

THE TULALIP TRIBES

4TH STREET SEWER EXTENSION TO MBR PLANT

TULALIP INDIAN RESERVATION
SNOHOMISH COUNTY

PROJECT NO. 019-002

DESIGN STANDARDS:
ROAD CLASSIFICATION: URBAN MINOR ARTERIAL

STANDARD SPECIFICATIONS:
**WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE,
AND MUNICIPAL CONSTRUCTION 2016**

GOVERNING AGENCY CONTACTS:

SNOHOMISH COUNTY
DEPARTMENT OF PUBLIC WORKS
3000 ROCKEFELLER, M/S 607
EVERETT, WA 98201
(425) 388-6381
CONTACT: BROOK CHESTERFIELD

TULALIP TRIBES
CONSOLIDATED BOROUGH OF QUIL CEDA VILLAGE
8802 27TH AVE NE
TULALIP, WA 98271
(360) 716-5024
CONTACT: DEBRA BRAY

TULALIP TRIBES
COMMUNITY DEVELOPMENT
6406 MARINE DR.
TULALIP, WA 98271
(360) 716-4214
CONTACT: GUS TAYLOR

TULALIP TRIBES
TRIBAL EMPLOYMENT RIGHTS OFFICE (TERO)
6406 MARINE DR.
TULALIP, WA 98271
(360) 716-4441, (360) 716-4751
CONTACT: SUMMER HATCH (DIRECTOR)
ROBERT HENDERSON (INTERIM MANAGER)

OWNER/APPLICANT:

THE TULALIP TRIBES
8802 27TH AVE NE
TULALIP, WA 98271
(360) 654-2600

ENGINEER:

PARAMETRIX
719 2ND AVENUE, SUITE 200
SEATTLE, WA 98104
(206) 394-3700
CONTACT: HAPPY LONGFELLOW

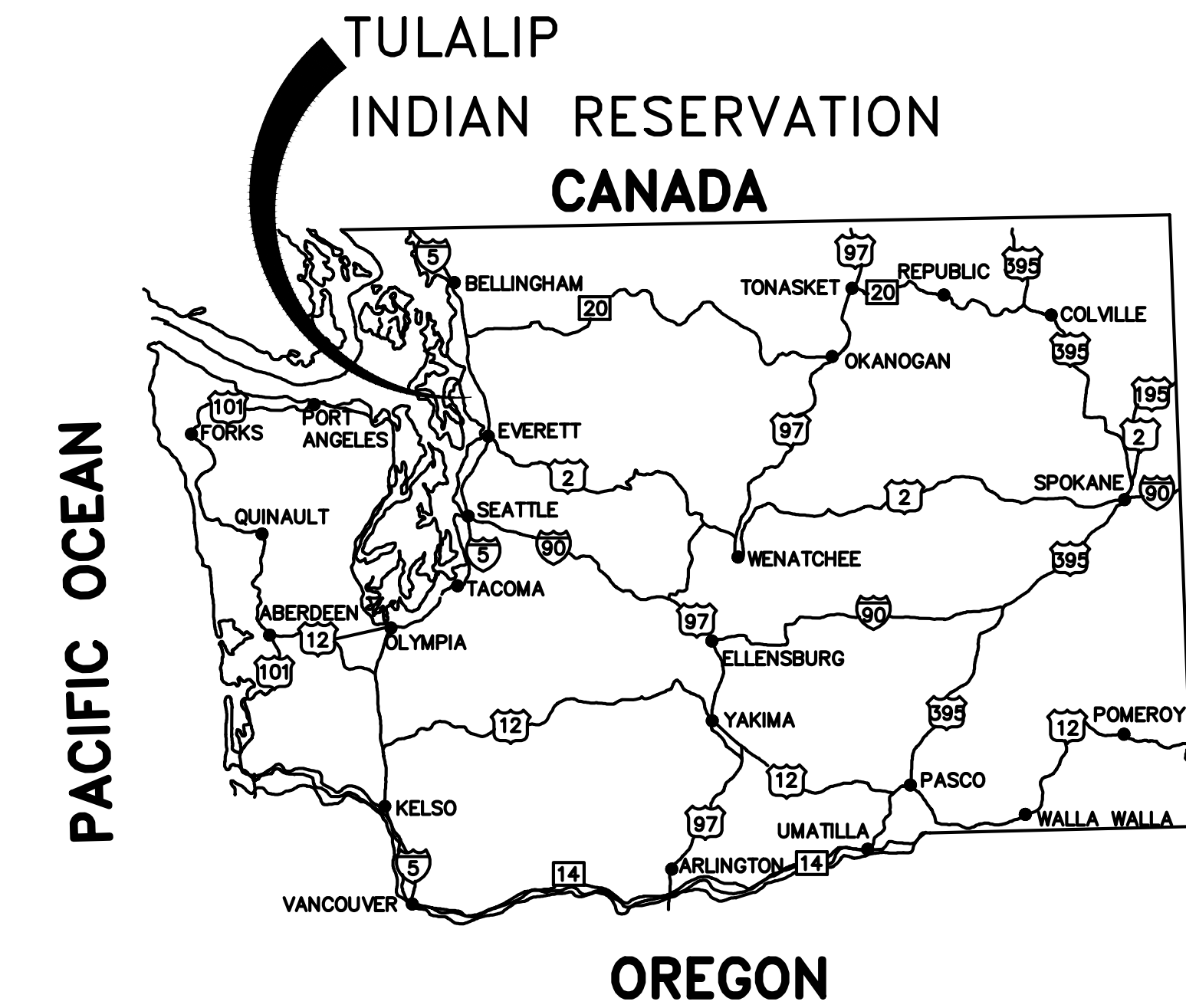
UTILITIES:

FRONTIER COMMUNICATIONS
1800 41ST STREET
EVERETT, WA 98201
OFFICE: (425) 261-0134
CELL: (425) 614-9754
CONTACT: ADAM DIAZ

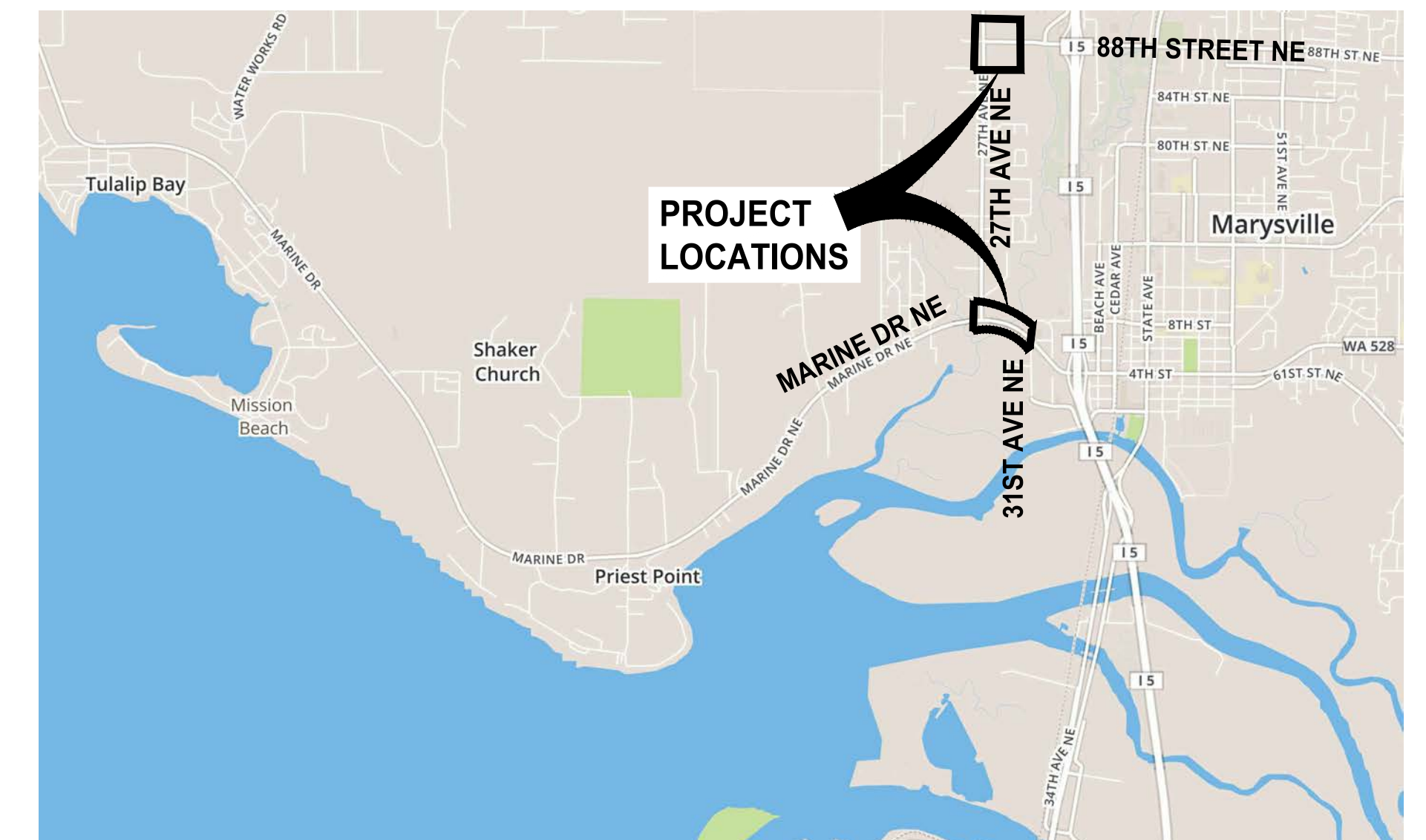
SNOHOMISH COUNTY PUBLIC
UTILITIES DISTRICT (PUD)
210 E DIVISION STREET
ARLINGTON, WA 98223
OFFICE: (425) 783-4370
CONTACT: KALLEN SHAUGHNESSY-RANDALL

PUGET SOUND ENERGY (GAS)
PROJECT MANAGER - GAS SYSTEM ENGINEERING
20000 N CREEK PARKWAY, BOT-01H
BOTHELL, WA 98011
OFFICE: (425) 505-3768
CONTACT: JOHN GUAY

TULALIP BROADBAND (CABLE)
8825 QUIL CEDA BOULEVARD, SUITE 0
TULALIP, WA 98271
OFFICE: (360) 716-3277
CELL: (425) 754-0033
CONTACT: RICHARD BROWN



VICINITY MAP
NO SCALE



LOCATION MAP
NO SCALE



Know what's below.
Call before you dig.



2-6-Z0A

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PROJECT NAME
**THE TULALIP TRIBES
4TH STREET SEWER EXTENSION TO
MBR PLANT**
TULALIP, WASHINGTON

**TITLE, VICINITY MAP AND
LOCATION MAP**

DRAWING NO.
1 OF 18
G1

LAYOUT: G1 PATH: U:\PSC\Projects\Clients\1598-Tulalip Tribes\554-1598-101_06dayimprove\frustr\995sca\CADD\DWG\PH_3_4th St Sewer Extension to MBR PLOTTED BY: peterden DATE: Thursday, February 7, 2019 8:55:48 AM

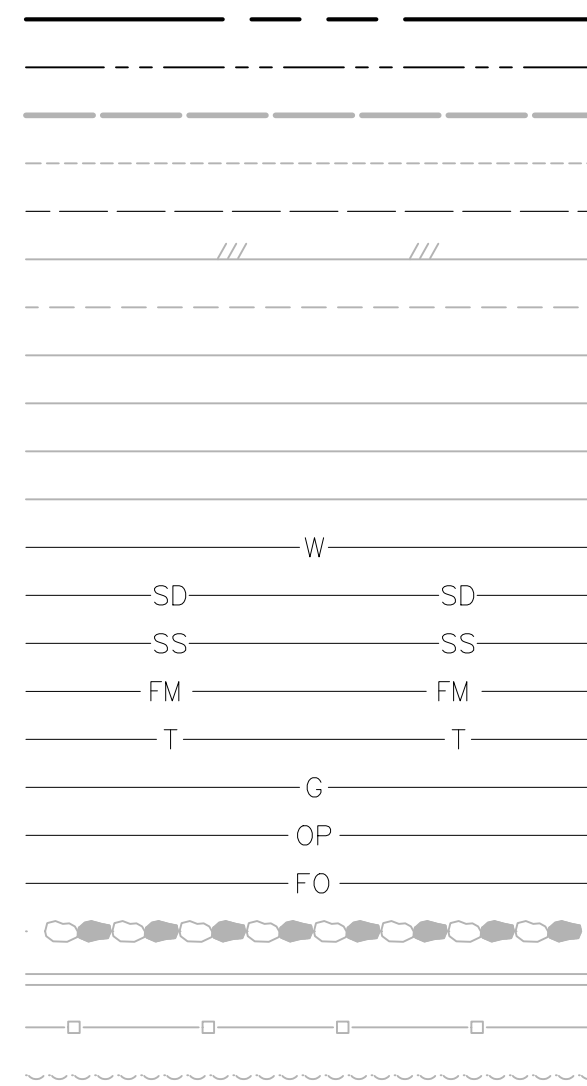
REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			DRAWN D. PETERSON
			CHECKED M. OLLIVANT
			APPROVED H. LONGFELLOW

**ONE INCH AT FULL SCALE,
IF NOT, SCALE ACCORDINGLY**

FILE NAME
PS1598101-4thSt-G1-3
JOB No.
554-1598-101
DATE
FEBRUARY 2019

PATH: U:\PSO\Projects\Clients\1598-Tulalip Tribes\1598-Tulalip Tribes\554-1598-101_08dayimprove&infroast\CADD\DWG\PH_3_4th St Sewer Extension to MBR PLOTTED BY: peterden DATE: Thursday, February 7, 2019 8:56:45 AM LAYOUT: 02

EXISTING:



LEGEND:
PROPOSED:



DESCRIPTION:

