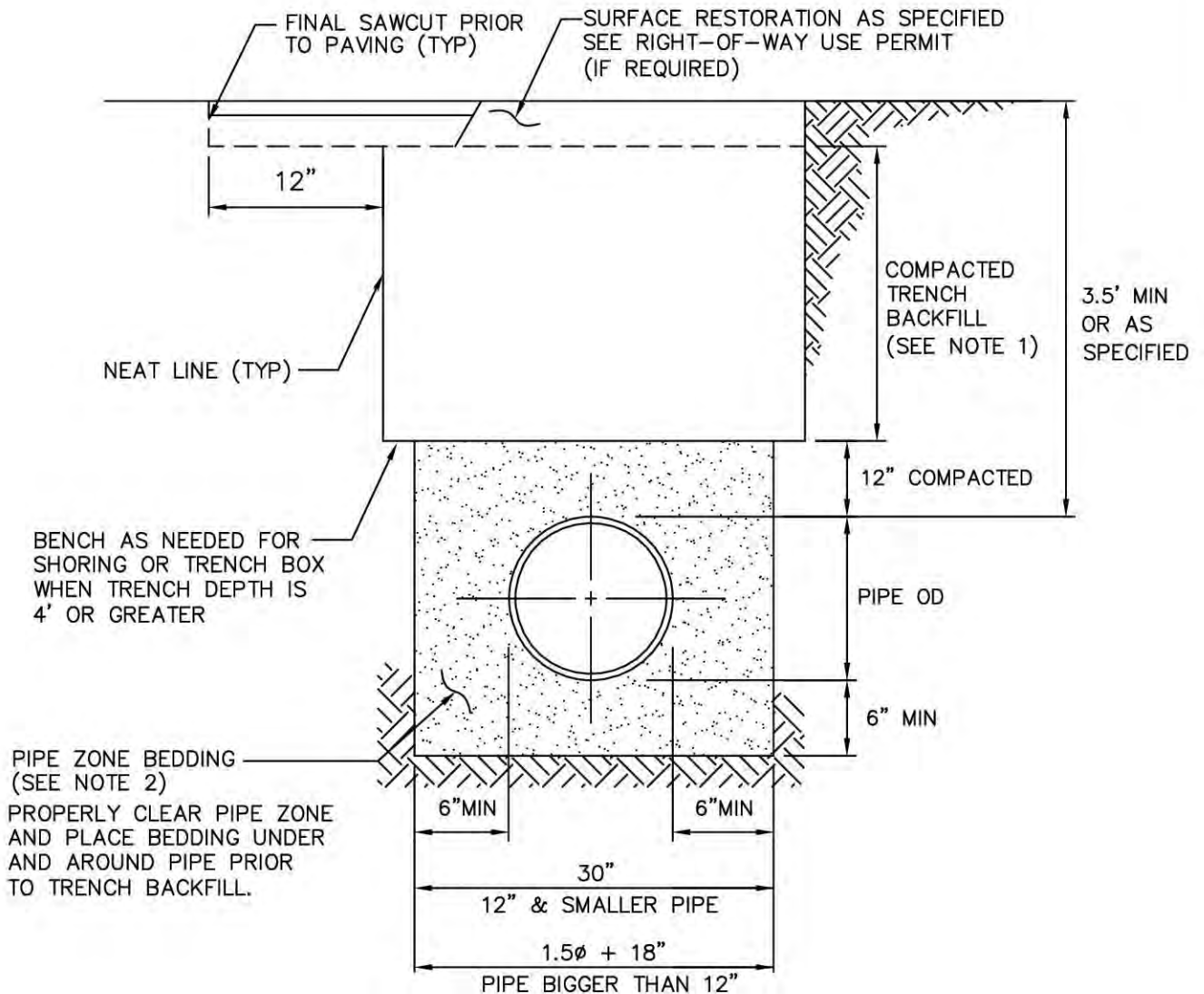
01/24

STEVE LEE-DISTRICT ENGINEER



WATER SYMBOLS

1



NOTES:

1. TRENCH BACKFILL SHALL BE

- PAVED AREA: GRANULAR BACKFILL AS APPROVED BY LOCAL AGENCY, OR PER WSDOT* 9-03.12(3), CDF WHEN SPECIFIED, OR APPROVED NATIVE MATERIAL FREE OF ORGANIC MATERIAL COMPACTED TO 95% OF MAXIMUM DENSITY. APPROVED NATIVE MATERIAL WILL GENERALLY MEET WSDOT 9-03.19
- UNIMPROVED AREA: SELECT GRANULAR MATERIAL WITH MAXIMUM DIMENSION OF 2-1/2" PER WSDOT 9-03.19, COMPACTED TO 90% OF MAXIMUM DENSITY.

2. GRAVEL BACKFILL FOR PIPE ZONE BEDDING SHALL BE SELECT GRANULAR MATERIAL PER WSDOT 9-03.12(3), WITH MAXIMUM DIMENSION OF 1-1/4" COMPACTED TO 95% OF MAXIMUM DENSITY BY APPROVED HAND-HELD TOOLS.

3. EXCAVATE FOR THE PIPE BELL TO ENSURE UNIFORM SUPPORT FOR THE PIPE BARREL.

4. TRENCH AND PAVEMENT RESTORATION SHALL BE DONE PER RIGHT-OF-WAY USE PERMIT.

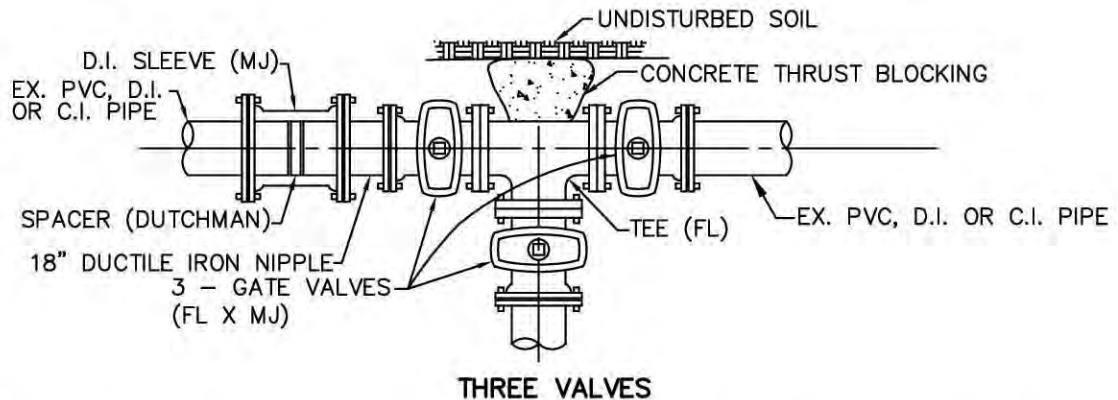
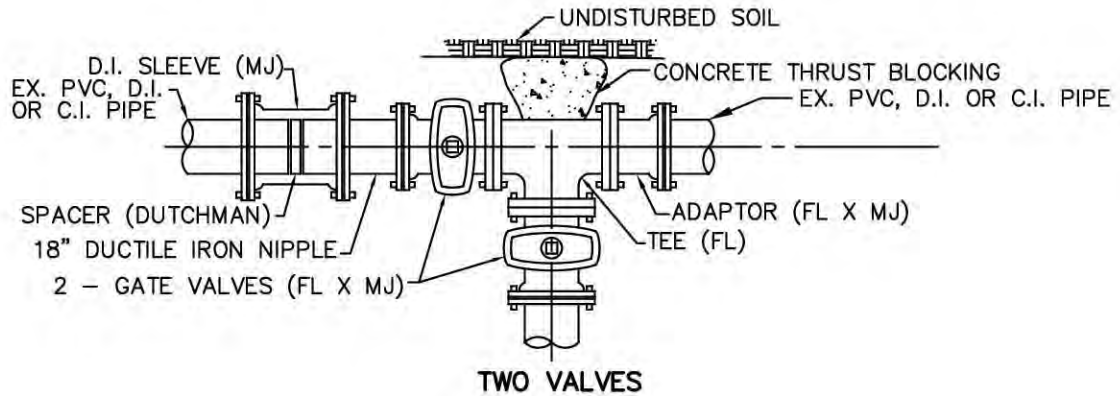
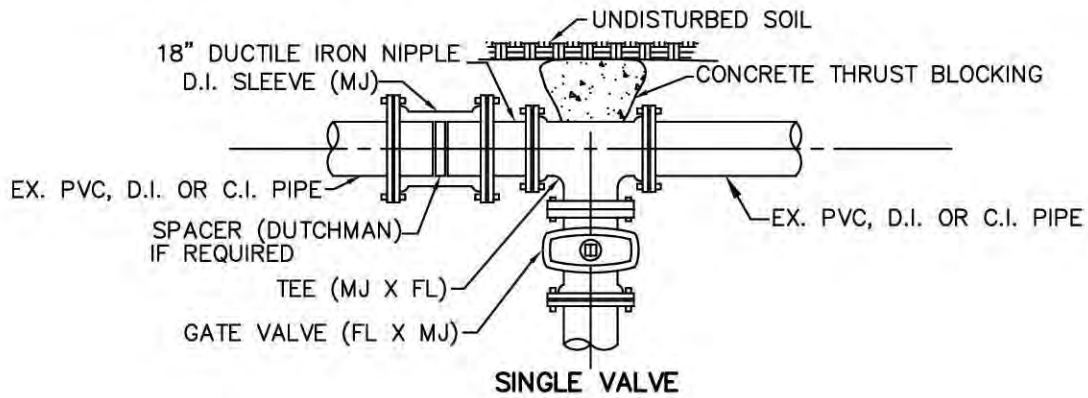
*WSDOT: CURRENT REVISION OF STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



TYPICAL TRENCH DETAIL

2



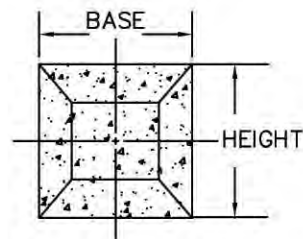
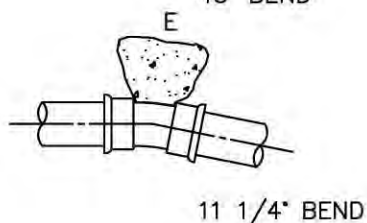
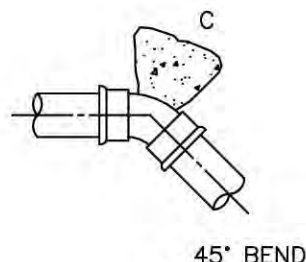
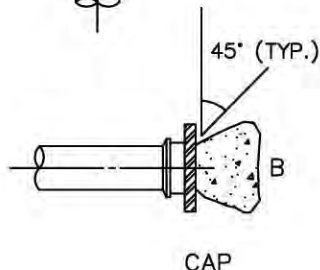
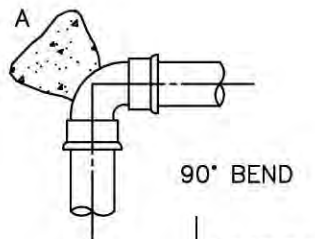
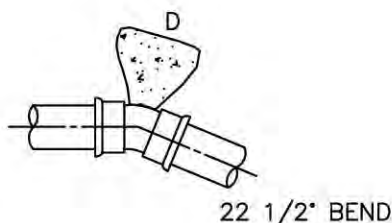
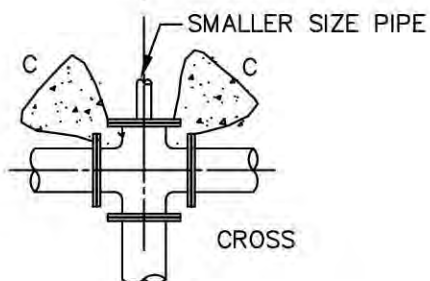
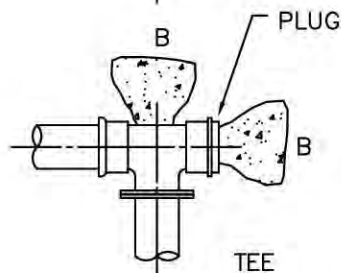
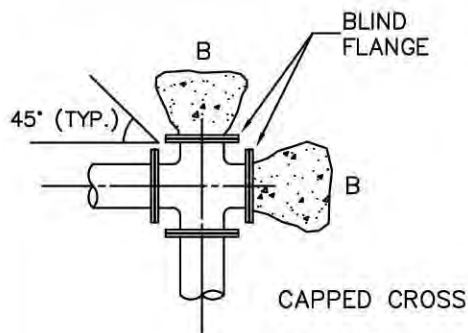
NOTES:

1. PROVIDE CONCRETE SUPPORT BLOCK UNDER EX. C.I. PIPES AND NEW FITTINGS BEFORE "CUT-IN" TO EX. WATER MAIN. INSTALL CEDAR WEDGES BETWEEN THE SUPPORT BLOCK AND THE FITTING TO ADJUST ALIGNMENT. BLOCK VALVES AND COUPLING ONLY. POUR THRUST BLOCK BEHIND TEE.
2. CONCRETE SUPPORT BLOCK SHALL BE INSTALLED USING A PLYWOOD FORM ON UNDISTURBED TRENCH BOTTOM OR COMPACTED FOUNDATION MATERIAL. VOIDS UNDER PIPES, VALVES, & FITTINGS SHALL BE FILLED WITH CDF. PROVIDE PLASTIC FILM WRAP AROUND PIPES, FITTINGS, AND COUPLINGS TO PREVENT EXPOSURE TO CONCRETE AND BACKFILLING. AVOID ENCASING PIPE OR FITTINGS WITH CONCRETE.
3. ALL CONNECTIONS TO EXISTING MAINS SHALL BE MADE WITH THE PRESENCE OF AN AUTHORIZED CWD REPRESENTATIVE AFTER REQUIRED TESTING.
4. A 3'x3'x4" CONCRETE OR ASPHALT COLLAR IS REQUIRED IF VALVE BOX IS SET IN GRAVEL OR UNPAVED SURFACE.
5. VALVE MARKER POST SHALL BE INSTALLED WHERE DIRECTED BY DISTRICT ENGINEER.
6. ALL FITTINGS SHALL BE SWABBED WITH A MINIMUM 12.5% HYPOCHLORITE SOLUTION CONCENTRATION.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



**CUT-IN FOR
CI, DI, OR PVC**



THRUST BLOC IS A FORMED PILLAR WITH DIMENSIONS AS SHOWN BELOW AND SIDE ANGLE NOT TO EXCEED 45°.

HORIZONTAL THRUST BLOCKING — TABLE
MIN. BEARING AREA AGAINST UNDISTURBED SOIL
(SQUARE FEET)

PIPE SIZE	DEAD END (CONDITION B)				90° BEND (CONDITION A)				45° BEND (CONDITION C)				22.5° BEND (CONDITION D)				11.25° BEND (CONDITION E)			
	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)	A (FT. ²)	B (FT.)	H (FT.)	D (FT.)
4"	3.00	2.00	1.50	1.50		2.50	1.50	1.50	2.19	1.75	1.25	1.50	1.25	1.25	1.00	1.50	0.50	1.00	0.50	1.50
6"	6.00	3.00	2.00	1.50	7.88	3.50	2.25	1.50	4.38	2.50	1.75	1.50	2.19	1.75	1.25	1.50	1.25	1.25	1.00	1.50
8"	9.38	3.75	2.50	1.50	13.50	4.50	3.00	2.00	7.88	3.50	2.25	1.50	3.75	2.50	1.50	1.50	2.19	1.75	1.25	1.50
10"	14.25	4.75	3.00	2.00	20.63	5.50	3.75	2.50	11.00	4.00	2.75	2.00	6.00	3.00	2.00	1.50	3.00	2.00	1.50	1.50
12"	20.63	5.50	3.75	2.50	29.25	6.50	4.50	2.75	15.44	4.75	3.25	2.00	7.88	3.50	2.25	1.50	3.75	2.50	1.50	1.50
16"	36.25	7.25	5.00	3.00	50.31	8.75	5.75	3.50	27.63	6.50	4.25	2.50	13.50	4.50	3.00	2.00	7.31	3.25	2.25	1.50

A=AREA B=BASE H=HEIGHT D=DEPTH

RESTRAINED JOINTS ARE REQUIRED WHERE BEARING SOILS OR FILL MATERIAL ARE DETERMINED BY THE ENGINEER / CWD TO BE UNSUITABLE TO PROVIDE ADEQUATE BEARING LOAD, OR SOIL HAS BEEN DISTURBED

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE—DISTRICT ENGINEER	

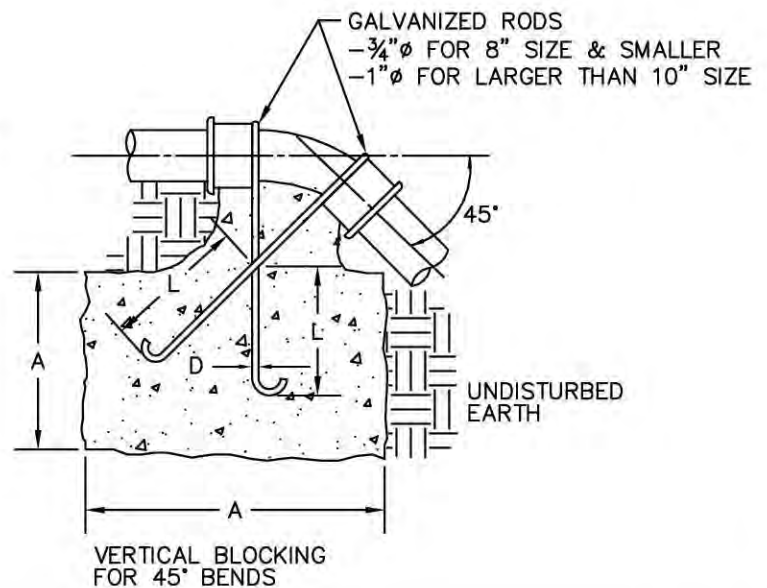
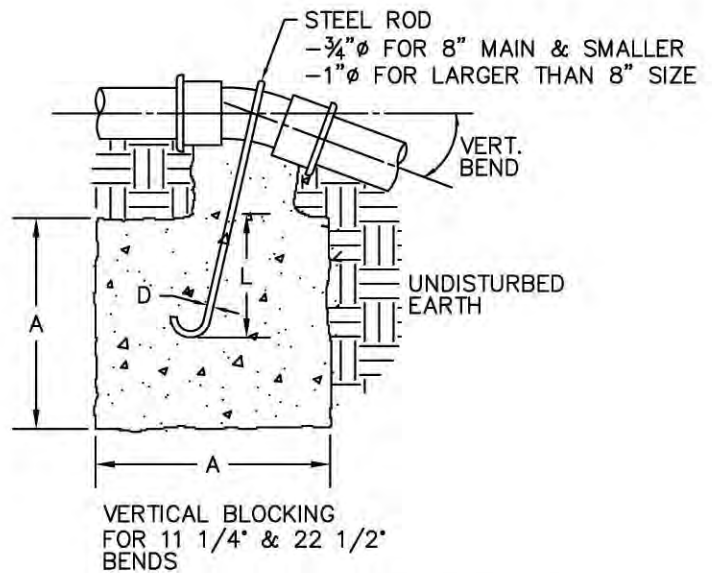


HORIZONTAL CONCRETE THRUST BLOCKING

NOTES:

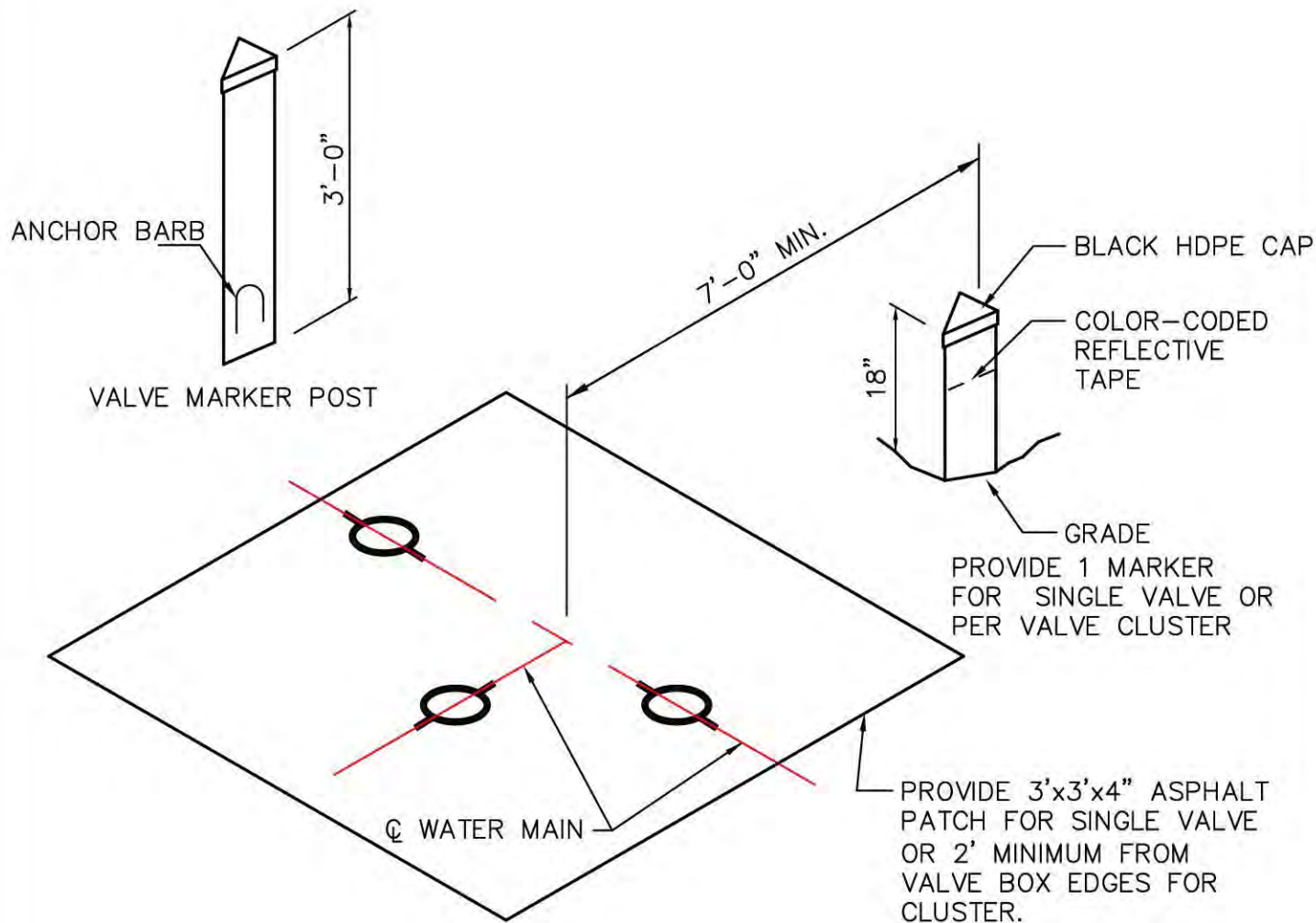
1. BEARING AREA OF CONC. THRUST BLOCKING BASED ON 200 PSI WATER PRESSURE, SOIL BEARING CAPACITY OF 2,000 LBS/FT² AND 1.5 FACTOR OF SAFTY. THE DESIGN ENGINEER IS TO VERIFY BLOCK SIZING IS ADEQUATE FOR SPECIFIC SITE CONDITIONS
2. AREAS MUST BE ADJUSTED FOR OTHER PIPE SIZES, PRESSURES AND SOIL CONDITIONS.
3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF 1/4 SQUARE FOOT BEARING AGAINST THE FITTING.
4. BLOCKING SHALL BEAR AGAINST FITTINGS ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT REMOVING OR DISMANTLING OF JOINT.
5. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATION PRESSURE UNDER ALL CONDITIONS OF SERVICE.
6. CONCRETE SHALL BE 2500 PSI MIN.
7. INSTALL PLASTIC TYPE SHEETING (MIN. 6 MIL.) AROUND THE FITTING ALL BOLTS, NUTS, AND GLANDS FOR FUTURE DISMANTLING.
8. THRUST BLOCKING FOR PIPE LARGER THAN 16" WILL REQUIRE ENGINEERED DESIGN FOR SPECIFIC CONDITIONS.
9. DIMENSION "A" IN THE VERTICAL THRUST BLOCK DETAIL IS THE DIMENSION FOR ALL SIDES OF BLOCK.

VERTICAL THRUST BLOCKING FOR 11 1/4', 22 1/2', 45° BENDS					
PIPE SIZE	V B	CU FT	A	D	L
4"	11 1/4'	8	2.00'	3/4"	1.5'
	22 1/2'	16	2.50'	3/4"	2.0'
	45'	27	3.00'	3/4"	2.0'
6"	11 1/4'	16	2.50'	3/4"	2.0'
	22 1/2'	27	3.00'	3/4"	2.5'
	45'	53	3.75'	3/4"	2.5'
8"	11 1/4'	27	3.00'	3/4"	2.5'
	22 1/2'	53	3.75'	3/4"	3.0'
	45'	91	4.50'	3/4"	3.5'
10"	11 1/4'	43	3.50'	1"	3.0'
	22 1/2'	77	4.25'	1"	3.5'
	45'	145	5.25'	1"	4.0'
12"	11 1/4'	53	3.75'	1"	3.0'
	22 1/2'	107	4.75'	1"	4.0'
	45'	190	5.75'	1"	4.5'
16"	11 1/4'	91	4.50'	1 1/8"	3.5'
	22 1/2'	190	5.75'	1 1/8"	4.5'
	45'	343	7.00'	1 1/8"	4.5'



90° VERTICAL BENDS ARE NOT ALLOWED WITHOUT DISTRICT APPROVAL OF ENGINEERED DESIGN SUBMITTAL

LAST REVISED AS/FT 12/23		VERTICAL THRUST BLOCKING TABLE	6
APPROVED BY			
01/24			
STEVE LEE-DISTRICT ENGINEER			



NOTES:

1. VALVE MARKER POST SHALL BE TRIVIEW MANUFACTURED BY RHINO MARKING AND PROTECTION SYSTEMS, ITEM #TVF36BB. MARKER SHALL INCLUDE TRIGRIP ANCHOR SYSTEM CONSISTING OF ANCHOR BARBS THAT FOLD OUT FROM POST. THE POST SHALL BE SUPPLIED WITHOUT ANY WARNING OR IDENTIFICATION STICKERS.
2. VALVE MARKER SHALL BE INSTALLED WHERE DIRECTED BY DISTRICT ENGINEER.
3. VALVE MARKER POST SHALL BE A MINIMUM 36" LONG AND SHALL BE INSTALLED AS DIRECTED BY DISTRICT ENGINEER. THE EXPOSED LENGTH SHALL ALWAYS BE 18", REGARDLESS OF OVERALL LENGTH.
4. THE POST SHALL BE SET TO POINT CORNER AT THE VALVE OR CENTER OF CLUSTER AND SHALL BE SITUATED IN A SAFE AND REASONABLY CONSPICUOUS LOCATION.
5. THE SOILS SUPPORTING POST SHALL BE TIGHTLY COMPACTED AROUND ANCHOR BARBS TO SECURE POST IN THE GROUND.
6. DISTRICT WILL PROVIDE STENCILING AND REFLECTIVE TAPE.

LAST REVISED	AS/FT 12/23
APPROVED BY	
	01/24
STEVE LEE-DISTRICT ENGINEER	



VALVE MARKER POST

10

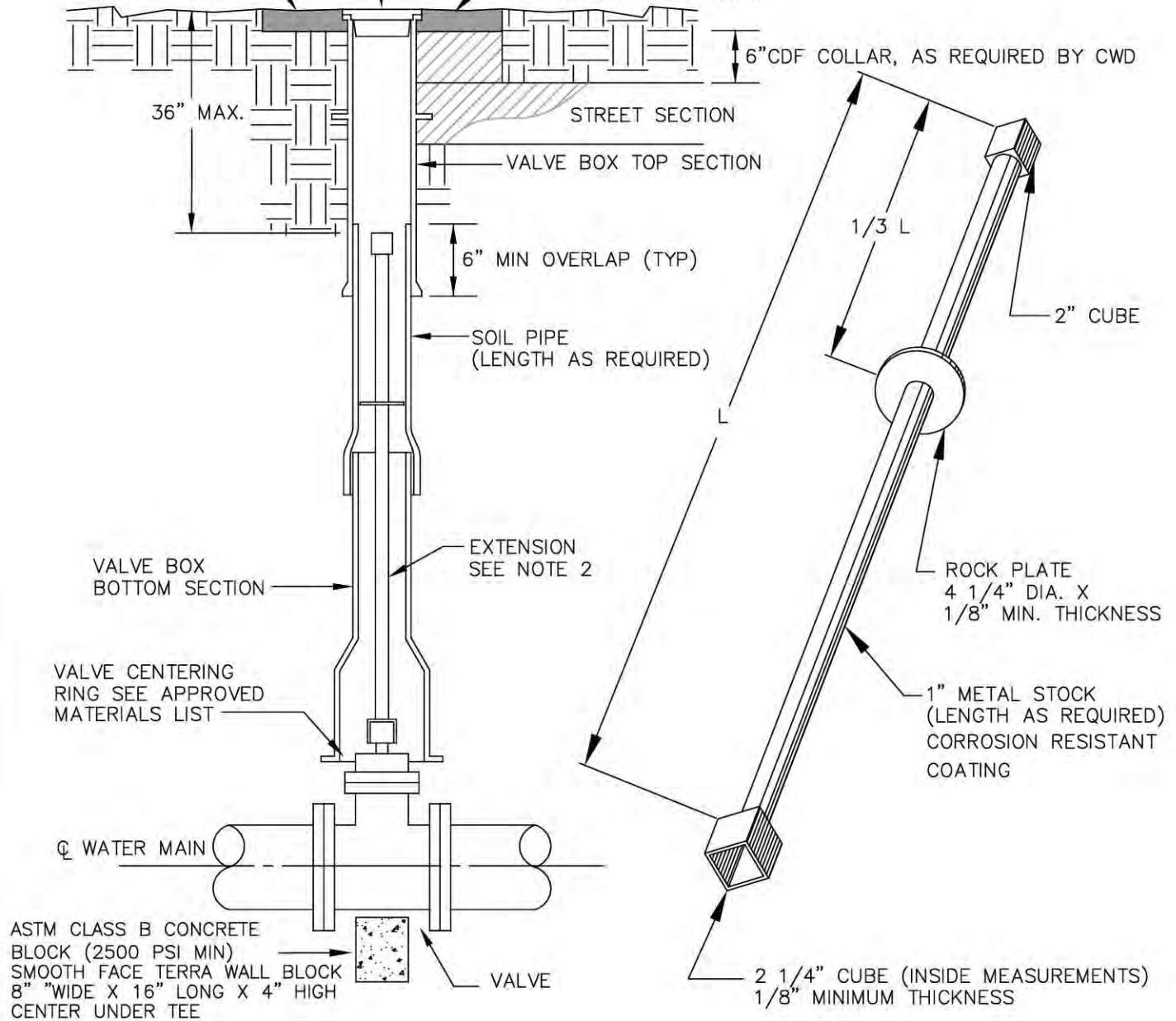
UNIMPROVED SURFACE

CONCRETE OR ASPHALT
COLLAR W/ WIRE MESH.
FORM & PLACE
(3' X 3' X 4")

VALVE BOX COVER
EAST JORDAN 8555

PAVED SURFACE

FINISHED GRADE
3' X 3' X 4" PATCH



NOTES:

1. EXTENSION IS REQUIRED WHEN THE VALVE NUT IS MORE THAN THREE (3) FEET BELOW FINISHED GRADE (MIN. = 1').
2. ONE EXTENSION, IF REQUIRED, IS TO BE USED PER VALVE.
3. ALL EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO (2) COATS OF ENAMEL PAINT.
4. VALVE BOX AND LID - H-20 LOADING; MARKED "WATER".
5. USE ASPHALT COLLAR WHEN VALVE BOX IS INSTALLED IN GRAVEL OR TRAVEL ZONE.

