COVERSHEET DOCUMENTS POSTED ON BUILDER'S EXCHANGE OF WASHINGTON		
Project Name	3rd Ave Water Quality Facility, City of Everett, WA #3775	
Contractor Name	Blue Mountain Construction Group, LLC	
Bid Opening Date	10/15/2024 @ 2:00 pm PDT	
City Clerk's Digital Certification Stamp		

**CITY OF EVERETT** 

**EVERETT, WASHINGTON** 



# SPECIFICATIONS, PROPOSAL AND CONTRACT DOCUMENTS FOR

# **3RD AVE WATER QUALITY FACILITY**

Work Order: UP 3775

September 2024

Funded in part by the Washington State Department of Ecology





Project Manager City of Everett Prepared by:

Osborn Consulting Inc. 1800 112thh Ave NE, Suite 220-E Bellevue WA 98004 425-451-4009





# **Table of Contents**

	of Contents			
ADVERTISEMENT FOR BIDS 1				
	ON P - PROPOSAL			
	ON B - BID ITEM DESCRIPTIONS			
CONTR	ACT	25		
	NT BOND			
	RMANCE BOND			
DIVISIO	DN 1 – GENERAL REQUIREMENTS	33		
General	Description and Location of Project (*****)	33		
0	Engineer (*****)			
Standar	d Specifications (*****)	33		
1-01	DEFINITIONS AND TERMS	-		
1-01.3	Definitions	-		
1-02	BID PROCEDURES AND CONDITIONS			
1-03	AWARD AND EXECUTION OF CONTRACT			
1-04	SCOPE OF THE WORK			
1-05	CONTROL OF WORK			
1-06	CONTROL OF MATERIAL			
1-07	LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC			
1-08	PROSECUTION AND PROGRESS			
1-09	MEASUREMENT AND PAYMENT			
1-10	TEMPORARY TRAFFIC CONTROL			
1-11	MISCELLANEOUS (*****)	131		
DIVISIO	DN 2 – EARTHWORK			
2-01	CLEARING, GRUBBING AND ROADSIDE CLEANUP			
2-02	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	133		
2-03	ROADWAY EXCAVATION AND EMBANKMENT	137		
2-04	HAUL			
2-07	WATERING	139		
2-09	STRUCTURE EXCAVATION	140		
2-11	TRIMMING AND CLEANUP	141		
DIVISIO	DN 4 - BASES	143		
4-04	BALLAST AND CRUSHED SURFACING	143		
4-06	ASPHALT TREATED BASE (ATB)	143		
DIVISIO	ON 5 – SURFACE TREATMENTS AND PAVEMENTS	147		
5-04	HOT MIX ASPHALT			
3 <sup>rd</sup> Ave W WO No. –		September 20, 2023		

5-06	PAVEMENT PATCHING (*****)	168
DIVISIO	ON 7 – DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WAT	ΈR
MAINS,	, AND CONDUITS	171
7-02	CULVERTS	171
7-04	STORM SEWERS	171
7-05	MANHOLES, INLETS, AND CATCH BASINS	172
7-06	VACANT	176
7-06	WATER QUALITY TREATMENT STRUCTURES (*****)	176
7-08	GENERAL PIPE INSTALLATION REQUIREMENTS	183
7-09	WATER MAINS	187
7-12	VALVES FOR WATER MAINS	195
7-14	HYDRANTS	196
7-15	SERVICE CONNECTIONS	198
7-17	SANITARY SEWERS	199
7-18	SIDE SEWERS	201
7-19	SEWER CLEANOUTS	203
DIVISIO	ON 8 – MISCELLANEOUS CONSTRUCTION	205
8-01	EROSION CONTROL	205
8-02	ROADSIDE RESTORATION	208
8-04	CURBS, GUTTERS AND SPILLWAYS	212
8-05	VACANT	
8-05	PRIVATE IMPROVEMENTS (*****)	213
8-06	CEMENT CONCRETE DRIVEWAY ENTRANCES	214
8-13	MONUMENT CASES	215
8-13	SURVEY MONUMENTS AND CASES (*****)	215
8-14	CEMENT CONCRETE SIDEWALKS	
8-21	PERMANENT SIGNING	218
8-22	PAVEMENT MARKING	219
8-24	ROCK AND GRAVITY BLOCK WALL AND GABION CRIBBING	219
DIVISIO	ON 9 – MATERIALS	225
9-03	AGGREGATES	225
9-04	JOINTS AND CRACK SEALING MATERIALS	227
9-05	DRAINAGE STRUCTURES, CULVERTS, AND CONDUITS	227
9-14	EROSION CONTROL AND ROADSIDE PLANTING	
9-23	CONCRETE CURING MATERIALS AND ADMIXTURES	232
9-29	ILLUMINATION, SIGNAL, ELECTRICAL	233
9-30	WATER DISTRIBUTION MATERIALS	233

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#### CITY OF EVERETT, WASHINGTON

#### **3<sup>rd</sup> Ave Water Quality Facility**

#### WO NO. – UP 3755

# NOTICE TO CONTRACTORS ADVERTISEMENT FOR BIDS

Notice is hereby given that sealed bids/proposals for the **3**<sup>rd</sup> **Ave Water Quality Facility** will be received at the City Clerk, 1st Floor Everett Municipal Building, 2930 Wetmore, Everett, WA, 98201, until 2:00 p.m. on Tuesday, October 15<sup>th</sup>, 2024. At this appointed time, all bids/proposals will be opened and read aloud publicly via live streaming, or bidders may attend the bid opening in person at 2930 Wetmore Ave, Suite 9E, Everett, WA 98201. The link to view the live streaming bid opening can be found at: https://everettwa.gov/319/Procurement.

The engineer's estimate for this project is **<u>\$693,000</u>**.

The project includes, is not limited to, furnishing all labor, materials and equipment necessary to construct a new stormwater water quality treatment facility along 3rd Ave SE with approximately 250 linear feet of new storm pipe, gravity block wall and other such appurtenances and performing all other work as required by the contract.

It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to any contract or any subcontract resulting from this solicitation for bids.

Free-of-charge access to project bidding documents (plans, specifications, addenda, bidders list, and other documents, if any) is provided to bidders, subcontractors, and vendors at www.bxwa.com by clicking on "Posted Projects", "Public Works", and "City of Everett". This online plan room provides bidders with fully usable online documents with the ability to: download, view, print, order full/partial plan sets from numerous reprographic sources, and a free online digitizer/take-off tool. It is recommended that Bidders "Register" in order to receive automatic e-mail notification of future addenda and to place themselves on the "Self-Registered Bidders List". Bidders that do not register will not be automatically notified of addenda and will need to periodically check the on-line plan room for addenda issued on this project. Contact Builders Exchange of Washington at (425) 258-1303 should you require assistance with access or registration.

All bids/proposals must be made upon the City forms provided in the bidding documents and must be accompanied by a bid bond or certified check or cashier's check in an amount not less than five percent (5%) of the total amount of the bid/proposal, all in accordance with the bidding documents. A one hundred percent (100%) performance bond (and a one hundred percent (100%) payment bond, as may be required in the bidding documents), on form(s) provided by the City, will be required of the successful bidder to guarantee faithful performance of the Contract.

The City reserves the right to reject any and all bids/proposals and to waive any irregularities or informalities. Except as may be provided in the bidding documents, no bidder may withdraw its bid/proposal after the hour set for the opening thereof.

The City further reserves the right to make the award as deemed in the best interest of the City. The right is reserved by the City to postpone the award for a period of 45 days after bid opening.

The Contractor will be required to comply with all local, state, and federal laws and regulations pertaining to equal employment opportunities.

The City, in accordance with Title VI of the Civil Rights Act of 1964, (78 Stat. 252, 42 U.S.C. 2000d to 2000d-4) and 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.

By order of the City Council, Everett, Washington.

## DIVISION P - PROPOSAL CITY OF EVERETT, WASHINGTON 3RD AVE WATER QUALITY FACILLITY WORK ORDER # UP 3775

To the City Council Everett, Washington

The undersigned Bidder declares that it has carefully examined the Notice to Contractors and the Contract Documents (including without limitation Plans and Specifications, Standard Specifications, Special Provisions, Appendix, Proposal, and Contract) for the construction of a new stormwater water quality treatment facility along 3<sup>rd</sup> Ave SE with approximately 250 linear feet of new storm pipe and other such appurtenances as may be necessary, in accordance with the Contract. The undersigned Bidder declares that the Bidder has made such investigations as are necessary to determine the conditions to be encountered, and that, if this Proposal is accepted, the undersigned will enter into a contract with the City of Everett, Washington, in the form of Contract hereto annexed, the undersigned will, to the extent required, provide the necessary equipment, tools, apparatus, and other means of construction, and the undersigned will furnish all labor and materials necessary to complete the Work in the manner herein specified and according to the requirements of the Engineer.

The undersigned Bidder certifies that this Proposal is in all respects fair and is made without collusion on the part of any person, firm or corporation mentioned below, and no officer or employee of the City of Everett is personally or financially interested, directly or indirectly, in the Proposal or in any purchase of or sale of any materials or supplies for the Work to which it relates, or any portion of the profits thereof.

The undersigned Bidder agrees that the undersigned will complete the Work in all respects as required by **Division C**, **Section 2. Contract Time** and that the Bidder will pay liquidated damages to the City in the amount specified in the Contract Documents.

Accompanying this Proposal is a bid bond or certified check or cashier's check in the amount of five percent (5%) of the Proposal according to the conditions of the "Notice to Contractors" and "Division 1 - General Requirements" hereby incorporated. If this Proposal shall be accepted by the City of Everett, Washington, and the undersigned shall fail to execute a satisfactory contract and bond, as stated in the Division 1 – General Requirements hereto incorporated, within 14 calendar days after the Award Date, then the City may, at its option, determine that the undersigned has abandoned the Contract and the amount of the bid bond or certified check or cashier's check accompanying this Proposal shall be forfeited and become the property of the City of Everett, Washington.

It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to any contract or any subcontract resulting from this solicitation for bids.

The required project sign shall include the City of Everett and Washington Department of Ecology logos.

The contractor shall apply for an industrial discharge approval permit for discharge of site dewatering.

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Note: Unit prices for all items, all extensions, and the total amount bid must be shown. 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. All entries must be typed or entered in ink.

#### **BID SCHEDULE**

	BIDDER;				
Item No.	ITEM DESCRIPTION	Unit	Bid Qty	UNIT PRICE	TOTAL AMOUNT
Schedu	ule A				
1	Surveying	LS	1	\$	\$
2	Record Drawings	LS	1	\$	\$
3	Mobilization	LS	1	\$	\$
4	Force Account/ Unexpected Conditions	FA	1	\$25.000.00	\$25,000.00
5	Other Traffic Control Labor	HR	240	\$	\$
6	Maintenance and Protection of Traffic Control	LS	1	\$	\$
7	Clearing and Grubbing	AC	0.08	\$	\$
8	HMA Sawcut	LF	564	\$	\$
9	Removing Asphalt Conc. Pavement	SY	158	\$	\$
10	Removing Cement Conc. Sidewalk	SY	218	\$	\$
11	Gravel Borrow Incl. Haul	TON	305	\$	\$
12	Trench Excavation Safety Systems	LS	1	\$	\$
13	Crushed Surfacing Base Course	TON	108	\$	\$
14	HMA Cl. 1/2 in. PG 64-22	TON	113	\$	\$
15	Planing Bituminous Pavement (3-inch Depth)	SY	474	\$	\$
16	Schedule A Storm Sewer Pipe 12 In. Diam.	LF	96	\$	\$
17	Schedule A Storm Sewer Pipe 18 In. Diam.	LF	156	\$	\$
	•				

# **BIDDER:**

Item No.	ITEM DESCRIPTION	Unit	Bid Qty	UNIT PRICE	TOTAL AMOUNT
18	Schedule A Storm Sewer Pipe 24 In. Diam.	LF	2	\$	\$
19	Catch Basin Type 1L	EA	2	\$	\$
20	Catch Basin Type 1L W/ Overflow	EA	1	\$	\$
21	Catch Basin Type 2 48 In. Diam.	EA	2	\$	\$
22	Connect to Existing Drainage Structure	EA	2	\$	\$
23	Pretreatment Unit	EA	1	\$	\$
24	Water Quality Treatment Facility	LS	1	\$	\$
25	Flow Splitter Modification	EA	1	\$	\$
26	Roof Drain Connection	EA	2	\$	\$
27	Water Relocation Support	LS	1	\$	\$
28	Erosion Control and Water Pollution Prevention	LS	1	\$	\$
29	Roadside Restoration	FA	1	\$5,000	\$5,000
30	Private Improvements	FA	1	\$5,000	5,000
31	Cement Conc. Traffic Curb and Gutter	LF	327	\$	\$
32	Cement Conc. Sidewalk	SY	126	\$	\$
33	Cement Conc. Curb Ramp Type D	EA	3	\$	\$
34	Gravity Block Wall	SF	460	\$	\$

## Total Bid Amount

The bid items above are described further in Division B – Bid Items Descriptions.

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#### **PROPOSAL SIGNATURE SHEET**

The undersigned 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 provisions of the Contract Documents and at the unit prices bid in the Bid Schedule, unless such schedule designates lump sum bids, or force account items.

The full names and residences of all persons and parties interested in the foregoing Bid as principals are as follows:

Name	Title	Address

Bidder acknowledges receipt of Addenda \_\_\_\_\_\_ through\_\_\_\_\_

Bidder has reviewed the insurance provisions of the Contract and hereby certifies that coverage will be provided as required. \_\_\_\_\_ Yes \_\_\_\_\_ No

In preparing this Bid, Bidder is especially directed to consider 1-07.1(7) NOISE, 1-07.5 ENVIRONMENTAL REGULATIONS, 1-07.11 (7) ADDITIONAL GRANT RELATED REQUIREMENTS, 1-07.23(1) CONSTRUCTION UNDER TRAFFIC, 1-08.4(2) SPECIAL CONSTRUCTION CONSTRAINTS, , 7-06 WATER QUALITY TREATMENT STRUCTURES, 8-01.3(1)C WATER MANAGEMENT, which contains information that must be taken into consideration when preparing this bid. This notice is only a convenience to the Bidder during bidding and in no way relieves the Bidder from fully reading and taking into account <u>all</u> Contract Documents when preparing its Bid.

The undersigned Bidder also hereby certifies that, within the three-year period immediately preceding the bid solicitation date for this Project, the Bidder has not been 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 to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW. The undersigned hereby declares under penalty of perjury under the laws of the State of Washington that the foregoing sentence is true and correct.

Name of Bidder:	
State of Washington Contractor's License No	
Signature of Bidder's Authorized Agent:	
City and State Where Signed:	
Email Address of Bidder's Authorized Agent:	
This email address may be used by the City to provi considered delivered to the Bidder on the date it is e	•
Dated at:	Date:

#### SUBCONTRACTORS FORM

- 1. For heating, ventilation, air conditioning, plumbing (as defined by RCW Chap. 18.106) and electrical work (as defined by RCW Chap. 19.28), and structural steel installation and rebar installation, Bidder MUST either identify itself or Subcontractors in the chart below. If Bidder believes such work is not part of the scope of Work, Bidder shall write "NO WORK".
- 2. Bidder shall not list more than one Subcontractor for each category of work identified, unless Subcontractors vary with bid alternates, in which case the Bidder must indicate which Subcontractor will be used for which alternate.

#### 3. Bidder's bid shall be deemed nonresponsive and void if:

- A. For heating, ventilation, air conditioning, plumbing, electrical, structural steel installation and rebar installation, Bidder fails (1) to submit as part of the Bid the names of such Subcontractors, (2) to name itself to perform such Work, or (3) to write "No Work"; or
- B. Bidder names two or more Subcontractors to perform the same work.
- 4. The requirement to name the Bidder's proposed heating, ventilation and air conditioning, plumbing, electrical, structural steel installation and rebar installation subcontractors applies only to proposed heating, ventilation and air conditioning, plumbing, electrical, structural steel installation and rebar installation subcontractors who will contract directly with the general contractor submitting the Bid to the City.
- 5. The heating, ventilation and air conditioning, plumbing, electrical portions of the chart below must be submitted with the bid proposal or within one hour of the published bid submittal time.
- 6. The structural steel installation and rebar installation portions of the chart below must be submitted with the bid proposal or within forty-eight hours of the published bid submittal time.

Type/Scope of Work	Name and Address of Subcontractor/Or Bidder
HEATING	
Subcontractor, bidder or "no work" MUST be	
stated	
VENTILATION AND AIR CONDITIONING	
Subcontractor, bidder or "no work" MUST be	
stated	
PLUMBING (as described in RCW Chap. 18.106)	
Subcontractor, bidder or "no work" MUST be	
stated	
ELECTRICAL (as described in RCW Chap. 19.28)	
Subcontractor, bidder or "no work" MUST be	
stated	
STRUCTURAL STEEL INSTALLATION	
Subcontractor, bidder or "no work" MUST be	
stated	
REBAR INSTALLATION	
Subcontractor, bidder or "no work" MUST be	
stated	

## SECTION 00 4539 - RCW 35.22.650 CERTIFICATION

A set percentage of minority group member employees or minority business subcontracts is not required in the performance of the Work under this Contract. However, RCW 35.22.650 requires bidders (a) to actively solicit (i) employment of minority group members and (ii) subcontract bids from minority businesses, and (b) to submit evidence of its compliance with these requirements for active solicitations:

#### RCW 35.22.650

All contracts by and between a first-class city and contractors for any public work or improvement exceeding the sum of ten thousand dollars, or fifteen thousand dollars for construction of water mains, shall contain the following clause:

"Contractor agrees that the contractor shall actively solicit the employment of minority group members. Contractor further agrees that the contractor shall actively solicit bids for the subcontracting of goods or services from qualified minority businesses. Contractor shall furnish evidence of the contractor's compliance with these requirements of minority employment and solicitation. Contractor further agrees to consider the grant of subcontracts to said minority bidders on the basis of substantially equal proposals in the light most favorable to said minority businesses. The contractor shall be required to submit evidence of compliance with this section as part of the bid."

As used in this section, the term "minority business" means a business at least fiftyone percent of which is owned by minority group members. Minority group members include, but are not limited to, blacks, women, native Americans, Asians, Eskimos, Aleuts, and Hispanics.

- I. Bidder confirms that it actively solicits employment of minority group members. \_\_\_\_\_ [yes or no]
- II. Please estimate the percentage of Bidder's employees on this Project that will be made up of minority group members: \_\_\_\_\_ [state estimated percentage]
- III. Please estimate the percentage of goods and services that will be subcontracted to minority businesses on this Project: \_\_\_\_\_ [state estimated percentage]
- IV. List all minority businesses from whom bids or quotes for goods or services on this Project have been solicited (attach additional sheet if necessary):

Minority Business Name	Address	Goods or Services Involved	Certification Number*
*Certification numbers (for MBE, MWBE, DBE, etc.) are found at Office of Minority & Women's Business Enterprises: <u>https://omwbe.diversitycompliance.com/FrontEnd/SearchCertifiedDirectory.asp</u> .			
If a minority business does not have a certification number, the Bidder must provide with this certification form evidence that the business is at least fifty-one percent owned by minority group members.			

During Contract performance, or in any event prior to final payment, Bidder shall provide the City with the names and addresses of all minority businesses actually awarded subcontracts under the Contract. In the event that a subcontract bid or quote is solicited and listed above and a subcontract is not awarded to the minority business so listed, Contractor shall state the reasons such subcontract was not awarded to the minority business and shall provide the minority business quote together with the actual subcontract price paid and the name of the subcontractor to whom the subcontract was subsequently awarded.

FAILURE TO PROPERLY COMPLETE AND SUBMIT THIS CERTIFICATION FORM WITH THE BID WILL RESULT IN REJECTION OF BID. THE BIDDER CERTIFIES UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF WASHINGTON THAT THE ABOVE IS TRUE AND COMPLETE CORRECT TO THE BEST OF ITS KNOWLEDGE AND BELIEF AND FURTHER AGREES TO PROVIDE INFORMATION AS REQUESTED BY THE CITY REGARDING MINORITY BUSINESS SUBCONTRACTS AND EMPLOYMENT OF MINORITY GROUP MEMBERS.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

#### **NON-COLLUSION AFFIDAVIT**

#### STATE OF WASHINGTON ) ) ss COUNTY OF SNOHOMISH )

The Undersigned, being first duly sworn, on oath says that the Bid above submitted is a genuine and not a sham of collusive bid, or made in the interest or on behalf of any person not therein named; and the undersigned further says that the Bidder has not directly or indirectly induced or solicited any Bidder on the above Work or supplies to put in a sham bid, or any person or corporation to refrain from bidding; and that said Bidder has not in any manner sought by collusion to secure an advantage over any other Bidder or Bidders.

Firm Name	Authorized Signa	ture
SUBSCRIBED and SWORN to before me this	day of	, 20
	NOTARY PUBL Washington, resid	IC in and for the State of ding at
	My commission e	expires:

#### NOTICE TO ALL BIDDERS

To report bid rigging activities call:

#### 1-800-424-9071

The U.S. Department of Transportation (USDOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of USDOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the USDOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

#### **BID DEPOSIT**

Bidder herewith guarantees its Bid by depositing one of the following with its Proposal in an amount of five percent (5%) or more of the Bidder's total Bid:

- □ Certified check
- □ Cashier's check
- □ Bid Bond

Signature

## **BID BOND**

Bond No. \_\_\_\_\_ Project: Title W.O. #: UPXXXX

KNOW ALL MEN BY THESE PRESENTS, [Contractor], a corporation that organized under the laws of the State of , and registered to do business in the State of Washington as a contractor, as Principal, and [Surety], a corporation organized under the laws of the State of and registered to transact business in the State of Washington, as Surety, their heirs, executors, administrators, successors and assigns, are jointly and severally held and bound to the City of Everett, Washington, hereinafter called "City", and are similarly held and bound unto the City in the sum of and /100's Dollars (\$ ), the payment of which, well and truly to be paid, we bind ourselves, our heirs, executors and successors, jointly and severally, formally by these presents.

NOW, THEREFORE, the condition of this obligation is such that the Surety is held and bound to the City to pay and forfeit to the City the amount of this bond as provided herein, upon the conditions contained herein, unless the conditions for release contained herein are satisfied or expressly waived in a writing signed by the City Attorney.

It is expressly understood and agreed that:

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to the City upon default of Bidder the penal sum set forth on the face of this Bond.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the bidding documents the executed Contract required by the bidding documents, any performance and payment bonds required by the bidding documents and Contract Documents, and evidence of insurance required by the bidding documents.

- 3. This obligation shall be null and void if:
  - 3.1. City accepts Bidder's bid and Bidder delivers within the time required by the bidding documents (or any extension thereof agreed to in writing by City) the executed Contract required by the bidding documents, any performance and payment bonds required by the bidding documents and Contract Documents, and evidence of insurance required by the bidding documents and Contract Documents, or
  - 3.2. All bids are rejected by City, or

4. Payment under this Bond will be due and payable upon default of Bidder and within thirty (30) calendar days after receipt by Bidder and Surety of written notice of default from the City, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue notice of award agreed to in writing by City and Bidder, provided that the time for issuing notice of award including extensions shall not in the aggregate exceed one hundred twenty (120) days from Bid Due Date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to thirty (30) calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety. Any suit or action under this bond must be instituted within the time period provided by applicable law.

7. The laws of the State of Washington shall apply to the determination of the rights and obligations of the parties hereunder. Venue for any dispute or claim hereunder shall be the state courts of Washington in Snohomish County, Washington.

8. Notice required hereunder shall be in writing sent to Bidder and Surety. Such notices may be sent by personal delivery, commercial courier or United States Registered or Certified Mail, return receipt requested, postage prepaid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond current and effective Power of Attorney evidencing authority of the officer, agent or representative to execute this Bond on behalf of Surety to execute and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of the Bond conflicts with any applicable provision of any applicable statue, then the provision of said statue shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

# 11. The term "bid" as used herein includes a bid, offer or proposal as applicable.

BIDDER	SURETY
Bidder's Name	Surety's Name and Corporate Seal
By: Signature, Title, and Date	By: Signature, Title, and Date
Address:	Address:
Attest:	Attest:
Signature, Title and Date	Signature, Title and Date

# **DIVISION B - BID ITEM DESCRIPTIONS**

## **Bid Item 1** - Surveying

Measurement and Payment: Lump Sum (LS)

The lump sum bid for surveying includes, but is not limited to, all costs associated with furnishing all labor, tools, survey instruments materials, and other equipment necessary for the setting and monitoring the location, elevation, alignment and grade of the Work as specified in 1-05.4 CONFORMITY WITH AND DEVIATIONS FROM PLANS AND STAKES and the Plans.

The lump sum bid item also includes, but is not limited to, all costs associated with furnishing all labor, tools, survey instruments, materials and other equipment necessary for verifying the rim and invert elevations, prior to construction, of all existing manholes and pipes where connections are to be made.

The lump sum also includes, but is not limited to, all costs associated with furnishing all labor, tools, survey instruments, materials and other equipment necessary for obtaining the "as constructed" location and elevations of the Work, in particular, pipe invert elevations and other information necessary for production of the Record Drawing (As-Constructed) documents meeting the requirements defined in 1-08.11 RECORD DRAWINGS of these Special Provisions.

Partial payments will be made for the lump sum contract price for "Surveying" as follows:

(a) When 10% of the total original contract amount is earned from other bid items, 50% of the amount bid for surveying will be paid.

#### **Bid Item 2 -** Record Drawings

Measurement and Payment: Lump Sum (LS)

This unit price bid item includes all costs associated with preparation of the record drawings as identified in 1-08.11 RECORD DRAWINGS of these Special Provisions.

#### **Bid Item 3 -** Mobilization

Measurement and Payment: Lump Sum (LS)

The lump sum bid for mobilization shall constitute complete compensation for all of Contractor's preconstruction costs of preparatory work and operations including, but not limited to, those necessary for the movement of the Contractor's personnel, equipment, supplies and incidentals to the Project; for the establishment of its offices, buildings and other facilities necessary for Work on this Project; for premiums on bonds and insurance for the Project, and for Work and operations that the Contractor must perform or costs it must incur before beginning production work on the various items on the Project. Mobilization also includes, but is not limited to, posting construction identification signs, securing permits, establishing safety and security measures, preparing a traffic control plan(s), preconstruction photographs, developing a Schedule of Values for lump sum bid items, submitting the project schedule and providing product and material submittals, and posting of notices and jobsite posters as required by WSDOT 1-07.9(2). Also include mobilization costs for all subcontracted work along with all costs for utility coordination noted on the Plans and in the Specifications.

Items not included in this item include, but are not limited to:

- (a) Work covered by a specific bid item or Work that is to be included in a bid item or items.
- (b) Profit, interest on borrowed money, overhead or management costs.

Partial payments will be made for the lump sum contract price for "Mobilization" as follows:

- (a) When 5% of the total original contract amount is earned from other bid items, 50% of the amount bid for mobilization, or 5% of the total original contract amount, whichever is the least, will be paid.
- (b) When 10% of the total original contract amount is earned from other bid items. 100% of the amount bid for mobilization, or 10% of the total contract amount, whichever is the least, will be paid.

Upon substantial completion, payment of any amount bid for mobilization in excess of 10% of the total original contract amount will be paid.

## **Bid Item 4 -** Force Account/ Unexpected Conditions

Measurement and Payment: Force Account (FA)

This Force Account bid item shall be accomplished in accordance with 1-09.6 FORCE ACCOUNT; except as modified as below.

The Force Account bid item has been included for specific miscellaneous work items listed below and for any additional work directed by the Engineer that is not required by the original Contract and to address changed conditions or unanticipated work. The amount indicated in the Proposal for this bid items is to provide a common bid amount. The actual amount paid under this bid item may vary from no payment to the full amount of the bid item. Work performed under this bid item will be initiated with a work directive issued by the Engineer, except work described in item (a) below, which may be initiated by the Inspector in the field.

In lieu of the preceding prescribed method of determining payment for Force Account work, payment may be made at unit prices or lump sum prices agreed to by the Engineer and the Contractor prior to beginning the Force Account work.

The following miscellaneous construction work will be paid for by Force Account as specified in 1-09.6 FORCE ACCOUNT. For the purpose of providing a common Proposal for all Bidders, and for that purpose only, the City has estimated an amount and included it in the bid item for Force Account work to become part of the total Bid by the Contractor.

(a) Control Density Fill backfill, where directed by the Engineer, to fill trenches and

excavations where conventional backfill cannot be adequately compacted.

(b) Adjust or replace water or sanitary sewer services to resolve conflict with new stormwater systems.

#### **Bid Item 5** - Other Traffic Control Labor

Measurement and Payment: Unit Price per Hour (HR)

This unit price bid item includes all costs associated with traffic control labor for flagging and spotting as identified in 1-10.3 FLAGGING, SIGNS, AND ALL OTHER TRAFFIC CONTROL DIVICES of these

Special Provisions.

Furnish all personnel for flagging to control traffic, including pedestrians, during construction operations in accordance with Section 1-10 of the Standard Specifications (as amended by the Special Provisions), the Plans, approved traffic control plans, these Special Provisions and as directed by the City.

#### **Bid Item 6 -** Maintenance and Protection of Traffic Control

Measurement and Payment: Lump Sum (LS)

Measurement for Maintenance and Protection of Traffic Control shall be the ratio of the number of working days completed to the total number of working days authorized in the Contract.

This lump sum bid item includes the maintenance and protection of traffic control materials, tools, and equipment necessary to accomplish the Work in accordance with 1-10.3(2) MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL, including yet not limited to, signs, barricades, cones, flashers, reader boards, and temporary pavement markings. This bid item also includes the Traffic Control Supervisor, when provided. Also included is cost associated with preparation and distribution of public notices involving parking, street access or traffic issues.

## **Bid Item 7 -** Clearing and Grubbing

Measurement and Payment: Unit Price per Acre (AC)

The Contract Price per acre shall be full compensation for, but not limited to, all labor, material, tools, all incidental work and equipment necessary to satisfactorily complete the work as defined in the Standard Specifications, these Specifications and the Contract Plans, including clearing, hauling, disposal of debris, rubbish, excess material, and cleanup and trimming.

#### Bid Item 8 - HMA Sawcut

Measurement and Payment: Unit Price per Linear Foot (LF)

Measurement for sawcutting will be per linear foot along the true length of the surface cut.

The unit price per lineal foot for the final sawcutting of asphalt and concrete, regardless of depth or location of materials, shall be full compensation for all labor, material, tools, and equipment necessary to satisfactorily complete the Work as specified in Section 2-02.3(3) of these Special Provisions and as shown on the Plans. The unit price per lineal foot for sawcutting includes, but is not limited to, the sawcutting necessary for the final joint between existing improvements and permanent HMA pavement.

Include cost of cleanup by vacuum collection and disposal of the cuttings slurry with this bid item as there will be no separate payment for cleanup. Any necessary re-cutting due to damage during excavation will not be remeasured for payment.

#### **Bid Item 9 -** Removing Asphalt Conc. Pavement Incl. Haul

Measurement and Payment: Square Yard (SY)

Measurement for removing asphalt concrete pavement shall be per square yard as delineated by the Contractor and approved by the Inspector. This excludes areas of pavement planing. The unit price for this bid item shall be full payment for all costs incurred to perform the Work described in Section 2-02.3(3) to complete the work in accordance with the Plans, COE Standard Drawings, Standard Specifications and these Special Provisions.

#### **Bid Item 10 -** Removing Cement Conc. Sidewalk Incl. Haul

#### Measurement and Payment: Square Yard (SY)

Measurement for removing cement concrete sidewalk shall be per square yard as delineated by the Contractor and approved by the Inspector. The unit price for this bid item shall be full payment for all costs incurred to perform the Work described in Section 2-02.3(3) to complete the work in accordance with the Plans, COE Standard Drawings, Standard Specifications and these Special Provisions. Concrete sidewalk removal shall be to the nearest existing joint of the limits shown in the Plans.

## Bid Item 11 - Gravel Borrow Incl. Haul

Measurement and Payment: Unit Price per Ton (TON)

Measurement for Gravel Borrow shall be by the ton, recorded on certified weight tickets in accordance with 1-09.2 WEIGHING EQUIPMENT, and placed within the limits of dimensions defined in the Work, descriptions for other bid items, shown on the Plans, or COE Standard Drawings, or as otherwise approved by the Engineer.

Gravel Borrow material placed exceeding "neatline" quantities without advance authorization by the Inspector will not be paid for.

The unit price per ton, based on certified weight tickets, for gravel borrow shall be full compensation for all labor, material, tools and equipment necessary to furnish imported gravel borrow for trench backfill where Engineer has determined native soils are not suitable for backfill, and other Work as required, from a Contractor-supplied source in accordance with 2-03.3(14)J of the Standard Specifications and these Special Provisions.

The unit price for gravel borrow shall include all costs of furnishing, hauling, stockpiling, placing, grading and compacting the material in place.

The unit price for this bid item includes all costs for removing, loading and disposing of displaced unsuitable material, including haul.

#### **Bid Item 12 -** Trench Excavation Safety Systems, LS

Measurement and Payment: Lump Sum (LS)

The lump sum bid item includes the costs directly allocated to the safety system for trenches and all other excavations including, but not limited to, shoring, benching, bracing, excavation, sheeting, and trench box. This Work shall be accomplished in accordance with Divisions 1, 2, 7, and 8 of the Standard Specifications and these Special Provisions. Payment per lump sum includes all equipment, materials, labor, installation, and removal, and all other work required to meet the trench excavation and safety system requirements.

#### Bid Item 13 - Crushed Surfacing Base Course

Measurement and Payment: Unit Price per Ton (TON)

Measurement for crushed surfacing base course will be by the ton as recorded on certified weight tickets in accordance with 1-09.2 WEIGHING EQUIPMENT and limited to dimensions defined in the Work, descriptions for other bid items, shown on the Plans, details or COE Standard Drawings or as otherwise approved by the Engineer. In addition to surfacing, this product will be paid by the ton for sewer and storm pipe bedding and gravity block wall and pretreatment unit foundation. Crushed Surfacing Base Course material placed exceeding "neatline" quantities without advance authorization by the Inspector will not be paid for.

The unit price per ton shall be full compensation for all labor, compaction, material, tools, and equipment necessary to furnish, haul, stockpile, place, grade, and compact imported crushed surfacing base course for the Work as required, from a Contractor supplied source in accordance with the Standard Specifications and these Special Provisions.

The unit price for crushed surfacing base course also includes all costs for controlling moisture content.

Also included in this bid item shall be the cost of all equipment required to remove existing soils to attain proper elevations, compaction of native subgrade soils, as well as to uniformly spread and compact the crushed surfacing material.

The unit price for this bid item includes all costs for removing, loading and disposing of displaced unsuitable material, including haul.

Include in this bid item the cost of sprinkling during dry periods prior to placement of the crushed surfacing and while spreading and compacting the material.

Payment for crushed surfacing base course will be by the ton of material placed and approved by the Inspector.

## **Bid Item 14 -** HMA Cl. 1/2 in. PG 64-22

Measurement and Payment: Unit Price per Ton (TON)

Measurement for HMA, for Overlay shall be by the ton, recorded on certified weight tickets in accordance with 1-09.2 WEIGHING EQUIPMENT for HMA placed within the limits of dimensions defined in the Work or shown on the Plans, Standard Specifications, Section 5-06 of these Special Provisions, or as otherwise approved by the Engineer. No deduction will be made for the weight of asphalt binder, blending sand, mineral filler, or other component of the mixture.

The unit price for this bid item shall include all labor, materials, equipment and related work necessary to furnish, machine-place, compact, roll and perform density tests on multiple lifts of HMA – CL 1/2" PG 64-22 pavement including streets, alleys, and street crossings, as shown on the Plans.

Furnishing and applying tack coat, prime coat, joint seal and crack sealing asphalt is to be included in this bid item with no direct compensation made. All costs for "Anti Stripping Additive" and "Compaction Adjustment" shall be included in the unit contract price per ton of the HMA with no direct compensation made.

The unit price for this bid item shall include all labor, materials, equipment and related work necessary to furnish, place, compact, roll and perform density tests on ATB placed in accordance with the Plans, Standard Specifications, and these Special Provisions.

#### **Bid Item 15 -** Planing Bituminous Pavement (3-inch Depth)

Measurement and Payment: Unit Price per Square Yard (SY)

Measurement for Planing Bituminous Pavement (3-inch Depth) shall be per square yard as delineated by the Contractor and approved by the Inspector. The unit price for this bid item shall be full payment for all costs incurred to perform the Work described in Section 5-04.3(14), to complete the work in accordance with the Plans, COE Standard Drawings, Standard Specifications and these Special Provisions.

#### **Bid Item 16 -** Schedule A Storm Sewer Pipe 12 In. Diam.

#### **Bid Item 17 -** Schedule A Storm Sewer Pipe 18 In. Diam.

#### **Bid Item 18 -** Schedule A Storm Sewer Pipe 24 In. Diam.

Measurement and Payment: Unit Price per Linear Foot (LF)

The unit price per linear foot bid for the type and size of storm drain pipe shall be full compensation for all labor, material, incidentals, tools and equipment necessary to complete the work as defined in these Contract Documents.

The unit price per linear foot of storm drain pipe shall be full compensation for furnishing, hauling, and assembling in place the completed installation, including all wyes, tees, caps, plugs, special fittings, joint materials and adjustment of inverts and connections to inlets, catch basins and manholes for the completion of the installation to the required lines and grades.

The unit price of storm drain pipe shall also include, but not be limited to; all costs for trench excavation; hauling and disposing of surplus material; dewatering; storm water flow bypassing; furnishing, stockpiling, hauling placing and compacting of suitable pipe bedding material; cleaning and flushing pipes and existing structures; testing and inspecting pipe; pipe separation pads; and reconnecting existing storm drains.

All costs associated with abandoning existing storm drainage pipe as indicated on the plans including plugging and/or removal and disposal shall be included in the unit price for this bid item.

## **Bid Item 19 -** Catch Basin Type 1L

Measurement and Payment per " Bid Item 21 - Catch Basin, Type 2, 48 In. Diam."

#### Bid Item 20 - Catch Basin Type 1L W/Overflow

Measurement and Payment: Unit Price per Each (EA)

The unit price per each for the inlet or the type and size of catch basin shall be full compensation for all labor, material, incidentals, tools and equipment necessary to satisfactorily complete the work as defined in these Contract Documents.

The unit price for each inlet and catch basin shall be full compensation for furnishing, hauling, and assembling in place the completed installation including inlets, catch basins, frames and grates, adjustment sections, pipe connections, special fittings, and joint materials up to a depth of 10-ft as measured from the flowline of the outlet pipe to the surface of the Work measured to the nearest foot.

The unit price shall include installation of the beehive grate in accordance with the Plans.

The unit price for each inlet and catch basin shall also include, but not be limited to, all costs for excavation; hauling and disposing of surplus or unsuitable material; dewatering, storm water flow bypassing, furnishing and installing couplings; furnishing and installing steps or ladder; placing and compacting of suitable bedding below structures; furnishing, placing, and compacting foundation material as required; cleaning and flushing catch basins; and reconnecting existing storm drainage connections.

All costs associated with abandoning, and/or removing and disposing of existing catch basins and inlets, salvaging frame and grate or cover, as shown on the plans shall be included in the unit price for this bid item.

Adjusting new catch basin inlets to final grade is incidental and shall be included in the unit price for this bid item.

The cost of connection of pipes, including existing pipes, to the inlet or catch basin is incidental and shall be included in the unit price for this bid item.

Measurement and payment shall be per each catch basin inlet installed as measured upon completion.

#### **Bid Item 21 -** Catch Basin, Type 2, 48 In. Diam.

Measurement and Payment: Unit Price per Each (EA)

The unit price per each for the inlet or the type and size of catch basin shall be full compensation for all labor, material, incidentals, tools and equipment necessary to satisfactorily complete the work as defined in these Contract Documents.

The unit price for each inlet and catch basin shall be full compensation for furnishing, hauling, and assembling in place the completed installation including inlets, catch basins, frames and grates, adjustment sections, pipe connections, special fittings, and joint materials up to a

depth of 10-ft as measured from the flowline of the outlet pipe to the surface of the Work measured to the nearest foot.

The unit price for each inlet and catch basin shall also include, but not be limited to, all costs for excavation; hauling and disposing of surplus or unsuitable material; dewatering, storm water flow bypassing, furnishing and installing couplings; furnishing and installing steps or ladder; placing and compacting of suitable bedding below structures; furnishing, placing, and compacting foundation material as required; cleaning and flushing catch basins; and reconnecting existing storm drainage connections.

All costs associated with abandoning, and/or removing and disposing of existing catch basins and inlets, salvaging frame and grate or cover, as shown on the plans shall be included in the unit price for this bid item.

Adjusting new catch basin inlets to final grade is incidental and shall be included in the unit price for this bid item.

The cost of connection of pipes, including existing pipes, to the inlet or catch basin is incidental and shall be included in the unit price for this bid item.

Measurement and payment shall be per each catch basin inlet installed as measured upon completion.

#### **Bid Item 22 -** Connect to Existing Drainage Structure

Measurement and Payment: Unit Price per Each (EA)

The unit price per each for the Connection to Existing Drainage Structure shall be full compensation for all labor, materials, incidentals, tools, and equipment necessary to satisfactorily complete the work as defined in these Contract Documents, including, but is not limited to, core drilling into existing structure and repairing and grouting gaps around the new pipe connection a new pipe connections to existing drainage structures as shown on the Plans.

#### **Bid Item 23 -** Pretreatment Unit

Measurement and Payment: Unit Price per Each (EA)

The unit price per each for the Pretreatment Unit shall be full compensation for all labor, materials, incidentals, tools, and equipment necessary to satisfactorily complete the work as defined in these Contract Documents, including, but is not limited to, dewatering; storm water flow bypassing, fabrication, excavation, installation of the Pretreatment Unit and connection to existing pipes with require pipe segments and couplings.

#### **Bid Item 24 -** Water Quality Treatment Facility

Measurement and Payment: Lump Sum (LS)

The lump sum price for Water Quality Treatment System shall be full compensation for all labor, materials, incidentals, tools, and equipment necessary to satisfactorily complete the work as defined in these Contract Documents.

The lump sum price includes, but is not limited to, excavation, installation, backfill and compaction of the water quality treatment facility, connection to storm drains, and installation of internal components. All component material and installation associated with the facility shall be included in the lump sum price including, but not limited to, dewatering, storm water flow bypassing, treatment soil mix, underdrain, underdrain stone, dissipation rocks, geotextile liner, bubbler system, mulch and installation of plant materials with water during until project close-out. The bubbler system including, but not limited to, distribution pipe, bubblers, risers, cleanouts, fittings

and tees. The lump sum price shall include all underdrain stone, or other soil material associated with the water quality facility, including haul.

The lump sum price includes, but is not limited to, initial cleaning, commissioning, any documentation, all components listed as provided by manufacture and all required maintenance and guarantees described herein.

#### **Bid Item 25 -** Flow Splitter Modification

Measurement and Payment: Unit Price per Each (EA)

The unit price per each for the flow splitter modification shall be full compensation for all labor, materials, incidentals, tools, and equipment necessary to satisfactorily complete the work as defined in these Contract Documents. The unit cost includes, but is not limited to, excavation, eccentric reducer, couplings, replacement of the catch basin lid, frame, and grate.

#### **Bid Item 26 -** Roof Drain Connection

Measurement and Payment: Unit Price per Each (EA)

The unit price per each for roof drain connections shall be full compensation for all labor, materials, incidentals, tools, and equipment necessary to satisfactorily complete the work as defined in these Contract Documents.

The unit price per each connection shall be full compensation for furnishing, hauling, and assembling in place the completed installation, including underdrain, wyes, tees, caps, plugs, special fittings, joint materials required to connect private roof drains to the stormwater system.

#### Bid Item 27 - Water Relocation Support

Measurement and Payment: Lump Sum (LS)

The lump sum price for Water Relocation Support shall be full compensation for all labor, materials, incidentals, tools, and equipment necessary to satisfactorily complete the work as defined in these Contract Documents in accordance with 7-09.3(26).

The lump sum price includes, but is not limited to, coordination with the City for water line relocations, excavation, pipe and appurtenances removal, trenching, and bedding for new water lines. The anticipated lengths of excavation are included in 7-09.3(26). The City will provide and install the pipe, appurtenances, and new hydrant. The contractor will provide and install backfill for the water relocations under Gravel Backfill Incl. Hall bid item.

#### Bid Item 28 - Erosion Control and Water Pollution Prevention

Measurement and Payment: Lump Sum (LS)

Erosion Control and Water Pollution Prevention shall constitute full compensation for all labor, materials, tools and equipment necessary and incidental for the installation, maintenance and removal of the temporary erosion and sedimentation control (TESC) facilities to prevent pollution, erosion, siltation, and damage to any wetland, stream, other watercourse, or surrounding property throughout the life of the Contract. TESC facilities shall include, but not be limited to, any cover measures, runoff control measures, soil and site stabilization measures as shown on the Plans, and inlet protection measures for the work area and downstream areas. All required management, monitoring, documentation, and reporting of TESC measures are included in the lump sum cost.

The TESC measures shall limit the erosion possibility by covering disturbed soils, preventing sloughing or raveling of cut and natural slopes, and controlling surface runoff from flowing into excavations using measures such as curbs, berms, dikes, rock-lined ditches, and other approved measures. Filter fabric fence may be used to treat small areas of non-concentrated runoff prior to discharge from the site.

## **Bid Item 29 -** Roadside Restoration

Measurement and Payment: Force Account (FA)

This Roadside Restoration bid item shall be accomplished in accordance with 1-09.6 FORCE ACCOUNT; except as modified as below.

The Roadside Restoration bid item has been included for specific miscellaneous work items listed below that are to be completed outside of the right-of-way on private parcels. The amount indicated in the Proposal for this bid items is to provide a common bid amount. The actual amount paid under this bid item may vary from no payment to the full amount of the bid item. Work performed under this bid item will be initiated with a work directive issued by the Inspector in the field.

In lieu of the preceding prescribed method of determining payment for Force Account work, payment may be made at unit prices or lump sum prices agreed to by the Engineer and the Contractor prior to beginning the Force Account work.

The following miscellaneous construction work will be paid for by Force Account as specified in 1-09.6 FORCE ACCOUNT. For the purpose of providing a common Proposal for all Bidders, and for that purpose only, the City has estimated an amount and included it in the bid item for Force Account work to become part of the total Bid by the Contractor.

(a) Vegetation preservation, furnishing and placing topsoil, compost, and soil amendments, furnishing and planting seeds, sod, and plants of identified items within the City right-of-way.

#### **Bid Item 30** - Private Improvements

Measurement and Payment: Force Account (FA)

This Private Improvements bid item shall be accomplished in accordance with 1-09.6 FORCE ACCOUNT; except as modified as below.

The Private Improvements bid item has been included for specific miscellaneous work items listed below that are to be completed outside of the right-of-way on private parcels. The amount indicated in the Proposal for this bid items is to provide a common bid amount. The actual amount paid under this bid item may vary from no payment to the full amount of the bid item. Work performed under this bid item will be initiated with a work directive issued by the Inspector in the field.

In lieu of the preceding prescribed method of determining payment for Force Account work, payment may be made at unit prices or lump sum prices agreed to by the Engineer and the Contractor prior to beginning the Force Account work.

The following miscellaneous construction work will be paid for by Force Account as specified in 1-09.6 FORCE ACCOUNT. For the purpose of providing a common Proposal for all Bidders, and for that purpose only, the City has estimated an amount and included it in the bid item for Force Account work to become part of the total Bid by the Contractor.

- (b) Vegetation preservation, removal, storage, and replacement of identified items outside of the right-of-way.
- (c) Furnishing and placing topsoil, compost, and soil amendments, furnishing and planting seeds, sod, plants, and installing the dogwood tree noted on the Plans that are outside of the right-of-way.

## **Bid Item 31 -** Cement Concrete Traffic Curb and Gutter

Measurement and Payment: Unit Price per Linear Foot (LF)

Measurement shall be per linear foot as delineated by the Contractor and approved by the Inspector prior to removal.

The unit price per linear foot for restoration of concrete curbs or curb and gutter and shall be full compensation for all materials, tools, labor and equipment necessary to complete the Work in accordance with the Plans, COE Standard Drawings, Standard Specifications and these Special Provisions, including sawcutting, removal, loading, hauling and disposal.

#### Bid Item 32 - Cement Concrete Sidewalk

Measurement and Payment: Unit Price per Square Yard (SY)

Measurement shall be per square yard as delineated by the Contractor and approved by the Inspector prior to removal.

The unit price per square yard for restoration of existing concrete sidewalks shall be full compensation for final sawcut and all materials, tools, labor and equipment necessary to complete the work in accordance with the Plans, COE Standard Drawings, Standard Specifications and these Special Provisions.

#### **Bid Item 33 -** Cement Conc. Curb Ramp, Type D

Measurement and Payment: Unit Price per Each (EA)

The unit Contract price per each for "Cement Conc. Curb Ramp Type D\_" shall be full compensation for all materials, tools, labor and equipment necessary to complete the Work in accordance with the Plans, COE Standard Drawings, Standard Specifications and these Special Provisions, including sawcutting, removal, loading, hauling and disposal, and including the "Detectable Warning Surface."

#### **Bid Item 34 -** Gravity Block Wall

Measurement and Payment: Unit Price per Square Feet (SF)

Measurement shall be per square foot of completed wall in place as delineated by the Contractor and approved by the Inspector prior to backfill. The vertical limits for measurement are from the bottom of the bottom layer of blocks to the top of the top layer of blocks. The horizontal limit for measurement is the perimeter of the interior face of the wall.

The unit price shall be full compensation for all materials, tools, labor and equipment necessary to complete the Work in accordance with the Plans, COE Standard Drawings, Standard Specifications and these Special Provisions. The unit price includes, but is not limited to, dewatering, fabrication, installation, backfill and compaction, and storm drains connections with concrete collar.

## CITY OF EVERETT, WASHINGTON

## CONTRACT

THIS CONTRACT is made and entered into by and between the City of Everett, Washington, a municipal corporation existing under the laws of the State of Washington (the "**City**") and \_\_\_\_\_\_("**Contractor**").

In consideration of the sums to be paid to it by the City, Contractor hereby covenants and agrees to furnish all labor, tools, materials, equipment, and supplies required to complete in a workmanlike manner the work, improvements, and appurtenances in accordance with the Specifications and Plans and all other Contract Documents entitled: "<u>3RD AVE WATER QUALITY FACILITY</u>" (the "**Project**").

**1. Contract Documents.** This Contract is the written agreement signed between the City and Contractor and includes Division C - CONTRACT, Division P - PROPOSAL, Division B - BID ITEM DESCRIPTIONS, Special Provisions, Contract Plans, Standard Specifications, Standard Plans in effect as of the date Bids are opened, Addenda, supplemental agreements, change orders, certifications and affidavits required by this Contract and by law, and Federal requirements that apply to this Contract and Project, all of which are referred to as the "Contract Documents" and all of which are hereby incorporated by reference. A copy of the Contract Documents that were posted for the Project on Builder's Exchange of Washington (www.bxwa.com) as of Bid Opening Date is maintained by the City Clerk's Office as a single pdf and is available as follows:

Link to PDF

Contractor acknowledges that Contractor has downloaded and reviewed this pdf prior to signing this Contract. City and Contractor agree that this pdf contains all posted Contract Documents as of the Bid Opening Date. City and Contractor further agree that this pdf may contain some other documents (such as Reference Information) that are not Contract Documents.

**2.** Contract Time. Substantial completion shall be achieved within <u>sixty</u> (60) working days after the effective date of the Notice to Proceed. Physical completion shall be within <u>twenty</u> (20) working days after the actual date of issuance of substantial completion.

**3. Liquidated Damages.** The parties agree the City will suffer damage and be put to additional expense in the event that the Contractor does not complete the work in all respects and have it ready for use by the substantial completion date stated. Because it is difficult to accurately compute the amount of such costs and damages, the Contractor hereby covenants and agrees to pay to the City liquidated damages as computed in Section 1-08.9 of the Standard Specifications, as may be amended by the Special Provisions, for each and every working day required to accomplish substantial completion of the work in excess of the period established above for substantial completion. For overruns in contract time occurring after the physical completion date, liquidated damages shall be assessed at the rate computed in Section 1-08.9 of the Standard Specifications, until the work is physically complete.

# 4. Contract Sum. The Contract Sum of this Contract is:

+ WA Sales Tax (as applicable)	
Contract Sum	

This is based on the proposal/bid submitted by Contractor dated \_\_\_\_\_\_. A copy of such proposal/bid is attached hereto. The basis for final payment will be the actual amount of work performed according to the Contract Documents and payments, whether partial or final, shall be made as specified therein.

**5. Withholding.** Five percent (5%) of amounts due Contractor shall be retained and withheld to comply with RCW Chap. 60.28. Retained amounts shall only be released: (A) as required by law or (B) sixty (60) days after completion of all contract work if there are no claims against the retained funds. In addition to the amounts required by RCW 60.28 to be withheld from the progress or retained percentage payments to the Contractor, the City may, in its sole discretion, withhold any amounts sufficient to pay any claim against the Contractor of which the City may have knowledge and regardless of the informalities of notice of such claim arising out of the performance of this Contract. The City may withhold the amount until either the Contractor secures a written release from the claimant, obtains a court decision that such claim is without merit, or satisfies any judgment in favor of the claimant on such claim. The City shall not be liable for interest during the period the funds are so held.

**6.** Compliance with Employment and Wage Laws. Contractor agrees to comply with all state and federal laws relating to the employment of labor and wage rates to be paid.

# 7. Vacant

# 8. Indemnification.

A. Contractor will defend, indemnify and hold harmless the City from any and all Claims arising out of or relating to any acts, errors, omissions, or conduct by Contractor in connection with its performance of this Contract, including without limitation (and without limiting the generality of the foregoing) all Claims resulting from Contractor's performance of, or failure to perform, its express and implied obligations under the Contract. The Contractor will defend and indemnify and hold harmless the City whether a Claim is asserted directly against the City, or whether a Claim is asserted indirectly against the City, e.g., a Claim is asserted against someone else who then seeks contribution or indemnity from the City. The amount of insurance obtained by, obtainable by, or required of the Contractor does not in any way limit the Contractor's duty to defend and indemnify the City. The City retains the right to approve Claims investigation and counsel assigned to said Claim and all investigation and legal work regarding said Claim shall be performed under a fiduciary relationship to the City. This Section 8 is in addition to any other defense or indemnity or hold harmless obligation in the Contract Documents.

B. The Contractor's obligations under this Section 8 shall not apply to Claims caused by the sole negligence of the City. If (1) RCW 4.24.115 applies to a particular Claim, and (2) such Claim is caused by or results from the concurrent negligence of (a) the Contractor and (b) the City, then the Contractor's liability under this Section 8 shall be only to the extent of the Contractor's negligence.

C. As used in this section: (1) "City" includes the City's officers, employees, agents, and representatives; (2) "Claims" include all losses, claims, demands, expenses (including, but not limited to, attorney's fees and litigation expenses), suits, judgments, or damage, whether threatened, asserted or filed against the City, whether such Claims sound in tort, contract, or any other legal theory, whether such Claims have been reduced to judgment or arbitration award, irrespective of the type of relief sought or demanded (such

as money or injunctive relief), and irrespective of the type of damage alleged (such as bodily injury, damage to property, economic loss, general damages, special damages, or punitive damages); and (3) "Contractor" includes Contractor, its employees, agents, representatives and subcontractors. If, and to the extent, Contractor employs or engages subcontractors, then Contractor shall ensure that each such subcontractor (and subsequent tiers of subcontractors) shall expressly agree to defend and indemnify and hold harmless the City to the extent and on the same terms and conditions as the Contractor pursuant to this section.

**9. Insurance.** The Contractor shall purchase and maintain such insurance as set forth in the Contract Documents. Failure to maintain such insurance shall be a material breach of the Contract. The City shall be entitled to damages for such a breach that include, but are not limited to, any loss (including, but not limited to, third party litigation expenses and professional fees) suffered by the City if the City is determined to be solely or concurrently negligent, and if the City suffers any loss or must pay or defend against any such claim, suit, demand or damage as a result of such breach.

**10. Waiver of Industrial Insurance Immunity**. Contractor waives any right of contribution against the City. It is agreed and mutually negotiated that in any and all claims against the City, its agents or employees, the Contractor, a subcontractor, anyone directly or indirectly employed by the Contractor or subcontractor, or anyone for whose acts any of them may be liable, the defense and indemnification obligations hereunder shall not be limited in any way by any limitation on the amount of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under industrial worker's compensation acts, disability benefit acts, or other employees' benefit acts. Contractor's and City's signatures hereto indicate specific waiver of Contractor's industrial insurance immunity in order to fulfill the indemnities hereunder. Solely for the purpose of indemnification and defense as provided in this Contract, the Contractor expressly acknowledges that this waiver of immunity under Title 51 RCW was the subject of mutual negotiation and was specifically entered into pursuant to the provisions of RCW 4.24.115.

**11. Repair of Damage**. The Contractor agrees to repair and replace all property of the City and all property of others damaged by it, its employees, subcontractors, suppliers and agents.

**12. Pre-Bid Inspection and Risk of Loss**. It is understood that the whole of the work under this contract is to be done at the Contractor's risk and that: (1) prior to submitting its proposal or bid, it became familiar with the conditions of excavation, subsurface, backfill, materials, climatic conditions, location, traffic, and other contingencies that may affect the work and has made its bid or proposal accordingly and (2) that it assumes the responsibility and risk of all loss or damage to materials or work that may arise from any cause whatsoever prior to completion.

**13. Headings for Convenience Only**. The headings in this document are for convenience only, and shall not be used or considered to interpret or construe this document.

14. Effective Date. This Contract is effective as of the date of the last person to sign it, and may be executed in multiple counterparts, each of which shall be deemed an original. This Contract may be signed with AdobeSign, and any such signature is fully binding.

**15. Third-Party Beneficiary:** All parties agree that the State of Washington shall be, and is hereby, named as an express third-party beneficiary of this contract, with full rights as such.

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CITY OF EVERETT WASHINGTON	
	ATTEST:
By: Cassie Franklin, Mayor	Office of the City Clerk
Date	STANDARD DOCUMENT APPROVED AS TO FORM OFFICE OF THE CITY ATTORNEY (9.21.23)

**CONTRACTOR:** Please fill in the spaces and sign in the box appropriate for your business entity.

Corporation	
Limited Liability Company	[Contractor's Complete Legal Name]
Partnership	
	By: Signature
	Typed/Printed Name of Signer:
	Title of Signer:
	Date:
Sole Proprietorship	
	[Typed/Printed Name]
	Signature
	Date:

#### PAYMENT BOND

#### Bond No. \_

The City of Everett has awarded to \_\_\_\_\_\_\_ (Principal), a contract for the construction of the project designated as **3<sup>rd</sup> Ave Water Quality Facility**, **Work Order**: UP 3774 in **Everett**, Washington (Contract), and said Principal is required under the terms of that Contract to furnish a payment bond in accord with Title 39.08 Revised Code of Washington (RCW) and (where applicable) 60.28 RCW.

The Principal, and	(Surety), a corporation organized under the	
laws of the State of	and licensed to do business in the State of Washington as surety	
and named in the cu	rrent list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal	
Register by the Audit Staff Bureau of Accounts, U.S. Treasury Dept., are jointly and severally held and firmly		
bound to the City of I	Everett in the sum of US Dollars	
(\$	), which is the Contract Sum, subject to the provisions herein.	

This statutory payment bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall pay all persons in accordance with RCW Titles 39.08 and 39.12 including all workers, laborers, mechanics, subcontractors, and material suppliers, and all persons who shall supply such contractor or subcontractor with provisions and supplies for the carrying on of such work, and all taxes incurred on said Contract under Title 50 and 51 RCW and all taxes imposed on the Principal under Title 82 RCW; and if such payment obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety agrees to indemnify, defend, and protect the City of Everett against any claim of direct or indirect loss resulting from the failure of the Principal, its heirs, executors, administrators, successors, or assigns, (or the subcontractors or lower tier subcontractors of the Principal) to pay all laborers, mechanics, subcontractors, lower tier subcontractors material persons, and all persons who shall supply such contractor or subcontractors with provisions and supplies for the carrying on of such work.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

This bond may be executed in two (2) original counterparts, and shall be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed and original power of attorney for the officer executing on behalf of the surety. The Surety agrees to be bound by the laws of the state of Washington and subjected to the jurisdiction of the state of Washington.

PRINCIPAL	SURETY
Printed Name:	Printed Name:
Title:	Title:
STANDARD BOND FORM OFFICE OF THE CITY ATTORNEY APPROVED AS TO FORM APPROVED AS TO CITY CHARTER § 4.1	Local Office/ Agent of Surety: Name: Address: Phone Number: Email:

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#### **PERFORMANCE BOND**

The City of Everett has awarded to \_\_\_\_\_\_ (Principal), a contract for the construction of the project designated as **3<sup>rd</sup> Ave Water Quality Facility**, **Work Order**: UP 3774 in **Everett**, Washington (Contract), and said Principal is required to furnish a bond for performance of all obligations under the Contract.

The Principal, and \_\_\_\_\_\_\_\_ (Surety), a corporation organized under the laws of the State of \_\_\_\_\_\_\_ and licensed to do business in the State of Washington as surety and named in the current list of "Surety Companies Acceptable in Federal Bonds" as published in the Federal Register by the Audit Staff Bureau of Accounts, U.S. Treasury Dept., are jointly and severally held and firmly bound to the City of Everett in the sum of \_\_\_\_\_\_\_ US Dollars (\$\_\_\_\_\_\_), which is the Contract Sum, subject to the provisions herein.

This statutory performance bond shall become null and void, if and when the Principal, its heirs, executors, administrators, successors, or assigns shall well and faithfully perform all of the Principal's obligations under the Contract and fulfill all the terms and conditions of all duly authorized modifications, additions, and changes to said Contract that may hereafter be made, at the time and in the manner therein specified; and if such performance obligations have not been fulfilled, this bond shall remain in full force and effect.

The Surety agrees to indemnify, defend, and protect the City of Everett against any claim of direct or indirect loss resulting from the failure of the Principal, its heirs, executors, administrators, successors, or assigns (or any of the employees, subcontractors, or lower tier subcontractors of the Principal) to faithfully perform the Contract.

The Surety for value received agrees that no change, extension of time, alteration or addition to the terms of the Contract, the specifications accompanying the Contract, or to the work to be performed under the Contract shall in any way affect its obligation on this bond, and waives notice of any change, extension of time, alteration or addition to the terms of the Contract or the work performed. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

This bond may be executed in two (2) original counterparts, and shall be signed by the parties' duly authorized officers. This bond will only be accepted if it is accompanied by a fully executed and original power of attorney for the officer executing on behalf of the surety. The Surety agrees to be bound by the laws of the state of Washington and subjected to the jurisdiction of the state of Washington.

PRINCIPAL	SURETY
Printed Name:	Printed Name:
Title:	Title:
STANDARD BOND FORM	Local Office/ Agent of Surety:
OFFICE OF THE CITY ATTORNEY APPROVED AS TO FORM APPROVED AS TO CITY CHARTER § 4.1	Name:
	Address:
	Phone Number:
	Email:

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#### **DIVISION 1 – GENERAL REQUIREMENTS**

Supplement Division 1 by adding the following:

# General Description and Location of Project

### (\*\*\*\*\*)

Work being performed includes furnishing all labor, materials and equipment necessary to construct a new stormwater water quality treatment facility along 3rd Ave SE with approximately 250 linear feet of new storm pipe and other such appurtenances and performing all Work as required by the Contract, in accordance with the Contract Plans and Contract Provisions.

The Project is in Everett, Washington, and is generally located on 3<sup>rd</sup> Ave SE between 97<sup>th</sup> PI SE and 98<sup>th</sup> PI SE.

#### **Design Engineer**

(\*\*\*\*\*)

Questions and inquiries about these Contract Documents should be directed in writing to the attention of Erik Emerson, City Project Manager, EEmerson@everettwa.gov.

#### **Standard Specifications**

(\*\*\*\*\*)

All Work under this Contract shall be performed in accordance with the following Specifications except as may be exempted or modified by other sections of these Contract Documents. These Specifications are incorporated by reference, made a part of this Contract and shall control and guide all activities within this Project whether referred to directly, paragraph by paragraph.

WSDOT/APWA "2023 Standard Specifications for Road, Bridge and Municipal Construction", hereinafter referred to as the "Standard Specifications."

The Standard Specifications, as modified or supplemented by these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work. The following latest edition of other specifications and standard plans shall apply to the extent to which they are called out in the Contract Documents:

- 1. City of Everett "Design and Construction Standards and Specifications", latest edition as found on the Web at "http://everettwa.gov/DocumentCenter/View/243".
- 2. "Standard Plans for Road and Bridge Construction", as prepared by WSDOT.
- 3. "Manual on Uniform Traffic Control Devices (MUTCD)."
- 4. APWA Standards.
- 5. AWWA Standards.

Each Provision of these Special Provisions either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

Sections and subsections in the Special Provisions labeled under the headers with (\*\*\*\*\*) indicate City of Everett Provisions.

#### **1-01 DEFINITIONS AND TERMS**

#### 1-01.3 Definitions

Delete the three paragraphs under the heading Completion Dates, and substitute the following:

**Substantial Completion Date:** The day the Engineer determines the City 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:** Date on which Project is ready for Final Acceptance. All physical work, including Punch List, is complete and Contractor has completed and fulfilled all contractual obligations except any maintenance of landscaping. Contractual obligations that must be fulfilled prior to achievement of the Completion Date include, and are not limited to; the Contractor's furnishing all documentation, including correct, complete and accurate as-built or record drawings and operation and maintenance manuals and transfer of warranties.

(This definition replaces the definition in WSDOT 1-01.3 for Completion Dates.)

Revise the following definitions to read as follows:

**Award:** The decision by Everett City Council to award a contract and authorize the Mayor to sign the Contract. No contract is formed until the Mayor signs the contract. (This definition replaces the definition in WSDOT 1-01.3 for Bid Documents.)

**Bid Documents**: The component parts of the proposed Contract which may include, but are not limited to, the Proposal Form, the proposed Contract Provisions, the proposed Contract Plans, and Addenda. (This definition replaces the definition in WSDOT 1-01.3 for Bid Documents.)

**Contract**: Written agreement signed between the City and Contractor and includes Division C – CONTRACT, Division P - PROPOSAL, Division B – BID ITEM DESCRIPTIONS, Special Provisions, Contract Plans, Standard Specifications and amendments, Standard Plans in effect as of the date Bids are opened, Addenda, supplemental agreements, change orders, certifications and affidavits required by this Contract and by law, and Federal requirements that apply to this Contract and Project. (This definition replaces the definition in WSDOT 1-01.3 for Contract.)

**Contract Bond(s):** The separate performance bond and payment bond, as set forth in and required by the Contract Documents. (This definition supplements the definition in WSDOT 1-01.3 for Contract Bond.)

**Engineer**: The City's representative who administers the construction program for the City. Provisions in the Contract Documents that state the Engineer "shall" or "will" shall be deemed to mean that the Engineer shall or will take such action if requested in writing by the Contractor. (This definition replaces the definition in WSDOT 1-01.3 for Engineer.)

**Specifications:** Includes 2023 WSDOT/APWA Standard Specifications and latest Amendments, and all other specifications (including these Special Provisions) for the prescribed Work in this Contract. (This definition replaces the definition in WSDOT 1-01.3 for Specifications.)

**Working Drawings:** Drawings, shop drawings, plans, diagrams, or calculations, including a schedule of submittal dates for Working Drawings where specified, which the Contractor must submit to the Engineer. (This definition replaces the definition in WSDOT 1-01.3 for Working Drawings.)

Supplement Section 1-01.3 by adding the following:

All references in the Standard Specifications to the terms "State", "Department of Transportation", "Washington State Transportation Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters", and "State Treasurer" shall be revised to read "City."

All references to the terms "State" or "state" shall be revised to read "City" 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 "City designated location."

All references to "final contract voucher certification" shall be interpreted to mean the City 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 Proposal, that may, at the discretion of the City, be awarded in addition to the base Bid.

**Alternative or Alternate:** One of two or more units of Work or groups of bid items, identified separately in the Proposal, from which the City may make a choice between different methods or material of construction for performing the same Work.

**Award Date**: The date of the formal action by the Everett City Council to accept the lowest responsible and responsive Bidder for the Work.

Bid Opening Date: The date the Everett City Clerk publicly opens and reads the Bids.

**Business Day:** A business day is any day from Monday through Friday except holidays as listed in 1-08.5.

**Change Order**: Reference to Change Order shall include all rights of the City and Contractor under <u>1-04.4 CHANGES</u>. Agreed Change Orders shall be in the form attached as Appendix C. Unilateral Change Orders shall be in the form attached as Appendix C.

**City:** The City of Everett, Washington. "City" and "Owner" and "Contracting Agency" mean the same.

**City's Representative**: The person designated in writing by the City to act as its representative at the construction site and to perform construction inspection service and administrative functions relating to this Contract. The terms "Engineer", "Architect", or "Owner's Representative" shall be interchangeable with City's Representative.

**Contract Claim**: Any request by the Contractor for additional time or money resulting in adjustment of Contract Sum or Contract Time irrespective of the cause or reason for the request. Contract Claims include, but are not limited to, requests by the Contractor for additional time or money due to Extra Work, inefficiencies, Delays, interferences, and problems with the design. Contract Claim includes, but is not limited to, claims or requests by Subcontractors for extensions of Contract Time, adjustment of Contract Sum, additional compensation that the Contractor attempts to pass through or assert against the City, or claims against the City arising out of a third party's claim against the Contractor. Certified Claim means the same as Contract Claim.

**Contract Documents**: All of the items that together make up the complete Contract. See definition for "Contract."

**Contract Execution Date**: The date the Mayor of the City of Everett signs the Contract or the date that the Contractor signs the Contract, whichever date is later. This officially binds the Contractor to the Contract.

**Contract Sum**: The price in dollars stated in the Contract to be paid by the City to the Contractor for the Work described in the Contract Documents, as modified by Change Orders.

**Contract Time**: The period of time established by the terms and conditions of the Contract within which the Work must be physically completed.

**COVID-19**: Disease related to the novel coronavirus (SARS-CoV-2), which is the subject of Governor' Inslee's proclamation dated February 29, 2020, and subsequent proclamations.

**COVID-19 Requirements**: All governmental laws, regulations, requirements, and orders relating to COVID-19, including without limitation OSHA, L&I or other safety rules relating to COVID-19 and COVID-19 gubernatorial proclamations and orders.

**Delay**: Any increase in the duration of the critical path of the Project.

**Dispute:** Any controversy or disagreement.

**Equipment**: Mechanical, electrical, instrumentation, or other devices with one or more moving parts, or devices requiring an electrical, pneumatic, electronic, or hydraulic connection.

**Extended Overhead:** The increase in Overhead costs attributable to an extension of Contract Time.

**Extra Work:** Providing materials and Equipment and the performance of Work not directly called for in, or implied by, the Contract Documents, such that Contractor would be entitled to an adjustment of Contract Sum and possibly an extension of Contract Time.

**Final Acceptance**: Formal action by Everett City Council determining that all of the Contractor's Work has been completed, except for any landscaping maintenance.

**Float**: The amount of time between the early start date and the late start date, or the early finish date and the late finish date of an activity in the Project schedule.

Force Account: Costs of performing Work as defined in 1-09.6 FORCE ACCOUNT.

**Furnish**: To deliver items, Equipment, or material to the job site or other specified location.

**Install:** Placing, erecting, or constructing complete in place items, Equipment, or material.

May: Conduct that is permitted, but not required.

**Notice:** A signed, written communication by the Contractor to the City as described in <u>1-04.5 NOTICE BY CONTRACTOR</u> of these Special Provisions.

**Notice of Award:** The written notice from the City of Everett to the successful Bidder signifying the City's acceptance of the Bid. No Contract is formed until the Contract Execution Date.

**Notice to Proceed:** The written Notice from the City or City's Representative to the Contractor authorizing and directing the Contractor to proceed with the Work and establishing the date on which the Contract Time begins. Multiple and partial Notices to Proceed may be issued on a single Project.

**Over absorbed Overhead:** Over recovery of fixed indirect costs that occurs when a Contractor performs more overall Work than it otherwise would have performed.

#### Overhead

In general, Overhead for the purpose of calculating additional compensation under this section of the Contract shall include only those costs that are expended for the administration of the business as a whole. Such costs usually accrue or are incurred due to the passage of time, or cannot be traced to a particular project or contract, or both.

Examples of possible Overhead costs include, but are not limited to, General and Administrative salaries and benefits, rent, general company insurance, exclusive of insurance on owned equipment that is directly job costed, depreciation on office facilities, utilities, maintenance, office supplies, general company accounting and legal fees, exclusive of amounts expended directly on any specific project, personal property taxes, general company business licenses, dues and subscriptions.

The following costs and expenses are excluded from the definition and calculation of Overhead. Overhead costs that vary substantially with the volume of Work performed, as measured by billings, shall not be included in Overhead for the purpose of determining additional compensation for Extended or Unabsorbed Home Office Overhead, or both.

Examples of costs that are not included in Overhead include: travel and business meetings, telephones, professional fees expended for the benefit of a specific project, union welfare benefits, payroll taxes and equipment rental.

If related party transactions are included in a Contractor's Overhead, they must be explicitly identified as related party transactions and must not exceed amounts that would be incurred in an arms-length transaction for the provision of the same or similar goods and services. If such transactions exist and the amounts paid by the Contractor and included in Overhead are in excess of that which would normally be expended in an arms-length transaction, an adjustment, in the form of a reduction in the amount for calculation purposes, must be included in any calculation in determining the amount of Allocable Overhead.

Overhead shall not include any cost directly attributable to a particular project. If a cost can be traced to a particular contract, the Contractor may not classify the cost as Overhead.

Indirect or home office costs that vary substantially with the amount of Work performed shall not be included in the group of costs comprising Overhead.

Overhead shall not include any costs specifically disallowed by Federal Acquisition Regulations, Subpart 31.2 – Contracts with Commercial Organizations, or its successor. Further, "Overhead" shall not include the costs of any "field support services" that are more closely direct costs in nature, regardless of the manner in which the Contractor normally accounts for such costs. An example of such disallowed cost would be for material handling and expediting, which are costs incurred for the direct support and benefit of any specific project(s).

In addition to compliance with Federal Acquisition Regulations, Subpart 31.2 examples of specific costs not allowed in a calculation under this Section of the Contract are Incentive Compensation paid to personnel classified as Overhead and otherwise includable under this Section of the Contract, travel and business meetings, employer paid benefits and taxes on direct payroll costs of any project, insurance costs directly identifiable to any specific project, penalties, and any costs incurred regarding company owned equipment normally classified as a direct project costs,.

**Person:** Includes individuals, associations, firms, companies, corporations, partnerships, and joint ventures.

**Project:** The undertaking to be performed under the provisions of the Contract.

**Provide:** Furnish and Install, complete in place.

**Punch List:** List of incomplete items of Work and of items of Work that do not conform to the requirements of the Contract Documents. The Punch List is prepared after Substantial Completion.

**RCW:** Means the Revised Code of Washington

**Schedule of Values:** Allocation of Contract Sum to items of Work as described in 1-09.9 PAYMENTS of these Special Provisions.

Shall: Required conduct.

**Shown:** Refers to information presented on the Plans, with or without reference to the Plans.

**Specify:** Refers to information described, shown, noted or presented in any manner in the Contract.

**Submittals:** The information required by the Contract Documents provided by Contractor to the City's Representative or City.

**Total Float**: The amount of time a given activity or path of activities may be delayed before it will affect the Completion Date.

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

**Unabsorbed Overhead**: The reduction or loss of contribution to recovery of the Contractor's Overhead costs realized by the result of reduced Project or Contractor billings, or both, due to any reason whatsoever, including a Project extension.

Unit Price Work: Refers to items of Work identified by unit prices in the Proposal.

#### 1-02 BID PROCEDURES AND CONDITIONS

#### 1-02.1 Prequalifications of Bidders

Delete 1-02.1 and substitute the following:

#### 1-02.1 Bidder Responsibility Criteria

#### (\*\*\*\*\*)

# 1-02.1(1) Mandatory Bidder Responsibility Criteria (\*\*\*\*\*\*)

Bidder shall meet mandatory responsibility criteria in accordance with RCW 39.04.350(1). The City may require Bidder to submit documentation demonstrating compliance with the criteria under this 1-02.1(1). Bidder must:

- Registration. At the time of bid submittal, have a certificate of registration in compliance with chapter 18.27 RCW, a plumbing contractor license in compliance with chapter 18.106 RCW, an elevator contractor license in compliance with chapter 70.87 RCW, or an electrical contractor license in compliance with chapter 19.28 RCW, as required under the provisions of those chapters; and
- 2. UBI. Have a current Washington Unified Business Identifier (UBI) number; and
- 3. State Requirements. If applicable:
  - a. Have Industrial Insurance (workers' compensation) coverage for the bidder's employees working in Washington, as required in Title 51 RCW;

- b. Have a Washington Employment Security Department number, as required in Title 50 RCW; and
- c. Have a Washington Department of Revenue state excise tax registration number, as required in Title 82 RCW.
- 4. Disqualification. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3).
- 5. Prevailing Wage Training. Unless Bidder has completed three or more public works projects and had a valid business license for three or more years, Bidder must have received Department of Labor and Industries training on the requirements related to public works and prevailing wage under RCW 39.12 and RCW 39.04.
- 5. Certification of Wage Compliance. Within the three-year period immediately preceding the date of the bid solicitation, not have been 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 to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW.
- 6. Apprentices. If the Project is subject to the apprenticeship utilization requirements in RCW 39.04.320, not have been found out of compliance by the Washington state apprenticeship and training council for working apprentices out of ratio, without appropriate supervision, or outside their approved work processes as outlined in their standards of apprenticeship under chapter 49.04 RCW for the one-year period immediately preceding the date of the bid solicitation.

# 1-02.1(2) Supplemental Bidder Responsibility Criteria (\*\*\*\*\*\*)

This Project will not be subject to supplemental bidder responsibility criteria.

### 1-02.2 Plans and Specifications

Delete all paragraphs in 1-02.2 and substitute the following:

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

After Award of the Contract, the Contractor will receive up to six sets of the reduced Plans (11" x 17") and accompanying Special Provisions. In addition, the City will supply up to three sets of full size plans (22" x 34"). All Plans and Special Provisions will be conformed with addenda unless Contractor requests otherwise.

Additional Plans and Special Provisions may be purchased by payment of the current printing costs.

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

### 1-02.4(1) General

Delete the fifth paragraph of 1-02.4(1), beginning with "Bid prices shall reflect", and substitute the following:

Bid prices shall include everything necessary for the completion of the Work including, but not limited to, providing the materials, equipment, tools, plant and other facilities, and the management, superintendence, labor, and all necessary testing services.

Revise the first sentence in the paragraph that begins with "Any prospective Bidder desiring an explanation" to read as follows:

Any prospective Bidder desiring an explanation or interpretation of the Bid Documents, shall request the explanation or interpretation in writing by close of

business three business days preceding the bid opening to allow a written reply to reach all prospective Bidders before the submission of their Bids.

Supplement 1-02.4(1) by adding the following:

Bidder acknowledges that Bidder has not relied on representation or warranty of the City not expressly included in the Contract Documents.

The information provided by the City is not intended to be a substitute for, or a supplement to, the independent verification by Bidder to the extent such independent investigation of the Drawings and Specifications or Site conditions is deemed necessary or desirable by the Bidder. Bidder acknowledges that they have not relied upon City or Engineer furnished information regarding site conditions in preparing and submitting a Bid.

Further supplement 1-02.4(1) by adding the following:

# 1-02.4(1)A Interpretation of Contract Documents (\*\*\*\*\*\*)

Should a Bidder find what is believed to be discrepancies in or omissions from the Plans, Specifications, or Special Provisions, or should the Bidder be in doubt as to their meaning, Bidder may submit to the Engineer a written request for an interpretation thereof. The Bidder submitting the request will be responsible for its prompt delivery. Any interpretation of the documents, if made, will be made only by addendum duly issued and a copy of such addendum will be mailed or delivered to each Bidder receiving a set of such documents. All requests for interpretations must be received by the City or Engineer no later than 7 calendar days prior to the Bid Opening Date. All questions regarding the Contract Documents shall be referred to the City or Engineer at the address provided in the Contract Documents.

# 1-02.4(1)B Prevailing Wages

(\*\*\*\*\*)

Bidder is directed to 1-07.9(1) of these Special Provisions for requirements regarding applying payment of prevailing wage rates for employment of labor on within Snohomish County.

#### 1-02.4(2) Subsurface Information

Delete the first paragraph and substitute the following:

Utility pothole data completed during the project design is included in Appendix H. The City specifically makes no representations, guarantees, or warranties as accuracy of any subsurface information the Contracting Agency may make available to the prospective Bidders.

#### 1-02.5 Proposal Form

Delete this section and substitute the following:

The Proposal Form identifies the project and its location and describes the Work. It also lists estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. Bidder shall complete spaces on the proposal form that call for, and are not limited to, unit prices; extensions; summations; the total bid amount; signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; bidder's name, address, bidder's email address, telephone number, and signature; bidder's UDBE/DBE/M/WBE commitment, if applicable; a State of

Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the Proposal Form.

Bidder shall submit Bidder's Proposal on the Proposal Form provided in the Contract Documents.

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

#### 1-02.6 Preparation of Proposal

Delete "unless it approves in writing" from the second sentence of the first paragraph of 1-02.6.

Revise the fourth paragraph of 1-02.6, beginning with "The Bidder shall submit with the Bid a completed Disadvantaged Business Enterprise (DBE) Utilization Certification", to read as follows:

Contractor agrees that the Contractor shall actively solicit the employment of minority group members. Contractor further agrees that the Contractor shall actively solicit Bids for the subcontracting of goods or services from qualified minority businesses. Contractor shall furnish evidence of the Contractor's compliance with these requirements of minority employment and solicitation. Contractor further agrees to consider the grant of subcontracts to said minority bidders on the basis of substantially equal proposals in the light most favorable to said minority businesses. The Contractor shall be required to submit evidence of compliance with this section as part of the Bid by submitting the RCW 35.22.650 Certification.

Delete the sixth paragraph of 1-02.6, which begins with "The Bidder shall submit with their Bid a completed Contractor Certification Wage Law Compliance form (WSDOT Form 272-009)."

Supplement 1-02.6 by adding the following:

In the event that the product of a unit price and an estimated quantity does not equal the extended amount quoted, the unit price shall govern, and the correct product of the unit price and the estimated quantity shall be deemed to be the amount bid. If the sum of two or more items in a bidding schedule does not equal the total amounts quoted, the individual item amounts shall govern and the correct total shall be deemed to be the amount bid. Do not qualify Proposal, since this will automatically be cause for rejection of the Proposal.

Bidders are warned against making erasures or alterations of any kind to the Proposal Form, and proposals that contain omissions, erasures, or irregularities of any kind may be rejected. No oral, electronic, fax, telegraphic, or telephonic proposals or modifications will be considered.

#### 1-02.7 Bid Deposit

Supplement 1-02.7 by adding the following:

Bid deposit shall serve as evidence of good faith and as a guarantee that if awarded the Contract the Bidder will execute the Contract and provide bonds as required by the Bid. Should the successful Bidder fail to enter into the Contract, furnish a satisfactory performance and payment bond, and furnish evidence of insurance within 14 calendar days after the Award Date, the certified check, cashier's check or bid bond shall, unless otherwise provided in the Contract Documents, be forfeited as liquidated damages.

Bid bonds shall contain the following:

- 1. City-assigned number for the Project;
- 2. Name of the Project;
- 3. The City of Everett named as obligee;
- 4. The amount of the bid bond stated either as a dollar figure or as a percentage that 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 must accompany the said signature;
- 6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

Bidder shall use the bond form included in the Bid Documents.

#### 1-02.8 Noncollusion Declaration and Lobbying Certification

#### 1-02.8(1) Noncollusion Declaration

Delete the last paragraph of 1-02.8(1) and supplement by adding the following:

The City has determined every Bidder must submit a Non-Collusion Affidavit for every Project. Accordingly, the Bidder shall submit a signed and notarized "Non-Collusion Affidavit", contained in the Contract Documents, as part of the Proposal package. If the City has reason to believe that collusion exists among Bidders, the City will reject the Bids of the known participants in such collusion and may, at its option, require that all Bidders certify under penalty of perjury, that no collusion has occurred or exists.

#### 1-02.9 Delivery of Proposal

Delete all of 1-02.9 and substitute the following:

Bidder shall submit Bidder's Proposal in a sealed opaque envelope that clearly and legibly notes the Project Name, the time and date of the bid opening, and the Bidder's name and address on the outside of the envelope.

The City will not open or consider any Proposal or any supplement to a Proposal that is received after the time specified for receipt of Proposals, or received in a location other than that specified for receipt of Proposals.

#### 1-02.10 Withdrawing, Revising, or Supplementing Proposal

Delete 1-02.10 and substitute with the following:

After submitting a physical Proposal to the City, the Bidder may withdraw, revise, or supplement its Proposal if:

- 1. The Bidder submits a written request signed by an authorized person and physically delivers it to the place designated for receipt of Proposals, and
- 2. The City receives the request before the time set for receipt of Bid Proposals, and
- 3. The revised or supplemented Proposal (if any) is received by the City before the time set for receipt of Proposals.

The original physical Bid Proposal may be supplemented, or revised and resubmitted as the official Proposal if the City receives it before the time set for receipt of Proposals. If the Bidder does not submit a revised or supplemented package in time, then its bid shall be considered withdrawn.

Email, fax or telephone requests to withdraw, revise, or supplement a Proposal are not acceptable.

Resubmitted Proposals shall be in full compliance with the bidding requirements. Bid deposit shall be in an amount sufficient for the Proposal as resubmitted.

After the scheduled time for opening Proposals, no Bidder will be permitted to withdraw Bidder's Proposal unless the award of contract is delayed for a period exceeding 45 calendar days. Proposals received after the scheduled closing for opening Proposals will be returned unopened to the Bidder.

### 1-02.12 Public Opening of Proposals

Supplement 1-02.12 by adding the following:

# 1-02.12(1) Postponement of Opening (\*\*\*\*\*\*)

The City reserves the right to postpone the date and time for receiving or opening of Bids, or both, at any time prior to the date and time established in the Notice to Bidders. Postponement notices shall be provided to Bidders in the form of addenda.

Supplement 1-02.12 by adding the following:

# 1-02.12(2) Video Conferencing

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The City reserves the right to open and publicly read Bids by use of video-conferencing, such as by Microsoft Teams, Zoom or other application.

#### 1-02.13 Irregular Proposals

Revise item 1 and 2 of 1-02.13 to read as follows:

- 1. A Proposal will be considered irregular and will be rejected if:
  - a.. The authorized proposal form furnished by the City is not used or is altered;
  - b. The completed proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
  - c. The Bidder adds provisions reserving the right to reject or accept the Award, or enter into the Contract;
  - d. A price per unit cannot be determined from the Bid Proposal;
  - e. The Proposal form is not properly executed;
  - f. The Bidder fails to submit or properly complete, on the form provided by the City, the Subcontractor list, if applicable, as required in 1-02.6;
  - g. The Bidder fails to submit or properly complete, on the form provided by the City, the RCW 35.22.650 Certification, as required in 1-02.6;
  - h. The Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation;
  - i. More than one proposal is submitted for the same project from a Bidder under the same or different names; or
  - j. The Bidder fails to submit or properly complete, on the form provided by the City, the Non-Collusion Affidavit, as required in 1-02.8(1).
- 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;

- Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the City, as determined by the City;
- c. Receipt of Addenda is not acknowledged;
- d. 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 Proposals may be rejected); or
- e. Proposal form entries are not made in ink.

### 1-02.14 Disqualification of Bidders

Revise 1-02.14 to read as follows:

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, and noted in 1-02.1(1).

The City will verify that the Bidder meets the mandatory bidder responsibility criteria in RCW 39.04.350(1). To assess bidder responsibility, the City 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 City determines the Bidder does not meet the mandatory bidder responsibility criteria in RCW 39.04.350(1) and is therefore not a responsible Bidder, the City 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 business days of the City's determination by presenting its appeal and any additional information to the City. The City 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 City 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 City's final determination.

If the Contract Documents contain supplemental responsibility criteria, then a Bidder will be deemed not responsible if the Bidder does not meet those criteria:

### 1-02.15 Pre-Award Information

Revise 1-02.15 to read as follows:

Before awarding any contract, the City may require one or more of these items or actions of the apparent lowest responsible Bidder:

- 1. A complete statement of the origin, composition, and manufacture of any or all materials to be used,
- 2. Samples of these materials for quality and fitness tests,
- 3. A progress schedule, in a form the City requires, showing the order of and time required for the various phases of the Work,
- 4. A breakdown of costs assigned to any bid item,
- 5. Attendance at a conference with the Engineer or representatives of the Engineer,
- 6. Obtain, and furnish a copy of, a business license to do business in the City of Everett.
- 7. A copy of State of Washington Contractor's Registration, or
- 8. Any other information or action taken that is deemed necessary to ensure that the Bidder is the lowest responsible bidder.

### 1-02.16 Grant Funding

Add 1-02.16 to read as follows:

It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to any contract or any subcontract.

### 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 City 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 City 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 City, will be used by the City for Award purposes and to fix the awarded Contract Sum and the amount of the Contract Bond(s).

Revise the third and fourth paragraphs of 1-03.1 to read as follows:

Within 5 days after the opening of Proposals (or such longer time as the City may grant in writing), a Bidder who wishes to claim error shall submit a notarized affidavit signed by the Bidder, accompanied by original work sheets used in the preparation of the Proposal, requesting relief from the responsibilities of Award.

The affidavit shall describe the specific error(s) and certify that the work sheets are the originals used in the preparation of the Proposal. The Engineer will review the certified work sheets to determine the validity of the claimed error and make recommendation to the City. If the City concurs in the claim of error, the Bidder will be relieved of responsibility, and the bid deposit of the Bidder will be returned. Thereafter, at the discretion of the City, all Bids may be rejected or Award made to next lowest and responsive Bidder.

Supplement 1-03.1 by adding the following:

# 1-03.1(2) Preference for Resident Contractors (\*\*\*\*\*\*)

In accordance with RCW 39.04.380, if a Bid is received from a nonresident contractor from a state that provides a percentage bidding preference and does not have an office located in Washington, then a comparable percentage disadvantage will be applied to the Bid of that nonresident contractor.

#### 1-03.2 Award of Contract

Revise 1-03.2 to read as follows:

Within 45 days after the opening of Bids, the City will act either to accept the Bid from the lowest responsive, responsible Bidder, or to reject all Bids. The City reserves the right to request extensions of such Bid acceptance period. If the lowest responsible Bidder and the City cannot agree on an extension by the 45 day deadline, the City

reserves the right to award the Contract to the next lowest responsible Bidder or reject all Bids.

The acceptance of a Bid will be evidenced by a written Notice of Award of Contract delivered in person or by certified mail to the Bidder whose Bid is accepted, together with a request to furnish a Contract Bond and evidence of insurance and to execute the Contract set forth in the Contract Documents. No Contract is formed until the Contract Execution Date.

### 1-03.3 Execution of Contract

Revise 1-03.3 to read as follows:

Within 3 calendar days after receiving the Notice of Award (not including Saturdays, Sundays and Holidays), the successful Bidder shall provide to the City the information necessary to execute the Contract electronically. This information shall include contact information, including the full name, title, email address, and phone number for the authorized signer of the Bidder.

Successful Bidder has 14 calendar days after receiving the Notice of Award to complete the following:

- Execute the Contract upon receipt from the City's AdobeSign System.
- Submit to the City two original paper payment bonds and two original paper performance bonds submitted on forms contained in Contract Documents and fully executed, with proper power of attorney document(s).
- Submit to the City in pdf format certificate of Insurance and additional insured endorsements in accordance with the Contract Documents.

Until the City executes the Contract, no Bid shall bind the City nor shall any Work begin within the project limits or within City-furnished sites. The Bidder shall bear all risks for any Work begun outside such areas and for any materials ordered before the Contract is executed by the City.

If the Bidder experiences circumstances beyond its control that prevents return of the Contract, bonds, and insurance documents within 14-calendar days after receipt of the Notice of Award, the City may grant more time, provided the City deems the circumstances warrant it.

A Contract shall not be formed until the Contract is signed by the Mayor.

#### 1-03.4 Contract Bond

Revise 1-03.4 to read as follows:

The Contractor shall provide a separate payment bond and performance bond, each in the amount of 100 percent of the Contract Sum and each in the form contained in the Contract Documents. These bonds shall serve as security for the faithful performance of the Work and as security for the faithful payment and satisfaction of the persons furnishing materials and performing labor on the Work. The bonds shall be issued by a corporation duly and legally licensed to transact surety business in the State of Washington. Such bonds shall remain in force throughout the period required to complete the Work, and thereafter for a period of 365 calendar days after Final Acceptance. The bonds must be executed by a duly licensed surety company, which is listed in the latest Circular 570 of the United States Treasury Department, as being acceptable as surety on federal bonds. No surety's liability on the bond shall exceed the underwriting limitations for the respective surety specified in Circular 570. The bonds must be accompanied by a fully executed and original power of attorney for the officer executing on behalf of the surety. The scope of the bonds or the form thereof

prescribed in these Contract Documents shall in no way affect or alter the liabilities of the Contractor to the City as set forth in the Contract Documents.

### 1-03.5 Failure to Execute Contract

Supplement 1-03.5 by adding the following:

In addition to the items listed in the first paragraph of 1-03.5, failure to have or obtain a City of Everett business license prior to executing the Contract, unless immediately cured by Bidder after notice from the City, shall result in forfeiture of the proposal bond or deposit of this Bidder.

#### 1-03.6 Return of Bid Deposit

Supplement 1-03.6 by adding the following:

Within 15 calendar days after the Bids are opened, the City will return the bid deposit accompanying the Bids that are not to be considered in making the Award.

#### 1-03.7 Judicial Review

Revise 1-03.7 to read as follows:

All protests by Bidders must be in accordance with Chapter 3.46 of the Everett Municipal Code, "Bid Protest Procedures."

The exclusive venue of all lawsuits shall be in Snohomish County Superior Court.

#### 1-04 SCOPE OF THE WORK

### 1-04.1 Intent of the Contract

Supplement 1-04.1 by adding the following:

#### 1-04.1(3) Specifications and Plans

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#### 1-04.1(3)A Interpretation of Specifications and Plans

The Specifications and Plans are intended to be explanatory and supportive of each other. Work specified on the Plans and not in the Specifications, or vice versa, shall be executed as if specified in both. In the event the Work to be done or matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the Contractor shall immediately ask the City's Representative for further explanation and shall comply with such explanation. In the event of doubt or question arising respecting the true meaning of the Specifications or Plans, Contractor shall refer to the City's Representative for its decision.

#### 1-04.1(3)B Division of Specifications and Plans

Specifications and Plans are divided into groups for convenience. These divisions are not for the purpose of apportioning Work or responsibility for Work among Subcontractors, Suppliers and manufacturers. The Contractor is responsible for all Work shown or described, regardless of location(s) in the Contract Documents.

#### **1-04.1(3)C** Discrepancies in Specifications and Plans

#### 1-04.1(3)C(1) Errors and Omissions

If the Contractor becomes aware of any errors or omissions in the Contract Documents or in the City's field work, it shall immediately inform the City's Representative in writing. The City's Representative will promptly review the matter and if it finds an error or omission has been made; it will determine the corrective actions and advise the Contractor accordingly. If the corrective work associated with an error or omission increases or decreases the amount of Work called for in the Contract, the City will issue an appropriate Change Order. After discovery by the Contractor of an error or omission, related Work

performed by the Contractor shall be done at its risk unless authorized by the City's Representative and approved by the City.

#### 1-04.1(3)C(2) Conflicting Provisions

In the event an item of Work is described differently in two or more locations on the Plans, in the Specifications and Special Provisions, the Contractor shall, upon request of the City's Representative, submit in writing to the City's Representative the description upon which the Contractor relied in preparing its Bid or laying out the Work.

#### 1-04.1(3)D Utilities

#### 1-04.1(3)D(1) General

The City has endeavored to determine the existence of public and private utilities at the site of the Work from the records of the owners of known utilities in the vicinity of the Work. The positions of these utilities as derived from such records are shown on the Plans. Unless otherwise noted, no excavations were made to verify the locations shown for underground utilities. The service connections to the gas, electric, cable TV and communication utilities are not shown on the Plans. Refer to 1-07.17 UTILITIES AND SIMILAR FACILITIES regarding Contractor's responsibility for locating and verifying underground public and private utilities.

#### 1-04.1(3)D(2) Unknown/Incorrectly Marked Utilities

When a utility interferes with the Work and is either (1) not identified on the Plans or (2) located in a position significantly different from that specified on the Plans or in accordance with a particular utility's standard depth and location, Contractor shall follow the procedures of <u>1-04.7 DIFFERING SITE</u> <u>CONDITIONS (CHANGED CONDITIONS)</u>. Interference with the Work is defined as a utility that crosses or projects into the plane of the Work at an elevation between the top and bottom of the Work.

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

Revise the first and second paragraphs of 1-04.2 to read as follows:

The complete Contract includes Division C – CONTRACT, Division P - PROPOSAL, Division B – BID ITEM DESCRIPTIONS, Special Provisions, Contract Plans, Standard Specifications, Standard Plans in effect as of the date Bids are opened, Addenda, supplemental agreements, change orders, certifications and affidavits required by this Contract and by law, and Federal requirements that apply to this Contract and Project. These parts complement each other in describing a complete Work. Any requirement in one part binds as if stated in all parts. The Contractor shall provide any Work or materials clearly implied in the Contract even if the Contract does not mention it specifically.

Any inconsistency in the parts of the Contract shall be resolved by following this order of precedence:

- 1. Change Orders,
- 2. Addenda,
- 3. Division C CONTRACT,
- 4. Division P PROPOSAL,
- 5. Division B BID ITEM DESCRIPTIONS
- 6. Special Provisions,

- 7. Contract Plans,
- 8. City's Standard Drawings (if any)
- 9. WSDOT/APWA Standard Specifications for Road, Bridge, and Municipal Construction,
- 10. WSDOT/APWA Standard Plans for Road, Bridge and Municipal Construction.

Revise the seventh paragraph of 1.04.2 to read as follows:

In case of any ambiguity or dispute over interpreting the Contract, the Engineer's decision will be final as provided in 1-05.1 AUTHORITY OF THE ENGINEER.

#### 1-04.3 Reference Information

Revise 1-04.3 to read as follows:

Reference Information provided to the Contractor is not part of the Contract. The City of Everett does not guarantee the accuracy of the Reference Information and is not responsible for the content of the Reference Information in any manner. Any use of Reference Information by the Contractor is done solely at the Contractor's risk.

#### 1-04.4 Changes

Delete 1-04.4 and substitute the following:

#### 1-04.4 Changes

# 1-04.4(1) City's Right to Direct Changes to the Work (\*\*\*\*\*\*)

The City reserves the right to change the Work at any time. Such changes shall not invalidate the Contract nor release the Surety, and the Contractor agrees to perform the Work as changed. Among others, these changes and alterations may include:

- 1. Deleting or omitting any part of the Work, Equipment or material to be provided under this Contract,
- 2. Increasing or decreasing quantities,
- 3. Altering Specifications, designs, or both,
- 4. Altering the way the Work is to be done,
- 5. Adding new Work or Extra Work,
- 6. Altering facilities, Equipment, materials, services, or sites, provided by the City, and
- 7. Ordering the Contractor to accelerate or Delay the Work.

If the Contractor and City do not agree upon scope of Work changed or adjustment to the Contract Sum and Contract Time, the City may, at its sole option, unilaterally direct the Contractor to implement City directed change by notice. The City shall not pay or be responsible or liable for changes implemented by the Contractor without explicit notice from the City to proceed.

# 1-04.4(2) Extra Work (\*\*\*\*\*)

At its sole option, the City may (1) perform Extra Work itself, (2) employ others to do it, (3) direct the Contractor to perform the Extra Work at existing unit Bid price, (4) direct the Contractor to perform the Extra Work at a mutually agreed upon price, or (5) direct the Contractor to perform the Extra Work on a Force Account basis.

### 1-04.4(3) Change Orders

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Changes to the Work may result in an increase or decrease in Contract Sum, as provided in 1-09.4 Equitable Adjustment. Requests for an increase in Contract Time shall be made as provided in <u>1-08.3 PROGRESS SCHEDULE</u> as applicable. Substantial changes in Contract Time, Contract Sum or Work will often be negotiated and agreed between the Contractor and City before the City directs the Contractor to proceed with the change.

If the Contractor and City agree on the scope of Work and any changes to Contract Sum and Contract Time, the Contractor and City shall execute an agreed Change Order. However, if the Contractor and City do not agree, the City may, in its sole discretion, issue a unilateral Change Order in the form attached to the Contract Documents changing the scope of Work and making any adjustments to the Contract Sum pursuant to 1-09.4 EQUITABLE ADJUSTMENT and Contract Time pursuant to 1-08.8 EXTENSIONS OF TIME in such amount and for such time as the City believes appropriate. Contractor agrees to use the agreed Change Order form attached to the Contract Documents. The Contractor accepts all requirements, terms and conditions of a Change Order by: signing it; writing a separate acceptance; or by failing to notify the City immediately in writing that Contractor disagrees with the Change Order and does not intend to be bound by its terms.

The Contractor waives and is estopped from denying its agreement with any unilateral Change Order for which the Contractor does not immediately give Notice to the City as provided in 1-04.5 NOTICE BY CONTRACTOR in these Special Provisions and submitting a Contract Claim as provided in 1-09.11(2) CONTRACT CLAIMS in these Special Provisions. A unilateral Change Order that is not timely protested as provided in this section shall be full payment and final settlement of all asserted and unasserted Contract Claims for Contract Time and all costs of any kind, including costs of Delays, inefficiencies and impacts, related to, arising out of, or resulting from, any Work described in the Change Order.

The Contractor shall obtain written consent of the Surety or Sureties if the City's Representative requests such consent.

# 1-04.4(4) Value Engineering and Cost Sharing (\*\*\*\*\*\*)

The Contractor may submit proposals for changing the Plans, Specifications, or other requirements of the Contract Documents and the City, in its sole discretion, may accept or reject such proposals. If accepted by the City and if the proposal decreases the direct, actual costs of constructing the Work, the Contract Sum shall be reduced by fifty percent (50%) of the direct, actual construction cost saved. Because the City has the sole discretion whether to consider, accept or reject the Contractor's proposal and the Contractor has no right to require the City to consider or accept such proposals, the City's decision is not reviewable by any court. This subsection applies only to change proposals initiated solely by the Contractor, or its Subcontractors and suppliers, and does not apply to change proposals requested or initiated by the City or the City's Representative. The City is not obligated or required to consider any Contractor initiated change proposals and may, in its sole discretion, refuse to do so. Under no circumstances shall the Contractor be entitled to additional compensation arising out of, or related to, the City's refusal to consider or approve a Contractor initiated change proposal. The Contractor shall do none of the following without the express written agreement of the City: fail to perform any Work; commence Work on proposed change; reduce its resources assigned to performance of the Work in order to prepare a change proposal or in anticipation of approval of a change proposal; adjust or change the project

schedule or take action or fail to take action that would affect the Completion Date of the Work; take action or fail to take action arising out of the Contractor's change proposal that would result in the Contractor seeking an adjustment upward of the Contract Sum.

# 1-04.5 Procedure, Protest, and Dispute by the Contractor

Delete all of 1-04.5 and substitute the following:

# 1-04.5 Notice by Contractor (\*\*\*\*\*)

### 1-04.5(1) When Notice Must Be Given

Whenever:

- 1. The Contractor disagrees with any requirement, direction, interpretation or determination by the City or City's Representative;
- 2. The Contractor disagrees with anything required in a change order, or the Engineer's Written Determination or decision for which the Contractor believes it is entitled to an increase in the Contractor price or time;
- The Contractor knows, or should with the reasonable exercise of ordinary care know, of a differing site condition as provided in 1-04.7 DIFFERING SITE CONDITIONS (CHANGED CONDITIONS);
- 4. The Contractor knows, or should with the reasonable exercise of ordinary care know, of a Delay or an event that may cause a Delay;
- The Contractor believes, or with the reasonable exercise of ordinary care should believe, it is entitled to an adjustment of Contract Sum or Time, even if the total or exact amount or impact cannot yet be determined;
- 6. The Contractor believes it is required or directed to perform work that is outside the scope of the Contract Documents; or
- 7. An event occurs, or fails to occur, that the Contractor believes, or should reasonably foresee, may result in a Contract Claim; or
- The actual quantities of Unit Price Work vary sufficiently from the original estimate that Contractor may be entitled to an equitable adjustment of Contract Sum as provided in 1-04.6 VARIATION IN INCREASED OR DECREASED QUANTITIES;

The Contractor shall immediately give Notice to the City or City's Representative as provided in this section and elsewhere in the Contract Documents and Specifications.

Timely and adequate Notice is a condition precedent to a Contract Claim.

Requests for extensions of Contract Time shall be made and evaluated in accordance with 1-08.3 PROGRESS SCHEDULE and 1-08.8 EXTENSIONS OF TIME.

Irrespective of any request for additional compensation or Contract Time or a Contract Claim that Work is extra and not part of the original scope of Work, the Contractor shall proceed expeditiously and promptly with the Work as the City orders.

If the Contractor fails to follow the procedures of this Contract, including failing to give Notice, the Contractor completely waives any Contract Claims. In its sole discretion, the City may waive strict compliance with procedures, but any such waiver of one or more items or elements does not waive the necessity for Contractor's strict compliance with any other item or element, nor shall such waiver be admissible in any legal proceeding for any reason.

### 1-04.5(2) Form of Notice

The Notice shall be in writing and include the following minimum information:

- 1. A complete and accurate description of the event(s) giving rise to the Notice, including dates, times, and locations;
- 2. A preliminary list of persons involved in such event;
- A statement whether the Contractor believes the event may result in a Contract Claim for additional Contract Time or adjustment of the Contract Sum;
- 4. A date by which Contractor shall begin providing Supplemental Information as provided in this section.

#### 1-04.5(3) Supplemental Information

Contractor shall supplement the written Notice as soon as possible with a written statement providing the following:

- 1. The date of the event, incident, direction, instruction, interpretation or determination;
- 2. The nature and circumstances giving rise to the Notice;
- 3. The contract provisions relating to the event, incident, direction, instruction, interpretation or determination;
- 4. The estimated dollar cost, if any, of the Extra Work, Delay, change or disruption and detailing how the dollar amount estimate was determined; and
- 5. An analysis of the progress schedule showing the impact to the schedule resulting from the change or disruption, if the Contractor is asserting a schedule change or disruption;

Throughout any work related to a Notice, the Contractor shall keep complete and accurate records of costs, expenses, and time incurred for which Contractor will or may seek an adjustment. Contractor waives and is estopped from seeking an adjustment of Contract Sum or Contract Time where Contractor fails to keep and maintain cost, timekeeping, and scheduling records segregated and contemporaneously allocated to the subject work for which an adjustment is sought. For example, failure to keep contemporaneous labor and equipment time records specifically and only allocated to each item of claimed Extra Work shall constitute a waiver of any Contract Claim for reimbursement or additional Contract Time for each such item of Extra Work. The Contractor shall permit the City access to these and any other records needed for evaluating requests for additional Contract Time or Contract Sum.

### 1-04.5(4) Contract Claim

A Contractor dissatisfied with the City's response or (non-response) to a Notice provided under Section 1-04.5 completely waives any claims related to such Notice unless the Contractor submits a Contract Claim in accordance with Section 1-09.11.

### **1-04.7** Differing Site Conditions (Changed Conditions)

Delete all of 1-04.7 and substitute the following:

Upon discovery and before such conditions are disturbed, the Contractor shall promptly provide Notice to the City's Representative of:

Pre-existing subsurface or latent physical conditions at the site differing materially from those indicated in this Contract, or

Pre-existing unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this Contract.

Upon written request, the City's Representative shall determine whether the actual conditions encountered by the Contractor conditions are materially different and, if so,

are the cause of a material increase or decrease in the Contractor's cost of performance of the Work, or extend the duration of the critical path of the schedule. Upon such determination, the City's Representative will make an adjustment of Contract Sum or Contract Time, as appropriate. Extensions of Contract Time will be evaluated in accordance with 1-08.3 PROGRESS SCHEDULE.

The City's Representative's determination that differing site conditions do not exist and/or the appropriate adjustment in Contract Sum or Contract Time (if any) shall be final. If there is a decrease in the cost or time required to perform the Work, failure of the Contractor to notify the City's Representative of the differing site condition shall not affect the City's right to make an adjustment in the Contract Sum or Contract Time. Additionally, no Contract Claim or adjustment of Contract Sum or Contract Time shall be allowed unless the Contractor has followed the procedures provided for in this Contract, including, but not limited to, furnishing timely Notice of the event and its effect on Contract Time and Contract Sum as required herein.

Contractor shall in no event be entitled to a Contract Claim or adjustment of Contract Sum or Contract Time based on an allegation that the pre-existing subsurface or latent physical conditions at the site differ materially from those indicated in this Contract unless Contractor establishes that it reasonably relied on the conditions indicated in this Contract when making its bid, that the actual conditions encountered on the site differed materially from those indicated in this Contract, and that such materially-different conditions were not foreseeable at the time of its bid.

#### 1-05 CONTROL OF WORK

#### 1-05.1 Authority of the Engineer

Delete 1-05.1 and substitute the following:

1-05.1 City (\*\*\*\*\*\*)

The City, and the City's Representative, shall have the authority to act as the sole judge of the Work and materials with respect to both quantity and quality as set forth in the Contract. It is expressly stipulated that the Plans, Specifications and other Contract Documents set forth the requirements as to the nature of the completed Work and do not purport to control the method of performing Work except in those instances where the nature of the completed Work is dependent on the method of performance.

The City has the authority to act, do, perform, and make all decisions and actions authorized by the Contract Documents, including, but not limited to, Change Orders, progress payments, contract decisions, acceptability of the Contractor's Work, and early possession. The City has the authority to accept or reject requests for progress payments that have been submitted by the Contractor and recommended by the City's Representative. The City has the authority to accept or reject the City's Representative. The City also has the authority to accept or reject the City's Representative's recommendations regarding retention of defective Work.

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

No Claim shall be allowed because of ambiguities in the Contract if:

- 1. The Contractor discovers an ambiguity but fails to notify the City, or
- 2. The Contractor failed to discover a patent ambiguity that would be discovered by a reasonably prudent Contractor.

If the Contractor discovers an ambiguity in the Contract or desires an explanation or interpretation of the Contract, the Contractor shall request the explanation or interpretation in writing by way of a Request for Information (RFI). The RFI shall clearly define the

ambiguity and have enough detail for the Engineer to provide an explanation or interpretation. If such detail is not provided, the Engineer will return the RFI as incomplete. Should the RFI require a change to the Contract, the Contractor will indicate in the RFI that it includes a request for change (RFC).

A RFI shall not be used nor constitute a notice required in accordance with Sections 1-04.5 and 1-04.7. The Contractor may submit an RFI for the one of 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 repair or otherwise correct a deficiency in the Work that requires a Change to the Contract to be acceptable (RFC Construction Deficiency/ Repair procedure). Requests submitted for this reason shall be submitted in accordance with Section 1-05.7(1).
- 4. 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.
- 5. The Contractor may submit a RFI that requests a change to the Contract requirements for a reason other than one listed in items 1-4 of this section (RFC Other). To be considered, the request must not meet the requirements of a Value Engineering Change Proposal. To be considered, the request shall describe how the change is beneficial to the project

Unless otherwise determined by the City in writing, the Engineer will respond, in writing, to RFIs within 14 calendar days in the order they are received. If the Engineer cannot respond within 14 calendar days due to the nature and complexity of the RFI, the Engineer will respond to the RFI stating how many additional days are needed for a full response. This does not relieve the Contractor of its responsibility to request a time extension in accordance with Section 1-08.8. If the Contractor needs to prioritize a RFI it shall indicate so as part of the RFI. Oral explanations, interpretations, or instructions given by anyone other than the Engineer will not be binding on the Contracting Agency. A response to a RFI shall be considered a Written Determination.

If the Contractor's Request for Information requires a change order, the Engineer's response will indicate whether they are authorizing the Contractor to proceed with the changed work prior to an executed change order. Without this authorization, the Contractor shall not proceed with the changed work until a Change Order has been processed. If the Contractor believes the response requires a change order and the Engineer does not specifically state that a change order is necessary, the Contractor shall submit its Notice in accordance with Section 1-04.5. Proceeding without Notice shall waive the Contractor's rights to Claim.

The Contractor shall bear all risk and all costs of any Work delays caused by rejection or non-approval of any RFI that Requests a Change (RFC). The Contractor agrees the Engineer is under no obligation to accept an RFC. The Engineer's decision to accept or reject all or part of a RFI that requests a change is final and not subject to protest.

Unit Bid prices shall cover all costs of submitting RFIs.

#### 1-05.2 Authority of Assistants and Inspectors

Delete 1-05.2 and substitute the following:

# 1-05.2 City's Representative

(\*\*\*\*\*)

The City's Representative shall be satisfied that all the Work is being done in accordance with the requirements of the Contract. The Contract and Specifications give the City's Representative authority over the Work. Whenever it is so provided in this Contract, the decision of the City's Representative shall be final.

The City's Representative's decisions will be final on all questions including, but not limited to, the following:

- 1. Quality and acceptability of materials and Work;
- 2. Measurement of Work, whether lump sum, Force Account, or unit price;
- 3. Acceptability of rates of progress on the Work;
- 4. Interpretation of Plans and Specifications;
- 5. Determination as to the existence of changed or differing site conditions;
- 6. Fulfillment of the Contract by the Contractor;
- 7. Payments under the Contract including adjustment;
- 8. Suspension(s) of Work;
- 9. Termination of the Contract for default or public convenience; and
- 10. Approval of working or detail Plans and Submittals.

If the Contractor fails to respond promptly to the requirements of the Contract or orders from the City's Representative:

- 1. The City's Representative may use the City's resources, other contractors, or other means to accomplish the Work, and
- 2. The City will not be obligated to pay the Contractor, and will deduct from the Contractor's payments, costs that result when other means are used to carry out the Contract requirements or City's Representative's orders.

At the Contractor's risk, the City's Representative may suspend all or part of the Work if:

- 1. The Contractor fails to fulfill Contract terms, to carry out the City's Representative's orders, or to correct unsafe conditions of any nature; or
- 2. It is in the public interest.

The City's Representative and City shall have complete access to the Work and to the site of the Work and to the places where Work is being prepared or where materials, Equipment, and machinery are being obtained for the Work. If requested by the City's Representative or City, the Contractor shall provide the assistance necessary for obtaining such access, and shall provide information related to the inspection of construction. Absence of such access or information, as needed, may result in the City's refusal to accept the Work.

The City's Representative has the authority to recommend Change Orders, but does not have authority to approve Change Orders. Proposed Change Orders are subject to review and approval by the City. No proposed Change Order or any change of Contract Sum or Contract Time is effective or binding upon the City unless and until the Mayor or its designee signs it, as authorized by City Council or by ordinance.

To detail and illustrate the Work, the City's Representative may furnish to the Contractor additional drawings and explanations consistent with the original Plans. The Contractor shall perform the Work according to these additional drawings and explanations.

The City's Representative may appoint assistants and inspectors to assist in determining that the Work and materials meet the Contract requirements. Assistants and inspectors have the

authority to reject defective material and suspend Work that is being done improperly, subject to the final decisions of the City's Representative or, when appropriate, the City.

Assistants and inspectors are not authorized to accept Work, to accept materials, to issue instructions, or to give advice that is contrary to the Contract. Work done or material furnished that does not meet the Contract requirements shall be at the Contractor's risk and shall not be a basis for a Contract Claim even if the inspectors or assistants purport to change the Contract.

Assistants and inspectors may advise the Contractor of any faulty work or materials or infringements of the terms of the Contract; however, failure of the City's Representative or the assistants or inspectors to advise the Contractor does not constitute acceptance or approval.

#### 1-05.3 Working Drawings

Revise the second paragraph to read as follows:

**1. Type 1** – Submitted for City information. Submittal must be received by the City a minimum of 7 working days before Work represented by the submittal begins.

**2.** Type 2 – Submitted for City review and comment. Unless otherwise stated in the Contract, the Engineer will require up to 15 working days from the date the Working Drawing is received until it is returned to the Contractor. The Contractor shall not proceed with the Work represented by the Working Drawing until comments from the Engineer have been addressed.

**3.** Type **2E** – Same as a Type 2 Working Drawing with Engineering as described below.

**4. Type 3** – Submitted for City review and approval. Unless otherwise stated in the Contract, the Engineer will require up to 20 working days from the date the Working Drawing is received until it is returned to the Contractor. The Contractor shall obtain the Engineer's written approval before proceeding with the Work represented by the Working Drawing.

**5. Type 3E** – Same as a Type 3 Working Drawing with Engineering as described below.

Supplement 1-05.3 as follows:

The Contract Documents include Plans that show such details as are reasonably necessary to give a comprehensive understanding of the Work. The Contractor shall submit alterations affecting the requirements and information in the Plans in writing to the Engineer for approval prior to performing such Work.

The Engineer may supplement the Plans with additional drawings and explanations, consistent with the purpose and intent of the original Plans, to detail and illustrate the Work. The Contractor shall perform the Work according to these supplemental drawings and explanations.

In addition to supplemental drawings furnished by the Engineer, the Contract Documents may also be supplemented by Type 1, Type 2 or 2E, and Type 3 or 3E Working Drawings prepared by the Contractor, material supplier, or manufacturer, when necessary or as required by the Contract Documents to detail and illustrate portions of the Work. All types of Working Drawings shall be reviewed by the Engineer before work pursuant to those Working Drawings is performed. Type 3 and 3E Working Drawings may include, and not be limited to, shop details, erection plans, masonry lay-out diagrams, reinforcing steel and bending diagrams, post tensioning plans, shoring, cribbing, cofferdam, or falsework plans, formwork plans, or hydraulic items. Type 2 and 2E Working Drawings may include, and not be limited to, Catalog cuts or standard plans for commonly used manufactured items.

The Contractor shall be fully responsible for the accuracy of dimensions and details on Working Drawings, and for complete conformity with the Contract Documents, even if the Working Drawings have been approved by the Engineer, or if the Contractor and the Engineer agree on dimensions and details. The City does not accept Working Drawings as accurate or adequate, and does not take responsibility for, or warrant that Working Drawings will meet Contract requirements.

Engineer's review of Working Drawings shall not relieve Contractor from responsibility for variation from the requirements of the Contract Documents unless Contractor has in writing called the Engineer's attention to each such variation at the time of submission, and the Engineer has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the returned Working Drawing; nor will review by Engineer relieve Contractor from responsibility for errors or omissions in the Working Drawings or from responsibility for having complied with the provisions of this section.

The Bid prices shall include all costs for furnishing Working Drawings and Submittals.

The following listed sections of the Standard Specifications and Special Provisions require Working Drawings that may or may not be applicable to this specific project. This list is supplied as an aid to the Contractor and is by no means complete. Submittal requirements may be found in 1-05.3(1) or elsewhere in these Special Provisions.

DIVISION 5 SURFACE TREATMENT AND PAVEMENTS

5-04.2(2) Mix Design

5-04.3(14) Planing Plan and HMA Paving Plan

DIVISION 7 DRAINAGE STRUCTURES, STORM SEWERS, SANITARY

SEWERS, WATER MAINS, AND CONDUITS

7-04 Storm Sewers

7-04.2 Materials-Catalog Cuts or Standard Plans

7-05 Manholes, Inlets, Catch Basins, and Drywells

7-05.2 Materials-Catalog Cuts or Standard Plans

7-05.3 Existing Manhole verification

7-06 Water Quality Treatment Structures

7-06.2 Materials-Catalog Cuts or Standard Plans

7-06.3(6) Submittals

7-08 General Pipe Installation Requirements

7-08.1 Submittals – Materials and Dewatering Plans

7-08.2 Materials-Catalog Cuts or Standard Plans

7-09 Water Mains

7-09.2 Materials-Catalog Cuts or Standard Plans

7-09.3(24) Flushing and disinfection procedures

7-12 Valves For Water Mains

7-12.2 Materials-Catalog Cuts or Standard Plans

7-14 Hydrants

7-14.2 Materials-Catalog Cuts or Standard Plans

8-01 Miscellaneous Construction

8-01.1 Submittals – TESC Plan and SWPPP

8-01.3(1)C Industrial Discharge Approval Request Form

8-02 Miscellaneous Construction

- 8-01.1 Materials-Catalog Cuts or Standard Plans
- 8-02.3 Roadside Work Plan
- 8-24 Gravity Block Wall
  - 8-24.2 Materials-Catalog Cuts or Standard Plans
  - 8-24.3 Gravity Block Wall Construction Drawings

#### DIVISION 8 MISCELLANEOUS CONSTRUCTION

Deviations from Standard Plans will be subject to a Working Drawing submitted by the Contractor and approved by the Engineer. Where a Working Drawing is required by the Specifications, related Work performed prior to completion of the Engineer's review of the pertinent submission will be the sole expense and responsibility of the Contractor.

Supplement 1-05.3 by adding the following:

# 1-05.3(1) Submittals (\*\*\*\*\*\*)

Where required by the Contract Documents, the Contractor shall submit information, such as Working Drawings that will enable the City's Representative to advise the City whether the Contractor's proposed materials, Equipment or methods of work are in general conformance to the design concept and in compliance with the Plans and Specifications. Approval or acceptance of a Submittal does not relieve Contractor from complying with Contract requirements. The City's approval of a Submittal does not constitute a waiver of the Contract requirements. The City will not be obligated to accept or pay for Work performed by the Contractor that may be affected by materials, Equipment, or methods of work not submitted in a timely manner so that final review can be accomplished before the affected Work is complete. The City shall not be responsible for Delays, inefficiencies, or any additional costs or expenses caused in whole or in part by Contractor's failure to submit required information in sufficient time for review, comment, and correction. Contractor's failure to submit required information in sufficient time for review, comment and correction shall be deemed a waiver of any and all Contract Claims for adjustment of Contract Sum or Contract Time arising out of, or related to, such a Submittal. Contractor acknowledges and agrees that it may not rely upon receiving the City's response to a Submittal in less than 14 calendar days, unless the City explicitly changes this section by a signed Change Order.

### 1-05.3(2) Requests for Information

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Requests for information or clarification from the Contractor to the City shall be treated as a Submittal pursuant to 1-05.3(1) SUBMITTALS.

#### 1-05.4 Conformity With and Deviations From Plans and Stakes

Delete all of 1-05.4 and substitute the following:

The Contractor shall be responsible for setting and maintaining all alignment stakes, slope stakes, and grades necessary for the construction of the roadbed, surfacing, paving, channelization, illumination, signing, bridges, and retaining walls, if such construction is included in this Project. Except for the survey control data to be furnished by the City, calculations, surveying, and measuring required for setting and maintaining the necessary lines and grades shall be the Contractor's responsibility. The Contractor shall provide the City with copies of such calculations and staking data when requested by the Engineer. Copies of the City provided survey control data are available for the Bidder's inspection at the office of the Project Engineer.

Any staking requirements for the Project that do not fit field conditions will be reviewed and if necessary adjusted by the Engineer. Any necessary revisions to the staking information will be provided to the Contractor for use in completing the Work.

Stakes, marks, and other reference points, including existing monumentation, set by the City shall be carefully preserved by the Contractor. The Contractor will be charged for the costs of replacing stakes, markers and monumentation that were not to be disturbed but were destroyed or damaged by the Contractor's operations. This charge will be deducted from monies due or to become due to the Contractor.

To facilitate the establishment of these lines and elevations, the City will provide the Contractor with the following survey control:

#### ROADWAY, SURFACING AND PAVING

Establish elevation bench marks and center or base line alignment control points for the mainline, one time only. Provide right of way stakes where applicable.

Provide rights-of-way, easements or right-of-entry.

Provide the Contractor with technical advice if requested.

Computed grades where needed.

Provide horizontal and vertical curve data.

One copy of transit notes showing reference to horizontal and vertical control points.

#### OTHER STRUCTURES

Centerline or offset coordinates to centerline of the structure.

A sufficient number of bench marks for levels to enable the Contractor to set grades at reasonably short distances.

Monuments and control points as shown on the Plans.

The Contractor shall give the City three weeks notification to allow adequate time to provide the above data.

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

- 1. Slope stakes  $\pm 0.1$  foot 2. Subgrade blue tops ±0.01 foot
- 3. Stationing ±0.01 foot
- 4. Alignment
- ±0.01 foot 5. Surfacing red & yellow tops ±0.01 foot
- 6. Superstructure elevations
  - ±0.01 foot (from plan elevations)
- 7. Substructure
- ±0.02 foot (from plan elevations)

The Contractor shall slope stake the roadway before any construction may proceed. Slope stakes shall be set at 50' maximum intervals on tangents and 25' on curves.

Subgrade bluetops and surfacing red and yellow tops shall be set at 50' intervals in tangent sections, 25' intervals in curve sections, and 10' intervals in intersection radii.

The Contractor's surveyor shall be a licensed surveyor in the State of Washington. The Contractor shall keep updated survey field notes in a standard field book and in a format set by the Engineer. These field notes shall include all survey work performed by the Contractor's surveyor in establishing line, grade and slopes for the construction work. Copies of these field notes shall be provided to the Engineer upon request and upon completion of the Contract Work; the field book shall be submitted to the Engineer and become property of the City.

If the survey work provided by the Contractor does not meet the standards of the Engineer, then the Contractor shall, upon the Engineer's written request, remove the individual or individuals doing the survey work and the survey work will be completed by the Engineer at the Contractor's expense. Costs for completing the survey work required by the Engineer will be deducted from monies due or to become due the Contractor.

The City may spot-check the Contractor's surveying. These spot-checks will not change the requirements for normal checking and testing as described elsewhere, and do not relieve the Contractor of the responsibility of producing a finished product that is in accordance with the Contract.

In all disputes concerning accuracy of lines and elevations, the City shall be assumed correct and the Contractor shall correct the discrepancies before construction work may proceed. No additional compensation will be paid for this corrective Work.

Payment: The lump sum contract price for "Surveying" shall be full pay for all costs involved in furnishing all labor, tools, survey instruments, materials, and other equipment necessary for the setting and maintaining of the alignment and grade as specified.

#### 1-05.6 Inspection of Work and Materials

Supplement 1-05.6 by adding the following:

# 1-05.6(1) Demonstration of Compliance with Contract Requirements (\*\*\*\*\*\*)

The burden of proving the constructed Work complies with the Contract Documents shall be on the Contractor at all times. The Contractor shall grant the City's Representative access to the Work and work site and to places where Work is being prepared, or where materials, Equipment, or machinery are being obtained for the Work. The Contractor shall provide information requested by the City's Representative in connection with inspection work.

If the Contract Documents, laws, ordinances, or public regulatory authority requires parts of the Work to be specially inspected, tested, or approved, the Contractor shall give the City's Representative be not less than two working days prior written Notice of the availability of the subject Work for examination.

Inspection and quality control tests performed on the Contractor's work by the City's Representative shall not relieve the Contractor of its responsibility for errors or lack of quality therein and shall not be regarded as an assumption of risks or liability by the City's Representative for the Contractor's compliance with these Contract Documents. Contractor remains responsible and liable for all errors, defects or a lack of quality not discovered by inspection or observation.

# 1-05.6(2) Manufacturer's Directions (\*\*\*\*\*\*)

Manufactured articles, material and Equipment shall be transported, stored, applied, installed, connected, erected, adjusted, tested, operated and maintained as recommended by the manufacturer, unless otherwise specified in these Special Provisions. Contractor shall provide manufacturer's installation instructions and procedures to the City prior to installation of the manufactured articles, material and Equipment.

# 1-05.6(3) Materials and Equipment Furnished by City (\*\*\*\*\*\*)

Contractor shall install materials and Equipment furnished by the City as provided in the technical sections of the Specifications. Furnishing of material and Equipment by the City will be considered conclusive evidence of their acceptability for the purpose intended. If the Contractor discovers defects in material or Equipment furnished by the

City, it shall immediately notify the City. After such discovery, the Contractor shall not proceed with Work involving City-furnished materials and Equipment unless authorized by the City. Unless otherwise noted or specifically stated, materials and Equipment furnished by the City, that are not of local occurrence or manufacture, are considered to be "FOB" railroad station or truck terminal nearest to the site of the Work. At no cost to the City, the Contractor shall unload, transport, store, and protect such material and Equipment from damage. The Contractor shall inspect such City-furnished material and Equipment on receipt and provide the City with written acceptance for the incorporation of said material and Equipment into the Work. After receipt by the Contractor, the Contractor bears all risk of loss and casualty to City furnished materials and Equipment.

#### 1-05.7 Removal of Defective and Unauthorized Work

Supplement 1-05.7 by adding 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 Work required by the Contract Documents, the Engineer may correct and remedy such Work as may be identified in the written notice, with City forces or by such other means as the City 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 City or other forces. An emergency situation is a 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 City 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.

In its sole discretion, the City may retain Work that is not in compliance with the Contract. The City will determine the just and reasonable value for such defective Work and deductions will be made in the payments due or to become due to the Contractor. Final Acceptance will not act as a waiver of the City's right to recover from the Contractor an amount representing the deduction for retention of defective Work.

No adjustment in Contract Time or Contract Sum will be allowed because of the Delay in the performance of the Work attributable to the exercise of the City's rights provided by this section.

The rights exercised under the provisions of this section shall not diminish the City'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.

#### 1-05.10 Guarantees

Supplement 1-05.10 by adding the following:

The Contractor further warrants to the City, the Engineer and the City's Representative that all materials and Equipment furnished under this Contract will be of highest quality and new unless otherwise specified by the City, free from faults and defects and in conformance with the Contract Documents. All Work not so conforming to these standards shall be considered defective. If required by the City's Representative, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and Equipment.

The Work furnished shall be of first quality and the workmanship shall be the best obtainable in the various trades. The Work shall be of safe, substantial and durable construction in all respects. For a period of 365 calendar days, commencing on the date of Final Acceptance, the Contractor shall, upon the receipt of Notice in writing from the City, promptly make all repairs arising out of defective materials, workmanship, or Equipment at no cost to the City. The City is hereby authorized to make such repairs if, 14 calendar days after giving of such notice to the Contractor, the Contractor has failed to make or undertake the repairs with due diligence. In case of an emergency where, in the opinion of the City, delay could cause serious loss or damage, repairs may be made prior to or concurrent with notice being sent to the Contractor. All costs and expenses incurred by the City in connection with repair or replacement of Contractor's Work under this Section, including but not limited to the cost of materials, Equipment, other contractor costs, additional staff costs (including overtime), inspection, design and construction management service costs shall be fully reimbursed to the City by the Contractor.

"Acceptance of the Work" shall not extinguish any covenant or agreement on the part of the Contractor to be performed or fulfilled under this Contract that has not, in fact, been performed or fulfilled at the time of such acceptance. All covenants and agreements shall continue to be binding on the Contractor until they have been fulfilled.