CENTER LINE
 RIGHT OF WAY
 PROPERTY LINE
 MAJOR CONTOUR
 MINOR CONTOUR
 EASEMENT
 EDGE OF PAVEMENT
 EDGE OF GRAVEL
 BACK OF CURB
 CURB FACE
 BACK OF WALK
 CONCRETE
 WATER
 STORM
 SANITARY SEWER
 SANITARY SEWER FORCE MAIN
 CABLE TV
 GAS
 OVERHEAD POWER
 FIBER OPTIC
 STRUCTURAL EARTH WALL
 CONCRETE BLOCK WALL
 WOOD FENCE
 EDGE OF GRASS
 MONUMENT
 CONTROL POINT
 SIGN
 STREET LIGHT
 POWER POLE
 GUY ANCHOR
 TELEPHONE RISER
 WATER METER
 HYDRANT
 GATE VALVE
 CATCH BASIN TYPE 1
 CATCH BASIN TYPE 2
 SANITARY SEWER MANHOLE

 HMA CLASS 1/2" PG 64-22

 CEMENT CONCRETE

ABBREVIATIONS:

Δ DELTA
 AC ASPHALT CONCRETE
 AP ANGLE POINT
 AVE AVENUE
 BF BLIND FLANGE
 BND BEND
 BP BEGINNING POINT
 BV BUTTERFLY VALVE
 C CENTER LINE
 CB CATCH BASIN
 CL CLASS
 CONC CONCRETE
 CONN CONNECT, CONNECTION
 CONST CONSTRUCTION
 CPLG COUPLING
 CSBC CRUSHED SURFACING BASE COURSE
 CSTC CRUSHED SURFACING TOP COURSE
 DET DETAIL
 DI DUCTILE IRON
 DIA DIAMETER
 E EAST, EASTING
 EL ELEVATION
 EP END POINT
 EX EXISTING
 FCA FLANGE COUPLING ADAPTOR
 FG FINISHED GRADE
 FOC FACE OF CURB
 FL FLANGE
 G GAS
 GND, GRND GROUND
 GRM GALVANIZED RIGID METAL
 GV GATE VALVE
 HMA HOT MIX ASPHALT
 HYD HYDRANT
 IE INVERT ELEVATION
 L LENGTH
 LF LINEAR FEET
 LT LEFT
 MH MANHOLE
 MAX MAXIMUM
 MIN MINIMUM
 MJ MECHANICAL JOINT
 N NORTH, NORTHING
 NE NORTHEAST
 NO. NUMBER
 NST NO STEEPER THAN
 NW NORTHWEST
 P UNDERGROUND POWER
 PC POINT OF CURVATURE
 PI POINT OF INTERSECTION
 PT POINT OF TANGENCY, POINT
 PVC POLYVINYL CHLORIDE PIPE
 R, RD RADIUS
 RT RIGHT
 R/W RIGHT OF WAY
 SD STORM DRAINAGE
 SE SOUTHEAST
 SS SANITARY SEWER
 SSFM SANITARY SEWER FORCE MAIN
 ST STREET
 STL STEEL
 STA STATION
 STD STANDARD
 SW SOUTHWEST
 T TELEPHONE
 TDS TULALIP DATA SERVICES
 THK THICK
 TOC TOP OF CURB
 TYP TYPICAL
 W WATER
 WM WATER METER
 WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

GENERAL NOTES:

- EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH THE APPROVED PLANS AND ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- COMPLY WITH ALL OTHER PERMITS AND OTHER REQUIREMENTS BY THE COUNTY, TRIBES, OR OTHER GOVERNING AUTHORITY OR AGENCY AS MAY BE APPLICABLE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH THE MUTCD MANUAL. PRIOR TO DISRUPTION OF ANY TRAFFIC, TRAFFIC CONTROL PLANS SHALL BE PREPARED AND SUBMITTED TO THE COUNTY FOR POSSIBLE APPROVAL. NO WORK SHALL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE. WORK SHALL CEASE WHEN TRAFFIC CONTROL FAILS TO MEET MINIMUM REQUIREMENTS.
- ALL CURB AND GUTTER, STREET GRADES, SIDEWALK GRADES, AND ANY OTHER VERTICAL AND/OR HORIZONTAL ALIGNMENT SHALL BE STAKED BY AN ENGINEERING OR SURVEYING FIRM CAPABLE OF PERFORMING SUCH WORK. SUCH FIRMS SHALL BE CURRENTLY LICENSED IN THE STATE OF WASHINGTON TO PERFORM SUCH WORK.
- WHERE NEW ASPHALT JOINS EXISTING, THE EXISTING ASPHALT SHALL BE CUT TO A NEAT VERTICAL EDGE AND TACKED WITH ASPHALT EMULSION TYPE CSS 1 IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE CUT LOCATION AND THE JOINT SEALED WITH GRADE AR-4000W PAVING ASPHALT. A SAND BLANKET SHALL BE APPLIED TO THE SURFACE TO MINIMIZE "TRACKING" OF SAME.
- ALL STREETS, CURB AND GUTTERS, SIDEWALKS, AND ASSOCIATED APPURTENANCES SHALL BE CLEANED TO THE SATISFACTION OF THE COUNTY PRIOR TO FINAL ACCEPTANCE.
- CALL UNDERGROUND LOCATE LINE AT 1-800-424-5555 A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATIONS.

DRAWING INDEX		
DWG NO.	SHT NO.	SHEET TITLE
GENERAL		
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2	G2	LEGEND, ABBREVIATIONS, GENERAL NOTES, AND DRAWING INDEX
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5	SS2	SANITARY SEWER FORCE MAIN PLAN AND PROFILE STA 14+00 TO STA 19+00
6	SS3	SANITARY SEWER FORCE MAIN PLAN AND PROFILE STA 19+00 TO STA 24+00
7	SS4	SANITARY SEWER FORCE MAIN PLAN AND PROFILE STA 24+00 TO STA 27+00
8	SS5	SANITARY SEWER FORCE MAIN PLAN AND PROFILE STA 100+00 TO END OF PROJECT
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10	DT2	UTILITY DETAILS
11	DT3	UTILITY DETAILS AND SECTIONS
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13	DT5	SANITARY SEWER BRIDGE CROSSING DETAILS AND SECTIONS
14	DT6	MANUAL AIR RELEASE DETAIL AND SECTION
15	DT7	MASTER SEWER METER DETAIL AND SECTION
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ELECTRICAL		
17	E1	ELECTRICAL LEGEND AND ABBREVIATIONS
18	E2	FLOW METER VAULT AND DETAILS

2-6-Z0A



REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			DRAWN D. PETERSON
			CHECKED M. OLLIVANT
			APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE, IF NOT, SCALE ACCORDINGLY
 FILE NAME
 PSI1598101-4thSt-G1-3
 JOB No.
 554-1598-101
 DATE
 FEBRUARY 2019

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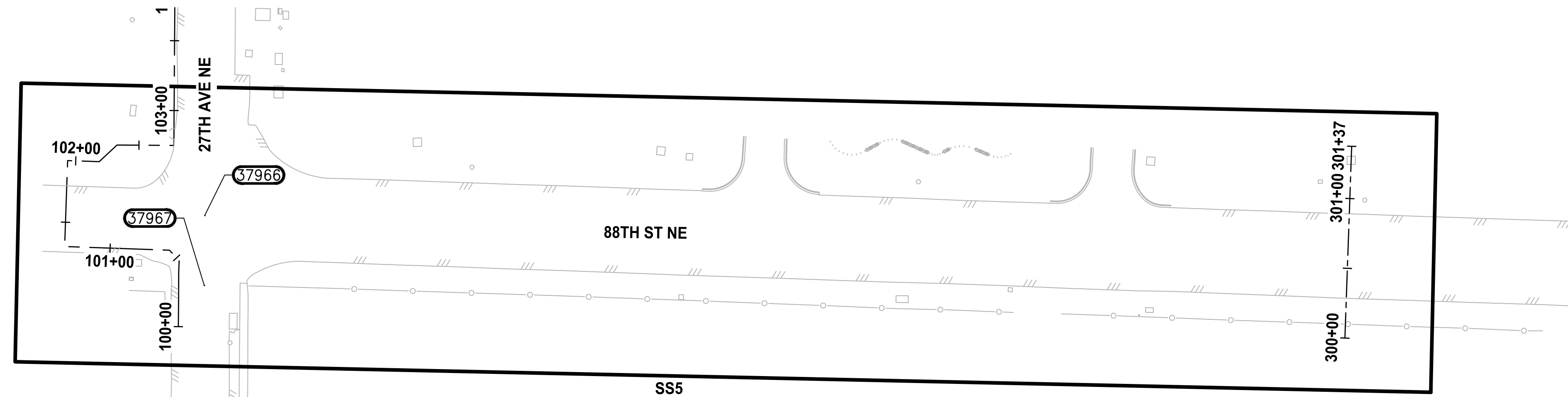
PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

**LEGEND, ABBREVIATIONS,
 GENERAL NOTES, AND
 DRAWING INDEX**

DRAWING NO.
 2 OF 18

G2

PATH: U:\PSO\Projects\Clients\1598-Tulalip Tribes\1598-101_04thStSewerExtension\1598\1598-101_04thStSewerExtension.dwg
 PLOTTED BY: mahmoudy DATE: Thursday, February 07, 2019 10:22:08 AM
 LAYOUT: G3



HORIZONTAL DATUM:
 HORIZONTAL DATUM FOR THIS SURVEY IS NAD 1983(11) BASED ON THE WASHINGTON STATE REFERENCE NETWORK (WSRN) WITH VERIFICATION TIE TO THE FOLLOW MONUMENT PUBLISHED BY WSDOT, POINT DESIGNATION GP31005-128.

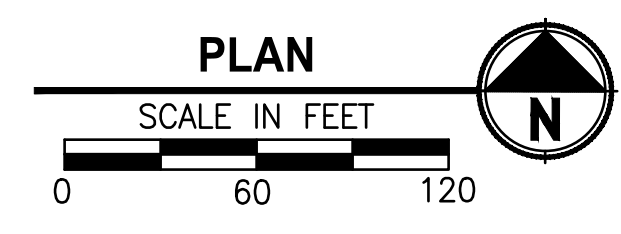
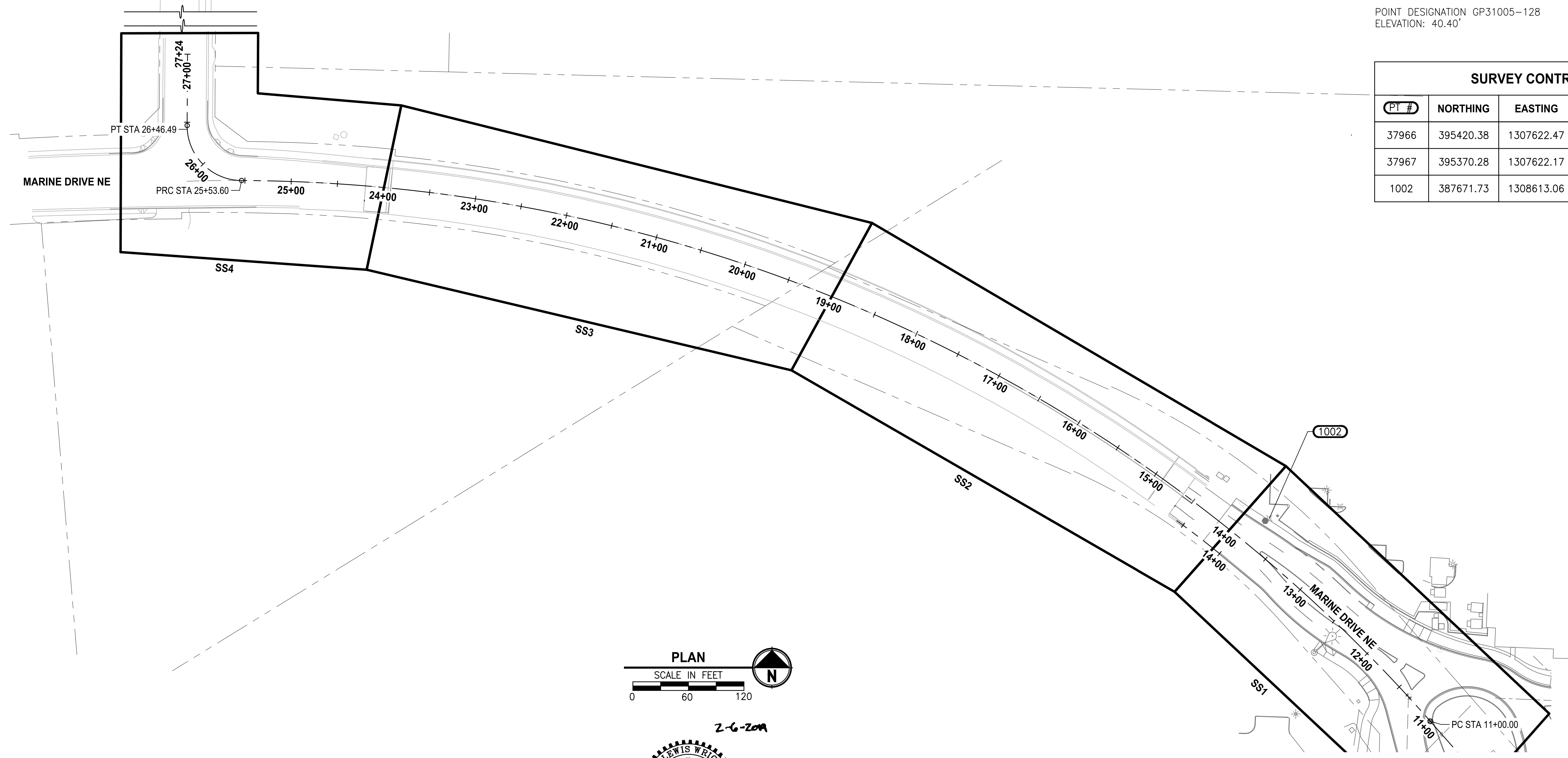
PROJECTION IS WASHINGTON STATE PLANE NORTH ZONE, U.S. SURVEY FEET

POINT DESIGNATION GP31005-128
 NORTHING: 386655.916
 EASTING: 1310030.612

VERTICAL DATUM:
 VERTICAL DATUM IS NAVD88 BASED ON THE WASHINGTON STATE REFERENCE NETWORK (WSRN) WITH VERIFICATION TIE TO THE FOLLOW MONUMENT PUBLISHED BY WSDOT, POINT DESIGNATION GP31005-128.