LAST REVISED AS/FT 12/23

APPROVED BY

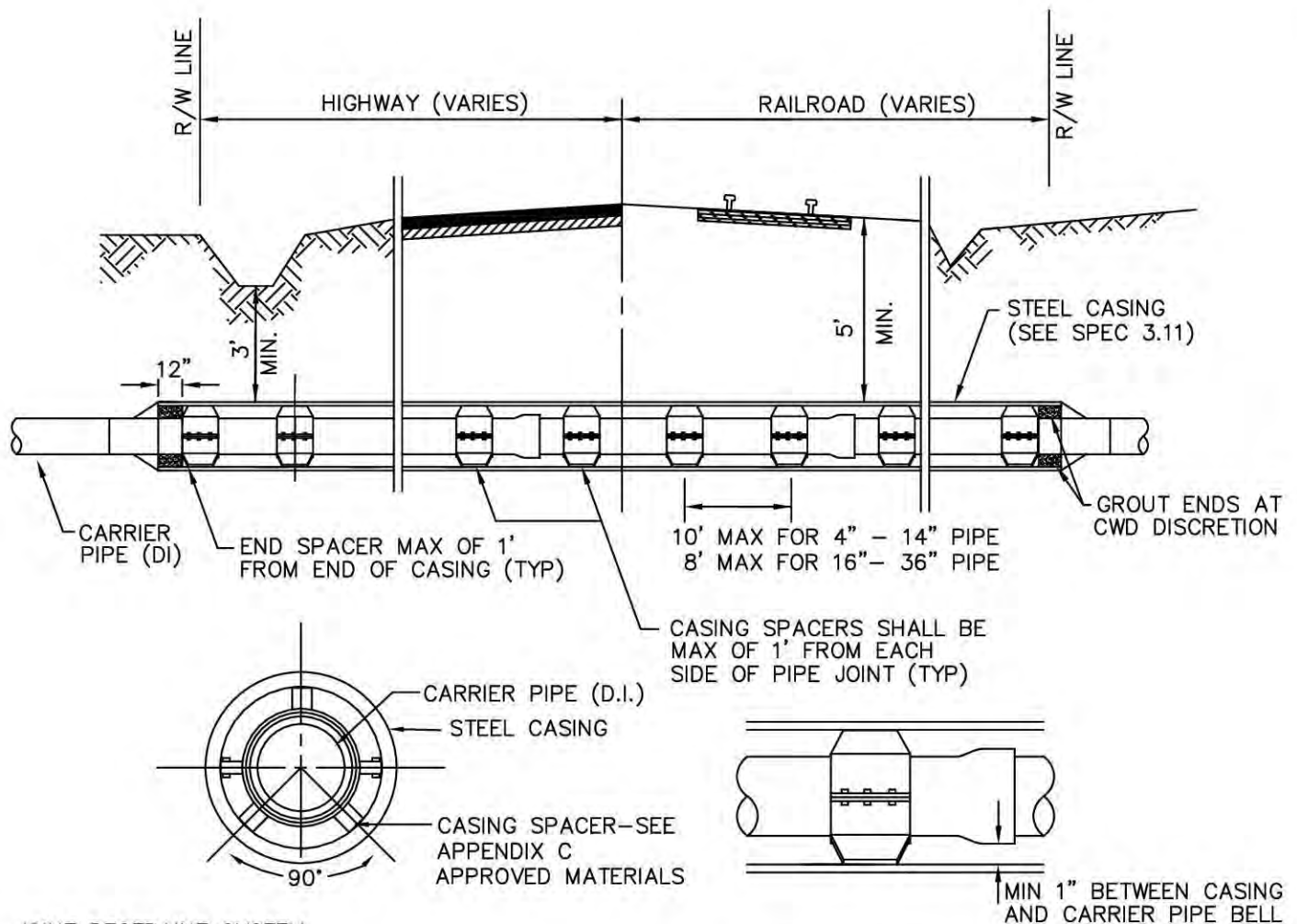
01/24

STEVE LEE-DISTRICT ENGINEER



VALVE BOX AND NUT
EXTENSION DETAIL

11



JOINT RESTRAINT SYSTEM
FOR CARRIER PIPE TO BE
APPROVED BY DISTRICT
ENGINEER

MINIMUM CASING SIZE AND THICKNESS					
PIPE SIZE	4"	6"	8"	10-14"	16-18"
STEEL CASING SIZE	14"	16"	18"	24"	30"
WALL THICKNESS	CONFIRM SIZE & THICKNESS ACCORDING TO DESIGN LOADING				

NOTES:

1. CASING SIZE AND MINIMUM THICKNESS OF CASING SHALL BE AS SHOWN ON THE CONTRACT DRAWINGS. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING THE THICKNESS CONSISTENT WITH INSTALLATION OPERATION.
2. RUBBER END SEALS WITH STAINLESS STEEL BANDS PREFERRED AT EACH END.
3. MINIMUM COVER OVER CASING SHALL BE 3' OR AS SPECIFIED.
4. CASING PIPE SPECIFIED FOR HIGHWAYS OR RAILROAD CROSSINGS SHALL BE COMPLETED IN ACCORDANCE WITH REGULATIONS OF APPLICABLE FEDERAL, STATE, LOCAL JURISDICTION AND RAILROAD COMPANY.
5. THIS IS A TYPICAL PIPE CASING DETAIL. ANY MODIFICATIONS SHALL BE APPROVED BY DISTRICT ENGINEER.
6. CONSULT WITH PIPE MANUFACTURER TO ASSURE PROPER SUPPORT OF PIPE.
7. MINIMUM SEPARATION BETWEEN TOP OF CASING AND BOTTOM OF ANY STRUCTURAL FOOTING SHALL BE 18 INCHES

LAST REVISED AS/FT 12/23

APPROVED BY

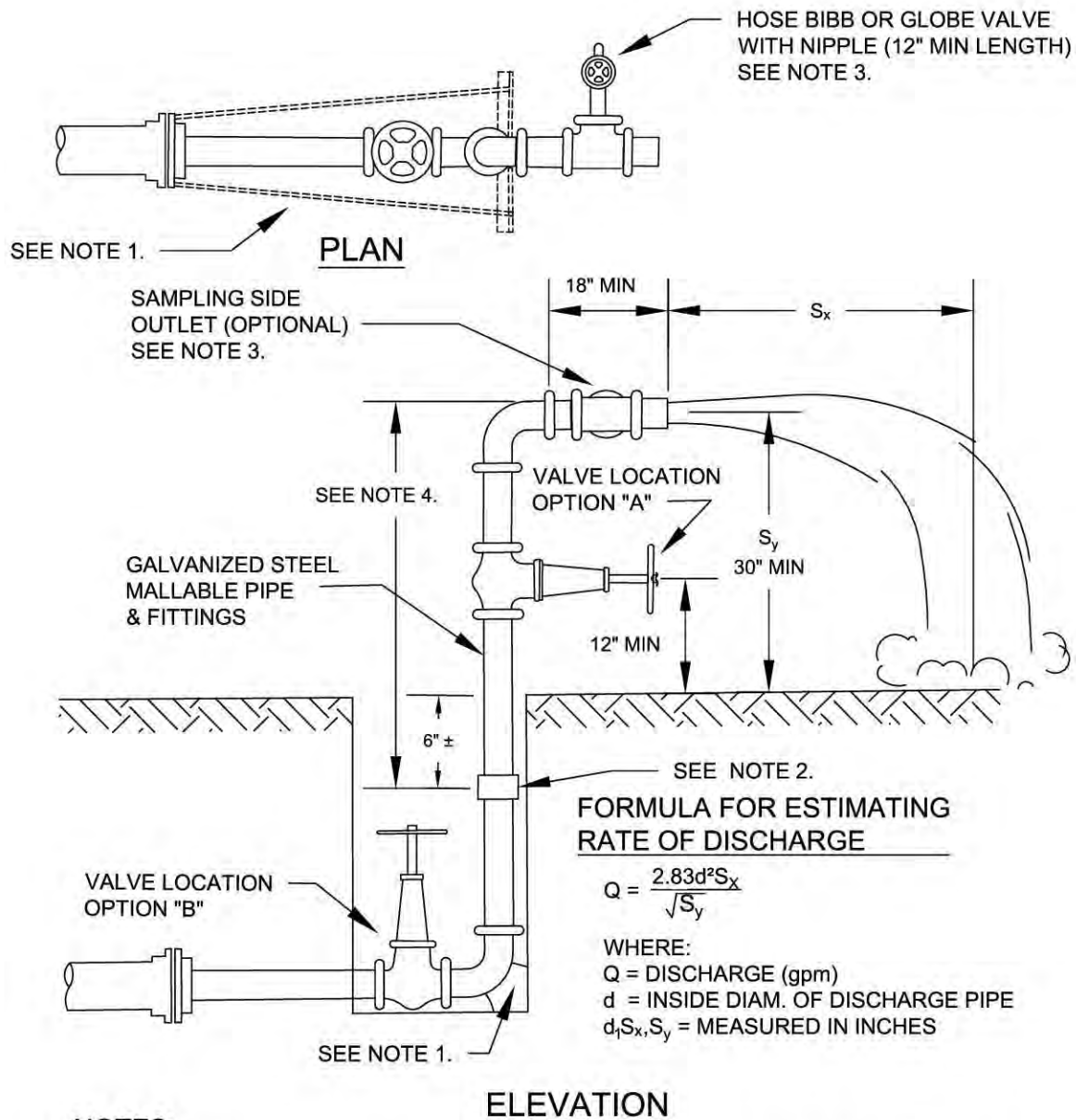
01/24

STEVE LEE-DISTRICT ENGINEER



PIPE CASING

30



NOTES:

1. PROVIDE TEMPORARY THRUST RESTRAINT SYSTEM (CONC. THRUST BLOCK, WOOD OR STEEL BLOCKING) SUFFICIENT TO WITHSTAND PRESSURE TEST
2. IF ASSEMBLY PLACED IN HAZARDOUS LOCATION, PROVIDE COUPLING AND PLUG FOR REMOVAL OF STANDPIPE OUTSIDE TIMES OF TESTING. VALVE LOCATION "B" SHALL BE USED WITH TEMPORARY VALVE BOX AND SQUARE NUT OPERATOR.
3. IF HOSE IS REQUIRED FOR FLOW DISPOSAL, A SAMPLING SIDE OUTLET SHALL BE INSTALLED
4. THIS STANDPIPE CONFIGURATION SHALL BE USED ON PERMANENT BLOWOFF ASSEMBLIES DURING THE DISINFECTION AND TESTING PROCEDURE.
5. SIZING OF TEMPORARY BLOWOFF ASSEMBLY PIPING SHALL MEET THE SAME CRITERIA AS THAT FOR PERMANENT BLOWOFF ASSEMBLY.

LAST REVISED AS/FT 12/23

APPROVED BY

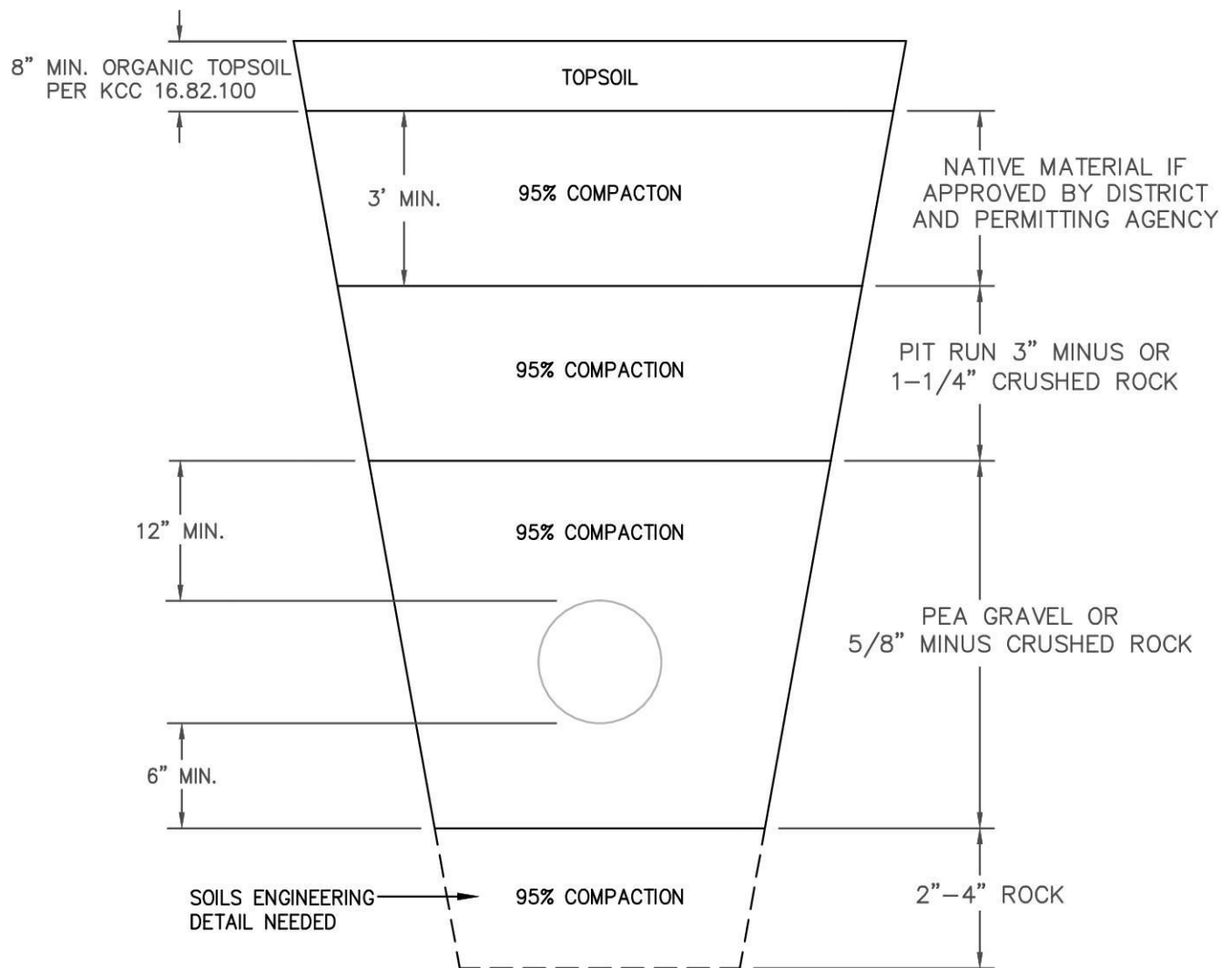
01/24

STEVE LEE-DISTRICT ENGINEER



TEMPORARY BLOWOFF
ASSEMBLY (3" SIZE)

32



NOTES:

1. IMPORT BEDDING REQUIRED FOR ALL PIPES.
2. TRENCH BACKFILL MATERIAL TO CONFORM TO PERMITTING AGENCY SPECIFICATIONS.

TRENCH WIDTHS (IN INCHES)			
NOMINAL PIPE DIAMETER	MINIMUM EARTH	MINIMUM ROCK	MAXIMUM
2	18	24	36
3	18	24	36
4	18	24	36
6	21	24	36
8	24	24	36
12	28	28	40



TYPICAL TRENCH DETAIL (OUTSIDE ROADWAY)

REVISION DATE
FEBRUARY 3, 2025
FILE NAME
S-29.DWG

SCALE

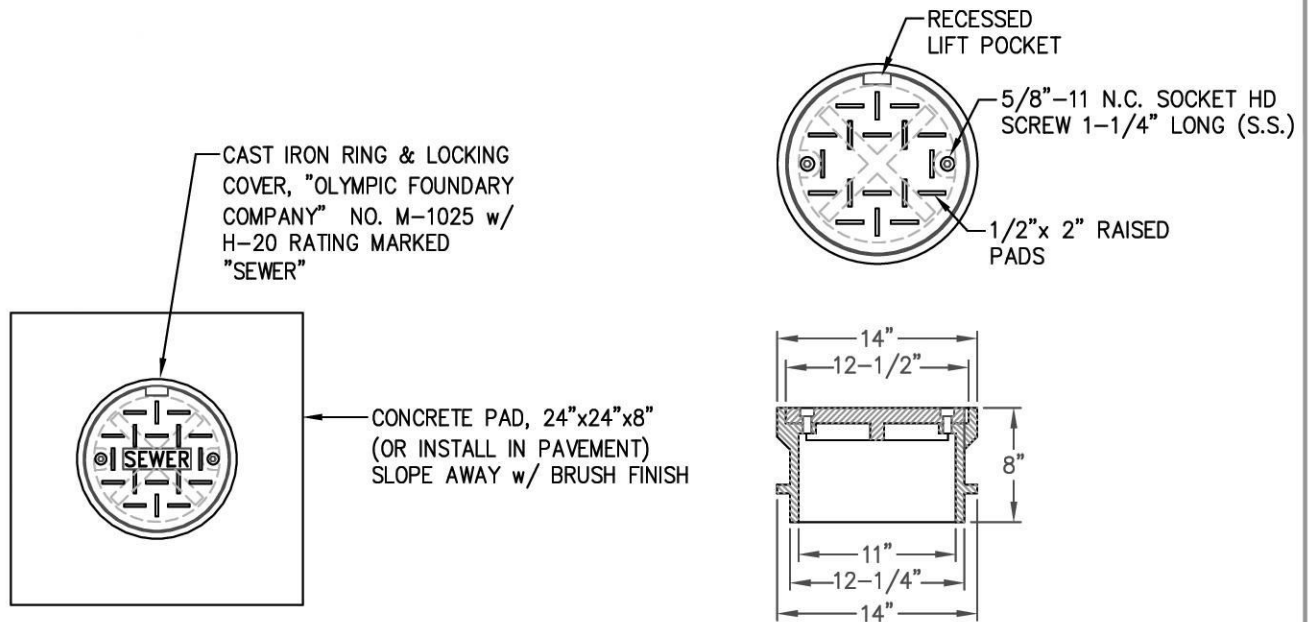
NTS

DISTRICT APPROVAL
Gregory G. Hill, P.E.

DATE APPROVED
FEBRUARY 4, 2025

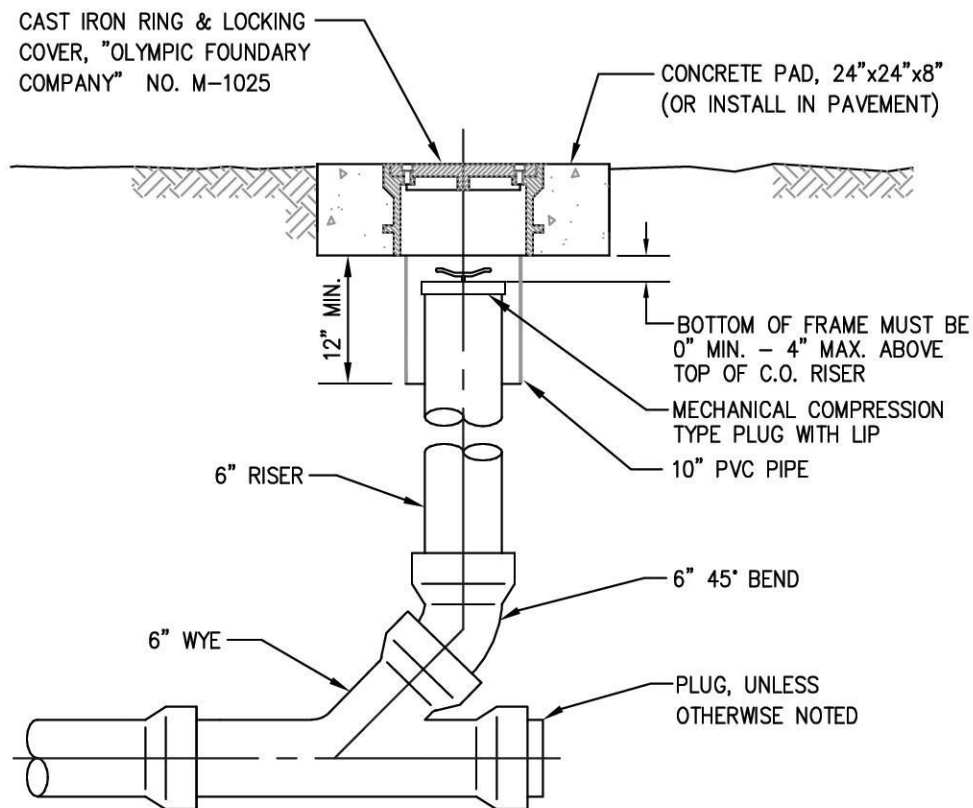
DWG. NO.

S-29



PLAN

11"x8" LOCKING CLEANOUT



ELEVATION



SURFACE CLEAN OUT (SIDE SEWER STUB)

REVISION DATE
MAY 17, 2011

SCALE

NTS

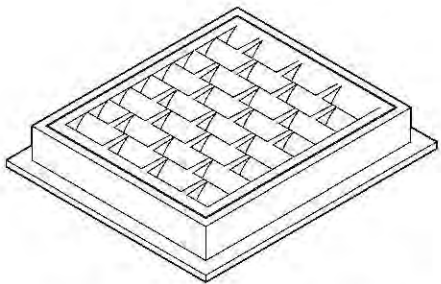
DISTRICT APPROVAL
Gregory G. Hill, P.E.

DATE APPROVED
APRIL 18, 2023

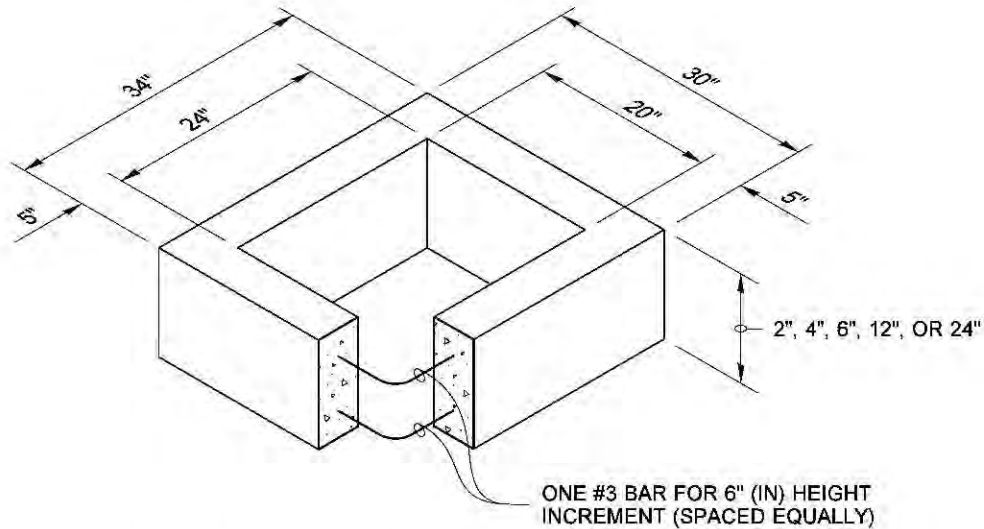
FILE NAME
S-30.DWG

DWG. NO.

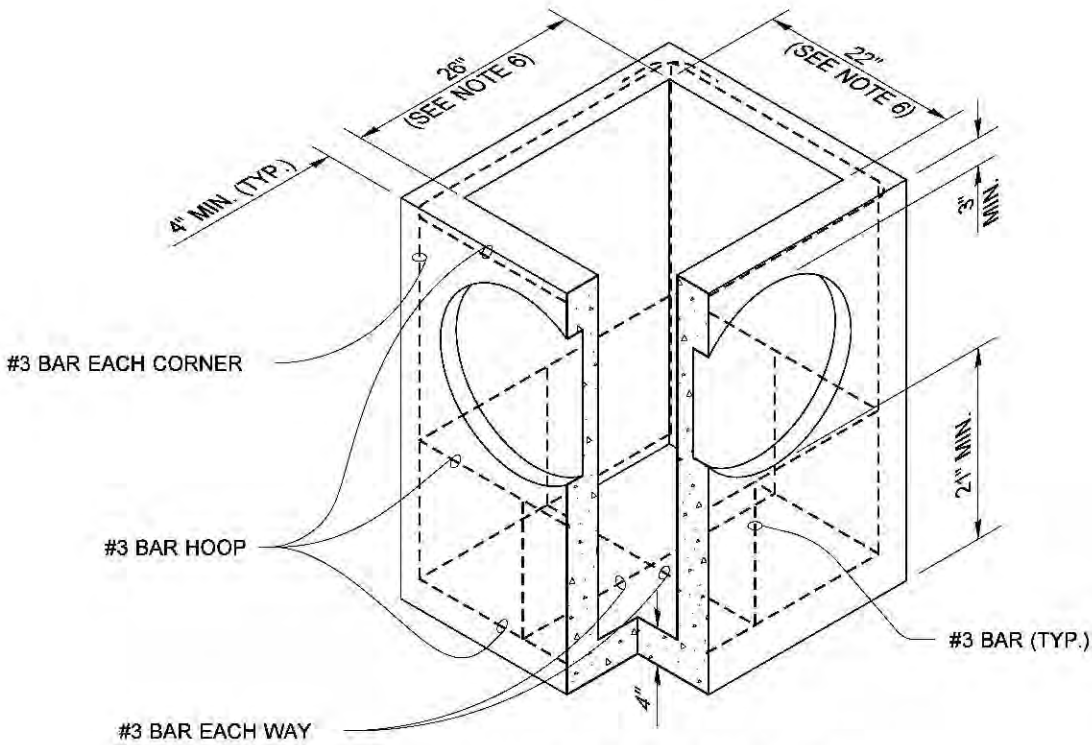
S-30



FRAME AND VANED GRATE



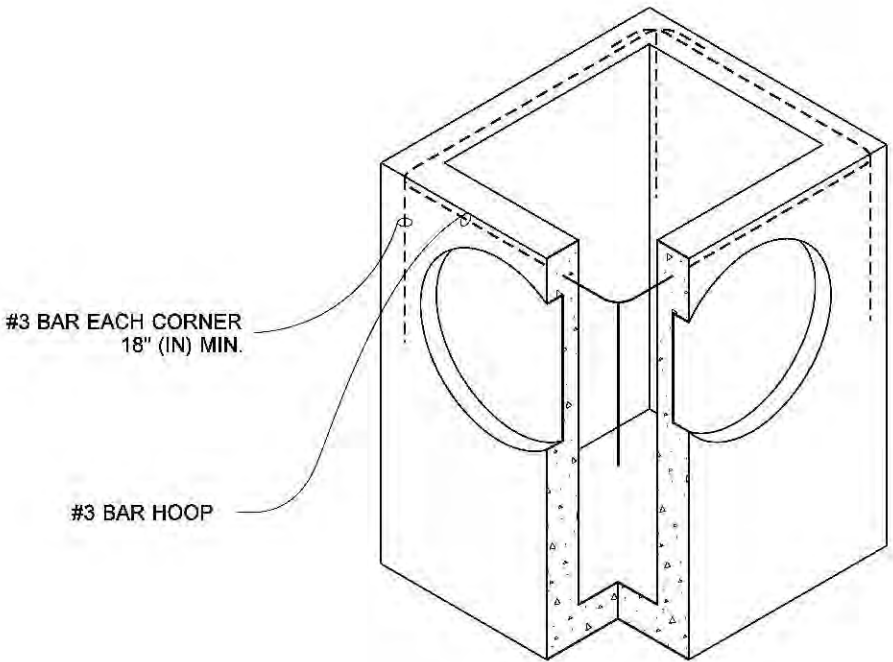
RECTANGULAR ADJUSTMENT SECTION



PRECAST BASE SECTION

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER (INCHES)
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP * (STD. SPEC. SECT. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2))	15"

* CORRUGATED POLYETHYLENE STORM SEWER PIPE



(SEE NOTE 1)
ALTERNATIVE PRECAST BASE SECTION

NOTES

1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
4. The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
6. The opening shall be measured at the top of the **Precast Base Section**.
7. All pickup holes shall be grouted full after the basin has been placed.



