

**PUD NO. 1 OF SKAGIT COUNTY
COLLEGE WAY: URBAN TO LAVENTURE PIPELINE REPLACEMENT PROJECT**

ADDENDUM NO. 4

Date of Issue: January 22, 2025

To All Planholders and/or Prospective Bidders:

The time and place of bidding is 10:00 AM, Wednesday, February 5, 2025, at Public Utility District No. 1 of Skagit County.

Acknowledge receipt of this Addendum in the space provided in the BID FORM. Failure to do so may subject the Bidder to disqualification.

The following changes, additions, and/or deletions are hereby made a part of the project bid documents for the College Way: Urban to LaVenture Pipeline Replacement Project, and shall have the same effect as if set forth therein.

A. PROPOSAL

- a. Remove the existing Bid Schedule (Proposal pages 3, 4, & 5) and insert the attached Bid Schedule (Proposal pages 3, 4, 5, &6) revised January 22, 2025.

The Bid Schedule changes include the following:

1. Revisions of Descriptions to Bid Schedule Items 36, 51, 52, 55, 56.
2. Revisions to Estimated Quantities regarding Bid Items 9, 11, 12, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 28, 29, 31, 32, 33, 35, 36, 37, 38, 58, 59, 60, 61, 62, 64, 65, 66, 67.
3. Revisions to Units regarding Bid Items 12 & 17.
4. Addition of New Bid Schedule Items 68 – 75.

B. TECHNICAL SPECIFICATIONS

- a. Section 1025 – Measure and Payment.
 1. Add Bid Item 69 to 1.19 – Furnish and Install “__”-inch ductile iron “__” fittings.
 2. Add Bid Items 71-73 to 1.28 – Connection work at sta “__+__”.
 3. Insert the following paragraphs:
 - 1.36 ITEMS 68-Furnish, Place and Remove Temporary Cold Patch
 - A. Measurement for Furnish, Place and Remove Temporary Cold Patch shall be by the number of tons placed and compacted based on truck ticket weights.
 - B. Payment for Furnish, Place and Remove Temporary Cold Patch shall be by the unit price per ton named in the Proposal, which price shall constitute full payment for all tools, equipment, labor, and materials required to complete this work as specified herein; including but not limited to furnishing, placing,

compacting and removal of temporary cold patch in accordance with requirements of the Contract Documents.

1.37 ITEMS 70 - Excavation for Pipe Pulling Pit Sheet 5 & 6

- A. Measurement for Excavation for Pipe Pulling Pit Sheet 5 & 6 shall be by the number of cubic yards of material excavated and replaced as measured by neat lines.
- B. Payment for Excavation for Pipe Pulling Pit Sheet 5 & 6 shall be by the unit price per cubic yards named in the Proposal, which price shall constitute full payment for all tools, equipment, labor, and materials required to complete this work as specified herein; including but not limited to excavating and replacing material in the trench in accordance with requirements of the Contract Documents.

1.38 ITEMS 74 – 6-Inch Concrete Driveway Entrance Replacement

- A. Measurement for 6-inch Concrete Driveway Entrance Replacement shall be according to the square foot of concrete entrance replaced.
- B. Payment for 6-inch Concrete Driveway Entrance Replacement shall be made by the unit price per square foot named in the Proposal, which payment shall be considered full compensation for all tools, labor, equipment, materials and incidentals for sawing of existing concrete edges to make a clean joint, expansion material, base preparation, furnishing, placing and finishing replaced sidewalk in accordance with the requirements of the Contract Documents.

1.39 ITEMS 75 – Remove, Salvage & Replace Pedestrian Railing

- C. Measurement for Remove, Salvage & Replace Pedestrian Railing shall be according to the linear foot of pedestrian guardrail removed, salvaged and replaced.
- D. Payment for Remove, Salvage & Replace Pedestrian Railing shall be made by the unit price per linear foot named in the Proposal, which payment shall be considered full compensation for all tools, labor, equipment, materials required to complete this work as specified herein; including but not limited to removing, salvaging and replacing railing in accordance with the requirements of the Contract Documents.

E. PLANS

- a. See attached revised plan set, 19 pages.

This Addendum consists of these three (3) cover pages and twenty three (23) attached pages, for a total of **twenty-six (26) pages**.



01/22/2025

Mark C. Handzlik, P.E., Engineering Manager

Appended hereto and part of Addendum No. 4

- A. Revised Bid Schedule (4 pages)
- B. Revised Plans (19 pages)

**COLLEGE WAY: URBAN TO LAVENTURE PIPELINE REPLACEMENT
PROJECT**

BID SCHEDULE

Item No.	Bid Schedule Description	Estimated Quantity	Unit	Unit Price	Total
1	Mobilization	1	LS	\$	\$
2	Accident Prevention Program and Site Specific Health and Safety Plan	1	LS	\$	\$
3	SPCC and TESC Plan	1	LS	\$	\$
4	ESC Lead	1	LS	\$	\$
5	Install and Maintain Temporary Erosion Control and Water Pollution Control Measures	1	LS	\$	\$
6	Traffic Control Supervisor	50	Day	\$	\$
7	Flaggers	1,000	HR	\$	\$
8	Traffic Control Signs and Devices	1	LS	\$	\$
9	Furnish Adequate Lighting Facilities for Non Daylight Construction Hours	0	LS	\$0.00	\$0.00
10	Furnish Portable Changeable Message Signs (PCMS)	10	DAY	\$	\$
11	Furnish and Install Adequate Site and Trench Safety Systems in Accordance with Chapter RCW 49.17	4,267	LF	\$	\$
12	Sawcut Pavement for Permanent Patch	26,900	/IN-FT	\$	\$
13	Furnish and Install Engineer-Ordered Trench Stabilization Material	20	TON	\$	\$
14	Furnish and Install Engineer-Ordered Over Excavation	20	CY	\$	\$
15	Furnish and Place Crushed Surfacing Material, Top Course	750	TON	\$	\$
16	Furnish, Place and Compact HMA Class ½-Inch, P.G. 64-22 for Permanent Patch	420	TON	\$	\$
17	Furnish & Install 12" Ductile Iron Pipe, CL 50 Including Trench Excavation, Backfill and Compaction	4,120	LF	\$	\$
18	Furnish and Install 12" x 8" DI Cross, Fitting	0	EA	\$0.00	\$0.00
19	Furnish and Install 12" x 8" DI Tee, Fitting	13	EA	\$	\$
20	Furnish and Install 12" x 4" DI Tee, Fitting	2	EA	\$	\$
21	Furnish and Install 12" DI 45 Degree Bend, Fitting	4	EA	\$	\$
22	Furnish and Install 12" DI Flange Adapter, Fitting	16	EA	\$	\$

Item No.	Bid Schedule Description		Unit	Unit Price	Total
23	Furnish and Install 12" DI Butterfly Valve w/ Valve Box and Cover	21	EA	\$	\$
24	Furnish & Install 8" Ductile Iron Pipe, CL 50 Including Trench Excavation, Backfill and Compaction	147	LF	\$	\$
25	Furnish and Install 8" DI 45 Degree Bend, Fitting	2	EA	\$	\$
26	Furnish and Install 8" x 6" DI Reducer, Fitting	0	EA	\$0.00	\$0.00
27	Furnish and Install 8" x 4" DI Reducer, Fitting	1	EA	\$	\$
28	Furnish and Install 8" DI Gate Valve w/ Valve Box and Cover	13	EA	\$	\$
29	Furnish & Install 4" Ductile Iron Pipe, CL 50 Including Trench Excavation, Backfill and Compaction	0	LF	\$0.00	\$0.00
30	Furnish and Install 4" DI Gate Valve w/ Valve Box and Cover	2	EA	\$	\$
31	Furnish and Install Fire Hydrant Assembly	13	EA	\$	\$
32	Furnish and Install Fire Hydrant Assembly w/o Tee	0	EA	\$0.00	\$0.00
33	Furnish and Install 2-inch Flushing Assembly	0	EA	\$0.00	\$0.00
34	Furnish and Install 1-inch Air/Vac Assembly	1	EA	\$	\$
35	Replace 5/8 & 1-inch Water Service, Short Rehau Muncipex	19	EA	\$	\$
36	Replace 1.5 & 2-inch Water Service, Short Rehau Muncipex	2	EA	\$	\$
37	Replace 5/8 & 1-inch Water Service, Long Rehau Muncipex	5	EA	\$	\$
38	Replace 1.5 & 2-inch Water Service, Long Rehau Muncipex	2	EA	\$	\$
39	Waterline Flushing, Pressure Testing, Disinfection and Bac-T testing	1	LS	\$	\$
40	Connection Work for Tie-In Sheet 5 at STA 9+16	1	LS	\$	\$
41	Connection Work for Tie-In Sheet 5 at STA 11+26.5	1	LS	\$	\$
42	Connection Work for Tie-In Sheet 5 at STA 12+79.5	1	LS	\$	\$
43	Connection Work for Tie-In Sheet 6 at STA 13+24	1	LS	\$	\$
44	Connection Work for Tie-In Sheet 6 at STA 16+83.5	1	LS	\$	\$
45	Connection Work for Tie-In Sheet 7 at STA 22+76	1	LS	\$	\$
46	Connection Work for Tie-In Sheet 7 at STA 23+12	1	LS	\$	\$
47	Connection Work for Tie-In Sheet 9 at STA 32+07.5	1	LS	\$	\$

Item No.	Bid Schedule Description		Unit	Unit Price	Total
48	Connection Work for Tie-In Sheet 9 at STA 33+27	1	LS	\$	\$
49	Connection Work for Tie-In Sheet 9 at STA 34+48.5	1	LS	\$	\$
50	Connection Work for Tie-In Sheet 10 at STA 36+92	1	LS	\$	\$
51	Connection Work for Tie-In Sheet 10 at STA 38+47	1	LS	\$	\$
52	Connection Work for Tie-In Sheet 10 at STA 39+90.5	1	LS	\$	\$
53	Connection Work for Tie-In Sheet 11 at STA 42+72	1	LS	\$	\$
54	Connection Work for Tie-In Sheet 11 at STA 44+89.5	1	LS	\$	\$
55	Connection Work for Tie-In Sheet 12 at STA 47+98.5	1	LS	\$	\$
56	Connection Work for Tie-In Sheet 13 at STA 50+64.5	1	LS	\$	\$
57	Connection Work for Tie-In Sheet 13 at STA 51+84.5	1	LS	\$	\$
58	Thermo Plastic Lane Line (4")	0	LF	\$0.00	\$0.00
59	Thermo Plastic Two Way Left Turn Centerline (4")	0	LF	\$0.00	\$0.00
60	Thermo Plastic Centerline (4")	0	LF	\$0.00	\$0.00
61	Thermo Plastic Wide Line (8")	0	LF	\$0.00	\$0.00
62	Thermo Plastic Crosswalk Line	350	SF	\$	\$
63	Thermo Plastic Stop Line	55	SF	\$	\$
64	Thermo Plastic Traffic Arrows	2	EA	\$	\$
65	ADA Ramp Restoration	12	EA	\$	\$
66	4-Inch Concrete Sidewalk Replacement	13,254	SF	\$	\$
67	Concrete Curb & Gutter Replacement	100	LF	\$	\$
68	Furnish, Place and Remove Temporary Cold Patch	155	TON	\$	\$
69	Furnish and Install 12"x12" DI Tee, Fitting	1	EA	\$	\$
70	Excavation for Pipe Pulling Pit Sheet 5 & 6	322	CY	\$	\$
71	Connection Work for Tie-In Sheet 8 at STA 26+27.5	1	LS	\$	\$
72	Connection Work for Tie-In Sheet 8 at STA 28+43	1	LS	\$	\$
73	Connection Work for Tie-In Sheet 9 at STA 34+47.5	1	LS	\$	\$
74	6-inch Concrete Driveway Entrance Replacement	4,251	SF	\$	\$
75	Remove, Salvage & Replace Pedestrian Railing	132	LF	\$	\$

Sub-Total Base Bid \$ _____

Sales Tax (8.8%) \$ _____

Total Bid Amount \$ _____

DOLLARS

Total Bid Amount (written in words)

SURVEY SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
	MONUMENT	SMON	SV-CTRL-EXST-SYM
	MONUMENT IN CASE	SMIC	SV-CTRL-EXST-SYM
	REBAR & CAP	RCS	SV-CTRL-EXST-SYM
	SCRIBED "X"	SAP	SV-CTRL-EXST-SYM
	PK NAIL	PK	SV-CTRL-EXST-SYM
	SOIL BORING	BORE	SV-SOIL-EXST-SYM
	SOIL TEST PIT	TP	SV-SOIL-EXST-SYM
	UTILITY POTHOLE/ GROUND WATER MONITORING WELL	P_SSB	UT-MISC-EXST-SYM

SURFACE FEATURE SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
	METAL SIGN POST	E1S1	SF-SIGN-EXST-SYM
	WOOD SIGN POST	SFSN	SF-SIGN-EXST-SYM
	GATE POST	POST	SF-FENC-EXST-SYM
	CONIFEROUS TREE	SFC	SF-VEGE-EXST-SYM
	DECIDUOUS TREE	SFD	SF-VEGE-EXST-SYM
	BUSH/SHRUB	PUBUSH	SF-VEGE-EXST-SYM
	STUMP	STUMP	SF-VEGE-EXST-SYM

UTILITY SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
	SANITARY SEWER MANHOLE	PUDMH	SS-STCR-EXST-SYM
	STORM DRAIN MANHOLE	SDMH	SD-STCR-EXST-SYM
	CATCH BASIN	CBIN	SD-STCR-EXST-SYM
	INLET/YARD DRAIN	SDGI	SD-STCR-EXST-SYM
	GAS VALVE	GV	GS-VALV-EXST-SYM
	GAS METER	P_GMET	GS-VALV-EXST-SYM
	TRAFFIC JUNCTION BOX	TJB1	TF-STCR-EXST-SYM
	ELEC. JUNCTION BOX	TJB1	PO-STCR-EXST-SYM
	POWER METER	EM	PO-STCR-EXST-SYM
	TELECOM. JUNCTION BOX	TJB1	TL-STCR-EXST-SYM
	CABLE TV JUNCTION BOX	TJB1	TV-STCR-EXST-SYM
	JUNCTION BOX	TJB1	UT-STCR-EXST-SYM
	TELEPHONE RISER	TELK	TL-STCR-EXST-SYM
	UTILITY POLE	UP	PO-STCR-EXST-SYM
	UTILITY POLE W/CONDUIT	UP	PO-STCR-EXST-SYM
	GUY ANCHOR	UPA	PO-STCR-EXST-SYM
	GUY POLE	GUP	PO-STCR-EXST-SYM
	TRANSFORMER	TRAN	PO-STCR-EXST-SYM
	POWER VAULT	POWRV	PO-STCR-EXST-SYM
	TRANSMISSION TOWER	PTWR	PO-STCR-EXST-SYM
	TELEPHONE VAULT	TV	TL-STCR-EXST-SYM
	PEDESTRIAN SIGNAL HEAD	TPSH	TF-SIGL-EXST-SYM
	PEDESTRIAN SIGNAL BUTTON	TPB	TF-SIGL-EXST-SYM
	TRAFFIC SIGNAL POLE W/LIGHT	TSPL	TF-SIGL-EXST-SYM
	LUMINAIRE	TSLA	PO-STCR-EXST-SYM
	YARD LIGHT	SFL	PO-STCR-EXST-SYM
	MONITORING WELL		UT-STCR-EXST-SYM
	WATER MANHOLE	WMH	WA-STCR-EXST-SYM
	SPRINKLER HEAD	SPRHD	WA-MISC-EXST-SYM
	IRRIGATION BOX	ICV	WA-MISC-EXST-SYM

WATER SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
	EXIST. CAP/PLUG	X_CAP/P_CAP	WA-FITT-XXXX-SYM
	PROP. COUPLING	X_COUP/P_COUP	WA-FITT-XXXX-SYM
	SLEEVE	X_SLV/P_SLV	WA-FITT-XXXX-SYM
	GUARD POST	X_GPOST/P_GPOST	WA-FITT-XXXX-SYM
	REDUCER	X_RED/P_RED	WA-FITT-XXXX-SYM
	THRUST BLOCK	X_TB/P_TB	WA-FITT-XXXX-SYM
	WATER METER	X_MTR/P_MTR	WA-METR-XXXX-SYM
FIRE HYDRANTS:			
	2 NOZZLE	X_HYD2/P_HYD2	WA-FHYD-XXXX-SYM
	3 NOZZLE	X_HYD3/P_HYD3	WA-FHYD-XXXX-SYM
JOINTS:			
	FLANGE/BLIND FL.	X_FL/P_FL	WA-FITT-XXXX-SYM
	MECHANICAL	X_MJ/P_MJ	WA-FITT-XXXX-SYM
	PUSH-ON/HUB	X_PHUB/P-PHUB	WA-FITT-XXXX-SYM
	THREAD	X_THREAD/P_THREAD	WA-FITT-XXXX-SYM
VALVES			
	AIR RELIEF VALVE	X_AR/P_AR	WA-VALV-XXXX-SYM
	BLOW-OFF VALVE	X_BO/P_BO	WA-VALV-XXXX-SYM
	BUTTERFLY VALVE	X_BFV/P-BFV	WA-VALV-XXXX-SYM
	CHECK VALVE	X_CV/P_CV	WA-VALV-XXXX-SYM
	GATE VALVE	X_GV/P_GV	WA-VALV-XXXX-SYM
	PLUG VALVE	X_PLUGV/P_PLUGV	WA-VALV-XXXX-SYM
ELBOWS			
	90° ELBOW MjxMj		WA-FITT-XXXX-SYM
	45° ELBOW MjxMj		WA-FITT-XXXX-SYM
	22.5° ELBOW MjxMj		WA-FITT-XXXX-SYM
	11.25° ELBOW MjxMj		WA-FITT-XXXX-SYM
	CROSS MjxMj		WA-FITT-XXXX-SYM
	TEE MjxMj		WA-FITT-XXXX-SYM
	VERTICAL ELBOW MjxMj		WA-FITT-XXXX-SYM
	45° ELBOW MjxFL		WA-FITT-XXXX-SYM
	22.5 ELBOW MjxFL		WA-FITT-XXXX-SYM
	11.25° ELBOW MjxFL		WA-FITT-XXXX-SYM
	CROSS MjxFL		WA-FITT-XXXX-SYM
	TEE MjxFL		WA-FITT-XXXX-SYM
	CROSS FLxFL		WA-FITT-XXXX-SYM
	TEE FLxFL		WA-FITT-XXXX-SYM
	VERTICAL MjxFL		WA-FITT-XXXX-SYM
	TAPPING SLEEVE		WA-FITT-XXXX-SYM

NOTATION SYMBOLS

SYMBOL	DESCRIPTION	BLOCK	LAYER
	CATHODIC PROTECTION TEST STATION	CATH	G-ANNO-PROP-SYM
	CHANGE IN PIPING MATERIAL	PMAT	G-ANNO-PROP-SYM
	TRENCH BACKFILL AND SURFACE RESTORATION CODE	KEYNOTE	G-ANNO-PROP-SYM
	CONSTRUCTION NOTE	KEYNOTES	G-ANNO-PROP-SYM

TEXT	DESCRIPTION	HEIGHT	LAYER
1+00	ROAD STATIONING	.10	SV-CNTL-EXST-TXT
PXXXXX	PARCEL NUMBER	.20	SV-PRCL-EXST-TXT
N/A	ADDRESS	.15	G-MISC-EXST-TXT
OWNER 8" DI 1944 CO3122	WATERLINE LABEL	.10	WA-MAIN-PROP-TXT

LINE TYPES

LINE TYPE	DESCRIPTION	LAYER
	GENERIC GAS LINE	GS-PLIN-EXST-LIN
	HIGH PRESSURE GAS	GS-PLIN-EXST-LIN
	LOW PRESSURE GAS	GS-PLIN-EXST-LIN
	IRRIGATION	WA-IRRI-EXST-LIN
	STORM DRAIN	SD-GLIN-EXST-LIN
	EXISTING CULVERT	SD-CULV-EXST-LIN
	SANITARY SEWER	SS-GLIN-EXST-LIN
	SS FORCEMAIN	SS-PLIN-EXST-LIN
	WATER LINE	WA-PLIN-EXST-LIN
	UNDERGROUND POWER	PO-BLIN-EXST-LIN
	UNDERGROUND FIBER OPTIC	FO-BLIN-EXST-LIN
	UNDERGROUND TELEPHONE	TL-BLIN-EXST-LIN
	UNDERGROUND TELEVISION	TV-BLIN-EXST-LIN
	OVERHEAD ELECTRIC	PO-ALIN-EXST-LIN
	OVERHEAD FIBER OPTIC	FO-ALIN-EXST-LIN
	OVERHEAD TELEPHONE	TL-ALIN-EXST-LIN
	OVERHEAD TELEVISION	TV-ALIN-EXST-LIN
	VEGETATION LINE	SF-VEGE-EXST-LIN
	EDGE OF GRAVEL	SF-GRVL-EXST-LIN
	EDGE OF ASPHALT	SF-ASPH-EXST-LIN
	CURB/CONCRETE LINE	SF-CONC-EXST-LIN
	DITCH FLOWLINE	SF-DTCH-EXST-LIN
	EXISTING FENCE	SF-FENC-EXST-LIN
	TOP/TOE OF SLOPE	SF-GRAD-EXST-LIN
	RAILROAD TRACKS	SF-RAIL-EXST-LIN
	CENTERLINE	SV-CNTL-EXST-LIN
	RIGHT OF WAY	SV-ROFW-EXST-LIN
	EASEMENT LINE	SV-ESMT-EXST-LIN
	PROPERTY LINE	SV-PROP-EXST-LIN
	PROPOSED WATERLINE	WA-PLIN-PROP-LIN
	PROPOSED METER LINE	WA-METR-PROP-LIN
	RECLAIMED WATER LINE	WA-RCW-EXST-LIN
	FOG LINE	SF-STRP-EXST-LIN
	SHUTOFF DETAIL LINES	VARIES

HATCHING

DESCRIPTION	LAYER
ASPHALT - SOLID	SF-ASPH-EXST-HCH
GRAVEL - AR-SAND, 0', SCALE=1.6667	SF-FEAT-EXST-HCH
CONCRETE - AR-CONC, 0', SCALE=1.6667	SF-FEAT-EXST-HCH
WETLAND - GRASS, 0', SCALE=.10 OF DWG SCALE	SF-FEAT-EXST-HCH
PAVEMENT RESTORATION:	
TEMP PVMT. PATCH - DASH, 0', SCALE=0.30 OF DWG SCALE	SF-ASPH-PROP-HCH

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25

DATUM: HOR: NAD 83 VERT: NAVD 88	DSGN BY: JLB DWN BY: JLB APPVD BY: MCH
DATE PRINTED: 1/22/25	SEC: 17 TWP: 34 N RGE: 4 E

PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O. BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

COLLEGE WAY(URBAN TO LAVENTURE)
PIPELINE REPLACEMENT

LEGEND

SCALE: 1"=20'

JOB ID : CP19223

SHEET:
1 OF 18

DISTRICT STANDARD GENERAL NOTES

(Minimum Requirements)

- UNLESS STATED OTHERWISE, ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE MOST CURRENT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND THE DISTRICT REQUIREMENTS AS OUTLINED IN THE DISTRICT'S WATER POLICY MANUAL.
- THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION CONFERENCE WITH THE DISTRICT ENGINEERING DEPARTMENT, (360) 424-7104, A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION.
- PERMITS FOR THE INSTALLATION OF THE PROPOSED WATER SYSTEM IMPROVEMENTS ARE ATTACHED IN APPENDIX B OF THE TECHNICAL SPECIFICATIONS.
- DISTRICT REFERENCE DOCUMENTS, SUCH AS STANDARD DETAILS, WATER POLICY MANUAL, DRAWING STANDARDS, ETC., CAN BE FOUND ON THE DISTRICT WEBSITE AT WWW.SKAGITPUD.ORG.
- ALL TIE-INS, SHUTDOWN, FLUSHING, AND HEALTH SAMPLES SHALL BE COORDINATED WITH THE DISTRICT. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES. CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL EXCAVATION, SHORING, DEWATERING, BACKFILL AND RESTORATION NECESSARY FOR DISTRICT CREWS TO PERFORM ALL TIE-INS TO ANY ACTIVE PUD OWNED AND OPERATED PIPELINE.
- A LIST OF ALL MATERIALS, INDICATING THE MANUFACTURER, MODEL, AND SIZE, FOR THE WATER SYSTEM IMPROVEMENTS REQUIRE APPROVAL BY THE DISTRICT PRIOR TO CONSTRUCTION. CONTACT DISTRICT FOR SUBMITTAL REQUIREMENTS.
- PIPE MATERIAL:
 - PVC PIPE SHALL BE IN ACCORDANCE WITH SECTION C909-16 OF THE AWWA STANDARDS.
 - DUCTILE IRON PIPE WILL BE MINIMUM CLASS 50 AWWA C151 PER WSDOT STANDARD SPECIFICATIONS 9-30.1 AND 9-30.1(1). ALL DUCTILE IRON WATER PIPE AND FITTINGS SHALL BE COMPLETELY WRAPPED WITH A MINIMUM OF EIGHT-MIL POLYETHYLENE PIPE ENCASEMENT AND INSTALLED IN ACCORDANCE WITH AWWA C105 AND WSDOT STANDARD SPECIFICATIONS 7-09.3(17) AND 9-30.1(2).
 - PVC PIPE SHALL BE IN ACCORDANCE WITH SECTION 9-30.1(5)A OF THE STANDARD SPECIFICATIONS.
- ALL BOLTS USED IN BURIED FLANGES SHALL BE ASTM A307 GRADE B UNFINISHED WITH NUTS TO ASTM A563 GRADE A AND WASHERS TO ASTM F844, OR ASTM A325 TYPE 3 (CORTEN STEEL) UNFINISHED, WITH NUTS TO ASTM A563C3 OR A563DH3 AND WASHERS TO ASTM F436-1. ALL BOLTS, NUTS AND WASHERS USED IN EXPOSED OR ABOVE GROUND LOCATIONS SHALL BE ASTM A307 GRADE B UNFINISHED OR HOT-DIP GALVANIZED.
- ALL GATE VALVES TO BE RESILIENT SEATED GATE VALVES, AWWA C515 OR C509 (DUCTILE IRON BODY ONLY) WITH STAINLESS STEEL NUTS, BOLTS AND TRIM.
- ALL BUTTERFLY VALVES TO BE RUBBER SEATED BUTTERFLY VALVES, AWWA C504 WITH STAINLESS STEEL NUTS, BOLTS AND TRIM.
- RESTRAINED JOINTS MAY BE USED IN PLACE OF CONCRETE BLOCKING AS DIRECTED BY THE PROJECTS DESIGN ENGINEER AND ACCEPTED BY THE DISTRICT.
- ALL BURIED DUCTILE IRON FITTING AND VALVES SHALL BE WRAPPED WITH ANTI CORROSION WAX/PETROLEUM TAPE BY TRENTON ANTICORROSION MATERIALS INC, DENSO NORTH AMERICA INC OR EQUAL.
- ALL FIRE HYDRANTS SHALL CONFORM TO AWWA C502 WITH STORZ ADAPTORS. ACCEPTABLE FIRE HYDRANTS INCLUDE CLOW MEDALLION, MUELLER CENTURION OR SUPER CENTURION, AMERICAN DARLING B62B AND AMERICAN AVK NOSTALGIC.
- A #10 SOLID COPPER WIRE WITH BLUE INSULATION IS TO BE INSTALLED WITH/AND ATTACHED TO ALL NEW WATER PIPELINES AND SERVICE PIPELINES. REFER TO DISTRICT DETAILS FOR INSTALLATION REQUIREMENTS. UNLESS OTHERWISE SPECIFIED, ALL WATER PIPELINE INSTALLATIONS REQUIRE A 36-INCH MINIMUM COVER AND 48-INCH TYPICAL TRENCH DEPTH TO EXISTING OR FUTURE FINISH GRADE AND A MINIMUM OF 1-FOOT VERTICAL AND 5-FOOT HORIZONTAL CLEARANCE BETWEEN WATER PIPELINE AND ALL OTHER UTILITIES UNLESS OTHERWISE SPECIFIED.
- WHEN INSTALLING WATER PIPELINE ACROSS EXISTING OR PROPOSED SANITARY SEWER, A FULL LENGTH OF PIPE SHALL BE INSTALLED WITH MID-SPAN OF THE WATER PIPE OVER THE SEWER. A MINIMUM 10-FOOT HORIZONTAL SEPARATION AND 18-INCH VERTICAL SEPARATION BETWEEN WATER PIPELINES AND SANITARY SEWER PIPELINES IS REQUIRED, UNLESS AN ALTERNATIVE PROPOSAL FROM THE DESIGN ENGINEER IS SUBMITTED TO AND APPROVED BY THE DISTRICT.
- BEDDING MATERIAL FOR WATER PIPELINE SHALL BE SELECT, NATIVE, GRANULAR MATERIAL FREE FROM WOOD WASTE, ORGANIC MATERIAL OR OTHER EXTRANEIOUS OR OBJECTIONABLE MATERIALS AND SHALL BE A MAXIMUM SIZE OF 1 1/2-INCHES OR APPROVED PIPE BEDDING PER WSDOT SPECIFICATION 7-09.3(9) AND 9-03.12(3). PEA GRAVEL AND BUCKSHOT ARE NOT ACCEPTABLE.
- BACKFILL TRENCHES IN PAVEMENT AREAS WITH PIT-RUN GRAVEL COMPACTED TO AT LEAST 95 PERCENT MINIMUM DENSITY PER WSDOT SPECIFICATION 7-09.3(11). THE CONTRACTOR SHALL MAKE ALL PAVEMENT REPAIRS AND PERFORM ALL RESTORATION.
- DISINFECTION AND FLUSHING OF THE WATER PIPELINES ARE TO BE IN ACCORDANCE WITH SKAGIT PUD'S WATERLINE DISINFECTION AND TESTING PROCEDURES AVAILABLE ON THE PUD'S WEBSITE. USE DECHLORINATION EQUIPMENT WHEN FLUSHING OR, WITH PERMISSION OF THE APPROPRIATE SEWER UTILITY, FLUSH INTO SANITARY SEWER MANHOLES. DO NOT FLUSH INTO OR ALLOW CHLORINATED WATER TO DRAIN INTO ANY CREEK, WETLAND, OR CATCH BASIN. THE CONTRACTOR WILL SUBMIT A PRESSURE TESTING, DISINFECTION, AND FLUSHING PLAN TO THE DISTRICT PRIOR TO CONSTRUCTION.
- ALL SALVAGED USABLE DISTRICT OWNED MATERIALS ARE TO BE DELIVERED TO THE DISTRICT OFFICE AT 1415 FREEWAY DRIVE, MOUNT VERNON, OR AS DIRECTED BY THE DISTRICT.
- THE UTILITY LOCATIONS MARKED ON THIS MAP ARE APPROXIMATE. THE CONTRACTOR IS TO VERIFY ACTUAL LOCATION AND DEPTH PRIOR TO CONSTRUCTION. CALL THE UNDERGROUND UTILITY LOCATE CENTER AT 800- 424-5555.
- ALL PRIVATE FIRE SPRINKLERS OR PRIVATE FIRE HYDRANT PIPELINES ARE REQUIRED TO BE INSTALLED WITH A WASHINGTON STATE DEPARTMENT OF HEALTH (WSDOH) APPROVED DOUBLE CHECK DETECTOR ASSEMBLY(IES) OR REDUCED PRESSURE DETECTOR ASSEMBLY(IES), LOCATED IMMEDIATELY AFTER THE FIRE SERVICE CONNECTION. A BADGER RECORDALL METER WITH A REMOTE TOUCH-READ PAD WILL BE SUPPLIED AND INSTALLED BY THE DISTRICT WITHIN 6-INCHES OF THE VAULT LID'S HINGE AND BRASS PLUGS IN THE TEST PORTS. METER SUPPLY AND INSTALLATION WILL BE INCLUDED WITH THE CHARGES IN THE WORK ORDER.
- A LEAD FREE, WASHINGTON STATE APPROVED, REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED AT TEMPORARY CONNECTIONS BETWEEN THE EXISTING DISTRICT PIPELINES AND NEW WATER PIPELINES FOR FILLING, FLUSHING AND PRESSURE TESTING OF THE IMPROVEMENTS. UPON TEMPORARY CONNECTION, AND PRIOR TO FILLING, THE ASSEMBLY SHALL HAVE BEEN SUCCESSFULLY TESTED BY A BACKFLOW ASSEMBLY TESTER (BAT) AND THE TEST REPORT IS TO BE PROVIDED TO THE DISTRICT.
- BEFORE FINAL CONNECTION TO THE EXISTING DISTRICT SYSTEM, ALL NEW WATER PIPELINES AND REPAIRED PORTIONS OF/OR EXTENSION TO EXISTING PIPELINES SHALL BE ADEQUATELY DISINFECTED AND A SATISFACTORY BACTERIOLOGICAL REPORT OBTAINED.
- PRESSURE TEST NEW PIPELINE, INCLUDING FIRE HYDRANTS AND SERVICE LINES AS IN ACCORDANCE WITH SKAGIT PUD'S WATERLINE DISINFECTION AND TESTING PROCEDURES AVAILABLE ON THE PUD'S WEBSITE.