POINT DESIGNATION GP31005-128
 ELEVATION: 40.40'

SURVEY CONTROL TABLE				
PT #	NORTHING	EASTING	ELEV	DESCRIPTION
37966	395420.38	1307622.47	50.34	FMIC LS#17068
37967	395370.28	1307622.17	49.41	FMIC
1002	387671.73	1308613.06	21.80	XHMAG



2-6-Z0A



REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			DRAWN Y. MAHMOODI
			CHECKED M. OLLIVANT
			APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE.
 IF NOT, SCALE ACCORDINGLY

FILE NAME
 PSI1598101-4thSt-G1-3

JOB No.
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DATE
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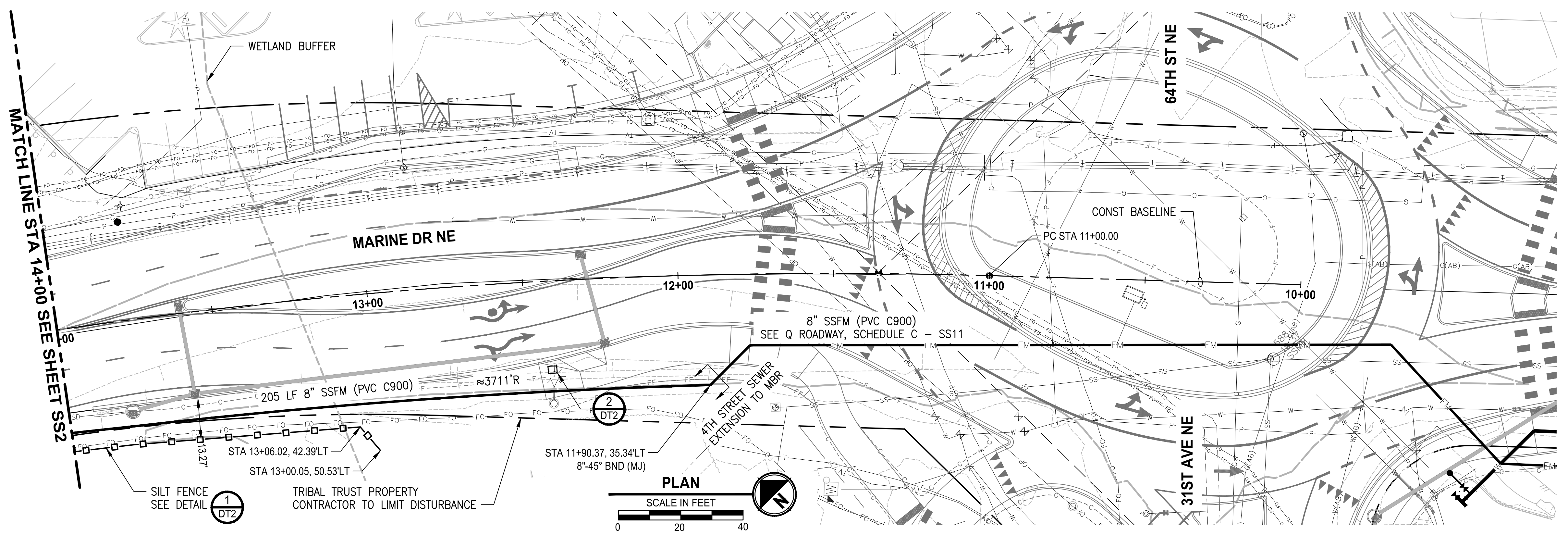
PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

**KEY MAP AND
 HORIZONTAL CONTROL PLAN**

DRAWING NO.
 3 OF 18

G3

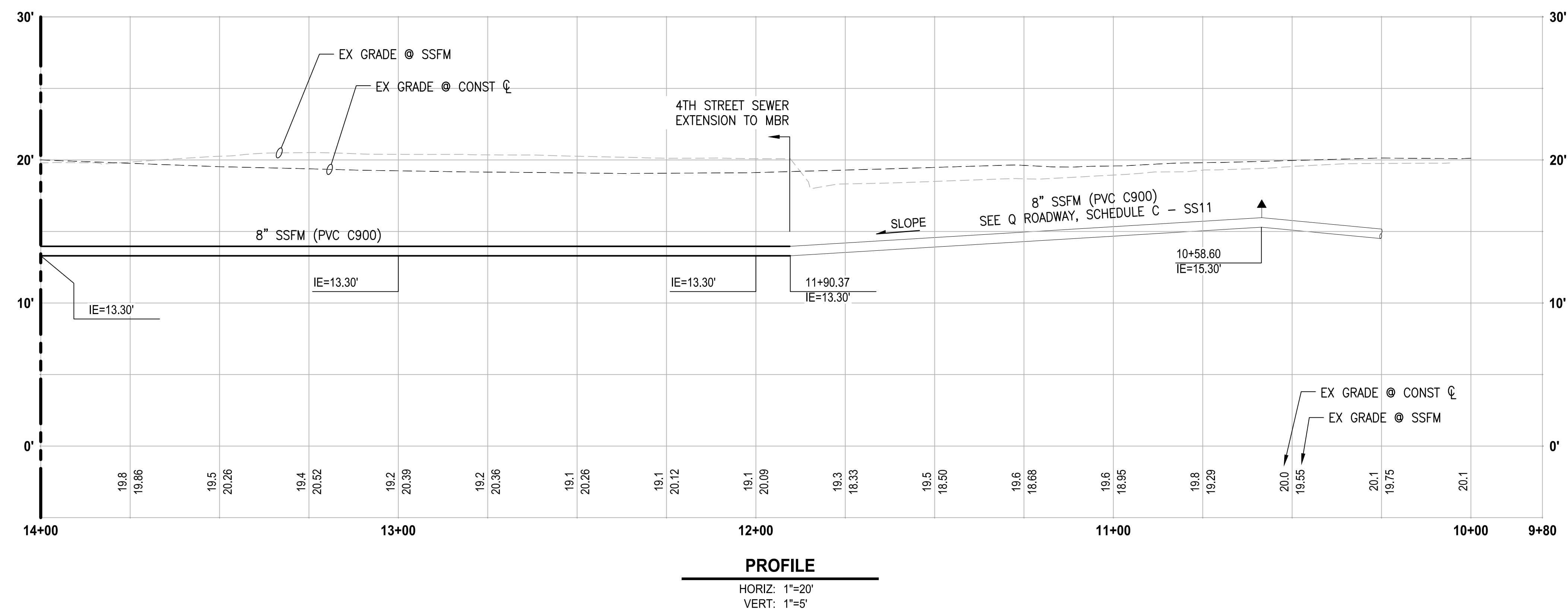
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 DATE: Thursday, February 7, 2019 8:40:03 AM
 PLOTTED BY: peterden
 LAYOUT: SSI



- SANITARY SEWER NOTES:**
1. INSTALL NEW 8" PVC (C900) FORCE MAIN.
 2. INSTALL NEW 12" PVC (SDR 35) SANITARY SEWER.
 3. INSTALL NEW 12"W (D) WATER MAIN.

- CONSTRUCTION NOTES:**
1. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES.
 2. ALL WATER MAIN AND FORCE MAIN JOINTS AND FITTINGS SHALL BE RESTRAINED.
 3. ADJUST ALL EXISTING UTILITIES TO FINISH GRADE.
 4. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE WHEN TRENCHING ACROSS OR BESIDE THESE EXISTING UTILITIES.

- LEGEND:**
- HMA CLASS 1/2" PG 64-22
 - CEMENT CONCRETE



PROFILE
 HORIZ: 1"=20'
 VERT: 1"=5'

2-6-2019



REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			DRAWN
			Y. MAHMOODI
			CHECKED
			M. OLLIVANT
			APPROVED
			H. LONGFELLOW

ONE INCH AT FULL SCALE.
 IF NOT, SCALE ACCORDINGLY

FILE NAME
 PS159810-4thSt-SS1-4

JOB No.
 54-1598-101

DATE
 FEBRUARY 2019

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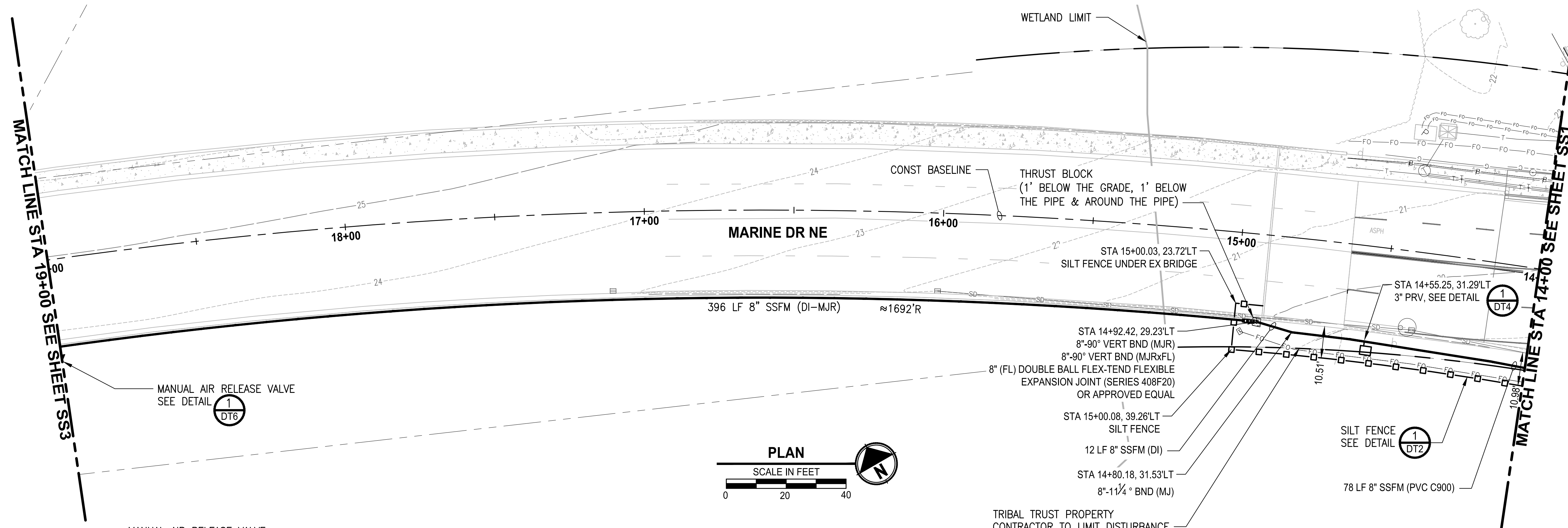
PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

**SANITARY SEWER FORCE MAIN
 PLAN AND PROFILE
 STA 10+00 TO STA 14+00**

DRAWING NO.
 4 OF 18

SS1

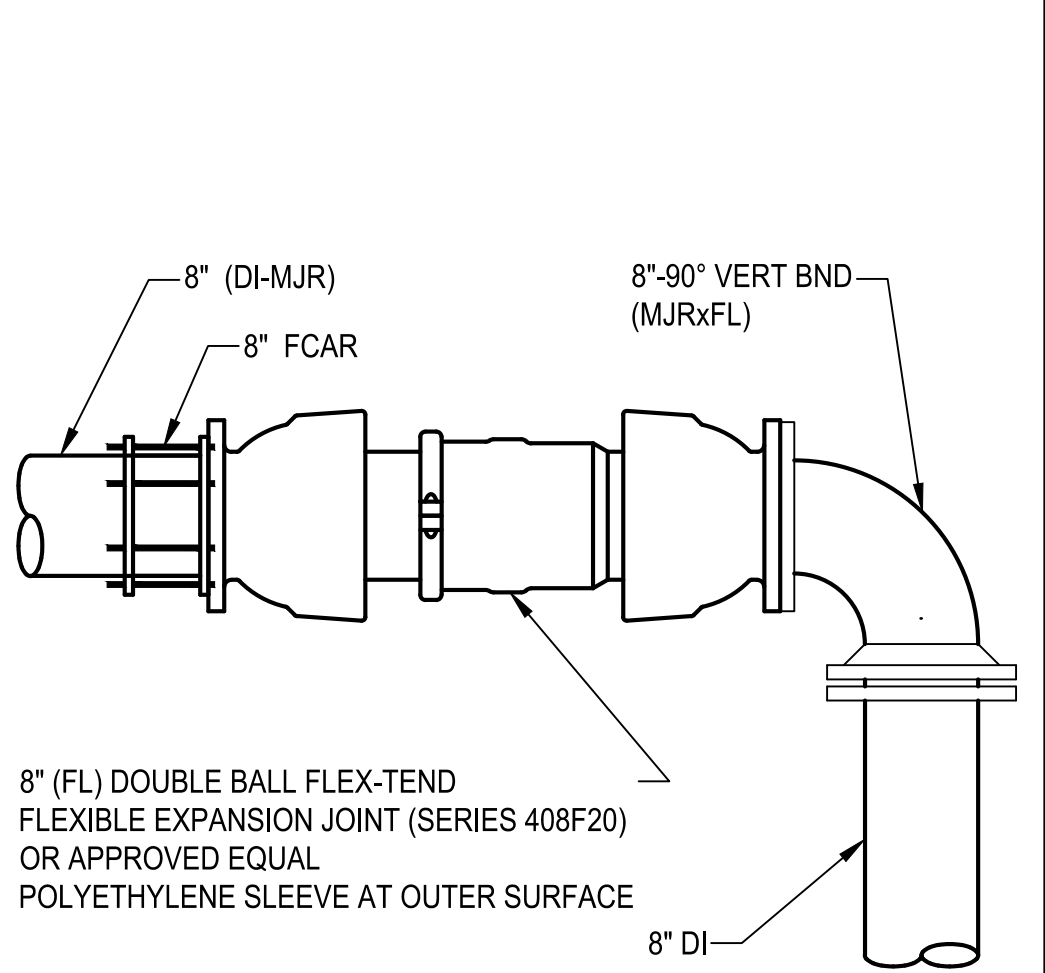
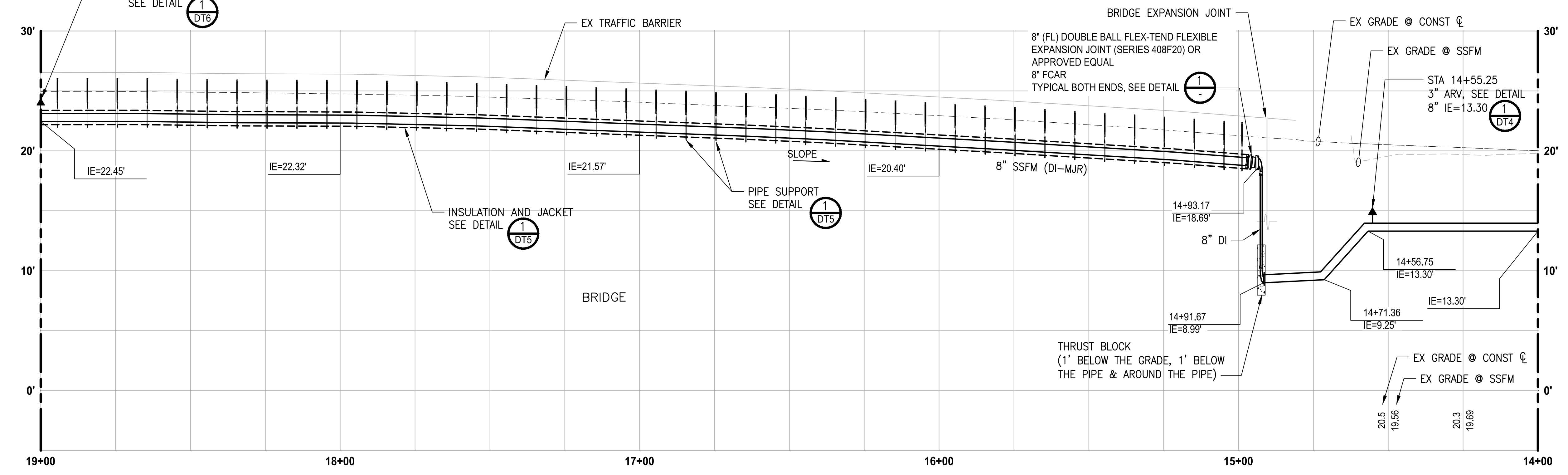
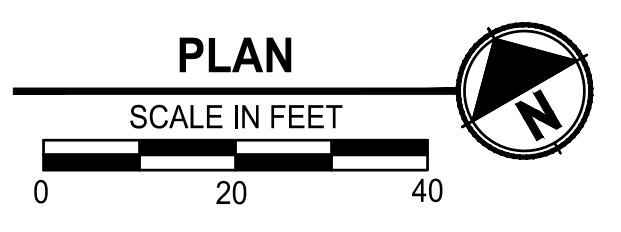
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 PLOTTED BY: peterden DATE: Thursday, February 7, 2019 8:38:20 AM
 LAYOUT: SS2