Julie Heilman
2020.09.01 07:52:50 -07'00'

CATCH BASIN TYPE 1

STANDARD PLAN B-5.20-03

SHEET 1 OF 1 SHEET

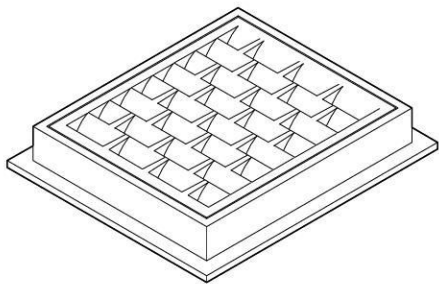
APPROVED FOR PUBLICATION

Roark, Steve

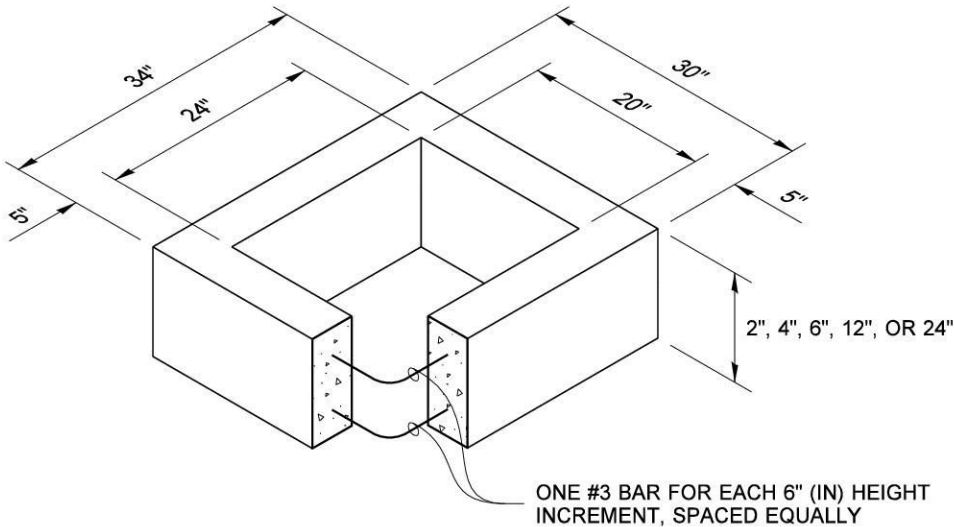
Digitally signed by Roark, Steve
Date: 2020.09.09 09:45:23 -07'00'

STATE DESIGN ENGINEER

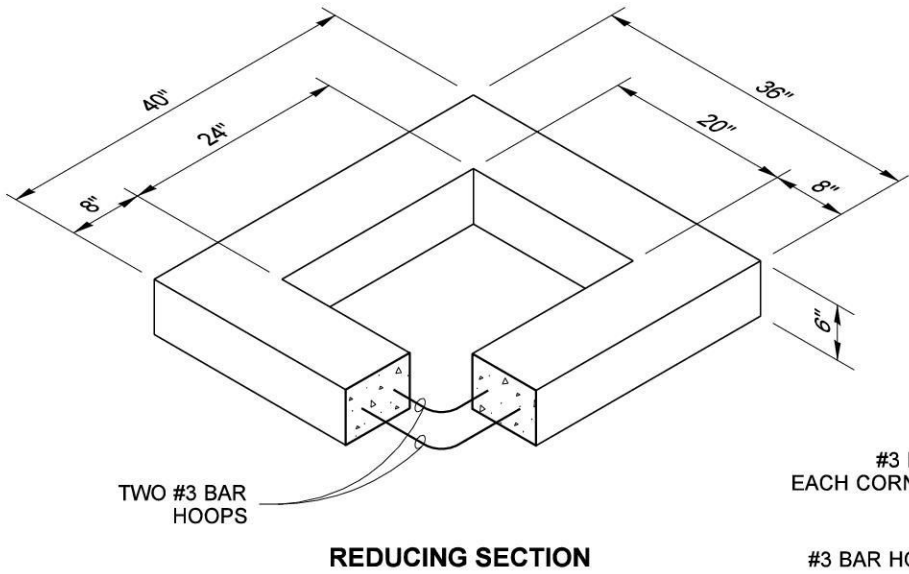
Washington State Department of Transportation



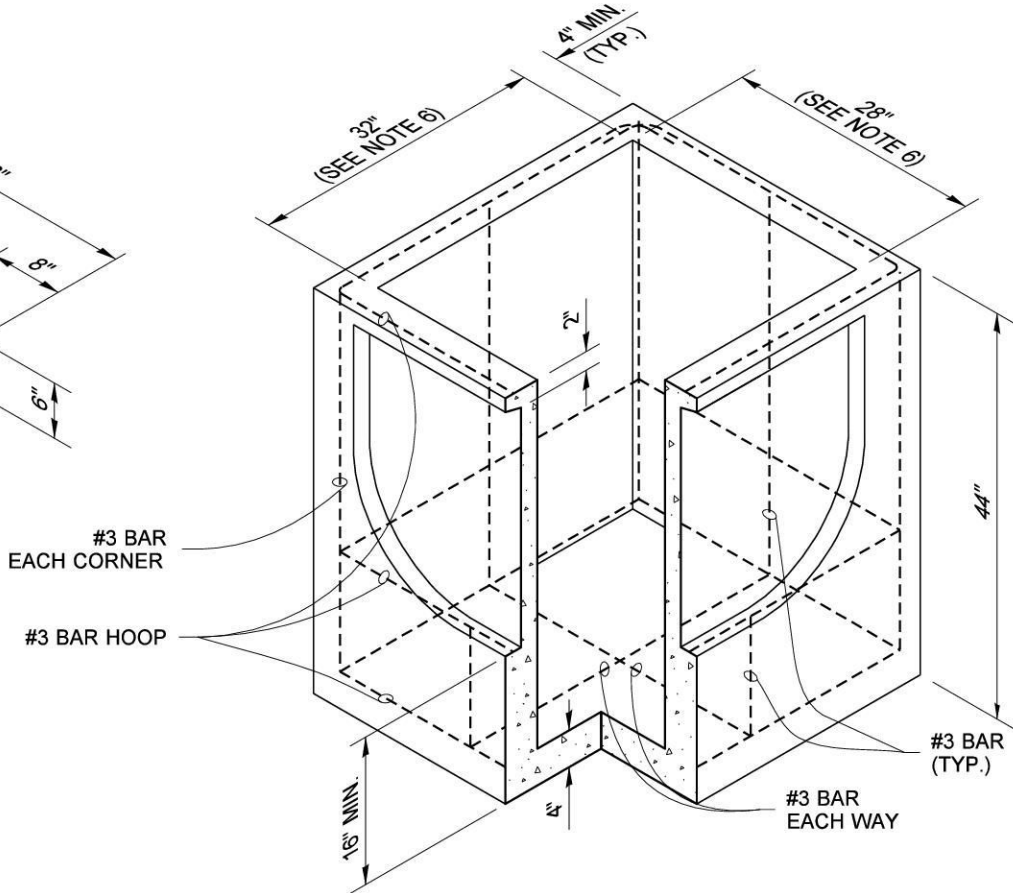
FRAME AND VANED GRATE



RECTANGULAR ADJUSTMENT SECTION



REDUCING SECTION



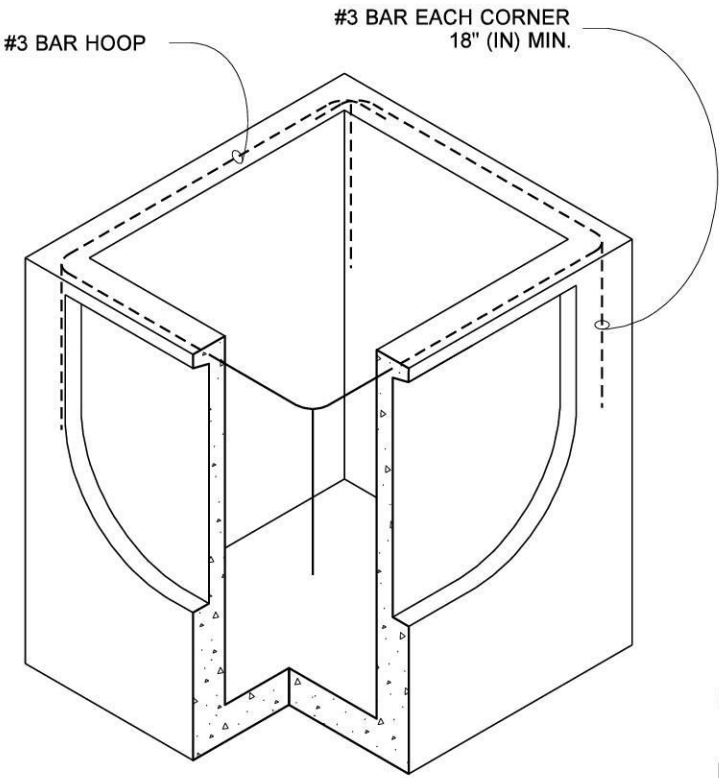
PRECAST BASE SECTION

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER (INCHES)
REINFORCED OR PLAIN CONCRETE	18"
ALL METAL PIPE	21"
CPSSP * (STD. SPEC. SECT. 9-05.20)	18"
SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1))	21"
PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2))	21"

* CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

1. As acceptable alternatives to the rebar shown in the **PRECAST BASE SECTION**, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot, shall be used with the minimum required rebar shown in the **ALTERNATIVE PRECAST BASE SECTION**. Wire mesh shall not be placed in the knockouts.
2. The knockout shall not be greater than 26" (in), in any direction. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
3. The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
4. The frame and grate may be installed with the flange down or integrally cast into the adjustment section with flange up.
5. The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
6. The opening shall be measured at the top of the Precast Base Section.
7. All pickup holes shall be grouted full after the basin has been placed.



(SEE NOTE 1)

ALTERNATIVE PRECAST BASE SECTION



CATCH BASIN TYPE 1L

STANDARD PLAN B-5.40-02

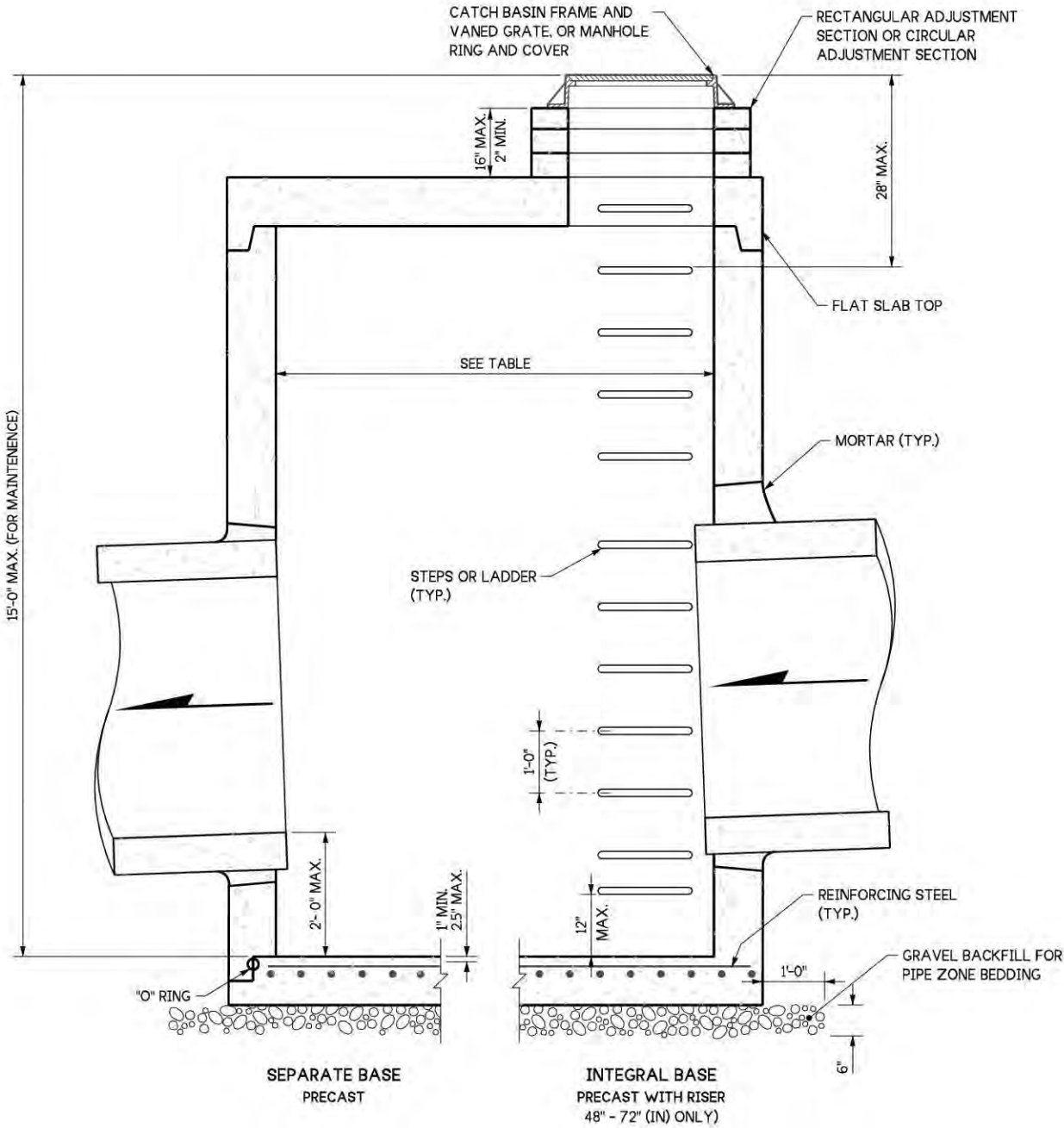
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

NOTES:

- 1. No steps are required when height is 4' or less.
- 2. The bottom of the precast catch basin may be sloped to facilitate cleaning.
- 3. The rectangular frame and grate may be installed with the flange up or down. The frame may be cast into the adjustment section.
- 4. Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with **Standard Specification Section 9-04.3**.
- 5. Pipe allowances will vary depending on the pipe material used. Contact the Region Hydraulics Engineer for assistance.



CATCH BASIN DIMENSIONS				
CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

PIPE ALLOWANCES					
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP PP ①	SOLID WALL PVC ②	PROFILE WALL PVC ③
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

- ① Corrugated Polyethylene Storm Sewer Pipe (See Standard Specification Section 9-05.20)
- ② (See Standard Specification Section 9-05.12(1))
- ③ (See Standard Specification Section 9-05.12(2))
- ④ Polypropylene Pipe (See Standard Specification Section 9-05.24)



Aug 23, 2023

CATCH BASIN TYPE 2

STANDARD PLAN B-10.20-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Mark A. Powers

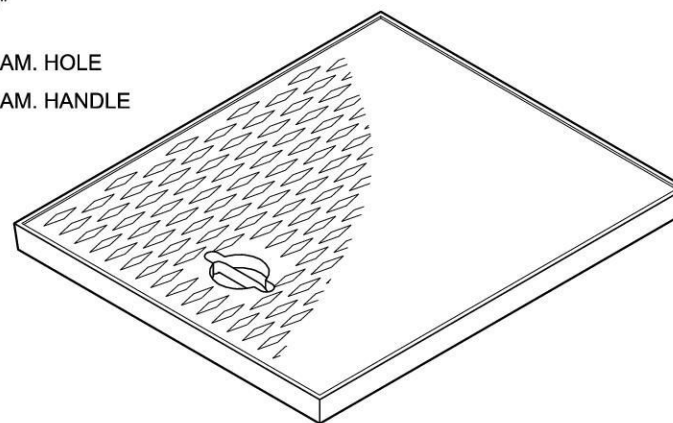
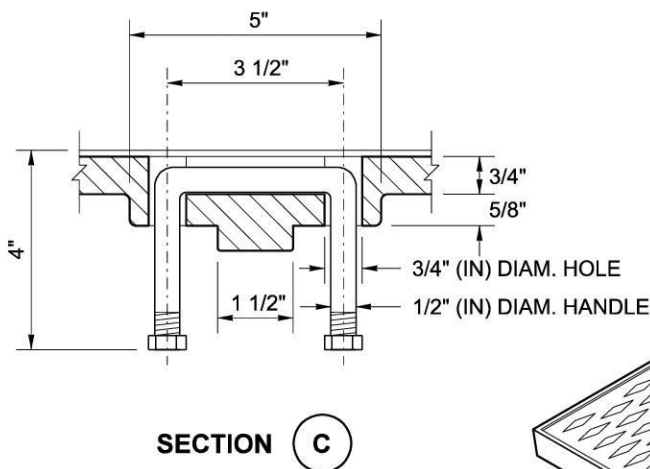
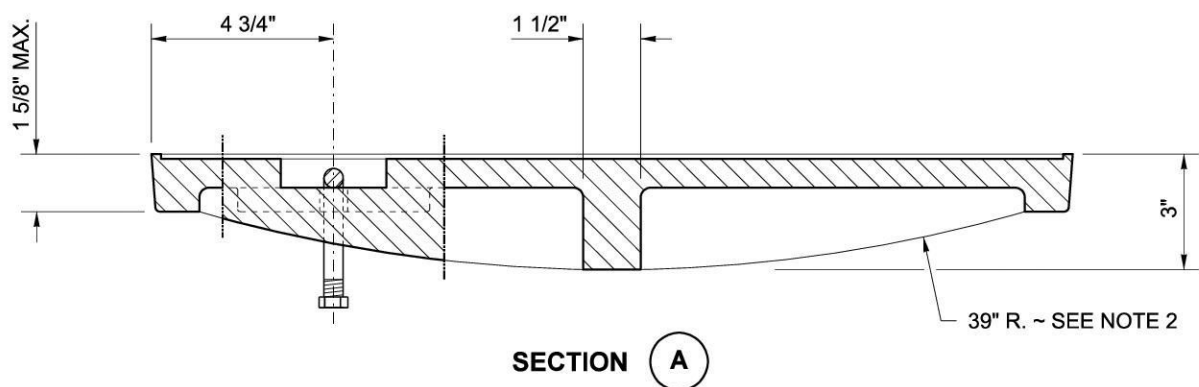
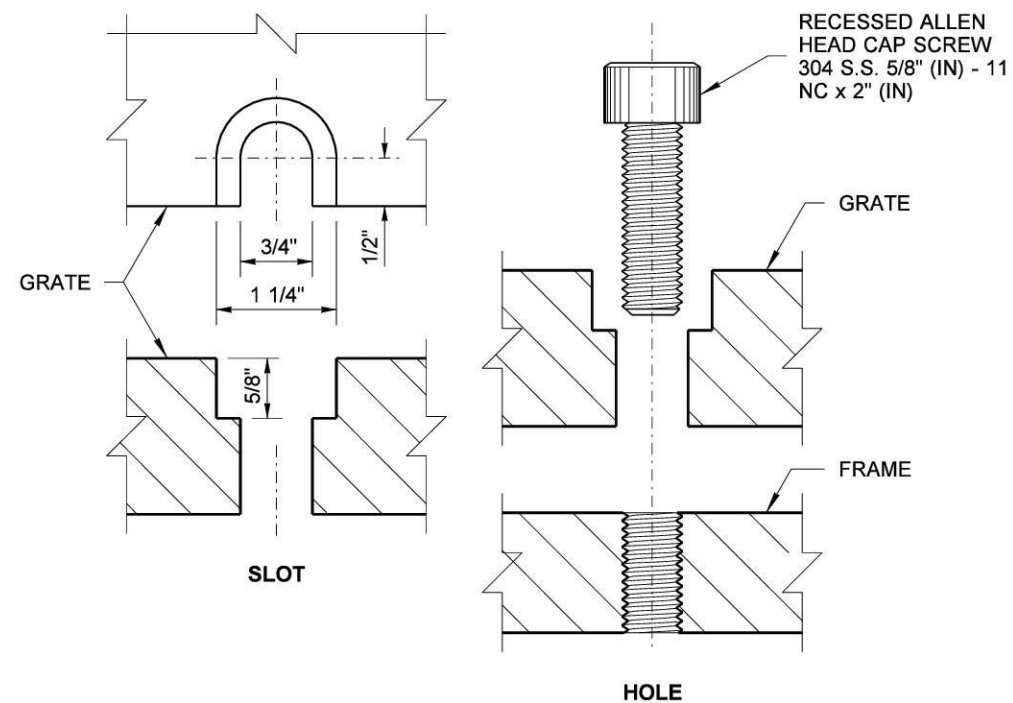
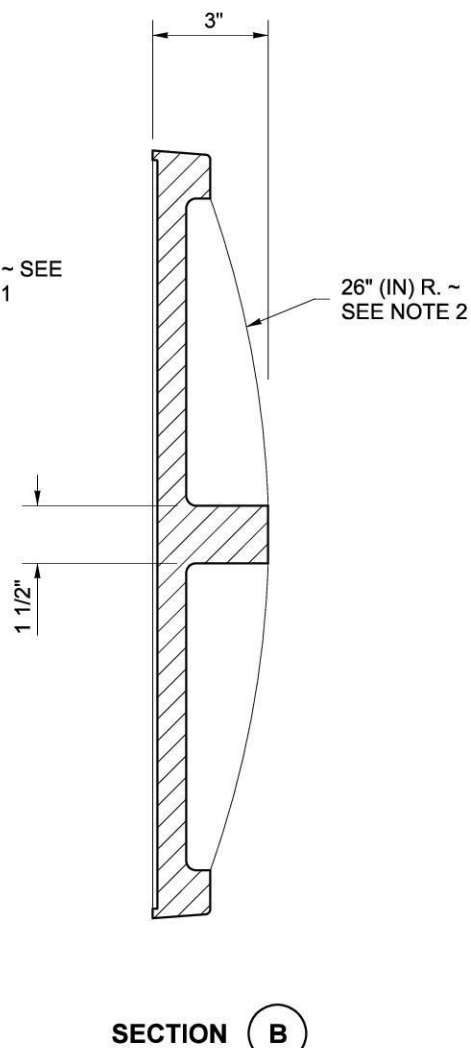
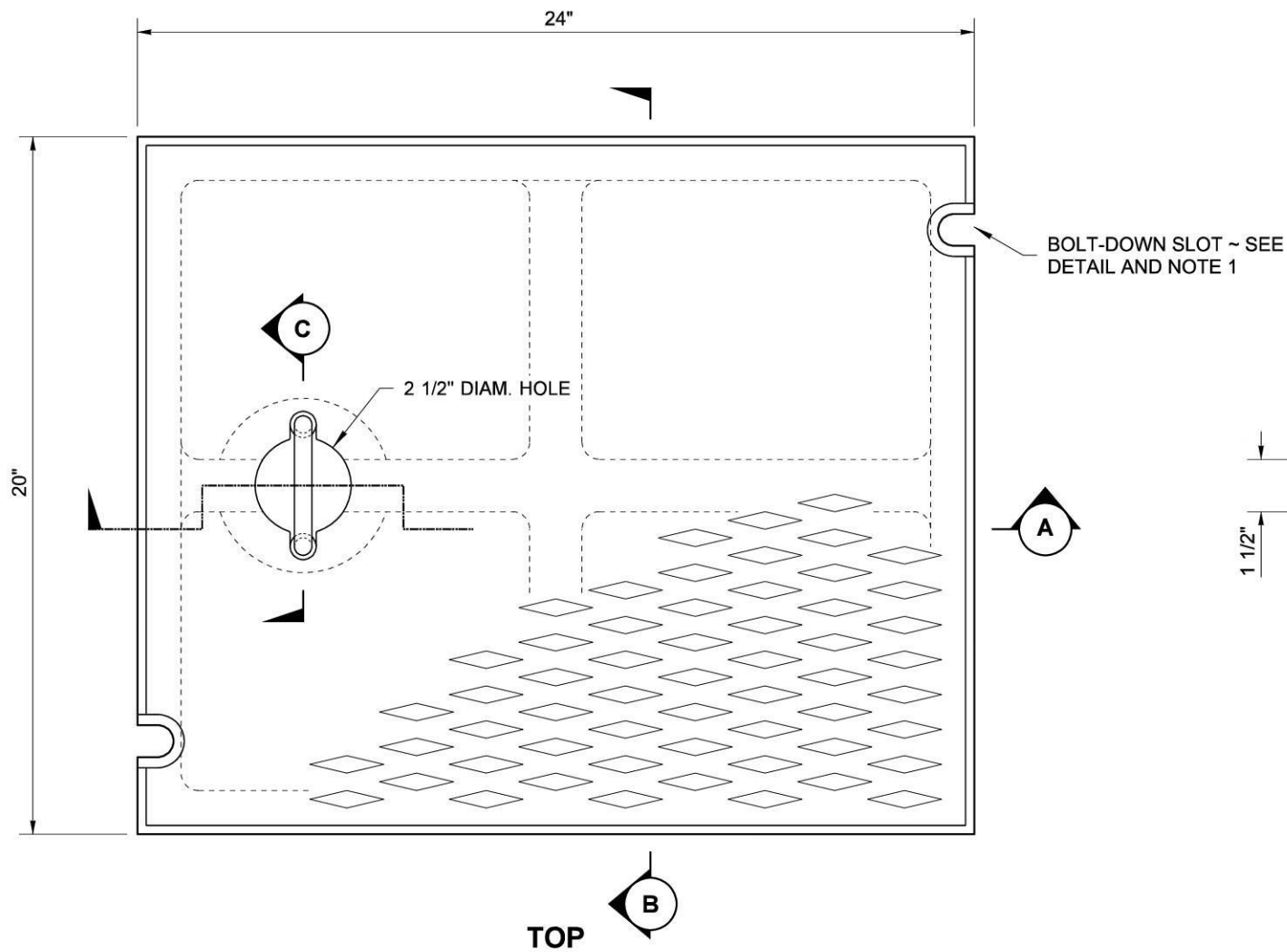
Aug 23, 2023

STATE DESIGN ENGINEER



Washington State
Department of Transportation

DRAWN BY: FERN LIDDELL



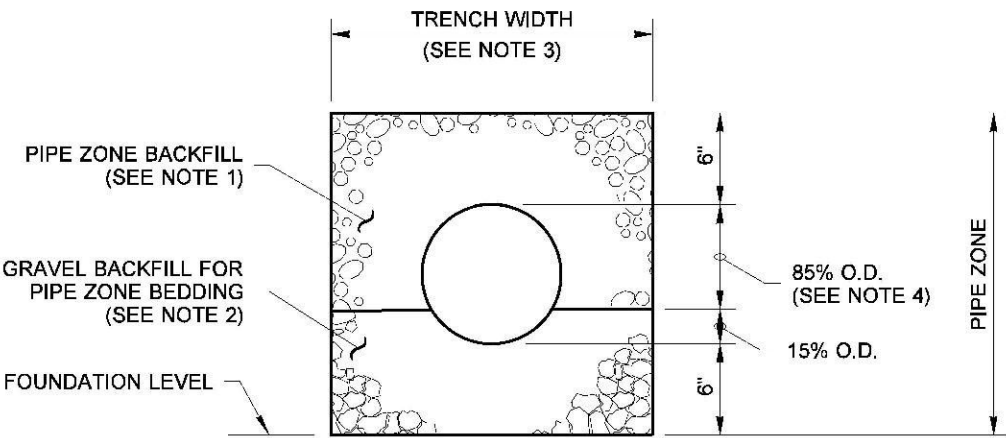
**RECTANGULAR SOLID
METAL COVER**
STANDARD PLAN B-30.20-04

SHEET 1 OF 1 SHEET

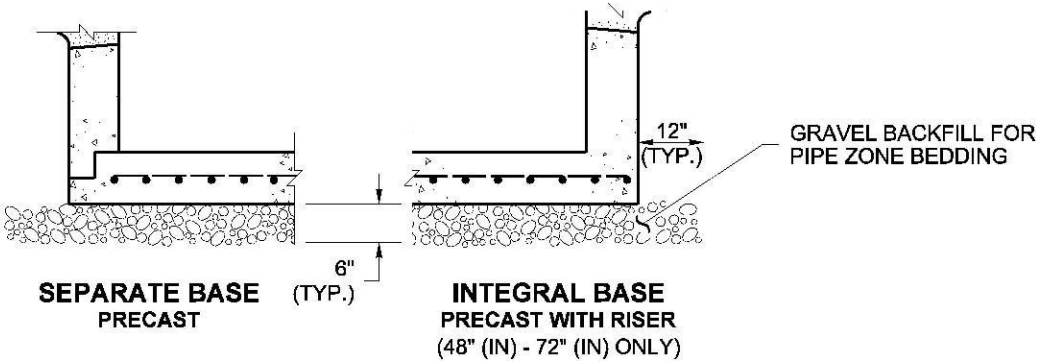
APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: FERN LIDDELL

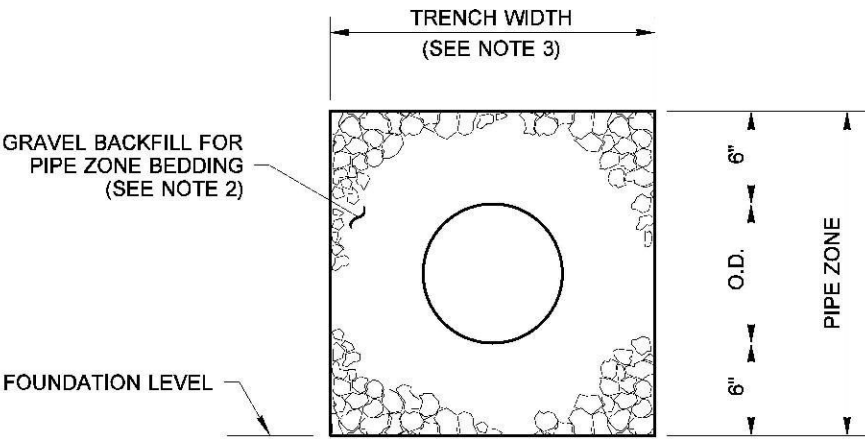


CONCRETE AND DUCTILE IRON PIPE

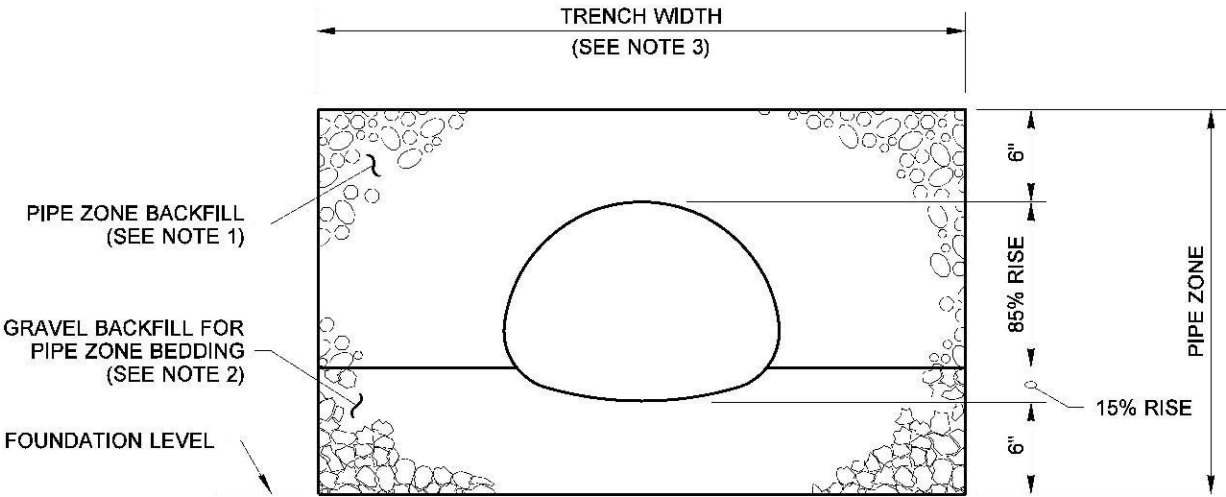


TYPICAL CONDITION FOR DRAINAGE STRUCTURE

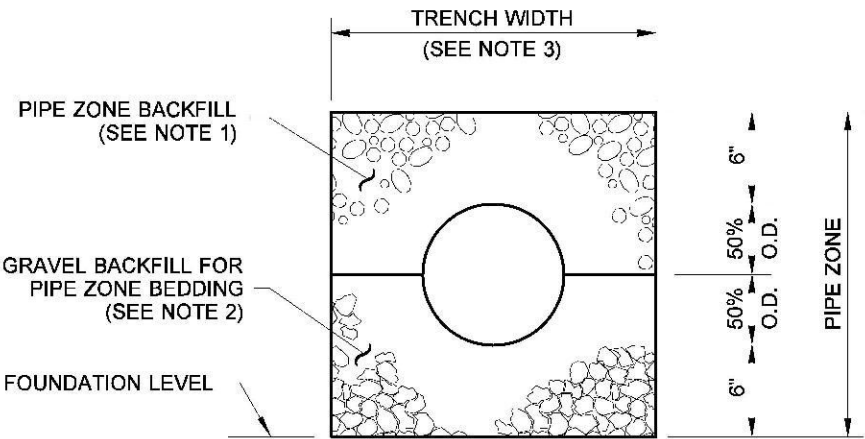
THIS DETAIL APPLIES TO STANDARD PLANS B-5.20, B-5.40, B-5.60, B-10.20, B-10.40, B-15.20, B-15.40, B-15.60, B-25.20, B-25.60, B-35.20 AND B-35.40.