STATION _____
 TEST DATE _____ TEST PRESSURE _____
 TIME START _____ TIME END _____
 PRESSURE DROP _____ MAKE-UP WATER _____

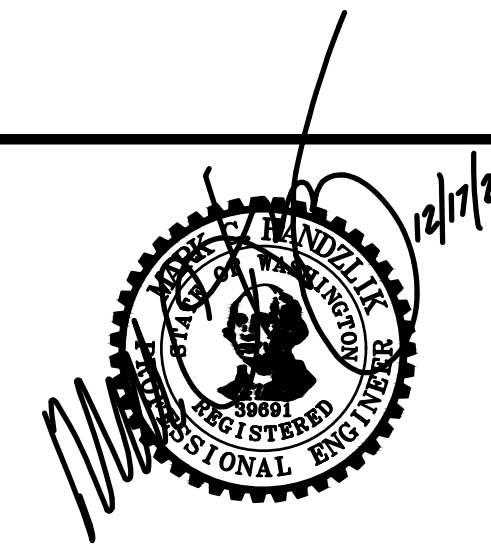
STATION _____
 TEST DATE _____ TEST PRESSURE _____
 TIME START _____ TIME END _____
 PRESSURE DROP _____ MAKE-UP WATER _____

STATION _____
 TEST DATE _____ TEST PRESSURE _____
 TIME START _____ TIME END _____
 PRESSURE DROP _____ MAKE-UP WATER _____

STATION _____
 TEST DATE _____ TEST PRESSURE _____
 TIME START _____ TIME END _____
 PRESSURE DROP _____ MAKE-UP WATER _____

STATION _____
 TEST DATE _____ TEST PRESSURE _____
 TIME START _____ TIME END _____
 PRESSURE DROP _____ MAKE-UP WATER _____

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATUM: HOR: NAD 83 VERT: NAVD 88		DSGN BY: JLB DWN BY: JLB APPVD BY: MCH
DATE PRINTED: 1/22/25	SEC: 17 TWP: 34 N RGE: 4 E	



PUBLIC UTILITY DISTRICT
 NO. 1 of SKAGIT COUNTY
 1415 Freeway Drive
 P.O BOX 1436
 Mount Vernon, WA 98273
 (360) 424-7104
 www.SkagitPud.org

COLLEGE WAY(URBAN TO LAVENTURE)
 PIPELINE REPLACEMENT
 GENERAL NOTES

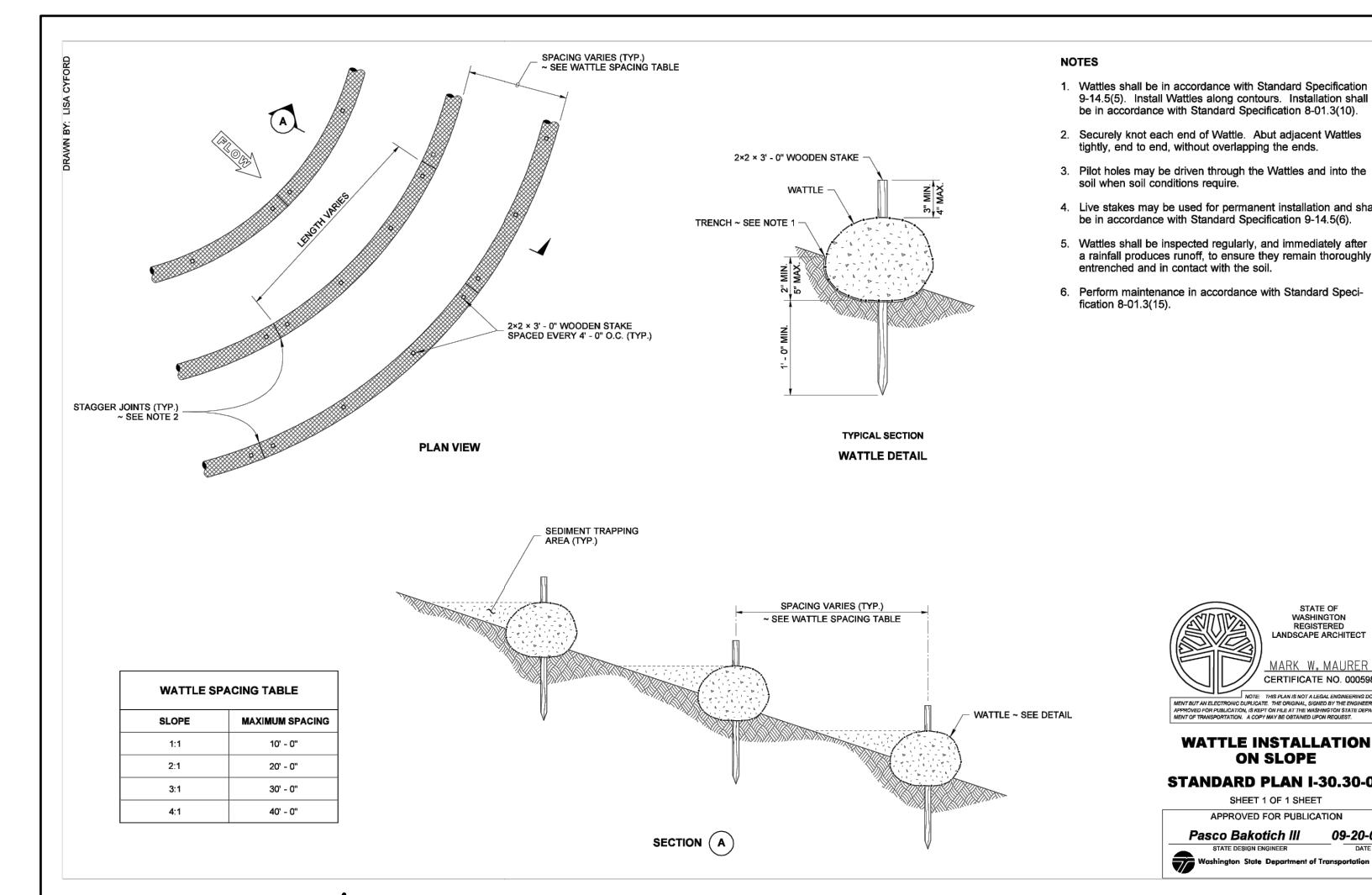
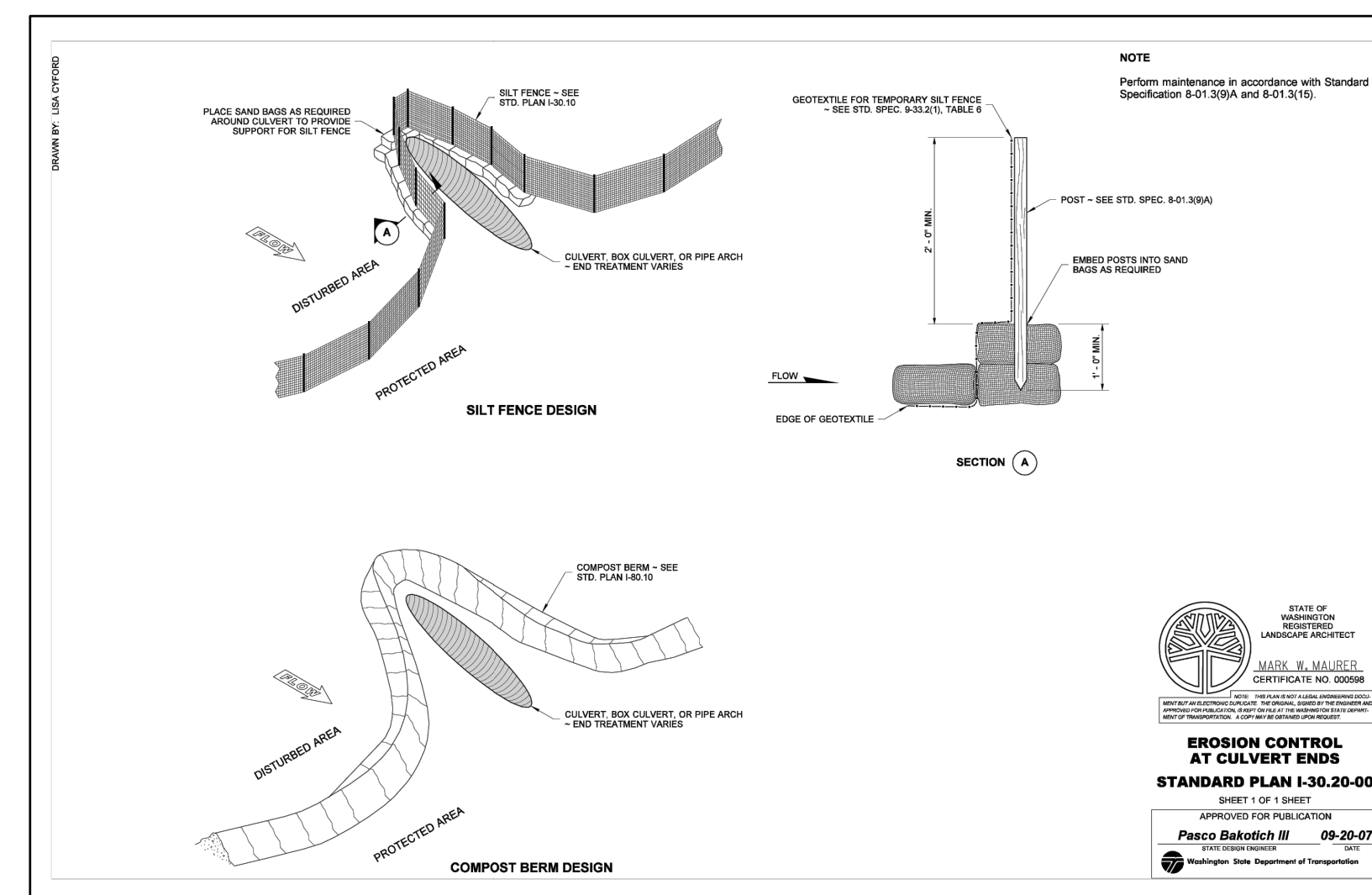
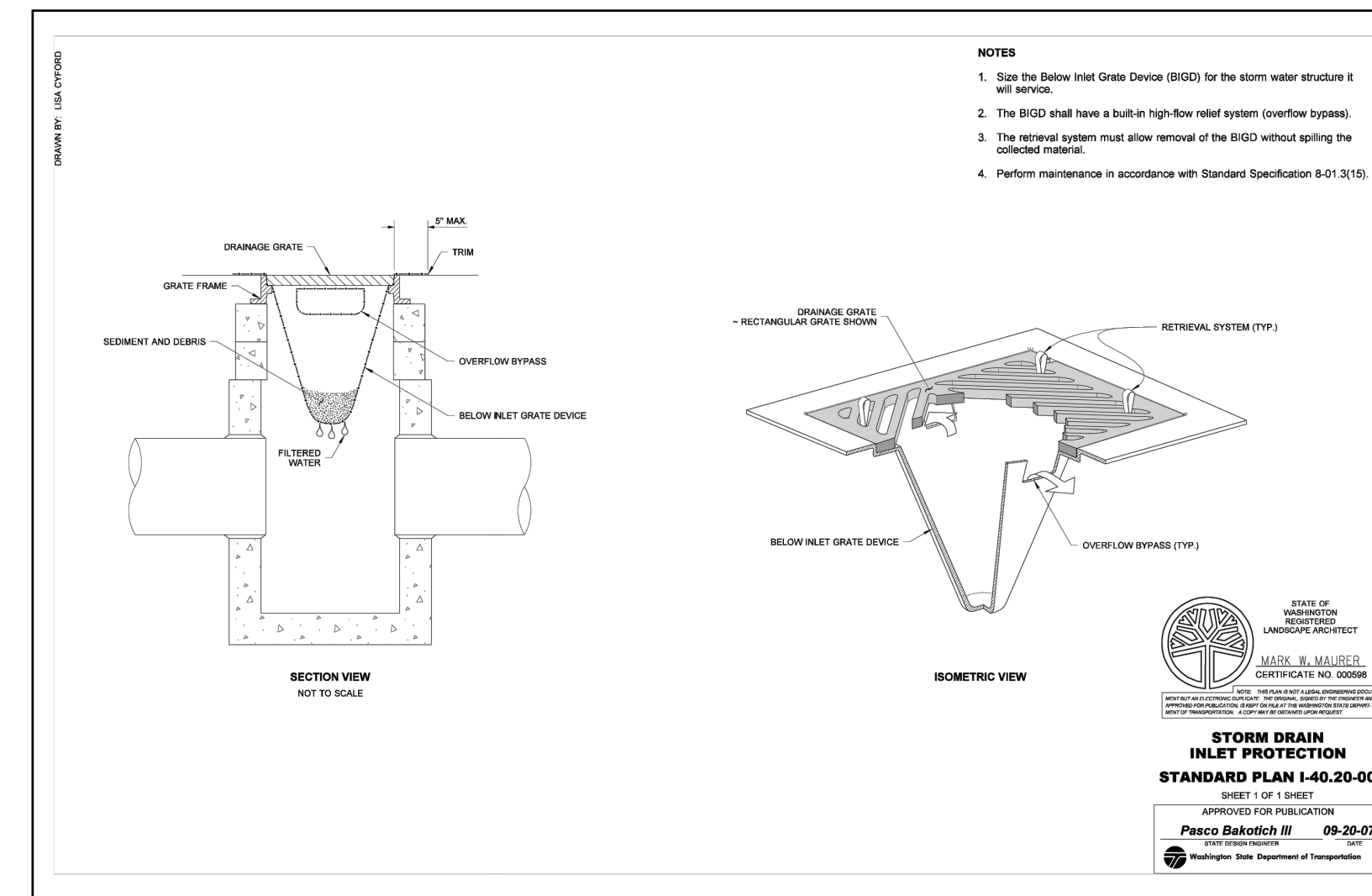
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CONSTRUCTION NOTES

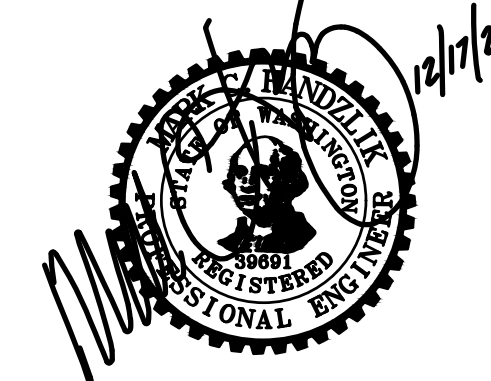
- VERIFY THE LOCATIONS, ELEVATIONS, DIAMETERS, MATERIALS, AND OTHER PARAMETERS OF EXISTING FACILITIES TO WHICH NEW FACILITIES CONNECT BEFORE BEGINNING ANY WORK.
- VERIFY INVERT ELEVATION OF EXISTING UTILITIES BY POTHOLING A MINIMUM OF 200 FEET AHEAD OF WATERLINE INSTALLATION.
- PROTECT ALL EXISTING UTILITIES, SERVICE CONNECTIONS AND ALL SURFACE IMPROVEMENTS. CONTRACTOR SHALL REPAIR ALL SERVICE CONNECTIONS WHETHER SHOWN ON THESE PLANS OR NOT.
- PROTECT ALL EXISTING UTILITIES AND SURFACE IMPROVEMENTS. CONTRACTORS SHALL COORDINATE WITH PROPERTY OWNERS DURING CONSTRUCTION TO AVOID DAMAGING EXISTING FACILITIES. CONTRACTOR SHALL BE RESPONSIBLE TO IDENTIFY AND LOCATE ALL EXISTING UTILITIES ON PRIVATE PROPERTY.
- CONSTRUCTION ACTIVITIES SHALL NOT EXTEND BEYOND THE LIMITS SHOWN IN THE PLANS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- CONTRACTOR TO COORDINATE WORK WITH & WITHIN APPROVED TRAFFIC CONTROL PLANS.
- REFER TO EROSION AND SEDIMENTATION CONTROL DRAWINGS FOR PROTECTION REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING, MAINTAINING AND REMOVING TEMPORARY ACCESS ROADS AND RESTORATION OF CONSTRUCTION AREAS TO PRE-CONSTRUCTION CONDITION OR BETTER.
- PROVIDE AND MAINTAIN TEMPORARY PAVEMENT MARKINGS UNTIL PERMANENT MARKINGS RESTORATION. PROVIDE PERMANENT RESTORATION OF PAVEMENT MARKINGS AFTER PAVEMENT RESTORATION IS COMPLETED.
- SUPPORT POWER AND TELEPHONE POLES DURING PIPELINE INSTALLATION. COORDINATE WITH PUGET SOUND ENERGY TO PROVIDE TEMPORARY GUYS OR SUPPORTS AS NECESSARY.
- EXCESS TRENCH MATERIALS MUST BE HAULED OFF SITE. NO SPOILS SHALL BE SPREAD IN WETLANDS OR WETLAND BUFFERS. NO MATERIALS SHALL BE STOCKPILED IN WETLANDS OR WETLAND BUFFERS.
- REMOVE AND REPLACE ALL MAILBOXES AS REQUIRED FOR CONSTRUCTION OF THE PIPELINE.
- REMOVE AND REPLACE ALL TRAFFIC AND ROADWAY SIGNS AS REQUIRED FOR CONSTRUCTION.
- MINIMUM 12-INCH SAND CUSHION IS DESIRED BETWEEN WATERLINE AND EXISTING PIPELINES OR OTHER CONDUITS WHEN ENCOUNTERED DURING CONSTRUCTION. NOTIFY DISTRICT INSPECTOR IF LESS THAN 12-INCHES OF CUSHION WILL OCCUR.
- TURBID WATER GENERATED FROM CONSTRUCTION ACTIVITIES, INCLUDING TURBID DEWATERING WATER, SHALL NOT BE DISCHARGED DIRECTLY TO ANY SURFACE WATER. TEMPORARY SEDIMENT PONDS OR BAKER TANKS SHALL BE USED, AS NECESSARY, TO ALLOW THE TURBID WATER TO SETTLE BEFORE DISCHARGE. DEWATERED GROUNDWATER CAN BE TREATED USING BAKER TANKS ONSITE OR TREATED AND DISPOSED OFFSITE, UPON APPROVAL OF ENGINEER, AND PER APPLICABLE RULES AND GUIDELINES OF DEPARTMENT OF ECOLOGY AND OTHER REQUIREMENTS OF APPLICABLE JURISDICTIONS.

Standard ESC Plan Notes

- AS DIRECTED BY PUBLIC WORKS DIRECTOR PRIOR TO COMMENCING CONSTRUCTION, ALL CRITICAL AREAS, INCLUDING WETLAND BUFFERS, STREAM CORRIDOR, LANDFILL AREAS, AND STEEP SLOPES SHALL BE CONTINUOUSLY DEMARCATED IN THE FIELD USING FLAGGING TAPE OR FENCING.
- EROSION CONTROL METHODS AND MATERIALS SHALL MEET REQUIREMENTS OF SECTION 8-01 OF THE APWA/WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 2023 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, AND REQUIREMENTS SET FORTH IN VOLUME II OF THE "STORMWATER MANAGEMENT MANUAL FOR THE PUGET SOUND BASIN (THE TECHNICAL MANUAL)", BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, CURRENT EDITION. THE CONTRACTOR SHALL FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND MANUFACTURERS OF MATERIALS AND EQUIPMENT USED.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS, AND MUST BE INSTALLED AND IN OPERATION PRIOR TO ANY GRADING OR LAND CLEARING, WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
- 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 (E.G., ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANK, DETENTION VAULT, OR SYSTEM, WHICH BACKS UNDER OR INTO A POND, SHALL BE USED AS A TEMPORARY SETTLING BASIN.
- WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (EXAMPLE: ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).
- WHERE STRAW MULCH IS REQUIRED FOR TEMPORARY EROSION CONTROL, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF TWO (2) INCHES.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF THE CITY OR COUNTY IN WHICH THE WORK OCCURS.
- THE ESC FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE APPROVED PLANS. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL.
- A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER EQUIPMENT. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.
- ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION.
- THE WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCE SHALL BE REPLACED AND THE FILTER FABRIC CLEANED IF IT IS NONFUNCTIONAL BY EXCESSIVE SILT ACCUMULATION, ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.
- ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO DEPTH OF ONE (1) FOOT AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4" - 8" ROCK/40%-70% PASSING; 2"-4" ROCK/30%-40% PASSING; AND 1"-2" ROCK/10%-20% PASSING.
- IF ANY PART (S) OF THE CLEARING LIMIT; BOUNDARY OR TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN IS/ARE DAMAGED, IT SHALL BE REPAIRED IMMEDIATELY.
- ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF. DO NOT FLUSH CONCRETE BY-PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RECLEANING THE ENTIRE DOWNSTREAM STORM SYSTEM, OR POSSIBLY RELAYING THE STORM LINE.
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE ESC LEAD'S NAME IS: _____
- THE APPLICANT'S NAME IS : PUD NO. 1 OF SKAGIT COUNTY, 24 HR. CONTACT NUMBER: 360-424-7104. TRANSFEREE IS : _____
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE TRANSFEREE/ESC LEAD AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF THE MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
- THE ESC FACILITIES ON ACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A 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.
- STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION AS ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
- PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE CITY INSPECTOR. THE CITY INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.
- CONTRACTOR SHALL MAINTAIN ALL BMP'S UNTIL DISTURBED AREAS HAVE STABILIZED.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	60% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATUM:
HOR: NAD 83
VERT: NAVD 88

DSGN BY: JLB
DWN BY: JLB
APPVD BY: MCH

DATE PRINTED: 1/22/25
SEC: 17
TWP: 34 N
RGE: 4 E



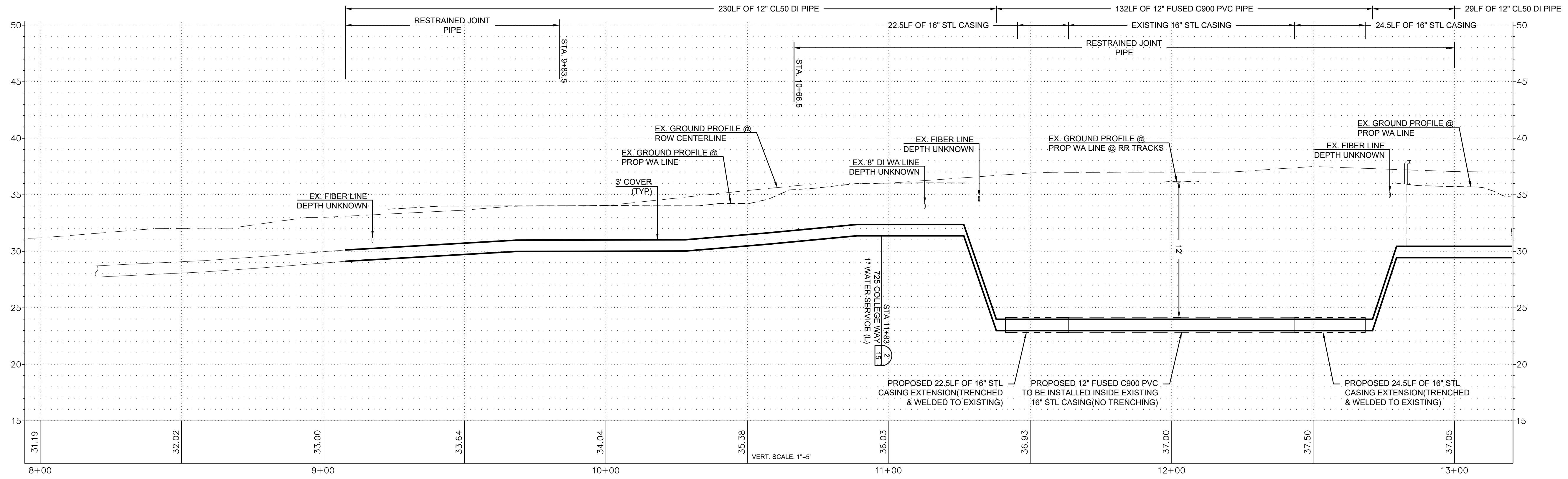
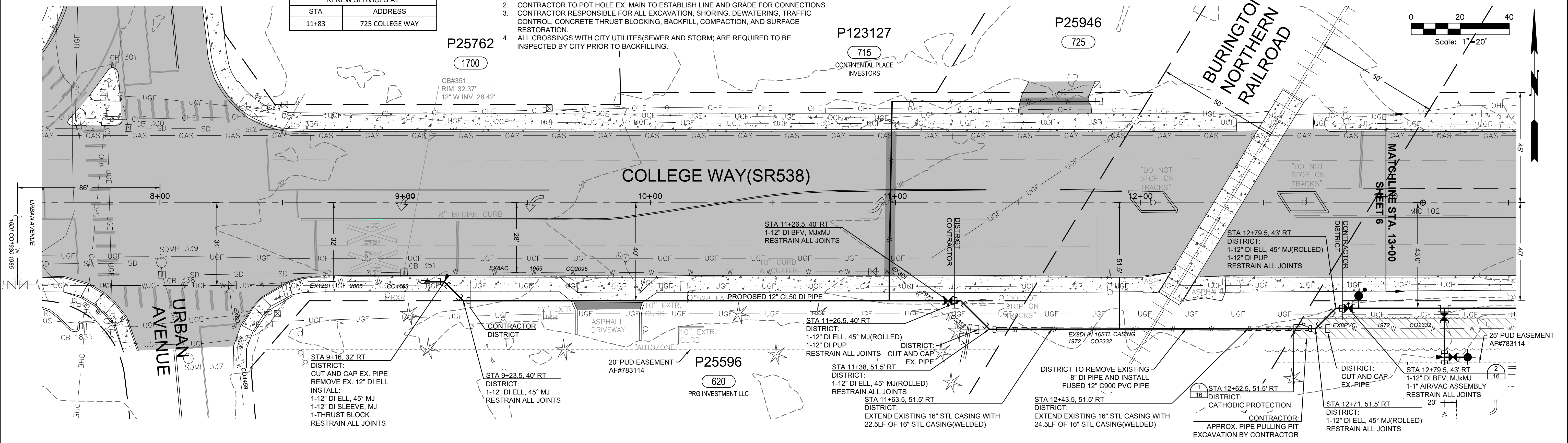
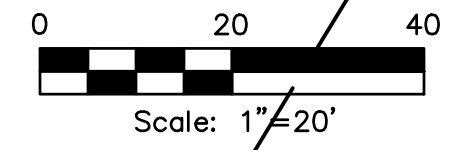
PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