- SANITARY SEWER NOTES:**
1. INSTALL NEW 8" PVC (C900) FORCE MAIN.
 2. INSTALL NEW 12" PVC (SDR 35) SANITARY SEWER.
 3. INSTALL NEW 12"W (DI) WATER MAIN.

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1. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES.
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 4. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE WHEN TRENCHING ACROSS OR BESIDE THESE EXISTING UTILITIES.

- LEGEND:**
- [Pattern] HMA CLASS 1/2" PG 64-22
 - [Pattern] CEMENT CONCRETE



- NOTES**
1. 8-INCH DOUBLE BALL FLEXIBLE EXPANSION JOINTS SHALL BE FLANGED ON BOTH ENDS AND PROVIDE FOR 4-INCHES OF EXPANSION ON 8-INCHES SSFM.
- DOUBLE BALL FLEX-TEND OR EQUAL COUPLING**

PROFILE
 HORIZ: 1"=20'
 VERT: 1"=5'
 Z-6-Z0A

REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			Y. MAHMOODI
			M. OLLIVANT
			H. LONGFELLOW

ONE INCH AT FULL SCALE.
 IF NOT, SCALE ACCORDINGLY

FILE NAME
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JOB No.
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DATE
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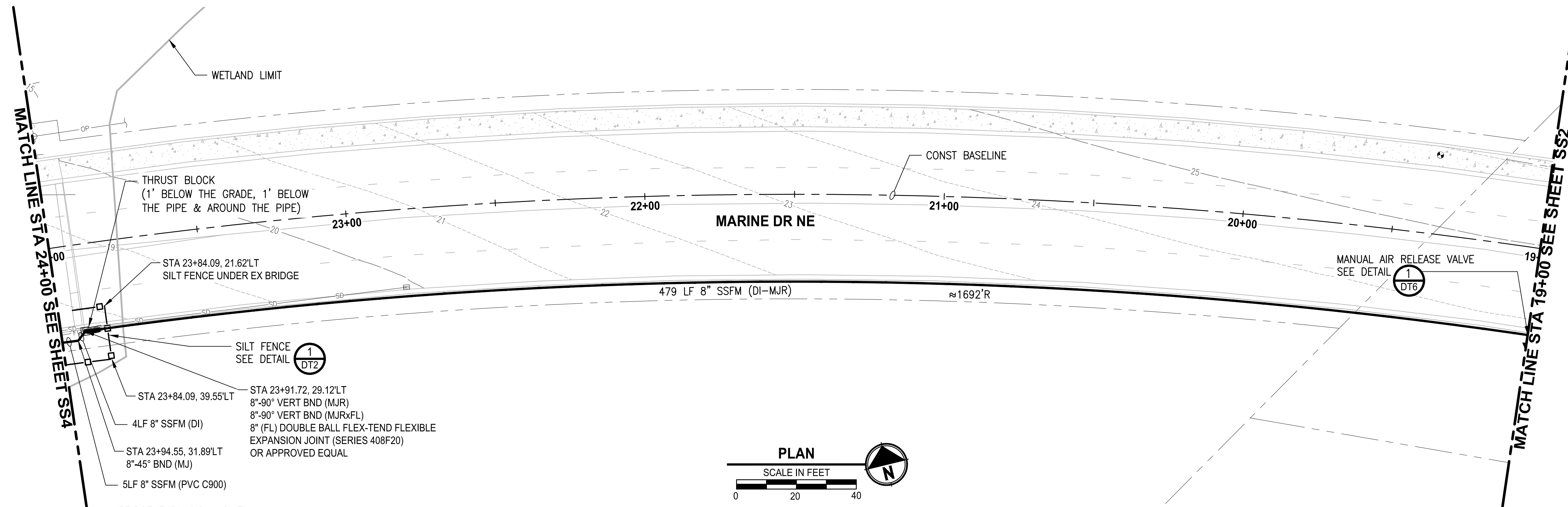
PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

**SANITARY SEWER FORCE MAIN
 PLAN AND PROFILE
 STA 14+00 TO STA 19+00**

DRAWING NO.
 5 OF 18

SS2

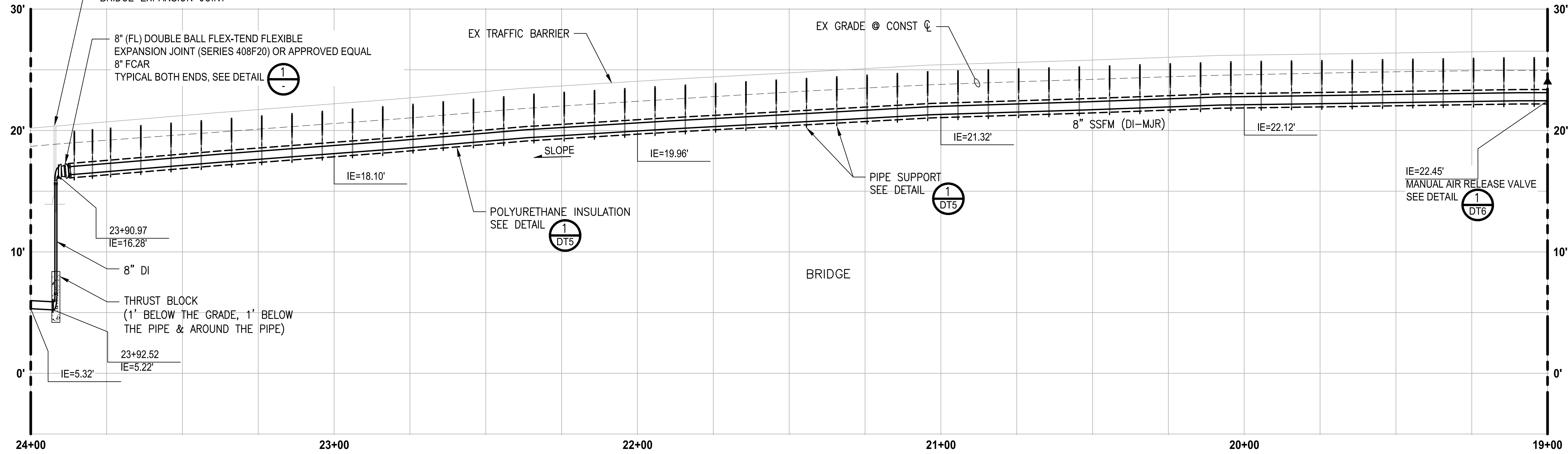
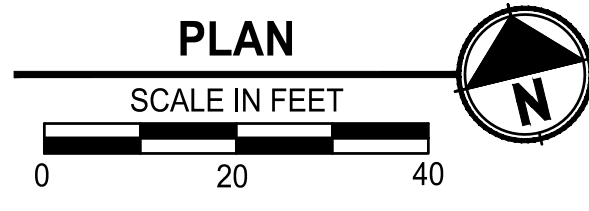
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 PLOTTED BY: peterden DATE: Thursday, February 7, 2019 7:30:18 AM
 LAYOUT: SS3



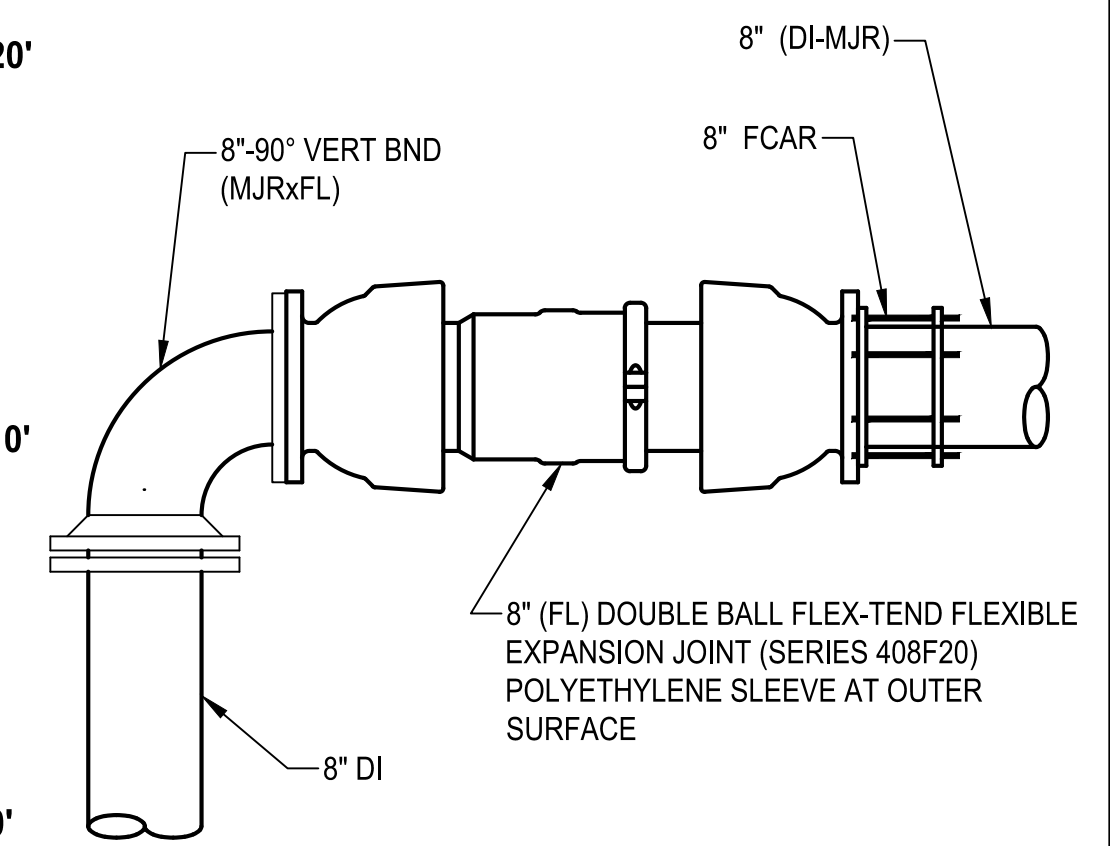
- SANITARY SEWER NOTES:**
1. INSTALL NEW 8" PVC (C900) FORCE MAIN.
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- LEGEND:**
- [Pattern] HMA CLASS 1/2" PG 64-22
 - [Pattern] CEMENT CONCRETE



PROFILE
 HORIZ: 1"=20'
 VERT: 1"=5'



- NOTES**
1. 8-INCH DOUBLE BALL FLEXIBLE EXPANSION JOINTS SHALL BE FLANGED ON BOTH ENDS AND PROVIDE FOR 4-INCHES OF EXPANSION ON 8-INCHES SSFM.
- DOUBLE BALL FLEX-TEND OR EQUAL COUPLING**
- DETAIL**
 NO SCALE

2-6-2019



REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			DRAWN
			Y. MAHMOODI
			CHECKED
			M. OLLIVANT
			APPROVED
			H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY.