THERMOPLASTIC PIPE



PIPE ARCHES



METAL AND STEEL RIB
REINFORCED POLYETHYLENE PIPE

CLEARANCE BETWEEN PIPES FOR MULTIPLE INSTALLATIONS		
PIPE	SIZE	MINIMUM DISTANCE BETWEEN BARRELS
CIRCULAR PIPE (DIAMETER)	UP TO 48"	24"
METAL PIPE ARCH (SPAN)	48" AND LARGER	DIAMETER/2 OR 36" WHICHEVER IS LESS



Aug 17, 2021

PIPE ZONE BEDDING
AND BACKFILL
STANDARD PLAN B-55.20-03

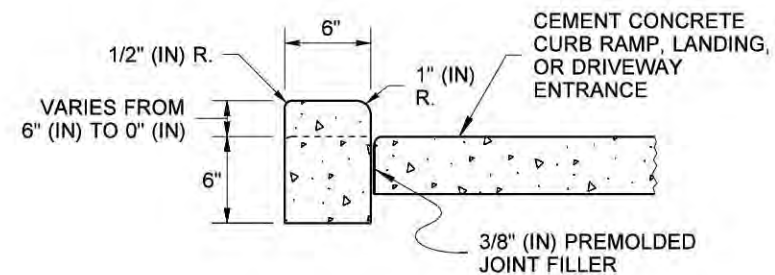
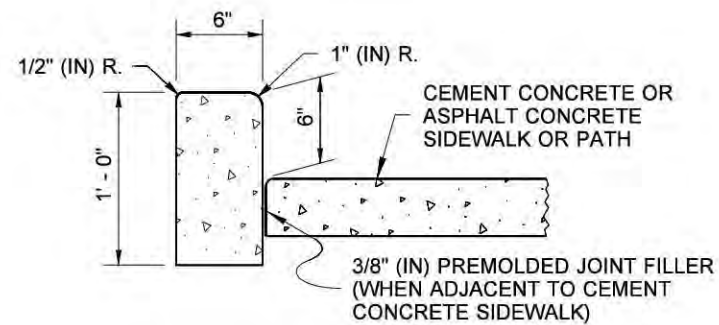
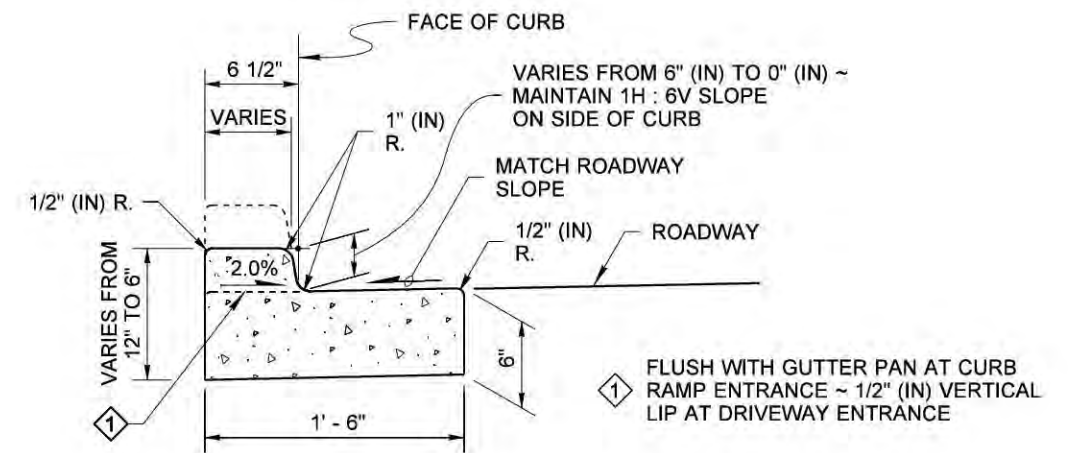
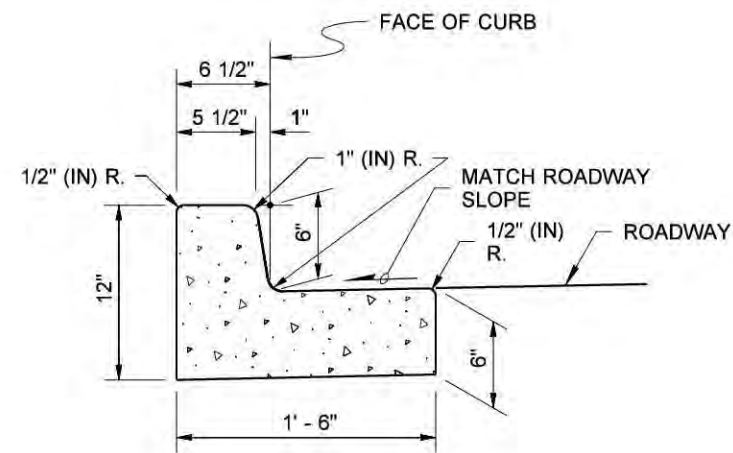
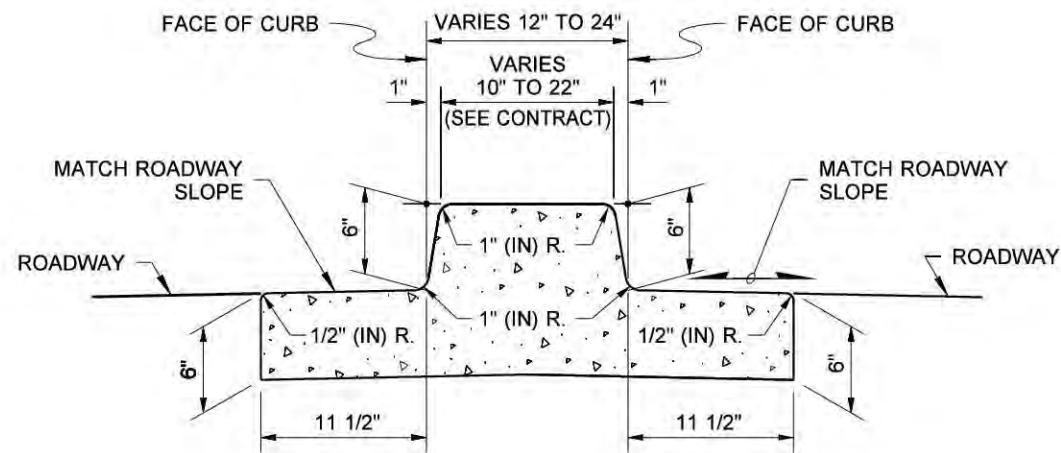
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Aug 17, 2021

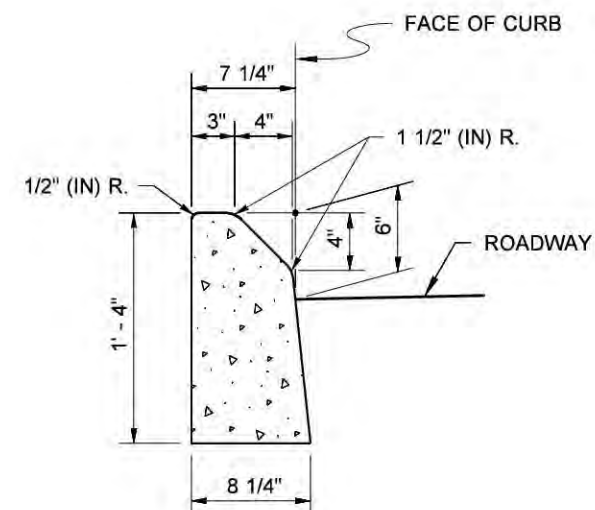
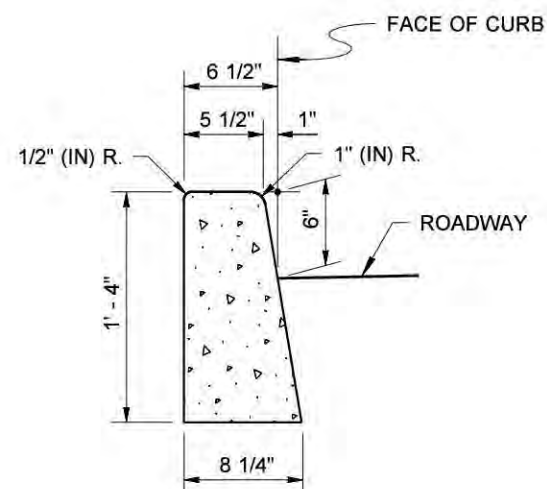
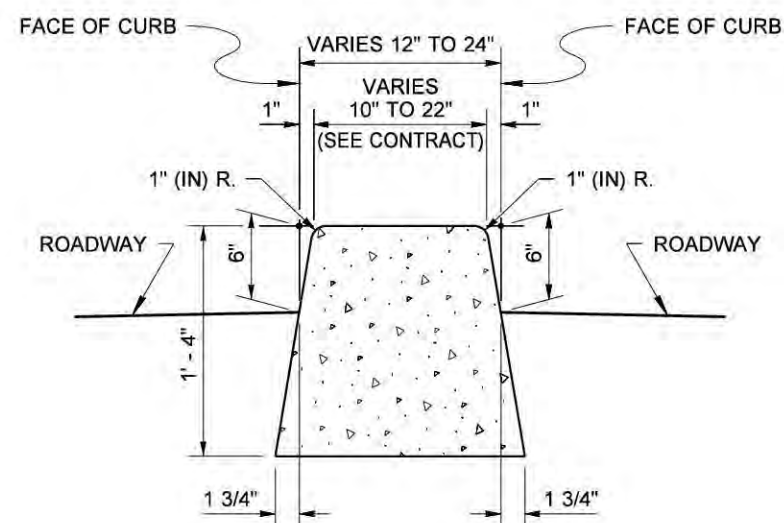
STATE DESIGN ENGINEER

Washington State Department of Transportation



NOTE

1. See **Standard Plan F-30.10** for Curb Expansion and Contraction Joint spacing. See **Standard Specification, Sections 8-04 and 9-04** for additional requirements.



Michael S
Fleming
CEMENT CONCRETE CURBS

Digitally signed by Michael S
Fleming
Date: 2020.09.24 07:39:38 -07'00'

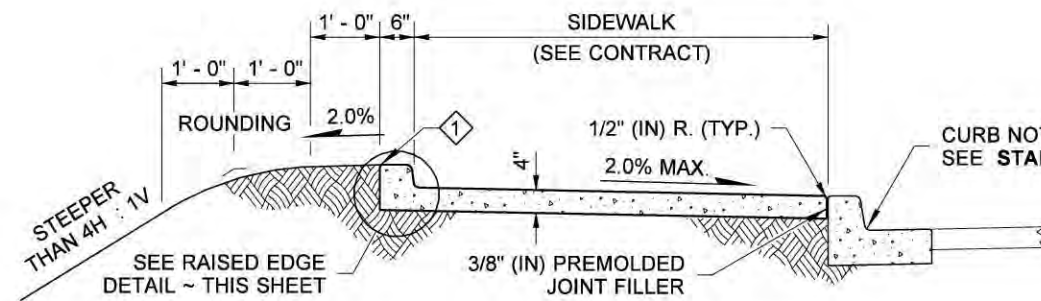
STANDARD PLAN F-10.12-04

SHEET 1 OF 1 SHEET

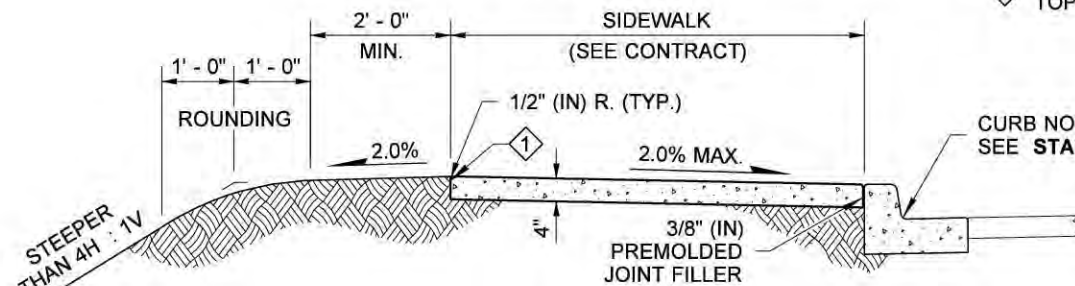
APPROVED FOR PUBLICATION
Date: 2020.09.24

STATE DESIGN ENGINEER

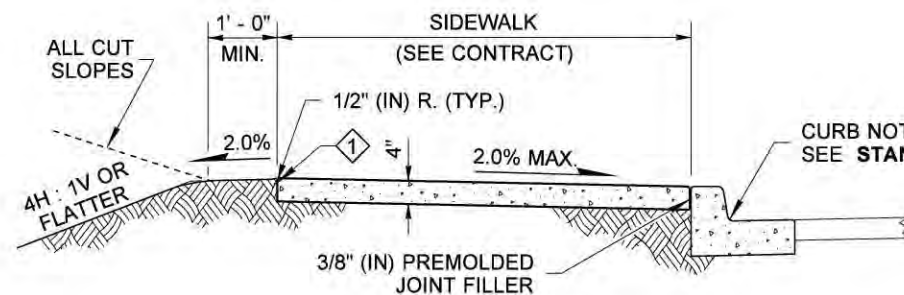
 Washington State Department of Transportation



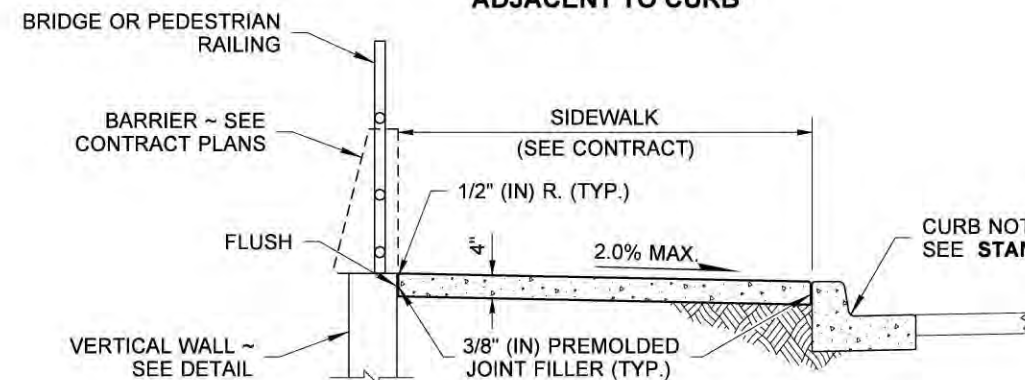
WITH RAISED EDGE



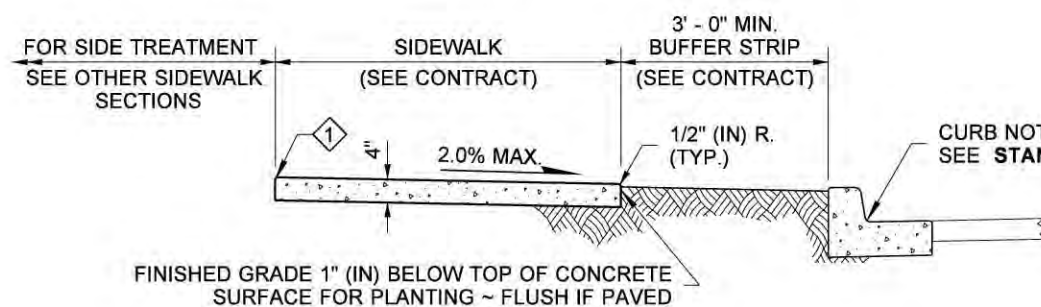
ADJACENT TO CURB
(STEEP FILL SLOPES)



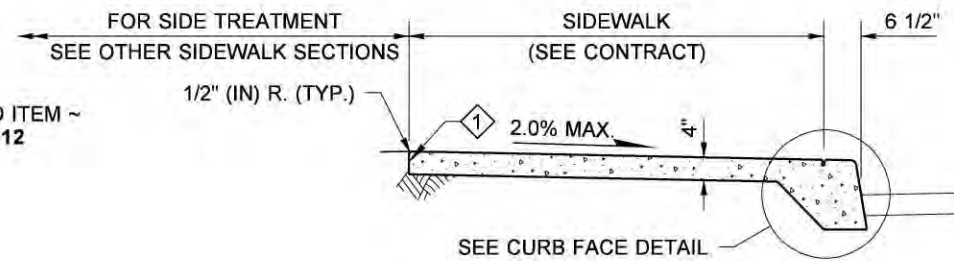
ADJACENT TO CURB



ADJACENT TO CURB AND RAILING OR WALL



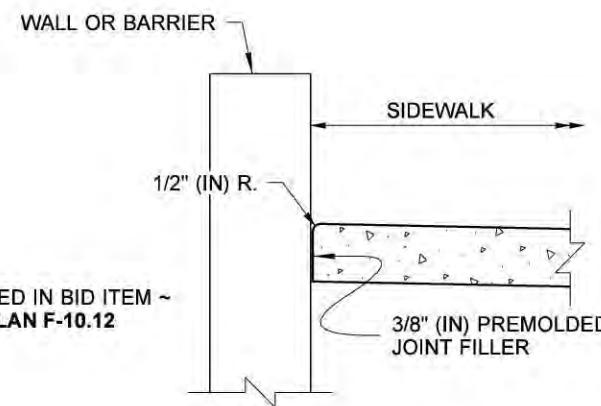
ADJACENT TO BUFFER STRIP



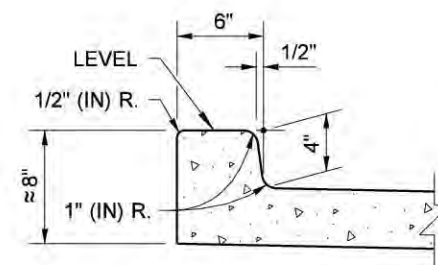
MONOLITHIC CEMENT CONCRETE
CURB AND SIDEWALK

NOTE

- Gratings, Access Covers, Junction Boxes, Cable Vaults, Pull Boxes and other appurtenances within the sidewalk must have slip resistant surfaces, be flush with surface, and match grade of the sidewalk.

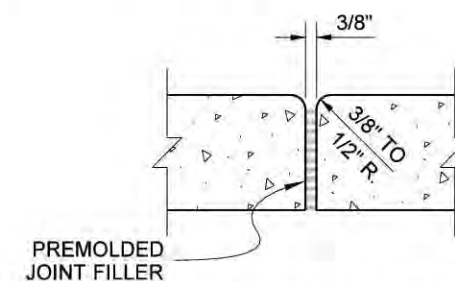


SIDEWALK ADJACENT TO WALL DETAIL

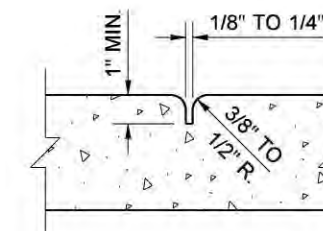


RAISED EDGE DETAIL

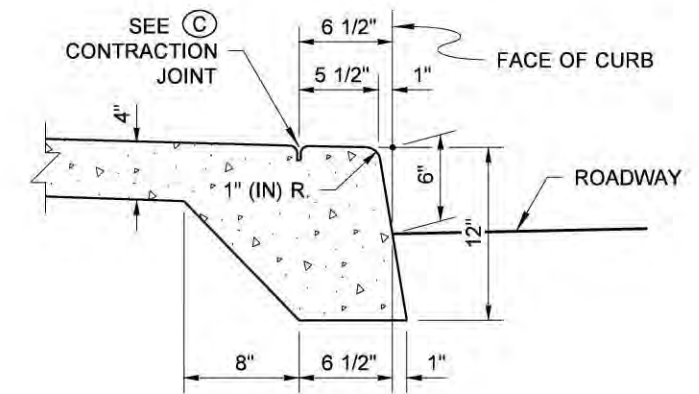
EXTEND SIDEWALK TRANSVERSE JOINTS TO INCLUDE RAISED EDGE



EXPANSION JOINT

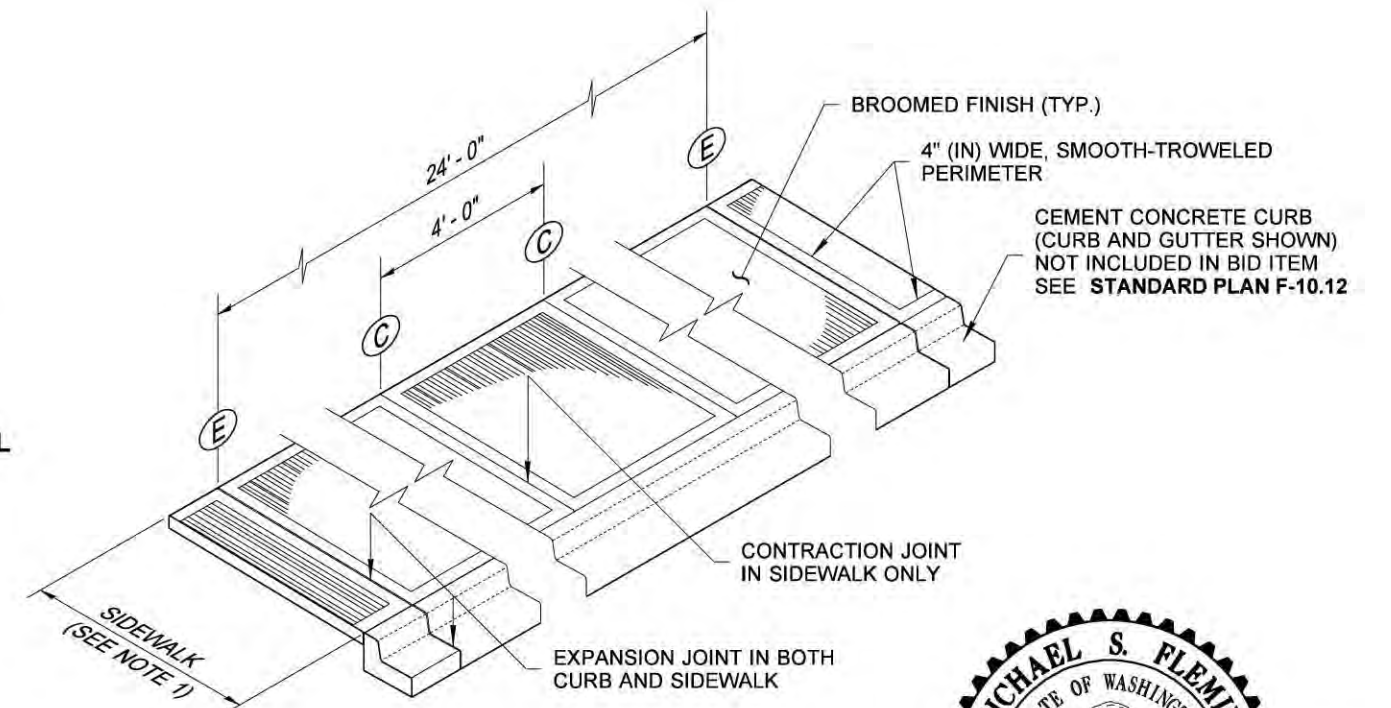


CONTRACTION JOINT



CURB FACE DETAIL

EXTEND SIDEWALK TRANSVERSE EXPANSION JOINTS TO INCLUDE CURB (FULL DEPTH)



ISOMETRIC VIEW
JOINT AND FINISH
DETAIL



Michael S
Fleming

Digitally signed by Michael S
Fleming
Date: 2020.09.24 07:40:16 -07'00'

CEMENT CONCRETE SIDEWALK

STANDARD PLAN F-30.10-04

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Date: 2020.09.25

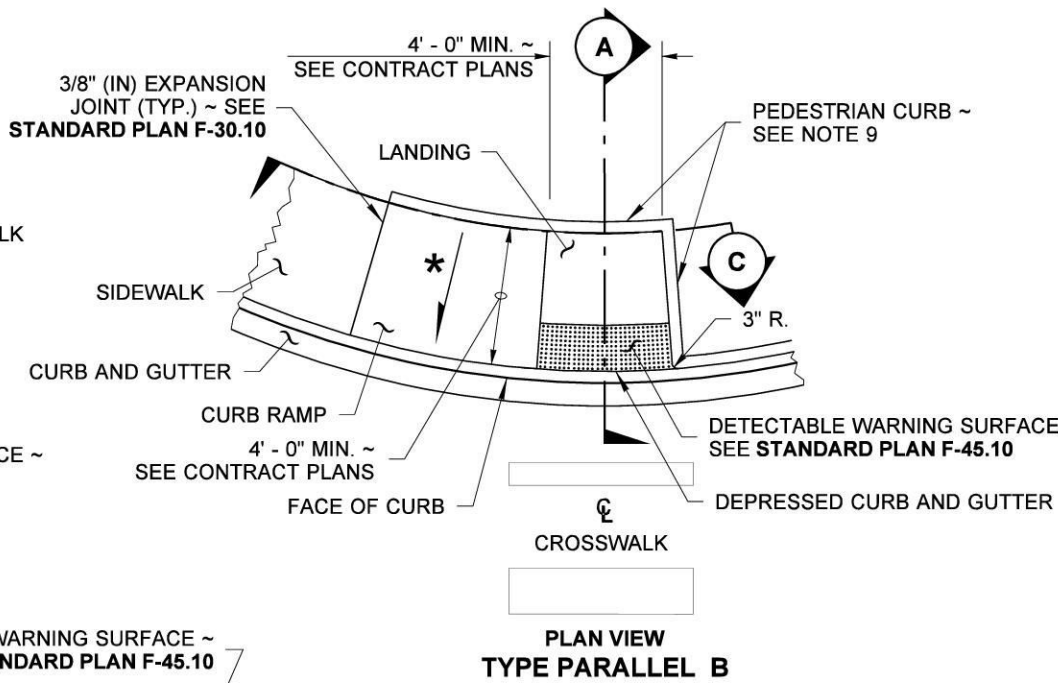
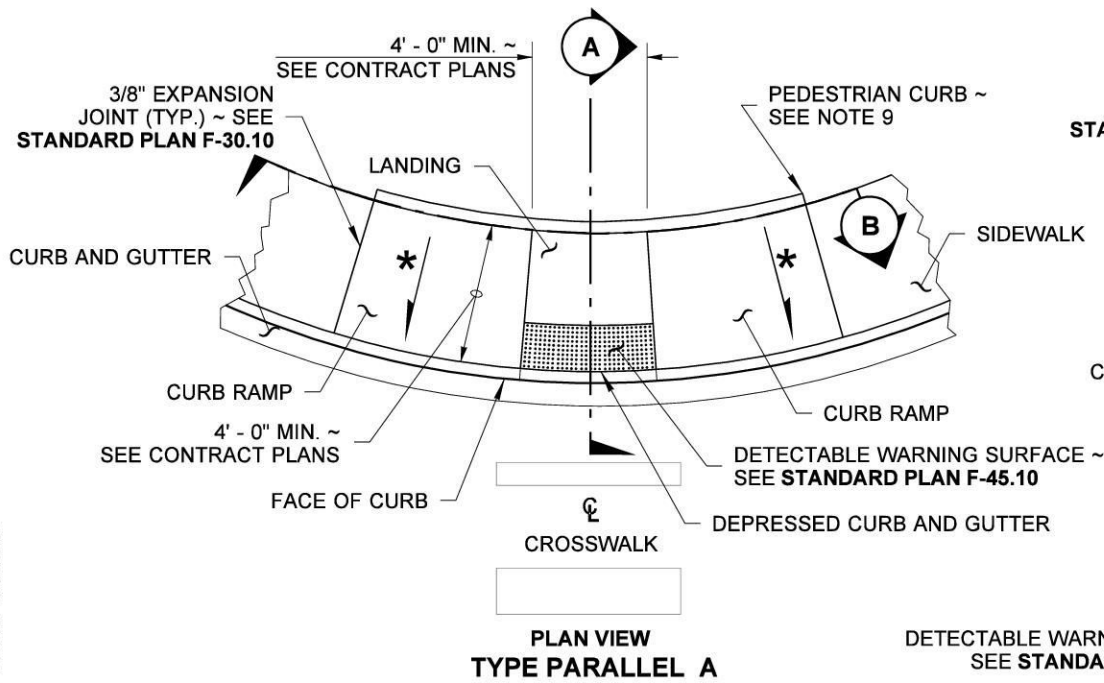
15:43:50 -07'00'