The City and the Contractor agree that the guarantee on the completed portions of the Work possessed and used by the City shall commence as to those portions on the date that the City takes possession of those portions and so notifies the Contractor in writing. City and Contractor further agree that such taking possession and use shall not be deemed as acceptance of the Work. Takeover of completed portions of the Work shall be at the City's option and will not be made until the Work can be put into routine service on a permanent basis.

The guarantee provided herein shall be in addition to those specific guarantee or warranty requirements for particular Equipment or Work items, or both, as indicated in the Specifications and Special Provisions.

#### 1-05.11 Final Inspection

Delete 1-05.11 and substitute 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 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 1-05.7 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK.

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 under the authority of the Contract.

Upon correction of all deficiencies, the Engineer will notify the Contractor and the City, 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 City 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 Documents 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 that 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.

#### 1-05.12 Final Acceptance

Delete all of 1-05.12 and substitute the following:

The Contractor shall perform all the obligations under the Contract before the completion date can be established. A certificate of completion of the Work issued by the City will establish the completion date and certify the Work as complete. The following shall occur before the completion date can be established:

The Final Contract Voucher Certification shall be signed by the Contractor verifying agreement to the final contract price.

The physical work on the Project shall be complete.

The Contractor shall furnish all documentation required by the Contract and required by law, necessary to allow the City to certify the Contract as complete.

A certificate of completion for the Work, signed by the City, will constitute acceptance of the Work. The issuance of this certificate of completion will not constitute acceptance of unauthorized or defective Work, Equipment, or materials.

The Contractor agrees that neither completion nor final acceptance shall relieve the Contractor of the responsibility to indemnify, defend, and protect the City against any claim or loss resulting from the failure of the Contractor, or the Subcontractors or lower tier subcontractors, to pay all laborers, mechanics, Subcontractors, material persons, or any other person who provides labor, supplies, or provisions for carrying out the Work or for any payments required for unemployment compensation under Title 50 RCW or for industrial insurance and medical aid required under Title 51 RCW.

Failure of the Contractor to perform all of the Contractor's obligations under the Contract shall not bar the City from unilaterally certifying the Contract complete so the Engineer may calculate a final contract price as provided in 1-09.9 PAYMENTS.

#### 1-05.13 Superintendents, Labor and Equipment of Contractor

Delete 1-05.13.

#### 1-05.14 Cooperation With Other Contractors

Delete all of 1-05.14 and substitute the following:

Nothing in the Contract shall be interpreted as granting to the Contractor exclusive occupancy of the Project area. The Contractor shall ascertain to its own satisfaction the scope of the Project and the nature of any other contracts that have been or may be awarded by the City in the construction of the Project, or to the end that the Contractor may perform this Contract in the light of such other contracts, if any.

The Contractor shall not cause unnecessary hindrance or Delay to others working on this or other projects. If the performance of a contract for the Project is likely to be interfered with by the simultaneous performance of some other contract or contracts, the Engineer will decide which Contractor shall cease Work temporarily and which Contractor shall continue, or whether the Work under the contracts can be coordinated so that the contractors may proceed simultaneously. On all questions concerning conflicting interest of contractors performing related Work, the decision of the Engineer shall be binding upon all contractors concerned and the City, the Engineer, the City's Representative, and their consultants shall not be responsible for any damages suffered or extra costs incurred by the Contractor resulting directly or indirectly from the Award or performance or attempted performance of any other contract or contracts on the Project or caused by a decision or omission of the Engineer respecting the order of precedence in the performance of the contracts.

If, through acts of neglect on the part of the Contractor, any others suffer loss or damage on the Work, the Contractor agrees to resolve such loss or damage fairly and expeditiously. If such other shall assert any claim against the City, the Engineer, the City's Representative, or their consultants on account of any damage alleged to have been so sustained, the City shall notify the Contractor, who shall hold harmless, indemnify, and defend the City, Engineer, the City's Representative, and their consultants, and each of their directors, officers, employees, and agents against any such claim, including all attorney's fees and any other costs incurred by the indemnified parties relative to any such claim.

The Contractor shall coordinate its work with other contractors and utility companies that may have facilities in the Project area and cooperate with them. The Contractor shall also coordinate its activities with the City; and no water mains, individual water services, street, or private driveways may be closed off without a minimum of five working days notice to the City and the private property owner. Should the property owner or the City have adequate reason, as determined by the Engineer, to avoid access or water service shutoff at the scheduled time, the Contractor shall reschedule its work to meet the new condition.

Final grading to subgrade and subgrade preparation in those areas disturbed by the utilities companies shall be the responsibility of the Contractor and included in the street construction and no additional compensation will be paid.

The Contractor shall cooperate with the utility companies and their subcontractors and so conduct its operations that the necessary construction of their facilities can be accomplished to the mutual satisfaction of the City of Everett and the utility companies.

Supplement Section 1-05 by adding the following new subsections:

# 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.

Contractor shall pay all power and water costs until Substantial Completion, whether such power or water is provided by temporary or permanent facilities. City shall not be liable for any costs or Delays arising out of or caused by the availability or lack of availability of permanent power or utilities.

# 1-05.17 Oral Agreements (\*\*\*\*\*\*)

No oral agreement, representation or conversation with or by any officer, agent, or employee of the City, either before or after execution of the Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract. Such oral agreement, representation or conversation shall be considered as unofficial information and in no way binding upon the City, unless subsequently put in writing and signed by the City.

# 1-05.18 Contractor

(\*\*\*\*\*)

#### 1-05.18(1) Contractor's Representative

The Contractor shall notify the City in writing of the name of the person who will act as the Contractor's representative, will have the authority to act in matter relating to this Contract, and will be delegated with authority to act as the Contractor's emergency contact. This person shall have authority to carry out the provisions of the Contract and to supply materials, Equipment, tools and labor without delay for the performance of the Work.

Contractor shall employ and keep on site on a full time basis personnel experienced in the management of construction of projects of this size and type. These shall include, but not be limited to, a project manager and superintendent. Unless the City agrees otherwise in writing, neither the Contractor's project manager nor the superintendent shall have supervisory responsibility for other projects for the Contractor while assigned to this Project. Contractor shall employ and assign such additional, full time office, support and engineering personnel to support the project manager and superintendent and allow timely completion of the Project. The project manager and superintendent shall be approved by the City, and such approval shall not be unreasonably withheld. Contractor shall submit personnel qualifications within seven (7) days of Contractor's execution of the Contract. Basis for disapproval include, but are not limited to, lack of sufficient experience managing the construction of similar type or size projects or relationships on other projects unsatisfactory to the City or, if the Project is subject to supplemental bidder responsibility criteria and such criteria contain personnel qualifications, the personnel differ from those named by Bidder in its pre-Award supplemental bidder responsibility criteria submittals. City may require removal and replacement of Contractor's supervisory staff who are disruptive or who appear to lack sufficient competence to complete the Project successfully.

#### 1-05.18(2) Construction Procedures

The Contractor shall supervise and direct the Work and determine the means, methods, techniques, sequences and procedures of construction, except in those instances where

the City, to define the quality of an item of Work, specifies in the Contract a means, method, technique, sequence or procedure for construction of that item of Work. The Contractor shall execute Work in conformity with the standard practice of the trade.

#### 1-05.18(3) Responsibilities

#### 1-05.18(3)A Manufacturers and Suppliers

The Contractor shall be responsible for the adequacy, efficiency and sufficiency of manufacturers, Suppliers and their employees.

#### 1-05.18(3)B Contractor's Employees

The Contractor shall be responsible for the adequacy, efficiency and sufficiency of its employees. Workers shall have sufficient knowledge, skill and experience to perform properly the Work assigned to them.

#### 1-05.18(3)C Payment for Labor and Materials

The Contractor shall pay and require its Subcontractors to pay any and all accounts for labor including Worker's Compensation premiums, State Unemployment and Federal Social Security payments and other wage and salary deductions required by law. The Contractor also shall pay and cause its Subcontractors to pay any and all accounts for services, equipment, and materials used by him and its Subcontractors during the performance of Work under this Contract. The Contractor shall pay such accounts as they become due and payable. If requested by the City, the Contractor shall promptly furnish proof of payment of such accounts to the City.

#### 1-05.18(3)D Attention to Work

The Contractor, either in person or acting through its representative, shall give personal attention to and shall manage the Work so that it shall be prosecuted faithfully and completed under the Project schedule. When its representative is not personally present at the Project site, its designated alternate shall be available and shall have the authority to act in matters relating to this Contract.

Where detailed construction requirements are not set forth in the Standard Specifications or these Special Provisions, the Contractor shall perform the Work of a quality comparable to the workmanship specified for other parts of the Work, from firms having established good reputations for similar Work, or by following industry standard practices. The Contractor shall perform all Work in compliance with and conforming to applicable building codes in effect at the time the Work is being performed.

#### 1-05.18(3)E Safety

The Contractor alone shall be responsible for safety on the job site, including, but not limited to, the safety of its and its Subcontractor's employees. The Contractor shall maintain the Project site and perform the Work in a manner that meets the City's responsibility under statutory and common law for the provision of a safe place to work.

#### 1-05.18(3)F Threats, Intimidation and Harassment Forbidden

Contractor shall not allow its employees, its Subcontractors, its Subcontractors' employees, or any other agents to threaten bodily injury or property damage, to intimidate or attempt to intimidate any person, or to assault or physically harass any person. Forbidden conduct includes, but is not limited to, threatening, appearing, or actually doing any of the following: pushing, shoving, striking, physically blocking a person or a person's vehicle, vandalism, malicious mischief, or any other act that a reasonable person would understand be intended to intimidate, cause personal

injury, or cause property damage. Contractor shall remove from the job site any person reasonably under its control or direction who the Contractor or City reasonably believes violated this section. The lack of a request from the City or City's Representative to the Contractor to remove someone from the job site does not relieve the Contractor from its obligation to remove someone.

#### 1-05.18(3)G Weapons Forbidden

Contractor shall not allow its employees, its Subcontractors, its Subcontractors' employees, or any other agents or representatives to carry or possess, openly or concealed, explosives or weapons on the job site, except: (a) such explosives are as reasonably required for performance of the Work, such as those necessary for blasting or demolition work called for by the Contract Documents or (b) commissioned law enforcement officers or security personnel under authority of their commission. A weapon is any object, instrument or chemical that is (1) designed in such a manner to inflict harm or injury to another person; or (2) any item used in a manner threatening harm or injury to another person. Weapons include, but are not limited to, firearms, dangerous knives, dangerous chemicals, tear gas, martial arts weapons, blackjacks or other weapons. Further, weapons should include those described in EMC Chapter 10.78. Possession of mace, pepper spray or the like for defensive purposes is not a violation of this policy. Contractor shall remove from the job site any person reasonably under its control or direction who the Contractor or City reasonably believes violated this section. The lack of a request from the City or City's Representative to the Contractor to remove someone from the job site does not relieve the Contractor from its obligation to remove someone.

#### 1-05.18(3)H Safety Standards

The Contractor shall comply with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor Regulations (29 CFR, Part 5). Under this Section, the Contractor shall not require any laborer or mechanic to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to its health and safety as determined under construction, safety, and health standards promulgated by the Secretary of Labor. These requirements do not apply to the purchase of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

#### 1-05.18(3) Public Safety and Convenience

The Contractor shall conduct its work so as to ensure the least possible obstruction to traffic and inconvenience to the general public, business, organizations and residents in the vicinity of the Work and to reasonably protect persons and property. No roads or street shall be closed to the public except with the permission of the City's Representative and the proper governmental authority. Fire hydrants on or adjacent to the Work shall be accessible to firefighting equipment. Temporary provisions shall be made by the Contractor for the use of sidewalks, private and public driveways and proper functioning of gutters, sewer inlets, drainage ditches and culverts, irrigation ditches and natural water courses.

### 1-05.19 City-Contractor Coordination (\*\*\*\*\*\*)

#### 1-05.19(1) Suggestions to Contractor

Nothing in these Contract Documents requires the City's Representative to provide the Contractor with direction or advice on how to do the Work, construction practices, or

means and methods. If the City's Representative approves, suggests or recommends any construction practice, means, method or manner for doing the Work or producing materials, the approval or recommendation shall not: (A) guarantee that following the method or manner will result in compliance with the Contract Documents; (B) relieve the Contractor of any risks or obligations under the Contract Documents; or (C) create liability by the City to the Contractor.

Suggestions as to the plans or methods of accomplishing the Work or Contract requirements by the City or the City's Representative to the Contractor but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor. The City and the City's Representative assume no responsibility therefore and in no way will be held liable for any defects in the Work which may result from or be caused by use of such plan or method of Work.

#### 1-05.19(2) Meetings with City

The Contractor shall have its duly authorized representative attend periodic informational meetings with the City's Representative and City staff, as reasonably required by the City.

Contractor, City, and City's Representative shall meet as often as determined by the City's Representative, but no less often than once each month. The purpose of the meeting is to review Project status in relation to the construction schedule; review value of Work completed during the previous month; and, if applicable, review Contractor's plans to return Project status to that required by the schedule. If requested by the City or City's Representative, the Contractor shall submit a written progress report within five days following this meeting, comprising:

The current construction schedule indicating percent complete, actual completion or start dates since the previous review, the estimated remaining duration for each activity in progress, Schedule of Values update, and narrative summary.

Reasons any activities are behind schedule and the corrective steps being taken.

#### 1-05.19(3) Cooperation with Others

The Contractor agrees to permit entry to the work site by the City, its employees or other contractors performing Work on behalf of the City. The Contractor shall afford to the City, other contractors and their employees, reasonable facilities and cooperation and arrange its work and dispose of its materials in such a manner as to not interfere with the activities of the City or of others upon the site of Work. The Contractor shall promptly make good Contractor-caused injury or damage to persons or property that may be sustained by other contractors or employees of the City. The Contractor shall join its Work to that of others and perform its Work in proper sequence in relation to that of others.

If requested by the Contractor, the City will arrange meetings with other contractors performing Work on behalf of the City to plan coordination of construction activities. The Contractor shall inform itself of the planned activities of other contractors and will coordinate its Work with the other contractors.

Contractor shall notify the City of problems, interference or any difficulty with other contractors or workers engaged by the City. The Notice shall be sufficiently prompt and specific so as to allow the City to mitigate or avoid increased costs, time of performance, damages or injury. Contractor's failure to provide such Notice in a timely way shall be deemed a waiver and release of any and all Contract Claims relating to, arising out of, or caused by, any alleged interference, difficulty or problem with another contractor or worker engaged by the City.

#### 1-06 CONTROL OF MATERIAL

Supplement Section 1-06 as follows:

References to materials shall also mean Contractor furnished Equipment, if any, as specified in these Special Provisions.

#### 1-06.1 Approval of Materials Prior to Use

Revise the first paragraph of 1-06.1 to read as follows:

Prior to use, Contractor shall notify the Engineer of all proposed materials. Contractor may use the Qualified Product List (QPL) and the Aggregate Source Approval (ASA) Database. Contractor shall use the Request for Approval of Material (RAM) form.

Supplement 1-06.1 by adding the following:

Contractor shall provide product data, when specified, in accordance with 1-05.3(1) SUBMITTALS of these Special Provisions for inspecting, testing, operating, or maintaining Equipment and materials supplied as part of the Work. Unless otherwise specified, such data shall be provided at the time the referenced material or Equipment is delivered to the job site. Contractor shall provide data as specified and include, unless otherwise specified, but not be limited to shop drawings, erection drawings, reinforcing steel schedules, testing and adjusting instructions, operations manuals, maintenance procedures, parts lists, and record drawings. Contractor shall provide data as part of the Work under this Contract and its acceptability will be determined by the City in its sole discretion.

Further supplement 1-06.1 by adding the following:

### 1-06.1(5) Requests for Substitution (\*\*\*\*\*\*)

The City will not usually consider a substitution for material or Equipment specified by brand name or manufacturer or sole-sourced.

Only the Contractor may offer materials or Equipment of equal or better quality and performance as a substitution for those specified. The Contractor shall make substitution offers in writing to the City's Representative in accordance with 1-05.3(1) SUBMITTALS of these Special Provisions. The substitution offer must include sufficient data to enable the City's Representative to assess the acceptability of the material or Equipment for the particular application and requirements. The City and City's Representative are not required or obligated to consider or review a request for substitution and may, in their sole discretion and option, consider or review such requests.

If the offered substitution requires changes to or coordination with other portions of the Work, include, if any, drawings, and details showing such changes. The Contractor agrees to perform these changes as part of the substitution of material or Equipment at no additional cost to the City. Approval of a substitution request will not relieve the Contractor from responsibility for the efficiency, quality, and performance of the substitute material or Equipment, in the same manner and degree as the material and Equipment originally specified. Reflect cost differential associated with a substitution in the offer. If the City approves the substitution, the Contract Documents will be modified by a Change Order modifying the Contract Sum in the amount of the cost differential.

### 1-06.2 Acceptance of Materials

1-06.2(2)B Financial Incentive

Delete 1-06.2(2)B.

#### 1-06.2(2)D Quality Level Analysis

Delete 1-06.2(2)D.

#### **1-06.3** *Manufacturer's Certificate of Compliance*

Supplement 1-06.3 by adding the following:

When authorized by the Standard Specifications or these Special Provisions and prior to use, the Engineer may accept certain Equipment on the basis of a Manufacturer's Certificate of Compliance as an alternate to Equipment inspection and testing.

A Manufacturer's Certificate of Compliance shall be reserved for cases where compliance to Contract requirements is not readily determinable through inspection and testing of materials or Equipment. The Contractor shall provide properly authenticated documents to the City's Representative that the materials and Equipment comply with the Contract requirements.

The Contractor shall pay all associated costs of providing each Manufacturer's Certificate of Compliance submitted for City acceptance.

The City reserves the right to refuse to accept Equipment on the basis of a Manufacturer's Certificate of Compliance.

### 1-06.3(1) Inspection at Point of Manufacturing (\*\*\*\*\*\*)

The Contractor shall be responsible to reimburse the City for the costs of inspections at the point of manufacturing for inspections occurring outside of Whatcom, Skagit, Island, Snohomish, King, Pierce and Thurston counties. Costs to be paid or reimbursed by the Contractor include, but are not limited to, travel, subsistence, labor and lodging expenses of the City Inspector.

Point of manufacturing inspection will be required if:

Inspection and testing of materials or Equipment in the vicinity of the Work by the City is not practicable,

The Contractor requests the City to inspect and test material or Equipment at the point of manufacture, or

The Standard Specifications or these Special Provisions require that inspection, testing or witnessing of tests take place at the point of manufacture.

#### 1-06.4 Handling and Storing Materials

Supplement 1-06.4 by adding the following:

Contractor shall store materials and Equipment so as to insure the preservation of their quality and fitness for the Work. Contractor shall store Equipment and materials at location that facilitates inspection. The Contractor shall be responsible for damages, loss or casualty occurring to materials and Equipment until Final Acceptance.

#### 1-06.6 Recycled Materials

Delete 1-06.6 and its subsections and substitute the following:

The Contractor shall make best effort to utilize recycled materials in the construction of the project as detailed in elsewhere in the Standard Specifications and these Special Provisions.

Prior to Physical Completion Contractor shall report the quantity of recycled materials utilized in the construction of the project for each of the items listed in Section 9-03.21. 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). Contractor shall provide report on DOT form 350-075A Recycled Materials Reporting.

#### 1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

#### 1-07.1 Laws to be Observed

#### 1-07.1(1) General

Revise 1-07.1(1) by replacing the second sentence of the first paragraph with the following:

The Contractor shall indemnify, defend, and save harmless the City (including its agents, officers, and employees) against any claims that may arise because the Contractor (or any employee of the Contractor or Subcontractor or material person) violated a legal requirement.

#### 1-07.1(2) Health and Safety

Supplement 1-07.1(2) by adding the following:

The Contractor shall be in compliance at all times with all COVID-19 Requirements applicable to the Work.Contractor's Bid includes all costs necessary for the duration of the Work for compliance with Baseline COVID-19 Requirements..

Supplement 1-07.1by adding the following:

#### 1-07.1(6) Additional Requirements

The Contractor shall be in compliance with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act [42 U.S.C. 1857(h)], Section 508 of the Clean Water Act (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency Regulations (40 CFR Part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000).

The Contractor shall comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163).

The City advises all general contractors and subcontractors that numerous Federal, State, and Local regulations exist that could affect the procedures used in the completion of this project. The City advises each prospective Contractor that they are responsible to be aware of and comply with all applicable statutes and regulations. It is recommended that each Contractor contact the local office of the following agencies for a list of applicable regulations and requirements that might affect the implementation of this project:

- Federal Environmental Protection Agency
- Washington Department of Health
- Washington Department of Ecology
- Washington Department of Fisheries
- Washington Department of Wildlife
- Washington Department of Labor & Industries
- Puget Sound Air Pollution Control Agency
- Municipal Building Department
- Municipal Planning Department
- Municipal Public Works Department

If the scope of Work in this Contract includes Work at the City of Everett Water Filtration Plant or the Waste Water Pollution Control Facility, Contractor shall comply with the requirements of the Washington Department of Labor & Industries for such work including, but not limited to, Chapter 296-67 WAC. All costs associated or incurred in complying with these regulations or any other regulations listed above are included in the Contractor's Proposal. 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.

#### 1-07.1(7) Noise

Work within 500 feet of residential properties between the hours of 10:00 p.m. and 7:00 a.m. during weekdays and between the hours of 6:00 p.m. and 8:00 a.m. on weekends or holidays are subject to noise control requirements if the work generates decibel levels of greater than 55 db(A). Contractor may apply for a Noise Variance a minimum of 30 days prior to performing work and pay \$100.00 application fee, using the following link latest information variance obtain the on noise requirements: to https://www.everettwa.gov/formcenter/human-resources-16/request-for-temporaryconstruction-noise-167. The Contractor must not assume that a Noise Variance will be granted. In no event will the Contractor be entitled to any adjustment of the Contract Sum or Contract Time if a Noise Variance is denied.

Typical requirements include, and not limited to, broadband backup alarms on all equipment requiring a backup alarm, anti-tail gate slamming devices, dump truck bed liners, and sawcutting, vacuum excavation, pavement breaking and loading export haul noise must be done between the hours of 7:00 a.m. and 10:00 p.m. during weekdays and between 8:00 a.m. and 6:00 p.m. on weekends.

Appendix E contains the City of Everett's Noise Ordinance for Bidder's reference.

Approval to continue Work during these hours may be revoked at any time the Contractor exceeds the City's noise control regulations or complaints are received from the public or adjoining property owners regarding the noise from the Contractor's operation. The Contractor shall have no claim for damages or delays should such permission be revoked for these reasons.

#### 1-07.2 State Taxes

Delete 1-07.2 and substitute 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 City 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(3) describes this exception.

The City will pay the retained percentage 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 60.28.050). The City 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 – Use Tax

WAC 458-20-171, and its related rules, apply to building, repairing, or improving streets, roads, etc., that are owned by a municipal corporation, or political subdivision of the state, or by the United States, and that 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 – Retail Sales Tax

WAC 458-20-170, Retail Sales Tax, 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 City, retail sales tax on the full Contract price. The City 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 City 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 City on any contract wholly for professional or other services (as defined in Washington State Department of Revenue Rules 138 and 244).

#### **1-07.3** Fire Prevention and Merchantable Timber Requirements

Delete 1-07.3 in its entirety.

### 1-07.5 Environmental Regulations

#### 1-07.5(1) General

Supplement 1-07.5(1) by adding the following:

Protection of the Environment: No construction related activity shall contribute to the degradation of the environment, allow material to enter surface or ground waters, or allow particulate emissions to the atmosphere, which exceed state or federal standards. Any actions that potentially allow a discharge to state waters must have prior approval of the Washington State Department of Ecology.

#### 1-07.5(4) Air Quality

Delete all of 1-07.5(4) and substitute the following:

The Contractor shall comply with all rules of the Puget Sound Clean Air Agency (PSCAA) (800-552-3565). These rules include PSCAA Regulation I. Excerpts of Regulation I are included in the Appendix D as it relates to fugitive dust control. The Contractor shall submit a dust control plan including dust control measures for its activities related to this Contract that may cause dust. This plan shall be submitted to the Engineer prior to commencing activity at the job site.

#### 1-07.6 Permits and Licenses

Supplement 1-07.6 by adding the following:

A City of Everett business license is required for the Contractor and the Contractor's Subcontractors prior to commencing construction on this Contract.

Contractor shall obtain all necessary permits required by law and the City of Everett. All general building, electrical, plumbing permits will be issued at no cost to the Contractor. In addition, obtain all required permits for waste disposal sites. Waste disposal sites shall be in the United States, unless otherwise expressly stated in the Contract Documents or the City gives prior written approval.

This Project contains less than one acre of total disturbed area within the project limits and does not require Contractor to apply for Ecology's Construction Stormwater General Permit.

#### 1-07.9 Wages

#### 1-07.9(1) General

Delete the first paragraph of 1-07.9(1) and substitute the following:

This Contract is subject to the minimum wage requirements of RCW 39.12 and to RCW 48.28, as amended or supplemented. Workers shall receive no less than the prevailing rate of wage. Bidder shall use the Washington State Prevailing Wage Rates for Snohomish County, effective at the time of bid opening. Bidder is solely responsible to use the schedule in effect at the Bid Opening Date, determine the appropriate labor classification(s), and use the appropriate and correct prevailing wage and benefit rate(s). The hourly minimum rates for wages and fringe benefits can be obtained at the following URL:

https://www.lni.wa.gov/licensing-permits/public-works-projects/prevailing-wage-rates

Printed copies of the current prevailing wage rates are available for viewing at City of Everett Public Works, 3200 Cedar St, Everett, WA and the City will mail a hard

copy of the prevailing wage rates upon written request received within 7 days of the Bid Opening Date.

Delete the fifth paragraph of 1-07.9(1) and substitute the following:

If employing labor in a class not listed in the L & I prevailing wage rate schedule, the Contractor shall request a determination of the correct wage and benefits rate for that class and locality from the Industrial Statistician, Washington State Department of Labor and Industries (State L&I), and provide a copy of those determinations to the Project Engineer.

Delete the final paragraph of 1-07.9(1) that begins with "There are many work-ready . . . "

#### 1-07.9(5) Required Documents

Supplement 1-07.9(5) by adding the following:

The City may require payroll reports for the Contractor and every Subcontractor be submitted weekly to the Construction Division, Public Works Service Center, 3200 Cedar Street, Everett, Washington 98201. The payroll reports shall contain the following information:

- 1. Name of each worker.
- 2. Classification of work performed by each worker. The classification shall be specific and match the classification categories listed in the Contract Documents.
- 3. Total number of hours employed each day.
- 4. Total number of hours employed during the payroll period.
- 5. Straight time and overtime hourly rate of wages paid to each worker.
- 6. Total or gross amount earned by each worker.
- 7. Deductions for Medical Aid, FICA, Federal withholding tax, and any other deductions taken.
- 8. Net amount paid each worker.
- 9. Contractor's, or Subcontractor's, name and address.
- 10. Days and dates worked.
- 11. Date of final day of pay period.
- 12. Whether fringe benefits were paid to each worker as part of the hourly wage rate or whether fringe benefits were paid into an approved plan, fund, or program.

Payrolls may be submitted on Federal payroll form WH-347, or equivalent. The reverse side of the form contains an affidavit that shall be filled out and signed. If the Contractor's payroll reports are computerized, the computerized reports may be submitted along with a Statement of Compliance affidavit photocopied from the back of form WH-347, or equivalent.

The first payroll submitted for the Work for both the Contractor and each Subcontractor shall be labeled "Initial." The last payroll submitted for the Work for both the Contractor and each Subcontractor shall be labeled "Final." Payrolls shall be sequentially numbered for all periods in which Work has been done. A certificate of completion for the Work, signed by the City, will constitute acceptance of the Work. The issuance of this certificate of completion will not constitute acceptance of unauthorized or defective Work or material.

#### 1-07.11 Requirements for Nondiscrimination

Supplement 1-07.11 as follows:

The Contractor will be required to assure that equal employment opportunities will be in effect to all individuals throughout the length of this Contract, pursuant to 1-07.11 REQUIREMENTS FOR NONDISCRIMINATION. The Contractor must comply with all local, state and federal laws pertaining to non-discrimination and equal employment opportunity.

The City of Everett hereby gives public notice that it is the City's policy to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil rights Restoration Act of 1987, and related statutes and regulations in all programs and activities. Title VI requires that no person shall, on the grounds of race, color, sex, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any Federal Aid Highway program or other activity for which the City receives Federal financial assistance.

Any person who believes they have been aggrieved by an unlawful discriminatory practice under Title VI has a right to file a formal complaint with the City of Everett. Any such complaint shall be in writing and filed with the City's Title VI Coordinator within 180 calendar days following the date of the alleged discriminatory occurrence. Title VI Discrimination Complaint Forms may be obtained from the Human Resources office at no cost to the complainant by calling (425) 257-8767.

Notification specific to bidders:

All bidders are hereby notified that the City of Everett will affirmatively ensure that in any contract entered into pursuant to this Invitation to Bid, minority business enterprises 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, sex, or national origin in consideration for an Award.

#### Title VI Assurance

- a. The Contractor, with regard to the Work performed during the Contract, shall not discriminate on the grounds of race, color, sex or national origin in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The Contractor shall not participate either directly or indirectly in such discrimination, including discrimination in employment practices.
- b. In all solicitations either by competitive bidding or negotiations made by the Contractor for Work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential Subcontractor or suppler shall be notified by the Contractor of the Contractor's obligations under this Contract.
- c. The Contractor shall provide all information and reports required by federal regulations applicable to this Contract. The Contractor shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the City to be pertinent to ascertain compliance with applicable federal regulations. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the City, and shall set forth what efforts it has made to obtain the information.
- d. In the event of the Contractor's noncompliance with the nondiscrimination provisions of this Contract, the City shall impose such Contract sanctions as it, or the City's funding agencies, may determine to be appropriate, including, but not limited to: (a) withholding of payments to the Contractor until the Contractor complies, and/or (b) termination or suspension of the Contract, in whole or in part.

e. The Contractor shall include the provisions of paragraphs (a) through (e) in every subcontract, including contracts for procurement and leases of equipment, unless exempt by applicable federal regulations or directives issued pursuant thereto. The Contractor shall take such action, including sanctions for noncompliance, with respect to Subcontractors as the City or relevant federal agency may direct so as to enforce such provisions. Provided, however, in the event a Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or supplier as a result of the foregoing direction, the Contractor may request that the City or the United States to enter into such litigation to protect their respective interests.

In the event of any inconsistency between the above supplemental requirements to 1-07.11 and the requirements of the 1-07.11 of the Standard Specifications, the more stringent requirements control, unless otherwise determined by the City in writing. In addition, the City may determine in writing that one or more provisions of 1-07.11 of the Standard Specifications are not applicable.

### 1-07.11(7) Vacant

Replace 1-07.11(7) to read as follows:

#### 1-07.11 (7) Additional Grant Related Requirements

The project is funded in part by a grant from the Washington Department of Ecology. In accordance with that funding agreement the requirements included in "Stormwater Facility Specifications Insert" in Appendix A are incorporated into these specifications.

### 1-07.14 Responsibility for Damage

Delete 1-07.14 and replace with the following:

The City, and all officers and employees of the City, including but not limited to those of the Public Works Department, will not be responsible in any manner: for any loss or damage that may happen to the Work or any part; for any loss of material or damage to any of the materials or other things used or employed in the performance of Work; for injury to or death of any persons, either workers or the public; or for damage to the public for any cause which might have been prevented by the Contractor, or the workers, or anyone employed by the Contractor.

The Contractor shall be responsible for all liability imposed by law for injuries to, or the death of, any persons or damages to property resulting from any cause whatsoever during the performance of the Work, or before Final Acceptance.

Subject to the limitations in this Section, and RCW 4.24.115, the Contractor shall indemnify, defend, and save harmless the City and all its officers and employees from all claims, suits, or actions brought for injuries to, or death of, any persons or damages resulting from construction of the Work or in consequence of any negligence or breach of Contract regarding the Work, the use of any improper materials in the Work, caused in whole or in part by any act or omission by the Contractor or the agents or employees of the Contractor during performance or at any time before final acceptance. In addition to any remedy authorized by law, the City may retain so much of the money due the Contractor as deemed necessary by the Engineer to ensure the defense and indemnification obligations of this Section until disposition has been made of such suits or claims.

Pursuant to RCW 4.24.115, such claims, suits, or actions result from the concurrent negligence of (a) the indemnitee or the indemnitee's agents or employees and (b) the Contractor or the Contractor's agent or employees, the indemnity provisions provided in

the preceding paragraphs of this Section shall be valid and enforceable only to the extent of the Contractor's negligence or the negligence of its agents and employees.

The Contractor shall bear sole responsibility for damage to completed portions of the project and to property located off the project caused by erosion, siltation, runoff, or other related items during the construction of the project. The Contractor shall also bear sole responsibility for any pollution of rivers, streams, ground water, or other waters that may occur as a result of construction operations.

The Contractor shall exercise all necessary precautions throughout the life of the Project to prevent pollution, erosion, siltation, and damage to property.

The City will forward to the Contractor all claims filed against the City that are deemed to have arisen in relation to the Contractor's Work or activities under this Contract, and, in the opinion of the City, are subject to the defense, indemnity, and insurance provisions of the Contract Documents. Claims will be deemed tendered to the Contractor and insurer, who has named the City as a named insured or an additional insured under the Contract's insurance provisions, once the claim has been forwarded via certified mail to the Contractor. The Contractor shall be responsible to provide a copy of the claim to the Contractor's designated insurance agent who has obtained/met the Contract's insurance provision requirements.

Within 60 calendar days following the date a claim is sent by the City to the Contractor, the Contractor shall notify the City Attorney's Office of the following:

- a. Whether the claim is allowed or is denied in whole or in part, and, if so, the specific reasons for the denial of the individual claim, and if not denied in full, when payment has been or will be made to the claimant(s) for the portion of the claim that is allowed, or
- b. If resolution negotiations are continuing. In this event, status updates will be reported no longer than every 60 calendar days until the claim is resolved or a lawsuit is filed.

If the Contractor fails to provide the above notification within 60 calendar days, then the Contractor shall yield to the City sole and exclusive discretion to allow all or part of the claim on behalf of the Contractor, and the Contractor shall be deemed to have WAIVED any and all defenses, objections, or other avoidances to the City's allowance of the claim, or the amount allowed by the City, under common law, constitution, statute, or the Contract and these Standard Specifications. If all or part of a claim is allowed, the City will notify the Contractor via certified mail that it has allowed all or part of the claim and make appropriate payments to the claimant(s) with City funds.

Payments of funds by the City to claimant(s) under this Section will be made on behalf of the Contractor and at the expense of the Contractor, and the Contractor shall be unconditionally obligated to reimburse the City for the "total reimbursement amount", which is the sum of the amount paid to the claimant(s), plus all costs incurred by the City in evaluating the circumstances surrounding the claim, the allowance of the claim, the amount due to the claimant, and all other direct costs for the City's administration and payment of the claim on the Contractor's behalf. The City will be authorized to withhold the total reimbursement amount from amounts due the Contractor, or, if no further payments are to be made to the Contractor under the Contract, the Contractor shall directly reimburse the City for the amounts paid within 30 days of the date notice that the claim was allowed was sent to the Contractor. In the event reimbursement from the Contractor is not received by the City within 30 days, interest shall accrue on the total reimbursement amount owing at the rate of 12 percent per annum calculated at a daily rate from the date the Contractor was notified that the claim was allowed. The City's costs to enforce recovery of these amounts are additive to the amounts owing.

The Contractor specifically assumes all potential liability for actions brought by employees of the Contractor and, solely for the purpose of enforcing the defense and indemnification obligations set forth in 1-07.14, the Contractor specifically waives any immunity granted under the State industrial insurance law, Title 51 RCW. This waiver has been mutually negotiated by the parties. The Contractor shall similarly require that each Subcontractor it retains in connection with the project comply with the terms of this paragraph, waive any immunity granted under Title 51 RCW, and assume all liability for actions brought by employees of the Subcontractor.

The indemnity, defense and other obligations in this 1-07.14 are in addition to any indemnity, defense or other obligation that may be contained elsewhere in the Contract Documents.

#### 1-07.17 Utilities and Similar Facilities

Supplement 1-07.17 by adding the following:

The Contractor shall review its responsibilities under Chapter 19.122 RCW, a law relating to underground utilities. Cost to the Contractor incurred as a result of complying with this law shall be at the Contractor's expense. In accordance with RCW 19.122, the Contractor shall call the **Utility Coordinating Council One Call Center, 1-800-424-5555**, for field location, not less than 2 nor more than 10 business days before the scheduled date for commencement of excavation that may affect underground utility facilities, unless otherwise agreed upon by the parties involved. A business day is defined as any day other than Saturday, Sunday, or a legal local, State, or Federal holiday.

The Contractor shall be responsible for determining the exact location, including service connections, of all public and private underground utilities marked at the site of the Work. The Contractor shall perform field verification prior to beginning Work that could result in damage to buried utilities, including but not limited to exploratory excavations, in sufficient time so as not to impede the progress of the Work or fabrication of materials to be incorporated into the Work. The Contractor shall immediately notify the City's Representative as to any utility discovered by him in a different position than shown on the Plans or that is not shown on the Plans.

No excavation shall begin until all known underground public and private utilities in the vicinity of the excavation area have been located and marked.

Utilities of record are shown on the Plans insofar as it is possible to do so. Failure of the City to show the existence of subsurface objects or installation on the Plans shall not relieve the Contractor from its responsibility to make an independent check on the ground, nor relieve Contractor from all liability for damages resulting from its operations.

It shall be entirely the responsibility of the Contractor to give proper notification to the agencies that have utilities in place and to coordinate with these agencies in the protection and relocation of the various underground installations. These agencies will give assistance in the location of the various utilities, but this shall not relieve the Contractor from responsibility for any damage incurred. The City shall require a notification of at least five working days. The Contractor shall hold the City harmless against any claim of any nature resulting from Delays in attending to same.

Following are addresses and telephone numbers of utilities in the Everett area for the Contractor's convenience as of December 15, 2022:

#### **Snohomish County PUD #1**

P.O. Box 1107 Everett, Washington 98206 Daniel Luu Tel: (425) 783-4174 Email: DCLuu@snopud.com

#### **Ziply/Frontier Communications**

Attn: Samantha Johnston 208-810-5640 1800 41<sup>st</sup> St Everett, Washington 98201 Samantha.Johnston1@ziply.com

#### **Puget Sound Energy**

3630 Railway Ave Everett, WA 98201 Attn: Mardy Punteney Tel. (425) 754-8053 Email: Mardy.Punteney@pse.com

#### **City of Everett, Storm Water**

**City of Everett, Water** 

3200 Cedar Street

Attn: Grant Moen Tel. (425) 257-8800

Public Works Department

Everett, Washington 98201

Email: GMoen@everettwa.gov

3200 Cedar Street Everett, Washington 98201 Attn: Grant Moen Tel. (425) 257-8800 Email: GMoen@everettwa.gov

#### Mukilteo Water District

7824 Mukilteo Speedway Mukilteo, Washington 98275 Attn: Rick Matthews Tel. (425) 355-3355 Email: RickM@mukilteowwd.org

#### Alderwood Water & Wastewater District

15204 35<sup>th</sup> Ave. W. Lynnwood, Washington 98087-5021 Attn: Joel Skeens Tel. (425) 743-8912

Email: JSkeens@awwd.com

#### Attn: David MacDonald

**Project Engineer-Capital Projects** Tel: (425) 741-7966

Email: DMacDonald@awwd.com

#### Comcast

**City of Everett, Sanitary Sewer** 

Public Works Department 3200 Cedar Street Everett, Washington 98201 Attn: Grant Moen Tel. (425) 257-8800

Attn. Casey Brown (Everett Area) Eng. & Const. – Planning and Design Tel. (425) 263-5345 Email: Casey Brown@cable.comcast.com, Casey.jones@comcast.com

**3rd Ave Water Quality Facility** WO No - UP3775

#### City of Everett, Traffic

Public Works Department 3200 Cedar Street Everett, Washington 98201 Attn: Corey Hert Tel. (425) 257-8800 Email: CHert@everettwa.gov

Verizon (425) 229-3123 1-800-483-1000 (emergency) Brad.landis@verizon.com

#### 1-07.17(1) Utility Construction, Removal or Relocation by Contractor

Delete all three paragraphs of 1-07.17(1) and substitute the following:

If the Work requires removing or relocating a utility, utility owners or their contractors will furnish all work necessary to adjust, relocate, replace, or construct their facilities.

#### 1-07.17(2) Utility Construction, Removal or Relocation by Others

Revise the first paragraph of 1-07.17(2) as follows:

Any authorized agent of the City or utility owners may enter the City right-of-way or easement to repair, rearrange, alter, or connect their equipment. The Contractor shall cooperate with such effort and shall avoid creating delays or hindrances to those doing the Work. The Contractor shall arrange to coordinate work schedules as needed.

#### 1-07.18 Public Liability and Property Damage Insurance

Delete 1-07.18 and substitute the following:

### 1-07.18 Insurance

(\*\*\*\*\*)

#### 1-07.18(1) General Requirements

A. The Contractor shall obtain the insurance described in this section from insurers approved by the State Insurance Commissioner pursuant to RCW Title 48. The insurance shall be provided by an insurer with a rating of A-: VII or higher in the A.M. Best's Key Rating Guide, that is licensed to do business in the state of Washington, or issued as a surplus line by a Washington Surplus lines broker. The City reserves the right to approve or reject the insurance provided, based on the insurer (including

financial condition), terms and coverage, the Certificate of Insurance, and endorsements.

B. The Contractor shall keep this insurance in force during the term of the Contract and for 30 calendar days after the Physical Completion date, unless otherwise indicated in 1-07.18(1)C of this section.

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 Final Completion or earlier termination of this Contract, and the Contractor shall annually provide the City 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 City to assure financial responsibility for liability for services performed.

D. The insurance policies shall contain a "cross liability" provision.

E. The Contractor's and all subcontractors' insurance coverage shall be primary and non-contributory insurance as respects the City's insurance, self-insurance, or insurance pool coverage.

F. All insurance policies and Certificates of Insurance shall include a requirement providing for a minimum of 30 days prior written notice to the City of any cancellation in any insurance policy.

G. Upon request, the Contractor shall forward to the City a full and certified copy of the insurance policy(s). The Contractor shall not begin Work under the Contract until the required insurance has been obtained and approved by the City.

H. 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.

I. All costs for insurance shall be included in the unit or lump sum prices of the Contract and no additional payment will be made.

J. The Contractor waives all rights against the City and its separate contractors, and their agents and employees, for damages caused by fire or other perils to the extent such damage cost is actually paid by property insurance applicable to the Work. The Contractor shall require similar waivers from all Subcontractors.

H. The City may utilize third-party contractor(s), software and/or websites for uploading and verification of the Contractor's insurance. The Contractor will provide (by upload or otherwise as directed by the City) insurance information and documentation as may be required by such third-party.

#### 1-07.18(2) Additional Insured

All insurance policies, with the exception of Professional Liability and Workers Compensation, shall name the following listed entities as additional insured(s):

• The City and its elected officials, officers, employees, agents, and volunteers

The above-listed persons shall be additional insured(s) for the full available limits of liability maintained by the Contractor, whether primary, excess, contingent or otherwise,

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) of this section describes limits lower than those maintained by the Contractor.

#### 1-07.18(3) Subcontractors

Contractor shall ensure that each Subcontractor of every tier obtains and maintains at a minimum the insurance coverages listed in 1-07.18(5)A and 1-07.18(5)B of this section. Upon request of the City, the Contractor shall provide evidence of such insurance as required in 1-07.18(4).

#### 1-07.18(4) Evidence of Insurance

The Contractor shall deliver to the City 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. The certificate and endorsements shall conform to the following requirements:

An ACORD certificate or a form determined by the City to be equivalent.

The Description of Operations in the certificate must read as: "All policies of insurance, except workers compensation, are endorsed to name the City of Everett, its elected officials, officers, employees, agents, and volunteers as additional insured(s). All such insurance is primary as respects the City of Everett, and any other insurance maintained by the City of Everett is excess and not contributing. The City of Everett will be given at least thirty (30) days prior written notice of any cancellation, non-renewal, or other material change in any insurance policy."

Copies of all endorsements naming City and all other entities listed in 1-07.18(2) of this section as Additional Insured(s), showing the policy number. The Contractor may submit a copy of a blanket additional insured clause from its policies instead of a separate endorsement. A statement of additional insured status on an ACORD Certificate of Insurance shall not satisfy this requirement.

Other amendatory endorsements to show the coverage required herein.

#### 1-07.18(5) Coverages and Limits

The insurance shall provide the minimum coverages and limits set forth below. Providing coverage in these stated minimum limits shall not be construed to relieve the Contractor from liability in excess of such limits. All deductibles and self-insured retentions shall be disclosed and are subject to approval by the City. The cost of any claim payments falling within the deductible shall be the responsibility of the Contractor.

#### 1-07.18(5)A Commercial General Liability

A policy of Commercial General Liability Insurance, including:

- Per project aggregate
- Premises/Operations Liability
- Products/Completed Operations for a period of one year following final acceptance of the Work.
- Personal/Advertising Injury
- Contractual Liability
- Independent Contractors Liability
- Stop Gap / Employers' Liability
- Explosion, Collapse, or Underground Property Damage (XCU)
- Blasting (only required when the Contractor's work under this Contract includes exposures to which this specified coverage responds)

Such policy must provide the following minimum limits:

\$2,000,000	Each Occurrence
\$5,000,000	General Aggregate
\$2,000,000	Products & Completed Operations Aggregate
\$2,000,000	Personal & Advertising Injury, each offence

Stop Gap / Employers' Liability

- \$1,000,000 Each Accident
- \$1,000,000 Disease Policy Limit
- \$1,000,000 Disease Each Employee

#### 1-07.18(5)B Automobile Liability

Automobile Liability for owned, non-owned, hired, and leased vehicles, with an MCS 90 endorsement and a CA 9948 endorsement attached if "pollutants" are to be transported. Such policy(ies) shall provide the following minimum limit:

\$1,000,000 combined single limit

#### 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.

#### 1-07.18(5)D Coverage for Working On, Over, or Near Navigable Waters

If this Contract involves Work on or adjacent to navigable water, as defined by the U.S. Department of Labor, then the Contractor shall provide proof of insurance coverage in compliance with the statutory requirements of the U.S. Longshore and Harbor Workers' Compensation Act as administered by the U.S. Department of Labor.

If the Contractor is working from barges or any other watercraft, owned or nonowned, the Contractor shall maintain Protection and Indemnity (P&I) insurance providing coverage for actions of the crew to third parties to the same limits stated under 1-07.18(5)A of this section for Commercial General Liability Insurance. The Contractor shall also provide proof of insurance coverage in compliance with the statutory requirements of the Merchant Marine Act of 1920 (the "Jones Act").

#### 1-07.18(5)E Excess or Umbrella Liability

The limits stated in this section 1-07.18 may be satisfied by a combination of liability and, if necessary, commercial umbrella/excess policies.

#### 1-07.18(5)F Pollution Liability

The Contractor shall provide a Pollution Liability policy, providing coverage for claims involving bodily injury, property damage (including loss of use of tangible property that has not been physically injured), cleanup costs, remediation, disposal or other handling of pollutants, including costs and expenses incurred in the investigation, defense, or settlement of claims arising out of:

Contractor's operations related to this project;

Remediation, abatement, repair, maintenance or other work with lead-based paint or materials containing asbestos; and

Transportation of hazardous materials away from any site related to this project.

Such Pollution Liability policy shall provide the following minimum coverage:

\$2,000,000 each loss and annual aggregate

#### 1-07.18(5)G Professional Liability

The Contractor, its Subcontractor and its design consultant providing construction management, value engineering, or other design-related non-construction professional services shall provide evidence of Professional Liability insurance covering professional errors and omissions. Such policy shall provide the following minimum limits:

\$2,000,000 per Claim

If the scope of such design-related professional services includes work related to pollution conditions, the Professional Liability insurance shall include Pollution Liability coverage.

If insurance is 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.

#### 1-07.18(5)H Builder's Risk

If the Project includes construction of a structure, the Contractor shall procure and maintain during the life of the Contract, or until acceptance of the project by the City, whichever is longer, "All Risk" Builders Risk or Installation Floater Insurance at least as broad as ISO form number CP0020 (Builders Risk Coverage Form) with ISO form number CP0030 (Causes of Loss – Special Form) including coverage for collapse, theft, off-site storage and property in transit. The coverage shall insure for direct physical loss to property of the entire construction project, for 100% of the replacement value thereof and include earthquake. The policy shall be endorsed to cover the interests, as they may appear, of the City, Contractor and subcontractors of all tiers with the City and sub-contractors listed as a Named Insured. In the event of a loss to any or all of the work and/or materials therein and/or to be provided at any time prior to the final close-out of the Contract and acceptance of the project by the City, the Contractor shall promptly reconstruct, repair, replace or restore all work and/or materials so destroyed. Nothing herein provided for shall in any way excuse the Contractor or its surety from the obligation of furnishing all the required materials and completing the work in full compliance with the terms of the Contract.

#### 1-07.20 Patented Devices, Materials, and Processes

Delete the first paragraph of 1-07.20 and substitute the following:

The Contractor shall assume all costs arising from the use of patented devices, materials, or processes used on or incorporated in the Work, and agrees to indemnify, defend, and save harmless the City, and its officers, employees and agents from all actions of any nature for, or on account of the use of any patented devices, materials, or processes.

### 1-07.23 Public Convenience and Safety

Delete the last sentence of the first paragraph of 1-07.23 and substitute the following:

Nothing contained in this Contract is intended to create any third-party beneficiary rights in favor of the public or any individual utilizing the facilities being constructed or improved under this Contract.

#### 1-07.23(1) Construction Under Traffic

Revise the third sentence of the second paragraph to read as follows:

Do NOT impair accessibility to existing or temporary pedestrian push buttons. City may allow activating pedestrian recall timing or other accommodations during construction.

Supplement 1-07.23(1) by adding the following:

If 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.

No lane closures will be allowed on a holiday or holiday weekend, or after 12:00 p.m. on a day prior to a holiday or holiday weekend. A holiday weekend is defined as having a holiday fall on Friday, Saturday, Sunday or Monday.

Contractor shall provide a uniformed off-duty Police Officer to control traffic in critical situations as determined by the Engineer. Contractor shall notify the local Fire, Police and Engineering Departments before the beginning of each phase of construction so that these agencies may re-route their emergency vehicles around the construction zone. The non-emergency phone number for Everett Police is 258-2484, for Fire Dispatch is 257-8757, and for Public Works Engineering is 257-8800.

Contractor shall notify City of Everett Transit at 425-257-8984 and Community Transit at 425-348-7100 of all street closures or delays at least 24 hours in advance to enable rerouting of buses.

Contractor shall notify the property owners at least 72 hours in advance to enable them to remove vehicles parked in the vicinity of Work. Towing vehicles shall be the responsibility of the Contractor and no additional payment will be made.

Further supplement 1-07.23(1) by adding the following:

### 1-07.23(1)A General Requirements Traffic (\*\*\*\*\*\*)

The following general requirements apply to all Work on the Project:

Prepare and submit to Engineer a Traffic Control Plan in accordance with 1-10.2(2) TRAFFIC CONTROL PLANS. The traffic control plan shall include control measures for pedestrian traffic in addition to vehicular traffic controls.

Refer to 1-08.4(2) SPECIAL CONSTRUCTION CONSTRAINTS regarding construction constraints resulting from traffic control.

Notify all affected property owners prior to commencing the barricading of streets, sidewalks and driveways.

All business driveways shall remain open except as necessary to permit curing of construction materials or for short periods of time as required for excavations. However, at least one driveway per business shall remain open to vehicular traffic at all times unless otherwise approved by the Engineer and affected property owner in writing.

Signs and barricades shall be supplemented by lanterns or flasher units during the hours of darkness.

Drivers of motor vehicles used in connection with the construction shall obey traffic rules posted for such location in the same manner and under the same restrictions as provided for the drivers of private vehicles.

Conduct the Work, at all time throughout the project, in such a manner as will obstruct and inconvenience vehicular and pedestrian traffic as little as possible. Keep the streets, sidewalks and private driveways open except for the brief periods when actual Work is being done.

No lane closures will be permitted between 3:30 p.m. and 6:00 p.m., unless specifically approved by the Engineer.

### 1-07.23(3) Work Zone Clear Zone

Delete 1-07.23(3) in its entirety.

#### 1-07.24 Rights of Way

Delete1-07.24 and substitute the following:

Street right of way lines, limits of easements, and limits of construction permits are indicated on the Plans. The Contractor's construction activities shall be confined within these limits, unless arrangements for use of private property are made.

Generally, the City 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 on the Plans.

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 City from the owner of the private property. Copies of the easement agreements may be included in the Contract Documents or made available to the Contractor as soon as practical after they have been obtained by the Engineer.

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 City in obtaining easements, rights of entry or right of way, the Contractor will be entitled to an extension of time. The Contractor agrees that Delay resulting from City obtaining easement or right of entry or right of way 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 must be adjusted.

The Contractor shall be responsible for providing, without expense or liability to the City, 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.

#### 1-07.27 No Waiver of State's Legal Rights

Delete 1-07.27 and substitute the following:

### 1-07.27 No Waiver of City's Legal Rights

(\*\*\*\*\*)

The City shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the Work and payment therefor from showing the true amount and character of the Work performed and materials furnished by the Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or that the Work or materials do not conform in fact to the Contract. The City shall not be precluded or estopped,

notwithstanding any such measurement, estimate, or certificate, and payment in accordance therewith, from recovering from the Contractor and the Sureties such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract. Neither the acceptance by the Engineer nor any payment for the whole or any part of the Work, nor any extension of time, nor any possession taken by the City shall operate as a waiver of any portion of the Contract or of any power herein reserved or any right to damages herein provided, or bar recovery of any money wrongfully or erroneously paid to the Contractor. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

The Contractor and the City recognize that the impact of overcharges to the City by the Contractor resulting from antitrust law violations by the Contractor's suppliers or Subcontractors adversely affects the City rather than the Contractor. Therefore, the Contractor agrees to assign to the City all claims for such overcharges.

#### 1-08 PROSECUTION AND PROGRESS

Supplement Section 1-08 by adding the following:

#### 1-08.0 Preliminary Matters

#### **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, at a minimum, procedures for progress payment, notifications, approvals, and submittals;
- 4. To establish normal working hours for the Work;
- 5. To review safety standards and traffic control; and
- 6. To discuss such other related items as may be pertinent to the Work.

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

- 1. A Schedule of Values 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 required by 1-07.23(1) or otherwise noted and approved by the City within these Special Provisions, the normal straight time working hours for the Contract shall be any consecutive 8-hour period between 7:00 a.m. and 6:00 p.m. of a working day with a maximum 1-hour lunch break and a 5-day work week. Should Contractor elect to work on a holiday or weekend, those normal working hours shall be from 9:00 a.m. to 6:00 p.m. The normal straight time 8-hour working period for the Contract shall be established at the preconstruction conference or prior to the Contractor commencing the Work.

When connecting to existing water mains and services are required, the City will obtain all necessary permissions and the normal hours of work shall be any consecutive 8-hour period between 6:00 p.m. and 7:00 a.m. Refer to 7-09.3(19)A regarding night or weekend connection work time requirements.

If a Contractor is required to or desires to perform Work on holidays, weekends, or before 7:00 a.m. or after 10:00 p.m. on any weekday, the Contractor shall apply in writing to the Engineer for permission to work such times. Permission to work longer than an 8-hour period between 7:00 a.m. and 6:00 p.m. is not required. Such requests shall be submitted to the Engineer no later than noon on the working day prior to the day for which the Contractor is requesting permission to work, unless a noise variance will be required. In such case provide request a minimum of 30 days prior to performing the work in accordance with 1-07.1(7) NOISE.

Permission to work Saturdays, Sundays, holidays or other than the agreed upon normal straight time working hours Monday through Friday may be given subject to certain other conditions set forth by the City or Engineer. These conditions may include, and not be limited to; requiring the Contractor to reimburse the City for the costs in excess of straight-time costs for City employees and necessary assistants who worked during such times, on non-Federal aid projects. Assistants may include, and are not limited to, survey crews; personnel from the City's material testing lab; inspectors; and other City employees when in the opinion of the Engineer, such work necessitates their presence. The work performed on Saturdays, Sundays, and holidays will be considered as working days with regards to the Contract Time; and 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.

# 1-08.0(3) Reimbursement for Overtime Work of City Employees and Assistants

Where the Contractor elects to work on a Saturday, Sunday, or holiday, or longer than an 8-hour work shift on a regular working day, as defined in the Standard Specifications, such work shall be considered as overtime work. On all such overtime work an inspector will be present, and a survey crew may be required at the discretion of the Engineer. If such work is the result of Contractor's inability to complete work or coordinate materials, equipment and labor in accordance with agreed schedule, then the City may deduct from amounts due or to become due to the Contractor for the costs in excess of the straighttime costs for employees and assistants of the City required to work overtime hours.

The Contractor by these specifications does hereby authorize the Engineer to deduct such costs from the amount due or to become due to the Contractor.

#### 1-08.1 Subcontracting

Delete 1-08.1(7)A Payment Certification and substitute the following:

On all projects funded only with City funds, the Contractor shall certify to the actual amounts paid Disadvantaged, Minority, or Women's Business Enterprise firms that were used as subcontractors, lower tier subcontractors, manufacturers, regular dealers, or service providers on the Contract. This certification shall be submitted to the Engineer on WSDOT form 140-542 within 20 calendar days after physical completion of the Contract.

Supplement 1-08.1 by adding the following:

The Contract Documents shall apply to Subcontractors and suppliers as if each had signed the Contract with the City. Contractor shall include the provisions of these Contract Documents or a "flow down" clause in each contract with Subcontractors and suppliers.

The City will not approve a Subcontractor that is also providing services to the City on the same project.

In addition to any other requirement in this Section, no Subcontractor or lower tier subcontractor will be permitted to perform Work under the Contract until the following documents have been completed and submitted to the Engineer:

- 1. Request to Sublet Work (Form 421-012), and
- 2. Contractor and Subcontractor or Lower Tier Subcontractor Certification for Federal-aid Projects (Form 420-004).

The Contractor's records pertaining to the requirements of this Special Provision shall be open to inspection or audit by representatives of the City 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.

In addition to any other requirement in this Section, Contractor shall not sublet to a single Subcontractor more than one-half of the Project. The City may refuse to approve any subcontract for any reason. Subcontractors will be considered agents of the Contractor and their work shall be subject to the provisions of the Contract. References in the Contract Documents to actions required of Subcontractors, manufacturers, suppliers, or any person other than the Contractor, the City or the City's Representative shall be interpreted as requiring that the Contractor shall require such Subcontractor, manufacturer, supplier or person to perform the specified action.

#### 1-08.3 Progress Schedule

#### 1-08.3(1) General Requirements

Delete 1-08.3(1) and substitute the following:

### 1-08.3(1) General (\*\*\*\*\*\*)

Because time is of the essence, diligent and expeditious progress and completion of the Work by the Contract Completion Date is required of the Contractor. Careful, adequate, accurate and complete planning and scheduling of the Work by the Contractor, both prior to the start of, and throughout, construction, is vital to the success of this Project for both the Contractor and the City. The purposes of the schedules and reports include:

- 1. Ensuring adequate planning and execution of the Work by the Contractor.
- 2. Assisting the City or its representative in monitoring construction.
- 3. Assessing the impact of any actual, potential or proposed change, including, but not limited to, the financial impact resulting from schedule changes and changes to the scope of Work.
- 4. Supporting the basis for construction payments.
- 5. Planning by City and tenants.
- 6. Avoiding additional or extra costs or expenses to the City.

All schedules will be reviewed by the City and the City's Representative. The City or City's Representative's review of any schedule shall not transfer the Contractor's responsibilities to the City. Review shall not constitute approval or acceptance of the Contractor's construction means, methods, sequencing, logic, order, precedence and succession of activities or Contractor's ability to complete the Work in a timely manner. Any mistakes or errors in any schedule, including, but not limited to, mistakes or errors of logic, order, precedence, and duration, are and remain the Contractor's. The City or City's Representative may, however, comment upon the schedule. The Contractor remains wholly responsible for completing the Work within the Contract duration. Any comments by City or City's Representative personnel regarding the schedule shall not

be construed as approval or ratification, nor shall the Contractor incorporate or change its schedule as a result of City or City's Representative comments in the absence of an express written directive to that effect.

Contractor shall submit, update and maintain schedules as required by the Contract Documents.

The Contractor shall provide sufficient material, equipment, and labor to meet the interim milestones, Substantial Completion, Physical Completion and Completion Dates provided by the Contract Documents. The City allocates its resources to a Contract based on the total time allowed in the Contract. The Contractor may submit a schedule indicating Completion Date earlier than the end of Contract Time, but City cannot guarantee its resources will be available to meet such schedule. City shall not pay or be liable for any additional compensation if the Contractor is not able to meet a schedule that indicates a Completion Date earlier than the end of Contract Time.

Failure to schedule City furnished or installed materials and Equipment for installation on or after its planned arrival pursuant to the City's Contract with the supplier or failure to notify the City in writing of tasks dependent upon the fact or date of arrival of such City furnished materials and Equipment, constitute a waiver by Contractor of any Contract Claim arising out of or related to the timeliness of the furnishing or installation of such material and Equipment. All schedules shall allow for timely incorporation of any other's work under separate contract with City and for timely incorporation of any work provided and installed by City. Unless otherwise expressly authorized in writing by the City's Representative, the Contractor shall integrate the schedules with the Schedule of Values and unit price items so that each construction activity is represented by a dollar value.

Float in a progress schedule belongs to the City.

Subcontractors shall review all schedules prior to submission to the City and City's Representative. At the City's option and sole discretion, City may require Contractor to obtain written acceptance of each schedule by Subcontractors as practical and feasible, as the schedule relates to Subcontractors' work.

Contractor shall not schedule any activity with an unrealistic, unduly long, or unduly short duration. Contractor shall use its best efforts in good faith to set reasonable durations for all activities. Contractor shall not attempt to "grab the Float" or make an effort to use Float in the Progress Schedule for the benefit of the Contractor, rather than the benefit of the Project. Contractor shall use its best efforts in good faith to minimize dependencies, minimize the number of critical paths, and schedule the Project to be complete as expeditiously as reasonably possible.

Contractor shall submit with each application for payment or progress pay estimate an updated progress schedule, but no less often than monthly. If requested by the City's Representative or the City, Contractor shall prepare and submit updated progress schedules from time to time that may be more frequent than monthly.

The Contractor hereby expressly agrees and acknowledges that any failure by Contractor to provide accurate, complete, current and updated schedules at least monthly constitutes a waiver of any and all claims or requests for adjustment of Contract Sum or Time that arise out of, result from, or are caused by, any Delay on the Project or scheduling of the Work. Timely submission of updated schedules at least monthly is a condition precedent to any later or subsequent Contract Claim or request for an adjustment of either Contract Sum or Time related to or arising out of time, an alleged Delay, or the schedule or sequence of Work. Similarly, the parties agree the City may withhold progress pay estimates if updated schedules are not timely submitted monthly. These remedies are cumulative and not exclusive of other remedy. The City's use of

one or more of these remedies does not constitute an election or prevent the City from pursuing other remedies for this or other defaults.

No later than the pre-construction conference, Contractor shall submit a preliminary schedule ("Preliminary Schedule") for the entire Work to City's Representative and City. Contractor shall prepare such schedule in consultation with its Subcontractors.

#### 1-08.3(2) Project Schedule Types

Delete 1-08.3(2), including its subsections, and substitute the following:

# 1-08.3(2) Project Schedule Requirements For Contracts Exceeding \$500,000 (\*\*\*\*\*\*)

#### 1-08.3(2)A Scheduler

Contractor represents and warrants that it employs, or will engage prior to preparation of the Preliminary Schedule, a qualified scheduler. A "qualified scheduler" is a person who has at least five years of full time, construction project scheduling experience, who is familiar, competent and professional in creating, maintaining and updating time scaled and resource loaded critical path schedules. Contractor shall submit to the City the name, address, and qualifications of the qualified scheduler to the City for approval no later than the pre-construction conference.

#### 1-08.3(2)B Baseline Schedule

The progress schedule submitted to the City's Representative and City after their review of the Preliminary Schedule shall be the Baseline Schedule. The Baseline Schedule shall be the baseline schedule against which all future schedules are compared and updated, and job progress is measured. The Baseline Schedule shall not be reset or changed without the written agreement of City's Representative and City.

#### 1-08.3(2)C Updates

Contractor shall submit with each application for payment or progress pay estimate an updated progress schedule, but no less often than monthly. If requested by City's Representative or the City, Contractor shall prepare and submit updated progress schedules from time to time, which may be more frequent than monthly.

An updated progress schedule shall identify progress of the Project or Work to the date of submission. It shall include, but not be limited to: (1) identification of all actual start and completion dates occurring prior to the submission of the schedule; (2) comparison of actual start and completion dates to the planned start and completion dates shown on the Baseline Schedule; and (3) comparison of expected start and completion dates for work to occur after submission updated progress schedule to the planned start and completed at the end of a period for an activity should show the remaining duration required to complete that activity. The percent complete for that activity should also be shown. If during the course of construction the Contractor desires or feels it necessary to make changes in the schedule logic, these changes should be identified, highlighted, and specifically and expressly brought to the attention of the City's Representative and City along with the schedule update.

An updated progress schedule shall show changes occurring since submission of the previous updated progress schedule such as:

- 1. Major changes in scope;
- 2. Activities modified since previous submission;

- 3. Revised projection for construction completion, as applicable; and
- 4. Any other changes.

Contractor shall submit an updated progress schedule for review by the City and City's Representative, at the weekly construction meeting or as otherwise as requested by City's Representative or City. Any deviation from the Baseline Schedule shall be explained by the Contractor, including the cause and effect of the deviation. Contractor shall state in writing the corrective measures it will take to bring the progress of the Work back in line with the Baseline Schedule.

Once an actual start or completion date is stated in a submitted progress schedule, Contractor shall not change schedule without prior written agreement of the City and City's Representative.

With each submitted updated progress schedule, Contractor shall provide a written narrative report that identifies anticipated or actual deviations from the Baseline Schedule, causes of the deviations, and the impact of the deviations on the schedule and describes the corrective action taken or proposed, and its effect.

#### 1-08.3(3) Schedule Updates

Delete 1-08.3(3) and substitute the following:

### 1-08.3(3) Schedule Format And Content

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#### 1-08.3(3)A Schedule Format

All schedules shall be in the following form:

- 1. Network analysis system using the current version of Microsoft Project software (or other software acceptable to the City Representative) and the critical path method, as outlined in The Associated General Contractors of America (AGC) publication "The Use of CPM in Construction -A Manual for General Contractors."
- 2. Sequence of Listings: The chronological order of the start of each activity of Work. Listings on Progress Schedule and Schedule of Values shall be the same.
- 3. Scale and Spacing: To provide space for notations and revisions.
- 4. Each schedule and update shall be provided in three (3) paper copies and one electronic copy in current Microsoft Project format (or other format acceptable to the City Representative). Paper copies shall be on a single sheet of paper and of sufficient size to allow legibility of schedule. Pieces of the schedule on separate sheets of paper that must be taped together to form schedule are not permitted. Electronic copies shall be submitted on either separate CD-ROMs or as email attachment to City's Representative or as otherwise acceptable to the City Representative.
- 5. Updated Progress Schedules shall indicate progress of the Work to the date of submission by drawing a vertical line down the schedule to represent Work completed to date.

#### 1-08.3(3)B Schedule Contents

All Progress Schedules shall:

- 1. Include essential sub-schedules of related activities.
- 2. Allow for timely incorporation of any other's work under separate contract with City.
- 3. Allow for timely incorporation of work provided and installed by City.

- 4. Include submittals to agencies required for performance of Work with sufficient, adequate and reasonable time for review, comment and return submittals.
- 5. Allow for appropriate durations to complete activities that may be affected by weather during the time of year the activities are performed.
- 6. Identify logical connections, dependency upon preceding or succeeding activities, restraints or constraints, planned start and completion dates, duration, actual start and completion dates, and variances.
- 7. Activity durations shall not exceed twenty (20) days. The activities shall be related to early and late start, early and late finish, and Float dates.

Activities listed in the Preliminary Schedule shall be included in all subsequent schedules. No activity in the Preliminary Schedule shall be deleted without prior written consent of the Representative and City.

Contractor shall notify City's Representative and City in writing and highlight the addition of all activities to the schedule after the Preliminary Schedule.

The Baseline Schedule shall be part of the Contract.

Each activity shall be identified with a number that incorporates the Specification section number.

Activities shall be consistent and identified with the Schedule of Values (if applicable) or unit prices of the bid schedule. All elements and items in the Schedule of Values or unit prices in the bid schedule shall appear in the Progress Schedules.

Contractor shall provide sub-schedules for each stage/phase of Work as required by City, City's Representative, or Subcontractor.

Contractor shall provide sub-schedules to define major portions of the entire schedule. Include long-lead-time items for Equipment and material that requires long fabrication time. Order these well in advance of required delivery time to sequence with overall construction schedule.

Each schedule shall show accumulated percentage of completion of each activity, and total percentage of Work completed, as of the date of payment application.

Contractor shall include in each schedule as activities the submission, review, and correction of Submittals, Shop Drawings, Product Data and Samples. The schedule should show:

- 1. The dates for Contractor's Submittals.
- 2. A minimum of 14 calendar days duration for City or City's Representative's review.
- 3. Indicate decision data for selection of finishes.
- 4. Show Submittal preparation, submission, review, and breakdown at a minimum. Show individual parts of major Submittals.

Contractor shall identify any and all Work furnished by City and installed by City on the construction schedule.

#### 1-08.3(4) Measurement

Delete 1-08.3(4).

#### 1-08.3(5) Payment

Delete 1-08.3(5) and substitute the following:

Costs incurred in performance of this Work shall be included in the contract bid items and no direct compensation shall be paid.

#### 1-08.4 Prosecution of Work

Delete 1-08.4 and substitute the following:

# **1-08.4** Notice to Proceed and Prosecution of Work (\*\*\*\*\*)

The City will issue a Notice to Proceed after the Contract has been executed and the Contract Bonds and evidence of insurance have been approved and filed by the City. The Contractor shall not commence with the Work until the Notice to Proceed has been given by the City. The Contractor shall commence construction activities on the Project site within 14 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.

The City is not obligated to accept or pay for Work performed by the Contractor or be liable for any Delays, prior to delivery of the Notice to Proceed. The City's knowledge of Work being performed prior to delivery of the Notice to Proceed will not obligate the City to accept or pay for such Work. Contractor waives any and all Contract Claims for an adjustment of Contract Sum or Contract Time arising out of, or related to, Work it performs prior to receipt of the Notice to Proceed.

The City may issue partial Notices to Proceed. Contractor may seek permission in writing to perform some Work prior to issuance to the Notice to Proceed, such as shop drawings, equipment and material Submittals, or surveying and the City or City's Representative may, in its sole discretion, approve in writing such Work prior to the issuance of the Notice to Proceed.

Supplement 1-08.4 by adding the following:

### 1-08.4(1) Construction Progress

(\*\*\*\*\*)

The Contractor shall furnish all labor, materials, facilities and Equipment necessary to ensure the prosecution and completion of the Project within the interim milestones, Substantial Completion, Physical Completion and Completion Dates of the Contract. If Work falls seven calendar days or more behind the reviewed Preliminary Schedule, the Contractor agrees that, at its sole cost and expense, it will take all actions necessary to return the Project to the accepted schedule. These actions may include the following:

- a. Increase labor in quantities and crafts.
- b. Increase the number of working hours per shift, shifts per working day, working days per week, or the amount of Equipment, or any combination of the foregoing.
- c. Reschedule activities.

If requested by the City's Representative, the Contractor shall prepare a proposed schedule revision demonstrating a plan to make up the lag in progress and insure completion of the Work within the Contract Time. All actions taken to return the Project to the accepted schedule are at the Contractor's expense.

The Contractor shall pay all costs incurred by the City that result from the Contractor's action to return the Project to its accepted schedule, including, but not limited to, additional, overtime, or third party inspection, design and construction management service costs. Contractor agrees that City shall deduct such charges from payments

due the Contractor. It is further understood and agreed that none of the services performed by the City's Representative in monitoring, reviewing and reporting Project status and progress shall relieve the Contractor of responsibility for planning and managing construction Work in conformance with the construction schedule.

# 1-08.4(2) Special Construction Constraints (\*\*\*\*\*\*)

Refer to 1-08.0(2) for work hours.

Refer to 1-07.23(1) for construction under traffic and 1.07.23(1)A for general traffic requirements.

Provide notice in accordance with 8-20.3(1) of these Special Provisions to City of Everett Traffic Department before cutting induction loop wiring.

Pay particular attention to maximum length allowed between sampling points on new water main in accordance with 7-09.3(24)H FINAL FLUSHING AND TESTING.

Phase construction in such a manner that either S 3<sup>rd</sup> Avenue or S 2<sup>nd</sup> Avenue south of 47<sup>th</sup> Street SE maintains one traffic lane open in both directions at all times.

City may approve full block street closures as part of Contractor's Temporary Traffic Control Plan, as long as no more than two consecutive blocks are closed at a time along S 3<sup>rd</sup> or S 2<sup>nd</sup> Avenue. Maintain pedestrian access during full block closures. Temporary roadway and sidewalk patching shall be completed prior to re-opening a closed block of street.

Pay particular attention to maximum length allowed between sampling points on new water main in accordance with 7-09.3(24)H FINAL FLUSHING AND TESTING.

Upon completion of pipe installation and trench backfilling to specifications, promptly restore street, driveway and sidewalk surfaces using Temporary Pavement Patch in accordance with Section 5-06.3(6) TEMPORARY PAVEMENT PATCHING and permit public use and access for City inspection activities.

Parking spaces are normally very limited in most areas of the project and the Contractor will be required to cooperate with the City in resolving parking issues. In general, businesses and residents who rely on on-street parking and are displaced by the construction shall be given priority for the nearest available parking location. The Contractor's employees may be required to park their personal vehicles away from the area of construction.

This 1-8.4(2) is not a complete list of all constraints that may be in the Contract Documents. Contractor is responsible for all constraints in the Contract Documents.

#### 1-08.5 Time for Completion

Delete all of 1-08.5 and substitute the following:

#### 1-08.5(1) General

The Contractor shall complete all physical Contract Work within the number of "working days" stated in the Contract Provisions or as extended by the Engineer in accordance with Section 1-08.8. Every day will be counted as a "working day" unless it is a nonworking day or an Engineer determined unworkable day. A nonworking day is defined as a Saturday, a Sunday, a whole or half day on which the Contract specifically prohibits Work on the critical path of the Contractor's approved progress schedule, or one of these holidays: January 1, the third Monday of January, the third Monday of February, Memorial Day, June 19, July 4, Labor Day, November 11, Thanksgiving Day, the day after Thanksgiving, and Christmas Day. When any of these holidays fall on a Sunday, the following Monday shall be counted a nonworking day. When the holiday

falls on a Saturday, the preceding Friday shall be counted a nonworking day. The days between December 25 and January 1 will be classified as nonworking days.

An unworkable day is defined as a half or whole day the Engineer declares to be unworkable because of weather or conditions caused by the weather that prevents satisfactory and timely performance of the Work shown on the critical path of the Contractor's approved progress schedule. Other conditions beyond the control of the Contractor may qualify for an extension of time in accordance with Section 1-08.8.

Contract Time shall begin on the effective date of the Notice to Proceed. The Contract Documents may specify another starting date for Contract Time, in which case, Contract Time will begin on the starting date the Contract Documents specify.

Each working day shall be charged to the Contract as it occurs, beginning on the effective date of the Notice to Proceed, unless otherwise provided in the Contract Documents, until the Contract Work is physically complete. 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 partial or whole day the Engineer declares as unworkable. Within 14 calendar days after the date of each statement, the Contractor shall file a written protest of any alleged discrepancies in it. To be considered by the Engineer, the protest shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of time disputed. By not filing such detailed protest in that period, the Contractor shall be deemed as having accepted the statement as correct. If the Contractor elects to work ten hours a day and four 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.

The Engineer will give the Contractor written notice of the Physical Completion Date for all Work the Contract requires. That date shall constitute the Physical Completion Date of the Contract, but shall not imply the City's acceptance of the Work or the Contract.

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 must occur before the Completion Date can be established:

- 1. The physical Work on the project must be complete; and
- 2. The Contractor shall furnish all documentation required by the Contract and required by law, to allow the City to process final acceptance of the Contract. The following documents must be received by the Engineer prior to establishing a Completion Date:
  - a. Certified payrolls.
  - b. Material Acceptance Certification Documents.
  - c. Annual Report of Amounts Paid as MBE/WBE Participants.
  - d. Final Contractor 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 City in accordance with Section 8-01.3(16)

## 1-08.5(2) Substantial Completion (\*\*\*\*\*\*)

When the Contractor considers the Work to be Substantially Complete and ready for its intended use, it shall give Notice to the City's Representative. The Notice shall include an itemized list of remaining incomplete Work. If the City's Representative determines the Work is not substantially complete, it will so notify the Contractor in writing, identifying the reasons for such a determination. If the City's Representative finds the Work substantially complete, it will meet with the Contractor to (1) prepare a Punch List of incomplete items of Work; (2) define the division of responsibility between City and Contractor with respect to security, operation, maintenance, heat, utilities, insurance, and warranties; and (3) describe other issues related to acceptance of the substantially completed Work.

If the City's Representative is not an employee of the City, the City's Representative will write to the City upon reaching agreement with the Contractor, certifying that the Work is substantially complete, listing the items of incomplete Work, stating the date for completion of incomplete work, defining the division of responsibilities, and setting forth any other terms related to acceptance. In such event, the City will review the City's Representative's certification that the Work is substantially complete. If the City concurs, the City will notify the Contractor in writing that the Work is accepted as substantially complete. Except for any portion(s) of Work specified for early completion or required by the City for early possession, Substantial Completion will not occur for Work until the entire Project is ready for possession and use. The acceptance Notice will include a Punch List of incomplete Work items and corrective Works, set the date for their completion and repair, describes the division of responsibility between the City and Contractor, and describe other terms of acceptance. The Contractor will acknowledge receipt of the acceptance Notice in writing, indicating acceptance of all of its terms and provisions.

Subsequent to the Substantial Completion date, the City may exclude the Contractor from the Work during such periods when construction activities might interfere with the intended operation of the Project. The City, however, shall allow the Contractor reasonable access for completion or correction of incomplete Punch List items.

### 1-08.5(3) Acceptance of Work (\*\*\*\*\*\*)

Upon completion of the Project, including, but not limited to, record drawings, as-builts, required reports and operations and maintenance manuals, the Contractor shall so notify the City's Representative in writing. Upon receipt of the notification, the City's Representative will promptly, by personal inspection, determine the actual status of the Work in accordance with the terms of the Contract. If the City's Representative finds materials, Equipment, or workmanship that do not meet the terms of the Contract, it will prepare a Punch List of such items and submit it to the Contractor. Following completion of the corrective work by the Contractor, the City's Representative will notify the City that the Work has been completed in accordance with the Contract. The City shall make the final determination of acceptability and completion. For portions of the Project not previously accepted as substantially complete, the conditions of guarantee shall commence on the date that the City determines the Project is complete.

#### 1-08.6 Suspension of Work

Delete 1-08.6 and substitute the following:

The Engineer may order suspension of all or any part of the Work if:

- 1. Unsuitable weather prevents satisfactory and timely performance of the Work; or
- 2. The Contractor does not comply with the Contract; or
- 3. It is in the public interest.

When ordered by the Engineer to suspend or resume Work, the Contractor shall do so immediately.

If the Work is suspended for reason (1) above, the period of Work stoppage will be counted as unworkable days. But if the Engineer believes the Contractor should have completed the suspended Work before the suspension, all or part of the suspension period may be counted as working days. The Engineer will set the number of unworkable days (or parts of days) by deciding how long the suspension delayed the entire project.

If the Work is suspended for reason (2) above, the period of Work stoppage will be counted as working days. The lost Work time, however, shall not relieve the Contractor from the Contract responsibility.

If the performance of all or any part of the Work is suspended, delayed, or interrupted for an unreasonable period of time by an act of the City in the administration of the Contract, or by failure to act within the time specified in the Contract (or if no time is specified, within a reasonable time), the Engineer will make an adjustment for increases in the cost or time for the performance of the Contract (excluding profit) necessarily caused by the suspension, delay, or interruption. However, no adjustment will be made for suspensions, delays, or interruptions if (1) the performance would have been suspended, delayed, or interrupted by other causes, including the fault or negligence of the Contractor, or (2) an equitable adjustment is provided for or excluded under another provision of the Contract.

If the Contractor believes that the performance of the Work is suspended, delayed, or interrupted for an unreasonable period of time and such suspension, delay, or interruption is the responsibility of the City, the Contractor shall immediately submit a written Notice to the Engineer within 14 calendar days of the start of the suspension delay or interruption requesting an equitable adjustment. No adjustment shall be allowed for costs incurred more than 14 calendar days before the date the Engineer receives the Contractor's written Notice. The Engineer will issue a Written Determination to the Contractor and adjust payment and time in accordance with this section, if warranted. If the Contractor does not agree with the Written Determination, then the Contractor may pursue remedies in accordance with Section 1-04.5 and Section 1-09.11. The Contractor shall keep full and complete records of the costs and additional time of such suspension, delay, or interruption and shall permit the Engineer to have access to those records and any other records as may be deemed necessary by the Engineer to assist in evaluating the Notice.

The Engineer will determine if an equitable adjustment in cost or time is due as provided in this section. The equitable adjustment for increase in costs, if due, shall be subject to the limitations provided in Section 1-09.4, provided that no profit of any kind will be allowed on increases in costs caused by the suspension, delay, or interruption.

Request for extensions of time will be evaluated in accordance with Section 1-08.8.

The Engineer's determination as to whether an adjustment should be made will be final.

By failing to follow procedures of Section 1-04.5 and Section 1-9.11, the Contractor completely waives claims for protested Work.

#### 1-08.6(1)**Suspension Procedures**

(\*\*\*\*\*)

The City may, at its convenience and at any time and without cause, suspend all or any part of the Work by notice in writing to the Contractor. The Contractor will be allowed an increase in the Contract Sum or an extension of Contract Time, or both, directly attributable to any suspension in accordance with the Change Order procedures in these Special Provisions: provided. (1) the Contractor shall not be entitled to any increase to the extent caused by the Contractor and (2) Contract Sum increases and Contract Time extensions for suspension caused by Third Parties or Force Majeure Events are limited as set forth in 1-09.11A(3)D THIRD PARTY CAUSED DELAYS AND FORCE MAJEURE. The Contractor shall resume the Work within five (5) calendar days after receiving written notice from the Citv to do so.

#### 1-08.7 Maintenance During Suspension

Delete all of 1-08.7 and substitute the following:

Before and during any suspension (as described in Section 1-08.6) the Contractor shall protect the Work from damage or deterioration. Suspension shall not relieve the Contractor from anything the Contract requires unless this Section states otherwise.

At no expense to the City, the Contractor shall provide through the construction area a safe, smooth, and unobstructed roadway, sidewalk, and path for public use during suspension, as required in 1-07.23 PUBLIC CONVENIENCE AND SAFETY. This may require a temporary road or detour.

If the Engineer determines that the Contractor failed to pursue the Work diligently before the suspension, or failed to comply with the Contract or orders, then the Contractor shall maintain the temporary roadway, sidewalk, and path in use during suspension. In this case, the Contractor shall bear the maintenance costs. If the Contractor fails to maintain the temporary roadway, sidewalk, and path the City will do the Work and deduct all resulting costs from payments due to the Contractor.

If the Engineer determines that the Contractor has pursued the Work diligently before the suspension, then the City will maintain the temporary roadway, sidewalk, and path (and bear its cost). This City-provided maintenance work will include only routine maintenance of:

- 1. The Traveled Way, Auxiliary Lanes, Shoulders, detour surface, sidewalks, and paths.
- 2. Roadway drainage along and under the traveled Roadway, sidewalk, path or detour, and
- 3. All barricades, signs, and lights needed for directing traffic through the temporary Roadway, sidewalk, path or detour in the construction area.

The Contractor shall protect and maintain all other Work in areas not used by traffic. All costs associated with protecting and maintaining such Work shall be the responsibility of the Contractor except those costs associated with implementing the TESC Plan according to Section 8-01.

After suspension during which the City has done the routine maintenance, the Contractor shall accept the traveled Roadway, sidewalk, path or detour as is when Work resumes. The Contractor shall make no claim against the City for the condition of the Roadway or detour.

After any suspension, the Contractor shall resume all responsibilities the Contract assigns for the Work.

#### 1-08.8 Extensions of Time

Delete the second paragraph of 1-08.8 and replace with:

In evaluating requests for time extension, the Engineer will consider how well the Contractor used the time from Contract execution up to the point of the delay and the effect the delay had on any completion times included in the Special Provisions. The Engineer will evaluate and issue a Written Determination.

Delete the final two sentences of 1-08.8 and replace with:

If the Contractor does not agree with the Engineer's Written Determination, the Contractor shall provide Notice in accordance with Section 1-04.5. By failing to follow the procedures of Section 1-04.5 and Section 1-9.11, the Contractor completely waives claims for protested Work.

Supplement 1-08.8 by adding the following:

Any requests for extensions in Contract Time, whether resulting from Extra Work directed by the City or not, shall be accompanied by an analysis of schedules using the critical path method. This analysis shall include an updated schedule, an as-planned schedule, an asbuilt schedule, a but-for schedule, and narrative explaining the alleged causes, schedule impacts and all costs related to or arising out of the proposed extension. Any requests for extensions of Contract Time by the Contractor shall be submitted in accordance with these Contract Documents. If a request combined with previous extension requests, equals 20 percent or more of the original Contract Time then the Contractor's letter of request must bear consent of Surety if so required by the City. Extensions of Contract Time will be granted only as provided in the Contract Documents and to the extent that affected critical activities exceed the Total Float time along the affected paths of the reviewed Preliminary Schedule at the time the change was authorized in writing by the City. Contractor has the burden of clearly and convincingly demonstrating entitlement to any adjustment of Contract Time.

If the City is solely responsible for any Delay to Substantial Completion, Physical Completion, Completion Date, or Final Acceptance, the Contractor shall only be entitled to compensation or other damages as described in 1-09.11A REMEDIES, provided that Contractor timely gave Notice pursuant to 1-04.5 NOTICE BY CONTRACTOR, timely submitted a Contract Claim pursuant to 1-09.11(2) CONTRACT CLAIMS and fulfilled the requirements of 1-08.3 PROGRESS SCHEDULE.

#### 1-08.9 Liquidated Damages

Revise the second and third paragraphs of 1-08.9 to read as follows:

Accordingly, the Contractor agrees:

- 1. To pay (according to the following formula) liquidated damages 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.

#### Liquidated Damages Formula

LD=0.15C/T

Where:

- LD = liquidated damages per working day (rounded to the nearest dollar)
- C = original Contract amount
- T = original time for Physical Completion

When the Contract Work has progressed to Substantial Completion as defined in the Contract, the Engineer may determine that the 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, the formula for liquidated damages shown 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.

#### 1-08.10 Termination of Contract

#### 1-08.10(1) Termination for Default

Delete all of 1-08.10(1) and substitute the following:

The City may terminate the Contract upon written notice to Contractor and its Surety whenever the Contractor is deemed to be in default or fails to fulfill, in a timely and proper manner, one or more Contract obligations, or is in violation of any provisions or covenants of the Contract. Termination shall be effective upon Contractor's and Surety's receipt of such notice

For purposes of this section, the Contractor shall be deemed to be in default upon the occurrence of one or more of the following events:

- 1. If Contractor is bankrupt or insolvent.
- 2. If Contractor makes a general assignment for the benefit of creditors.
- 3. If a trustee or receiver is appointed for Contractor, or for any of Contractor's property.
- 4. If Contractor files a petition to take advantage of any debtor's law, or to reorganize under any bankruptcy chapter or law.
- 5. If Contractor repeatedly fails to make prompt payments to subcontractors or others for labor, materials, or Equipment.
- 6. If Contractor disregards laws, ordinances, rules, regulations, or orders of public bodies having jurisdiction.
- 7. If Contractor disregards the authority of the City or City's Representative.
- 8. If Contractor substantially violates the provisions of the Contract Documents or fails, neglects, or refuses to proceed in compliance with the provisions of the Contract Documents.
- 9. If the Contractor made material misrepresentations to the City with respect to: (a) its qualifications or those of its subcontractors; (b) its or its subcontractors' ability to perform the Work in a timely, workmanlike manner; (c) the materials installed or to be installed; or (d) progress pay estimates.
- 10. If Contractor fails to supply sufficient skilled workers or suitable materials or equipment.

- 11. If Contractor refuses or fails to prosecute the Work with such diligence as will ensure its Physical Completion within the original Physical Completion time and any extensions of time which may have been granted to the Contractor by change order or otherwise.
- 12. If Contractor disregards laws, ordinances, rules, codes, regulations, orders or similar requirements of any public entity having jurisdiction.
- 13. If Contractor performs Work which deviates from the Contract.
- 14. If Contractor otherwise violates in any material way any provisions or requirements of the Contract.

After termination of the Contractor for default, the City may transfer performance of the Work to the Contractor's Surety or elect to prosecute to completion by contract or otherwise.

If the City chooses to provide such sufficiency of labor or materials as required to complete the Work, the City may exclude the Contractor from the site and take possession of the Work and all of the Contractor's tools, appliances, owned or rented construction equipment, and machinery at the site and use the same to the full extent they could be used by the Contractor. The City may incorporate in the Work all materials and Equipment stored at the site or for which the City has paid the Contractor, but which are not vet on site. In such case, the Contractor will not be entitled to receive any further payment until the Work is finished. At the City's sole option, Contractor shall assign and transfer any contractual rights to material and Equipment to be installed, incorporated, or used in the performance of the Work. City shall credit Contractor for the reasonable fair market rental value of any and all Contractor owned equipment for so long as retained and used by the City. City shall credit Contractor for all materials and supplies on site or on order, but not yet paid for by City, provided that ownership is transferred and assigned to the City and the materials and supplies conform to the requirements of the Contract Documents.

If the unpaid balance of the Contract Sum exceeds the direct and indirect cost of the completed Work, including construction management services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor shall pay the difference to the City. Such costs incurred by the City will be verified by the City's Representative and incorporated into a Change Order, but in finishing the Work, the City may negotiate for materials, Equipment and services to complete the Work and will not be required to obtain the lowest figure for Work performed.

Where the Contractor services have been so terminated by the City, the termination shall not affect rights of the City against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies due the Contractor by the City will not release the Contractor from liability.

In exercising the City's right to prosecute the Physical Completion of the Work, the City shall have the right to exercise its sole discretion as to the manner, method, and reasonableness of the costs of completing the Work. In the event that the City takes Bids for remedial Work or Physical Completion of the project, the Contractor shall not be eligible for the Award of such Contracts.

If the City terminates this agreement for default, and it is thereafter determined that the Contractor had not so failed to perform its obligations or defaulted in any way, the termination shall then be deemed to have been made for the convenience of

the City pursuant to 1-08.10(2) TERMINATION FOR PUBLIC CONVENIENCE. In that event, any adjustment of Contract Sum shall be in accordance with the Contract Documents.

The Contractor covenants and agrees that in the event suit is instituted by the City for any default on the part of the Contractor and the Contractor is adjudged by court of competent jurisdiction to be in default, the Contractor shall pay to the City all costs, expenses expended or incurred by the City in connection therewith.

#### 1-08.10(2) Termination for Public Convenience

Delete all of 1-08.10(2) and substitute the following:

Without prejudice to any other remedy it may have under law or the provisions of the Contract, or both, the City may terminate this Contract for convenience, with or without cause, in whole or in part, at any time by giving written Notice to the Contractor. Termination will be effective upon receipt of such Notice by the Contractor. The Contractor shall immediately discontinue work and take all reasonable steps with its suppliers and subcontractors to minimize cancellation charges and other costs.

In the event of termination for convenience, the Contractor shall be compensated as provided in 1-09.5 DELETED OR TERMINATED WORK. The Contractor will be entitled to no further payments whatsoever for the Work.

In the event of a breach or default by the Contractor, City may, at its sole option, terminate this Contract in whole or in part for convenience as provided herein. The City may pursue any and all contractual, legal and equitable remedies for such breach or default. Absent an express written agreement to the contrary, a termination for the City's convenience shall not be deemed a waiver or release of any rights by the City nor shall the City be estopped from any legal or equitable remedies that may be appropriate.

Supplement 1-08.10 by adding the following:

# 1-08.10(6) Termination by Contractor after Suspension (\*\*\*\*\*\*)

If the Work has been wholly suspended pursuant to 1-08.6 SUSPENSION OF WORK for more than 90 calendar days as measured from the date of the Notice to suspend, then the Contractor may terminate this Contract by providing City with 14 calendar days' Notice that the Contractor shall deem the Contract to be terminated if the City does not provide Contractor with notice to resume Work within those 14 calendar days. Such termination shall be treated as a termination for the City's convenience pursuant to 1-08.10(2) TERMINATION FOR PUBLIC CONVENIENCE.

# 1-08.10(7) Contractor Obligations upon Termination (\*\*\*\*\*\*)

On receipt of notice of termination, the Contractor shall immediately discontinue the Work but shall do such Extra Work as may be ordered by the City's Representative or City to safeguard the Work then completed and the materials and Equipment then delivered to the site of the Work and to leave the Work in a safe and useful condition. Payment for this Extra Work will be made in accordance with 1-09.4 EQUITABLE ADJUSTMENT.

# 1-08.10(8) Ownership of Materials upon Termination (\*\*\*\*\*\*)

As of the termination date, whether effected by the City or Contractor as provided herein, all the Contractor's right, title, and interest in and to materials ordered by the Contractor prior to termination, whether or not they have been delivered to the site of Work, shall

be vested in the City, and the Contractor shall, upon demand of the City, execute and deliver to the City all requisite bills of sale, assignments, and other documents of transfer that may be necessary to give effect to the intention of the termination procedures set forth above.

# 1-08.10(9) Opportunity to Cure (\*\*\*\*\*\*)

If the Contractor has not already had an opportunity to cure the default or breach the City shall specify the default or breach and may provide a reasonable period of time to allow the Contractor to cure the default or breach. The notice of termination will state the time period, if any, in which cure is permitted and other conditions as the City, in its sole judgment, shall deem appropriate. If (1) a time period is so provided and if Contractor fails to remedy the breach or default or any of the terms, covenants, or conditions of this Contract to the City's satisfaction within the time period specified or (2) no time period is provided, then the City shall have the right to terminate the Contract without any further obligation to the Contractor. Any such termination for default shall not in any way operate to preclude the City from also pursuing all available remedies against Contractor and its sureties for said breach or default.

# 1-08.10(10) Waiver of Remedies for Any Breach (\*\*\*\*\*\*)

In the event that the City elects to waive its remedies for any breach by Contractor or any covenant, term or condition of this Contract, such waiver by the City shall not limit the City's remedies for any succeeding breach of that or of any other term covenant, or condition of this Contract.

# 1-08.10(11) Possession and Use of Completed Portions of the Work (\*\*\*\*\*\*)

The City shall have the right to take possession of and use completed or partially completed portions of the Work even though the time for completing the Work for such portions may not have expired. Operations and maintenance costs of use of such work will be borne by the City. Such possession and use shall not be deemed as acceptance of the Work. If such prior possession or use increases the cost of the Work, the Contractor may be entitled to request extra compensation by giving Notice and following the procedures of 1-04.5 NOTICE BY THE CONTRACTOR and 1-09.11 DISPUTES AND CLAIMS within five calendar days of each occurrence. The Contractor shall not submit a Contract Claim for possession by the City of portions of the Work specifically required in the Contract Documents to be placed into use or operation or both before completion of the entirety of the Work.

# 1-08.10(12) Possession of Incomplete Portions of the Project (\*\*\*\*\*\*)

Should the Contractor fail to meet any date specified for Substantial Completion or Physical Completion of Work or any portion of Work requiring early possession and use by the City, the City may, after a 14 calendar day Notice to the Contractor, take over such portion or any Work that is behind schedule. In such case, the City's Representative will prepare a list of incomplete Work taken over by the City. The cost of City's work will be charged to and deducted from amounts due to the Contractor. The Substantial Completion date of the entire or a portion of the Project will be established as the date when the City actually begins using the Project or portion of the Project for its intended purpose. Division of responsibilities between City and Contractor, beginning of warranties, and any other issues relating to Substantial Completion shall be as specified in 1-08.5(2) SUBSTANTIAL COMPLETION.

Supplement Section 1-08 by adding the following:

# 1-08.11 Record Drawings

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#### 1-08.11(1) Description

This section specifies the requirements for preparing record drawings. The Contractor, with the cooperation and assistance of the City Inspector, is responsible for marking up record drawings during the course of construction. The Contractor shall keep the record drawings up to date at all times during the course of construction.

The Inspector will verify the record drawings are accurate and complete before accepting the Contractors monthly pay request. If the record drawings are not current or accurate, the pay request will not be processed.

As the Contract approaches Final Acceptance, prepare, with the assistance of the Inspector, a complete and accurate set of record drawings. The Inspector must approve the record drawings prior to Final Acceptance. Final Acceptance will not be issued until the City accepts the record drawings.

#### 1-08.11(2) Recording Changes

As a minimum, record the following items on the record drawings:

- a. Actual dimensions, arrangement and materials used when different than shown on the Plans.
- b. Changes made by Change Order or Field Order.
- c. Changes made by the Contractor.
- d. Horizontal and vertical locations of underground utilities and appurtenances, shall be referenced to monumentation. The monumentation shall be based on NAD 83-91 for Horizontal Datum and NAVD 88 for Vertical Datum.
- e. Any changes in centerline profile and curb & gutter (top of curb), offsets and elevations.
- f. Details, Equipment or materials used that were not shown on the original Plans.
- g. The actual arrangement and routing of conduit, embedded conduit, raceways and piping relative to its location and proportioned to other work. The location needs to be dimensioned on the record drawings.
- h. Contractor prepared piping schematics and diagram drawings representing the Equipment orientation.
- i. Final location of all surface and subsurface improvements.
- j. Record on the drawings the location of all field run materials.
- k. All shoring systems left in place at the end of construction.

Contractor shall accurately show existing underground items including, but not limited to, piping, manholes, pull boxes, conduit, direct buried wire, foundations, equipment and obstructions found during construction on the record drawings. Note on the record drawings the actual size of all utilities and structures and types of material used. Locate all record drawing items by survey coordinates or dimensioned off NAD 83-91 for Horizontal Datum and NAVD 88 for Vertical Datum. Minimum requirements for accuracy are specified in the following chart.

Description	Horizontal	Elevation	Notes
	Location		

Gravity sewer and drain lines	Coordinates, stations, and offsets 0.1 ft.	I.E. 0.01 ft.	Recalculate actual slopes. All inverts in manholes. All angle changes.
Forcemains, watermains and transmission lines	Coordinates and stations 0.1 ft.	I.E. 0.1 ft.	Record all angle points and finished ground elev. Above the invert elev.
All other items, incl. Electrical and Structural	0.1 ft.	0.1 ft.	Show dimensions on record drawings.

Use red pen or pencil to make changes on the record drawings. Notations are to be neat, legible, clear and concise.

Record information concurrently with the progress of construction. Conceal no work until the required information is verified and recorded.

# 1-09 MEASUREMENT AND PAYMENT

# 1-09.1 Measurement of Quantities

Supplement 1-09.1 by adding the following:

**Measurement by the Ton**: Where items are specified to be paid for by the ton it will be the Contractor's responsibility to see that a certified weight ticket is given to the City's Inspector on the Project at the time of delivery of materials for each truckload delivered. Pay quantities will be prepared on the basis of certified weight tickets delivered to the City's Inspector at time of delivery of materials. Tickets not received by the City's Inspector on day of delivery will not be honored for payment.

# 1-09.3 Scope of Payment

Supplement 1-09.3 by adding the following:

# 1-09.3(1) Schedule of Values

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The Contractor shall submit a Schedule of Values in accordance with 1-08.0(1) PRE-CONSTRUCTION CONFERENCE. If the Project contains Unit Price Work, in whole or in part, then the Schedule of Values for that portion of the Work shall also be based on unit prices. If the Proposal Form calls for a lump sum price, in whole or in part, then the Schedule of Values shall: reasonably allocate the Contract Sum among the various portions of the Work; be complete; be organized to include detailed breakdown of each major unit of the Work; be organized to correspond to Contractor's schedule; break down the Contract Sum showing the value assigned to each part of the Work; include an allowance for profit and Overhead; include Unit Price Work, if and to the extent indicated on the Proposal Form; be so organized as to facilitate assessment of Work and payment of Subcontractors; and be balanced. To the greatest extent possible, the breakdown shall use the same tasks or units as the Contractor's schedule. Contractor shall provide documentation substantiating the cost allocation if asked by the City's Representative. Upon acceptance of the Schedule of Values by the City's Representative, it shall be used as a basis for all requests for payment.

# 1-09.4 Equitable Adjustment

Supplement 1-09.4 by adding the following:

Other means to establish the reasonable cost of the Work not defined by unit prices include, and is not limited to, 1-09.6 FORCE ACCOUNT, the Schedule of Values, or estimating manuals.

# 1-09.4(1) General

(\*\*\*\*\*)

The following shall apply in determining the amount of an equitable adjustment of Contract Sum:

- Except as otherwise expressly provided, Contractor will only be paid for costs it clearly and convincingly proves it actually and directly incurred, and shall not include consequential or indirect damages not otherwise expressly permitted by the Contract Documents. Costs and damages for which the City shall not be liable under any circumstances include, but are not limited to: (a) borrowing or interest costs, charges, or expenses of Contractor; (b) alleged lost profit or overhead on any other project; and (c) Contractor's failure or inability to obtain other work.
- 2. No Contract Claim for adjustment of Contract Sum or additional compensation for extra, affected, impacted or inefficient work will be allowed where the Contractor does not keep and maintain contemporaneous, complete and accurate time records for labor and equipment and contemporaneous, complete and accurate records for materials and where such records do not contemporaneously segregate and allocate by time, location and Work the time and costs for each item or element of such Work. Contractor's failure to keep and maintain such records constitutes a waiver of any Contract Claim or request by the Contractor for adjustment of Contract Sum for such costs or event.
- 3. To the extent the Contractor is entitled to an adjustment of Contract Sum due to any Delay or extension of Contract Time, Contractor shall be compensated as provided in 1-09.11A REMEDIES. Such compensation shall be full, adequate and complete compensation for all direct, indirect, cumulative, inefficiency, impact and ripple costs causing, arising out of, or relating to such Delays or extension.
- 4. Contractor and City agree that compensation to the Contractor for a Contract Claim shall not exceed the Contractor's costs based upon Force Account as described in 1-09.6 FORCE ACCOUNT. Contractor waives, releases, and agrees not to submit any request for adjustment of Contract Sum or Contract Claim based upon a "total cost" or "modified total cost" calculation, in whole or in part, but instead agrees that any and all requests for compensation shall be based upon accurate, complete and contemporaneous cost records that segregate and allocate costs (a) between base Contract work and the Work for which additional compensation is sought and (b) between each item of Work for which additional compensation is sought. Claims for inefficiency shall only be based and calculated by a comparison of productivity of similar Work performed in an unaffected or least affected area of the Project.
- 5. No claim for consequential damages of any kind will be allowed.

# 1-09.4(2) Unabsorbed and Extended Overhead (\*\*\*\*\*\*)

Any Extended or Unabsorbed Overhead to which the Contractor may be entitled shall be calculated using the Eichleay formula by:

 Determining the pro-rata amount of Overhead allocable to the subject project. This is accomplished by multiplying Overhead costs by the ratio of the subject project's billings to the Contractor's overall billings during the overall period of the subject Project's performance. The result is "Allocable Overhead." Any additional and unresolved direct cost claims presented by the Contractor

concurrently with any request for Extended and/or Unabsorbed Overhead shall not be included in determining the ratio of the subject Project billings to overall Contractor billings for the period of project performance.

- 2. Determining the daily amount of Allocable Overhead for the subject Project. This is accomplished by dividing the Allocable Overhead for the subject Project by the number of days, (as contractually defined) of Contract performance. The result is the Daily Rate of Allocable Overhead.
- 3. Determining the gross amount of potential additional compensation for Home Office Overhead due to the project extension. This is accomplished by multiplying the Daily Rate of Allocable Overhead by the number of days of project extension caused solely by the City. This results in the Gross Amount of Additional Home Office Overhead Compensation.
- 4. Adjusting the Gross Amount of Additional Home Office Overhead Compensation for any additional contribution for Overhead received by the Contractor on any Change Orders that are being presented and resolved concurrently with the subject calculation for Unabsorbed and/or Extended Home Office Overhead. The necessary adjustment would be to reduce the Gross Amount of Additional Home Office Overhead Compensation by any additional compensation for Overhead included in any direct cost claims being resolved concurrently with any claim for Extended and/or Unabsorbed Home Office Overhead.

Contractor shall not receive compensation for cost of use of equity capital.

Supplement 1-09.4 by adding the following:

#### 1-09.4(3) COVID-19 Equitable Adjustments

Contractor's Bid includes all costs necessary for the duration of the Work for compliance with COVID-19 Requirements. Contractor's Bid takes into account that COVID-19 Requirements may create direct and indirect costs, including inefficiency and Delay.

Contractor shall have no entitlement to an equitable adjustment or other increase to the Contract Sum for any direct or indirect costs (including without limitation Delay, cumulative impact, inefficiency or ripple costs) incurred by the Contractor to comply with the COVID-19 Requirements.

# 1-09.5 Deleted or Terminated Work

Delete the first paragraph, beginning with "The Engineer may delete", and the second paragraph, beginning with "Payment for completed items", and substitute the following:

The City's Representative may delete Work as provided in 1-04.4 CHANGES or may terminate the Contract in whole or part as provided in 1-08.10(2) TERMINATION FOR PUBLIC CONVENIENCE. When the Contract is partially terminated for the City's convenience, the partial termination shall be treated as a deductive Change Order for payment purposes under this section.

Payment for completed items will be at contract unit prices or pursuant to the Schedule of Values.

Delete the fourth paragraph, beginning with "Contract time shall be", and the fifth paragraph, beginning with "Acceptable materials ordered by", and substitute the following:

Acceptable materials ordered by the Contractor prior to the date the Work was terminated or deleted will either be purchased from the Contractor by the City at the actual cost and shall become the property of the City, or the City will reimburse the Contractor for the actual costs of returning these materials to the suppliers.

If Contractor disagrees with the adjustment of Contract Sum determined by the City's Representative, Contractor may submit a Contract Claim for the difference between the amount determined by the City's Representative and the amount sought by the Contractor.

Contractor shall not be entitled to any anticipated profits on deleted, terminated, or uncompleted Work.

#### *1-09.6 Force Account*

Supplement 1-09.6 by adding the following:

The City has estimated and included in the Proposal dollar amounts for all items to be paid per Force Account. This is done only to provide a common Bid for Bidders. All such dollar amounts are to become a part of Contractor's total bid. However, the City 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 Engineer.

#### 1-09.7 Mobilization

Supplement 1-09.7 by adding the following:

- Construction Identification Signs: Upon commencement of Work, the Contractor shall furnish and erect two Project/Construction Identification Signs in accordance with COE Standard Drawing No. 714, one at each end of each work area at Engineer approved locations.
  - a. Contractor shall provide sign painting, lettering and detailing by a professional sign maker with Engineer approval prior to placement on job site.
  - b. Contractor shall provide a Project Information Sign for each of the two Project/Construction Identification Signs. Attach Project Information Sign to the surface of the sign face in accordance with COE Standard Plan No. 714. The Construction Identification Sign shall contain the following three lines of information that the Engineer will provide:

PROJECT NAME: PROJECT FUNDING: PROJECT COST:

- c. The Project Information Sign shall display Ecology's logo with reference that the project received financial assistance from the Washington State Stormwater Grant Program.
- d. Contractor shall maintain signs and sign frames in a clearly legible condition throughout the progress of the Work and shall completely remove signs upon project completion. Deliver signs to the City's storage area for future City use.
- e. No separate payment for Project/Construction Identification Signs will be made. All costs associated with this item shall be merged with the unit contract price for "Mobilization."

# 1-09.9 Payments

Delete 1-09.9 and substitute the following:

# 1-09.9 Payments to Contractors

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# 1-09.9(1) Progress Payments

Contractor shall submit progress payment estimate for completed Work and material on hand based upon acceptable Work performed during the previous month, or since the

last partial payment estimate was submitted. Submit progress payment estimate to City's Representative by the tenth day of each month, or by schedule mutually agreed upon in writing by the Contractor and City's Representative at the Pre-Construction Conference. Contractor shall make initial progress estimate not later than 30 days after the Work begins. Make successive progress estimates 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 Proposal Form the approximate quantity of acceptable units of work completed multiplied by the unit price.
- 2. Lump Sum Items in the Proposal Form the estimated percentage complete multiplied by the Proposal Forms amount for each Lump Sum Item, or per the schedule of values for that item.
- 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 in accordance with 1-09.9(6) RETAINAGE,
- 2. The amount of Progress Payments previously made, and
- 3. Funds withheld by the City 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 City that any Work has been satisfactorily completed.

Payments will be made by warrants, issued by the City's fiscal officer, against the appropriate fund source for the Project. Payments received on account of Work performed by a Subcontractor are subject to the provisions of RCW 39.04.250.

Contractor's submission of a progress pay estimate constitutes the Contractor's material representation that Contractor performed all of the Work described in the progress pay estimate during the relevant time period in a conformance with these Plans and Specifications and that the materials or Equipment for which payment is requested reasonably conform to the Specifications and are either on the job site or have been installed. If requested by the City's Representative, provide additional data as may be reasonably required to support the payment estimate. Additional data may include, but not be limited to, satisfactory evidence of payment for Equipment, materials and labor, including payments to Subcontractors and suppliers. Certified invoices by the suppliers shall accompany a request for payment for delivered Equipment and material. Such Equipment and material shall be suitably and safely stored at the site of the Work. Payment requests shall summarize accepted operating and maintenance material with request for Equipment.

A progress payment is preliminary only. By making a progress payment, the City does not waive or release its right, nor is it estopped from asserting, that previous progress payments were not earned or were in error, whether in whole or in part.

#### 1.09.9(2) Review Procedures

The City's Representative will review the estimate and either indicate in writing to the City his or her concurrence with the estimate and his or her recommendation that payment be made, or indicate in writing to the Contractor his or her reasons for not concurring with the estimate. If the City's Representative recommends payment and the City concurs, the City will pay the Contractor a progress payment on the basis of the approved partial payment estimate, less retainage and any amounts the City may withhold pursuant to Contract or law. The recommendation of the City's Representative is not conclusive, final or binding upon the City.

In the event the City's Representative does not concur with the estimate, the Contractor may make the changes necessary to obtain the City's Representative's concurrence and resubmit the partial payment estimate, or submit the original progress payment estimate directly to the City, indicating in writing its reasons for refusing to make the changes necessary to obtain concurrence.

#### 1-09.9(3) Withholding Payment

The City's Representative may refuse to recommend the whole or any part of any payment if in the City's Representative's opinion it would be incorrect to make such recommendation to the City. The City's Representative may also refuse to recommend any such payment, or because of subsequently discovered evidence or the result of tests, may nullify any such payment previously recommended to such extent as may be necessary in the City's Representative's opinion to protect the City from loss as a result of:

- 1. Defective or damaged Work.
- 2. A deductive Change Order.
- 3. Persistent failure of the Contractor to perform the Work in accordance with the Contract Documents, including failure to maintain the progress of the Work in accordance with the construction schedule. Persistent failure to maintain the progress of the Work shall mean that for a period of two consecutive months following a written notice from the City's Representative or City, the Contractor fails to correct a behind-schedule condition at a rate that would reasonably indicate that it will finish the Project on schedule.
- 4. Disregard of authority of the City or City's Representative or the laws of any public body having jurisdiction.
- 5. Liquidated damages.
- 6. Misrepresentation of the quality of materials or Equipment installed or amount of Work performed.
- 7. Discovery that a previous pay estimate erred with respect to the amount of Work performed or Equipment or materials installed, irrespective of the City's Representative's recommendation at the time of the progress pay estimate.

The City may refuse to make payment of the full amount recommended by the City's Representative because of Contract Claims made against the City on account of Contractor's performance or furnishing the Work or because of liens filed in connection with the Work or other set offs entitling City to reduce the amount recommended. In such case, the City shall give Contractor prompt written notice with copy to the City's Representative stating the reasons for each action.

#### 1-09.9(4) Final Payment Procedure

Upon receipt of Contractor's written Notice that the Work is ready for final inspection and acceptance and upon receipt of a Final Contract Voucher Certification, the City's

Representative will inspect the Work. If the City's Representative finds the Work acceptable under the Contract Documents and the Contract fully performed and if the Contractor has signed a Final Contract Voucher Certification, the City's Representative will issue a final Certificate for Payment. The Certificate for Payment will state that to the best of the City's Representative's knowledge, information and belief, the Work appears to have been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable.

Final payment shall not become due until the Contractor submits to the City's Representative the following;

- 1. an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the City or the City's property might be responsible or encumbered, less amounts withheld by City, have been paid or otherwise satisfied,
- 2. a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 calendar days' prior written Notice has been given to the City,
- 3. a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents,
- 4. consent of Surety, if any, to final payment,
- 5. request to Sublet Work Agreements for all Subcontractors,
- 6. certified payrolls from the Contractor and all Subcontractors,
- 7. "Statement of Intent to Pay Prevailing Wages and Affidavit of Wages Paid" from Contractor and each Subcontractor filed with the City and the Department of Labor and Industries,
- 8. Certification of Use or Deferred Sales Tax Paid or both, and
- 9. if required by the City, other data establishing payment or satisfaction of obligations, including, but not limited to, receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the City. If a Subcontractor refuses to furnish a release or waiver required by the City, the Contractor may furnish a bond satisfactory to the City to indemnify the City against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the City all money that the City may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

Prior estimates and payments, including those relating to Extra Work or Work omitted, will be subject to correction by the final payment.

If, after Physical Completion of the Work, Final Acceptance thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting Final Acceptance, and the City's Representative so confirms, the City may, upon application by the Contractor and certification by the City's Representative, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of Surety to payment of the balance due for that portion of the Work fully completed and accepted and accepted.

accepted shall be submitted by the Contractor to the City's Representative prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

Acceptance of final payment by the Contractor, a Subcontractor or material or Equipment supplier shall constitute a waiver of Contract Claims by that payee, except those Contract Claims previously timely and completely submitted that remain pending at the time of final payment, provided that Contractor specifically so notifies the City in writing prior to the City making such final payment. Payment by the City shall not release the Contractor or its Surety from any obligation under the Contract or under the payment and performance bond.

Upon completion of all Work and after final inspection, the amount due the Contractor under the Contract will be paid based upon the final estimate made by the Engineer and presentation of a Final Contract Voucher Certification signed by the Contractor. Such voucher shall be deemed a release of all claims of the Contractor unless a claim is filed in accordance with the requirements of 1-09.11 DISPUTES AND CLAIMS and is expressly excepted from the Contractor's Certification on the Final Contract Voucher Certification.

If the Contractor fails, refuses, or is unable to sign and return the Final Contract Voucher Certification or any other documentation required for completion and final acceptance of the Contract, the City reserves the right to establish a Completion Date (for the purpose of meeting the requirements of RCW 60.28) and unilaterally accept the Contract. Unilateral final acceptance will occur only after the Contractor has been provided the opportunity, by written request from the City, to voluntarily submit such documents. If voluntary compliance is not achieved, formal notification of the impending establishment of a Completion Date and unilateral final acceptance will be provided by certified mail or by email with delivery confirmation from the City to the Contractor, which will provide 30 calendar days for the Contractor to submit the necessary documents. The 30 calendar day period will begin on the date the certified mail or email with delivery confirmation is received by the Contractor. If Contractor compliance is not achieved by the end of such 30day period, the City will unilaterally sign the Final Contract Voucher Certification. The date the City Council accepts the Work shall constitute the Completion Date and the final acceptance date. The reservation by the City to unilaterally accept the Contract will apply to Contracts that are Physically Completed in accordance with Section 1-08.5. or for Contracts that are terminated in accordance with Section 1-08.10. Unilateral final acceptance of the Contract by the City does not in any way relieve the Contractor of its responsibility to comply with all Federal, State, tribal, or local laws, ordinances, and regulations that affect the Work under the Contract.

# 1-09.9(5) Back Charges to Contractor

The Contractor shall pay the City on demand everything charged to it under the terms of this Contract. Such charges may be deducted by the City from money due or to become due to the Contractor under the Contract. The City may recover such charges from the Contractor or from its Surety.

Contractor agrees to pay the costs of overtime or excessive inspection and observation costs incurred by the City. Overtime inspection shall include inspection required during Saturdays, Sundays, City holidays and weekdays in excess of 40 hours per week or outside of normal working hours and inspections or observations that result in an inspector or observer working more than 40 hours in a week. Costs of such overtime or

excessive inspection or observation include architecture, engineering, construction management services, inspection, general supervision and overhead expenses that are directly chargeable to the overtime or excessive work. Contractor agrees that City will deduct such charges from payments due the Contractor. In the event the City issues a Change Order requiring the Contractor to work in excess of the established schedule of working hours, the City will not charge the Contractor for associated inspection costs.

The Contractor shall be compensate the City for the actual costs of engineering, inspection, general supervision, right-of-way costs, permit fees, overhead expenses, and any other ascertainable direct costs to the City that are directly chargeable to the Work and that accrue during the period of such extension. The actual costs do not include charges for final inspection and preparation of the final payment by the City.

#### 1-09.9(6) Retainage

Pursuant to RCW Chap. 60.28, a sum of five percent of the monies earned by the Contractor will be retained from progress estimates. In addition to protecting the interests of those identified in RCW Chap. 60.28, such retainage will be used as a trust fund for the protection of the City.

At the option of the Contractor, monies retained under the provisions of RCW 60.28 will be:

- 1. Retained in a fund by the City, or
- 2. Deposited by the City in an interest-bearing escrow account in a bank, mutual saving bank, or savings and loan association. Interest on monies so retained shall be paid to the Contractor in accordance with requirements of this section. Deposits are to be in the name of the City and may not be withdrawn without the City's written authorization. The City will issue a check representing the sum of the monies reserved, payable to the bank or trust company. Such check shall be converted into bonds and securities chosen by the Contractor as the interest accrues

The Contractor shall designate the option desired at the time the Contract is executed. If the Contractor in chooses option 2, deposit in escrow account, Contractor agrees to assume full responsibility to pay all costs that may accrue from escrow services, brokerage charges or both, and further agrees to assume all risks in connection with the investment of the retained percentages in securities. The City may also, at its option, accept a bond in lieu of retainage.

Retainage will be released when all of the following conditions are satisfied:

- 1. Sixty days have elapsed following the completion of all Work specified in the Contract; and
- 2. The Contractor fulfilled all of all obligations of the Contractor under the Contract, including, but not limited to, the Contractor's furnishing all documentation required by Contract and law; and
- 3. A release has been obtained from the Washington State Department of Revenue; and
- 4. Affidavits of Wages Paid for the Contractor and all Subcontractors are on file with the City (RCW 39.12.040); and
- A release has been obtained from the Washington State Department of Labor & Industries and the Washington State Employment Security Department; and
- 6. All claims, as provided by law, filed against the retainage have been resolved. In the event claims are filed and provided the conditions one through five are

met, the Contractor will be paid the retained percentage less an amount sufficient to pay any such claims together with a sum determined by the City sufficient to pay the cost of claims and attorney's fees.

7. All other conditions required by law are satisfied.

# 1-09.11 Disputes and Claims

Delete all of 1-09.11 and substitute the following:

#### 1-09.11(1) Disputes

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When a Dispute occurs during the Contract, the Contractor shall pursue resolution through the City's Representative. The Contractor shall follow the procedure outlined in section 1-09.11(2) CONTRACT CLAIMS herein and 1-08.3 PROGRESS SCHEDULE and 1-08.8 EXTENSIONS OF TIME for issues regarding the schedule and Contract Time. Timely and adequate Notice is a condition precedent to a Contract Claim. Timely and complete submission of a Contract Claim is a condition precedent to any entitlement by the Contractor to an adjustment of Contract Sum or Contract Time. Unless waived in writing by the City, mediation is a condition precedent to the filing of any lawsuit, action or proceeding that seeks to recover on a Contract Claim, whether in whole or in part. The costs of any such mediation will be borne equally by the parties. Unless otherwise agreed by the parties, the mediation shall take place in Everett, Washington.

# 1-09.11(2) Contract Claims

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#### 1-09.11(2)A General

If the Contractor requests or believes for any reason that it is entitled to adjustment of Contract Sum or Contract Time, or if the Contractor has a Dispute with the City and wants the City to take some action, or refrain from taking action, the Contractor shall file a Contract Claim as provided in this section. A timely and complete Contract Claim is a condition precedent to any entitlement by the Contractor to an adjustment of Contract Sum or Contract Time. No Contract Claim shall be allowed unless the Contractor has given Notice as required under the Contract Documents. The Contractor waives any Contract Claim if: (a) Notice was not timely given; (b) the City's Representative is not afforded reasonable access by the Contractor to complete records, including, but not limited to, correspondence, job diaries, and actual cost and additional time incurred: (c) a Contract Claim is not timely filed as required by the Contract Documents; or (d) adequate, accurate, contemporaneous and segregated supporting time and expense records are not kept and maintained. The fact that the Contractor provided proper and timely Notice, provided a properly filed Contract Claim, or provided the City's Representative access to records of actual cost, shall not in any way be construed as proving or substantiating the validity of the Contract Claim. If the City determines the Contract Claim has merit in whole or in part, the City's Representative will make an adjustment of Contract Sum or Contract Time required for the Work, or both. If the City's Representative finds the Contract Claim to be without merit, no adjustment will be made.

The Contractor shall keep full, complete, accurate and contemporaneous records of the costs and additional time incurred for any Contract Claim. The Contractor shall permit the City's Representative to have access to those records and any other records as may be required by the City's Representative to determine the facts or contentions involved in the Contract Claim. City is not obligated to respond to a Contract Claim unless the Contractor is in full compliance with all the provisions of the Contract Documents and the formal Contract Claim document has been submitted

Full compliance by the Contractor with the provisions of this section is a contractual condition precedent to the Contractor's right to sue or seek any recovery against the City in any legal proceeding.

# 1-09.11(2)B Contents

All Contract Claims filed by the Contractor shall be in writing, verified under penalty of perjury by an officer or principal of the Contractor, and in sufficient detail to enable the City's Representative to ascertain the basis and amount of the Contract Claim. All Contract Claims shall be submitted to the City's Representative. At a minimum, each Contract Claim shall include:

- 1. A detailed factual statement of the Contract Claim for an adjustment to the Contract Sum or Contract Time, if any, providing all necessary dates, locations, and items of Work affected by the Contract Claim.
- 2. The dates of all facts related to the Contract Claim.
- 3. The name of each City's individual, official, or employee involved in or knowledgeable about the Contract Claim.
- 4. The specific provisions of the Contract that support the Contract Claim and a statement of the reasons why such provisions support the Contract Claim.
- 5. If the Contract Claim relates to a decision of the City's Representative that the Contract leaves to the City's Representative's discretion or as to which the Contract provides that the City Representative's decision is final, the Contractor shall set out in detail all facts supporting its position relating to the decision of the City's Representative.
- 6. Identification of any documents and the substance of any oral communications that support the Contract Claim.
- 7. Copies of any identified documents that support the Contract Claim, other than City documents and documents previously furnished to the City by the Contractor. Standard industry manuals may be incorporated by reference.
- 8. If Contractor seeks an extension of Contract Time:
  - a. The specific amount of time, including days and dates, sought.
  - b. The specific reasons the Contractor believes an extension of Contract Time should be granted, including, but not limited to, compliance with the requirements of 1-08.3 PROGRESS SCHEDULE and 1-08.8 EXTENSIONS OF TIME; and
  - c. The specific provisions of the Contract Documents under which it is sought.
- 9. If Contractor seeks an increase in the Contract Sum, the exact amount sought and a breakdown of that amount into the following categories:
  - a. Labor
  - b. Materials
  - c. Direct Equipment. The actual cost for each piece of equipment for which a Contract Claim is made or in the absence of actual cost, the rates established by the AGC/WSDOT Equipment Rental Agreement that was in effect when the Work was performed. In no case shall the amounts sought or paid for

each piece of equipment exceed the rates established by the Equipment Rental Agreement even if the actual cost for such equipment is higher. The City may audit the Contractor's cost records to determine actual equipment cost. The following information shall be provided for each piece of equipment:

- i. Detailed description (e.g., Motor Grader Diesel Powered Caterpillar 12 "G", Tractor Crawler ROPS & Dozer Included Diesel, etc.)
- ii. The hours of use or standby; and
- iii. The specific day and dates of use or standby;
- iv. Job overhead.
- v. Overhead (general and administrative).
- vi. Subcontractor's Contract Claims (in the same level of detail as specified herein is required for any subcontractor's Contract Claims); and
- vii. Other categories as specified by the Contractor or the City.

(title)

10. A notarized statement shall be submitted to the City's Representative containing the following language:

Under the penalty of law for perjury or falsification, the undersigned,

(name)	
--------	--

of

# (company)

hereby certifies that the Contract Claim for an adjustment of the Contract Sum and/or Contract Time, if any, made herein for Work on this Contract is a true and complete statement of the factual basis of the Contract Claim and all actual costs incurred and time sought, and is fully documented and supported under the Contract between the parties.

Date \_\_\_\_\_/s/ \_\_\_\_\_

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_

Notary Public

My Commission Expires:

# 1-09.11(2)C False Or Omitted Information

The Contractor waives each Contract Claim for which it presents material information that it knows, or in the exercise of reasonable care should know, is false, or omits or fails to disclose material information relating to such Contract Claim. In such case, Contractor shall reimburse the City for any and all fees and expenses incurred in investigating any such Contract Claim.

# 1-09.11(3) Time Limitation and Jurisdiction (\*\*\*\*\*\*)

The parties intend that all claims and Disputes be dealt with promptly and expeditiously when they arise. The parties intend that all claims and Disputes be resolved quickly and expeditiously and desire to avoid claims and Disputes that relate back to events or Work

occurring months before. The parties desire to avoid litigation and the costs and expense of claims and Disputes at the end of the Project.

Any Contract Claim for adjustment of Contract Sum or Contract Time, or any Dispute or Contract Claim of any kind whatsoever, shall be submitted, if at all, to the City or City's Representative no later than 30 calendar days after Notice was first required to be given by the Contractor as provided in 1-04.5 NOTICE BY THE CONTRACTOR. Failure to submit a Contract Claim within the 30 calendar days of the date Notice was required pursuant to 1-04.5 NOTICE BY THE CONTRACTOR constitutes a complete waiver of and bar to the Contract Claim, and Contractor is estopped from later asserting a Contract Claim or seeking any relief or remedy relating to the Dispute for which it failed to submit a Claim.

Contractor may not sue, cross-claim, claim, or bring any action of any kind whatsoever against the City on any Contract Claim or Dispute after the expiration of 180 calendar days from Physical Completion.

# 1-09.11(4) COVID-19 Contract Claims: Baseline COVID-19 Requirements (\*\*\*\*\*\*)

Contractor shall in no event be entitled to assert a Contract Claim for increase to the Contract Sum for any direct or indirect costs (including without limitation Delay, cumulative impact, inefficiency or ripple costs) incurred by the Contractor to comply with the COVID-19 Requirements.

The Contractor shall be entitled to an extension of Contract Time for Delays to the extent caused by COVID-19 Requirements. Extension of Contract Time shall be determined pursuant to 1-08.8 EXTENSIONS OF TIME. This Contract Time extension is the Contractor's sole remedy if the Contract Time in the Contract Documents is insufficient to complete the Work because of Baseline COVID-19 Requirements.

All other Contract Claims regarding COVID-19 are governed by Section 1-09.11A(3)D1 CAUSED SOLELY BY THIRD PARTIES OR FORCE MAJEURE, including 4 without limitation Contract Claims relating to unavailable or delayed labor, materials, equipment or subcontractors to the extent caused by COVID-19.

Supplement Section 1-09 by adding the following:

# 1-09.11A Remedies

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# 1-09.11A(1) General

If a Contract Claim has merit in whole or in part, then Contractor's sole remedies shall be those provided in this subsection. Contractor shall timely and strictly comply with the requirements of 1-04.5 NOTICE BY THE CONTRACTOR and 1-09.11(2) CONTRACT CLAIMS and all other Contract Documents relating to the Contract Claim. Adjustments to Contract Time shall be determined pursuant to 1-08.3 PROGRESS SCHEDULE and 1-08.8 EXTENSIONS OF TIME. Failure to comply strictly and timely shall be deemed a waiver of the Contract Claim.

# 1-09.11A(2) Extra Work

# 1-09.11A(2)A Adjustment of Contract Sum

If the Contractor is entitled to an adjustment of Contract Sum because of Extra Work, the adjustment shall be calculated and paid as provided in 1-09.4 EQUITABLE ADJUSTMENT. This amount includes jobsite and home office Overheads for such Work, including any schedule delays relating to such Work. Therefore, no compensation in addition to that provided in 1-09.6 FORCE

ACCOUNT shall be paid for such things as Extended Overhead or other costs or damages.

#### 1-09.11A(2)B Extension of Contract Time

Extensions of Contract Time caused by Extra Work shall be determined as provided in 1-08.3 PROGRESS SCHEDULE and 1-08.8 EXTENSIONS OF TIME.

#### 1-09.11A(3) Delays

#### 1-09.11A(3)A City Caused Delay Unrelated to Extra Work

# 1-09.11A(3)A1 Adjustment of Contract Sum

If the Contractor is entitled to an adjustment of Contract Sum because of a Delay solely caused by the City that does not relate to Extra Work, Contractor shall only be compensated for the items below, less all funds paid pursuant to any change in the Contract Sum that contributed to the Delay:

- 1. Documented, incurred cost of nonproductive field supervision or labor extended because of the Delay;
- 2. Documented, incurred cost of home office supervision to attend jobsite meetings;
- 3. Documented, incurred cost of temporary facilities or equipment rental extended because of the Delay;
- 4. Documented, incurred cost of insurance extended because of the Delay;
- 5. General and administrative overhead in an amount to be agreed upon, but not to exceed three percent of original Contract Sum divided by the Contract Time for each day of the Delay.

City shall not owe Contractor compensation for Extended Overhead or other delay costs to the extent Contractor or anyone other than the City contributed to or is concurrently responsible for the Delay.

#### 1-09.11A(3)A2 Adjustment of Contract Time

If the Contractor is entitled to an adjustment of Contract Time because of a Delay solely caused by the City that does not relate to Extra Work, Contractor shall be entitled to an adjustment of Contract Time to the extent the Delay increases the duration of the Project, as measured by the critical path and as demonstrated pursuant to the requirements of 1-08.8 EXTENSIONS OF TIME.