FILE NAME: PS159810-4thSt-SS1-4
 JOB No: 554-1598-101
 DATE: FEBRUARY 2019

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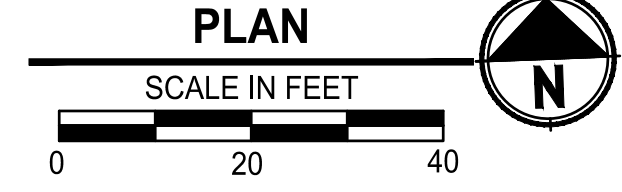
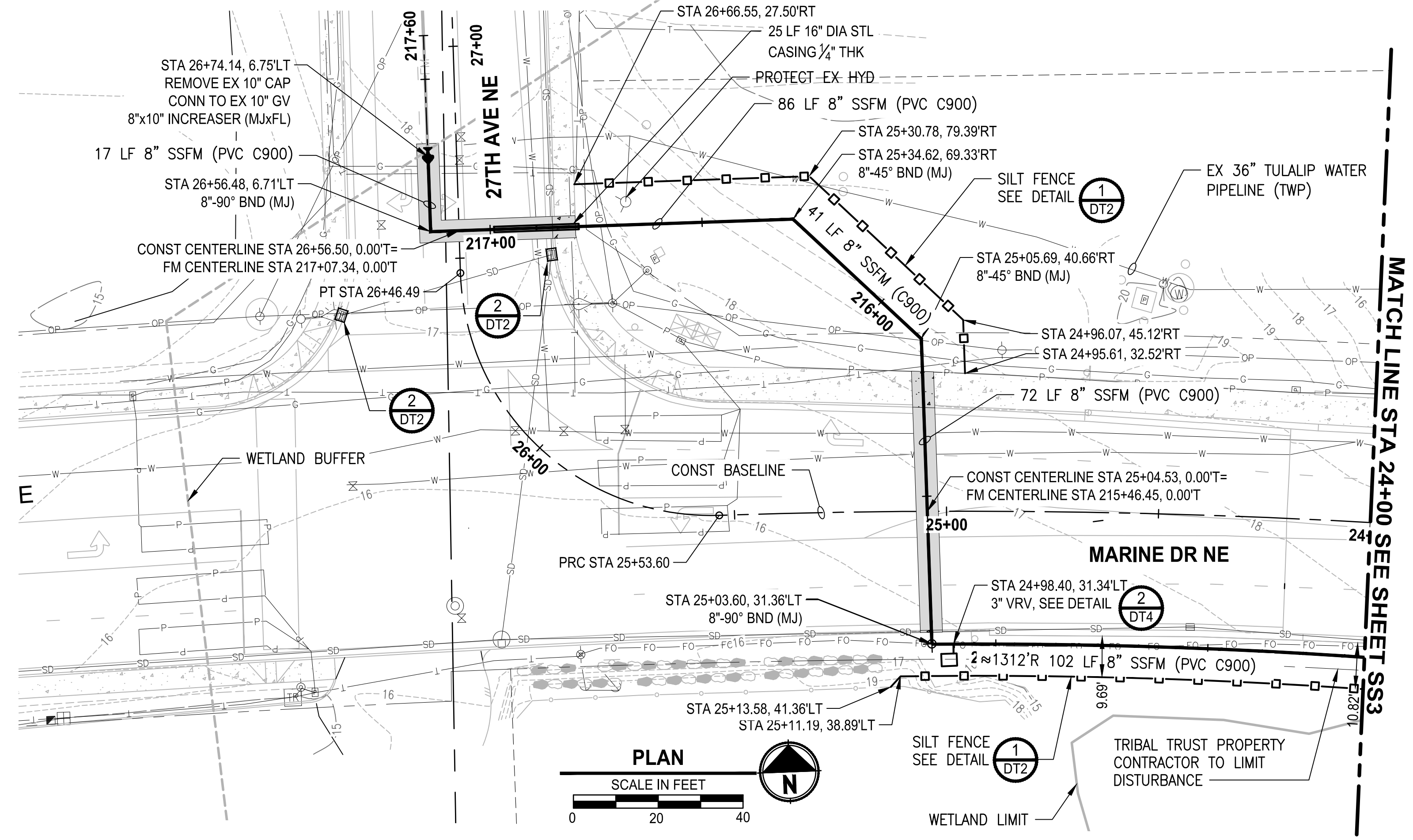
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 P 253.604.6600
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4TH STREET SEWER EXTENSION TO
MBR PLANT
 TULALIP, WASHINGTON

SANITARY SEWER FORCE MAIN
PLAN AND PROFILE
STA 19+00 TO STA 24+00

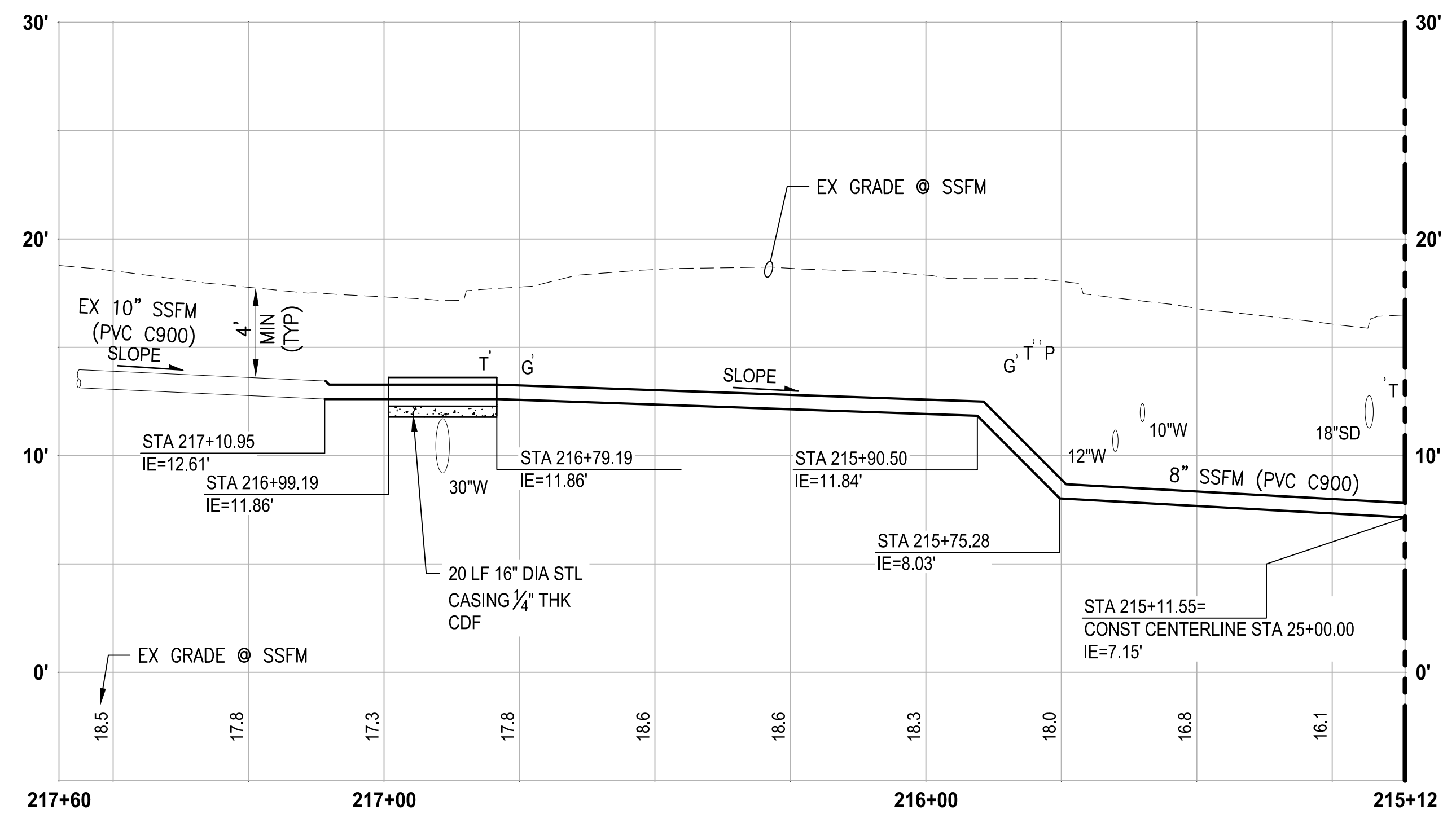
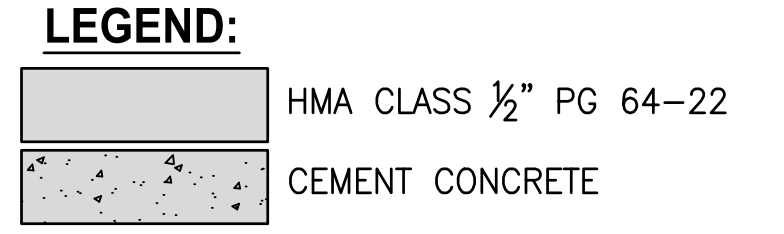
DRAWING NO.
 6 OF 18
SS3

PATH: U:\PSO\Projects\Clients\1598-TulalipTribes\1598-TulalipTribes\CADD\DWG\PH 3 4th St Sewer Extension to MBR
 LAYOUT: SS4
 PLOTTED BY: peterden DATE: Thursday, February 7, 2019 7:31:29 AM

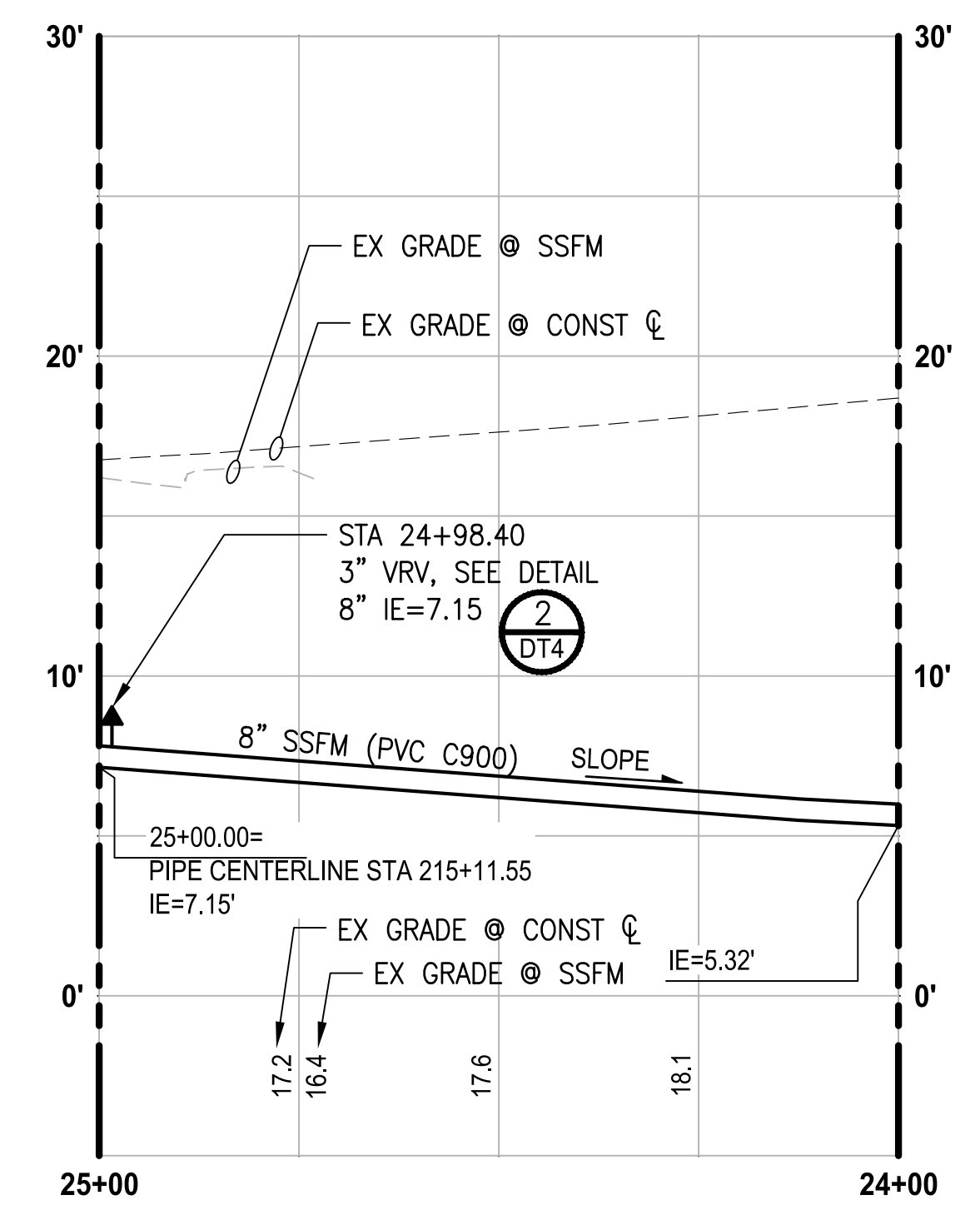


- SANITARY SEWER NOTES:**
1. INSTALL NEW 8" PVC (C900) FORCE MAIN.
 2. INSTALL NEW 12" PVC (SDR 35) SANITARY SEWER.
 3. INSTALL NEW 12"W (DI) WATER MAIN.

- CONSTRUCTION NOTES:**
1. CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES.
 2. ALL WATER MAIN AND FORCE MAIN JOINTS AND FITTINGS SHALL BE RESTRAINED.
 3. ADJUST ALL EXISTING UTILITIES TO FINISH GRADE.
 4. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE WHEN TRENCHING ACROSS OR BESIDE THESE EXISTING UTILITIES.