COLLEGE WAY(URBAN TO LAVENTURE) PIPELINE REPLACEMENT
ESC NOTES AND DETAILS

SCALE: 1"=20'
JOB ID : CP19223
SHEET: 4 OF 18

RENEW SERVICES AT	
STA	ADDRESS
11+83	725 COLLEGE WAY

- NOTES:
- CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
 - CONTRACTOR TO POT HOLE EX. MAIN TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
 - CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.
 - ALL CROSSINGS WITH CITY UTILITIES(SEWER AND STORM) ARE REQUIRED TO BE INSPECTED BY CITY PRIOR TO BACKFILLING.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATUM: HOR: NAD 83 VERT: NAVD 88	DSGN BY: JLB DWN BY: JLB APPVD BY: MCH
DATE PRINTED: 1/22/25	SEC: 17 TWP: 34 N RGE: 4 E

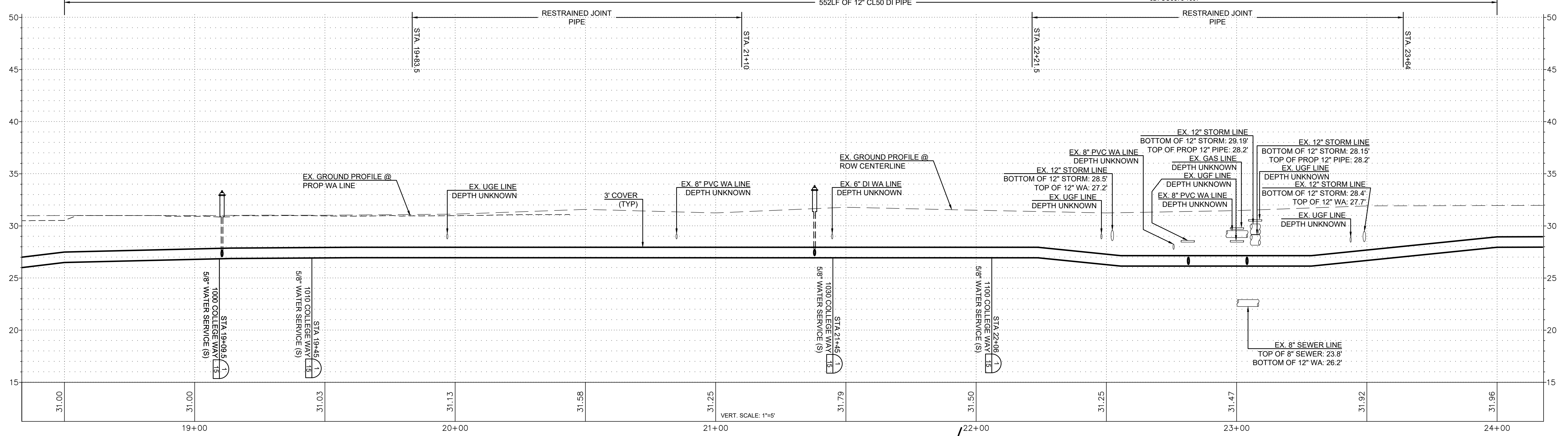
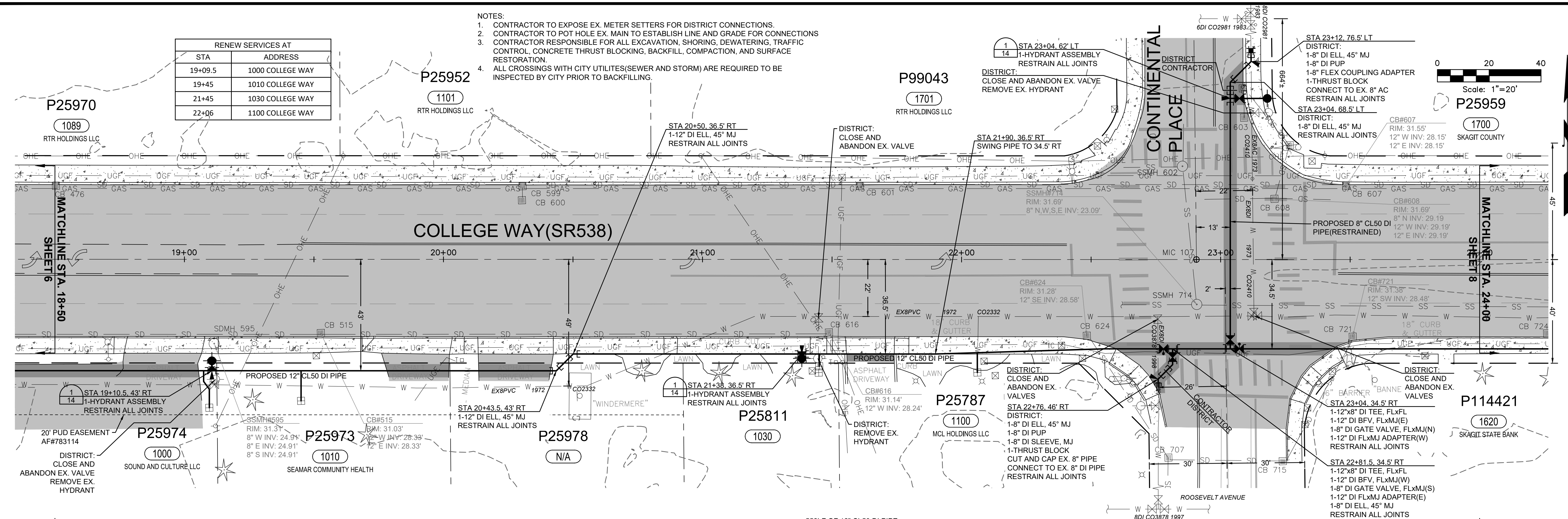
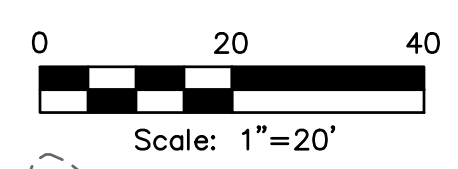


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COLLEGE WAY(URBAN TO LAVENTURE) PIPELINE REPLACEMENT	
PLAN AND PROFILE STA 8+00 TO STA 13+00	
SCALE: 1"=20'	JOB ID: CP19223
SHEET: 5 OF 18	

- NOTES:
- CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
 - CONTRACTOR TO POT HOLE EX. MAIN TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
 - CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.
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RENEW SERVICES AT	
STA	ADDRESS
19+09.5	1000 COLLEGE WAY
19+45	1010 COLLEGE WAY
21+45	1030 COLLEGE WAY
22+06	1100 COLLEGE WAY



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	60% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATUM: HOR: NAD 83 VERT: NAVD 88		DSGN BY: JLB
DATE PRINTED: 1/22/25		DWN BY: JLB
SEC: 17		APPVD BY: MCH
TWP: 34 N		
RGE: 4 E		



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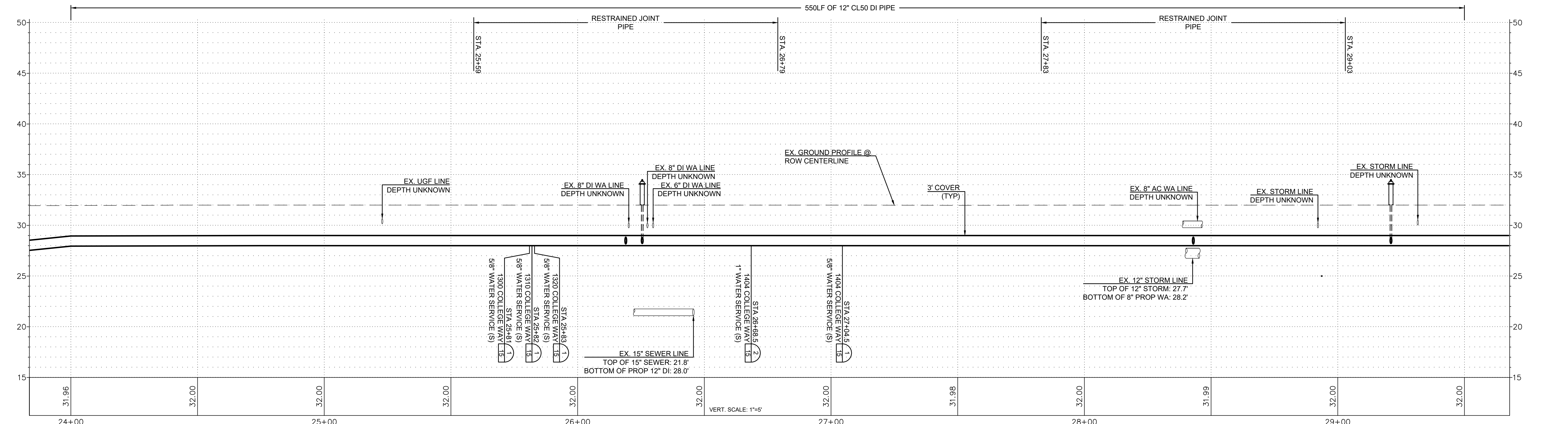
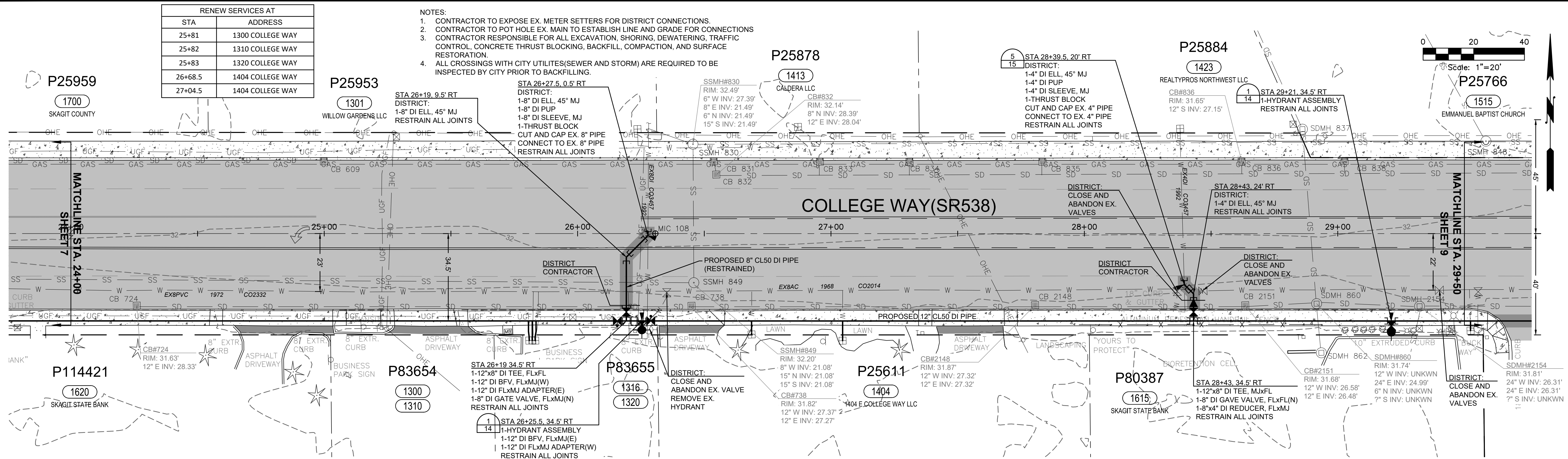
COLLEGE WAY(URBAN TO LAVENTURE)
PIPELINE REPLACEMENT

PLAN AND PROFILE
STA 18+50 TO STA 24+00

SCALE: 1"=20'	JOB ID : CP19223	SHEET: 7 OF 18
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RENEW SERVICES AT	
STA	ADDRESS
25+81	1300 COLLEGE WAY
25+82	1310 COLLEGE WAY
25+83	1320 COLLEGE WAY
26+68.5	1404 COLLEGE WAY
27+04.5	1404 COLLEGE WAY

- NOTES:
- CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
 - CONTRACTOR TO POT HOLE EX. MAIN TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
 - CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.
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ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	60% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25

Know what's below.
Call before you dig.

DATE PRINTED: 1/22/25

SEC: 17
TWP: 34 N
RGE: 4 E

Skagit PUD
PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O. BOX 1436
Mount Vernon, WA 98273
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COLLEGE WAY(URBAN TO LAVENTURE)
PIPELINE REPLACEMENT
PLAN AND PROFILE
STA 24+00 TO STA 29+50

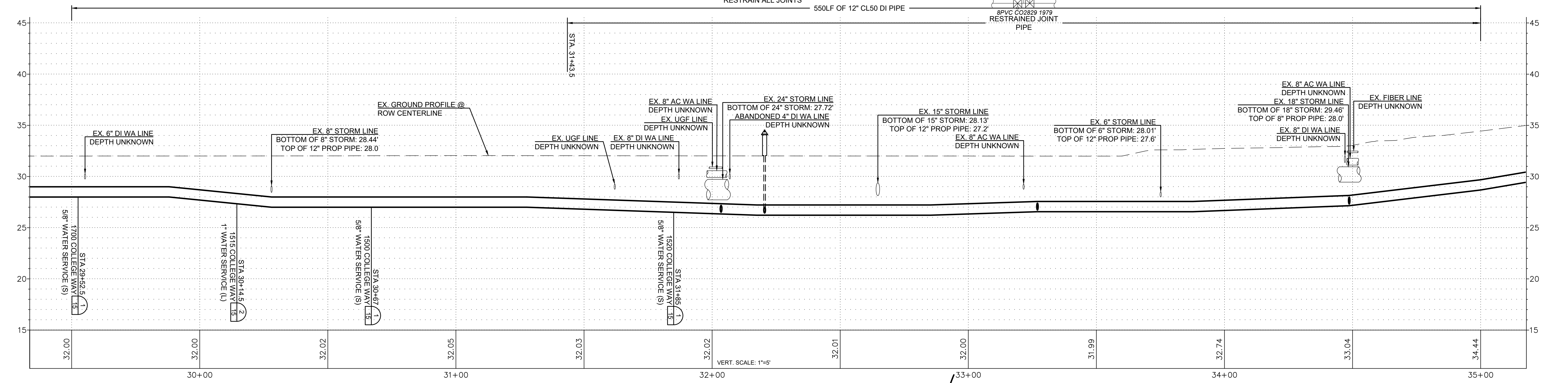
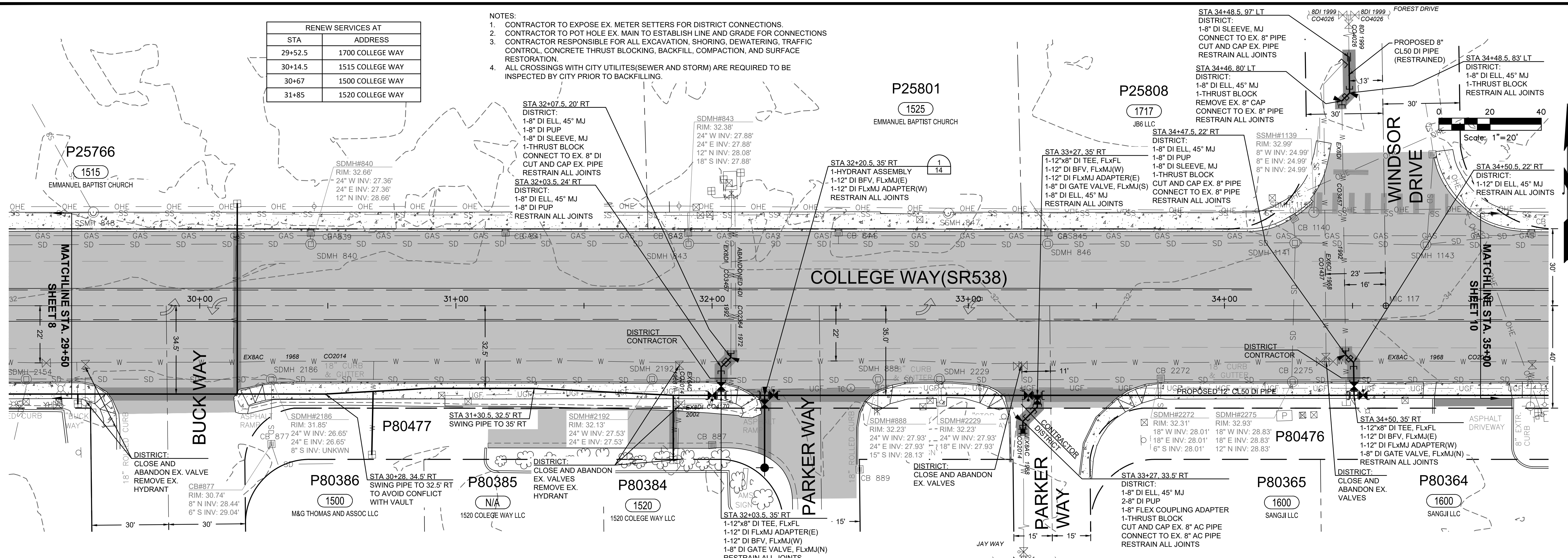
SCALE: 1"=20'

JOB ID : CP19223

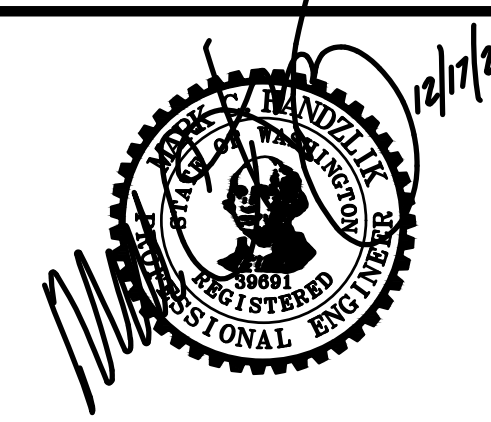
SHEET:
8 OF 18

RENEW SERVICES AT	
STA	ADDRESS
29+52.5	1700 COLLEGE WAY
30+14.5	1515 COLLEGE WAY
30+67	1500 COLLEGE WAY
31+85	1520 COLLEGE WAY

- NOTES:
- CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
 - CONTRACTOR TO POT HOLE EX. MAIN TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
 - CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.
 - ALL CROSSINGS WITH CITY UTILITIES(SEWER AND STORM) ARE REQUIRED TO BE INSPECTED BY CITY PRIOR TO BACKFILLING.



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATE PRINTED: 1/22/25	SEC: 17
TWP: 34 N	RGE: 4 E

Skagit PUD
PUBLIC UTILITY DISTRICT

PUBLIC UTILITY DISTRICT NO. 1 of SKAGIT COUNTY
1415 Freeway Drive
P.O. BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

COLLEGE WAY(URBAN TO LAVENTURE)
PIPELINE REPLACEMENT

PLAN AND PROFILE
STA 29+50 TO STA 35+00

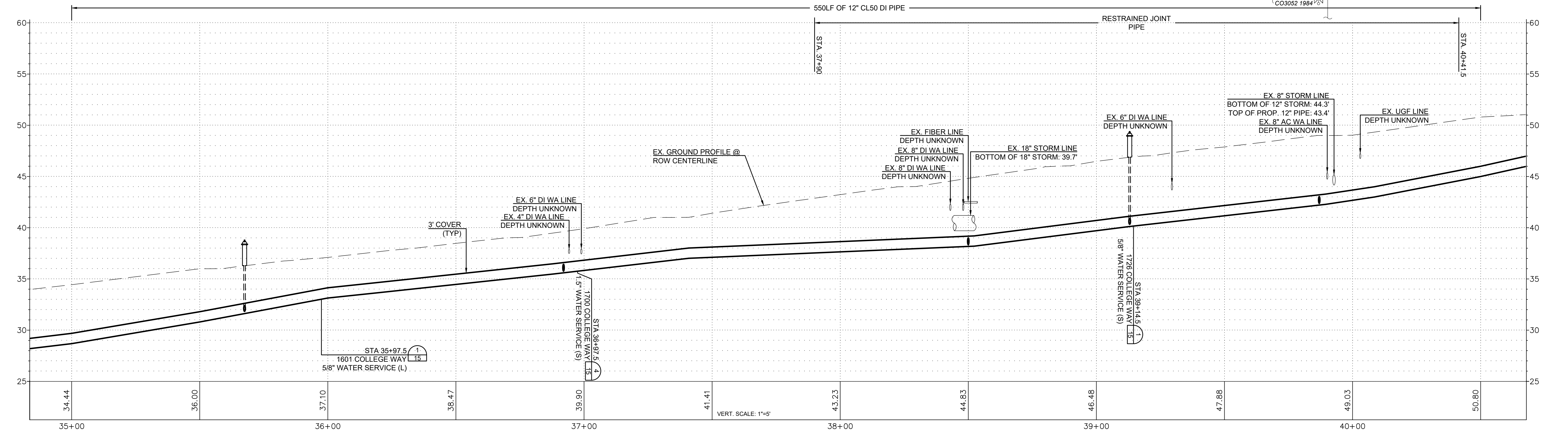
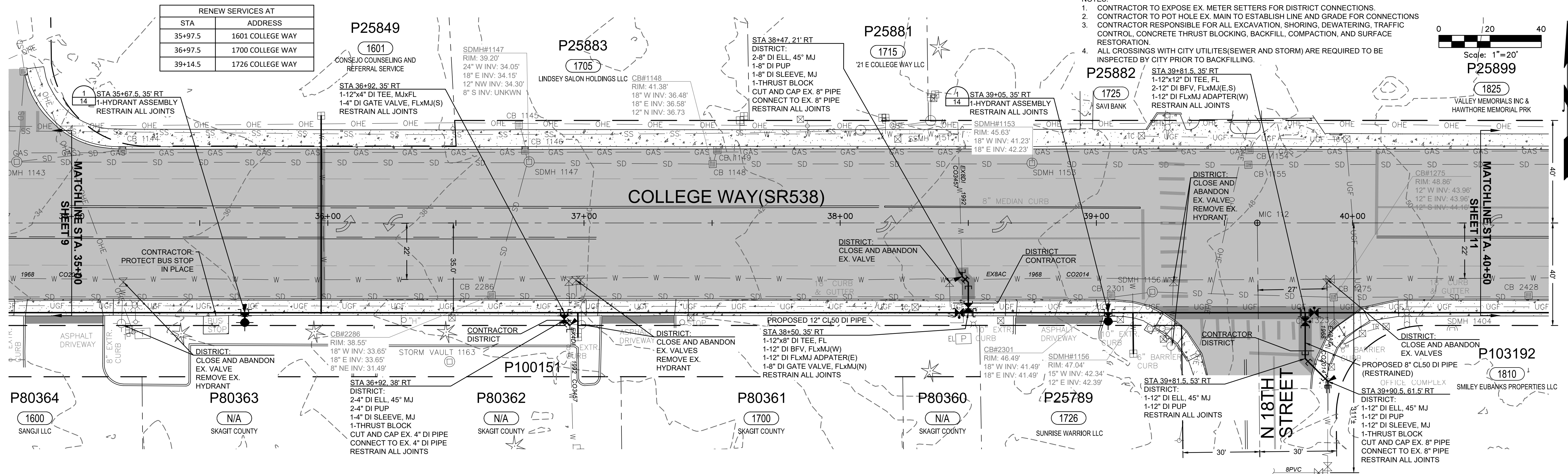
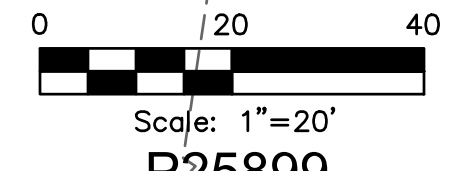
SCALE: 1"=20'

JOB ID : CP19223

SHEET: 9 OF 18

RENEW SERVICES AT	
STA	ADDRESS
35+97.5	1601 COLLEGE WAY
36+97.5	1700 COLLEGE WAY
39+14.5	1726 COLLEGE WAY

- NOTES:
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ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATUM:	DSGN BY: JLB
HOR: NAD 83	DWN BY: JLB
VERT: NAVD 88	APPVD BY: MCH
DATE PRINTED: 1/22/25	SEC: 17
	TWP: 34 N
	RGE: 4 E

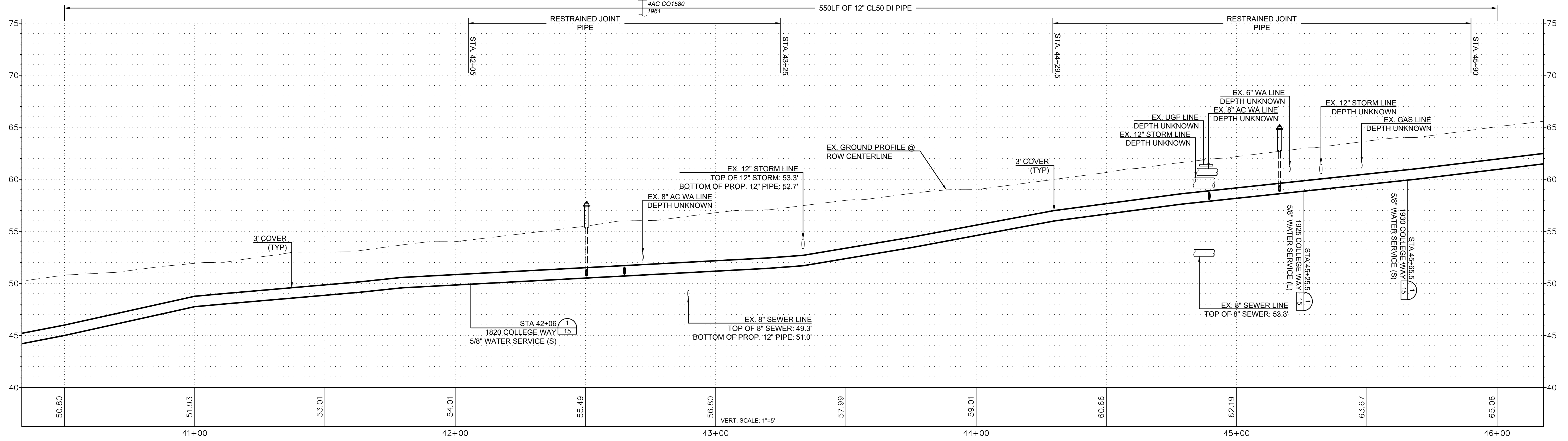
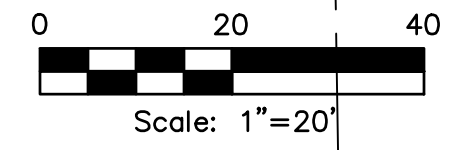
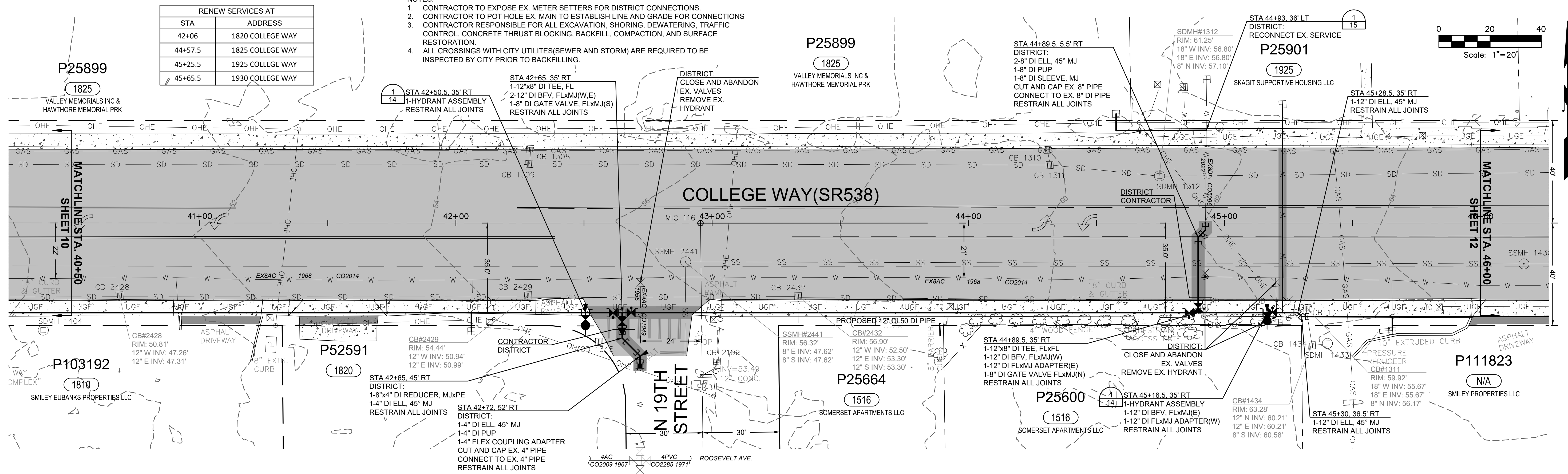


PUBLIC UTILITY DISTRICT
NO. 1 of SKAGIT COUNTY
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P.O. BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
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COLLEGE WAY(URBAN TO LAVENTURE) PIPELINE REPLACEMENT	
PLAN AND PROFILE STA 35+00 TO STA 40+50	
SCALE: 1"=20'	JOB ID : CP19223
	SHEET: 10 OF 18

RENEW SERVICES AT	
STA	ADDRESS
42+06	1820 COLLEGE WAY
44+57.5	1825 COLLEGE WAY
45+25.5	1925 COLLEGE WAY
45+65.5	1930 COLLEGE WAY

- NOTES:
- CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
 - CONTRACTOR TO POT HOLE EX. MAIN TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
 - CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION
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ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATUM: HOR: NAD 83 VERT: NAVD 88		DSGN BY: JLB
DATE PRINTED: 1/22/25		DWN BY: JLB
SEC: 17		APPVD BY: MCH
TWP: 34 N		
RGE: 4 E		