#### 1-09.11A(3)B Contractor Caused Delay

If the Contractor is solely responsible for any Delay to any interim milestone, Substantial Completion, Physical Completion, or the Completion Date, the City shall be entitled to liquidated or other damages as provided elsewhere in the Contract Documents. The Contractor accepts the risk of any Delays caused by strikes, work slowdowns, job actions and labor unrest of any kind. Contractor shall not be entitled to any increase in Contract Sum or Contract Time due to a Delay it caused.

# 1-09.11A(3)C Delays Concurrently Caused by Contractor and City

If the City and the Contractor cause a Delay concurrently, neither the City nor the Contractor shall be liable to the other except as provided herein.

#### 1-09.11A(3)C1 Adjustment of Contract Sum

The Contractor shall not be entitled to any adjustment in Contract Sum for Delays concurrently caused by the City and the Contractor.

# 1-09.11A(3)C2 Adjustment of Contract Time

The Contractor shall be entitled to an extension of Contract Time for the City caused portion of any Delay concurrently caused by the City and Contractor to the extent the City caused the Delay to extend longer than if the Contractor had solely caused the Delay.

#### 1-09.11A(3)D Third Party Caused Delays and Force Majeure

For the purposes of this section 1-09.11A(3)D, a "Force Majeure Event" is defined as earthquake, flood, pandemic (and governmental laws, regulations, requirements, and orders resulting therefrom), natural disasters, acts of war or acts of terrorism. Pandemic in the preceding sentence includes without limitation the COVID-19 pandemic.

For the purposes of this section 1-09.11A(3)D, a "Third Party" is defined as a third party for whom neither the Contractor nor the City is responsible.

# 1-09.11A(3)D1 Adjustment of Contract Sum

The City and the Contractor shall not be responsible to compensate each other financially for any Delay to the extent caused by a Third Party or a Force Majeure Event. A Delay caused by a utility's failure to provide service or relocate its lines (despite a timely request for such service or relocation) is an example of this kind of Delay for which neither the Contractor nor the City is financially responsible to the other. Mislocated utility lines or utility lines not located are another example of a Delay for which neither the Contractor nor the City is responsible to the other. However, the Contractor's failure to request a utility locate or relocation in a timely way is not, and any resulting Delay would be the responsibility of the Contractor. Because the Contractor is responsible for ordering materials and Equipment, Contractor shall not be entitled to an adjustment of Contract Time or Contract Sum due to Delays caused by the lack of materials or Equipment. A strike, job action, slowdown, work to rule, or other job action or labor dispute or problem is not a Delay caused by a Third Party.

# 1-09.11A(3)D1 Adjustment of Contract Time

The Contractor shall be entitled to an extension of Contract Time for Delays to the extent caused by a Third Party or a Force Majeure Event. Extension of Contract Time shall be determined pursuant to 1-08.8 EXTENSIONS OF TIME.

# 1-09.11A(4) Extended or Unabsorbed Overhead

# 1-09.11A(4)A General

To present a request for additional compensation for Extended or Unabsorbed Overhead, the Contractor has the burden of keeping and maintaining accurate documentation to support any such claim. If the Contractor fails to provide or keep adequate financial data for an accurate and fair Eichleay calculation, Contractor waives and releases any claim for Unabsorbed or Extended Overhead. In presenting any claim under this section of the Contract, the Contractor agrees to provide to the City any and all financial data needed by the City, or its representative, to review, substantiate and evaluate any claim for Extended or Unabsorbed Home Office Overhead, or both. Failure to provide the requested information shall constitute waiver by the Contractor.

If Contractor is entitled to an adjustment of Contract Sum for Unabsorbed or Extended Overhead, it shall be calculated as provided in these Special Provisions.

# 1-09.11A(4)A1 Elements

Contractor shall only be entitled to an adjustment of Contract Sum for Unabsorbed or Extended Overhead if it clearly and convincingly demonstrates all of the following:

- 1. The City solely caused a Delay to the Completion Date as measured by analysis of the project duration by the critical path method pursuant to 1-08.3 PROGRESS SCHEDULE;
- 2. Because of the Delay described in subsection (1), the Contractor was forced to suspend or significantly interrupt its performance so that it was on standby or idled, and the City required the Contractor to be ready to resume performance on short notice. Extended time of performance of Work, such as extensions caused by changes, inefficiencies, or extra Work, does not constitute suspension or significant interruption of performance.
- 3. The Contractor could not and did not use resources, including, but not limited to, labor, equipment, materials and tools, standing by or idled on this or other project for any work during the period of Delay;
- 4. The Contractor's Overhead costs did not materially vary from its usual seasonal Overhead costs during the period of Delay; and
- 5. The Delay did not cause over absorbed Overhead in the period the delayed Work was completed.

# 1-09.11A(4)A1a Resources

To demonstrate the Contractor could not and did not use resources, including, but not limited to, labor, equipment, materials and tools from this Project for any other work on this or any other project during the period of Delay in accordance with item 3 of 1-09.11A(4)A1 of these Special Provisions, the Contractor shall:

- 1. Affirmatively represent and warrant that it did not perform substitute work;
- 2. Identify the specific resources that were idled; and
- 3. Show that those resources did not, and could not, work on other contracts or projects during the Delay.

# 1-09.11A(4)A1b No Material Variations

To demonstrate the Contractor's Overhead costs did not materially vary from its usual seasonal Overhead costs during the period of Delay in accordance with item 4 of 1-09.11A(4)A1 of these Special Provisions, the Contractor shall;

- 1. Affirmatively represent and warrant that the completion of the subject Work was extended and that such extension prevented the performance of other work during both the period of Delay and the later period of time required to complete the extended Work,
- Disclose the details of Contractor generated billings and Contractor Overhead Costs, as defined in these Special Provisions, throughout the actual Project performance. The details of such information should be no less than specific identification of the sources and amounts of revenue on no greater than a monthly basis and specific identification of the

types and amounts of Contractor Overhead Costs on no greater than a monthly basis for the actual Project duration.

#### 1-09.11A(4)A1c Overabsorbed Overhead

To demonstrate that Contractor did not incur Overabsorbed Overhead in the period following the Delay, in accordance with item 5 of 1-09.11A(4)A1. of these Special Provisions, the Contractor shall:

- 1. Affirmatively represent and warrant that completion of the delayed Work prevented the performance of other Work;
- 2. Identify the critical resource unavailable for other Work due to completion of the delayed Contract; and
- 3. Showing that unavailability of this critical resource precluded the performance of other Work.

#### 1-09.11A(5) Inefficiencies

#### 1-09.11A(5)A Adjustment of Contract Sum

To the extent Contractor is entitled to an increase in Contract Sum because of inefficiencies or impaired productivity, then compensation due, if any, shall be calculated as provided in <u>1-09.4 EQUITABLE ADJUSTMENT</u>. There is no entitlement to increase in Contract Sum for inefficiencies to the extent caused by a Third Party or a Force Majeure Event.

#### 1-09.11A(5)B Adjustment of Contract Time

To the extent Contractor is entitled to an extension of Contract Time because of inefficiencies or impaired productivity, then the extension shall be determined as provided in <u>1-08.8 EXTENSIONS OF TIME</u>.

Delete all of 1-09.12 and substitute the following:

# 1-09.12 Audits

(\*\*\*\*\*)

# 1-09.12(1) General

The Contractor's records relating to this Project, including, but not limited to, wage, payroll, and cost records, shall be open to inspection or audit by representatives of the City during the Project and for a period of not less than six years after the date of Final Acceptance of the Contract. The Contractor shall retain these records for that period. The Contractor shall also guarantee that Project records of Subcontractors, suppliers, and lower tier subcontractors, including, but not limited to, the wage, payroll, and cost records, shall be retained and open to similar inspection or audit for the same period of time. The audit may be performed by employees or representatives of the City or by an auditor chosen by the City. The Contractor, Subcontractors, or lower tier subcontractors shall provide adequate facilities, reasonably acceptable to auditor, for the audit during normal business hours. The Contractor, Subcontractors, or lower tier subcontractors shall make a good faith effort to cooperate with the auditors. If an audit is to be commenced more than 60 calendar days after the Final Acceptance date of the Contract, the Contractor will be given 20 calendar days' notice of the time when the audit is to begin. If any litigation, claim, or audit arising out of, in connection with, or related to this Contract is initiated, the Project records shall be retained until the later of (a) completion of litigation, claim, or audit or (b) six years after the date of Final Acceptance.

# 1-09.12(2) Claims

All Contract Claims filed against the City shall be subject to audit at any time following the filing of the Contract Claim. Failure of the Contractor, Subcontractors, or lower tier subcontractors to maintain and retain sufficient records to allow the auditors to verify all

or a portion of the Contract Claim or to permit the auditor access to the books and records of the Contractor, Subcontractors, or lower tier subcontractors shall constitute a waiver of a Contract Claim and shall bar recovery in connection with the Contract.

# 1-09.12(3) Required Documents for Audits

An audit may be performed by employees of the City or a representative of the City. The Contractor and its Subcontractors shall provide adequate facilities acceptable to the City for the audit during normal business hours. The Contractor and all Subcontractors shall cooperate with the City's auditors.

As a minimum, the auditors shall have available to them the following documents:

- 1. Daily time sheets and supervisor's daily reports.
- 2. Collective Bargaining Agreements.
- 3. Insurance, welfare, and benefit records.
- 4. Payroll registers.
- 5. Earnings records.
- 6. Payroll tax forms.
- 7. Material invoices and requisitions.
- 8. Material cost distribution worksheet.
- 9. Equipment records (list of company equipment, rates, etc.)
- 10. Vendors', rental agencies', Subcontractors' and lower tier subcontractors' invoices.
- 11. Contracts between the Contractor and each of its Subcontractors, and all lower tier subcontractor contracts and supplier contracts.
- 12. Subcontractors' and lower tier subcontractors' payment certificates.
- 13. Canceled checks, including payroll and vendors.
- 14. Job cost reports, including monthly totals.
- 15. Job payroll ledger.
- 16. General ledger.
- 17. Cash disbursements journal.
- 18. Financial statements for all years reflecting the operations on this Contract. In addition, the City may require, if it deems appropriate, additional financial statements for three years preceding execution of the Contract and three years following Final Acceptance of the Contract.
- 19. Depreciation records on all company equipment whether these records are maintained by the company involved, its accountant, or others.
- 20. If a source other than depreciation records is used to develop costs for the Contractor's internal purposes in establishing the actual cost of owning and operating equipment, all such other source documents that support the amount of damages as to each Contract Claim.
- 21. Worksheets or software used to prepare the Contract Claim establishing the cost components for items of the Contract Claim including but not limited to labor, benefits and insurance, materials, equipment, Subcontractors, all documents that establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals.
- 22. Worksheets, software, and all other documents used by the Contractor to prepare its Bid. The employees or representatives of the City may audit these documents. The Contractor and its Subcontractors shall provide

adequate facilities acceptable to the City for the audit during normal business hours. The Contractor and all Subcontractors shall cooperate with the City's auditors.

- 23. Correspondence, notes, and memoranda.
- 24. Job diaries.
- 25. All documents which relate to each and every claim together with all documents which support the amount of damages as to each claim.

#### 1-09.13 Claims Resolution

Delete all of 1-09.13 and substitute the following:

Prior to seeking claim resolution through litigation, the Contractor shall proceed under the procedures in Sections 1-04.5 and 1-09.11 and elsewhere in the Contract Documents for resolution of disputes. These must be complied with in full, as a condition precedent, to the Contractor's right to seek claim resolution through litigation.

Supplement Section 1-09 by adding the following:

# 1-09.14 Patents and Royalties

# (\*\*\*\*\*)

Should the Contractor, its agent, employee or any of them be enjoined from furnishing or using any invention, article, material or plans supplied or required to be supplied or used under this Contract, Contractor shall promptly pay such royalties and secure requisite licenses; or, subject to acceptance by City, substitute other articles, materials, or appliances in lieu thereof that are of equal efficiency, quality, finish, suitability and market value to those planned or required under the Contract. Descriptive information of these substitutions shall be submitted to the City's Representative for determination of general conformance to the design concept and the construction Contract. Should City elect to refuse the substitution, Contractor agrees to pay such royalties and secure such valid licenses as may be requisite for the City, its officers, agents and employees or any of them, to use such invention, article, material or appliance without being disturbed or in any way interfered with by any proceeding in law or equity on account thereof.

Costs involved in fees, royalties, or claims for any patented invention, article, process or method that may be used upon or in a manner connected with the Work under this Contract or with use of completed Work by the City shall be paid by the Contractor. The Contractor and its sureties shall protect and hold the City, and City's Representative, together with its officers, agents, and employees, harmless from any and all loss, defense cost, and expenses and against any and all demands made for such fees or claims brought or made by the holder of any invention or patent. Before final payment is made on the account of this Contract, the Contractor shall, if requested by the City, furnish acceptable proof of a proper release from all such fees or claims.

# 1-10 TEMPORARY TRAFFIC CONTROL

# 1-10.1 General

# 1-10.1(2) Description

Supplement 1-10.1(2) as follows:

The Contractor shall provide a uniformed off-duty Police Officer to control traffic for work at signalized intersections and other critical situations as determined by the Engineer.

# 1-10.2 Traffic Control Management

#### 1-10.2(1) General

Delete the first sentence of the third paragraph of 1-10.2(1) and substitute the following:

The primary and alternate TCS shall be certified as worksite traffic control supervisors by one of the organizations listed below:

- Evergreen Safety Council (800) 521-0778
- Northwest Laborers Union (800) 240-9112
- American Traffic Safety Services Association (877) 642-4637

# 1-10.2(2) Traffic Control Plans

Delete the first paragraph of 1-10.2(2) and substitute the following:

Contractor may use City's Standard Traffic Control Plans included in COE Standard Drawings, Series 700. The City does not represent or warrant that the Standard Plans are sufficient, adequate or complete for the Contractor's means, methods or plan of Work. If a new or additional Traffic Control Plan is necessary, prepare detailed Traffic Control Plan complying with COE Standard Drawings, Series 700, the MUTCD, Part 6, and the most current edition of the PROWAG (Public Rights-of-Way Accessibility Guidelines). Plan preparation shall be at Contractor's sole cost and submitted to the City for approval at least 14 calendar days before starting Work. Work may not begin until Contractor is in receipt of City approved Traffic Control Plan.

# 1-10.3 Traffic Control Labor, Procedures and Devices

Delete 1-10.3 and substitute the following:

# **1-10.3** Flagging, Signs, and All Other Traffic Control Devices (\*\*\*\*\*)

#### 1-10.3(1) General

The Contractor shall provide all flaggers, signs and other traffic control devices. The Contractor shall erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage as a result of the Contractor's operations that may occur on highways, roads, or streets. No Work shall be done on or adjacent to the roadway until all necessary signs and traffic control devices are in place.

Flaggers and spotters shall possess a current flagging card issued by the State of Washington, Oregon, Montana, or Idaho. The flagging card shall be immediately available and shown upon request by the City.

# 1-10.3(2) Maintenance and Protection of Traffic Control

When the Bid proposed includes an item for "Maintenance and Protection of Traffic Control", the Work required for this item shall be to:

- 1. Furnish and maintain signs, cones, barricades, flasher, and other channelization devices;
- 2. Provide supervisory personnel for all labor for traffic control;
- 3. Provide labor and necessary vehicle(s) for set-up and removal of construction signs and the traffic control devices that are placed daily;
- 4. Provide labor and vehicles for patrolling and maintaining in position all of the construction signs and the traffic control devices;
- 5. Provide labor, material, and equipment necessary for cleaning up, removing and replacing all construction signs and traffic control devices that are destroyed, damaged or lost during the life of the project;
- 6. Provide flagging or use of police officers for the convenience of the Contractor, such as facilitating movement of equipment on the site, laying out or relocating traffic control devices and signs.

7. Cost associated with preparation and distribution of public notices involving parking, street access or traffic issues.

Upon failure of the Contractor to immediately provide flaggers, erect, maintain, and remove signs; or provide, erect, maintain, and remove other traffic control devices when ordered to do so by the Engineer, the City may without further notice to the Contractor or the Surety, perform any of the above and deduct all or the costs from the Contractor's payments.

The Contractor shall be responsible for providing adequate flaggers, signs, and other traffic control devices for the protection of the worker and the public at all times regardless of whether or not the flaggers, signs, and other traffic control devices are ordered by the Engineer, or paid for by the City. The Contractor shall be liable for injuries and damages to persons and property suffered by reason of the Contractor's operations or negligence in connection therewith.

# 1-10.3(3) No Passing Zones

The striping of no passing zones that are to be obliterated in excess of 150-feet by paving operations shall be replaced by "Do Not Pass" and "Pass With Care" signs. The signs shall be located not less than 2-feet outside the usable shoulder nor less than 7-feet above the edge of pavement. The number of necessary signs will be specified in the Special Provisions.

The Contractor shall provide and install the signs and sign posts. The signs shall be maintained by the Contractor until construction operations are complete. When the project includes striping by the Contractor, the signs and posts shall be removed by the Contractor when the no passing zones are re-established by striping.

When the Contractor is not responsible for striping, the signs and posts shall be removed by the Contractor when the "No Passing Zones" are re-established by striping. Payment to perform the Work required for this subsection will be under the item "Maintenance and Protection of Traffic Control."

# 1-10.3(4) Traffic Control Labor

The Contractor shall furnish all personnel for flagging to control traffic during construction operations. Flaggers shall have a current certification (Flagging Card) from the State Department of Labor and Industries (WAC 296-155-305). Employees of the Contractor engaged in flagging or traffic control shall wear reflective vests and hard hats. During hours of darkness, white coveralls or white or yellow rain gear shall also be worn. The vests and other apparel shall be in conformance with Section 1-07.8. The Contractor shall furnish the MUTCD standard Stop/Slow paddles, except the minimum width shall be 24-inches, for the flagging operations. During hours of darkness flagger stations shall be illuminated to insure that flaggers can be easily seen without causing glare to the traveling public. The Contractor shall develop and use a method to ensure that flaggers have adequate warning of objects approaching from behind the flagger.

All flaggers shall start a new job with an on-site orientation. This orientation must include, but not be limited to, the flagger's role and location on the job site, equipment, traffic patterns, communications and hazards specific to the work site.

If off-duty uniformed police officers are not available for traffic control for Work within signalized intersections, Contractor may provide four flaggers. Flaggers are not permitted within the intersection. Each flagger shall control only one approach and be stationed near the stop bar. Provide a minimum of a series of three warning signs in advance of each flagger. Narrow multi-lane approaches to a single lane approaching the flagger. Provide and require all flaggers use two-way radios to signal each other to prevent conflicts and hold traffic when construction activities require.

When the Bid proposed includes an item for "Traffic Control Labor," the Work covered by this item shall be for the labor actually used when authorized by the Engineer for:

- 1. The services of flaggers at both ends of a 2-way, single lane operation; or
- 2. The services of flaggers at signalized intersections if off-duty uniformed police officers are not available, or when otherwise specifically directed by the Engineer.

The hours eligible for "Traffic Control Labor" shall be for the hours actually worked, plus 1 hour of on-site orientation per flagger. "Show-up time" will not be counted. The labor to perform the Work described in the item "Maintenance and Protection of Traffic Control" is specifically excluded from this Work. No adjustment will be made to the unit price for "Traffic Control Labor" for overtime or holiday hours worked.

#### 1-10.3(4)A Traffic Control - Off-Duty Police Officer

Contractor shall provide off-duty uniformed Police Officer for traffic control at all signalized intersections. Acceptable sources for off-duty uniformed Police Officers are as follows in order of preference:

- 1. City of Everett Police Department, contact either,
  - a. Officer Rey Palacol, (360) 850-9507
  - b. Detective Todd Israel, (425) 740-4951
  - c. Officer Omar Estrada, (425) 512-7186
- Puget Sound Executive Service, 625 B 5<sup>th</sup> Ave, Ste 4, Sequim, WA 98382
  - a. Contact Nick Janssen, (360) 681-7737

#### 1-10.3(5) Construction Signs

All signs required by the approved traffic control plan(s) as well as any other appropriate signs prescribed by the Engineer will be furnished by the Contractor and be paid under the item "Maintenance and Protection of Traffic Control." The Contractor shall erect them on posts or supports and maintain them in a clean, neat, and presentable condition until the necessity for them has ceased. All non-applicable signs shall be removed or covered with either metal or plywood during periods when they are not needed. When the need for any of these signs has ceased, the Contractor, upon approval of the Engineer, shall take down these signs, posts, or supports. All signs, posts, and supports shall be removed from the project and shall remain the property of the Contractor.

There shall be no separate classification of signs. All construction signs, whether used throughout the construction, during a major phase of construction or removed daily shall be paid under the item "Maintenance and Protection of Traffic Control." Portable or temporary mountings may require added weight for stability. If it is necessary to add weight to the signs, only a bag of sand that will rupture on impact shall be used. The bag of sand shall have a maximum weight of 40 pounds and shall be suspended no more than 1-foot from the ground.

The Work to provide the construction signing shall be:

- 1. Furnishing all construction signs.
- 2. Furnishing, removing, and disposing of the posts or supports for the signs.
- 3. Initial installation and subsequent removal of all construction signs.
- 4. Furnishing labor and materials for maintaining the signs in a clean and presentable condition;
- 5. All other incidentals necessary for providing the construction signs according to the approved traffic control plan(s).

Signs, posts, or supports that are lost, stolen, destroyed, or which the Engineer deems to be unacceptable, while their use is required on the project, shall be replaced by the Contractor without additional compensation.

# 1-10.4 Measurement

Delete 1-10.4 and substitute the following:

# 1-10.4 Measurement

# 1-10.4(1) General (\*\*\*\*\*\*)

When the Bid Proposal does not include an item for any necessary traffic control, all costs for traffic control shall be included, by the Contractor, in the unit contract price for the various other items of Work in the Bid Proposal. The Contractor shall estimate these costs based on the contemplated work procedures.

When traffic control items are included in the Bid Proposal, payment is limited to the following areas:

The entire project area under the Contract and for a distance to include the initial warning signs for the beginning of the Project and the end of construction. Warning signs for side roads on the approved traffic control plan are also included. If the project consists of two or more sections, the limits will apply to each section individually.

A detour provided in the Plans or approved by the Engineer for by-passing all or any portion of the construction, irrespective of whether or not the termini of the detour are within the limits of the Contract.

The provisions of Section 1-04.6 will not apply to traffic control or traffic control items. However, the item "Maintenance and Protection of Traffic Control" will be considered for an equitable adjustment only when the total Contract price increases or decreases by more than 25 percent.

The measurement and payment for the items included in the Bid Proposal for traffic control costs incurred within the limits of 1 and 2 above will be made to the Contractor by the City as described in these Special Provisions.

# 1-10.4(2) Measurement

(\*\*\*\*\*)

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

# 1-10.5 Payment

Delete 1-10.5 and substitute the following:

# 1-10.5 Payment

(\*\*\*\*\*)

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

# ADD NEW SECTION 1-11

# 1-11 MISCELLANEOUS

(\*\*\*\*\*)

# 1-11.1 Construction

Contractor acknowledges that it has read the Contract Documents, understands them and agrees to be bound by them.

#### 1-11.2 Applicable Law and Choice of Forum

This Contract and the parties' obligations hereunder shall be governed, construed, and enforced in accordance with the laws of the State of Washington. The parties agree that Snohomish County Superior Court, in the State of Washington, shall be the exclusive forum for any action.

#### 1-11.3 Severability

In the event that any provision of the Contract Documents is held invalid, void, illegal or unenforceable, the remainder of the Contract Documents shall not be impaired or affected thereby, and each term, provision, and part shall continue in full force and effect.

#### 1-11.4 Headings for Convenience

The section and subsection headings used herein are for referral and convenience only, and shall not be used to construe or interpret the Contract Documents.

# 1-11.5 Waiver

No waiver of one right or remedy shall act as a waiver of any other right or remedy or as a subsequent waiver of the same right or remedy. The waiver by either party of any term or condition of this Contract shall not be deemed to constitute a continuing waiver thereof nor of any further or additional right that such party may hold under this Contract.

# 1-11.6 City of Everett Business License

Contractor and Contractor's Subcontractors shall have a City of Everett business license prior to performing any Work pursuant to this Agreement.

#### 1-11.7 Compliance with Federal, State and Local Laws

Contractor shall comply with and obey all federal, state and local laws, regulations, and ordinances applicable to the operation of its business and to its performance of Work hereunder. If, and to the extent, this Contract receives financial assistance from federal, state or private agencies, Contractor shall comply with all terms and conditions prescribed for third party contracts in the grant and all said terms and conditions shall be deemed incorporated in the Contract Documents. Terms and conditions of any such grant take precedence over conflicting terms and conditions in the Contract Documents.

#### 1-11.8 Complete Agreement

These Contract Documents contain the complete and integrated understanding and Agreement between the parties and supersedes any understanding, agreement or negotiation, whether oral or written, not set forth herein.

#### 1-11.9 Successors Bound

The grants, covenants, provisions and claims, rights, powers, privileges and liabilities contained in the Contract Documents shall be read and held as made by and with, and granted to and imposed upon, the Contractor and the City and their respective heirs, executors, administrators, successors and assigns.

# 1-11.10 Effective Date

When duly executed by both the City and Contractor, this Contract shall be effective as of the date the Contract is signed by the Mayor of the City of Everett.

# 1-11.11 Contractor Registration

Contractor represents and warrants it is a contractor duly registered and in good standing with the Washington State Department of Labor and Industries.

#### 1-11.12 Electronic Signature

Signatures on Change Orders or any other Contract Document or any other document referred to herein may be by ink signature, AdobeSign, DocuSign, or any other e-signature method or any pdf scan thereof, and any such signature will have full force and effect.

# **DIVISION 2 – EARTHWORK**

# 2-01 CLEARING, GRUBBING AND ROADSIDE CLEANUP

#### 2-01.2 Disposal of Usable Material and Debris

Supplement 2-01.2 by adding the following:

When requested by the property owner, trim trees of sufficient size for fire wood, cut into two-foot rounds and neatly stack on adjacent property. Remove and dispose of stumps, large roots, limbs and branches.

#### 2-01.2(1) Disposal Method No.1 – Open Burning

Delete the first paragraph and substitute the following.

Opening burning is not permitted within the city limits.

#### 2-01.3 Constructure Requirements

Supplement 2-01.3 by adding the following:

Clearing and grub limits shall follow project limits within parcel limits of work area. Areas for clearing and grubbing within the project limits shall be confirmed with the Engineer with existing landscaping protected to the extent feasible.

#### 2-01.4 Measurement

Delete all paragraphs of 2-01.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 2-01.5 Payment

Delete all paragraphs in 2-01.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

If there is no bid item to cover clearing and grubbing, then clearing and grubbing shall be included with other work with no direct compensation made.

# 2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS

#### 2-02.1 Description

Delete 2-02.1 and substitute the following:

The Work shall consist of the removal, disposal or abandoning in-place of various existing improvements including, but not limited to, pavements, structures, pipe, curbs, curb and gutter, gutter, valves, manholes, catch basins and other items necessary for the accomplishment of the improvement.

All Work with asbestos-cement pipe shall conform to the "Recommended Standard Asbestos-Cement Pipe Work Practice Procedure and Training Requirements," latest edition, as published by the American Water Works Association, Pacific Northwest Section. Remove and dispose of Asbestos-Cement pipe in accordance with the practices specified by the State of Washington Department of Ecology and the Snohomish County Solid Waste Division.

# 2-02.3 Construction Requirements

**2-02.3(2)** Removal of Bridges, Box Culverts and Other Drainage Structures Supplement 2.02.3(2) by adding the following: When removing structures such as manholes, inlets, or vaults that interfere with the construction, properly plug all pipe openings abandoned in-place watertight with Commercial Concrete, or with mortar and masonry, blocks or brick.

Backfill voids with suitable job excavated material where structures are removed. Compact suitable backfill material in accordance with 2-03.3(14)C.

If the Engineer determines the job-excavated material unsuitable for backfill then Contractor shall obtain Gravel Borrow or CDF as directed, to complete backfilling the voids. If a pay item for Gravel Borrow or CDF is not included in the Proposal, then providing Gravel Borrow or CDF for backfill shall be considered as Extra Work under 1-04.4.

#### 2-02.3(3) Removal of Pavement, Sidewalks, Curbs, and Gutters

Delete 2-02.3(3) and substitute the following:

# 2-02.3(3) Removal of Existing Street Improvements (\*\*\*\*\*\*)

# 2-02.3(3)A Description

The Work shall consist of the removal and disposal of various existing improvements including, but not limited to, pavements, curb, curb and gutter, gutter and other items necessary for the accomplishment of the improvement.

#### 2-02.3(3)B Removal of Pavement

Remove full depth existing permanent type pavement and driveway pavement shown on the Plans or as directed by the Engineer.

Replace, at no expense to the City, existing pavement designated to remain that is damaged during the pavement or concrete base removal.

# 2-02.3(3)B1 Sawcutting

Make vertical full depth saw cut between existing asphalt concrete pavement, to remain and the portion to be removed.

Where asphalt concrete pavement overlays cement concrete pavement base, saw cut in accordance with 2-02.3(6) Sawing and Line Drilling.

#### 2-02.3(3)C Removal of Curb, Curb and Gutter

Remove existing curbs where shown on the Plans or where encountered in the Work and designated by the Engineer.

Existing curb and gutter includes, but is not limited to, cement concrete, cement concrete curb with a brick gutter and a cement concrete back, or other combinations of rigid materials. Remove the entire curb and gutter section, regardless of material composition.

#### 2-02.3(3)C1 Sawcutting

Make vertical full depth saw cut between existing curb or curb and gutter to remain and the portion to be removed.

#### 2-02.3(3)D Removal of Cement Concrete Sidewalks

Concrete slabs that average four-inches or less in thickness will be considered as sidewalk removal.

Protect existing concrete walk that is to remain in place, from equipment damage by using planking or cover with rock free eight-inch thick blanket of excavated soil.

Provide Engineer with proposed pavement breakers before use and do not begin breaking pavement without Engineer's approval of the pavement breakers.

# 2-02.3(3)D1 Sawcutting

Make vertical full depth saw cut between existing cement concrete sidewalk to remain and the portion to be removed at the nearest scribe marks beyond the neat line limits, or to the nearest joint.

No diagonal cuts in sidewalk will be allowed unless otherwise indicated on the Plans or directed by the Engineer.

#### 2-02.3(3)E Removal of Catch Basins, Manholes, Inlets or Sumps

Excavate and completely remove the structure including, but not limited to, casting and outlet trap, concrete encasement and bricks, as applicable to each removal item listed in the Proposal.

Plug existing connecting pipes that remain by filling with Commercial Concrete a minimum length of 24–inches into the pipe. Backfill shall be Gravel Borrow as specified in 9-03.14(1). Compact backfill to a minimum of 95 percent maximum density in accordance with 2-03.3(14)D.

# 2-02.3(4) Obliteration of Pavement Markings (\*\*\*\*\*\*)

Remove pavement markings where shown on the Plans or where designated by the Engineer. Obliterate pavement marking until blemishes caused by the pavement marking removal conform to the coloration of the adjacent pavement. If the pavement is materially damaged by pavement marking removal operation, Contractor shall repair the pavement damage, at the Contractor's expense, to a condition equal to existing pavement that had no markings obliterated. Remove sand or other material deposited on the pavement as a result of removing stripes and markings as the Work progresses to avoid hazardous conditions. Accumulation of sand or other material that might interfere with drainage will not be permitted.

# 2-02.3(5) Abandon Pipe In-place (\*\*\*\*\*\*)

Plug pipe ends of pipes designated on Plans being abandoned in-place using commercial concrete. If designated on Plans, fill abandoned in-place pipe with Controlled Density Fill as specified in 2-09.3(1)E.

# 2-02.3(6) Sawing and Line Drilling (\*\*\*\*\*\*)

Saw-cut to full depth mortared decorative or special pavement including, but not limited to, brick, cobblestone or paver block along a neat line with intent of salvaging as many units as possible.

When line drilling, drill holes at maximum center-to-center spacing of six-inches. Drill holes perpendicular to the surface and penetrate completely through the pavement.

When the Plans indicate, or the Engineer requires, saw-cutting pavement that is comprised of a rigid base and asphalt overlay, saw cut the rigid base to the minimum depth as follows:

- a. For concrete rigid base, saw cut to a depth of 2/3 the thickness of the rigid base.
- b. For rigid base constructed with mortared decorative or special pavement including, but not limited to, brick, cobblestone, or paver block, or a combination of such materials saw cut to full depth of the rigid base along a neat line with intent to salvage as many special pavement units as possible.

# 2-02.3(7) Salvage

Carefully salvage and deliver to the Owner in good condition, all materials of recoverable value taken from the discarded facilities, unless otherwise indicated. Materials and things deemed of no value by the Engineer shall become the Contractor's property to be removed and properly disposed.

Remove excess concrete, debris and dirt from castings and other materials the Engineer designates suitable for salvage and that are not to be re-used elsewhere on the Project. Deliver salvage castings and materials to the location designated by the Engineer.

# 2-02.3(8) Waste Disposal

(\*\*\*\*\*)

Provide waste site for disposal of materials not required for construction. Arrange waste disposal at no expense to the City. Waste disposal shall meet the requirements of 2-03.3(7)C of the Standard Specifications.

# 2-02.3(9) Abandon Existing Water Valves In-place (\*\*\*\*\*\*)

Prior to abandoning existing water valves in-place, coordinate with City to have City forces close valve. After City forces verify valve is closed, remove valve box and extension, if any, and backfill with Gravel Borrow as specified in 9-03.14(1). Compact backfill to a minimum of 95 percent maximum density in accordance with 2-03.3(14)D.

# 2-02.4 Vacant

Revise 2-02.4 as follows:

# 2.02.4 Measurement

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

For curb and gutter cement removal with concrete pavement, the curb and gutter will be considered as pavement removal and the measurement for payment will be to the back of the curb.

# 2-02.5 Payment

Delete all paragraphs in 2-02.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

If there is no bid item to cover pavement removals, then they shall be included with the construction of the respective Work including, but not limited to, combined sewer pipe, water main, water service line, manhole, side sewer pipe, storm drain pipe, catch basins, and underground utility vaults.

Include curb and gutter and sidewalk removal with construction of the respective Work including, but not limited to, combined sewer pipe, water main, water service line, manhole, side sewer pipe, storm drain pipe, catch basins, and underground utility vaults with no direct compensation made.

If there is no pay item for pipe abandonment, then it shall be included with the construction of the respective Work including, but not limited to, sewer or storm drain pipe, water main, manhole, catch basin or side sewer with no direct compensation made.

If there is no pay item for existing valve abandonment, then it shall be included with the construction of other items of Work with no direct compensation made.

#### 2-03 ROADWAY EXCAVATION AND EMBANKMENT

#### 2-03.1 Description

Supplement 2-03.1 by adding the following:

This Work applies to street pavement patching and street reconstruction after completion of utility work. Grading for street reconstruction shall conform to COE Standard Drawing No. 302, unless otherwise noted on the Plans. Grading for pavement patching shall conform to COE Standard Drawing No. 326, unless otherwise noted on the Plans.

#### 2-03.2 Vacant

Revise 2-03.2 as follows:

#### 2.03.2 Materials

Materials shall meet the requirements of the following:

Foundation Material Class A or B	9-03.17	Standard Specifications
Gravel Borrow	9-03.14(1)	Standard Specifications

# 2-03.3 Construction Requirements

Supplement 2-03.3 by adding the following:

Blasting is not allowed within the City limits of Everett.

Use suitable excavated material for roadway embankments. Dispose of surplus excavated material or unsuitable material in accordance with 2-03.3(7).

Engineer will not approve payment for unauthorized excavation or embankment, or both, beyond the limits indicated on the Plans. Return areas of unauthorized excavation or embankment, or both, to their original conditions or better at the Contractor's expense.

Fine grading in fill or backfill areas shall begin within the top six inches of subgrade. Final grading shall produce a uniform surface within established tolerances and without abrupt changes in grade.

Construction requirements for pavement patching authorized by Engineer outside of Project limits shall be in accordance with the Section 5-04 and City Standard Drawing No. 326 for existing asphalt concrete over prepared grade.

Provide temporary drainage to keep the subgrade free from standing water.

Ensure the top six inches of subgrade is free from rocks or cemented lumps larger than 2-1/2 inches in greatest dimension.

Excavate for curbs and gutters by accurately cutting to the cross-sections, grades, and elevations shown. Take care not to excavate below the specified grades. Maintain all excavations free from accumulation of detrimental quantities of leaves, brush, sticks, trash, and other debris.

#### 2-03.3(2) Rock Cuts

Delete entire section.

#### 2-03.3(3) Excavation Below Subgrade

Supplement 2-03.3(3) by adding the following:

Proof Rolling: Proof roll subgrade under the roadway with a fully loaded tandem truck following trench backfilling and grading to subgrade to identify soft or loose areas in the subgrade. In areas where the subgrade does not stand up to the

proof roll, over excavate the subgrade and replace with imported Foundation Material Class A or B or Gravel Borrow, as determined by the Engineer, to bring the subgrade up to the proper compaction and grade. Compact backfill material in accordance with 2-03.3(3).

#### 2-03.3(7) Disposal of Surplus Material

#### 2-03.3(7)C Contractor-Provided Disposal Site

Delete the first paragraph of 2-03.3(7)C and substitute the following:

Make arrangements for disposal of surplus and other materials. All costs for disposal of surplus and other materials shall be included with the respective Bid items of the Contract with no direct compensation being made.

Dispose of Asbestos-cement pipe in accordance with the requirements of the State of Washington Department of Ecology and the Snohomish County Solid Waste Division.

#### 2-03.4 Measurement

Delete all paragraphs under 2-03.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Items Descriptions and provided in Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 2-03.5 Payment

Delete all paragraphs under 2-03.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

There will be no direct compensation made for haul on material moved within or from the Project site and the Contractor shall include the cost of hauling in his various unit contract prices.

There will be no direct compensation made for "Proof Rolling" as required in this section for excavated portions of the roadway and the Contractor shall include costs in his various unit Contract prices.

Payment for over excavation below subgrade and disposal of over excavated materials as required in this section shall be included in the Bid item for Foundation Material.

Imported material required in this section shall be paid for by the unit Bid price for that material. Payment for placement and compaction of import material shall be included in the unit price per ton of import material.

# 2-04 HAUL

# 2-04.1 Description

Delete the first paragraph of 2-04.1 and substitute the following:

This Work shall consist of transporting excavated material from its original site to its final place on the Project or to a Contractor arranged waste site.

#### 2-04.3 Vacant

Revise 2-04.3 to read as follows:

#### 2-04.3 Construction Requirements

Off-highway earth-moving equipment shall not haul on or across streets, roadways, driveways, trails, sidewalks or parking lots not being improved in the Contract.

## 2-04.4 Measurement

Revise 2-04.4 to read as follows:

Haul work will not be measured.

## 2-04.5 Payment

Revise 2-04.5 to read as follows:

All costs for the Work described in Section 2-04 shall be included with excavation work with no direct compensation made.

## 2-07 WATERING

### 2-07.3 Construction Requirements

Supplement 2-07.3 by adding the following:

Only Everett Public Works Department Water Division personnel and the Project Inspector may authorize the operation of City fire hydrants or making connections to City water mains. Upon obtaining City permission, the following shall apply:

1. Use only those agency designated hydrants in strict accordance with City's requirements for hydrant use. Obtain a temporary hydrant permit from the City's Public Works Department Water Division. Temporary hydrant permits are available for a \$1,200.00 deposit by contacting the City of Everett's Utility Billing at 425-257-8999 from 8:00 a.m. to 5:00 p.m. Monday through Friday. Deposit is refundable. Provide backflow prevention assembly approved by the City.

2. Secure permission from and comply with all requirements of the City's water utility before obtaining water from the fire hydrants. Notify the Engineer of City's permission as soon as granted.

3. Use hydrant wrenches only to open hydrants. Make certain the hydrant valve is fully open because "cracking" the hydrant valve causes damage to the hydrant valve. Provide an approved auxiliary valve on the outlet line for control purposes. Close fire hydrant valves slowly to avoid a surge in the system that creates excess pressure on water lines. Carefully note the importance of following these directions.

4. If Contractor's employees use the wrong wrench to open a hydrant causing damage the hydrant valve stem or operating nut or both, the Contractor shall be responsible for costs associated with repairing the damaged hydrant valve stem or operating nut or both. Immediately notify the City's water utility so that the damage can be repaired as quickly as possible.

5. Notify City water utility immediately upon completing the use of the hydrants so the hydrants may be inspected for possible damage. City water utility will repair damage resulting from the use of the hydrants by the Contractor. Contractor shall be responsible for repair cost and cost, if necessary, shall be withheld from the final payment to the Contractor.

6. City water utility will fine Contractor for violation of these requirements. Contractor shall also be liable for damage suits resulting from malfunctioning of Contractor damaged fire hydrants not being operational in the event of fire.

7. There will be no charge for the volume of water used.

## 2-07.4 Measurement

Revise 2-07.4 to read as follows:

Water will not be measured.

#### 2-07.5 Payment

Revise 2-07.5 to read as follows:

All costs for the Work described in Section 2-07 shall be included with the Work with no direct compensation made.

## 2-09 STRUCTURE EXCAVATION

## 2-09.2 Materials

Supplement 2-09.2 by adding the following at end of the materials list:

Foundation Material Class A or B 9-03.17 Standard Specifications

#### 2-09.3 Construction Requirements

#### 2-09.3(1) General Requirements

#### 2-09.3(1)C Removal of Unstable Base Material

Delete all paragraphs in 2-09.3(1)C and substitute the following:

When the material at the bottom of an excavation is not stable enough to support the Structure, the Contractor shall excavate below grade to the depth required by the Engineer and replace the unstable material with Foundation Material Class A or B.

Place Foundation Material Class A or B in layers not more than six inches thick and compact to minimum of 90-percent maximum density as determined by 2-03.3(14)D.

Dispose of unsuitable material removed to make room for foundation material by hauling to a waste site obtained and provided by the Contractor in accordance with 2-03.3(7)C.

#### 2-09.3(1)D Disposal of Excavated Material

Delete the second paragraph in 2-09.3(1)D and substitute the following:

All costs for disposing of excavated material, whether within the Project limits or hauled to a disposal site, shall be incidental to the other Bid items in the Proposal. The City will not pay for hauling. Disposal of excavated material shall meet the requirements of 2-03.3(7)C.

#### 2-09.3(1)E Backfilling

Delete the fourth paragraph in 2-09.3(1)E and substitute the following:

Provide CDF having minimum 28-day strength of 50 psi and maximum 28-day strength not to exceed 300-psi. Provide wet or flowable CDF with consistency having approximate slump between three to ten inches.

Controlled Density Fill used for excavation backfill may be placed dry or wet. Use wet, or flowable, CDF for filling abandoned pipes in-place.

Supplement 2-09.3(1)E by adding the following:

Where CDF is used in lieu of other materials such as foundation material, gravel borrow, washed sand or crushed surfacing top course, the respective limits for trench width or backfill dimensions shall be approved by the Inspector.

#### 2-09.3(3)B Excavation Using Open Pits – Extra Excavation

Revise the sixth paragraph to read as follows:

**Submittals and Design Requirements** – The Contractor shall submit Type 3E Working Drawings with supporting calculations showing the geometry and construction sequencing of the proposed excavation slopes.

#### 2-09.3(3)D Shoring and Cofferdams

Revise the fifth paragraph to read as follows:

**Submittals and Design Requirements** – The Contractor shall submit Type 3E Working Drawings with supporting calculations showing the proposed methods and construction details of structural shoring or cofferdams in accordance with Sections 1-05.3 and 6-02.3(16).

## 2-09.4 Measurement

Delete all paragraphs in 2-09.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

### 2-09.5 Payment

Delete all paragraphs in 2-09.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

When there is no bid item for "Structure Excavation" in the Proposal, all Work in this section shall be included with the respective Bid Items of the Contract with no direct compensation made.

## 2-11 TRIMMING AND CLEANUP

#### 2-11.3 Construction Requirements

Supplement 2-11.3 by adding the following after item 6:

7. Keep City streets clean and free from mud, dirt and other debris.

Further supplement 2-11.3 by adding the following:

Keep the Project site in a neat and orderly condition during the process of construction with as little disruption to the adjoining properties as practical under the conditions.

Promptly and as often as needed cleanup debris resulting from Contractor's operations from drainage facilities such as inlets, catch basins, culverts and open ditches.

Remove and dispose of all construction stakes.

Upon Project completion, clean Project area and neatly dress slopes to present a uniform appearance blending into the contour of adjacent properties. Remove trash of all kinds resulting from construction operations.

### 2-11.4 Vacant

Revise 2-11.4 to read as follows:

#### 2-11.4 Measurement

Delete all paragraphs in 2-11.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 2-11.5 Payment

Delete all paragraphs in 2-11.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

When there is no bid item for "Trimming and Cleanup" in the Proposal, all Work in this section shall be included with other Work with no direct compensation made.

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## **DIVISION 4 - BASES**

## 4-04 BALLAST AND CRUSHED SURFACING

## 4-04.1 Description

Delete the third paragraph of 4-04.1 and substitute the following:

Work shall also consist of placing crushed surfacing stone as driveway maintenance material and in gravel driveway restoration as shown on the Plans or directed by the Engineer. The quantity shown in the Proposal is an estimate for the purpose of establishing a unit price only. Actual quantities will be measured as construction progresses. The Engineer may require that some or all of the crushed surfacing be removed because of contamination or to meet final grades. Removal shall be included with work for "Crushed Surfacing Top Course" or "Crushed Surfacing Base Course."

Supplement Division 4 with the following:

## 4-06 ASPHALT TREATED BASE (ATB)

### 4-06.1 Description

Asphalt treated base consists of a compacted course of base material which has been weatherproofed and stabilized by treatment with an asphalt binder.

The Work shall consist of one or more courses of asphalt treated base placed on the Subgrade in accordance with these Specifications and in conformity with the lines, grades, thicknesses, and typical cross-sections shown in the Plans or as staked.

Do NOT construct the asphalt treated base course until all underground utilities are completed and inspected and approved by the Engineer.

Asphalt treated base may be placed for providing temporary access to adjoining properties where directed by the Engineer.

#### 4-06.2 Materials

Materials shall meet the requirements of the following sections:

Asphalt	9-02.1
Anti-Stripping Additive	9-02.4
Aggregates	9-03.8

The grade of paving asphalt shall be as required in the Contract.

## *4-06.3 Construction Requirements*

## 4-06.3(1) Asphalt Mixing Plant

Asphalt mixing plants for asphalt treated base shall meet the following requirements:

#### Heating

The plant shall be capable of heating the aggregates to the required temperature.

#### Proportioning

The mixing plant shall be capable of proportioning: the aggregates to meet the Specifications; and the asphalt at the rate specified by the Engineer. If the aggregates are supplied in two or more sizes, means shall be provided for proportioning or blending the different sizes of aggregates to produce material meeting the Specification requirements.

## CITY OF EVERETT SPECIAL PROVISIONS

Recycled asphalt pavement (RAP) may be used in the production of ATB. If utilized, the amount of RAP shall not exceed 30 percent of the total weight of the ATB. The final gradation and asphalt binder content will conform to the approved Job Mix Formula (JMF). ATB will be evaluated under Commercial Evaluation as shown in section 9-03.8(7). Va limts under 9-03.8(7) are excluded from ATB evaluation criteria.

## Mixing

The mixer shall be capable of producing a uniform mixture of uniformly coated aggregates meeting the requirements of these Specifications.

## 4-06.3(2) Preparation of Aggregates

Aggregates for asphalt treated base shall be stockpiled before use in accordance with the requirements of Section 3-02.

The aggregates shall be heated as required by the Engineer.

## 4-06.3(2)A Mix Design

The mix design requirements for asphalt treated base shall be as described in Section 5-04.3(7)A.

#### 4-06.3(3) Vacant

### 4-06.3(4) Mixing

The asphalt treated base shall be mixed in accordance with the requirements of Section 5-04.3(8).

### 4-06.3(5) Hauling Equipment

Hauling equipment for asphalt treated base shall conform to the requirements of Section 5-04.3(2).

## 4-06.3(6) Spreading and Finishing

Asphalt treated base shall be spread with a spreading machine equipped with a stationary, vibratory, or oscillating screed or cut-off device, subject to the approval of the Engineer. Approval of the equipment shall be based on a job demonstration that the finished product will meet all requirements of the Specifications. Automatic controls will not be required. Unless otherwise directed by the Engineer, the nominal compacted depth of any ATB layer shall not exceed 0.40 feet. On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

The internal temperature of the ATB mixture at the time compaction is achieved shall be a minimum of 185°F. Rollers shall only be operated in the static mode when the internal temperature of the mix is less than 175°F.

## 4-06.3(6)A Subgrade Protection Course

Unless otherwise specified by the Engineer, the Contractor shall place the asphalt treated base as a protection for the prepared Subgrade on all sections of individual Roadways which are to receive asphalt treated base as soon as 10,000 square yards of Subgrade is completed. This requirement shall not be limited to contiguous areas on the project.

The surface of the Subgrade protection layer when constructed on a grading project shall conform to grade and smoothness requirements that apply to the Subgrade upon which it is placed.

## 4-06.3(6)B Finish Course

The final surface course of the asphalt treated base, excluding Shoulders, shall not deviate at any point more than 3/8 inch from the bottom of a 10-foot straightedge

## CITY OF EVERETT SPECIAL PROVISIONS

laid in any direction on the surface on either side of the Roadway crown. Failure to meet this requirement shall necessitate sufficient surface correction to achieve the required tolerance, as approved by the Engineer, at no expense to the City.

When portland cement concrete pavement is placed on an asphalt base, the surface tolerance of the asphalt base shall be such that no elevation lies more than 0.05 feet below nor 0.00 feet above the plan grade minus the specified plan depth of portland cement concrete pavement. Prior to placing the portland cement concrete pavement, any such irregularities shall be brought to the required tolerance by grinding or other means approved by the Engineer, at no expense to the City.

## 4-06.3(7) Density

The asphalt treated base shall be compacted to a density of not less than 80 percent of the maximum theoretical density established for the mix by WSDOT FOP for AASHTO T 209. The density of the base shall be determined by means of tests on cores taken from the Roadway or with the nuclear gauge in accordance with Section 5-04.3(10)B. The frequency of these tests shall be at the discretion of the Engineer, but in no case shall it be less than one control lot for each normal day's production. The use of equipment which results in damage to the materials or produces substandard workmanship will not be permitted.

## 4-06.3(8) Anti-Stripping Additive

An anti-stripping additive shall be added to the asphalt binder material in accordance with Section 9-02.4 in the amount designated in a WSDOT mix design/anti-strip evaluation report for a dense graded hot mix asphalt design from the same gravel source within the last 24 months or as evaluated separately by an accredited lab using current WSDOT test methods (AASHTO T324 – Hamburg or WSDOT TM T718 – Modified Lottman). Alternately, the ATB may be evaluated for anti-strip additive using ASTM D3625 (Standard Practice for Effect of Water on Bituminous-Coated Aggregate Using Boiling Water) by an accredited lab. The anti-stripping additive required will be the minimum amount necessary to achieve a passing evaluation.

## 4-06.4 Measurement

Delete all paragraphs in 4-06.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

## 4-06.5 Payment

Delete all paragraphs in 4-06.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

## **CITY OF EVERETT SPECIAL PROVISIONS**

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## DIVISION 5 – SURFACE TREATMENTS AND PAVEMENTS

## 5-04 HOT MIX ASPHALT

Delete 5-04 and substitute the following:

## 5-04.1 Description

Work shall consist of providing and placing one or more layers of plant-mixed hot mix asphalt (HMA) on a prepared foundation or base in accordance with these Specifications and the lines, grades, thicknesses, and typical cross-sections shown in the Plans. The manufacture of HMA may include warm mix asphalt (WMA) processes in accordance with these Specifications. WMA processes include organic additives, chemical additives, and foaming.

Provide HMA composed of asphalt binder and mineral materials as may be required, mixed in the proportions specified to provide a homogeneous, stable, and workable mixture.

### 5-04.2 Materials

Provide materials meeting the requirements of the following sections:

-		-
Asphalt Binder	9-02.1(4)	Standard Specifications
Cationic Emulsified Asphalt	9-02.1(6)	Standard Specifications
Anti-Stripping Additive	9-02.4	Standard Specifications
HMA Additive	9-02.5	Standard Specifications
Aggregates	9-03.8	Standard Specifications
Recycled Asphalt Pavement	9-03.8(3)B	Standard Specifications
Mineral Filler	9-03.8(5)	Standard Specifications
Recycled Material	9-03.21	Standard Specifications
Portland Cement	9-01	Standard Specifications
Sand	9-03.1(2)	Standard Specifications
(As noted in 5-04.3(5)C for crack	k sealing)	
Joint Sealant	9-04.2	Standard Specifications
Foam Backer Rod	9-04.2(3)A	Standard Specifications

The Contractor may use up to 20 percent RAP by total weight of HMA with no additional sampling or testing of the RAP. Sample and test the RAP at a frequency of one sample for every 1,000 tons produced and not less than two samples per project. Report the asphalt content and gradation test data to the City when submitting the mix design for approval on the QPL. Include the RAP as part of the mix design as defined in these Specifications.

Provide the grade of asphalt binder as required by the Contract. Blending of asphalt binder from different sources is not permitted.

The Contractor may only use warm mix asphalt (WMA) processes in the production of HMA with 20 percent or less RAP by total weight of HMA. Submit to the Engineer for approval the process that is proposed and how it will be used in the manufacture of HMA.

For production of aggregates comply with the requirements of Section 3-01.

For preparation of stockpile site, the stockpiling of aggregates, and the removal of aggregates from stockpiles comply with the requirements of Section 3-02.

## 5-04.2(1) How to Get an HMA Mix Design on the QPL

If the contractor wishes to submit a mix design for inclusion in the Qualified Products List (QPL), please follow the WSDOT process outlined in Standard Specification 5-04.2(1).

## 5-04.2(1)A Vacant

## 5-04.2(2) Mix Design – Obtaining Project Approval

Do NOT begin paving prior to the approval of the mix design by the Engineer.

**Nonstatistical** evaluation will be used for all HMA not designated as Commercial HMA in the Contract Documents.

**Commercial** evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, paths, trails, and pavement repair. Obtain approval from Project Engineer for other nonstructural applications of HMA accepted by commercial evaluation. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. The Proposal quantity of HMA that is accepted by commercial evaluation will be excluded from the quantities used in the determination of nonstatistical evaluation.

**Nonstatistical Mix Design**. Provide fifteen days prior to the first day of paving one of the following mix design verification certifications for City review;

- a. The WSDOT Mix Design Evaluation Report from the current WSDOT QPL, or one of the mix design verification certifications listed below.
- b. The proposed HMA mix design on WSDOT Form 350-042 with the seal and certification (stamp & signature) of a valid licensed Washington State Professional Engineer.
- c. The Mix Design Report for the proposed HMA mix design developed by a qualified City or County laboratory that is within one year of the approval date.\*\*

\*\*The mix design shall be performed by a lab accredited by a national authority such as Laboratory Accreditation Bureau, L-A-B for Construction Materials Testing, The Construction Materials Engineering Council (CMEC's) ISO 17025 or AASHTO Accreditation Program (AAP) and shall supply evidence of participation in the AASHTO: resource proficiency sample program.

Mix designs for HMA accepted by Nonstatistical evaluation shall;

- a. Have the aggregate structure and asphalt binder content determined in accordance with WSDOT Standard Operating Procedure 732 and meet the requirements of Sections 9-03.8(2), except that Hamburg testing for ruts and stripping are at the discretion of the Engineer, and 9-03.8(6).
- b. Have anti-strip requirements, if any, for the proposed mix design determined in accordance with AASHTO T 283 or T 324, or based on historic anti-strip and aggregate source compatibility from previous WSDOT lab testing.

At the discretion of the Engineer, City may accept verified mix designs older than 12 months from the original verification date with a certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

Commercial Evaluation: Approval of a mix design for "Commercial Evaluation" will be based on a review of the Contractor's submittal of WSDOT Form 350-042 (For commercial mixes, AASHTO T 324 evaluation is not required) or a Mix Design from the current WSDOT QPL or from one of the processes allowed by this section. Testing of the HMA by the City for mix design approval is not required. For the Bid Item Commercial HMA, select a class of HMA and design level of Equivalent Single Axle Loads (ESAL's) appropriate for the required use.

## 5-04.2(2)B Using Warm Mix Asphalt Process

The Contractor may elect to use additives that reduce the optimum mixing temperature or serve as a compaction aid for producing HMA. Additives include organic additives, chemical additives and foaming processes. The use of Additives is subject to the following:

- a. Do not use additives that reduce the mixing temperature more than allowed in Section 5-04.3(6) in the production of mixtures.
- b. Before using additives, obtain the Engineer's approval using WSDOT Form 350-076 to describe the proposed additive and process.

## 5-04.3 Construction Requirements

## 5-04.3(1) Weather Limitations

Do not place HMA for wearing course on any Traveled Way beginning October 1st through March 31st of the following year without written concurrence from the Engineer.

Do not place HMA on any wet surface, or when the average surface temperatures are less than those specified in Table 1, or when weather conditions otherwise prevent the proper handling or finishing of the HMA.

Compacted (Feet)	Thickness	Wearing Course	Other Courses
Less than 0.10		55∘F	45∘F
0.10 to .20		45∘F	35∘F
More than 0.20		35∘F	35∘F

Table 1 - Minimum Surface Temperature for Paving

## 5-04.3(2) Paving Under Traffic

Apply the requirements of this Section when the Roadway being paved is open to traffic.

Keep intersections open to traffic at all times, except; when paving the intersection or paving across the intersection. During such time, and provided that there has been an advance warning to the public, the intersection may be closed for the minimum time required to place and compact the mixture. In hot weather, the Engineer may require the application of water to the pavement to accelerate the finish rolling of the pavement and to shorten the time required before reopening to traffic.

Before closing an intersection, place advance warning signs and signs marking the detour or alternate route.

During paving operations, maintain temporary pavement markings throughout the project. Install temporary pavement markings on the Roadway prior to opening to traffic. Provide temporary pavement markings in accordance with Section 8-23.

Include all costs in connection with performing the Work in accordance with these requirements, except the cost of temporary pavement markings, in the unit Contract prices for the various Bid items involved in the Contract.

## 5-04.3(3) Equipment

## 5-04.3(3)A Mixing Plant

Provide plants used for the preparation of HMA conforming to the following requirements:

- 1. Equipment for Preparation of Asphalt Binder Equip tanks for the storage of asphalt binder to heat and hold the material at the required temperatures. Accomplish the heating by steam coils, electricity, or other approved means so that no flame is in contact with the storage tank. Provide the circulating system for the asphalt binder designed to ensure proper and continuous circulation during the operating period. Provide a valve for the purpose of sampling the asphalt binder placed in either the storage tank or in the supply line to the mixer.
- 2. Thermometric Equipment Provide an armored thermometer, capable of detecting temperature ranges expected in the HMA mix, fixed in the asphalt binder feed line at a location near the charging valve at the mixer unit and location convenient and safe for access by Inspectors. Provide plant equipped with an approved dial-scale thermometer, a mercury actuated thermometer, an electric pyrometer, or another approved thermometric instrument placed at the discharge chute of the drier to automatically register or indicate the temperature of the heated aggregates. Provide device in full view of the plant operator.
- 3. Heating of Asphalt Binder Provide heating so the temperature of the asphalt binder does not exceed the maximum recommended by the asphalt binder manufacturer nor be below the minimum temperature required to maintain the asphalt binder in a homogeneous state. Provide method to heat the asphalt binder in a manner that will avoid local variations in heating and provide a continuous supply of asphalt binder to the mixer at a uniform average temperature with no individual variations exceeding 25°F. Also, when a WMA additive is included in the asphalt binder, the temperature of the asphalt binder shall not exceed the maximum recommended by the manufacturer of the WMA additive.
- 4. **Sampling and Testing of Mineral Materials** Provide HMA plant equipped with a mechanical sampler for the sampling of the mineral materials meeting the requirements of Section 1-05.6 for the crushing and screening operation. Provide for the setup and operation of the field testing facilities of the City as provided for in Section 3-01.2(2).
- 5. **Sampling HMA** Provide for sampling HMA by one of the following methods:
  - a. A mechanical sampling device attached to the HMA plant.
  - b. Platforms or devices to enable sampling from the hauling vehicle without entering the hauling vehicle.

## 5-04.3(3)B Hauling Equipment

Provide trucks used for hauling HMA having tight, clean, smooth metal beds and a cover of canvas or other suitable material of sufficient size to protect the mixture from adverse weather. Securely attach cover whenever the weather conditions during the work shift include, or are forecast to include, precipitation or an air temperature less than 45°F or when time from loading to unloading exceeds 30 minutes to protect the HMA.

Provide an environmentally benign means to prevent the HMA mixture from adhering to the hauling equipment. Drain excess release agent prior to filling

hauling equipment with HMA. Do NOT use petroleum derivatives or other coating material that contaminate or alter the characteristics of the HMA. For live bed trucks, the conveyer shall be in operation during the process of applying the release agent.

#### 5-04.3(3)C Pavers

Provide HMA pavers that are self-contained, power-propelled units, with an internally heated vibratory screed and shall be capable of spreading and finishing courses of HMA plant mix material in lane widths required by the paving section shown in the Plans.

Provide HMA paver in good condition and have the most current equipment available from the manufacturer for the prevention of segregation of the HMA mixture installed in good condition and in working order. Provide equipment certification listing the make, model, and year of the paver and note retrofitting of any equipment.

Operate the screed in accordance with the manufacturer's recommendations and so it effectively produces a finished surface of the required evenness and texture without tearing, shoving, segregating, or gouging the mixture. Provide a copy of the manufacturer's recommendations upon City's request. Extensions producing the same results, including ride, density, and surface texture as obtained by the primary screed will be allowed. Do NOT use extensions without augers and an internally heated vibratory screed in the Traveled Way.

When specified in the Contract, reference lines for vertical control will be required. Place lines on both outer edges of the Traveled Way of each Roadway. Horizontal control utilizing the reference line will be permitted. Control the grade and slope for intermediate lanes automatically from reference lines or by means of a mat referencing device and a slope control device. When the finish of the grade prepared for paving is superior to the established tolerances and when, in the opinion of the Engineer, further improvement to the line, grade, cross-section, and smoothness can best be achieved without the use of the reference line, a mat referencing device may be substituted for the reference line. Substitution of the device will be subject to the continued approval of the Engineer. A joint matcher may be used subject to the approval of the Engineer. The reference line may be removed after the completion of the first course of HMA when approved by the Engineer. Whenever the Engineer determines that any of these methods are failing to provide the necessary vertical control, the reference lines will be reinstalled by the Contractor.

Furnish and install all pins, brackets, tensioning devices, wire, and accessories necessary for satisfactory operation of the automatic control equipment.

If the paving machine in use is not providing the required finish, the Engineer may suspend Work as allowed by Section 1-08.6. Thoroughly remove any cleaning or solvent type liquids spilled on the pavement before paving proceeds.

#### 5-04.3(3)D Material Transfer Device or Material Transfer Vehicle

Provide a Material Transfer Device/Vehicle (MTD/V) with the Engineer's approval, unless otherwise required by the Contract.

Where an MTD/V is required by the contract, the Engineer may approve paving without an MTD/V, at the Contractor's request. The Engineer will determine if an equitable adjustment in cost or time is due.

Mix the MTD/V when used with the HMA after delivery by the hauling equipment and prior to laydown by the paving machine. Sufficiently mix the HMA to obtain a uniform temperature throughout the mixture. The length of the windrow for windrow elevator may be limited in urban areas or through intersections at the discretion of the Engineer.

To be approved for use, provide an MTV meeting the following:

- 1. Self-propelled vehicle, separate from the hauling vehicle or paver.
- 2. Not be connected to the hauling vehicle or paver.
- 3. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
- 4. Ability to mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
- 5. Ability to mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

To be approved for use, provide an MTD meeting the following:

- 1. Ability to be positively connected to the paver.
- 2. May accept HMA directly from the haul vehicle or pick up HMA from a windrow.
- 3. Ability to mix the HMA after delivery by the hauling equipment and prior to placement into the paving machine.
- 4. Ability to mix the HMA sufficiently to obtain a uniform temperature throughout the mixture.

## 5-04.3(3)E Rollers

Provide vibratory, oscillatory steel wheel rollers, or pneumatic tire type rollers, in good condition and capable of reversing without backlash. Operate roller in accordance with the manufacturer's recommendations. When ordered by the Engineer for any roller planned for use on the project, provide a copy of the manufacturer's recommendation for the use of that roller for compaction of HMA. Provide sufficient number and weight of rollers to compact the mixture in compliance with the requirements of Section 5-04.3(10). The use of equipment that results in crushing of the aggregate will not be permitted. Rollers producing pickup, washboard, uneven compaction of the surface, displacement of the mixture or other undesirable results will not be permitted.

## 5-04.3(4) Preparation of Existing Paved Surfaces

Bring any irregular existing pavement surface or old base surface to a uniform grade and cross-section as shown on the Plans or approved by the Engineer.

Accomplish preleveling of uneven or broken surfaces over which HMA is to be placed by using an asphalt paver, a motor patrol grader, or by hand raking, as approved by the Engineer.

Provide compaction of preleveling HMA to the satisfaction of the Engineer and may require the use of small steel wheel rollers, plate compactors, or pneumatic rollers to avoid bridging across preleveled areas by the compaction equipment. Provide Engineer approved compaction equipment used for the compaction of preleveling HMA.

Clean the entire surface of the pavement before construction of HMA on an existing paved surface. Entirely remove all fatty asphalt patches, grease drippings, and other objectionable matter from the existing pavement. Thoroughly clean all pavements or bituminous surfaces of dust, soil, pavement grindings, and

other foreign matter. Fill all holes and small depressions with an appropriate class of HMA. Level and thoroughly compact the patched area surface. Obtain Engineer approval of the surface prior to the application of tack coat or paving.

Apply an asphalt tack coat to all paved surfaces that HMA is to be placed or abutted; except, that tack coat may be omitted from clean, newly paved surfaces at the Engineer's discretion. Uniformly apply tack coat to cover the existing pavement with a thin film of residual asphalt free of streaks and bare spots at a rate between 0.02 and 0.10 gallons per square yard of retained asphalt. Obtain application rate approval from Engineer. Apply a heavy application of tack coat to all joints. For Roadways open to traffic, limit the application of tack coat to surfaces that will be paved during the same working shift. Provide spreading equipment equipped with a thermometer to indicate the temperature of the tack coat material.

Do NOT allow equipment to operate on tacked surfaces until the tack has broken and cured. Repair tack coat if the Contractor's operation damages the tack coat prior to placement of the HMA.

Provide tack coat consisting of CSS-1 or CSS-1h emulsified asphalt. The CSS-1 and CSS-1h emulsified asphalt may be diluted once with water at a rate not to exceed one part water to one part emulsified asphalt. Provide tack coat having sufficient temperature such that it may be applied uniformly at the specified rate of application and not exceed the maximum temperature recommended by the emulsified asphalt manufacturer.

#### 5-04.3(4)A **Crack Sealing**

#### 5-04.3(4)A1 General

When the Proposal includes a pay item for crack sealing, seal all cracks 1/4inch in width and greater.

**Cleaning:** Ensure that cracks are thoroughly clean, dry and free of all loose and foreign material when filling with crack sealant material. Use a hot compressed air lance to dry and warm the pavement surfaces within the crack immediately prior to filling a crack with the sealant material. Do NOT overheat pavement. Do NOT use direct flame dryers. Routing cracks is not required.

Sand Slurry: For cracks that are to be filled with sand slurry, thoroughly mix the components and pour the mixture into the cracks until full. Add additional CSS-1 cationic emulsified asphalt to the sand slurry as needed for workability to ensure the mixture will completely fill the cracks. Strike off the sand slurry flush with the existing pavement surface and allow the mixture to cure. Top off cracks that were not completely filled with additional sand slurry. Do NOT place the HMA overlay until the slurry has fully cured.

Provide sand slurry consisting of approximately 20 percent CSS-1 emulsified asphalt, approximately 2 percent portland cement, water (if required), and the remainder clean Class 1 or 2 fine aggregate per section 9-03.1(2). Thoroughly mix components and then pour into the cracks and joints until full. The following day, top off any cracks or joints that are not completely filled with additional sand slurry. After the sand slurry is placed, strike off filler flush with the existing pavement surface and allow to cure. Do NOT place the HMA overlay until the slurry has fully cured. The requirements of Section 1-06 will not apply to the portland cement and sand used in the sand slurry.

In areas where HMA will be placed, use sand slurry to fill the cracks.

In areas where HMA will not be placed, fill the cracks as follows:

- a. Cracks 1/4- inch to 1 inch in width fill with hot poured sealant.
- b. Cracks greater than 1 inch in width fill with sand slurry.

**Hot Poured Sealant**: For cracks that are to be filled with hot poured sealant, apply the material in accordance with these requirements and the manufacturer's recommendations. Furnish a Type 1 Working Drawing of the manufacturer's product information and recommendations to the Engineer prior to the start of work, including the manufacturer's recommended heating time and temperatures, allowable storage time and temperatures after initial heating, allowable reheating criteria, and application temperature range. Confine hot poured sealant material within the crack. Clean any overflow of sealant from the pavement surface. If, in the opinion of the Engineer, the Contractor's method of sealing the cracks with hot poured sealant results in an excessive amount of material on the pavement surface, stop and correct the operation to eliminate the excess material.

### 5-04.3(4)A2 Crack Sealing Areas Prior to Paving

In areas where HMA will be placed, use sand slurry to fill the cracks.

### 5-04.3(4)A3 Crack Sealing Areas Not to be Paved

In areas where HMA will not be placed, fill the cracks as follows:

- a. Cracks 1/4 inch to 1 inch in width fill with hot poured sealant.
- b. Cracks greater than 1 inch in width fill with sand slurry.

5-04.3(4)B	Vacant
5-04.3(4)C	Vacant

## 5-04.3(6) Mixing

After the required amount of mineral materials, asphalt binder, recycling agent and anti-stripping additives have been introduced into the mixer, mix the HMA until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials is ensured.

Ensure the temperature of the HMA when discharged does not exceed the optimum mixing temperature by more than 25°F as shown on the reference mix design report or as approved by the Engineer. Also, when a WMA additive is included in the manufacture of HMA, ensure the discharge temperature of the HMA does not exceed the maximum recommended by the manufacturer of the WMA additive. A maximum water content of 2 percent in the mix, at discharge, will be allowed providing the water causes no problems with handling, stripping, or flushing. If the water in the HMA causes any of these problems, reduce the moisture content in accordance with Engineer's directions.

Storing or holding of the HMA in approved storage facilities for less than 24 hours will be permitted with Engineer's approval. Engineer will reject HMA held for more than 24 hours after mixing. Dispose of rejected HMA at no expense to the City. Provide the storage facility having an accessible device, indicating the amount of material in storage, located at the top of the cone or about the third point. Engineer will NOT accept HMA from the storage facility when the HMA in storage is below the top of the cone of the storage facility; except, as the storage facility is being emptied at the end of the working shift.

Size recycled asphalt pavement (RAP) utilized in the production of HMA prior to entering the mixer to produce a uniform and thoroughly mixed HMA. If there is evidence of the recycled asphalt pavement not breaking down during the heating and mixing of the HMA, immediately suspend the use of the RAP until Engineer approves changes necessary to provide adequate RAP breakdown and mixing. After introducing the required amount of mineral materials, RAP, new asphalt binder and asphalt rejuvenator into the mixer, mix the HMA until complete and uniform coating of the particles and thorough distribution of the asphalt binder throughout the mineral materials, and RAP is ensured.

### 5-04.3(7) Spreading and Finishing

Lay the mixture upon an approved surface, spread, and strike off to the established grade and elevation. Provide HMA pavers complying with Section 5-04.3(3) to distribute the mixture. Unless Engineer directs otherwise, provide the nominal compacted layer depth to NOT exceed the following:

HMA Class	Course	Maximum Compacted Layer Depth (FT)
1 inch	NA	0.35
3/4 & 1/2 inch	Wearing	0.30
3/4 & 1/2 inch	Other	0.35
3/8 inch	NA	0.15

On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impractical, the paving may be done with other equipment or by hand.

When more than one JMF is being utilized to produce HMA, place the material produced for each JMF using separate spreading and compacting equipment. Do NOT intermingle HMA produced from more than one JMF. During a work shift place each strip of HMA to a single JMF established for the class of HMA specified, unless there is a need to make an adjustment in the JMF.

## 5-04.3(8) Aggregate Acceptance Prior to Incorporation in HMA

For HMA accepted by nonstatistical evaluation the aggregate properties of sand equivalent, uncompacted void content and fracture will be evaluated in accordance with Section 3-04. Sampling and testing of aggregates for HMA accepted by commercial evaluation will be at the Engineer's option.

#### 5-04.3(9) HMA Mixture Acceptance

Engineer will use nonstatistical, or commercial evaluation for determining acceptance of HMA.

Engineer will use nonstatistical evaluation for the HMA acceptance, unless Contract specifies Commercial Evaluation.

Engineer will use Commercial evaluation for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, paths, trails, temporary pavement, and pavement repair. Engineer will need to approve other nonstructural applications of HMA accepted by commercial evaluation. Sampling and testing of HMA accepted by commercial evaluation will be at the Engineer's option.

The mix design will be the initial JMF for the class of HMA. The Contractor may request a change in the JMF. Any adjustments to the JMF will require the Engineer's approval and may be made in accordance with this section.

- 5-04.3(9)A **HMA** Tolerances and Adjustments
  - 1. Job Mix Formula Tolerances Provide mixture at the time of acceptance within the following tolerances:

For Asphalt Binder and Air Voids (Va), the acceptance limits are determined by adding the tolerances below to the approved JMF values. These values will also be the Upper Specification Limit (USL) and Lower Specification Limit (LSL) required in Section 1-06.2(2)D2.

Property	Non-Statistical Evaluation	Commercial Evaluation
Asphalt Binder	+/- 0.5%	+/- 0.7%
Air Voids, Va	2.5% min. and 5.5% max	N/A

For Aggregates in the mixture:

a. First, determine preliminary upper and lower acceptance limits by applying the following tolerances to the approved JMF.

_		
Aggregate Percent Passing	Non-Statistical Evaluation	Commercial Evaluation
1", <sup>3</sup> ⁄ <sub>4</sub> ", <sup>1</sup> ⁄ <sub>2</sub> ", and 3/8" sieves	+/- 6%	+/- 8%
No. 4 sieve	+/-6%	+/- 8%
No. 8 Sieve	+/- 6%	+/-8%
No. 200 sieve	+/- 2.0%	+/- 3.0%

- b. Second, adjust the preliminary upper and lower acceptance limits determined from step (a) the minimum amount necessary so that none of the aggregate properties are outside the control points in Section 9-03.8(6). The resulting values will be the upper and lower acceptance limits for aggregates, as well as the USL and LSL required in Section 1-06.2(2)D2.
  - 2. Job Mix Formula Adjustments An adjustment to the aggregate gradation or asphalt binder content of the JMF requires Engineer's approval. Adjustments to the JMF will only be considered if the change produces material of equal or better quality and may require the development of a new mix design if the adjustment exceeds the amounts listed below.
    - a. Aggregates 2 percent for the aggregate passing the  $1\frac{1}{2}$ , 1",  $\frac{3}{4}$ ",  $\frac{1}{2}$ ",  $\frac{3}{8}$ ", and the No. 4 sieves, 1 percent for aggregate passing the No. 8 sieve, and 0.5 percent for the aggregate passing the No. 200 sieve. Provide the adjusted JMF within the range of the control points in Section 9-03.8(6).
    - b. Asphalt Binder Content The Engineer may order or approve changes to asphalt binder content. The maximum adjustment from the approved mix design for the asphalt binder content is 0.3 percent.

5-04.3(9)A	Vacant
5-04.3(9)B	Vacant
5-04.3(9)C	Mixture Acceptance – Nonstatistical Evaluation

The City will evaluate the HMA mixture accepted by Nonstatistical Evaluation by dividing the HMA tonnage into lots.

#### 5-04.3(9)C1 Mixture Nonstatistical Evaluation – Lots and Sublots

A lot is represented by randomly selected samples of the same mix design being tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A sublot will be equal to one day's production or 800 tons, whichever is less; except, the final sublot will be a minimum of 400 tons and may be increased to 1200 tons.

Collectively evaluate all test results obtained from the acceptance samples from a given lot. If the Contractor requests a change to the JMF that is approved, the material produced after the change will be evaluated on the basis of the new JMF for the remaining sublots in the current lot and for acceptance of subsequent lots. For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

Perform sampling and testing for evaluation on the frequency of one sample per sublot.

#### 5-04.3(9)C2 Mixture Nonstatistical Evaluation Sampling

Obtain samples for acceptance testing when ordered by the Engineer. Sample the HMA mixture in the presence of the Engineer and in accordance with AASH-TO T 168. Take a minimum of three samples for each class of HMA placed on a project. If used in a structural application, test at least one of the three samples taken.

Sampling and testing HMA in a Structural application where quantities are less than 400 tons is at the Engineer's discretion.

For HMA used in a structural application and with a total project quantity less than 800 tons but more than 400 tons, preform a minimum of one acceptance test. In all cases, obtain a minimum of three samples at the point of acceptance. Test a minimum of one of the three samples for conformance to the JMF:

a. If the test results are found to be within specification requirements, additional testing will be at the Engineer's discretion.

**5-04.3(9)C3** Mixture Nonstatistical Evaluation – Acceptance Testing Testing of HMA for compliance of Va will be the City's option. If tested, compliance of Va will use WSDOT SOP 731.

Testing for compliance of asphalt binder content will be by WSDOT FOP for AASHTO T 308.

Testing for compliance of gradation will be by FOP for WAQTC T 27/T 11.

#### **5-04.3(10) HMA Compaction Acceptance**

Compact HMA mixture accepted by nonstatistical evaluation being used in traffic lanes; including lanes for intersections, ramps, truck climbing, weaving,

and speed change, and having a specified compacted course thickness greater than 0.10-foot, to a specified level of relative density. The specified level of relative density shall be a Composite Pay Factor (CPF) of not less than 0.75 when evaluated in accordance with Section 1-06.2, using a LSL of 92.0 (minimum of 92 percent of the maximum density). Use WSDOT FOP for AASHTO T 729 to determine maximum density. The specified level of density attained will be determined by the evaluation of the density of the pavement. Use WSDOT FOP for WAQTC TM 8 to determine the density of the pavement; except, Engineer will have discretion regarding gauge correlation using the nuclear density gauge and WSDOT SOP 736 when using cores to determine density.

Tests for the determination of the pavement density will be taken in accordance with the required procedures for measurement by a nuclear density gauge or roadway cores after completion of the finish rolling.

If the City uses a nuclear density gauge to determine density, the City will use the test procedures FOP for WAQTC TM 8 and WSDOT SOP T 729 on the day the mix is placed and prior to opening to traffic.

Roadway cores for density may be obtained by either the City or the Contractor in accordance with WSDOT SOP 734. Provide minimum 4-inch core diameter, unless Engineer approves otherwise. The City will test Roadway cores in accordance with WSDOT FOP for AASHTO T 166.

If the Contract includes the Bid item "Roadway Core", obtain the cores in the presence of the Engineer on the same day the mix is placed and at Engineer designated locations. If the Contract does not include the Bid item "Roadway Core", then the City will obtain the cores.

For a lot in progress with a CPF less than 0.75, a new lot will begin at the Contractor's request after the Engineer is satisfied that material conforming to the Specifications can be produced.

Compact HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above on the basis of a test point evaluation of the compaction train. Perform the test point evaluation in accordance with instructions from the Engineer. Use the number of passes with an approved compaction train required to attain the maximum test point density on all subsequent paving.

Thoroughly compact HMA for preleveling. Compact HMA used for preleveling wheel rutting with a pneumatic tire roller unless Engineer approves otherwise.

## 5-04.3(10)A Test Results

For a sublot that has been tested with a nuclear density gauge that did not meet the minimum of 92 percent of the reference maximum density in a compaction lot with a CPF below 1.00 and thus subject to a price reduction or rejection, the Contractor may request that a core be used for determination of the relative density of the sublot. The relative density of the core will replace the relative density determined by the nuclear density gauge for the sublot and will be used for calculation of the CPF and acceptance of HMA compaction lot.

When City takes cores at the Contractor's request, the City must receive request by noon of the next workday after the Contractor is provided with nuclear density test results for the sublot. City will obtain core(s) from locations outside of wheel paths and as the Engineer determines. Provide traffic control in accordance with Engineer's direction. Failure by the Contractor to provide the requested traffic control will result in forfeiture of the request for cores. If the CPF for the lot based on the results of the HMA cores is less than 1.00, the City will deduct the cost for the coring from any monies due or that may become due the Contractor under the Contract at the rate of \$200 per core. In addition, the cost of the traffic control will also be the Contractor's responsibility.

#### 5-04.3(10)B HMA Compaction – General Compaction Requirements

Compact mixture only when the mixture is in the proper condition so that no undue displacement, cracking, or shoving occurs. Compact areas inaccessible to large compaction equipment by other mechanical means. Remove and replace HMA that becomes loose, broken, contaminated, shows excess or deficiency of asphalt, or is in any way defective, with new hot mix. Immediately compact to conform to the surrounding area.

Provide type of rollers and their relative position in the compaction sequence to attain the specified densities. Operate rollers shall only in the static mode when the internal temperature of the mix is less than 175°F unless Engineer approves otherwise. Do NOT operate a roller, regardless of mix temperature, in a mode that results in checking or cracking of the mat. Only operate rollers in static mode on bridge decks.

### 5-04.3(10)C HMA Compaction – Cyclic Density

Low cyclic density areas are defined as spots or streaks in the pavement that are less than 90 percent of the theoretical maximum density. At the Engineer's discretion, the Engineer may evaluate the HMA pavement for low cyclic density and when doing so will follow WSDOT SOP 733. A \$500 Cyclic Density Price Adjustment will be assessed for any 500-foot section with two or more density readings below 90 percent of the theoretical maximum density.

## 5-04.3(10)D Vacant 5-04.3(10)E HMA Nonstatistical Compaction

# 5-04.3(10)E1 HMA Nonstatistical Compaction – Lots and Sublots

City will perform acceptance testing on HMA compaction that is accepted by nonstatistical evaluation by dividing the project into compaction lots.

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance. A lot is defined as the total quantity of material or work produced for each Job Mix Formula placed. Only one lot per JMF is expected. A sublot is equal to one day's production or 400 tons, whichever is less, except; the final sublot will be a minimum of 200 tons and may be increased to 800 tons. Testing for compaction will be at the rate of 5 tests per sublot per WSDOT T 738.

Engineer will determine the sublot locations within each density lot. For a lot in progress with a CPF less than 0.75, Contractor may request a new lot begin after the Engineer is satisfied that material conforming to the Specifications can be produced. Compact HMA mixture accepted by commercial evaluation and HMA constructed under conditions other than those listed above on the basis of a test point evaluation of the compaction train. Perform the test point evaluation in accordance with instructions from the Engineer. Use the number of passes with an approved compaction train required to attain the maximum test point density on all subsequent paving.

Thoroughly compact HMA for preleveling. Compact HMA used to prelevel wheel ruts with a pneumatic tire roller unless Engineer approves.

## 5-04.3(10)E2 HMA Compaction Nonstatistical Evaluation – Acceptance Testing

Engineer will randomly select the location of the HMA compaction acceptance tests from within each sublot, with one test per sublot.

# 5-04.3(10)E3 HMA Nonstatistical Compaction – Price Adjustments

For each compaction lot with one or two sublots where all sublots attain a relative density that is 92 percent of the reference maximum density the HMA, City will accept at the unit Contract price with no further evaluation. If a sublot does not attain a relative density that is 92 percent of the reference maximum density, the City will evaluate the lot in accordance with Section 1-06.2 to determine the appropriate CPF, with the maximum CPF being 1.00. However, lots with a calculated CPF in excess of 1.00 will be used to offset lots with CPF values below 1.00 but greater than 0.90. Lots with CPF lower than 0.90 will be evaluated for compliance per 5-04.3(11). Additional testing by either a nuclear moisture-density gauge or cores will be completed as required to provide a minimum of three tests for evaluation.

For compaction below the required 92% a Non-Conforming Compaction Factor (NCCF) will be determined. The NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the product of CPF, the quantity of HMA in the compaction control lot in tons, and the unit Contract price per ton of mix.

## 5-04.3(11) Reject Work

## 5-04.3(11)A Reject Work General

City will reject defective or non-conforming Work. The Contractor may propose, in writing, alternatives to removal and replacement of rejected material. Engineer has sole discretion to determine acceptability of such alternative proposals. Submit corrective action proposal for Engineer approval for rejected HMA not conforming to the requirements in Section 1-06.2(2) and this specification.

#### 5-04.3(11)B Rejection by Contractor

The Contractor may, prior to sampling, elect to remove any defective material and replace it with new material. Any such new material will be sampled, tested, and evaluated for acceptance.

## 5-04.3(11)C Rejection Without Testing (Mixture or Compaction)

The Engineer may, without sampling, reject any batch, load, or section of Roadway that appears defective. Do NOT incorporate material rejected before placement into the pavement. Remove any rejected section of Roadway.

No payment will be made for the rejected materials or the removal of the materials unless the Contractor requests testing of the rejected material. If the Contractor elects to have the rejected material tested, obtain and test a minimum of three representative samples. Acceptance of rejected material will be based on conformance with the nonstatistical acceptance Specification. If the CPF for the rejected material is less than 0.75, no payment will be made for the rejected material and Contractor will bear the cost of sampling and testing. If the CPF is greater than or equal to 0.75, the City will bear the cost of sampling and testing. If the material is rejected before placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at a CPF of 0.75. If rejection occurs after placement and the CPF is greater than or equal to 0.75, compensation for the rejected material will be at the calculated CPF with an addition of 25 percent of the unit Contract price added for the cost of removal and disposal.

## 5-04.3(11)D Rejection - A Partial Sublot

In addition to the random acceptance sampling and testing, the Engineer may also isolate from a normal sublot any material that is suspected of being defective in relative density, gradation or asphalt binder content. Such isolated material will not include an original sample location. Engineer will obtain a minimum of three random samples of the suspect material to test. The material will then be statistically evaluated as an independent lot in accordance with Section 1-06.2(2).

## 5-04.3(11)E Rejection - An Entire Sublot

Engineer may reject an entire sublot suspected of being defective. When a sublot is rejected, obtain a minimum of two additional random samples from this sublot. Evaluate these additional samples and the original sublot as an independent lot in accordance with Section 1-06.2(2).

## 5-04.3(11)F Rejection - A Lot in Progress

Shut down operations and do NOT resume HMA placement until such time as the Engineer is satisfied that material conforming to the Specifications can be produced:

- a. When the Composite Pay Factor (CPF) of a lot in progress drops below 1.00 and the Contractor is taking no corrective action, or
- b. When the Pay Factor (PF) for any constituent of a lot in progress drops below 0.95 and the Contractor is taking no corrective action, or
- c. When either the PFi for any constituent or the CPF of a lot in progress is less than 0.75.

## 5-04.3(11)G Rejection - An Entire Lot (Mixture or Compaction)

Engineer will reject an entire lot with a CPF of less than 0.75.

## 5-04.3(12) Joints

#### 5-04.3(12)A HMA Joints 5-04.3(12)A1 Transverse Joints

Conduct operations such that the placing of the top or wearing course is a continuous operation or as close to continuous as possible. Unscheduled transverse joints will be allowed and the roller may pass over the unprotected end of the freshly laid mixture only when the placement of the course must be discontinued for such a length of time that the mixture will cool below compaction temperature. When resuming the Work, cut back the previously compacted mixture to produce a slightly beveled edge for the full thickness of the course.

Construct a 20H:1V temporary wedge of HMA where a transverse joint, as a result of paving or planing, is open to traffic. Separate the HMA in the temporary wedge from the permanent HMA by strips of heavy wrapping paper or other methods Engineer approves. Remove the wrapping paper and the joint. Trim to a slightly beveled edge for the full thickness of the course prior to resumption of paving.

Remove and dispose of the cut away material and place new mix against the cut. Use rollers or tamping irons to seal the joint.

### 5-04.3(12)A2 Longitudinal Joints

Offset the longitudinal joint in any one course from the course immediately below by not more than 6 inches nor less than 2 inches. Locate all wearing course longitudinal joints at a lane line or an edge line of the Traveled Way. Construct a notched wedge joint along all longitudinal joints in the wearing surface of new HMA unless Engineer directs otherwise. Provide a notched wedge joint having a vertical edge of not less than the maximum aggregate size or more than 1/2 of the compacted lift thickness and then taper down on a slope not steeper than 4H:1V. Uniformly compact the sloped portion of the HMA notched wedge joint.

#### 5-04.3(12)B Bridge Paving Joint Seals 5-04.3(12)B1 HMA Sawcut and Seal

Prior to placing HMA on the bridge deck, establish sawcut alignment points at both ends of the bridge paving joint seals to be placed at the bridge ends, and at interior joints within the bridge deck when and where shown in the Plans. Establish the sawcut alignment points in a manner that they remain functional for use in aligning the sawcut after placing the overlay.

Submit a Type 1 Working Drawing consisting of the sealant manufacturer's application procedure.

Construct the bridge paving joint seal as specified in the Plans and in accordance with the detail shown in the Standard Plans. Construct the sawcut in accordance with the detail shown in the Standard Plan. Construct the sawcut in accordance with Section 5-05.3(8)B and the manufacturer's application procedure.

## 5-04.3(12)B2 Paved Panel Joint Seal

Construct the paved panel joint seal in accordance with the requirements specified in section 5-04.3(12)B1 and the following requirement:

a. Clean and seal the existing joint between concrete panels in accordance with Section 5-01.3(8) and the details shown in the Standard Plans.

## 5-04.3(13) Surface Smoothness

Provide the completed surface of all courses having uniform texture, smooth, uniform as to crown and grade, and free from defects of all kinds. Provide wearing course completed surface that does NOT vary more than 1/8 inch from the lower edge of a 10-foot straightedge placed on the surface parallel to the centerline. Provide the transverse slope of the wearing course completed surface that does NOT vary more than 1/4 inch in 10 feet from the rate of transverse slope shown in the Plans.

When deviations in excess of the above tolerances are found that result from a high place in the HMA, correct the pavement surface using one of the following methods:

- a. Removal of material from high places by grinding with an approved grinding machine, or
- b. Removal and replacement of the wearing course of HMA, or
- c. By other method approved by the Engineer.

Carry out defect correction until there are no deviations anywhere greater than the allowable tolerances.

City will accept with a price adjustment deviations in excess of the above tolerances that result from a low place in the HMA and deviations resulting from a high place where corrective action, in the opinion of the Engineer, will not produce satisfactory results. The Engineer will deduct from monies due or that may become due to the Contractor the sum of \$500.00 for each and every section of single traffic lane 100 feet in length in which any excessive deviations described above are found.

When utility appurtenances such as manhole covers and valve boxes are located in the traveled way, adjust the utility appurtenances to the finished grade prior to paving. If Contractor requests, Engineer may waive this requirement or when the adjustment details provided in the project plan or specifications call for utility appurtenance adjustments after the completion of paving.

Include utility appurtenance adjustment discussions in the Pre-Paving planning (5-04.3(14)B3). Submit a written request to waive this requirement to the Engineer prior to the start of paving.

#### 5-04.3(14) Planing (Milling) Bituminous Pavement

Engineer must approve the planing plan. Hold, with Engineer, a pre-planing meeting prior to the start of any planing. See Section 5-04.3(14)B2 for information on planing submittals.

Refer to the Plans for locations of existing surfacing being planed.

Where planing an existing pavement is specified in the Contract Documents, remove existing surfacing material and reshape the surface to remove irregularities. The finished product must be a prepared surface acceptable for receiving an HMA overlay.

Use the cold milling method for planing unless otherwise specified in the Contract. Do NOT use the planer on the final wearing course of new HMA.

Conduct planing operations in a manner that does not tear, break, burn, or otherwise damage the surface to remain. The finished planed surface must be slightly grooved or roughened and must be free from gouges, deep grooves, ridges, or other imperfections. Repair any damage to the surface planing equipment makes using an Engineer approved method.

Repair or replace any metal castings and other surface improvements damaged by planing as confirmed by the Engineer.

Plane a tapered wedge cut longitudinally along curb lines sufficient to provide a minimum of 4 inches of curb reveal after placement and compaction of the final wearing course. The dimensions of the wedge must be as shown on the planing plan or as specified by the Engineer.

Plane a tapered wedge cut at transitions to adjoining pavement surfaces (meet lines) where butt joints are shown on the Plans. Cut butt joints in a straight line with vertical faces two inches or more in height, producing a smooth transition to the existing adjoining pavement.

After planing is complete, sweep and clean planed surface, and if Contract requires, patch and pre-level.

The Engineer may direct additional depth planing. Before performing this additional depth planing. Conduct a hidden metal in pavement detection survey as specified in Section 5-04.3(14)A.

#### 5-04.3(14)A Pre-Planing Metal Detection Check

Before starting pavement planing and before any additional depth planing required by the Engineer, conduct a physical survey of existing pavement being planed with equipment that can identify hidden metal objects.

Promptly notify Engineer should such metal be identified.

See Section 1-07.16(1) regarding the protection of survey monumentation that may be hidden in pavement.

The Contractor is solely responsible for any damage to equipment resulting from the Contractor's failure to conduct a pre-planing metal detection survey, or from the Contractor's failure to notify the Engineer of any hidden metal that is detected.

#### 5-04.3(14)B Paving and Planing Under Traffic 5-04.3(14)B1 General

In addition the requirements of Section 1-07.23 and the traffic controls required in Section 1-10, and unless the Contract specifies otherwise or the Engineer approves, comply with the following:

- 1. Intersections:
  - a. Keep intersections open to traffic at all times, except when paving or planing operations through an intersection requires closure. Keep such closure to the

minimum time required to place and compact the HMA mixture or plane as appropriate. For paving, schedule such closure to individual lanes or portions thereof that accommodates the required the traffic volumes and schedule of traffic volumes noted in the approved traffic control plan. Schedule work so that adjacent intersections are not impacted at the same time and comply with the Traffic Engineer's traffic control restrictions. Address each individual intersection closure or partial closure in the traffic control plan that was submitted to and accepted by the Engineer in accordance with Section 1-10.2(2).

- b. When planing or paving and related construction must occur in an intersection, consider scheduling and sequencing such work into quarters of the intersection, or half or more of an intersection with side street detours. Be prepared to sequence the work to individual lanes or portions thereof.
- c. Should closure of the intersection in its entirety be necessary keep such closure to the minimum time required to place and compact the HMA mixture, plane, remove asphalt, tack coat, and as needed.
- d. Any work in an intersection requires advance warning in both signage and a number of Working Days advance notice as determined by the Engineer, to alert traffic and emergency services of the intersection closure or partial closure.
- e. Allow new compacted HMA asphalt to cool to ambient temperature before allowing any traffic on it. Traffic is not allowed on newly placed asphalt until obtaining Engineer approval.
- 2. Comply with Section 8-23 for temporary centerline marking, post-paving temporary marking, temporary stop bars, and maintaining temporary pavement marking.
- 3. Comply with Section 8-22 for permanent pavement marking.

## 5-04.3(14)B2 Submittals – Planing Plan and HMA Paving Plan

Submit a separate planing plan and a separate paving plan to the Engineer at least five Working Days in advance of each operation's activity start date. These plans must show the coordination of moving operation and traffic control as they will be discussed at the pre-planing briefing and pre-paving briefing. When requested by the Engineer, provide each operation's traffic control plan on 24 x 36 inch or larger size Drawings at a scale of 1 inch equals 20 feet showing both the area of operation and sufficient detail of traffic beyond the area of operation that may require detouring traffic. The scale on the Shop Drawings may be changed if the Engineer agrees sufficient detail is shown.

The planing operation and the paving operation include, but are not limited to, metal detection, removal of asphalt and temporary asphalt of any kind, tack coat and drying, staging of supply trucks, paving trains, rolling, scheduling, and as may be discussed at the briefing. When intersections will be partially or totally blocked, provide adequately sized and noticeable signage alerting traffic of closures to come a minimum two Working Days in advance. Show on the traffic control plan the stationing of peace officers when signalization is or may be countermanded' Also show areas flaggers positioning.

Include, at a minimum, on the planing and paving plan:

- A copy of the accepted traffic control plan, refer to Section 1-10.2(2), detailing each day's traffic control as it relates to the specific requirements of that day's planing and paving. Briefly describe the traffic control sequencing consistent with the proposed planing and paving sequence, and scheduling of placement of temporary pavement markings and channelizing devices after each day's planing, and paving.
- 2. A copy of each intersection's traffic control plan.
- 3. Haul routes from Supplier facilities and locations of temporary parking and staging areas, including return routes. Describe the complete round trip as it relates to the sequencing of paving operations.
- 4. Names and locations of HMA Supplier facilities to be used.
- 5. List of all equipment to be used for paving.
- 6. List of personnel and associated job classification assigned to each piece of paving equipment.
- 7. Description (geometric or narrative) of the planing and paving sequence schedule and intended area of planing and of paving for each day's work, the directions of proposed planing and paving, sequence of adjacent lane paving, sequence of skipped lane paving, intersection planing and paving scheduling and sequencing, and making of proposed timely notifications and coordination. Also show HMA joints relative to the final pavement marking lane lines.
- 8. Names, job titles, and contact information for field, office, and plant supervisory personnel.
- 9. A copy of the approved Mix Designs.
- 10. Tonnage of HMA to be placed each day.
- 11. Approximate times and days for starting and ending daily operations.

## 5-04.3(14)B3 Pre-Paving and Pre-Planing Briefing

At least two Working Days before the first paving operation and the first planing operation, or as scheduled by the Engineer for future paving and planing operations to ensure the Contractor has adequately prepared for notifying and coordinating as required in the Contract, the Contractor must be prepared to discuss that day's operations as they relate to other entities and to public safety and convenience, including driveway and business access, garbage truck operations, transit operations and working around energized overhead wires, school and nursing home and hospital and other accesses, other contractors who may be operating in the area, pedestrian and bicycle traffic, and emergency services. The Contractor, and Subcontractors that may be part of that day's operations must meet with the Engineer and discuss the proposed operation as it relates to the submitted planing plan and paving plan, approved traffic control plan, and public convenience and safety. Such discussion includes, but is not limited to:

- 1. General for both Paving Plan and for Planing Plan:
  - a. The actual times of starting and ending daily operations.
  - b. In intersections, how to break up the intersection, and address traffic control and signalization for that operation, including use of peace officers.
  - c. The sequencing and scheduling of paving operations and of planing operations, as applicable, as it relates to traffic control, to public convenience and safety, and to other con-tractors who may operate in the Project Site.
  - d. Notifications required of Contractor activities, and coordinating with other entities and the public as necessary.
  - e. Description of the sequencing of installation and types of temporary pavement markings as it relates to planning and to paving.
  - f. Description of the sequencing of installation of, and the removal of, temporary pavement patch material around exposed castings and as may be needed
  - g. Description of procedures and equipment to identify hidden metal in the pavement, such as survey monumentation, monitoring wells, street car rail, and castings, before planning, refer to Section 5-04.3(14)B2.
  - h. Description of how flaggers will be coordinated with the planing, paving, and related operations.
  - i. Description of sequencing of traffic controls for the process of rigid pavement base repairs.
  - j. Other items the Engineer deems necessary to address.
- 5. Paving additional topics:
  - a. When to start applying tack and coordinating with paving.
  - b. Types of equipment and numbers of each type equipment to be used. If more pieces of equipment than personnel are proposed, describe the sequencing of the personnel operating the types of equipment. Discuss the continuance of operator personnel for each type equipment as it relates to meeting Specification requirements.
  - c. Number of JMFs to be placed, and if more than one JMF how the Contractor will ensure different JMFs are distinguished, how pavers and MTVs are distinguished if more than one JMF is being placed at the time, and how pavers and MTVs are cleaned so that one JMF does not adversely influence the other JMF.
  - d. Description of contingency plans for that day's operations such as equipment breakdown, rain out, and Supplier shutdown of operations.
  - e. Number of sublots to be placed, sequencing of density testing, and other sampling and testing.

## 5-04.3(15) Sealing Pavement Surfaces

Apply a fog seal where shown in the plans. Construct the fog seal in accordance with Section 5-02.3. Apply the fog seal prior to opening to traffic unless Engineer approves otherwise.

### 5-04.3(16) HMA Road Approaches

Construct HMA approaches at the locations shown in the Plans or where staked by the Engineer. Perform the Work in accordance with Section 5-04.

### 5-04.4 Measurement

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

## 5-04.5 Payment

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

Supplement Division 5 of the Standard Specifications by adding the following:

## 5-06 PAVEMENT PATCHING

(\*\*\*\*\*)

## 5-06.1 Description

This Work shall consist of the reconstruction and patching of trenches and other excavations in paved streets and other paved areas.

## 5-06.2 Materials

Provide materials conforming to the requirements specified for the materials in Sections 5-04 & 5- 05 of the Standard Specifications except as modified by these Special Provisions.

For HMA pavement patching provide HMA CL 1/2", PG 64-22 as specified in Section 5-04 of the Standard Specifications.

Provide asphalt for temporary pavement patch as either: cold mix asphalt (MC 250) per Section 9-02 of the Standard Specifications or hot mix asphalt (HMA CL 1/2", PG 64-22). Mineral aggregate of MC 250 shall meet the same requirements as the aggregates used in HMA CL 1/2", PG 64-22.

Provide crushed surfacing top course used for pavement patching conforming to the requirements of 9-03.9(3) of the Standard Specifications.

## 5-06.3 Construction Requirements

## 5-06.3(1) General

Schedule pavement patching to accommodate the demands of traffic and perform as rapidly as possible to provide maximum safety and convenience to public traffic.

Placing and compact the trench backfill and the preparation and compaction of the subgrade in accordance with the various applicable sections of the Standard Specifications except as modified by these Special Provisions.

Before the pavement patch is to be constructed saw cut the pavement so that the marginal edges of the patch will form a rectangular shape with straight edges and vertical faces.

Provide signs, barricades, lights and other warning devices in accordance with the requirements of the "Manual on Uniform Traffic Control Devices" and they maintain 24-hours a day until the patching work is completed and ready for traffic.

Complete subgrade compaction prior to the required patching. Compact subgrade to 95-percent as determined by the ASTM D2922 (nuclear method).

## 5-06.3(2) HMA on Granular Base

After the Crushed Surfacing Top Course subgrade has been leveled and compacted, HMA CL 1/2", PG 64-22 shall be placed to a thickness of one inch greater than the existing asphalt pavement depth or to a minimum of three inches, whichever is greater. Asphalt shall be compacted to 92-percent of maximum density as determined by WSDOT Test Method 705.

## 5-06.3(3) Untreated Roadway Surfaces

Existing crushed rock, gravel, and oil mat streets shall be restored with Crushed Surfacing Top Course to a compacted depth of four inches within the neat lines of the trench. Crushed surfacing shall be mixed, placed, spread and shaped in accordance with the requirements of Section 4-04 of the Standard Specifications.

### 5-06.3(4) Temporary Pavement Patching

The Contractor shall furnish, place and maintain temporary pavement patching as shown on the Plans and at locations as directed by the Engineer, until such time as a permanent patch of permanent paving can be made.

Provide a temporary patch as required to reopen roadway during construction as that withstands existing traffic loads and volumes. Options include, and are not limited to, cold mix asphalt (MC 250), hot mix asphalt (HMA CL 1/2", PG 64-22), or secured steel roadway plates.

Provide temporary asphalt patching where roadway or walk is needed for vehicular or pedestrian traffic, during the construction period, until permanent pavement and sidewalks can be constructed.

In the event that the temporary surface subsides after the initial placement, apply additional MC 250 or HMA (as approved by the Engineer) as necessary to maintain the surface.

Stockpile of plant mix and crushed surfacing for temporary patching shall be provided on the site by the Contractor.

Prior to final restoration of the pavement, the Contractor shall be responsible for removing and disposing of temporary pavement patching materials.

## 5-06.3(5) Incidental Pavement Patching

Incidental pavement patching shall be done only at the direction of the Engineer for patching and restoring areas between the back of new sidewalks and adjacent asphalt driveways, paving ramps at the ends of sidewalks, and gutters that are adjusted to grade.

Asphalt for incidental pavement patching shall be HMA CL 1/2", PG 64-22.

## 5-06.4 Measurement

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

## 5-06.5 Payment

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

# DIVISION 7 – DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS, WATER MAINS, AND CONDUITS

## 7-02 CULVERTS

## 7-02.1 Description

Revise the first paragraph of 7-02.1 to read as follows:

This Work consists of constructing culverts of the various types and classes as shown on the Plans and in accordance with COE Standard Drawings, the Standard Specifications and these Special Provisions.

## 7-02.2 Materials

Delete the first paragraph and material list of 7-02.2 and substitute the following:

Crushed Surfacing Base Course	9-03.9(3)	Standard Specifications
Gravel Borrow	9-03.14(1)	Standard Specifications
Reinforced Concrete Culvert Pipe	9-05.3(2)	Standard Specifications
Solid Wall PVC Culvert Pipe	9-05.12(1)	Standard Specifications
Profile Wall PVC Culvert Pipe	9-05.12(2)	Standard Specifications
Corrugated Polyethylene Culvert Pipe	9-05.19	Standard Specifications
Mortar	9-20.4	Standard Specifications

## 7-02.3 Construction Requirements

## 7-02.3(1) Placing Culvert Pipe – General

Revise the last paragraph to read as follows:

For pipes 36-inches and less in diameter, the ends shall be mitered in accordance with the Standard Plans. Culverts 60 feet in length, or longer, shall be provided with trash rack/debris barriers in accordance with City of Everett Standard drawings, unless prohibited by environmental restrictions.

## 7-02.4 Measurement

Delete the first paragraph of 7-02.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

## 7-02.5 Payment

Delete all paragraphs in 7-02.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

## 7-04 STORM SEWERS

## 7-04.1 Description

Revise the first paragraph in 7-04.1 to read as follows:

This Work consists of constructing storm sewers to lines and grades as shown on the Plans and in accordance with COE Standard Drawings, the Standard Specifications and these Special Provisions. Supplement 7-04.1 as follows:

## 7-04.1(1) Submittals

(\*\*\*\*\*)

Provide Type 2 Working Drawings for all materials and Standard Plans.

## 7-04.2 Materials

Delete the first and second paragraphs in 7-04.2 and substitute the following:

Materials shall meet the requirements of the following sections:

Reinforced Concrete Storm Sewer Pipe	9-05.7(2)	Standard Specifications
Concrete Storm Sewer Pipe Joints	9-05.7(3)	Standard Specifications
Solid Wall PVC Storm Sewer Pipe & Joints	9-05.12(1)	Special Provisions
Profile Wall PVC Storm Sewer Pipe & Joints	9-05.12(2)	Standard Specifications
Corrugated Polyethylene Storm Sewer Pipe & Joints	9-05.20	Standard Specifications
Steel Rib Reinforced Polyethylene Standard Specifications	torm Sewer Pip	9-05.22
High-Density Polyethylene (HDPE) P Specifications	Pipe 9-05.2	23 Standard
Polypropylene Storm Sewer Pipe Specifications	9-05.2	24 Standard

Revise the last paragraph in 7-04.2 to read as follows:

When schedule A or B storm sewer pipe is specified in the Plans, provide the specified schedule and diameter of PVC materials shown in the Storm Sewer Pipe Schedules Table.

Contact the Olympia Service Center Materials Laboratory to determine if joints have been approved for pipe diameters larger than those listed.

On the web at: http://www.wsdot.wa.gov/biz/mats/QPL/QPI.cfm

Or by mail at:

P.O. Box 167 Olympia, WA 98507-0167 (360) 709-5442

## 7-04.4 Measurement

Delete the first paragraph of 7-04.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

## 7-04.5 Payment

Delete all paragraphs in 7-04.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

## 7-05 MANHOLES, INLETS, AND CATCH BASINS

## 7-05.1 Description

Revise the first paragraph in 7-05.1 to read as follows:

This Work consists of constructing manholes, inlets, drywells, and catch basins and connecting to existing Structures of the types and sizes designated in accordance with the Plans, these Special Provisions, the Specifications, and the COE Standard Drawings, in conformity with the lines and grades staked.

Further supplement 7-05.1 as follows:

7-05.1(1) Submittals (\*\*\*\*\*)

Provide Type 2 Working Drawings for all materials and Standard Plans.

## 7-05.2 Materials

Supplement 7-05.2 by adding the following at the end of the material list:

Mortar, nonshrink	9-20.3(2)	Standard Specifications
Commercial Concrete	6-02.3(2)B	Standard Specifications
Watertight Connection Boots	9-05.30	Special Provisions
Flexible Couplings	9-05.40	Special Provisions
Polypropylene Manhole Steps	9-05.64	Special Provisions
& Hand Holds Polypropylene Manhole Ladder	9-05.66	Special Provisions

The beehive grate shall be an East Jordan 77500 Grate (Product #00775063), as manufactured by EJ Group, Inc., or approved equivalent in accordance with manufacturer recommendations and applicable City standards and details for overflow catch basins. Beehive grate shall be black in color and lock to frame.

EJ Group, Inc. 13127 State Ave Marysville, WA 98271

## 7-05.2(1) Flow Splitter Modification

The Flow Splitter Modification shall be existing catch basin (DCB1384S22) and its internal components and proposed locking frame and grate. Modifications to the existing catch basin include removing pipes and gate valves and replacing catch basin lid and pipe connections as shown in the Plans.

## 7-05.3 Construction Requirements

Supplement 7-05.3 by adding the following after the last sentence of the third paragraph:

Install PAMREX, East Jordan Iron Works, or equal, hinged manhole frame and cover in accordance with manufacturer recommendations and applicable City standards and details.

Coordinate manhole cover and frame hinge location with manhole steps and traffic lanes. Hinge orientation to be determined during the shop drawing review of precast manhole structures.

Delete the tenth paragraph in 7-05.3.

Revise the eleventh paragraph in 7-05.3 to read as follows:

Provide Kor-N-Seal, or equal, watertight flexible pipe to manhole connectors for pipes up to 48-inch diameter connecting to new sanitary sewer manholes. Place no pipe joint in PVC or HDPE pipe within 10-feet of the outside face of the manhole. Revise the last sentence in the sixteenth paragraph in 7-05.3 to read as follows:

Provide manholes, inlets, and catch basins that upon final acceptance of the Work conforms to the following COE Standard Drawings requirements:

- 1. Manholes No. 605, 606 and 607 as applicable.
- 2. Inlets No. 401
- 3. Catch Basins No. 402, 403 and 404 as applicable.

Revise the last paragraph to read:

See Sections 7-05.3(3) and 7-08 for pipe connection requirements.

## 7-05.3(1) Adjusting Manholes and Catch Basins to Grade

Delete both paragraphs of 7-05.3(1) and substitute the following:

Adjust manholes, catch basins and other structures to final grade after completing pavement operations. Carefully re-establish the center of each structure from Contractor's previously established references.

Cut pavement in neat circle having a minimum diameter of 2-feet beyond the casting cover. Remove pavement and base material, maintaining the neat circle, to permit casting and frame removal. Adjust casting and frame to proper grade.

Place cast iron frame on concrete blocks or concrete adjusting rings and wedge up to the desired grade using plastic wedges. Wood or metal wedges are not allowed. The Backfill around finished casting frame to within 1-1/2 inches of finished pavement surface using commercial concrete.

After concrete has set a full 24-hours, paint the edges of the asphalt concrete pavement and the outer edge of the casting with hot asphalt cement. Place hot asphalt concrete to match finished pavement surface and compact with hand tampers and a patching roller. Asphalt concrete and cement concrete shall be considered incidental to the unit price of the structure being adjusted.

Match the new patch with existing paved surface for texture, density, and uniformity of grade. Carefully paint the joint between the patch and the existing pavement shall then be carefully painted with hot asphalt cement or asphalt emulsion and immediately cover with dry paving sand before the asphalt cement solidifies.

Thoroughly mortar and plaster the inside throat of the structure.

## 7-05.3(3) Connections to Existing Manholes

Delete all three paragraphs of 7-05.3(3) and substitute the following:

Verify existing manhole rim and invert elevations prior to construction. Provide verification documentation by means of a Submittal to the Engineer for approval. Submittal shall be in accordance with 1-05.3 of these Special Provisions. Immediately bring discrepancies in invert elevations to the attention of the Engineer.

Unless specified otherwise, match the new connection pipe crown elevation to the existing pipe or pipe crown elevation. Rechannel the existing manhole in accordance with COE Standard Drawing 605 to provide a flow transition free from rough, jagged or protruding edges that could catch debris.

Use safe and effective construction methods to prevent existing manhole from moving or tipping during excavation to make new connection.

Keep the manhole in operation at all times and take necessary precautions to prevent debris or other material from entering the sewer, including a tight pipeline bypass through the existing channel, if required.

Core drill for pipe connections less than 28-inch O.D. Line drill or wall saw an opening for pipe connection greater than 28-inch O.D.to accommodate the size of pipe to be inserted. Interconnect drilled holes where line drilling is the method used. Use a small core drill to accomplish line drilling. Jackhammer or rotary hammer

shall not be used. For line drilling provide minimum 1-inch and maximum 2-inch clearance around the circumference of the pipe. Core drill opening to accept a watertight flexible pipe to manhole connection in accordance with manufacturer's recommendations. Place upstream pipes, except PVC and HDPE pipe, penetrating the manhole walls with the bell facing out and snug against the outside wall of the structure as the angle of penetration allows. Provide a flexible joint within 1/2 of a pipe diameter or 12-inches, whichever is greater for pipe, except PVC and HDPE pipe, leaving or entering manholes.

Place pipes entering or leaving the manhole on firmly compacted bedding. Take particular care in compacting bedding within the area of the manhole excavation that is normally deeper than the sewer trench. Take special care to ensure the annual opening around each pipe entering the manhole is completely and firmly rammed full of non-shrink grout to ensure water tightness. Non-shrink grout shall conform to requirements of 9-03.20.3(2) of the Standard Specifications.

Provide a watertight flexible pipe to manhole connector for pipe diameters less than or equal to 24-inches for PVC or HDPE pipes connecting to manhole. Place no PVC or HDPE pipe joint within 10-feet of the outside face of the manhole.

#### 7-05.3(4) Drop Manhole Connections

Delete the first paragraph in 7-05.3(4) and substitute the following:

Construct outside drop connections where shown on Plans in accordance with these Special Provisions and 7-04, 7-05, and 7-17 of the Standard Specifications and COE Standard Drawing No. 612.

Construct inside drop connections where shown on the Plans, or as approved by Engineer, in 54-inch diameter manholes or larger in accordance with these Special Provisions and 7-04, 7-05, and 7-17 of the Standard Specifications and COE Standard Drawing No. 613.

Provide factory installed holes for drop connections for new manholes and core drill holes for existing manholes. Impact tools shall not be allowed for making holes in manhole walls.

Supplement 7-05.3 by adding the following:

# 7-05.3(5) Furnish and Install Solid Lid for Catch Basins (\*\*\*\*\*)

Provide new solid lids on existing catch basins where shown on the Plans. Provide solid lids conforming to 9-05.15 of the Standard Specifications, 9-05.15(1) of these Special Provisions, and to COE Standard Drawing No. 406 and 410 for Type 1 and 1-L Catch Basins and COE Standard Drawing 611 for Type 2 Catch Basins.

#### 7-05.3(6) Flow Splitter Modification

The Flow Splitter Modification includes removing existing pipes and a gate valve in accordance with the Plans. This includes, but is not limited to removing existing pipes and a gate valve and replacing the structure concrete top and grate. After modifications, low flows including the water quality design flowrate, shall be conveyed into the existing 24-inch diameter pipe heading to the south and high flows shall be conveyed by the existing 24-inch diameter bypass pipe heading to the southeast with new the structure top and grate in accordance with the Plans. The hole around the new 12-inch pipe shall include a gasket and be filled with brick, grouted and watertight. The distances to the reduced shall be as shown in the plans.

Catch basin locking frame and grate conforming to 9-05.15 of the Standard Specifications and to COE Standard Drawing No. 406, 407, and 409.

#### 7-05.4 Measurement

Delete all paragraphs of 7-05.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-05.5 Payment

Delete all paragraphs of 7-05.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-06 VACANT

Delete Section 7-06 and substitute the following:

#### 7-06 WATER QUALITY TREATMENT STRUCTURES

(\*\*\*\*\*)

#### 7-06.1 Description

This work consists of furnishing and installing a Pretreatment Unit, Water Quality Treatment Facility, and Roof Drain Connection(s). The Pretreatment Unit and Water Quality Treatment Facility shall be of the same size and model specified and in accordance with the configuration and location shown on the Plans and these Special Provisions.

Water Quality Treatment Facility shall include internal components, including items listed as provided by manufacture, as indicated in the Plans, or an approved equivalent. The gravity block wall surrounding the facility is measured and paid separately in accordance with Division B – Bid Item Descriptions, Section 1-09 MEASUREMENT AND PAYMENT, and Section 8-24.

#### 7-06.2 Materials

Concrete	6-02		
Plant Materials	9-14.7		
Construction Geotextile	9-33		
Dissipation Rocks shall be 4" Streambed Cobbles per 9-03.11(2).			
Perforated Polyvinyl Chloride (PVC) Unde	rdrain Pipe,		
8-inch diameter maximum	9-05.2(6)		

Underdrain stone shall be Gravel Backfill for Drains, 9-03.12(4), or approved equal.

Diablo Ninebark, Physocarpus opulifolius, 5 gallon, 2-ft minimum planting height.

All materials sections under 7-04.2 and 7-05.2 shall apply.

Underdrain, distribution pipe, riser pipes and fittings shall be SDR 35 PVC.

Mulch shall be double shredded wood or bark mulch approved for use with the Filterra Bioscape Bioretention System by the manufacturer.

Geotextile liner shall be Geotextile for Separation of Soil Stabilization, non-woven for Separation.

Bubbler lid on rister pipes shall be a Nyloplast 8-inch locking dome lid, model number 899CGDL, as manufactured by Advanced Drainage Systems, Inc, or approved equal.

Advanced Drainage Systems 4640 Trueman Blvd. Hilliard, Ohio 43026 Tel: (360) 507-2354 adspipe.com

#### 7-06.2(1) Water Quality Treatment Units

#### Pretreatment Unit

The Pretreatment Unit shall be: Vortechs Hydrodynamic Separator® device manufactured by Contech Engineered Solutions LLC, of type and configuration indicated in the Plans, or approved equivalent.

#### Water Quality Treatment Facility

The manufacturer of the Water Quality Treatment Facility provided under this contract shall be one that is regularly engaged in the engineering design and production of systems deployed for the treatment of storm water runoff for at least five (5) years and which have a history of successful production, acceptable to the Engineer.

The Water Quality Treatment system shall be Filterra Bioscape, manufactured by Contech Engineered Solutions LLC, of type and configuration indicated in the Plans, or approved equivalent.

Contech Engineered Solutions LLC 9025 Centre Pointe Drive West Chester, OH, 45069 Tel: 1 800 338 1122 Tel: 360-202-6120 www.ContechES.com

The manufacturer shall guarantee the Water Quality Treatment Facility and Pretreatment Unit components against all manufacturer originated defects in materials or workmanship for a minimum period of twelve (12) months from the date the components are delivered to the owner for installation. The manufacturer shall upon its determination repair, correct or replace any manufacturer originated defects advised in writing to the manufacturer within the referenced warranty period.

#### 7-06.2(3) Roof Drain Connection

The Roof Drain Connection shall be solid wall SDR35 PVC pipe and fittings needed to connect private roof drains to the storm system and Water Quality Treatment Facility as shown in the Plans.

### 7-06.3 Construction Requirements

## 7-06.3(1) Performance Requirements

#### **Pretreatment Unit**

Provide a manufacturer's certificate of compliance in accordance with Section 1-06.3 demonstrating that the proposed product complies with the following requirements:

Washington State Department of Ecology approval requirements: general use level designation for pretreatment. The Pretreatment Unit shall has approved General Use Level Designation (GULD) for "Pretreatment" from the Washington Department of Ecology.

The locations of the access lids shall be confirmed to provide 2-in minimum clearance to the sidewalk face of curb prior to ordering the unit from the manufacturer.

The Pretreatment Unit shall be sized in accordance with the GULD approved design requirements for the minimum water quality flow rates shown in the Plans and specified herein. Exterior dimensions shall fit within the designed footprint of the facility.

Treatment:

The Pretreatment Unit shall be sized to treat the design flow rate designed in the Plans. Annual TSS removal efficiency models shall be based on documented removal efficiency performance from full scale laboratory tests based on a particle size gradation defined by the following:

Percent of Sample	Particle Size Range
27%	>250 micron
11%	150-250 micron
7%	100-150 micron
9%	75-100 micron
4%	63-75 micron
42%	<63 micron

Annual TSS removal efficiency models shall only be considered valid if they are corroborated by independent third-party field testing. Said field testing shall include influent and effluent composite samples from a minimum of ten storms at one location.

The Pretreatment Unit shall be capable of treating the design flow specified without prematurely bypassing flows via an internal bypass or external flow splitter.

The Pretreatment Unit shall be designed with a sump chamber for storage of captured sediments and other captured pollutants.

#### Hydraulics:

The Pretreatment Unit shall convey the flow from the peak storm event of the drainage network, in accordance with required hydraulic upstream conditions as defined by the Engineer. If a substitute treatment unit is proposed, supporting documentation shall be submitted that demonstrates equal or better upstream hydraulic conditions compared to the device specified. This documentation shall include a hydraulic gradeline for the upstream and downstream system and headloss though the treatment unit during the 100-year storm. This documentation shall be signed and sealed by a Professional Engineer registered in the State of Washington. All costs associated with preparing and certifying this documentation shall be born solely by the Contractor.

The Pretreatment Unit shall include internal orifice controls to allow the water quality treatment rate of 2.2 cfs (cubic feet per second) through the system without reaching an elevation of 508.9 feet in the upstream stormwater structure, which would divert flow around the Water Quality Treatment Facility. The internal orifice controls shall limit flows rates at higher flow rates to acceptable flow rates to the Water Quality Treatment Facility.

#### Water Quality Treatment Facility

Provide a manufacturer's certificate of compliance in accordance with Section 1-06.3 demonstrating that the proposed product complies with the following requirements:

The Water Quality Treatment Facility shall has approved General Use Level Designation (GULD) for "Basic, Metals, Phosphorus, and Oil Treatment" from the Washington Department of Ecology.

The Water Quality Treatment Facility shall be sized in accordance with the GULD approved design requirements for the minimum water quality flow rate or 2.2 cfs before bypassing flows through the overflow beehive grate with a peak flow rate of 7.0 cfs as shown in the Plans and specified herein. Exterior dimensions shall fit within the designed footprint of the facility.

#### Hydraulics:

The water quality treatment structure shall treat the flow from the water quality storm event as discharged from the upstream structures and in accordance with required hydraulic conditions. Flows shall be distributed evenly across the top of the water quality treatment media as shown in the Plans.

Diablo Nine Bark shrubs shall be four plants per row with two rows at 12 foot spacing within rows per Medium Strub layout for 4.C in Appendix L. Shrubs shall be planted at a 4ft minimum distance from the perimeter walls and drainage structures, bubblers and cleanouts.

The riser bubble shall be bolted in to the rise pipe with stainless steel hardware.

The underdrain cleanout shall be installed per City of Everett Standard Plan 604, Type 3. A stub marker shall not be installed. The connection to the underdrain pipe shall be with a 45-degree bend without horizontal stub. The elevation of the bottom of gasket cap shall be 2-inches above the maximum ponding depth, as shown on the Plans. Gasket cap shall be attached to the pipe with a minimum of three stainless steel screws.

#### 7-06.3(2) Pretreatment Unit

Each stormwater treatment system shall include a circular aluminum "swirl chamber" (or "grit chamber") with a tangential inlet to induce a swirling flow pattern that will accumulate and store settleable solids in a manner and a location that will prevent re-suspension of previously captured particulates.

Housing unit of stormwater treatment device shall be constructed of pre-cast or cast-inplace concrete, no exceptions. Concrete for precast stormwater treatment systems shall conform to ASTM C 857 and C 858 and meet the following additional requirements:

- 1. The wall thickness shall not be less than 6 inches (152 mm) or as shown on the dimensional drawings. In all cases the wall thickness shall be no less than the minimum thickness necessary to sustain HS20-44 (MS18) loading requirements as determined by a Licensed Professional Engineer.
- 2. Sections shall have tongue and groove or ship-lap joints with a butyl mastic sealant conforming to ASTM C 990.
- 3. Cement shall be Type II Portland cement conforming to ASTM C 150.
- 4. All sections shall be cured by an approved method. Sections shall not be shipped until the concrete has attained a compressive strength of 4,000 psi (28 MPa) or until 5 days after fabrication and/or repair, whichever is the longer.
- Pipe openings shall be sized to accept pipes of the specified size(s) and material(s), and shall be sealed by the Contractor with a hydraulic cement conforming to ASTM C 595M.
- Brick or masonry used to build the manhole frame to grade shall conform to ASTM C 32 or ASTM C 139 and shall be installed in conformance with all local requirements.
- 7. Casting for manhole frames and covers shall be in accordance with ASTM A48, CL.35B and AASHTO M105.

Internal Components and appurtenances shall conform to the following:

- 1. Internal aluminum plate components shall be aluminum alloy 5052-H32 in accordance with ASTM B 209.
- 2. Sealant to be utilized at the base of the swirl chamber shall be 60 durometer extruded nitrile butadiene rubber (Buna N) and shall be provided to the concrete precaster for installation.

Access covers shall be designed in accordance with Section 4-4.2 (3) of the Design and Construction Standards and Specifications and the following:

- 1. All lids, grates, and hatches larger than 24 inches in a dimension shall be constructed in a manner which allows a single individual to open them without special equipment.
- 2. All lids, grates, and hatches shall be equipped with a pick-hole or handles.

#### **Pretreatment Unit Installation**

The Contractor shall exercise care in the storage and handling of the water quality treatment structure components prior to and during installation. Any repair or replacement costs associated with events occurring after delivery is accepted and unloading has commenced shall be borne by the Contractor.

All components shall be subject to inspection by the Owner. All components are subject to being rejected or identified for repair if the quality of materials and manufacturing do not comply with the requirements of the Plans and Special Provisions. Components which have been identified as defective may be subject for repair where final acceptance of the component is contingent on the discretion of the Engineer.

The Pretreatment Unit shall be constructed according to the sizes shown on the Plans and as specified herein. Install at elevation and location shown on the Plans or as otherwise directed by the Engineer. The subgrade and backfill shall be compacted to 95 percent of the maximum density as determined by the compaction control tests described in Section 2-03.3(14)D.

Place the precast base unit on a granular subbase of Crushed Surfacing Base Course with a minimum thickness of six inches after compaction. The granular subbase shall be checked for level prior to setting and the precast base section of the trap shall be checked for level at all four corners after it is set. If the slope from any corner to any other corner exceeds 0.5% the base section shall be removed and the granular subbase material re-leveled.

Pretreatment Unit shall be installed per manufacturer recommended with approval by the Engineer.

Holes made in the concrete sections for handling or other purposes shall be plugged with a nonshrink grout or by using grout in combination with concrete plugs.

Where holes must be cut in the precast sections to accommodate pipes, do all cutting before setting the sections in place to prevent any subsequent jarring which may loosen the mortar joints. The Contractor shall make all pipe connections.

Structure lids shall be adjusted and grouted to match existing road grades.

#### 7-06.3(3) Water Quality Treatment Facility

The Water Quality Treatment Facility shall be surrounded by the gravity block wall conforming to Sections 8-24 and the details in the Plans and provided by the Contractor. The wall shall house the proprietary treatment soil mix media and components as indicated in the Plans. All internal components shall be provided by the manufacturer through coordination by the Contractor, except as otherwise indicated herein.

Internal Components:

All system components including engineered proprietary treatment soil mix media, underdrain stone, and mulch must be included as part of the water quality treatment facility system and shall be provided by the manufacturer, except as noted herein.

Engineered treatment soil mix media shall consist of both organic and inorganic components. Stormwater shall be directed to flow vertically through the media profile, saturating the full media profile without downstream flow control. The media shall meet the following parameters:

1. Engineered biofiltration media minimum treatment flow rate shall be 175 inches/hr.

2. The system shall be designed to ensure that high flow events shall bypass the engineered biofiltration media preventing erosion and resuspension of pollutants.

- 3. The system shall remove a minimum of 85% Total Suspended Solids (TSS).
- 4. The system shall remove a minimum of 62% Total Phosphorus (TP).
- 5. The system shall remove a minimum of 34% Total Nitrogen (TN).

#### Water Quality Treatment Facility Installation

The Water Quality Treatment Facility shall be installed in accordance with the manufacturer's recommendations and related sections of the contract documents with approval by the Engineer. The manufacturer shall provide the Contractor installation instructions and offer be on- site guidance during the installation and activation as defined in the installation procedure submittal.

The subgrade of the facility shall be protected from equipment access for the final 12inches of depth to preserve existing infiltration. The subsurface shall be sacrificed to a depth of 4-inch with hand leveling, as needed prior, to installing the geotextile liner.

Activation of the system must be provided by the Contractor under the supervision by the manufacturer and City. A minimum of three (3) business days' notice shall be provided to the manufacturer prior to their performance of the services included under this subsection.

Plantings which are part of a water quality treatment structure, where indicated in the Plans, shall be installed in accordance with the manufacturer's recommended procedures and Section 8-02.3(8). Where conflicts exist the manufacturer's procedures shall take precedence.

#### 7-06.3(5) Roof Drain Connection

The contractor shall replace the existing roof drains with new PVC drain pipes connection to the roof downpipe and discharging at locations as shown in the Plans.

The Roof Drain Connection piping and required fittings shall convey runoff from private roof drains to locations shown on the Plans without restriction.

#### 7-06.3(6) Submittals

Submit shop drawings and installation procedures for review and approval a minimum 20 days prior to ordering pretreatment unit and water quality treatment facility structures.

The manufacturer shall submit to the Engineer a "Manufacturer's Performance Certification" certifying that each unit is capable of achieving the specified removal efficiencies and flow rates listed in the plans and special provisions.

Submissions for substitutions require review and approval of the Engineer, for hydraulic performance, impact to project design, and equivalent treatment performance. Contractor to coordinate with the Engineer for any modifications resulting from the product substitution.

Provide operations and maintenance manuals or instructions for each proprietary device installed. The document(s) shall include recommended maintenance procedures, frequencies, inspection instructions and checklists, conditions which trigger maintenance, and replacement material information.

#### 7-06.4 Measurement

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-06.5 Payment

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

#### 7-08.1 Description

Further supplement 7-08.1 as follows:

#### 7-08.1(1) Submittals

(\*\*\*\*\*)

Provide Type 2 Working Drawings for all materials and Standard Plans.

Provide Type 3E Working Drawings for dewatering plans, if any.