STATE DESIGN ENGINEER

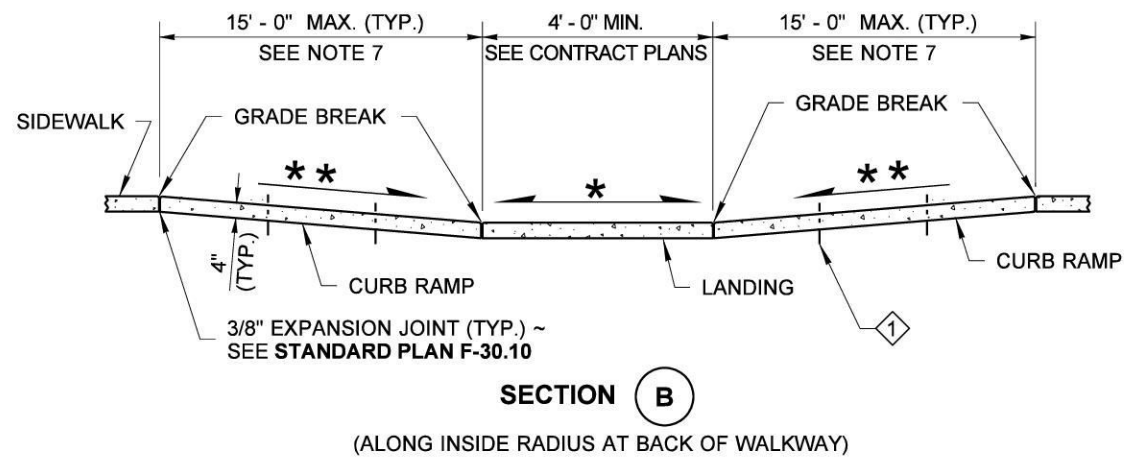
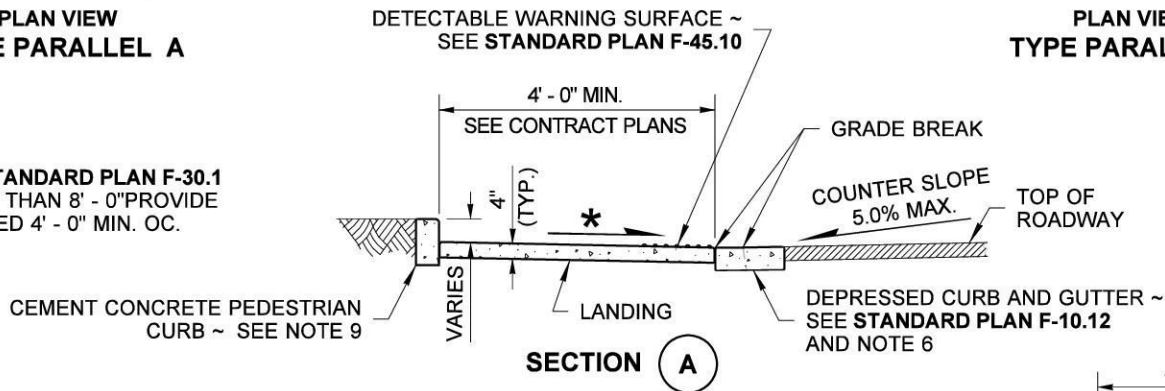


Washington State Department of Transportation

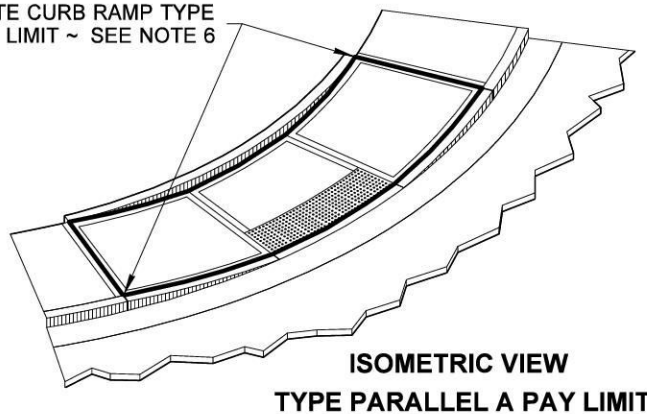
DRAWN BY: FERN LIDDELL



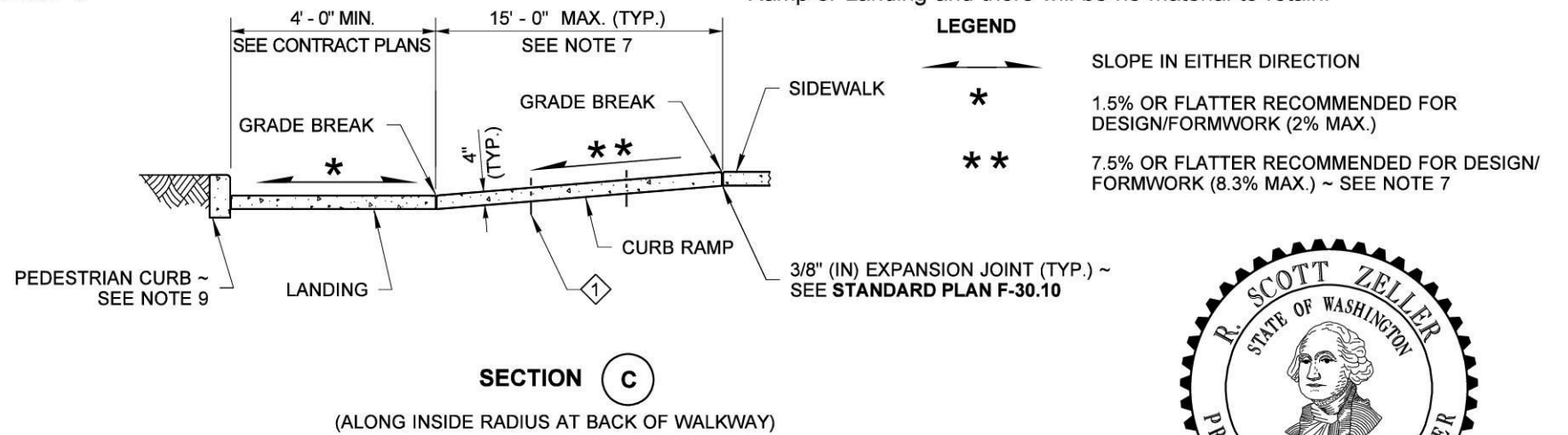
1 CONTRACTION JOINT (TYP.) ~ SEE STANDARD PLAN F-30.1 FOR CURB RAMP LENGTHS GREATER THAN 8' - 0" PROVIDE CONTRACTION JOINT EQUALLY SPACED 4' - 0" MIN. OC.



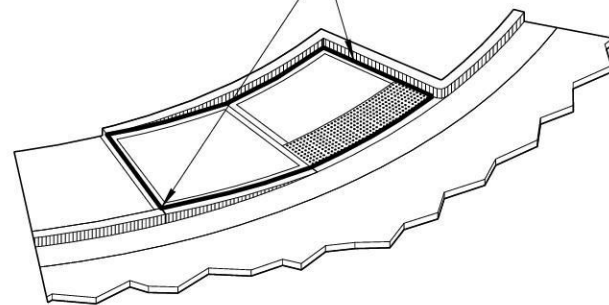
"CEMENT CONCRETE CURB RAMP TYPE PARALLEL A" PAY LIMIT ~ SEE NOTE 6



ISOMETRIC VIEW
TYPE PARALLEL A PAY LIMIT



"CEMENT CONCRETE CURB RAMP TYPE PARALLEL B" PAY LIMIT ~ SEE NOTE 6



ISOMETRIC VIEW
TYPE PARALLEL B PAY LIMIT

NOTES

- At marked crosswalks, the connection between the landing and the roadway must be contained within the width of the crosswalk markings.
- Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
- Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in the Depressed Curb and Gutter where the Landing connects to the roadway.
- See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
- See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
- The Bid Item "Cement Concrete Curb Ramp Type ___" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
- The Curb Ramp length is not required to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length, the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet. Do not include abutting landing(s) in the 15-foot max. measurement. When a ramp is constructed on a radius, the 15-foot max. length is measured on the inside radius along the back of the walkway.
- Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14**.
- Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will be no material to retain.

LEGEND	
	SLOPE IN EITHER DIRECTION
*	1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
**	7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.) ~ SEE NOTE 7



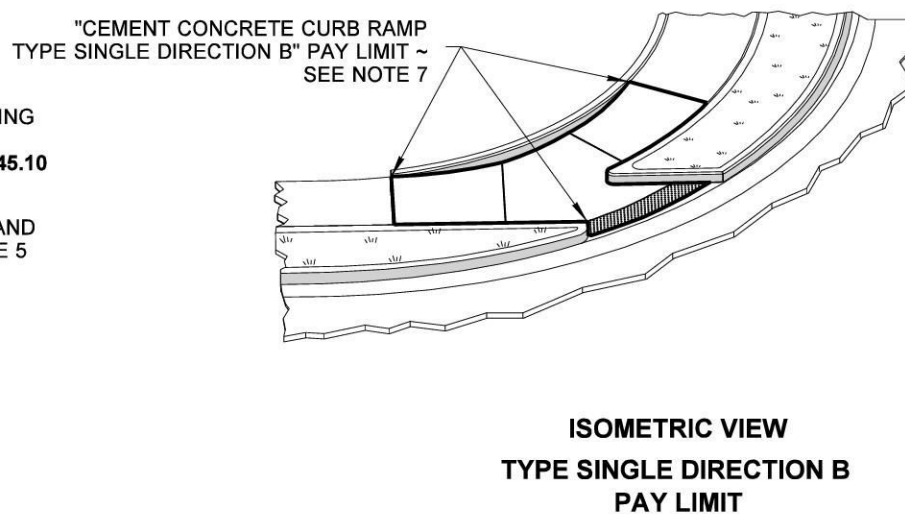
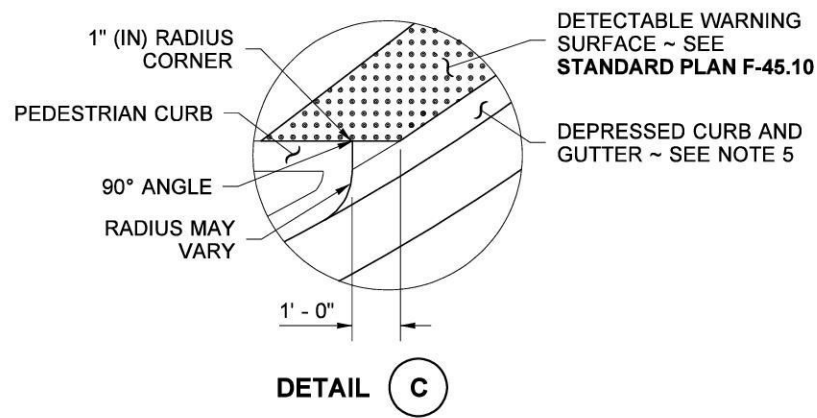
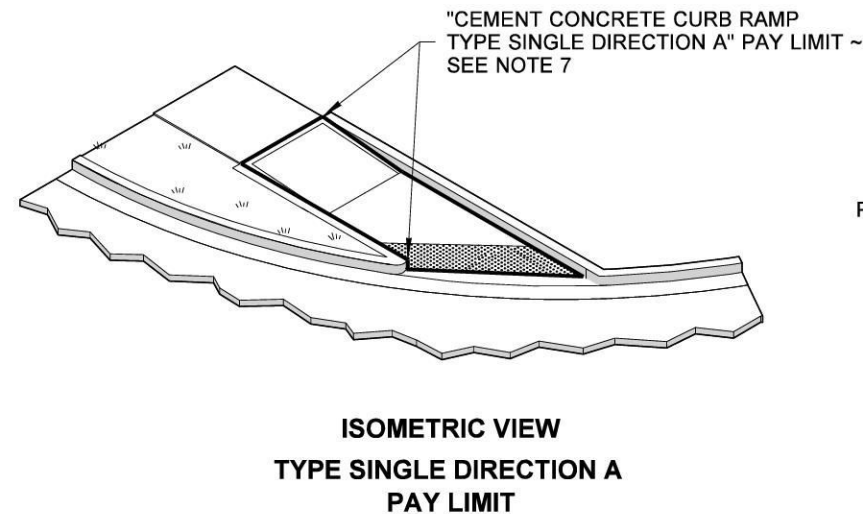
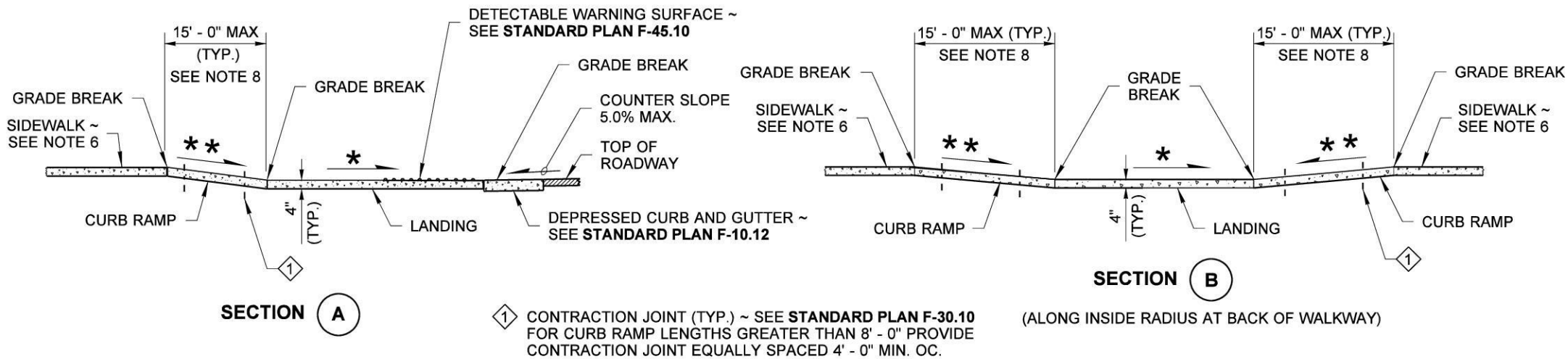
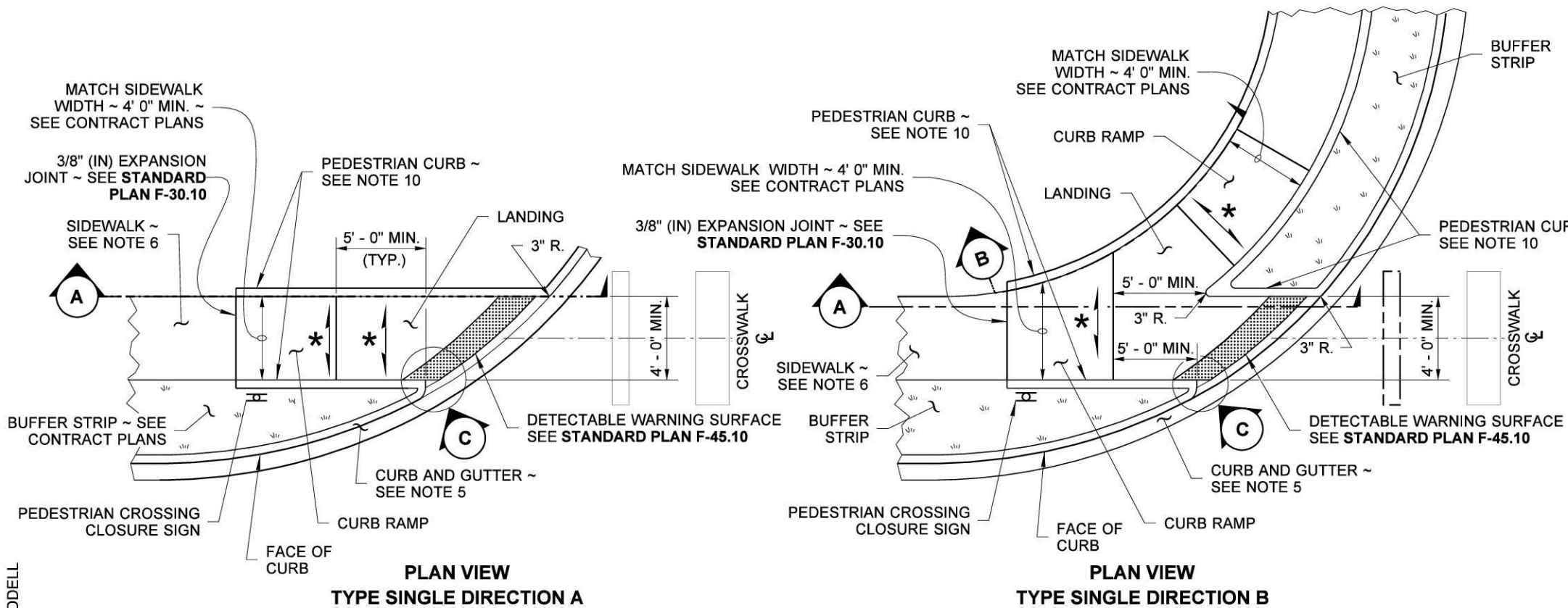
PARALLEL CURB RAMP STANDARD PLAN F-40.12-03

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

STATE DESIGN ENGINEER
 Washington State Department of Transportation

DRAWN BY: FERN LIDDELL



NOTES

1. This plan is to be used where pedestrian crossing in one direction is not permitted.
2. At marked crosswalks, the connection between the Landing and the roadway must be contained within the width of the crosswalk markings.
3. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
4. Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing or in the Depressed Curb and Gutter where the Landing connects to the roadway.
5. See Contract Plans for the curb design specified. See **Standard Plan F-10.12** for Curb, Curb and Gutter, Depressed Curb, Gutter and Pedestrian Curb details.
6. See **Standard Plan F-30.10** for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
7. The Bid Item "Cement Concrete Curb Ramp Type ___" does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
8. The Curb Ramp length is not required to exceed 15 feet (unless shown otherwise in the Contract Plans). When applying the 15-foot max. length (measured from back of sidewalk) the running slope of the curb ramp is allowed to exceed 8.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet.
9. Curb Ramps and Landings shall receive a broom finish. See **Standard Specifications 8-14**.
10. Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will not be material to retain.

LEGEND

- SLOPE IN EITHER DIRECTION
- * 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)
- ** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.) SEE NOTE 7



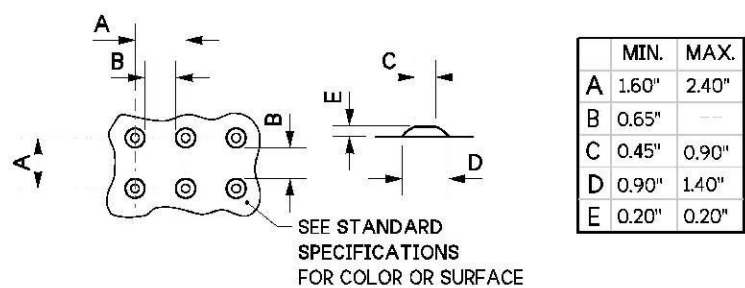
SINGLE DIRECTION CURB RAMP

STANDARD PLAN F-40.16-03

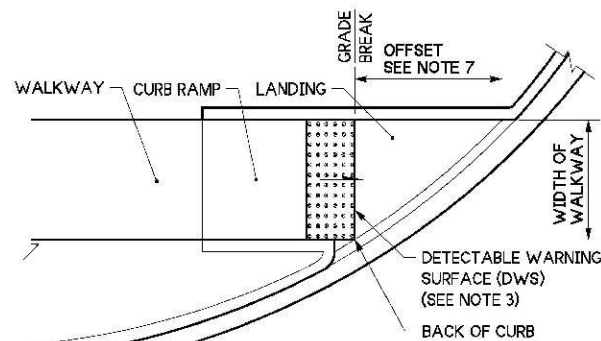
SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

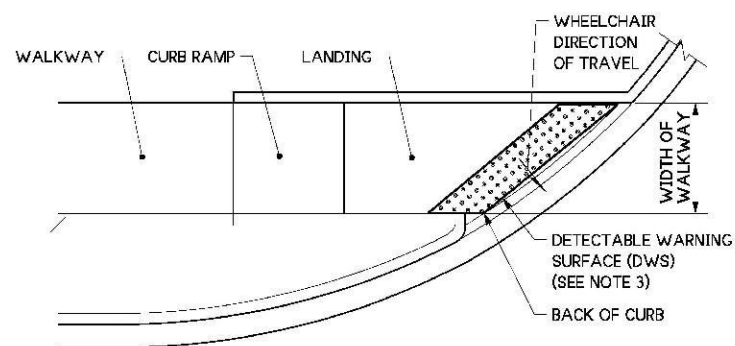
STATE DESIGN ENGINEER
Washington State Department of Transportation



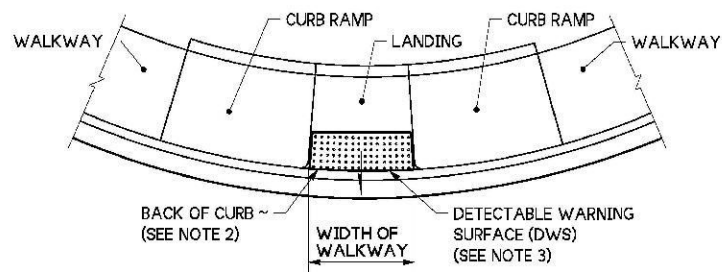
TRUNCATED DOME DETAILS
(SEE NOTE 3)



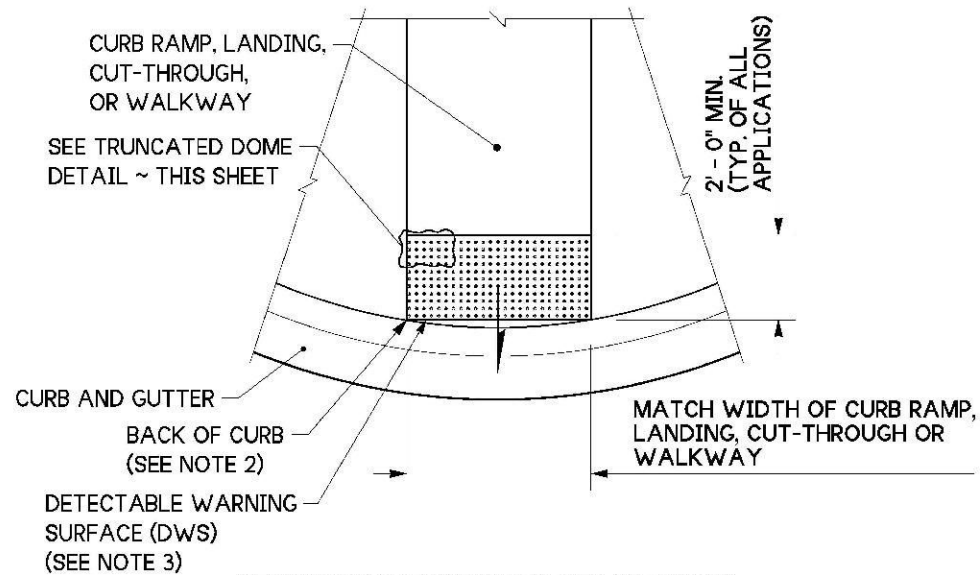
SINGLE DIRECTION CURB RAMP
(GRADE BREAK BETWEEN CURB AND LANDING < 5 FEET FROM BACK OF CURB)
(SEE NOTE 5)



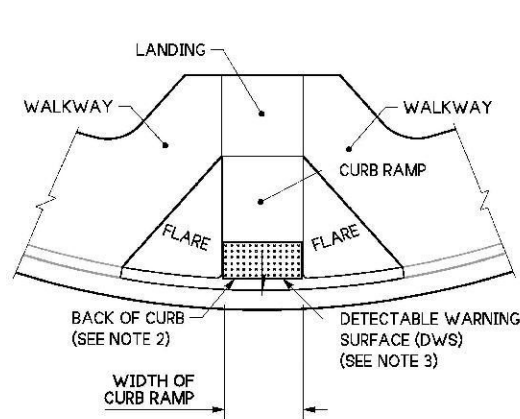
SINGLE DIRECTION CURB RAMP
(GRADE BREAK BETWEEN CURB AND LANDING > 5 FEET FROM BACK OF CURB)
(SEE NOTE 5)



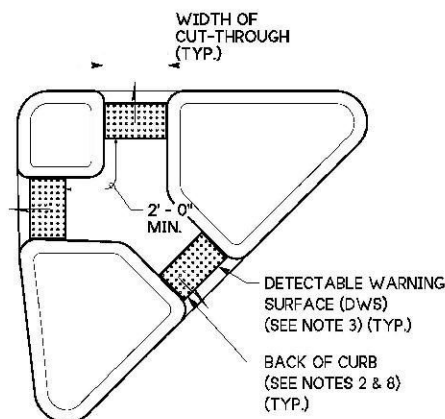
PARALLEL CURB RAMP
(SEE NOTE 6)



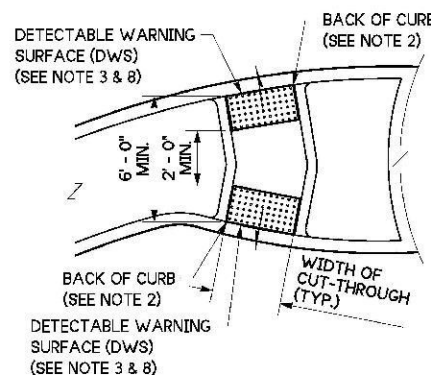
DETECTABLE WARNING SURFACE DETAIL



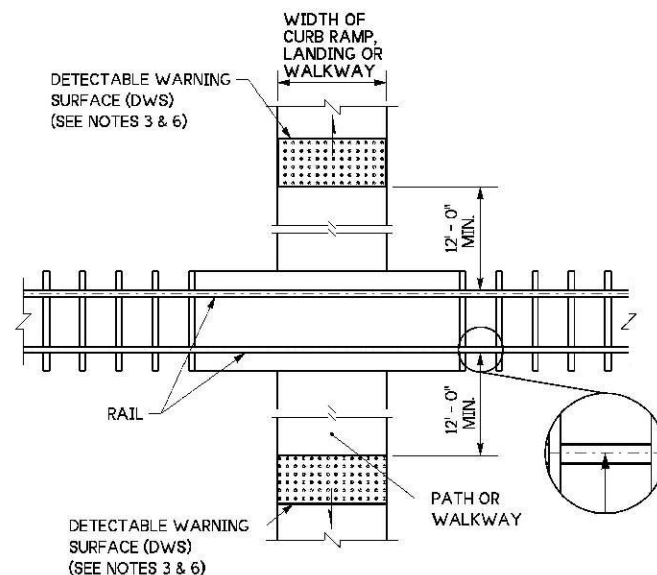
PERPENDICULAR CURB RAMP
(SEE NOTE 6)



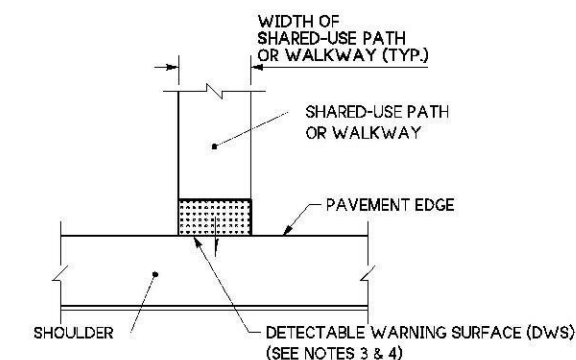
ISLAND CUT-THROUGH



ROUNDBOUT SPLITTER ISLAND



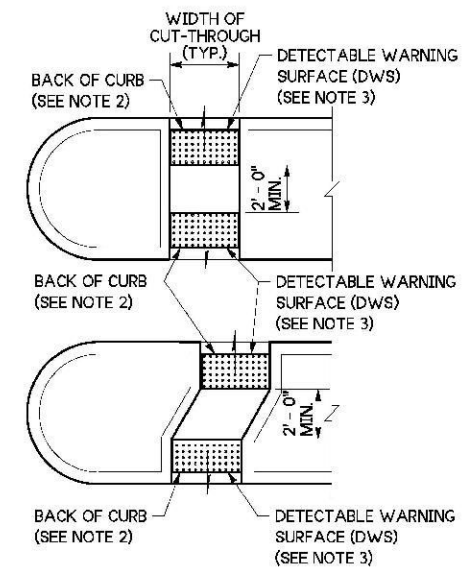
PEDESTRIAN RAILROAD CROSSING



SHARED-USE PATH CONNECTION

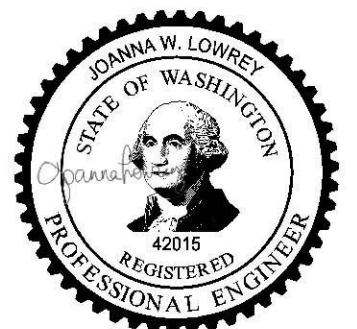
NOTES:

1. Permanent Detectable Warning Surfaces (DWS) shall extend the full width of the curb ramp, landing, or other roadway entrance as applicable. Exception: If the manufacturer of the DWS requires a concrete border around the DWS, a variance of up to 2" (in) on each side of the DWS is permitted.
2. Permanent Detectable Warning Surfaces (DWS) shall be placed on a minimum 4" (in) thick concrete pad. The DWS panel shall be placed adjacent to the back of the curb and with no more than a 2" (in) gap between the DWS and the back of the curb measured at the center of the DWS panel. Exception: If the Manufacturer of the selected DWS requires a concrete border around the DWS, a variance of up to 2" (in) from the back of the curb is permitted (measured at the leading corners of the DWS panel).
3. The rows of truncated domes shall be aligned to be parallel to the direction of travel, and perpendicular to the grade break at the back of curb.
4. If curb and gutter are not present, such as a shared-use path connection, the Detectable Warning Surface shall be placed at the pavement edge.
5. See **Standard Plans** for sidewalk and curb ramp details.
6. If a curb ramp is required, the location of the Detectable Warning Surface must be at the bottom of the ramp and within the required distance from the rail crossing.
7. When the grade break between the curb ramp and the landing is less than or equal to 5 feet from the back of curb at all points, place the Detectable Warning Surface on the bottom of the curb ramp directly above the grade break.
8. Glued or stick down Detectable Warning Surfaces are allowed only for temporary work zone applications.