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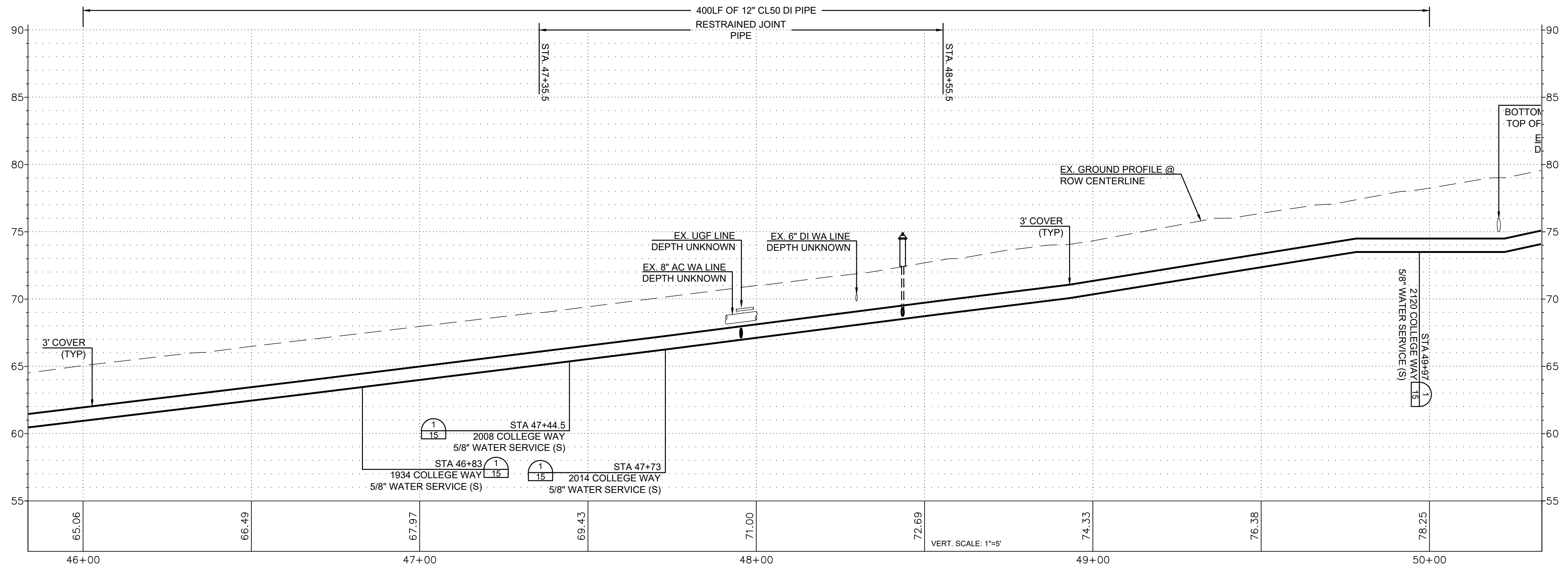
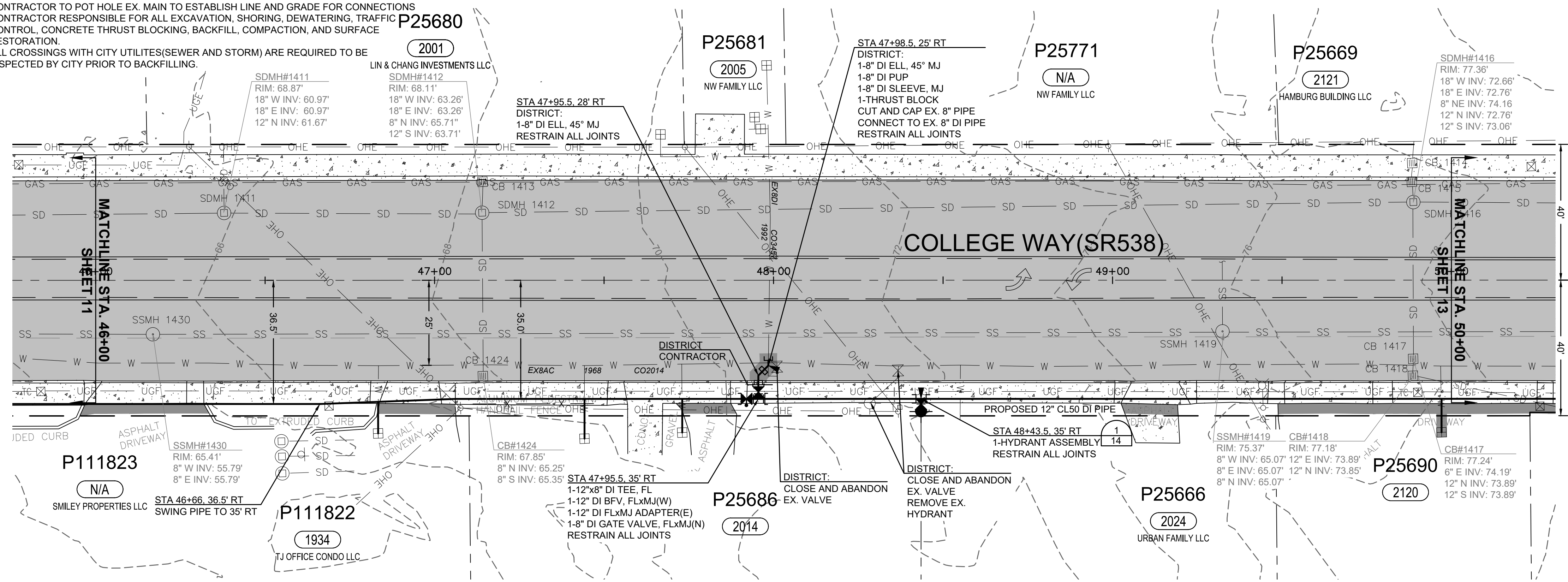
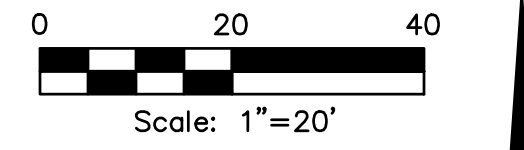
COLLEGE WAY(URBAN TO LAVENTURE)
PIPELINE REPLACEMENT

PLAN AND PROFILE
STA 40+50 TO STA 46+00

SCALE: 1"=20'	JOB ID: CP19223	SHEET: 11 OF 18
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- NOTES:
- CONTRACTOR TO EXPOSE EX. METER SETTERS FOR DISTRICT CONNECTIONS.
 - CONTRACTOR TO POT HOLE EX. MAIN TO ESTABLISH LINE AND GRADE FOR CONNECTIONS
 - CONTRACTOR RESPONSIBLE FOR ALL EXCAVATION, SHORING, DEWATERING, TRAFFIC CONTROL, CONCRETE THRUST BLOCKING, BACKFILL, COMPACTION, AND SURFACE RESTORATION.
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RENEW SERVICES AT	
STA	ADDRESS
46+83	1934 COLLEGE WAY
47+44.5	2008 COLLEGE WAY
47+73	2014 COLLEGE WAY
49+97	2120 COLLEGE WAY



ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	60% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATE PRINTED:	1/22/25	SEC:	17
		TWP:	34 N
		RGE:	4 E



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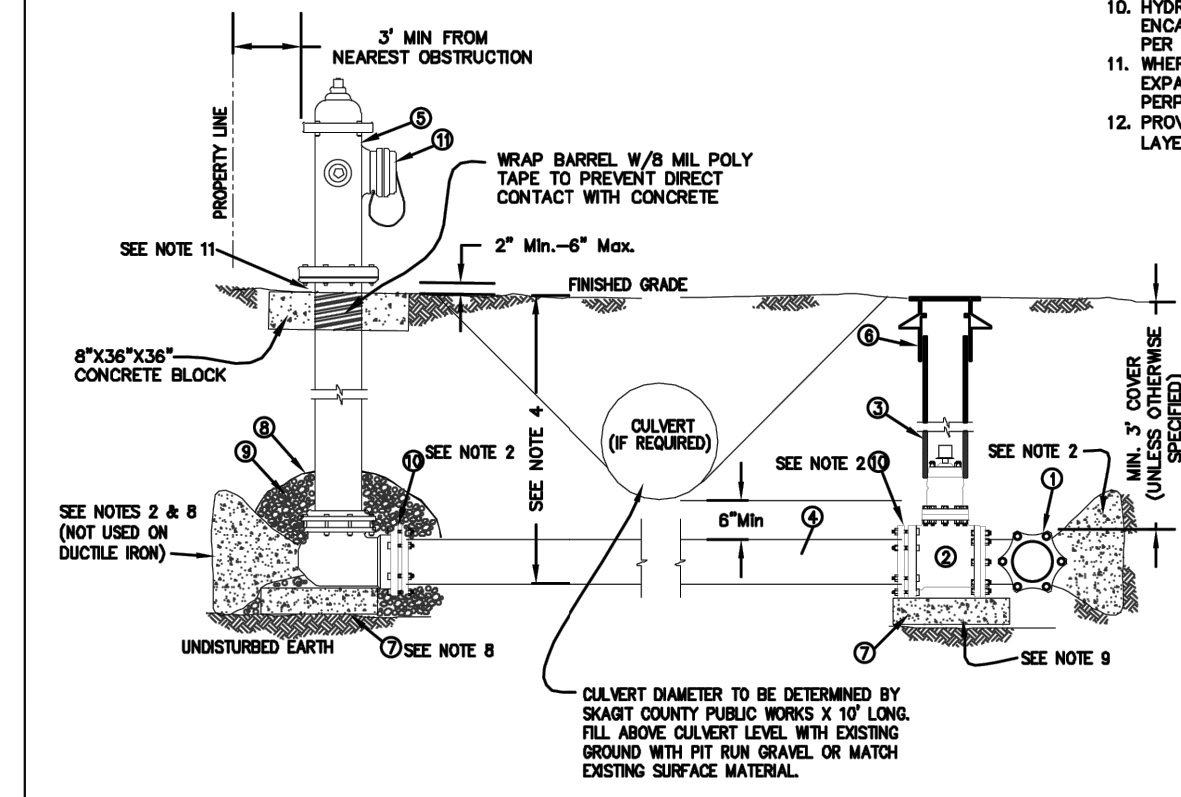
COLLEGE WAY(URBAN TO LAVENTURE) PIPELINE REPLACEMENT	
PLAN AND PROFILE STA 46+00 TO STA 50+00	
SCALE: 1"=20'	JOB ID : CP19223
SHEET:	12 OF 18

BILL OF MATERIALS		
NO.	DESCRIPTION	REQ'D.
1	TEE WITH FLANGED BRANCH	1
2	1/2" VALVE WITH FLANGED CONNECTIONS (SEE NOTE 6)	1
3	CASING, 6" PVC SEWER PIPE	1
4	PIPE, 6" CLASS 50 DUCTILE IRON, FIELD JOINT	1
5	FIRE HYDRANT WITH PUMPER PORT, COLD METALLON, OR AS APPROVED BY JURISDICTIONAL FIRE DEPARTMENT DISTRICT (SEE P.U.D. DETAIL)	1
6	VALVE BOX, CAST IRON OLYMPIC FOUNDRY 96007/SKAGIT	1
7	BLOCK, PRECAST CONCRETE, SEE NOTE 8	1
8	FABRIC, TEXTILE, NON-WOVEN (MIRAF 140N)	1
9	1/4" CY DRAIN ROCK, 1-1/2" - 3/4", NO FINES	2
10	MEG-A-LUG, 6" DRIP RING 6"	2
11	HYDRANT ADAPTER STORZ STYLE S-37 W/SC CAP & CABLE, 5"x6"PT	1

NOTES:

- ALL MATERIALS AND BRANDS MUST BE APPROVED BY P.U.D.
- BLOCK TEE AND HYDRANT WITH FOURED CONCRETE ON ALL WATER MAINS OTHER THAN DUCTILE IRON AND ON ALL TAPPING SLEEVES AS REQUIRED PER DISTRICT BLOCKING DETAIL. IN ADDITION, "MEGALUGS" (OR APPROVED EQUIVALENT) ARE TO BE INSTALLED AT VALVE AND HYDRANT M.J. OUTLETS. RESTRAIN ANY JOINTS IN THE PIPELINE WITH "FIELD JOINT" CASSETS (OR APPROVED EQUIVALENT) INSTALLED IN THE BELLS OF TYTON JOINT PIPE OR "MEGALUGS" ON M.J. BELLS.
- NO THURST BLOCK REQUIRED BEHIND TEE ON 6" DUCTILE IRON OR LARGER MAINS.
- PROTECTIVE BARRIER POSTS MAY BE NECESSARY AT SOME HYDRANT INSTALLATIONS. CONTACT FIRE DEPARTMENT/DISTRICT FOR SPECIFIC REQUIREMENTS.
- HYDRANT LENGTH AND TRENCH DEPTH SHALL BE SO AS TO PROVIDE FOR HYDRANT SETTING AT 2" MIN. AND 6" MAX. ELEVATION ABOVE FINISH GRADE.
- SET HYDRANT VERTICAL. USE LEVEL. COMPACT ALL BACKFILL.
- VALVE SHALL BE ANNA STANDARD DATE "O" RING PACKING, NON-RISING STEM, 2" OPERATING NUT, RESILIENT WEDGE.
- HYDRANT LOCATIONS ARE DETERMINED BY THE FIRE MARSHAL WITH AUTHORITY FOR AREA CONCERNED.
- CONCRETE BLOCK WILL BE BELOW THE DRAIN HOLES AND DRAIN ROCK. TAKE CARE TO NOT PULL DRAIN HOLES OR CONTAMINATE DRAIN ROCK.
- SET MINIMUM 1" SOFT CONCRETE SUPPORT TIGHT UP UNDER VALVE AND HYDRANT.
- HYDRANT BARREL, LEAD, TEE, AND VALVE MUST BE WRAPPED WITH POLYETHYLENE PIPE ENCASEMENT TAPE WHICH IS A MINIMUM OF 8-MIL THICK. IT MUST BE INSTALLED AS PER M.S.D.O.T. STANDARDS AND IN ACCORDANCE WITH A.W.W.A. C105.
- WHERE HYDRANTS ARE INSTALLED IN THE SIDEWALK, THERE SHALL BE A MINIMUM 3/8" EXPANSION JOINT AROUND THE BARREL OF THE HYDRANT AND AN EXPANSION JOINT PERPENDICULAR ACROSS THE SIDEWALK, INTERSECTING THE HYDRANT BARREL.
- PROVIDE A MINIMUM OF 3'-0" LEVEL WORKING AREA AROUND HYDRANT USING 6" THICK LAYER OF 5/8" MINUS CRUSHED ROCK COMPACTED TO 90%.

SEE SHEET 2/2 FOR WALL REQUIREMENTS FOR HYDRANTS



ALL FIRE HYDRANTS SHALL COMPLY WITH THE STANDARDS ISSUED BY THE SKAGIT COUNTY FIRE MARSHAL. HYDRANTS SHALL BE THE DRY BARREL TYPE WITH TWO HOSE OUTLETS WITH AN INSIDE DIAMETER OF 2-1/2" INCHES AND ONE LARGE PUMPER OUTLET WITH AN INSIDE DIAMETER OF 4" INCHES. SMALL PORTS SHALL HAVE NATION STANDARD THREADS MEASURING 1/8" INCHES OUTSIDE DIAMETER AT 7-1/2" THREADS PER INCH. PUMPER PORTS SHALL BE NO. 3" PAFICO COAST THREADS MEASURING 1/8" INCHES OUTSIDE DIAMETER AT 4" THREADS PER INCH. THE OPERATING NUT SHALL BE 1-1/4" INCH PENTAGON.

A STORZ QUICK COUPLER CONNECTED TO THE PUMPER PORT MAY BE REQUIRED. CONTACT FIRE DISTRICT/DEPARTMENT.

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER
APPROVED ON: May 6, 2014

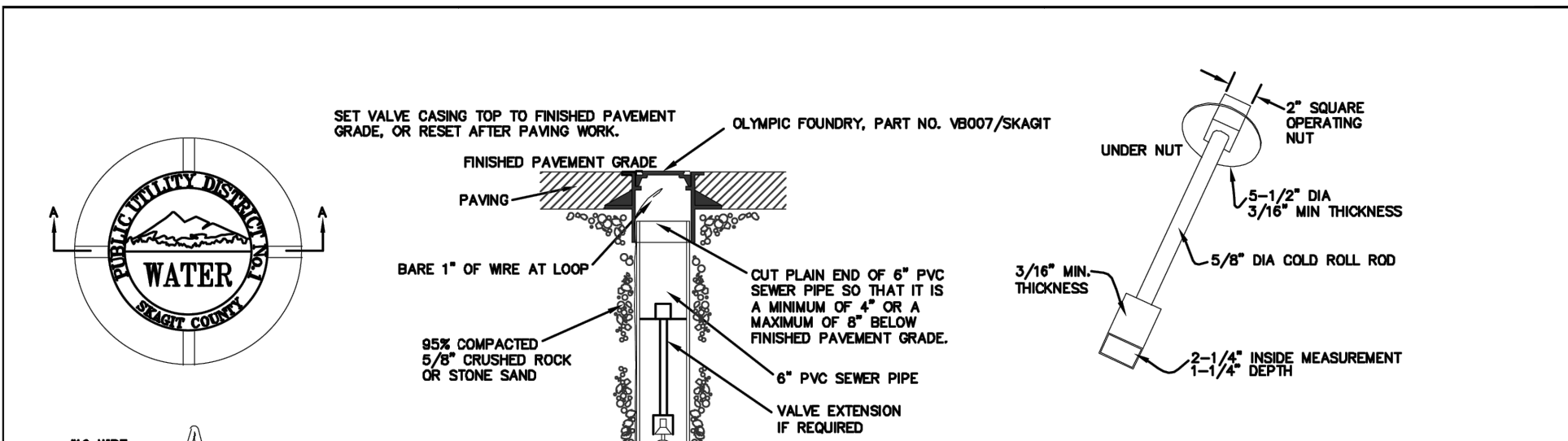
Skagit PUD
PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF FIRE HYDRANT "CENTER STEM TYPE"

SCALE: NTS
DATE: 3-25-05
REVISED: 5/6/14
DRAWN BY: CAS
APPROVED BY: GJS

STANDARD
WH-1a

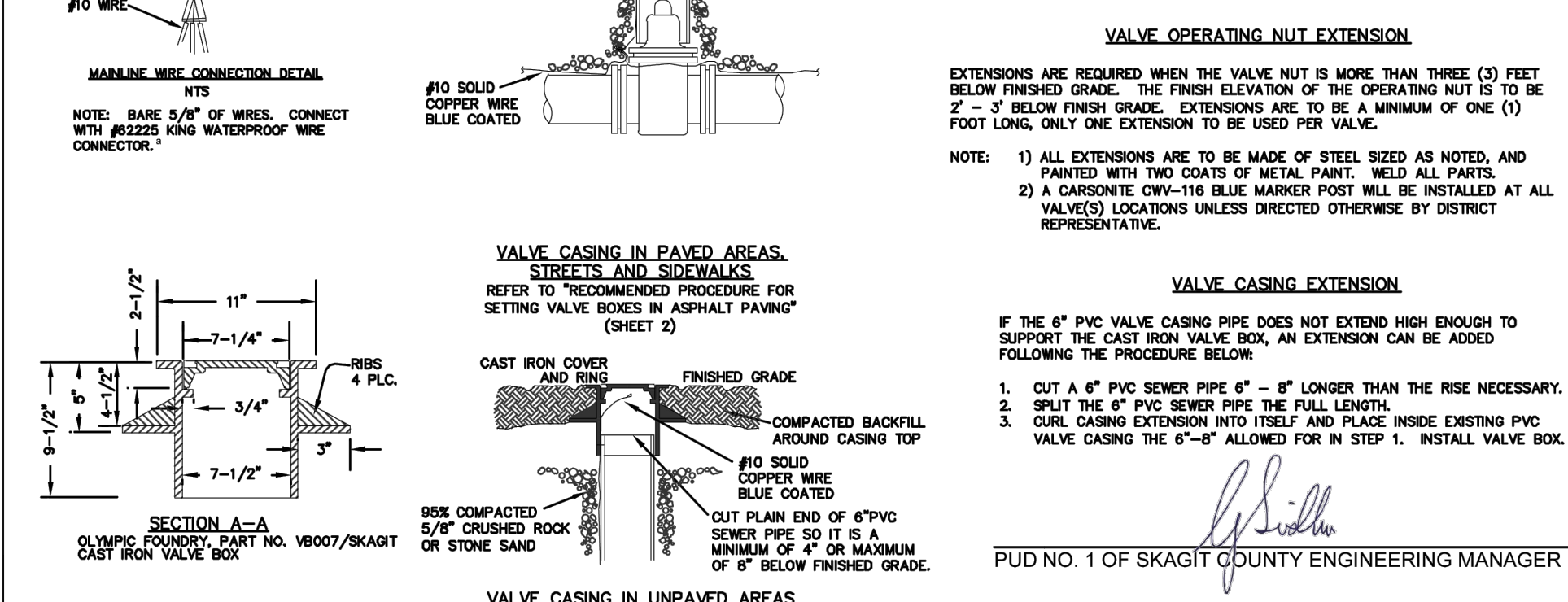
SHEET 1/2



VALVE OPERATING NUT EXTENSION

EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN THREE (3) FEET BELOW FINISHED GRADE. THE FINISH ELEVATION OF THE OPERATING NUT IS TO BE 2" - 8" BELOW FINISH GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG. ONLY ONE EXTENSION TO BE USED FOR VALVE.

NOTE: 1) ALL EXTENSIONS ARE TO BE MADE OF STEEL SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT. WELD ALL PARTS.
2) A CARBONITE CHV-116 BLUE MARKER POST WILL BE INSTALLED AT ALL VALVE LOCATIONS UNLESS DIRECTED OTHERWISE BY DISTRICT REPRESENTATIVE.



VALVE CASING EXTENSION

IF THE 6" PVC VALVE CASING PIPE DOES NOT EXTEND HIGH ENOUGH TO SUPPORT THE CAST IRON VALVE BOX, AN EXTENSION CAN BE ADDED FOLLOWING THE PROCEDURE BELOW:

- CUT A 6" PVC SEWER PIPE 6" - 8" LONGER THAN THE RISE NECESSARY.
- SPLIT THE 6" PVC SEWER PIPE THE FULL LENGTH.
- CURL CASING EXTENSION INTO ITSELF AND PLACE INSIDE EXISTING PVC VALVE CASING THE 6"-8" ALLOWED FOR IN STEP 1. INSTALL VALVE BOX.

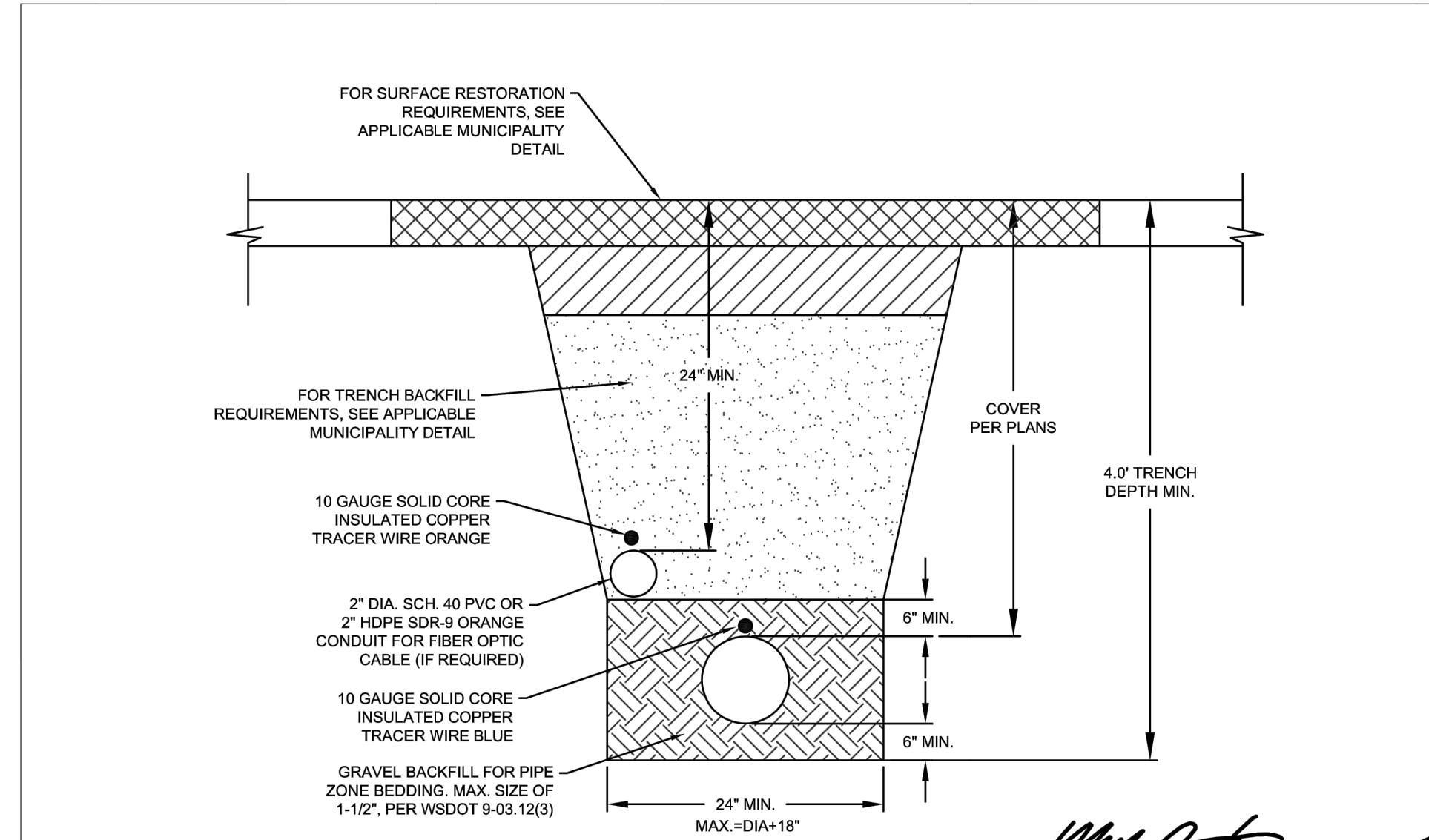
Skagit PUD
PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF CAST IRON VALVE BOX & VALVE OPERATING NUT EXTENSION

SCALE: NTS
DATE: 3-25-05
REVISED: 5/6/14
DRAWN BY: CAS
APPROVED BY: GJS

STANDARD
WV-1a

SHEET 1/2



TYPICAL TRENCH SECTION

DEPTH OF BEDDING BELOW PIPE DEPENDANT ON SOIL CONDITIONS. CONSULT WITH ENGINEER.