#### 7-08.2 Materials

Delete material items listed in 7-08.2 and substitute the following:

Provide materials meeting the following requirements:

Foundation Material Class A or B	9-03.17	Standard Specifications
Gravel Borrow	9-03.14(1)	Standard Specifications
Controlled Density Fill	2-09.3(1)E	Special Provisions
Crushed Surfacing Base Course	9-03.9(3)	Standard Specifications

### 7-08.3 Construction Requirements

#### 7-08.3(1) Excavation and Preparation of Trench

#### 7-08.3(1)A Trenches

Revise the second paragraph in 7-08.3(1)A and to read as follows:

Excavate trench in accordance with COE Standard Drawing No 614.

Delete the second sentence in the third paragraph in 7-08.3(1)A and substitute the following:

Contractor may excavate above the top of the pipe zone only as wide as necessary to meet OSHA requirements.

#### 7-08.3(1)C Bedding the Pipe

Delete the second and third paragraphs in 7-08.3(1)C and substitute the following:

Provide pipe zone bedding in accordance with COE Standard Drawing 614 and 615.

If the Engineer determines the material existing in the trench bottom is satisfactory for bedding the pipe, then the bedding material specified in the COE Standard Drawing 615 is not required, provided the existing material is loosened, regraded, and compacted to form a dense, unyielding base.

Supplement 7-08.3(1) by adding the following:

## 7-08.3(1)D Trench Dewatering (\*\*\*\*\*\*)

This section specifies the definition, responsibilities and execution for dewatering associated with trench excavation for pipes, manholes, catch basins, cleanouts, side sewers and other buried utility work. Implement trench dewatering measures where necessary or directed by the Engineer. Implementation shall include, but not be limited to, the design, furnishing, installation, operation, maintenance, monitoring, reporting and removal of dewatering systems to achieve proper completion of Work performed under this Contract.

Prevent the flow of surface water runoff into the trench excavation. Control surface water and other erosion control measures associated the Work in accordance with 8-01 of the Standard Specifications and modified in these Special Provisions.

Maintain groundwater level at or below the bottom of the excavation in all Work areas during excavation, foundation preparation, pipe and structure installation and backfilling. Trench dewatering shall sufficiently control groundwater to prevent softening of the bottom of the excavations or formation of "quick" conditions or "boils" during excavation. Use gravel or non-moisture sensitive trench backfill in areas encountering groundwater. If foundation soils are disturbed or oversaturated with water, then over excavate and replace the affected areas with suitable fill at no additional cost to the Owner. Upon completion of dewatering operations, restore the normal water table to its natural level in such a manner as to not disturb the pipe, its foundation and structures. Contractor shall be solely responsible to control the rate and effect of the dewatering in a manner to avoid all objectionable settlement and subsidence.

Direct discharge flow from trench dewatering to a nearby sewer or storm drain system unless otherwise directed by the Engineer. Obtain, at no cost, a Discharge Authorization Permit from the City prior to discharging trench dewatering flows into the City sewer or storm drain system. Control groundwater by trench dewatering systems designed and operated to minimize turbidity of the discharged flow and to prevent removal of the natural soils or imported fill. Soils data for use in planning the dewatering system is available from the Soil Boring Logs in Appendix A or the Contractor may perform its own soils investigation. Contractor shall be responsible for cost of additional investigative work Contractor requires for designing the dewatering system. Plan and implement trench dewatering systems using accepted and professional methods of design and engineering consistent with the best modern practice. Trench dewatering systems shall be comprised of gravel-lined sumps, dewatering pumps, piping and conveyance components necessary for complete and reliable function.

Before dewatering operations begin, the Contractor shall have available on the Work site sufficient pumping equipment, or other machinery, or both, to assure maintaining continuous operation of the trench dewatering system. Supply power service to dewatering pumps including, but not limited to, electrical, hydraulic, gas, or diesel, Maintain the dewatering system to allow for continuous operation without interruptions. If necessary, provide 24-hour supervision and follow-up by personnel skilled in the operation, maintenance, and replacement of dewatering system components. Damage to Work in place and the excavation, including damage to the trench bottom, due to "boiling", material removal, or discharge pumping from the excavated area, that may result from negligence, inadequate or improper installation, maintenance and operation of the dewatering system, or mechanical or electrical failure of the dewatering system shall be Contractor's responsibility to repair at no cost to the City.

Trench dewatering shall be included with the Work required for Sewer Pipe, Manholes, Side Sewer Connections, Storm Drain, Catch Basins, Utility Restoration or other excavation activity performed as part of this Contract with no direct compensation made.

#### 7-08.3(2) Laying Pipe

#### 7-08.3(2)A Survey Line and Grade

Delete both paragraphs of 7-08.3(2)A and substitute the following:

Provide surveys required to construct the sewer line including, but not limited to, alignment stakes, offset stakes, grade hubs, and intermediate staking. Use main survey control points shown on the Plans, unless Engineer directs otherwise. If a Bid item for "Surveying" is not listed in the Proposal, then this item shall be included with the Work with no direct compensation made.

Provide laser control equipment approved by the Engineer for setting pipe grades.

#### 7-08.3(2)H Sewer Line Connections

Supplement 7-08.3(2)H by adding the following:

Reconnect existing storm drain lines to new sanitary sewer line in accordance with the Plans, these Special Provisions and the Standard Specifications.

Provide a minimum 8-inch diameter pipe for new storm drain line. Provide manufactured couplers for joining dissimilar size and type of existing storm drain line pipe.

Engineer will not allow vertical connections of drain lines to sewer main between manholes without Engineer's prior approval.

Reconnecting drain lines shall be included with the Work with no direct compensation made.

#### 7-08.3(2)I Side Sewer Connections

Supplement 7-08.3(2)I by adding the following:

Make typical side sewer connections in accordance with COE Standard Drawing No. 602.

#### 7-08.3(2) Laying Pipe

Supplement 7-08.3(2) by adding the following:

## 7-08.3(2)J High Density Polyethylene Pipe (HDPE) for Combined Sewer (\*\*\*\*\*\*)

Provide leak-proof thermal HDPE butt joints, except at field closures and other joint connections specifically identified or approved by the Engineer. Butt weld HDPE joints in accordance with manufacturer's recommendation and ASTM D 2657. Use tools recommended by the pipe supplier and approved by the Engineer to fuse joints. Use pipe manufacturer trained and certified operators to operate the joint fusing equipment. Provide fusing machine having hydraulic pressure control for fusing two pipe ends together. Accurately trim ends of pipe to form perpendicular faces prior to fusing. Provide electrically heated and thermostatically controlled heating plate on the fusing machine with a temperature gauge for monitoring temperature. Subject the heating plate to periodic inspection, using a temperature stick, to assure even heating. Provide a HDPE flange adapter with a 316 stainless steel follower ring having Class 125 flange bolt pattern where flanged connections are required.

Provide joints between pipe sections free from sharp edges, ridges and depressions on the inside. Internal projection beads do not need be removed from each pipe joint, unless otherwise noted on the Plans. Provide true alignment at the butt-fused joint between the joined pipes with uniform roll back beads resulting from the use of proper temperature and pressure. Allow adequate cooling time before removing pressure from the butt joint. The fused joint shall be watertight and shall have tensile strength equal to the pipe. All joints shall be subject to inspection and acceptance by the City. Cut out and replace all defective joints at no cost to the City.

City will not permit threaded or solvent – cement joints and connections.

City will not allow fabrication of fittings in the field. Sleeve couplings, repair bands, mechanical joints, flanges and other types of pipe connections are not permitted unless shown on the Plans or authorized in advance by the Engineer or Inspector.

Construct trench in accordance with 7-08.3(1)A. Place pipe in the trench in accordance with 7-08.3(2)B and this section. Backfill in accordance with 7-08.3(3) and these Special Provisions. When backfilling and compacting HDPE pipe, ensure pipe is at the same temperature as the surrounding soil. Fill pipe with water and anchor HDPE pipe to counteract buoyancy if flowable CDF is used for bedding or backfill. City will not permit blocking under the pipe.

Provide continuous HDPE pipe entering manholes. City will not allow short PVC closure segments, except where explicitly shown on the Plans or approved by the Engineer.

#### 7-08.3(3) Backfilling

Delete the first paragraph of 7-08.3(3) and substitute the following:

Perform trench backfilling only after inspection and approval of the installed pipe bedding zone backfill. Refer to COE Standard Drawing No. 614, 615, 620 and the Plans for typical trench section backfill and compaction requirements.

Trenches shall be backfilled with "Gravel Borrow" conforming to 9-03.14(1) of the Standard Specifications. If excavated materials are demonstrated to meet the requirements for Gravel Borrow they may be used as trench backfill.

If there is an excess of suitable backfill material obtained from trench excavation at one location on the project, use it at other locations on the project or dispose of at an approved disposal site. The cost of transporting the excess backfill material is considered incidental to the Contract with no direct compensation made. Use Controlled Density Fill in lieu of select trench backfill for fill above pipe zone at street crossings and as directed by the Engineer in other areas where in order to prevent pavement patch settlement requires high density backfill placement or effective backfill compaction is not possible.

Delete the first sentence of the third paragraph.

Delete the third and fourth sentences of the fourth paragraph.

#### 7-08.3(4) Plugging Existing Pipe

Delete the first paragraph of 7-08.3(4) and substitute the following:

Where shown on the plans to plug and seal existing water main, sanitary sewer and storm drainage pipe plug existing pipe a minimum distance of 2-feet from the inlet end with cement grout and abandon in place.

#### 7-08.4 Measurement

Delete all paragraphs in 7-08.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-08.5 Payment

Delete all paragraphs in 7-08.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specification7-09 WATER MAINS

#### 7-09 WATER MAINS

#### 7-09.1 Description

Revise the first paragraph in 7-09.1 to read as follows:

This Work consists of constructing water mains in accordance with the Plans, the Standard Specifications, these Special Provisions and the COE Standard Drawings, at the location shown on the Plans.

#### 7-09.1(1) Definitions

#### 7-09.1(1)D Pipe Zone Backfill

Revise the first paragraph in 7-09.1(1)D to read as follows:

Pipe zone backfill includes material placed a minimum of 6-inches below the bottom of pipe up to a minimum of 12-inches above the top of pipe as shown on COE Standard Drawing No. 615.

#### 7-09.2 Materials

Substitute the following for the corresponding material in the material list in 7-09.2:

Polyethylene Encasement Fittings Restrained Joints Bolted, Sleeve–Type Couplings for Plain End Pipe	9.30.1(2) 9-30.2 9-30.2(6) 9-30.2(7)	Special Provisions Special Provisions Special Provisions Special Provisions
Aggregates:		
Pipe Zone Backfill Controlled Density Fill	9-03.22 2.09.3(1)E	Special Provisions Special Provisions

#### 7-09.3 Construction Requirements

#### 7-09.3(5) Grade and Alignment

Revise the first sentence of the third paragraph in 7-09.3(5) to read as follows:

Provide minimum cover from the final surface grade to the top of the pipe of 36inches for water mains less than 12-inches in diameter and 48-inches for water mains 12-inches or greater in diameter. Provide 60-inches as the maximum depth from the final surface grade to the top of all water main pipes. Adhere to both minimum and maximum depths from finish grades unless Plans indicate otherwise.

#### 7-09.3(7) Trench Excavation

Revise the second paragraph in 7-09.3(7) to read as follows:

Excavate bell holes to the extent necessary to permit accurate Work in making and inspecting the joints. Keep the banks of the trenches as nearly vertical as soil conditions will permit, and where required to control trench width or to protect adjacent Structures, sheet and brace the trench. Provide trench widths to 1 foot above the top of the pipe in accordance with COE Standard Drawing No. 614. Standard excavating equipment shall be adjusted so as to excavate the narrowest trench possible.

#### 7-09.3(7)A Dewatering of Trench

Supplement 7-09.3(7)A by adding the following:

Furnish, install, and operate necessary machinery, appliances, and equipment to keep excavations free from water during construction.

Trench dewatering shall be included with the Work with no direct compensation made.

#### 7-09.3(8) Removal and Replacement of Unsuitable Materials

Delete all three paragraphs of 7-09.3(8) and substitute the following:

Remove Engineer classified unsuitable material at the trench bottom and replace with "Foundation Material Class A or B", or other Engineer approved imported or native material.

Replace, at Contractor's expense, unauthorized over-excavation with Gravel Borrow. Compact Gravel Borrow to minimum 90-percent maximum density.

#### 7-09.3(9) Bedding the Pipe

Revise the first paragraph in 7-09.3(9) to read as follows:

Place sand backfill for pipe zone bedding to the depths shown in COE Standard Drawing No. 615. Compact sand backfill for pipe zone bedding around the pipe to 90-percent of maximum density by approved hand-held tools, so as to provide firm and uniform support for the full length of the pipe, valves, and fittings. Determine maximum in place density using nuclear method (ASTM 2922-17). Determine laboratory maximum dry density and optimum moisture content using the Modified Proctor Method in accordance with ASTM D-1557. Take care to prevent damage to the pipe and its protective coating.

#### 7-09.3(10) Backfilling Trenches

Revise the last paragraph in 7-09.3(10) to read as follows:

Place a minimum 12-inch sand cushion between the water main and existing pipelines or other conduits when encountered during construction.

Supplement 7-09.3(10) by adding the following:

Backfill trenches in accordance with COE Standard Drawings No. 614, 615 and 620.

Unless Engineer directs otherwise, provide Controlled Density Fill for fill above the pipe zone for water main construction that is perpendicular to the travel lane in paved street sections.

The Engineer may authorize the use of Gravel Borrow or suitable native material in non-paved areas.

#### 7-09.3(13) Handling of Pipe

Supplement 7-09.3(13) by adding the following:

Supply water main pipe having ends plugged by manufacturer immediately after manufacturing to eliminate debris entrance into the pipe during shipping and storage. Leave plugs in place until installing pipe in trench. Failure to supply the debris plugs or to maintain the debris plugs until pipe installation may be cause for City to reject the pipe or require Contractor to disinfect the pipe in accordance with AWWA C651 and as witnessed by City Water Quality personnel prior to installation.

#### 7-09.3(19) Connections

#### 7-09.3(19)A Connections to Existing Mains

Delete the last paragraph in 7-09.3(19)A and substitute the following:

Only City Utilities Department personnel may make connections to existing water mains after successful pressure testing, disinfection and flushing. Schedule arrangements with the City Utilities Department a minimum of five business days in advance of making connections to the existing water main. Assemble necessary materials, equipment, and labor necessary to properly complete the Work prior to beginning the connection.

Provide traffic control and expose the water main at the connection allowing sufficient room for COE forces to make connection, expose the water main at the connection, including properly shoring and sheeting the excavation in accordance with requirements of WISHA, RCW 49.17 including WAC 296-155. Should City personnel determine the excavation and shoring and sheeting do not meet the requirements of WISHA, RCW 49.17, including WAC 296-155, City personnel will notify Contractor to make necessary modifications to bring the excavation and shoring into compliance prior to City personnel entering the trench.

Repair damage to existing pipe caused by the Contractor's operations at Contractor's expense.

Proceed continuously once Work is started on a connection without interruption and as rapidly as possible until completed. City will not permit shutoff of mains overnight, over weekends, or on holidays.

Notify COE water customers affected by water shut off if the connection to the existing system involves turning off the water. Provide a minimum of 48-hours prior notice. The Engineer will advise which property owners to notify.

Depending upon the number of water customers affected by a shut-off, Contractor may need to perform the connection during times other than normal working hours. Do NOT operate valves on the existing system. Only City Utilities Department personnel may operate water system valves.

Refer to 7-12.3 of these Special Provisions for tapping assembly connections, if any.

#### 7-09.3(21) Thrust Blocking

Revise the first sentence of the first paragraph to read as follows:

Place concrete thrust blocking, as noted on the Plans and described in these Special Provisions, at bends where new ductile iron pipe connects to existing cast iron pipe.

Supplement 7-09.3(21) by adding the following:

Provide mechanical joint restraining devices in place of concrete blocking on all fittings connecting ductile iron pipe to ductile iron pipe.

Where shown on the Plans or as allowed by the Engineer, provide concrete thrust blocking at bends, tees, plugs and crosses, including City installed fittings. Provide cast-in-place concrete thrust blocking having a minimum of 1/4-square foot bearing against the fitting and two square feet bearing against undisturbed soil and be clear of joints so as to permit taking up or dismantling joint. Provide a minimum measurement of 12-inches between the pipe and the undisturbed bank for all poured in place concrete thrust blocking. Form concrete blocking and pour using commercial concrete. Place blocking between solid ground and the fitting to be anchored with the area bearing on the pipe and on the ground in each instance being as Shown or directed by the Engineer. Place the blocking, unless otherwise shown or directed, so that the pipe and fitting joints, including nuts and bolts, can be accessible for repair.

#### 7-09.3(22) Blowoff Assemblies

Revise the first paragraph under 7-09.3(22) to read as follows:

Construct Blowoff Assemblies at the locations shown on the Plans and in accordance with COE Standard Drawing No. 511.

#### 7-09.3(23) Hydrostatic Pressure Test

Supplement 7-09.3(23) by adding the following:

Provide City approved double-check assembly for the purpose of testing and flushing. City will not charge for the water used in this operation.

Successfully complete hydrostatic pressure test prior to starting disinfecting new water mains.

#### 7-09.3(23)A Testing Extensions from Existing Mains

Delete 7-09.3(23)A.

#### 7-09.3(24) Disinfection of Water Mains

Delete 7-09.3(24), including subsections, and substitute the following:

## 7-09.3(24) Flushing and Disinfection of Water Mains (\*\*\*\*\*\*)

Flush, disinfect with a chlorine solution and obtain passing coliform bacteria test reports before placing new water mains or extensions to existing mains in service. Submit flushing and disinfection procedures in accordance with this section. Provide submittal containing, at a minimum:

- location of taps and other appurtenances used for chlorination and flushing purposes,
- location of the sample collection taps,
- disposal location and treatment procedure for chlorinated water discharged from the mains, and
- procedure for disinfection including application method, point of application, and target concentrations for the contact interval being used.

#### 7-09.3(24)A Flushing

Flush sections of pipe being disinfected to remove solids that may have become lodged in the pipe. Provide a tap sufficient to provide a flush velocity inside the main of at least 2.5 fps if no hydrant is installed at the end of the main. Flush as long as material or color is visible in the discharge. Flush at a minimum one full pipe volume of water from the section of new main being tested.

#### **CITY OF EVERETT SPECIAL PROVISIONS**

	for ) psi r	Required esidual press			nings	to	Flush	Pipelines
Pipe Dia. (in.)	to	ow Required Produce 2.5 s (approx)		Size c	of Tap (i	n)		nber of ' Hydrant ets
		elocity in Mai	n	1	1 1/2	2		
	(g	pm)		(in)	(in)	(in)		
4	10	0		1			1	
6	20	0			1		1	
8	40	0			2	1	1	
10	60	0			3	2	1	
12	90	0				2	2	
16	1,0	600				4	2	

Guidelines for Water Main Volume		
Inside Dia. (in)	Volume per 100 LF (gal)	
4	65	
6	147	
8	261	
10	408	
12	587	
20	1,632	

Provide taps and other appurtenances required for temporary release of air, chlorination, or flushing purposes as a part of the Work.

To protect aquatic life in receiving waters, neutralize the chlorine contained in the discharge water before disposing into a natural drainage channel or feature draining to a natural channel. Dispose of disinfecting solutions to the satisfaction of the City of Everett and the Washington Department of Ecology. Discharge water disposal may be directed to an available sanitary sewer, if approved by the Engineer and provided the rate of disposal will not overload the sewer.

## 7-09.3(24)B Disinfectant Concentration and Retention Period (Contact Interval)

Provide disinfection concentration necessary to obtain a free chlorine residual of not less than 10 mg/1 remaining in the disinfectant solution after a 24 hour contact time. Provide the initial free chlorine residual concentration of disinfectant solution not less than 25 mg/l. Contractor may reduce disinfectant chlorine solution contact time from 24 to 12 hours by using an initial disinfectant concentration of 50 mg/l. Maximum allowable disinfectant concentration shall be 50 mg/l. The ending concentration of an initial 50 mg/l solution following a 12 hour contact time shall be not less than 10 mg/l.

#### 7-09.3(24)C Form of Applied Chlorine

Perform disinfection of water mains using the continuous feed method employing either liquid calcium hypochlorite or liquid sodium hypochlorite solutions. Dry calcium hypochlorite and gaseous or liquid chlorine is not allowed.

Follow the continuous feed methods specified in the most recent version of AWWA Standard C-651 and Section 5-15 of the latest edition of the City of Everett "Design and Construction Standards and Specifications for Development", except for the City's prohibition on the use of dry calcium hypochlorite or gaseous chlorine.

#### 7-09.3(24)D Point of Application

Whenever possible, use the beginning of the pipeline extension, or a valved section of it, as the point of application for the disinfectant solution. Provide a tap to supply water for delivering the disinfectant solution on the pressure, or upstream, side of the valve controlling the flow into the pipeline extension, but downstream of the backflow preventer used to isolate the new main from the existing water distribution system. Obtain Engineer approval in writing to use alternate points of applications.

For a City allowed direct tie-in to an existing main via an in-line backflow preventer and with the approval of the Inspector, the point of application may be through a corporation stop inserted in the horizontal axis of the pipe. Locate tap within 10feet of where the line is tied into the existing system. Swab the internal surfaces of the backflow preventer and adjacent downstream appurtenances, valves or couplings for example, with straight hypochlorite solution prior to their installation.

#### 7-09.3(24)E Preventing Reverse Flow

Provide a State Department of Health approved backflow preventer installed in the connecting line before making a connection between the existing distribution system and water lines constructed under this Contract that have not been flushed, disinfected, and tested. Install backflow preventer upstream of temporary fill hoses and disinfectant injection equipment.

#### 7-09.3(24)F Chlorinating Valves, Hydrants, and Appurtenances

Operate valves, hydrants, and other appurtenances during the disinfectant contact interval for newly-laid pipe while filling the pipeline with the disinfectant chlorine solution and the main is under normal operating pressure. Normal operating pressure is the pressure the existing distribution system provides through the temporary backflow protection device.

## 7-09.3(24)G Chlorinating Connections to Existing Water Mains and Water Service Connections

Chlorinate connections to existing water mains in accordance with the following sections of the most recent revision of AWWA Standard C651:

- Section 4.6 Final Connections to Existing Mains,
- Section 4.7 Disinfectant Procedures When Cutting Into or Repairing Existing Mains, and
- Section 4.8 Special Procedures for Caulked Tapping Tees

Swab the internal surfaces of closure fittings with a 5 to 6 percent chlorine solution that can be found in liquid household sodium hypochlorite bleach.

#### 7-09.3(24)H Final Flushing and Testing

Notify the City Utilities Division, Environmental Monitoring and Compliance (EMC) staff at least five business days prior to requiring EMC staff to collect samples and measure the chlorine concentration of the disinfectant solution placed in the new main. EMC staff will collect and measure samples at the start and at the end of the disinfectant contact period.

Provide sample taps as noted in 7-09.3(24)I to allow EMC staff to collect at least one set of disinfectant concentration, coliform bacteria and free chlorine samples from both ends of new mains, at the end(s) of each cross or branch, and every 1200 feet along the main.

Notify EMC staff at least five business days prior to requiring having EMC staff collect final coliform bacteria and free chlorine residual samples.

The City of Everett EMC staff will collect bacteriological and disinfectant residual samples for submitting to Washington State Department of Health, Drinking Water Division certified laboratory for testing. EMC staff will immediately notify Contractor and Engineer upon receiving analysis results.

Upon receiving passing test results, flush disinfectant solution from the newly-laid mains until the replacement water throughout the length of the main tests having a level of free chlorine residual representative of the distribution system water supply.

#### 7-09.3(24)I Sample Collection Taps

Provide water sample collection taps at each required sampling location in accordance with COE Standard Drawing No. 526 and as described in these Special Provisions.

Locate the end of each water sample collection tap above existing ground level. Plumb taps to provide downward water flow to allow effective filling of sample containers. City EMC staff shall have the authority to refuse to conduct sampling from taps they consider inadequate or not representative of water main quality. On mains exceeding 1,200 feet, provide for sample collection at one of the water services shown on the Plans. If no water services are shown on the Plans, provide 3/4-inch sampling tap at appropriate locations along the main.

For mid-line service taps not providing future customer service, plumb into deadend meter setters and meter boxes at the street or sidewalk edge for use as future dedicated sampling locations in accordance with COE Standard Drawing No. 526.

Locate sample tap upstream of the flushing hose connection for bacterial and disinfectant residual sampling. Due to sanitary and representative sampling issues, use only installed sample taps for collection of free chlorine or bacteriological samples.

#### 7-09.3(24)J Repetition of Flushing and Testing

Should the initial disinfection procedure result in an unsatisfactory bacteriological test, meaning total coliform bacteria is present, repeat the entire flushing and disinfection procedure until obtaining satisfactory test results. Unsatisfactory test results indicates Contractor's failure to keep the pipe, sample taps, and temporary filling attachments clean during construction, or to properly flush and disinfect the main.

Supplement 7-09.3 by adding the following:

## 7-09.3(25) Mechanical Joint Restraining Devices

(\*\*\*\*\*)

Restrain joints at bends, tees, dead ends and connections to existing water mains as shown on the Plans using mechanical joint restraining devices.

Install joint restraint system in accordance with the manufacturer's recommendations.

## 7-09.3(26) Water Relocation Support (\*\*\*\*\*\*)

All work should be coordinated with the City Water Department through the Engineer. A minimum of 7 days notice must be provided when city crews will be needed.

The Hydrant replacement at the northwest corner of 3rd Avenue SE and 9th Street SE will include the following:

- 1. The City Water Department will turn off the valve to the hydrant.
- 2. The contractor will excavate the trench, an approximate distance of 35 lineal feet, and remove all water lines and appurtenances from the valve to the hydrant, including the hydrant. The hydrant shall be salvaged and stored for pickup by the City at the site;
- 3. The contractor shall then install the storm drain and any other project non-water system elements, as necessary;
- When the contractor is ready for the hydrant to be reinstalled the contractor will provide a trench and bedding consistent with the specs and notify the City when ready;
- 5. The city will provide and install the pipe, appurtenances, and new hydrant. The contractor will need to backfill the trench and restore the surface.

The contractor may keep the original trench open and install a temporary metal plate or backfill and re-trench for the new hydrant.

The 2-inch water line modification at approximate Station 20+07, 14 feet left, shall include the following:

1. The contractor will expose a minimum of 12 feet of the 2-inch water line including the connection to the larger main.

- 2. The city will then install a loop (slack) in the main which the contractor can then move around as needed to install the storm line.
- 3. The contractor will be responsible for bedding and backfilling the exposed pipe when improvements are complete.

### 7-09.4 Measurement

Delete all paragraphs of 7-09.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-09.5 Payment

Delete all paragraphs of 7-09.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

### 7-12 VALVES FOR WATER MAINS

#### 7-12.1 Description

Supplement 7-12.1 as follows:

#### 7-12.1(1) Submittals

(\*\*\*\*\*)

Provide Type 2 Working Drawings for all materials and Standard Plans.

#### 7-12.2 Materials

Delete the first paragraph in 7-12.2 and substitute the following

Provide materials meeting the requirements of the following:

÷ .	-	
Gate Valves (2-inches to 12-inches)	9-30.3(1)	Special Provisions
Butterfly Valves	9-30.3(3)	Special Provisions
Valve Boxes	9-30.3(4)	Special Provisions
Valve Stem Extensions	9-30.3(6)	Special Provisions
Combination Air Release/Vacuum Valve	9-30.3(7)	Special Provisions
Tapping Sleeve and Valve	9-30.3(8)	Special Provisions
Assembly		

#### 7-12.3 Construction Requirements

Supplement 7-12.3 by adding the following:

Install valve box centered on the operator nut.

Provide 3-inch thick x 2-feet x 2-feet HMA concrete pad around valve boxes located within gravel surface.

Provide one valve stem extension, minimum 12-inch length, in accordance with COE Standard Drawing No. 505 when the top of the valve operating nut is more than three feet below finished grade.

Provide equipment, labor, tools, materials and miscellaneous parts to perform pavement sawing, pavement removal, excavations, shoring, traffic control and other Work required to prepare the site for City Utility Department personnel to install the City supplied tapping sleeve and valve assembly.

Notify City Utility Department a minimum of five business days for each tap being made. The Utility Department will determine the date and time to make each tap.

Expose the water main being hot tapped, including properly shoring the excavation in accordance with requirements of WISHA, RCW 49.17 including WAC 296-155. Should

City personnel determine the excavation and shoring do not meet the requirements of WISHA, RCW 49.17, including WAC 296-155, City personnel will notify Contractor to make necessary modifications to bring the excavation and shoring into compliance prior to City personnel entering the trench.

Once the conditions are deemed safe for City personnel to enter the trench, City will install the tapping sleeve and valve assembly and Utility Department personnel will perform the hot tapping of the existing main. Upon City Utility Department personnel completing installing and testing the tapping sleeve and valve assembly. City Utility Department personnel will connect to Contractor's installed pipe upon Contractor's successful completion and testing of Contractor installed water main. Backfill, compact, and restore the area.

Where shown on the Plans, adjust existing valve boxes and covers to the grade as staked or otherwise designated by the Engineer. Using riser rings to adjust the valve box to grade is not allowed.

Conduct removal operations conducted to prevent damage to the valve boxes. Replace parts or materials damaged due to the Contractor's operations at his expense.

Conduct valve box adjustments so the final adjusted valve box allows full operation of the valve. Remove debris from the adjusted valve boxes to ensure full valve operation.

Delete the third sentence of the first paragraph in 7-12.3(1) and substitute the following:

Where shown on the Plans, provide valve marker post with the exposed portion having the letter "V" and the distance in feet to the valve stenciled in black paint on the post. Provide a two inch high stencil to produce the letters and numerals.

#### 7-12.4 Measurement

Delete all paragraphs of 7-12.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-12.5 Payment

Delete all paragraphs of 7-12.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-14 HYDRANTS

#### 7-14.1 Description

Supplement 7-14.1 as follows:

7-14.1(1) Submittals

(\*\*\*\*\*)

Provide Type 2 Working Drawings for all materials and Standard Plans.

#### 7-14.2 Materials

Delete the material list in 7-14.2 and substitute the following:

Provide materials meeting the requirements of the following:

Hydrants 9-30.5 Special Provisions

#### 7-14.3 Construction Requirements

#### 7-14.3(1) Setting Hydrants

Delete the first and second paragraphs in 7-14.3(1) and substitute the following:

Provide fire hydrant assemblies in accordance with City of Everett Standard Drawing No. 507 and 508.

Revise the first sentence of the fourth paragraph to read as follows:

Paint hydrants in accordance with Part L in COE Standard Drawing No. 507.

Supplement 7-14.3(1) as follows:

Consider a hydrant in service when it is installed in working order in accordance with the Plans and Specifications.

#### 7-14.3(2) Hydrant Connections

Delete the first paragraph in 7-14.3(2) and substitute the following:

Provide continuous 6-inch diameter ductile iron pipe from the auxiliary gate valve at the main to the hydrant in accordance with COE Standard Drawing 507.

Provide mechanical joint restraining glands conforming to 9-30.2(6) of these Special Provisions.

#### 7-14.3(2)A Hydrant Restraints

Revise the first paragraph in 7-14.3(2)A to read as follows:

Restrain thrust created in short hydrant laterals of one pipe length or less using mechanical retainer glands at the auxiliary valve and hydrant fittings as shown in the COE Standard Drawing No. 507. For longer hydrant leads requiring two or more pipe lengths, Contractor may use field lock gaskets in lieu of mechanical joint restraint system to restrain the number of pipe joints between the auxiliary valve and the hydrant.

#### 7-14.3(2)B Auxiliary Gate Valves and Valve Boxes

Revise the first paragraph in 7-14.3(2)B to read as follows:

Provide auxiliary gate valves and valve boxes in accordance with Section 7-12 and COE Standard Drawing No. 507.

#### 7-14.3(2)C Hydrant Guard Posts

Revise the first paragraph in 7-14.3(2)C to read as follows:

Provide hydrant guard posts at the locations shown on the Plan and in accordance with COE Standard Drawing No. 508.

#### 7-14.3(4) Moving Existing Hydrants

Delete third and fourth sentences in the first paragraph in 7-14.3(4) and substitute the following:

Provide safe excavation for City Utilities personnel to install new hydrant tee using tapping sleeve and valve assembly in accordance with 7-12.3 of these Special Provisions and the Standard Specifications. Excavate to cut off and plug the existing hydrant lateral, completely close the existing hydrant auxiliary gate valve, remove the valve box, backfill and compact.

#### 7-14.3(5) Reconnecting Existing Hydrants

Revise the second paragraph in 7-14.3(5) to read as follows:

Use mechanical retainer glands to restrain new hydrant lateral connection to hydrant fitting.

#### 7-14.4 Measurement

Delete all paragraphs of 7-14.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-14.5 Payment

Delete all paragraphs of 7-14.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

### 7-15 SERVICE CONNECTIONS

#### 7-15.1 Description

Delete the first paragraph of 7-15.1 and substitute the following:

This Work consists of installing residential and commercial service connections from the main to the private line for the premises served. Include the meter box and meter setter for existing non-metered services. Include replacing existing meter boxes and meter setters as noted on the Plans and as directed by the Engineer.

Work also includes abandoning existing service connection and service connection pipe in-place.

#### 7-15.1 Description

Supplement 7-15.1 as follows:

7-15.1(1) Submittals (\*\*\*\*\*\*)

Provide Type 2 Working Drawings for all materials and Standard Plans.

#### 7-15.2 Materials

Delete first paragraph and material list of 7-15.2 and substitute the following:

Provide materials meeting the requirements of the following sections:

Saddles	9-30.6(1)	Special Provisions
Corporation Stops	9-30.6(2)	Special Provisions
Service Pipe	9-30.6(3)	Special Provisions
Service Fittings	9-30.6(4)	Special Provisions
Meter Setters	9-30.6(5)	Special Provisions
Meter Boxes	9-30.6(7)	Special Provisions
Brass Nipples and	9-30.6(8)	Special Provisions
Fittings		-

#### 7-15.3 Construction Requirements

Revise the first paragraph in 7-15.3 to read as follows:

Provide new service connections to new water mains using specified saddles of the size and type suitable for use with the service pipe being installed. Install new service connection piping from the main to the meter box as shown on the Plans and directed by the City Inspector. Install service connection piping perpendicular to the main, unless shown otherwise on the Plans or directed by the City Inspector.

Revise the second paragraph in 7-15.3 to read as follows:

Provide trench depth adequate to maintain a minimum of 30-inches of cover over the top of the connecting service pipe. Exercise particular care to ensure that the main is not damaged by the Work undertaken to install the service. Excavate and backfill for service connections as specified in Section 7-09; except, use approved boring methods to install the service pipeline under cement concrete pavement, curbs, and sidewalks.

Supplement 7-15.3 by adding the following:

Provide service connections to water mains in accordance with COE Standard Drawings No. 501 and 502 as applicable.

Field verify actual service connection location, size and material as existing service information and locations shown on the Plans may not be accurate since this information is taken from existing records. Match the service size of the existing service connection with the minimum service size being 3/4-inch. Should the planned location require

moving after verifying actual service connection in field, City Inspector and the City Utility Department personnel will make final decision as to its relocation.

Replace existing services from the main to the property line, including the meter box and meter setting if noted on the Plans.

Bore service connection lines, regardless of size, under pavement section, curbs and sidewalks where soil conditions and other existing buried utilities allow. The City Inspector will allow open-cut trench installation across pavement section, curbs and sidewalks only where soil conditions prohibit boring. Open–cut lawn areas and other non-pavement areas for service installation unless City Inspector directs otherwise. The City Inspector may, at the Contractor's request, allow tunneling under curb and sidewalk as long as it appears no structural damage will be done to curb or sidewalk as a result of the tunneling operations. Regardless of the method used, the Contractor shall maintain a minimum of 30-inch cover over the service connection line. Where open cut trench installation is allowed, keep the trench width to 24-inches or less.

At existing metered services noted for removal or replacement on the Plans, salvage existing meter and stockpile on-site at location approved by City Inspector. Notify City Inspector 24-hours prior to removal to allow City Inspector to document the meter number and address of meter being removed. Remove and dispose of existing meter box, meter setter, fittings and service piping. Where existing metered services are not being replaced, backfill with native soil, compact and restore the surface to match existing condition.

Abandon in-place existing service connections noted on the Plans by exposing and closing the corporation stop at the main and plugging the service line near the public right of way or easement.

## 7-15.3(1) Relocate Water Meter and Box (\*\*\*\*\*\*)

Where shown on the Plans, or as directed by the City Inspector, salvage the existing water meter, meter box and the meter setter being relocated. Reinstall salvaged water meter, meter box and setter and provide new service connection pipe in accordance with City of Everett Standard Drawing Nos. 501 and 502 and adjust box to finish grade.

Abandon in-place existing service pipe connection by exposing and closing the corporation stop at the main and plugging the service line at the old meter box location.

#### 7-15.4 Measurement

Delete first paragraph of 7-15.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-15.5 Payment

Delete all paragraphs of 7-15.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-17 SANITARY SEWERS

#### 7-17.1 Description

Revise the first paragraph in 7-17.1 to read as follows:

This Work consists of constructing gravity sanitary or combined sewer mains using conventional open trench construction methods, as staked, in accordance with the Plans, these Specifications, and the COE Standard Drawings.

## 7-17.1 Description

Supplement 7-12.1 as follows:

## 7-17.1(1) Submittals

(\*\*\*\*\*)

Provide Type 2 Working Drawings for all materials and Standard Plans.

Provide Type 3E Working Drawings for construction of temporary by-passes.

## 7-17.2 Materials

Delete list of pipe materials in the first paragraph in 7-17.2 and substitute the following:

Use the following pipe materials for gravity sanitary and combined sewers:

#### Rigid

## Thermoplastic

ABS Composite
Ductile Iron PVC (Polyvinyl Chloride)
Polypropylene

Delete the list of material requirements in 7-17.2 and substitute the following:

Provide materials meeting the following requirements.

Solid Wall PVC Sanitary Sewer Pipe	9-05.12(1)	Special Provisions
Profile Wall PVC Sanitary Sewer Pipe	9-05.12(2)	Special Provisions
Ductile Iron Sewer Pipe	9-05.13	Special Provisions
ABS Composite Sewer Pipe	9-05.14	Special Provisions
Polypropylene Dual and Triple Wall	9-05.21	Special Provisions
Sanitary Sewer Pipe		

## 7-17.3 Construction Requirements

### 7-17.3(2) Cleaning and Testing

#### 7-17.3(2)G Deflection Test for Thermoplastic Pipe

Revise the first sentence of 7-17.3(2)G to read as follows:

After trench backfill and compaction are completed, perform deflection testing if CCTV testing reveals thermoplastic pipe being out of round.

#### 7-17.3(2)H Television Inspection

Delete all three paragraphs of 7-17.3(2)H and substitute the following:

After trench backfill and compaction are completed the City will use their CCTV camera to inspect the interior of mains and the interior of existing lines having Contractor installed new manholes or new side sewers or both. Provide the City with three business days notice for each CCTV request. Begin final roadway surfacing AFTER notice from City Inspector of City Sewer Department approval of the CCTV inspection.

Prior to arranging with City for CCTV inspection, perform the following:

Clean lines and structures of all debris,

Channel manholes inverts.

Seal pipes entering structures according to these Special Provisions.

Correct deficiencies noted by the City Inspector and the CCTV inspection results to the satisfaction of the Engineer.

City will bear initial inspection costs. Contractor shall be responsible for reinspection costs if CCTV equipment will not pass through the lines or structures on initial inspection. City will deduct cost for follow-up re-inspection after correction of deficiencies from Contractor's final payment on a direct cost basis.

#### 7-17.3(2) Cleaning and Testing

Supplement 7-17.3(2) by adding the following:

## 7-17.3(2)I Final Acceptance

(\*\*\*\*\*)

City will require successful completion of the following items prior to issuing final acceptance, including, but not limited to:

- 1. Passing low pressure air testing.
- 2. Backfill and compaction in accordance with COE Standard Drawings No. 610, 611 and 615.
- 3. Line and grade to the tolerance of 7-08.2(2)B.
- 4. Manholes to the invert elevation, fully channelized, and cleaned.
- 5. Manhole casting set to final grade.
- 6. Manhole construction in accordance with 7-05.3.
- 7. Lines free of debris and obstructions.
- 8. Bell and spigot joints properly seated as evidenced by successful completion of CCTV testing.
- 9. HDPE bead removal, where required, is accomplished without leaving sharp and jagged edges.

#### 7-17.4 Measurement

Delete both paragraphs of 7-17.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-17.5 Payment

Delete all paragraphs of 7-17.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-18 SIDE SEWERS

#### 7-18.1 Description

Delete the first paragraph in 7-18.1 and substitute the following:

This Work consists of constructing side sewers within the right of way in accordance with the Plans, the Specifications, these Special Provisions and the COE Standard Drawings at locations staked.

In some cases, minor adjustments in side sewer location and length will be required to adapt to field conditions.

#### 7-18.2 Materials

Supplement 7-18.2 by adding the following:

Provide materials meeting the following requirements.

Inserta-Tee	9-05.22	Special Provisions
Gasketed PVC Saddle	9-05.12(3)	Special Provisions
Stainless Steel Clamp	9-05.23	Special Provisions

#### 7-18.3 Construction Requirements

#### 7-18.3(1) General

Supplement 7-18.3(1) by adding the following:

Where indicated on the Plans, CCTV inspect live existing side sewer from the point of connection upstream to within 5-feet of the point of connection to the house, apartment or structure(s) the side sewer serves. Provide a two-way cleanout in accordance with Detail \$\$XX\$\$ on Drawing \$\$XX\$\$ at the point of connection to the existing side sewer. Provide method of connection for replacement side sewers to HDPE pipe as noted on

Detail \$\$1\$\$ on Drawing \$\$D1\$\$, which includes Inserta-Tee or gasketed saddle with stainless steel clamps. An additional method that may be approved upon acceptable Contractor Submittal information is saddle fusion method. Electrofusion, extrusion welded or hot gas/air welded saddle methods are not acceptable unless specifically authorized by the Engineer.

Further supplement 7-18.3 by adding the following:

### 7-18.3(6) Contractor Submittals

#### (\*\*\*\*\*)

Submit all procedures or material descriptions requiring the Engineer's approval as Type 3 Working Drawings not less than 15 calendar days prior to mobilizing or commencing side sewer replacement activities at the Site Include Working Drawings for side sewer pipe, fittings, cleanouts, adapters, castings, couplings, method of connection to the replacement main, information on the CCTV and locating equipment, sample CCTV inspection report and sample public notice with Submittal.

Following side sewer connection and inspection work submit videotapes, inspection reports, and record drawing sketches of the side sewer replacement and inspection. Submit inspection information on a color, digital DVD with on-screen footage counter and site address of each side sewer together with a written CCTV inspection report. Reinspect the side sewer, at no expense to the Owner, if video quality is not acceptable as determined by the Engineer. Reset the on-screen footage counter to zero at the beginning of each side sewer inspection.

#### 7-18.3(7) CCTV

(\*\*\*\*\*)

For the CCTV inspection locate and identify all branch connections to the existing side sewer including drains, basement and foundation drains, and all other connections. Accomplish location of the side sewer pipe by using a suitable sonde transmitter attached to the camera. Provide temporary markers positioned on the ground surface and to measure accurately from to create a record drawing sketch and a photograph.

Provide CCTV equipment approved by the Engineer before inspection begins. Provide CCTV equipment with the following minimum criteria:

- a. Self-contained color television cameras with footage counter, color monitor, three-wire coaxial cable, power sources, and other equipment.
- b. Waterproof camera having a minimum 650 line resolution capable of inspecting side sewers 3-inches to 6-inches in diameter and up to 200 feet in length.
- c. Operate in 100% humidity.
- d. Camera lighting that minimizes relative glare.
- e. Picture quality providing a clear, in-focus color picture of the entire pipeline periphery for all work conditions.
- f. Equipped with a centering device to ensure view of full pipe diameter.
- g. Capable of traveling upstream or downstream at a steady uniform rate, stopping where necessary to ensure a proper assessment of pipe defects, blockages, direction changes, material changes, and branch connections.

If the camera fails to pass through the side sewer within City right-of-way, temporarily suspend inspection and notify the Engineer of the obstruction. The Engineer may direct the Contractor on further actions.

## 7-18.3(8) Record Drawing Sketch (\*\*\*\*\*\*)

Prepare record drawing sketch for each side sewer connection and inspection using a City-furnished aerial photograph as a base plan, indicating the location, extent, depth and materials associated with the side sewer connection and the alignment, connections and defects encountered during CCTV inspection of the existing side sewer. Where

necessary for clarity, take photographs of ground surface of the site, prepare an 8-1/2 inch x 11-inch print of the photo and mark locations of pipe, bends, fittings and defects.

In addition, inspect and document field observations associated with each side sewer pipe including, but not limited to, existing pipe material, pipe diameter, joint type, joint integrity, extent of pipe deterioration, grade and alignment, bedding and backfill, root intrusion, and debris accumulation.

## 7-18.3(9) Sewer Backwater Valve Installation (\*\*\*\*\*\*)

At specific addresses identified on the Plans, provide a sewer Backwater Valve unit on the private side sewer line serving the home of the property owners to that executed an agreement with the City permitting the Contractor to do the Work. Appendix F contains a sample agreement. Plan, design and estimate the cost of labor and materials for each installation. Upon Engineer's approval of the estimate, the Engineer will instruct the Contractor to perform the Work. Locate the Backwater Valves upstream of yard and gutter drains that are connected to the side sewer line and at a location mutually agreed upon between the property owner and the Contractor. After City inspection and acceptance of the installed Backwater Valve, backfill all excavations, using backfill materials as required by the homeowner, such as gravel borrow, topsoil, sand, crushed rock, or native soil,. The homeowner is responsible for all remaining surface restoration on the private portion of the side sewer. Work for Backwater Valves installation will be paid as Force Account.

#### 7-18.4 Measurement

Delete first paragraph of 7-18.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-18.5 Payment

Delete all paragraphs of 7-18.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-19 SEWER CLEANOUTS

#### 7-19.1 Description

Revise the first paragraph in 7-19.1 to read as follows:

This Work consists of constructing sewer cleanouts within the right of way in accordance with the Plans, the Specifications, these Special Provisions and the COE Standard Drawings at locations staked.

#### 7-19.1 Description

Supplement 7-19.1 as follows:

#### 7-19.1(1) Submittals

(\*\*\*\*\*)

Provide Type 2 Working Drawings for all materials and Standard Plans.

#### 7-19.2 Materials

Supplement 7-19.2 by adding the following:

Provide materials meeting the following requirements.

Metal Frame and Cover 9-05.15(4) Special Provisions

## 7-19.3 Construction Requirements

Supplement 7-19.3 by adding the following:

Provide cleanout in accordance with COE Standard Drawing 604.

#### 7-19.4 Measurement

Delete first paragraph of 7-19.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 7-19.5 Payment

Delete all paragraphs of 7-19.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### **DIVISION 8 – MISCELLANEOUS CONSTRUCTION**

#### 8-01 EROSION CONTROL

#### 8-01.1 Description

Revise the first paragraph in 8-01.1 to read as follows:

This Work consists of furnishing, installing, maintaining, removing and disposing of inlet protection, and other water pollution and erosion control items in accordance with the Standard Specifications, these Special Provisions, as shown in the Plans, as shown on COE Standard Drawings, or as designated by the Engineer.

#### 8-01.2 Materials

Supplement the list of materials in 8-01.2 as follows:

Biodegradable Erosion Control Blanket

9-14.5(2)

#### 8-01.3 Construction Requirements

#### 8-01.3(1) General

Delete the first through eighth paragraphs and substitute the following:

The Contractor shall install a high visibility fence along the site preservation lines when shown in the Plans or as instructed by the Engineer.

Throughout the life of the project, the Contractor shall preserve and protect the delineated area, acting immediately to repair or restore any fencing damaged or removed.

Controlling pollution, erosion, runoff, and related damage requires the Contractor to perform temporary Work items including but not limited to:

- 1. Providing ditches, berms, culverts, and other measures to control surface water.
- 2. Building dams, settling basins, energy dissipaters, and other measures, to control downstream flows.
- 3. Controlling underground water found during construction.
- 4. Covering or otherwise protecting slopes and stockpiles until permanent erosion-control measures are working.

To the degree possible, the Contractor shall coordinate this temporary Work with permanent drainage and erosion control Work the Contract requires.

All sediment control devices including, but not limited to, sediment ponds, perimeter silt fencing, or other sediment trapping BMPs shall be installed prior to any ground disturbing activity. Clearing, grubbing, excavation, borrow, or fill within the Right of Way shall never expose more erodible earth than as listed below:

Western Washi (West of the Cascado Crest)	
May 1 through September 30	17 Acres
October 1 through April 30	5 Acres

#### 8-01.3(1)A Submittals

Revise 8-01.3(1)A to read as follows:

The Contractor shall prepare and submit a Temporary Erosion and Sediment Control (TESC) Plan consisting of a narrative section and plan sheets that meets Ecology's Stormwater Pollution Prevention Plan (SWPPP) requirement.

The Contractor may adopt the TESC measures indicated in the Drawings in preparing the TESC Plan. The Contractor shall complete and modify the TESC Plan to meet the Contractor's schedule and method of construction. All TESC Plans shall meet the requirements of the current edition of the Department of Ecology's Stormwater Management Manual for Western Washington and be adapted as needed throughout construction based on site inspections. The Contractor shall develop a schedule for implementation of the TESC work and incorporate it into the Contractor's progress schedule.

TESC plan shall be continually updated as site conditions change and erosion control measures are adjusted. The Contractor shall provide an updated TESC plan for review when requested by the Engineer.

The Contractor's adoption of the TESC Plans as shown in the Plans shall be submitted as a Type 1 Working Drawing. Modified TESC Plans shall be submitted as Type 2 Working Drawings.

Failure to accept all or part of any such Plan will not make the Contracting Agency liable to the Contractor for any Work delays.

At the request of the Engineer updated TESC Plans shall be prepared and provided to the City.

#### 8-01.3(1)B Erosion and Sediment Control (ESC) Lead

Revise the second and third paragraphs in 8-01.3(1)B to read as follows:

The ESC Lead shall implement the TESC Plan. Implementation shall include, but is not limited to:

- 1. Installing and maintaining all temporary erosion and sediment control Best Management Practices (BMPs) included in the TESC Plan to assure continued performance of their intended function. Damaged or inadequate TESC BMP's shall be corrected immediately.
- 2. Updating the TESC Plan to reflect current field conditions.
- 3. Develop and maintain the Site Log Book. As a part of the Site Log Book, the Contractor shall develop and maintain a BMP tracking table to show that identified TESC compliance issues are fully resolved within 10 calendar days. The table shall include the date an issue was identified, a description of how it was resolved, and the date the issue was fully resolved.

The ESC Lead shall also inspect all areas disturbed by construction activities, all on-site erosion and sediment control BMP's, and all stormwater discharge points at least once every calendar week and within 24-hours of runoff events in which stormwater discharges from the site. Inspections of temporarily stabilized, inactive sites may be reduced to once every calendar month. The Erosion and Sediment Control Inspection Form shall be completed for each inspection and a copy shall be submitted to the Engineer no later than the end of the next working day following the inspection. The Construction Site Inspection Form template is included in Appendix I and is available in fillable format for download from the Washington Department of Ecology's construction stormwater website. Note that this project is not required to conduct stormwater sampling and those portions of the form may be marked N/A.

#### 8-01.3(1)C Water Management

Supplement the section with the following:

Dewatering water and high pH runoff should be discharged to sanitary sewer if permissible. An Industrial Discharge Approval Request Form shall be submitted to the City of Everett Public Works Department for approval if dewatering is anticipated. A copy of the form is included in Appendix J. Questions about the authorization may be directed to Scott Hodgson, Maintenance and Operations Supervisor, at 425-257-8828.

#### 8-01.3(2) Seeding, Fertilizing, and Mulching

#### 8-01.3(2)A Preparation For Application

#### 8-01.3(2)A1 Seeding

Revise the first paragraph in 8-01.3(2)A1 to read as follows:

Cultivate trench restoration in turf areas to 4-inch depth to provide firm yet friable seedbed. Provide topsoil if needed. Cultivate seeding restoration areas no sooner than one week prior to seeding.

Delete the third paragraph in its entirety.

Supplement 8-01.3(2)A1 by adding the following:

Provide a smooth, consistent, friable surface acceptable for all areas being seeded by raking or similar treatment acceptable for seeding as determined by the Engineer.

Provide all areas being seeded free of all visible clods, rocks and debris measuring one-inch or larger in any dimension.

#### 8-01.3(2)B Seeding and Fertilizing

Supplement 8-01.3(2)B by adding the following:

Use hydroseeding application method where feasible, uniformly apply a slurry of seed, fertilizer, mulch and water over all disturbed areas unless shown otherwise on the Plans.

Use Seed Mix #2, as specified in 9-14.2 of these Special Provisions, for restoring areas with established lawns.

Apply permanent seed mixture #2 uniformly over the areas being restored at a rate of 4-pounds per 1,000 square feet.

Apply temporary seed mixture uniformly over the areas being restored at a rate of 2-pounds per 1,000 square feet.

Apply starter fertilizer in accordance with Section 9-14.3 at a rate of 8 pounds per 1,000 square feet. For hydroseeding application, incorporate the fertilizer into the seed, mulch and water slurry and apply in accordance with these Special Provisions.

#### 8-01.3(2)D Mulching

Supplement 8-01.3(2)D by adding the following:

Apply wood cellulose fiber at the rate of 60 pounds per 1,000 square feet.

#### 8-01.3(8) Street Cleaning

Delete 8-01.3(8) and substitute the following:

Provide self-propelled pickup sweepers equipped with water spray systems for dust control and designed and operated to meet air quality standards for pavement cleaning and debris removal as required. The use of supplementary water to suppress dust while performing cleaning Work shall be held to a minimum unless designated otherwise by the Engineer.

Plan construction operation to minimize the need for street cleaning.

Sweep streets and roadways as needed at least once per day. Sweep all roadway areas subject to construction traffic within the Project area and connecting streets, preferably during non-peak use hours of the Project site. More frequent cleaning may be required, as directed by the City's Inspector, as conditions warrant.

Clean up spills immediately. Failure to clean streets or spills as required will result in City procuring street cleaning services, or cleaning streets themselves at City overtime rates. Either way, Contractor shall be responsible for reimbursing the City for cost incurred. If Contractor fails to promptly reimburse City then City will deduct cost, plus interest on unpaid balance, from Contractor's final payment.

#### 8-01.3(9) Sediment Control Barriers

#### 8-01.3(9)A Silt Fence

Delete the fifth paragraph in 8-01.3(9)A and substitute the following:

Provide steel posts consisting of U, T, L or C shape posts with a minimum weight of 1.35 lbs/ft, or other steel posts having equivalent strength and bending resistance to the posts listed. Provide silt fence conforming to COE Standard Drawing 214.

#### 8-01.3(15) Maintenance

Delete the fifth paragraph of 8-01.3(15).

#### 8-01.3(16) Removal

Revise the first paragraph of 8-01.3(16) to read as follows:

The Contractor shall remove all temporary BMPs and all associated hardware from the project limits prior to Physical Completion unless otherwise approved by the Engineer. All permanent stabilization of disturbed areas shall be completed prior to removal of temporary BMPs.

#### 8-01.4 Measurement

Delete all paragraphs in 8-01.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-01.5 Payment

Delete all paragraphs in 8-01.5 and substitute the following:

Payment for bid items of Work completed pursuant to the Contract Documents will be as described in Division B – Bid Item Descriptions of these Special Provisions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-02 ROADSIDE RESTORATION

#### 8-02.1 Description

Supplement 8-02.1 by adding the following:

All plant materials required by the Contract Documents shall be Plant Selection Including Plant Establishment (PSIPE) per the Standard Specifications.

#### 8-02.2 Materials

Supplement 8-02.2 by adding the following to the list of materials:

Soils	9-14.1(1) (Special Provisions)
Seed	9-14.2 (Special Provisions)
Bark or Wood Chip Mulch	9-14.4(3) Special Provisions)
Compost	9-14.4(8)
Plant Materials	9-14.7

#### 8-02.3 Construction Requirements

#### 8-02.3(1) Responsibility During Construction

Supplement 8-02.3(1) by adding the following:

No dumping or stockpiling of topsoil, compost or bark mulch on roadway surfaces will be allowed.

#### 8-02.3(2) Work Plans

#### 8-02.3(2)A Roadside Work Plan

Supplement 8-02.3(2)A by adding the following:

Submit to the City a Roadside Work Plan meeting the requirements of the Standard Specifications a minimum of 30 calendar days prior to commencing the installation of topsoil, compost, seeding, bark mulch or landscape materials.

#### 8-02.3(4) Topsoil

Revise the first paragraph of 8-02.3(4) to read as follows:

Spread topsoil evenly over the specified areas to the depth shown in the Plans or as otherwise ordered by the Engineer. Prior to spreading topsoil cultivate existing soil to a depth of six inches or as specified in the Special Provisions or Plans. After spreading topsoil rake up, remove and dispose of all large clods, hard lumps, and rocks 1 inch in diameter and larger.

Delete section 8-02.3(4)A in its entirety and substitute the following:

#### 8-02.3(4)A Topsoil Type A – Imported

Provide Topsoil Type A – Imported in accordance with the 9-14.1(2) of the Special Provisions.

Delete section 8-02.3(4)C in its entirety and substitute the following:

#### 8-02.3(4)C General Turf Area Soil

Provide General Turf Area Topsoil in accordance with the 9-14.1(3) of the Special Provisions.

#### 8-02.3(5) Roadside Seeding, Lawn and Planting Area Preparation

Supplement 8-02.3(5)C by adding the following:

When Post Construction Soil Quality and Depth is called for in the plans or Special Provisions all new and restored lawn and landscaping areas shall be prepared in accordance with City Standard Drawings 202 and 203. Select the preferred preparation option for each area. Different options may be selected for different parts of the project. Notify the Engineer in advance of the selected method for achieving Post-Construction Soil Quality and Depth prior to beginning clearing and grading. These requirements shall be in addition to the requirements in the remainder of Section 8-02.3. Where conflicts exist the more stringent requirement shall apply unless otherwise determined by the Engineer.

#### 8-02.3(5) C Planting Area Preparation

Supplement 8-02.3(5)C by adding the following:

Amend soil in planting areas with four inches of Compost tilled six inches into the native soil. Lightly compact soil and establish a smooth and uniform finished grade that protects against obstruction to surface drainage.

#### 8-02.3(8) Planting

Supplement 8-02.3(8) by adding the following:

Install plants at the same depth grown in nursery; top of rootball should be level with ground line. Scarify sides of planting pit in order to allow for root penetration, and recompact the subgrade at the bottom of the planting pit to prevent settling. Pull bark mulch back from the base of plants.

#### 8-02.3(11) Bark or Wood Chip Mulch

Supplement 8-02.3(11) by adding the following:

Place bark mulch over all planting areas 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.

#### 8-02.3(13) Plant Establishment

Supplement 8-02.3(13) by adding the following:

Plant establishment consists of ensuring resumption and continued growth of all planted material including seeding for a period of one year. This includes, but is not limited to, labor and materials necessary for removal and replacement of any rejected plant material planted under this Contract. The Contractor shall be responsible for watering all seeded areas and planting areas sufficiently to establish and maintain a thriving condition throughout the duration of the plant establishment period.

#### 8-02.3(16) Lawn Installation

#### 8-02.3(16)A Lawn Installation

Delete 8-02.3(16)A and substitute the following:

## 8-02.3(16)A Lawn Installation –Sod or Seed

(\*\*\*\*\*)

Install sod in irrigated areas only after the irrigation system is fully operational.

Provide seed mix and in accordance with the Section 9-14.2. Apply at the rates specified in 8-01.3(2)B.

Unless the Engineer approves otherwise, install seed or sod between March 1 through May 15 and September 1 through October 1.

Contractor has option of sodding in lieu of seeding lawn installations at no additional expense. City will NOT allow seeding in lieu of sodding.

Place sod strips within 48-hours of being cut. Place strips without voids and stagger the end joints. Roll sod with a smooth roller following placement to ensure good contact with the soil.

During the establishment period, erect barriers, with warning signs where necessary, to preclude pedestrian traffic over the newly placed sod or seed.

Prepare areas for sod in accordance with standard horticultural practices as follows:

- 1. Rototill, or otherwise cultivate, to a minimum depth of 4-inches into the ground surface. Thoroughly incorporate a 10-2-10 fertilizer in the rototilling process at a rate of 4 pounds of available Nitrogen per 1000 square feet.
- 2. Rake the surface to even grade without low spots to trap water and round surface to match surroundings.

3. Add topsoil as required by the design.

**NOTE**: Topsoil will be paid for separately if required.

- 4. Lightly dampen and compact the finished grade.
- 5. Install sod taking care to butt each piece tightly against the adjacent one. Stagger butt joints. Lay sod on sloped areas with the long dimension parallel to the toe or top of slope. After placing, roll the sod and sprinkle heavily with water.
- 6. Provide tools specially designed for the work and satisfactory to the Engineer.
- Water and fertilize the sod during the 90 days establishment period. Schedule watering to prevent joints from drying between sod strips. Apply 6-2-4 fertilizer at 6 week intervals at the rate of 1 to 1-1/2 pounds of available Nitrogen per 1,000 square feet per application.

Prepare areas for seeding in accordance with 8-01.3(2)A1. Seed areas in accordance with 8-01.3(2)B.

Where Shown that sod is to be replaced, the work shall consist of the removal and replacement of existing lawn turf by cutting the sod to be removed into convenient sized squares or strips to uniform thickness, piling and storing in a dampened condition, and finally replacing the sod in its original position. This work will be performed where the special provisions provide for such work.

The Contractor may at his option use sod brought in from an outside source in lieu of replacing existing sod. If the Contractor elects to use sod from an outside source, the Engineer shall approve the supply source.

The sod shall be removed to a uniform depth of approximately 2-inches with an approved type of sod cutter. This operation shall be performed in such a manner as to ensure uniform thickness of sod throughout the operation.

Where sod is to be replaced with new sod, provide new sod in accordance with 9-14.6(8) of these Special Provisions and the Standard Specifications.

Guarantee sod to survive in a healthy condition through the 90 day establishment period. The establishment period shall begin on the date the Engineer accepts the sod placement. Remove and replace, at Contractor's expense, sod that in the opinion of the Engineer is not in a healthy growing condition at the end of the establishment period. Provide replacement sod that is of the same mixture and grade as the surviving sod.

#### 8-02.3(16)B Lawn Establishment

Revise the second paragraph to read as follows:

The lawn establishment period begins immediately after Engineer accepts the lawn planting and ends when greater than 90% of the restored area is covered with new turf growth at least 2-inches tall.

#### Supplement 8-02.3 by adding the following:

#### 8-02.3(17) Roadside Restoration

Restore all disturbed areas to original condition or better. The Contractor is specifically reminded that unnecessary damage caused beyond the limits of clearing or construction shall be repaired in like or better condition at the Contractor's sole expense.

Restore grass areas with hydroseed where directed. Provide grass seed in accordance with these Special Provisions. Grass seed and hydroseeding will be incidental to the lump sum price for Roadside Restoration.

Provide Topsoil Type A – Import or General Turf Area Soil as the case may be in accordance with these Special Provisions incidental to the lump sum price for Roadside Restoration.

Provide Bark Mulch in accordance with these Special Provisions incidental to the lump sum price for Roadside Restoration.

#### 8-02.4 Measurement

Delete all paragraphs in 8-02.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-02.5 Payment

Delete all paragraphs in 8-02.5 and substitute the following:

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-04 CURBS, GUTTERS AND SPILLWAYS

#### 8-04.1 Description

Revise the first paragraph in 8-04.1 to read as follows:

This work shall consist of construction of cement concrete curbs, curbs and gutters, gutters, and HMA asphalt Curbs in accordance with 8-04 of the Standard Specifications and as modified in these Special Provisions conforming to the Plans and COE Standard Drawings.

#### 8-04.2 Materials

Supplement 8-04.2 by adding the following:

Liquid Membrane-Forming Concrete	9-23.2 Special Provisions
Curing Compounds	
Chemical Admixtures for Concrete	9-23.6 Special Provisions

#### 8-04.3 Construction Requirements

#### 8-04.3(1) Cement Concrete Curbs, Gutters, and Spillways

Supplement 8-04.3(1) by adding the following:

Provide steel forms on tangent sections and wooden forms for curved sections and radii.

Provide 1/2–inch premolded filler in lieu of 3/8-inch premolded filler for throughexpansion Provide through expansion joint at maximum 30-foot intervals.

Provide through expansion joint at each end of driveway.

Compact the subbase for curb and gutter sections to 95-percent maximum density at optimum moisture content before placing the curb and gutter.

The top surface of the finished concrete shall not deviate more than 1/8-inch as measured using a 10-foot straight edge.

The curb alignment shall not vary more than 1/4-inch as measured using a 10-foot straight edge.

Depress the cement concrete curb at locations shown on the Plans, or as directed by the Engineer, for concrete curb ramps and driveways, in accordance with COE Standard Drawings No., , 315, 316, 317, 318, 319, 320, 321 and 322.

Construct cement concrete curbs where shown on the Plans, or as directed by the Engineer, in accordance with COE Standard Drawing Nos. 307 308and 309.

Construct storm drainage frames and grates into cement concrete curb and gutter at locations shown on the Plans in accordance with COE Standard Drawings Nos. 407 and 412.

After finishing, spray cement concrete curb, gutters and spillways using transparent curing compound in accordance with 5-05.3(13)A of the Standard Specifications.

#### 8-04.3(1)A Extruded Cement Concrete Curb

Supplement 8-04.3(1)A by adding the following:

Construct extruded cement concrete curb where shown on the Plans and in accordance with COE Standard Drawing No. 309.

#### 8-04.3(2) Extruded Asphalt Concrete Curbs, and Gutters

Supplement 8-04.3(2) by adding the following:

Construct extruded asphalt concrete curbs" where shown on the Plans, or as directed by the Engineer, in accordance with COE Standard Drawing No. 310.

#### 8-04.4 Measurement

Delete all paragraphs in 8-04.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-04.5 Payment

Delete all paragraphs in 8-04.5 and substitute the following:

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT, of the Standard Specifications.

#### 8-05 VACANT

Delete Section 8-05 and substitute the following:

#### 8-05 PRIVATE IMPROVEMENTS

(\*\*\*\*\*)

#### 8-05.1 Description

This Work shall consist of removal and restoration of certain existing private improvements to conform to the new requirements resulting from construction.

#### 8-05.1(1) Existing Private Improvements Restoration

Restore existing private improvements that require relocation to accommodate the new construction where shown on the Plans, or as directed by the Engineer, in a location acceptable to the property owner and the Engineer. Protect and preserve from damage or destruction all private property whether removal and relocation is required or not. Remove and replace in kind, at Contractor's expense, private property damaged or destroyed due to the Contractor's negligence.

#### 8-05.1(2) Removing Existing Private Rockery, Plants, and Fence

Remove existing private rockery, plants, and fence in accordance with the Construction Drawings and Section 2-02.

#### 8-05.2 Materials

Supplement 8-05.2 by adding the following:

The Dogwood Tree, Cornus Kousa, 5 gallon, 6 foot minimum height.

#### 8-05.3 Construction Requirements

Where shown in the Drawings, remove existing private rockery, plants, and fence. Dispose of materials, unless private property owners want to keep the materials.

Existing plants shall be replaced in kind. Existing plants can be salvaged and replaced or new plants provided per City and owner input. Plant establishment shall be required for a period of one year.

The disturbed areas around the outside of the water quality treatment facility shall be mulched and hydroseeded.

#### 8-05.4 Measurement

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-04.5 Payment

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-06 CEMENT CONCRETE DRIVEWAY ENTRANCES

#### 8-06.1 Description

Supplement 8-06.1 by adding the following:

This Work also includes concrete driveway slabs behind back of sidewalks and thickened sidewalk driveway approaches.

#### 8-06.2 Materials

Supplement 8-06.2 by adding the following:

Liquid Membrane-Forming Concrete Curing<br/>Compounds9-23.2 Special ProvisionsChemical Admixtures for Concrete9-23.6 Special Provisions

#### 8-06.3 Construction Requirements

Delete the first two paragraphs of 8-06.3 and substitute the following:

Provide Cement Concrete Driveway Type 1, 2 or 3 as the case may be in accordance with the Standard Specifications and Standard Plan No. 315, 316 and 317. Where driveways with depressed sidewalk are called for on the Plans, depress the sidewalk through the driveway area, providing a maximum 2 percent slope from back of sidewalk to the back of curb. Provide minimum six inch thick cement concrete driveways and sidewalk driveway approaches and construct using Commercial Concrete as specified in Section 6-02.3(2)B of the Standard Specifications. Provide concrete having a slump not exceeding 3-1/2-inches and having a minimum 28-day design strength of 4000 psi. Match concrete finishing for transitions to existing cement concrete driveways to the existing surface as closely as possible.

Sawcut existing cement concrete driveways and butt joint the new pavement to the existing driveway.

Prepare subgrade for driveways and having required compaction and providing a firm, unyielding subgrade acceptable to the Engineer.

Provide forms for the straight sections of the driveway having a minimum thickness of three inches and equal to the nominal depth of the concrete. Plywood or one inch lumber may be used on radii. Securely stake and block all forms to true line and grade.

Protect the driveway against damage or defacement until acceptance by Owner. Remove and replace by the Contractor at his expense driveways that are not acceptable, in the opinion of the Engineer, because of damage or defacement.

Before placing any concrete, have on the job site enough protective paper, or equivalent, to cover the pour of an entire day in the event of rain or other unsuitable weather conditions.

#### 8-06.4 Measurement

Delete paragraphs in 8-06.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-06.5 Payment

Delete all paragraphs in 8-06.5 and substitute the following:

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-13 MONUMENT CASES

Delete Section 8-13 and substitute the following:

# .8-13 SURVEY MONUMENTS AND CASES

(\*\*\*\*\*)

#### 8-13.1 Description

This Work shall consist of furnishing and placing monument cases or survey monuments and monument cases with covers. This Work will also include adjusting existing survey monument cases to grade in accordance with COE Standard Drawing No. 323, 324, 325 and these Special Provisions.

#### 8-13.2 Materials

Provide Class 30 cast iron monument case and riser section in accordance with ASTM – A48 with bituminous coating.

Provide cast iron cover with bituminous coating and integrally cast letters conforming to COE Standard Drawing No. 323 and 324.

Provide Commercial grade cement concrete.

#### 8-13.3 Construction Requirements

#### 8-13.3(1) Survey Monuments

Provide the survey monuments, including case and cover, as called for on the Plans and in these Special Provisions.

City has made reasonable effort to identify existing survey monuments on the Plans. Notify the Engineer immediately if survey monuments are unexpectedly encountered in the area of the Work. Perform survey monument work using a professional land surveyor licensed in the State of Washington under the provisions of RCW 18.43.020and conforming to the requirements of RCW 58.09.120 and 58.09.130 and COE Standard Drawing No. 313.

Remove and replace GLO or Geodetic Control monuments in conformance with the requirements of WAC 332-120. Complete the requirements for referencing monuments to the NAD 83-91 horizontal datum by completing a control survey that references the City's NAD 83-91 survey control monuments. Obtain City Surveyor approval for this control survey procedure and reference monument selection prior to beginning this work. The Contractor's surveyor is required to fill out and submit necessary paperwork to Washington DNR prior to removing a survey monument. Record survey field notes for the control survey in a City supplied field book and return to the Engineer at the completion of the work. The surveyor shall stamp his surveyor's license number as required in RCW 58.09.120 on the brass cap of each monument set. The surveyor shall also stamp the City supplied monument number on each monument set. Coordinate monument survey work with and obtain Engineer approval before final City approves the final payment.

Carefully protect reference points to the monuments and take necessary precaution to avoid destruction of the points. Re-set lost or destroyed reference points at Contractor's expense.

#### 8-13.3(2) Furnish and Place Monument Castings

Provide monument cases and covers where indicated on the Plans, or where designated by the Engineer, in accordance to COE Standard Drawing No. 323 and 324.

#### 8-13.3(3) Adjust Existing Monument Castings to Grade

Adjust existing monument castings to grade in the same manner as for manholes in 7-05.3(1) of these Special Provisions.

#### 8-13.4 Measurement

Delete all paragraphs in 8-13.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-13.5 Payment

Delete all paragraphs in 8-13.5 and substitute the following:

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-14 CEMENT CONCRETE SIDEWALKS

#### 8-14.2 Materials

Supplement 8-14.2 by adding the following:

Chemical Admixtures for Concrete

9-23.6 Special Provisions

#### 8-14.3 Construction Requirements

Supplement 8-14.3 by adding the following:

Provide concrete mix with slump not exceeding 3-1/2 inches.

Add coloring agent for matching the color of newly constructed cement concrete sidewalks to the color of adjacent existing cement concrete sidewalks. Add to the concrete during mixing in an amount not to exceed 1-1/2 pounds per cubic yard of concrete. Do NOT use coloring agent in curb ramps.

#### 8-14.3(1) Excavation

Supplement 8-14.3(1) by adding the following:

Obtain approval of the Engineer to provide, place and compact Gravel Borrow meeting the requirements of 9-03.14 of the Standard Specification if there is insufficient suitable native material on the Project to fill low areas for the sidewalk subgrade.

#### 8-14.3(2) Forms

Supplement 8-14.3(2) by adding the following:

Before setting the forms, grade the subgrade to two inches below established grade to accommodate two inches of crushed surfacing top course.

Install sidewalk drains prior to placing forms if the Plans calls for sidewalk drains or the Engineer directs installation of sidewalk drains.

#### 8-14.3(3) Placing and Finishing Concrete

Supplement 8-14.3(3) by adding the following:

Form joints by first cutting a groove in the concrete with a tee bar of a depth equal to, but not greater than the joint filler material, and then work the premolded joint filler into the groove. Position premolded joint filler for through and contraction joints in true alignment at right angles to the line of the sidewalk and be normal to and flush with the surface.

Edge joints using a 1/4 inch radius edger and tool the sidewalk edges using a 1/2-inch radius edger.

Obtain Engineer's approval of placing and finishing tools. Perform the concrete sidewalk placing and finishing under the control of the Engineer. Provide finished appearance by using an edging tool lightly on the sidewalk edges after the brush finish.

Provide standard locations for concrete sidewalk through joints in accordance with these Special Provisions, in addition to the Plans, at the following:

- a. At street margins produced and at 30-foot intervals.
- b. To separate concrete driveways, stairways, curb ramps and their landings from sidewalks.
- c. Around the vertical barrel of fire hydrants, around utility poles and large diameter underground utility cover castings when located in the sidewalk area.
  - (i) Provide 18-inch No. 4 rebar placed diagonally and at least 6-inchs off each corner of through joint noted in (c).
- d. Longitudinally between concrete walks, curbs, paved planting strips and solid masonry or concrete walls where they abut.
- e. To match as nearly as possible the through joints in the adjacent pavement and curb when sidewalk abuts curb.

Construct transverse contraction joints with premolded material 3/8-inch by 1-1/2-inch wide and set at maximum 15-foot intervals, or as decided by the Engineer.

Provide 3/8-inch thick premolded non-extruding joint material, cut equal to the full depth of the concrete, plus 1/2-inch transverse and longitudinal through joints as shown on Standard Drawing No. 312. Install with top edge flush with the finished surface of the concrete, in a perpendicular plane to the surface and with the bottom edge embedded in the subgrade. Install joints in a straight alignment, except where placed in curved locations as required by the Plans.

Supplement 8-14.3(3) by adding the following:

### 8-14.3(3)A Curb Ramp

(\*\*\*\*\*)

Install Curb Ramp Type A, B, C, or D as the case may be at locations shown on the Plans and Standard Drawing 313 and 322.

Construct monolithic depressed curb and sidewalk as indicated on COE Standard Drawing No. 318, 319, 320, and 321. Construct curb ramps separate from the sidewalk to produce a definite break line between the ramp and the sidewalk. Install a 3/8-inch non-extruded through joint material between the curb and the sidewalk with edging as specified in Section 8-14.3(3).

Brush-finish the triangular shaped sidewing areas with brushing direction being parallel to the curb face. Do NOT extend the adjacent sidewalk "V" groove scoring pattern into the curb ramp sidewing areas.

Provide concrete for curb ramps that is not colored, overlaid or topped. Consider the curb ramps as beginning at a point flush with the pavement and terminating at a point flush with the sidewalk landing. Include the sloping triangular shaped sidewings as part of the curb ramp.

#### 8-14.3(4) Curing

Maintain sufficient protective covering on-site, such as waterproof paper or plastic membrane, to cover an entire day's pour in event of rain or other unsuitable weather.

Protect the concrete sidewalk against damage or defacement until Owner has been accepted the Work. Remove and replace sidewalk that is not acceptable to the Engineer because of damage or defacement at Contractor's expense.

After finishing, spray cement concrete sidewalk using transparent curing compound in accordance with 5-05.3(13)A of the Standard Specifications.

#### 8-14.4 Measurement

Delete all paragraphs in 8-14.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-14.5 Payment

Delete all paragraphs in 8-14.5 and substitute the following:

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-21 PERMANENT SIGNING

#### 8-21.1 Description

Supplement 8-21.1 by adding the following:

Work involving installing traffic regulatory signs shall be in accordance with COE Standard Drawing 716 and street name signs in accordance with COE Standard Drawing 715 and 718 and as indicated on the Plans.

#### 8-21.3 Construction Requirements

#### 8-21.3(4) Sign Removal

Delete 8-21.3(4) and substitute the following:

Remove the existing signs and, if so indicated, the sign structures where shown in the Plans or ordered by the Engineer. Where indicated, remove concrete pedestals to a minimum of 1 foot below finished grade and backfill the hole to the satisfaction of the Engineer. After removing an existing sign post within a sidewalk area, finish the area to make the sidewalk continuous. Remove and properly dispose of wood signs, wood sign posts, wood structures, metal sign posts, wind beams, and other metal structural members. Salvage aluminum signs and return to the City of Everett's Public Works Department.

#### 8-21.4 Measurement

Delete all paragraphs in 8-21.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-21.5 Payment

Delete all paragraphs in 8-21.5 and substitute the following:

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-22 PAVEMENT MARKING

#### 8-22.1 Description

Supplement 8-22.1 by adding the following:

Provide 24-inch wide stop line.

Provide 24-inch wide solid white lines for crosswalks in accordance with COE Standard Drawing No. 721.

#### 8-22.4 Measurement

Delete all paragraphs in 8-22.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-22.5 Payment

Delete all paragraphs in 8-22.5 and substitute the following:

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-24 ROCK AND GRAVITY BLOCK WALL AND GABION CRIBBING

#### 8-24.1 Description

Supplement 8-24.1 by adding the following:

Work shall consist of designing, furnishing and construction of a retaining wall system, in accordance with these specifications and in reasonably close conformity with the lines, grades, design and dimensions shown on the Plans or approved equal.

Work also includes preparing foundation soil, furnishing and installing leveling pad, unit facing system, unit drainage fill and backfill to the lines and grades shown on the Plans.

#### 8-24.1 Description

Supplement 8-24.2 by adding the following:

The retaining wall shall consist of a KEYSTONE Standard I unit retaining wall system as manufactured by Keystone Retaining Wall Systems, or approved equal.

Keystone Retaining Wall Systems 4444 West 78th Street Minneapolis, MN 55435

#### 8-24.3 Construction Requirements 8-24.3(2) Gravity Block Wall

Delete all paragraphs in 8-24.3(2) and substitute the following:

Submittals and Certification:

- A. Contractor shall submit a Manufacturer's certification, prior to the start of work, that the retaining wall system components meet the requirements of this specification, Plans and the structure design.
- B. Contractor shall submit construction drawings and design calculations for the retaining wall system prepared and stamped by a Professional Engineer registered in the state of the project.

Quality Assurance:

- A. Contractor shall submit a list of three (3) previously constructed projects of similar size and magnitude by the wall installer where the retaining wall system has been constructed successfully. Contact names and phone numbers shall be listed for each project.
- B. Owner shall/may provide quality assurance inspection and testing during earthwork and wall construction operations. Contractor shall provide all quality control testing and inspection not provided by the owner. Owner's quality assurance program does not relieve the contractor of responsibility for quality control and wall performance.

Delivery Handling and Storage:

- A. Contractor shall check all materials upon delivery to assure that the proper type, grade, color, and certification have been received.
- B. Contractor shall protect all materials from damage and in accordance with manufacturer's recommendations. Damaged materials shall not be incorporated into the work.

Products:

Gravity Block Wall Concrete Retaining Wall Units

- A. Standard I retaining wall units shall conform to the following architectural requirements:
  - 1. Face color concrete gray, unless otherwise specified. The Owner may specify standard manufacturers' color.

- 2. Tri-plane or Straight Face finish hard split in angular tri-plane or straight face configuration. Other face finishes will not be allowed without written approval of Owner.
- 3. Bond configuration running with bonds nominally located at midpoint in vertically adjacent units.
- 4. Exposed surfaces of units shall be free of chips, cracks or other imperfections when viewed from a distance of 20 feet (6 m) under diffused lighting.
- B. Gravity Block Wall concrete units shall conform to the requirements of ASTM C1372 Standard Specifications for Segmental Retaining Wall Units.
- C. Gravity Block Wall concrete units shall conform to the following structural and geometric requirements measured in accordance with ASTM C140 Sampling and Testing Concrete Masonry Units:
  - 1. Compressive strength:  $\geq$  3000 psi (21 MPa).
  - 2. Absorption:  $\leq 8 \%$  for standard weight aggregates.
  - 3. Dimensional tolerances: ± 1/8" (3 mm) from nominal unit dimensions not including rough split face.
  - 4. Unit Size: 8" (203 mm) (H) x 18" (457 mm) (W) x 18 to 21.5" (304 to 546 mm)(D) minimum.
- D. Gravity Block Wall concrete units shall conform to the following constructability requirements:
  - 1. Vertical setback: 1/8 inch (3 mm) ± per course (near vertical) or 1 1/8 inch (28 mm) + per course, per the design.
  - 2. Alignment and grid attachment mechanism fiberglass pins, two per unit.
  - 3. Maximum horizontal gap between erected units shall be  $\leq 1/2$  inch (13 mm).

Shear and Reinforcement Pin Connectors

- A. Shear and reinforcement pin connectors shall be 1/2-inch (12 mm) diameter thermoset isopthalic polyester resin pultruded fiberglass reinforcement rods to provide connection between vertically and horizontally adjacent units and geosynthetic reinforcement, with the following requirements:
  - 1. Flexural Strength in accordance with ASTM D4476: 128,000 psi (882 MPa) minimum.
  - 2. Short Beam Shear in accordance with ASTM D4475: 6,400 psi (44 MPa) minimum.
- B. Shear and reinforcement pin connectors shall be capable of holding the geogrid in the proper design position during grid pre-tensioning and backfilling.

Base Leveling Pad Material

- A. Material shall consist of a compacted crushed stone base, sand and gravel or unreinforced concrete, as shown on the construction drawings.
- Unit Drainage Fill
  - A. Unit drainage fill shall consist of clean 1 inch (25 mm) minus crushed stone or crushed gravel meeting the following gradation tested in accordance with ASTM D-422:

Sieve Size	Percent Passing
1 inch (25 mm)	100
3/4-inch (19mm)	75 – 100
No. 4 (4.75 mm)	0 – 10
No. 50 (300 um)	0 - 5

B. Drainage fill shall be placed within the cores of, between, and behind the units as indicated on the design drawings. Not less than 1.2 cubic foot (0.033 m3) of drainage fill shall be used for each square foot (0.093 m2) of wall face unless otherwise specified.

#### Excavation:

- A. Contractor shall excavate to the lines and grades shown on the construction drawings. The Owner or Construction Inspection representative shall inspect the excavation and test the foundation soils and approve prior to placement of the leveling pad material or fill soils. Foundation soils found to be unsuitable or cannot reach foundation compaction densities shall be removed and replaced in accordance with Section 2-09.3(1)C using crushed surfacing base course. Any over-excavation required to remove unsuitable soils shall be oversized from the front of the leveling pad and back of the geogrid reinforcement.
- B. Over-excavation and replacement of unsuitable soils and replacement with approved compacted fill will be compensated as agreed upon with the Owner.

Base Leveling Pad

- A. Leveling pad material shall be placed to the lines and grades shown on the construction drawings to a minimum thickness of 6 inches and extend laterally a minimum of 6 inches in front and behind the Gravity Block Wall unit.
- B. Soil leveling pad materials shall be compacted to a minimum of 95% of Standard Proctor density per ASTM D697 or 92% Modified Proctor density per ASTM D1557.
- C. Leveling pad shall be prepared to insure full contact with the base surface of the concrete units.

Gravity Block Wall Unit Installation

- A. First course of units shall be placed on the leveling pad at the appropriate line and grade. Alignment and level shall be checked in all directions and ensure that all units are in full contact with the base and properly seated.
- B. Place the front of units side-by-side. Do not leave gaps between adjacent units. Layout of corners and curves shall be in accordance with manufacturer's recommendations.
- C. Install shear/connecting pins per manufacturer's recommendations.
- D. Place and compact drainage fill within and behind wall units. Place and compact backfill soil behind drainage fill.
- E. Maximum stacked vertical height of wall units, prior to drainage fill and backfill placement and compaction, shall not exceed two courses.

Cap Installation

- A. Prior to placement of the cap units, the upper surface of the top course of wall units shall be cleaned of soil and any other material.
- B. Cap units shall be adequately glued to the underlying wall units with an allweather exterior construction adhesive.

As-built Construction Tolerances

- A. Vertical alignment: ± 1.5 inches (40 mm) over any 10 foot (3 m) distance.
- B. Wall batter: within 2 degrees of design batter. Overall wall batter shall be  $\geq 0$  degrees.
- C. Horizontal alignment: ± 1.5 inches (40 mm) over any 10 foot (3 m) distance.
- D. Corners and curves: ± 1 foot (300 mm) to theoretical location.
- E. Maximum horizontal gap between erected units shall be  $\leq 1/2$  inch (13 mm).

Field Quality Control

- A. Quality Assurance The owner shall/may engage inspection and testing services, including independent laboratories, to provide quality assurance and testing services during construction. This does not relieve the Contractor from securing the necessary construction quality control testing.
- B. Quality assurance should include foundation soil inspection and testing and verification of the geotechnical design parameters and verification that the contractor's quality control testing is adequate as a minimum. Quality assurance shall also include observation of the construction for general compliance with the design drawings and project specifications. Quality assurance is usually best performed by the site geotechnical engineer.
- C. Quality Control The Contractor shall engage independent inspection and testing services to perform the minimum quality control testing described in the retaining wall design plans and specifications. Only qualified and experienced technicians and engineers shall perform quality control testing and inspection services.
- D. Quality control testing shall include soil and backfill testing to verify soil types and strengths, compaction and moisture conditions and verification that the retaining wall is being constructed in accordance with the design plans and specifications.

#### 8-24.4 Measurement

Delete the first paragraph of 8-32.4 and substitute the following:

Bid items of Work completed pursuant to the Contract Documents will be measured as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

#### 8-24.5 Payment

Delete the first paragraph of 8-32.5 and substitute the following:

Payment for Bid items of Work completed pursuant to the Contract Documents will be as described in Division B - Bid Item Descriptions and Section 1-09 MEASUREMENT AND PAYMENT of the Standard Specifications.

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#### **DIVISION 9 – MATERIALS**

#### 9-03 AGGREGATES

#### 9-03.6 Vacant

Delete 9-03.6 and substitute the following:

#### 9-03.6 Aggregates for Asphalt Treated Base (ATB)

#### 9-03.6(1) General Requirements

Aggregates for asphalt treated base shall be manufactured from ledge rock, talus, or gravel, in accordance with the provisions of Section 3-01 that meet the following test requirements:

Los Angeles Wear, 500 Rev. 30% max.

Degradation Factor 15 min.

#### 9-03.6(2) Grading

Aggregates for asphalt treated base shall meet the following requirements for grading:

Sieve Size	Percent Passing
2"	100
1/2″	56-100
No. 4	32-72
No. 10	22-57
No. 40	8-32
No. 200	2.0-9.0

All percentages are by weight.

#### 9-03.6(3) Test Requirements

When the aggregates are combined within the limits set forth in Section 9-03.6(2) and mixed in the laboratory with the designated grade of asphalt, the mixture shall be capable of meeting the following test values:

% of Theoretical Maximum Specific Gravity (GMM) (approximate)

93@ 100 gyrations Pass

AASHTO T324, WSDOT TM T718 or ASTM D3625 (Acceptable anti-strip evaluation tests)

The sand equivalent value of the mineral aggregate for asphalt treated base (ATB) shall not be less than 35.

Supplement Section 9-03 by adding the following:

#### 9-03.22 Sand Backfill for Pipe Zone

(\*\*\*\*\*)

For pipe zone bedding and backfill of ductile iron and steel pipe only, provide a clean sand mixture free from organic matter and conforming to the following gradation:

Percent Passing By Weight	
100	
65-100	
5-30	
0-7	

All percentages are by weight.

# 9-03.24 Bedding Sand for Interlocking Pavers (\*\*\*\*\*\*)

Conform to the grading requirements of ASTM C-33 with modifications shown in Table 1.

	Table 1	
U.S. Standard Sieve Size		Percent Passing By Weight
3/8"		100
#4		95-100
#8		85-100
#16		50-85
#30		25-60
#50		10-30
#100		2-10
#200		0-1

All percentages are by weight.

### 9-03.25 Joint Sand for Interlocking Pavers

#### (\*\*\*\*\*)

Conform to the grading requirements of ASTM C-144 as shown in Table 1. Provide joint sand free of shale, stone dust, screening or lightweight aggregates.

	Table 1	
U.S. Standard Sieve Size	Natural Sand Percent Passing By Weight	Manufactured Sanc Percent Passing By Weight
#4	100	100
#8	95-100	95-100
#16	70-100	70-100
#30	40-75	40-100
#50	10-35	20-40
#100	2-15	10-25
#200	0-1	0-10

All percentages are by weight.

#### 9-04 JOINTS AND CRACK SEALING MATERIALS

Supplement Section 9-04 by adding the following:

# 9-04.12 Watertight Pipe to Manhole Connection Boot (\*\*\*\*\*\*)

Provide Kor N Seal®, A■Lok, or equal watertight pipe to manhole connection boot.

#### 9-04.13 Flexible Coupling

(\*\*\*\*\*)

Provide Fernco or equal flexible coupling for gravity side sewer connections.

Provide model DFW (non-shear) as manufactured by NDS Inc., Strong Back RC series as manufactured by Fernco, or equal for pressure sewer connections.

#### 9-05 DRAINAGE STRUCTURES, CULVERTS, AND CONDUITS

#### 9-05.4 (2) Mitered Ends

#### Delete all paragraphs in 9-05.4(2) and substitute the following:

Unless otherwise indicated in the plans or Special Provisions the ends of steel culvert pipe or pipe arch shall be beveled. If beveled ends are specified, the ends of culvert pipe over 30 inches in diameter shall be mitered to conform to the slope of the embankment in which the culvert is to be placed whether the culvert is constructed normal to or at an angle with the centerline of the roadway.

Beveled steel pipe end sections 12 inches through 30 inches in diameter shall be of the same material and thickness and have the same protective coating as the pipe to which they are attached. Beveled pipe ends of these dimensions shall be constructed in conformance with the City Standard Plan 435.

#### 9-05.12 Polyvinyl Chloride (PVC) Pipe

# 9-05.12(1) Solid Wall PVC Culvert Pipe, Solid Wall PVC Storm Sewer Pipe, and Solid Wall PVC Sanitary Sewer Pipe

Revise the third paragraph in 9-05.12(1) to read as follows:

For pipe sizes 18 to 30-inch diameter, provide solid wall PVC pipe meeting ASTM F 679, using minimum pipe stiffness of PS46, unless otherwise noted on the Plans.

Revise the fifth paragraph in 9-05.12(1) to read as follows:

Provide Trench Tough<sup>™</sup> SDR 35 gasketed injection molded fittings for solid wall PVC pipe as manufactured by MULTI FITTINGS, or equal.

#### 9-05.13 Ductile Iron Sewer Pipe

Delete all paragraphs in 9-05.13 and substitute the following:

Provide centrifugally cast ductile iron sewer pipe meeting the requirements of AWWA C151. Provide cement-mortar lining meeting the requirements of AWWA C104 and coated with a seal coat per AWWA C104. Provide ductile iron pipe Special Thickness Class 52.

Provide rubber gasket push-on type, or mechanical type non-restrained joints meeting the requirements of AWWA C111.

#### 9-05.15 Metal Castings

#### 9-05.15(1) Manhole Ring and Cover

Delete all paragraphs in 9-05.15(1) and substitute the following:

For hinged frames and covers, provide heavy duty ductile iron frames and covers as manufactured by PAMREX, 24-inch, Model CDPA60EH, East Jordan Iron Works

Ergo 00104042L01, or equal, with badging for sanitary or storm sewer as the case may be.

For non-hinged frames and covers, provide watertight, heavy duty cast iron frames and ductile iron covers as manufactured by Olympic Foundry, Inc., East Jordan Iron Works, Inc., or equal with badging for sanitary or storm sewer as the case may be.

Supplement 9-05.15 by adding the following:

9-05.15(4) Metal Frame and Cover for Sewer Cleanouts (\*\*\*\*\*\*)

Provide East Jordan Ironworks heavy duty gray iron frame number 3661ZPT and cover number 3660CPT or equal.

#### 9-05.23 High Density Polyethylene (HDPE) Pipe

Revise 9-05.23 to read as follows:

Provide polyethylene pipe and fittings manufactured from resins meeting the requirements of ASTM D3350 with a cell classification 345464C for black or 345464E for color and stripes and a Plastic Pipe Institute (PPI) designation of PE 3608. Provide materials listed in the name of the pipe and fitting manufacturer in PPI (Plastics Pipe Institute) TR-4 with a standard grade HDB rating of 1600 psi at 73°F. Provide manufacturer certification that the materials used to manufacture pipe and fittings meet these requirements. The fitting material may be gray or black.

Additives that can be conclusively proven not to be detrimental to the pipe may also be used, provided the pipe produced meets the requirements of ASTM D2837. Provide pipe containing no recycled compound except that generated in the manufacturer's own plant from resin of the same specifications from the same raw material supplier.

Provide pipe with the following information continuously marked on the pipe or spaced at intervals not exceeding 5-feet.

- 1. Name or trademark of the pipe manufacturer.
- 2. Nominal pipe size.
- 3. Standard Dimensional Ratio (SDR).
- 4. PE 3608Manufacturing Standard Reference ASTM F 714.
- 6. A production code from which the date and place of manufacture can be determined.
- 7. Nominal pressure.
- 8. Raw material.

Provide polyethylene pipe homogeneous throughout and free of visible cracks, holes, foreign inclusions, or their injurious defects. Nicks, scrapes, or gouges on the pipe deeper than 5-percent of the nominal wall thickness will be cause for rejecting the pipe. Provide pipe uniform in color, opacity, density, and other physical properties. Express the pipe diameter as nominal outside diameter.

Replace at the Contractor's expense pipe that has been damaged or does not meet these specifications. Internal and external surfaces of the pipe shall be smooth, clean and free of grooving and other defects. Pipe shall not be accepted if ovality exceeds 1 percent of the external diameter of the pipe. Provide manufacturer's certificates for all materials stating conformance to this specification.

For storm sewer pipe and sanitary sewer pipe bursting, provide HDPE pipe having a minimum SDR as identified on the Plans and having iron pipe size dimensions (IPS).

For water main, provide HDPE meeting requirements of 9-30.1(6).

Provide HDPE butt-fused joints and Class 125 bolt pattern flange joints fittings, including but not limited to, tees, bends, and flange adapters of the same material as the pipe manufacturer.

#### 9-05.24 Polypropylene Sewer Pipe

Supplement 9-05.24 by adding the following:

Approved product is Sanitite HP as manufactured by ADS/Hancor or equal.

Supplement Section 9-05 by adding the following:

#### 9-05.32 Insertion Tee

(\*\*\*\*\*)

Provide INSERTA TEE® SDR 35 gasketed bell end gravity application as manufactured by Inserta Fittings Co, or equal.

#### 9-05.60 Casing Spacers

(\*\*\*\*\*)

Provide bolted side flange stainless steel split-case design casing spacers having minimum of two runners at the bottom and two runners at the top. Provide runners made of high strength polymer plastic. Spacers shall be a minimum of 12" wide. Acceptable manufacturers are Calpico Inc., PSI, Advanced Products and Systems Inc., or equal.

#### 9-05.62 Synthetic Rubber Sleeve Seal

(\*\*\*\*\*)

Provide either pull-on conical model or a split wrap-around model with stainless steel band clamps. Acceptable manufacturers are Calpico Inc., PSI, Advanced Products and Systems Inc., or equal.

# 9-05.64 Polypropylene Manhole and Hand Hold Steps (\*\*\*\*\*\*)

Provide polypropylene manhole and hand hold steps as manufactured by Lane International Corporation, or equal.

#### 9-05.66 Polypropylene Manhole Ladder

(\*\*\*\*\*)

Provide polypropylene manhole ladder as manufactured by Lane International Corporation, or equal.

#### 9-14 EROSION CONTROL AND ROADSIDE PLANTING

Delete section 9-14.1 in its entirety and substitute the following:

#### 9-14.1 Soils

- Provide following soils and soil mixes specified on Drawings or by the Engineer, according to project needs, and subject to the General Testing and Submittal Specifications of Section 9-14.1(1) of these Special Provisions, Topsoil Type A – Imported. Provide a general purpose mix of sandy loam and compost as needed to comply with the minimum organic matter content requirements.
- 2. General Turf Area Soil. Provide an imported soil mix for passive-recreation turf areas.

#### 9-14.1(1) General Testing and Submittal Requirements

Submit to the Engineer at least 10 working days prior to any soil placement specified in this Section the following as specified in Section 1-05.3 – SUBMITTALS. Provide test results from samples collected and tested within 90 days of submittal.

- 1. Aggregate and Loam Analysis. Provide grain size analysis results of the Mineral Aggregate or sandy loam portion of each soil mix and performed by an accredited laboratory per ASTM C 136.
- 2. Compost Analysis. Provide quality analysis results for the compost portion of each soil mix performed per STA standards as specified in Section 9-14.4(8).

- 3. Mix Analysis. As a minimum, provide test results from an accredited soil laboratory for the following content values:
  - a. Total Nitrogen and Soluble Nitrogen (NO3 + NH3)
  - b. Phosphorous
  - c. Potassium
  - d. pH
  - e. Organic Matter percent (Loss on Ignition method)
  - f. Cation Exchange Capacity
  - g. Calcium
  - h. Sulfur
  - i. Magnesium
  - j. Sodium
  - k. Iron
  - I. Boron
  - m. Weed Seed (for general turf area mixes)
- 4. Provide fertilizer and amendment and soil application depth recommendations from accredited soils laboratory, soil scientist or agronomist for the specified plant type.
- 5. Mix samples. Provide two 1-quart samples of each soil mix.
- 6. Manufacturer. Provide manufacturer's certificate of compliance as specified in Section 1-06.3 MANUFACTURER'S CERTIFICATE OF COMPLIANCE from the soil mix Supplier and compost Supplier if different from soil mix Supplier. Include names and address on certificate.
- 7. Laboratory information. Include the following:
  - a. Name of laboratory including contact person,
  - b. Address,
  - c. Phone number of contact,
  - d. Email address of contact,
  - e. Laboratory and personnel qualifications including current certification date by STA, ASTM, ASSHTO, or approved equal.
- 8. Acceptance of Soils Prior to Placement. Placement of any soils or soil mixes specified in this Section will NOT be allowed until Engineer has reviewed and confirmed the following:
  - a. Soil mix delivery tickets. Provide delivery tickets showing full delivered soil amount matches product type, volume and Manufacturer named in the submittals.
  - b. Visual inspection. Engineer will compare delivered product to product submitted to very it matches the submitted sample.

Engineer may inspect any loads of soil on delivery and stop placement if it is determined the delivered sol doesn't appear to match the submittals and require sampling and testing of delivered soil before authorizing soil placement at sole cost to Contractor.

#### 9-14.1(2) Topsoil Type A – Imported

Cedar Grove "3-Way Topsoil", Cedar Grove "Winter Mix" or approved equal.

Provide Topsoil Type A free from materials toxic to plant growth, visible seeds, rhizomes, roots, any Snohomish County listed noxious weeds or invasive root propagating plants, including and not limited to, horsetail, ivy, clematis, and knotweed. Contractor shall remove and replace soil found to contain these prohibited plant materials.

#### 9-14.1(3) General Turf Area Soil

Provide General Turf Area Soil for general use and passive recreation lawn areas where year-round maintenance and positive drainage are important.

Provide soil consisting of 60 percent sand complying with the particle distribution table in this Section, and 40 percent compost by volume. The resulting mix must contain approximately 4 to 6 percent organic matter by weight tested by the loss on ignitions method and the following:

Nutrient	Test	Unit	Range
Phosphorous	Bray	mg/kg	>20
Potassium	NH4OAc	mg/kg	>175
Boron	DTPA	mg/kg	>0.5
Zinc	DTPA	mg/kg	>5
Manganese	DTPA	mg/kg	>20
Iron	DTPA	mg/kg	>20
Calcium	NH4OAc	mg/kg	>6
Magnesium	NH4OAc	mg/kg	>2
Sodium	NH4OAc	mg/kg	<2
Cation Exchange	CEC	meq/100g	>6
рН			6.5 – 7.5
Nitrogen		lbs/ac	>200

Sand used must meet the following particle distribution.

Sieve Size		Percent Passing
3/8"		100
No. 4		95-100
No. 8		80-95
No. 16		60-90
No. 30	40-70	
No. 50	5-25	
No. 100		0-10
No 200		0-5

Provide Compost in accordance with Section 9-14.4(8) and certified in compliance with the US Composting Council STA program.

Provide testing and submittals in accordance with Section 9-14.1(1) of these Special Provisions.

Provide General Turf Area Soil free from materials toxic to plant growth, visible seeds, rhizomes, roots, any Snohomish County listed noxious weeds or invasive root propagating plants, including and not limited to, horsetail, ivy, clematis, and knotweed. Contractor shall remove and replace soil found to contain these prohibited plant materials.

#### 9-14.2 Seed

Supplement 9-14.2 by adding the following:

Provide seed mixtures indicated in following table that are free of noxious weeds, no less than 98-percent pure, and have minimum germination rate of 90-percent.

Seed Mix #1 (Highway Mix)		Seed Mix #2 (Lawn Mix)	
Kind and Variety of	Percent	Kind and Variety of	Percent
Seed in Mixture	by Weight	Seed in Mixture	by Weight

Colonial Bentgrass (Highlands or Astoria) Red Fescue (Illahee,	10	Red Creeping Fescue	45
Rainier or Pennlawn)	40	Chewings Fescue	30
Perennial Rye	40	Kentucky Bluegrass	15
White Dutch Clover	10	Highland Colonial Bentgrass	10
Seed Mix #3 (City Mix) Kind and Variety of Seed in Mixture	Percent by Weight		
Perennial Rye (Derby			
Extreme)	20		
Red Fescue (Cindy Lou Creeping) Perennial Rye	30		

#### 9-14.3 Fertilizer

(Frontier)

Supplement this section by adding the following:

Provide 12-25-10 starter fertilizer.

#### 9-14.4 Mulch and Amendments

#### 9-14.4(8) Compost

Supplement 9-14.1(8) by adding the following:

Procure compost manufactured by facilities that have an active solid waste handling permit from the local jurisdictional Health Department as per WAC 173-350-220 or WAC 173-308.

#### 9-14.4(8)B Compost Acceptance

Supplement 9-14.4(8)A by adding the following:

50

Provide one gallon sample size.

#### 9-14.7 Plant Materials

#### 9-14.6(8) Sod

Supplement 9-14.6(8) by adding the following:

Furnish sod in accordance with state and federal laws, including quarantines, with respect to inspection, plant diseases and insect infestation. Furnish sod having a certificate of origin or certification of approved treatment, or both, when shipment originates in known infected areas. Provide a "State of Washington Nursery Inspection" sticker issued by the Washington State Department of Agriculture, Division of Plant Industries for sod shipments.

Furnish sod possessing the following characteristics:

- 1. Dense root system with adequate strength for handling.
- 2. Uniform color.
- 3. A minimum amount of thatch.

#### 9-23 CONCRETE CURING MATERIALS AND ADMIXTURES

#### 9-23.2 Liquid Membrane-Forming Concrete Curing Compounds

Supplement 9-23.2 by adding the following:

Provide transparent curing compound, Sealtight 1100, as manufactured by W.R. Meadows, Benicia-CA, or City approved equal.

#### 9-23.6 Chemical Admixtures for Concrete

Supplement 9-23.6 by adding the following:

### 9-23.6(10) Integral Coloring Agent

(\*\*\*\*\*)

Provide integral coloring agent "Silver Smoke" as manufactured by Davis Colors, "Dover Grey" as manufactured by Solomon Colors, or City approved equal.

#### 9-29 ILLUMINATION, SIGNAL, ELECTRICAL

#### 9-29.2 Junction Boxes, Cable Vaults, and Pull Boxes

#### 9-29.2(1) Standard Duty and Heavy-Duty Junction Boxes

#### 9-29.2(1)A Standard Duty Junction Boxes

Supplement 9-29.2(1)A by adding the following:

Treat both the slip-resistant lid and slip-resistant frame with Mebac#1 as manufactured by IKG industries, or SlipNOT Grade 3-coarse as manufactured by W.S. Molnar Co. The slip-resistant treatment may be omitted on that portion of the frame where the exposed portion of the frame is 1/2 inch wide or less. Identify the slip-resistant lid with permanent marking on the underside indicating the type of surface treatment ("M1" for Mebac#1; or "S3" for SlipNOT Grade 3-coarse) and the year manufactured. Form the permanent marking using a line consisting of a 1/8 inch thick stainless steel welded bead.

#### 9-30 WATER DISTRIBUTION MATERIALS

#### 9-30.1 Pipe

#### 9-30.1(1) Ductile Iron Pipe

Revise 9-30.1 to read as follows:

- 1. Provide ductile iron pipe Special Class 52 meeting the requirements of AWWA C151 with a cement mortar interior lining and a 1-mil thick exterior seal coat meeting the requirements of AWWA C104.
- 2. Provide rubber gasket type, push on type, or mechanical type non-restrained joints meeting the requirements of AWWA C111.
- 3. Provide flanged joints meeting the requirements of AWWA C115.
- 4. Restrained joints shall be as specified in Section 9-30.2(6).

#### 9-30.2 Fittings

Delete 9-30.2(2) Vacant and substitute the following:

#### 9-30.2(7) Bolted, Sleeve-Type Couplings for Plain End Pipe

Supplement 9-30.2(7) by adding the following:

For up to 12-inch diameter pipe, provide "Romac ALPHA-13.30 Coupling", or City approved equal.

#### 9-30.3 Valves

Revise 9-30.3 to read as follows:

Provide valves with hand wheels or operating nuts as designated. In general, valves buried on the distribution system shall be nonrising stem type, open counterclockwise, and be equipped with two O rings in the stuffing box with a two inch operating nut. Valves within vaults shall be rising stem type, open counterclockwise, and be equipped with two O rings stuffing box with a hand wheel for operation.

#### 9-30.3(1) Gate Valves (3-inches to 16-inches)

Delete 9-30.3(1) and substitute the following:

#### 9-30.3(1) Gate Valves (2-inches to 12-inches)

Provide Waterous Series 2500, or City approved equal, resilient wedge gate valves meeting the requirements of AWWA C509 or AWWA C515.

Provide an affidavit of compliance stating the valve furnished fully complies with AWWA C509 or AWWA C515.

#### 9-30.3(3) Butterfly Valves

Revise the first sentence of the second paragraph of 9-30.3(3) to read as follows:

Valve operators shall be of the travelling nut, self-locking type, sealed, gasketed and permanently lubricated for underground service.

#### 9-30.3(4) Valve Boxes

Supplement 9-30.3(4) by adding the following:

Provide East Jordan 8555 Series, two piece slip type box with 6800 two and onehalf inch skirt drop lid or City approved equal.

Plastic valve boxes with a cast iron lid having dimensions conforming to a number 940 valve box, as manufactured by Handley Industries, or City approved equal, are acceptable for valve boxes located in grass, non-paved or paved non-vehicular traffic areas.

#### 9-30.3(5) Valve Marker Posts

Delete first and second paragraphs of 9-30.3(5) and substitute the following:

Post shall be 4-inch diameter, 42-inch tall, fluorescent orange, low density polypropylene portable traffic delineator post with two reflectorized strips.

#### 9-30.3(6) Valve Stem Extension

Revise the first paragraph of 9-30.3(6) to read as follows:

Provide valve stem extension in accordance with COE Standard Drawing No. 504.

#### 9-30.3(7) Combination Air Release/Air Vacuum Valves

Supplement this section by adding the following.

Provide combination air release/air vacuum valve in accordance with COE Standard Drawing 512.

#### 9-30.3(8) Tapping Sleeve and Valve Assembly

Revise the last sentence of 9-30.3(8) to read as follows:

Provide all stainless steel tapping sleeves, Romac SST, Romac SSTIII, or City approved equal.

#### 9-30.5 Hydrants

Delete first paragraph of 9-30.5 and substitute the following:

Provide fire hydrants with ANSI 125 flanged connection conforming to AWWA C502. Provide Mueller "Super Centurion No. 250", American Flow Control "Waterous Pacer No. WB67", or City approved equal.

#### 9-30.5(2) Hydrant Dimensions

Delete last sentence of first paragraph of 9-30.5(2) and substitute the following:

Provide hydrants having two 2-1/2 inch hose nozzles and one 4-1/2 inch pumper nozzle. The 4-1/2 inch pumper nozzle shall be National Thread and fitted with a 5-inch STORZ fitting.

Delete last sentence of second paragraph of 9-30.5(2) and substitute the following:

Paint hydrants with two coats of high gloss Caterpillar yellow, Luxite 6100-516, Rost-Oleum 7448, or City approved equal. Paint the port caps with two coats of high gloss black enamel paint.

#### 9-30.5(4) Hydrant Restraints

Revise the first paragraph of 9-30.5(4) to read as follows:

Provide either mechanical joint restraint system in accordance with 9-30.5(6) of these Special Provisions, or field lock gaskets for hydrant restraint.

#### 9-30.6 Water Service Connections (2-inches and Smaller)

#### 9-30.6(1) Saddles

Revise 9-30.6(1) to read as follows:

Provide Romac, Ford, Mueller, or City approved equal single strap ductile iron, bronze, brass, or stainless steel service saddle with C.C. (AWWA tapered) thread for 3/4-inch and 1-inch services.

Provide Romac, Ford, Mueller, or City approved equal double strap ductile iron, bronze, brass, or stainless steel service saddle with I.P. thread for 2-inch services. All materials shall meet the requirements of AWWA C800-05.

#### 9-30.6(2) Corporation Stops

Revise 9-30.6(2) to read as follows:

Provide Ford FB600 Series, or City approved equal, corporation stops for 3/4-inch and 1-inch services.

All materials shall meet the requirements of AWWA C800-05.

#### 9-30.6(3) Service Pipes

Delete 9-30.6(3) C PEX-a Tubing in its entirety.

#### 9-30.6(4) Service Fittings

Revise third paragraph to read as follows:

Provide either compression fittings, or stab type fittings using internal grip and O ring seal, for polyethylene pipe.

#### Delete the last paragraph in its entirety.

Supplement 9-30.6(4) with the following:

Provide corporation bends with swivel nut on inlet.

#### 9-30.6(5) Meter Setters

Delete the second, third and fourth paragraphs of 9-30.6(5) and substitute the following:

Provide A.Y. McDonald 62-212WWDD33-15, or City approved equal, meter setter for 3/4-inch and 1-inch metered service. Provide Ford 70 Series copper setter VBH77-12B-11-77 with horizontal inlet and outlet, or City approved equal, meter setter for 2-inch metered service.

#### 9-30.6(6) Bonze Nipples and Fittings

Delete 9-30.6(6) and substitute the following:

#### 9-30.6(6) Brass Nipples and Fittings

Provide brass threaded fittings made with ASA class 125 lb Red Brass meeting the requirements of ANSI/AWWA C800-05 and also meeting requirements of ANSI/NSF-61.

Provide Schedule 40 Red Brass Nipples meeting requirements of ASTM B43.

#### 9-30.6(7) Meter Boxes

Delete the first and second paragraphs of 9-30.6(7) and substitute the following:

Provide Raven Products RMB 11-18-12 meter box body, mouseholes cut, with ductile iron flush solid water meter H-20 rated cover, or City approved equal, for 3/4-inch services.

Provide Raven Products RMB 15-27-12 meter box body, mouseholes cut, with ductile iron flush solid water meter H-20 rated cover, or City approved equal, for 1-inch services.

Provide Raven Products RMB 17-30-12 meter box body, mouseholes cut, with ductile iron flush solid water meter H-20 rated cover, or City approved equal, for 2-inch services.

Supplement 9-30.6 by adding the following:

#### 9-30.6(8) Curb Stops

(\*\*\*\*\*)

Provide Ford B11-333W-NL 3/4-inch or Ford B11-444-NL 1-inch curb stop, or City approved equal as noted in the Plans.

All materials shall meet the requirements of AWWA C800.

### **APPENDIX "A"**

### WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER FACILITY SPECIFICATIONS INSERT

#### **CITY OF EVERETT SPECIAL PROVISIONS**

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## WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER FACILITY SPECIFICATIONS INSERT

### **General**

Partial funding of this project is being provided by the Washington State Department of Ecology's (Ecology) Stormwater Grant Program.

#### **Compliance with State and Local Laws**

The construction of the project, including all subcontracted work, shall conform to the applicable requirements of state and local laws and ordinances.

#### **State Interest Exclusion**

It is anticipated that this project will be funded in part by the Washington State Department of Ecology. Neither the State of Washington nor any of its departments or employees are, or shall be, a party to this contract or any subcontract.

#### **Third Party Beneficiary**

Partial funding of this project is being provided through the Washington State Department of Ecology Stormwater Grant Program. All parties agree that the State of Washington shall be, and is hereby, named as an express third-party beneficiary of this contract, with full rights as such.

#### Access to the construction site and to records

The contractor shall provide for the safe access to the construction site and to the contractor's records by Washington State Department of Ecology personnel.

The Contractor shall maintain accurate records and accounts to facilitate the Owner's audit requirements and shall ensure that all subcontractors maintain auditable records.

These Project records shall be separate and distinct from the Contractor's other records and accounts.

All such records shall be available to the Owner and to Washington State Department of Ecology personnel for examination. All records pertinent to this project shall be retained by the Contractor for a period of three (3) years after the final audit.

#### **Protection of the Environment**

No construction related activity shall contribute to the degradation of the environment, allow material to enter surface or ground waters, or allow particulate emissions to the atmosphere, which exceed state or federal standards. Any actions that potentially allow a discharge to state waters must have prior approval of the Washington State Department of Ecology.

### **Inadvertent Discovery of Archeological Resources**

The contractor shall obtain a copy of the Inadvertent Discovery Plan from the Project Owner. The contractor shall keep a copy of the inadvertent discovery plan for the project on the work site at all times. The contractor shall immediately stop all work if human remains, cultural, or archeological resources are discovered in the course of construction. The contractor shall follow the inadvertent discovery plan in dealing with the human remains, cultural, or archeological resources.

#### **Project Signs**

The Contractor shall display Ecology's logo in a manner that informs the public that the project received financial assistance from the Washington State Stormwater Grant Program.

### **Utilization of Minority and Women Business Enterprises**

All bidders are encouraged to utilize certified minority-owned and women-owned businesses to the extent possible in the performance of this contract. All prospective bidders or persons submitting qualifications should take the following steps, when possible.

- 1. Include qualified minority and women's businesses on solicitation lists.
- 2. Assure that qualified minority and women's businesses are solicited whenever they are potential sources of services or supplies.
- 3. Divide the total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by qualified minority and women's businesses.
- 4. Establish delivery schedules, where work requirements permit, which will encourage participation of qualified minority and women's businesses.
- 5. Use the services and assistance of the State Office of Minority and Women's Business Enterprises (OMWBE) and the Office of Minority Business Enterprises of the U.S. Department of Commerce, as appropriate.

All prospective bidders must provide a list of the MBE/WBE subcontractors they intend to use during the project. This list must be provided with the bid package.

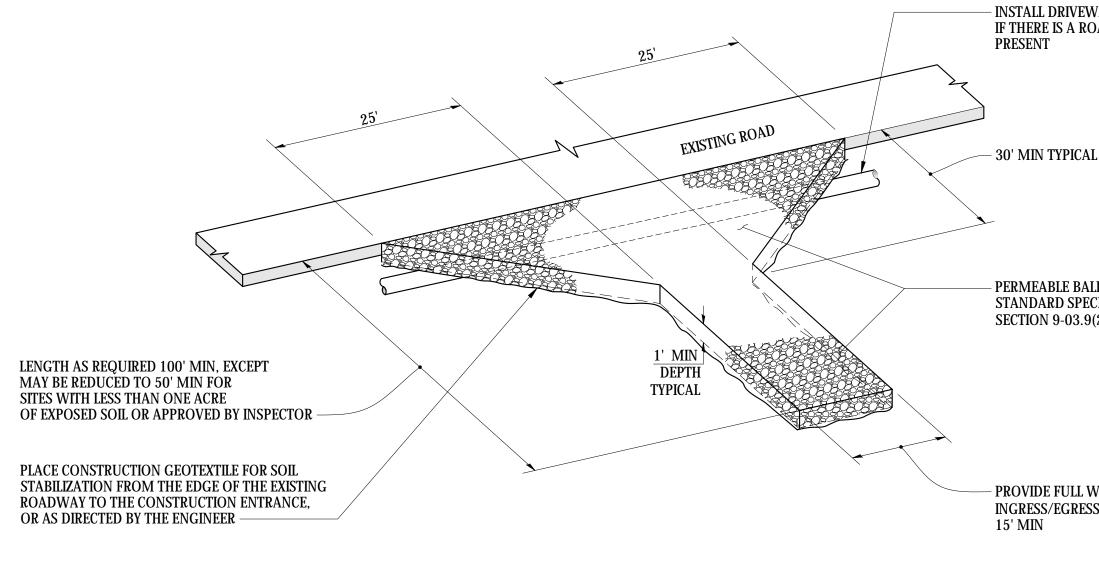
Revised 3/25/15

### **APPENDIX "B"**

### **CITY OF EVERETT STANDARD DRAWINGS**

#### **CITY OF EVERETT SPECIAL PROVISIONS**

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**ISOMETRIC VIEW CONSTRUCTION ENTRANCE** 

# NOTES

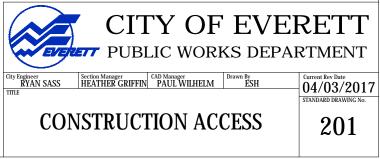
#### 1. STABILIZED CONSTRUCTION ENTRANCE SHALL MEET THE REQUIREMENTS OF WSDOT STANDARD SPECIFICATION SECTION 8-01.3(7).

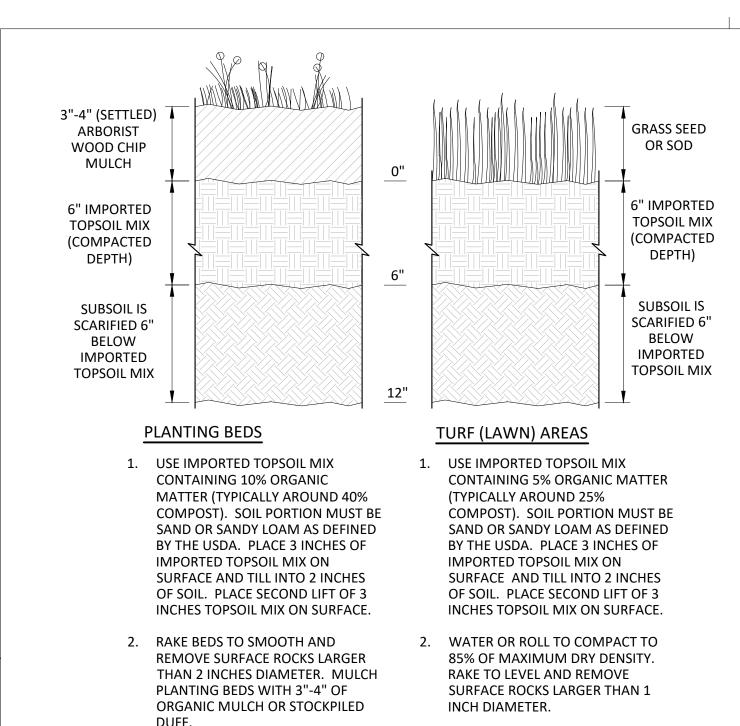
INSTALL DRIVEWAY CULVERT IF THERE IS A ROADSIDE DITCH

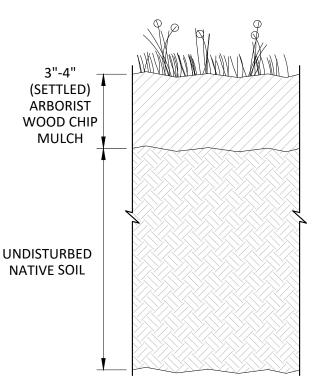
PERMEABLE BALLAST TYPICAL SEE STANDARD SPECIFICATION SECTION 9-03.9(2)

PROVIDE FULL WIDTH OF **INGRESS/EGRESS AREA** 

WSDOT STD PLAN I-80.10-02 ACCEPTABLE SUBSTITUTE







PLANTING BEDS

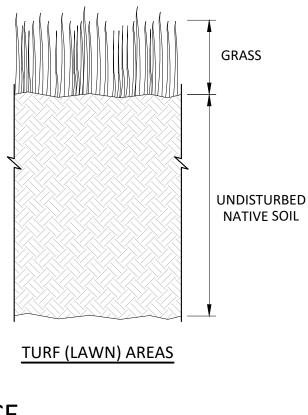
# **OPTION: NO DISTURBANCE**

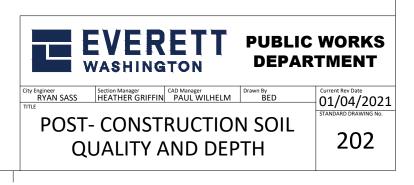
LEAVE NATIVE VEGETATION AND SOIL UNDISTURBED AND PROTECT FROM COMPACTION DURING CONSTRUCTION. IDENTIFY AREAS OF THE SITE THAT WILL NOT BE STRIPPED, LOGGED, GRADED OR DRIVEN ON AND FENCE OFF THOSE AREAS TO PREVENT IMPACTS DURING CONSTRUCTION. IF NEITHER SOILS NOR VEGETATION ARE DISTURBED, THESE AREAS DO NOT REQUIRE AMENDMENT.

# **OPTION: IMPORTED TOPSOIL**

IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS. ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE RESTORED AS DESCRIBED BELOW.

- 1. SCARIFICATION: SCARIFY OR TILL SUBGRADE IN TWO DIRECTION TO 6 INCHES DEPTH. ENTIRE SURFACE SHALL BE DISTURBED BY SCARIFICATION. DO NOT SCARIFY WITHIN DRIP LINE OF EXISTING TREES TO BE RETAINED.
- 2. SETBACKS: TO PREVENT UNEVEN SETTLING, DO NOT COMPOST-AMEND SOILS WITHIN 3 FEET ON CENTER OF UTILITY INFRASTRUCTURE (POLES, VAULTS, METERS ETC.). WITHIN ONE FOOT OF PAVEMENT EDGE, CURBS AND SIDEWALKS; SOIL SHOULD BE COMPACTED TO APPROXIMATELY 90% MAX. MODIFIED PROCTOR DENSITY (ASTM D1557) TO ENSURE A FIRM SURFACE. DO NOT COMPACT WITHIN TREE PROTECTION ZONE.





# **OPTION: STOCKPILE EXISTING TOPSOIL**

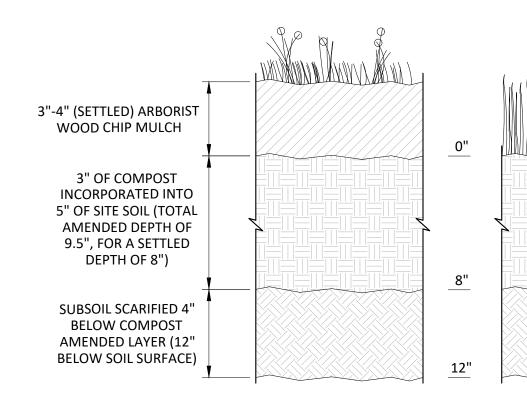
STOCKPILE EXISTING TOPSOIL DURING GRADING. STOCKPILE AND COVER SOIL WITH WEED BARRIER MATERIAL THAT SHEDS MOISTURE YET ALLOWS AIR TRANSMISSION, IN APPROVED LOCATION, PRIOR TO GRADING. REPLACE STOCKPILED TOPSOIL PRIOR TO PLANTING. STOCKPILED TOPSOIL SHALL BE TESTED AND AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS EITHER AT PREAPPROVED RATE OR CALCULATED RATE. ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION, AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE AMENDED WITH COMPOST AS DESCRIBED BELOW.

- 1. SCARIFICATION: IF PLACED TOPSOIL PLUS COMPOST OR OTHER ORGANIC MATERIAL WILL AMOUNT TO LESS THAN 12 INCHES, SCARIFY OR TILL SUBGRADE TO DEPTH NEEDED TO ACHIEVE 12 INCHES OF LOOSENED SOIL AFTER TOPSOIL AND AMENDMENT ARE PLACED. ENTIRE SURFACE SHOULD BE DISTURBED BY SCARIFICATION. DO NOT SCARIFY WITHIN DRIP LINE OF EXITING TREES TO BE RETAINED.
- 2. SETBACKS: TO PREVENT UNEVEN SETTLING, DO NOT COMPOST-AMEND SOILS WITHIN 3 FEET ON CENTER OF UTILITY INFRASTRUCTURE (POLES, VAULTS, METERS ETC.). WITHIN ONE FOOT OF PAVEMENT EDGE, CURBS AND SIDEWALKS; SOIL SHOULD BE COMPACTED TO APPROXIMATELY 90% MAX. MODIFIED PROCTOR DENSITY (ASTM D1557) TO ENSURE A FIRM SURFACE. DO NOT COMPACT WITHIN TREE PROTECTION ZONE.

# **OPTION: AMEND EXISTING TOPSOIL**

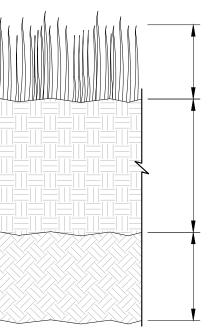
AMEND EXISTING SITE TOPSOIL, OR SUBSOIL, EITHER AT PREAPPROVED RATE OR AT CALCULATED RATE BASED ON TESTS OF THE SOIL AND AMENDMENTS. ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION AND NOT COVERED BY BUILDINGS OR PAVEMENT, SHALL BE AMENDED WITH COMPOST AS DESCRIBED BELOW.

- 1. SCARIFICATION: SCARIFY OR TILL SUBGRADE TO 8 INCHES DEPTH (OR TO DEPTH NEEDED TO ACHIEVE A TOTAL DEPTH OF 12 INCHES OF UNCOMPACTED SOIL AFTER CALCULATED AMOUNT OF AMENDMENT IS ADDED). ENTIRE SURFACE SHOULD BE DISTURBED BY SCARIFICATION. DO NOT SCARIFY WITHIN DRIP LINE OF EXISTING TREES TO BE RETAINED OR WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS OR AS DETERMINED BY THE ENGINEER.
- 2. SETBACKS: TO PREVENT UNEVEN SETTLING, DO NOT COMPOST-AMEND SOILS WITHIN 3 FEET ON CENTER OF UTILITY INFRASTRUCTURE (POLES, VAULTS, METERS ETC.). WITHIN ONE FOOT OF PAVEMENT EDGE, CURBS AND SIDEWALKS; SOIL SHOULD BE COMPACTED TO APPROXIMATELY 90% MAX. MODIFIED PROCTOR DENSITY (ASTM D1557) TO ENSURE A FIRM SURFACE. DO NOT COMPACT WITHIN TREE PROTECTION ZONE.



#### PLANTING BEDS

- 1. PREAPPROVED RATE: PLACE 3 INCHES OF COMPOSTED MATERIAL AND ROTOTILL INTO 5 INCHES OF EXISTING SITE SOILS (A TOTAL AMENDED DEPTH OF ABOUT 9.5 INCHES, FOR A SETTLED DEPTH OF 8 INCHES).
- 2. CALCULATED RATE: PLACE CALCULATED AMOUNT OF COMPOSTED MATERIAL OR APPROVED ORGANIC MATERIAL AND ROTOTILL INTO DEPTH OF SOIL NEEDED TO ACHIEVE 8 INCHES OF SETTLED SOIL AT 10% ORGANIC CONTENT.
- RAKE BEDS TO SMOOTH AND REMOVE SURFACE ROCKS LARGER THAN 2 INCHES DIAMETER. MULCH PLANTING BEDS WITH 3"-4" OF ORGANIC MULCH OR STOCKPILED DUFF.