MEDIAN CUT-THROUGH

LEGEND
— DIRECTION OF TRAVEL



Jun 4, 2024

DETECTABLE WARNING SURFACE

STANDARD PLAN F-45.10-05

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

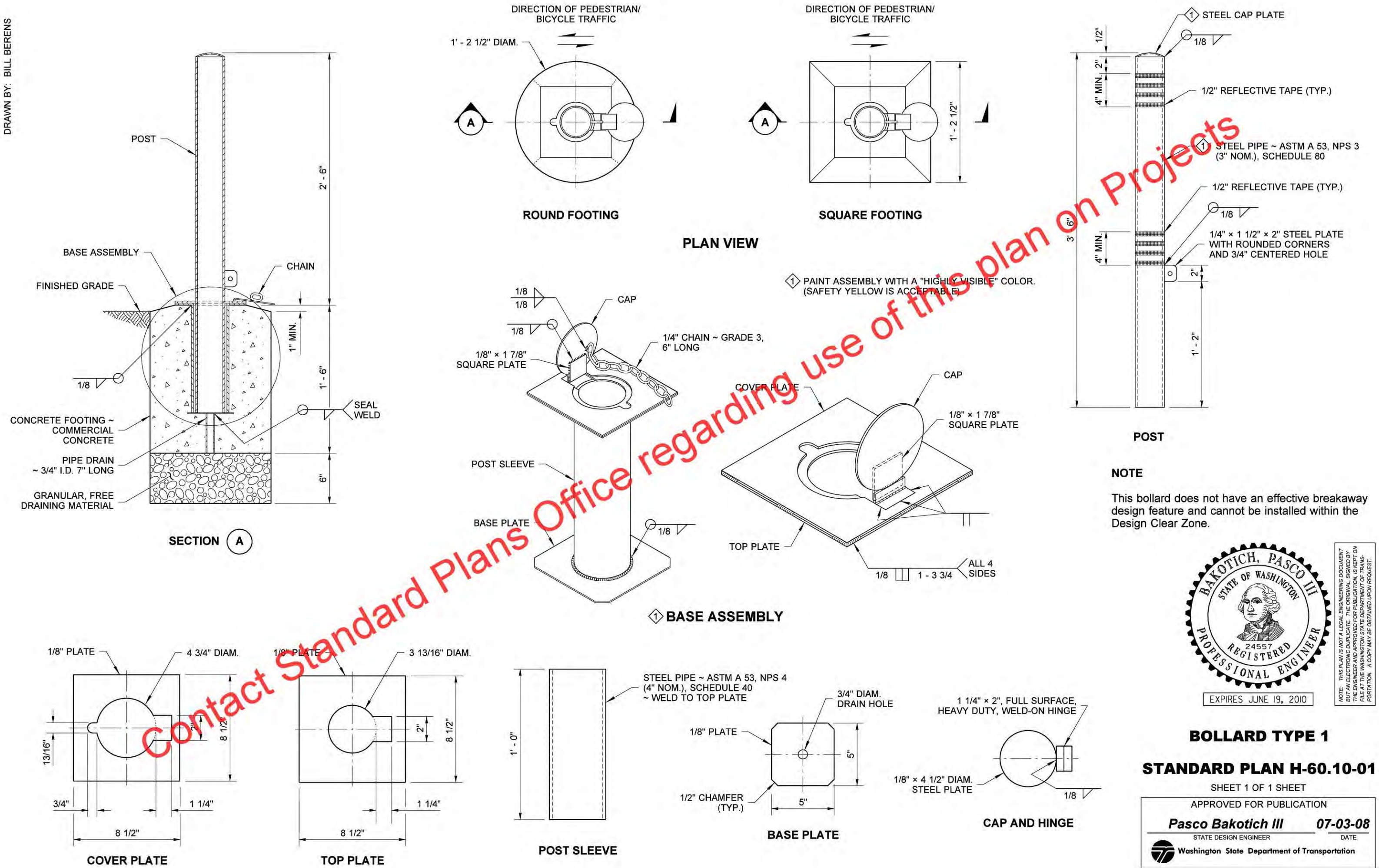
Mark A. Davies

Jun 4, 2024

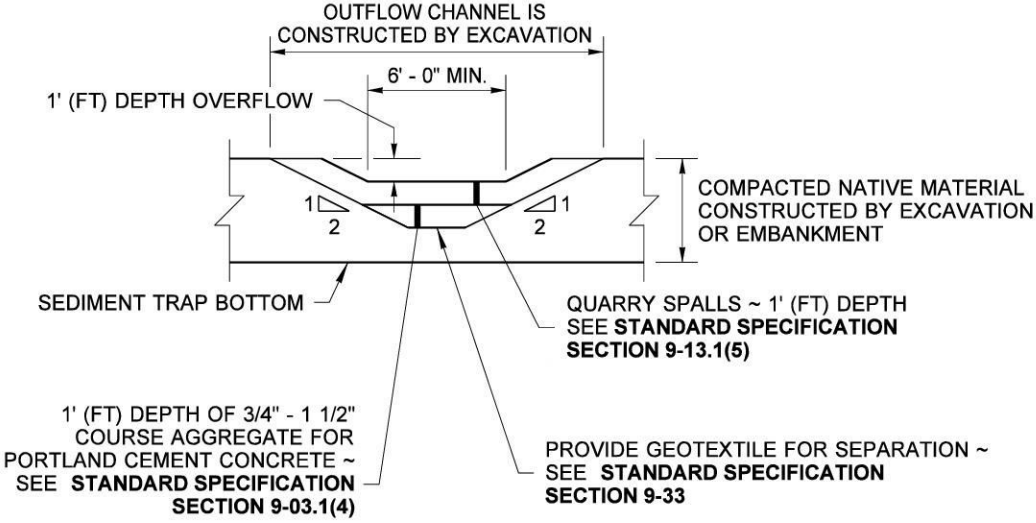
STATE DESIGN ENGINEER



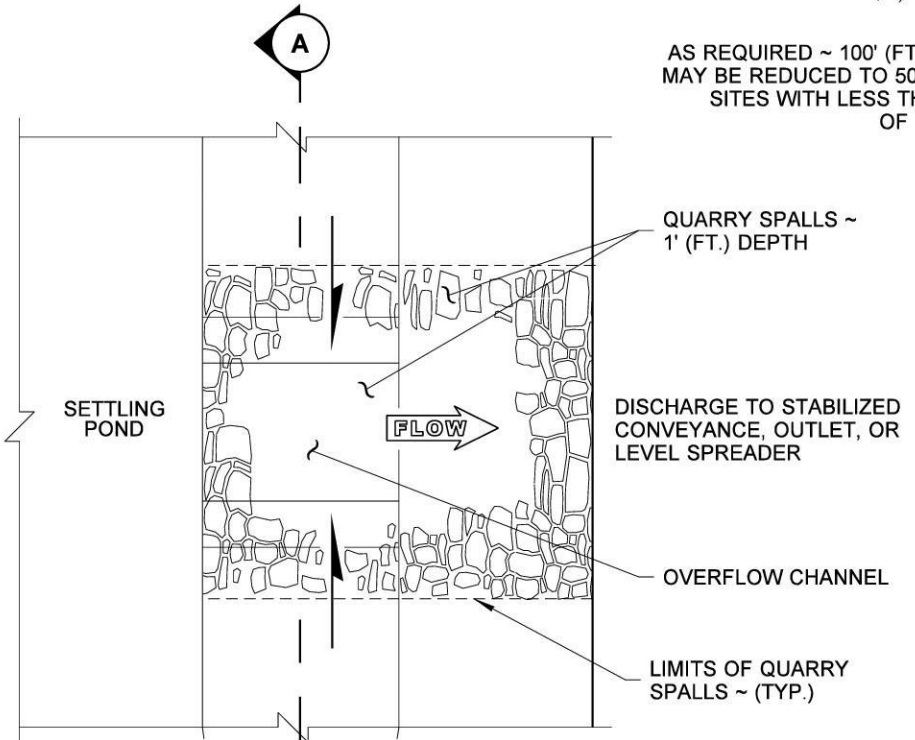
Washington State Department of Transportation



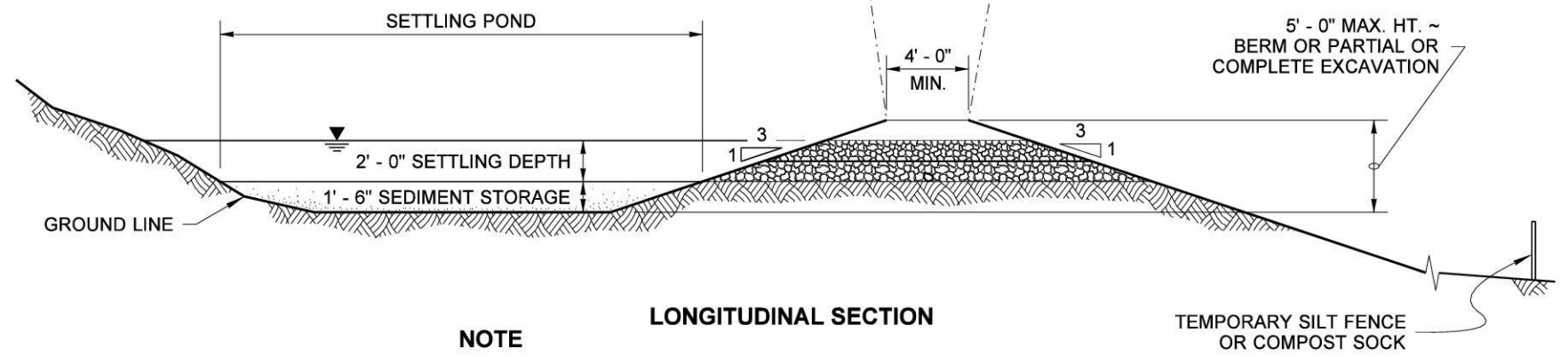
DRAWN BY: FERN LIDDELL



SECTION A



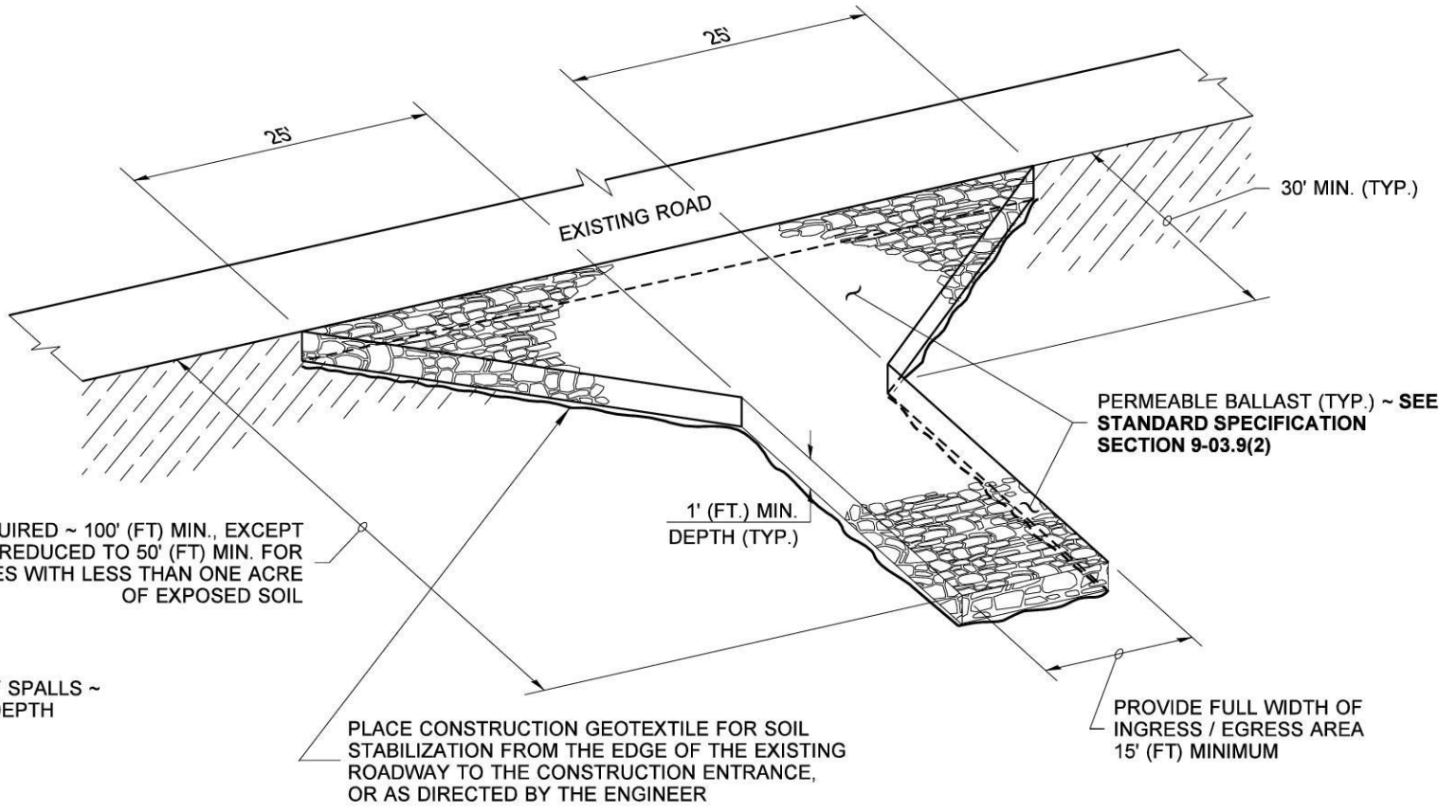
PARTIAL PLAN VIEW OF BERM
SHOWN LARGER FOR CLARITY



LONGITUDINAL SECTION

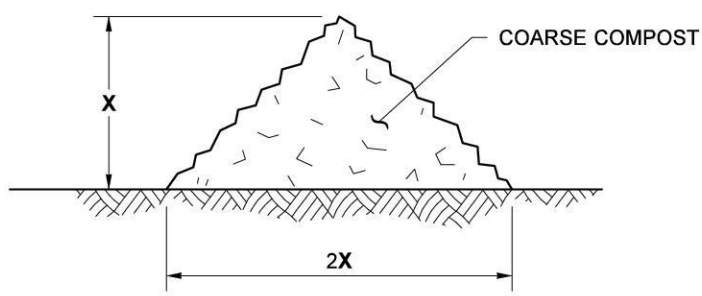
NOTE
PLACE GEOTEXTILE UNDER THE SPILLWAY AND SIDE SLOPES. PROVIDE A CONTINUOUS LAYER BETWEEN THE GRAVEL/ROCK AND THE NATIVE EARTHEN MATERIAL.

TEMPORARY SEDIMENT TRAP



ISOMETRIC VIEW
STABILIZED CONSTRUCTION ENTRANCE

STABILIZED CONSTRUCTION ENTRANCE SHALL MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 8-01.3(7).



X = 1' - 0" FOR SLOPES 4H:1V OR FLATTER
X = 1' - 6" FOR SLOPES STEEPER THAN 4H:1V

TYPICAL SECTION
COMPOST BERM DETAIL



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
JULI DEE HARTWIG
LICENSE NO. 1422
DATE: 06-21-17

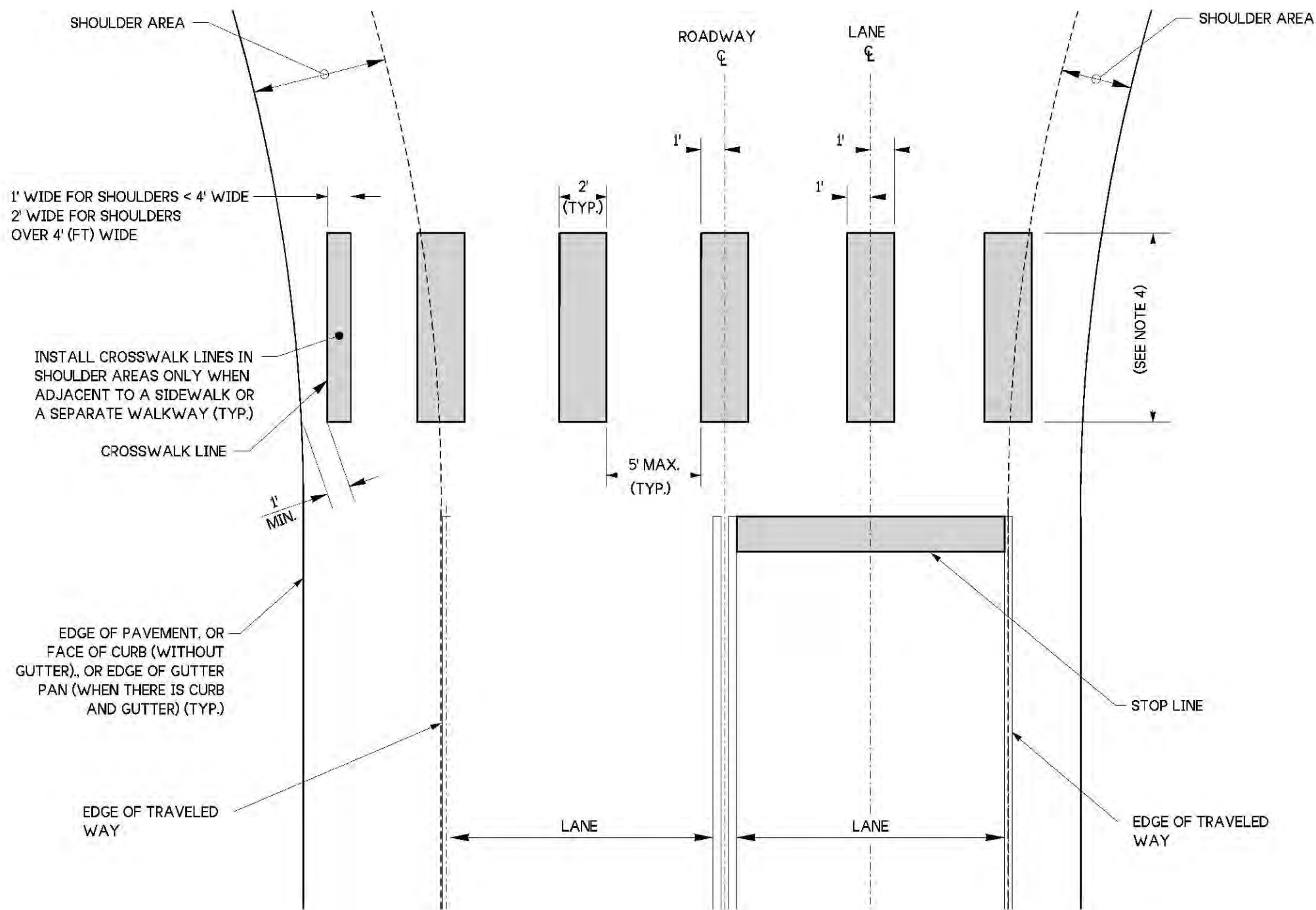
**MISCELLANEOUS
EROSION CONTROL DETAILS
STANDARD PLAN I-80.10-02**

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION



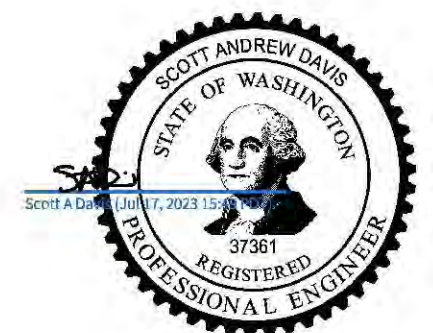
STATE DESIGN ENGINEER
Washington State Department of Transportation



CROSSWALK DETAIL

NOTES:

1. See Contract Plans for crosswalk locations.
2. To the maximum extent possible, curb ramp centerline should be perpendicular to the crosswalk centerline.
3. To the maximum extent possible, crosswalks should be perpendicular to the traveled way centerline.
4. See Contract plans for crosswalk width.
5. To maximum extent possible, place crosswalk bars out of the wheel paths.



Jul 17, 2023

CROSSWALK LAYOUT

STANDARD PLAN M-15.10-02

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Mark A. Davies

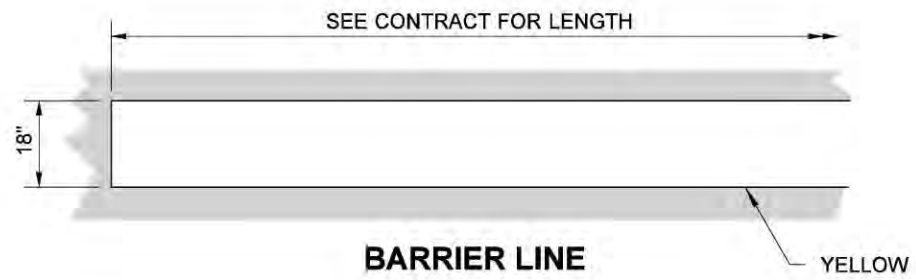
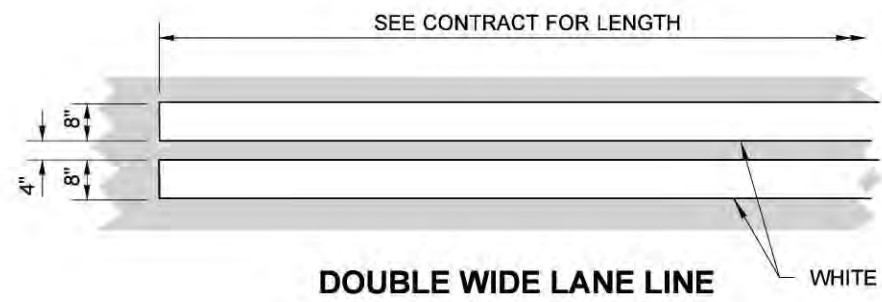
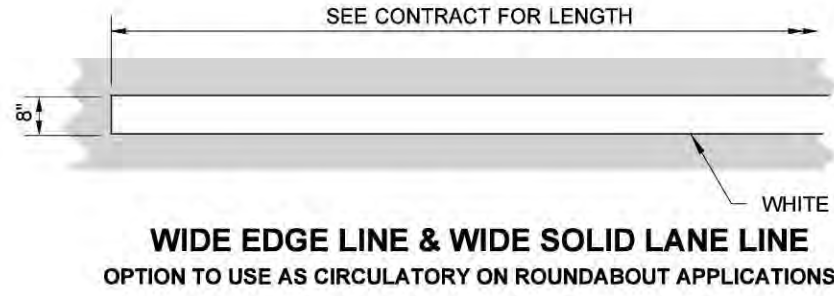
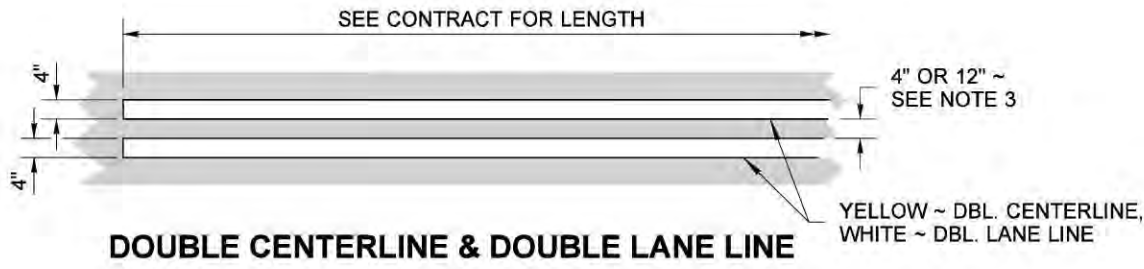
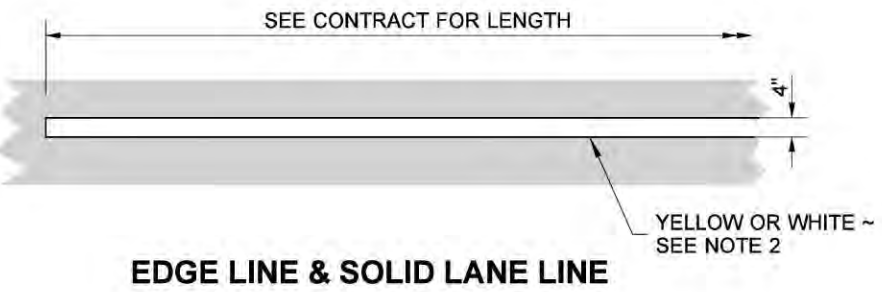
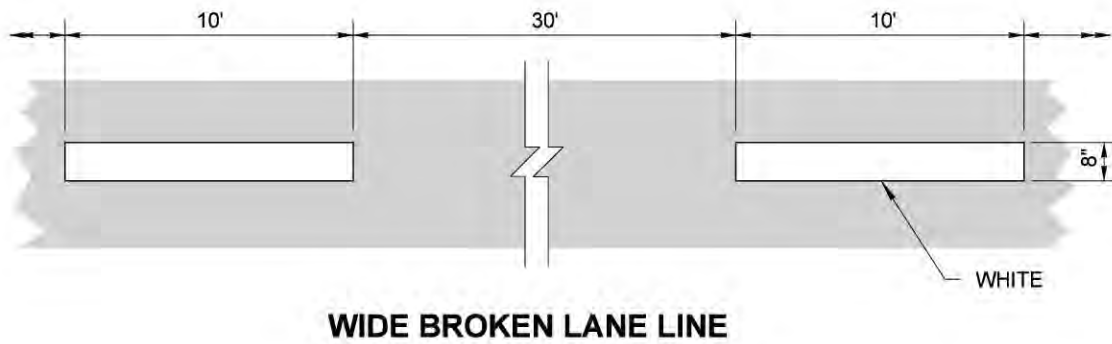
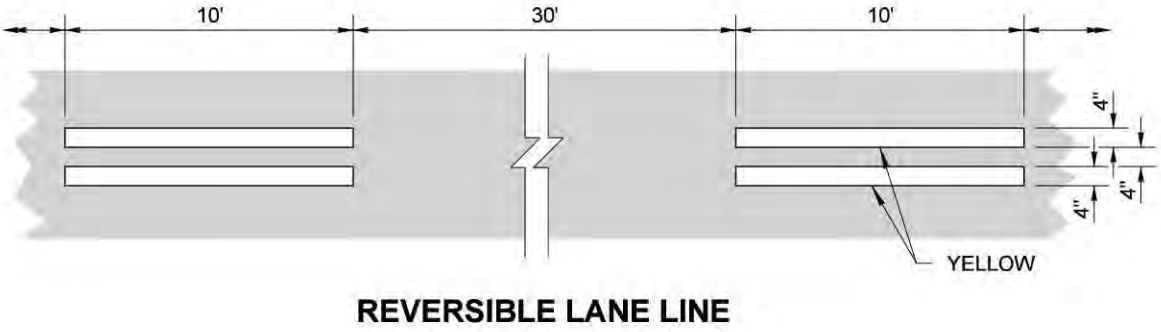
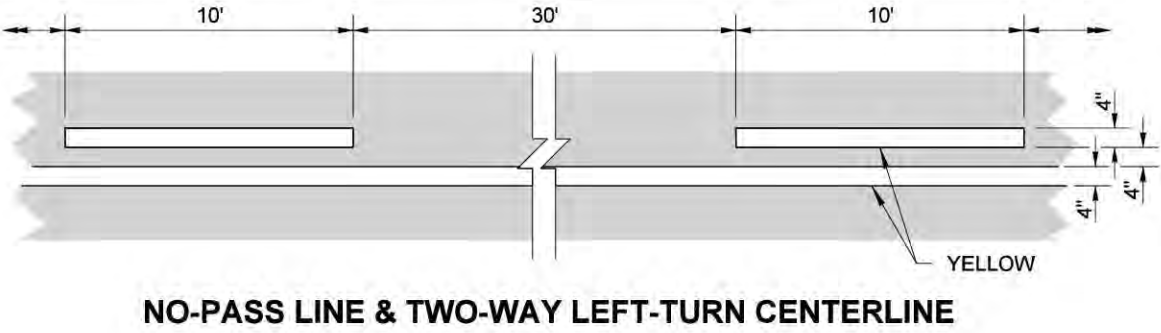
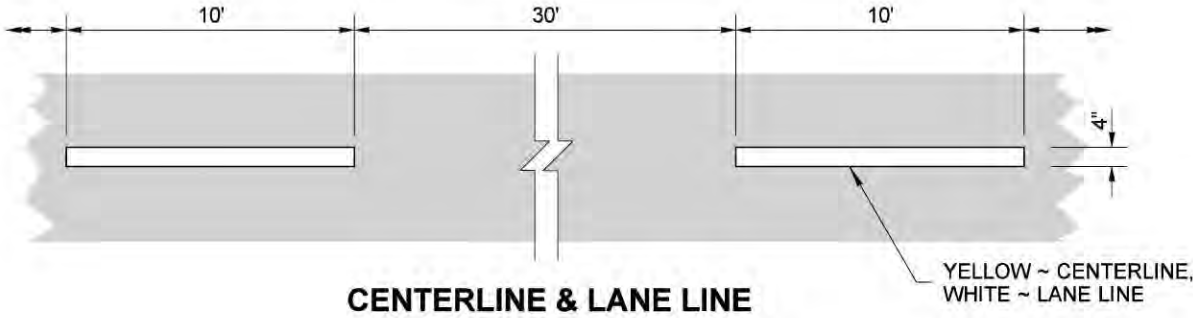
Jul 17, 2023



Washington State
Department of Transportation

STATE DESIGN ENGINEER

DRAWN BY: FERN LIDDELL



NOTES

1. Dotted Extension Line shall be the same color as the line it is extending.
2. Edge Line shall be white on the right edge of traveled way, and yellow on the left edge of traveled way (on one-way roadways). Solid Lane Line shall be white.
3. The distance between the lines of the Double Centerline shall be 12" everywhere, except 4" for left-turn channelization and narrow roadways with lane widths of 10 feet or less. Local Agencies (on non-state routes) may specify a 4" distance for all locations.
The distance between the lines of the Double Lane Line shall be 4".