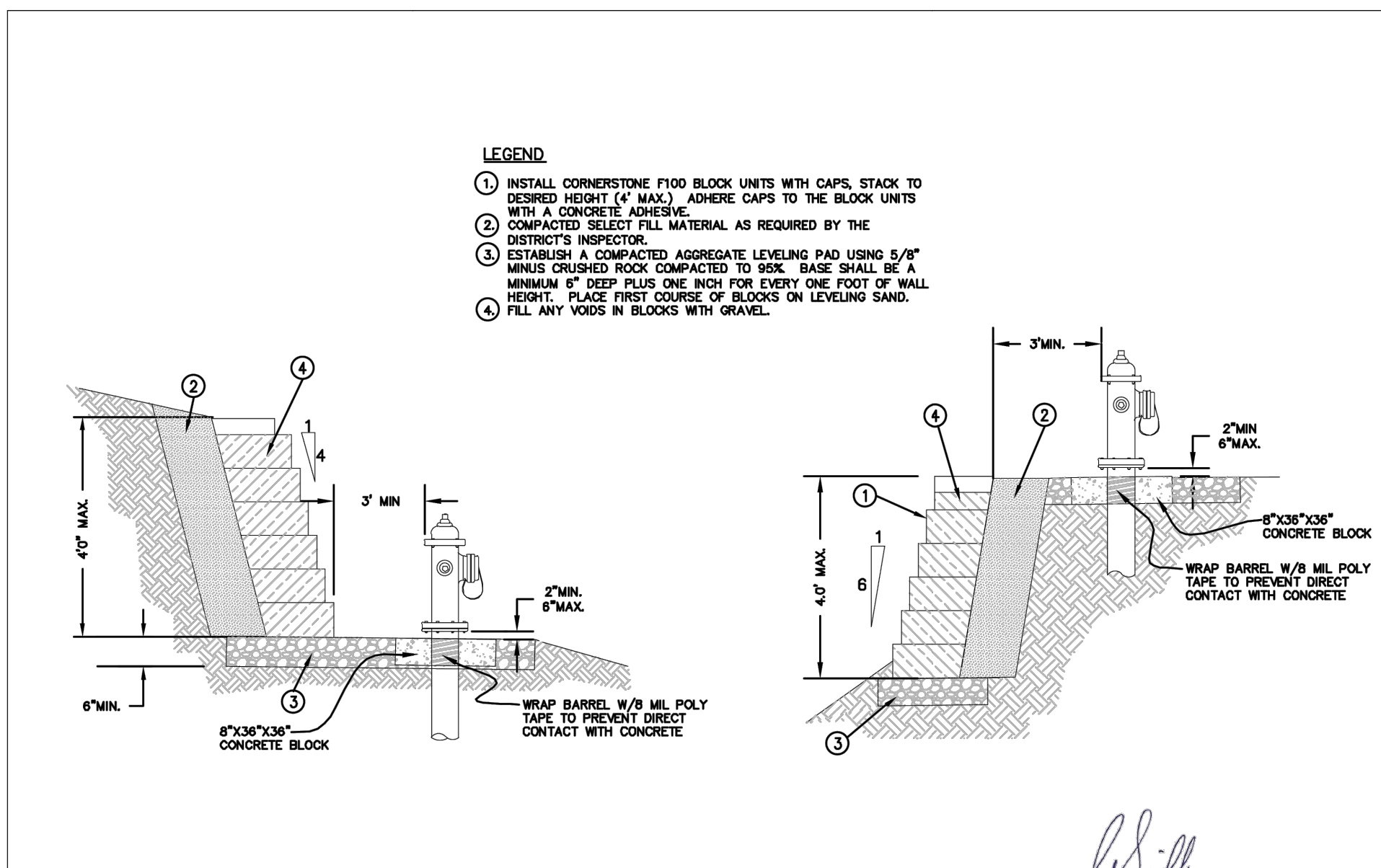
Skagit PUD
PUBLIC UTILITY DISTRICT

TYPICAL TRENCH SECTION

SCALE: 1" = 1'
DATE: 11-15-11
REVISED: 9/8/22
DRAWN BY: JLB
APPROVED BY: MCH

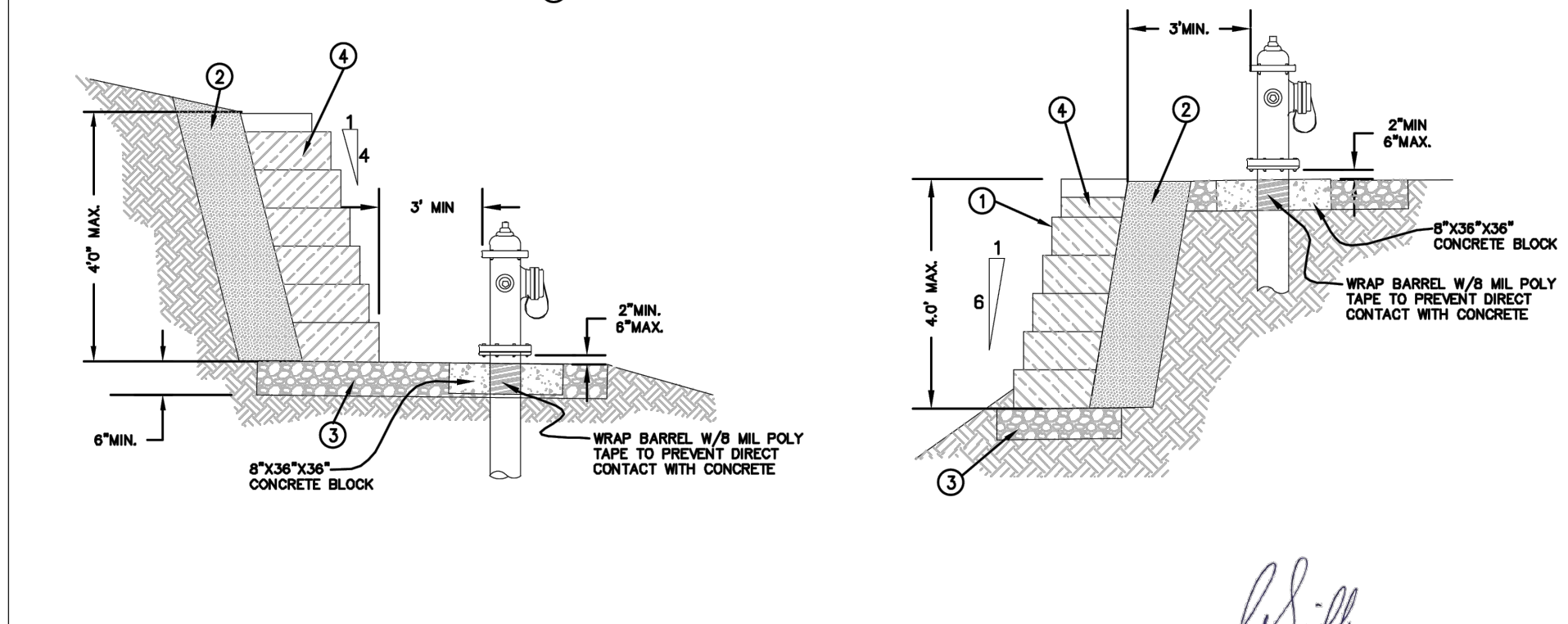
STANDARD
WT-1-1

APPROVED ON: SEPTEMBER 9, 2022



LEGEND

- INSTALL CORNERSTONE F100 BLOCK UNITS WITH CAPS, STACK TO DESIRED HEIGHT (4" MAX). ADHERE CAPS TO THE BLOCK UNITS WITH A CONCRETE ADHESIVE.
- COMPACTED SELECT FILL MATERIAL AS REQUIRED BY THE DISTRICT'S INSPECTOR.
- ESTABLISH A COMPACTED AGGREGATE LEVELING PAD USING 5/8" MINUS CRUSHED ROCK COMPACTED TO 90%. BASE SHALL BE A MINIMUM 6" DEEP PLUS ONE INCH FOR EVERY ONE FOOT OF WALL HEIGHT. PLACE FIRST COURSE OF BLOCKS ON LEVELING SAND. FILL ANY VOIDS IN BLOCKS WITH GRAVEL.



PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER
APPROVED ON: MAY 16, 2014

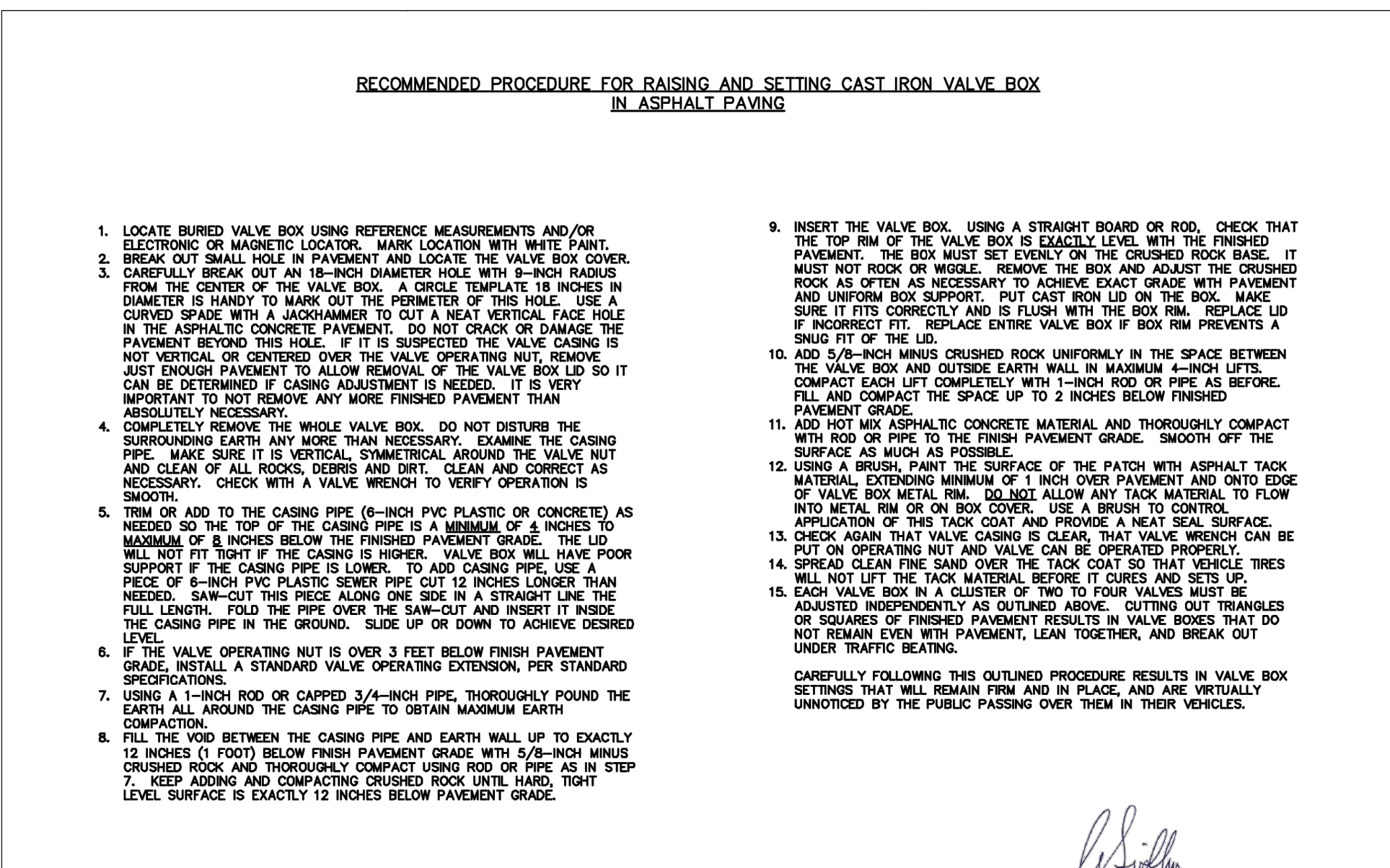
Skagit PUD
PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF FIRE HYDRANT "CENTER STEM TYPE"

SCALE: NTS
DATE: 3-25-05
REVISED: 5/27/14
DRAWN BY: KDM
APPROVED BY: GJS

STANDARD
WH-1b

SHEET 2/2



RECOMMENDED PROCEDURE FOR RAISING AND SETTING CAST IRON VALVE BOX IN ASPHALT PAVING

- LOCATE BURIED VALVE BOX USING REFERENCE MEASUREMENTS AND/OR ELECTRONIC OR MAGNETIC LOCATOR. MARK LOCATION WITH WHITE PAINT.
 - BREAK OUT SMALL HOLE IN PAVEMENT AND LOCATE THE VALVE BOX COVER.
 - CAREFULLY BREAK OUT AN 18-INCH DIAMETER HOLE WITH 9-INCH RADIUS FROM THE CENTER OF THE VALVE BOX. A CIRCLE TEMPLATE 18 INCHES IN DIAMETER IS HANDY TO MARK OUT THE PERIMETER OF THIS HOLE. USE A CRUSHED SPALLER WITH A JACKHAMMER TO CUT A NEAT VERTICAL FACE HOLE IN THE ASPHALTIC CONCRETE PAVEMENT. DO NOT CRACK OR DAMAGE THE PAVEMENT BEYOND THIS HOLE. IF IT IS SUSPECTED THE VALVE CASING IS NOT VERTICAL, OR CENTERED OVER THE VALVE OPERATING NUT, REMOVE JUST ENOUGH PAVEMENT TO ALLOW REMOVAL OF THE VALVE BOX LID SO IT CAN BE DETERMINED IF CASING ADJUSTMENT IS NEEDED. IT IS VERY IMPORTANT TO NOT REMOVE ANY MORE FINISHED PAVEMENT THAN ABSOLUTELY NECESSARY.
 - COMPLETELY REMOVE THE WHOLE VALVE BOX. DO NOT DISTURB THE SURROUNDING EARTH ANY MORE THAN NECESSARY. EXAMINE THE CASING PIPE. MAKE SURE IT IS VERTICAL, SYMMETRICAL AROUND THE VALVE NUT AND CLEAN OF ALL ROCKS, DEBRIS AND DIRT. CLEAN AND CORRECT AS NECESSARY. CHECK WITH A VALVE WRENCH TO VERIFY OPERATION IS SMOOTH.
 - TRIM OR ADD TO THE CASING PIPE (6-INCH PVC PLASTIC OR CONCRETE) AS NEEDED SO THE TOP OF THE CASING PIPE IS A MINIMUM OF 2 INCHES TO MAXIMUM OF 8 INCHES BELOW THE FINISHED PAVEMENT GRADE. THE LID WILL NOT FIT TIGHT IF THE CASING IS HIGHER. VALVE BOX WILL HAVE POOR SUPPORT IF THE CASING PIPE IS LOWER. TO ADD CASING PIPE, USE A PIECE OF 6-INCH PVC PLASTIC SEWER PIPE CUT 12 INCHES LONGER THAN NEEDED. SAW-CUT THE PIECE ALONG ONE SIDE IN A STRAIGHT LINE THE FULL LENGTH. FOLD THE PIPE OVER THE SAW-CUT AND INSERT IT INSIDE THE CASING PIPE IN THE GROUND. SLIDE UP OR DOWN TO ACHIEVE DESIRED LEVEL.
 - IF THE VALVE OPERATING NUT IS OVER 3 FEET BELOW FINISH PAVEMENT GRADE, INSTALL A STANDARD VALVE OPERATING EXTENSION, PER STANDARD SPECIFICATIONS.
 - USING A 1-INCH ROD OR CAPPED 3/4-INCH PIPE, THOROUGHLY POUND THE EARTH ALL AROUND THE CASING PIPE TO OBTAIN MAXIMUM EARTH COMPACTION.
 - FILL THE VOID BETWEEN THE CASING PIPE AND EARTH WALL UP TO EXACTLY 12 INCHES (1 FOOT) BELOW FINISH PAVEMENT GRADE WITH 5/8-INCH MINUS CRUSHED ROCK AND THOROUGHLY COMPACT USING ROD OR PIPE AS IN STEP 7. KEEP ADDING AND COMPACTING CRUSHED ROCK UNTIL HARD, TIGHT LEVEL SURFACE IS EXACTLY 12 INCHES BELOW PAVEMENT GRADE.
 - INSERT THE VALVE BOX. USING A STRAIGHT BOARD OR ROD, CHECK THAT THE TOP RIM OF THE VALVE BOX IS EXACTLY LEVEL WITH THE FINISHED PAVEMENT. THE BOX MUST SET EVENLY ON THE CRUSHED ROCK BASE. IT MUST NOT ROCK OR Wobble. REMOVE THE BOARD AND ADJUST THE CRUSHED ROCK AS OFTEN AS NECESSARY TO ACHIEVE EXACT GRADE WITH PAVEMENT AND UNIFORM BOX SUPPORT. PUT CAST IRON LID ON THE BOX. MAKE SURE IT FITS CORRECTLY AND IS FLUSH WITH THE BOX RIM. REPLACE LID IF INCORRECT FIT. REPLACE ENTIRE VALVE BOX IF BOX RIM PREVENTS A SNUG FIT OF THE LID.
 - ADD 5/8-INCH MINUS CRUSHED ROCK UNIFORMLY IN THE SPACE BETWEEN THE VALVE BOX AND OUTSIDE EARTH WALL IN MAXIMUM 4-INCH LIFTS. COMPACT EACH LIFT COMPLETELY WITH 1-INCH ROD OR PIPE AS BEFORE. FILL AND COMPACT THE SPACE UP TO 2 INCHES BELOW FINISHED PAVEMENT GRADE.
 - ADD HOT MIX ASPHALTIC CONCRETE MATERIAL AND THOROUGHLY COMPACT WITH ROD OR PIPE TO THE FINISH PAVEMENT GRADE. SMOOTH OFF THE SURFACE AS MUCH AS POSSIBLE.
 - USING A BRUSH, PAINT THE SURFACE OF THE PATCH WITH ASPHALT TACK MATERIAL EXTENDING MINIMUM OF 1 INCH OVER PAVEMENT AND ONTO EDGE OF VALVE BOX METAL RIM. DO NOT ALLOW ANY TACK MATERIAL TO FLOW INTO METAL RIM OR ON BOX COVER. USE A BRUSH TO CONTROL APPLICATION OF THIS TACK COAT AND PROVIDE A NEAT SEAL SURFACE.
 - CHECK AGAIN THAT VALVE CASING IS CLEAR. THAT VALVE WRENCH CAN BE PUT ON OPERATING NUT AND VALVE CAN BE OPERATED PROPERLY.
 - SPREAD CLEAN FINE SAND OVER THE TACK COAT SO THAT VEHICLE TIRES WILL NOT LIFT THE TACK MATERIAL BEFORE IT CURES AND SETS UP.
 - EACH VALVE BOX IN A CLUSTER OF TWO TO FOUR VALVES MUST BE ADJUSTED INDEPENDENTLY AS OUTLINED ABOVE. CUTTING OUT TRIANGLES OR SQUARES OF FINISHED PAVEMENT RESULTS IN VALVE BOXES THAT DO NOT REMAIN EVEN WITH PAVEMENT, LEAN TOGETHER, AND BREAK OUT UNDER TRAFFIC BEATING.
- CAREFULLY FOLLOWING THIS OUTLINED PROCEDURE RESULTS IN VALVE BOX SETTINGS THAT WILL REMAIN FIRM AND IN PLACE, AND ARE VIRTUALLY UNNOTICED BY THE PUBLIC PASSING OVER THEM IN THEIR VEHICLES.

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER
APPROVED ON: MAY 6, 2014

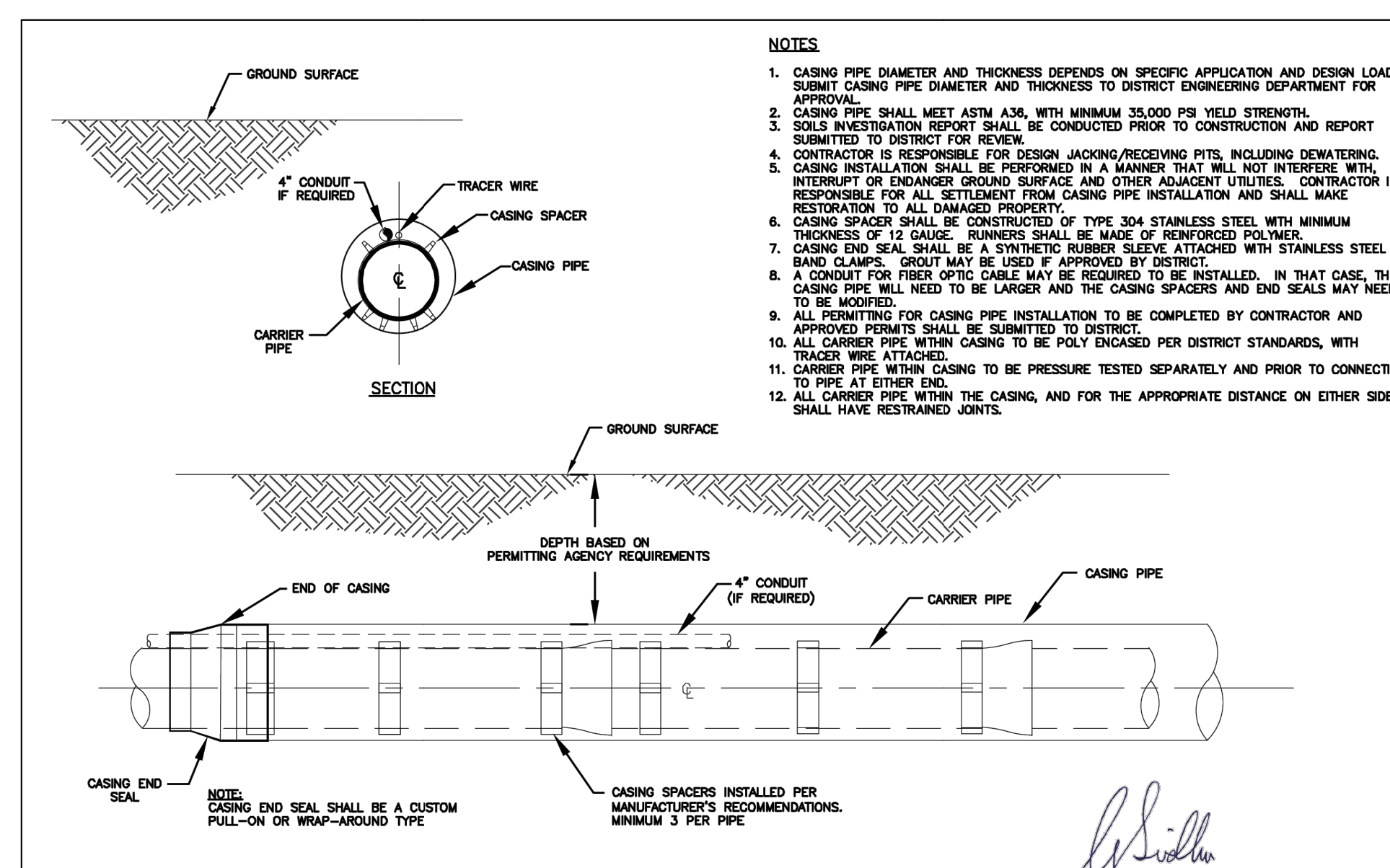
Skagit PUD
PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF CAST IRON VALVE BOX & VALVE OPERATING NUT EXTENSION

SCALE: NTS
DATE: 3-25-05
REVISED: 5/6/14
DRAWN BY: CAS
APPROVED BY: GJS

STANDARD
WV-1b

SHEET 2/2



NOTES

- CASING PIPE DIAMETER AND THICKNESS DEPENDS ON SPECIFIC APPLICATION AND DESIGN LOAD. SUBMIT CASING PIPE DIAMETER AND THICKNESS TO DISTRICT ENGINEERING DEPARTMENT FOR APPROVAL.
- CASING PIPE SHALL MEET ASTM A36, WITH MINIMUM 35,000 PSI YIELD STRENGTH.
- SOILS INVESTIGATION REPORT SHALL BE CONDUCTED PRIOR TO CONSTRUCTION AND REPORT SUBMITTED TO DISTRICT FOR REVIEW.
- CONTRACTOR IS RESPONSIBLE FOR DESIGN JACKING/RECEIVING PITS, INCLUDING DETAILED, CASING INSTALLATION SHALL BE PERFORMED IN A MANNER THAT WILL NOT INTERFERE WITH INTERRUPT OR ENDANGER GROUND SURFACE AND OTHER ADJACENT UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ALL SETTLEMENT FROM CASING PIPE INSTALLATION AND SHALL MAKE RESTORATION TO ALL DAMAGED PROPERTY.
- CASING SPACER SHALL BE CONSTRUCTED OF TYPE 304 STAINLESS STEEL WITH MINIMUM THICKNESS OF 1/2 GAUGE. RUNNERS SHALL BE MADE OF REINFORCED POLYMER.
- CASING END SEAL SHALL BE A SYNTHETIC RUBBER SLEEVE ATTACHED WITH STAINLESS STEEL BAND CLAMPS. GROUT MAY BE USED IF APPROVED BY DISTRICT.
- A CONDUIT FOR FIBER OPTIC CABLE MAY BE REQUIRED TO BE INSTALLED. IN THAT CASE, THE CASING PIPE WILL NEED TO BE LARGER AND THE CASING SPACERS AND END SEALS MAY NEED TO BE MODIFIED.
- ALL PERMITTING FOR CASING PIPE INSTALLATION TO BE COMPLETED BY CONTRACTOR AND APPROVED PERMITS SHALL BE SUBMITTED TO DISTRICT.
- ALL CARRIER PIPE WITHIN CASING TO BE POLY ENCASED PER DISTRICT STANDARDS, WITH TRACER WIRE ATTACHED.
- CARRIER PIPE WITHIN CASING TO BE PRESSURE TESTED SEPARATELY AND PRIOR TO CONNECTING TO PIPE AT EITHER END.
- ALL CARRIER PIPE WITHIN THE CASING, AND FOR THE APPROPRIATE DISTANCE ON EITHER SIDE, SHALL HAVE RESTRAINED JOINTS.

PUD NO. 1 OF SKAGIT COUNTY ENGINEERING MANAGER
APPROVED ON: MAY 22, 2014

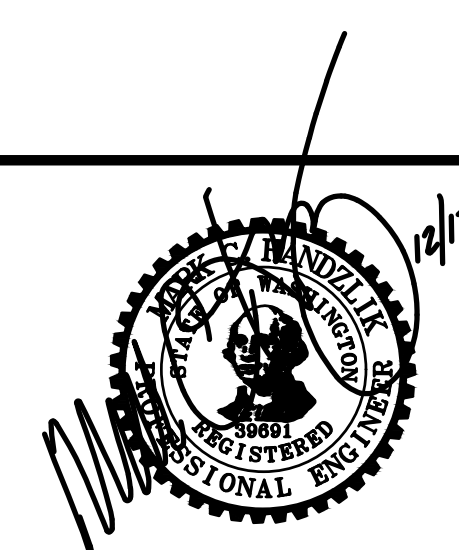
Skagit PUD
PUBLIC UTILITY DISTRICT

STANDARD PIPE CASING INSTALLATION

SCALE: NO SCALE
DATE: 10/22/19
REVISED: 5/22/14
DRAWN BY: KDM
APPROVED BY: GJS

STANDARD
WC-1

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATUM:
HOR: NAD 83
VERT: NAVD 88

DSGN BY: JLB
DWN BY: JLB
APPV BY: MCH

DATE PRINTED: 1/22/25
SEC: 17
TWP: 34 N
RGE: 4 E



PUBLIC UTILITY DISTRICT
NO. 1 OF SKAGIT COUNTY
1415 Freeway Drive
P.O. BOX 1436
Mount Vernon, WA 98273
(360) 424-7104
www.SkagitPud.org

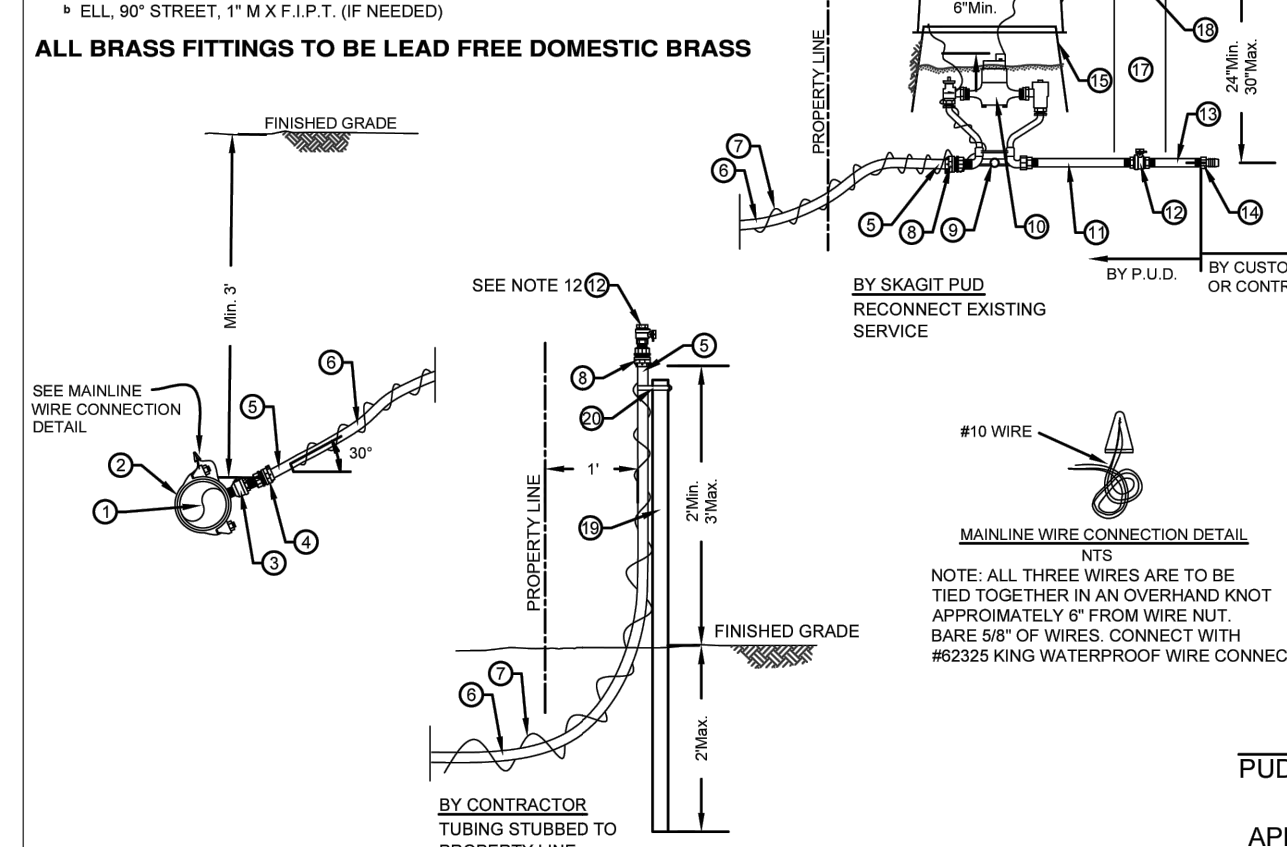
COLLEGE WAY (URBAN TO LAVENTURE)
PIPELINE REPLACEMENT
DETAILS

SCALE: NONE
JOB ID: CP19223
SHEET: 14 OF 18

BILL OF MATERIALS			
NO.	NOMENCLATURE	RECD	RECD
1.	WATER MAIN		
2.	CLAMP SERVICE DOUBLE STRAP X 2" I.P.T., ALL BRASS (FORD #2029)	1	1
3.	CORP. 1" (FORD #B500-4)	1	1
4.	ADAPTER BRASS PAC JOINT, 1" F.I.P.T. X 1" COP (FORD #B1444-NL)	1	1
5.	INSERT, STIFFENER, 3/4" (FORD #71)	2	1
6.	PIPE, 1" REHAU MUNICIPLEX TYPE A, 200 P.S.I.	1	1
7.	WIRE #10 SOLID COPPER, BLUE COATED, EXTEND MIN. 18" INTO BOX, NEAR LID	1	1
8.	ADAPTER BRASS PAC JOINT, 1" M.I.P.T. X 2" COP (FORD #B247AL)	1	1
9.	COPPERSETTER, 1-1/2" (FORD #VBH72-9W-11-44-NL-FP) W/1" DBL. PURPOSE UNION SWIVELS X	1	1
10.	METER, BADGER MODEL M20 (50) OR M35 (34) BRONZE METER (BY PUD)	1	1

NOTES

- CORP TO BE IN FULL OPEN POSITION BEFORE BACKFILL.
- INSTALL SERVICE LINE PERPENDICULAR TO MAIN UNLESS OTHERWISE SHOWN ON WATER CONSTRUCTION PLAN.
- SERVICE LINE IS TYPICALLY 1" TO NORTH OR WEST OF PROPERTY CORNER OR AS OTHERWISE SPECIFIED.
- PUD OWNERSHIP ENDS AT THE METER AND METER BOX. WATER SERVICES TO BE CONNECTED TO AN ACTIVE WATERLINE ARE REQUIRED TO BE INSTALLED BY PUD. WATER SERVICES INSTALLED WITH A NEW WATERLINE OR WATERLINE EXTENSION WILL BE PERFORMED BY THE CONTRACTOR/DEVELOPER PRIOR TO CONNECTION OF THE NEW WATERLINE TO THE PUD SYSTEM. THE PUD IS REQUIRED TO SET ALL METERS. IF A NEW WATER SERVICE IS INSTALLED BY THE PUD, PUD WILL INCLUDE THE PRIVATE SHUT-OFF VALVE AFTER THE METER. AFTER INSTALLATION THE OWNER IS RESPONSIBLE FOR ALL FUTURE MAINTENANCE, REPAIR AND REPLACEMENT OF THE PRIVATE SHUT-OFF VALVE.
- METER IS NOT INSTALLED IN COPPERSETTER. INSTALL A PVC NIPPLE BETWEEN METER CONNECTIONS. IF CONNECTION IS NOT MADE TO CUSTOMER'S PLUMBING, INSTALL A WATER-TIGHT WRAP OF ELECTRICAL TAPE OVER END OF ADAPTER(14). SET COPPERSETTER FLUSH, PLUMB AND CENTERED IN BOX.
- FLUSH OUT SERVICE TUBING AND COPPERSETTER BEFORE INSTALLING METER. DO NOT ALLOW MUD OR FOREIGN MATERIAL TO ENTER ANY TUBING OR FITTINGS.
- FILL BOX WITH FINE DIRT TO TOP OF METER.
- IF THE METER BOX IS LOCATED IN ASPHALT OR CONCRETE AREA, A TRAFFIC BOX, CARSON 1324-2520 W/COVER 1324-4208 WILL BE REQUIRED. NOT FOR THROUGH-WAY TRAFFIC APPLICATIONS.
- IF THERE IS PETROLEUM-BASED CONTAMINATED SOIL PRESENT, THE SERVICE PIPELINE SHALL BE OF TYPE K COPPER WITH BRASS AND COPPER FITTINGS.
- IF SERVICE LINE HAS LESS THAN 2" OF COVER, CONTACT DISTRICT ENGINEERING DEPARTMENT FOR FREEZE PROTECTION REQUIREMENTS.
- BACKFLOW PROTECTION AT THE SERVICE CONNECTION IS REQUIRED FOR NON-RESIDENTIAL, AGRICULTURAL, AND IRRIGATION USES, ON LARGE SIZED PROPERTIES, PROPERTIES WITH EXISTING WELLS AND BOOSTER/SEWAGE PUMPS, AND IN OTHER SITUATIONS AS DESCRIBED IN THE DISTRICT'S CROSS CONNECTION CONTROL MANUAL.
- BALL VALVE TO BE REMOVED BY DISTRICT PRIOR TO CONNECTING TO METER.