**GRASS SEED OR SOD** 

1.75" OF COMPOST INCORPORATED INTO 6.25" OF SITE SOIL (TOTAL AMENDED DEPTH OF 9.5", FOR A SETTLED DEPTH OF 8")

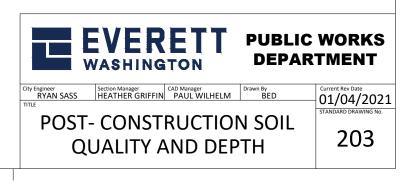
SUBSOIL SCARIFIED 4" BELOW COMPOST AMENDED LAYER (12" BELOW SOIL SURFACE)

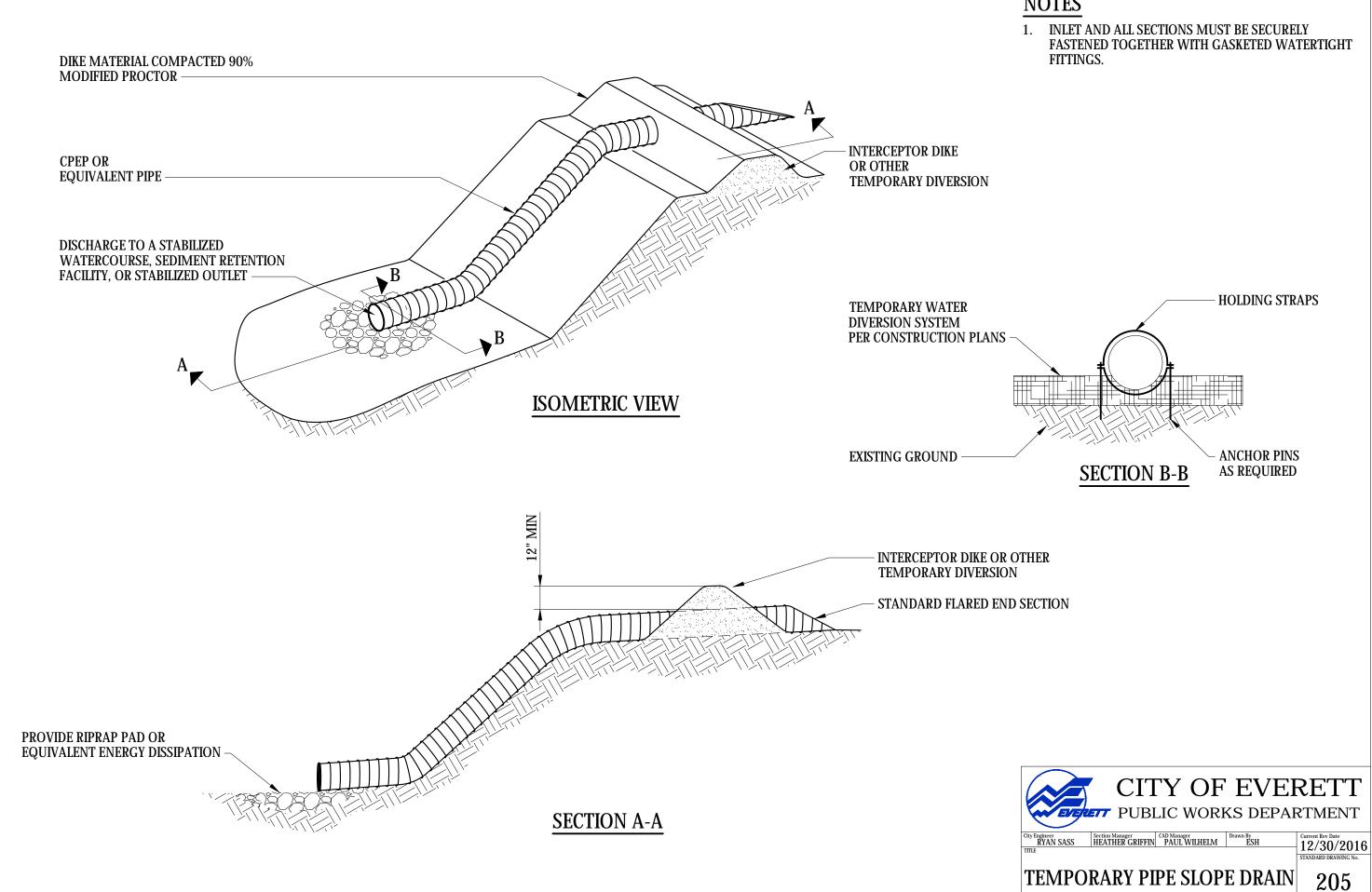
### TURF (LAWN) AREAS

1. PREAPPROVED RATE: PLACE 1.75 INCHES OF COMPOSTED MATERIAL AND ROTOTILL INTO 6.25 INCHES OF EXISTING SITE SOILS (A TOTAL AMENDED DEPTH OF ABOUT 9.5 INCHES, FOR A SETTLED DEPTH OF 8 INCHES).

2. CALCULATED RATE: PLACE CALCULATED AMOUNT OF COMPOSTED MATERIAL OR APPROVED ORGANIC MATERIAL AND ROTOTILL INTO DEPTH OF SOIL NEEDED TO ACHIEVE 8 INCHES OF SETTLED SOIL AT 5% ORGANIC CONTENT.

3. WATER OR ROLL TO COMPACT TO 85% OF MAXIMUM DRY DENSITY. RAKE TO LEVEL AND REMOVE SURFACE ROCKS LARGER THAN 1 INCH DIAMETER.

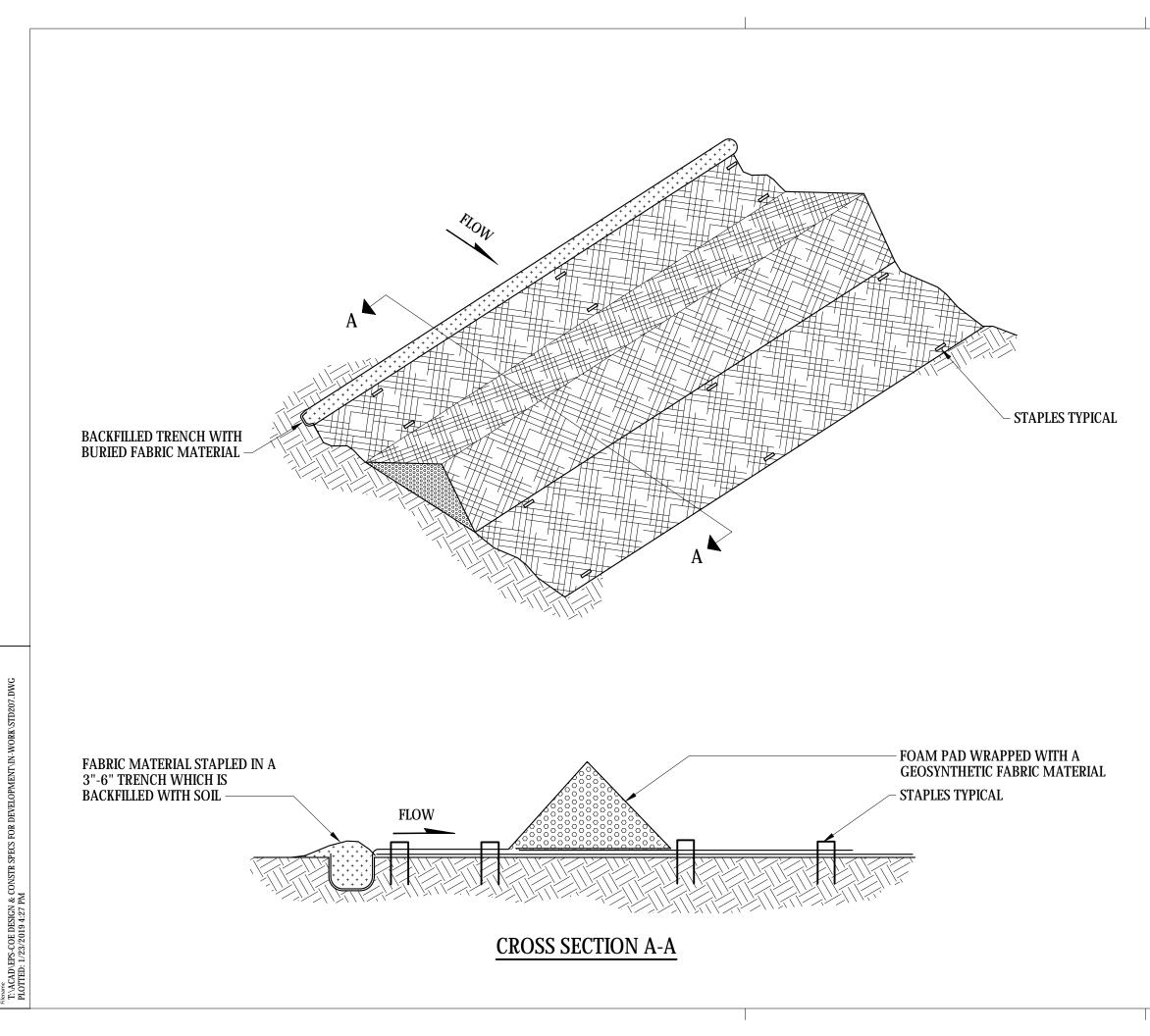




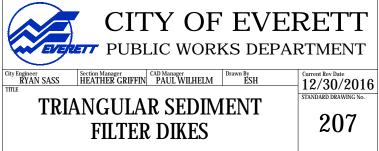
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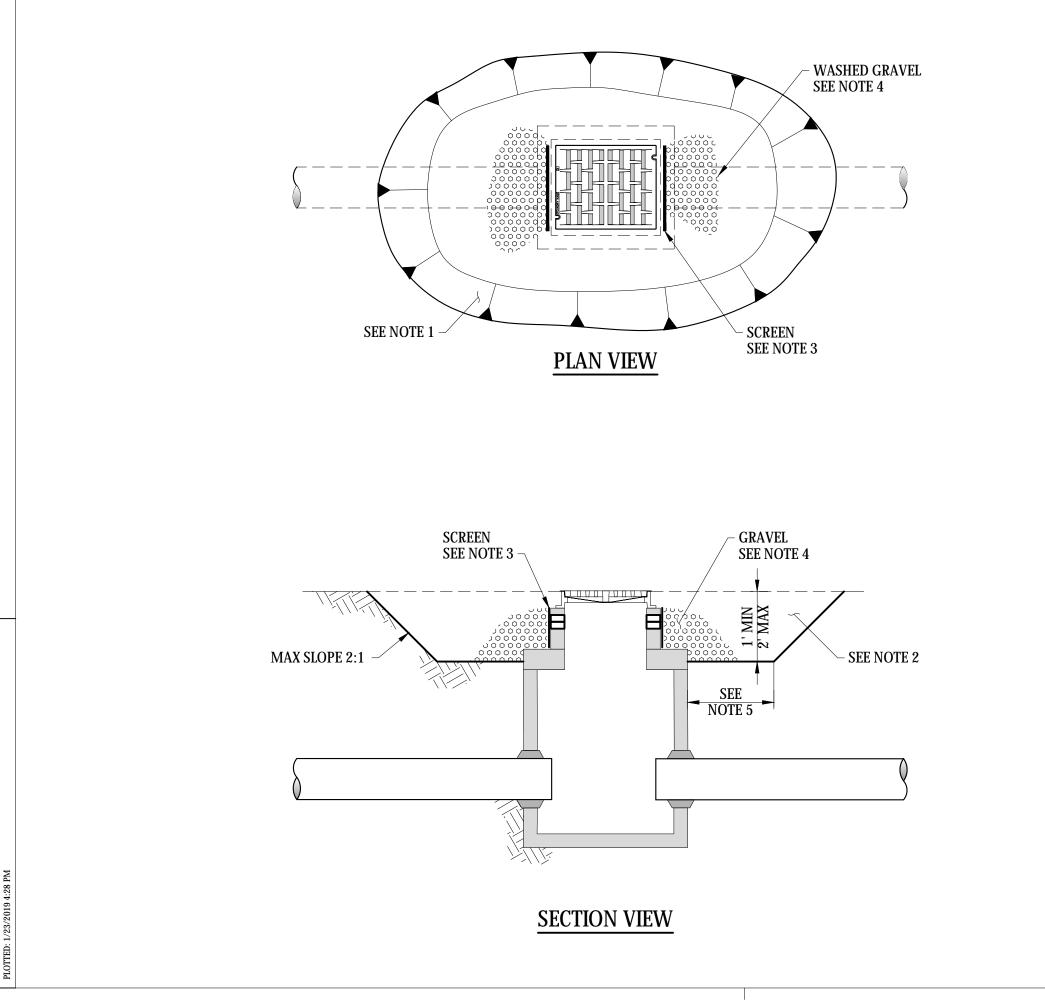
# NOTES

FASTENED TOGETHER WITH GASKETED WATERTIGHT



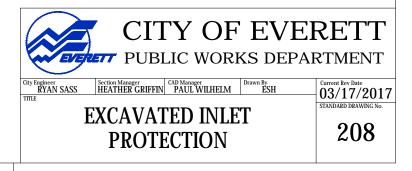
1. PROVIDE 8 LINEAL FEET PER 1 CFS RUNOFF.

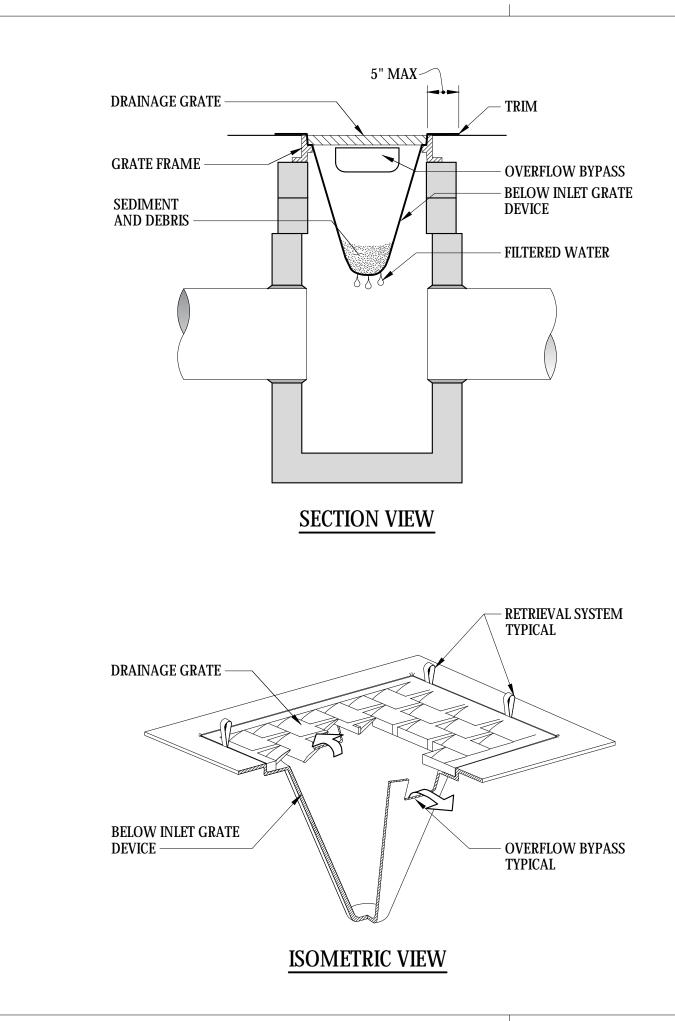




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- 1. SHAPE OF SUMP AREA MAY VARY TO FIT DRAINAGE AREA AND TERRAIN. MODIFY AS NECESSARY TO ENSURE SATISFACTORY TRAPPING OF SEDIMENT. HALF-CIRCLE SUMP MAY BE USED WHEN CURB AND GUTTER ARE INSTALLED DURING STREET CONSTRUCTION.
- 2. CLEAN OUT WHEN SEDIMENT REACHES 6" BELOW GRATE.
- 3. TEMPORARILY LEAVE OUT BLOCK. COVER OPENING WITH WIRE SCREEN. SIZE SCREEN TO RETAIN GRAVEL.
- 4. PLACE 3/8" MINUS WASHED GRAVEL IN FRONT OF SCREEN TO FILTER SEDIMENT.
- 5. SIZE SUMP BASED ON EXPECTED FLOWS DURING CONSTRUCTION.
- 6. TO PREVENT SEDIMENTATION FROM ENTERING STORM DRAINAGE SYSTEM AT CATCH BASIN/INLETS DURING CONSTRUCTION.



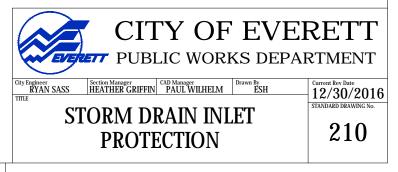


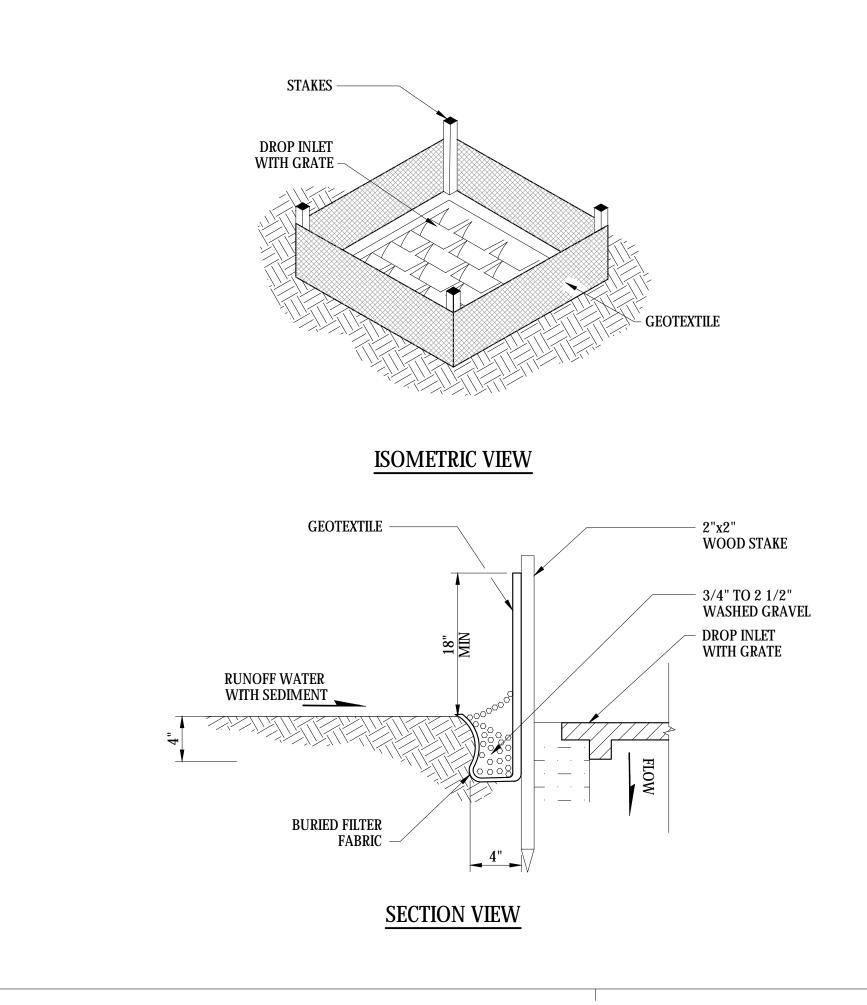
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## NOTES

- 1. CATCH BASIN INSERTS SHALL BE REMOVED AT THE END OF THE PROJECT.
- 2. CATCH BASIN INSERTS ARE ONLY TO BE INSTALLED IN DRAINAGE DEVICES PER THE MANUFACTURES'S RECOMMENDATIONS. CATCH BASIN INLET INSERTS SHALL BE INSTALLED IN CURB INLETS.
- 3. CATCH BASIN INSERTS SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
- 4. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES ONE THIRD FULL OR IN ACCORDANCE WITH THE MANUFACTURES' INSTRUCTIONS.
- 5. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INLET INSERTS, EMPTYING, AND RE-INSTALLING IT INTO THE CATCH BASIN. DO NOT WASH SEDIMENT INTO STORM DRAINS WHILE CLEANING.
- 6. SIZE THE BELOW INLET GRATE DEVICE (BIGD) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
- 7. THE BIGD SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
- 8. THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BIGD WITHOUT SPILLING THE COLLECTED MATERIAL.
- 9. PERFORM MAINTENANCE IN ACCORDANCE WITH STANDARD SPECIFICATION 8-01.3(15).

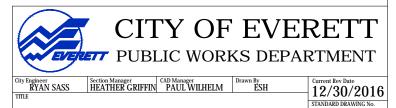
# WSDOT STD PLAN I-40.20-00 ACCEPTABLE SUBSTITUTE IF MAINTENANCE MEETS NOTES 1-5





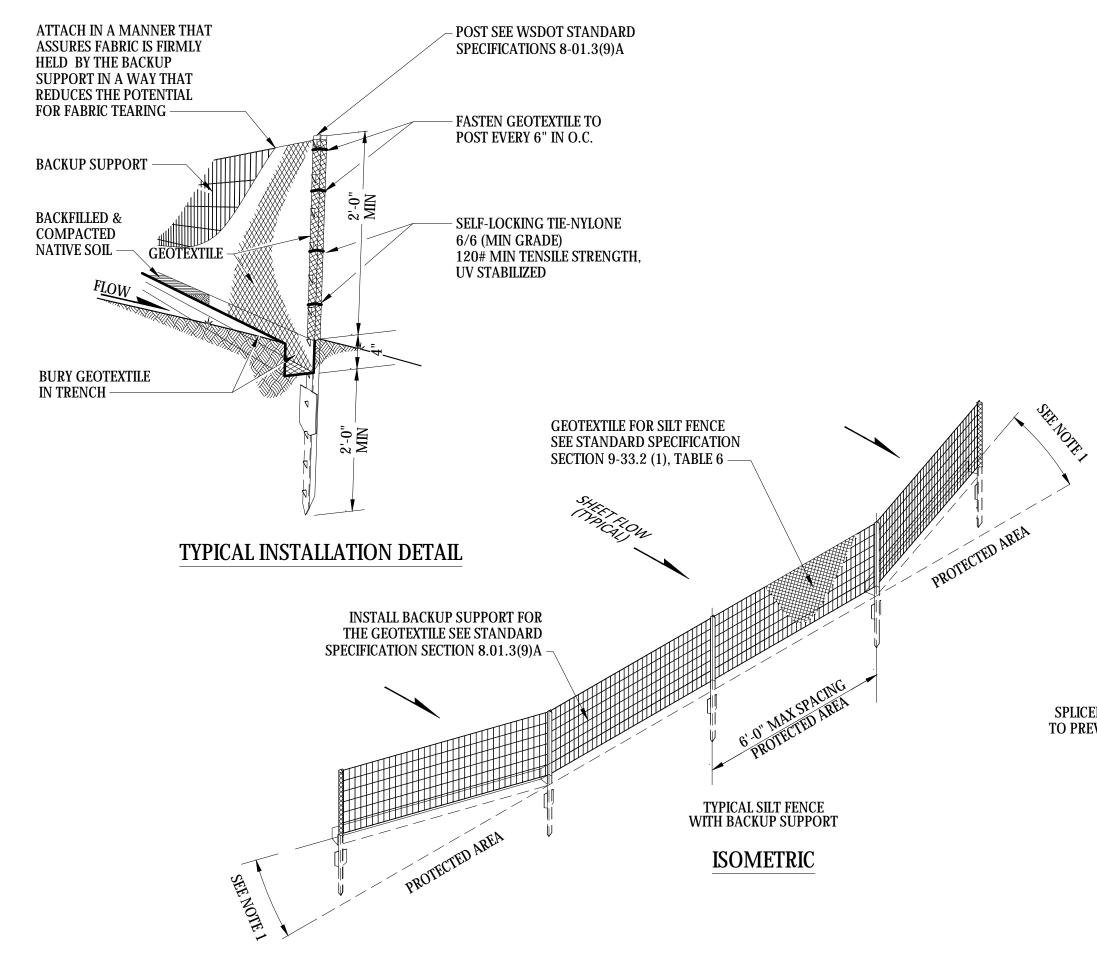


1. ALL FILTER FABRIC SHALL BE GEOTEXTILE FOR TEMPORARY SILT FENCE. SEE WSDOT STANDARD SPECIFICATION 9-33.2(1) TABLE 6.

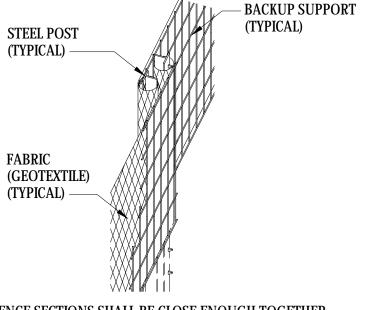


## INLET FABRIC FENCE FILTER

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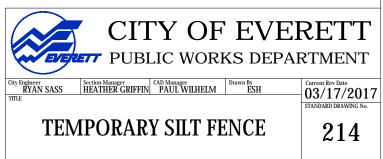
- 1. INSTALL THE ENDS OF THE SILT FENCE TO POINT SLIGHTLY UPSLOPE TO PREVENT SEDIMENT FROM FLOWING AROUND THE ENDS OF THE FENCE.
- 2. PERFORM MAINTENANCE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS 8-01.3(9)A AND 8-01.3(15).
- 3. SPLICES SHALL NEVER BE PLACED IN LOW SPOTS OR SUMP LOCATIONS. IF SPLICES ARE LOCATED IN LOW OR SUMP AREAS, THE FENCE MAY NEED TO BE REINSTALLED UNLESS OTHERWISE APPROVED.
- 4. INSTALL SILT FENCING PARALLEL TO MAPPED CONTOUR LINES.
- 5. DURING EXCAVATION, MINIMIZE DISTURBING THE GROUND AROUND TRENCH AS MUCH AS IS FEASIBLE, AND SMOOTH SURFACE FOLLOWING EXCAVATION TO AVOID CONCENTRATING FLOWS. COMPACTION MUST BE ADEQUATE TO PREVENT UNDERCUTTING FLOWS.

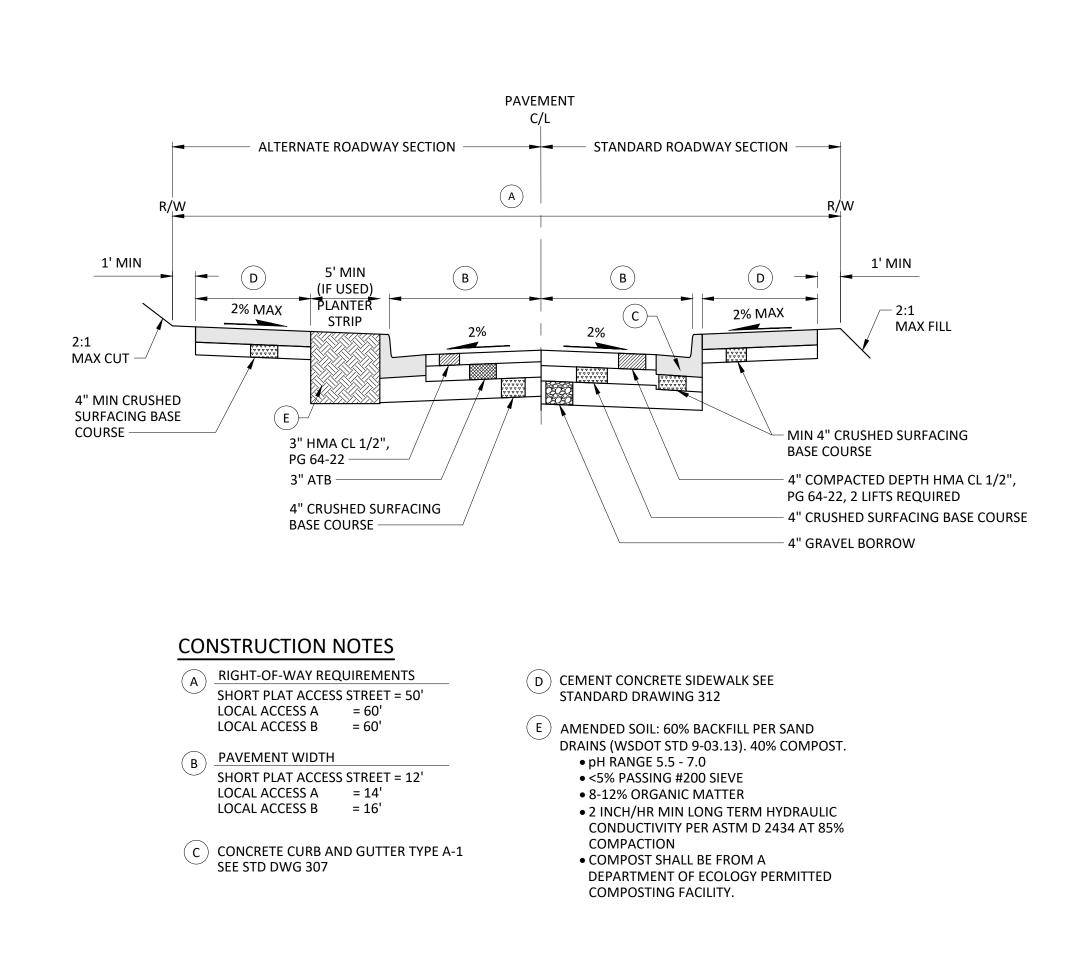


SPLICED FENCE SECTIONS SHALL BE CLOSE ENOUGH TOGETHER TO PREVENT SILT LADEN WATER FROM ESCAPING THROUGH THE FENCE AT THE OVERLAP.

## SPLICE DETAIL

WSDOT STD PLAN I-30.10-02 ACCEPTABLE SUBSTITUTE EXCEPT STEEL POST REQUIRED





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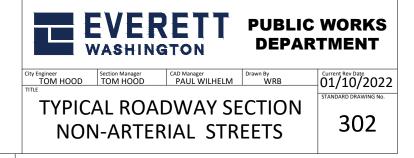
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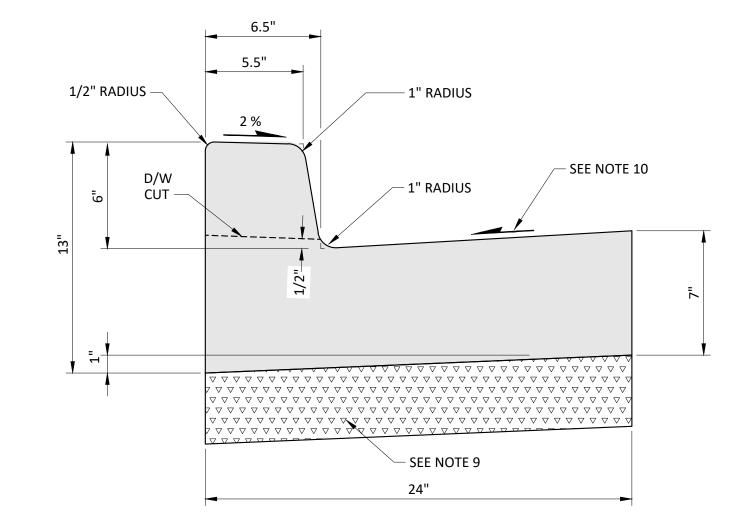
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- 1. ALL MATERIAL DEPTHS ARE COMPACTED DEPTHS.
- 2. IN WIDENING AREAS, THE EXISTING PAVEMENT EDGE SHALL BE SAW-CUT TO LEAVE A JOIN POINT. ANY TRAFFIC STRIPING REMOVED OR DAMAGED DURING WIDENING WORK SHALL BE REPLACED IN KIND OR AS DIRECTED BY THE CITY ENGINEER.
- 3. COMPACTION TESTS ON SUBGRADE AND TOP OF ROCK WILL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY FOR BOTH SUBGRADE AND TOP OF ROCK.
- 4. ADJUSTMENT OF CATCH BASIN LIDS OR GRATES, MONUMENTS CASES, VALVE BOXES, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER.
- 5. ROADWAY SECTION MAY BE PROPOSED WITH SUBMISSION OF SUBSTANTIATING ENGINEERING DATA, CALIFORNIA BEARING RATIO (CBR), ETC. TO SUPPORT THE ADJUSTMENT. THE PROPOSAL MUST BE APPROVED BY THE CITY ENGINEER. FOR DESIGN PURPOSES, THE MINIMUM THICKNESS OF HMA CL 1/2", PG 64-22 SHALL BE 3" COMPACTED DEPTH. COMPACTION SHALL BE AN AVERAGE OF 91% OF RICE DENSITY.

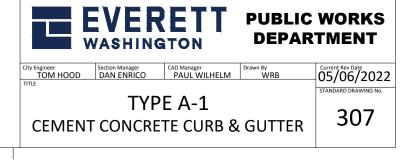


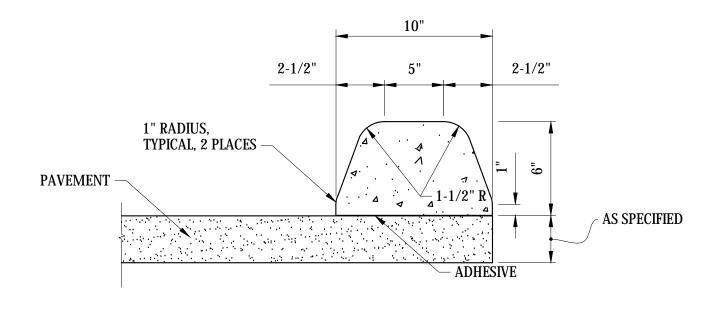
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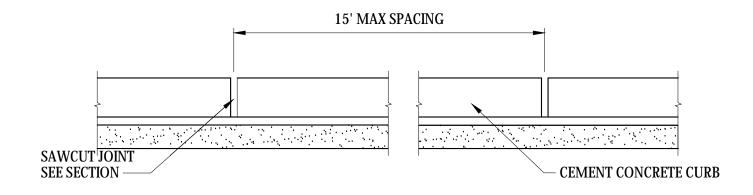


- 1. FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED.
- 2. HALF DEPTH, 3/8" x 1-1/2", EXPANSION JOINTS SHALL BE PLACED ON 15-FOOT CENTERS.
- 3. FULL DEPTH EXPANSION JOINTS SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS AND AT POINTS OF TANGENCY ON STREETS, ALLEY AND DRIVEWAY RETURNS. MAXIMUM SPACING SHALL BE 30 FEET. PRE-MOLDED JOINT FILLER SHALL BE 3/8" WIDE.
- 4. ALL JOINTS SHALL BE CLEAN AND EDGED.
- 5. CONCRETE SHALL BE COMMERCIAL MIX AS CALLED OUT IN WSDOT STANDARD SPECIFICATIONS.
- 6. STEEL FORMS MUST BE USED ON TANGENT SECTIONS. WOOD FORMS MAY BE USED ON CURVED SECTIONS.
- 7. FINISH SHALL BE LIGHT BROOM FINISH.
- 8. THE FINISHED CURB SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND AND COVERED BY WATERPROOF PAPER OR PLASTIC MEMBRANE IN THE EVENT OF RAIN OR OTHER UNSUITABLE WEATHER. CURING TIME SHALL BE A MINIMUM OF 72 HOURS.
- 9. ALL CURB AND GUTTER SHALL BE PLACED ON A MIN OF 4" OF CRUSHED SURFACING BASE COURSE.
- 10. MATCH ROADWAY CROSS SLOPE EXCEPT AT ADA RAMPS WHERE THE MAXIMUM SLOPE SHALL BE 2%.



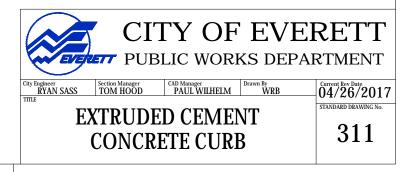


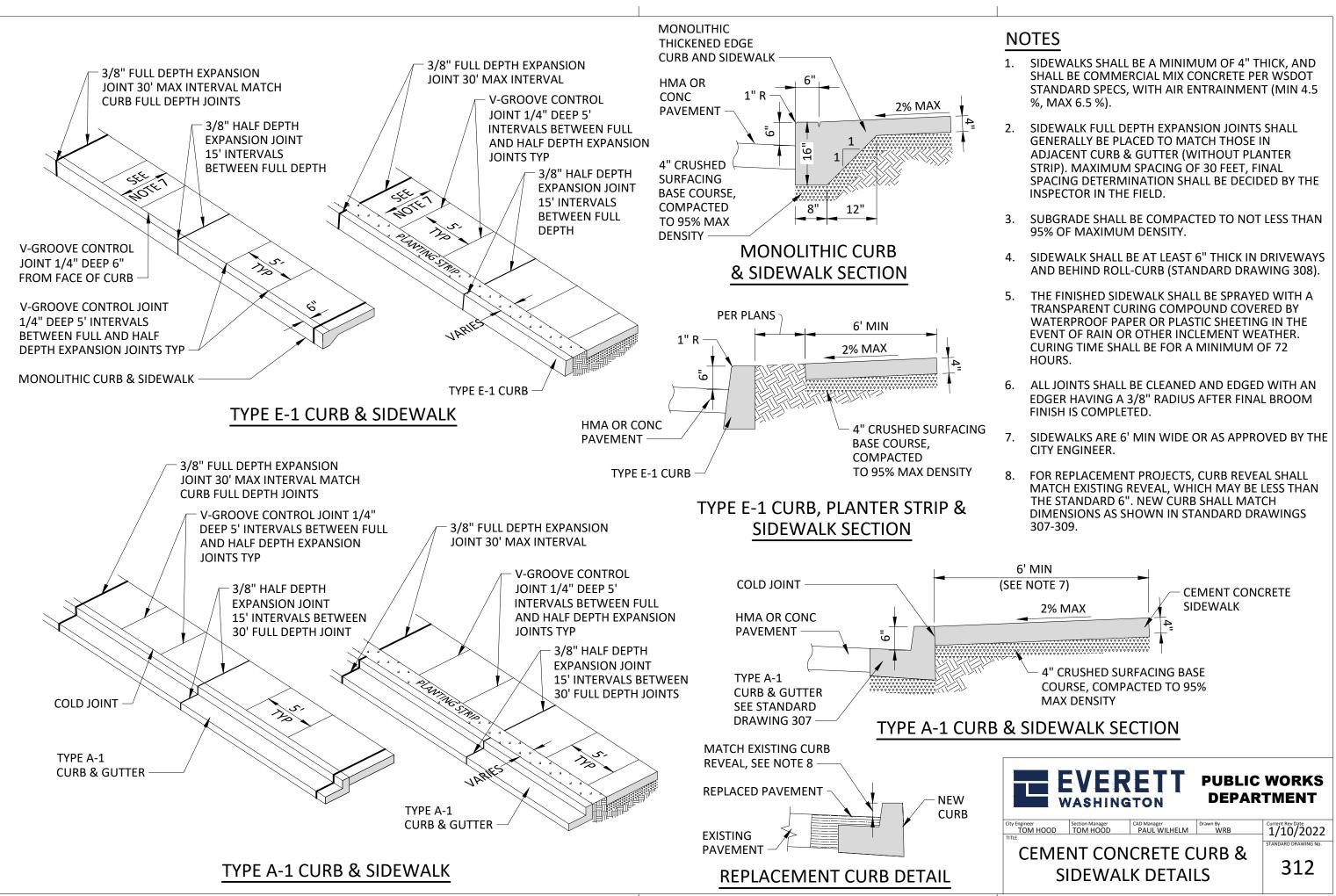
### EXTRUDED CEMENT CONCRETE CURB SECTION



### JOINT SPACING

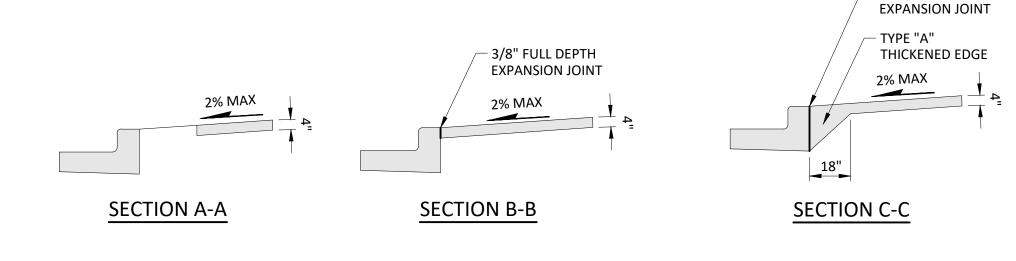
- 1. CUT OR SAWED JOINTS SHALL BE PLACED NOT TO EXCEED 15' ON CENTER. THRU JOINTS SHALL BE PLACED ONLY AT POINTS OF TANGENCY ON STREET ALLEY AND DRIVEWAY RETURNS AND WHERE THRU JOINTS OCCUR IN THE PAVEMENT SLAB.
- 2. CONCRETE SHALL BE COMMERCIAL MIX AS CALLED OUT IN WSDOT STANDARD SPECIFICATIONS.
- 3. CONCRETE CURBS WILL BE ANCHORED TO THE EXISTING PAVEMENT BY USING AN ADHESIVE. THE ADHESIVE SHALL MEET THE REQUIREMENTS OF SECTION 9-26.1 OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR TYPE II EPOXY BONDING AGENT.

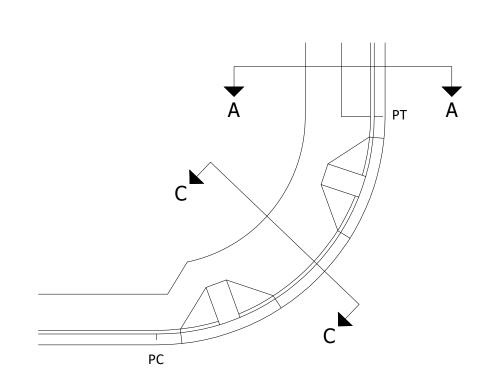


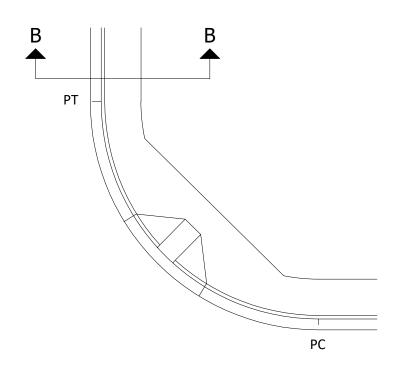


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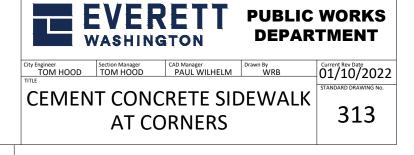


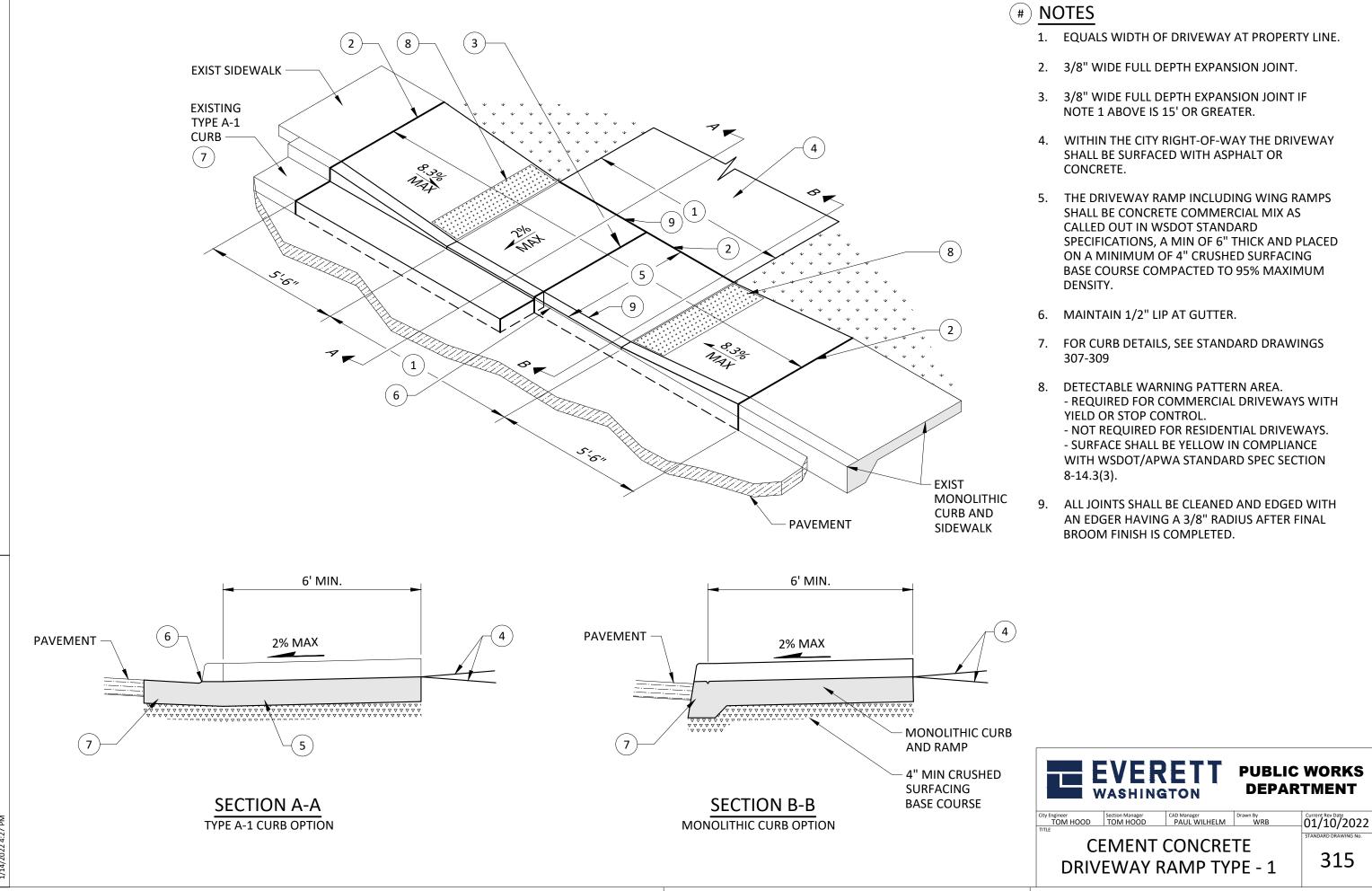




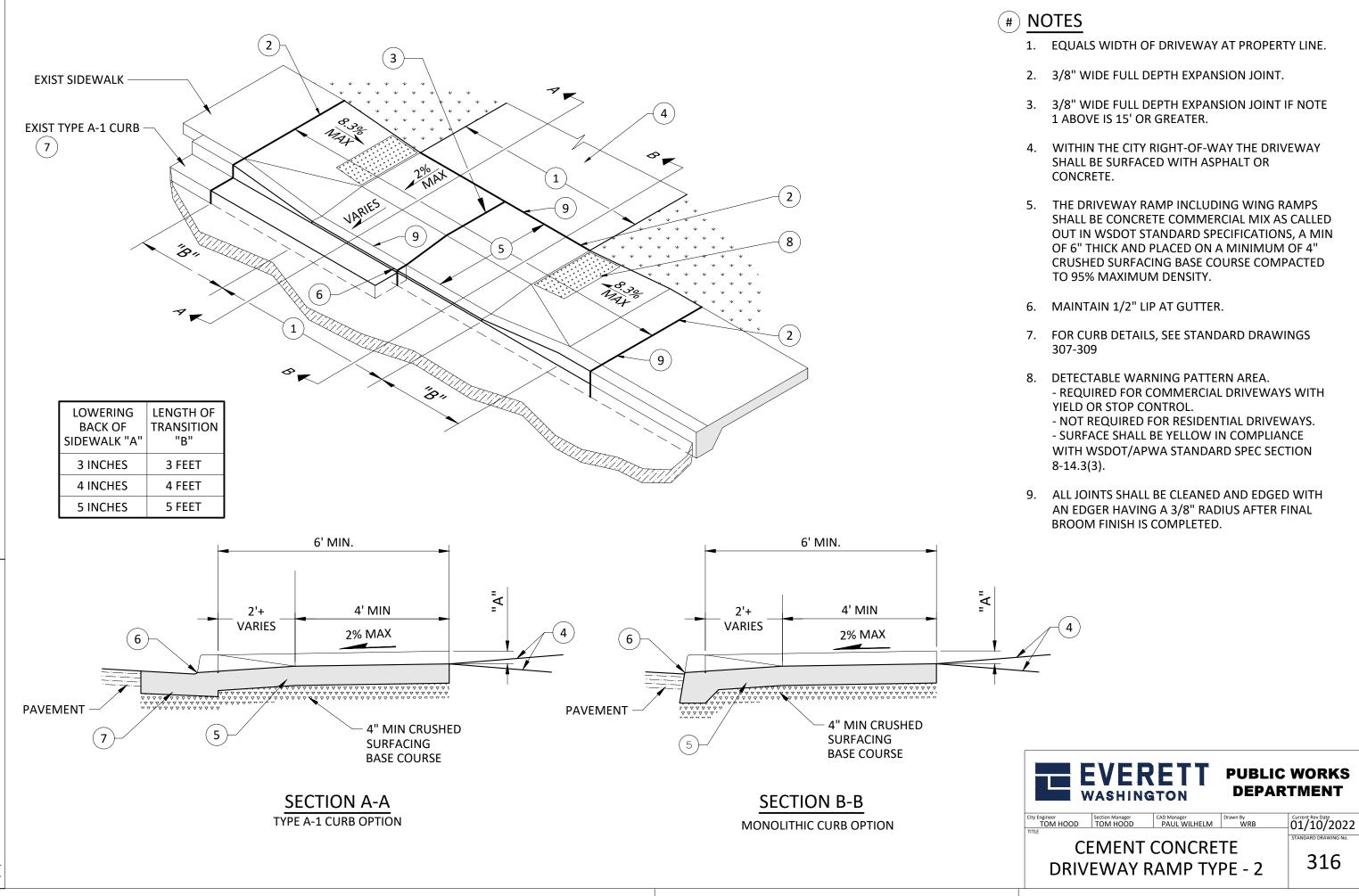
3/8" FULL DEPTH

- 1. "V" GROOVES SHALL BE SPACED TO CORRESPOND TO THE MARKINGS IN EXISTING SIDEWALKS, OR AS DIRECTED BY THE ENGINEER.
- 2. ALL UTILITY POLES, METER BOXES AND OTHER OBSTRUCTIONS SHALL HAVE FULL DEPTH 3/8" EXPANSION JOINT MATERIAL PLACED AROUND THEM.
- 3. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 3/8" RADIUS AFTER FINAL BROOM FINISH IS COMPLETED.
- 4. MINIMUM WIDTH OF SIDEWALK IS 6' (NOT INCLUDING THE WIDTH OF THE CURB).
- 5. THICKENED EDGES ARE REQUIRED FOR SIDEWALKS AT CORNERS, BUT NOT ON TANGENT SECTIONS. ALL CURB RAMPS SHALL HAVE A THICKENED EDGE TO THE DEPTH OF THE ADJACENT CURB, INCLUDING CURB RAMPS BUILT ON TANGENT SECTIONS OF SIDEWALK. MONOLITHIC CURB AND SIDEWALK CONFORMING TO STANDARD DRAWING 312 DO NOT REQUIRE ADDITIONAL THICKENED EDGE.
- 6. FOR CURB RAMP DETAILS SEE STANDARD DRAWINGS 318 321
- 7. FOR CURB DETAILS SEE STANDARD DRAWINGS 307 309.

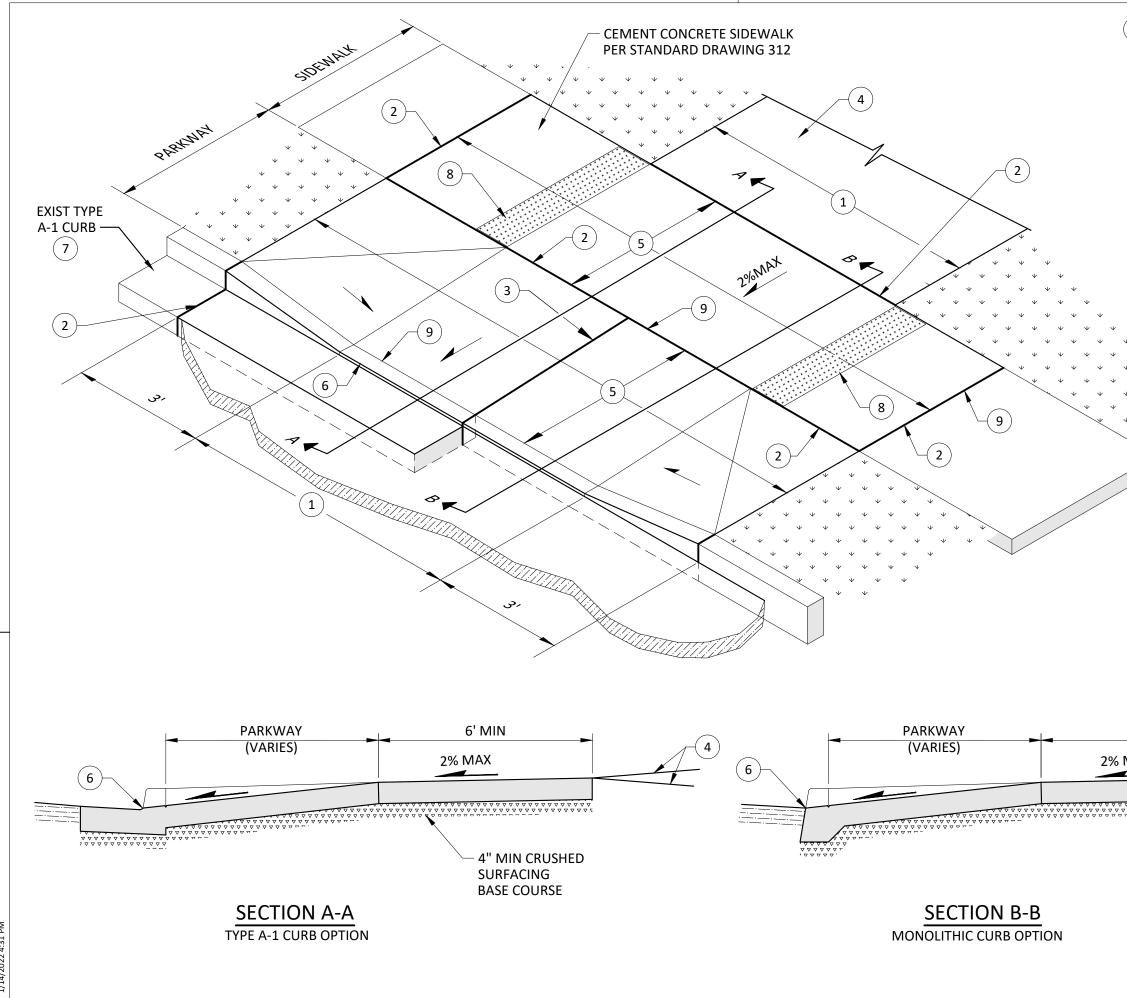




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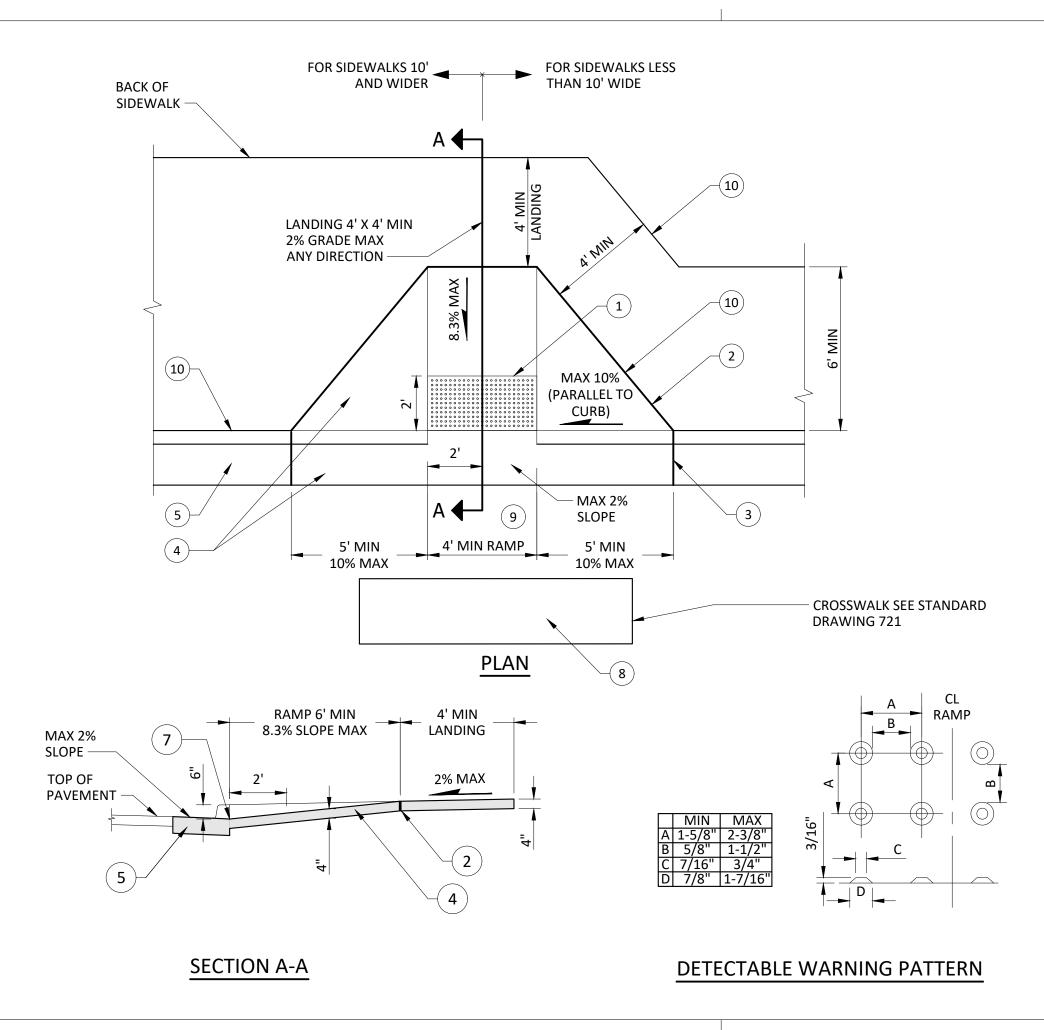
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### # NOTES

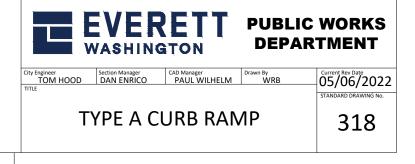
- 1. EQUALS WIDTH OF DRIVEWAY AT PROPERTY LINE.
- 2. 3/8" WIDE FULL DEPTH EXPANSION JOINT.
- 3. 3/8" WIDE FULL DEPTH EXPANSION JOINT IF NOTE 1 ABOVE IS 15' OR GREATER.
- 4. WITHIN THE CITY RIGHT-OF-WAY THE DRIVEWAY SHALL BE SURFACED WITH ASPHALT OR CONCRETE.
- 5. THE DRIVEWAY RAMP INCLUDING WING RAMPS SHALL BE CONCRETE COMMERCIAL MIX AS CALLED OUT IN WSDOT STANDARD SPECIFICATIONS, A MIN OF 6" THICK AND PLACED ON A MINIMUM OF 4" CRUSHED SURFACING BASE COURSE COMPACTED TO 95% MAXIMUM DENSITY.
- 6. MAINTAIN 1/2" LIP AT GUTTER.
- FOR CURB DETAILS, SEE STANDARD DRAWINGS 307-309
- 8. DETECTABLE WARNING PATTERN AREA.
  REQUIRED FOR COMMERCIAL DRIVEWAYS WITH YIELD OR STOP CONTROL.
  NOT REQUIRED FOR RESIDENTIAL DRIVEWAYS.
  SURFACE SHALL BE YELLOW IN COMPLIANCE WITH WSDOT/APWA STANDARD SPEC SECTION 8-14.3(3).
- 9. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 3/8" RADIUS AFTER FINAL BROOM FINISH IS COMPLETED.

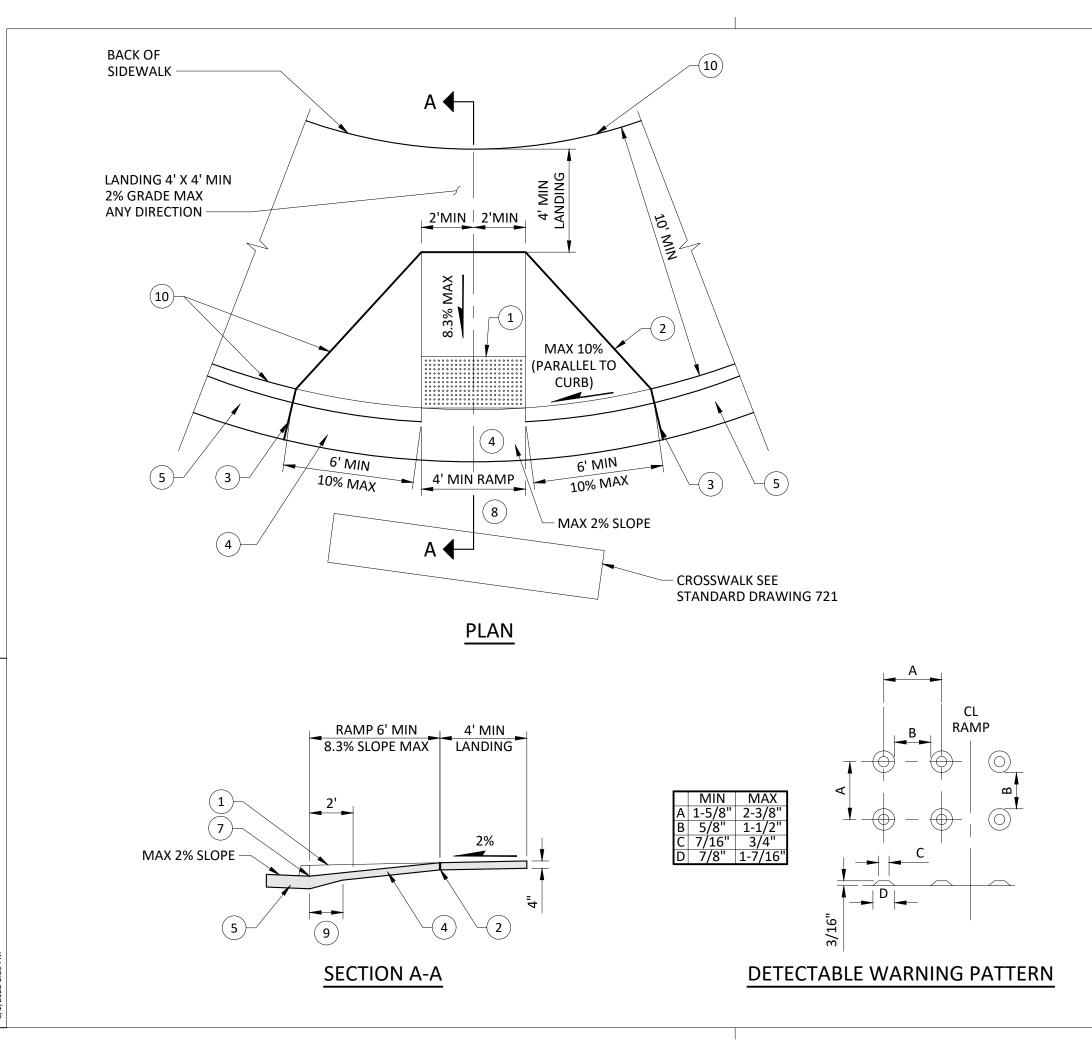
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### NOTES (#)

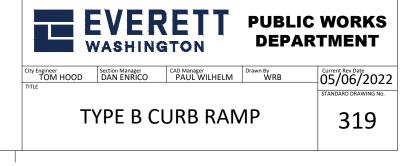
- 1. DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW IN COMPLIANCE WITH WSDOT/APWA STANDARD SPEC SECTION 8-14.3(3).
- 2. CURB RAMPS SHALL BE ISOLATED FROM ADJACENT SIDEWALK BY A 3/8" FULL DEPTH EXPANSION JOINT.
- 3. GUTTER SECTION AT CURB RAMP SHALL BE ISOLATED FROM ADJACENT GUTTER SECTIONS BY A 3/8" FULL DEPTH EXPANSION JOINT.
- 4. CURB RAMP AND GUTTER SECTION AT CURB RAMP MAY BE POURED MONOLITHICALLY.
- 5. TYPE A-1 CURB AND GUTTER PER CITY STANDARD DRAWING 307.
- FOR RETROFIT INSTALLATION SAWCUT AND 6. REMOVE EXISTING SIDEWALK, CURB AND GUTTER SECTION ALONG NEW EXPANSION JOINT LOCATION. SAWCUT EXISTING PAVEMENT AS REQUIRED FOR FORMING OF NEW CURB AND GUTTER. PATCH PAVEMENT AS REQUIRED.
- 7. FLUSH WITH GUTTER (NO LIP PERMITTED)
- MID BLOCK CROSSINGS OF STREETS WITH STOP 8. CONTROL ARE ALLOWED 2% MAX CROSS GRADE AND 5% RUNNING GRADE. CROSSINGS WITHOUT STOP CONTROL ARE LIMITED TO A 5% MAX GRADE IN EITHER DIRECTION. REFER TO GUIDELINES FOR ACCESSIBLE PUBLIC RIGHTS-OF-WAY.
- A MIN OF 4' CLEAR SPACE, WHOLLY OUTSIDE THE 9. PARALLEL VEHICLE TRAVEL LANE, SHALL BE PROVIDED WITHIN THE WIDTH OF THE CROSSWALK OR PEDESTRIAN STREET CROSSING SERVED BY THE RAMP.
- 10. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 3/8" RADIUS AFTER FINAL **BROOM FINISH IS COMPLETED.**

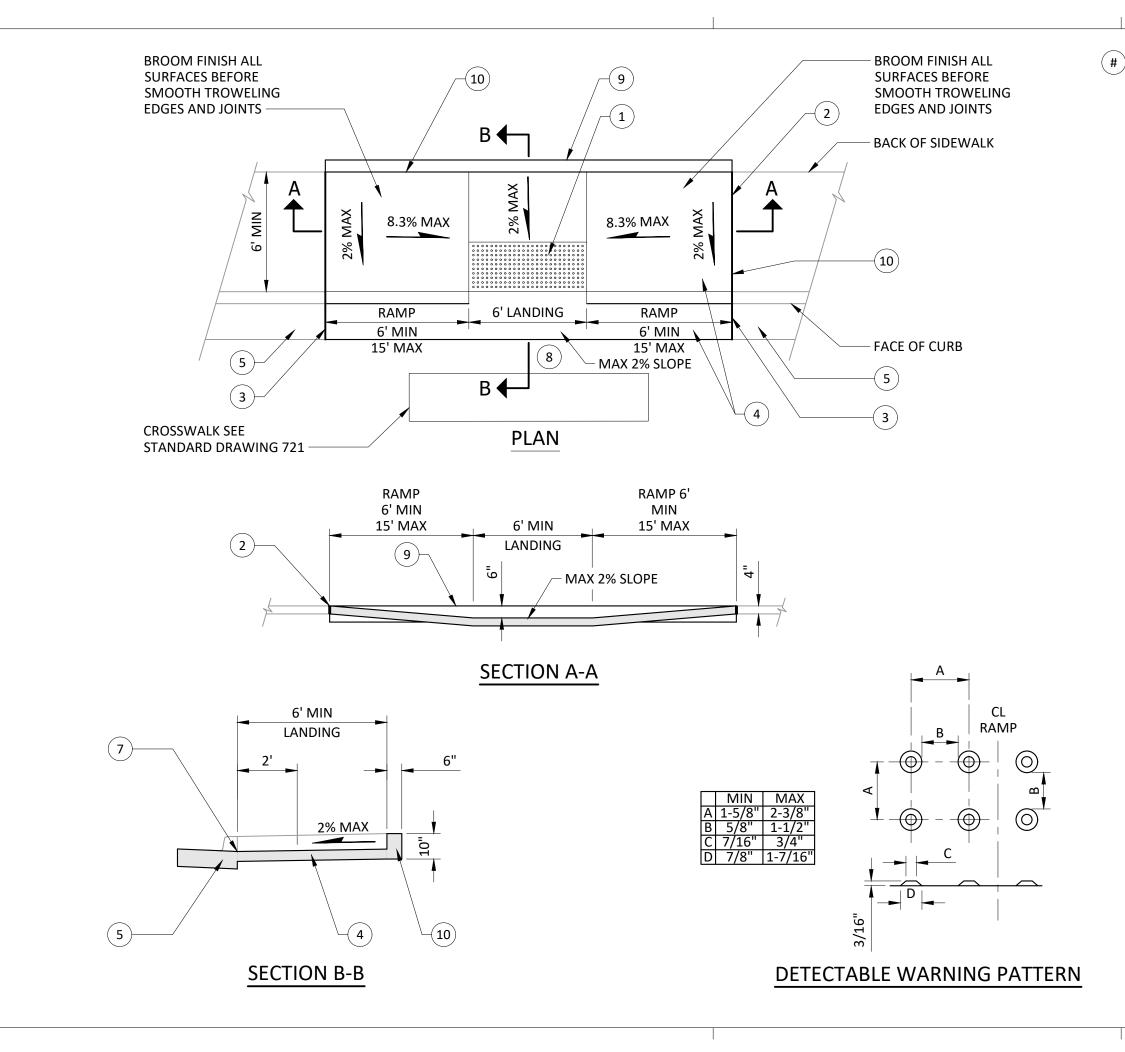




### (#) <u>NOTES</u>

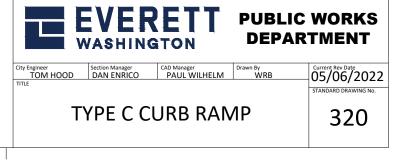
- 1. DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW IN COMPLIANCE WITH WSDOT/APWA STANDARD SPECIFICATION SECTION 8-14.3(3).
- 2. CURB RAMPS SHALL BE ISOLATED FROM ADJACENT SIDEWALK BY A 3/8" FULL DEPTH EXPANSION JOINT.
- 3. GUTTER SECTION AT CURB RAMP SHALL BE ISOLATED FROM ADJACENT GUTTER SECTIONS BY A 3/8" FULL DEPTH EXPANSION JOINT.
- 4. CURB RAMP AND GUTTER SECTION AT CURB RAMP MAY BE POURED MONOLITHICALLY.
- 5. TYPE A-1 CURB AND GUTTER PER CITY STANDARD DRAWING 307.
- 6. FOR RETROFIT INSTALLATION SAWCUT AND REMOVE EXISTING SIDEWALK, CURB AND GUTTER SECTION ALONG NEW EXPANSION JOINT LOCATION. SAWCUT EXISTING PAVEMENT AS REQUIRED FOR FORMING OF NEW CURB AND GUTTER. PATCH PAVEMENT AS REQUIRED.
- 7. FLUSH WITH GUTTER (NO LIP PERMITTED)
- 8. A MIN OF 4' CLEAR SPACE, WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE, SHALL BE PROVIDED WITHIN THE WIDTH OF THE CROSSWALK OR PEDESTRIAN STREET CROSSING SERVED BY THE RAMP.
- 9. THICKEN EDGE TO FULL DEPTH OF ADJACENT CURB SECTION.
- 10. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 3/8" RADIUS AFTER FINAL BROOM FINISH IS COMPLETED.

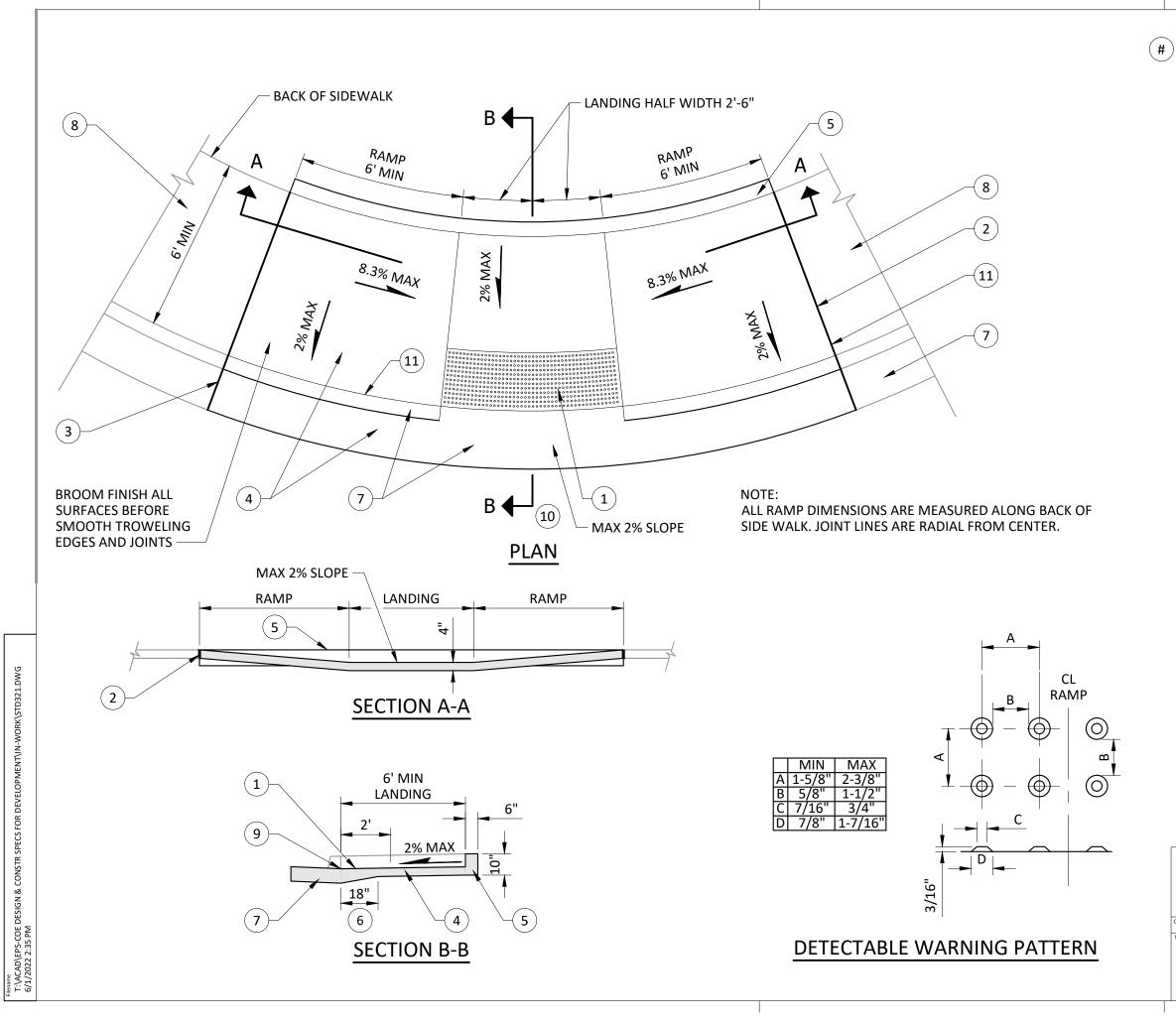




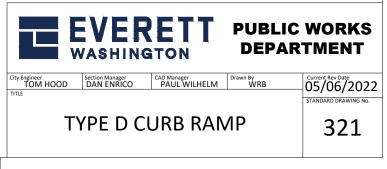
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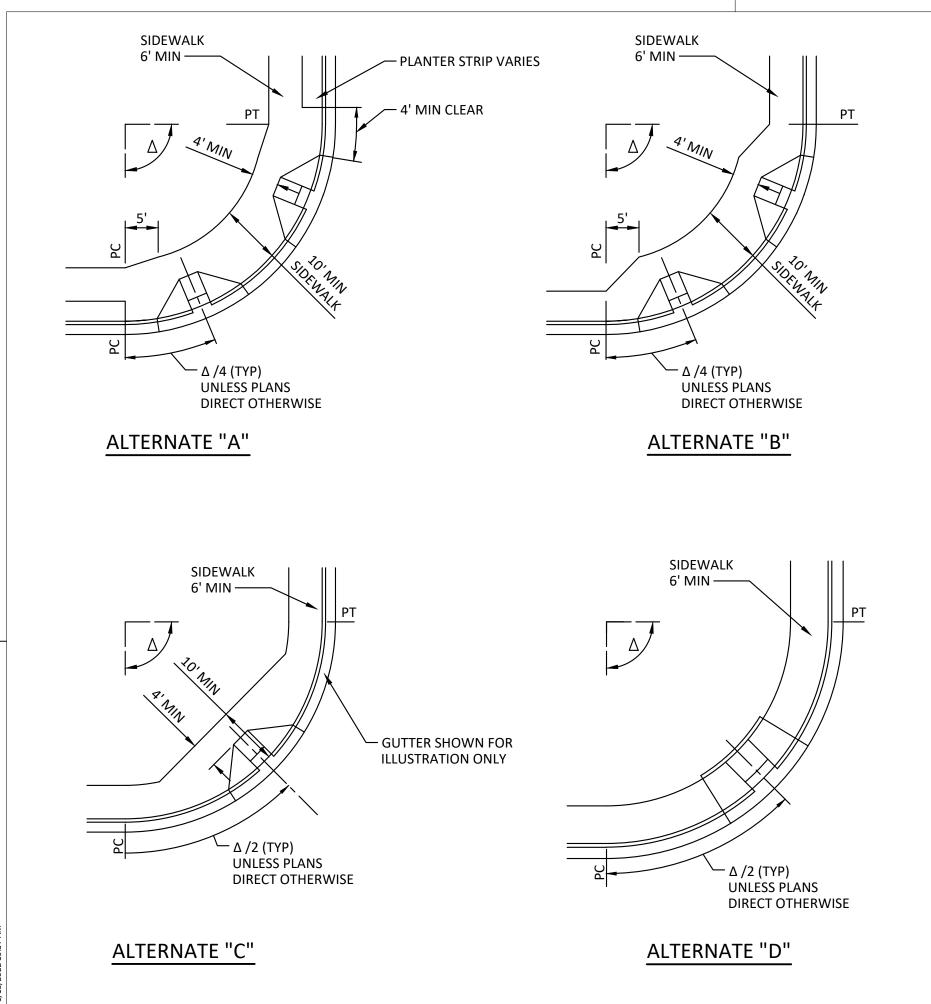
- 1. DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW IN COMPLIANCE WITH WSDOT/APWA STANDARD SPECIFICATION SECTION 8-14.3(3).
- 2. CURB RAMPS SHALL BE ISOLATED FROM ADJACENT SIDEWALK BY A 3/8" FULL DEPTH EXPANSION JOINT.
- 3. GUTTER SECTION AT CURB RAMP SHALL BE ISOLATED FROM ADJACENT GUTTER SECTIONS BY A 3/8" FULL DEPTH EXPANSION JOINT.
- 4. CURB RAMP AND GUTTER SECTION AT CURB RAMP MAY BE POURED MONOLITHICALLY.
- 5. TYPE A-1 INTEGRAL CURB AND GUTTER PER CITY STANDARD DRAWING 307.
- 6. FOR RETROFIT INSTALLATION SAWCUT AND REMOVE EXISTING SIDEWALK, CURB AND GUTTER SECTION ALONG NEW EXPANSION JOINT LOCATION. SAWCUT EXISTING PAVEMENT AS REQUIRED FOR FORMING OF NEW CURB AND GUTTER. PATCH PAVEMENT AS REQUIRED.
- 7. FLUSH WITH GUTTER (NO LIP PERMITTED)
- 8. A MIN OF 4' CLEAR SPACE, WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE, SHALL BE PROVIDED WITHIN THE WIDTH OF THE CROSSWALK OR PEDESTRIAN STREET CROSSING SERVED BY THE RAMP.
- 9. 6"W X 10"H POURED IN PLACE CONCRETE CURB INTEGRAL WITH RAMP.
- 10. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 3/8" RADIUS AFTER FINAL BROOM FINISH IS COMPLETED.



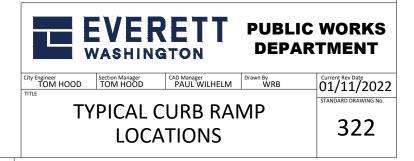


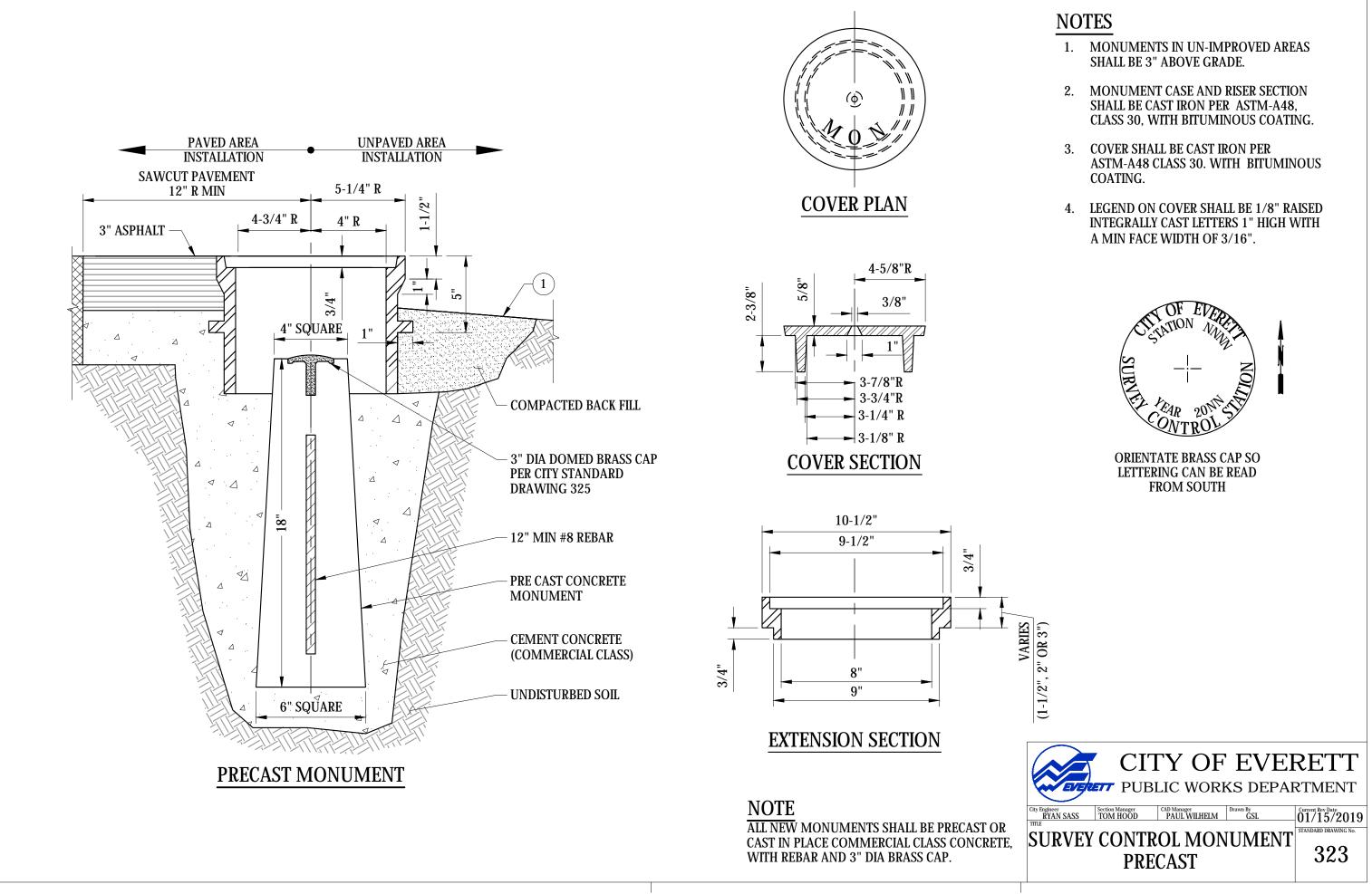
- 1. DETECTABLE WARNING PATTERN AREA SHALL BE YELLOW IN COMPLIANCE WITH WSDOT/APWA STANDARD SPECIFICATION SECTION 8-14.3(3).
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- 3. GUTTER SECTION AT CURB RAMP SHALL BE ISOLATED FROM ADJACENT GUTTER SECTIONS BY A 3/8" FULL DEPTH EXPANSION JOINT.
- 4. CURB RAMP AND GUTTER SECTION AT CURB RAMP MAY BE POURED MONOLITHICALLY.
- 5. 6"W X 10"H X 17'/18'L POURED IN PLACE CONCRETE CURB INTEGRAL WITH RAMP.
- 6. THICKEN EDGE TO FULL DEPTH OF ADJACENT CURB SECTION.
- 7. TYPE A-1 CURB AND GUTTER PER CITY STANDARD DRAWING 307.
- 8. FOR RETROFIT INSTALLATION SAWCUT AND REMOVE EXISTING SIDEWALK TO FIRST EXISTING JOINT EITHER SIDE OF NEW RAMP. SAWCUT AND REMOVE EXISTING CURB AND GUTTER SECTION AS REQUIRED. SAWCUT EXISTING PAVEMENT AS REQUIRED FOR FORMING OF NEW CURB AND GUTTER. PATCH PAVEMENT AS REQUIRED.
- 9. FLUSH WITH GUTTER (NO LIP PERMITTED).
- 10. A MIN OF 4' CLEAR SPACE, WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE, SHALL BE PROVIDED WITHIN THE WIDTH OF THE CROSSWALK OR PEDESTRIAN STREET CROSSING SERVED BY THE RAMP.
- 8. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 3/8" RADIUS AFTER FINAL BROOM FINISH IS COMPLETED.





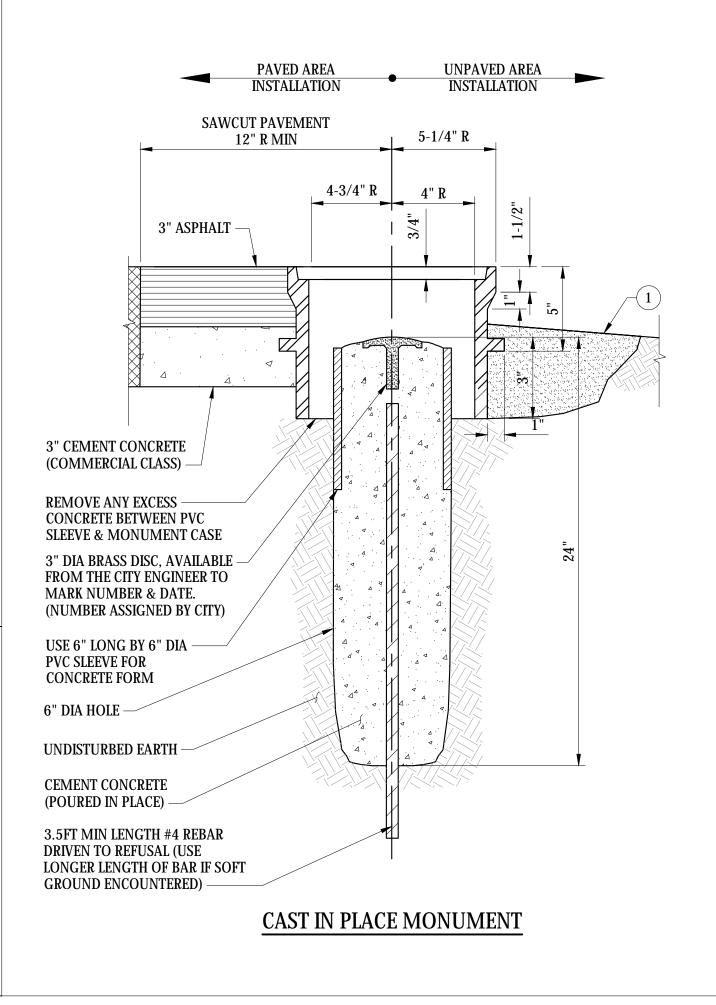
- 1. ALTERNATES "A" & "B" FOR USE AT ARTERIAL/ARTERIAL AND ARTERIAL/LOCAL ACCESS INTERSECTIONS.
- 2. ALTERNATES "C" & "D" FOR USE AT LOCAL ACCESS/LOCAL ACCESS INTERSECTIONS OR AS APPROVED BY CITY ENGINEER.
- 3. FOR ALTERNATE "A", "B" AND "C" USE CURB RAMP PER STANDARD DRAWINGS 313 AND 319.
- 4. FOR ALTERNATE "D" USE CURB RAMP PER STANDARD DRAWINGS 313 AND 321.
- 5. A MIN OF 4' CLEAR SPACE, WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE, SHALL BE PROVIDED WITHIN THE WIDTH OF THE CROSSWALK OR PEDESTRIAN STREET CROSSING SERVED BY THE RAMP. USE ALTERNATES A OR B IF THIS REQUIREMENT CANNOT BE MET USING ALTERNATES C & D.

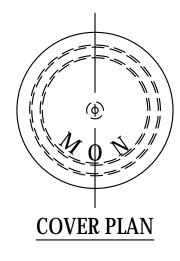


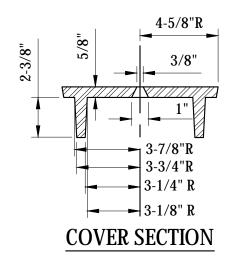


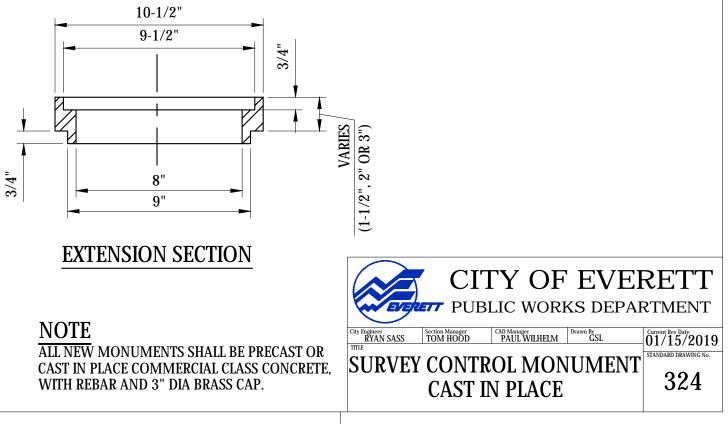
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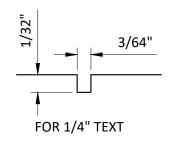


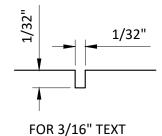


- 1. MONUMENTS IN UN-IMPROVED AREAS SHALL BE 3" ABOVE GRADE.
- MONUMENT CASE AND RISER SECTION 2. SHALL BE CAST IRON PER ASTM-A48, CLASS 30, WITH BITUMINOUS COATING.
- COVER SHALL BE CAST IRON PER 3. ASTM-A48 CLASS 30. WITH BITUMINOUS COATING.
- LEGEND ON COVER SHALL BE 1/8" RAISED 4. INTEGRALLY CAST LETTERS 1" HIGH WITH A MIN FACE WIDTH OF 3/16".



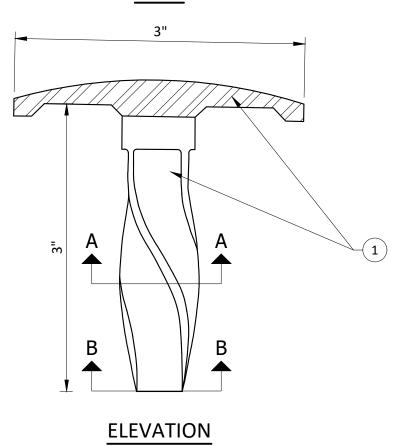
**ORIENTATE BRASS CAP SO** LETTERING CAN BE READ FROM SOUTH

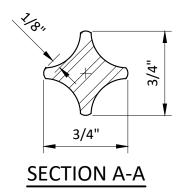


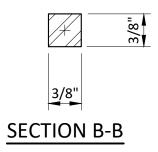


**GROOVE DETAIL** 

PLAN

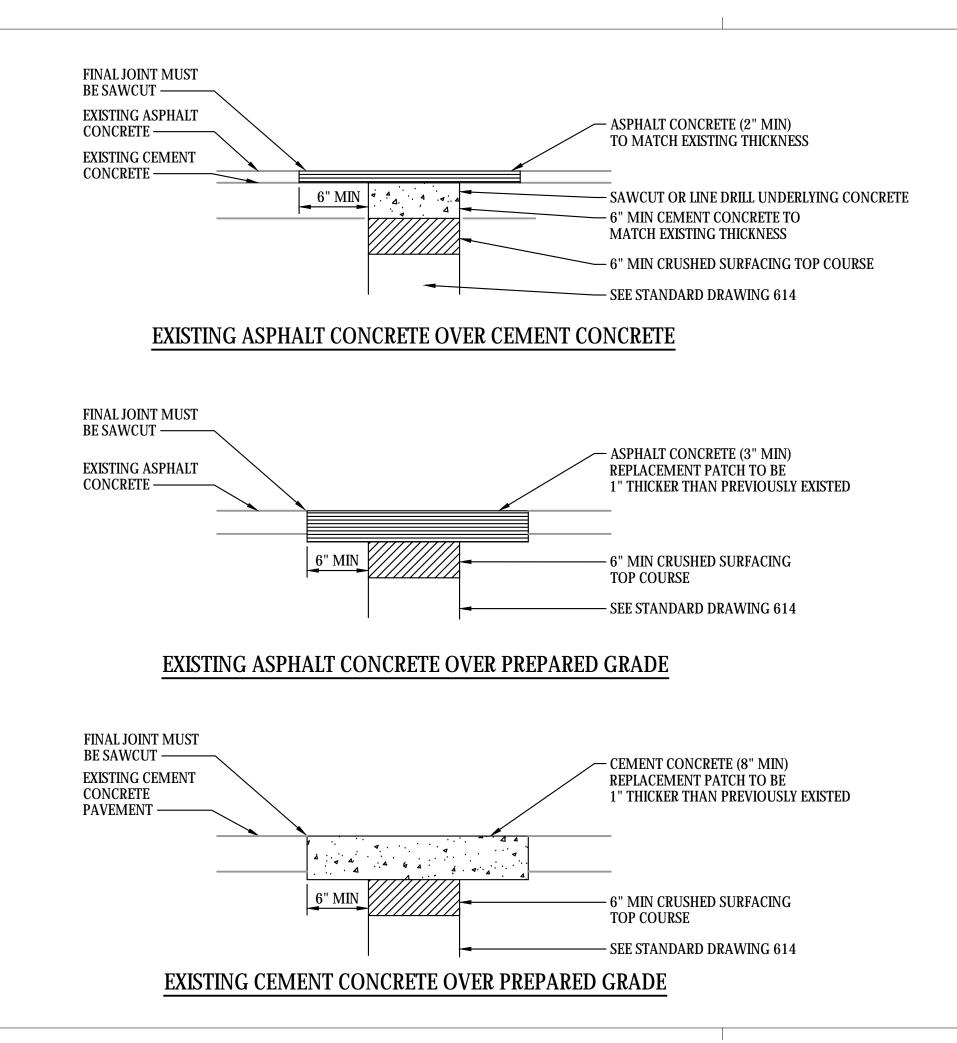






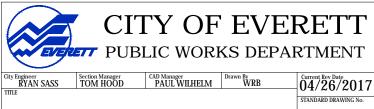
- 1. DIMENSIONS OF CASTING BASE & CAP PER WSDOT STANDARD PLAN A-10.20-00
- 2. GROOVE FOR 1/4" HIGH CAST LETTERING ON CAP SHALL BE 1/32" DEEP BY 3/64" WIDE.
- 3. GROOVE FOR 3/16" HIGH CAST LETTERING AND LINES ON CAP SHALL BE 1/32" DEEP BY 1/32" WIDE.
- 4. "N" IS FIELD STAMPED. "STATIONING" AND "YEAR" NUMBERS SHALL BE OF SUFFICIENT DEPTH AND WIDTH SO AS TO BE CLEARLY READABLE AND SHALL BE A MIN OF 3/16" HIGH.
- 5. THIS BRASS DISC SHALL ONLY BE USED FOR CONTROL MONUMENTATION PER STD DWG 325 AND AS DIRECTED BY THE CITY SURVEYOR. BRASS DISC AND STATION NUMBER SHALL BE SUPPLIED BY CITY SURVEYOR.





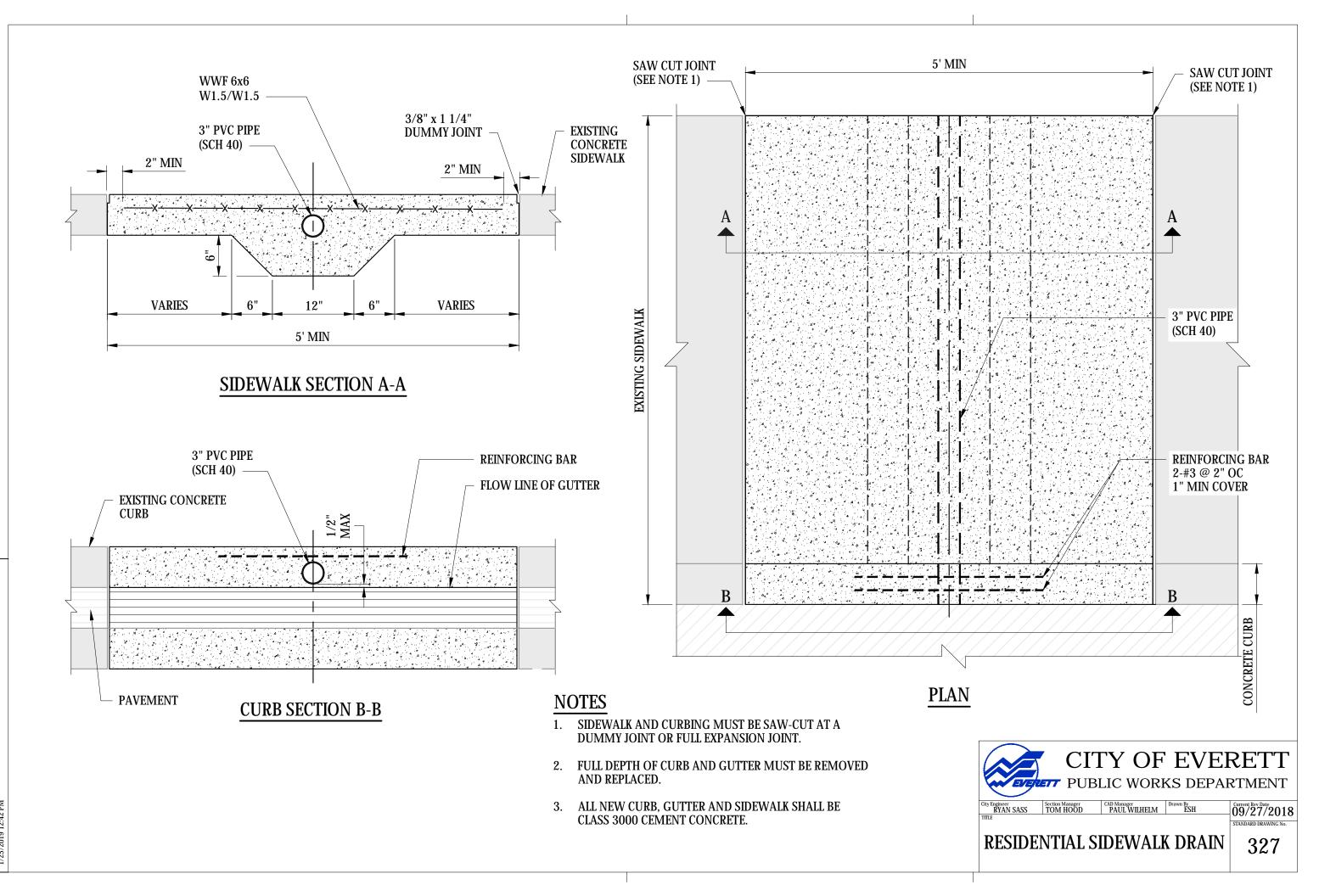


- 1. ALL TRENCHES IN ROADWAY AREAS SHALL BE BACKFILLED AND PATCHED WITH TEMPORARY ASPHALT AT THE END OF EACH WORK DAY, UNLESS PERMISSION IS GRANTED TO DO OTHERWISE BY THE CITY ENGINEER.
- 2. ALL TEMPORARY PATCHES ON TRENCHES SHALL BE PERMANENTLY PATCHED WITHIN 2 WEEKS OF COMPLETION OF WORK WITHIN ROADWAY AREA.
- 3. CEMENT CONCRETE FOR PATCHING SHALL BE COMMERCIAL MIX AS CALLED OUT IN WSDOT STANDARD SPECIFICATIONS.

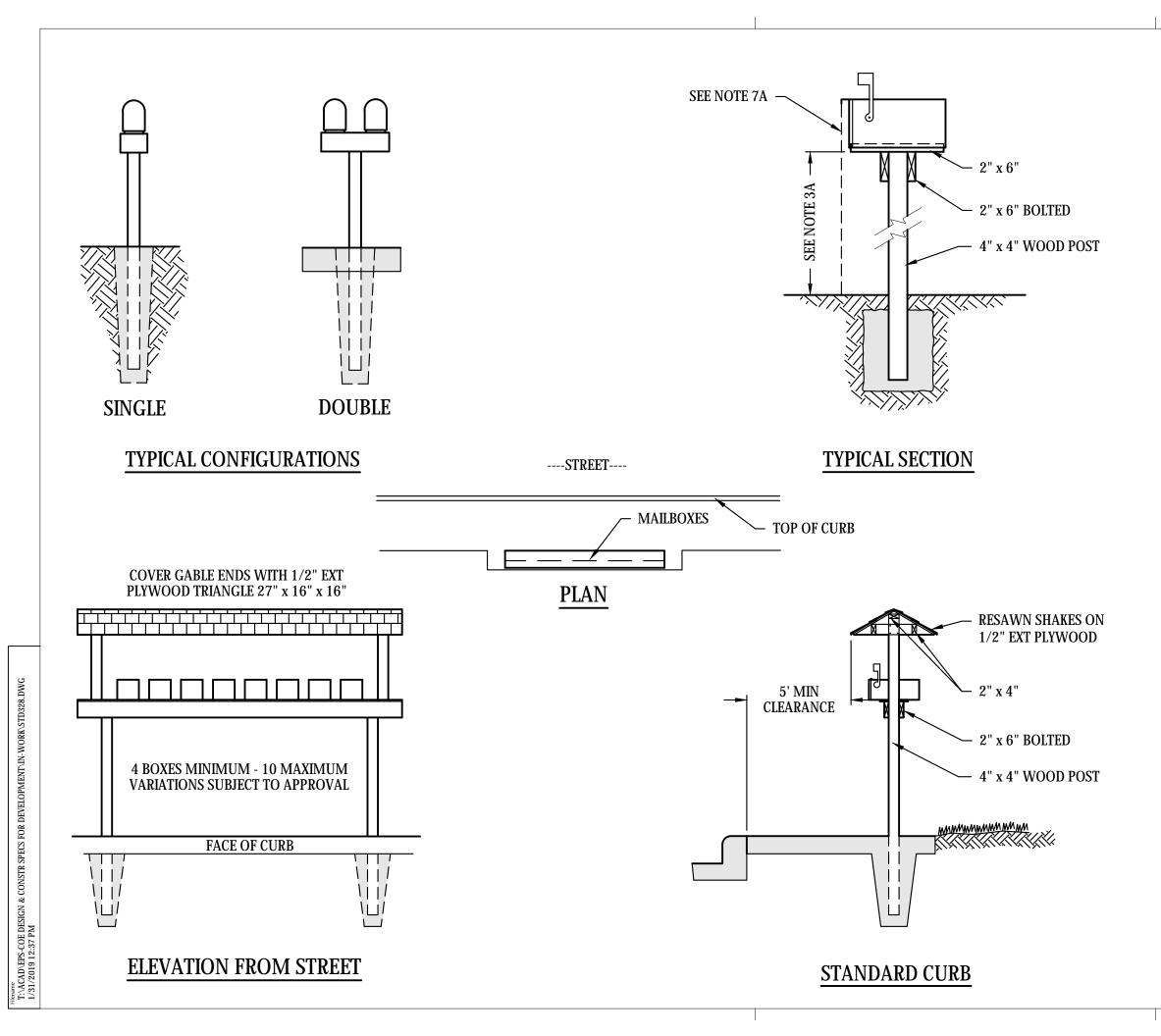


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## PAVEMENT PATCHING DETAILS



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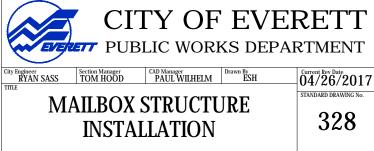


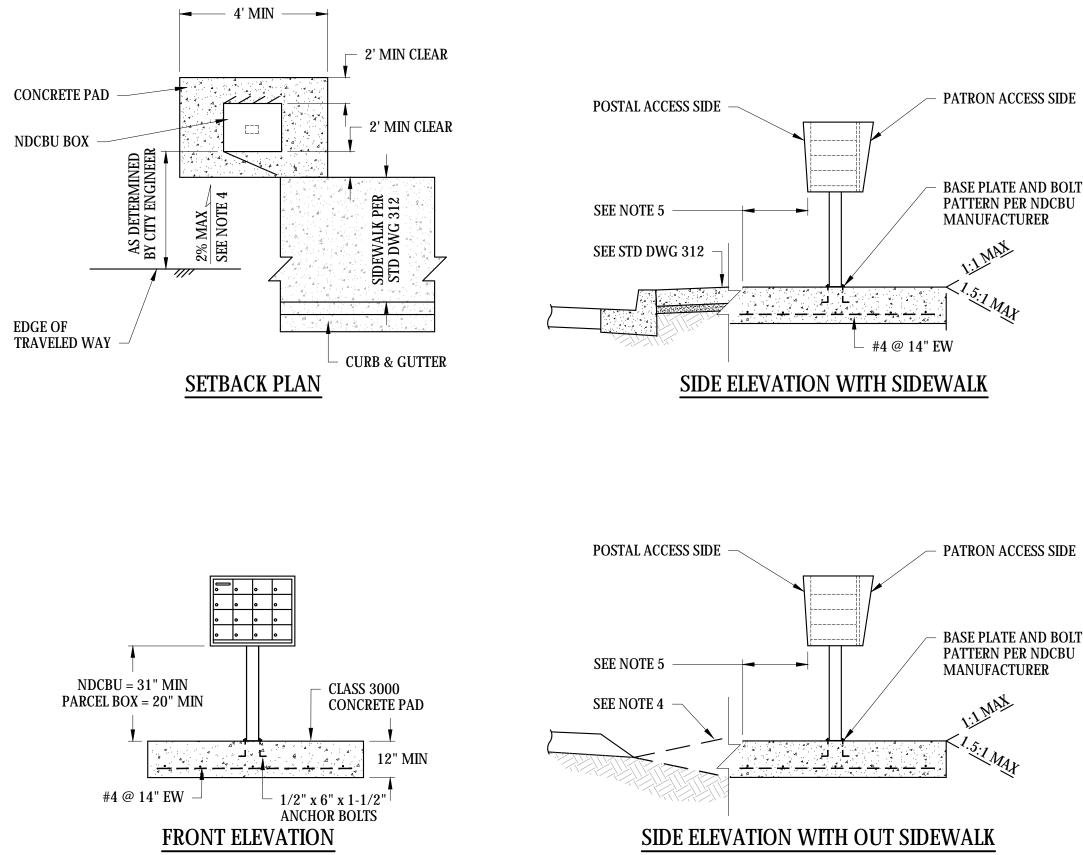
# NOTES (1 OR 2 MAILBOXES)

- 1. FOR 1 OR 2 MAILBOXES PER STRUCTURE USE SINGLE 4" x 4" POST.
- 2. ALL WOOD TO BE PRESSURE TREATED FIR OR HEMLOCK.
- 3A. MAILBOX HEIGHT VARIES ACCORDING TO THE TYPE OF DELIVERY VEHICLE. WHERE MAIL DELIVERY IS ACCOMPLISHED BY MAIL TRUCKS ("MOUNTED" ROUTES) THE MAILBOX HEIGHTS SHALL BE 44". WHERE MAIL DELIVERY IS ACCOMPLISHED BY PASSENGER VEHICLE ("RURAL" ROUTES) THE MAILBOX HEIGHT SHALL BE 36" TO 38".
- 4. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.
- 5. LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER FOR PROTECTION OF VIEWS AND ACCESS.
- 6. THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD. INNOVATIVE DESIGNS MEETING OR EXCEEDING THIS MINIMUM STANDARD MUST BE APPROVED BY THE CITY ENGINEER.
- 7A. ALL MAILBOX STRUCTURES SHALL BE PLACED BACK OF SIDEWALK WITH NO PORTION OF THE BOX OR STRUCTURE PROTRUDING INTO THE SIDEWALK. IF NO SIDEWALK EXISTS SETBACK WILL BE SET BY THE CITY ENGINEER.

### NOTES (3 OR MORE MAILBOXES)

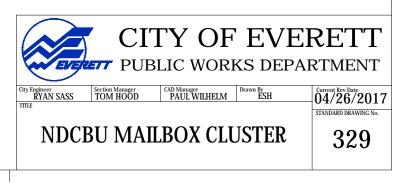
- 1. MAILBOX MUST BE TYPE "APPROVED BY THE POSTMASTER GENERAL" WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION PER EACH STANDARD.
- 2. LOCATION IS SUBJECT TO APPROVAL BY THE CITY FOR PROTECTION OF VIEWS AND ACCESS AND IS TO BE SHOWN ON STREET IMPROVEMENT PLANS.
- 3. THE SKETCH DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD. INNOVATIVE DESIGNS MEETING THE MINIMUM DIMENSIONAL AND STRUCTURAL REQUIREMENTS ARE ACCEPTABLE.
- 4. ALL WOOD TO BE PRESSURE TREATED FIR OR HEMLOCK.

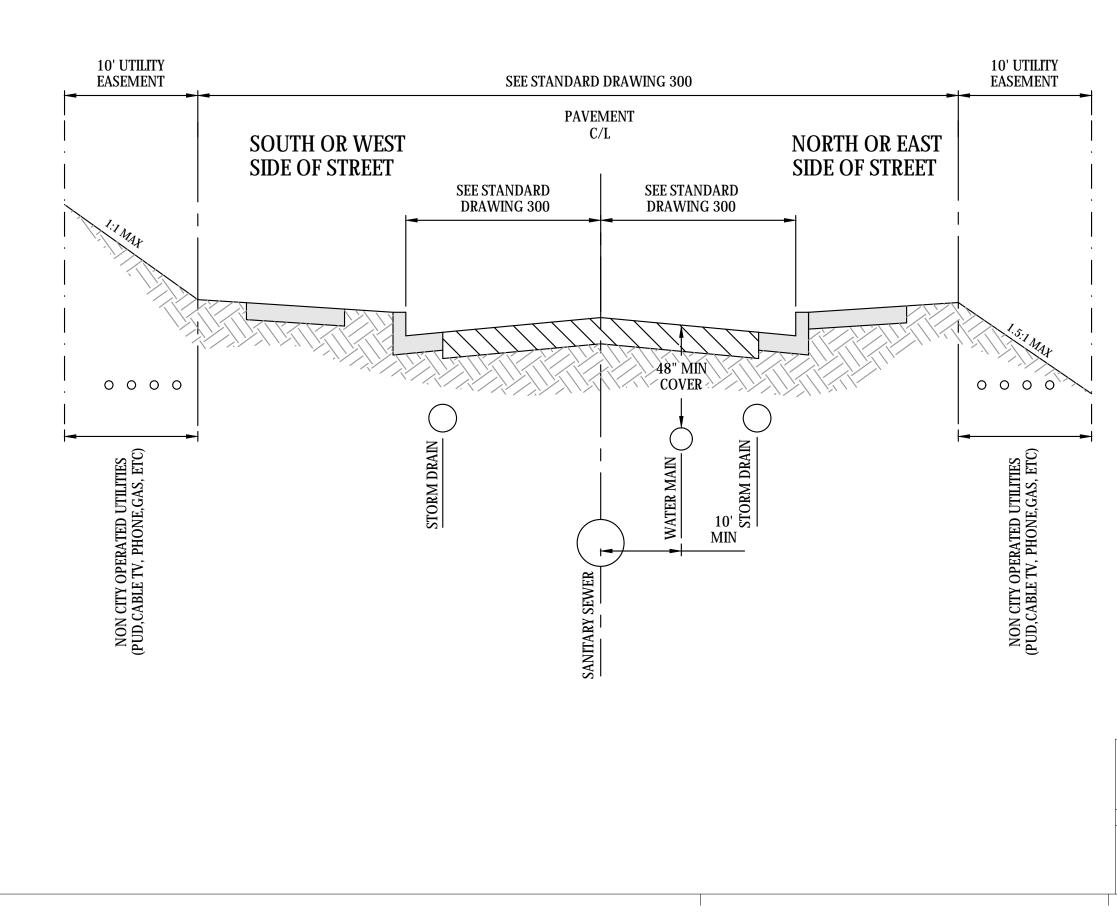




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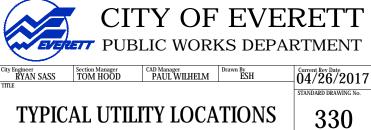
- THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD FOR **NEIGHBORHOOD DELIVERY & COLLECTION BOX** UNIT (NDCBU) AND PADS FOR SPECIFIC POSTAL **REQUIREMENTS CONTACT THE POSTMASTER.**
- 2. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.
  - LOCATIONS OF MAILBOXES ARE SUBJECT TO 3. APPROVAL BY THE CITY ENGINEER FOR PROTECTION OF VIEWS AND ACCESS.
- 4. INSTALLATION OF DRAINAGE CULVERT MAY BE NECESSARY IN AREAS WHERE THERE IS NO CONCRETE SIDEWALK AND THE REQUIRED SETBACK SPANS A ROADSIDE DITCH. ACCESS TO SUCH STRUCTURES WILL HAVE A MAX. SLOPE OF 2% AND SHALL HAVE A PAD CONSISTING OF A MINIMUM OF 2" OF CRUSHED SURFACING TOP **COURSE COMPACTED TO 95% MAXIMUM** DENSITY.
- ALL MAILBOX STRUCTURES SHALL BE PLACED 5. BACK OF SIDEWALK WITH NO PORTION OF BOX **OR STRUCTURE PROTRUDING INTO THE** SIDEWALK. IF NO SIDEWALK EXISTS SETBACK WILL BE SET BY THE CITY ENGINEER.
- 6. SUGGESTED SOURCE SECURITY MANUFACTURING CORPORATION (800) 762-6937, 8000 SERIES PEDESTAL BOXES, SALSBURY INDUSTRIES (800) 323-3003 OR POSTAL APPROVED EQUAL.
- PLACEMENT LOCATION OF PEDESTAL PARCEL 7. LOCKER WILL BE APPROVED BY THE CITY ENGINEER AND THE POSTAL SERVICE.

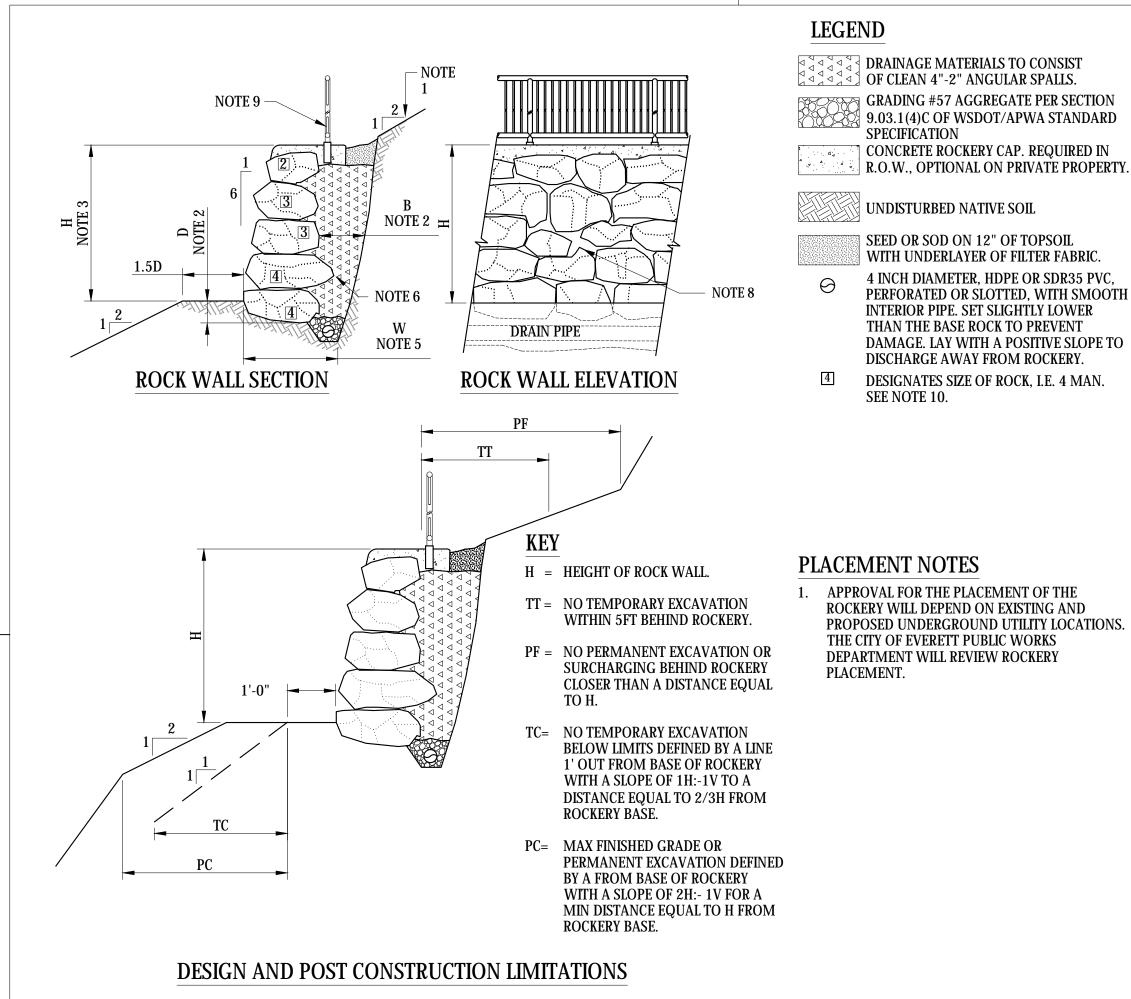




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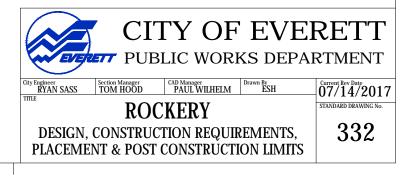
- 1. 5' MIN SEPARATION BETWEEN PUBLIC UTILITIES OR FROM PRIVATE UTILITIES.
- 2. MIN SEPARATION REQUIREMENTS FROM PUBLIC UTILITIES APPLY WITHIN EASEMENTS AND PRIVATE PROPERTY.

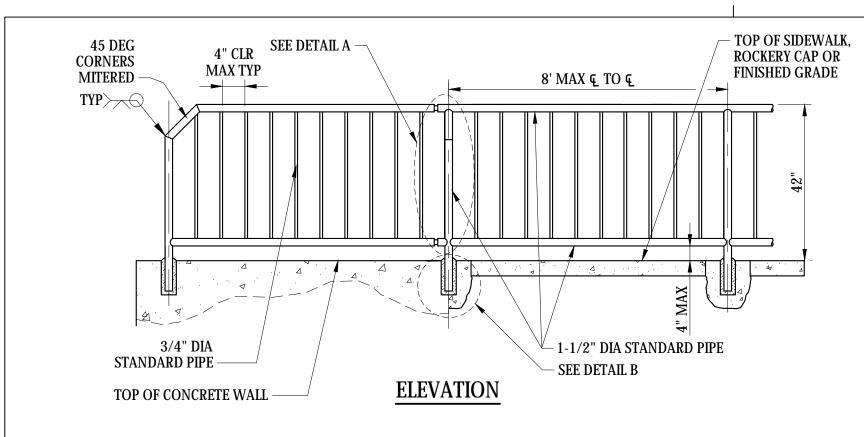




- 1. MAXIMUM INCLINATION OF THE SLOPES ABOVE AND BEHIND ROCK WALL SHALL BE 2:1 (HORIZONTAL:VERTICAL).
- 2. MINIMUM THICKNESS OF ROCK FILTER LAYER B=12 INCHES. MINIMUM EMBEDMENT D=12 INCHES.
- 3. MAXIMUM ROCK WALL HEIGHT H=8 FEET. ROCK WALLS GREATER THAN 8 FEET IN HEIGHT SHALL BE DESIGNED BY A CIVIL ENGINEER LICENSED IN THE STATE OF WASHINGTON.
- 4. ROCK SHALL BE PLACED TO GRADUALLY DECREASE IN SIZE WITH INCREASING WALL HEIGHT.
- 5. MINIMUM WIDTH OF KEYWAY EXCAVATION W, SHALL BE EQUAL TO THE THICKNESS OF THE BASE ROCK PLUS B (ROCK FILTER).
- 6. THE LONG DIMENSION OF THE ROCKS SHALL EXTEND BACK TOWARDS THE CUT OR FILL FACE TO PROVIDE MAXIMUM STABILITY.
- 7. WHENEVER POSSIBLE EACH ROCK SHALL BEAR ON TWO OR MORE ROCKS BELOW IT, WITH GOOD FLAT-TO-FLAT CONTACT.
- 8. WHERE VOIDS OF GREATER THAN 6 INCHES IN DIMENSIONS EXIST IN THE ROCK FACE AND THERE IS NO ROCK CONTACT WITHIN THE ROCK WALL THICKNESS, THE VOID SHALL BE CHINKED WITH SMALL PIECES OF ROCK.
- 9. ROCKERIES WHICH ARE MORE THAN 30 INCHES ABOVE GRADE OR FLOOR BELOW SHALL BE PROTECTED BY A PEDESTRIAN GUARD. TYPE TO BE DETERMINED BY THE CITY ENGINEER, SEE STANDARD DRAWINGS 333 & 334.
- 10. THE DENSITY OF ROCK MATERIAL SHALL BE A MINIMUM OF 155 PCF. THE SIZE CATEGORIES FOR ROCK SHALL BE AS FOLLOWS:

SIZE	APPROXIMATE WEIGHT - LBS	APPROXIMATE DIAMETER-INCHES
1 MAN	50-200	12-18
2 MAN	200-700	18-28
3 MAN	700-2000	28-36
4 MAN	2000-4000	36-48
5 MAN	4000-6000	48-54
6 MAN	6000-8000	54-60

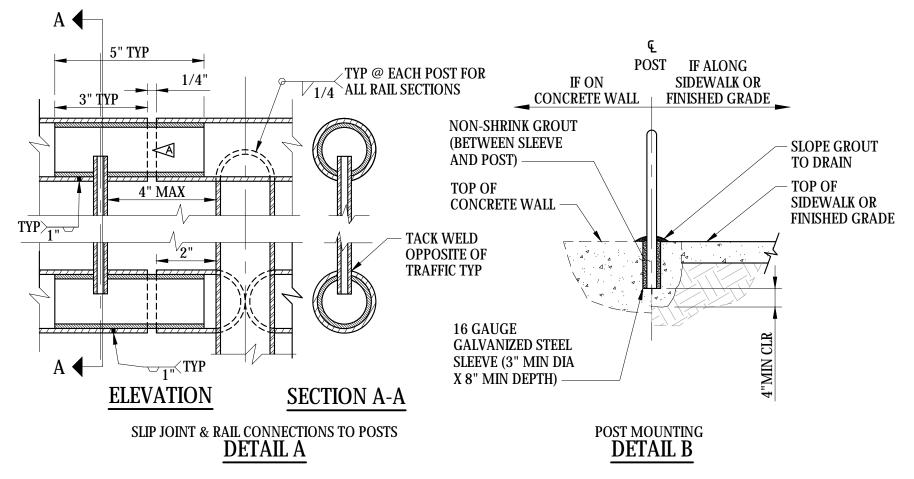




# NOTE

TACADVEPS-COE DESIGN & CONSTR SPECS FOR DEVELOPMENT/IN-WORK/STD333.DWG

PROVIDE SLIP JOINTS AT STAIRWAY EXPANSION JOINTS AND AT EVERY 24 FEET ON CENTER MAXIMUM.



# ALUMINUM PEDESTRIAN GUARD NOTES

- 1.
- 2.
- 3.
- 5.
- 6.
- 7. LINE AND GRADE.

### GALVANIZED STEEL PEDESTRIAN GUARD NOTES

- 2.
- 3.
- 4. LENGTH PRIOR TO ASSEMBLY.
- 5. LINE AND GRADE.

ALUMINUM PEDESTRIAN GUARD SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND THIS DRAWING.

GUARDRAIL SHALL BE NATURAL ALUMINUM COLOR.

COMPLETED ALUMINUM GUARD UNITS SHALL BE ANODIZED AFTER FABRICATION CONFORMING TO THE REQUIREMENTS OF THE ALUMINUM ASSOCIATION STANDARD FOR ANODIZED ARCHITECTURAL ALUMINUM, CLASS I ANODIC COATING, AA-C22-A41.

WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR ALUMINUM STRUCTURES" OF THE ALUMINUM ASSOCIATION. ALL EXPOSED WELDS SHALL BE GROUND FLUSH WITH ADJACENT SURFACES.

THE BASE METAL FOR ALUMINUM GUARD SHALL BE ASA ALLOY DESIGNATION 6063-T6. PIPE AND TUBING SHALL BE EXTRUDED CONFORMING TO THE REQUIREMENTS OF ASTM B 429, PLATES AND SHEETS SHALL BE ROLLED CONFORMING TO ASTM B 209, AND RODS, BARS OR SHAPES SHALL BE EXTRUDED CONFORMING TO ASTM B 221.

HORIZONTAL RAILS AND VERTICAL SUPPORT POSTS SHALL BE 1 1/2 INCH DIAMETER STANDARD ALUMINUM PIPE AND BALUSTERS SHALL BE 3/4 INCH DIAMETER STANDARD ALUMINUM PIPE. RAILS, POSTS, AND BALUSTERS SHALL BE MACHINE CUT TO PROVIDE A UNIFORM LENGTH PRIOR TO ASSEMBLY.

GUARD SHALL BE ERECTED AND ADJUSTED. IF NECESSARY. TO ASSURE A CONTINUOUS

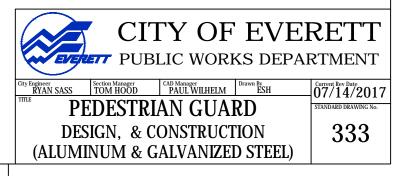
1. GALVANIZED PEDESTRIAN GUARD SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND THIS DRAWING.

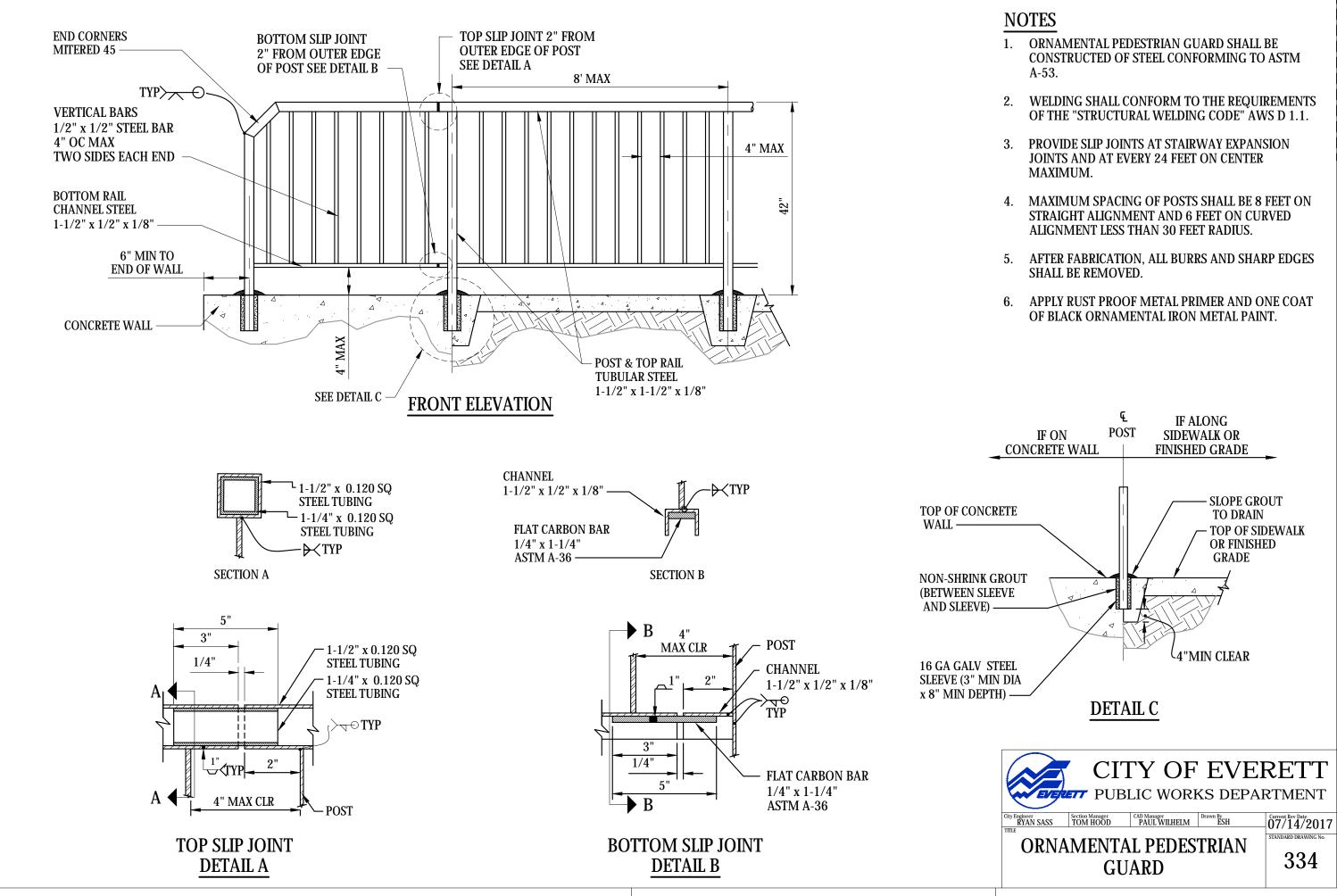
STEEL GUARD MATERIALS SHALL BE WELDED OR SEAMLESS STEEL PIPE CONFORMING TO THE REQUIREMENTS OF ASTM A 53, STRUCTURAL STEEL CONFORMING TO ASTM A 36, OR TUBULAR SECTIONS OF HOT ROLLED MILD STEEL, CONFORMING TO ASTM A 501. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1. AFTER FABRICATION EACH SECTION OF RAILING SHALL BE HOT-DIPPED GALVANIZED WITH A MINIMUM ZINC COATING OF 2 OUNCES PER SQUARE FOOT. ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.

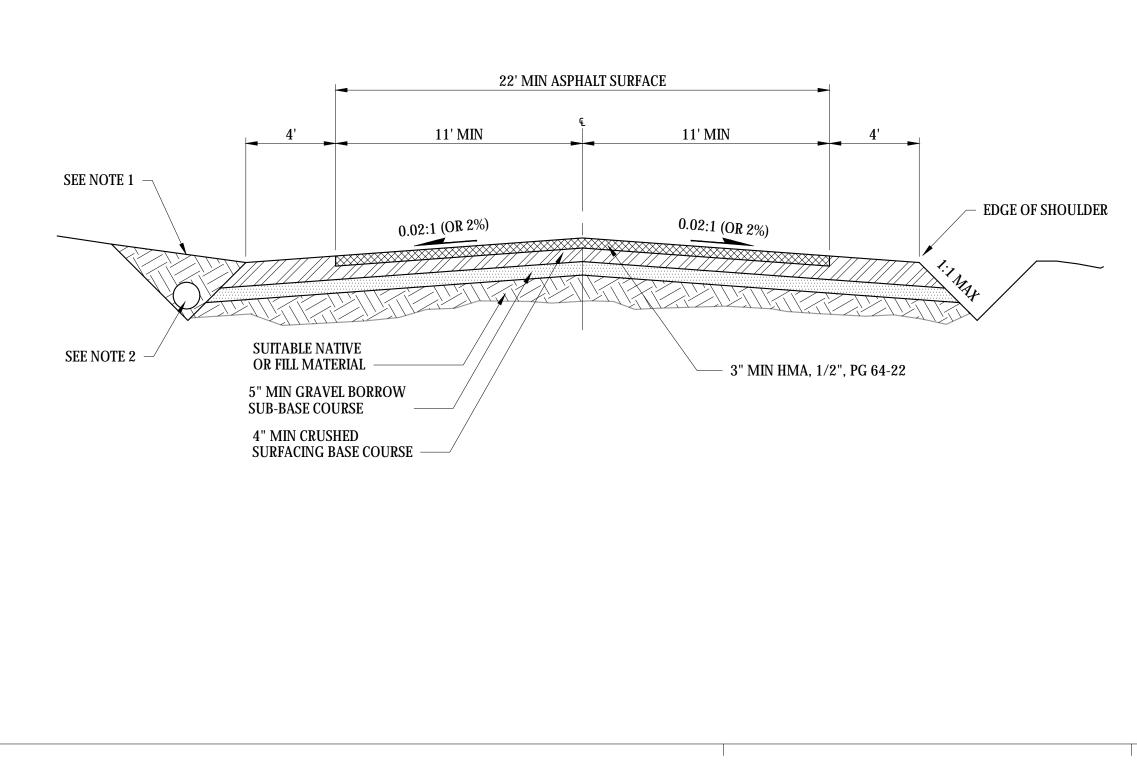
FIELD WELDS SHALL BE GALVANIZED WITH SUCH MATERIALS AS "GALVALLOY" OR "GALVICON". PAINTING OF WELDS WILL NOT BE PERMITTED.