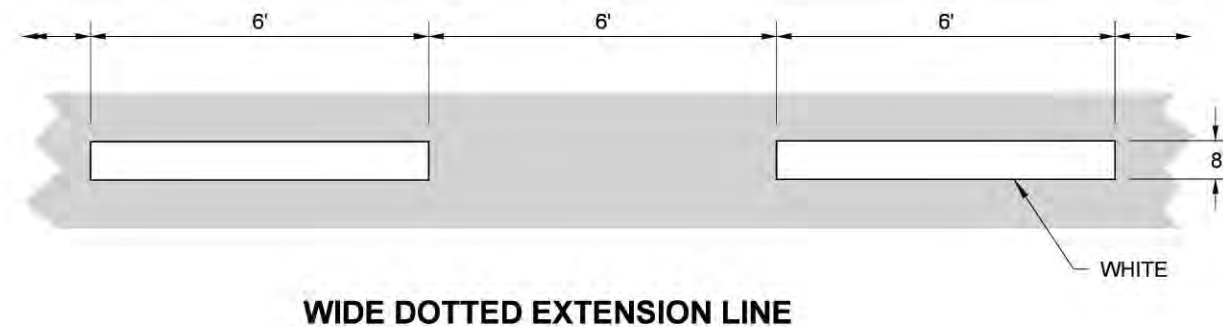
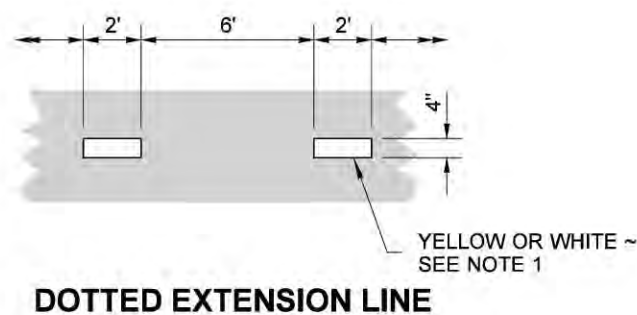
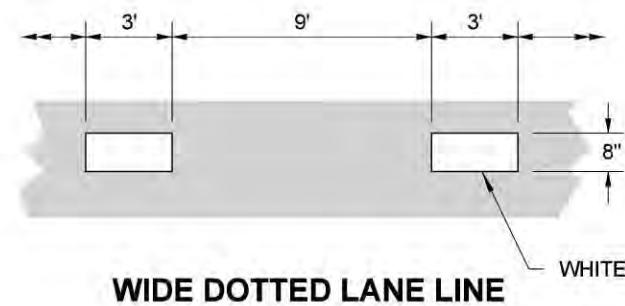
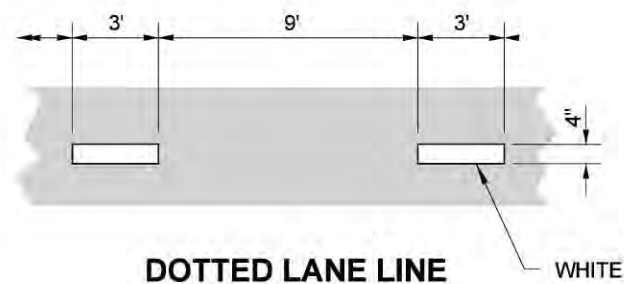


Aug 1, 2022

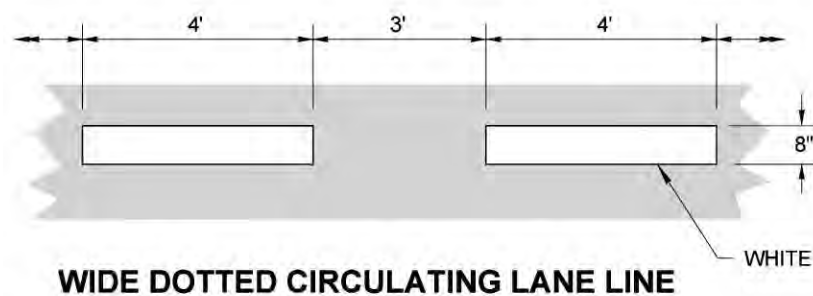
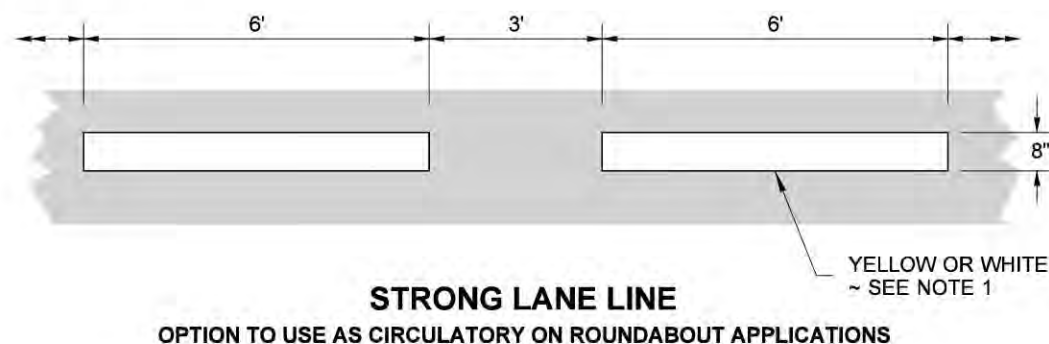
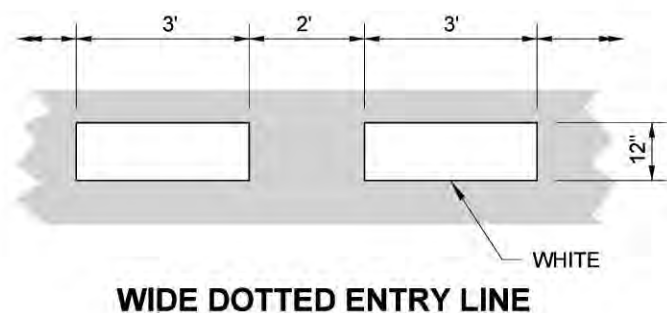
LONGITUDINAL MARKING PATTERNS
STANDARD PLAN M-20.10-04

SHEET 1 OF 4 SHEETS

APPROVED FOR PUBLICATION
Mark Gaines
Mark Gaines (Aug 2, 2022 10:17 PDT)
Aug 2, 2022
STATE DESIGN ENGINEER
Washington State Department of Transportation



ROUNDAABOUT SPECIFIC LINES



Aug 1, 2022

LONGITUDINAL MARKING PATTERNS STANDARD PLAN M-20.10-04

SHEET 2 OF 4 SHEETS

APPROVED FOR PUBLICATION

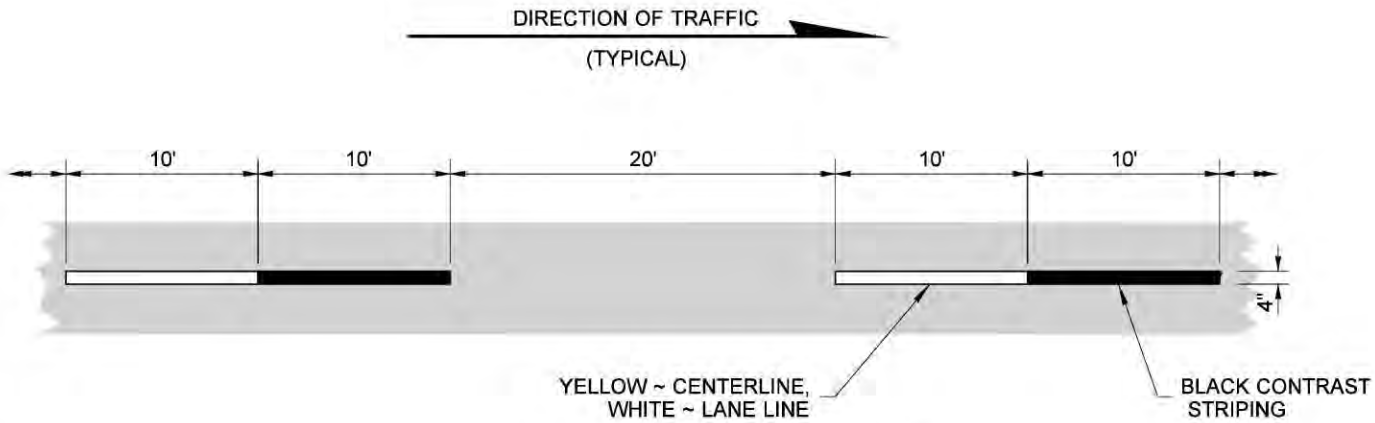
Mark Gaines
Mark Gaines (Aug 2, 2022 10:17 PDT)

Aug 2, 2022

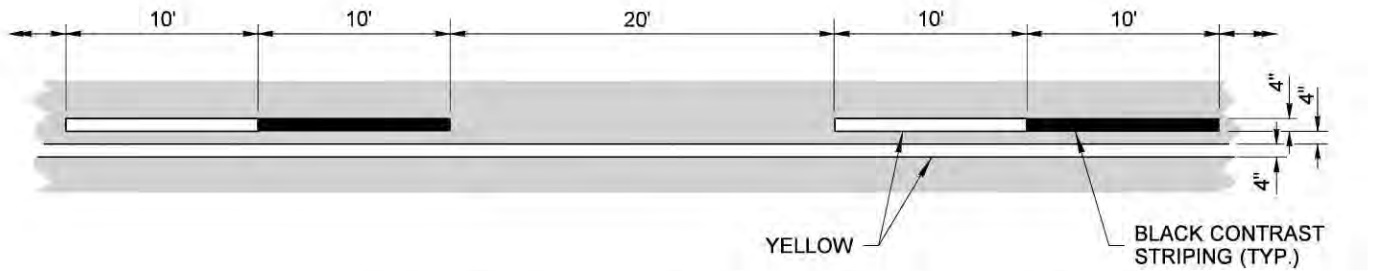


STATE DESIGN ENGINEER
Washington State Department of Transportation

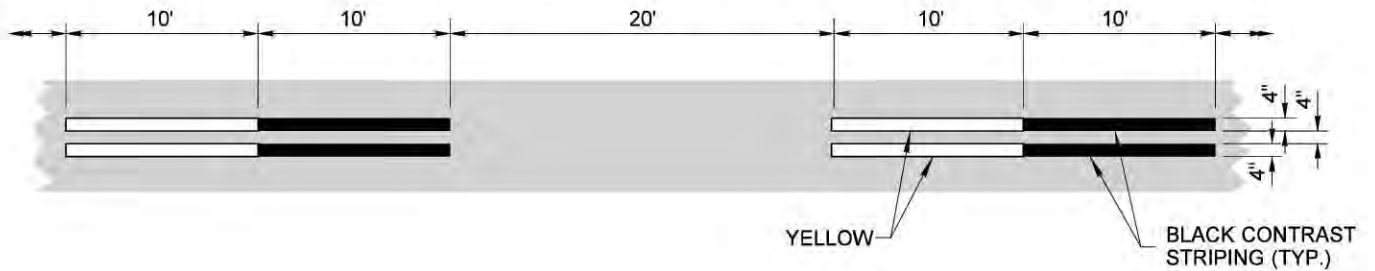
DRAWN BY: FERN LIDDELL



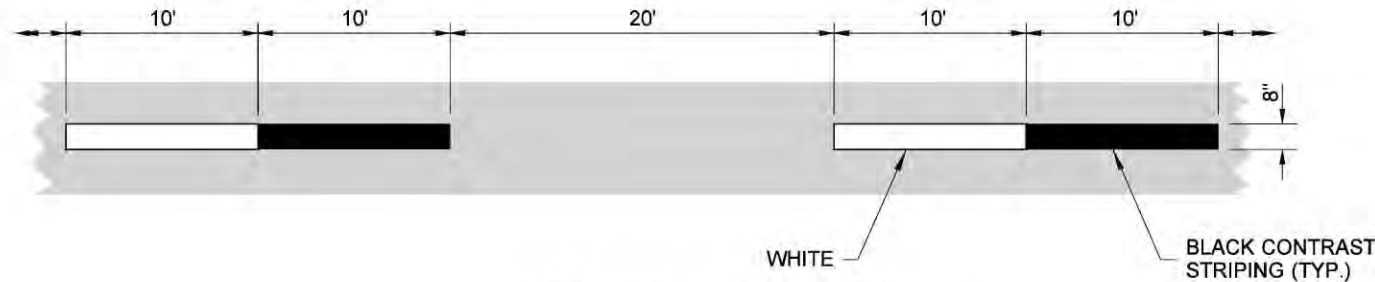
CENTERLINE & LANE LINE



NO-PASS LINE & TWO-WAY LEFT-TURN CENTERLINE



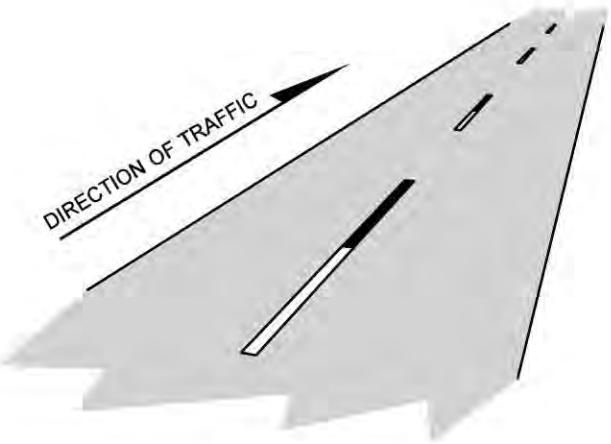
REVERSIBLE LANE LINE



WIDE BROKEN LANE LINE

NOTE

1. Dotted Extension Line shall be the same color as the line it is extending.



ISOMETRIC VIEW



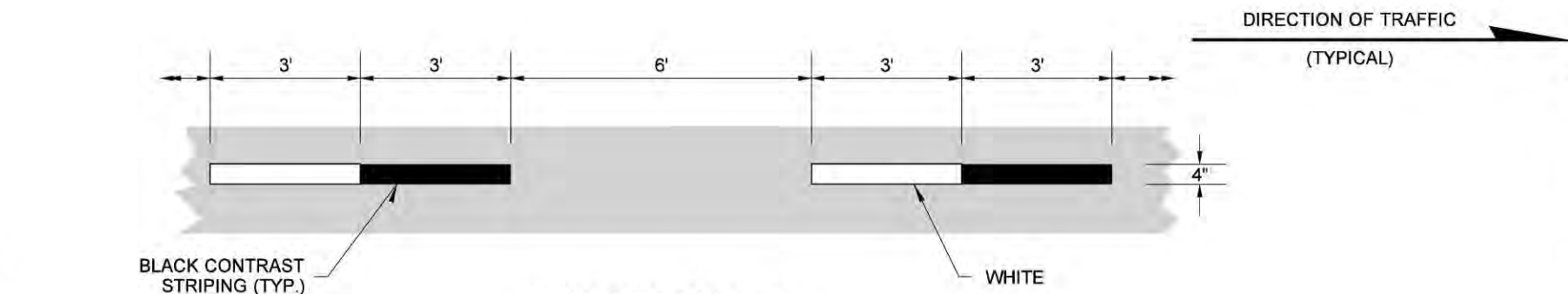
Aug 1, 2022

LONGITUDINAL MARKING PATTERNS
STANDARD PLAN M-20.10-04

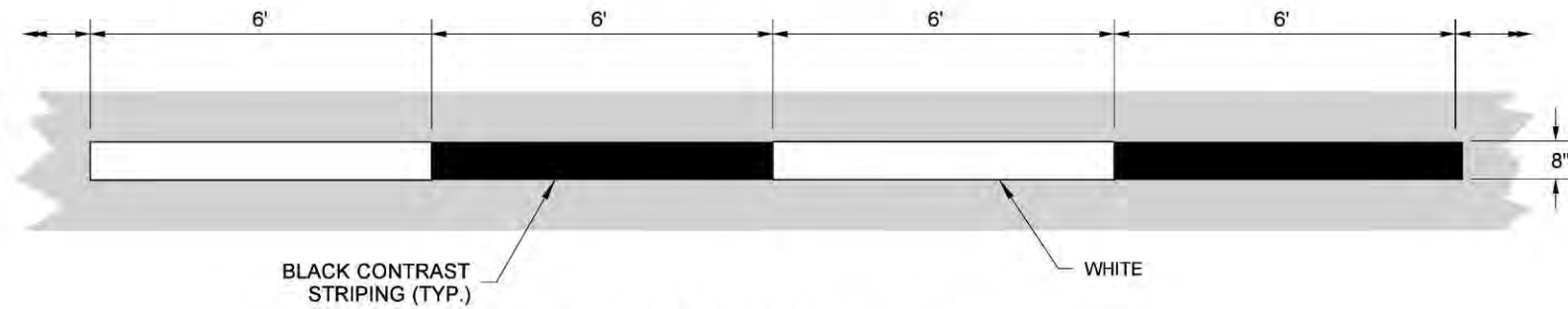
SHEET 3 OF 4 SHEETS

APPROVED FOR PUBLICATION	
<i>Mark Gaines</i> Mark Gaines (Aug 2, 2022 10:17 PDT)	Aug 2, 2022
STATE DESIGN ENGINEER	
Washington State Department of Transportation	

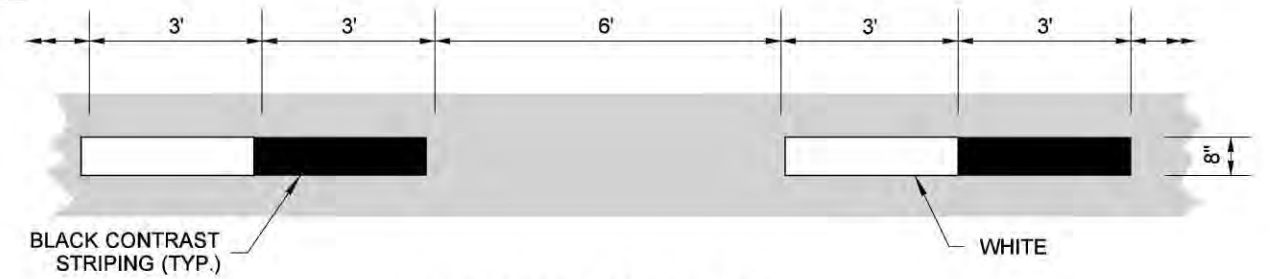
DRAWN BY: FERN LIDDELL



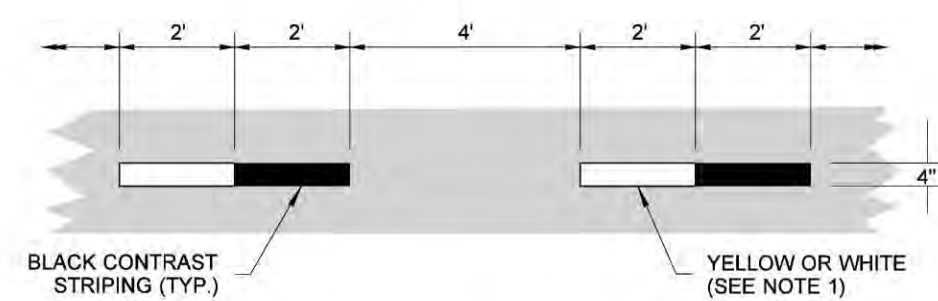
DOTTED LANE LINE



WIDE DOTTED EXTENSION LINE

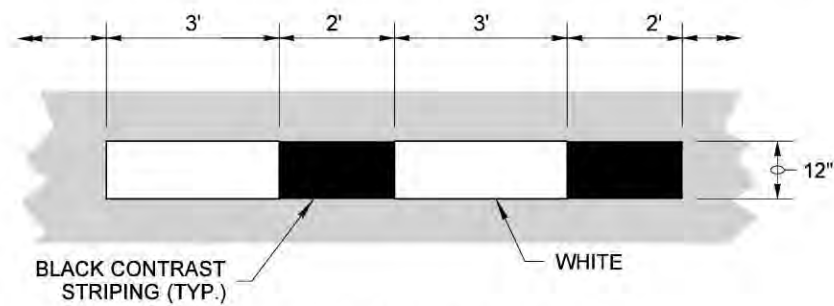


WIDE DOTTED LANE LINE

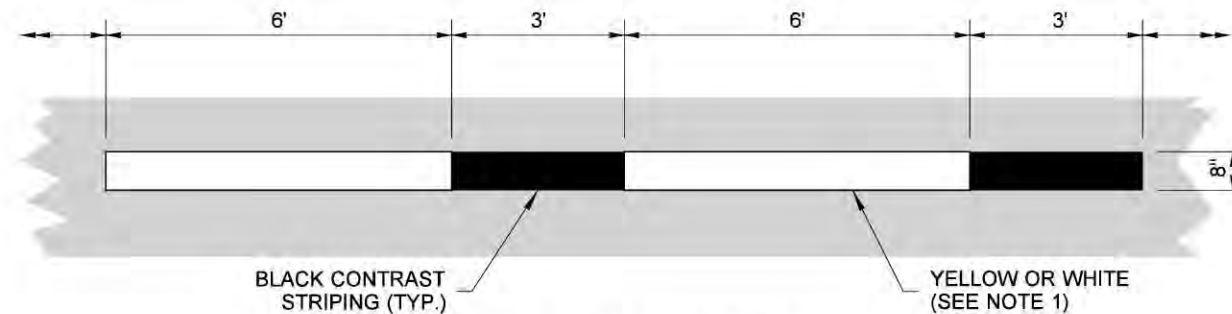


DOTTED EXTENSION LINE

ROUNDBABOUT SPECIFIC LINES

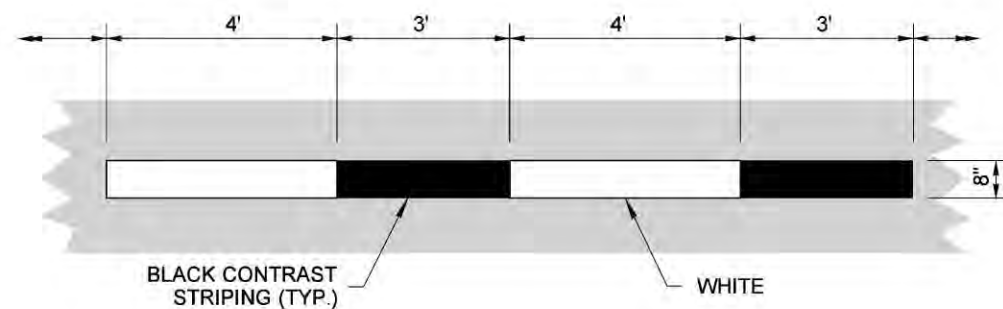


WIDE DOTTED ENTRY LINE



STRONG LANE LINE

OPTION TO USE AS CIRCULATORY ON ROUNDABOUT APPLICATIONS



WIDE DOTTED CIRCULATING LANE LINE



Aug 1, 2022

LONGITUDINAL MARKING PATTERNS

STANDARD PLAN M-20.10-04

SHEET 4 OF 4 SHEETS

APPROVED FOR PUBLICATION

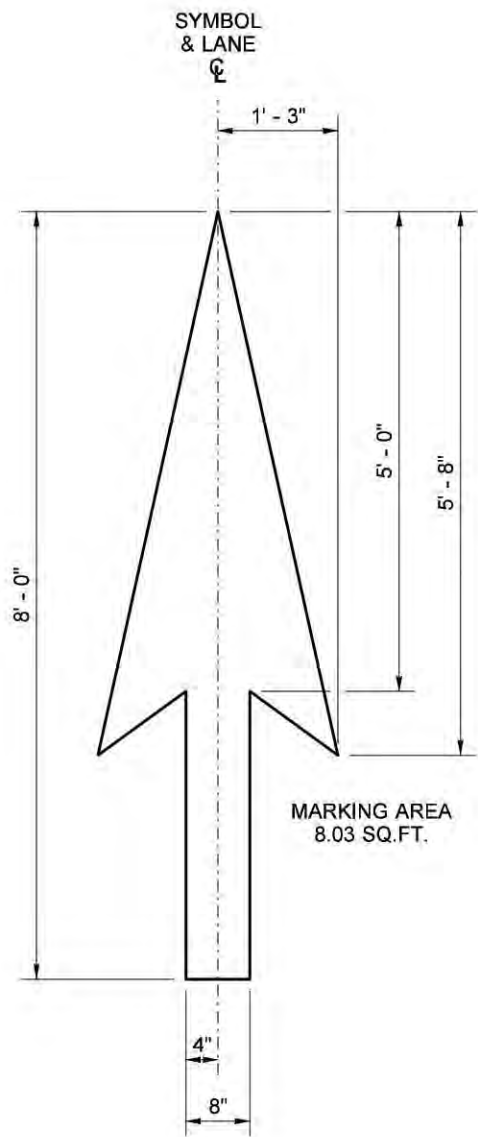
Mark Gaines
Mark Gaines (Aug 2, 2022 10:17 PDT)

Aug 2, 2022

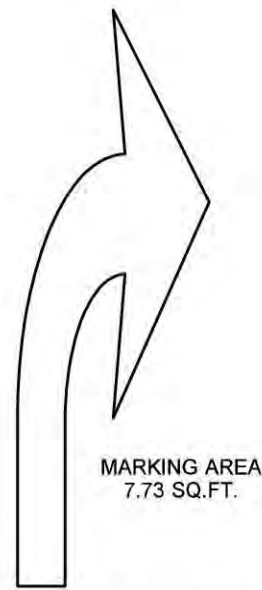
STATE DESIGN ENGINEER



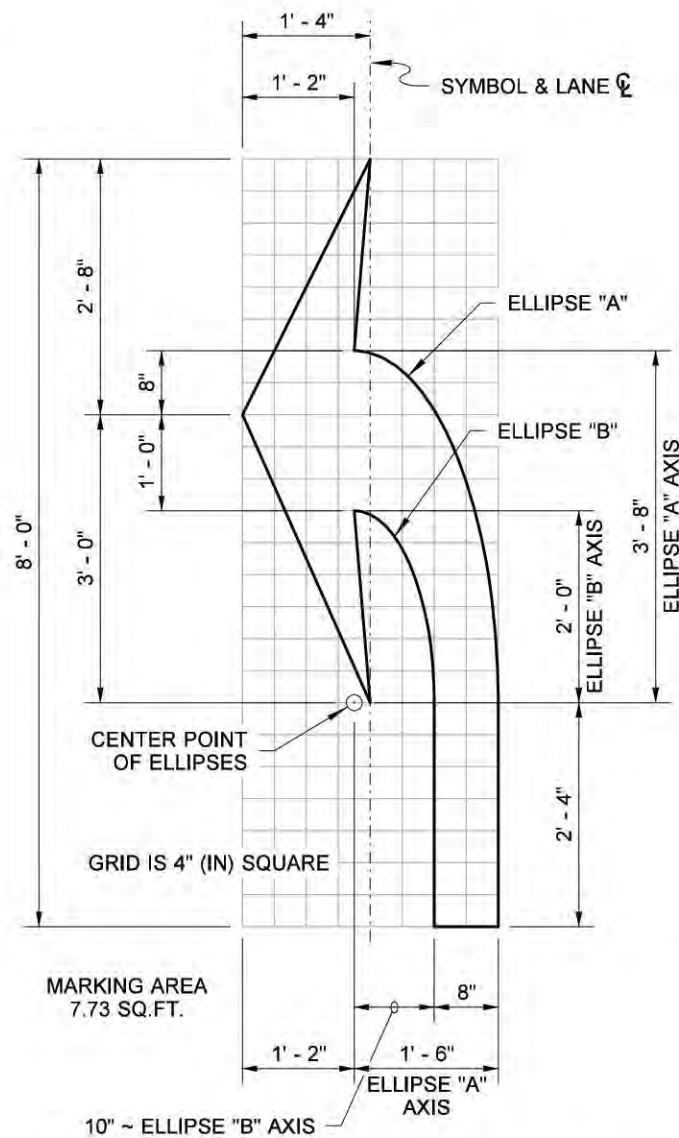
Washington State Department of Transportation



**TYPE 1S
TRAFFIC ARROW**



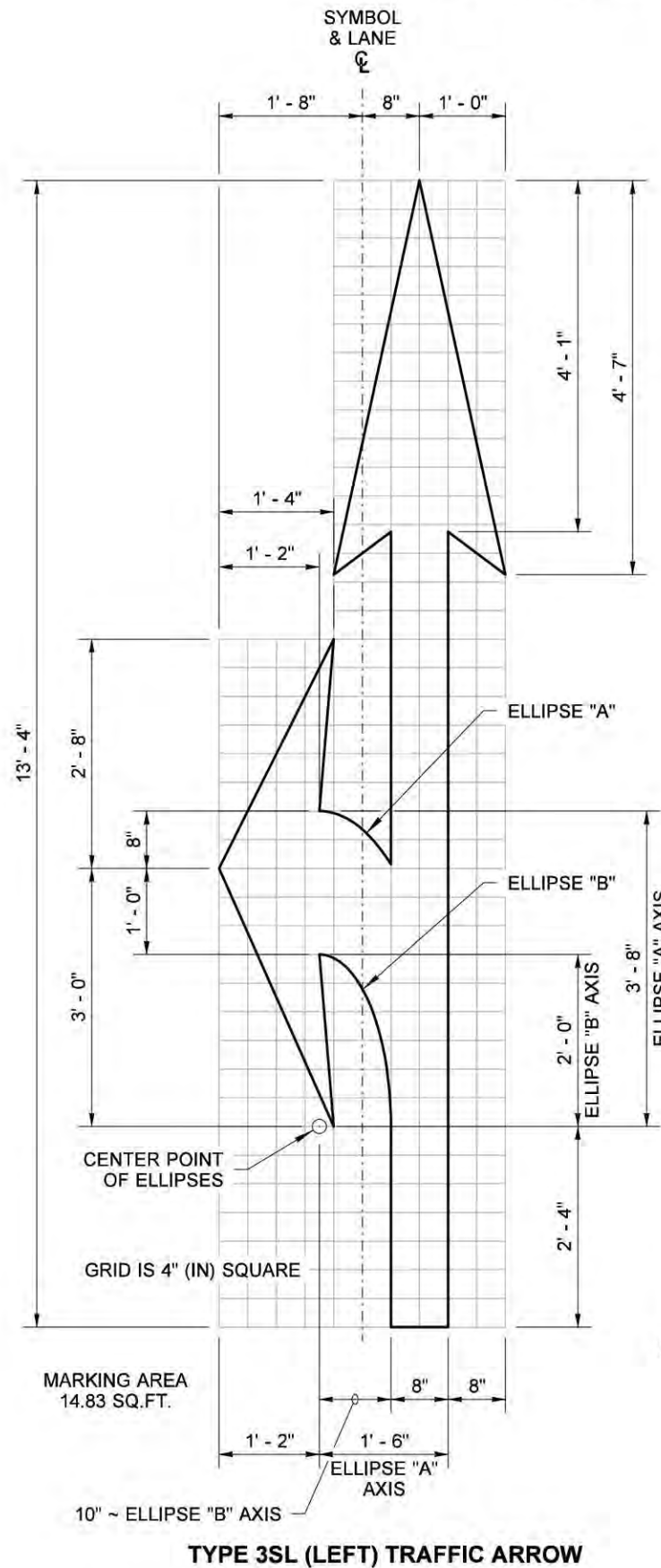
**TYPE 2SR (RIGHT)
TRAFFIC ARROW**
MIRROR IMAGE OF
TYPE 2SL TRAFFIC ARROW
(SHOWN AT REDUCED SCALE)



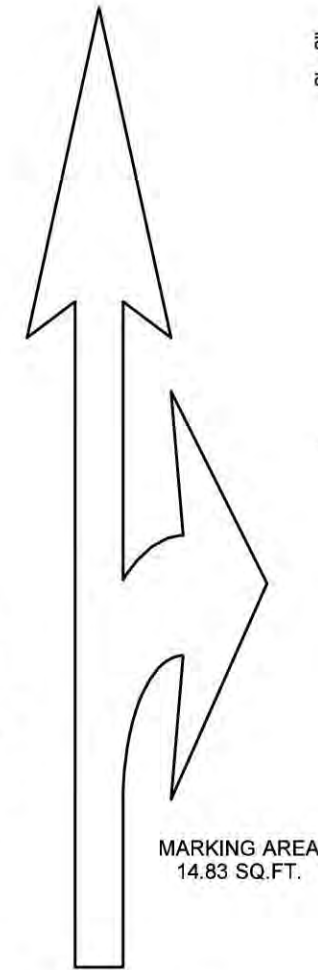
TYPE 2SL (LEFT) TRAFFIC ARROW

NOTE

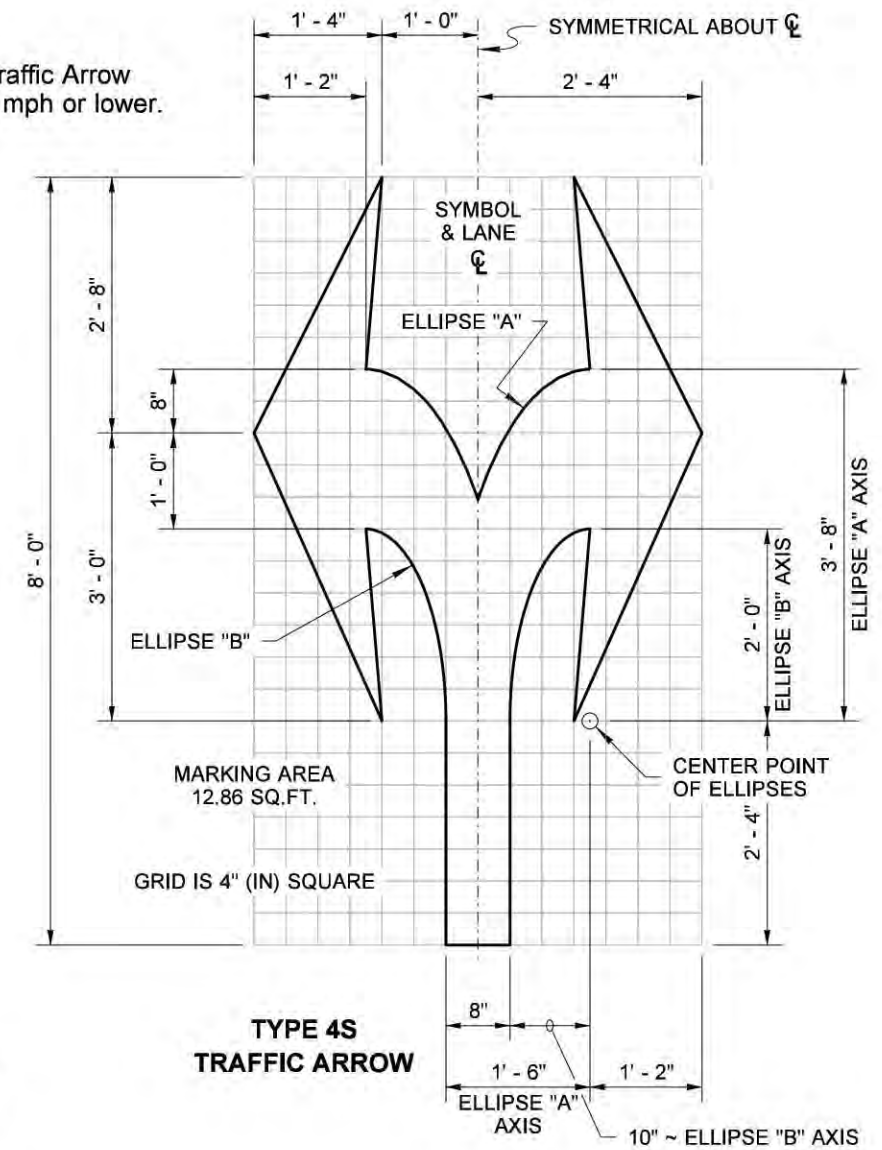
Use the dimensions shown on this plan for each type of Traffic Arrow being placed on roadways with a posted speed limit of 40 mph or lower.