PROFILE
 HORIZ: 1"=20'
 VERT: 1"=5'



PROFILE
 HORIZ: 1"=20'
 VERT: 1"=5'

2-6-2019



REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			DRAWN
			Y. MAHMOODI
			CHECKED
			M. OLLIVANT
			APPROVED
			H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY.
 FILE NAME: PS159810-4thSt-SS1-4
 JOB No: 1598-101
 DATE: FEBRUARY 2019

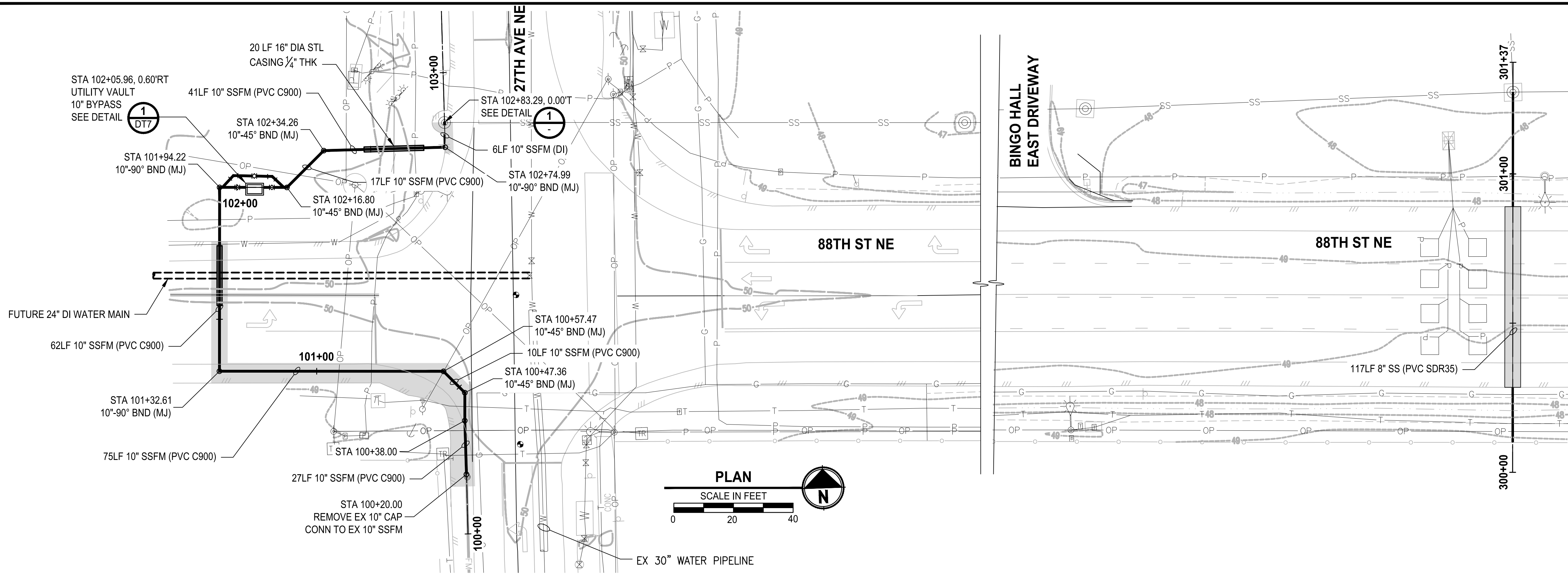
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PROJECT NAME
THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT
 TULALIP, WASHINGTON

SANITARY SEWER FORCE MAIN
PLAN AND PROFILE
STA 24+00 TO STA 27+00

DRAWING NO.
 7 OF 18
SS4

PATH: U:\PSO\Projects\Clients\Tulip Tribes\1598-Tulip Tribes\554-1598-101_0Rdw\improvements\front\99\SS5\CADD\DWG\PH 3 4th St Sewer Extension to MBR
 LAYOUT: SS5
 PLOTTED BY: mchmoyou DATE: Thursday, February 07, 2019 11:50:51 AM



SANITARY SEWER NOTES:

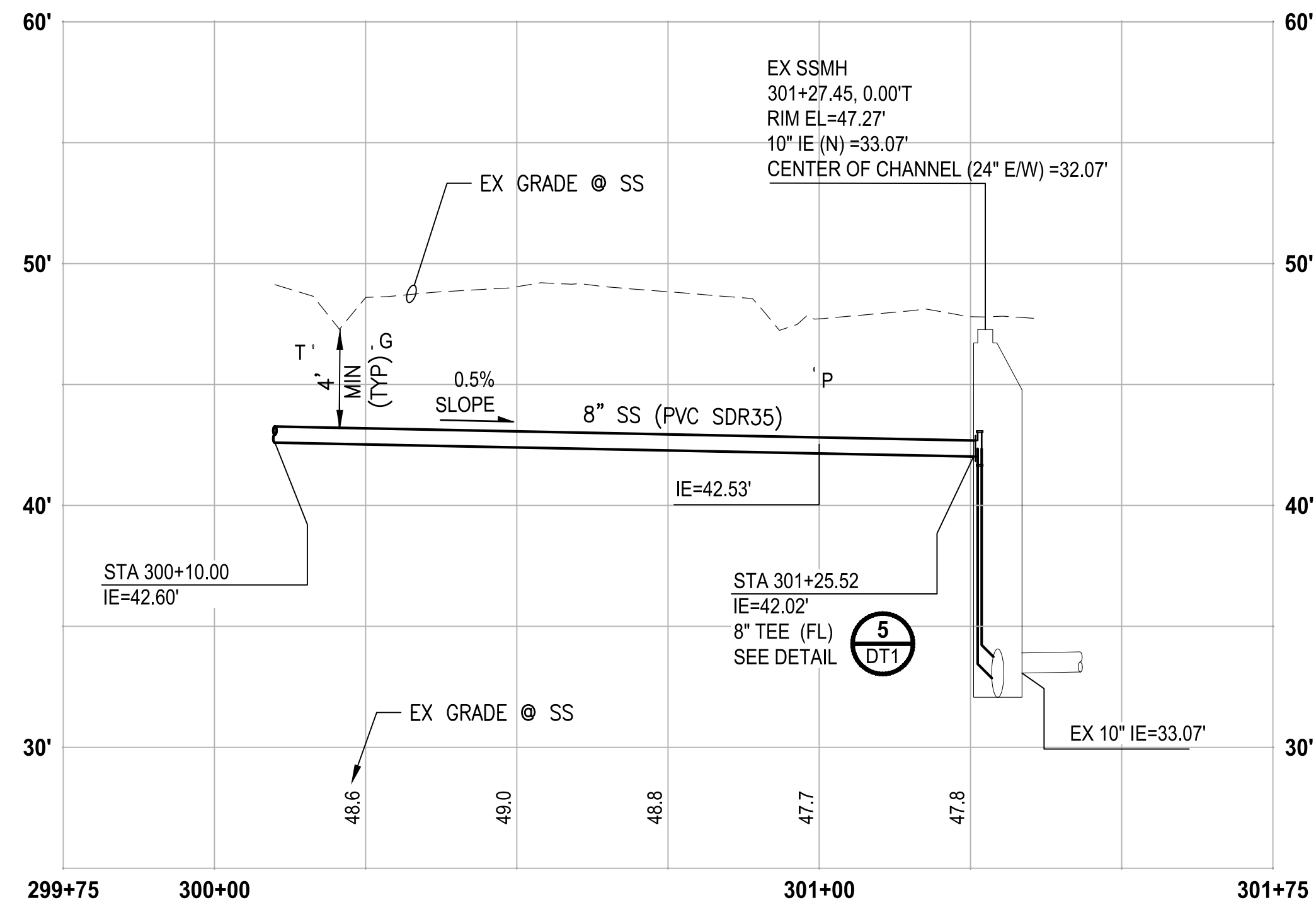
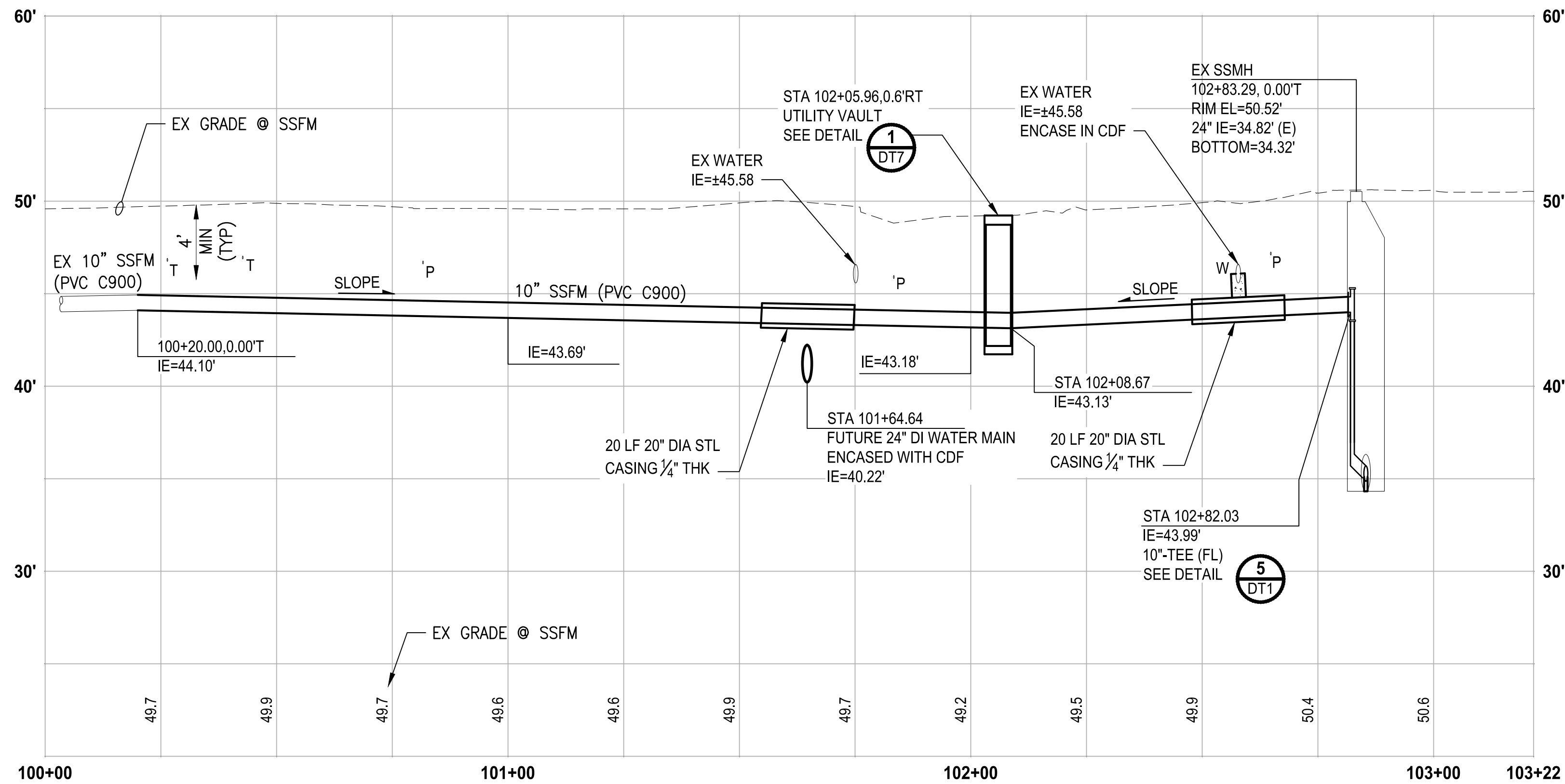
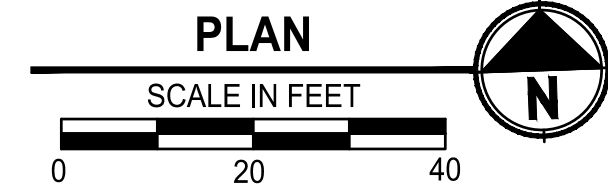
1. INSTALL NEW 8" PVC (C900) FORCE MAIN.
2. INSTALL NEW 12" PVC (SDR 35) SANITARY SEWER.
3. INSTALL NEW 12"W (DI) WATER MAIN.

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3. ADJUST ALL EXISTING UTILITIES TO FINISH GRADE.
4. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE WHEN TRENCHING ACROSS OR BESIDE THESE EXISTING UTILITIES.

LEGEND:

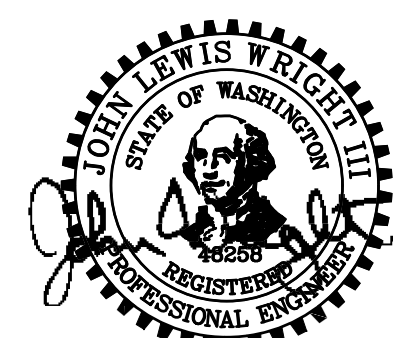
- HMA CLASS 1/2" PG 64-22
- CEMENT CONCRETE



PROFILE
 HORIZ: 1"=20'
 VERT: 1"=5'

REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			Y. MAHMOODI
			M. OLLIVANT
			H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY.
 FILE NAME: PS1598101-4thSt-SS5
 JOB No: 554-1598-101
 DATE: FEBRUARY 2019



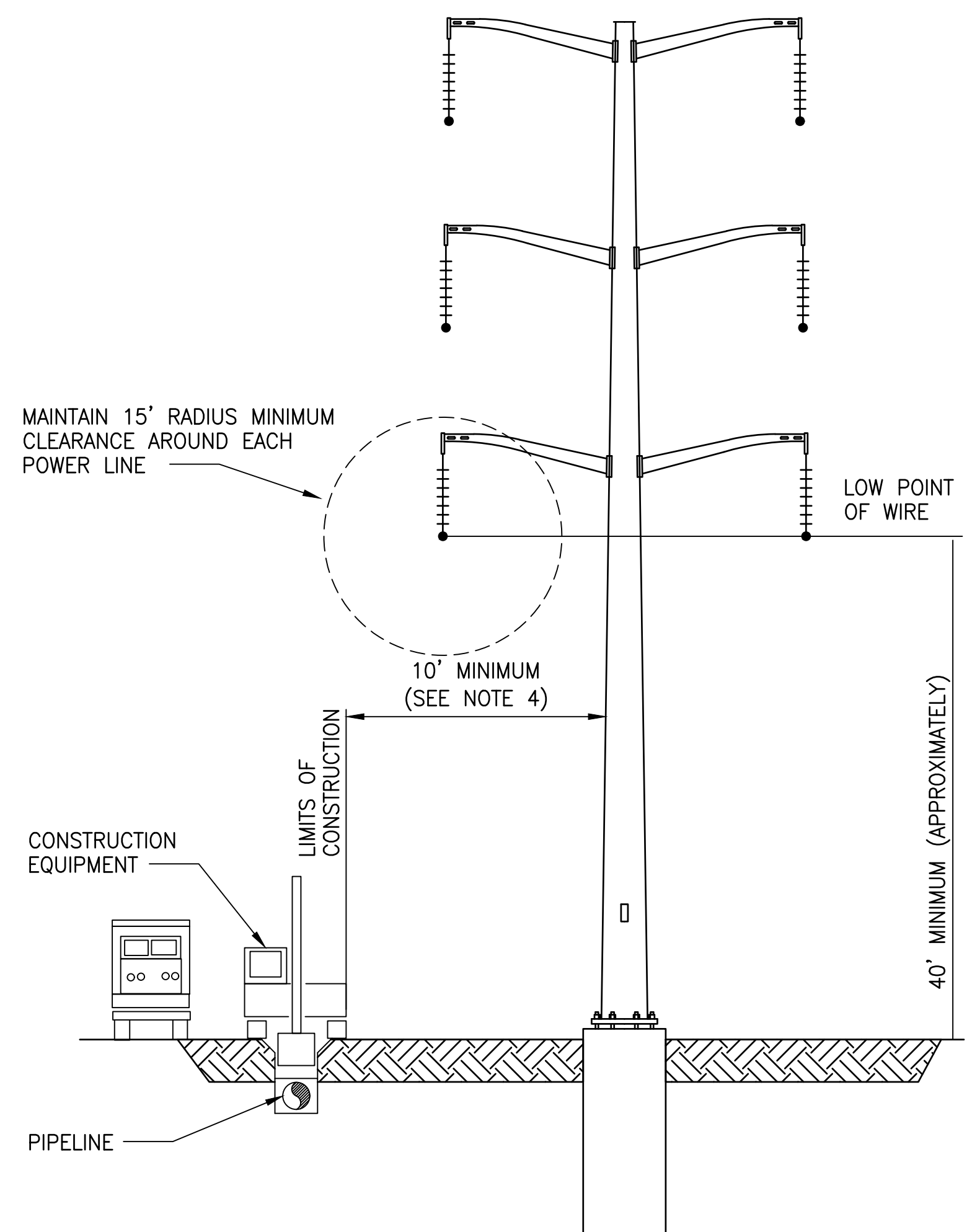
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PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