HORIZONTAL RAILS AND VERTICAL SUPPORT POSTS SHALL BE BE 1 1/2 INCH DIAMETER AND BALUSTERS SHALL BE 3/4 INCH DIAMETER STANDARD WEIGHT GALVANIZED STEEL PIPE. RAILS, POSTS AND BALUSTERS SHALL BE MACHINE CUT TO PROVIDE A UNIFORM

GUARD SHALL BE ERECTED AND ADJUSTED, IF NECESSARY, TO ASSURE A CONTINUOUS

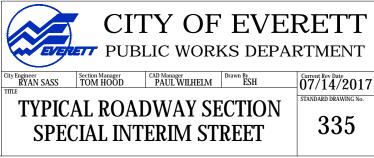


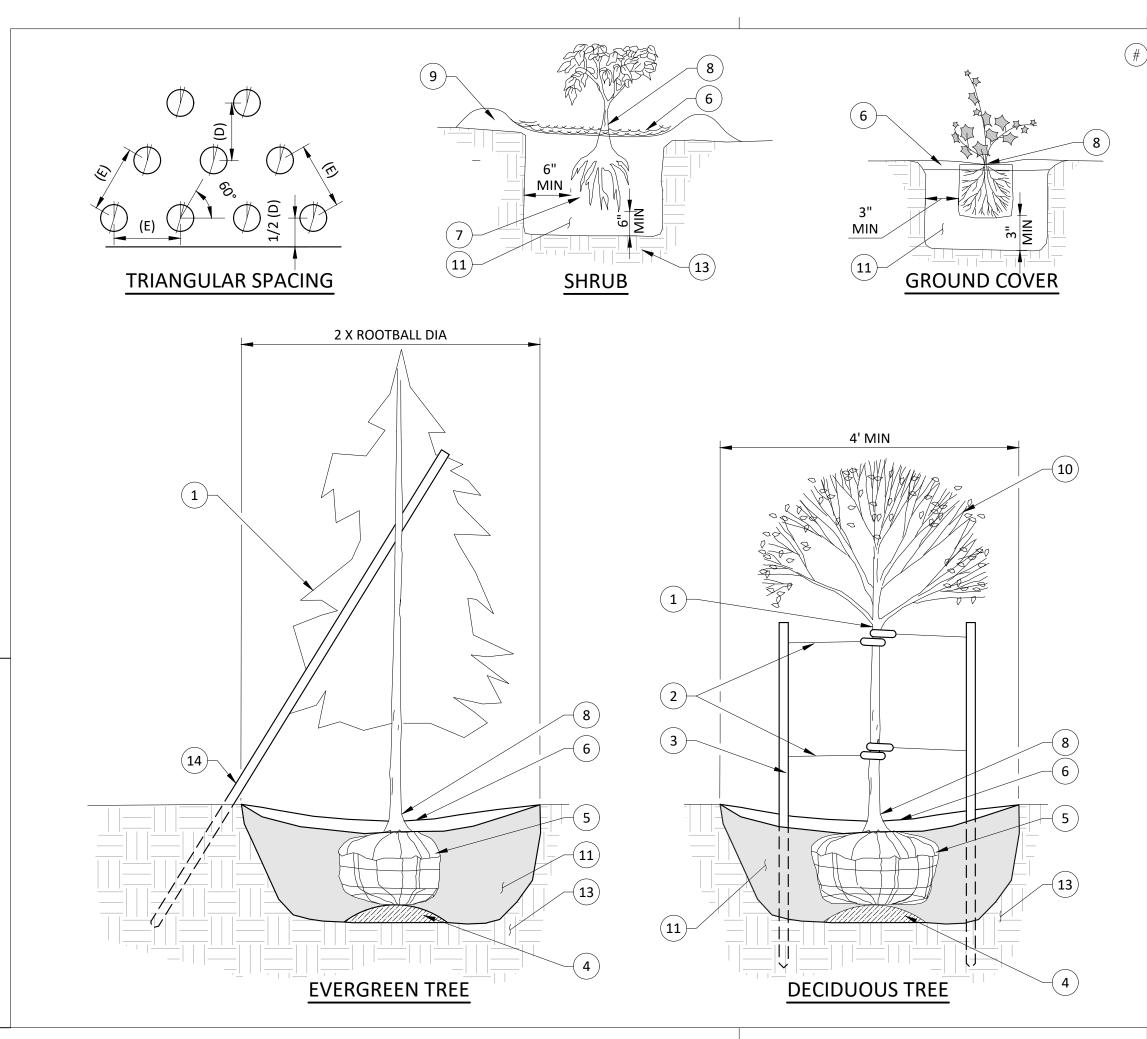




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- 1. DRIVE GRADE AT RIGHT-OF-WAY LINE SHALL CONFORM TO SECTION 3 EVERETT STANDARDS UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
- 2. A 12-INCH MINIMUM CORRUGATED POLYETHYLENE SMOOTH INTERIOR PIPE IS REQUIRED UNDER ALL DRIVEWAYS.
- 3. SUB-BASE AND TOP COURSE MATERIALS SHALL BE COMPACTED TO 95% AASHTO MAXIMUM DRY DENSITY.
- 4. ALL MANHOLES, CATCH BASINS, HAND HOLES AND OTHER STRUCTURES IN THE ASPHALT SURFACE SHALL BE INSTALLED IN ACCORDANCE WITH CURRENT CITY STANDARD SPECIFICATIONS.

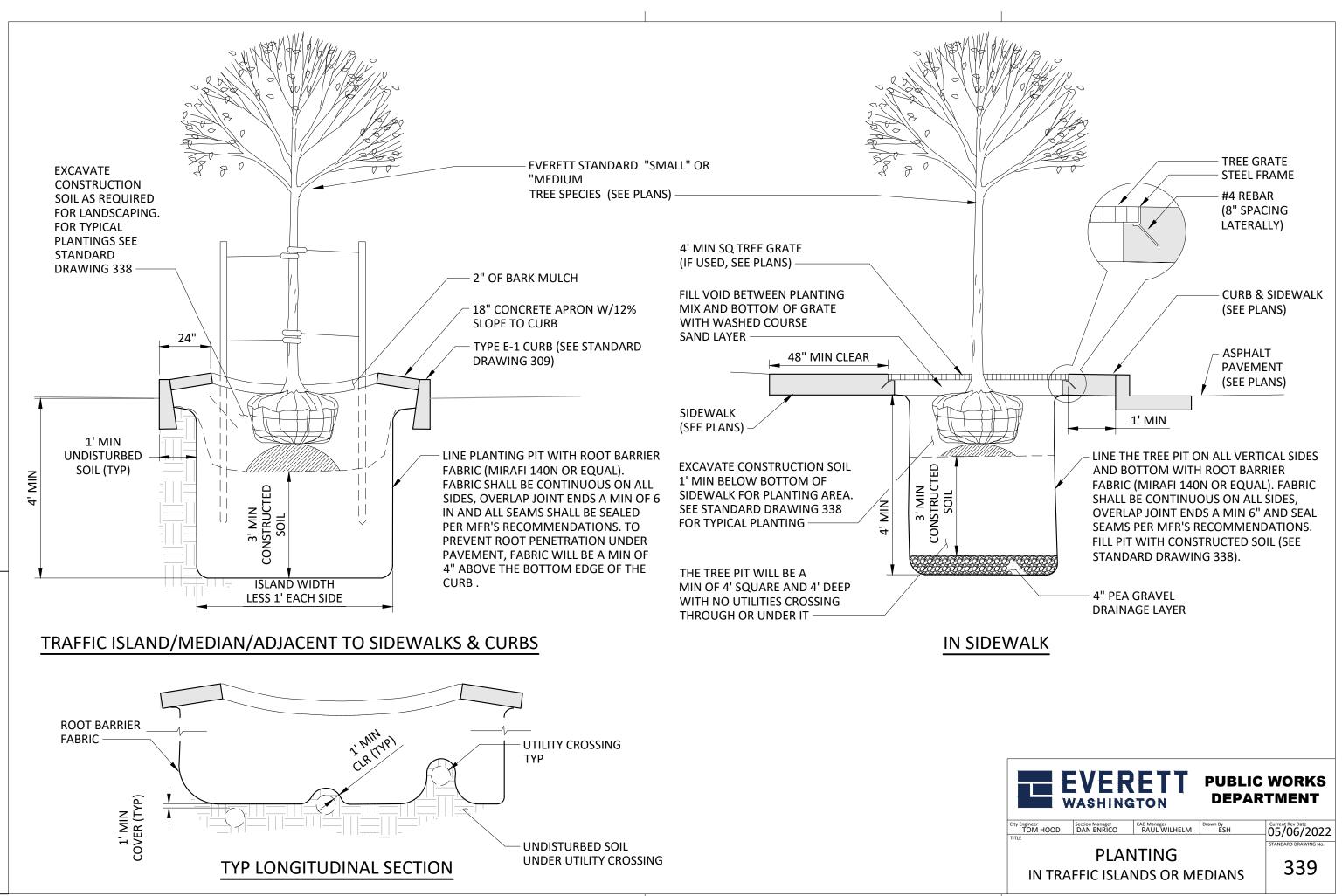




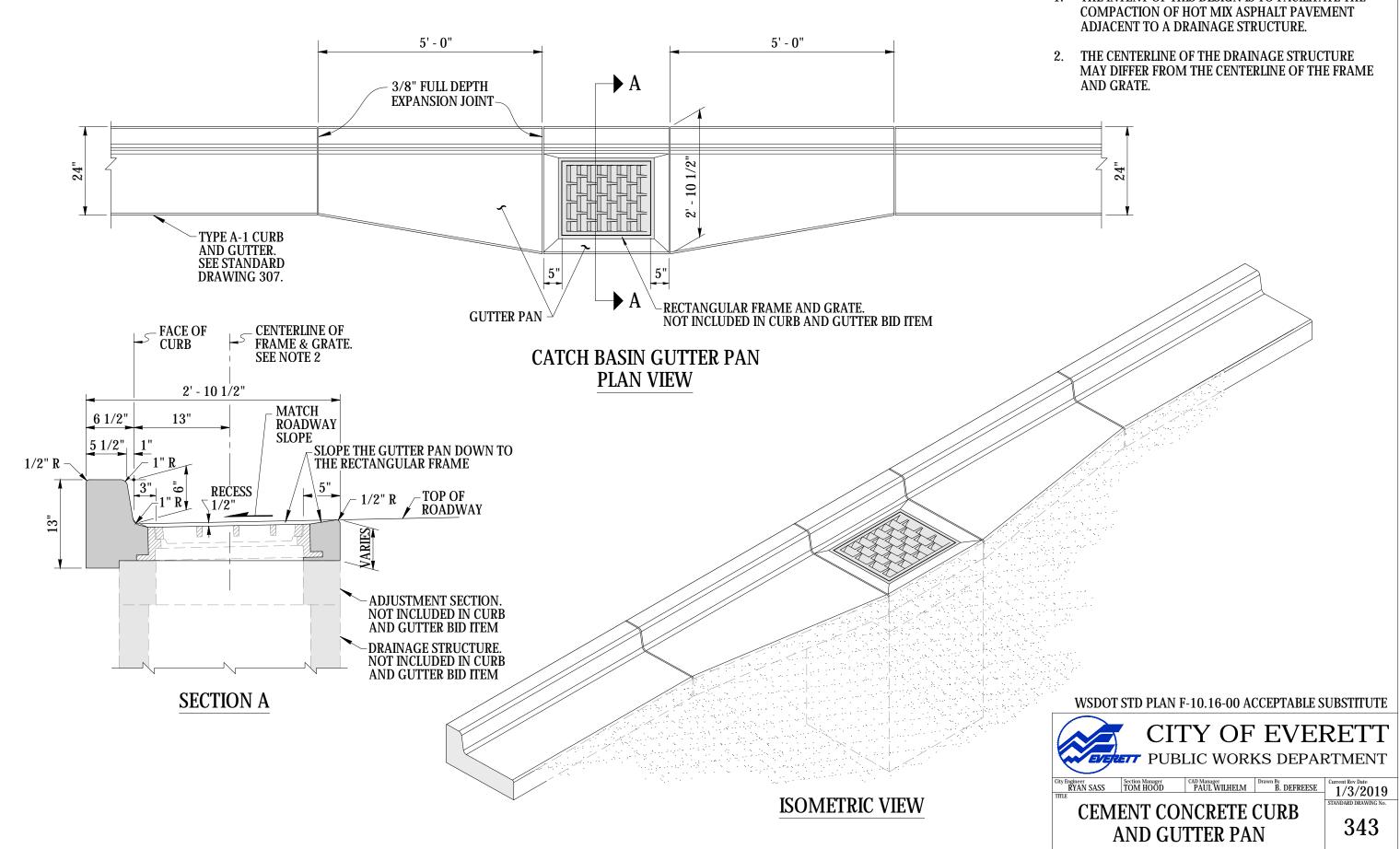
WORK\STD338.DWG DESIGN & CONSTR SPECS FOR DEVELOPMENT/IN-Ö

- 1. APPROVED EVERETT SMALL OR MEDIUM TREE SPECIES.
- PLASTIC TREE STRAPS (1/2" WIDE). UPPER TIES 3" MIN 2. (6" MAX) FROM TOP OF STAKE. IF UPPER TIE IS MORE THAN 4' ABOVE FINISHED GROUND, LOCATE LOWER TIES MIDPOINT UPPER TIE AND FINISHED GRADE. TOP STRAP SHALL BE A MIN OF 1/3 OF THE TREE HEIGHT.
- 3. TWO STAKES MIN 2" x 2" x 8' CEDAR/DOUGLAS FIR OR 2" x 8' ROUND POLES. POUND 1' MIN INTO UNDISTURBED OR CONSTRUCTED SOIL. TRIPLE STAKE DECIDUOUS TREES LARGER THAN 2" CALIPER.
- 4. PLACE ROOT BALL ON 6" MIN COMPACTED TOPSOIL MIX.
- 5. REMOVE TOP 1/3 OF BURLAP AND WIRE BASKET, **REMOVE ALL TIES.**
- 2" MIN BARK MULCH OVER ALL PLANTED AREAS. 6.
- 7. MINIMUM ROOT SPREAD TO BE IN ACCORDANCE WITH "AMERICAN STANDARDS FOR NURSERY STOCK". PRUNE ALL DAMAGED, DISEASED OR WEAK ROOTS. DO NOT ALLOW ROOTS TO DRY OUT DURING INSTALLATION PROCESS. SOAK ROOTS IN WATER OVERNIGHT BEFORE PLANTING ANY BARE ROOT STOCK.
- 8. SHRUBS AND TREES SHALL BE SLIGHTLY HIGHER IN RELATIONSHIP TO THE OLD SOIL MARK ON THE TRUNK AND THE FINISHED GRADE OF THE PLANTING.
- CREATE SAUCER WITH TOPSOIL (6" R MIN). 9.
- 10. IF NECESSARY, THIN BRANCHES BY 1/8 RETAINING NORMAL PLANT SHAPE.
- 11. TOPSOIL SHALL MEET REQUIREMENTS OF WSDOT STANDARD SPECIFICATION 8-02.3 TYPE A, B, OR C.
- 12. ALL GROUND COVER/SHRUB SPACING SHALL BE EQUIDISTANT UNLESS OTHERWISE SPECIFIED. DISTANCE ON CENTER AS SPECIFIED 'E'. SPACING BETWEEN ROWS 'D' AS SPECIFIED. START FIRST ROW OF PLANTING AT 1/2 'D' FROM PLANTING BORDER.
- 13. UNDISTURBED NATIVE SOIL OR CONSTRUCTED SOIL.
- 14. PEELER POLE STAKE WITH NURSERY TAPE WRAP. PLACE AT ANGLE TO WINDWARD DIRECTION.



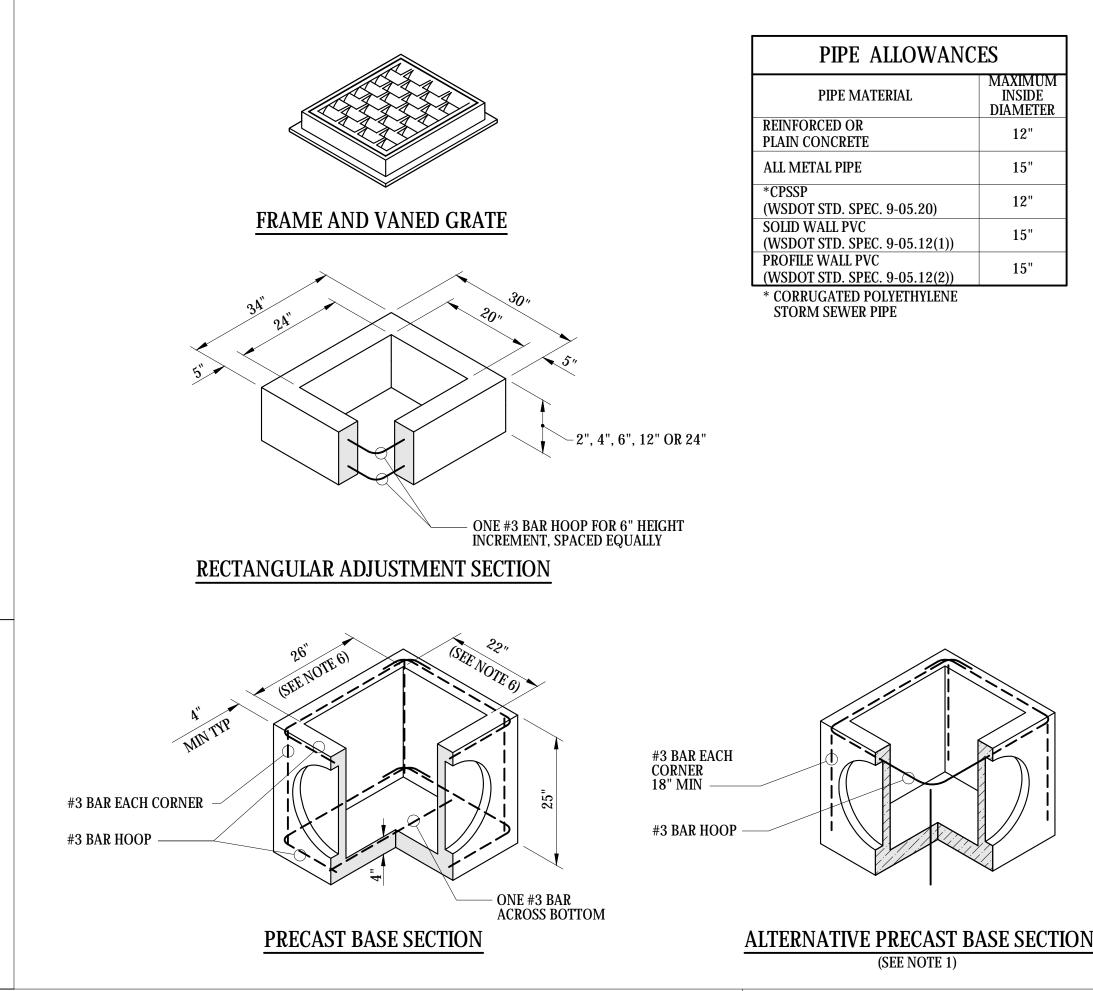


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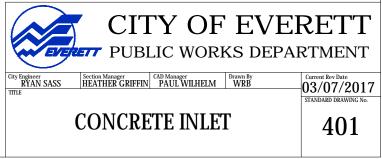
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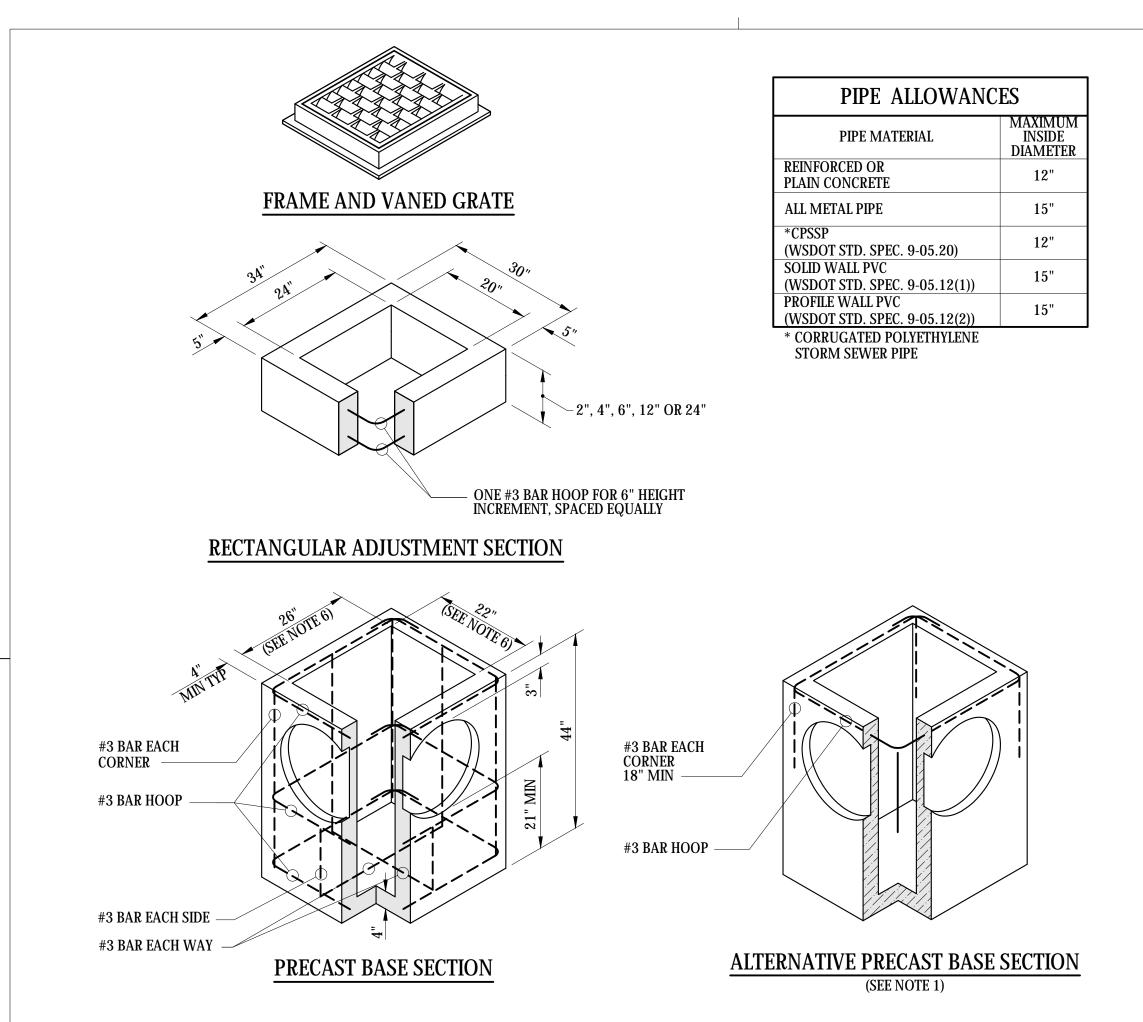
- 1. THE INTENT OF THIS DESIGN IS TO FACILITATE THE



- 1. AS ACCEPTABLE ALTERNATIVES TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE WSDOT 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 18". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" 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 WSDOT STANDARD SPECIFICATION 9-04.3.
- 3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5.5'.
- 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 INLET HAS BEEN PLACED.

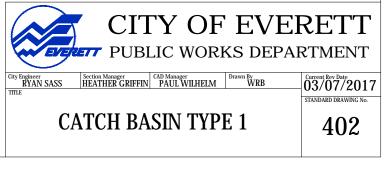
WSDOT STD PLAN B-25.60-00 ACCEPTABLE SUBSTITUTE

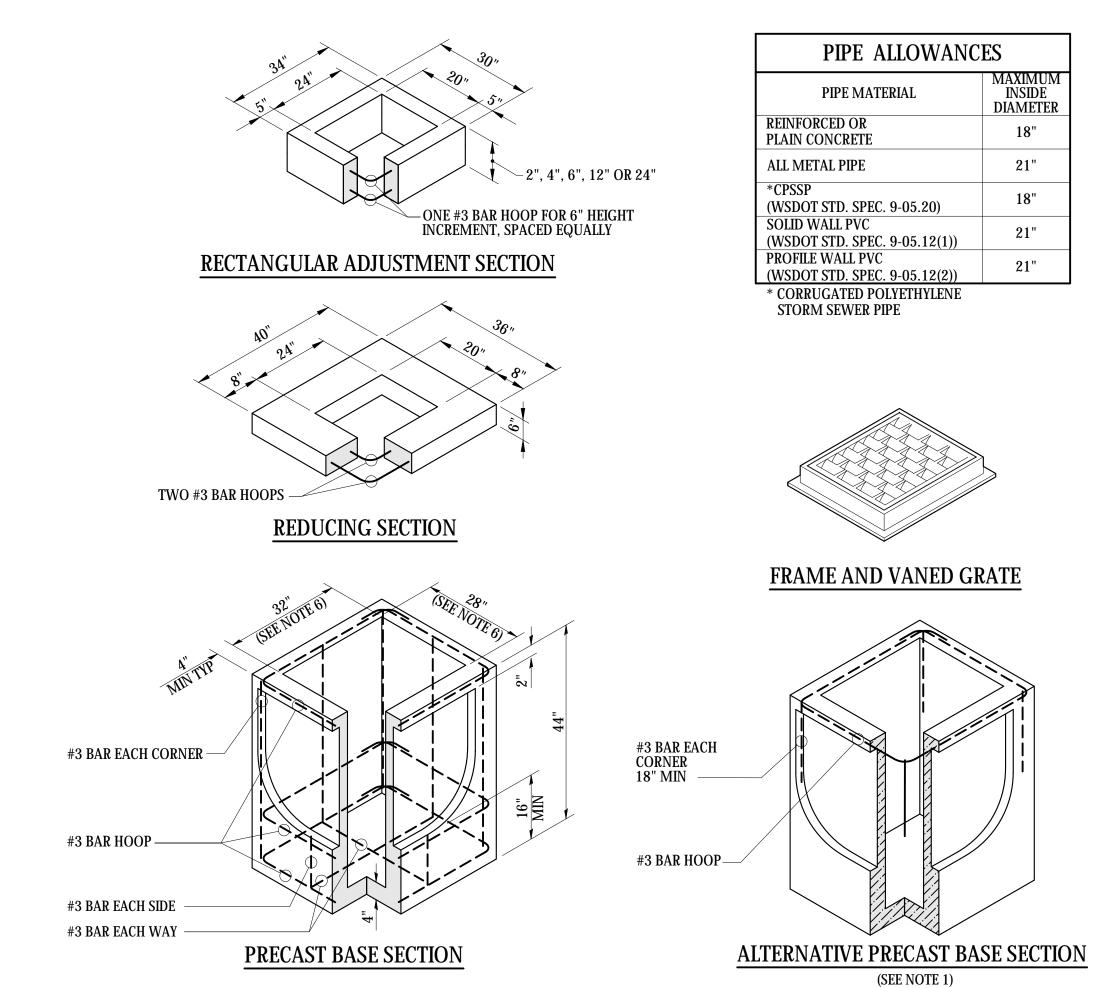




- 1. AS ACCEPTABLE ALTERNATIVES TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE WSDOT STANDARD SPECIFICATIONS), OR WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT SHALL BE USED WITH THE MINIMUM REQUIRED REBAR SHOWN IN THE ALTERNATIVE PRECAST BASE SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
- 2. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 20". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" 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 WSDOT SPECIFICATION 9-04.3.
- 3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5.5'.
- 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.

WSDOT STD PLAN B-5.20-01 ACCEPTABLE SUBSTITUTE



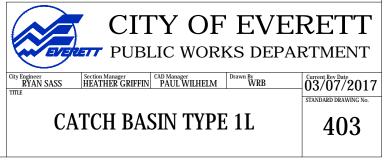


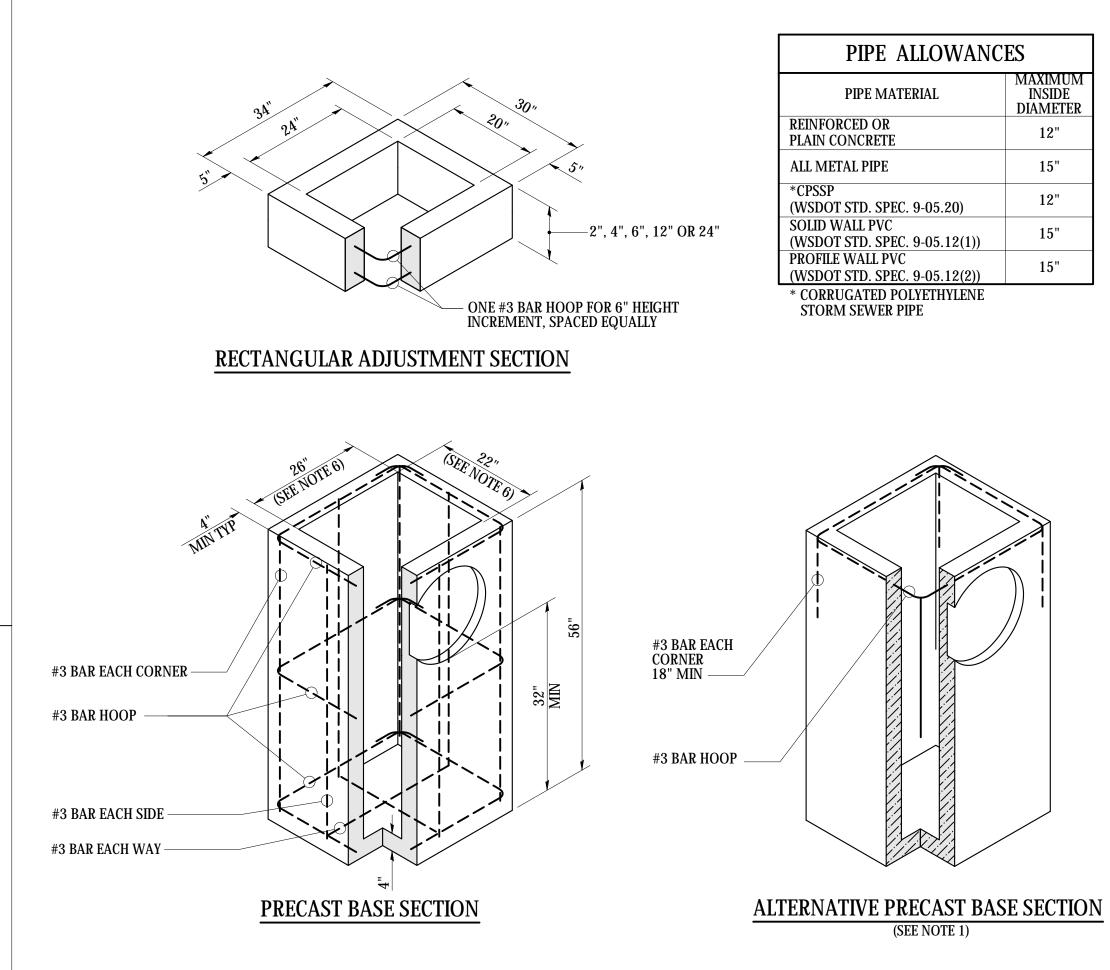
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# NOTES

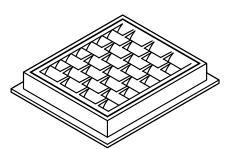
- AS ACCEPTABLE ALTERNATIVES TO THE REBAR 1. SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE WSDOT STANDARD **SPECIFICATIONS), OR WIRE MESH HAVING A** MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT SHALL BE USED WITH THE MINIMUM REQUIRED **REBAR SHOWN IN THE ALTERNATIVE PREČAST BASE** SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
- THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 26". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH HONT MODITAR IN ACCORDANCE WITH WSDOT 2. JOINT MORTAR IN ACCORDANCE WITH WSDOT **STANDARD SPECIFICATION 9-04.3.**
- THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5.5'. 3.
- THE FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE DOWN, OR INTEGRALLY CAST INTO THE ADJUSTMENT SECTION WITH FLANGE UP. 4.
- 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.
- ALL PICKUP HOLES SHALL BE GROUTED FULL AFTER 7. THE BASIN HAS BEEN PLACED.

WSDOT STD PLAN B-5.40-01 ACCEPTABLE SUBSTITUTE



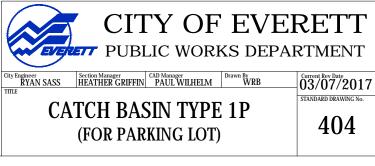


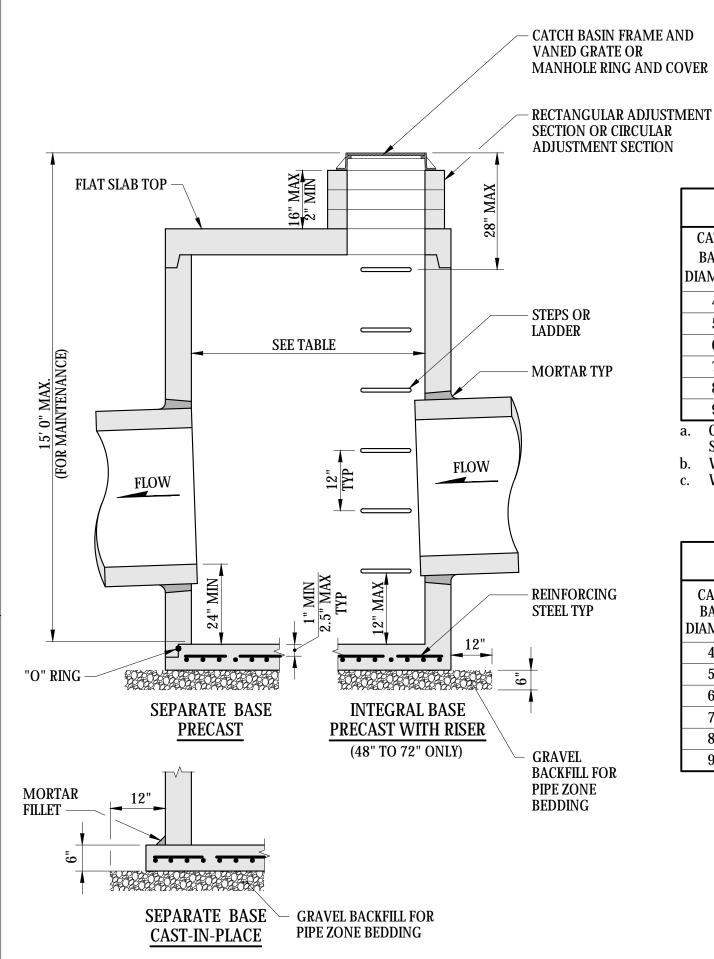
- 1. AS ACCEPTABLE ALTERNATIVES TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE WSDOT STANDARD SPECIFICATIONS), OR WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT SHALL BE USED WITH THE MINIMUM REQUIRED REBAR SHOWN IN THE ALTERNATIVE PRECAST BASE SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
- 2. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 18". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" 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 WSDOT STANDARD SPECIFICATION 9-04.3.
- 3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5.5'.
- 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.



#### FRAME AND VANED GRATE

WSDOT STD PLAN B-5.60-01 ACCEPTABLE SUBSTITUTE





PIPE ALLOWANCES							
CATCH	PIPE MATER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER					
BASIN DIAMETER	CONCRETE	CONCRETE ALL METAL CPSSP SOLID (a) WALL PVC (b) PROFILE WALL PVC (c)					
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"		

a. CORRUGATED POLYETHYLENE STORM SEWER PIPE, WSDOT STANDARD PLAN 9-05.20.

b. WSDOT STANDARD PLAN 9-05.12(1).

c. WSDOT STANDARD PLAN 9-05.12(2).

#### CATCH BASIN DIMENSIONS

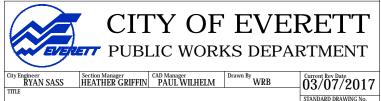
CATCH BASIN DIAMETER	WALL THICKNESS	BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"

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## NOTES

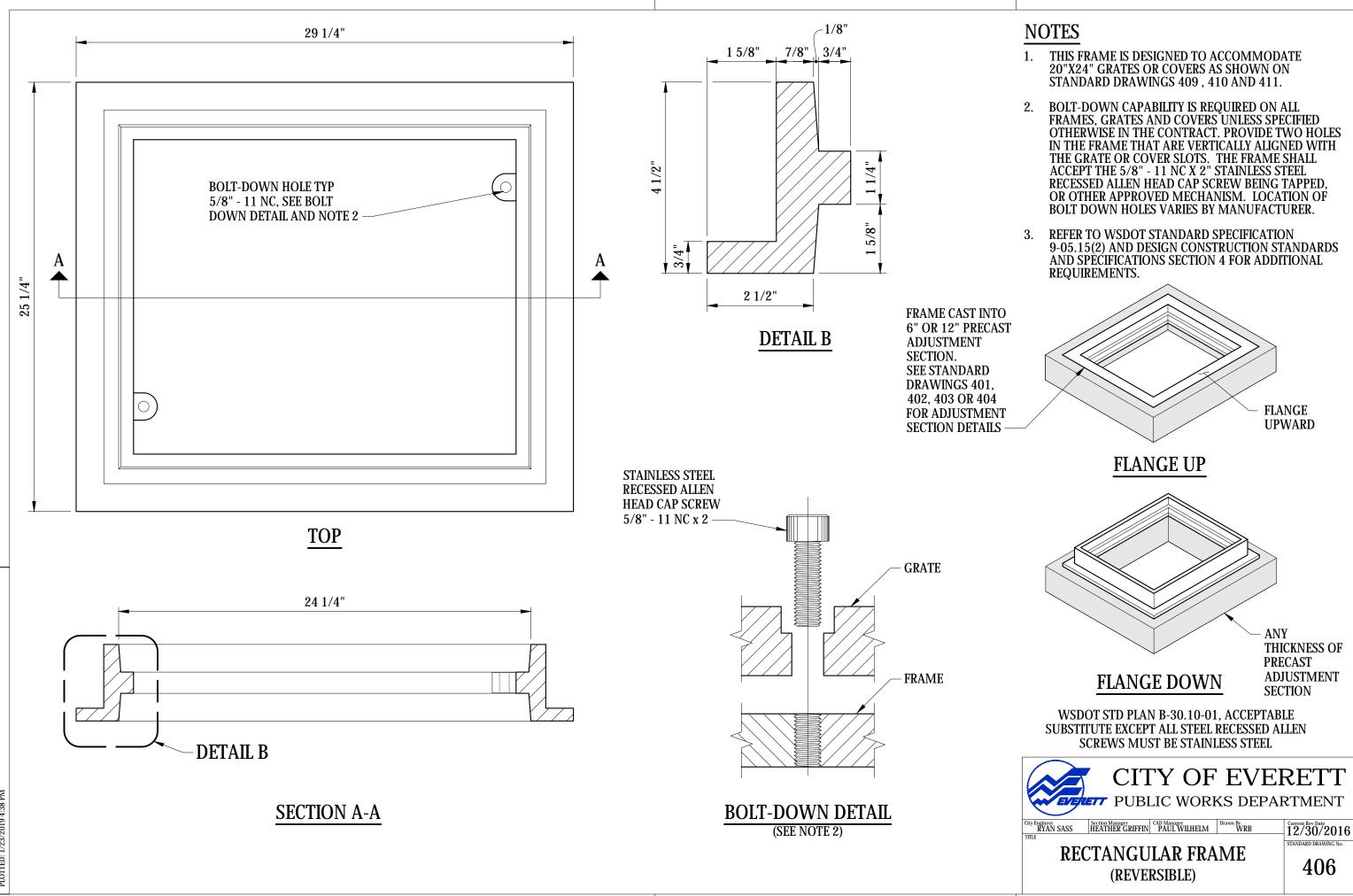
- 1. NO STEPS ARE REQUIRED WHEN HEIGHT IS 4' OR LESS.
- 2. THE BOTTOM OF THE PRECAST CATCH BASIN MAY BE SLOPED TO FACILITATE CLEANING.
- 3. THE RECTANGULAR FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE UP OR DOWN. THE FRAME MAY BE CAST INTO THE ADJUSTMENT SECTION.
- 4. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" 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 WSDOT STANDARD SPECIFICATION 9-04.3.
- 5. CONCRETE STRUCTURE SHALL MEET THE REQUIREMENTS OF AASHTO M199.
- 6. FOR MANHOLE COVER SEE STANDARD DRAWING 610 AND 611. REFER TO DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS SECTION 4 FOR ADDITIONAL REQUIREMENTS.
- 7. STEPS PER STANDARD DRAWING 609.

WSDOT STD PLAN B-10.20-01 ACCEPTABLE SUBSTITUTE

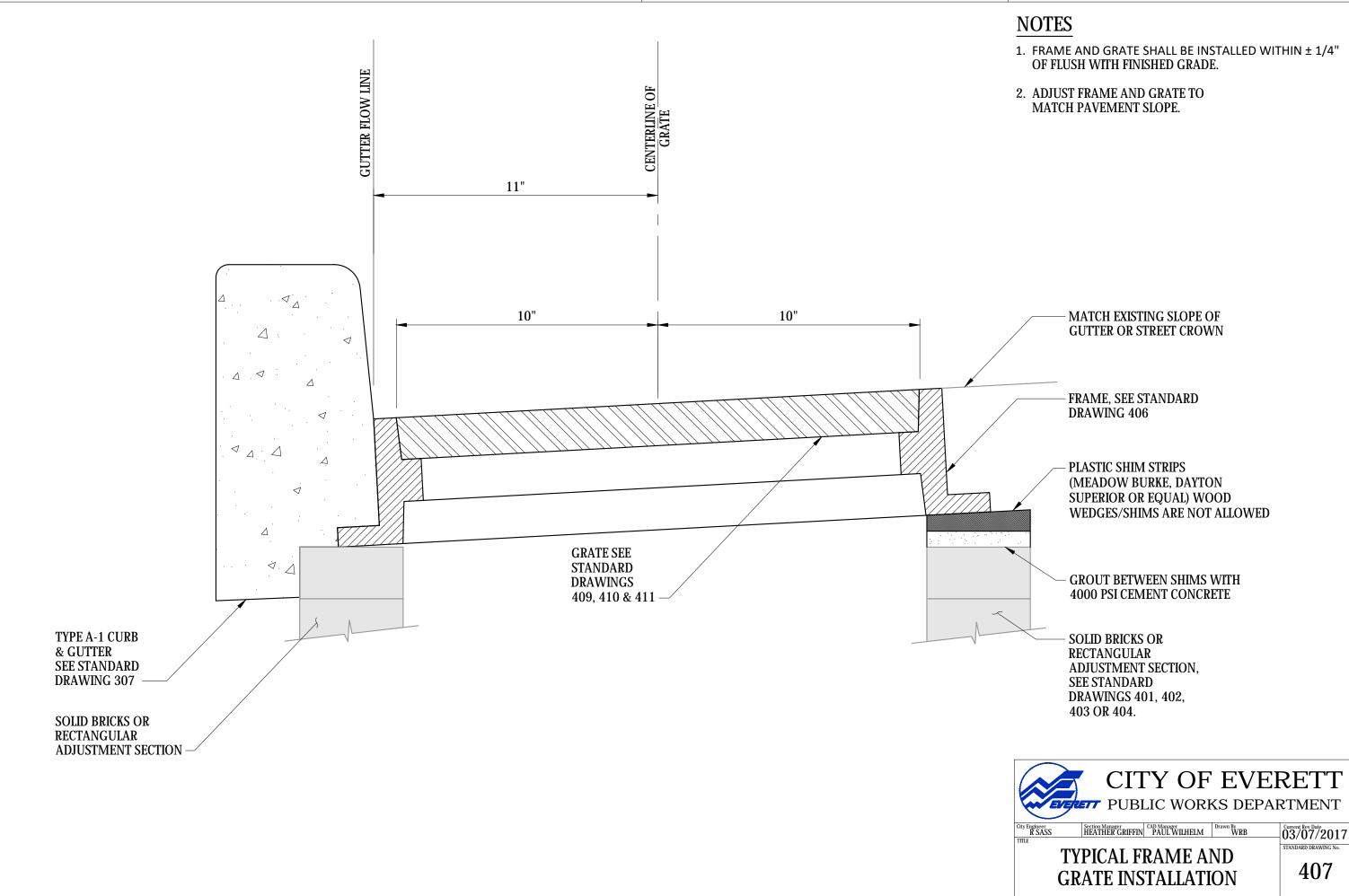


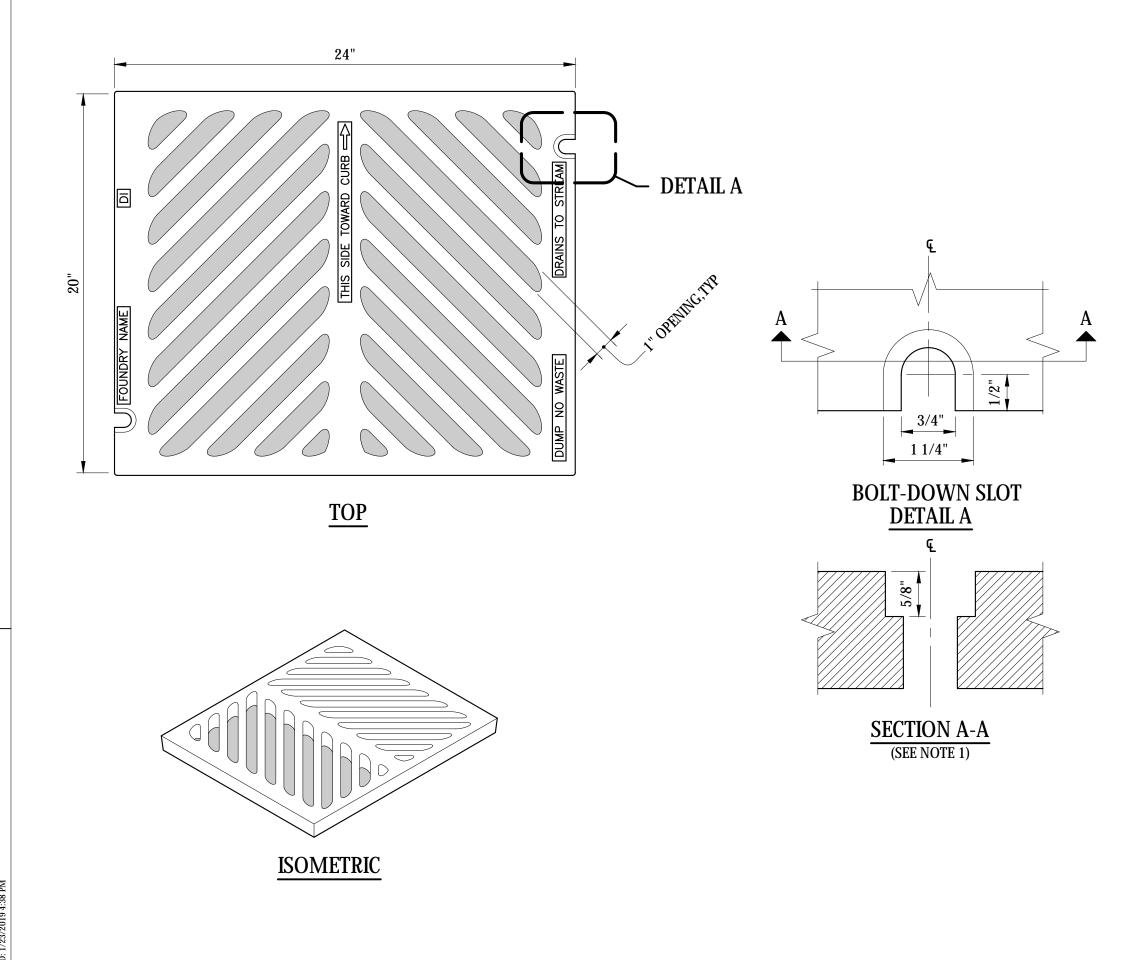
### **CATCH BASIN TYPE 2**

405



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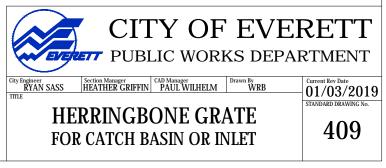


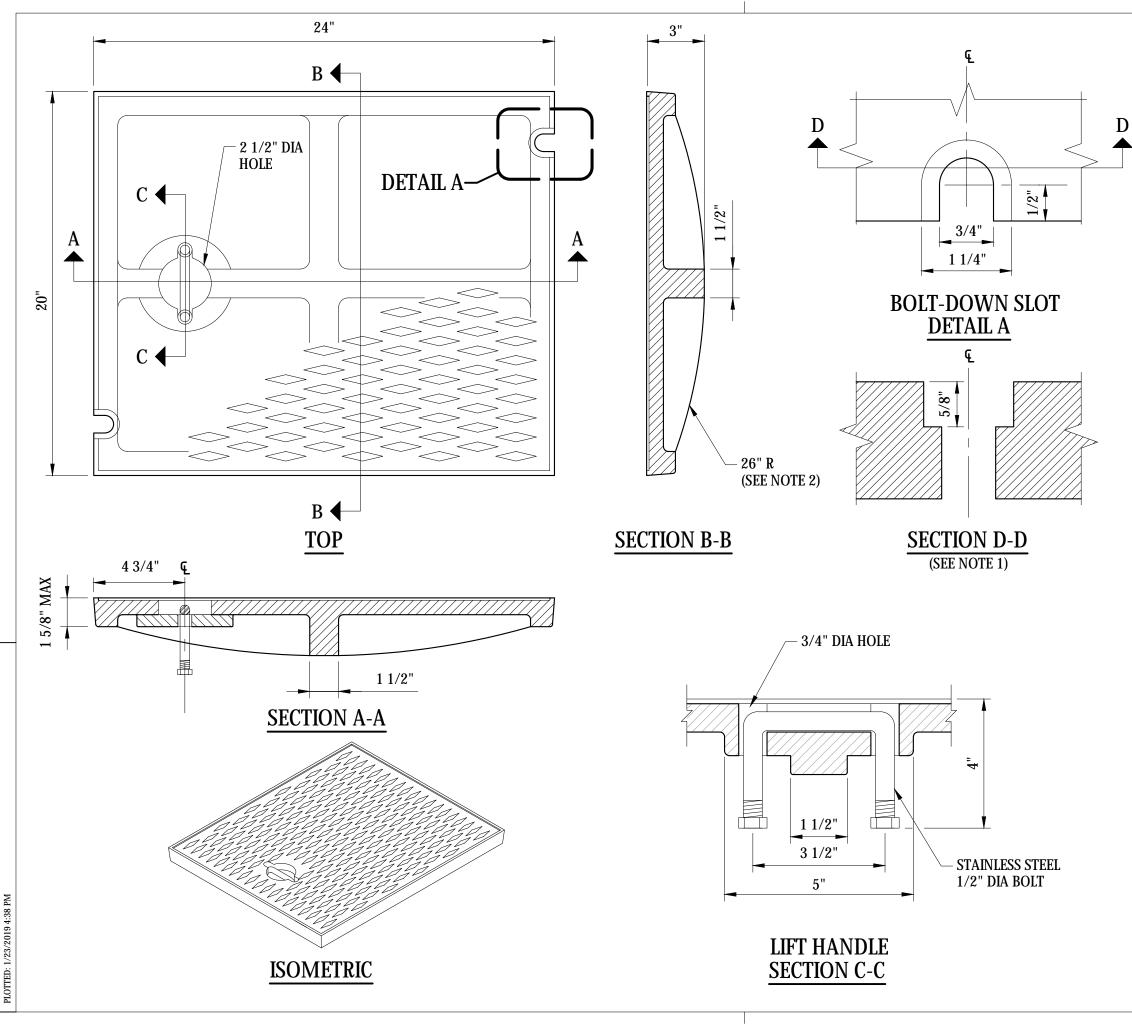
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### NOTES

- 1. BOLT-DOWN CAPABILITY IS REQUIRED ON ALL FRAMES, GRATES AND COVERS. PROVIDE TWO HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE OR COVER SLOTS. THE FRAME SHALL ACCEPT THE 5/8" - 11 NC X 2" STAINLESS STEEL RECESSED ALLEN HEAD CAP SCREW BEING TAPPED, OR OTHER APPROVED MECHANISM. LOCATION OF BOLT DOWN HOLES VARIES BY MANUFACTURER.
- 2. REFER TO WSDOT STANDARD SPECIFICATION 9-05.15(2) AND DESIGN CONSTRUCTION STANDARDS AND SPECIFICATIONS SECTION 4 FOR ADDITIONAL REQUIREMENTS.
- 3. FOR FRAME DETAILS, SEE STANDARD DRAWING 406.
- 4. THE THICKNESS OF THE GRATE SHALL NOT EXCEED 1 5/8".
- 5. VANED GRATES SHALL BE SPECIFIED, SEE STANDARD DRAWING 411 . THE CITY OF EVERETT SHALL GRANT THE USE OF A HERRINGBONE GRATE ON A CASE BY CASE BASIS.
- 6. ALL GRATES MUST BE STENCILED OR STAMPED "DUMP NO WASTE, DRAINS TO \_", WHERE THE BLANK SHALL BE FILLED IN WITH "STREAM", "LAKE", "RIVER", "PUGET SOUND", OR "WETLAND" AS APPLICABLE TO THE LOCATION WHERE THE GRATE IS TO BE INSTALLED.

WSDOT STD PLAN B-30.50-01, ACCEPTABLE SUBSTITUTE EXCEPT ALL STEEL RECESSED ALLEN SCREWS MUST BE STAINLESS STEEL

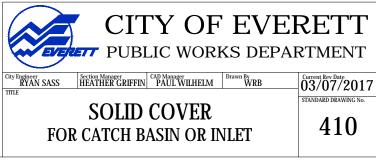


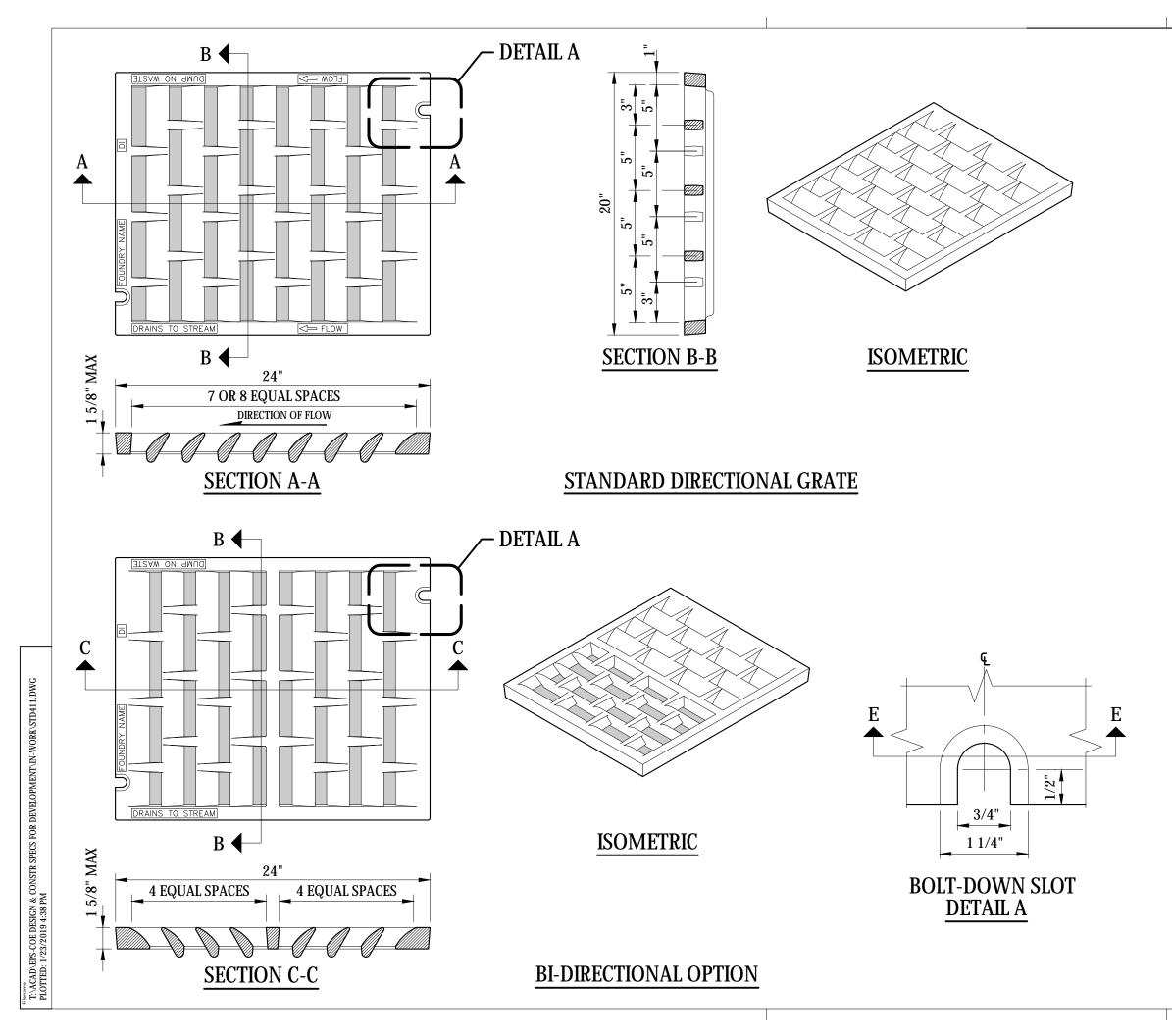


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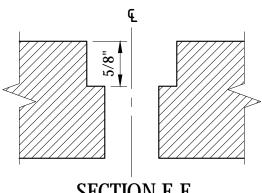
- 1. BOLT-DOWN CAPABILITY IS REQUIRED ON ALL FRAMES, GRATES AND COVERS. PROVIDE TWO HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE OR COVER SLOTS. THE FRAME SHALL ACCEPT THE 5/8" - 11 NC X 2" STAINLESS STEEL RECESSED ALLEN HEAD CAP SCREW BEING TAPPED, OR OTHER APPROVED MECHANISM. LOCATION OF BOLT DOWN HOLES VARIES BY MANUFACTURER.
- 2. ALTERNATIVE REINFORCING DESIGNS ARE ACCEPTABLE IN LIEU OF THE RIB DESIGN.
- 3. REFER TO WSDOT STANDARD SPECIFICATION 9-05.15(2) AND DESIGN CONSTRUCTION STANDARDS AND SPECIFICATIONS SECTION 4 FOR ADDITIONAL REQUIREMENTS.
- 4. FOR FRAME DETAILS, SEE STANDARD DRAWING 406.





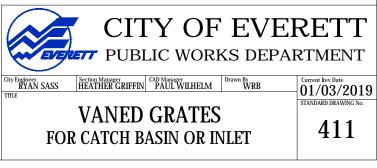


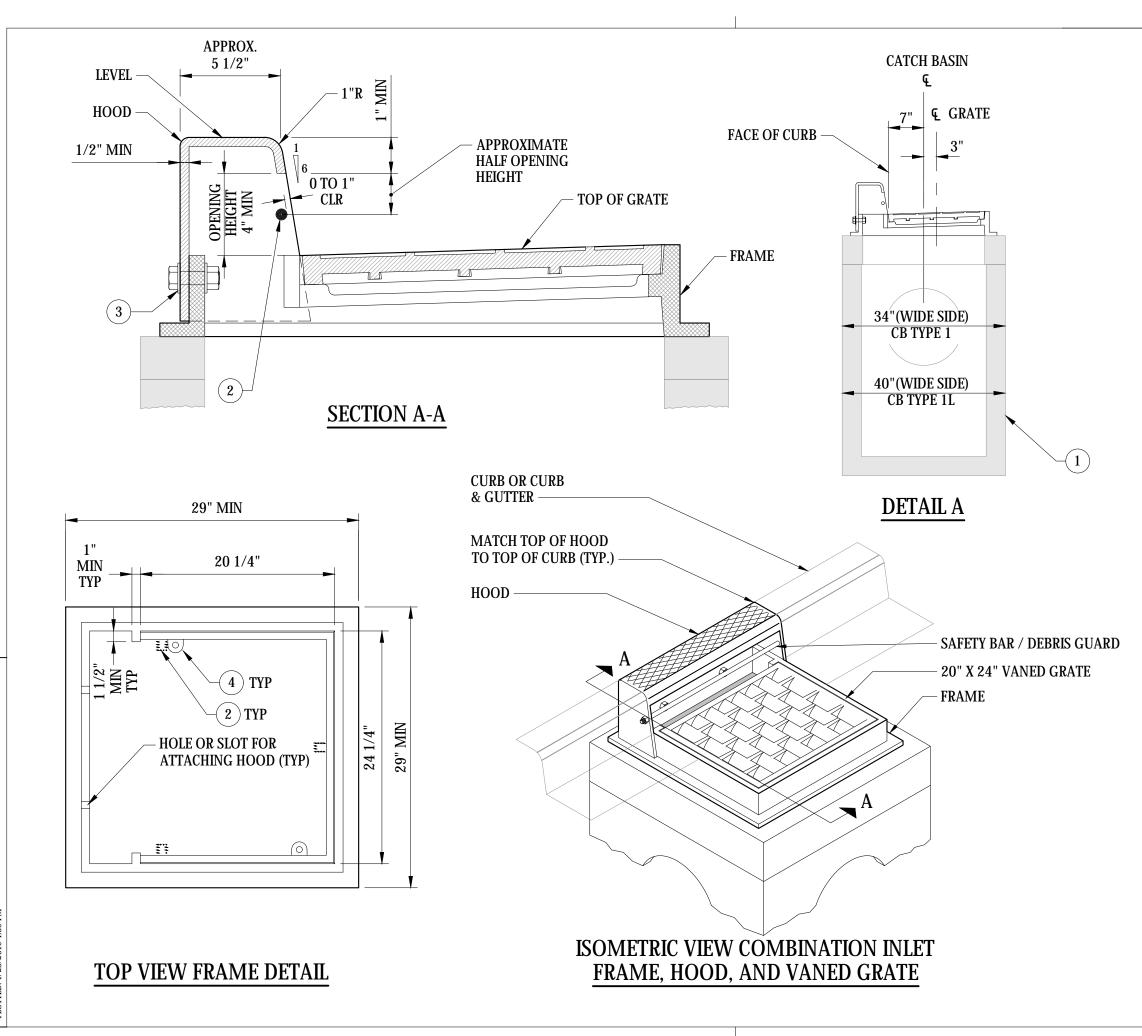
- 1. BOLT-DOWN CAPABILITY IS REQUIRED ON ALL FRAMES, GRATES AND COVERS. PROVIDE TWO HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE OR COVER SLOTS. THE FRAME SHALL ACCEPT THE 5/8" - 11 NC X 2" STAINLESS STEEL RECESSED ALLEN HEAD CAP SCREW BEING TAPPED, OR OTHER APPROVED MECHANISM. LOCATION OF BOLT DOWN HOLES VARIES BY MANUFACTURER.
- 2. REFER TO WSDOT STANDARD SPECIFICATION 9-05.15(2) AND DESIGN CONSTRUCTION STANDARDS AND SPECIFICATIONS SECTION 4 FOR ADDITIONAL REQUIREMENTS.
- 3. FOR FRAME DETAILS, SEE STANDARD DRAWINGS 406 AND 407.
- 4. ALL GRATES MUST BE STENCILED OR STAMPED "DUMP NO WASTE, DRAINS TO \_", WHERE THE BLANK SHALL BE FILLED IN WITH "STREAM", "LAKE", "RIVER", "PUGET SOUND", OR "WETLAND" AS APPLICABLE TO THE LOCATION WHERE THE GRATE IS TO BE INSTALLED.



#### SECTION E-E (SEE NOTE 1)

WSDOT STD PLAN B-30.30-01 AND B-30.40-01, ACCEPTABLE SUBSTITUTE EXCEPT ALL STEEL RECESSED ALLEN SCREWS MUST BE STAINLESS STEEL



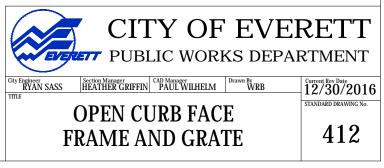


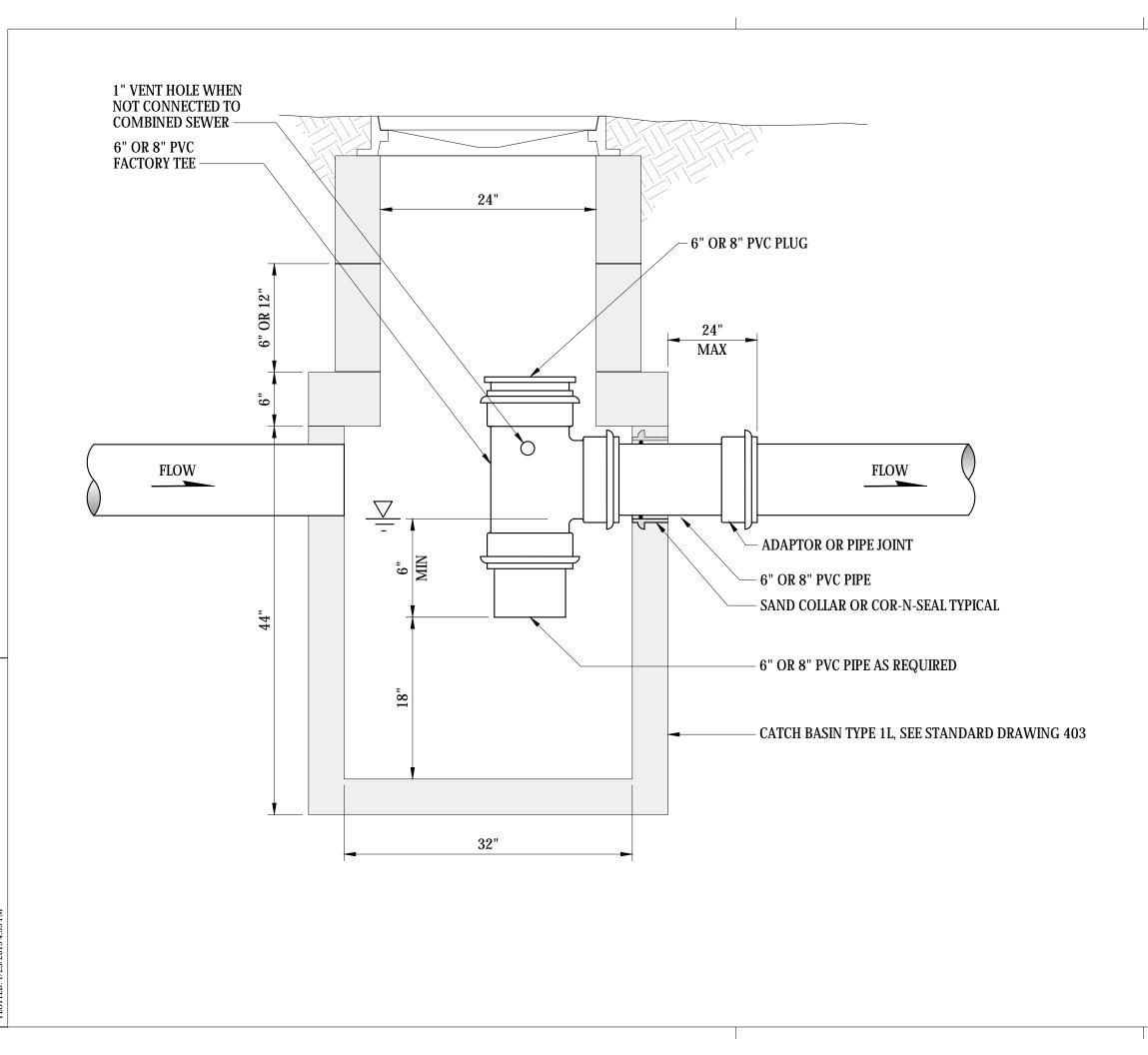
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### NOTES

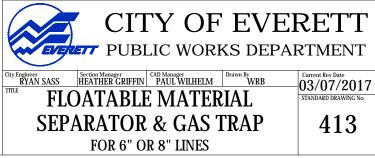
- 1. THIS INLET REQUIRES THE PRECAST CATCH BASIN UNIT TO BE ROTATED 90 DEGREES SO THAT THE NARROW SIDE IS PARALLEL TO THE CURB LINE. WHEN CALCULATING OFFSETS FROM CURB TO CENTERLINE OF THE PRECAST CATCH BASIN, PLEASE NOTE THAT THE CENTERLINE OF THE GRATE IS NOT THE CENTERLINE OF THE PRECAST CATCH BASIN. SEE SECTION A.
- 2. THE DIMENSIONS OF THE FRAME AND HOOD MAY VARY SLIGHTLY AMONG DIFFERENT MANUFACTURERS. THE FRAME MAY HAVE CAST FEATURES INTENDED TO SUPPORT A DEBRIS GUARD. HOOD UNITS MAY BE MOUNTED INSIDE OR OUTSIDE OF THE FRAME. THE METHODS FOR FASTENING THE SAFETY BAR / DEBRIS GUARD TO THE HOOD MAY VARY. THE HOOD MAY INCLUDE CASTING LUGS. THE TOP OF THE HOOD MAY BE CAST WITH A PATTERN.
- 3. ATTACH THE HOOD TO THE FRAME WITH TWO 3/4" × 2" STAINLESS STEEL HEX HEAD BOLTS, NUTS, AND OVERSIZE WASHERS. THE WASHERS SHALL HAVE DIAMETERS ADEQUATE TO ENSURE FULL BEARING ACROSS THE SLOTS.
- 4. BOIT-DOWN CAPABILITY IS REQUIRED ON ALL FRAMES, GRATES AND COVERS, UNLESS SPECIFIED IN THE CONTRACT. PROVIDE TWO HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE SLOTS. THE FRAME SHALL ACCEPT THE 5/8" -11 NC × 2" STAINLESS STEEL ALLEN HEAD CAP SCREW BY BEING TAPPED, OR OTHER APPROVED MECHANISM. THE LOCATION OF BOLT-DOWN HOLES VARIES AMONG DIFFERENT MANUFACTURERS. SEE BOLT-DOWN DETAIL, STANDARD DRAWING 406.
- 5. ONLY DUCTILE IRON VANED GRATES SHALL BE USED. SEE STANDARD DRAWING 411 FOR GRATE DETAILS. REFER TO WSDOT STANDARD SPECIFICATION 9-05.15(2) AND DESIGN CONSTRUCTION STANDARDS AND SPECIFICATIONS SECTION 4 FOR ADDITIONAL REQUIREMENTS.
- 6. THIS PLAN IS INTENDED TO SHOW THE INSTALLATION DETAILS OF A MANUFACTURED PRODUCT. THIS PLAN IS NOT INTENDED TO SHOW THE SPECIFIC DETAILS NECESSARY TO FABRICATE THE CASTINGS DEPICTED IN THIS DRAWING.

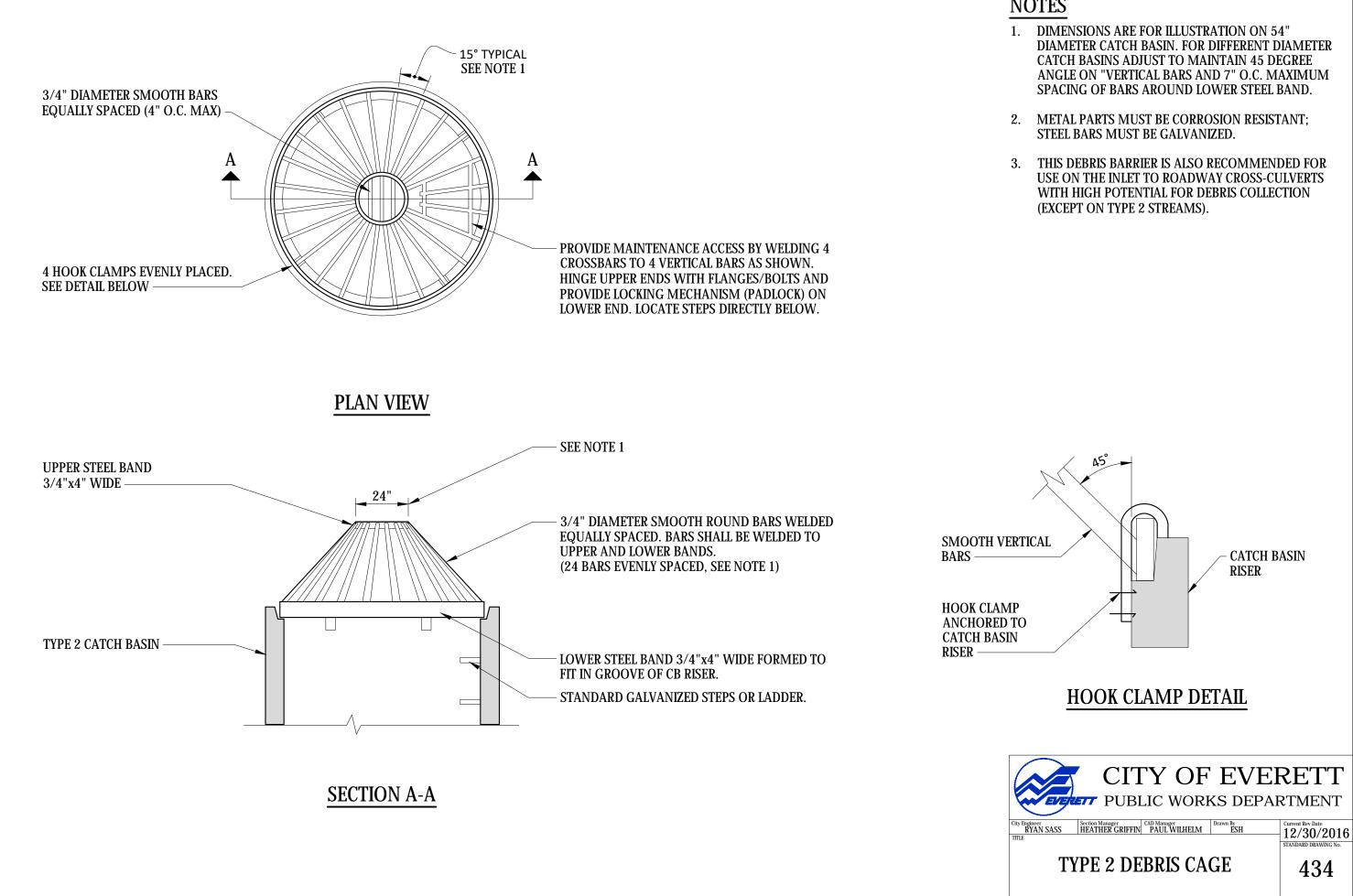
WSDOT STD PLAN B-25.20-01, ACCEPTABLE SUBSTITUTE EXCEPT ALL STEEL RECESSED ALLEN SCREWS MUST BE STAINLESS STEEL



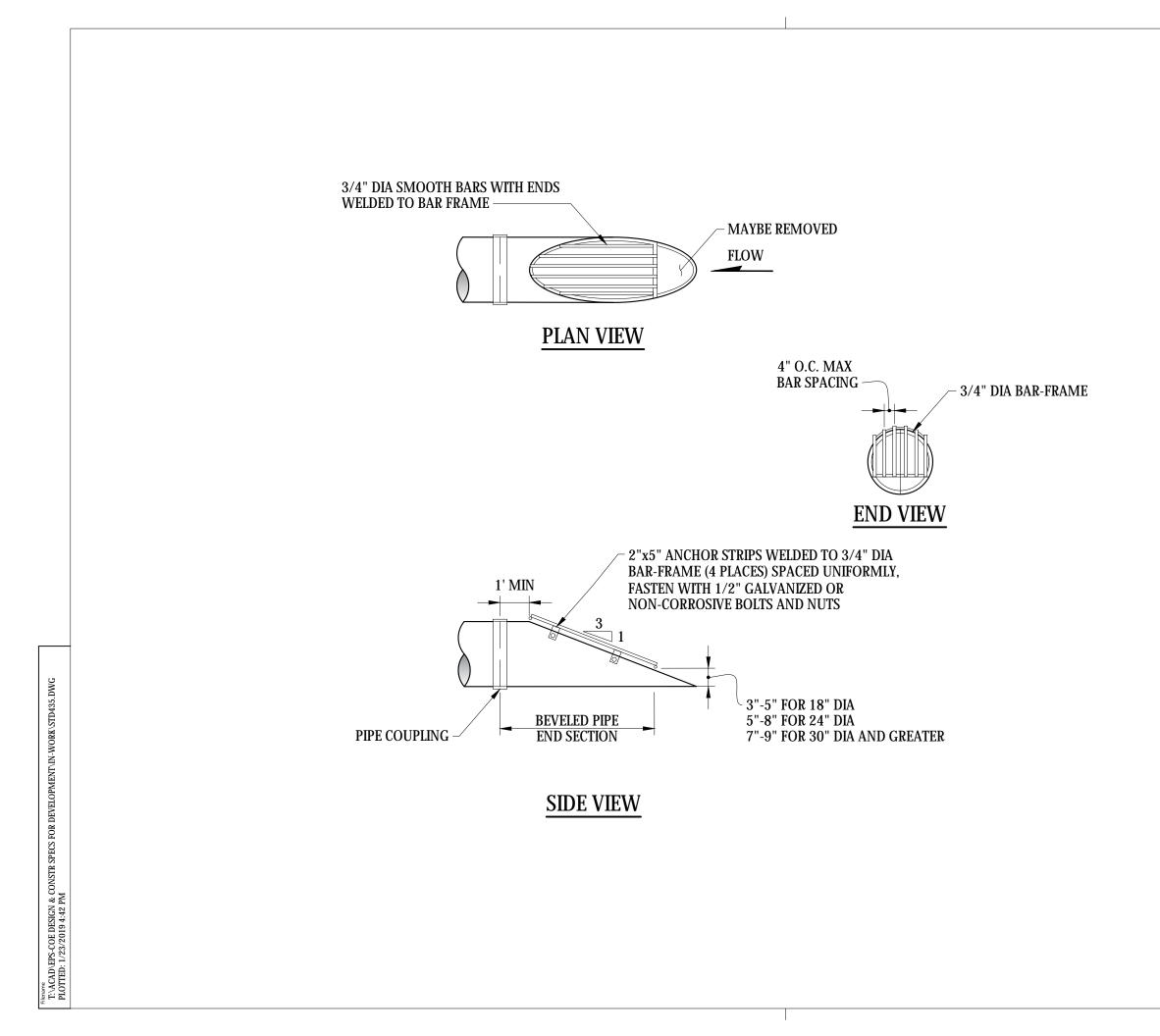


1. INSTALL LOCKING FRAME & GRATE PER STANDARD DRAWING 406. PROVIDE SOLID COVER PER STANDARD DRAWING 410 WHEN STRUCTURE WILL NOT RECEIVE SURFACE RUNOFF.

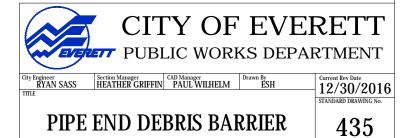


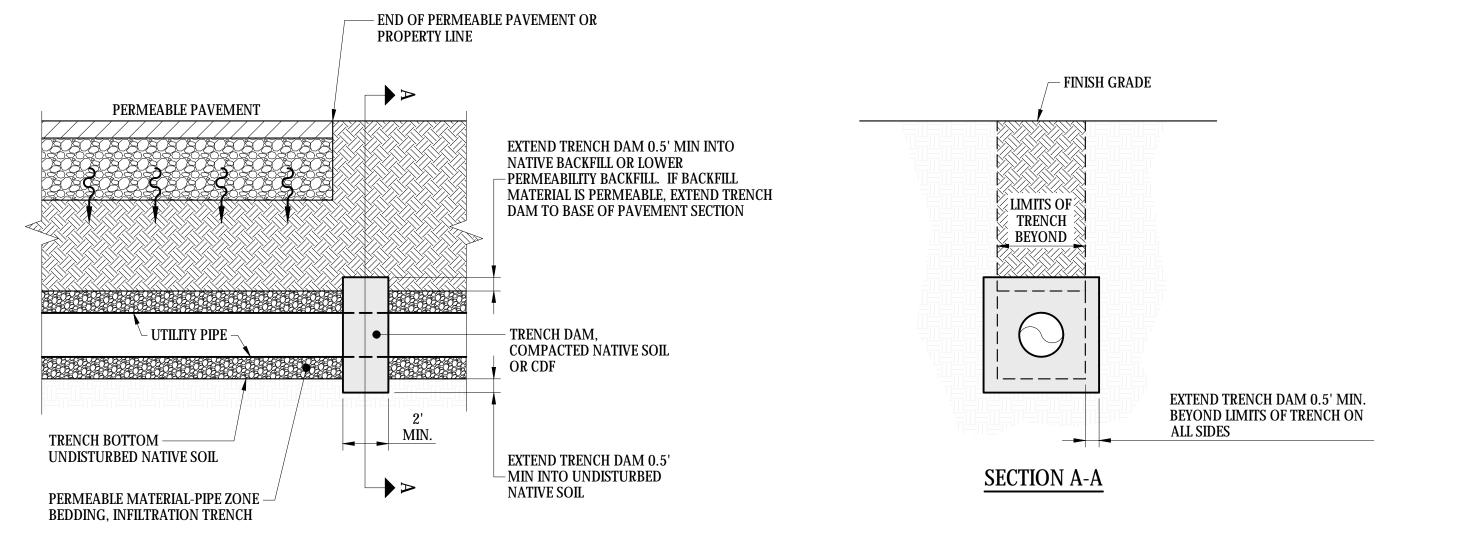


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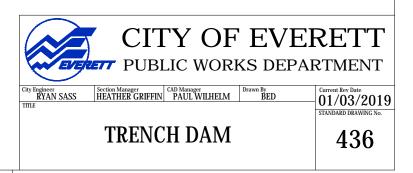
- 1. CMP END SECTION SHOWN. MAY USE CPEP SMOOTH INTERIOR.
- 2. ALL STEEL PARTS MUST BE GALVANIZED AND ASPHALT COATED (TREATMENT 1 OR BETTER).

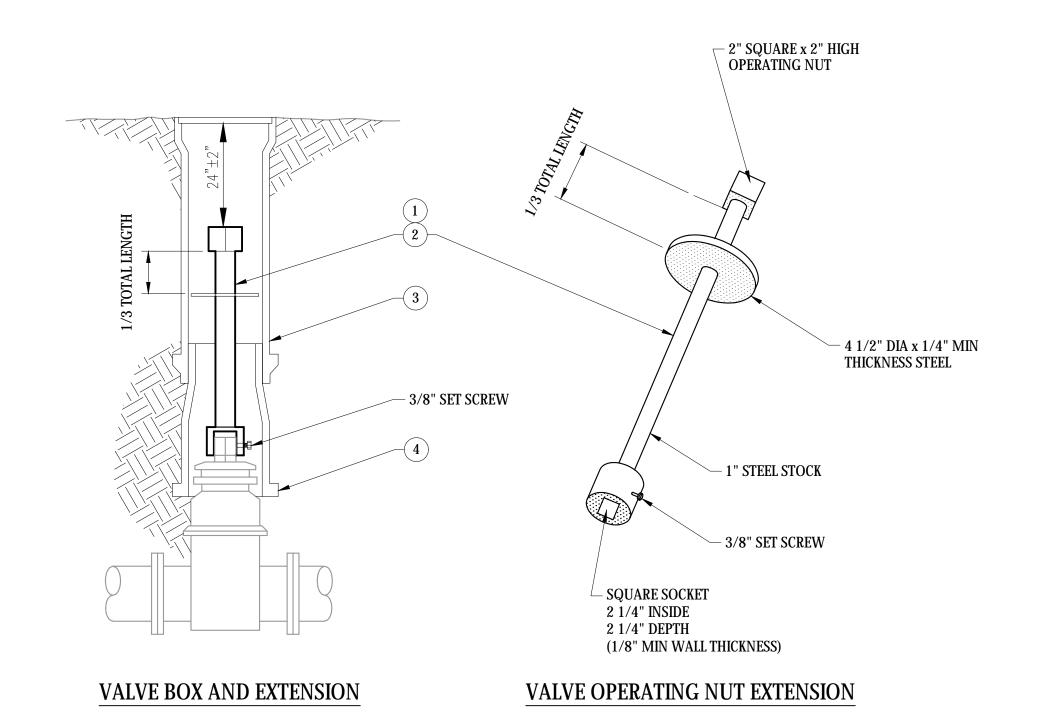




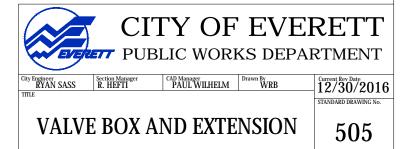
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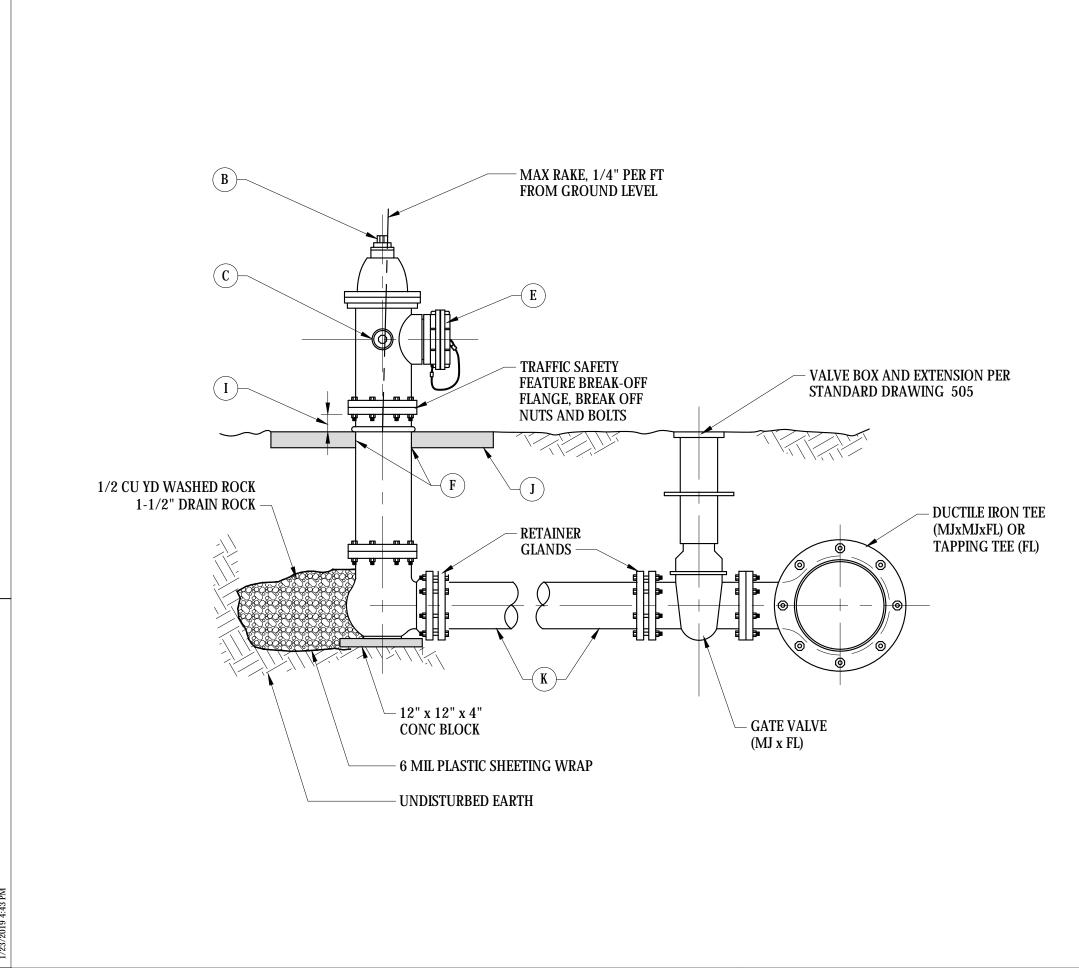
- **USE TRENCH DAM FOR UTILITIES BENEATH** 1. PERMEABLE PAVEMENT, AT THE END OF INFILTRATION TRENCHES OR PERFORATED STUBOUTS, OR OTHER LOCATIONS WHERE THERE IS A CONCERN THAT WATER MAY BE CONVEYED DOWN THE TRENCH WITHIN PIPE BEDDING OR BACKFILL.
- 2. ALTERNATE TRENCH DAM CONFIGURATIONS OR METHODS WHICH ACHIEVE THE SAME GOAL WILL BE ACCEPTED ON A CASE BY CASE BASIS.





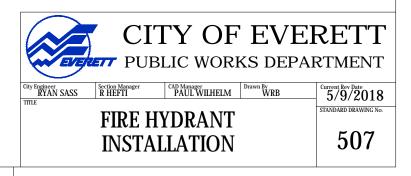
- 1. VALVE OPERATING NUT EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN THREE (3) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG. ONLY ONE EXTENSION WILL BE ALLOWED PER VALVE.
- 2. ALL VALVE OPERATING NUT EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO (2) COATS OF METAL PAINT.
- 3. VALVE BOXES IN PAVED AREAS SHALL BE CAST IRON, TWO PIECE UNITS, EAST JORDAN 8555 16" TOP, 24" BOTTOM AND EAST JORDAN 6800 HEAVY DUTY LID W/ "WATER" ON LID. IN GRASS, NON-PAVED OR NON-TRAFFIC AREAS USE OF PLASTIC VALVE BOXES, WITH CAST IRON LID AS MANUFACTURED BY HANDLEY INDUSTRIES ARE ACCEPTABLE.
- 4. USE OF PLASTIC VALVE BOX EXTENSIONS, AS MANUFACTURED BY HANDLEY INDUSTRIES ARE ACCEPTABLE.

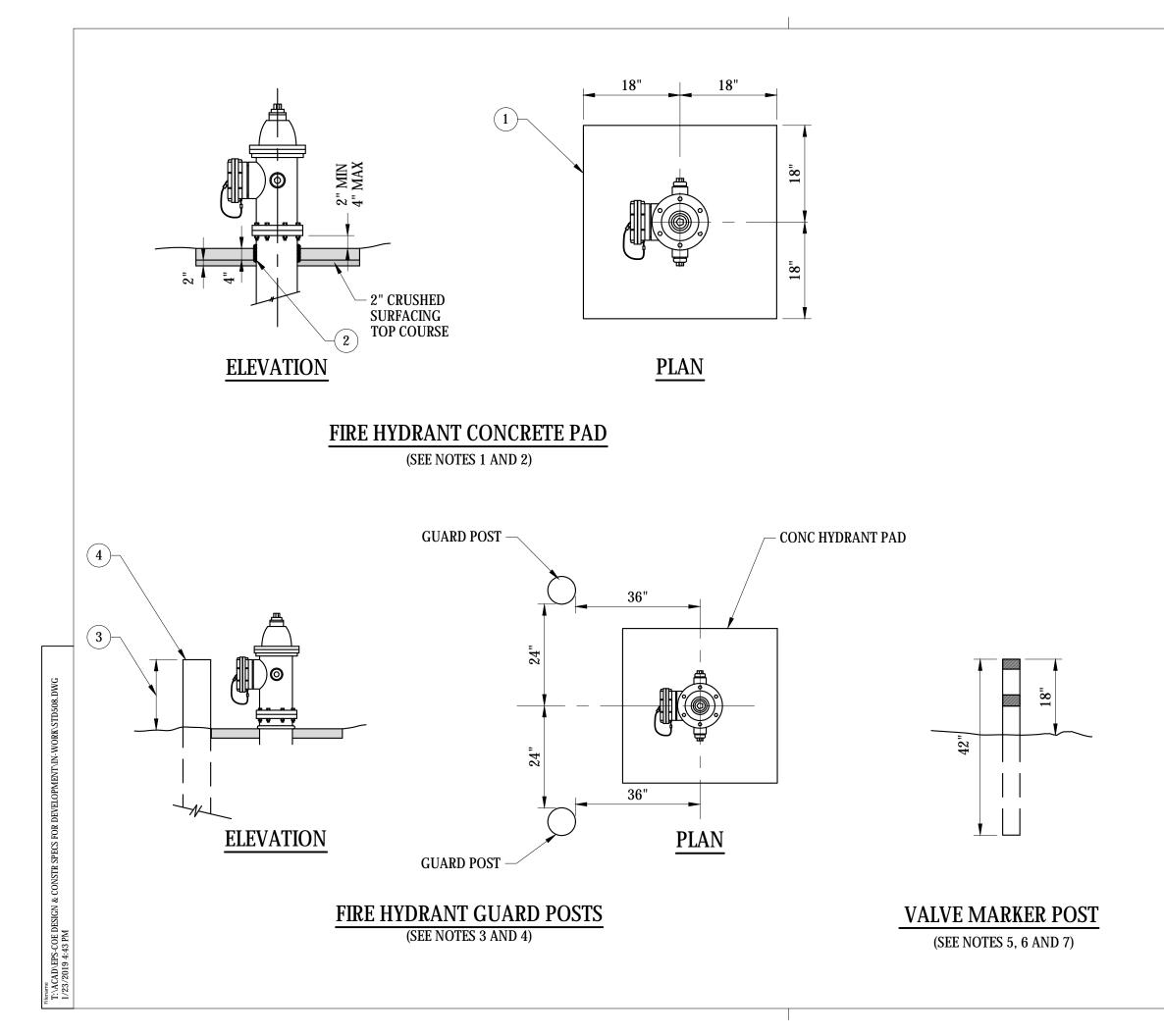




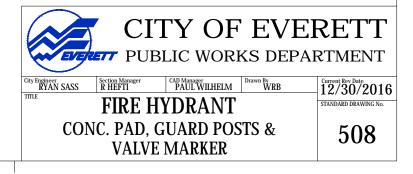
### PARTS

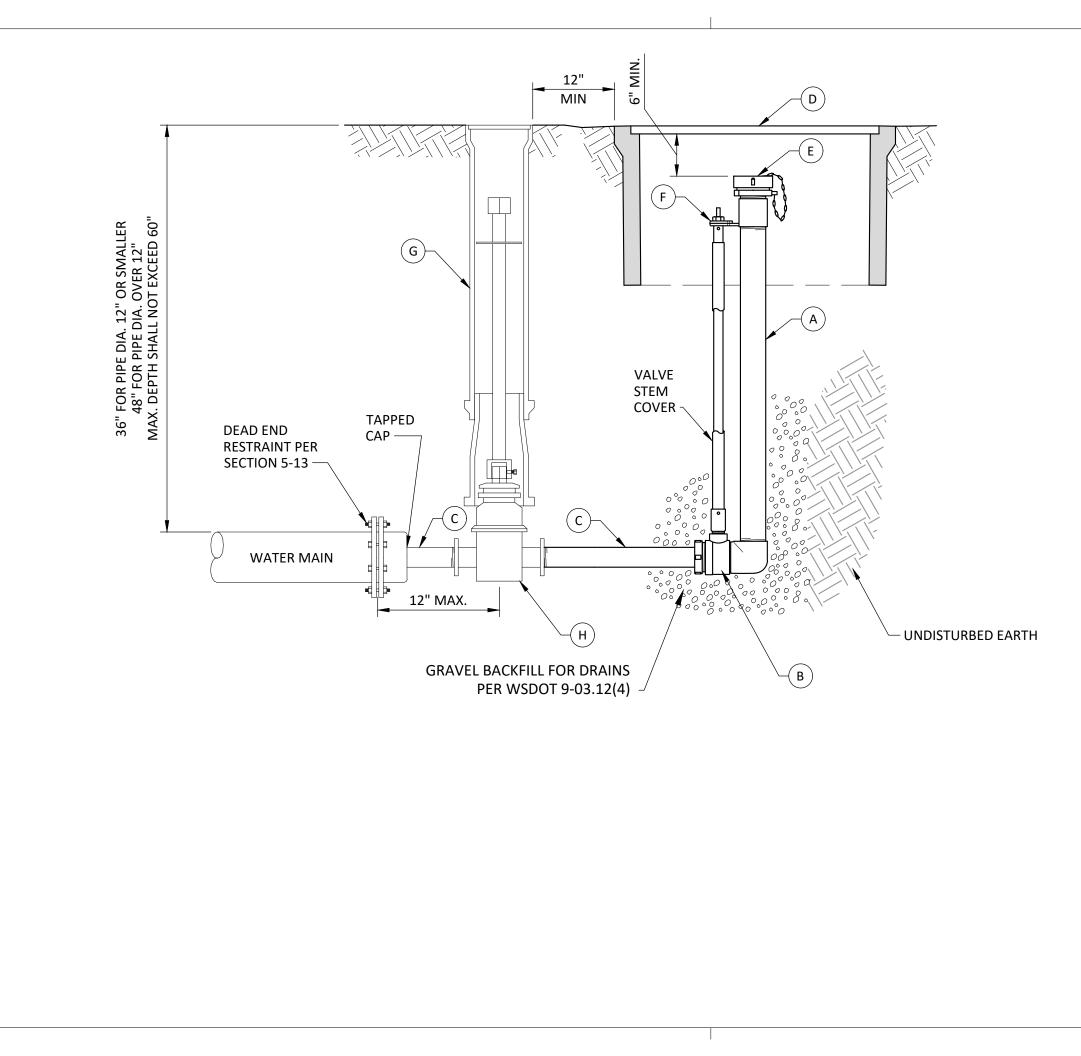
- A. HYDRANTS AND ALL MATERIALS SHALL CONFORM TO AWWA STANDARDS AND SHALL BE OF STANDARD MANUFACTURE (MUELLER SUPER CENTURION #250, WATEROUS PACER #WB67, OR CITY APPROVED EQUAL).
- B. 5-1/4" VALVE MINIMUM.
- C. 1-1/4" OPERATING NUT AND CAP NUT FOR 2-1/2" PORTS.
- D. NATIONAL STANDARD THREAD ON 2-1/2" PORTS.
- E. 5" STORZ FITTING WITH NATIONAL STANDARD THREAD ON THE 4-1/2" PORT.
- F. IF HYDRANT RISES THROUGH CONCRETE, USE EXPANSION STRIP AROUND HYDRANT BARREL, PER STD PLAN 509. IN ADDITION, INSTALLATION OF THE HYDRANT ON PRIVATE PROPERTY SHALL EQUAL OR EXCEED THE STANDARDS FOR INSTALLATION OF PUBLIC FIRE HYDRANTS IN THE CITY OF EVERETT.
- G. PROVIDE FOR VEHICULAR TRAFFIC PROTECTION WHEN NECESSARY PER STANDARD DRAWING 508.
- H. STEAMER PORT TO BE FACING STREET OR ROADWAY FOR FIRE ENGINE ACCESS.
- I. BREAK-OFF FLANGE TO BE 2"-4" ABOVE GROUND LEVEL.
- J. INSTALL CONCRETE PAD AROUND HYDRANT IN UNPAVED, SOD AND ASPHALT AREAS PER STANDARD DRAWING 508.
- K. HYDRANT CONNECTION PIPE TO BE DUCTILE IRON CLASS 52, ANY INTERMEDIATE JOINTS TO BE MJ WITH RETAINER GLANDS, OR FIELD LOCK GASKETS.
- L. FIRE HYDRANTS SHALL BE PAINTED WITH TWO COATS OF HIGH GLOSS CATERPILLAR YELLOW, LUXLITE #6100-516 OR "RUST-OLEUM" #7448 OR APPROVED EQUAL. THE PORT CAPS WILL BE PAINTED BLACK.
- M. PROVIDE FOR A MINIMUM OF 3' CLEAR ZONE AROUND HYDRANT.





- 1. CONCRETE SHALL BE CLASS 3000.
- 2. INSTALL 1/2"x4" EXPANSION STRIP AROUND HYDRANT.
- 3. GUARD POSTS SHALL BE 6' LONG, 9"IN DIAMETER PRECAST CONCRETE OR 6' LONG, 6" DIAM SCH 40, CONCRETE FILLED CLASS 52 STEEL PIPE. PAINTED WITH TWO COATS OF KELLY-MOORE LUXLITE Q.D. ALKYD GLOSS ENAMEL #6100-516 CAT YELLOW OR CITY APPROVED EQUAL.
- 4. TOP OF GUARD POST SHALL BE LEVEL WITH TOP OF PUMPER PORT.
- 5. VALVE MARKER POST SHALL BE 42" PORTABLE TRAFFIC DELINEATOR POST W/TWO REFLECTOR STRIPS. THEY SHALL BE FURNISHED NEW AND UNUSED AND BURIED 24" DEEP, TO LEAVE 18" EXPOSED AS A MARKER POST THE LETTER "V" AND THE DISTANCE TO THE VALVE SHALL BE STENCILED ON THE POST WITH 2" HIGH NUMERALS, WITH BLACK ENAMEL PAINT.
- 6. VALVE MARKER POSTS SHALL BE INSTALLED FOR ALL VALVES LOCATED IN UNIMPROVED OR UNPAVED AREAS. VALVE MARKER POSTS SHALL BE SET AS DIRECTED BY THE PUBLIC WORKS INSPECTOR IN A SAFE AND REASONABLY CONSPICUOUS LOCATION.
- 7. VALVE MARKER POSTS ARE NOT REQUIRED FOR AUXILIARY HYDRANT VALVES.

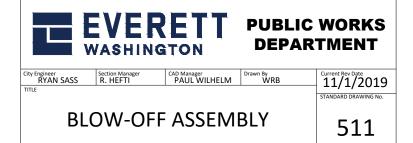


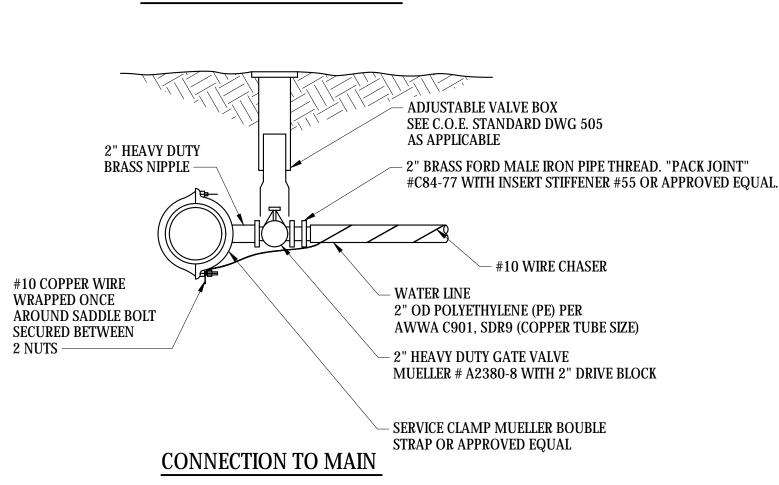


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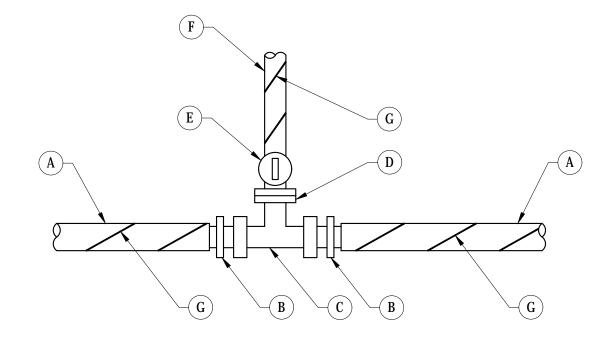
#### PARTS:

- A. GIL INDUSTRIES SLIMLINE HYDRANT. SEE gilindustries.com/slimline.htm
- B. 2" GIL INDUSTRIES ISO 9001 CERTIFIED BRONZE BODY BALL VALVE W/ CHROME PLATED BALL AND AUTOMATIC WEEP.
- C. 2" BRASS NIPPLE
- D. PROVIDE METER BOX BODY MANUFACTURED BY "RAVEN PRODUCTS, MODEL RMD-17-30-12", FLUSH SOLID COVER LID.
- E. 2.5" NATIONAL STANDARD THREAD BRASS BUSHING WITH CAP AND CHAIN.
- F OPERATING LOCKWING. LOCK TO BE SUPPLIED BY CITY OF EVERETT UTILITIES DEPARTMENT.
- G VALVE BOX AND EXTENSION PER STANDARD DRAWING 505
- H HEAVY DUTY 2" GATE VALVE WITH RESILIENT SEAT. GATE VALVES SHALL BE "WATEROUS" SERIES 2500 OR CITY APPROVED EQUAL

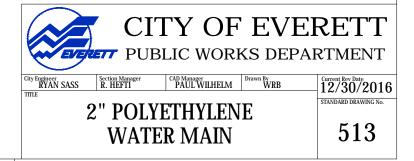


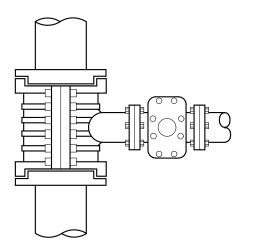


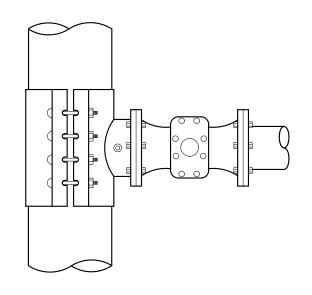
#### SERVICE CONNECTION PLAN



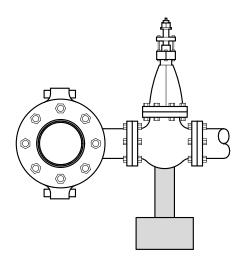
- A. 2" WATER MAIN SHALL BE POLYETHYLENE PER STANDARD DETAIL 502B. CONNECTION TO MAIN TO BE MADE PER STANDARD DETAIL 502B.
- B. 2" BRASS MALE IRON PIPE THREAD X COMPRESSION FITTING WITH STAINLESS STEEL INSERT STIFFENER. COUPLING SHALL BE "FORD" C84-77 NL OR CITY APPROVED EQUAL.
- C. 2" BRASS TEE (FIP).
- D. BRASS HEX BUSHING 2" X SERVICE SIZE.
- E. CORPORATION STOP SHALL BE FORD FB700 OR CITY APPROVED EQUAL.
- F. METERED WATER SERVICE PER STANDARD 502A OR 502C.
- G. # 10 COPPER TRACE WIRE WRAPPED ALONG ENTIRE LENGTH (ONE WRAP PER FOOT) WITH ONE END WRAPPED AROUND THE SADDLE BOLT AND SECURED BETWEEN 2 NUTS, ON MAIN CONNECTION. THE OTHER END WILL BE EXPOSED IN THE METER BOX. A SCOTCH CAST ELECTRICAL SPLICE KIT TO BE USED TO SPLICE ALL WIRES WHERE REQURED. SCOTCH CAST ELECTRICAL SPLICE KITS SHALL BE 3M INSULATION DISPLACEMENT CONNECTORS OR CITY APPROVED EQUAL.







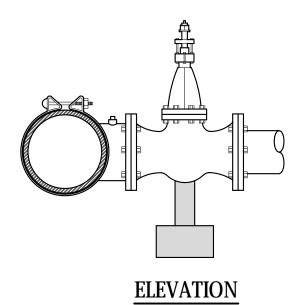
PLAN



### **ELEVATION**

INSTALLED ON ASBESTOS CEMENT PIPE, CAST IRON PIPE AND DUCTILE IRON PIPE.

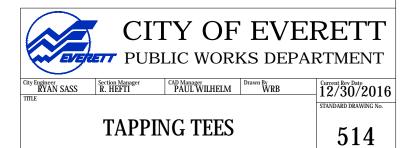
CAST IRON MECHANICAL JOINT TAPPING TEE PLAN

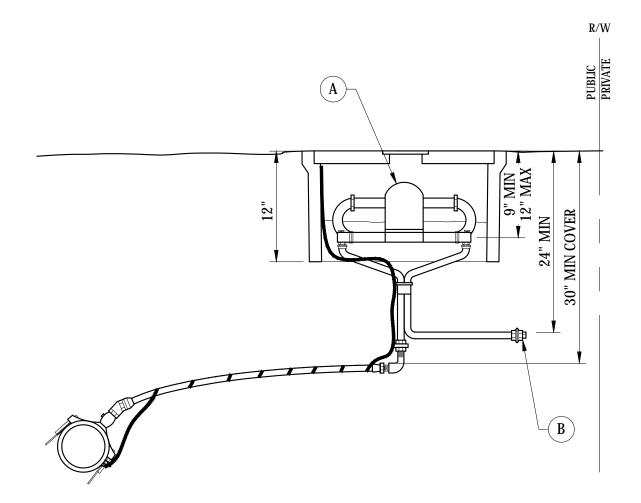


INSTALLED ON ASBESTOS CEMENT PIPE, CAST IRON PIPE AND DUCTILE IRON PIPE.

> STAINLESS STEEL TAPPING SLEEVE

- 1. STAINLESS STEEL TAPPING SLEEVES SHALL HAVE FULL CIRCLE SEAL.
- 2. ALL TEES AND VALVES TO BE WATER TESTED BEFORE TAP.
- 3. SIZE ON SIZE TAPS ALLOWED ONLY WITH MJ TAPPING TEES. ALL OTHER TAPS SHALL BE AT LEAST 2" SMALLER THAN THE EXISTING MAIN.
- 4. BRANCH LINE SHALL BE RESTRAINED AS IF A DEAD-END PER SECTION 5-13.

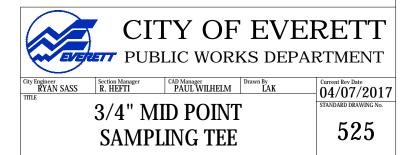




INSTALL PARTS AND FITTINGS PER STANDARD DRAWING 501 UNLESS OTHERWISE NOTED.

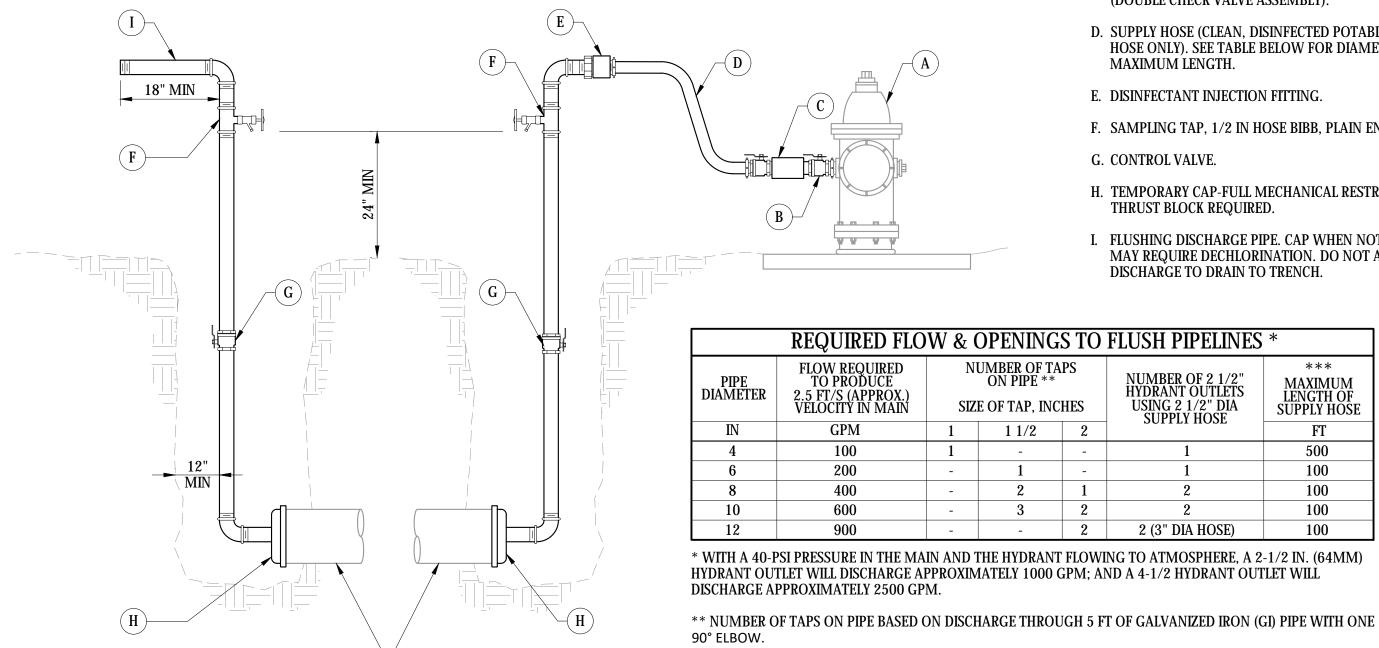
### PARTS

- A. METER/SAMPLING ASSEMBLY WILL BE INSTALLED BY CITY UTILITIES DEPARTMENT.
- B. PLUG METER SETTER ON SERVICE SIDE WITH 3/4" BRASS PLUG.



#### LINE DRAINING ASSEMBLY

#### LINE FILLING ASSEMBLY



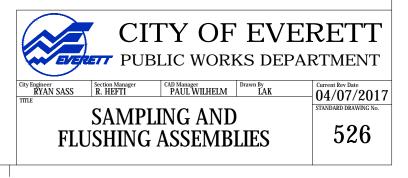
NEW WATER MAIN

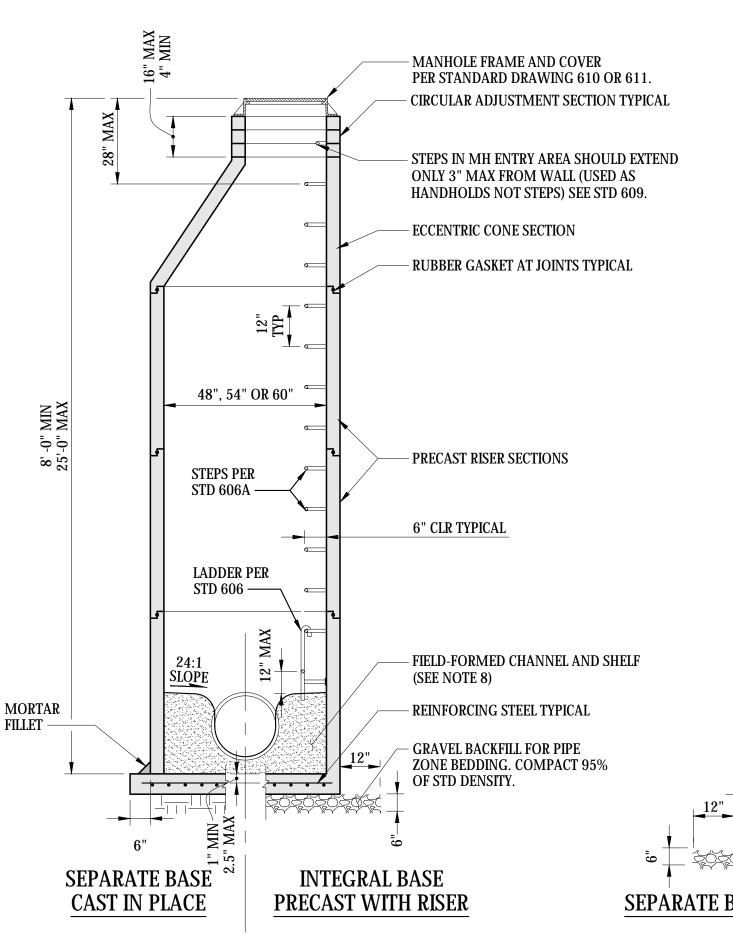
\*\*\* ALTERNATE HOSE DIAMETERS AND LENGTHS MAY BE USED IF CALCULATIONS SUPPORTING THEIR USE ARE PREVIOUSLY APPROVED BY THE CITY UTILITIES DEPARTMENT.

#### **PARTS**:

- A. HYDRANT ON EXISTING DISTRIBUTION MAIN.
- B. 2-1/2 IN CONTROL VALVE.
- C. WA STATE APPROVED BACK FLOW PREVENTER (DOUBLE CHECK VALVE ASSEMBLY).
- D. SUPPLY HOSE (CLEAN, DISINFECTED POTABLE WATER HOSE ONLY). SEE TABLE BELOW FOR DIAMETER AND MAXIMUM LENGTH.
- E. DISINFECTANT INJECTION FITTING.
- F. SAMPLING TAP, 1/2 IN HOSE BIBB, PLAIN END.
- G. CONTROL VALVE.
- H. TEMPORARY CAP-FULL MECHANICAL RESTRAINT OR THRUST BLOCK REQUIRED.
- I. FLUSHING DISCHARGE PIPE. CAP WHEN NOT IN USE. MAY REQUIRE DECHLORINATION. DO NOT ALLOW DISCHARGE TO DRAIN TO TRENCH.

S TO FLUSH PIPELINES *						
S ES	NUMBER OF 2 1/2" HYDRANT OUTLETS USING 2 1/2" DIA SUPPLY HOSE	*** MAXIMUM LENGTH OF SUPPLY HOSE				
2	SULLI HOSE	FT				
-	1	500				
-	1	100				
1	2	100				
2	2	100				
2	2 (3" DIA HOSE)	100				
	ES 2 - 1 2	SNUMBER OF 2 1/2" HYDRANT OUTLETS USING 2 1/2" DIA SUPPLY HOSE21-11222				

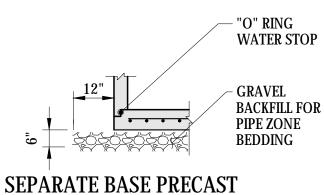




- 1.
- 2. PRECAST CONCRETE SHALL BE CLASS 4000.
- 3. HAVE A WALL THICKNESS OR 2" MINIMUM.
- 4.
- 5. WALL THICKNESS.
- 6. SUPPLIER.
- 7. ENGINEER.
- 8. ADVANCE BY CITY.

#### NOTE: KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM.

	MANHOLE DIMENSIONS TABLE							
DIA	DIA WALL THICKNESS BASE THICKNESS MAXIMUM THICKNESS BASE THICKNESS MAXIMUM KNOCK OUT SIZE MAXIMUM DISTANCE BWT KNOCKOUTS SEPARATE BASE INTEGRAL BASE							
48"	4"	6"	36"	8"	0.23	0.15		
54"	4.5"	8"	42"	8"	0.19	0.19		
60"	5"	8"	48"	8"	0.25	0.25		



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# MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M-199 (ASTM C 478) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN STANDARD SPECIFICATIONS.

ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE 7 SACK MIX SAND AND CEMENT GROUT. ALL

PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS FOR KNOCKOUTS. KNOCKOUTS SHALL

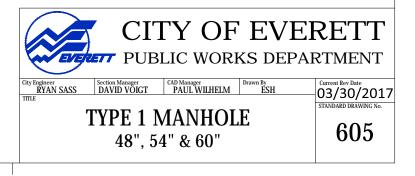
ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.

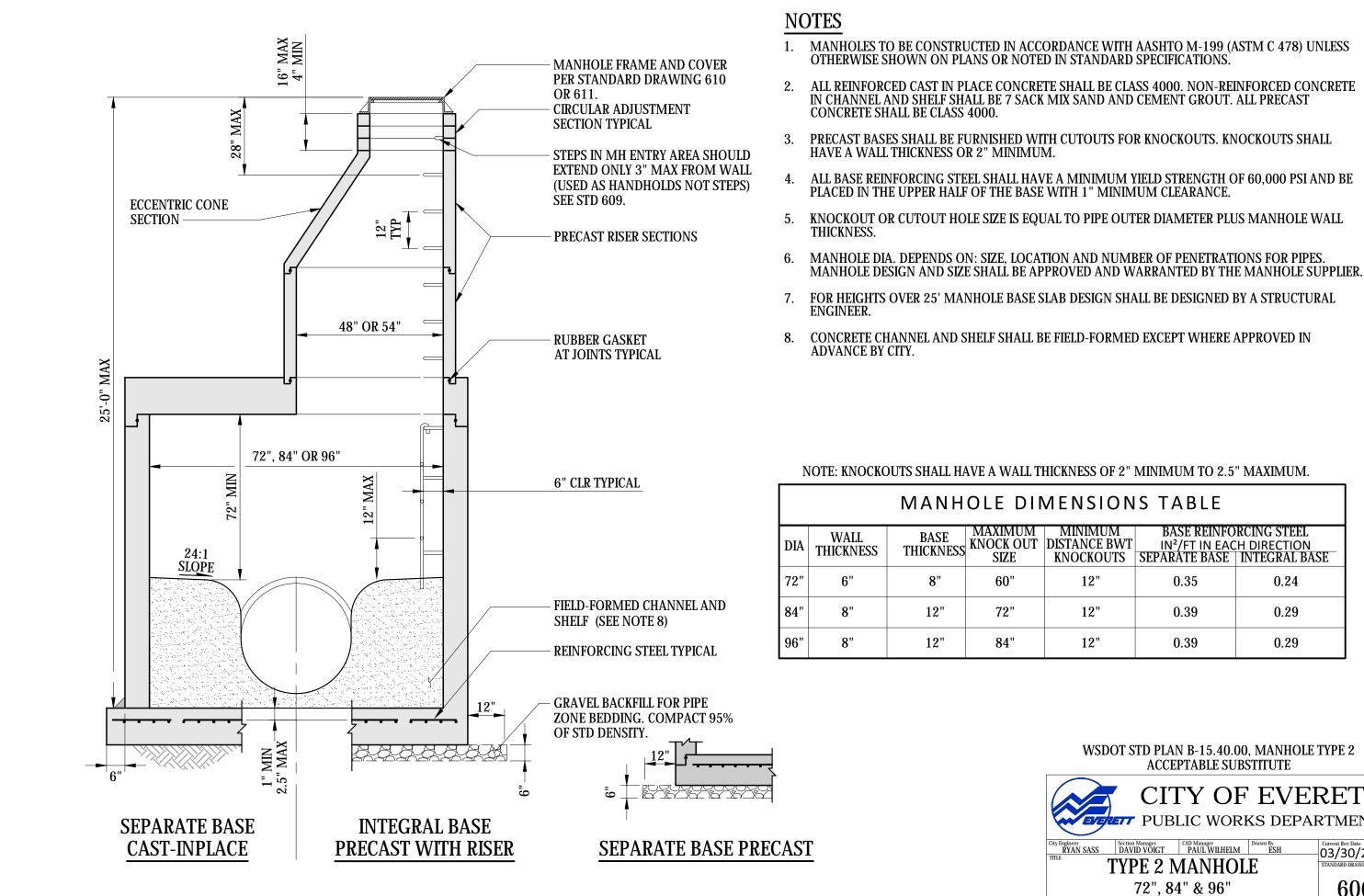
KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE

MANHOLE DIA. DEPENDS ON: SIZE, LOCATION AND NUMBER OF PENETRATIONS FOR PIPES. MANHOLE DESIGN AND SIZE SHALL BE APPROVED AND WARRANTED BY THE MANHOLE

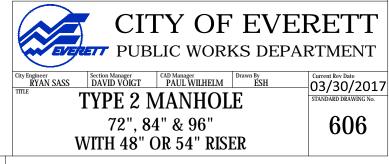
FOR HEIGHTS OVER 25' MANHOLE BASE SLAB SHALL BE DESIGNED BY A STRUCTURAL

CONCRETE CHANNEL AND SHELF SHALL BE FIELD-FORMED EXCEPT WHERE APPROVED IN





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WSDOT STD PLAN B-15.40.00, MANHOLE TYPE 2 ACCEPTABLE SUBSTITUTE

IN<sup>2</sup>/FT IN EACH DIRECTION KNOCKOUTS SEPARATE BASE INTEGRAL BASE 12" 0.35 0.24 12" 0.39 0.29 12" 0.39 0.29

**BASE REINFORCING STEEL** 

### MANHOLE DIMENSIONS TABLE

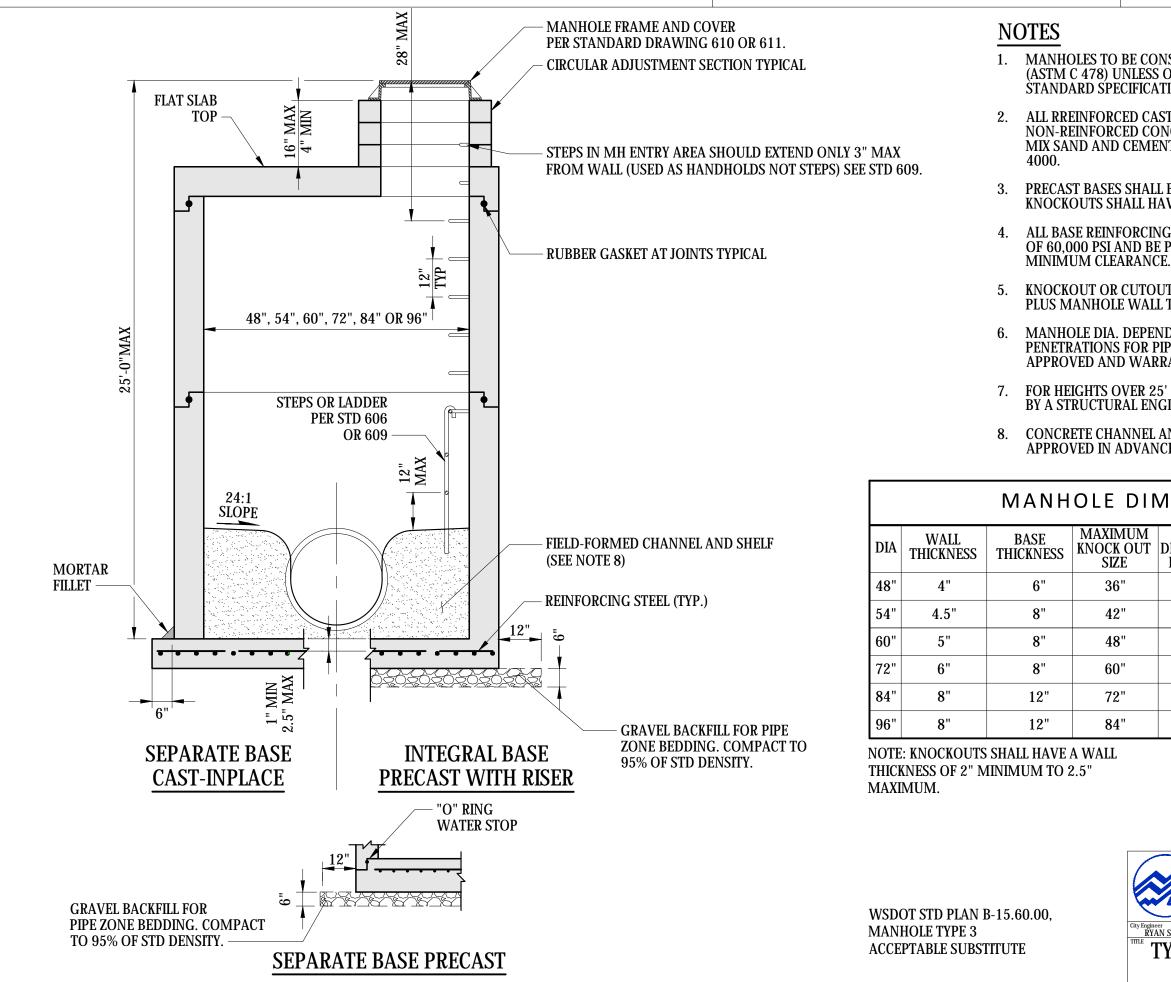
CONCRETE CHANNEL AND SHELF SHALL BE FIELD-FORMED EXCEPT WHERE APPROVED IN

ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.

KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE WALL

ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE 7 SACK MIX SAND AND CEMENT GROUT. ALL PRECAST

MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M-199 (ASTM C 478) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN STANDARD SPECIFICATIONS.



MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M-199 (ASTM C 478) UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN **ŠTANDARD SPECIFICATIONS.** 

ALL RREINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE 7 SACK MIX SAND AND CEMENT GROUT. ALL PRECAST CONCRETE SHALL BE CLASS

PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS FOR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OR 2" MINIMUM.

ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH 1"

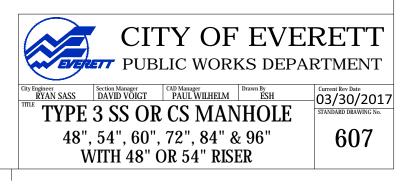
KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE WALL THICKNESS.