APPROVED ON: DECEMBER 5, 2023

SCALE: 1" = 2'

DATE: 12/5/23

REVISED: 12/5/23

DRAWN BY: JLB

APPROVED BY: MCH

Skagit PUD PUBLIC UTILITY DISTRICT

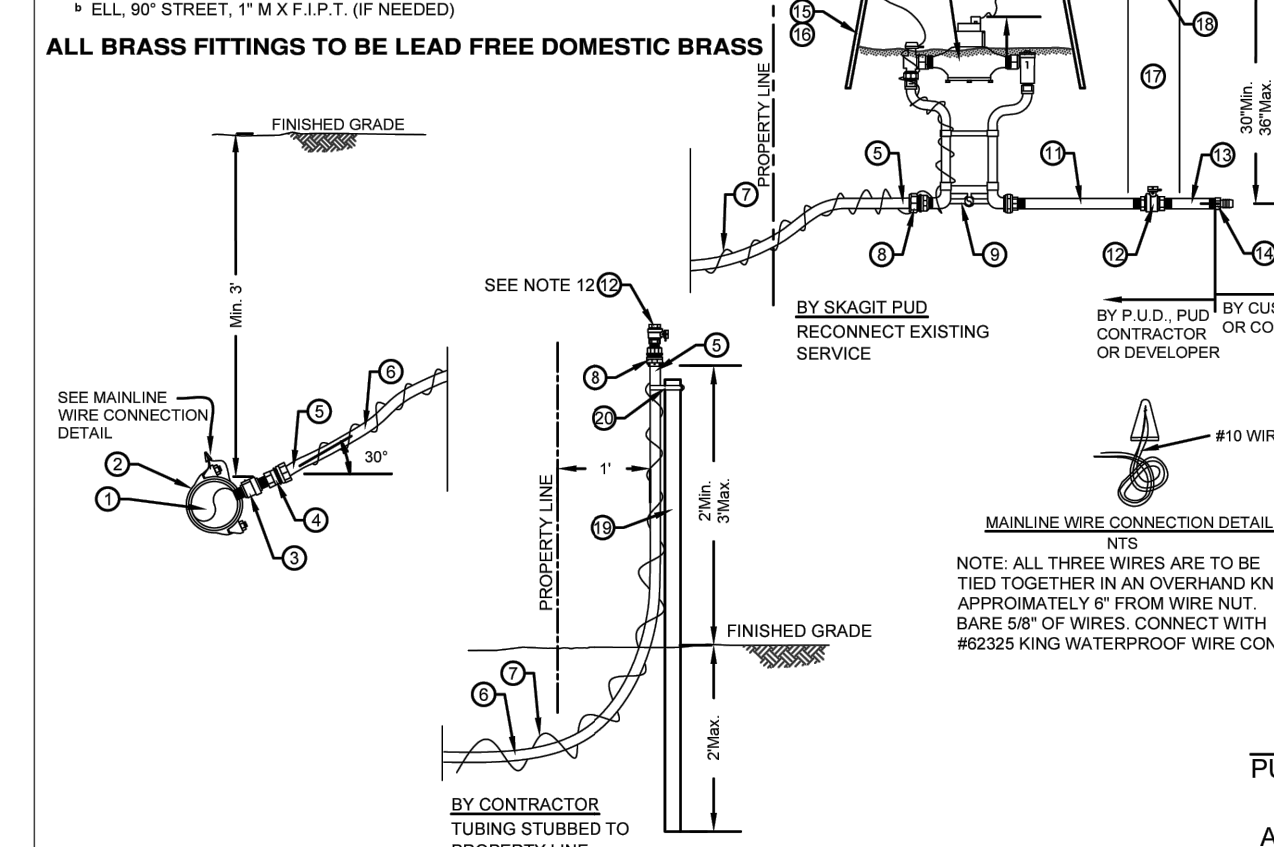
STANDARD INSTALLATION OF SINGLE 8" OR 3/4" METERED SERVICE WITH 200 P.S.I. REHAU SERVICE LINE FOR PIPELINE REPLACEMENT PROJECTS

STANDARD CIPWS58-1

BILL OF MATERIALS			
NO.	NOMENCLATURE	RECD	RECD
1.	WATER MAIN		
2.	CLAMP SERVICE DOUBLE STRAP X 2" I.P.T., ALL BRASS (FORD #2029)	1	1
3.	CORP. 1" (FORD #B500-4)	1	1
4.	ADAPTER BRASS PAC JOINT, 1" F.I.P.T. X 1" COP (FORD #B1444-NL)	1	1
5.	INSERT, STIFFENER, 3/4" (FORD #71)	2	1
6.	PIPE, 1" REHAU MUNICIPLEX TYPE A, 200 P.S.I.	1	1
7.	WIRE #10 SOLID COPPER, BLUE COATED, EXTEND MIN. 18" INTO BOX, NEAR LID	1	1
8.	ADAPTER BRASS PAC JOINT, 1" M.I.P.T. X 2" COP (FORD #B247AL)	1	1
9.	COPPERSETTER, 1" (FORD #VBH72-9W-11-44-NL-FP) W/1" DBL. PURPOSE UNION SWIVELS X	1	1
10.	METER, BADGER MODEL M10 T1 BRONZE METER (BY PUD)	1	1

NOTES

- CORP TO BE IN FULL OPEN POSITION BEFORE BACKFILL.
- INSTALL SERVICE LINE PERPENDICULAR TO MAIN UNLESS OTHERWISE SHOWN ON WATER CONSTRUCTION PLAN.
- SERVICE LINE IS TYPICALLY 1" TO NORTH OR WEST OF PROPERTY CORNER OR AS OTHERWISE SPECIFIED.
- PUD OWNERSHIP ENDS AT THE METER AND METER BOX. WATER SERVICES TO BE CONNECTED TO AN ACTIVE WATERLINE ARE REQUIRED TO BE INSTALLED BY PUD. WATER SERVICES INSTALLED WITH A NEW WATERLINE OR WATERLINE EXTENSION WILL BE PERFORMED BY THE CONTRACTOR/DEVELOPER PRIOR TO CONNECTION OF THE NEW WATERLINE TO THE PUD SYSTEM. THE PUD IS REQUIRED TO SET ALL METERS. IF A NEW WATER SERVICE IS INSTALLED BY THE PUD, PUD WILL INCLUDE THE PRIVATE SHUT-OFF VALVE AFTER THE METER. AFTER INSTALLATION THE OWNER IS RESPONSIBLE FOR ALL FUTURE MAINTENANCE, REPAIR AND REPLACEMENT OF THE PRIVATE SHUT-OFF VALVE.
- METER IS NOT INSTALLED IN COPPERSETTER. INSTALL A PVC NIPPLE BETWEEN METER CONNECTIONS. IF CONNECTION IS NOT MADE TO CUSTOMER'S PLUMBING, INSTALL A WATER-TIGHT WRAP OF ELECTRICAL TAPE OVER END OF ADAPTER(14). SET COPPERSETTER FLUSH, PLUMB AND CENTERED IN BOX.
- FLUSH OUT SERVICE TUBING AND COPPERSETTER BEFORE INSTALLING METER. DO NOT ALLOW MUD OR FOREIGN MATERIAL TO ENTER ANY TUBING OR FITTINGS.
- FILL BOX WITH FINE DIRT TO TOP OF METER.
- IF THE METER BOX IS LOCATED IN ASPHALT OR CONCRETE AREA, A TRAFFIC BOX, CARSON 1324-2520 W/COVER 1324-4208 WILL BE REQUIRED. NOT FOR THROUGH-WAY TRAFFIC APPLICATIONS.
- IF THERE IS PETROLEUM-BASED CONTAMINATED SOIL PRESENT, THE SERVICE PIPELINE SHALL BE OF TYPE K COPPER WITH BRASS AND COPPER FITTINGS.
- IF SERVICE LINE HAS LESS THAN 2" OF COVER, CONTACT DISTRICT ENGINEERING DEPARTMENT FOR FREEZE PROTECTION REQUIREMENTS.
- BACKFLOW PROTECTION AT THE SERVICE CONNECTION IS REQUIRED FOR NON-RESIDENTIAL, AGRICULTURAL, AND IRRIGATION USES, ON LARGE SIZED PROPERTIES, PROPERTIES WITH EXISTING WELLS AND BOOSTER/SEWAGE PUMPS, AND IN OTHER SITUATIONS AS DESCRIBED IN THE DISTRICT'S CROSS CONNECTION CONTROL MANUAL.
- BALL VALVE TO BE REMOVED BY DISTRICT PRIOR TO CONNECTING TO METER.



APPROVED ON: FEBRUARY 14, 2024

SCALE: 1" = 2'

DATE: 3/01/25

REVISED: 2/14/24

DRAWN BY: KAN

APPROVED BY: MCH

Skagit PUD PUBLIC UTILITY DISTRICT

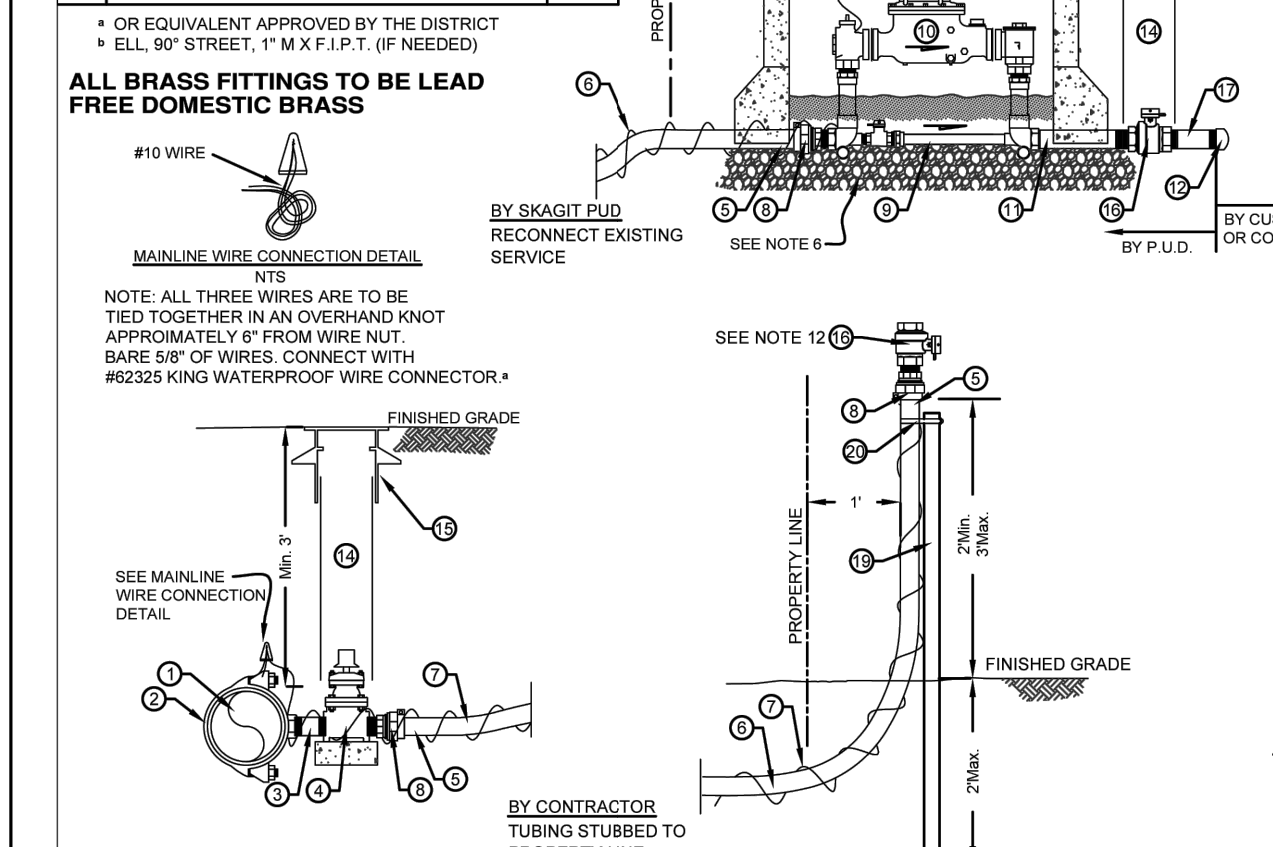
STANDARD INSTALLATION OF 1-1/2" METERED SERVICE WITH 200 P.S.I. REHAU SERVICE LINE FOR PIPELINE REPLACEMENT PROJECTS

STANDARD CIPWS1-1

BILL OF MATERIALS			
NO.	NOMENCLATURE	RECD	RECD
1.	WATER MAIN		
2.	CLAMP SERVICE DOUBLE STRAP X 2" I.P.T., ALL BRASS (FORD #2029)	1	1
3.	NIPPLE BRASS 2"x4"	1	1
4.	VALVE, 2" DUCTILE IRON, RESILIENT WEDGE, I.P.T. X I.P.T.	1	1
5.	INSERT, STIFFENER, 1-1/2" (FORD #74)	2	1
6.	WIRE #10 SOLID COPPER, BLUE COATED, EXTEND MIN. 18" INTO BOX, NEAR LID	1	1
7.	PIPE, 2" REHAU MUNICIPLEX TYPE A, 200 P.S.I.	1	1
8.	BRASS PAC JOINT, 2" M.I.P.T. X 2" COP (FORD #B247AL)	1	1
9.	COPPERSETTER, 2" (FORD #VBH77-12B-11-77AL-FP) W/1" DBL. PURPOSE UNION SWIVELS X	1	1
10.	METER, BADGER, 2" MODEL M70 BRONZE METER (BY PUD)	1	1
11.	NIPPLE BRASS 2"x1/2"	1	1
12.	CAP, 2" GALVANIZED	1	1

NOTES

- INSTALL SERVICE LINE PERPENDICULAR TO MAIN UNLESS OTHERWISE SHOWN ON WATER CONSTRUCTION PLAN.
- IF METER IS NOT INSTALLED IN COPPERSETTER, INSTALL A PVC NIPPLE BETWEEN METER CONNECTIONS. IF CONNECTION IS NOT MADE TO CUSTOMER'S PLUMBING, INSTALL CAP(12).
- SUPPORT COPPERSETTER WITH 1" TO 2" OF ROOF OR PIPE THROUGH EACH EYELET. SET COPPERSETTER FLUSH, PLUMB AND CENTERED IN VAULT BOX. LOCK BYPASS WITH P.U.D. SERVED PUD LOCK.
- PUD OWNERSHIP ENDS AT THE METER AND METER BOX. WATER SERVICES TO BE CONNECTED TO AN ACTIVE WATERLINE ARE REQUIRED TO BE INSTALLED BY PUD. WATER SERVICES INSTALLED WITH A NEW WATERLINE OR WATERLINE EXTENSION WILL BE PERFORMED BY THE CONTRACTOR/DEVELOPER PRIOR TO CONNECTION OF THE NEW WATERLINE TO THE PUD SYSTEM. THE PUD IS REQUIRED TO SET ALL METERS. IF A NEW WATER SERVICE IS INSTALLED BY THE PUD, PUD WILL INCLUDE THE PRIVATE SHUT-OFF VALVE AFTER THE METER. AFTER INSTALLATION THE OWNER IS RESPONSIBLE FOR ALL FUTURE MAINTENANCE, REPAIR AND REPLACEMENT OF THE PRIVATE SHUT-OFF VALVE.
- FLUSH OUT SERVICE TUBING AND COPPERSETTER BEFORE INSTALLING METER. DO NOT ALLOW MUD OR FOREIGN MATERIAL TO ENTER ANY TUBING OR FITTINGS.
- SET VALVE CASING AND VAULT/BOX TO FINISH GRADE. DO NOT REST CASING OR VAULT ON NIPPLES OR PIPE. PLACE 2 INCHES OF 3/4" MINUS CRUSHED GRAVEL, COMPACTED TO SOIL, UNDER CONCRETE VAULTS. SUPPORT VALVE CASING WITH 2 SQ. FT. OF CONCRETE ON EACH SIDE OF VALVE. SUPPORT 2" VALVE WITH MIN. OF 18" OF CONCRETE BLOCK ON UNDISTURBED GROUND OR COMPACTED 3/4" CRUSHED GRAVEL.
- A CONCRETE UTILITY VAULT WILL BE REQUIRED.
- IF THERE IS PETROLEUM-BASED CONTAMINATED SOIL PRESENT, THE SERVICE PIPELINE SHALL BE OF TYPE K COPPER WITH BRASS AND COPPER FITTINGS.
- METER BENEATH PAD TO BE LOCATED IN STEEL LID OF UTILITY VAULT WITHIN SIX INCHES OF HINGE NEAR STREET END.
- SEAL VAULT LIDS AND SEGMENTS WITH 1-1/2" JOINT MASTIC.
- BACKFLOW PROTECTION AT THE SERVICE CONNECTION IS REQUIRED FOR NON-RESIDENTIAL, AGRICULTURAL, AND IRRIGATION USES, ON LARGE SIZED PROPERTIES, PROPERTIES WITH EXISTING WELLS AND BOOSTER/SEWAGE PUMPS, AND IN OTHER SITUATIONS AS DESCRIBED IN THE DISTRICT'S CROSS CONNECTION CONTROL MANUAL.
- BALL VALVE TO BE REMOVED BY DISTRICT PRIOR TO CONNECTING TO METER.



APPROVED ON: DECEMBER 5, 2023

SCALE: 1" = 2'

DATE: 12/5/23

REVISED: 2/14/24

DRAWN BY: JLB

APPROVED BY: MCH

Skagit PUD PUBLIC UTILITY DISTRICT

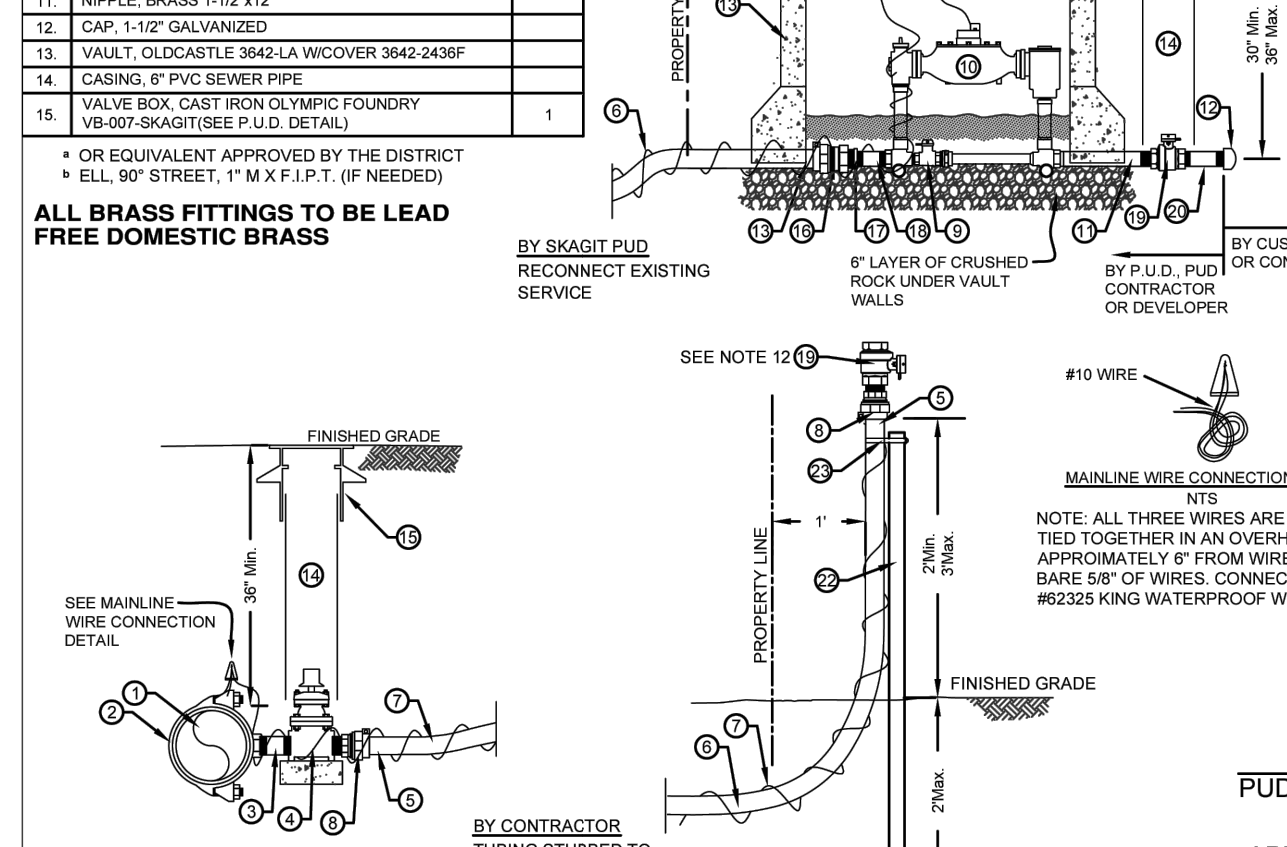
STANDARD INSTALLATION OF 2" METERED SERVICE WITH 200 P.S.I. REHAU SERVICE LINE FOR PIPELINE REPLACEMENT PROJECTS

STANDARD CIPWS2-1

BILL OF MATERIALS			
NO.	NOMENCLATURE	RECD	RECD
1.	WATER MAIN		
2.	CLAMP SERVICE DOUBLE STRAP X 2" I.P.T., ALL BRASS (FORD #2029)	1	1
3.	NIPPLE BRASS 2"x4"	1	1
4.	VALVE, 2" DUCTILE IRON, RESILIENT WEDGE, I.P.T. X I.P.T.	1	1
5.	INSERT, STIFFENER, 1-1/2" (FORD #74)	2	1
6.	WIRE #10 SOLID COPPER, BLUE COATED, EXTEND MIN. 18" INTO BOX, NEAR LID	1	1
7.	PIPE, 2" REHAU MUNICIPLEX TYPE A, 200 P.S.I.	1	1
8.	BRASS PAC JOINT, 2" M.I.P.T. X 2" COP (FORD #B247AL)	1	1
9.	COPPERSETTER, 1-1/2" (FORD #VBH76-12B-11-66-NL-FP)	1	1
10.	METER, BADGER MODEL M120 1-1/2" BRONZE METER (BY PUD)	1	1
11.	NIPPLE BRASS 1-1/2"x1/2"	1	1
12.	CAP, 1-1/2" GALVANIZED	1	1
13.	VAULT, OLDCASTLE 3642-LA W/COVER 3642-2436F	1	1
14.	CASING, 6" PVC SEWER PIPE	1	1
15.	VALVE BOX, CAST IRON OLYMPIC FOUNDRY V-B07-SKAGIT (SEE P.U.D. DETAIL)	1	1

NOTES

- CORP TO BE IN FULL OPEN POSITION BEFORE BACKFILL.
- INSTALL SERVICE LINE PERPENDICULAR TO MAIN UNLESS OTHERWISE SHOWN ON WATER CONSTRUCTION PLAN.
- SERVICE LINE IS TYPICALLY 1" TO NORTH OR WEST OF PROPERTY CORNER OR AS OTHERWISE SPECIFIED.
- PUD OWNERSHIP ENDS AT THE METER AND METER BOX. WATER SERVICES TO BE CONNECTED TO AN ACTIVE WATERLINE ARE REQUIRED TO BE INSTALLED BY PUD. WATER SERVICES INSTALLED WITH A NEW WATERLINE OR WATERLINE EXTENSION WILL BE PERFORMED BY THE CONTRACTOR/DEVELOPER PRIOR TO CONNECTION OF THE NEW WATERLINE TO THE PUD SYSTEM. THE PUD IS REQUIRED TO SET ALL METERS. IF A NEW WATER SERVICE IS INSTALLED BY THE PUD, PUD WILL INCLUDE THE PRIVATE SHUT-OFF VALVE AFTER THE METER. AFTER INSTALLATION THE OWNER IS RESPONSIBLE FOR ALL FUTURE MAINTENANCE, REPAIR AND REPLACEMENT OF THE PRIVATE SHUT-OFF VALVE.
- IF METER IS NOT INSTALLED IN COPPERSETTER, INSTALL A PVC NIPPLE BETWEEN METER CONNECTIONS. IF CONNECTION IS NOT MADE TO CUSTOMER'S PLUMBING, INSTALL CAP(12). SET COPPERSETTER FLUSH, PLUMB AND CENTERED IN BOX.
- FLUSH OUT SERVICE TUBING AND COPPERSETTER BEFORE INSTALLING METER. DO NOT ALLOW MUD OR FOREIGN MATERIAL TO ENTER ANY TUBING OR FITTINGS.
- FILL BOX WITH FINE DIRT TO TOP OF METER.
- A CONCRETE UTILITY VAULT WILL BE REQUIRED.
- IF THERE IS PETROLEUM-BASED CONTAMINATED SOIL PRESENT, THE SERVICE PIPELINE SHALL BE OF TYPE K COPPER WITH BRASS AND COPPER FITTINGS.
- IF SERVICE LINE HAS LESS THAN 2" OF COVER, CONTACT DISTRICT ENGINEERING DEPARTMENT FOR FREEZE PROTECTION REQUIREMENTS.
- BACKFLOW PROTECTION AT THE SERVICE CONNECTION IS REQUIRED FOR NON-RESIDENTIAL, AGRICULTURAL, AND IRRIGATION USES, ON LARGE SIZED PROPERTIES, PROPERTIES WITH EXISTING WELLS AND BOOSTER/SEWAGE PUMPS, AND IN OTHER SITUATIONS AS DESCRIBED IN THE DISTRICT'S CROSS CONNECTION CONTROL MANUAL.
- BALL VALVE TO BE REMOVED BY DISTRICT PRIOR TO CONNECTING TO METER.