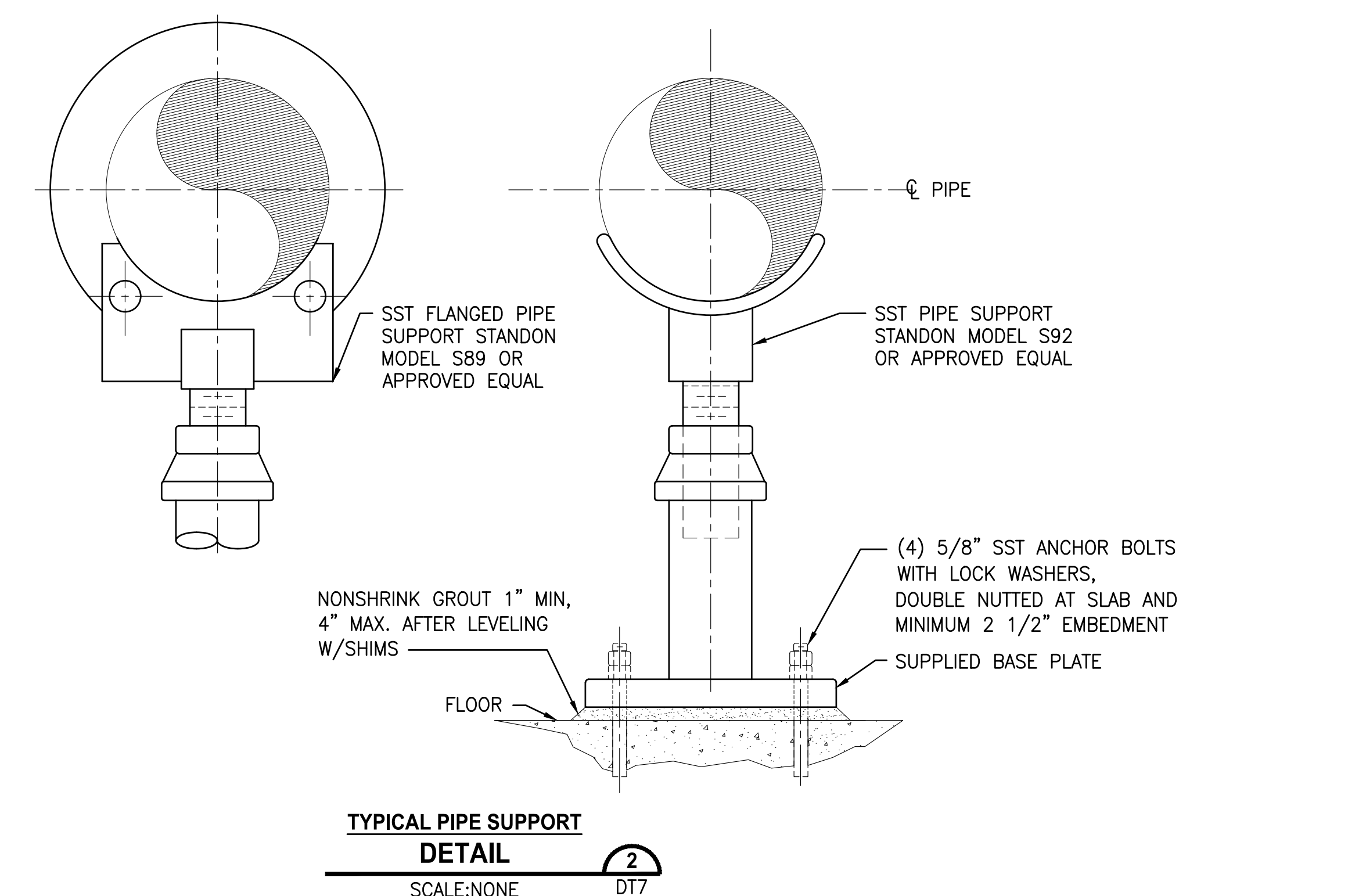
**SANITARY SEWER FORCE MAIN
 PLAN AND PROFILE
 STA 100+00 TO END OF PROJECT**

DRAWING NO.
 8 OF 18
SS5

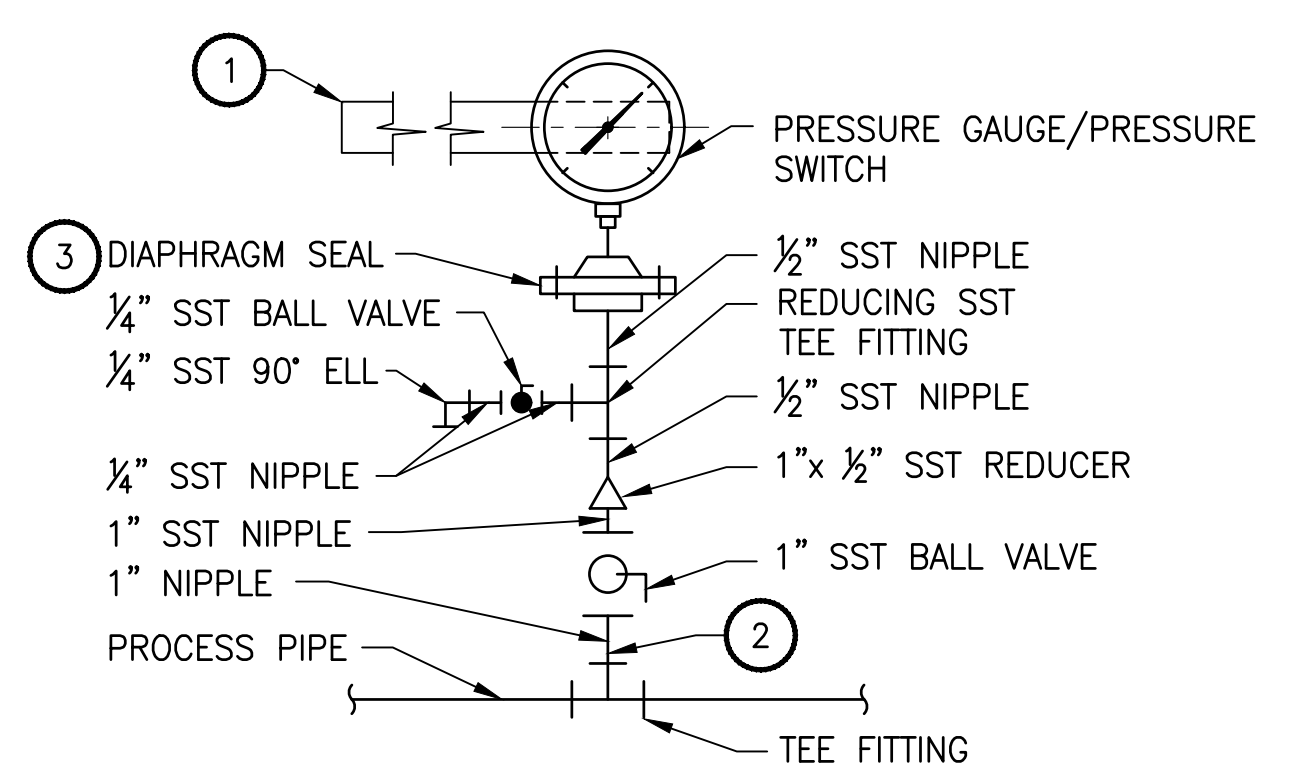
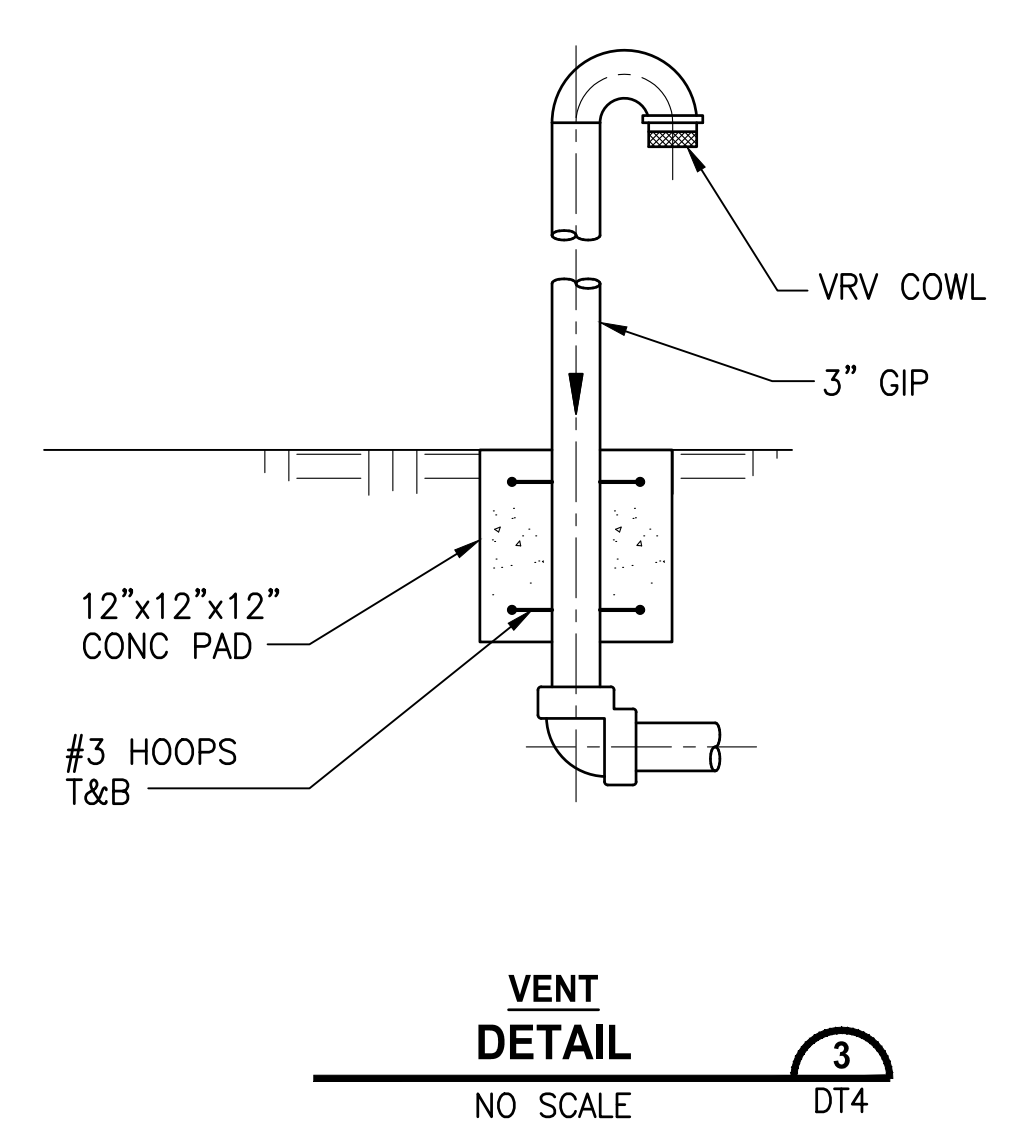
PATH: U:\PSOX\Projects\Clients\1598-Tulalip Tribes\1598-101 ORWYMPROVE\Infrast\985\Spec\CADD\DWG\PH_3_4th St Sewer Extension to MBR\



- NOTES:**
1. THE CONTRACTOR WORKING ADJACENT TO OR UNDERNEATH POWER LINES SHALL MEET THE REQUIREMENTS OF WAC 296-24-960.
 2. HIGH VOLTAGE TRANSMISSION WIRES ARE LOCATED IMMEDIATELY ABOVE THE CONSTRUCTION LIMITS AREA. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN MOBILIZED ADJACENT TO OR DIRECTLY BELOW POWER LINES, PARTICULARLY WHEN USING EQUIPMENT WITH EXTENDED BOOM OR BUCKET. SNOHOMISH PUBLIC UTILITY DISTRICT REQUIRES MINIMUM CLEARANCE FROM EACH POWER LINE OF 15 FT RADIUS. SEE ADDITIONAL REQUIREMENTS IN SPECIFICATION SECTION 011400 AND SECTION 015010.
 3. HEIGHT OF POWER LINE IS LOWEST AT APPROXIMATELY THE CENTER OF SPAN WHERE SAG IS GREATEST. SAG MAY INCREASE DURING WINDY OR VARYING CLIMATE CONDITIONS.
 4. TOWER FOOTINGS VARY IN CONSTRUCTION BUT ARE APPROXIMATELY 24 TO 44 FEET BELOW FINISH GRADE. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THAT THE TOWER FOOTINGS ARE NOT UNDERMINED. CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 10 FEET BETWEEN EXCAVATIONS AND TOWER FOOTINGS.
 5. SEE EASEMENT AND PERMIT AGREEMENTS IN THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 6. SAFETY WATCH. THE CONTRACTOR SHALL ENTER INTO AN AGREEMENT WITH SNOHOMISH COUNTY PUBLIC UTILITY DISTRICT NO. 1 FOR A SAFETY WATCH FOR ALL WORK PERFORMED WITHIN 15 FT OF POWER LINES. ALL COSTS ASSOCIATED WITH THE SAFETY WATCH SHALL BE BORNE BY THE CONTRACTOR.
 7. IN CASE OF EMERGENCY, CALL SNOHOMISH COUNTY PUBLIC UTILITY DISTRICT AT 425-783-1000 TO DISPATCH A QUALIFIED ELECTRICAL WORKER. FOR GENERAL CONTACT INFORMATION SEE PUBLIC UTILITY CONTACTS, _____.