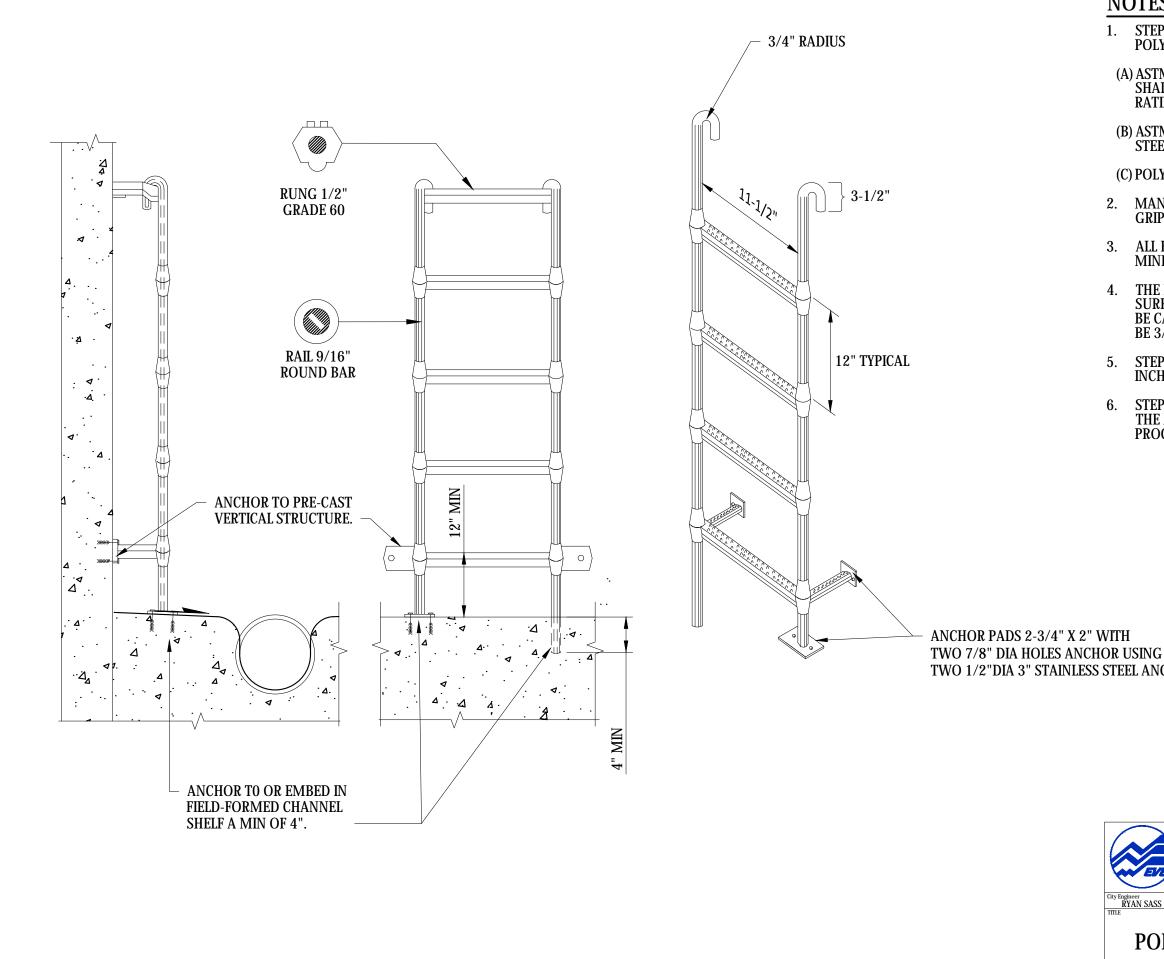
MANHOLE DIA. DEPENDS ON: SIZE, LOCATION AND NUMBER OF PENETRATIONS FOR PIPES. MANHOLE DESIGN AND SIZE SHALL BE APPROVED AND WARRANTED BY THE MANHOLE SUPPLIER.

FOR HEIGHTS OVER 25' MANHOLE BASE SLAB DESIGN SHALL BE DESIGNED BY A STRUCTURAL ENGINEER.

CONCRETE CHANNEL AND SHELF SHALL BE FIELD-FORMED EXCEPT WHERE APPROVED IN ADVANCE BY CITY.

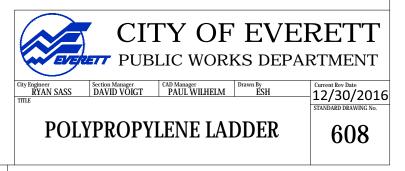
E DIMENSIONS TABLE								
XIMUM								
OCK OUT	DISTANCE BWT	IN <sup>2</sup> /FT IN EAC	CH DIRECTION					
SIZE	KNOCKOUTS	SEPARATE BASE	INTEGRAL BASE					
36"	8"	0.23	0.15					
42"	8"	0.19	0.19					
48"	8"	0.25	0.25					
60"	12"	0.35	0.24					
72"	12"	0.39	0.29					
84"	12"	0.39	0.29					

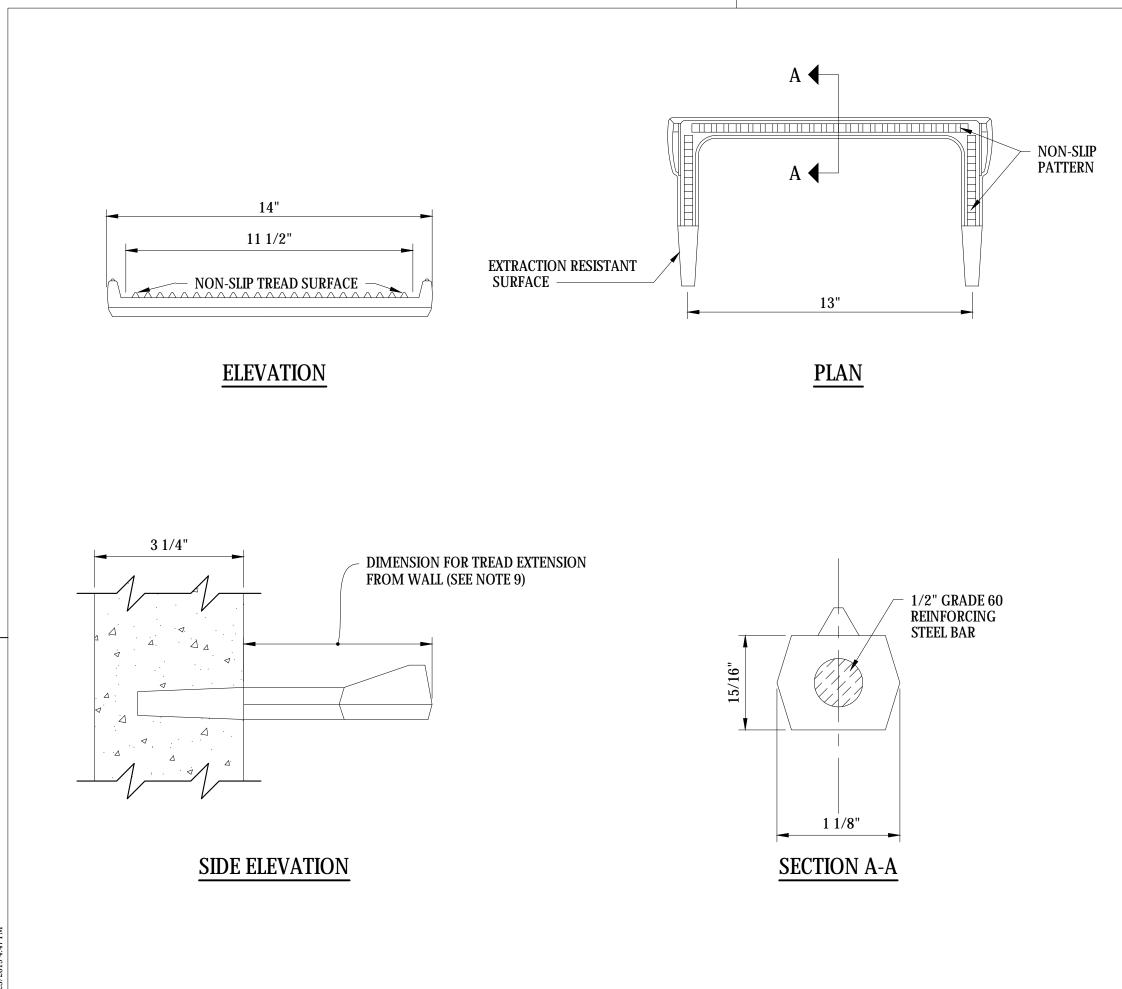




- STEPS SHALL BE STEEL REINFORCED COPOLYMER 1. POLYPROPYLENE PLASTIC CONFORMING TO:
- (A) ASTM C 478 AND AASHTO M-199, ANCHOR-BOLTS SHALL HAVE A MINIMUM HORIZONTAL PULLOUT RATING OF 1500 LBS.
- (B) ASTM A615 GRADE 60 (DEFORMED REINFORCING STEEL BAR).
- (C) POLYPROPYLENE CONFORMS TO D-4101.
- MANHOLE STEPS SHALL HAVE MOLDED SAFETY HAND GRIP. RED REFLECTORS ARE PREFERRED. 2.
- ALL FABRICATION DIMENSIONS INDICATED ARE 3. MINIMUM.
- THE ENTIRE POLYPROPYLENE PLASTIC MATERIAL SURROUNDING THE REINFORCING STEEL BAR SHALL 4. BE CAST MONOLITHICALLY. MINIMUM COVER SHALL BE 3/16-INCH.
- STEP RUNGS SHALL BE SPACED AT A MAXIMUM OF 14 5. INCHES.
- STEPS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED MANUFACTURERS RECOMMENDED 6. PROCEDURE.

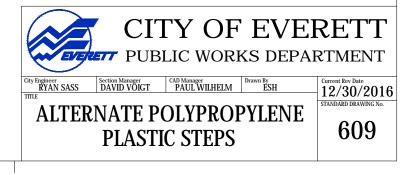
TWO 1/2"DIA 3" STAINLESS STEEL ANCHOR BOLTS

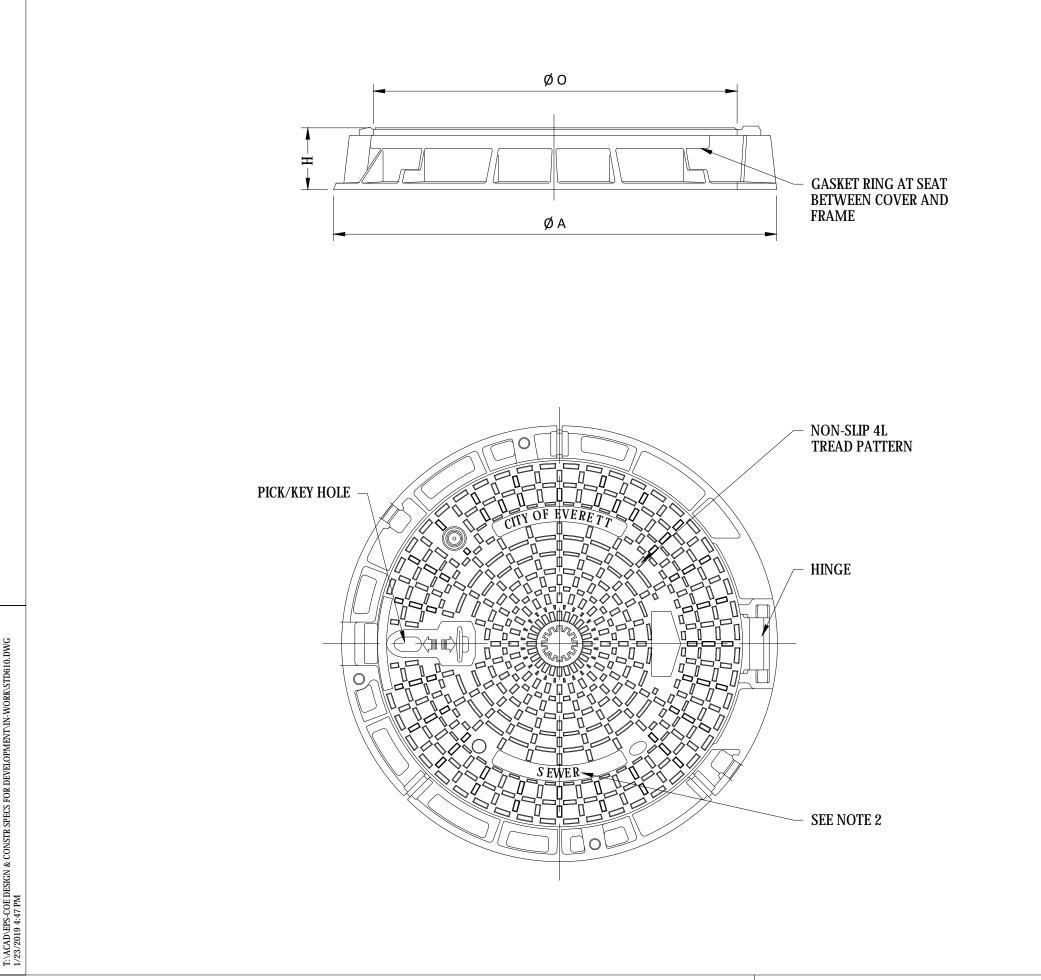




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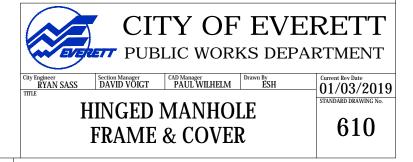
- 1. STEPS SHALL BE STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC CONFORMING TO:
  - A. ASTM D 478 AND AASHTO M-199, MINIMUM HORIZONTAL PULLOUT RATING SHALL BE 1500 LBS.
  - B. ASTM A 615 GRADE 60 (DEFORMED REINFORCING STEEL BAR).
- 2. ONLY STEPS APPROVED BY THE ENGINEER SHALL BE USED.
- 3. ALL FABRICATION DIMENSIONS INDICATED ARE MINIMUM.
- 4. THE MINIMUM TOTAL CROSS-SECTIONAL AREA OF THE EXPOSED PORTION OF THE STEP, INCLUDING THE 1/2-INCH DEFORMED REINFORCING STEEL BAR, AND EXCLUDING THE NON-SLIP TREAD SURFACE, SHALL BE ONE SQUARE INCH
- 5. THE ENTIRE POLYPROPYLENE PLASTIC MATERIAL SURROUNDING THE REINFORCING STEEL BAR SHALL BE CAST MONOLITHICALLY. MINIMUM COVER SHALL BE 3/16-INCH.
- THE FOLLOWING DIMENSIONS SHALL APPLY UNLESS OTHERWISE NOTED ON THE DRAWINGS OR STANDARD PLANS FOR SPECIFIC STRUCTURES: D=6" ±1/4", E=3 1/4" ±1/4"
- 7. STEP RUNGS SHALL BE SPACED AT A MAXIMUM OF 14-INCHES.
- 8. STEPS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED MANUFACTURERS RECOMMENDED PROCEDURE.
- 9. STEPS IN THE CONE AND RISER SECTIONS WILL HAVE 6" EXTENSION FROM WALL. STEPS INSTALLED ABOVE CONE OR TOP SLAB SHALL BE A MAX OF 3" EXTENSION FROM WALL AND USED AS HANDHOLD. ALSO SEE 605A, 605B OR 605C.

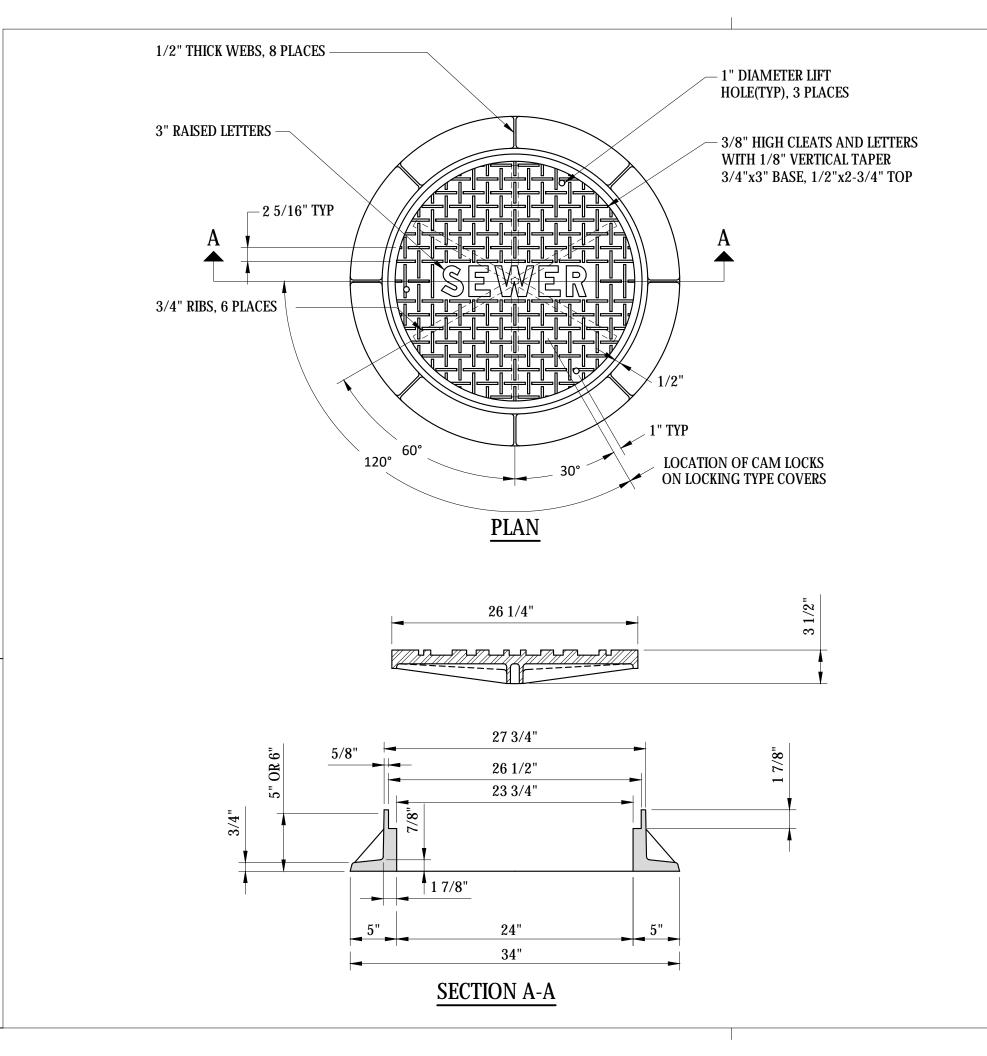




- MANHOLE COVER AND FRAME SHALL BE AS 1. MANUFACTURED BY PAMREX, EAST JORDAN IRON WORKS (EJIW) OR APPROVED EQUAL. COVER SHALL BE MANUFACTURED FROM DUCTILE IRON, ASTM A536.
- 2. COVER SHALL BE STAMPED "SEWER", OR "DRAIN" **DEPENDING ON APPLICATION.**
- COVERS SHALL BE HINGED AND INCORPORATE A 90 3. DEGREE SAFETY CATCH BLOCKING SYSTEM TO PREVENT ACCIDENTAL CLOSURE AND REMOVABLE AT 120° OPEN. FRAME AND COVER SHALL EXCEED AASHTO H20, M306 OR M105 LOADINGS ..
- FRAMES SHALL BE CIRCULAR, INCORPORATE A 4. SEATING RING AND A FITTED PLUG IN EACH HINGE HOUSING, AND BE AVAILABLE IN A 24 INCH MINIMUM CLEAR OPENING. THE STANDARD FRAME DEPTH SHALL NOT EXCEED 5 INCHES, AND THE FLANGE SHALL INCORPORATE BEDDING SLOTS, BOLT HOLES, AND LIFTING EYES.
- SHALL BE USED FOR ALL NEW SEWER MANHOLES 5. AND WHERE EXISTING STANDARD MANHOLE FRAME AND COVER ARE TO BE REPLACED.

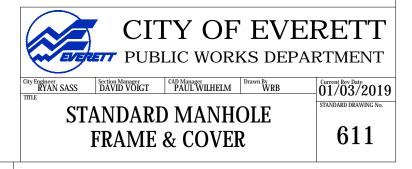
DIMENSIONS (INCHES)				
Α	0	Н	REFERENCE	MANUFACTURE
33-1/2	24	4	CDPA60EH	PAMREX
34	24	4	00104042L01	EJIW

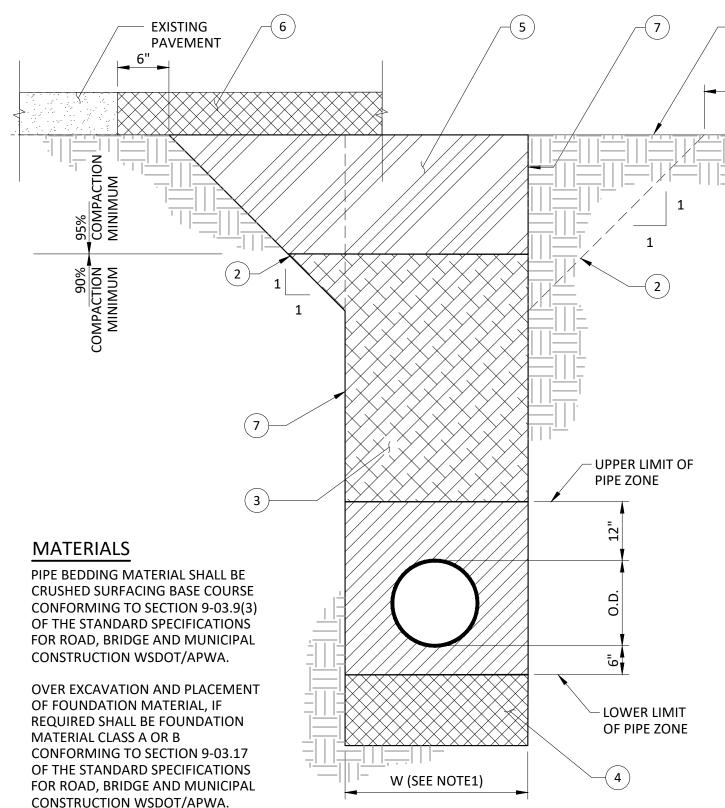




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- 1. MANHOLE FRAMES SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF AASHTO M 105, GRADE 30B.
- 2. MANHOLE COVER TO BE DUCTILE IRON CONFORMING TO ASTM A536, GR 80-55-06
- 3. LOCKING COVER TO BE USED AT OFF-STREET LOCATIONS AND OTHER LOCATIONS AS DIRECTED. THE COVER SHALL BE LOCKED DOWN WITH 3-5/8" S.S SOCKET HEAD CAP SCREWS.
- 4. FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS FOR DELIVERY.
- 5. SHALL BE USED ONLY WHERE DIRECTED BY THE CITY OR APPROVED IN ADVANCE.
- 6. COVER SHALL BE STAMPED "SEWER" OR "DRAIN" DEPENDING ON APPLICATION.





COMPACTION

(8)

18"MIN

PROVIDE UNIFORM SUPPORT UNDER PIPE BARREL.

HAND TAMP UNDER PIPE HAUNCHES FOR ALL BEDDING MATERIALS.

ALL BACKFILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 12 INCHES BEFORE COMPACTION UNLESS AUTHORIZED BY THE ENGINEER DUE TO THE CHARACTER OF THE MATERIAL AND THE COMPACTING EQUIPMENT.

COMPACT BEDDING MATERIAL TO 90% MAXIMUM DENSITY EXCEPT DIRECTLY OVER PIPE, HAND TAMP ONLY. MECHANICAL COMPACTION OF BACK FILL MATERIAL SHALL NOT BEGIN UNTIL THE DEPTH OF COMPACTED BACKFILL MATERIAL IS 2 FEET ABOVE THE TOP OF PIPE.

EACH LIFT SHALL BE MECHANICALLY COMPACTED TO THE REQUIRED DENSITY PRIOR TO PLACING SUBSEQUENT LIFTS OF BACKFILL MATERIAL.

COMPACTION TESTS SHALL BE AS REQUIRED BY THE CITY ENGINEER, BUT IN NO CASE LESS THAN 2 TESTS EVERY 200 FEET OF TRENCH (ONE AT SUBGRADE AND ONE AT 50% OF TRENCH DEPTH).

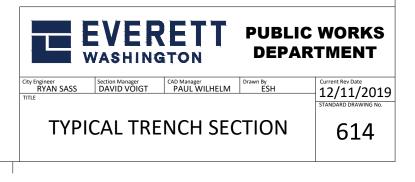
IN PLACE DENSITY AND MOISTURE CONTENT WILL BE DETERMINED USING NUCLEAR METHOD, ASTM 2922-71.

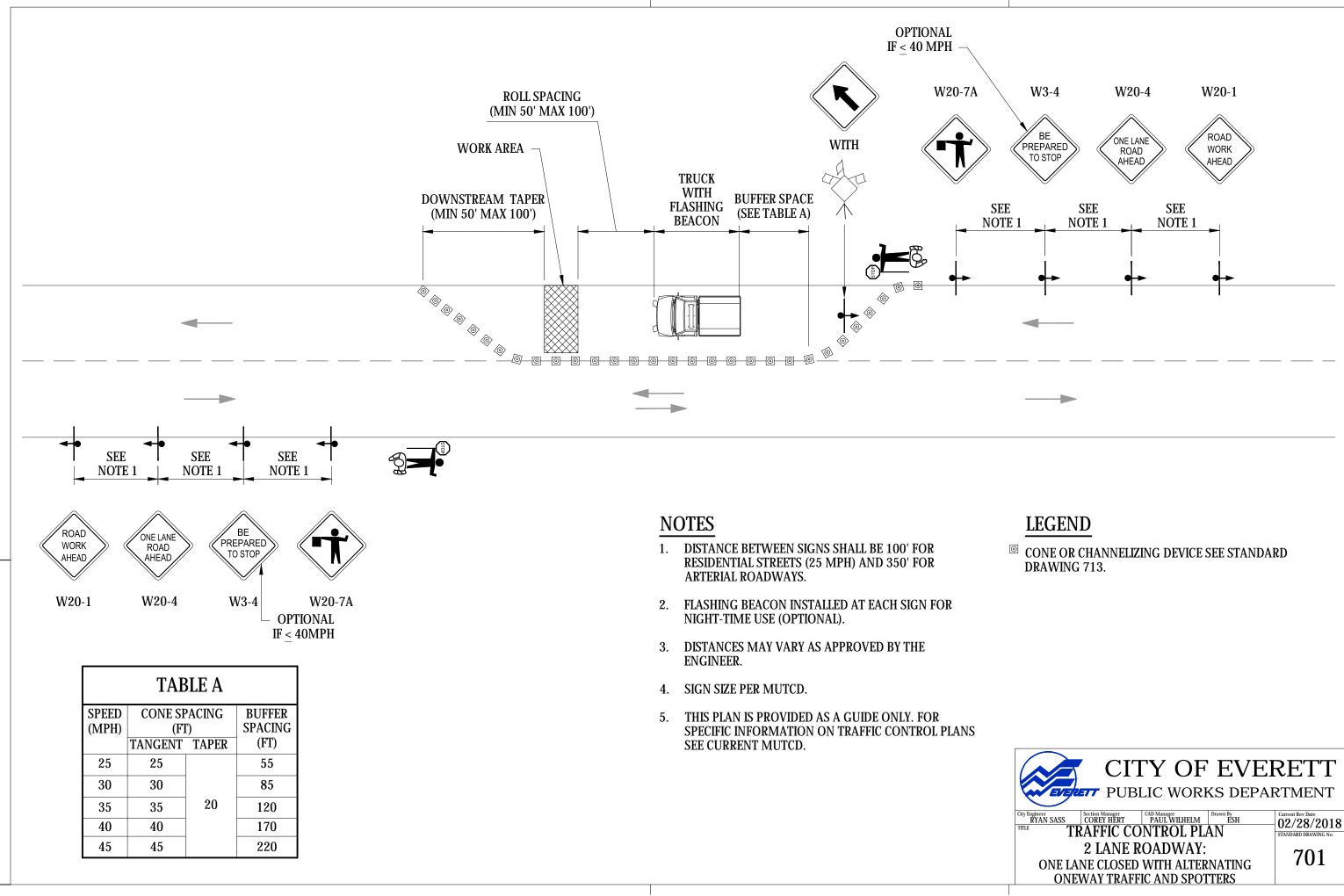
LABORATORY MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT WILL BE DETERMINED USING THE MODIFIED PROCTOR METHOD IN ACCORDANCE WITH ASTM D-1557.

#### NOTES

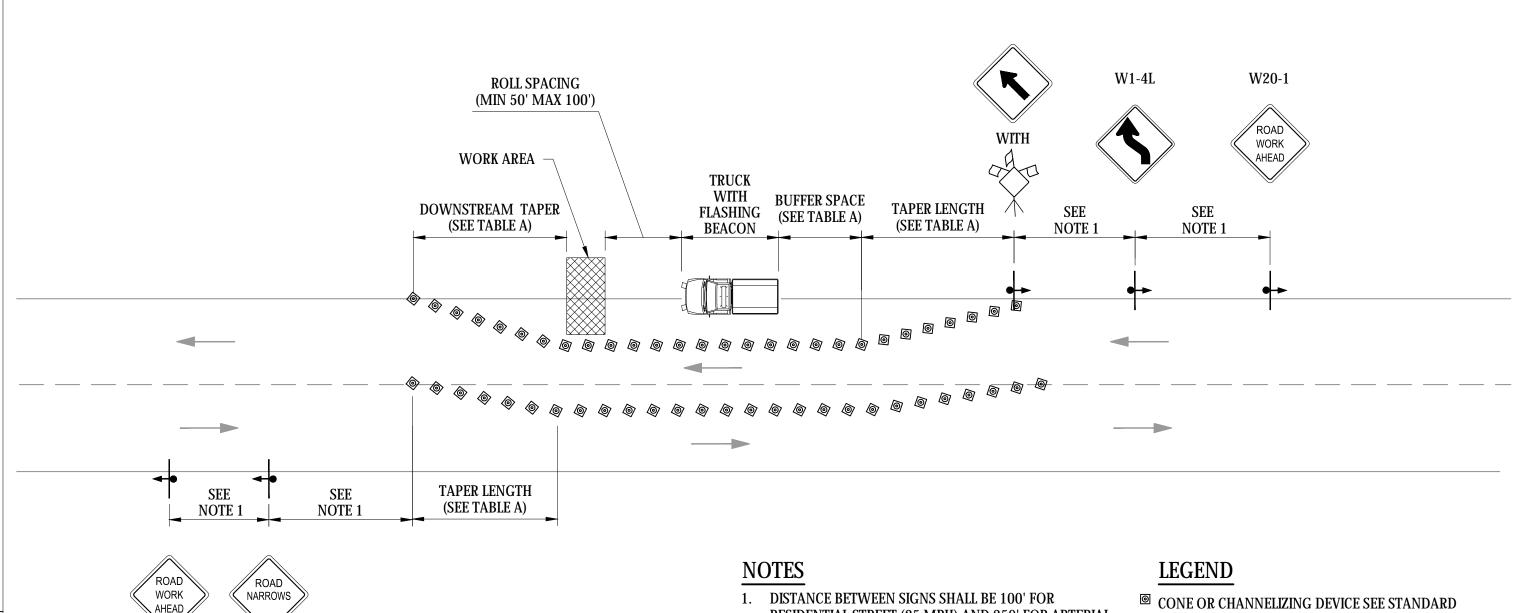
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- 1. W = MAXIMUM WIDTH OF TRENCH. FOR PIPES 15" OR LESS IN DIA W=40". FOR PIPES 18" OR GREATER W=1.5 X I.D. + 18". PIPE MUST BE CENTERED IN TRENCH.
- 2. ALTERNATE SLOPING TRENCH WALL TO MEET O.S.H.A. REQUIREMENTS (NO SLOPES STEEPER THAN 1:1 EXCEPT FOR ROCK).
- SUITABLE NATIVE MATERIAL OR IMPORTED GRAVEL BORROW AS DIRECTED. COMPACT TO 90% MAXIMUM DENSITY.
- 4. FOUNDATION GRAVEL IF REQUIRED BY THE ENGINEER TO REPLACE UNSUITABLE MATERIAL. SHALL BE FOUNDATION MATERIAL CLASS A, B OR AS APPROVED BY THE ENGINEER.
- 5. IF DIRECTED BY THE ENGINEER THE TOP THREE TO FIVE FEET OF BACKFILL SHALL BE IMPORTED GRAVEL BORROW OR SUITABLE NATIVE MATERIAL COMPACTED TO 95% MAXIMUM DENSITY.
- 6. SEE CITY OF EVERETT STANDARD DWG 326 FOR PAVEMENT PATCH DETAILS.
- 7. VERTICAL TRENCH WALLS WITH SHORING TO CONFORM TO O.S.H.A. REGULATIONS.
- 8. SUBGRADE OR GROUND SURFACE IN NON-PAVED AREAS.
- 9. EXCAVATED NATIVE MATERIAL OR STOCKPILED BACKFILL MATERIAL.
- 10. FOR ALL TRENCHING TRANSVERSE TO THE ROADWAY BACKFILL ABOVE THE PIPE ZONE SHALL BE CONTROLLED DENSITY FILL. SEE SECTION 3-9.6 & 3-20.1 OF THESE STANDARDS.
- 11. FOR UTILITY CUTS SUCH AS GAS, TELEPHONE, POWER, AND CABLE TV LONGITUDINAL TO THE ROADWAY, BACKFILL SHALL BE CONTROLLED DENSITY FILL. SEE SECTION 3-9.5 OF THESE STANDARDS.





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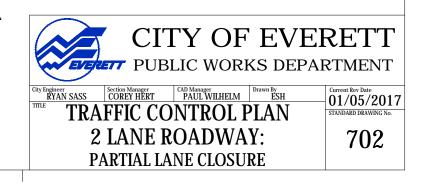
W20-1 W5-1

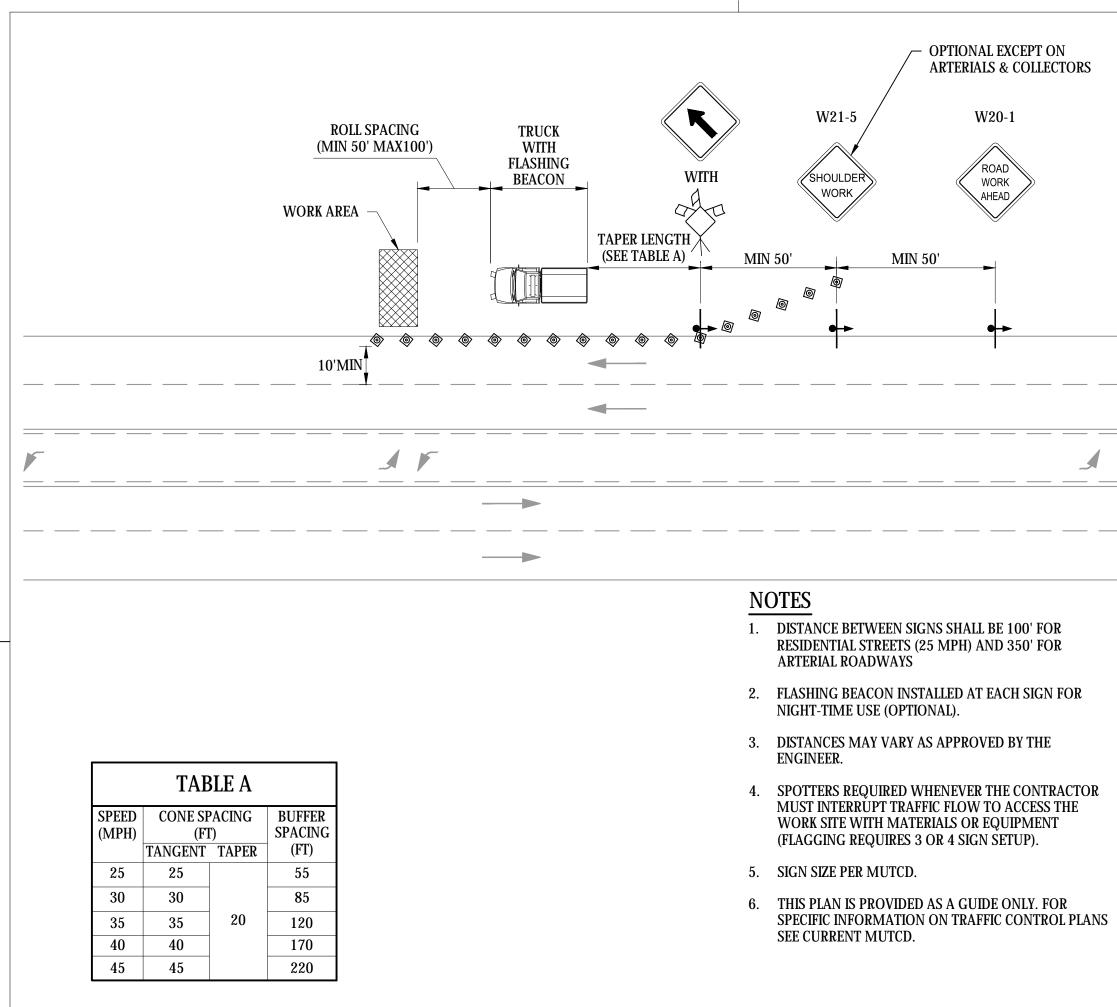
BEADER T: ACAD REPS-COE DESIGN & CONSTR SPECS FOR DEVELOPMENT/IN-WORK/STD702. DWG

TABLE A						
SPEED (MPH)	TAPER LENGTHCONE SPACINGFOR SHIFT WIDTH(FT)				BUFFER SPACING	
	5'	6'	TANGENT	TAPER	(FT)	
25	26'	31'	25		55	
30	38'	45'	30	20	85	
35	51'	61'	35		120	
40	67'	80'	40		170	
45	113'	135'	45		220	

- **DISTANCE BETWEEN SIGNS SHALL BE 100' FOR RESIDENTIAL STREET (25 MPH) AND 350' FOR ARTERIAL** ROADWAYS.
- 2. FLASHING BEACON INSTALLED AT EACH SIGN FOR NIGHT-TIME USE (OPTIONAL).
- 3. DISTANCES MAY VARY AS APPROVED BY THE ENGINEER.
- 4. SPOTTERS REQUIRED TO CONTROL TRAFFIC WHENEVER THE CONTRACTOR MUST INTERRUPT TRAFFIC FLOW TO ACCESS THE WORK SITE WITH MATERIALS OR EQUIPMENT (FLAGGING REQUIRES 3 OR 4 SIGN SETUP).
- 5. FOR ALTERNATE LANE SHIFT WIDTH REFER TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) TABLE 6C-2 PAGE 6C-10.
- 6. SIGN SIZE PER MUTCD.
- 7. THIS PLAN IS PROVIDED AS A GUIDE ONLY. FOR SPECIFIC INFORMATION ON THE TRAFFIC CONTROL PLANS SEE CURRENT MUTCD.

◎ CONE OR CHANNELIZING DEVICE SEE STANDARD DRAWING 713.

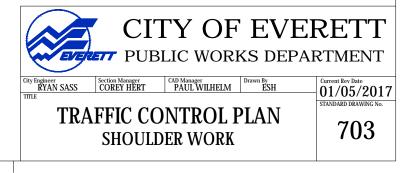




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### LEGEND

CONE OR CHANNELIZING DEVICE SEE STANDARD DRAWING 713.



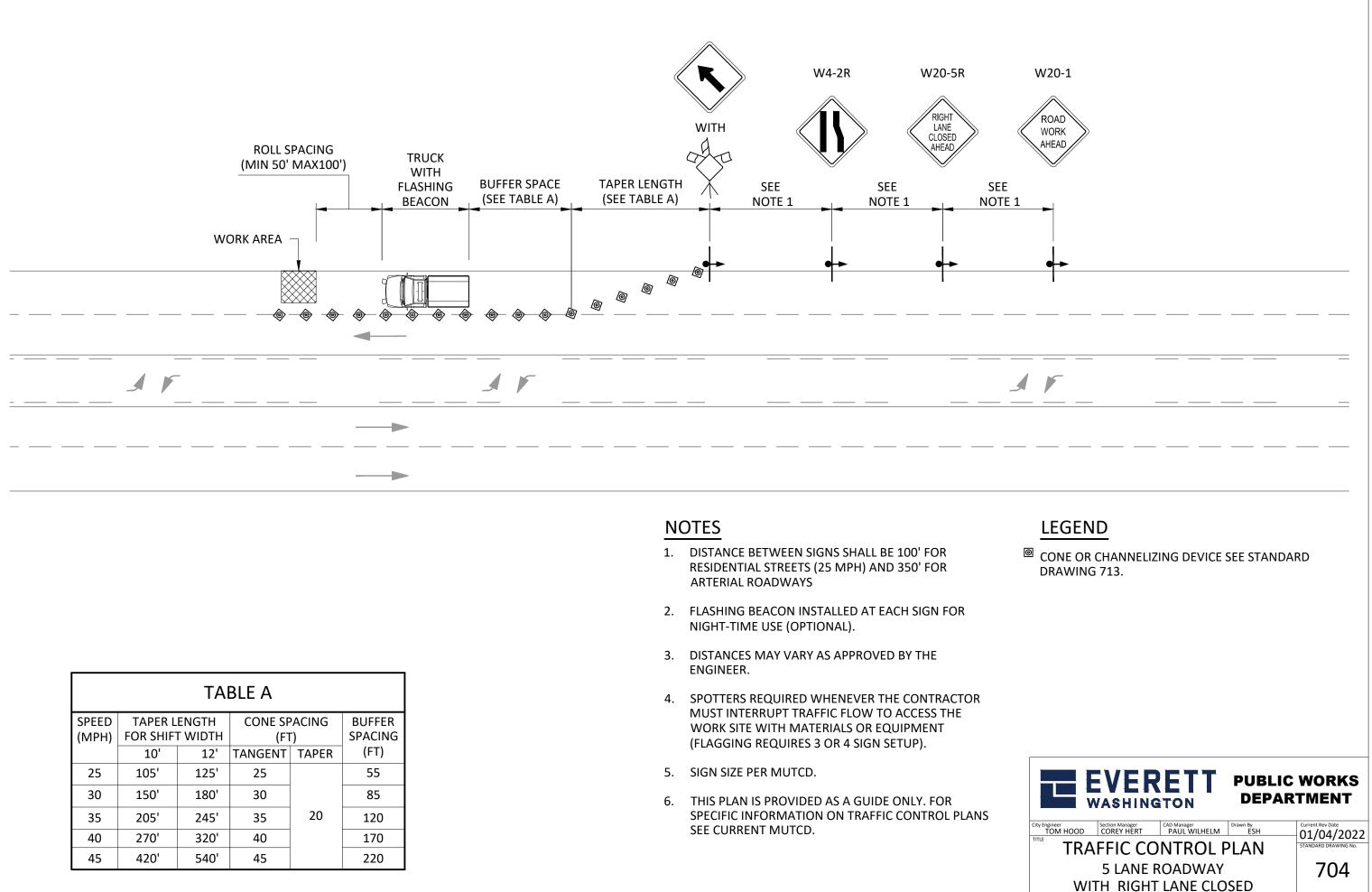
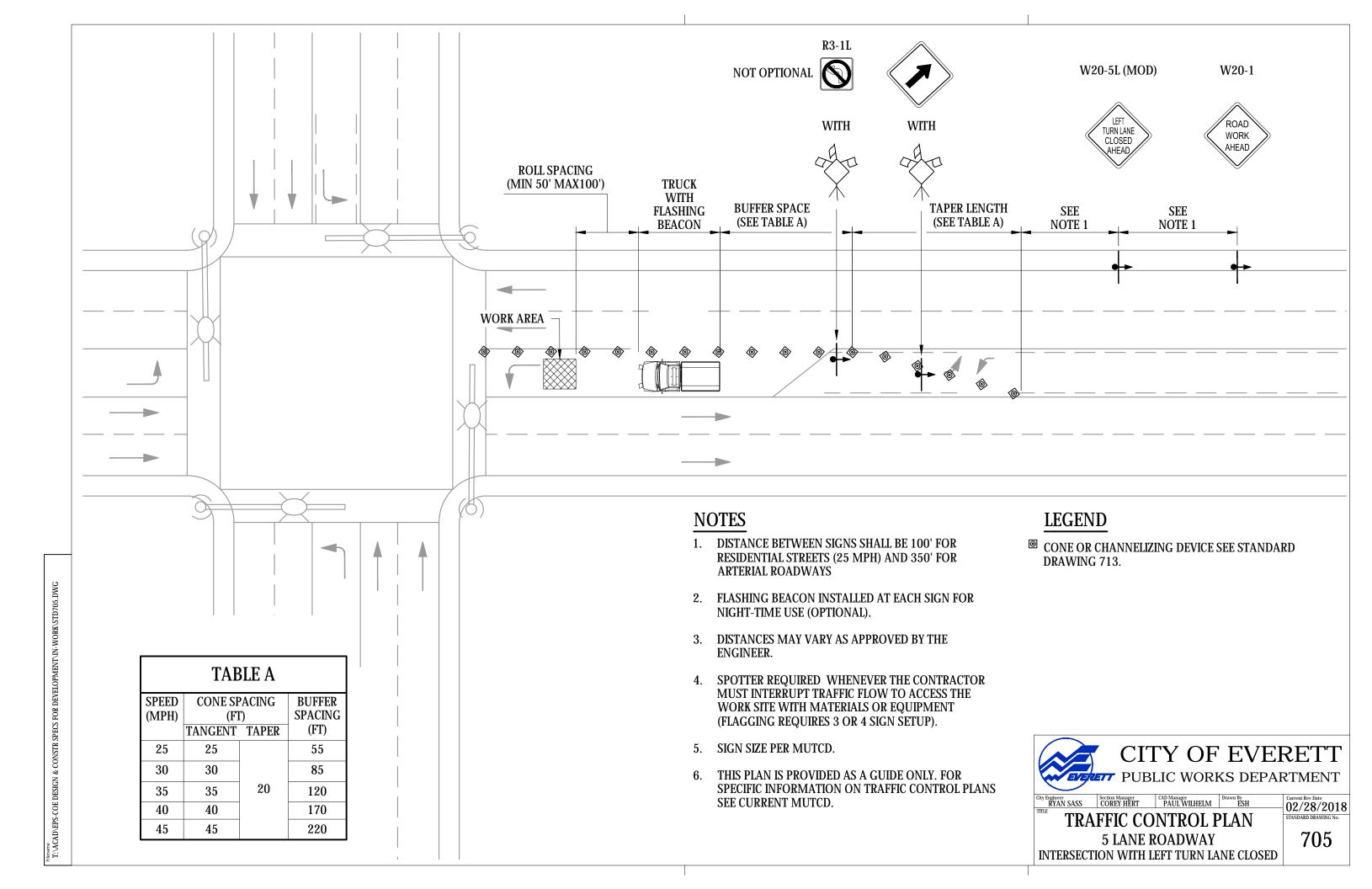
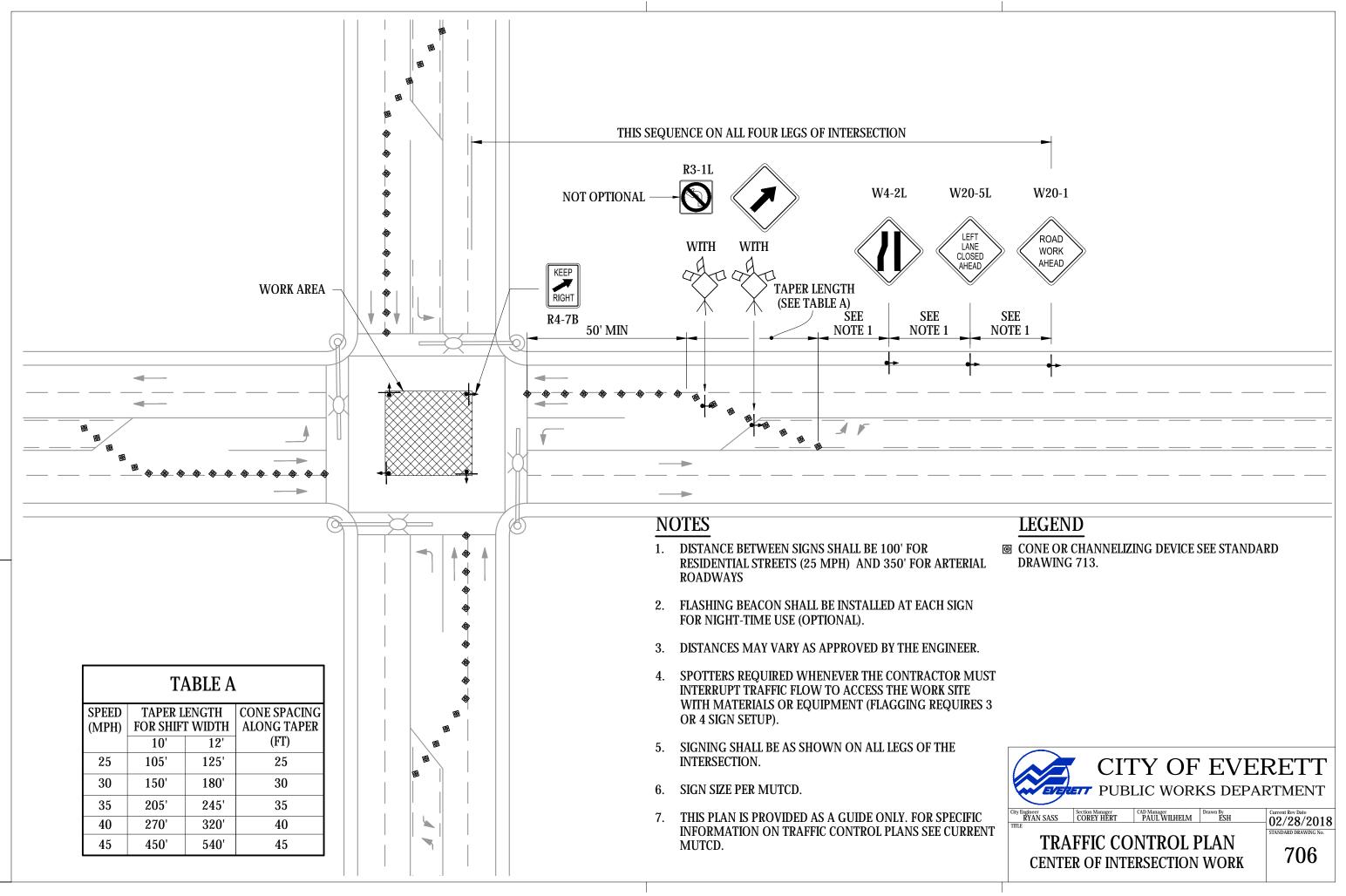
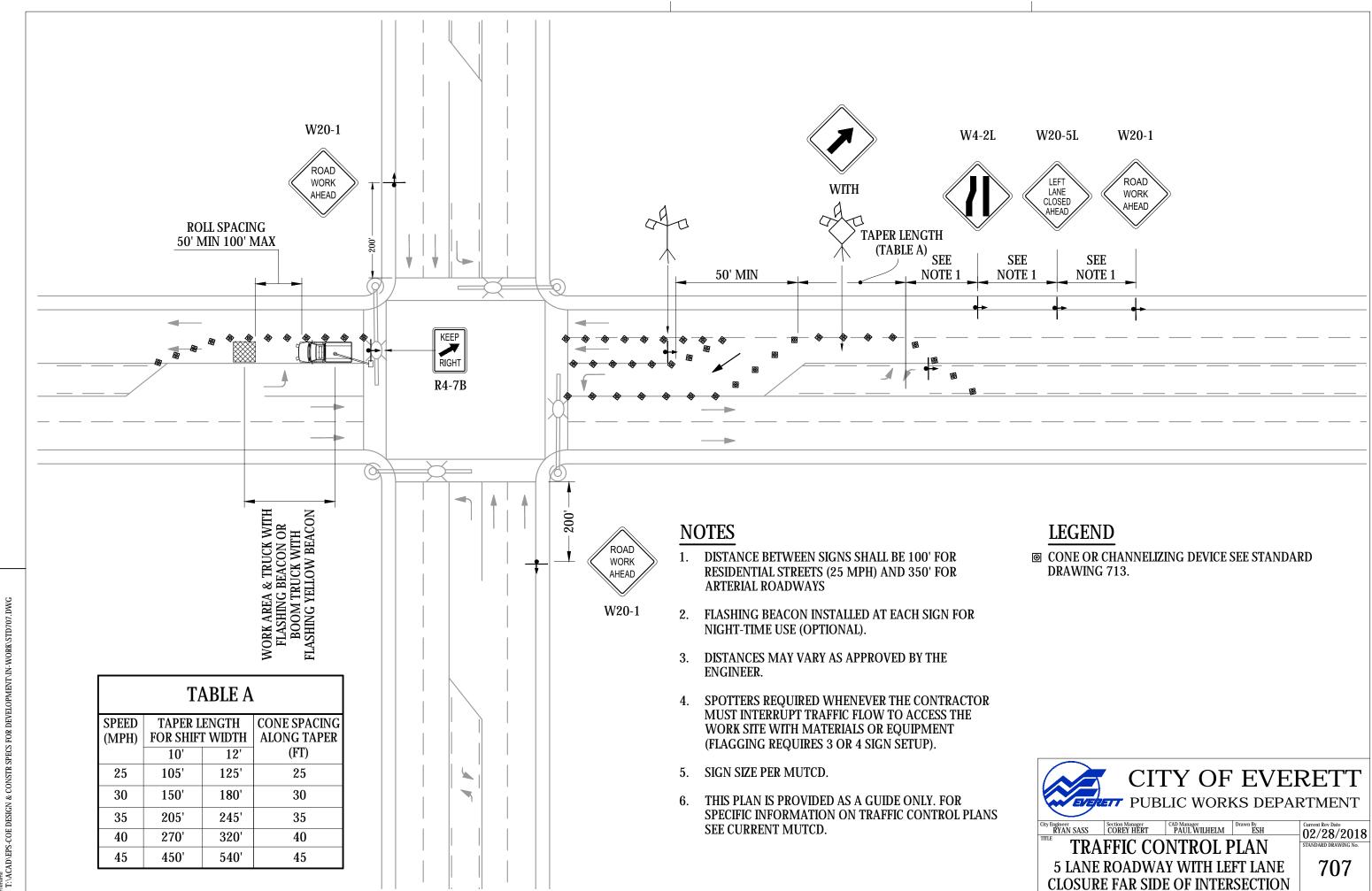


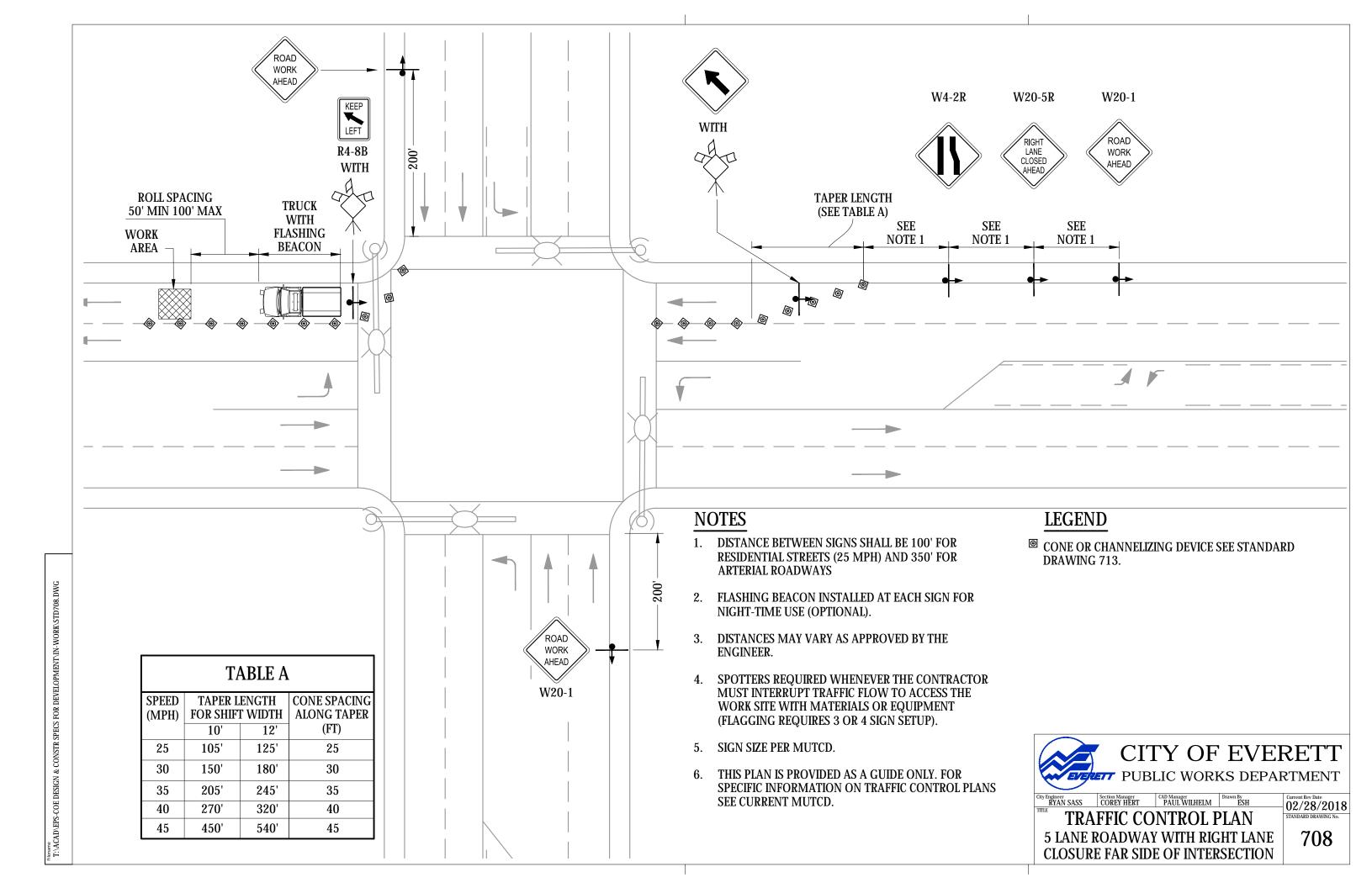
	TABLE A						
SPEED (MPH)	TAPER L FOR SHIFT		CONE SPACING (FT)		BUFFER SPACING		
	10'	12'	TANGENT	TAPER	(FT)		
25	105'	125'	25		55		
30	150'	180'	30	20	85		
35	205'	245'	35		120		
40	270'	320'	40		170		
45	420'	540'	45		220		

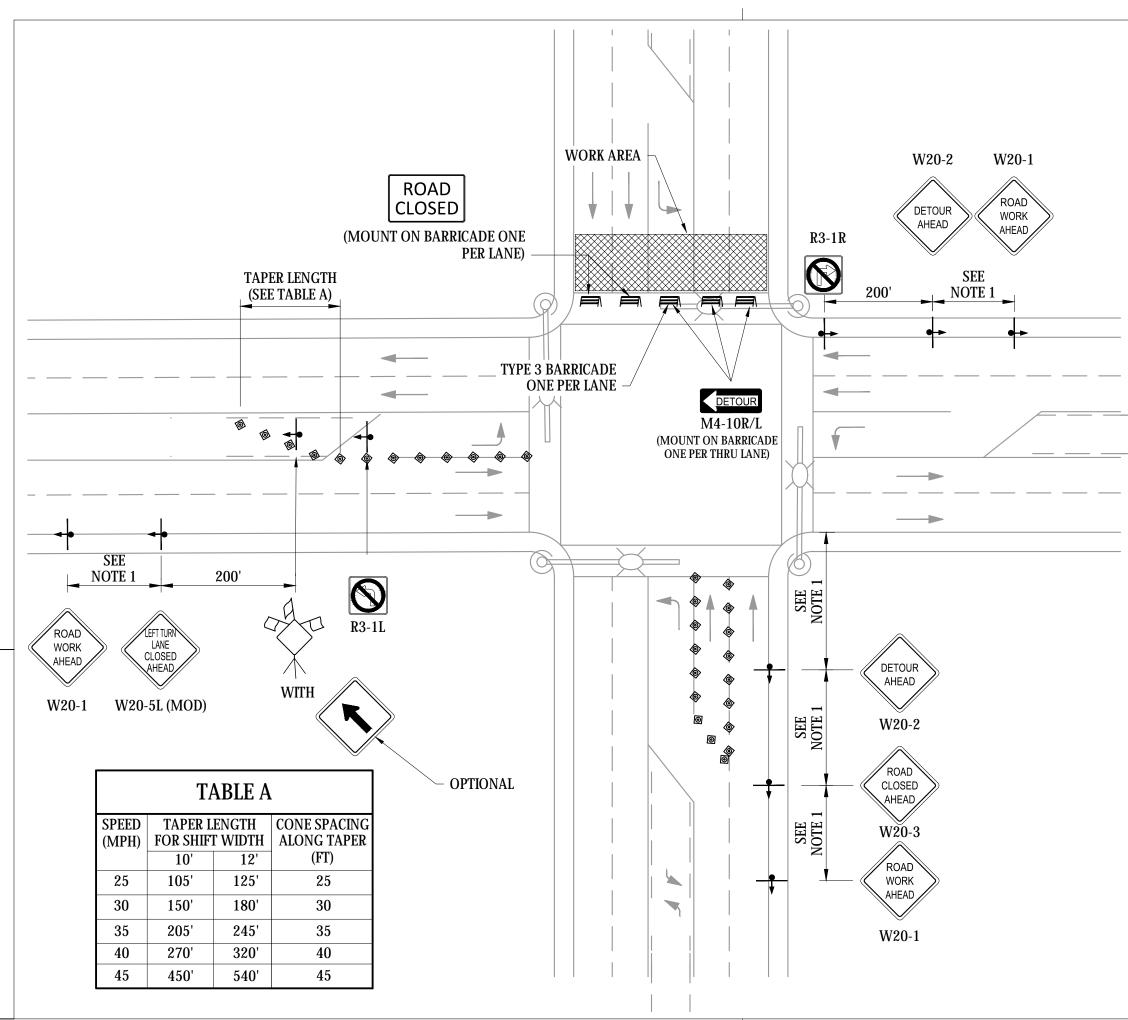




BEADER COE DESIGN & CONSTR SPECS FOR DEVELOPMENT/IN-WORK/STD706.DWG







INACAD LEPS-COE DESIGN & CONSTR SPECS FOR DEVELOPMENT/UN-WORK/STD709.DWG

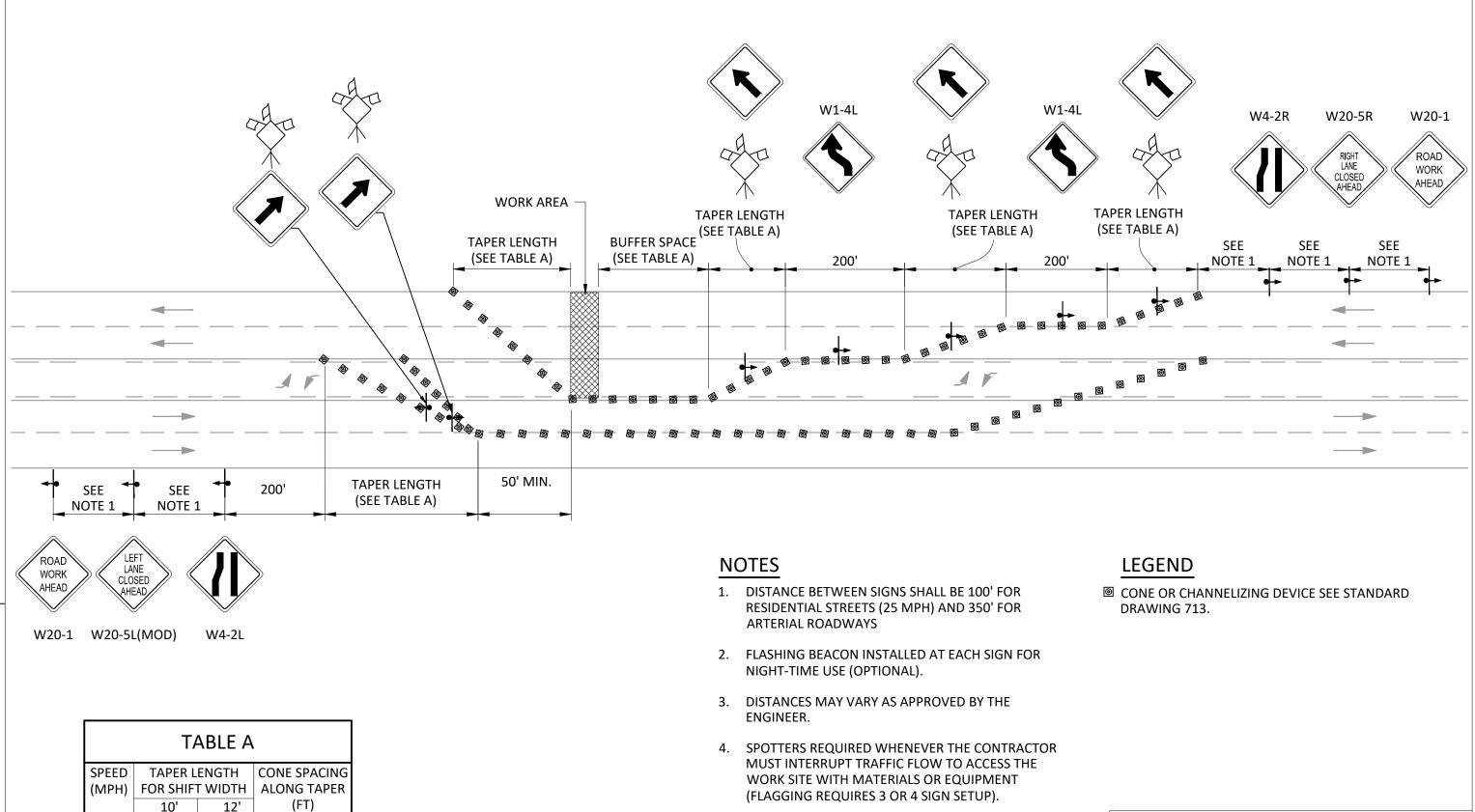
# NOTES

- **DISTANCE BETWEEN SIGNS SHALL BE 100' FOR** 1. **RESIDENTIAL STREETS (25 MPH) AND 350' FOR ARTERIAL ROADWAYS**
- 2. FLASHING BEACON INSTALLED AT EACH SIGN FOR NIGHT-TIME USE (OPTIONAL).
- 3. DISTANCES MAY VARY AS APPROVED BY THE ENGINEER.
- SPOTTERS REQUIRED WHENEVER THE CONTRACTOR 4. MUST INTERRUPT TRAFFIC FLOW TO ACCESS THE WORK SITE WITH MATERIALS OR EQUIPMENT (FLAGGING REQUIRES 3 OR 4 SIGN SETUP).
- SIGN SIZE PER MUTCD. 5.
- THIS PLAN IS PROVIDED AS A GUIDE ONLY. FOR 6. SPECIFIC INFORMATION ON TRAFFIC CONTROL PLANS SEE CURRENT MUTCD.

LEGEND

CONE OR CHANNELIZING DEVICE SEE STANDARD DRAWING 713.





- 5. SIGN SIZE PER MUTCD.
- 6. THIS PLAN IS PROVIDED AS A GUIDE ONLY. FOR SPECIFIC INFORMATION ON TRAFFIC CONTROL PLANS SEE CURRENT MUTCD.

DESIGN & CONSTR SPECS FOR DEVELOPMENT\IN-WORK\STD710.DWG AD\EPS-COE I

25

30

35

40

45

105'

150'

205'

270'

450'

125'

180'

245'

320'

540'

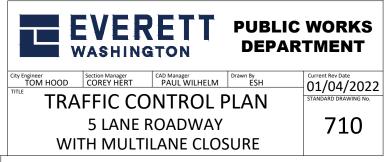
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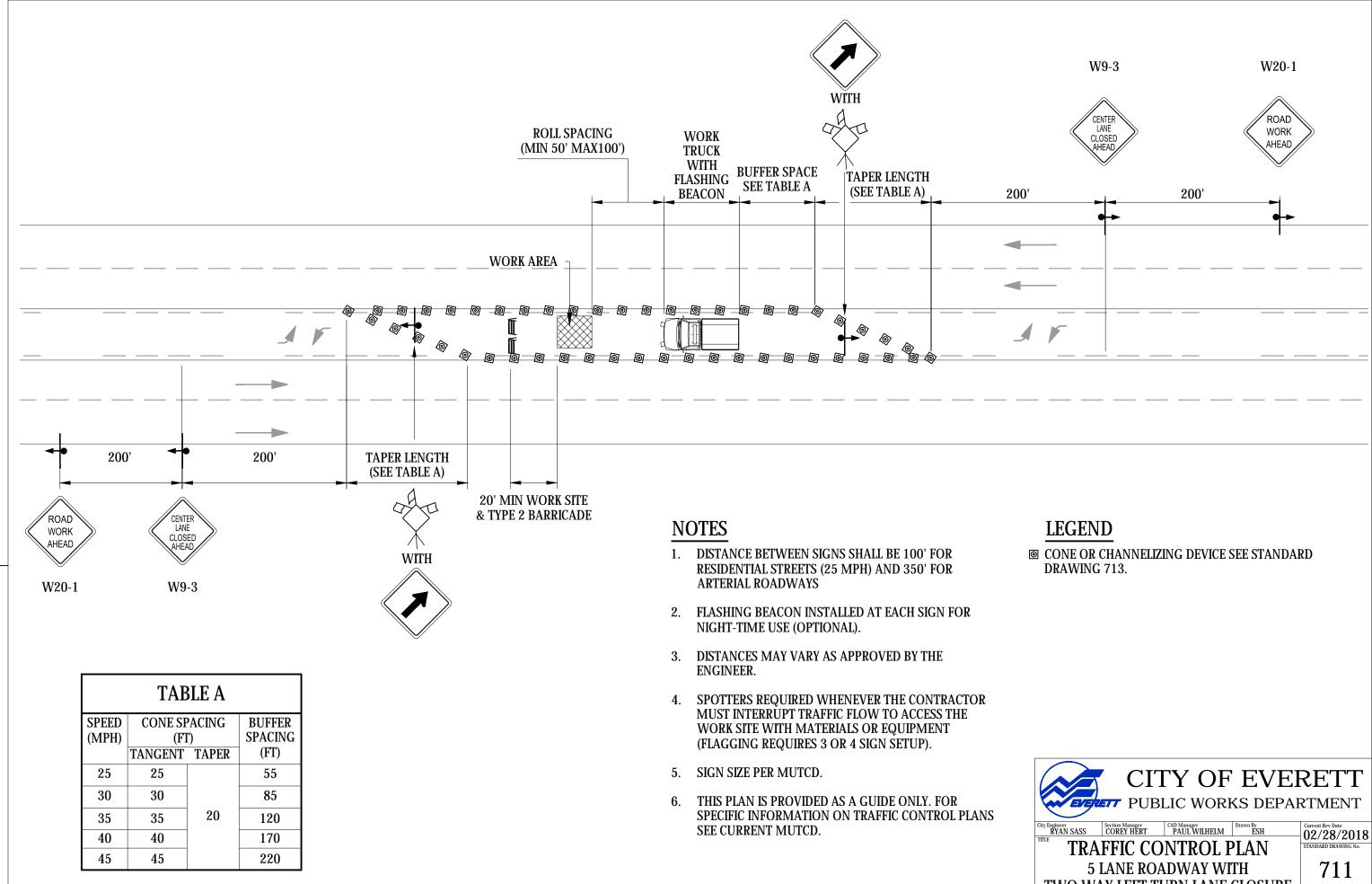
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ENDER T: ACAD EPS-COE DESIGN & CONSTR SPECS FOR DEVELOPMENT/IN-WORK/STD711.DWG

TWO WAY LEFT TURN LANE CLOSURE

Project:	
Change Order No.	
Change Order Effective Date:	

# **APPENDIX "C"**

# **CHANGE ORDER FORMS**

Project:	
Change Order No.	
Change Order Effective Date:	

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Change Order No.\_\_\_\_\_ Change Order Effective Date:\_\_\_\_\_

### CITY OF EVERETT Change Order

### **CONTRACT SUM**

	Original Contract Sum	Total of Previous Change Orders	This Change Order	Contract Sum After this Change Order
Amount	\$	\$	\$	\$
+ WSST	\$	\$	\$	\$
Total	\$	\$	\$	\$

### CONTRACT TIME

Original Contract Time	Working Days 🔄 / Calend	ar Days 🗌
Date of Notice to Proceed		
Cumulative adjustment to time by <i>prior</i> Change Orders		
Adjustment to time by this Change Order		
New Contract Time (including this Chang	e Order)	

Change Order Effective Date:

Contractor and City agree as follows:

- 1. The scope of Work shall be changed to the extent described in Exhibit A.
- 2. The amount of this Change Order for the changes described in Exhibit A, represents complete compensation for the changes described in Exhibit A, including all direct and indirect costs and impacts. The Contract Sum shall be adjusted as described in this Change Order.
- 3. Everett Municipal Code 3.80.050 sets forth the threshold amounts below which the Mayor or his designee is authorized to direct Contractor to perform additional work. In calculating such threshold amounts, Washington State sales tax, as applicable to the Work, has been considered.
- 4. The Contract Time of the Contract shall be adjusted to the extent described in this Change Order.
- 5. Contractor waives and releases any and all claims arising out of, or related to, this Change Order, the work described in Exhibit A, and all work and actual or constructive changes that occurred or began prior to the date of this Change Order, including, but not limited to, claims for equitable adjustment of time and compensation, delay, impact, overhead, or inefficiencies. This provision does not apply to requests for equitable adjustment of time or price for which the Contractor timely and properly provided notice of a differing site condition, protest, dispute, claim or Contract Claim as required by the Contract Documents. If the Contract Documents establish a time period for notice of a differing site condition, protest, dispute, claim, or Contract Claim that ends after the date of this Change Order, but relates to work performed prior to the date of this Change Order, then this provision does not apply if the Contractor timely submits such notice
- 6. This Change Order only changes the contract between Contractor and City to the extent explicitly provided herein.
- 7. Signature(s) on this Change Order may be by pdf, email, fax or other electronic means, in which case such signature(s) will have the same effect as an original ink signature. This Change Order may be signed in counterparts, each of which shall be deemed an original, and all of which, taken together, shall be deemed one and the same document.

Change Order Effective Date:\_\_\_\_\_

CITY				
		Attest:		
Mayor Date:		City Clerk Date:	Of	Standard Document Approved as to Form fice of the City Attorney (5.13.22)
Recommended By:				
Construction Manager (if applicable)			Engineering Manager (if applicable)	Department Director
Date:	Date:		Date:	Date:
CONTRACTOR				
Ву	Officer		Date:	

Change Order Effective Date:\_\_\_\_\_

# Exhibit A—Description of Changed Work



Change Order No.\_\_\_\_\_ Change Order Effective Date:\_\_\_\_\_

### CITY OF EVERETT Unilateral Change Order

Project Title	
Department	
Work Order No.	
Contractor:	
Contract Award Date:	
City Staff Contact:	
Change Order No.	
Change Order Effective Date	

### **CONTRACT SUM**

	Original Contract Sum	Total of Previous Change Orders	This Change Order	Contract Sum After this Change Order
Amount	\$	\$	\$	\$
+ WSST	\$	\$	\$	\$
Total	\$	\$	\$	\$

### CONTRACT TIME

Original Contract Time	Working Days 🔄 / Calend	ar Days 🗌
Date of Notice to Proceed		
Cumulative adjustment to time by <i>prior</i> Change Orders		
Adjustment to time by this Change Order		
New Contract Time (including this Chang	e Order)	

Change Order Effective Date:\_\_\_\_\_

As allowed by the contract, the City directs the Contractor as follows:

- 1. The Scope of Work shall be changed to the extent described in Exhibit A.
- 2. The Contract Sum shall be adjusted as described in this Change Order.
- 3. The duration of the Contract, and contractually scheduled completion date, shall be adjusted to the extent described in this Change Order.
- 4. Unless the Contractor timely and properly follows the procedures in the Contract Documents for seeking further equitable adjustment of time and compensation, including, but not limited to, delays, impacts, inefficiencies, overhead, and direct and indirect costs, and except as otherwise expressly provided herein, the Contractor will be barred from (a) asserting any claim for further adjustment of time and compensation arising out of, or relating to, the charges described in this Change Order or work described in Exhibit A and (b) asserting an equitable adjustment of time or price arising earlier than the date of this Change Order. This provision does not apply to requests for equitable adjustment of time or price for which the Contractor timely and properly provided notice of a differing site condition, protest, dispute, claim or Contract Claim as required by the Contract Documents. If the Contract Documents establish a time period for notice of a differing site condition, protest, dispute, claim, or Contract Claim that ends after the date of this Change Order, but relates to work performed prior to the date of this Change Order, then this provision does not apply if the Contractor timely and properly submits such notice.
- 5. This Change Order only changes the contract between Contractor and City to the extent explicitly provided herein.

Change Order Effective Date:\_\_\_\_\_

CITY				
Mayor Date:		Attest: City Clerk	(	Standard Document Approved as to Form Office of the City Attorney (5.13.22)
	-	Date:	· · · · · · · · · · · · · · · · · · ·	
Recommended By:	1			
Construction Manager (if applicable)		t Manager (if able)		er Department Director
Date:	Date:		Date:	Date:

Change Order Effective Date:\_\_\_\_\_

# Exhibit A—Description of Changed Work

### **APPENDIX "D"**

## PUGET SOUND CLEAN AIR AGENCY – EXCERPTS OF AIR QUALITY RULES

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# PUGET SOUND CLEAN AIR AGENCY – EXCERPTS OF AIR QUALITY RULES

### **ARTICLE 9: EMISSION STANDARDS**

### **SECTION 9.03 EMISSION OF AIR CONTAMINANT: VISUAL STANDARD**

Adopted 03/13/68 (12) Revised 07/08/70 (126), 04/11/73 (186), 06/09/88 (621) 05/11/89 (643), 09/08/94 (798), 04/09/98 (865), 03/11/99 (881), 03/25/04 (1024)

- (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant for a period or periods aggregating more than 3 minutes in any 1 hour, which is:
  - Darker in shade than that designated as No. 1 (20% density) on the Ringelmann Chart, as published by the United States Bureau of Mines; or
  - (2) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in Section 9.03(a)(1).
- (b) The density or opacity of an air contaminant shall be measured at the point of its emission, except when the point of emission cannot be readily observed, it may be measured at an observable point of the plume nearest the point of emission.
- (c) This section shall not apply when the presence of uncombined water is the only reason for the failure of the emission to meet the requirements of this section.
- (d) This section shall not apply to solid fuel burning devices, permitted fire training facilities, permitted obscurant usage during military training operations, outdoor fires, motor vehicles when operated on public roads, aircraft, or equipment subject to Section 9.04 of this regulation.
- (e) This section shall not apply to equipment with an alternate opacity standard issued under Section 3.03 or Article 6 of this regulation that is based upon a correlation with the particulate concentration and that accurately indicates a violation of the applicable particulate emission standards in Section 9.09 of this regulation.

#### SECTION 9.04 OPACITY STANDARDS FOR EQUIPMENT WITH CONTINUOUS OPACITY MONITORING SYSTEMS Adopted 04/09/98 (865) Revised 03/25/04 (1024)

- (a) Applicability. This section shall apply to all equipment required to be equipped with a continuous emission monitoring system for opacity.
- (b) It shall be unlawful for any person to cause or allow the operation of any of the following equipment unless equipped with a continuous emission monitoring system for opacity:
  - (1) Cement kilns;
  - (2) Clinker coolers;
  - (3) Glass furnaces, rated at greater than 1 ton per hour, that burn fuel;
  - (4) Fuel burning equipment, rated at 100 million Btu per hour or greater, that burns wood, coal, or residual oil; and
  - (5) Refuse burning equipment rated at greater than 12 tons per day.
- (c) It shall be unlawful for any person to cause or allow the emission of any air contaminant from

any equipment subject to this section during any hour that:

- (1) Averages greater than 5% opacity; or
- (2) Contains any consecutive 6-minute period averaging greater than 20% opacity.
- (d) Section 9.04(c)(1) shall not apply to:
  - (1) Glass furnaces that are tested annually for compliance with the applicable particulate emission standard in Section 9.09 of this regulation; or
  - (2) Equipment with an alternate opacity standard issued under Section 3.03 or Article 6 of this regulation that is based upon a correlation with the particulate concentration and that accurately indicates a violation of the applicable particulate emission standards in Section 9.09 of this regulation.
- (e) This section shall not apply to sources controlled by a venturi scrubber, provided that:
  - (1) The source is tested annually for compliance with the applicable particulate emission standard in Section 9.09 of this regulation;
  - (2) The pressure drop across the scrubber is continuously monitored and recorded; and
  - (3) The scrubbing liquid flow rate and temperature are continuously monitored and recorded.
- (f) This section shall not apply to fuel burning equipment that burns residual oil less than 31 days per year, provided that the source implements an alternate opacity monitoring plan issued under Section 3.03 or Article 6 of this regulation.

### SECTION 9.05 REFUSE BURNING Adopted 03/13/68 (12)

Revised 06/09/88 (621), 12/09/93 (769)

- (a) It shall be unlawful for any person to cause or allow the burning of combustible refuse except in a multiple chamber incinerator provided with control equipment.
- (b) It shall be unlawful for any person to cause or allow the operation of refuse burning equipment any time other than daylight hours.

### SECTION 9.07 SULFUR DIOXIDE EMISSION STANDARD Adopted 03/13/68 (12)

Revised 07/08/70 (126), 02/21/74 (230), 02/13/86 (597), 06/09/88 (621), 04/14/94 (784)

It shall be unlawful for any person to cause or allow the emission of sulfur dioxide from any source in excess of 1,000 parts per million by volume on a dry basis, 1-hour average (corrected to 7% oxygen for fuel burning equipment and refuse burning equipment).

### SECTION 9.08 FUEL OIL STANDARDS Adopted 06/13/85 (579)

Revised 02/13/86 (597), 04/14/94 (784), 03/25/04 (1024)

(a) It shall be unlawful for any person to cause or allow the combustion of oil in fuel burning equipment or refuse burning equipment that exceeds any of the following limits unless that person has obtained an Order of Approval from the Agency in accordance with Article 6 of this regulation:

Ash ...... 0.1% (maximum) Sulfur ...... 1.0% (maximum for used oil) Sulfur2.00% (maximum for fuel oil)Lead100 ppm (maximum)Arsenic5 ppm (maximum)Cadmium2 ppm (maximum)Chromium10 ppm (maximum)Total Halogens1,000 ppm (maximum)Polychlor i nated Biphenyls (PCBs)2 ppm (maximum)Flash Point100°F (minimum)

- (b) It shall be unlawful for any person to sell or make available for sale any oil in excess of the limits of this section to any person who has not obtained an Order of Approval from the Agency in accordance with Article 6 of this regulation. Any person who sells or makes available for sale such oil shall submit a report to the Agency within 15 days of the end of the month that includes the name and address of the recipient, the amount of oil delivered, and the concentration of contaminants therein.
- (c) The provisions of this section shall not apply to:
  - (1) Ocean-going vessels;
  - (2) Used oil burned in space heaters that have a maximum heat output of not greater than 0.5 million Btu per hour; and
  - (3) Persons in the business of collecting used oil from residences when under commission, authorization by a city, county, or the utilities and transportation.

### **SECTION 9.09 PARTICULATE MATTER EMISSION STANDARDS**

Adopted 03/13/68 (12) Revised 07/08/70 (126), 11/10/71 (135), 10/10/73 (214), 02/13/86 (597), 06/09/88 (621), 05/11/89 (643), 02/10/94 (777), 04/09/98 (865)

It shall be unlawful for any person to cause or allow the emission of particulate matter in excess of the following concentrations:

#### **Refuse Burning Equipment:**

- 1. Rated at 12 tons per day or less without heat recovery and without hydrochloric acid control equipment ...... 0.10 gr/dscf @ 7% O<sub>2</sub>
- 2. Rated at 12 tons per day or less without heat recovery and with hydrochloric acid control equipment ...... 0.05 gr/dscf @ 7% O<sub>2</sub>
- 3. Rated at 12 tons per day or less with heat recovery  $\dots 0.02 \text{ gr/dscf} @ 7\% \text{ O}_2$
- 4. Rated at greater than 12 tons per day ......0.01 gr/dscf @ 7% O2

#### **Fuel Burning Equipment:**

- 3. Burning wood, rated at 100 million Btu per hour or greater, and located within the urbanized area ...... 0.04 gr/dscf @ 7% O<sub>2</sub>

- 4. Burning wood and installed after March 1, 1986 ...... 0.02 gr/dscf @ 7% O2
- 5. Burning fuel other than wood...... $0.05 \text{ gr/dscf} @ 7\% O_2$
- 7. Equipment Used in a Manufacturing Process: 0.05 gr/dscf

### SECTION 9.10 EMISSION OF HYDROCHLORIC ACID Adopted 06/09/88 (621)

- (a) It shall be unlawful for any person to cause or allow the emission of hydrochloric acid from any equipment in excess of 100 ppm on a dry basis, 1-hour average corrected to 7% oxygen for combustion sources.
- (b) It shall be unlawful for any person to cause or allow the emission of hydrochloric acid from any refuse burning equipment rated at greater than 12 tons per day in excess of 30 ppm on a dry basis, 1-hour average corrected to 7% oxygen.

### SECTION 9.11 EMISSION OF AIR CONTAMINANT: DETRIMENT TO PERSON OR PROPERTY Adopted 03/13/68 (12) Revised 06/09/83 (536), 03/11/99 (882)

- (a) It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be, injurious to human health, plant or animal life, or property, or which unreasonably interferes with enjoyment of life and property.
- (b) With respect to odor, the Agency may take enforcement action under this section if the Control Officer or a duly authorized representative has documented all of the following:
  - (1) The detection by the Control Officer or a duly authorized representative of an odor at a level 2 or greater, according to the following odor scale:
    - level 0 no odor detected;
    - level 1 odor barely detected;
    - level 2 odor is distinct and definite, any unpleasant characteristics recognizable;
    - level 3 odor is objectionable enough or strong enough to cause attempts at avoidance; and

level 4 – odor is so strong that a person does not want to remain present;

- (2) An affidavit from a person making a complaint that demonstrates that they have experienced air contaminant emissions in sufficient quantities and of such characteristics and duration so as to unreasonably interfere with their enjoyment of life and property; and
- (3) The source of the odor.
- (c) Nothing in this Regulation shall be construed to impair any cause of action or legal remedy of any person, or the public for injury or damages arising from the emission of any air contaminant in such place, manner or concentration as to constitute air pollution or a common law nuisance.

### SECTION 9.13 EMISSION OF AIR CONTAMINANT: CONCEALMENT AND MASKING RESTRICTED Adopted 03/13/68 (12) Revised 06/09/88 (621)

(a) It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means which, without resulting in a reduction in the total amount of air contaminant emitted, conceals an emission of air contaminant which would otherwise violate this article.

(b) It shall be unlawful for any person to cause or allow the installation or use of any device or use of any means designed to mask the emission of an air contaminant which causes detriment to health, safety or welfare of any person.

### **SECTION 9.15 FUGITIVE DUST CONTROL MEASURES**

Adopted 03/13/68 (12) Revised 06/09/83 (536), 06/09/88 (621), 08/10/89 (644), 03/11/99 (882)

- (a) It shall be unlawful for any person to cause or allow visible emissions of fugitive dust unless reasonable precautions are employed to minimize the emissions. Reasonable precautions include, but are not limited to, the following:
  - (1) The use of control equipment, enclosures, and wet (or chemical) suppression techniques, as practical, and curtailment during high winds;
  - (2) Surfacing roadways and parking areas with asphalt, concrete, or gravel;
  - (3) Treating temporary, low-traffic areas (e.g., construction sites) with water or chemical stabilizers, reducing vehicle speeds, constructing pavement or rip rap exit aprons, and cleaning vehicle undercarriages before they exit to prevent the track-out of mud or dirt onto paved public roadways; or
  - (4) Covering or wetting truck loads or allowing adequate freeboard to prevent the escape of dust-bearing materials.
- (b) Compliance with the provisions of this section shall not relieve any person from the responsibility to comply with Section 9.11 of this regulation.

### SECTION 9.16 SPRAY-COATING OPERATIONS Adopted 06/13/91 (700)

Revised 07/08/99 (886), 07/12/01 (944), 02/22/07 (1089), 10/28/10 (1200)

- (a) Applicability. This section applies to indoor and outdoor spray-coating operations when a coating that protects or beautifies a surface is applied with spray-coating equipment, except as exempted in Section 9.16(b) of this regulation. Mobile spray-coating operations for motor vehicles or motor vehicle components are subject to Section 9.16(e) of this regulation.
- (b) Exemptions. The following activities are exempt from the provisions of Sections 9.16(c), (d), and (e) of this regulation. Persons claiming any of the following exemptions shall have the burden of demonstrating compliance with the claimed exemption.
  - (1) Application of architectural or maintenance coatings to stationary structures (e.g., bridges, water towers, buildings, stationary machinery, or similar structures);
  - (2) Aerospace coating operations subject to 40 CFR Part 63, Subpart GG. This includes all activities and materials listed in 40 CFR 63.741(f); 12/10 9-7 Regulation I
  - (3) Use of high-volume, low-pressure (HVLP) spray guns when:
    - a) spray-coating operations do not involve motor vehicles or motor vehicle components;
    - b) the gun cup capacity is 8 fluid ounces or less;
    - c) the spray gun is used to spray-coat less than 9 square feet per day per facility;
    - d) coatings are purchased in containers of 1 quart or less; and
    - e) spray-coating is allowed by fire department, fire marshal, or other government agency requirements.
  - (4) Use of air-brush spray equipment with 0.5 to 2.0 CFM airflow and a maximum cup capacity of 2 fluid ounces, provided that persons claiming exemption from Section 9.16(e) of this regulation register with the Agency in accordance with Article 5 of this regulation and provide

a copy of the current Agency registration document to each new customer before starting work at a site;

- (5) Use of hand-held aerosol spray cans with a capacity of 1 quart or less; or
- (6) Indoor application of automotive undercoating materials using organic solvents having a flash point in excess of 100°F.
- (c) General Requirements for Indoor Spray-Coating Operations. It shall be unlawful for any person subject to the provisions of this section to cause or allow spray-coating inside a structure, or spray-coating of any motor vehicles or motor vehicle components, unless all of the following requirements are met:
  - (1) Spray-coating is conducted inside an enclosed spray area;
  - (2) The enclosed spray area employs either properly seated paint arresters, or water-wash curtains with a continuous water curtain to control the overspray; and
  - (3) All emissions from the spray-coating operation are vented to the atmosphere through an unobstructed vertical exhaust vent.
- (d) General Requirements for Outdoor Spray-Coating Operations. It shall be unlawful for any person subject to the provisions of this section to cause or allow spray-coating outside an enclosed structure unless reasonable precautions are employed to minimize the overspray. Reasonable precautions include, but are not limited to the use of:
  - (1) Enclosures and curtailment during high winds; and
  - (2) High-volume low-pressure (HVLP), low-volume low-pressure (LVLP), electrostatic, or air-assisted airless spray equipment. Airless spray equipment may be used where low viscosity and high solid coatings preclude the use of higher-transfer efficiency spray equipment.
- (e) General Requirements for Mobile Spray-Coating Operations. It shall be unlawful for any person to cause or allow the spray-coating of any motor vehicle or motor vehicle component outside of a structure required by Section 9.16(c) of this regulation, unless all the following requirements are met:
  - (1) Conduct all spray-coating in a portable frame-and-fabric shelter consisting of a fabric roof and three fabric sides or similar portable shelter consisting of a roof and three sides.
    - (A) Disassemble and remove the portable shelter from the site at the end of each day.
    - (B) Do not conduct mobile spray-coating operations for more than 5 consecutive calendar days at any site and not more than 14 days during any calendar month at the same site.
  - (2) Do not apply more than 8 ounces of coating to any single vehicle.
  - (3) Do not apply coating to more than 9 square feet of any single vehicle.
  - (4) Do not prepare a surface area for spray-coating greater than 9 square feet per any single vehicle. The measured surface area prepared for spray-coating shall include, but is not limited to all areas that are filled, ground, sanded, or inside masking.
  - (5) Use only HVLP spray guns or spray equipment with equivalent transfer efficiency (greater than or equal to 65%) and with a paint cup capacity less than or equal to 3.0 fluid ounces.
  - (6) Minimize evaporative emissions by collecting all organic solvents used for cleanup of equipment in a closed-loop or contained system; keeping all containers of paints and organic solvents closed except when materials are being added, mixed, or removed; and storing solvent rags in closed containers.
  - (7) Post a sign that is visible to the public and shows the name of the company and current

telephone contact information for complaints. Record information regarding complaints received and investigate complaints regarding odor, overspray, or nuisance as soon as possible, but no later than 1 hour after receipt of a complaint. As part of the investigation, determine the wind direction during the time of the complaint. If the cause of a valid complaint cannot be corrected within 2 hours of the time the complaint was received, shut down the operation until corrective action is completed.

- (8) Complete the following records for each vehicle when finished with that vehicle:
  - (A) Customer identification, address where work was performed, date, time, and the name of the person completing the record;
  - (B) Identification of each vehicle and vehicle component repaired; and
  - (C) Quantity (in ounces) of each VOC-containing material used on each vehicle.

All records must be kept current, retained for at least 2 years, and made available to Agency representatives upon request.

- (9) Provide a copy of the current Agency registration document to each customer prior to starting work at a site.
- (f) Compliance with Other Regulations. Compliance with this regulation does not exempt any person from compliance with Regulation I, Section 9.11 and all other applicable regulations including those of other agencies.

### SECTION 9.18 CRUSHING OPERATIONS Adopted 01/26/12 (1232)

- (a) This section shall apply to all equipment processing nonmetallic minerals located at a source crushing nonmetallic minerals as defined in 40 CFR 60.671.
- (b) General Requirements. It shall be unlawful for any person subject to the provisions of this section to cause or allow the emission of any air contaminant in excess of the following emission limits:
  - (1) The visible emission limits in (A), (B), and (C) are applicable for any period or periods aggregating more than 3 minutes in any one hour.
    - (A) Each grinding mill, screening operation, bucket elevator, transfer points on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station with operating control equipment shall not exhibit greater than 7 percent opacity.
      - (1) Each crusher with operating control equipment shall not exhibit greater than 12 percent opacity.
      - (2) Each crusher, grinding mill, screening operation, bucket elevator, transfer points on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station exhausting particulate through a stack equipped with an operating fabric filter or operating wet scrubber exhaust shall not exhibit greater than 7 percent opacity.
  - (2) Each crusher, grinding mill, screening operation, bucket elevator, transfer points on belt conveyors, bagging operation, storage bin, enclosed truck or railcar loading station exhausting particulate through a stack shall meet a particulate matter limit of 0.01 grains per dry standard cubic foot of exhaust as measured by EPA Method 5.
  - (3) Each crusher, grinding mill, screening operation, bucket elevator, transfer point on a conveyor belt, bagging operation, storage bin, enclosed truck or railcar loading station without operating control equipment shall not exhibit visible emissions.
  - (4) For the purpose of this section, "Control Equipment" shall mean either fabric filter, wet scrubber, water sprays, or other dust suppression techniques which effectively reduce visible emissions from the emission units observed.

- (c) Testing conducted to verify compliance with the requirements of this section shall be performed in accordance with the Puget Sound Clean Air Agency Regulation I, Section 3.07.
- (d) Compliance with Other Regulations. Compliance with this regulation does not exempt any person from compliance with Regulation I, Sections 9.03, 9.11, 9.15 and all other applicable regulations including those of other agencies.

### SECTION 9.20 MAINTENANCE OF EQUIPMENT Adopted 12/09/82 (531)

Revised 06/09/88 (621)

- (a) It shall be unlawful for any person to cause or allow the operation of any features, machines or devices constituting parts of or called for by plans, specifications, or other information submitted pursuant to Article 6 of Regulation I unless such features, machines or devices are maintained in good working order.
- (b) It shall be unlawful for any person to cause or allow the operation of any equipment as defined in Section 1.07 or control equipment not subject to Section 9.20(a) unless the equipment or control equipment is maintained in good working order.

### **APPENDIX "E"**

# **NOISE ORDINANCE**

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#### Chapter 20.08 NOISE CONTROL

Sections:	
<u>20.08.005</u>	Purpose—Liability.
<u>20.08.010</u>	Declaration of policy—Findings of special conditions.
<u>20.08.020</u>	Definitions.
<u>20.08.030</u>	Environmental sound—Unlawful sounds designated.
<u>20.08.040</u>	Environmental sound—Maximum permissible levels.
<u>20.08.050</u>	Environmental sound—Modifications to maximum permissible noise levels.
<u>20.08.060</u>	Motor vehicle noise—Maximum permissible levels.
<u>20.08.070</u>	Motor vehicle noise—Maximum levels for new vehicles.
<u>20.08.080</u>	Motor vehicle noise—Specific prohibitions.
<u>20.08.090</u>	Public nuisance and disturbance noises.
<u>20.08.100</u>	Noises exempt—At all times.
<u>20.08.110</u>	Noises exempt during daytime hours.
<u>20.08.120</u>	Repealed.
<u>20.08.130</u>	Administrator established—Qualifications, powers and duties.
<u>20.08.140</u>	Measurement of sound.
<u>20.08.150</u>	Variances.
<u>20.08.160</u>	Repealed.
<u>20.08.170</u>	Repealed.
<u>20.08.180</u>	Repealed.
<u>20.08.190</u>	Repealed.
<u>20.08.200</u>	Repealed.
<u>20.08.210</u>	Provisions not exclusive.
<u>20.08.220</u>	Enforcement—Violation—Penalty.

20.08.005 Purpose—Liability.

A. It is expressly the purpose of this chapter to provide for and promote the health, safety and welfare of the general public, and not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this chapter.

B. Nothing contained in this chapter is intended to be nor shall be construed to create or form the basis for any liability on the part of the city, its officers, employees or agents, for any injury or damage resulting from the failure of anyone to comply with the provisions of this chapter, or by reason or in consequence of any inspection, notice, order, certificate, permission or approval authorized or issued or done in connection with the implementation or enforcement pursuant to this chapter, or by

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reason of any action or inaction on the part of the city related in any manner to the enforcement of this chapter by its officers, employees or agents. (Ord. 1556-89 § 3, 1989)

#### 20.08.010 Declaration of policy—Findings of special conditions.

A. Declaration of Policy. It is hereby declared to be the policy of the city to minimize the exposure of citizens to the harmful physiological and psychological effects of excessive noise. It is the express intent of the city council to control the level of noise and to promote and preserve the public health, safety, and welfare while affording protection to free speech activity as required by applicable constitutional law. It is the express intent of the city council to control the level, and enjoyment of property; sleep and repose; the quality of the environment; and which enables all residents of the city to peacefully coexist in a manner which is mutually respectful of the interests and rights of others.

B. Findings of Special Conditions. The problem of noise in the city has been studied since 1972 by the city. On the basis of this experience and knowledge of conditions within the city, the city council finds that special conditions exist within the city which makes necessary any and all differences between this chapter and the regulations adopted by the Department of Ecology. (Ord. 3509-16 § 1, 2016: Ord. 534-78 § 1, 1978)

#### 20.08.020 Definitions.

All technical terminology used in this chapter not defined herein shall be interpreted in conformance with American National Standards Institute Specifications Section 1.4-2014 as it currently exists or is later amended. For purposes of this chapter, the words and phrases used herein shall have the meaning indicated below:

A. "Administrator" means the noise control administrator as established in Section <u>20.08.130</u>, or designee.

B. "dB(A)" means a sound level, measured in decibels, using the A frequency-weighting network of a sound level meter.

C. "District" means the land use zones to which the provisions of this chapter are applied. For the purposes of this chapter the following noise control districts shall be established which include land use zones designated in the Everett zoning code as follows:

Noise	
Control	
District	Land Use Zones
1. District	All residentially zoned
I	districts including but not

	limited to R.S., R-1, R-1A, R-2, R-2A, R-3, R-3L, R-4 and R-5.
2. District	All business and
II	commercially zoned
	districts including but not
	limited to B-1, B-2, B-3,
	BMU, E1, E-1MUO, C-1,
	C-1R, C-2 and C-2ES.
3. District	All agricultural and
III	manufacturing zoned
Ш	-
111	manufacturing zoned
III	manufacturing zoned districts including but not
III	manufacturing zoned districts including but not limited to A, M-M, M-1, M-
III	manufacturing zoned districts including but not limited to A, M-M, M-1, M- S, W-C and all other
III	manufacturing zoned districts including but not limited to A, M-M, M-1, M- S, W-C and all other nonresidential,

For any land use zone not listed in this subsection C, the administrator may determine that the zone is substantially similar to a zone listed in this subsection C and may classify it similarly for purposes of this chapter.

D. "Emergency work" means work made necessary to restore property to a safe condition following a public calamity, work required to protect persons or property from imminent exposure to danger, or work by private or public utilities for providing or restoring immediately necessary utility service.

E. "Gross vehicle weight rating" means the value specified by the manufacturer as the recommended maximum loaded weight of a single vehicle.

F. "Motorcycle" means any motor vehicle having a saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground, except farm tractors and such vehicles powered by engines of less than five horsepower.

G. "Motor vehicle" means any vehicle which is self-propelled, used primarily for transporting persons or property upon public highways, and required to be licensed under RCW 46.16A.030. (Aircraft, watercraft, and vehicles used on rails or tracks are not motor vehicles as that term is used herein.)

H. "New motor vehicle" means a motor vehicle manufactured after December 31, 1976, the

equitable or legal title of which has never been transferred to a person who, in good faith, purchases the new motor vehicle for purposes other than resale.

I. "Noise" means the intensity, duration and character of sounds from any and all sources.

J. "Off-highway vehicle" means any self-propelled motor driven vehicle not used primarily for transporting persons or property upon public highways nor required to be licensed under RCW 46.16A.030.

K. "Person" means any individual, firm, association, partnership, corporation or any other entity, public or private.

L. "Property boundary" means the survey line at ground surface which separates the real property owned, rented or leased by one or more other persons and its vertical extension.

M. "Public highway" means the entire width between the boundary lines of every way publicly maintained by the department of highways or any county or city when any part thereof is generally open to the use of the public for purposes of vehicular travel as a matter of right.

N. "Public nuisance noise" means any sound which annoys, injures, interferes with or endangers the comfort, repose, health or safety of others and affects the rights of a community or neighborhood although the extent of the damage may be unequal.

O. "Receiving property" means real property within which sound originating from sources outside the property boundary is received.

P. "Sound level" means a weighted sound pressure level obtained by the use of a sound level meter and weighted as specified in American National Standards Institute Specifications, Section 1.4-2014.

Q. "Sound level measurement procedures" means standardized procedures for the measurement of sound levels of sources regulated by this chapter and performed in accordance with the Washington State Department of Ecology rules, Chapter 173-58 WAC.

R. "Sound level meter" means a sound level measuring device, either Type I or Type II, as defined by American National Standards Institute Specifications, Section 1.4-2014.

S. "Temporary construction site" means any location where site clearing, construction of plat improvements, or construction or remodeling of a structure, facility, improvement or other feature attached to the land occurs. This includes roadway, bikeway, trail, sidewalk or other similar construction, repair or improvement.

T. "WAC" means the Washington Administrative Code as currently enacted or hereafter amended.

U. "Watercraft" means any contrivance, excluding aircraft, used or capable of being used as a means of transportation or recreation on water.

V. "Weekend" means Saturday and Sunday or any legal holiday observed by the state of
Washington. (Ord. 3509-16 § 2, 2016: Ord. 3440-15 § 3, 2015: Ord. 1556-89 § 1, 1989; Ord. 690-80 §
2, 1980; Ord. 534-78 § 2, 1987)

20.08.030 Environmental sound—Unlawful sounds designated.

It is unlawful for any person to cause or permit noise to intrude into the real property of another person which noise exceeds the maximum permissible sound pressure levels set forth in this chapter. (Ord. 3509-16 § 3, 2016: Ord. 534-78 § 3(a), 1987)

20.08.40 Environmental sound—Maximum permissible levels.

For sound sources located within the city of Everett, the maximum permissible noise levels are as follows:

District of Receiving		
Property within the City of		
Everett		
I	II	ш
55 dB(A) 57	,	60
d	B(A)	dB(A)
57 dB(A) 60	1	65
d	B(A)	dB(A)
60 dB(A) 65		70
d	B(A)	dB(A)
	Property w E I 55 dB(A) 57 dl 57 dB(A) 60 dl 60 dB(A) 65	Property within the Everett

Where a receiving property lies within more than one district, the most restrictive maximum permissible noise level shall apply to the receiving property. (Ord. 3509-16§4, 2016: Ord. 534-78§ 3(b), 1978)

20.08.050 Environmental sound—Modifications to maximum permissible noise levels.

The maximum permissible sound levels established by this chapter shall be modified, reduced or increased as follows:

Between the hours of ten p.m. and seven a.m. during weekdays, and between the hours of ten p.m. and nine a.m. on weekends, the levels established in Section <u>20.08.040</u> are reduced by ten dB(A) where the receiving property lies within District I of the city of Everett.

B. At any hour of the day or night, for any source of sound which is of short duration, the levels

established by this chapter are increased by:

- 1. Five dB(A) for a total of fifteen minutes in any one-hour period; or
- 2. Ten dB(A) for a total of five minutes in any one-hour period; or

3. Fifteen dB(A) for a total of one and one-half minutes in any one-hour period. (Ord. 3509-16 § 5, 2016: Ord. 534-78 § 3(c), 1978)

20.08.060 Motor vehicle noise—Maximum permissible levels.

It is unlawful for any person to operate any motor vehicle upon any public highway or any combination of such vehicles under any conditions of grade, load, acceleration, or deceleration in such a manner as to exceed the maximum permissible sound levels for the category of vehicle, as measured at a distance of fifty feet from the center of the lane of travel within the speed limits specified, under procedures set forth in Chapter 173-62 WAC, Motor Vehicle Noise Performance Standards, including:

Vehicle Category Type	45 MPH or Less	Over 45 MPH
Motor vehicles over 10.000	86 dB(A)	90 dB(A)
pounds GVWR	UB(A)	UB(A)
Motorcycles	78	82
	dB(A)	dB(A)
All other motor vehicles	72 dB(A)	78 dB(A)

(Ord. 3509-16 § 6, 2016: Ord. 534-78 § 4(a), 1978)

20.08.070 Motor vehicle noise—Maximum levels for new vehicles.

It is unlawful for any person to sell or offer for sale a new motor vehicle, except an off-highway vehicle, which produces a maximum noise exceeding the following noise levels at a distance of fifty feet under acceleration test procedures set forth in Chapter 173-62 WAC.

Vehicle Category	Date of Manufacture	Maximum Sound
Any motor vehicle over 10,000 pounds GVWR excluding buses	BeforeJanuary 1, 1978	86 dBA
Any motor vehicle over 10,000 pounds GVWR excluding buses	After January 1, 1978	83 dBA
Any motor vehicle over 10,000	After January 1, 1982	80 dBA

pounds GVWR excluding buses		
All buses over 10,000 pounds GVWR	After January 1, 1980	85 dBA
All buses over 10,000 pounds GVWR	After January 1, 1983	83 dBA
All buses over 10,000 pounds GVWR	After January 1, 1986	80 dBA
Any motor vehicle 10,000 pounds GVWR or less	After January 1, 1976	80 dBA
Motorcycles	After January 1. 1976	83 dBA
Motorcycles	After January 1, 1986	80 dBA

(Ord. 3509-16 § 7, 2016: Ord. 534-78 § 4(b), 1978)

20.08.080 Motor vehicle noise—Specific prohibitions.

A. Mufflers and Exhaust Systems. Every motor vehicle operated upon the public highways shall at all times be equipped with an exhaust system and a muffler in good working order and constant operation to prevent excessive or unusual noise.

B. Tire Noise. It is unlawful for any person to operate a motor vehicle in such a manner as to cause or allow to be emitted squealing, screeching or other such noise from the tires in contact with the ground because of rapid acceleration or excessive speed around corners or other such reason, except that noise resulting from emergency braking to avoid imminent danger shall be exempt from this section.

C. Alteration of Motor Vehicles. It is unlawful for any person to change or modify any part of a motor vehicle or install any device thereon in any manner that permits sound to be emitted by the motor vehicle in excess of the limits prescribed in Sections <u>20.08.060</u> and <u>20.08.070</u>.

D. Violation of this section is a misdemeanor. (Ord. 3509-16 § 8, 2016: Ord. 534-78 § 4(c), 1978)

20.08.090 Public nuisance and disturbance noises.

A. Public Nuisance Noises. The administrator may determine that a sound constitutes a public nuisance noise as defined herein. It is unlawful for any person to cause or allow to be emitted a noise which has been determined a public nuisance noise.

B. Public Disturbance Noises Originating from Real or Personal Property. Unless specifically exempted, public disturbance noises emanating from real or personal property possessed or

controlled by the person causing or permitting the public disturbance noise are prohibited at all times. These include but are not limited to the following sounds if the sound is plainly audible across a real property line or fifty feet from the source, whichever is less.

1. The frequent, repetitive and/or continuous sounding of any horn, siren or alarm attached to a motor vehicle, except when used as a warning of danger or as specifically permitted or required by law.

2. The frequent, repetitive and/or continuous sounds in connection with the starting, operation, repair and/or testing of any motor vehicle, motorcycle, off-highway vehicle or internal combustion engine.

3. The creation of frequent, repetitive and/or continuous sounds which emanate from real property possessed or controlled by the person causing or permitting the sound, such as sounds from audio equipment, television, video equipment, musical instruments, band sessions and/or social gatherings.

4. Violation of this section is a misdemeanor.

C. Public Disturbance Noises Originating from Public Property. Unless specifically exempted, public disturbance noises originating from a person or personal property while on public property or a public right-of-way are prohibited at all times. In addition to public disturbance noises defined in subsection B of this section, the following are public disturbance noises:

1. A person or performer creating a sound, whether amplified or unamplified, between the hours of ten p.m. and seven a.m. so as to be plainly audible across a real property boundary which is not the source of sound;

2. A person or performer creating a sound, whether amplified or unamplified, between the hours of seven a.m. and ten p.m. so as to be plainly audible one hundred feet or more from the source of the sound;

3. The use of a sound amplifier or other device capable of producing or reproducing amplified sound upon public streets for the purpose of commercial advertising or sales or for attracting the attention of the public to any vehicle, structure or property or the contents therein, except that vendors whose sole method of selling is from a moving vehicle shall be exempt from this subsection;

4. Sound from the frequent, repetitive and/or continuous operating or playing of motor vehicle audio equipment, whether portable or stationary or mounted on or within a motor vehicle.

5. Violation of this section is a misdemeanor.

D. It is unlawful to intentionally fail to cease a public disturbance noise when directed to do so by a law enforcement officer. The content of the sound will not be considered in determining any violation

of this section. Violation of this section is a misdemeanor. (Ord. 3509-16 § 9, 2016: Ord. 2394-99 § 11, 1999: Ord. 1971-93 § 1, 1993; Ord. 690-80 § 2, 1980; Ord. 534-78 § 5, 1978)

20.08.100 Noises exempt—At all times.

A. The following noises are exempt at all times from this chapter:

1. Noise originating from aircraft in flight, and sounds which originate at airports and are directly related to flight operations;

2. Noise created by the operation of equipment or facilities of surface carriers engaged in commerce by railroad;

3. Noises created on property of federal military facilities;

4. Noise created by watercraft and float planes in operation;

5. Noise created by safety and protective devices, such as relief valves where noise suppression would defeat the safety release intent of the device;

6. Noise created by fire alarms being used for their intended purpose;

7. Noise created by emergency equipment, including, but not limited to, emergency standby or backup equipment, and emergency work necessary in the interests of law enforcement or of the health, safety or welfare of the community; and including, but not limited to, any emergency work necessary to replace or repair essential utility services;

8. Noise created by auxiliary equipment on motor vehicles used for highway maintenance;

- 9. Noise originating from officially sanctioned parades, sporting events and other public events;
- 10. Noise created by motor vehicles when regulated by Sections 20.08.060 through 20.08.080;
- 11. Noise caused by natural phenomena;

12. Noise originating from motor vehicle racing events at existing authorized facilities;

13. Noise created by existing stationary equipment used in the conveyance of water by a utility and noise created by existing electrical substations;

14. Noises in compliance with a lawfully issued conditional use permit or SEPA determination. (Ord. 3509-16 § 10, 2016: Ord. 1971-93 § 2, 1993; Ord. 1556-89 § 2, 1989; Ord. 564-78 §§ 1—3, 1978; Ord. 534-78 § 6(a), (b), 1978)

20.08.110 Noises exempt during daytime hours.

The following noises shall be exempt from the provisions of this chapter between the hours of seven a.m. and ten p.m. on weekdays and nine a.m. and ten p.m. on weekends and holidays:

A. Noise created by powered equipment used in temporary or periodic maintenance or repair of residential property.

B. Noise created by aircraft engine testing and maintenance not related to flight operations.

C. Noise created by the discharge of firearms on authorized shooting ranges.

D. Noise created by the installation or repair of essential utility services.

E. Noise created by blasting.

F. Noise created by bells, chimes or carillons not operating for more than five minutes in any one hour.

G. Noise originating from forest harvesting and silvicultural activity.

H. Noise originating from temporary construction sites, excepting that noise from a temporary construction site that is received in a District I property is exempt between seven a.m. and ten p.m. on weekdays and between eight a.m. and six p.m. onweekends and holidays.

I. Noise emanating from marine-oriented construction sites except between the hours often p.m. and seven a.m. on weekdays and weekends if the receiving property is located in District I of the city. (Ord. 3509-16 § 11, 2016: Ord. 534-78 § 6(c), 1978)

20.08.120 Noises exempt from nighttime reduction.

Repealed by Ord. 3509-16. (Ord. 564-78 § 4, 1978; Ord. 534-78 § 6(d), 1978)

20.08.130 Administrator established—Qualifications, powers and duties.

A. Establishment. The position of administrator is hereby established. The administrator or her designee is authorized to administer and enforce the provisions of this chapter.

B. Qualifications of Administrator. The administrator shall be qualified to perform and interpret sound level measurements consistent with guidance provided by the State Department of Ecology or other recognized institution to operate Type I and Type II sound level meters, and make all computations and calculations necessary to enforce this chapter.

C. Authority of Administrator. The authority of the administrator shall include but is not limited to:

1. Promulgate rules and regulations consistent with the terms of this chapter and reasonably necessary to implement the provisions of this chapter;

2. Obtaining assistance from other appropriate city departments and officials to effectively administer this noise chapter;

3. Training police officers and staff in noise ordinance enforcement;

4. Purchasing and maintaining sound measuring equipment and training city staff in their calibration and use;

5. Investigating citizens' noise complaints;

6. Granting or denying variances according to procedures set forth in this chapter;

7. Assisting city departments in evaluating and reducing the noise impact of their activities;

8. Providing public education and information regarding noise, this noise chapter and city of Everett noise control districts. (Ord. 3509-16 § 12, 2016: Ord. 534-78 § 7, 1978)

#### 20.08.140 Measurement of sound.

A. If the measurements of sound are made with a sound level meter, it shall be an instrument in good operating condition meeting the requirements for a Type I or Type II instrument, as delineated in American National Standards Institute Specifications (ANSI) Section 1.4-2014.

B. Sound measurements shall be taken using the guidance of Chapter 173-58 WAC, Sound Level Measurement Procedures, and using any additional methods recognized as best practice by the noise industry.

C. Any sound measurements performed by a third party may be considered by the noise administrator, provided they are in accordance with this section and performed by an individual trained to operate Type I and Type II sound level meters. (Ord. 3509-16 § 13, 2016: Ord. 534-78 § 8, 1978)

20.08.150 Variances.

A. A person may request a variance from compliance with this chapter by making an application with the administrator at least thirty days before the time period for the variance is to take effect. The application shall be in writing and shall be accompanied by a fee in the amount of one hundred dollars. The variance may not be used for private activities (weddings, parties, etc.). The applicant shall explain the:

- 1. Nature of the noise.
- 2. Source of thenoise.
- 3. Duration for which the noise will be created.

- 4. Time period for which the variance will be necessary.
- 5. Reason why the noise violation cannot be avoided, and

6. Mitigating conditions the applicant will implement to minimize the noise level violations.

7. The applicant shall list all property owners who adjoin the subject property per county assessor records, except that (a) the administrator may waive this property owner list requirement if the administrator determines that the granting of the variance would have no significant effect on adjoining property owners, and (b) the administrator may increase the required property owner list to include all property owners within five hundred feet of the subject property per county assessor records if the administrator determines that the granting of the variance would have a significant impact on such property owners.

B. The administrator, after informing the affected city departments, and after considering the relative interests of the applicant, of the other owners or possessors of property likely to be affected by the noise, and of the general public, may grant a variance if the administrator determines that the noise level violations:

- 1. Cannot be avoided,
- 2. Will exist for a specific period of time,
- 3. Will not endanger public health, safety or welfare, and
- 4. Have been mitigated to the greatest extent reasonably possible.

C. Variances granted pursuant to this chapter shall be in writing and must include the time period the variance will be in effect and the location of the variance.

D. The administrator may deny a variance application if:

1. The administrator determines that the applicant does not meet the criteria listed in subsection B of this section; or

2. The variance was obtained with false or misleading information.

E. The administrator may revoke a variance if:

1. At any time during the variance the administrator determines that the variance holder no longer meets the criteria listed in subsection B of this section;

2. The variance holder causes or permits noise that fails to comply with the variance or other

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provisions of this chapter not affected by the variance and the issuance of a violation citation or stop work order has been or would be ineffective to secure compliance; or

3. The variance was obtained with false or misleading information.

F. The variance holder must post the variance in a viewable area at the location of the variance or keep it on their person during the effective period of the variance.

G. If the administrator grants a variance, notice shall be mailed by first class mail to those property owners appearing on the list provided by the applicant per the application requirement herein. The applicant shall be responsible for paying all mailing costs, which shall be in addition to the variance application fee.

H. Any variance granted by the administrator shall be restricted in duration and an implementation schedule for achieving compliance with this chapter shall be incorporated therein. No variance shall exceed thirty days. Variances may be renewed, but no renewal shall be granted unless application is made at least sixty days prior to expiration of the issued variance and the applicant complies with all other requirements of this section.

I. Any person aggrieved by a variance decision may file an appeal in writing with the land use hearing examiner within ten days of issuance of the administrator's decision. The appeal shall be a proceeding pursuant to Title 15, Review Process IIIA. The appellant must prove by clear and convincing evidence that the administrator abused his or her discretion in a decision made pursuant to this section. Any appeal of a variance decision by the administrator may be affirmed, reversed, or modified by the hearing examiner. The decision of the hearing examiner shall be final. The applicable provisions of Title 15 shall govern procedure and process of any appeal of an administrator's decision, except that public notice requirements established in Section 15.24.110 do not apply to this appeal process. Further, where a provision of Title 15 conflicts with a provision of this section, this section controls. (Ord. 3509-16 § 14, 2016: Ord. 534-78 § 9, 1978)

20.08.160 Right to appeal.

Repealed by Ord. 3509-16. (Ord. 2975-07 § 19, 2007: Ord. 534-78 § 10(a), 1978)

20.08.170 Appeal procedure.

Repealed by Ord. 3509-16. (Ord. 2975-07 § 20, 2007: Ord. 534-78 § 10(b), 1978)

20.08.180 Variance procedure.

Repealed by Ord. 3509-16. (Ord. 2975-07 § 21, 2007: Ord. 534-78 § 10(c), (d), 1978)

20.08.190 Hearing officer.

Repealed by Ord. 3509-16. (Ord. 534-78 § 10(e), 1978)

The Everett Municipal Code is current through Ordinance 3509-16, passed August 10, 2016.

20.08.200 Enforcement—Complaints.

Repealed by Ord. 3509-16. (Ord. 534-78 § 11, 1978)

20.08.210 Provisions not exclusive.

The provisions of this chapter shall be cumulative and nonexclusive, and shall not affect any other claim, cause of action or remedy; nor, unless specifically provided, shall this chapter be deemed to repeal, amend or modify any law, ordinance or regulation relating to noise, but shall be deemed additional to existing legislation and common law on noise. (Ord. 534-78 § 13(a), 1978)

20.08.220 Enforcement—Violation—Penalty.

A. It shall be unlawful to violate or be in conflict with this chapter. Each day, defined as the twentyfour-hour period beginning at 12:01 a.m., in which violation of this chapter occurs, shall constitute a separate violation.

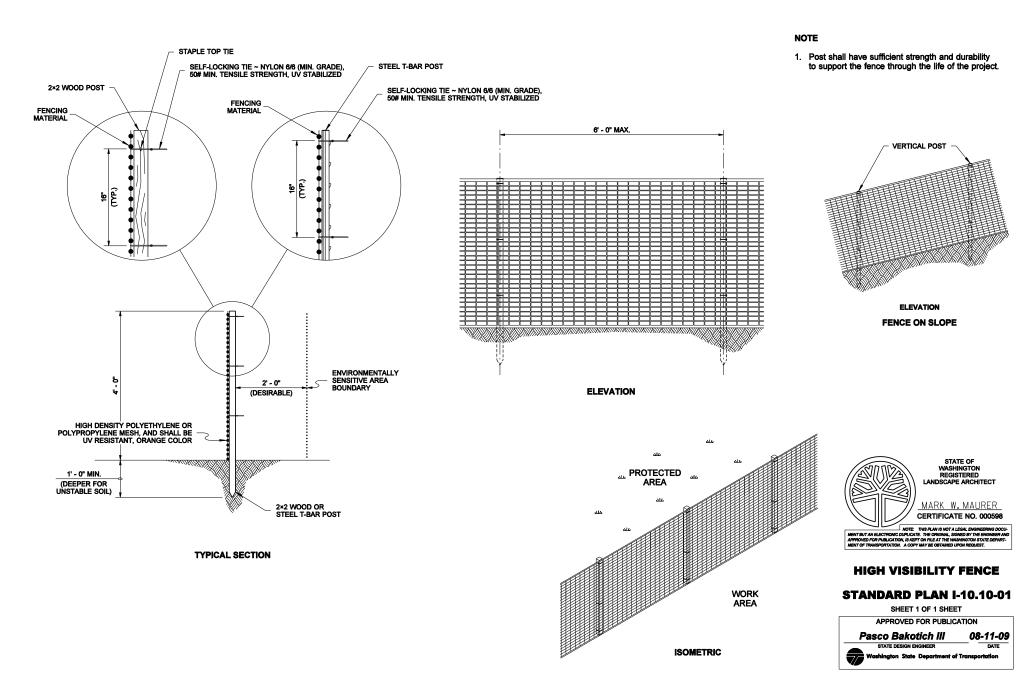
B. Any person, firm, corporation, or association or any agent thereof who violates any of the provisions of this chapter shall be subject to the provisions of Chapter 1.20. In the event an appeal of an order issued pursuant to Chapter 1.20 is not subject to Chapter 36.70C RCW (the Land Use Petition Act), appeal shall be by writ of certiorari.

C. A violation of Section <u>20.08.080</u> or of Section <u>20.08.090</u>(B), (C), or (D) is a criminal misdemeanor punishable in accordance with Section 10.04.080.

D. Evidence in Criminal Proceedings. In any criminal prosecution under Section <u>20.08.080</u> or of Section <u>20.08.090</u>(B), (C), or (D), evidence of sound level through the use of a sound level meter reading shall not be necessary to establish the commission of the offense. (Ord. 3509-16 § 15, 2016: Ord. 690-80 § 3, 1980; Ord. 534-78 § 12, 1978)

## **APPENDIX "F"**

## WSDOT STANDARD PLANS



## **APPENDIX "G"**

## **INADVERTENT DISCOVERY PLAN**

#### 9.0 UNANTICIPATED DISCOVERY PLAN

In the event that any ground-disturbing activities or other project activities related to this development or any future development uncover protected cultural material (see below), the following actions should be taken:

- 1. If the cultural material is a historic or precontact object (glass bottle, tin can, stone, bone, horn or antler tool); a historic or precontact feature (hearth, building foundation, privy), then the onsite supervisor should avoid the object, secure the location and relocate work activities to a different part of the APE. The Project manager should then call a professional archaeologist to evaluate the discovery.
- 2. If ground disturbing activities encounter human skeletal remains during the course of construction, then all activity will cease that may cause further disturbance to those remains. The area of the find will be secured and protected from further disturbance. The finding of human skeletal remains will be reported to the Snohomish County Medical Examiner (425-438-6200) and City of Everett Police (425-257-8400) in the most expeditious manner possible. The remains will not be touched, moved, or further disturbed. The county medical examiner/coroner will assume jurisdiction over the human skeletal remains and make a determination of whether those remains are forensic or non-forensic. If the county medical examiner/coroner determines the remains are non-forensic, then they will report that finding to the Department of Archaeology and Historic Preservation (DAHP) who will then take jurisdiction over the remains. The DAHP will notify any appropriate cemeteries and all affected tribes of the find. The State Physical Anthropologist, Dr. Guy Tasa (360-790-1633), will make a determination of whether the remains are Indian or Non-Indian and report that finding to any appropriate cemeteries and the affected tribes. The DAHP will then handle all consultation with the affected parties as to the future preservation, excavation, and disposition of the remains.

Cultural material that may be protected by law could include but is not limited to:

- Logging, mining, railroad, or agriculture equipment older than 50 years (Figure 18)
- Historic foundations (Figure 19)
- Historic bottles, ceramics, and soldered dot cans (Figure 20, Figure 21)
- Buried cobbles that may indicate a hearth feature (Figure 22)
- Non-natural sediment or stone deposits that may be related to activity areas of people
- Stone tools or stone flakes, projectile points (arrowheads), ground stone adzes or grinding stones (abraders) (Figure 23–Figure 26)
- Bone, shell, horn, or antler tools that may include scrapers, cutting tools, wood working wedges (Figure 27, Figure 28)
- Human remains



Figure 18: Example of railroad ties for UDP.



Figure 19: Example of historic foundation for UDP.



Figure 20: Example of historic glass artifacts for UDP.



Figure 21: Example of historic solder dot can for UDP



Figure 22: Example of protected rock-lined hearth feature for UDP.



Figure 23: Example of projectile point for UDP.



Figure 24: Example of protected adze blade for UDP.



Figure 25: Example of stone tool for UDP.



Figure 26: Example of stone tool for UDP.



Figure 27: Example of bone awl for UDP.



Figure 28: Example of worked bone and spines for UDP.

#### CONTACT LIST

Name	Affiliation	Phone	email
Cheyenne Covington	Osborn Consulting, Inc.	425.451.4009	cheyennec@osbornconsulting.com
Heather Bearnes- Loza	Washington Department of Ecology	360.584.2755	
	City of Everett Police Department	425.257.8400 or 911	
Medical Examiner	Snohomish County	425.438.6200	
Kerry Lyste	Stillaguamish Tribe of Indians	360.682.7362 x226	klyste@stillaguamish.com
Dennis Lewarch	Suquamish Tribe	360.394.8529	Dlewarch@suquamish.nsn.us
Richard Young	Tulalip Tribes of Washington	360.716.2652	ryoung@tulaliptribes-nsn.gov
Gene Enick	Tulalip Tribes of Washington	360.716.2652	genick@tulaliptribes-nsn.gov
Robert Whitlam	DAHP, State Archaeologist	360.890.2615	Rob.Whitlam@dahp.wa.gov
Lance Wollwage	DAHP, Assistant State Archaeologist	360.890.2616	Lance.wollwage@dahp.wa.gov
Guy Tasa	DAHP, State Physical Anthropologist	360.790.1633	Guy.Tasa@dahp.wa.gov
Kelly Bush	Archaeologist (ERCI)	360.661.0356	kelrbush@equinoxerci.com

## **APPENDIX "H"**

# UTILITY POTHOLE DATA

Create Date	2023-11-07
Pothole Number	1A
Overlay Thickness (in) Asphalt	4
Overlay Thickness (in) Asphant Overlay Thickness (in) Concrete	A NA
Overlay Thickness (in) Brick	NA
Utility Type	Power
	3" 2"
Utility Size (in)	PCV
Utility Material	
Pipe Direction	N & S
Soil Cond.	sandy and rocky
Top of Utility from Grade (in)	19
Bottom of Utility from Grade (in)	
Pipe Condition	(3)Good-well definded/no pits
Width of Structure (in) Notes	13
11/07/2023 robw@apslocates.com	ench. (2) X 3" power. (3) X 2" com.
CL Offset 1	Approximately 27 feet west of 3rd Ave se center of road.
CL Offset 2	Approximately 14 feet south of 97th pl se center of road.
Created By	robw@apslocates.com
Created Date	2023-11-07 11:06
Edited By	robw@apslocates.com
Edited Date	2023-11-07 11:14
GPS Latitude	47.9107443
GPS Longitude	-122.2283686
GPS Elevation	498.7ft
GPS Uncertainty	0.83ft
GPS Time	2023-11-07 11:06:50
GPS Data	provider: \$GPGGA quality: DIF satellites: 20 diffID: 0133 geoid separation: -18.179M hdop: 0.6 diffAge: 7.0sec Vertical Accuracy: 0.562m
Attachments	20231107_103436_923.jpg

	20231107_105726_534.jpg	
	20231107_110356_784.jpg	
Ftr ID	127	

Create Date	2023-11-06
Pothole Number	2 A
Overlay Thickness (in) Asphalt	NA
Overlay Thickness (in) Concrete	NA
Overlay Thickness (in) Brick	NA
Utility Type	Power
Utility Size (in)	3" 2"
Utility Material	PCV
Pipe Direction	N & S
Soil Cond.	sandy and rocky
Top of Utility from Grade (in)	40
Bottom of Utility from Grade (in)	44
Pipe Condition	(3)Good-well definded/no pits
Width of Structure (in)	12
Notes	
11/06/2023 robw@apslocates.com Found power and com in a joint tr	ench. 1 ? 3" Com 2?2" pvc conduits.
CL Offset 1	Approximately 28 feet west of 3rd Ave se center of road.
CL Offset 2	Approximately 41 feet south of 97th st se center of road.
Created By	robw@apslocates.com
Created Date	2023-11-06 14:09
Edited By	robw@apslocates.com
Edited Date	2023-11-06 14:16
GPS Latitude	47.9100789
GPS Longitude	-122.2283735
GPS Elevation	494.0ft
GPS Uncertainty	0.74ft
GPS Time	2023-11-06 14:09:23
GPS Data	provider: \$GPGGA quality: DIF satellites: 14 diffID: 0131 geoid separation: -18.179M hdop: 1.1 diffAge: 7.0sec Vertical Accuracy: 0.37m
Attachments	20231106_134013_746.jpg

	20231106_135704_989.jpg	
	20231106_140611_419.jpg	
Ftr ID	124	

Crusta Data	2022 11 06
Create Date	2023-11-06
Pothole Number	3 A
Overlay Thickness (in) Asphalt	NA
Overlay Thickness (in) Concrete	3
Overlay Thickness (in) Brick	NA
Utility Type	Fiber Optic
Utility Size (in)	1.5
Utility Material	PCV
Pipe Direction	N & S
Soil Cond.	native
Top of Utility from Grade (in)	56
Bottom of Utility from Grade (in)	57.5
Pipe Condition	(3)Good-well definded/no pits
Width of Structure (in)	
Notes	
CL Offset 1	Approximately 22 feet west of 3 rd ave se center of road.
CL Offset 2	Approximately 40 feet south of 97th st se center of road.
Created By	robw@apslocates.com
Created Date	2023-11-06 13:05
Edited By	robw@apslocates.com
Edited Date	2023-11-06 13:12
GPS Latitude	47.9100885
GPS Longitude	-122.2283487
GPS Elevation	495.8ft
GPS Uncertainty	0.78ft
GPS Time	2023-11-06 13:05:51
GPS Data	provider: \$GPGGA quality: DIF satellites: 21 diffID: 0131 geoid separation: -18.179M hdop: 0.6 diffAge: 7.0sec Vertical Accuracy: 0.521m
Attachments	20231106_120550_434.jpg

	20231106_130222_624.jpg	
Ftr ID	123	

Create Date	2023-11-07
Pothole Number	5 A
Overlay Thickness (in) Asphalt	NA
Overlay Thickness (in) Asphant	2
Overlay Thickness (in) Brick	2 NA
Utility Type	Fiber Optic
Utility Size (in)	1.5
	PCV
Utility Material	N & S
Pipe Direction Soil Cond.	
	sandy and pea rock 69
Top of Utility from Grade (in)	70.5
Bottom of Utility from Grade (in)	
Pipe Condition	(3)Good-well definded/no pits
Width of Structure (in)	
Notes	
CL Offset 1	Approximately 22 feet west of 3rd Ave se center of road.
CL Offset 2	Approximately 104 feet north of 98th pl se center of road.
Created By	robw@apslocates.com
Created Date	2023-11-07 10:06
Edited By	robw@apslocates.com
Edited Date	2023-11-07 10:13
GPS Latitude	47.9099554
GPS Longitude	-122.2283454
GPS Elevation	489.2ft
GPS Uncertainty	0.80ft
GPS Time	2023-11-07 10:06:56
GPS Data	provider: \$GPGGA quality: DIF satellites: 24 diffID: 0133 geoid separation: -18.179M hdop: 0.5 diffAge: 7.0sec Vertical Accuracy: 0.591m
Attachments	20231107_093943_799.jpg 20231107_095933_415.jpg

	20231107_100423_85.jpg
Ftr ID	126

Create Date	2023-11-06
Pothole Number	6 A
Overlay Thickness (in) Asphalt	7
Overlay Thickness (in) Concrete	NA
Overlay Thickness (in) Brick	NA
Utility Type	Water
Utility Size (in)	
Utility Material	
Pipe Direction	
Soil Cond.	native
Top of Utility from Grade (in)	
Bottom of Utility from Grade (in)	
Pipe Condition	
Width of Structure (in)	

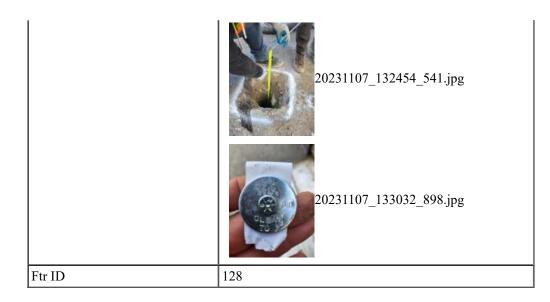
Notes

11/06/2023 robw@apslocates.com Couldn't locate water pipe with locator. Dug 7' deep by 2' wide at locate marks on ground but couldn't find water pipe. Needs to be located again by One call service.

iotatea again of one tan service.	
CL Offset 1	Approximately 12 feet east of 3rd Ave se center of road.
CL Offset 2	Approximately 81 feet south of 97th st se center of road.
Created By	robw@apslocates.com
Created Date	2023-11-06 11:04
Edited By	robw@apslocates.com
Edited Date	2023-11-06 11:12
GPS Latitude	47.9099688
GPS Longitude	-122.2282139
GPS Elevation	491.1ft
GPS Uncertainty	0.55ft
GPS Time	2023-11-06 11:04:58
GPS Data	provider: \$GPGGA quality: DIF satellites: 19 diffID: 0131 geoid separation: -18.179M hdop: 0.7 diffAge: 7.0sec Vertical Accuracy: 0.371m
Attachments	20231106_095901_77.jpg

	20231106_105723_592.jpg
	20231106_110312_929.jpg
Ftr ID	122

Create Date	2023-11-07
Pothole Number	6 B
Overlay Thickness (in) Asphalt	5
Overlay Thickness (in) Concrete	NA
Overlay Thickness (in) Brick	NA
Utility Type	Water
Utility Size (in)	
Utility Material	
Pipe Direction	
Soil Cond.	
Top of Utility from Grade (in)	
Bottom of Utility from Grade (in)	
Pipe Condition	
Width of Structure (in)	
Notes	
11/07/2023 robw@apslocates.com	
	7' deep by about 2' wide but couldn't find water pipe.
CL Offset 1	Approximately 7 feet east of 3rd Ave se center of road.
CL Offset 2	Approximately 84 feet south of 97th st se center of road.
Created By	robw@apslocates.com
Created Date	2023-11-07 13:32
Edited By	robw@apslocates.com
Edited Date	2023-11-07 13:38
GPS Latitude	47.9099604
GPS Longitude	-122.2282268
GPS Elevation	492.5ft
GPS Uncertainty	0.58ft
GPS Time	2023-11-07 13:32:10
GPS Data	provider: \$GPGGA quality: DIF satellites: 16 diffID: 0133 geoid separation: -18.179M hdop: 0.8 diffAge: 5.0sec Vertical Accuracy: 0.351m
Attachments	
	20231107_132338_287.jpg



#### **APPENDIX "I"**

## **CONSTRUCTION STORMWATER SITE INSPECTION FORM**

## **Construction Stormwater Site Inspection Form**

Project Name	Permit #	e	_ Time	
Name of Certified Erosion Sediment Co Print Name:	ontrol Lead (CESCL) or qua	ified inspector if less th	an one acre	
Approximate rainfall amount since th	e last inspection (in inches	):		
Approximate rainfall amount in the la	ast 24 hours (in inches):			
Current Weather Clear Cloudy	/ Mist Rain	Wind Fog		
A. Type of inspection: Weekly	Post Storm Event	Other		
B. Phase of Active Construction (check	c all that apply):			
Pre Construction/installation of erosion/ controls Concrete pours	sediment Cleari Vertic	ng/Demo/Grading	Utilities	ure/storm/roads
Offsite improvements	Const	ruction/buildings emporary stabilized	Final stabili	zation
C. Questions:				
<ol> <li>Were all areas of construction and</li> <li>Did you observe the presence of s</li> <li>Was a water quality sample taker</li> <li>Was there a turbid discharge 250</li> <li>If yes to #4 was it reported to Eco</li> <li>Is pH sampling required? pH rang</li> </ol>	suspended sediment, turbinduring inspection? ( <i>refer</i> NTU or greater, or Transpa logy?	dity, discoloration, or oi to permit conditions S4		No No No No No No

If answering yes to a discharge, describe the event. Include when, where, and why it happened; what action was taken, and when.