APPROVED ON: FEBRUARY 14, 2024

SCALE: 1" = 2'

DATE: 3/01/25

REVISED: 2/14/24

DRAWN BY: CAS

APPROVED BY: GJS

Skagit PUD PUBLIC UTILITY DISTRICT

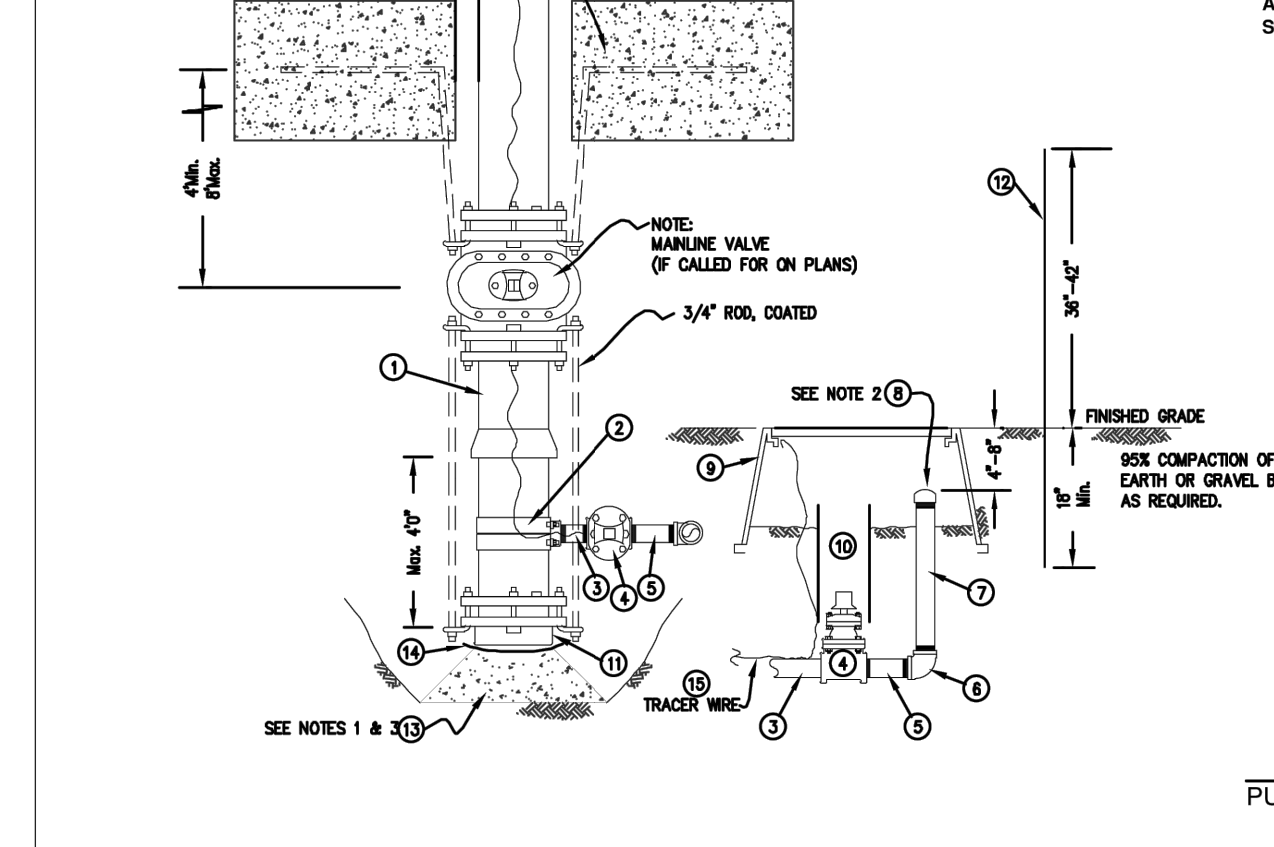
STANDARD INSTALLATION OF 1-1/2" METERED SERVICE WITH 200 P.S.I. REHAU SERVICE LINE FOR PIPELINE REPLACEMENT PROJECTS

STANDARD CIPWS1.5-1

BILL OF MATERIALS			
NO.	NOMENCLATURE	RECD	RECD
1.	WATER MAIN		
2.	CLAMP SERVICE DOUBLE STRAP X 2" I.P.T., ALL BRASS (FORD #2029)	1	1
3.	NIPPLE BRASS 2"x4"	1	1
4.	VALVE, 2" DUCTILE IRON, RESILIENT WEDGE, I.P.T. X I.P.T.	1	1
5.	INSERT, STIFFENER, 1-1/2" (FORD #74)	2	1
6.	WIRE #10 SOLID COPPER, BLUE COATED, EXTEND MIN. 18" INTO BOX, NEAR LID	1	1
7.	PIPE, 2" REHAU MUNICIPLEX TYPE A, 200 P.S.I.	1	1
8.	BRASS PAC JOINT, 2" M.I.P.T. X 2" COP (FORD #B247AL)	1	1
9.	COPPERSETTER, 1-1/2" (FORD #VBH76-12B-11-66-NL-FP)	1	1
10.	METER, BADGER MODEL M120 1-1/2" BRONZE METER (BY PUD)	1	1
11.	NIPPLE BRASS 1-1/2"x1/2"	1	1
12.	CAP, 1-1/2" GALVANIZED	1	1
13.	VAULT, OLDCASTLE 3642-LA W/COVER 3642-2436F	1	1
14.	CASING, 6" PVC SEWER PIPE	1	1
15.	VALVE BOX, CAST IRON OLYMPIC FOUNDRY V-B07-SKAGIT (SEE P.U.D. DETAIL)	1	1

NOTES

- CORP TO BE IN FULL OPEN POSITION BEFORE BACKFILL.
- INSTALL SERVICE LINE PERPENDICULAR TO MAIN UNLESS OTHERWISE SHOWN ON WATER CONSTRUCTION PLAN.
- SERVICE LINE IS TYPICALLY 1" TO NORTH OR WEST OF PROPERTY CORNER OR AS OTHERWISE SPECIFIED.
- PUD OWNERSHIP ENDS AT THE METER AND METER BOX. WATER SERVICES TO BE CONNECTED TO AN ACTIVE WATERLINE ARE REQUIRED TO BE INSTALLED BY PUD. WATER SERVICES INSTALLED WITH A NEW WATERLINE OR WATERLINE EXTENSION WILL BE PERFORMED BY THE CONTRACTOR/DEVELOPER PRIOR TO CONNECTION OF THE NEW WATERLINE TO THE PUD SYSTEM. THE PUD IS REQUIRED TO SET ALL METERS. IF A NEW WATER SERVICE IS INSTALLED BY THE PUD, PUD WILL INCLUDE THE PRIVATE SHUT-OFF VALVE AFTER THE METER. AFTER INSTALLATION THE OWNER IS RESPONSIBLE FOR ALL FUTURE MAINTENANCE, REPAIR AND REPLACEMENT OF THE PRIVATE SHUT-OFF VALVE.
- IF METER IS NOT INSTALLED IN COPPERSETTER, INSTALL A PVC NIPPLE BETWEEN METER CONNECTIONS. IF CONNECTION IS NOT MADE TO CUSTOMER'S PLUMBING, INSTALL CAP(12). SET COPPERSETTER FLUSH, PLUMB AND CENTERED IN BOX.
- FLUSH OUT SERVICE TUBING AND COPPERSETTER BEFORE INSTALLING METER. DO NOT ALLOW MUD OR FOREIGN MATERIAL TO ENTER ANY TUBING OR FITTINGS.
- FILL BOX WITH FINE DIRT TO TOP OF METER.
- A CONCRETE UTILITY VAULT WILL BE REQUIRED.
- IF THERE IS PETROLEUM-BASED CONTAMINATED SOIL PRESENT, THE SERVICE PIPELINE SHALL BE OF TYPE K COPPER WITH BRASS AND COPPER FITTINGS.
- IF SERVICE LINE HAS LESS THAN 2" OF COVER, CONTACT DISTRICT ENGINEERING DEPARTMENT FOR FREEZE PROTECTION REQUIREMENTS.
- BACKFLOW PROTECTION AT THE SERVICE CONNECTION IS REQUIRED FOR NON-RESIDENTIAL, AGRICULTURAL, AND IRRIGATION USES, ON LARGE SIZED PROPERTIES, PROPERTIES WITH EXISTING WELLS AND BOOSTER/SEWAGE PUMPS, AND IN OTHER SITUATIONS AS DESCRIBED IN THE DISTRICT'S CROSS CONNECTION CONTROL MANUAL.
- BALL VALVE TO BE REMOVED BY DISTRICT PRIOR TO CONNECTING TO METER.



APPROVED ON: MAY 6, 2014

SCALE: 1" = 2'

DATE: 3-25-05

REVISED: 5/01/14

DRAWN BY: CAS

APPROVED BY: GJS

Skagit PUD PUBLIC UTILITY DISTRICT

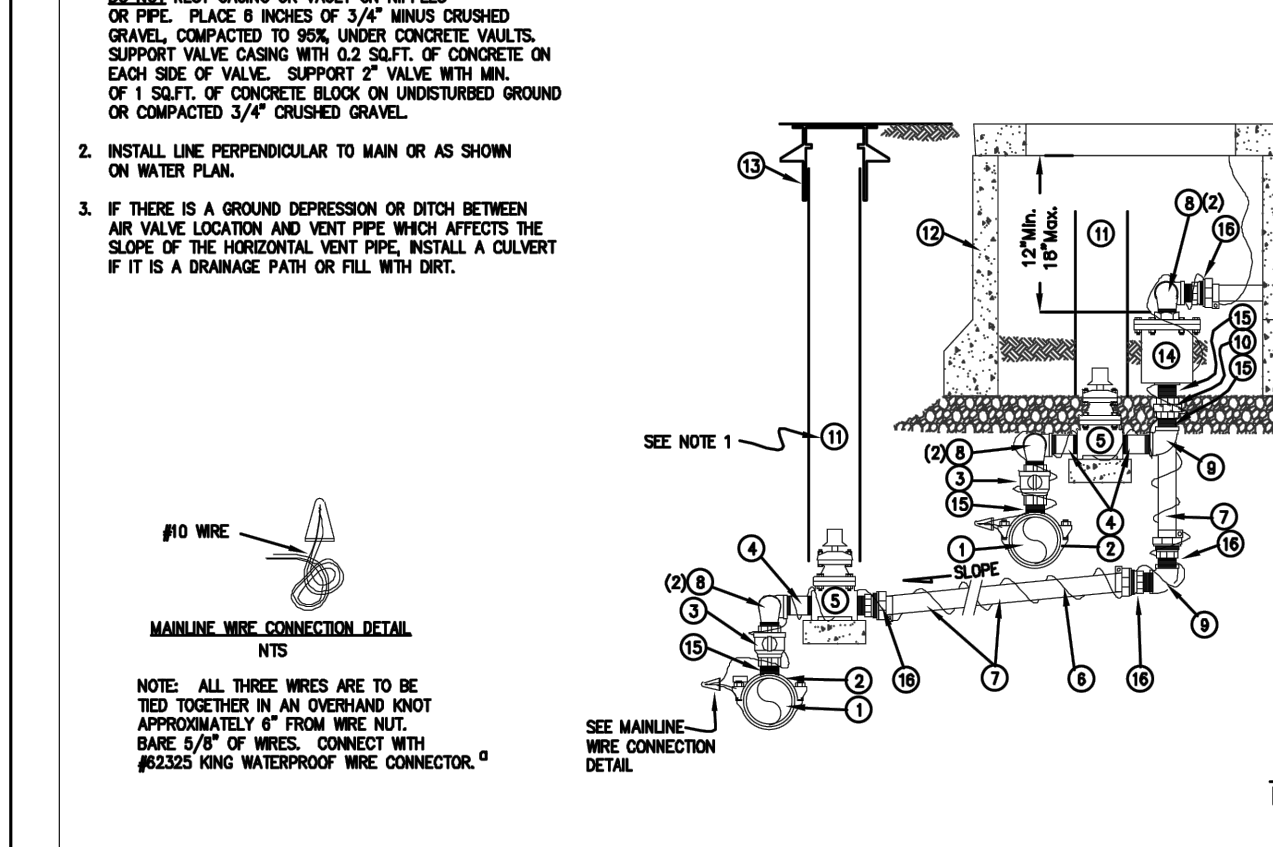
STANDARD 2-INCH FLUSHING ASSEMBLY

STANDARD WB2-1

BILL OF MATERIALS			
NO.	NOMENCLATURE	RECD	RECD
1.	WATER MAIN		
2.	CLAMP SERVICE DOUBLE STRAP X 2" I.P.T., ALL BRASS (FORD #2029)	1	1
3.	NIPPLE BRASS 2"x4"	1	1
4.	VALVE, 2" DUCTILE IRON, RESILIENT WEDGE, I.P.T. X I.P.T.	1	1
5.	INSERT, STIFFENER, 1-1/2" (FORD #74)	2	1
6.	WIRE #10 SOLID COPPER, BLUE COATED, EXTEND MIN. 18" INTO BOX, NEAR LID	1	1
7.	PIPE, 2" REHAU MUNICIPLEX TYPE A, 200 P.S.I.	1	1
8.	BRASS PAC JOINT, 2" M.I.P.T. X 2" COP (FORD #B247AL)	1	1
9.	COPPERSETTER, 1-1/2" (FORD #VBH76-12B-11-66-NL-FP)	1	1
10.	METER, BADGER MODEL M120 1-1/2" BRONZE METER (BY PUD)	1	1
11.	NIPPLE BRASS 1-1/2"x1/2"	1	1
12.	CAP, 1-1/2" GALVANIZED	1	1
13.	VAULT, OLDCASTLE 3642-LA W/COVER 3642-2436F	1	1
14.	CASING, 6" PVC SEWER PIPE	1	1
15.	VALVE BOX, CAST IRON OLYMPIC FOUNDRY V-B07-SKAGIT (SEE P.U.D. DETAIL)	1	1

NOTES

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- SERVICE LINE IS TYPICALLY 1" TO NORTH OR WEST OF PROPERTY CORNER OR AS OTHERWISE SPECIFIED.
- PUD OWNERSHIP ENDS AT THE METER AND METER BOX. WATER SERVICES TO BE CONNECTED TO AN ACTIVE WATERLINE ARE REQUIRED TO BE INSTALLED BY PUD. WATER SERVICES INSTALLED WITH A NEW WATERLINE OR WATERLINE EXTENSION WILL BE PERFORMED BY THE CONTRACTOR/DEVELOPER PRIOR TO CONNECTION OF THE NEW WATERLINE TO THE PUD SYSTEM. THE PUD IS REQUIRED TO SET ALL METERS. IF A NEW WATER SERVICE IS INSTALLED BY THE PUD, PUD WILL INCLUDE THE PRIVATE SHUT-OFF VALVE AFTER THE METER. AFTER INSTALLATION THE OWNER IS RESPONSIBLE FOR ALL FUTURE MAINTENANCE, REPAIR AND REPLACEMENT OF THE PRIVATE SHUT-OFF VALVE.
- IF METER IS NOT INSTALLED IN COPPERSETTER, INSTALL A PVC NIPPLE BETWEEN METER CONNECTIONS. IF CONNECTION IS NOT MADE TO CUSTOMER'S PLUMBING, INSTALL CAP(12). SET COPPERSETTER FLUSH, PLUMB AND CENTERED IN BOX.
- FLUSH OUT SERVICE TUBING AND COPPERSETTER BEFORE INSTALLING METER. DO NOT ALLOW MUD OR FOREIGN MATERIAL TO ENTER ANY TUBING OR FITTINGS.
- FILL BOX WITH FINE DIRT TO TOP OF METER.
- A CONCRETE UTILITY VAULT WILL BE REQUIRED.
- IF THERE IS PETROLEUM-BASED CONTAMINATED SOIL PRESENT, THE SERVICE PIPELINE SHALL BE OF TYPE K COPPER WITH BRASS AND COPPER FITTINGS.
- IF SERVICE LINE HAS LESS THAN 2" OF COVER, CONTACT DISTRICT ENGINEERING DEPARTMENT FOR FREEZE PROTECTION REQUIREMENTS.
- BACKFLOW PROTECTION AT THE SERVICE CONNECTION IS REQUIRED FOR NON-RESIDENTIAL, AGRICULTURAL, AND IRRIGATION USES, ON LARGE SIZED PROPERTIES, PROPERTIES WITH EXISTING WELLS AND BOOSTER/SEWAGE PUMPS, AND IN OTHER SITUATIONS AS DESCRIBED IN THE DISTRICT'S CROSS CONNECTION CONTROL MANUAL.
- BALL VALVE TO BE REMOVED BY DISTRICT PRIOR TO CONNECTING TO METER.



APPROVED ON: MAY 21, 2014

SCALE: 1" = 2'

DATE: 3-25-05

REVISED: 5/21/14

DRAWN BY: CAS

APPROVED BY: GJS

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF 2" COMBINATION AIR VALVE ASSEMBLY

STANDARD WV2-1

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25

811 Know what's below. Call before you dig.

Skagit PUD PUBLIC UTILITY DISTRICT

Skagit PUD PUBLIC UTILITY DISTRICT

DATUM: HOR: NAD 83 VERT: NAVD 88

DSGN BY: JLB

DWN BY: JLB

APPV BY: MCH

DATE PRINTED: 1/22/25

SEC: 17

TWP: 34 N

RGE: 4 E

Skagit PUD PUBLIC UTILITY DISTRICT

STANDARD INSTALLATION OF 2" COMBINATION AIR VALVE ASSEMBLY

STANDARD WV2-1

Skagit PUD PUBLIC UTILITY DISTRICT

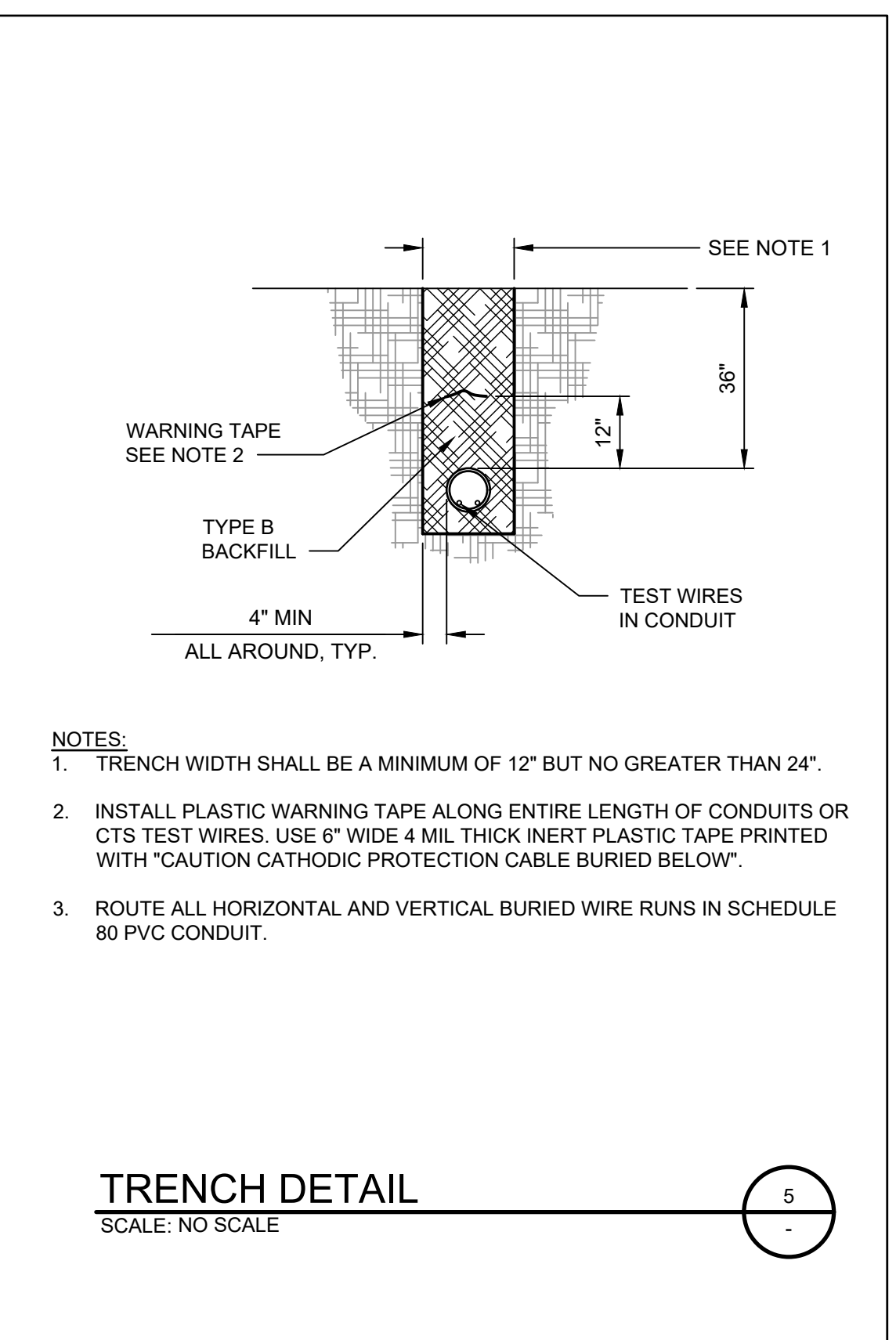
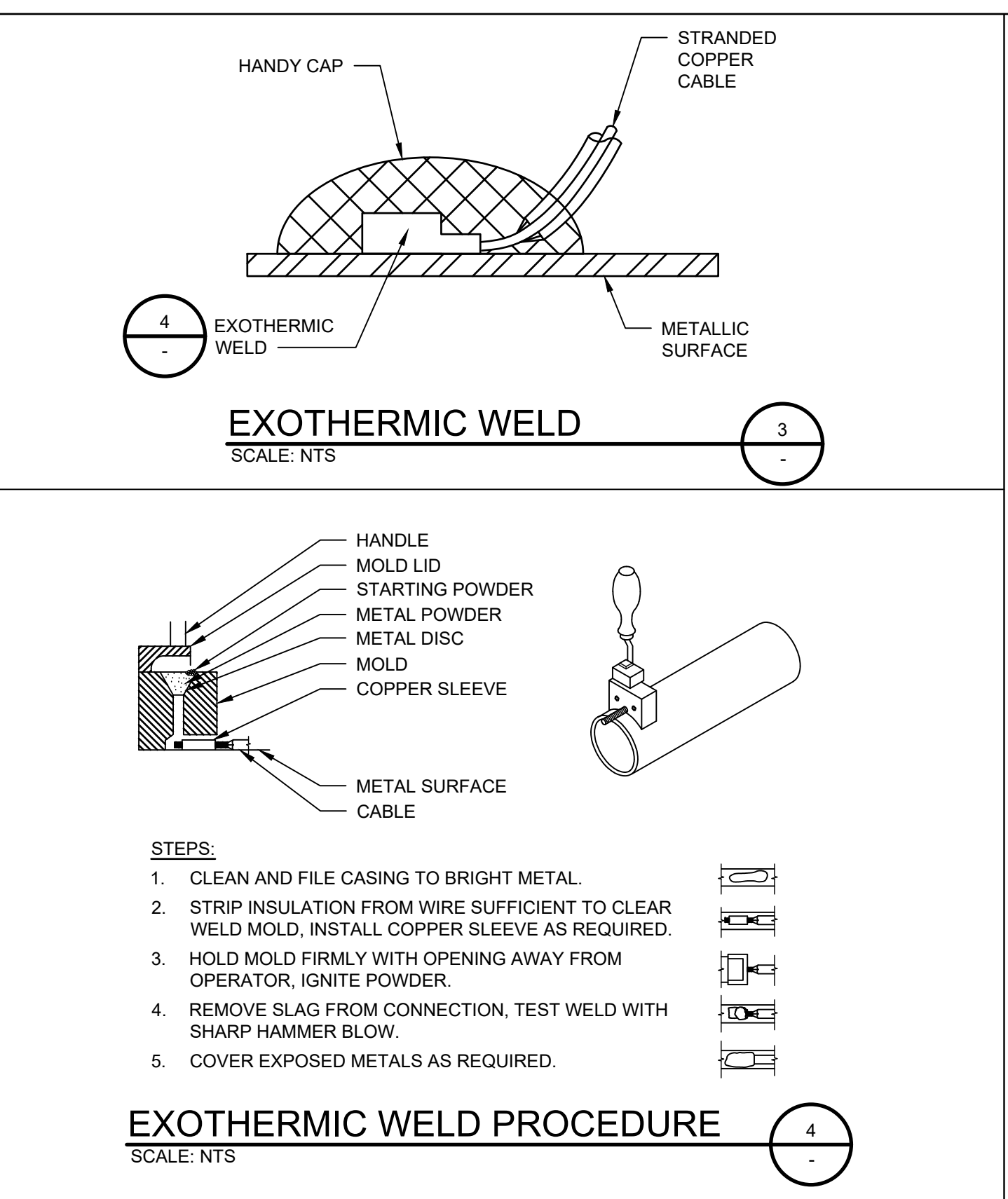
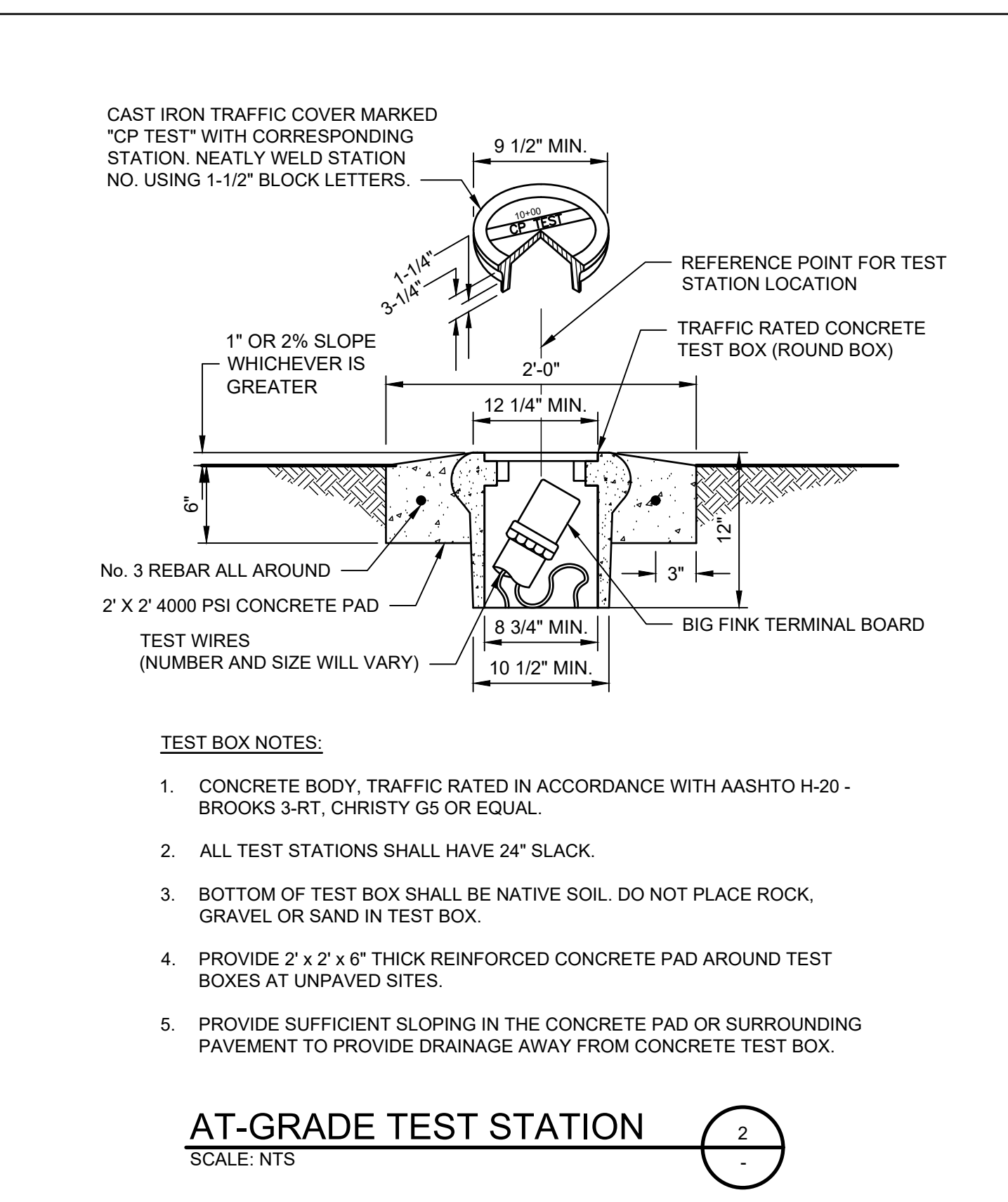
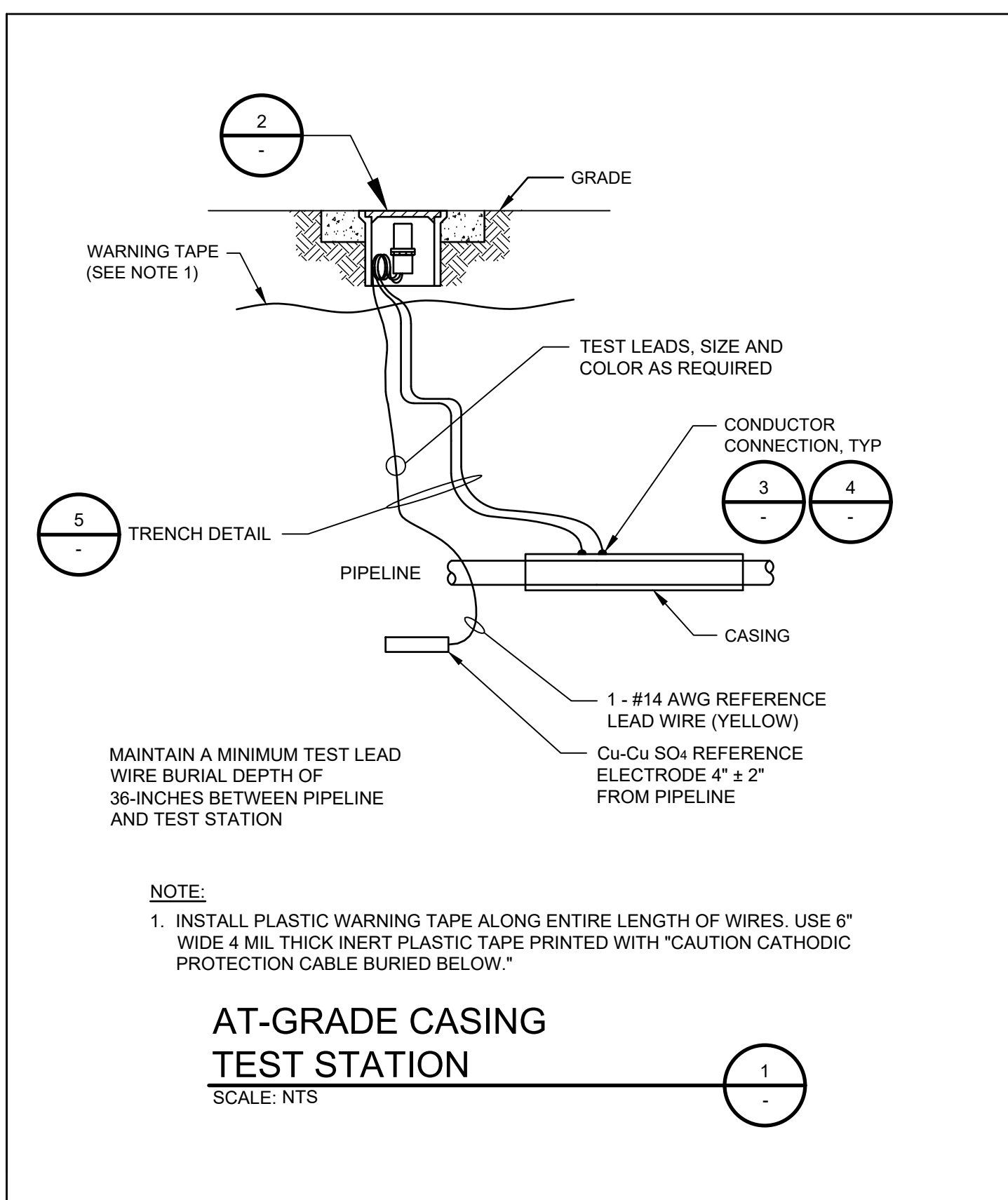
COLLEGE WAY (URBAN TO LAVENTURE) PIPELINE REPLACEMENT

DETAILS (CONTINUED)

SCALE: NONE

JOB ID: CP1923

SHEET: 15 OF 18



1 CATHODIC PROTECTION
N.T.S.

BILL OF MATERIALS			
NO.	NOMENCLATURE	REQ'D.	NO.
1	WATER MAIN		11
2	CLAMP, SERVICE, DOUBLE STRAP X 1\"/>		

NOTES:

- CORP TO BE IN FULL "ON" POSITION BEFORE BACKFILL.
- SET VALVE CASINGS AND VAULT TO FINISHED GRADE. PROVIDE CONCRETE BLOCK SUPPORT UNDER CASING. DO NOT REST ON PIPE. REFER TO DETAIL OF STANDARD VALVE CASING INSTALLATION.
- INSTALL LINE PERPENDICULAR TO MAIN OR AS SHOWN ON WATER PLAN.
- CARBON INDUSTRIES BOX 1730-15 W/COVER 1730-3L MAY BE USED IN LAWN OR LANDSCAPED AREA UPON APPROVAL BY P.U.D.
- IF THERE IS A GROUND DEPRESSION OR DITCH BETWEEN AIR VALVE LOCATION AND VENT PIPE WHICH AFFECTS THE SLOPE OF THE HORIZONTAL VENT PIPE, INSTALL A CULVERT IF IT IS A DRAINAGE PATH OR FILL WITH DIRT.