TYPE 3SL (LEFT) TRAFFIC ARROW



**TYPE 3SR (RIGHT)
TRAFFIC ARROW**
MIRROR IMAGE OF
TYPE 3SL TRAFFIC ARROW
(SHOWN AT REDUCED SCALE)



**TYPE 4S
TRAFFIC ARROW**



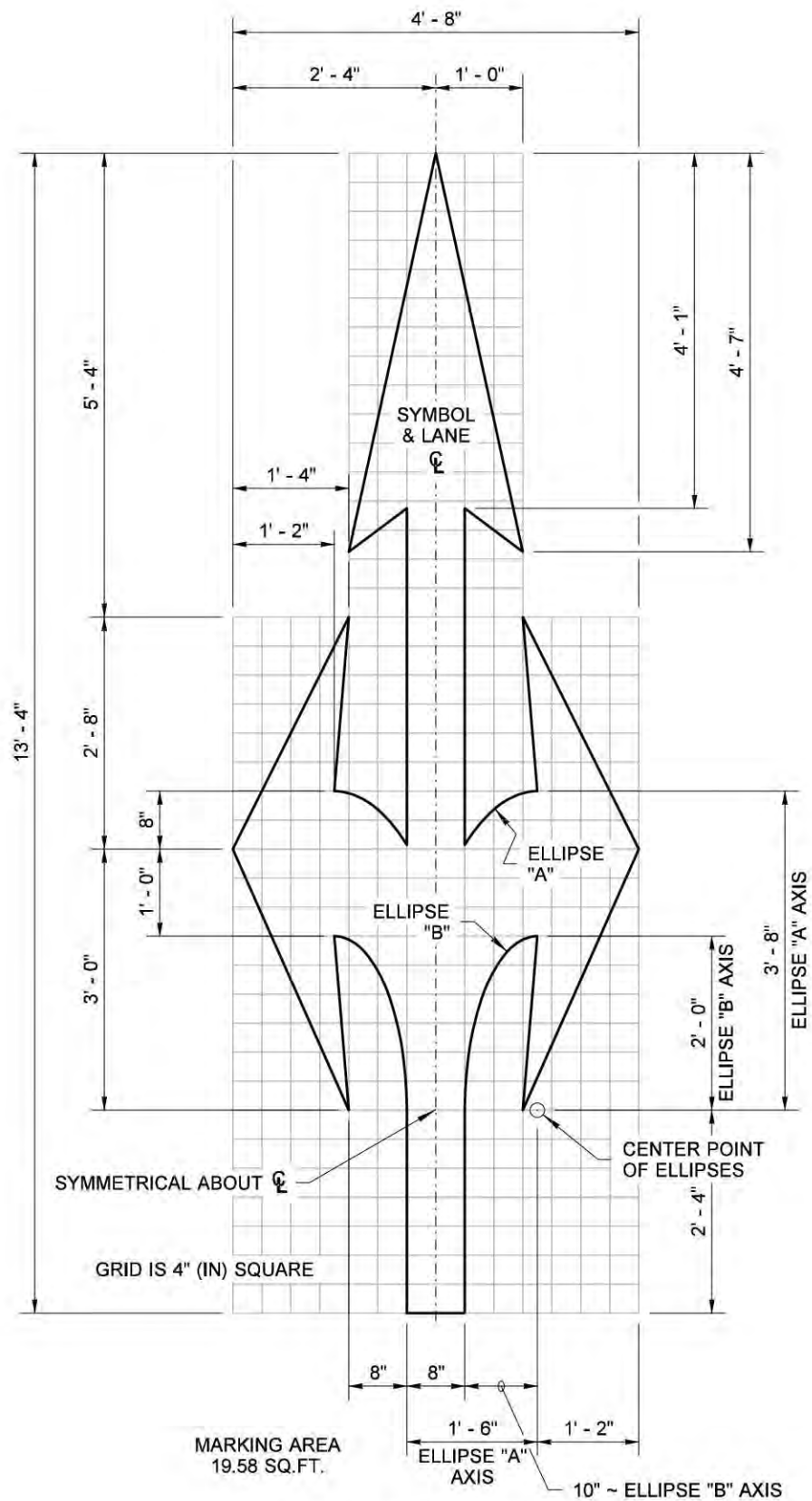
Walsh, Brian
Apr 16 2015 2:21 PM
**SYMBOL MARKINGS ~
TRAFFIC ARROWS FOR
LOW-SPEED ROADWAYS
STANDARD PLAN M-24.40-02**

SHEET 1 OF 2 SHEETS

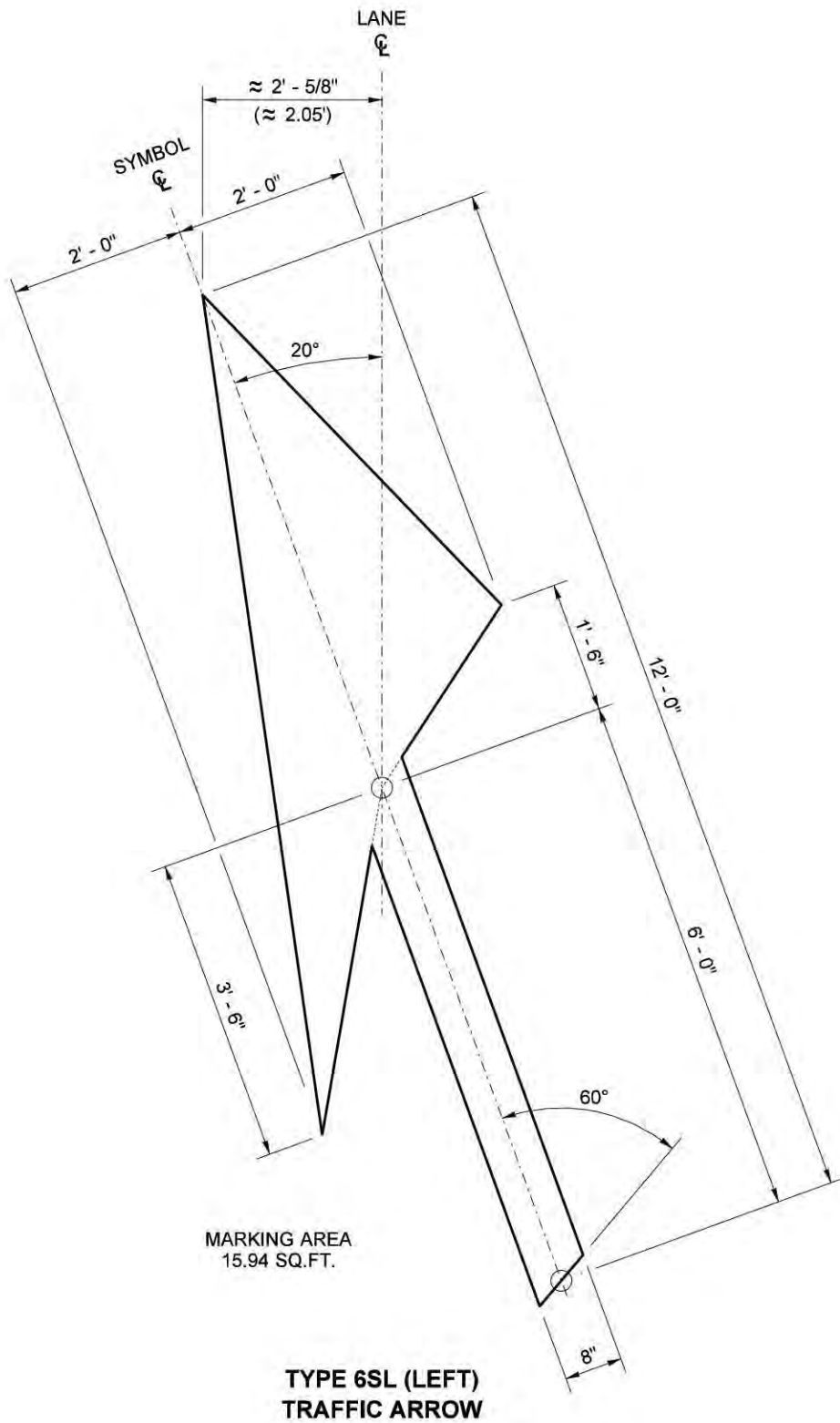
APPROVED FOR PUBLICATION
Bakotich, Pasco
Apr 20 2015 10:11 AM
STATE DESIGN ENGINEER
Washington State Department of Transportation

DRAWN BY: COLBY FLETCHER

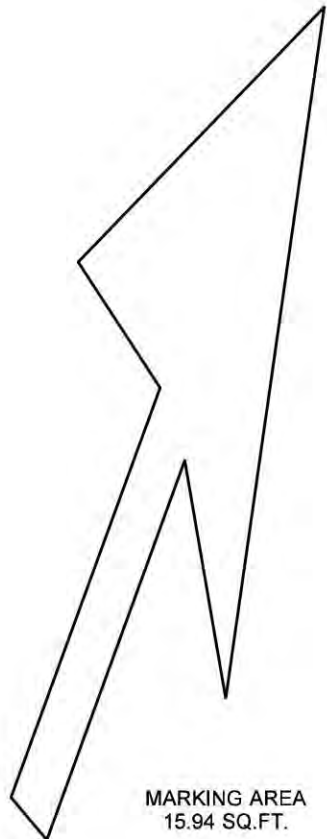
DRAWN BY: COLBY FLETCHER



TYPE 7S TRAFFIC ARROW



TYPE 6SL (LEFT)
TRAFFIC ARROW



TYPE 6SR (RIGHT)
TRAFFIC ARROW

MIRROR IMAGE OF TYPE 6SL
(MIRRORED ABOUT LANE CENTERLINE)
(SHOWN AT REDUCED SCALE)



Walsh, Brian
Apr 16 2015 2:21 PM

**SYMBOL MARKINGS ~
TRAFFIC ARROWS FOR
LOW-SPEED ROADWAYS
STANDARD PLAN M-24.40-02**

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

Bakofich, Pasco
Apr 20 2015 10:11 AM

STATE DESIGN ENGINEER

Washington State Department of Transportation

APPENDIX K

DRAFT TEMPORARY CONSTRUCTION EASEMENT FOR TAHOMA SCHOOL DISTRICT

TEMPORARY EASEMENT

After recording return document to:

City of Maple Valley – City Clerk
PO Box 320
Maple Valley, WA 98038

Document Title: Temporary Easement

Grantor: Tahoma School District

Grantee: City of Maple Valley

Legal Description: Ptn NW NE Section 27, Township 22N, Range 6E

Assessor's Tax Parcel Number: Ptn 2722069056

TEMPORARY EASEMENT

In the Matter of: Maple Valley Highway (SR 169) Pedestrian Bridge

Project No.: T-57

Parcel No.: 69056

THIS TEMPORARY EASEMENT AGREEMENT (the "Agreement") is made this ____ day of _____, 2026 by and between Tahoma School District No. 409, a political subdivision of the State of Washington ("Grantor") and the City of Maple Valley, a municipal corporation ("Grantee") for the purposes set forth below.

1. Grantor, for and in consideration of the sum of ten dollars (\$10.00) and other good and valuable consideration including, without limitation, the benefits to accrue to the Grantor as a result of the Project as described herein, conveys and grants to Grantee, and its agents and assigns, the temporary right, privilege and easement over, upon, and across a portion of the real property legally described on **Exhibit A** attached hereto and incorporated herein by this reference ("Grantor's Property") for certain limited purposes related to the construction of right-of-way improvements described more fully herein (the "Project"). The Temporary Easement is depicted on **Exhibits B and C** attached hereto and incorporated herein by this reference, with the depicted area referred to hereinafter as the "Easement Area".

2. The Project includes the construction of a grade separated pedestrian bridge with ADA ramps on both sides of SR 169 improvements. The Project includes constructing, installing, and inspecting bridge structures, slopes, walls, ADA ramps, sidewalks, curbs, gutters, drainage, related road and utility construction

TEMPORARY EASEMENT

activities, and other activities as are necessary or convenient for the construction of the Project, together with the right of ingress and egress thereto, all as consistent with Section 3 herein.

3. Grantee's exercise of its rights in the Easement Areas shall be governed by the following:

a. Grantee shall be responsible, at its sole cost and expense, for all costs related to the Project and any of Grantee's obligations hereunder.

b. Grantee shall, prior to commencing any work on the Project, obtain any and all permits, approvals, and/or authorizations from federal, state, or local agencies required for the Project and shall comply with all applicable laws, rules and regulations in the performance of the Project. Grantor's requirement as set forth herein shall not be interpreted in any manner as Grantor's independent review or approval of such permits or the work as satisfactory for purposes of the Project.

c. Grantee shall have the right, with at least five (5) days advance notice by Grantee to Grantor of the initial commencement of construction containing a schedule for the Project, to enter upon the Easement Areas provided that any Grantee entrance shall be solely from Grantee's adjacent property or from State Route 169 or SE 258th Street and shall not, in any case, be over any portion of Grantor's Property outside of the Easement Areas.

d. Without limiting Section 3(c) above, Grantee shall coordinate with Grantor and take due care to not unreasonably interfere or interrupt school site operations. On days when school is in session, Grantee shall avoid use of the Easement Area during the following arrival and departure windows: from 8:30 to 9:30 am Monday through Friday; from 3:15 to 4:15 pm Monday through Thursday; and from 1:15 to 2:15 pm on Friday.

e. Grantee shall not be permitted to use the Easement Areas for construction staging, long-term parking, or stockpiling of any sort, nor shall Grantee be permitted to construct, erect, or maintain any structures or buildings in the Easement Areas; provided that, Grantee shall not park vehicles unattended in the easement areas during hours when the school is in operation.

f. Grantee shall, at all times when active work on the Project is suspended, secure any open ditches, trenches, holes, or similar openings created by the construction with plating or similar stable materials. In the event that Grantee starts but suspends temporarily its work, Grantee shall inform Grantor of the estimated length of such suspension. Grantee shall be solely responsible for the safety and security of its own work and Grantor shall have no obligation with regard to same. Without limiting the foregoing or the indemnification language below, Grantee shall, in the event of any suspension of work, install as needed reasonable safeguards to protect against injury to property or persons.

g. Grantee shall, as a part of completion of the Project, restore any portion of the Easement Areas not improved for the SR 169 Pedestrian Bridge to a condition as nearly as reasonably possible to its condition prior to any such material disturbance from the Project. Restoration shall include, without limitation, the removal of all debris in the Easement Areas. While Grantee does not have authority under this Agreement to disturb any areas outside of the Easement Areas, to the extent that any such disruption should occur, Grantee shall be required to

TEMPORARY EASEMENT

immediately, without waiting until completion of the Project, restore such area to the condition prior to such disturbance.

h. Grantee shall provide landscaping and temporary irrigation along the embankment slope within the temporary easement area. Irrigation and landscape maintenance will be provided by the Grantee and/or their contractors through the plant establishment period for no less than one year after planting. After this time, irrigation will be turned off and landscape maintenance will be the responsibility of the Grantor.

i. Grantee shall be required at all times to ensure that Grantee and any party acting by or through Grantee complies with the prohibition on the use of all tobacco products on public school property consistent with RCW 28A.210.310 and that no such person has been found guilty of any felony crime as specified in RCW 28A.400.330, generally regarding crimes against children.

4. The term of this Temporary Easement ("Term") shall commence on December 1, 2026 and shall terminate on December 31, 2028 unless terminated earlier by Grantee upon completion of the Project. It is further agreed that this Temporary Easement may be extended by up to one (1) year at the Grantee's option. Grantee shall notify Grantor at least sixty (60) days prior to December 31, 2028 in writing prior to exercising this option.

5. During the Project and until final completion and acceptance thereof, the Grantor shall not use the Easement Areas in a manner inconsistent with the purpose of the Temporary Easement and the use by the Grantee or Grantee's agents and assigns.

6. Grantee shall protect, defend, indemnify, and hold harmless Grantor and its successors or assigns and employees, and authorized agents, while acting within the scope of their employment as such, from any and all costs, claims, judgments, and /or awards of damages (both to persons and/or property), arising out of, or in any way resulting from, Grantee's use of the Easement Areas as authorized herein. Grantee's use of the Easement Area includes Grantee's employees, authorized agents, invitees, and contractors' use of the property. Grantee shall not be required to indemnify, defend, or hold harmless Grantor if the claim, suit, or action for injuries, death, or damages (both to persons and/or property) is caused by the sole negligence of the Grantor, Grantor's employees, authorized agents, invitees, and contractors. If any claims, suits, or actions result from the concurrent negligence of: (a) the Grantor, its successors or assigns, employees, authorized agents, invitees, or contractors and (b) the Grantee, its employees, authorized agents, invitees or contractors, and/or involve those actions covered by RCW 4.24.115, the indemnity provisions provided herein shall be valid and enforceable only to the extent of the negligence of each Party, its employees, authorized agents, invitees, and/or contractors. The Grantor and Grantee agree that the indemnities and limitations herein extend to any claim, demand, and/or cause of action brought by, or on behalf of, any third party or any of its respective employees or agents stemming from one's presence within the Easement Areas for any purpose. For this purpose, Grantor and Grantee, by MUTUAL NEGOTIATION, hereby waive with respect to the other Party only, any immunity that would otherwise be available to it against such claims under the Industrial Insurance provisions chapter 51.12 RCW. The defense, indemnification and WAIVER

TEMPORARY EASEMENT

provisions contained in this Section shall survive the termination or expiration of this easement.

7. Grantee shall provide, upon request from Grantor, a copy of Grantee's compact with the Washington Cities Insurance Authority (WCIA). Grantor acknowledges that Grantee's membership in the WCIA insurance pool provides adequate insurance coverage to satisfy potential claims for which Grantor would usually demand proof of commercial general liability insurance. Grantee's membership in the WCIA insurance pool shall not be canceled, materially changed or non-renewed without the giving of thirty (30) days prior written notice to Grantor and without replacing the pool coverage with commercially available coverage containing the same coverage limits.

8. This Temporary Easement shall be governed by and construed and enforced in accordance with the laws of the State of Washington. The Parties agree that venue of any legal action brought to enforce this Agreement shall be in King County, Washington. In the event of any litigation to enforce or interpret the rights, duties and obligations of the Parties set forth herein, the substantially prevailing party shall be entitled to an award of reasonable costs, expenses and attorneys' fees in connection therewith, at trial and on appeal.

9. It is understood and agreed that delivery of this Temporary Easement is hereby tendered and that the terms and obligations hereof shall not become binding upon the City of Maple Valley unless and until accepted and approved hereon in writing for the City of Maple Valley, by its authorized agent.

SIGNATURES FOLLOW

TEMPORARY EASEMENT

TAHOMA SCHOOL DISTRICT NO. 409

By: _____
Ginger Callison
Superintendent

CITY OF MAPLE VALLEY

By: _____
Laura Philpot
City Manager

TEMPORARY EASEMENT

ACKNOWLEDGMENT

STATE OF WASHINGTON)
)
County of King)

On this _____ day of _____, 20_____, before me personally appeared Ginger Callison to me known to be the duly executed qualified and acting Superintendent of the Tahoma School District No. 409 of King County, Washington, that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said School District for the uses and purposes therein mentioned and each on oath stated that he was authorized to execute said instrument by resolution of the Board of Directors of said School District.

GIVEN under my hand and official seal the day and year last above written.

(Print Name)

Notary Public in and for the State of
Washington, residing at _____

My Commission Expires: _____

TEMPORARY EASEMENT

STATE OF WASHINGTON)
)
County of King)

On this _____ day of _____, 20_____, before me personally appeared Laura Philpot to me known to be the duly executed qualified and acting City Manager of the City of Maple Valley of King County, Washington, that executed the within and foregoing instrument and acknowledged said instrument to be the free and voluntary act and deed of said City of Maple Valley for the uses and purposes therein mentioned and each on oath stated that she was authorized to execute said instrument by resolution of the City Council of the City of Maple Valley.

GIVEN under my hand and official seal the day and year last above written.

(Print Name)

Notary Public in and for the State of
Washington, residing at _____

My Commission Expires: _____



Exhibit "A"
Tahoma School District #409 Grantor Owned Property
Legal Description

Real property in the County of King, State of Washington, described as follows:

Parcel A:

That portion of the Northwest Quarter of the Northeast Quarter of Section 27, Township 22 North, Range 6 East, W.M., in King County, Washington, lying Easterly of the Maple Valley - Black Diamond Highway;

Except the South 700 feet;

And except that portion of the North 423 feet lying West of the West line of the East 170 feet of said Northwest Quarter;

And except that portion thereof deeded to King County by deed recorded under recording no. 9105020264;

And except that portion thereof deeded to the State of Washington by deed recorded under recording no. 9105230436

Parcel B:

The Northeast Quarter of the Northeast Quarter of Section 27, Township 22 North, Range 6 East, W.M., in King County, Washington;

Except the South 700 feet;

And except the East 495 feet;

And except that portion thereof deeded to King County by deed recorded under recording no. 9105020264;

And except that portion thereof deeded to the State of Washington by deed recorded under recording no. 9105230436

Parcel C:

The North 423 feet of the Northwest Quarter of the Northeast Quarter lying Easterly of State Highway No. 169, Section 27, Township 22 North, Range 6 East, W.M., in King County, Washington;

Except the East 170 feet thereof;

And except that portion thereof deeded to the State of Washington by deed recorded under recording no. 9105230436

DRAFT



Exhibit "B"
Temporary Construction Easement
Legal Description

That portion of the following described property:

Parcel A:

That portion of the Northwest Quarter of the Northeast Quarter of Section 27, Township 22 North, Range 6 East, W.M., in King County, Washington, lying Easterly of the Maple Valley - Black Diamond Highway;

Except the South 700 feet;

And except that portion of the North 423 feet lying West of the West line of the East 170 feet of said Northwest Quarter;

And except that portion thereof deeded to King County by deed recorded under recording no. 9105020264;

And except that portion thereof deeded to the State of Washington by deed recorded under recording no. 9105230436

Parcel B:

The Northeast Quarter of the Northeast Quarter of Section 27, Township 22 North, Range 6 East, W.M., in King County, Washington;

Except the South 700 feet;

And except the East 495 feet;

And except that portion thereof deeded to King County by deed recorded under recording no. 9105020264;

And except that portion thereof deeded to the State of Washington by deed recorded under recording no. 9105230436

Parcel C:

The North 423 feet of the Northwest Quarter of the Northeast Quarter lying Easterly of State Highway No. 169, Section 27, Township 22 North, Range 6 East, W.M., in King County, Washington;

Except the East 170 feet thereof;

And except that portion thereof deeded to the State of Washington by deed recorded under recording no. 9105230436

Said portion being more particularly described as follows:

BEGINNING AT the Southwest corner of the above-described property;

Thence North 07°29'44" West, along the Easterly right-of-way line of Maple Valley-Black Diamond Highway, 129.56 feet to an angle point;

Thence continuing North 30°35'51" East, along said Easterly right-of-way line, 32.48 feet to an angle point;

Thence continuing North 00°01'41" West, along said Easterly right-of-way line, 44.50 feet to a point;

Thence South 89°34'45" East, leaving said Easterly right-of-way line, 30.21 feet to an angle point;

Thence South 00°25'10" West, 200.93 feet to a point on the Northerly right-of-way line of SE 258th Street;

Thence North 89°31'28" West, along said Northerly right-of-way line, 28.37 feet to the **TRUE POINT OF BEGINNING**;

Contains in all 7,191 square feet or 0.165 acres, more or less.

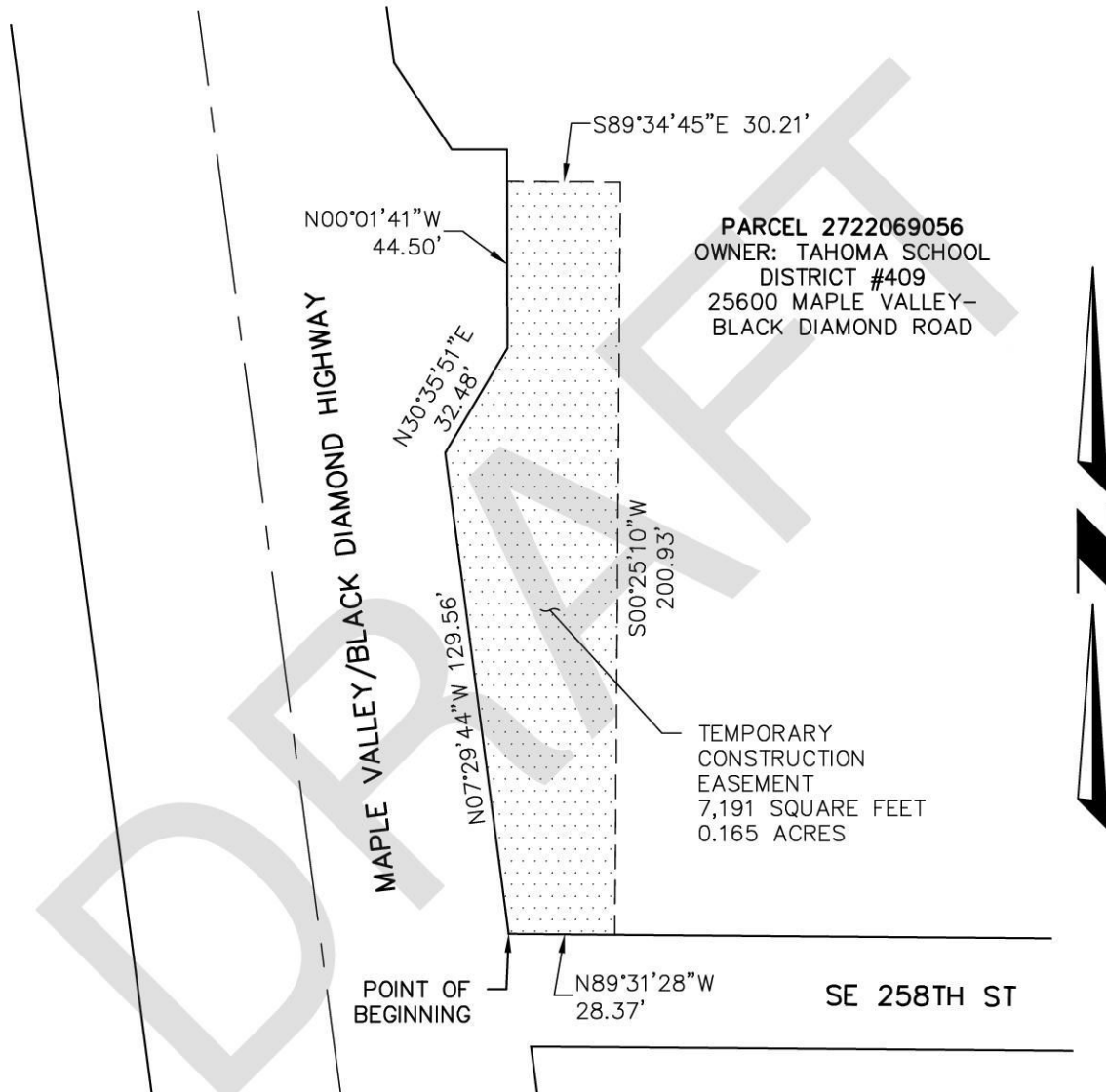


10.30.25

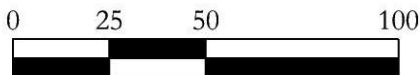
EXHIBIT C

TEMPORARY CONSTRUCTION EASEMENT

OCTOBER 30, 2025



Scale 1" = 50'



DRAWN BY: RFS

SCALE: 1"=50'

10.30.25

CHECKED BY: TLG

JOB NO.: 78333.000

SHEET 1 OF 1