\*If answering yes to # 4 record NTU/Transparency with continual sampling daily until turbidity is 25 NTU or less/ transparency is 33 cm or greater.

Sampling Results:

Date:

Parameter	Method (circle one)	Result			Other/Note
		NTU	cm	рН	
Turbidity	tube, meter, laboratory				
рН	Paper, kit, meter				

#### D. Check the observed status of all items. Provide "Action Required "details and dates.

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required
		yes	no	n/a		luncu	(describe in section F)
1 Clearing Limits	Before beginning land disturbing activities are all clearing limits, natural resource areas (streams, wetlands, buffers, trees) protected with barriers or similar BMPs? (high visibility recommended)						
2 Construction Access	Construction access is stabilized with quarry spalls or equivalent BMP to prevent sediment from being tracked onto roads? Sediment tracked onto the road way was cleaned thoroughly at the end of the day or more frequent as necessary.						
3 Control Flow Rates	Are flow control measures installed to control stormwater volumes and velocity during construction and do they protect downstream properties and waterways from erosion? If permanent infiltration ponds are						
	used for flow control during construction, are they protected from siltation?						
4 Sediment Controls	All perimeter sediment controls (e.g. silt fence, wattles, compost socks, berms, etc.) installed, and maintained in accordance with the Stormwater Pollution Prevention Plan (SWPPP).						
	Sediment control BMPs (sediment ponds, traps, filters etc.) have been constructed and functional as the first step of grading. Stormwater runoff from disturbed areas is directed to sediment removal BMP.						
5 Stabilize Soils	Have exposed un-worked soils been stabilized with effective BMP to prevent erosion and sediment deposition?						

# **Construction Stormwater Site Inspection Form**

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required
		yes	no	n/a	mantenance	Tuneu	(describe in section F)
5	Are stockpiles stabilized from erosion,						
Stabilize Soils	protected with sediment trapping						
Cont.	measures and located away from drain						
	inlet, waterways, and drainage						
	channels?						
	Have soils been stabilized at the end of						
	the shift, before a holiday or weekend if needed based on the weather						
	forecast?						
	Has stormwater and ground water						
6	been diverted away from slopes and						
Protect	disturbed areas with interceptor dikes,						
Slopes	pipes and or swales?						
	Is off-site storm water managed						
	separately from stormwater generated						
	on the site?						
	Is excavated material placed on uphill						
	side of trenches consistent with safety						
	and space considerations?						
	Have check dams been placed at						
	regular intervals within constructed channels that are cut down a slope?						
7	Storm drain inlets made operable						
, Drain Inlets	during construction are protected.						
2.4	Are existing storm drains within the						
	influence of the project protected?						
8	Have all on-site conveyance channels						
Stabilize	been designed, constructed and						
Channel and	stabilized to prevent erosion from						
Outlets	expected peak flows?						
	Is stabilization, including armoring						
	material, adequate to prevent erosion						
	of outlets, adjacent stream banks,						
	slopes and downstream conveyance systems?						
9	Are waste materials and demolition						
Control	debris handled and disposed of to						
Pollutants	prevent contamination of stormwater?						
	Has cover been provided for all	1	1				
	chemicals, liquid products, petroleum						
	products, and other material?						
	Has secondary containment been						
	provided capable of containing 110% of the volume?						
	Were contaminated surfaces cleaned						
	immediately after a spill incident?						
	Were BMPs used to prevent						
	contamination of stormwater by a pH						
	modifying sources?						

# **Construction Stormwater Site Inspection Form**

Element #	Inspection	BMPs Inspected			BMP needs maintenance	BMP failed	Action required
		yes	no	n/a	maintenance	laneu	(describe in section F)
9 Cont.	Wheel wash wastewater is handled and disposed of properly.						
10 Control Dewatering	Concrete washout in designated areas. No washout or excess concrete on the ground.						
	Dewatering has been done to an approved source and in compliance with the SWPPP.						
	Were there any clean non turbid dewatering discharges?						
11 Maintain BMP	Are all temporary and permanent erosion and sediment control BMPs maintained to perform as intended?						
12 Manage the	Has the project been phased to the maximum degree practicable?						
Project	Has regular inspection, monitoring and maintenance been performed as required by the permit?						
	Has the SWPPP been updated, implemented and records maintained?						
13 Protect LID	Is all Bioretention and Rain Garden Facilities protected from sedimentation with appropriate BMPs?						
	Is the Bioretention and Rain Garden protected against over compaction of construction equipment and foot traffic to retain its infiltration capabilities?						
	Permeable pavements are clean and free of sediment and sediment laden- water runoff. Muddy construction equipment has not been on the base material or pavement.						
	Have soiled permeable pavements been cleaned of sediments and pass infiltration test as required by stormwater manual methodology?						
	Heavy equipment has been kept off existing soils under LID facilities to retain infiltration rate.						

#### E. Check all areas that have been inspected. 🖌

All in place BMPs	All disturbed soils	Il concrete wash out a	area All material storag	e areas
All discharge locations	All equipment sto	age areas All c	construction entrances/exits	

F. Elements checked "Action Required" (section D) describe corrective action to be taken. List the element number; be specific on location and work needed. Document, initial, and date when the corrective action has been completed and inspected.

Element #	Description and Location	Action Required	Completion Date	Initials

Attach additional page if needed

#### Sign the following certification:

"I certify that this report is true, accurate, and complete, to the best of my knowledge and belief"

Inspected by: (print)		(Signature)	 Date:	
Title/Qualification of Ir	spector:	_		

#### **APPENDIX "J"**

## **INDUSTRIAL DISCHARGE APPROVAL REQUEST FORM**

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City of Everett Public Works Discharge Authorization Requests c/o Fred Rapelyea 3200 Cedar Street Everett, WA 98201

For COE-PV	/ Use Only
Date Received:	
Staff:	
Approval No:	

#### INDUSTRIAL DISCHARGE APPROVAL REQUEST FORM

A. G	eneral Information:		
1.	Company Name:		
	Contact Person:	,	Title:
	24 hour Contact Phone:		(30 minute response required)
	Email Address:		-
	Mailing Address:		
2.	Site Name:		
	Site Address:		
3.	Requester Name/ Company:		
	Requester Address:		Phone:
	Email Address:	<u> </u>	
4.	Billing Contact Name:		Phone:
в. w	aste Characteristics/Site Information:		
1.	Describe discharge:		
2.	Describe your project and why discharge a	uthorization is required:	
3.	Are there any MSDS sheets applicable to t (Attach relevant MSDS sheets.)	he waste?YesN	0
4.	Source of waste (groundwater, constructio	n dewatering, etc.):	
5.	Volume of waste: (g	allons) Rate of discharge (max gpm):	
6.	Frequency of discharge: One-time _	On-going Continuous flow?	YesNo
	If on-going, please note the number or free	juency/requested duration of discharg	ge events per year:
7.	Requested start date:		
8.	Identify proposed point of discharge:		

 The wastewater must be sampled at least once for the following constituents prior to discharge and subject to the associated limits listed below. Samples must be submitted prior to discharge, to verify discharge limits. Should lab samples indicate higher than allowed discharge limits, a plan of how to bring the discharge within the required limits will be required before issuance of the permit.

$\checkmark$	Analyte	Limit
	As	0.5 mg/L
	Cd	0.24 mg/L
	Cr	5.0 mg/L
	Cu	3.0 mg/L
	Pb	1.9 mg/L
	Hg	0.1 mg/L
	Ni	2.83 mg/L
	Ag	0.49 mg/L
	Zn	4.0 mg/L
	CN-	0.65 mg/L
	Nonpolar FOG	200 mg/L

C. Additional Pertinent Information: (Attach additional information if necessary)

#### D. Discharge Authorization Conditions

- 1. You must comply with the general use and discharge requirements of the Industrial Pretreatment Ordinance #3070-08 as amended (attached), as well as any applicable Federal and State regulations.
- 2. The City solely reserves the right to modify, suspend, or terminate the authorization at any time, once issued.
- 3. The City may modify the discharge location at any time to an alternate location that best suits the City. Discharge operations shall comply with the City's Noise Ordinance.
- 4. Discharges during rainfall may be prohibited.

#### E. Discharge Authorization Permit Fee

1. The total fee for the Discharge Authorization Permit is \$500. Payment must be received with application. Make payments only by mail. Make check payable to "City of Everett Utilities".

#### F. Sewer Discharge Rates

1. Sewer collection and Industrial Pretreatment fees will be billed monthly, and will include the then current sewer rate (2022 rate of \$9.25 per 100 cubic feet) AND the industrial surcharge of \$0.19 per thousand gallons of flow.

#### G. Certification of Information

I hereby certify that the information supplied in this request is correct and complete to the best of my knowledge.

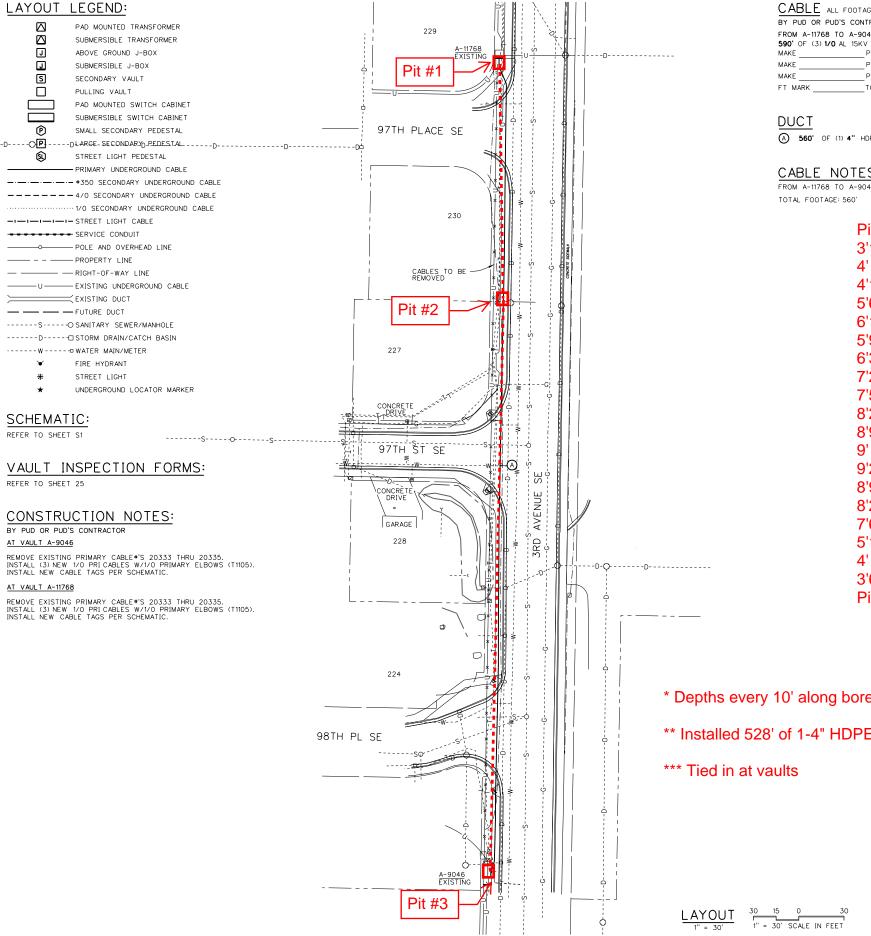
Name (Print):	Title:	
Signature	Date:	
Email:	Phone:	

Send or email completed request to address at the top of this form. For further questions regarding this request, contact Brian Doolan at 425-257-8828 (or <u>bdoolan@everettwa.gov</u>). Fax: 425-257-8882.

#### **APPENDIX "K"**

## UTILITY RELOCATION AS-BUILT PLANS

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-D-

CABLE ALL FOOTAGES APPROXIMATE BY PUD OR PUD'S CONTRACTOR FROM A-11768 TO A-9046 590' OF (3) 1/0 AL 15KV CNCTRC NEUT JCKTD PRI IN 4" HDPE REEL PO REEL PO PO REEL то (A) 560' OF (1) 4" HDPE BY PUD'S CONTRACTOR (UNDER SIDEWALK) CABLE NOTES: FROM A-11768 TO A-9046, REMOVE PRIMARY UGND CABLE#'S 20333 THRU 20335. Pit #2 Pit #1

3'10"	3'6"
4'	4'
4'10"	5'2"
5'6"	7'4"
6'1"	8'11"
5'9"	9'5'
6'3"	10'
7'2"	11'2"
7'5"	11'9"
8'2"	12'6"
8'9"	12'9"
9'	12'4"
9'2"	12'3"
8'9"	12'3"
8'2"	12'4"
7'6"	12'7"
5'11"	12'6"
4'	12'2"
3'6"	11'7"
Pit #2	11'2"
	10'7"
	10'6"
	10'6"
	10'2"
ore path	10'3"
	10'6"
PE conduit	11'
	10'9"
	10'6"
	10'2"
	9'4"

8' 6'7"

7'2"

4'8"

3'9"

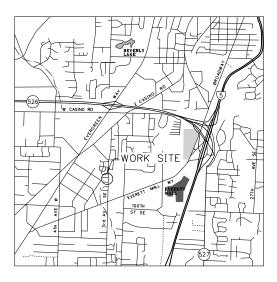
Pit #3

N



#### **Trenchless Construction** As-Built 05/31/2024

LOCATION <b>3RD AVE SE &amp; 97TH S</b>				EVERETT
POLE NO				
REASON FOR WORK <u>RELOCATE</u> 30 P	RIMARY	ENGINEER_DAHLBECH	C OPERAT	ION <u>0060</u>
UNDERGROUND S	ERVICE FOR	DRAFTER <u>C. LEE</u>	UGND N	0 4176-24
CITY OF EVERE	TT	APPROVED DCI	SCALE_	NOTED
(RELOCATE CAB	_E)			
ATE WORK COMPLETED I	OREMAN		$\backslash$	
UBSTATION OLIVIA PARK				
IRCUIT NO 12-2578 PHASE	1,2,3 DATE			
	FEES REC	Q'D □ YES ■ NO		<
ROAD CROSSINGS ON	- FRIMARI OVE	RHEAD		$\backslash$
APPV DATE DESCRIPT				
	LEO#			
REVISIONS		= \$		
APPV NO. DATE DESCRIPT				
	C RESIDENTIAL		PERMITS	(DATE GRANTED)
	COMMERCIAL		TREE TRIM	
	LEU#	SIC FEE S	] STATE	
		/'= <b>s</b> □	I COUNTY	
			EVERETT	
	SECONDARY U		ı ı	
		SIC FEES	ASEMENTS	REQUIRED
		/'= \$ E	•	■ NOT REQUIRE
		R	EQUEST NO.	
			ATE APPROV	
			OREIGN CO	NTACTS
			] JPN#	
				IZIPLY & CATV
			N/A	ZIPLY & CATV
			OLE STENC	11 11/0
	WORK IN RIGH			TO
			AKE OFF POLI	
AS-BUILT	□ SECONDARY			REQUIREMENTS
APPV NO. DATE DESCRIPT	IONFT@\$			PUD LOCATOR
	MISCELLANEOU	JS FEES	BACKHOE	
		VAULT \$		TE
		PERMIT \$	•	
		\$S	STREET LIG	HTING
		\$	IYES ■NO	
		\$	M&R	AS-BUILT
	DATE PAID	TAL DUES	GIS GIS QC	M&R
			GIS QC GIS Ph	JOINT USE
ENGINEER J.C. DAHLBECK				
	PHONE	<u>L</u>	UCATION MAP	PAGE 416, B6
INVINE (TZU) / UU TTUB				
	PAGER/	1	RINTED	



#### VICINITY MAP

#### TAGS

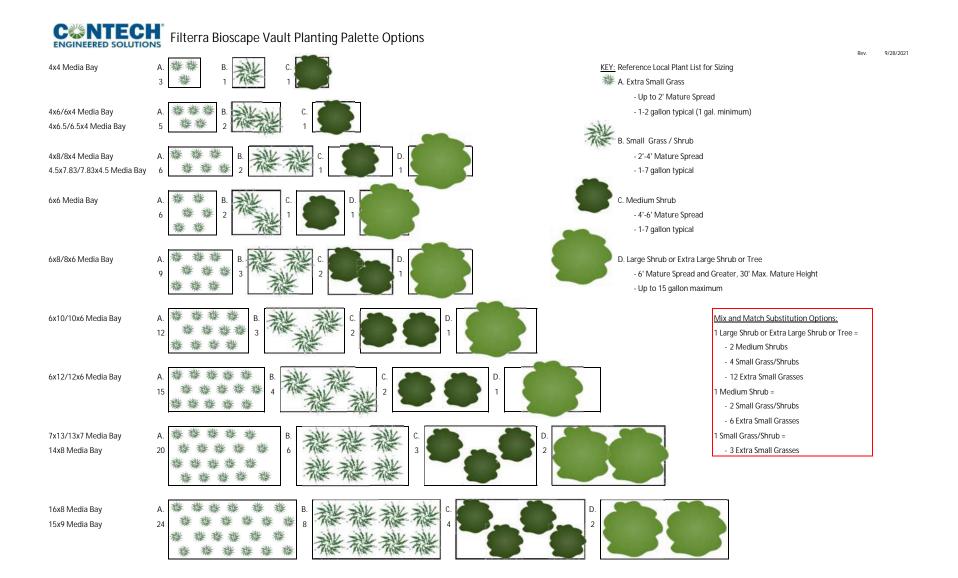
VAULT: EXISTING CABLE: 116594 THRU 116596

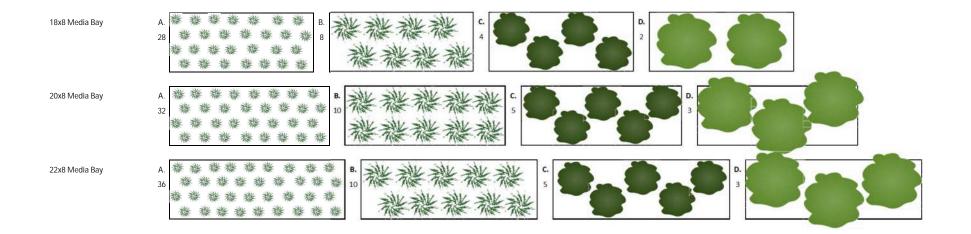


#### **APPENDIX "L"**

#### FILTERRA BIOSCAPE VAULT PLANTER PALETTES

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#### CITY OF EVERETT, WASHINGTON PUBLIC WORKS DEPARTMENT

#### ADDENDUM NO. 1

3<sup>rd</sup> Ave Water Quality Facility UP 3775 **10-10-2024** 

#### **Notice to Plan Holders:**

This Addendum No. 1 contains the following revisions, additions, deletions, and/or clarifications, is hereby made a part of the plans and specifications (Contract Documents) for the above named project, and shall be taken into consideration by Bidders in submitting their bids.

Bidders shall acknowledge receipt of this Addendum No. 1 in the space provided on the Proposal. Failure to do so may subject the Bidder to disqualification of its bid.

#### Addendum details

#### **PLANS**

No changes.

#### **SPECIFICATIONS**

**Division B- Bid Item Descriptions** 

**Delete** "furnishing, stockpiling, hauling placing and compacting of suitable pipe bedding material;" from the third paragraph of the bid item description for Bid Items 16, 17 and 18. Bedding material will be paid for under Bid Item 13-Crushed Surfacing Base Course.

Add the following to Bid Item 10- Removing Cement Conc. Sidewalk Incl. Haul.:

"Measurement for Removing Cement Conc. Sidewalk Incl. Haul shall also include removal of cement concrete curb and gutter measured by the square yard. The unit price for this bid item shall be full payment for all costs incurred to perform the Work described in Section 2-02.3(3)C to complete the

work in accordance with the Plans, COE Standard Drawings, Standard Drawings and these Special Provisions."

**Bidder Question:** "Plan sheet CD1 note 3 refers to plant selection will be according to plans and specifications, also says provided by contractor. Specifications SP182 says plantings where indicated on plans. There is not plant list or plan that is part of the bid documents that list."

**Answer:** Plant requirements within the Water Quality Treatment Facility are identified in the last paragraph on page SP-179 of the Special Provisions. Plant specifics are provided in Section 7-06.2 on page SP-176.

#### **CONTRACT**

No changes

#### **PROPOSAL**

No changes

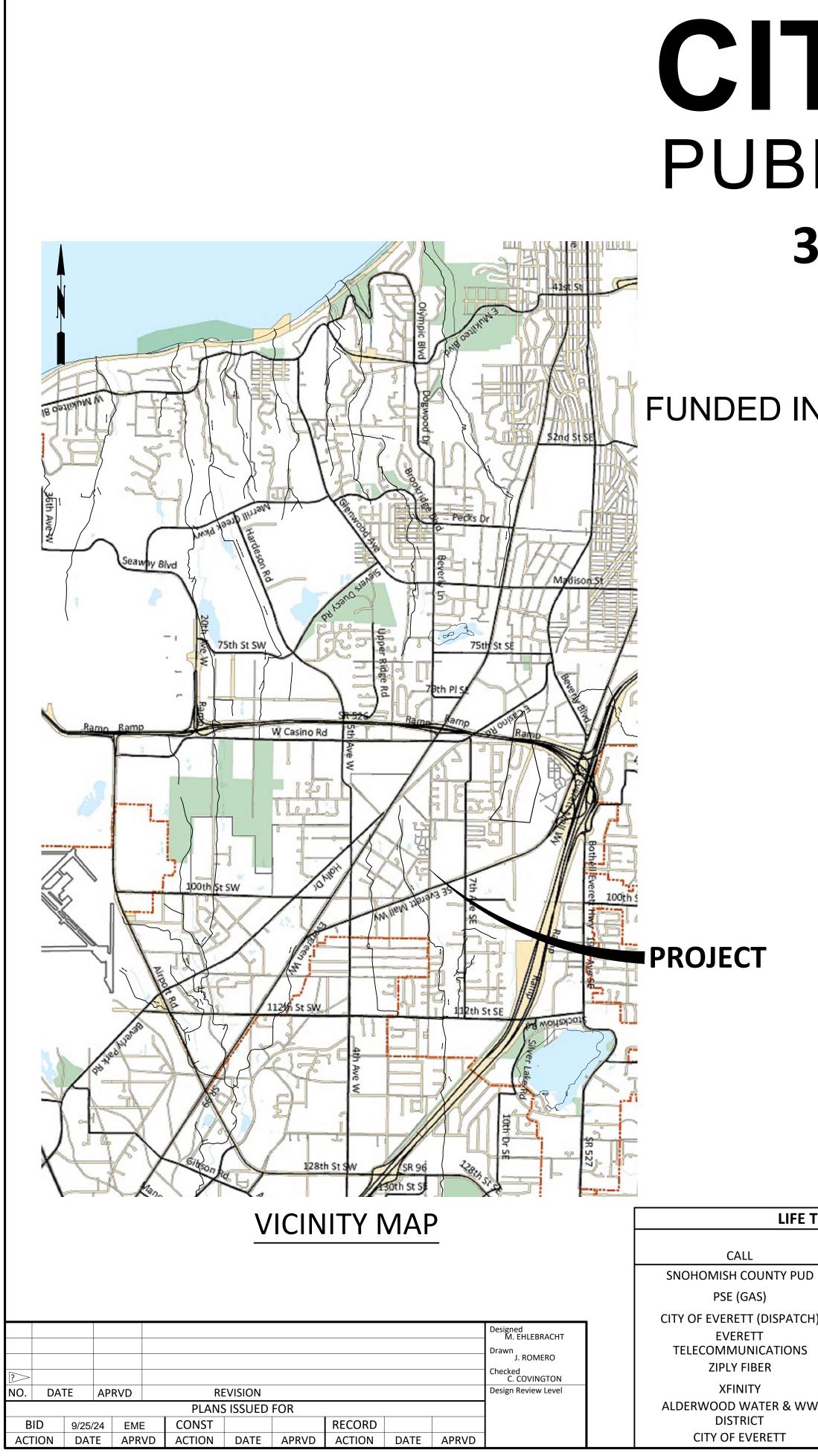
All other requirements of the plans and specifications remain in effect.

This addendum shall be attached to and made a part of the plans and specifications and shall be acknowledged on the bidder's proposal.

Sincerely,

Erik Emerson, PE Project Manager

Attachments: None



# CITY OF EVERETT PUBLIC WORKS DEPARTMENT **3RD AVE WATER QUALITY FACILITY**

SNOHOMISH COUNTY, WASHINGTON SECTION 13, TOWNSHIP 28N, RANGE 4E, W.M. FUNDED IN PART BY THE WASHINGTON DEPARTMENT OF ECOLOGY

WORK ORDER: UP 3775

	DRAWING INDEX				
SHEET	DRAWING	Sheet Description			
#	#	Sheet Description			
1	G1	COVER			
2	G2	LEGEND			
3	V1	SURVEY			
4	V2	SURVEY			
5	CX1	TESC AND SITE PREPARATION			
6	CX2	TESC AND SITE PREPARATION			
7	C1	STORM DRAINAGE PLAN AND PROFILE			
8	C2	STORM DRAINAGE PLAN AND PROFILE			
9	CD1	DETAILS			
10	CD2	DETAILS			
11	CD3	DETAILS			
12	CD4	DETAILS			

THRE.	HREATENING EMERGENCIES: FIRST CALL 911				
	EMERGENCY CONTACTS				
	24 HR PHONE	FOR:			
)	425-783-1001	ELECTRICAL			
	1-888-225-5773	GAS LEAKS			
1)	425-257-8832	SS,SD,WATER, TRAFFIC & SIGNAL			
	425-257-8980	TELECOMMUNICATIONS			
	1-833-988-4477	UNDERGROUND FIBER OPTIC			
	800-934-6489	CABLE			
V	425-743-4605	24-IN SS & 30-IN WATER			
	425-257-8999	WATER SHUT-OFF			





# CITY OFFICIALS:

# MAYOR:

CASSIE FRANKLIN

# **COUNCIL MEMBERS:**

COUNCIL PRESIDENT DON SCHWAB

MARY FOSSE PAULA RHYNE SCOTT BADER

LIZ VOGELI **BEN ZARLINGO** JUDY TUOHY

# **RECOMMENDED FOR APPROVAL :**

IK EMERSON PE

MAINTENANCE SUPERINTENDEN GRANT MOEN

# **APPROVED BY :**

HOMAS W. HOOD, P.E.



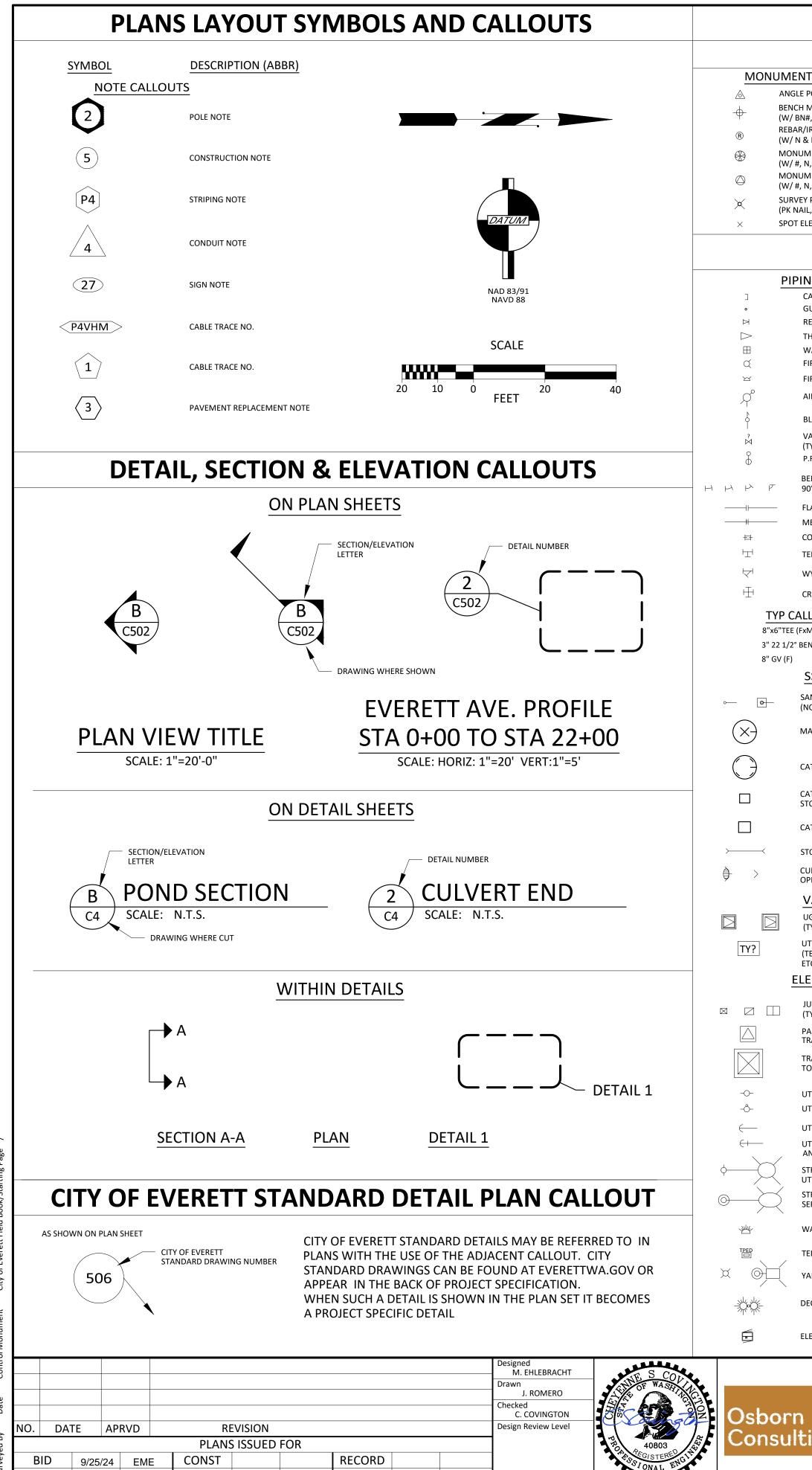


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Drawing	
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Sheet No.	
	12 Of Total



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ACTION DATE APRVD ACTION DATE APRVD

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ACTION DATE APRVD

	BASE MA	AP SYMBOLS				
	SURVE	Y & CONTROL				
ENTS & POINTS	SE	CTION DATA		PLAT DATA	AB ABBR ABAND	ANCHOR BOLT ABBREVIATION ABANDONED
GLE POINT (W/ N & E) ICH MARK ' BN#, N, E & EL) AR/IRON PIPE	SECTION CENTER (W/ DNR#, N & E)	⊗ SIXTEENTH CORNER (#, N & E)		PLAT BLOCK NO (W/ #)	ABUT ACT ADD ADJ AFF	ABUTMENT ACTUAL ADDENDUM, ADDITION ADJUST ABOVE FINISH FLOOR
#, N, E & EL) NUMENT SURFACE	SECTION CORNER (W/ DNR#, N, E, SEC#'S)	CLOSING CORNER	~	TAX LOT OWNERSHIP TIE	AH ALT ALY AMEND AP	AHEAD ALTERNATE ALLEY AMENDMENT ANGLE POINT
	QUARTER CORNER (W/ DNR#, N, E & SEC#'S)	MEANDER CORNER └── MC (W/ DNR#, N, E & SEC#)	(?	TAX LOT / PARCEL NUMBER	APPROX APWA ARCH ARV	APPROXIMATELY AMERICAN PUBLIC WORKS ASSOC ARCHITECTURE AIR RELIEF VALVE
DT ELEVATION (W/ ELEV)			<b>F\/</b>		ASPH	ASPHALT AUXILIARY
		<b>VPHIC &amp; UTILIT</b>	Y		AVAR AVG	AIR VACUUM, AIR RELEASE AVERAGE
PING CAP/PLUG	SIGNA	<u>L</u>		PAVEMENT MARKINGS		AMERICAN WIRE GAUGE RD B BLACK
GUARD POST (BOLLARD) REDUCER	6' SQ 6' DIA	DIPOLE DETECTOR		BIKE PATH	BC BITUM BK	BLOCK CORNER BITUMINOUS BACK
THRUST BLOCK WATER METER FIRE HYDRANT		DIPOLE DETECTOR (6' x VAR')	Ġ	DISABLED SYMBOL	BLVD	BLUE BUILDING BOULEVARD
FIRE DEPT. CONNECTION	·	DIPOLE DETECTOR (6' x VAR')		H.O.V. LANE SYMBOL	BLK BOC BOW	BLOCK BACK OF CURB BACK OF WALK
AIR RELIEF BLOW-OFF		QUADRUPOLE DETECTOR (6' x VAR')		ONLY LEGEND	BOL BM BOC	BACK OF CURB
VALVE (TYPE=G, W, PIV)		BICYCLE DET LOOPS (2' x 12')		STOP LEGEND	BOW	BOLLARD BOTTOM BACK OF WALK
P.R.V.		EVP INDICATOR LIGHT OPTICOM SENSOR	RUNU	SCHOOL LEGEND	BRG BRK	BREAK
BENDS (11-1/4°, 22-1/2°, 45°, OR 90°)						BETWEEN CONDUCTOR
FLANGE CONNECTION MECHANICAL CONNECTION COUPLING		PEDESTRIAN SIGNAL HEAD (TYPE E, B & C ) R/R CROSSING GATE		RAILROAD CROSSING	CAP CB CB1 CB2	CAPACITY CATCH BASIN, CABLE CATCH BASIN TYPE 1 CATCH BASIN TYPE 2 CENTER TO CENTER
TEE WYE		CONTROLLER (TYPE 30,332,336,G,M & P)		STRAIGHT ARROW	CCb CCd	COAXIAL CABLE CONTROL CONDUIT CONCRETE CURB & GUTTER
CROSS	87 87 83 80	TELEMETRY CABINET (24"Wx46"Hx10"D) SERVICE CABINETS		LT.RT.STR.ARROW	CCL CD	CREEK CENTER LINE CONDUIT
CALLOUTS E (FxMJ)	<b>4</b>	(ON FOUNDATION OR POLE) TRAFFIC SIGNAL POLE (TYPE 2)	J.		CHG CHK	CURB & GUTTER CHANGE CHECK
° BEND (ALL F)		SIGNAL POLE W/LUM (TYPE 3)		> LEFT-STRAIGHT ARROW	CICL CIP CIR	CAST IRON CAST IRON CONCRETE LINED CAST IN PLACE CIRCUIT, CIRCLE
<u>SS AND SD</u> SAN. SEWER CLEAN OUT	$\odot$	SIGNAL POLE (TYPE 1)	J.	RIGHT-STRAIGHT ARROW	CLF	CLAY CHAIN LINK FENCE
(NORMAL & IN PAVEMENT) MANHOLE (TYPES 1, 2 & 3)	© ®	SIGNAL STRAIN POLE (TYPE 4)		LEFT-RIGHT ARROW	CLR CLS	CENTERLINE CLEARANCE, CLEAR CLASS, CHLORINE SOLUTION CORRUGATED METAL PIPE CONC
CATCHBASIN (TYPE 2)	©	(STEEL OR WOOD) PEDESTRIAN POLES (TYPE PPB & PS)	ST -	2-WAY LEFT TURN	CND	COUNTY
CATCHBASIN (TYPES 1 & 1P)	$\rightarrow$	VEHICLE SIGNAL HEAD	e Fr	LEFT TURN ARROW	COE COL	CITY OF EVERETT COLUMN COMMON
STORM DRAIN INLET		VEHICLE SIGNAL HEAD W/ARROW INDICATOR			COMM CONC	COMMUNICATE CONCRETE CONNECTION
CATCHBASIN (TYPE 1L)			25	RIGHT TURN ARROW	CONST CONT	CONNECTION CONSTRUCT CONTINUED, CONTINUOUS COORDINATE
CULVERT TRASH RACK OR OPEN END		4 WAY FLASHER		COE (2' x 10')	COP COR	
VAULTS	B#	SOIL BORING		DOT	CRN CS	CROWN OF ROAD COMBINED SS & SD SYSTEM CENTER
UG VAULTS (TYPE 444LA & 504LA,)	⊕ <b>TP#</b>			D PAVEMENT MARKERS: (RPM)	CU	COURT CUBIC
UTILITY VAULT (TEL, TLM, SIG, WTR, GAS ETC)	⊕ *	SOIL TEST PIT	$\bigcirc$	LANE MARKERS TYPE I		CULVERT CYLINDER D
ELECTRICAL	₩ NO	PAVEMENT CORING		LANE MARKERS TYPE II	DB	DEPTH, DIPOLE DIRECT BURIAL CABLE DOUBLE
JUNCTION BOX (TYPE 1, 2, 3 & SPECIAL)		MONITORING WELL (TYPE, TOP, DEPTH)		<u>SIGNS</u>	DE	DITCH CENTERLINE DE ENERGIZE DEGREE
PAD MOUNTED TRANSFORMER		LANDSCAPING	<]-⊳	ILLUMINATED MASTARM SIGN	DI	DETAIL DUCTILE IRON DIAMETER
TRANSMISSION TOWER	27827	ROCKERY	<u>~</u>	MASTARM ST NAME SIGN	DIAPH DIR	DIAPHRAGM DIRECTION
UTILITY POLE	*********	SHRUB	40	MASTARM MOUNTED SIGN	D/L	DOWN DRAIN, DRIVE DAYLIGHT
	()) O 🐝	BUSH		SIGN W/ & W/O SINGLE POST		
UTILITY POLE ANCHOR UTILITY POLE SIDEWALK		TREE (Conifer) W/ & W/O 10'DIA				E EAST, ELECTRICAL EACH
ANCHOR STREET LIGHT ON		DRIP LINE		SIGN ON SN BRIDGE ST NAME INTX SIGN	ECb ECC	ELECTRICAL CABLE ECCENTRIC
UTILITY POLE STREET LIGHT ON	(·) ( + )	TREE (Deciduous) W/ & W/O 10'DIA DRIP LINE		TYPE 1, 2 OR BARRICADE		EACH FACE EASEMENT LINE ELBOW
SEPARATE POLE WALL MOUNTED LIGHT	MIS	CELLANEOUS	v ب	$\stackrel{\Delta}{=}$ SINGLE OR DOUBLE SIDED	ELEV EMH	ELEVATION ELECTRICAL MH
TELEPHONE RISER	BUS SHELTER	BUS STOP	$\bigcirc$	TEMP W/ BASE	ENCL ENG ENGR	
YARD LIGHT		MAIL BOX	•	TEXT SYMBOLS	EMB EO EOA	EMBANKMENT EDGE OF EDGE OF ASPHALT
DECORATIVE STREET LIGHT	ТВ	TELEPHONE BOOTH	Ø	PHASE, DIAMETER AND	EOC EOD	EDGE OF CONCRETE EDGE OF DIRT
	<u> </u>	EMBANKMENT	& ' ''	FEET, MINUTES INCHES, SECONDS	EOG EP EQ	EDGE OF GRAVEL EDGE OF PAVEMENT EQUAL
ELECTRICAL SERVICE CABINET		RIP RAP	o	DEGREE	EQUIP	EQUIPMENT ELECTRICAL VAULT
n		EVERE1 PUBLIC WORKS	T	3RD AVE WA	TER QL	JALITY FACILITY
Iting www.osbornc	onsulting.com	3200 Cedar Street Everett, WA 98201 425.257.8800 everettwa.gov		WORK	ORDER	UP 3775

# **STANDARD ABBREVIATIONS**

MSN

MU

EX,

	STANDARD AB
EVP	EMERGENCY VEH PRE-EMPTION EACH WAY
EX, EXIST	EXISTING
EXT	EXCAVATION EXTERIOR, EXTENSION, EXTRUDED
EVT	EVERETT F
,	FLANGE
FND	FABRICATE FOUNDATION
	FAR FACE, FIN FLOOR FINISHED GRADE
	FIRE HYDRANT FIGURE
	FINISH, FINISHED FOG LINE
FLD	FIELD FILTER
FLX	FLEXIBLE
FIN	FROM, FORCE MAIN FENCE
FOG	FACE OF CURB FOG LINE
FOW FP	FACE OF WALL FULL PENETRATION, FLAG POLE FEET/FOOT
	FEET/FOOT FOOTING
FWD	FORWARD FINISHED WATER PUMP STATION
	FREEWAY
G	G GAS LINE, GREEN
GA GALV	GAUGE GALVANIZED
	GARAGE GREEN W/BLACK TRACER GRAVEL
GDWY	
GEN	GENERATOR GAS METER
GM	GALV IRON
GL GLV	GUTTER LINE, GLASS GLOBE VALVE
GM GR	
GRD GV	GROUND GAS VALVE
GVL GVT	GRAVEL GAS VAULT
	Η
H H-T	HUB & TACK
HAP HD	
HDCP HDG	HANDICAP SYM HOT DIPPED GALV
HI HORIZ	HEIGHT OF INSTRUMENT HORIZONTAL
HPS	HIGH PRESSURE SODIUM HIGH STRENGTH BOLT
HSE	
HTS	HEIGHTS
	HOT WATER HIGHWAY
HYDR	HYDRAULIC
	IRON
IDENT	
IE IF	INSIDE FACE
IL ILLUM	INLET ILLUMINATE
IMSA	INTERNATIONAL MUNICIPAL SIGNAL ASSOC.
IN INCL	INCH/INCHES INCLUDE
INCR IND	INCREASE
INDUCT	INDUCTANCE INSTALL, INSTRUMENT
INSUL	,
INV	INVERT, INVERSE
IP IS	ISLAND
ITE	INSTITUTE OF TRANSPORTATION ENGINEERING
JNX	JUNCTION
JB	JUNCTION BOX
TJC TJC	
KG	KILOGRAM
KHZ KM	-
KV KW	KILOVOLT KILOWATT
KWH	KILOWATT HOUR
L	, -
LAB	
LAT LBS	· -
LF LIM	•
LK	LAKE
LONG	LONGITUDINAL, LONGITUDE
LT	LEFT
LUMIN LWR	LOWER
M	M
MA MACH	TRAFFIC DETECTION MAGNETOMETER
MAINT	MAINTENANCE
MAX	-
MC	
	MEDIUM
MER MFR	MERIDIAN MANUFACTURE
MHHW	
	MEAN HIGH TIDE
MIC	-

/ID /IL	
	MIDDLE MILITARY
/IN	MINIMUM, MINUTE
ISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MK	MARK
ML	MATCH LINE MEAN LOWER LOW WATER
LW 1LT	MEAN LOW TIDE
LW	MEAN LOW WATER
OD	MODIFICATION
Л/L	MONUMENT LINE
CSP	MORTAR LINED AND COATED STEEL PIPE
rcs	MORTAR LINED TAPE
CSP	COATED STEEL PIPE MORTAR LINED EPOXY COATED STEEL
	PIPE
ON	MONUMENT
OC	MIDPOINT ON CURVE
IRY	MASONRY
MT CD	MEAN TIDE MANUAL ON UNIFORM TRAFFIC
CD	CONTROL DEVICES
	N
N	NORTH
NA	NOT APPLICABLE
IEG	NEGATIVE
UT MA	
VIA	NATIONAL ELECTRICAL MANUFACTURERS ASSOC
UT	NEUTRAL
NF	NEAR FACE
NIC	NOT IN CONTRACT
MC STI	NOMINAL NOT TO SCALE
NO	NUMBER
	0
0	ORANGE
OB	ORANGE W/BLACK TRACER
NG	OVERHEAD CROSSING
00	ON CENTER
OD OF	OUTSIDE DIAMETER OUTSIDE FACE
OF	OVERHEAD
ΗP	OVERHEAD POWER
W	ORDINARY HIGH WATER
OL NG	OVERLAP PHASE OPENING
NG )PP	OPPOSITE
) PR	OPERATE
)PT	OPTIC
ОТ	OVERHEAD TELEPHONE
ΟZ	P
Р	POLE, POWER
PAR	PARALLEL
PC	POINT OF CURVATURE
PCC	PT OF COMPOUND CURVE PERFORATED DRAIN LINE
PE	PLAIN END
PED	PEDESTRIAN
RM ERP	PERMANENT PERPENDICULAR
PH	PHASE
PI	POINT OF INTERSECTION
WY PL	PARKWAY PLASTIC, PLATE, PLACE
ÓĂ	POLE ORIENTATION ANGLE
OC	POINT ON CURVE
OS	POSITIVE, POSITION
PB PBP	PEDESTRIAN PUSH BUTTON PEDESTRIAN PUSH BUTTON POST
PR	PAIR
PRC ROJ	PT OF REVERSE CURVE PROJECT
OP	PROPERTY
RV	PRES REDUCING VALVE
PSI	POUNDS PER SQ. IN.
PT UD	POINT OF TANGENCY, PT PUBLIC UTILITY DISTRICT NO.1 OF
PT	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY
PT UD PV	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT
PT UD PV VC	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE
PT UD PV	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT
PT UD PV VC MT VT P/C	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT
PT UD PV VC MT VT P/C P/L	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE
PT UD PV VC MT P/C P/C P/L P/S	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED
PT UD PV VC MT VT P/C P/L	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE
PT UD PV MT PVC MT P/C P/L P/S P/T	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER
PT UD PV MT PVC MT P/C P/L P/S P/T	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED
PT UD PV MT P/C P/L P/S P/T WR QC	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUARTER CORNER
PT UD PV VC MT P/VT P/C P/L P/S P/T WR QC QT	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUARTER CORNER QUART
PT UD PV MT P/C P/L P/S P/T WR QC	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUARTER CORNER
PT UD PV OVC MT P/C P/C P/L P/S P/T WR QC QT QT QT QT QT AD	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE
PT UD PV MT P/C P/L P/S P/T WR QC QT QT QT QT	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY
PT UD PVC MT P/C P/L P/S P/T WR QC QT QT QT QT QT JAL	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUARTER CORNER QUARTER QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R
PT UD PVC MT PVC P/C P/L P/S P/T WR QC QT QT QT QT QT QT AD JAL	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER
PT UD PVC MT P/C P/L P/S P/T WR QC QT QT QT QT QT JAL	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUARTER CORNER QUARTER QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R
PT UD PV VVC P/L P/C P/L P/S P/T WR QC QC QT QC QT QC QT AD JAL R RA R-C RC	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC
PT UD PV VVC P/L P/C P/L P/S P/T WR QC QC QT QC QT QC QT R AD JAL R RA R-C CKY	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER QUANTITY QUANTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY
PT UD PV VVC P/L P/C P/L P/S P/T WR QC QC QT QC QT QC QT AD JAL R RA R-C RC	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC
PT UD PV VC MT P/C P/L P/S P/T WR Q Q Q Q T Q C Q T Q C Q T R A D JAL R R A R C C KY R B R D	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND
PT UD PV VC MT P/C P/L P/S P/T WR Q Q Q Q T Q Q T Q Q T Q Q T Q C Q T R AD JAL R R A C C KY R B RD C C KY	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED
PT UD PV VC MT P/C P/L P/S P/T WR Q Q Q Q T Q Q T Q Q T Q Q T Q Q T Q C Q T R A D JAL R R C C KY C C R B R D C C C C C C C C C C C C C C C C C C	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUARTER QUARTAR QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE
PT UD PVC MT P/C P/L P/S P/T WR Q Q Q Q Q T Q Q T Y A D JAL R R R C C C C R B R C C C C R B R C C C C	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED
PT UD PVC MT P/C P/L P/S P/T WR Q Q Q Q Q T R A A L A A L A C C C C R B R C C C C C C C C C C C C C	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED
PT UD PV VVC P/VC P/L P/S P/T WR QC QC QC QC QC QC QC QC QC QC RB CC CC RB RC CC CC RB RD CC CC RB RD CC CC RB RD CC RB RD CC RB RD CC RD RC RC RC RC RC RC RC RC RC RC RC RC RC	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED
PT UD PVC MT P/C P/L P/S P/T WR Q Q Q Q Q T R A A L A A L A C C C C R B R C C C C C C C C C C C C C	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED
PT UD PV VC PV PV PV PV PV PV PV PV PV PV PV PV PV	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER QUARTER QUANTITY QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFRENCE REGULAR REINFORCED REMOVE, REMOVED REQUIRED RETAINING
PT UD PVC MTT P/CL P/S P/W Q Q Q T R A L A L A L A L A L A L A L A L A L A	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER QUANTITY QUANTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFRENCE REGULAR REINFORCED REMOVE, REMOVED REPLACE, REPLACED REQUIRED RETAINING RETAINING WALL
PT UD PV VC PV PV PV PV PV PV PV PV PV PV PV PV PV	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER QUARTER QUANTITY QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFRENCE REGULAR REINFORCED REMOVE, REMOVED REQUIRED RETAINING
PT UD PVC MTT P/C P/LS P/TW QC QC TR YD JAL RACC CC RB RD CC TF E E F I W MTT P/C P/LS P/TW QC QC TR YD A JAL RACCC F RB RD CC TF F S R F R RC RC RC RC RC RC RC RC RC RC RC RC R	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUAITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED REDIFORCED REMOVE, REMOVED REDARS RETAINING RETAINING WALL RIVER ROLLED RIGID METAL CD
PT UD PVC MTT P/C P/LS P/T WR Q Q Q Q T R D JAL R R C C C C R B D C C C F F S C R B C C C F C R B C C C F C R B C C C F C R C R C C R C R C C R C R C R	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUAITY RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED REFLACE, REPLACED REQUIRED RETAINING RETAINING WALL RIVER ROLLED RIGID METAL CD REPORT
PT UD PVC MTT P/C/LP/S/TW QCT RTYDJAL RA-CCXCPB RCD CCTFFGENFMENL RALCCXCPB RCDCTFFGENFMENL RALCCXCPR RCDCTFFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RALCCXCPR RCDCTFFGENFMENL RCDCTFFGENFMENL RCDCTFFFGENFMENL RCDCTFFFFGENFMENL RCDC	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUART, QUADRANGLE QUARTER QUART, QUADRANGLE QUARTER QUART, QUADRANGLE QUARTER QUART, QUADRANGLE QUARTER QUARTER QUART, QUADRANGLE QUARTER QUAR
PT UD PVC MTT P/C P/LS P/T WR Q Q Q Q T R D JAL R R C C C C R B D C C C F F S C R B C C C F C R B C C C F C R B C C C F C R C R C C R C R C C R C R C R	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUARTER QUANTITY QUADRANT, QUADRANGLE QUAITY RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED REFLACE, REPLACED REQUIRED RETAINING RETAINING WALL RIVER ROLLED RIGID METAL CD REPORT
PT UD PVC MTT P/C P/S P/T WR Q Q Q T R T V D Q Q T R T V D V C P/S P/T V R Q Q T R T V D V C P/S P/T V R R Q Q T R T V D V C R B D C C T R S R C C C R B D C C T R S R C C C R B D C C C C R B D C C C C R B D C C C C R B D C C C C C C R B D C C C C C C C C C C C C C C C C C C	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUART QUANTITY QUADRANT, QUADRANGLE QUAITY RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED RETAINING
PT UD PVCMTTC/P/STWR QCTRYDAL RACCCPBGREFEQETWVDCRP/STWR QCTRYADAL RACCCTFEGENEMELDCTRRCGRCRT	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUANTITY QUADRANT, QUADRANGLE QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED RETAINING RETAINING RETAINING RETAINING WALL RIVER ROLED RIGID METAL CD REPORT RAIGHT
PT UD PVC MTT P/C P/S P/T WR Q Q Q T R T V D Q Q T R T V D V C P/S P/T V R Q Q T R T V D V C P/S P/T V R R Q Q T R T V D V C R B D C C T R S R C C C R B D C C T R S R C C C R B D C C C C R B D C C C C R B D C C C C R B D C C C C C C R B D C C C C C C C C C C C C C C C C C C	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRESTRESSED POST-TENSIONED POWER Q QUADRUPOLE QUARTER CORNER QUART QUARTER QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED REQUAR REINFORCED REDURED RETAINING RETAINING RETAINING WALL RIVER ROLLED RIGID METAL CD REPORT RAILROAD RR CROSSING SIG RIGHT RIGHT OF WAY
PT UD PVCMTTC/P/STWR QCTRYDAL RACCCPBGREFEQETWVDCRP/STWR QCTRYADAL RACCCTFEGENEMELDCTRRCGRCRT	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYVINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER QUADRUPOLE QUADRUPOLE QUARTER CORNER QUANTITY QUADRANT, QUADRANGLE QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED RETAINING RETAINING RETAINING RETAINING WALL RIVER ROLED RIGID METAL CD REPORT RAIGHT
PT UD PVC MTT 2/C/L/2017 Y D Q Q T R Y D Q Q T R Y D Q Q T R Y D Q Q T R Y D Q Q T R Y D Q Q T R Y D Q Q T R Y D Q Q T R R C C C C R B D C C C C E G E N M Q D C R R C C R R C C C C C E G E N M Q D C R R C C R R V S A N S A	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER Q QUADRUPOLE QUARTER CORNER QUART QUARTER QUARTER QUANTITY QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED RETAINING RETAINING RETAINING RETAINING SIG RETAINING WALL RIVER ROLLED RIGID METAL CD REPORT RAILROAD RR CROSSING SIG RR CROSSING SIG SOUTH, SLOPE SANITARY
PT UD PVCMTT P/C P/S P/WR QCTR TYD AAL RACCCR BCCTEFG RBD CCTEFG RBD CCTEFG RBD RCSCR RCSC	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER Q QUADRUPOLE QUARTER CORNER QUART QUARTER QUARTT QUADRANT, QUADRANGLE QUAITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFRENCE REGULAR REINFORCED REMOVE, REMOVED REFLACE, REPLACED REQUIRED RETAINING RETAINING WALL RIVER ROLLED RIGID METAL CD REPORT RAILROAD RR CROSSING SIG RR CROSSING RR CROSSING RR
PT UD PVCMTYC/P/SP/WR QCTRYDAL RACCCRBBRCCTFEGFEWWVD/C/L/SP/WR QCTRYDAL RACCCCFEGFEWWVD/C/L/SANBCCTFEGFEWWVD/C/C/RCSGRCT/W SANBCCTFEGFEWWVD/C/C/RCSGRCT/W SANBCCTFEGFEWWVD/C/C/C/C/C/C/C/C/C/C/C/C/C/C/C/C/C/C/C	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER Q QUADRUPOLE QUARTER CORNER QUART QUARTER QUARTT QUADRANT, QUADRANGLE QUALITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFERENCE REGULAR REINFORCED REMOVE, REMOVED REFORCE REGUIRED RETAINING RETAINING RETAINING WALL RIVER ROLLED RIGID METAL CD REPORT RAILROAD RR CROSSING SIG RR CROSSING SIG RR CROSSING SIG RR CROSSING SUG RR CROSSING RIGHT RIGHT SUCH RE CROSSING RR CROSSING RR CROSSING SUG RR CROSSING RR CROSSING RR CROSSING RR CROSSING RR CROSSING RR CR
PT UD PVCMTYCP/LSP/WR QCTRYDAL RACCCYBRDCTFEGENEMLDCTFRCSGRCTWVCMP/STW QCTRYDAL RACCCYBRDCTFEGENEMLDCTFRCSGRCTWVCMPRRCSGCCBCBCCCCFFGENEMLDCTFRCSGRCTVV SANSSCD	PUBLIC UTILITY DISTRICT NO.1 OF SNOHOMISH COUNTY POWER VAULT POLYINYL CHLORIDE PAVEMENT POINT OF VERTICAL TANGENT PRECAST PROPERTY LINE PRESTRESSED POST-TENSIONED POWER Q QUADRUPOLE QUARTER CORNER QUART QUARTER QUARTT QUADRANT, QUADRANGLE QUAITY R RADIUS, RED, RIVER RAISED REBAR & CAP REINF CONC ROCKERY REINF CONC PIPE RED W/ BLACK TRACER ROAD, ROUND RECEIVED RECTANGLE REFRENCE REGULAR REINFORCED REMOVE, REMOVED REFLACE, REPLACED REQUIRED RETAINING RETAINING WALL RIVER ROLLED RIGID METAL CD REPORT RAILROAD RR CROSSING SIG RR CROSSING RR CROSSING RR

SCCP	STEEL CONCRETE CYLINDER PIPE
SCEM	CENTER OF SECTION
SCHED SD	SCHEDULE STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SE SEC	SPOT EL/SOUTHEAST SECOND
SECT	SECTION SEGMENT
	SEPARATE
SERV	
SHLD	SHIFLDED
	SHOULDER
SHI	SHEET SIGNAL
SIM	SIMILAR
SL S/L	SPAN LENGTH, SECTION LINE SURVEY LINE
SLJB	STREET LIGHTING JB
SLP SLS	SLOPE STAINLESS STEEL
SLV	SLEEVE SMALL
	SIGN
SOV	SHUT-OFF VALVE
SPA	SINGLE SHIELDED PAIR SPACE, SPACES
	SINGLE SHIELDED TWISTED PAIR CABLE
	PAIRS IN SINGLE CABLE SPECIFICATIONS
	STATE ROUTE
SQ SS	SQUARE SANITARY SEWER, STAINLESS STEEL
SSCO	SS CLEANOUT
SSMH ST	SS MANHOLE STREET
STA STD	STATION STANDARD
STIR	STIRRUP
STN, STL	
STR	STREAM
	STEEL SUBSTITUTE
SUR	SURFACE
SURV SVL	SURVEY SURVEY LINE
SW, S/W	SIDEWALK
	SYMBOL, SYMMETRICAL
515	T
Т	TOP, TAN, TOPO
TB TAN	THRUST BLOCK TANGENT
T&B	TOP & BOTTOM
TBM TCb	TEMP. BENCH MARK BURIED TELEPHONE CABLE
TEBO	TELEPHONE BOOTH
TEL TEMP	TELEPHONE TEMPORARY
TESC	<b>TEMP EROSION &amp; SEDIMENTATION</b>
TJB	CONTROL TELEPHONE JB
ТК	THICKNESS
TMH TOC	TELEPHONE MH TOP OF CURB
TOE	CONCAVE SLOPE BREAK
ТОР ТОРО	CONVEX SLOPE BREAK TOPOGRAPHY
TOC	
TOS TOW TP	TOP OF WALL TWISTED PAIRS, TEST PIT
TPOL	TRAFFIC SIGNAL POLE
TRAN TR	TRANSITION TRAFFIC, TELEPHONE RISER
TRJB	TRAFFIC SIGNAL JB
TS TSD	TEST STATION TRAFFIC SN DOUBLE POST
TSS TUN	TRAFFIC SN SINGLE POST
TV	TUNNEL TELEVISION
TWST	TWISTED
ТҮР	TYPICAL
	UTILITY DUCT SYSTEM
UNGD UNO	UNDERGROUND UNLESS NOTED OTHERWISE
UTIL	UTILITY
UG UP	UNDERGROUND UTILITY POLE
UPA	
	UTILITY POLE ANCHOR
	UTILITY POLE ANCHOR
V VAR	
VAR VB	UTILITY POLE ANCHOR VALVE VARIES VALVE BOX, VAPOR BARRIER
VAR	UTILITY POLE ANCHOR V VALVE VARIES
VAR VB VEH VERT VLT	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT
VAR VB VEH VERT VLT VP VPC	UTILITY POLE ANCHOR VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC
VAR VB VEH VERT VLT VP VPC VPCC	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PCC
VAR VB VEH VERT VLT VP VPC VPC VPC VPI VPRC	UTILITY POLE ANCHOR VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PRC
VAR VB VEH VERT VLT VP VPC VPC VPC VPI	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT
VAR VB VEH VERT VLT VP VPC VPC VPC VPI VPRC	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT W
VAR VB VEH VET VLT VP VPC VPC VPC VPC VPC VPT W W	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH
VAR VB VEH VET VLT VP VPC VPC VPC VPC VPT W	UTILITY POLE ANCHOR VALVE VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER
VAR VB VEH VERT VLT VP VPC VPC VPC VPC VPC VPC VPT W W W/ WB WC WCR	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP
VAR VB VEH VERT VLT VP VPC VPC VPC VPC VPC VPC VPT W W W/ WB WC	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP
VAR VB VEH VERT VLT VP VPC VPC VPC VPC VPC VPC VPC VPT WRC VPT WB WC WCR WCR WFP WGV WHSE	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE
VAR VB VEH VERT VLT VP VPC VPC VPC VPC VPC VPC VPC VPT WR W W W W W W W W W W W W W C W C W C	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE
VAR VB VEH VERT VLT VPC VPC VPC VPC VPC VPC VPC VPC VPC VPC	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PT W W W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE WALK WATER METER, WATERMAIN WITHOUT
VAR VB VEH VERT VLT VPC VPC VPC VPC VPC VPT WPRC VPT WPT WB WCR WCR WCR WCR WCR WCR WCR WCR WFP WGV WHSE WK WM W/O WO WD	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE WALK WATER METER, WATERMAIN WITHOUT WORK ORDER WORK POINT
VAR VB VEH VERT VLT VPC VPC VPC VPC VPC VPT VPC VPT WR WCR WCR WCR WCR WCR WCR WCR WCR WCR	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE WALK WATER METER, WATERMAIN WITHOUT WORK ORDER WORK POINT WATER SURFACE
VAR VB VEH VERT VLT VPC VPC VPC VPC VPC VPC VPT VPRC VPT WF WW WCR WCR WCR WCR WCR WCR WCR WCR WCR	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE WALK WATER METER, WATERMAIN WITHOUT WORK ORDER WORK POINT WATER SURFACE WA DEPT OF TRANS WATTS, WEIGHT
VAR VB VEH VERT VLT VPC VPCC VPC VPC VPC VPC VPC VPC VPC VP	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PI VERTICAL CURVE PI VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE WALK WATER METER, WATERMAIN WITHOUT WORK ORDER WORK POINT WATER SURFACE WATER VALVE
VAR VB VEH VERT VLT VPC VPC VPC VPC VPC VPC VPT VPRC VPT WF WW WCR WCR WCR WCR WCR WCR WCR WCR WCR	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE WALK WATER METER, WATERMAIN WITHOUT WORK ORDER WORK POINT WATER SURFACE WA DEPT OF TRANS WATTS, WEIGHT WATER VALVE WING WALL
VAR VB VEH VERT VLT VPC VPC VPC VPC VPT WPRC VPT WFP WCR WCR WCR WCR WCR WCR WCR WCR WCR WCR	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PT W W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE WALK WATER METER, WATERMAIN WITHOUT WORK ORDER WORK POINT WATER SURFACE WA DEPT OF TRANS WATTS, WEIGHT WATER VALVE WING WALL WELDED WIRE MESH X
VAR VB VEH VERT VLT VP VPC VPC VPC VPC VPC VPC VPC VPC VPC	UTILITY POLE ANCHOR V VALVE VARIES VALVE BOX, VAPOR BARRIER VEHICLE VERTICAL VAULT VENT PIPE VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PC VERTICAL CURVE PRC VERTICAL CURVE PRC VERTICAL CURVE PT W WEST, WATER LINE, WALK, & WHITE WITH WHITE W/BLACK TRACER WITNESS CORNER WHEEL CHAIR RAMP WATER FILTRATION PLANT WATER GATE VALVE WAREHOUSE WALK WATER METER, WATERMAIN WITHOUT WORK ORDER WORK ORDER WORK POINT WATER SURFACE WA DEPT OF TRANS WATTS, WEIGHT WATER VALVE WING WALL

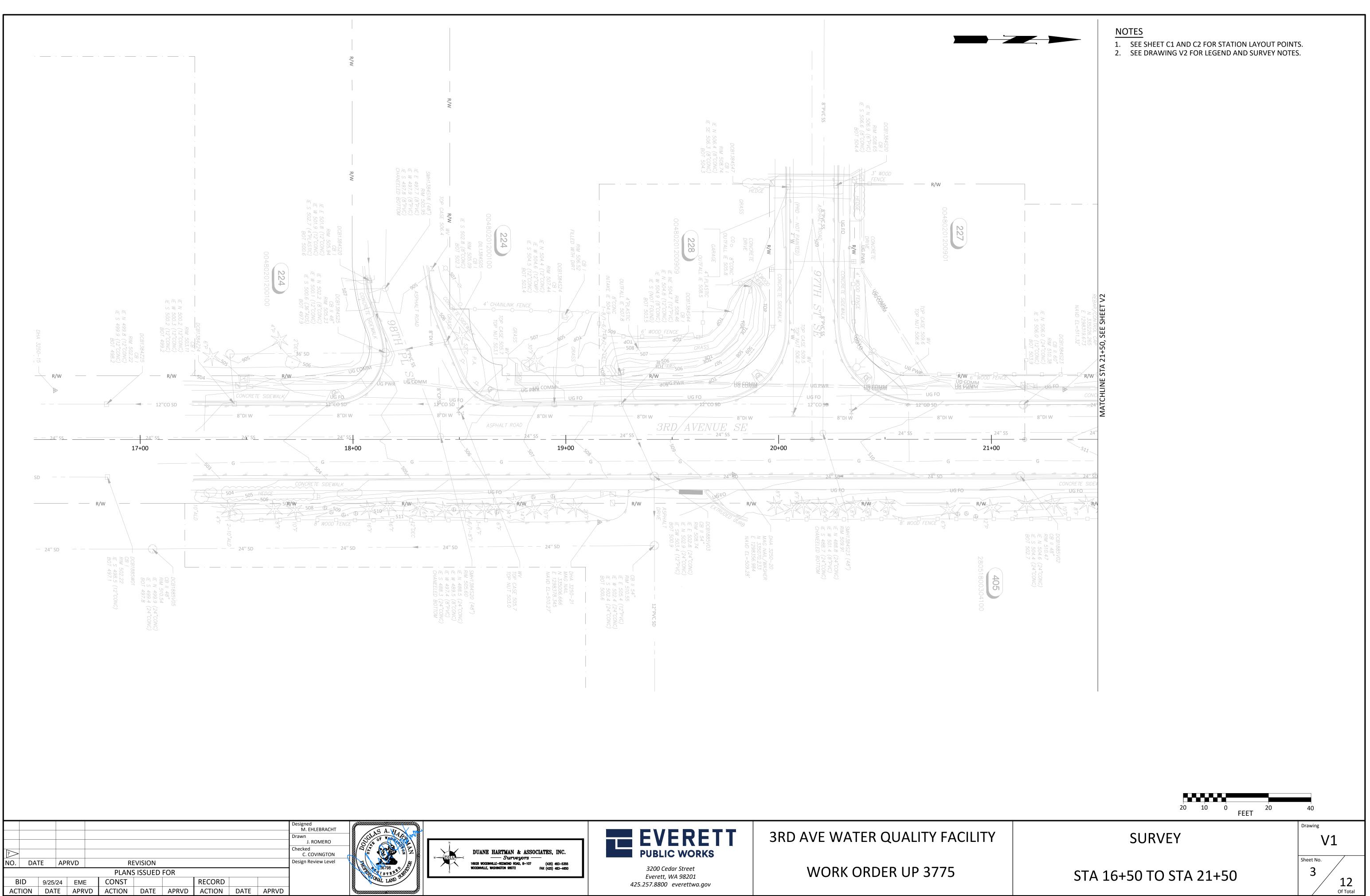
Drawing G2 Sheet No. 2

Y YELLOW

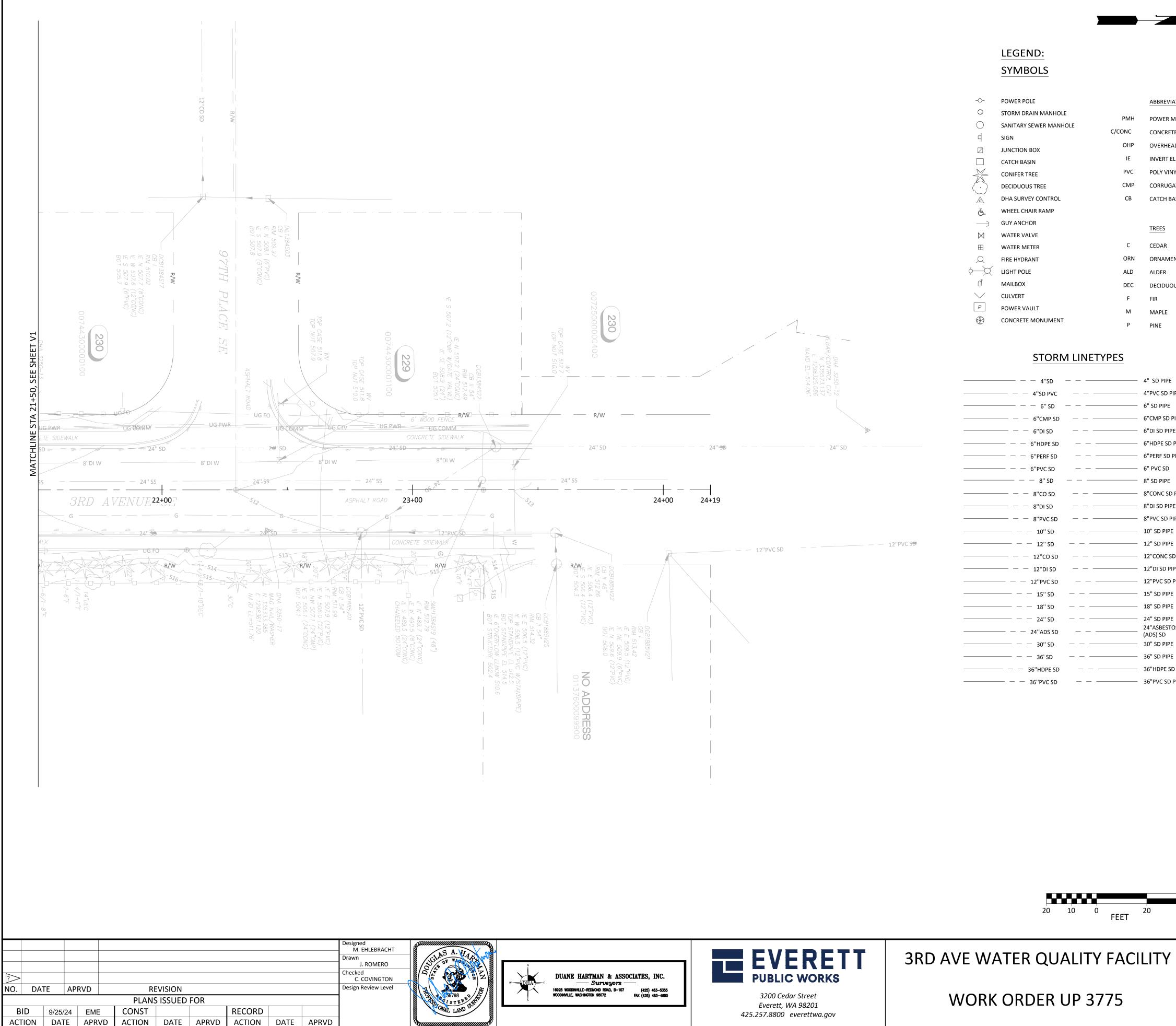
YD YARD

## LEGEND

12 Of Total







## LEGEND: SYMBOLS

-0-	POWER POLE		ABBREVIATIONS
Θ	STORM DRAIN MANHOLE	РМН	POWER MANHOLE
$\bigcirc$	SANITARY SEWER MANHOLE		FOWER MANIFOLE
þ	SIGN	C/CONC	CONCRETE
	JUNCTION BOX	OHP	OVERHEAD POWER LINE
	CATCH BASIN	IE	INVERT ELEVATION
<u> </u>	CONIFER TREE	PVC	POLY VINYL CHLORIDE PIPE
$\langle \cdot \rangle$	DECIDUOUS TREE	CMP	CORRUGATED METAL PIPE
$\underline{\land}$	DHA SURVEY CONTROL	СВ	CATCH BASIN
Ŀ	WHEEL CHAIR RAMP		
$\longrightarrow$	GUY ANCHOR		TREES
$\bowtie$	WATER VALVE		
$\blacksquare$	WATER METER	С	CEDAR
Q	FIRE HYDRANT	ORN	ORNAMENTAL
$\rightarrow \chi$	LIGHT POLE	ALD	ALDER
വ്	MAILBOX	DEC	DECIDUOUS
$\checkmark$	CULVERT	F	FIR
Ρ	POWER VAULT	М	MAPLE
$\bigotimes$	CONCRETE MONUMENT	Р	PINE

## STORM LINETYPES

4"SD	4" SD PIPE
4"SD PVC	4"PVC SD PIPE
6" SD	6" SD PIPE
6"CMP SD	6"CMP SD PIPE
——————————————————————————————————————	6"DI SD PIPE
——————————————————————————————————————	6"HDPE SD PIPE
——————————————————————————————————————	6"PERF SD PIPE
——————————————————————————————————————	6" PVC SD
8" SD	8" SD PIPE
8"CO SD	8"CONC SD PIPE
——————————————————————————————————————	8"DI SD PIPE
— _ 8"PVC SD	8"PVC SD PIPE
10" SD	10" SD PIPE
12" SD	12" SD PIPE
12"CO SD	12"CONC SD PIPE
12"DI SD	12"DI SD PIPE
12"PVC SD	12"PVC SD PIPE
	15" SD PIPE
	18" SD PIPE
	24" SD PIPE
— 24"ADS SD	24"ASBESTOS CEMENT (ADS) SD
30" SD	30" SD PIPE
	36" SD PIPE
— 36"HDPE SD	36"HDPE SD PIPE
— 36"PVC SD	36"PVC SD PIPE



40

WORK ORDER UP 3775

#### NOTES 1. SEE SHEET C1 AND C2 FOR STATION LAYOUT POINTS

#### LINETYPES:

		]		
00	-00	)0	—0—	—0——
——— то	DE	—— ТОЕ		
T(	OP	—— тор		
·	$\rightarrow$ —	· · · _	>	

GUARD RAIL WOOD FENCE METAL FENCE OR HANDRAIL TOE OF GRADE BREAK TOP OF GRADE BREAD CL OF SWALE W/FLOW DIRECTION EDGE OF ASPHALT GRAVEL ROAD EDGE OF CONC SIDEWALK

## **TELECOMMUNICATIONS (COMM)**

UG COMM — TELECOMMUNICATION LINE

#### FIBER OPTIC LINE — UG FO ——— POWER SUPPLY LINES (POWR)

OVERHEAD POWER LINE UNDERGROUND POWER LINE

### WATER SUPPLY (WATR)

w	WATER LINE
6" W	6" W LINE
6"DI W	6"DI W LINE
	8"CI W LINE
	8"DI W LINE
12"CI W	12"CAST IRON W LINE
24"DI W	24"DI W LINE
24"CAS W	24"CAST IRON W LINE
36"STL W	36"STEEL PIPE W LINE
42"STL W	42"STEEL PIPE W LINE
48''STL W	48"STEEL PIPE W LINE
16"STL W	16"STEEL PIPE W LINE
28''STL W	28"STEEL PIPE W LINE
34"PE	34"PE W LINE
30''STL W	30"STEEL PIPE W LINE

BASIS OF BEARING: WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD 83(2011), AS PRESCRIBED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), AND EXTENDED TO THE SITE WITH RTKGPS TECHNIQUES.

COMBINED SCALE FACTOR AT WSDOT 526-2 = 0.99992712, CONVERGENCE ANGLE = -01°01'31.2" <u>VERTICAL DATUM:</u> NORTH AMERICAN VERTICAL DATUM 1988 (NAVD'88) AS EXTENDED FROM WSDOT

<u>CONTOUR INTERVAL:</u> (1') ONE FOOT CONTOURS

HORIZONTAL AND VERTICAL CONTROL:

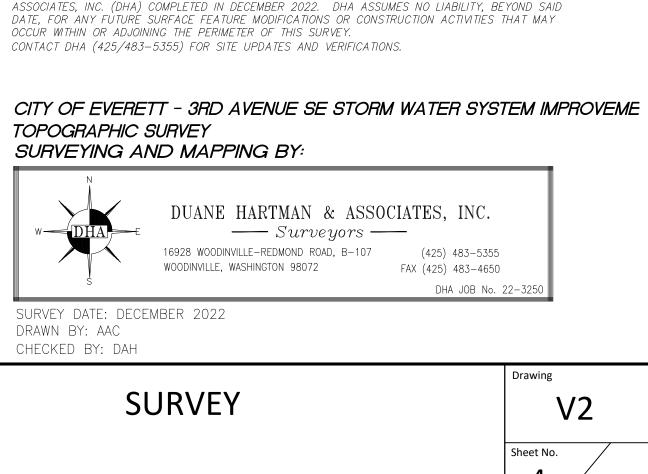
526–2 VIA RTKGPS TECHNIQUES.

<u>WSDOT CONTROL POINT 526–2</u> 3 CENTIMETER DIAMETER ALUMINUM CAP SET INTO A 3 CENTIMETER IRON PIPE RECESSED 1 CENTIMETER BELOW THE ROADWAY SURFACE. LOCATED ON THE EASTERN SIDE OF EVERGREEN WAY, NEAR SR-005 OFF-RAMP. N 336,970.461 E 1,302,723.700

NAVD 88 ELEVATION = 522.52"

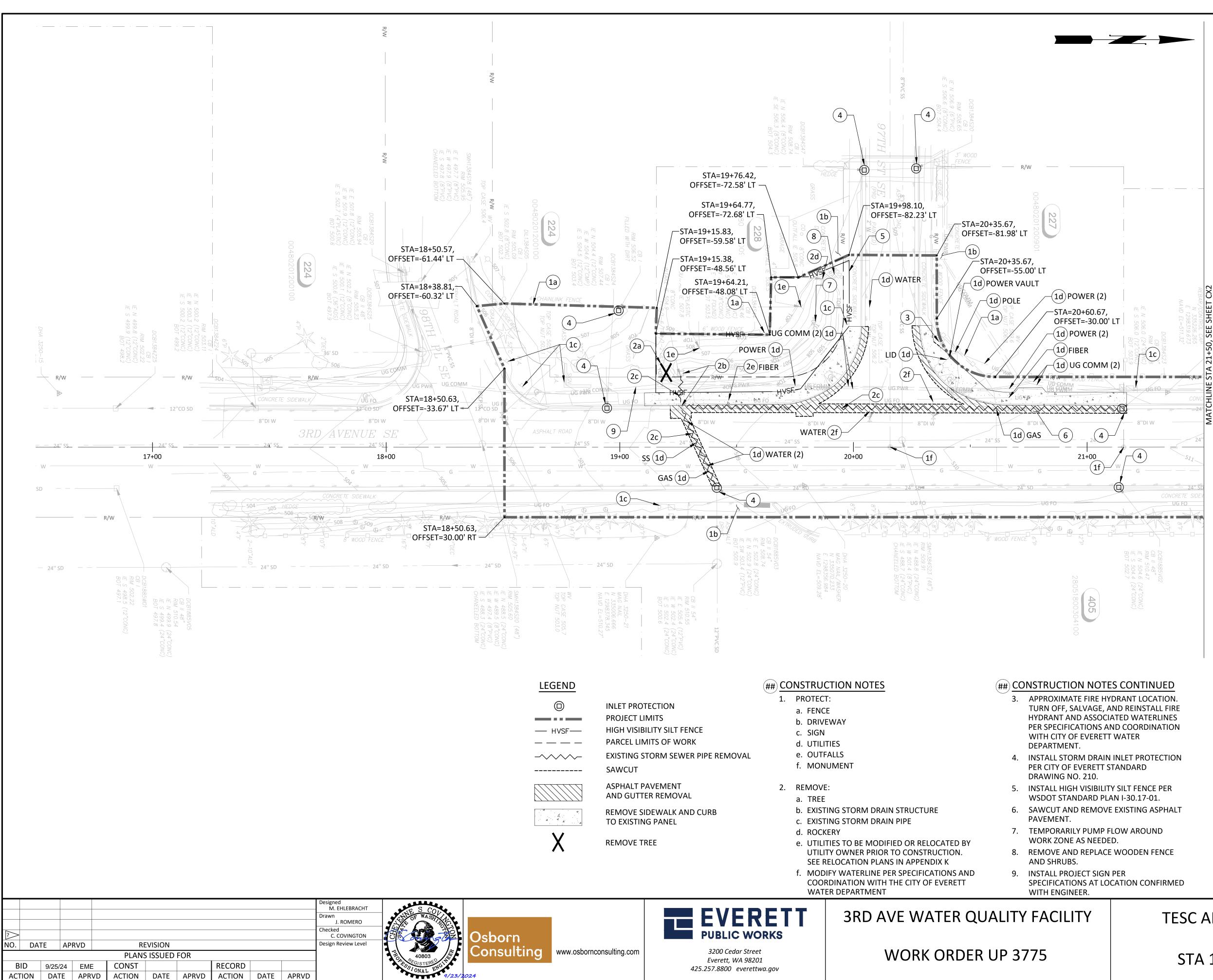
<u>UTILITIES MAPPING:</u> ALL EXISTING UTILITIES SHOWN HEREIN ARE TO BE VERIFIED HORIZONTALLY AND VERTICALLY PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED BY RECORD LOCATION OR FIELD TIED AS A RESULT OF A UTILITY PAINT-OUT IN DECEMBER 2022 BY ONE-CALL AND APS LOCATING INC. DUANE HARTMAN & ASSOCIATES, INC. (DHA) ASSUMES NO LIABILITY FOR THE ACCURACY OF THE RECORD INFORMATION AND/OR THE UTILITY PAINT-OUT. FOR THE FINAL LOCATION OF THE EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION, CONTACT THE UTILITY OWNER/AGENCY AND UTILITIES UNDERGROUND CENTER (800/424-5555).

TOPOGRAPHIC MAPPING: THE MAP SHOWN HEREON IS THE RESULT OF A TOPOGRAPHIC SURVEY BY DUANE HARTMAN & ASSOCIATES, INC. (DHA) COMPLETED IN DECEMBER 2022. DHA ASSUMES NO LIABILITY, BEYOND SAID



STA 21+50 TO STA 24+19

12 Of Total



## GENERAL NOTES

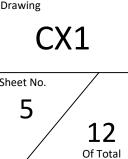
- 1. UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED.
- 2. UTILITY LOCATIONS AND TYPES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL CONFIRM THE LOCATION, TYPE, AND SIZE OF THE UTILITIES IN THE WORK AREA AND PROTECT FROM DAMAGE.
- BEFORE BEGINNING EXCAVATION, THE CONTRACTOR SHALL PROVIDE NOTICE OF COMMENCEMENT TO ALL OWNERS OF UNDERGROUND FACILITIES THROUGH THE ONE NUMBER LOCATOR SERVICE, PHONE NUMBER 1-800-424-5555, IF AVAILABLE; IF NOT THE CONTRACTOR GIVE NOTICE TO ALL INDIVIDUAL UTILITY OWNERS. SUCH NOTICE SHALL NOT BE LESS THAN 2 OR MORE THAN 10 BUSINESS DAYS BEFORE THE SCHEDULED DATE OF EXCAVATION.

## **EROSION CONTROL NOTES**

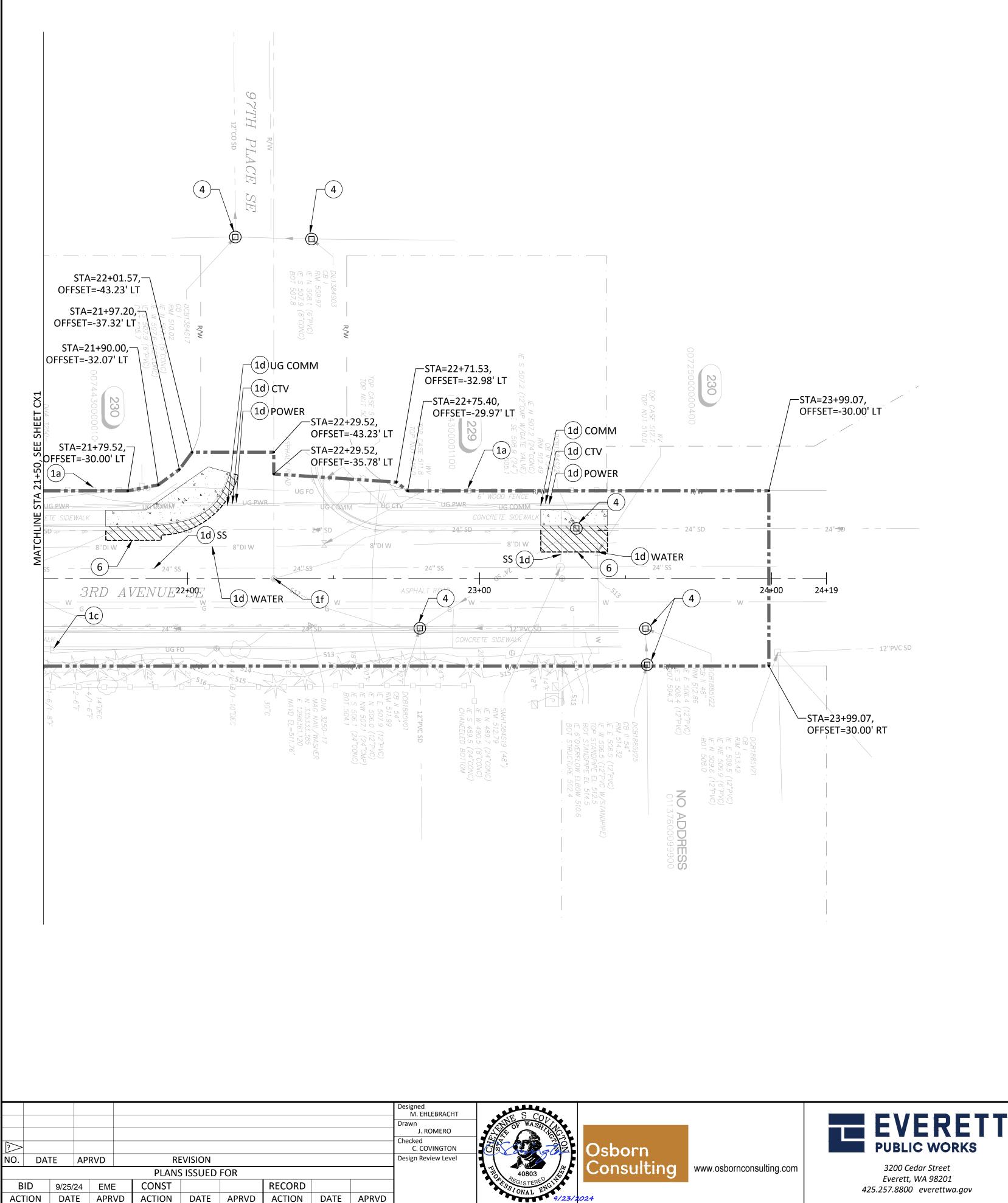
- EARTHWORK SHALL OCCUR IN ACCORDANCE WITH THE APPROVED INADVERTENT DISCOVERY PLAN (IDP). SEE PROJECT SPECIFICATIONS. A COPY OF THE IDP SHALL BE ON SITE OR READILY AVAILABLE DURING EARTHWORK OR OTHER GROUND DISTURBING ACTIVITIES.
- 2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN SHALL BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER QUALITY STANDARDS
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM **REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE** CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
- THE ESC FACILITIES SHALL BE INSPECTED ROUTINELY AND MAINTAINED BY THE CONTRACTOR TO ENSURE THEIR CONTINUED FUNCTIONING, ESPECIALLY AFTER STORM EVENTS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A WEEK OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- THE CONTRACTOR SHALL PROVIDE PERIODIC STREET CLEANING TO REMOVE DEBRIS AND SEDIMENT TRACKED OFF THE SITE.
- 10. APPROPRIATE MEASURES SHALL BE TAKEN TO STOP SEDIMENT FROM ENTERING SURFACE WATER BODIES IF THE PROPOSED BMPS FAIL. IF BMPS FAIL AND SEDIMENT-LADEN WATER IS LEAVING THE SITE, IMMEDIATELY NOTIFY YOUR PUBLIC WORKS INSPECTOR.
- 11. BARE AND/OR DISTURBED SOILS SHALL REMAIN UNCOVERED AND/OR UNSTABILIZED FOR NO MORE THAN 2 DAYS FROM OCTOBER 1 THROUGH APRIL 30 AND FOR NO MORE THAN 7 DAYS FROM MAY 1 THROUGH SEPTEMBER 30.
- 12. NOTIFY THE CITY PUBLIC WORKS INSPECTOR AT LEAST 24 HOURS PRIOR TO DEWATERING ACTIVITIES. HANDLE HIGHLY TURBID OR OTHERWISE CONTAMINATED DEWATERING WATER SEPARATELY FROM STORMWATER.
- 13. THE APPROVED PROJECT SWPPP SHALL BE RETAINED ON SITE OR READILY AVAILABLE TO THE CONTRACTOR THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT.
- 14. DESIGN, INSTALL, IMPLEMENT, AND MAINTAIN EFFECTIVE POLLUTION PREVENTION MEASURES TO MINIMIZE THE DISCHARGE OF POLLUTANTS.
- 15. PROTECT ALL LID BMPS FROM SEDIMENTATION THROUGH INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL BMPS ON PORTIONS OF THE SITE THAT DRAIN INTO THE LID BMPS.



**TESC AND SITE PREPARATION** STA 16+50 TO STA 21+50







## (##) CONSTRUCTION NOTES

- 1. PROTECT:
- a. FENCE
- b. DRIVEWAY
- c. SIGN
- d. UTILITIES
- e. OUTFALLS
- f. MONUMENT
- 2. REMOVE:
- a. TREE
- b. EXISTING STORM DRAIN STRUCTURE
- c. EXISTING STORM DRAIN PIPE
- d. ROCKERY
- e. UTILITIES TO BE MODIFIED OR RELOCATED BY UTILITY OWNER PRIOR TO CONSTRUCTION.
- 3. APPROXIMATE FIRE HYDRANT LOCATION. PROTECT EXISTING FIRE HYDRANT DURING CONSTRUCTION.
- 4. INSTALL STORM DRAIN INLET PROTECTION PER CITY OF EVERETT STANDARD DRAWING NO. 210.
- 5. INSTALL HIGH VISIBILITY SILT FENCE PER WSDOT STANDARD PLAN I-30.17-01.
- 6. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT.
- 7. TEMPORARILY PUMP FLOW AROUND WORK ZONE AS NEEDED.
- REMOVE AND REPLACE WOODEN FENCE AND SHRUBS. 8.

#### LEGEND

— HVSF—	

INLET PROTECTION PROJECT LIMITS HIGH VISIBILITY SILT FENCE PARCEL LIMITS OF WORK **EXISTING STORM SEWER PIPE REMOVAL** SAWCUT

ASPHALT PAVEMENT AND GUTTER REMOVAL

**REMOVE SIDEWALK AND CURB** TO EXISTING PANEL

**REMOVE TREE** 

**3RD AVE WATER QUALITY FACILITY** 

WORK ORDER UP 3775

#### ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM. 9. THE CONTRACTOR SHALL PROVIDE PERIODIC STREET CLEANING TO REMOVE DEBRIS AND SEDIMENT TRACKED OFF THE SITE. 10. APPROPRIATE MEASURES SHALL BE TAKEN TO STOP SEDIMENT FROM ENTERING SURFACE WATER BODIES IF THE PROPOSED BMPS FAIL. IF BMPS FAIL AND SEDIMENT-LADEN WATER IS LEAVING THE SITE, IMMEDIATELY NOTIFY YOUR PUBLIC WORKS INSPECTOR. 11. BARE AND/OR DISTURBED SOILS SHALL REMAIN UNCOVERED AND/OR UNSTABILIZED FOR NO MORE THAN 2 DAYS FROM OCTOBER 1 THROUGH APRIL 30 AND FOR NO MORE THAN 7 DAYS FROM MAY 1 THROUGH SEPTEMBER 30. 12. NOTIFY THE CITY PUBLIC WORKS INSPECTOR AT LEAST 24 HOURS PRIOR TO DEWATERING ACTIVITIES. HANDLE HIGHLY TURBID OR OTHERWISE CONTAMINATED DEWATERING WATER SEPARATELY FROM STORMWATER. 13. THE APPROVED PROJECT PUBLIC WORKS PERMIT AND SWPPP SHALL BE RETAINED ON SITE OR READILY AVAILABLE TO THE CONTRACTOR THROUGHOUT THE DURATION OF THE CONSTRUCTION PROJECT. 14. DESIGN, INSTALL, IMPLEMENT, AND MAINTAIN EFFECTIVE POLLUTION PREVENTION MEASURES TO MINIMIZE THE DISCHARGE OF POLLUTANTS. 15. PROTECT ALL LID BMPS FROM SEDIMENTATION THROUGH INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL BMPS ON PORTIONS OF THE SITE THAT DRAIN INTO THE LID BMPS. 20 10 0 20 FEET Drawing **TESC AND SITE PREPARATION** CX2 Sheet No. 6 STA 21+50 TO STA 24+19 12

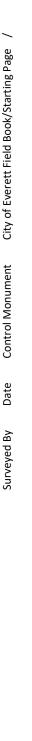
## **GENERAL NOTES**

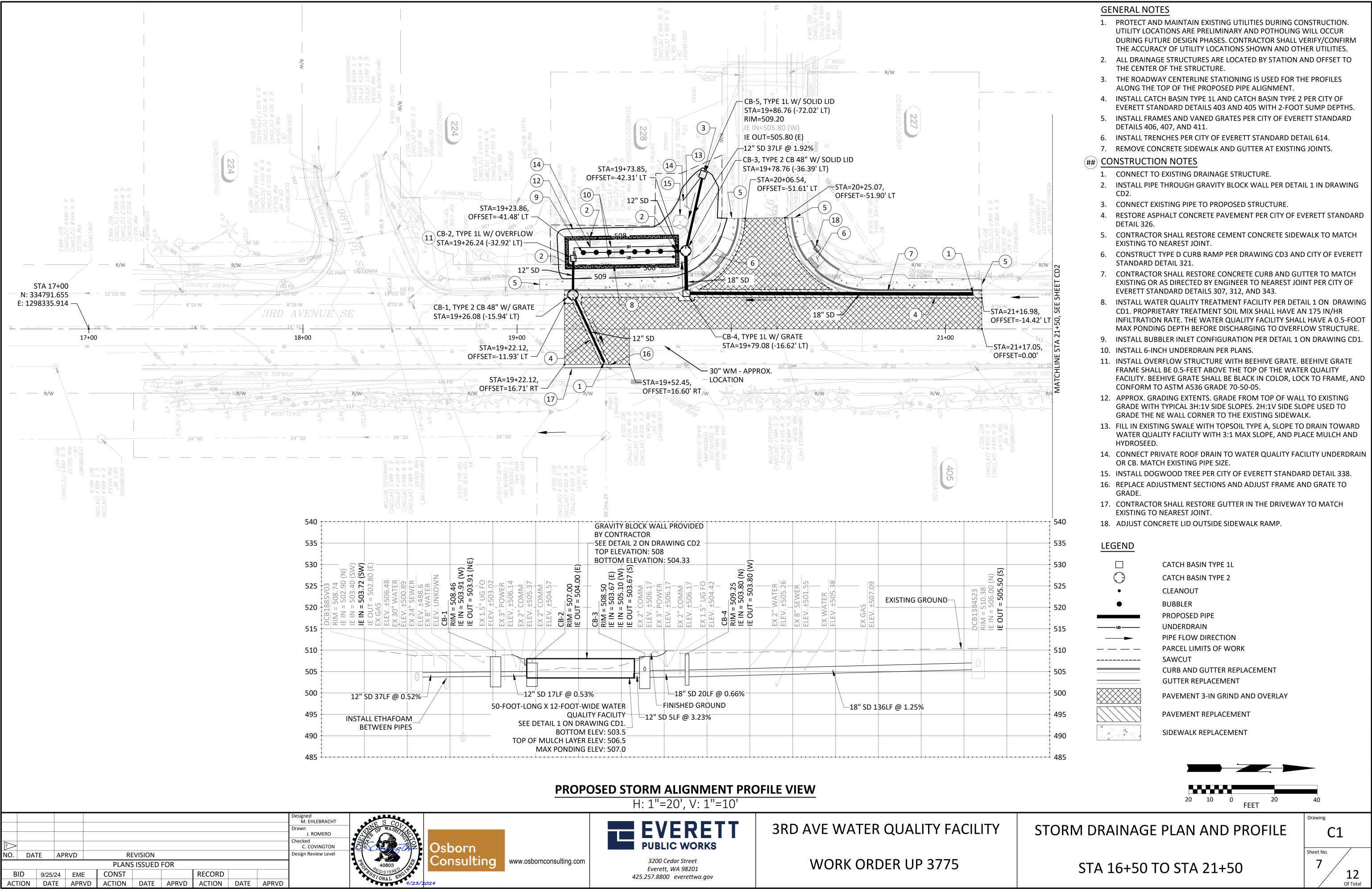
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- 3. BEFORE BEGINNING EXCAVATION, THE CONTRACTOR SHALL PROVIDE NOTICE OF COMMENCEMENT TO ALL OWNERS OF UNDERGROUND FACILITIES THROUGH THE ONE NUMBER LOCATOR SERVICE, PHONE NUMBER 1-800-424-5555, IF AVAILABLE; IF NOT THE CONTRACTOR GIVE NOTICE TO ALL INDIVIDUAL UTILITY OWNERS. SUCH NOTICE SHALL NOT BE LESS THAN 2 OR MORE THAN 10 BUSINESS DAYS BEFORE THE SCHEDULED DATE OF EXCAVATION.

## **EROSION CONTROL NOTES**

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- 8. AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE

Of Total

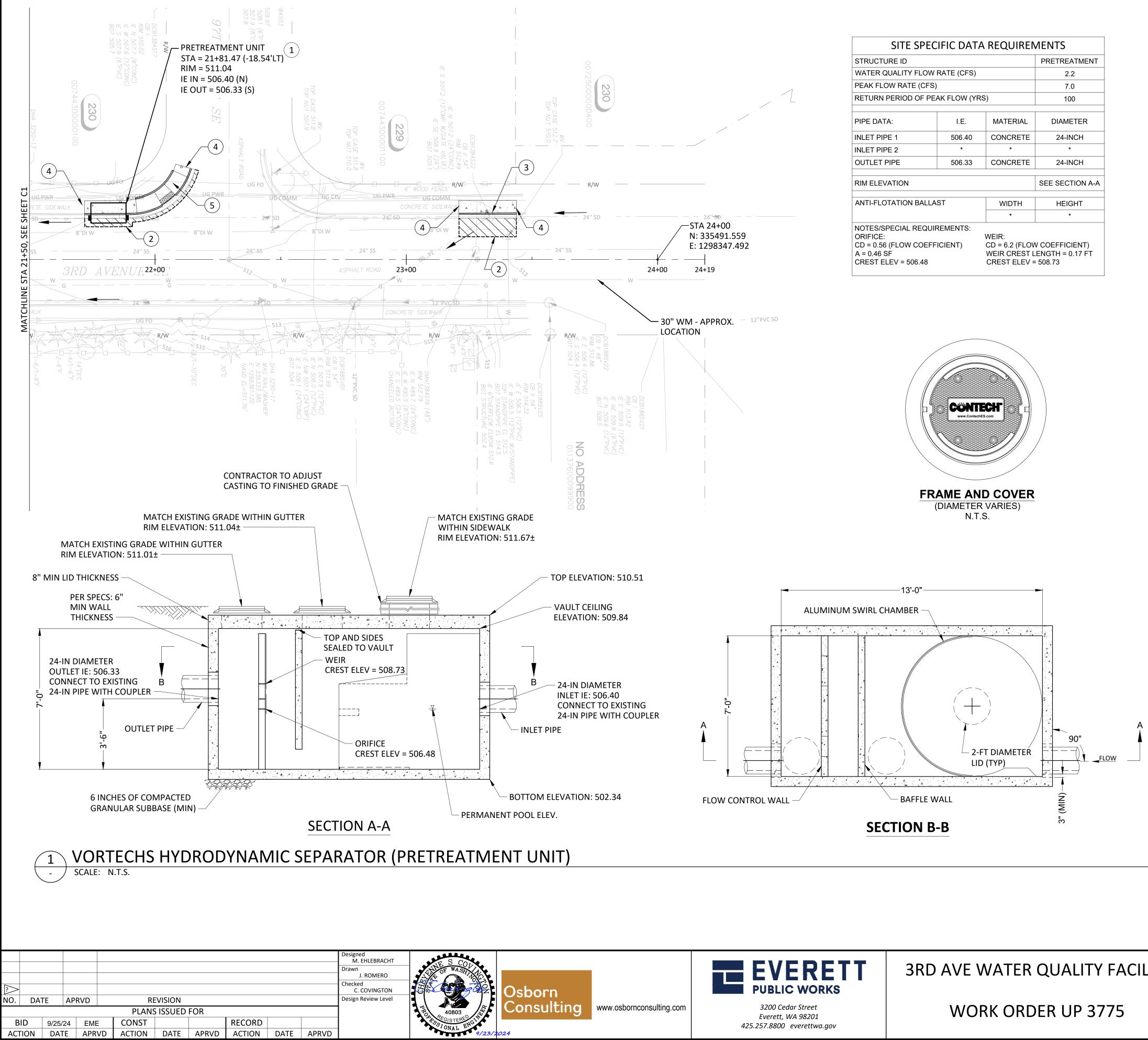












**3RD AVE WATER QUALITY FACILITY** 

## **GENERAL NOTES**

- 1. PROTECT AND MAINTAIN EXISTING UTILITIES DURING CONSTRUCTION. UTILITY LOCATIONS ARE PRELIMINARY AND POTHOLING WILL OCCUR DURING FUTURE DESIGN PHASES. CONTRACTOR SHALL VERIFY/CONFIRM THE ACCURACY OF UTILITY LOCATIONS SHOWN AND OTHER UTILITIES.
- 2. ALL DRAINAGE STRUCTURES ARE LOCATED BY STATION AND OFFSET TO THE CENTER OF THE STRUCTURE.
- 3. THE ROADWAY CENTERLINE STATIONING IS USED FOR THE PROFILES ALONG THE TOP OF THE PROPOSED PIPE ALIGNMENT.

## (##) CONSTRUCTION NOTES

- 1. INSTALL VORTECHS HYDRODYNAMIC SEPARATOR PER DETAIL 1 ON THIS SHEET. CONNECT EXISTING PIPES TO VORTECHS AT EXISTING SLOPE.
- 2. RESTORE ASPHALT CONCRETE PAVEMENT PER CITY OF EVERETT STANDARD DETAIL 326.
- 3. DCB1384S22 FLOW SPLITTER. REMOVE CB LID SECTION, EXISTING GATE VALVE, 8-INCH DIAMETER PIPE, AND 12-INCH DIAMETER PIPE AND INSTALL 12-INCH DIAMETER PIPE AND ECCENTRIC REDUCER COUPLING PER DETAIL 3, DRAWING CD2
- 4. CONTRACTOR SHALL RESTORE CEMENT CONCRETE SIDEWALK, CURB AND GUTTER TO MATCH EXISTING TO NEAREST JOINT.
- 5. CONSTRUCT TYPE D CURB RAMP PER DRAWING CD4 AND CITY OF EVERETT STANDARD DETAIL 321.

## VORTECHS INSTALLATION NOTES

- 1. CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- 2. NOT USED.
- 3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH REPRESENTATIVE. www.ContechES.com
- 4. VORTECHS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- 5. STRUCTURE SHALL MEET AASHTO HS20 AND CASTINGS SHALL MEET AASHTO M306 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION.
- 6. INLET PIPE(S) MUST BE PERPENDICULAR TO THE VAULT AND AT THE CORNER TO INTRODUCE THE FLOW TANGENTIALLY TO THE SWIRL CHAMBER. DUAL INLETS NOT TO HAVE OPPOSING TANGENTIAL FLOW DIRECTIONS.
- 7. OUTLET PIPE(S) MUST BE DOWN STREAM OF THE FLOW CONTROL BAFFLE AND MAY BE LOCATED ON THE SIDE OR END OF THE VAULT. THE FLOW CONTROL WALL MAY BE TURNED TO ACCOMMODATE OUTLET PIPE KNOCKOUTS ON THE SIDE OF THE VAULT.
- 8. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE VORTECHS STRUCTURE (LIFTING CLUTCHES PROVIDED).
- 9. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURES SECTIONS AND ASSEMBLE STRUCTURE.
- 10. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
- 11. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. ALL JOINTS BELOW PIPE INVERT ARE GROUTED.

## LEGEND



**VORTECHS UNIT** 

\_\_\_\_\_

PROPOSED PIPE

SAWCUT

CURB AND GUTTER REPLACEMENT

**PAVEMENT 3-IN GRIND AND OVERLAY** 

PAVEMENT REPLACEMENT

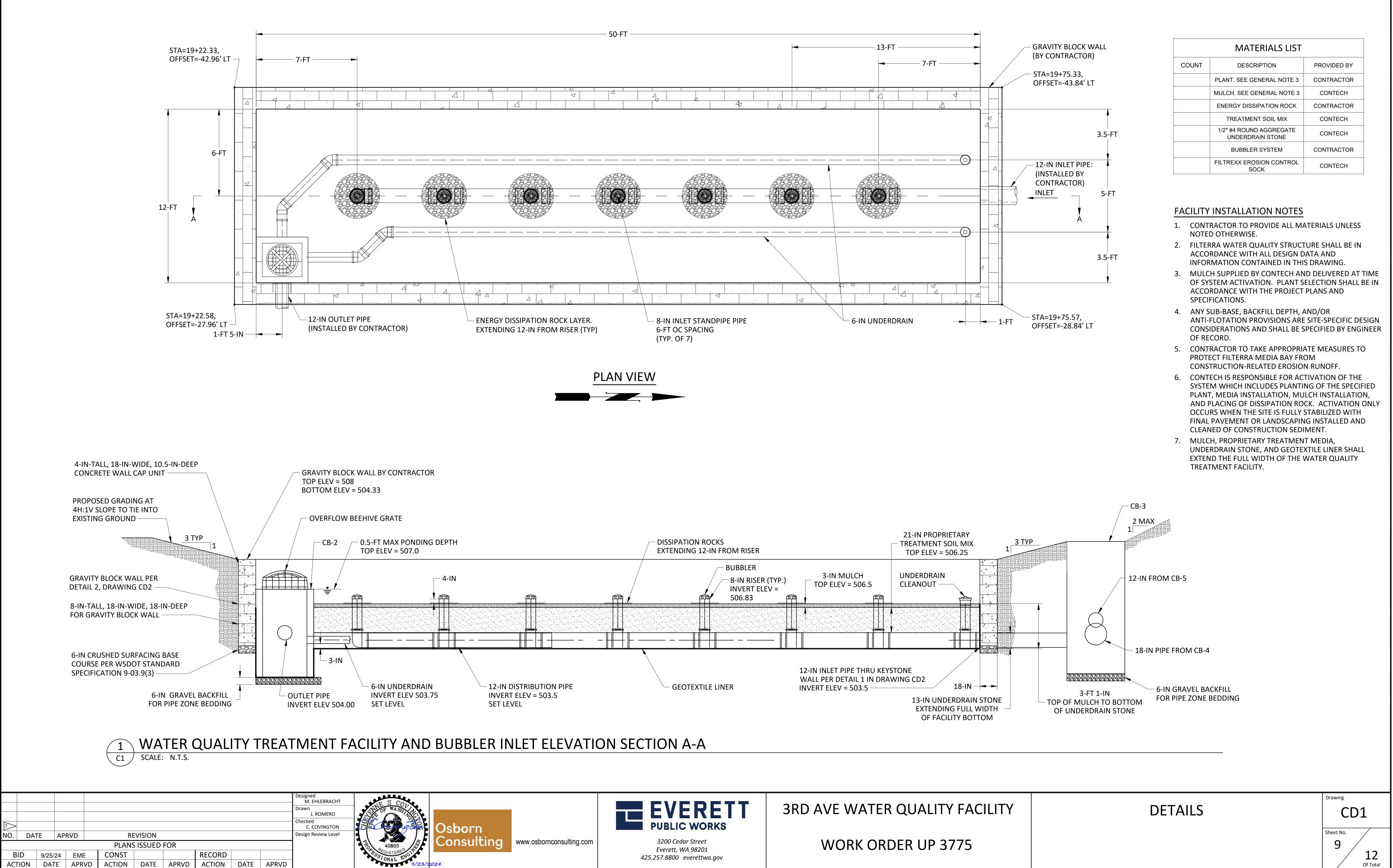
SIDEWALK REPLACEMENT

20 10 0 20 FEET

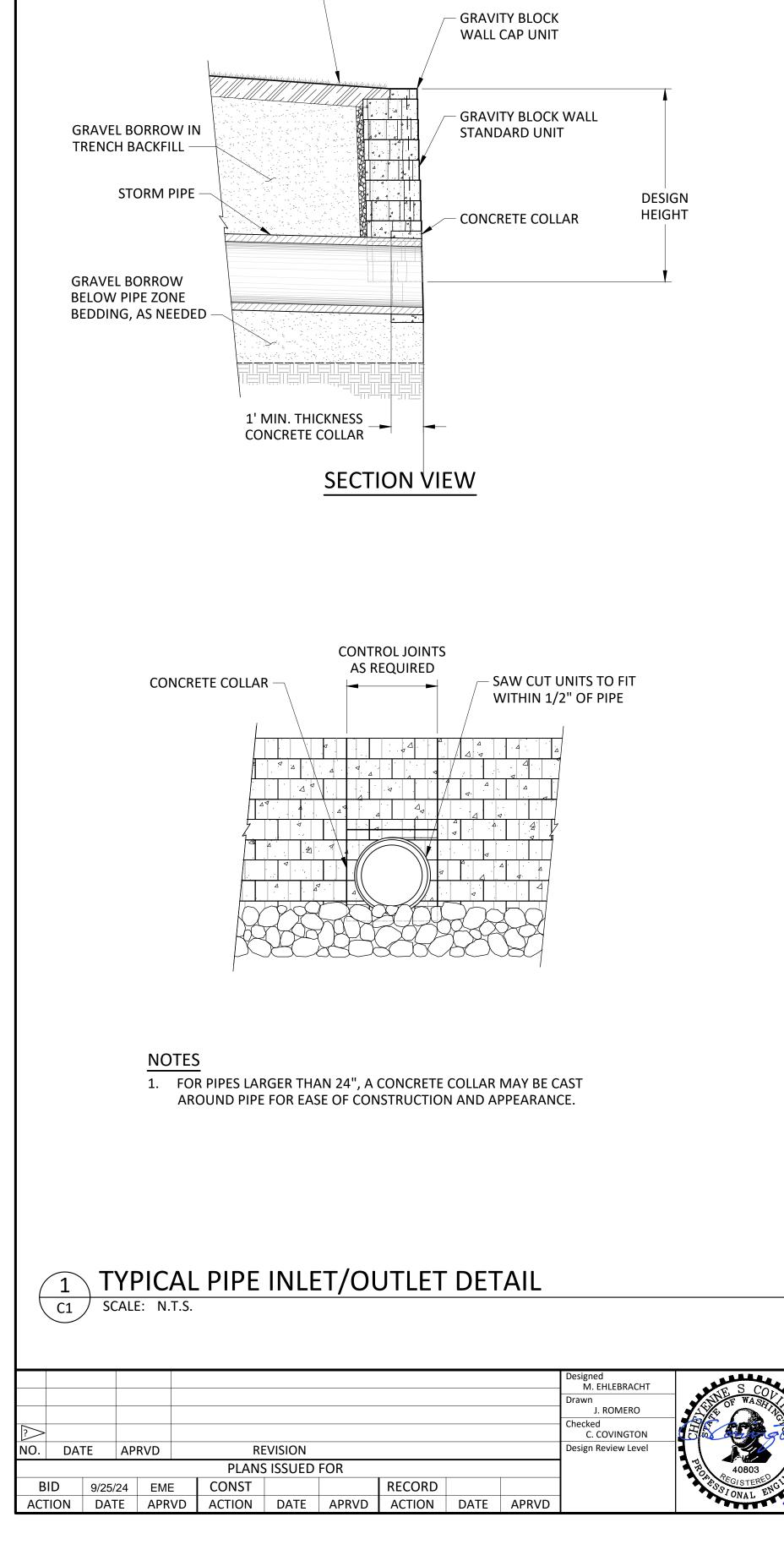
STORM DRAINAGE PLAN AND PROFILE



C2 Sheet No. 8 12 Of Total



MATERIALS LIST				
COUNT	DESCRIPTION	PROVIDED BY		
	PLANT. SEE GENERAL NOTE 3	CONTRACTOR		
	MULCH. SEE GENERAL NOTE 3	CONTECH		
	ENERGY DISSIPATION ROCK	CONTRACTOR		
	TREATMENT SOIL MIX	CONTECH		
	1/2" #4 ROUND AGGREGATE UNDERDRAIN STONE	CONTECH		
	BUBBLER SYSTEM	CONTRACTOR		
	FILTREXX EROSION CONTROL SOCK	CONTECH		



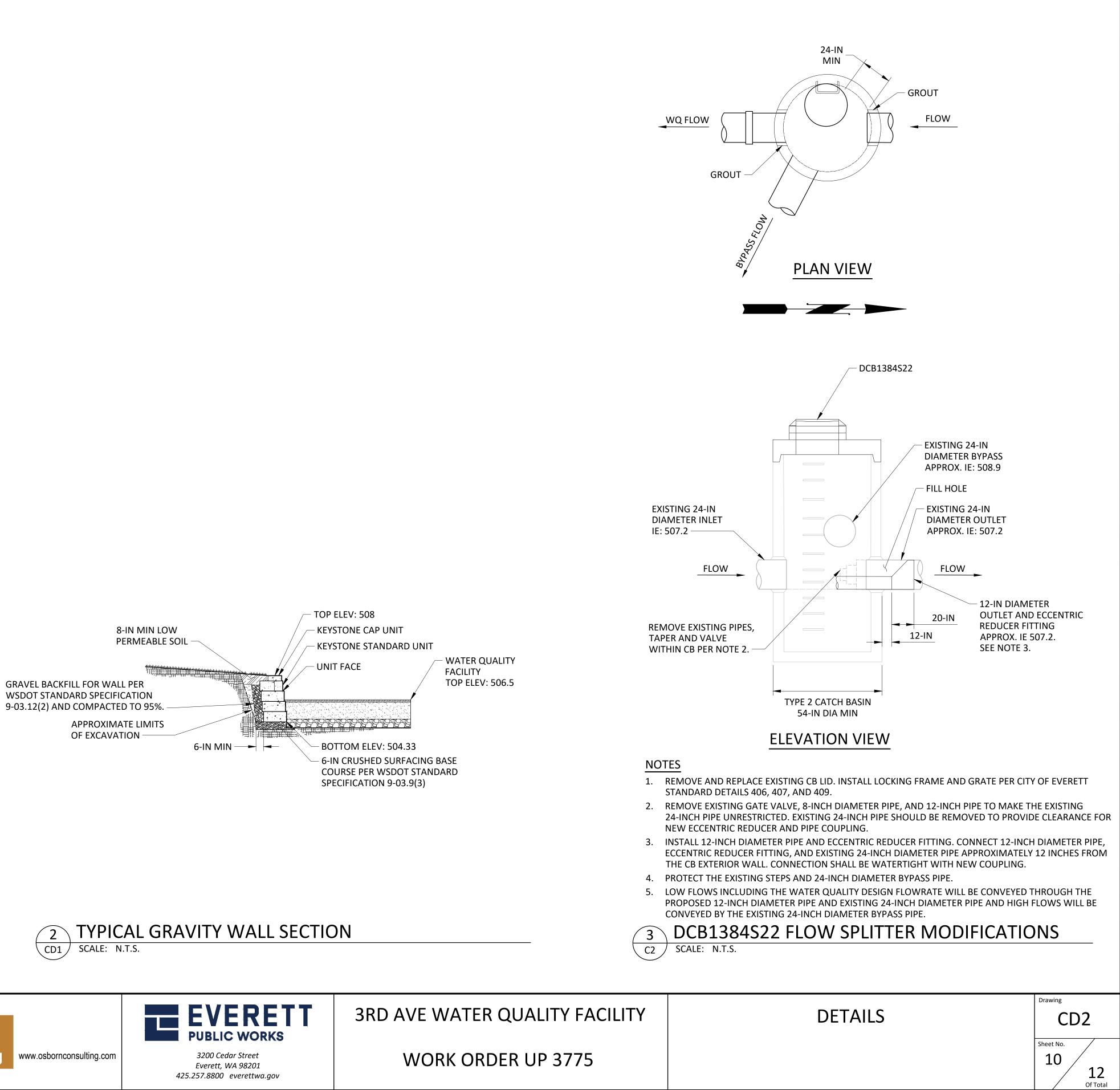
6-IN TOPSOIL DEPTH WITH

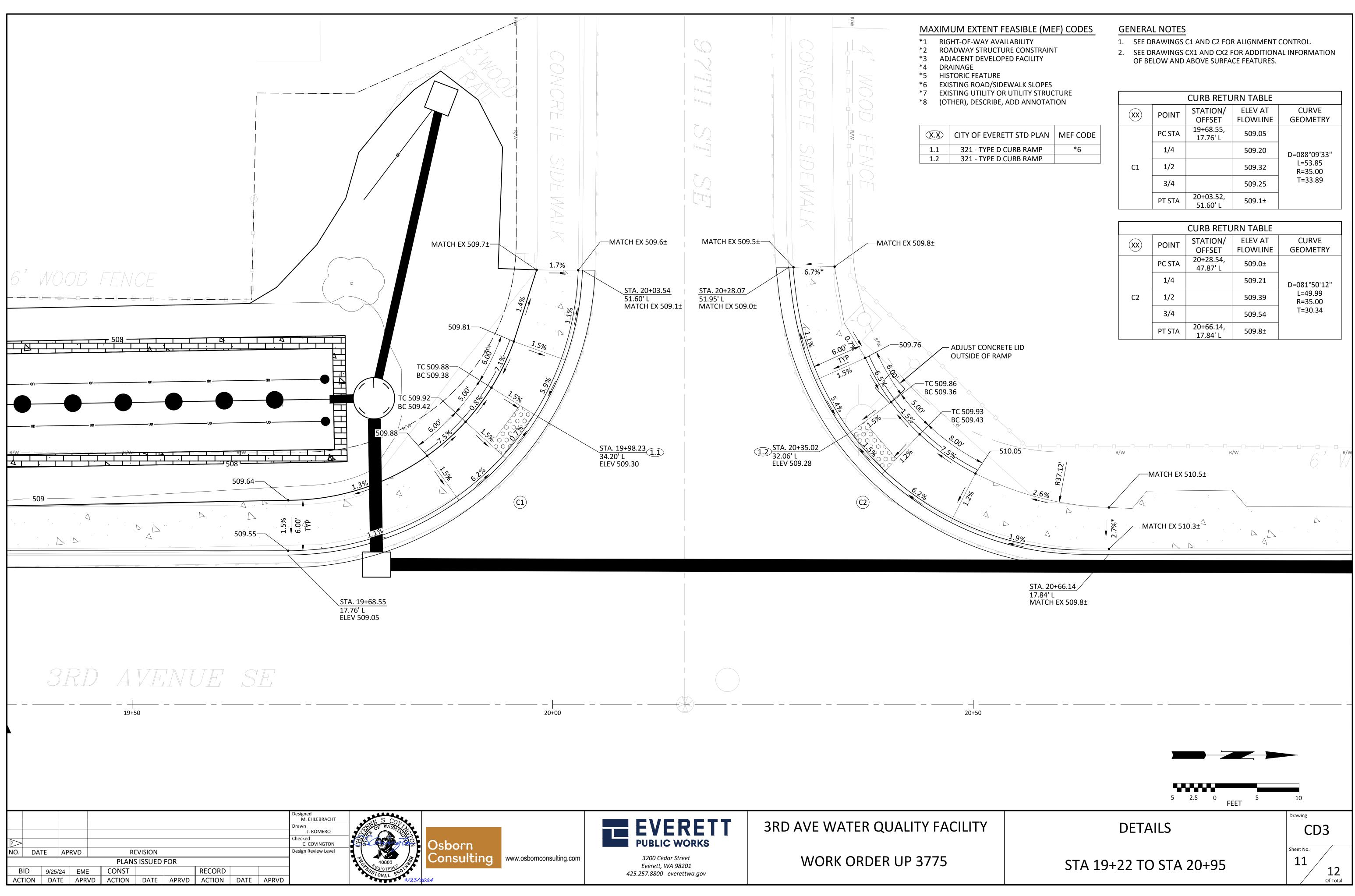
ADDITIONAL SCARIFIED DEPTH PER

LAWN AREAS IN EVT STD PLAN 202

Osborn





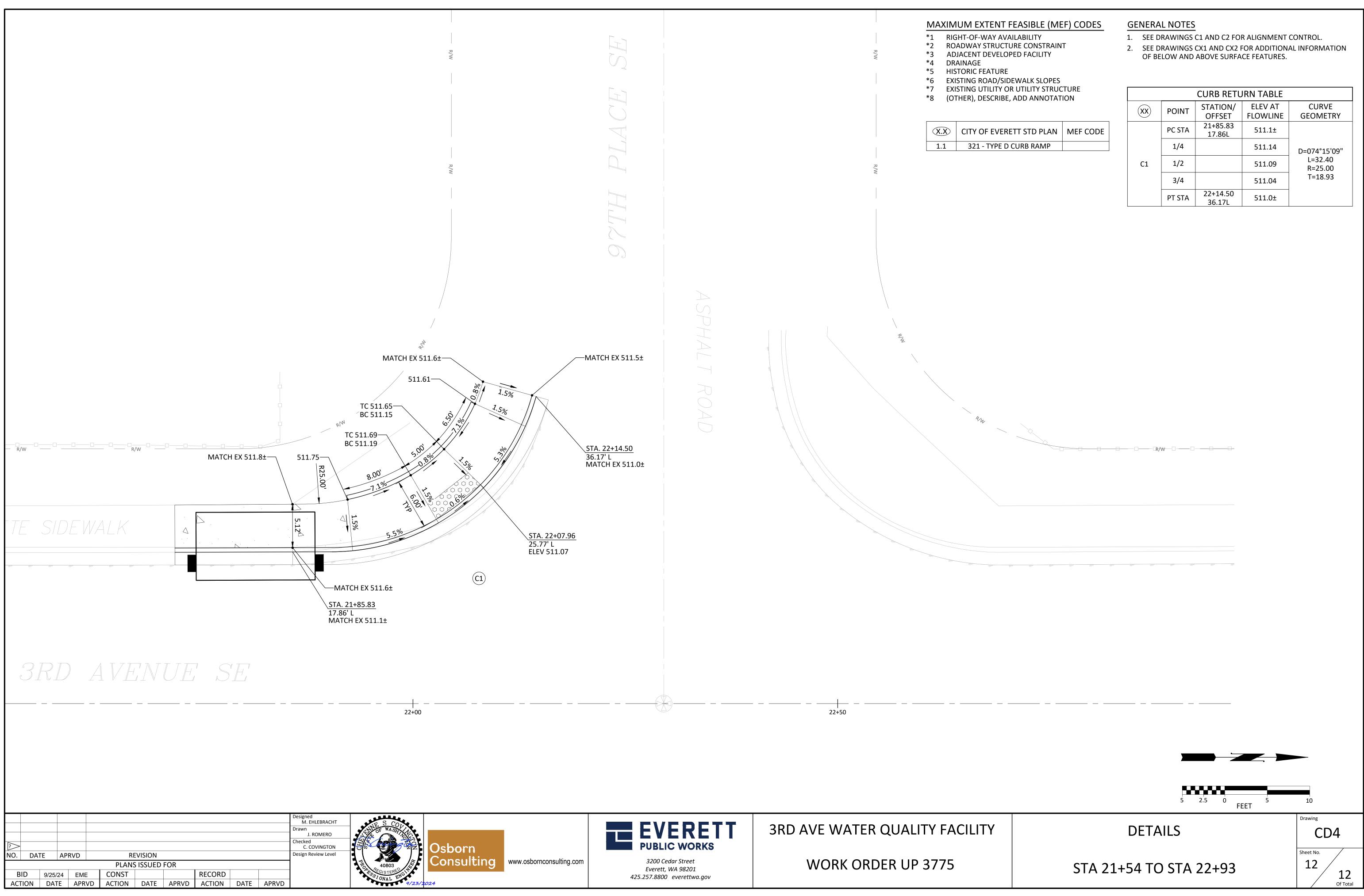


RETT STD PLAN	MEF CODE
D CURB RAMP	*6
D CURB RAMP	

CURB RETURN TABLE						
XX	POINT	STATION/ OFFSET	ELEV AT FLOWLINE	CURVE GEOMETRY		
C1	PC STA	19+68.55 <i>,</i> 17.76' L	509.05	D=088°09'33"		
	1/4		509.20			
	1/2		509.32	L=53.85 R=35.00		
	3/4		509.25	T=33.89		
	PT STA	20+03.52, 51.60' L	509.1±			

CURB RETURN TABLE						
XX	POINT	STATION/ OFFSET	ELEV AT FLOWLINE	CURVE GEOMETRY		
	PC STA	20+28.54, 47.87' L	509.0±			
C2	1/4		509.21	D=081°50'12"		
	1/2		509.39	L=49.99 R=35.00		
	3/4		509.54	T=30.34		
	PT STA	20+66.14, 17.84' L	509.8±			





RETT STD PLAN	MEF CODE
D CURB RAMP	

CURB RETURN TABLE					
XX	POINT	STATION/ OFFSET	ELEV AT FLOWLINE	CURVE GEOMETRY	
C1	PC STA	21+85.83 17.86L	511.1±		
	1/4		511.14	D=074°15'09"	
	1/2		511.09	L=32.40 R=25.00 T=18.93	
	3/4		511.04		
	PT STA	22+14.50 36.17L	511.0±		