MAINLINE WIRE CONNECTION DETAIL
NTS

NOTE: ALL THREE WIRES ARE TO BE TIED TOGETHER IN AN OVERHAND KNOT APPROXIMATELY 6\"/>

APPROVED ON: MAY 21, 2014

SCALE: 1"=2'
DATE: 3-25-05
REVISED: 5/21/14
DRAWN BY: CAS
APPROVED BY: GJS

STANDARD
WV1-1

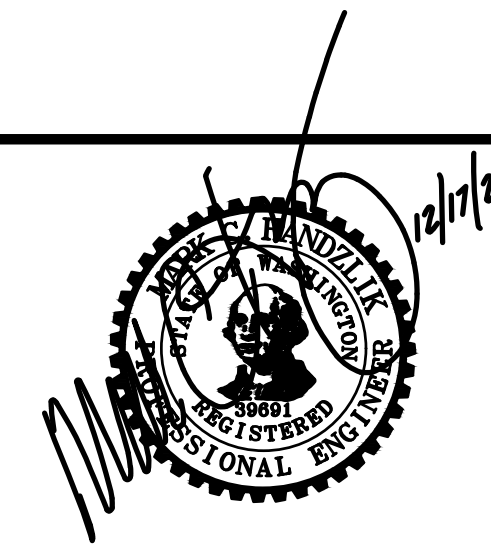
ROADWAY AND TRENCH RESTORATION

NOTES:

- ALL TRENCH CUTS AND REPAIR SHALL CONFORM WITH THE CITY OF MOUNT VERNON TRENCH RESTORATION AND STREET REPAIR STANDARDS.
- THE RESTORATION WIDTH AS PER CITY ENGINEERING STANDARDS CHAPTER 3, SECTION 3-24. A MINIMUM OF 1 FOOT WIDER, ON EACH SIDE, THAN THE PROPOSED TRENCH. THE MINIMUM RESTORATION SHALL BE 5 FEET.
- ASPHALT STRIP BETWEEN TRENCH RESTORATION AND EDGE OF EXISTING CURB AND GUTTER OR EDGE OF EXISTING PAVEMENT MAY BE REMOVED AND REPLACED WITH 12\"/>

STANDARD DETAIL: 3-3
SCALE: NONE
REVISION DATE: 04/16

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	60% DESIGN	MCH	10/1/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25



DATE PRINTED: 1/22/25
SEC: 17
TWP: 34 N
RGE: 4 E

DSGN BY: JLB
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COLLEGE WAY (URBAN TO LAVENTURE)
PIPELINE REPLACEMENT
DETAILS (CONTINUED)

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35 - 40	30	60
20 - 30	20	40

PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R
STRATEGICALLY POSITION WORK VEHICLE TO PROTECT WORK CREW
40-80' RECOMMENDED

SECTION A-A

LONGITUDINAL BUFFER SPACE = B					
SPEED (MPH)	20	25	30	35	40
LENGTH (feet)	115	155	200	250	305

1 LANE CLOSURE 5 LANE ROAD CONTROL PLAN

SCALE: NONE DATE: 4/15/24
DRAWN BY: JLB REVISED: 1/17/25

11. FOR LEGEND, TABLES, AND ADDITIONAL NOTES: SEE SHEET 1

NOTES:

- AVOID PLACING LANE CLOSURE TAPERS WITHIN OR IMMEDIATELY FOLLOWING HORIZONTAL & VERTICAL CURVES BY ADJUSTING LONGITUDINAL BUFFER SPACE.
- IF LONGITUDINAL BUFFER SPACE IS REDUCED FROM DISTANCES LISTED IN TABLE, UPGRADE PROTECTIVE VEHICLE TO A TRANSPORTABLE ATTENUATOR.
- 36" TRAFFIC CONES, 42" TALL CHANNELIZATION DEVICES, OR TRAFFIC SAFETY DRUMS OK.
- BICYCLISTS MAY BE COMBINED WITH ALTERNATING VEHICULAR TRAFFIC. BIKES TO CLEAR PRIOR TO FLAGGERS RELEASING ONCOMING TRAFFIC.
- ACCOMMODATE PEDESTRIANS VIA SHUTTLE THROUGH LANE CLOSURE, USING THE PAVED SHOULDER OPPOSITE TO THE WORK AREA, OR ANOTHER METHOD THE ENGINEER ACCEPTS.
- SEE STANDARD SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS:
 - 1-07.8(1) HIGH-VISIBILITY APPAREL
 - 1-10.3(1) A FLAGGERS AND NIGHTTIME ILLUMINATION
 - 1-10.3(2) A TRAFFIC CONTROL PROCEDURES
 - 9-35.1 24-INCH STOP/SLOW PADDLE SIZE
- FOR PROJECT-SPECIFIC REQUIREMENTS, SEE SPECIAL PROVISIONS.
- SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.
- ACTUAL CENTERLINE PAVEMENT MARKINGS MAY VARY.
- SPEED LIMIT : 35MPH

LEGEND:

- TEMPORARY SIGN LOCATION
- CHANNELIZATION DEVICE
- TRAFFIC SAFETY DRUM (SEE NOTE 3)
- PROTECTIVE VEHICLE (SEE NOTE 2)
- MIN PORTABLE CHANGEABLE MESSAGE SIGN

SHEET 1 OF 2

SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS	25 / 30 MPH	200' ± (2)
RESIDENTIAL & BUSINESS DISTRICTS		
URBAN STREETS	25 MPH OR LESS	100' ± (2)

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35 - 40	30	60
20 - 30	20	40

PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R
STRATEGICALLY POSITION WORK VEHICLE TO PROTECT WORK CREW
40-80' RECOMMENDED

AT-GRADE INTERSECTION (NO TURN LANES): PARTIAL CLOSURE

AT-GRADE INTERSECTION (NO TURN LANES): KEPT OPEN

1 LANE CLOSURE 5 LANE ROAD CONTROL PLAN

SCALE: NONE DATE: 4/15/24
DRAWN BY: JLB REVISED: 1/17/25

NOTES:

- FOR LEGEND, TABLES, AND ADDITIONAL NOTES: SEE SHEET 1

SHEET 2 OF 2

PLAN VIEW TYPE PARALLEL A

PLAN VIEW TYPE PARALLEL B

SECTION A

SECTION B

SECTION C

ISOMETRIC VIEW TYPE PARALLEL A PAY LIMIT

ISOMETRIC VIEW TYPE PARALLEL B PAY LIMIT

LEGEND:

- SLOPE IN EITHER DIRECTION
- 1.8% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX)
- 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX) - SEE NOTE 7

NOTES:

- At marked crosswalks, the connection between the landing and the roadway must be contained within the width of the crosswalk markings.
- Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
- Do not place Gratings, Junction Boxes, Access Covers, or other appurtenances on any part of the Curb Ramp or Landing, or in the Depressed Curb and Gutter where the Landing connects to the roadway.
- See Contract Plans for the curb design specified. See Standard Plan F-10.12 for Curb, Curb and Gutter, Depressed Curb and Gutter, and Pedestrian Curb details.
- See Standard Plan F-30.10 for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
- The Bid Item "Cement Concrete Curb Ramp Type ..." does not include the adjacent Curb, Curb and Gutter, Depressed Curb and Gutter, Pedestrian Curb, or Sidewalks.
- The Curb Ramp length is not required to exceed 15 feet (unless otherwise shown in the Contract Plans). When applying the 15-foot max. length, the turning slope of the curb ramp is allowed to exceed 5.3%. Use a single constant slope from bottom of ramp to top of ramp to match into the sidewalk over a horizontal distance of 15 feet. Do not include abutting landing(s) in the 15-foot max. measurement. When a ramp is constructed on a radius, the 15-foot max. length is measured on the inside radius along the back of the walkway.
- Curb Ramps and Landings shall receive a broom finish. See Standard Specifications 8-14.
- Pedestrian Curb may be omitted if the ground surface at the back of the Curb Ramp and/or Landing will be at the same elevation as the Curb Ramp or Landing and there will be no material to retain.

APPROVED FOR PUBLICATION
Carson Jolly
STATE DESIGN ENGINEER
Washington State Department of Transportation

STANDARD PLAN F-40.12-03
SHEET 1 OF 1 SHEET
APPROVED FOR PUBLICATION
Carson Jolly
STATE DESIGN ENGINEER
Washington State Department of Transportation

TRUNCATED DOME DETAILS (SEE NOTE 3)

DETECTABLE WARNING SURFACE DETAIL

PERPENDICULAR CURB RAMP (SEE NOTE 6)

ISLAND CUT-THROUGH

ROUNDABOUT SPLITTER ISLAND

MEDIAN CUT-THROUGH

PARALLEL CURB RAMP (SEE NOTE 9)

PEDESTRIAN RAILROAD CROSSING

SHARED-USE PATH CONNECTION

LEGEND:

- DIRECTION OF TRAVEL

NOTES:

- Permanent Detectable Warning Surfaces (DWS) shall extend the full width of the curb ramp, landing, or other roadway entrance as applicable. Exception: If the manufacturer of the DWS requires a concrete border around the DWS, a variance of up to 2" (6) on each side of the DWS is permitted.
- Permanent Detectable Warning Surfaces (DWS) shall be placed on a minimum 4" (n) thick concrete pad. The DWS panel shall be placed adjacent to the back of the curb and with no more than a 2" (6) gap between the DWS and the back of the curb measured at the center of the DWS panel. Exception: If the manufacturer of the selected DWS requires a concrete border around the DWS, a variance of up to 2" (n) from the back of the curb is permitted (measured at the leading corners of the DWS panel).
- The rows of truncated domes shall be aligned to be parallel to the direction of travel, and perpendicular to the grade break at the back of curb.
- If curb and gutter are not present, such as a shared-use path connection, the Detectable Warning Surface shall be placed at the pavement edge.
- See Standard Plans for sidewalk and curb ramp details.
- If a curb ramp is required, the location of the Detectable Warning Surface must be at the bottom of the ramp and within the required distance from the rail crossing.
- When the grade break between the curb ramp and the landing is less than or equal to 5 feet from the back of curb at all points, place the Detectable Warning Surface on the bottom of the curb ramp directly above the grade break.
- Glued or stick down Detectable Warning Surfaces are allowed only for temporary work zone applications.

APPROVED FOR PUBLICATION
Dan W. Lowrey
STATE DESIGN ENGINEER
Washington State Department of Transportation

STANDARD PLAN F-45.10-05
SHEET 1 OF 1 SHEET
APPROVED FOR PUBLICATION
Dan W. Lowrey
STATE DESIGN ENGINEER
Washington State Department of Transportation

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/11/24
3.	90% DESIGN	MCH	11/25/24
4.	ISSUED FOR BIDDING	MCH	1/22/25

811 Know what's below. Call before you dig.

DATE: 1/22/25

DATE PRINTED: 1/22/25

SEC: 17

TWP: 34 N

RGE: 4 E

DATUM: HOR: NAD 83 VERT: NAVD 88

DSGN BY: JLB

DWN BY: JLB

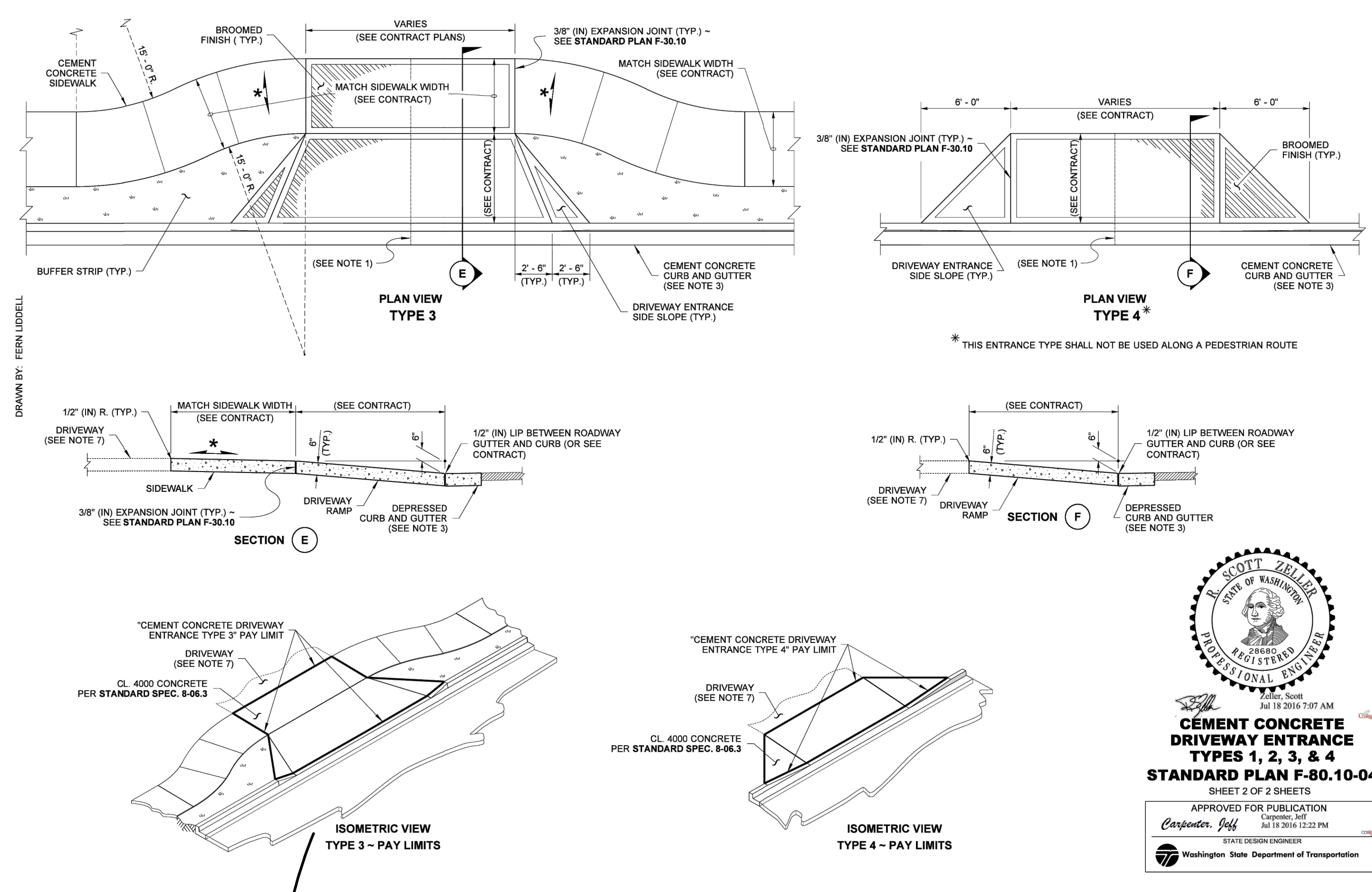
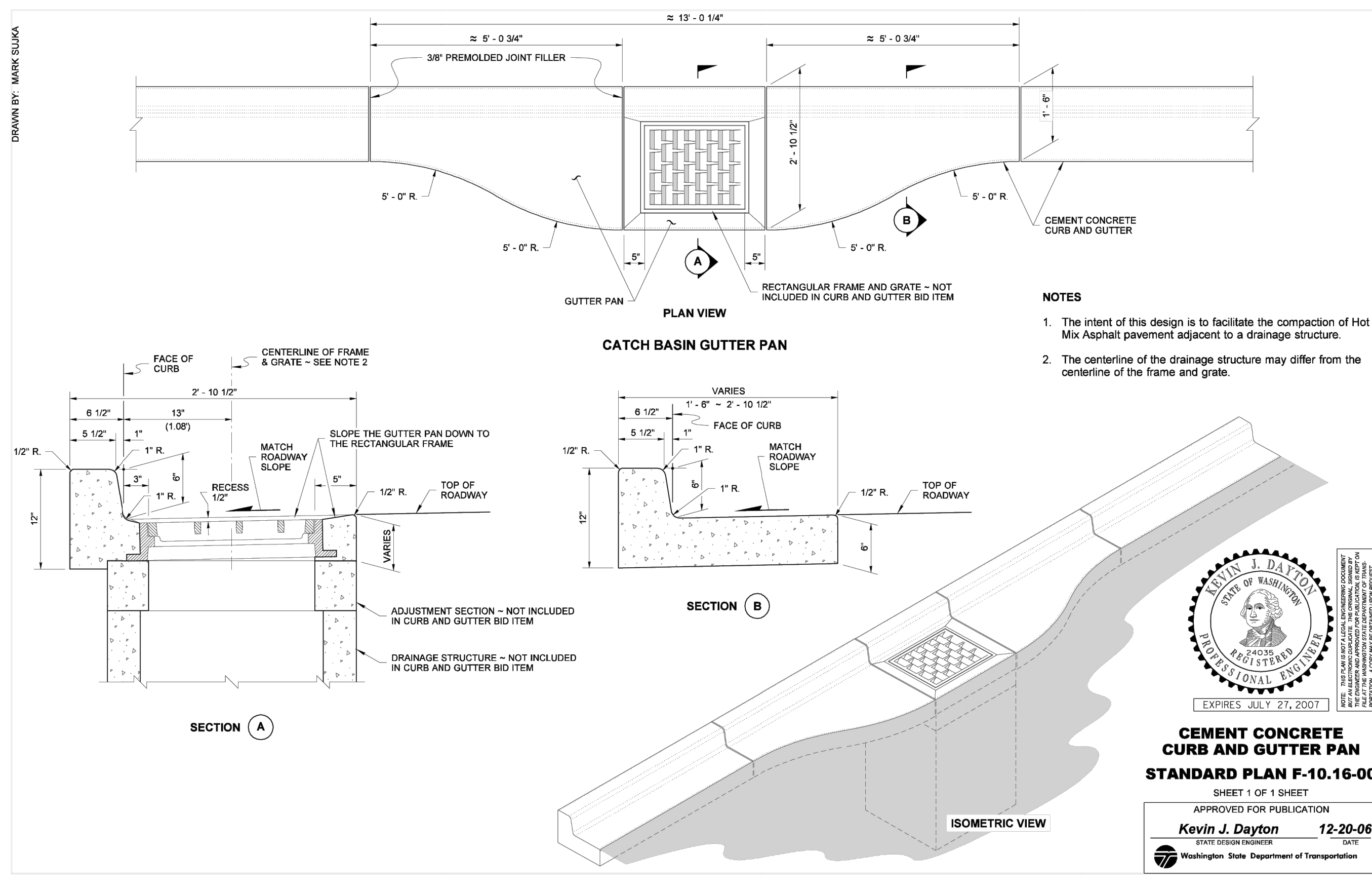
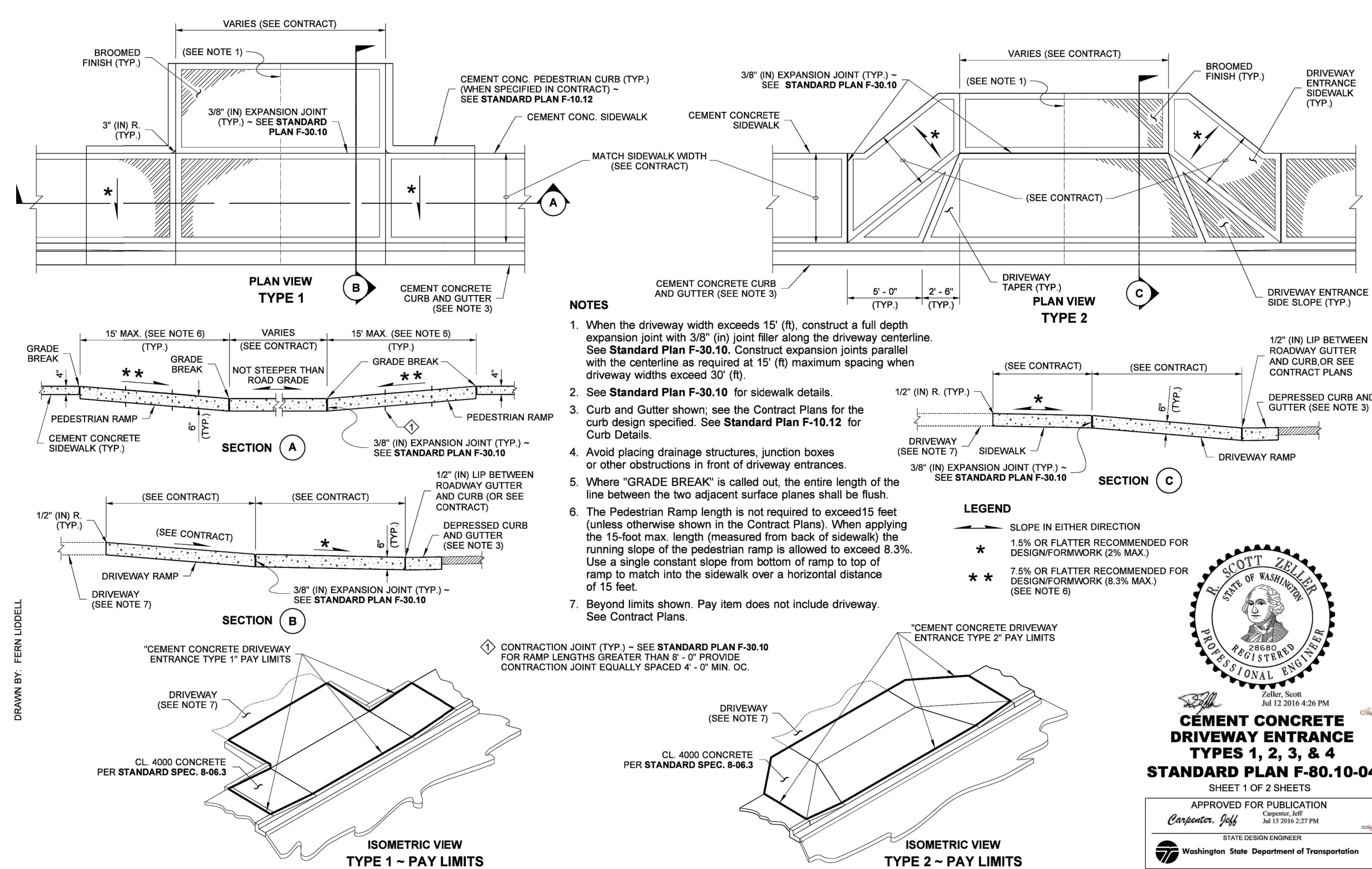
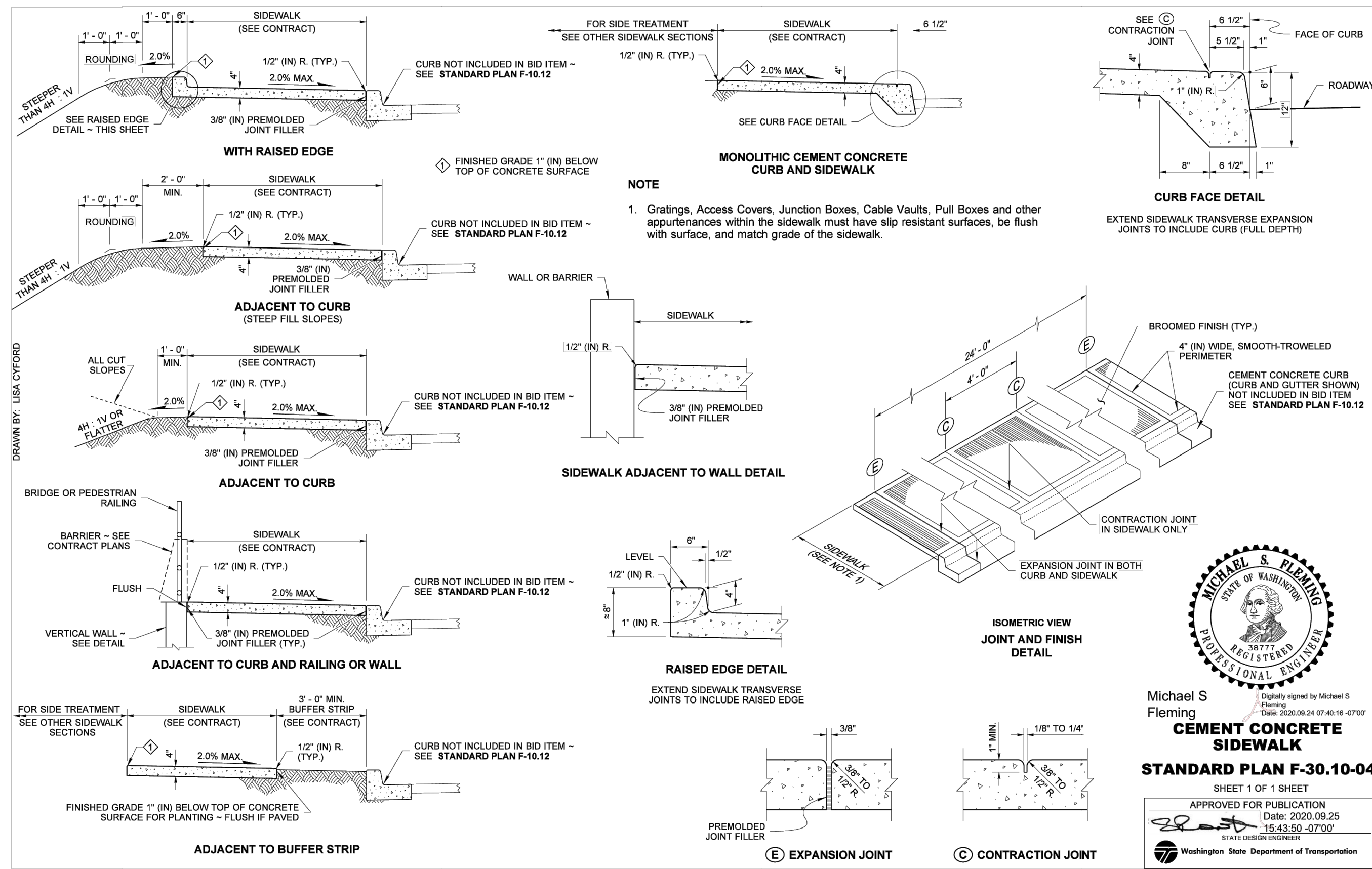
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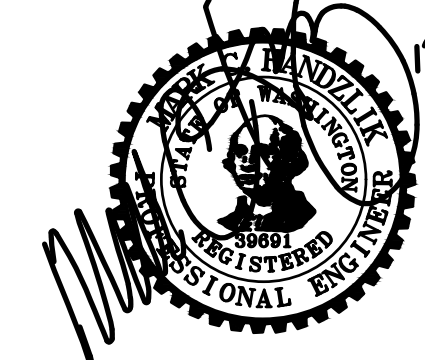
COLLEGE WAY (URBAN TO LAVENTURE) PIPELINE REPLACEMENT DETAILS AND TRAFFIC CONTROL

SCALE: NONE JOB ID: CP19223 SHEET: 17 OF 18

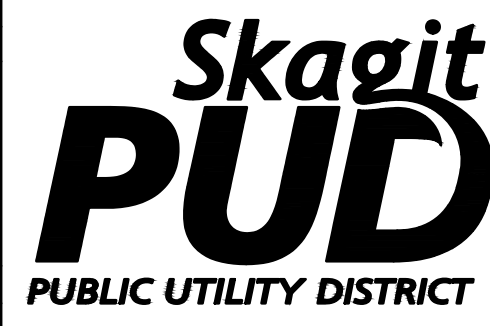


ADDITIONAL NOTE : 2" OF CSTC IS REQUIRED UNDERNEATH SIDEWALKS AND DRIVEWAY ENTRANCES

ISSUE	REVISIONS	BY	DATE
1.	BASEMAP	MCH	2/9/24
2.	80% DESIGN	MCH	10/11/24
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COLLEGE WAY (URBAN TO LAVENTURE)
PIPELINE REPLACEMENT
DETAILS (CONTINUED)