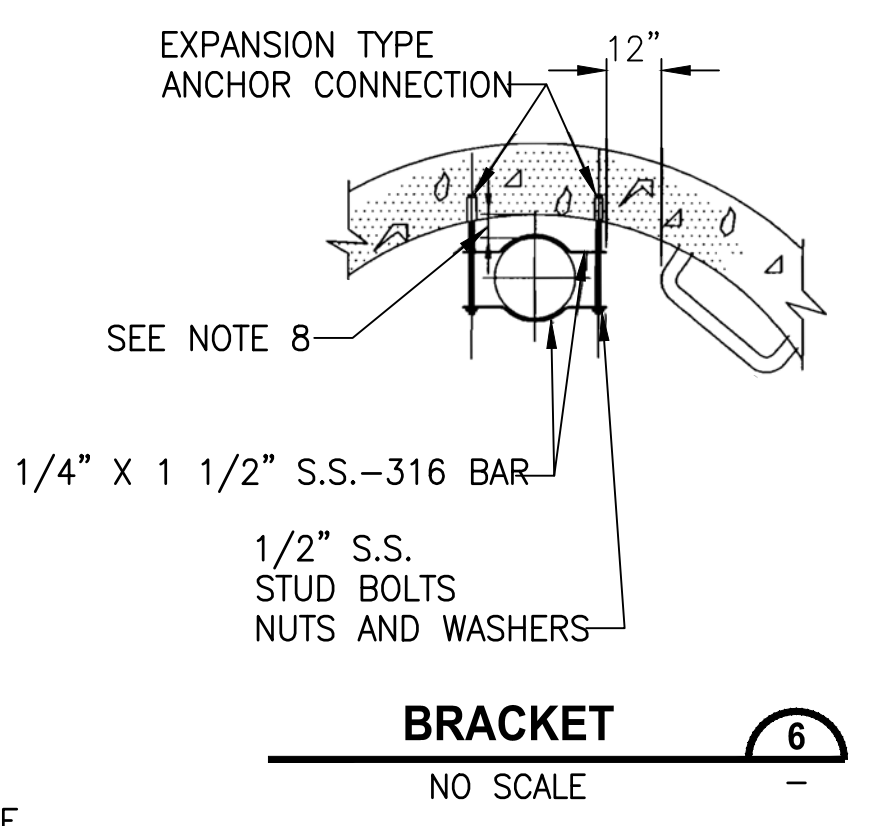
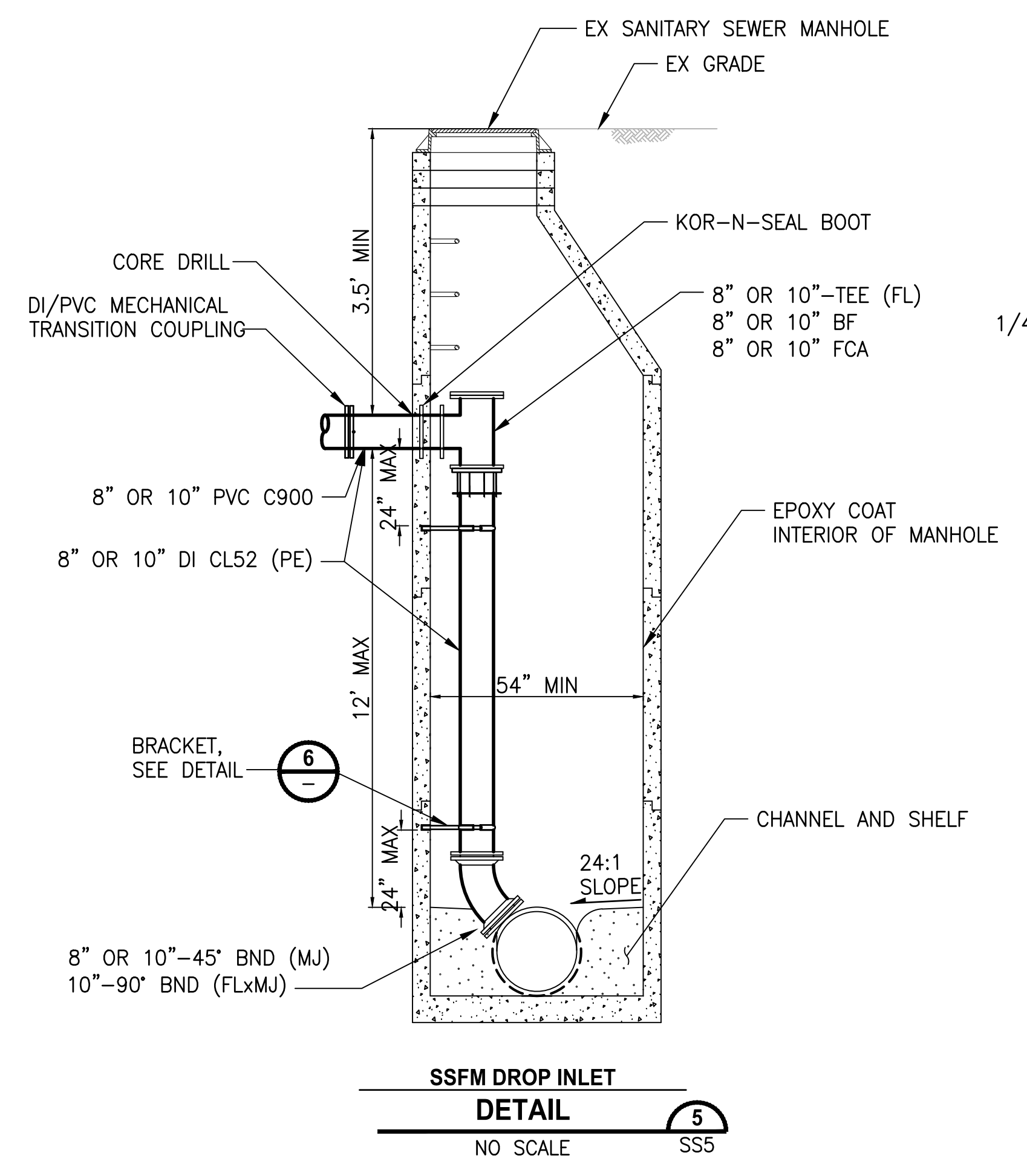


SNOHOMISH PUBLIC UTILITY DISTRICT NO. 1 HIGH VOLTAGE TRANSMISSION LINE CLEARANCE DETAIL
NO SCALE TYP



- NOTES:**
- 1 SST INSTRUMENT BRACE (FB 1/2"x LENGTH AS REQD), BOLT TO BACKSIDE OF INSTRUMENT CASE AND ATTACH ADJOINING END TO SUPPORT STRUCTURE OR PIPING WITH SST CLAMPS & MOUNTING HARDWARE.
 - 2 FOR PVC PIPE GREATER THAN 3", PROVIDE AN ADDITIONAL REDUCER FITTING AND NIPPLES AS REQD.
 - 3 PROVIDE DIAPHRAGM SEAL AT THE LOCATIONS SHOWN ON THE P&ID DRAWINGS.

PRESSURE GAUGE/SWITCH TYPICAL MOUNTING DETAIL
NO SCALE TYP



- NOTES:**
1. BRACKETS SHALL BE PLACED A MAXIMUM OF 10' APART VERTICAL, DROP SHALL BE 8" DIA MIN FOR MAIN LINES AND 6" DIA FOR SIDE SEWERS.
 2. INVERT TO BE RECHANNELED AS REQUIRED.
 3. USE DEAD-END CHANNEL FOR MANHOLES WITH INVERT LINERS.
 4. ONLY ONE INSIDE DROP STRUCTURE PER 54"Ø MANHOLE.
 5. TWO INSIDE DROP STRUCTURES REQUIRE A 72"Ø MANHOLE.
 6. LADDER MUST BE INSTALLED ONE FOOT FROM THE DROP STRUCTURE (MEASURED EDGE TO EDGE) FROM THE MANHOLE SHELF TO THE DUCTILE IRON TEE.
 7. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE COATED PER THE SPECIFICATIONS SECTION 7-05.3.
 8. THE DISTANCE FROM MANHOLE WALL TO INSIDE DROP SHALLA 7.45" FOR 6"Ø, 7.4" FOR 8"Ø, AND 8.2" FOR 10"Ø D.I.P.

REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			DRAWN D. PETERSON
			CHECKED M. OLLIVANT
			APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE, IF NOT, SCALE ACCORDINGLY
 FILE NAME: PS1598101-4thSt-DT1-7
 JOB No: 594-1598-101
 DATE: FEBRUARY 2019

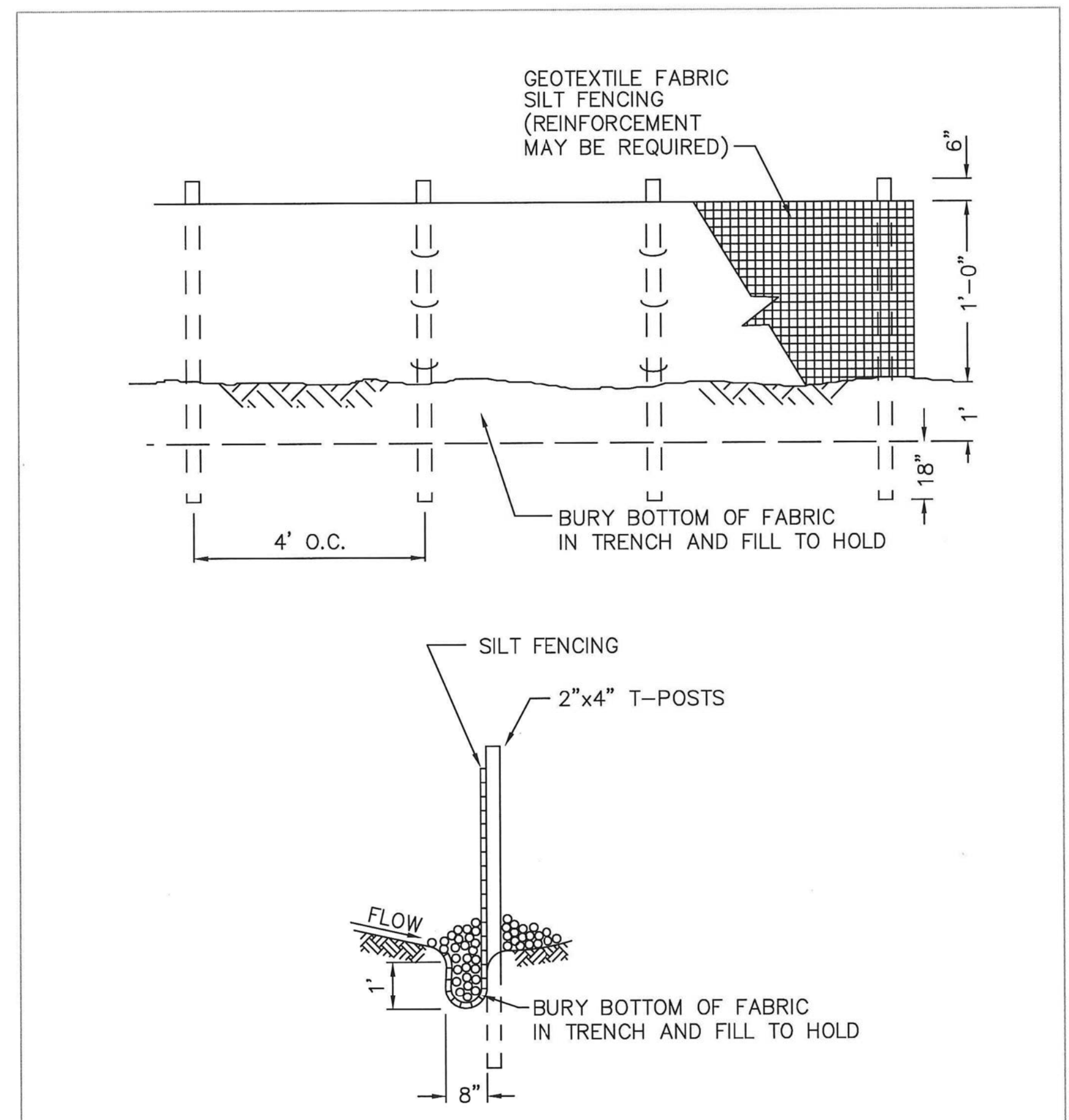


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PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

UTILITY DETAILS
 DRAWING NO. 9 OF 18
DT1

PATH: U:\PSO\Projects\Clients\1598-TulipTribes\1598-101_0Rdw\improve\infrastr\99\Specs\CADD\DWG\PH_3_4th St_Sewer_Extension to MBR\ LAYOUT: DT2 PLOTTED BY: peterden DATE: Thursday, February 7, 2019 7:34:17 AM



NOTE:
1. SEE SECTION 4-080E FOR FABRIC SPECIFICATIONS

APPROVED BY *Kevin Nathan* 5/15/15
 MARYSVILLE CITY ENGINEER DATE

SILT FENCE DETAIL

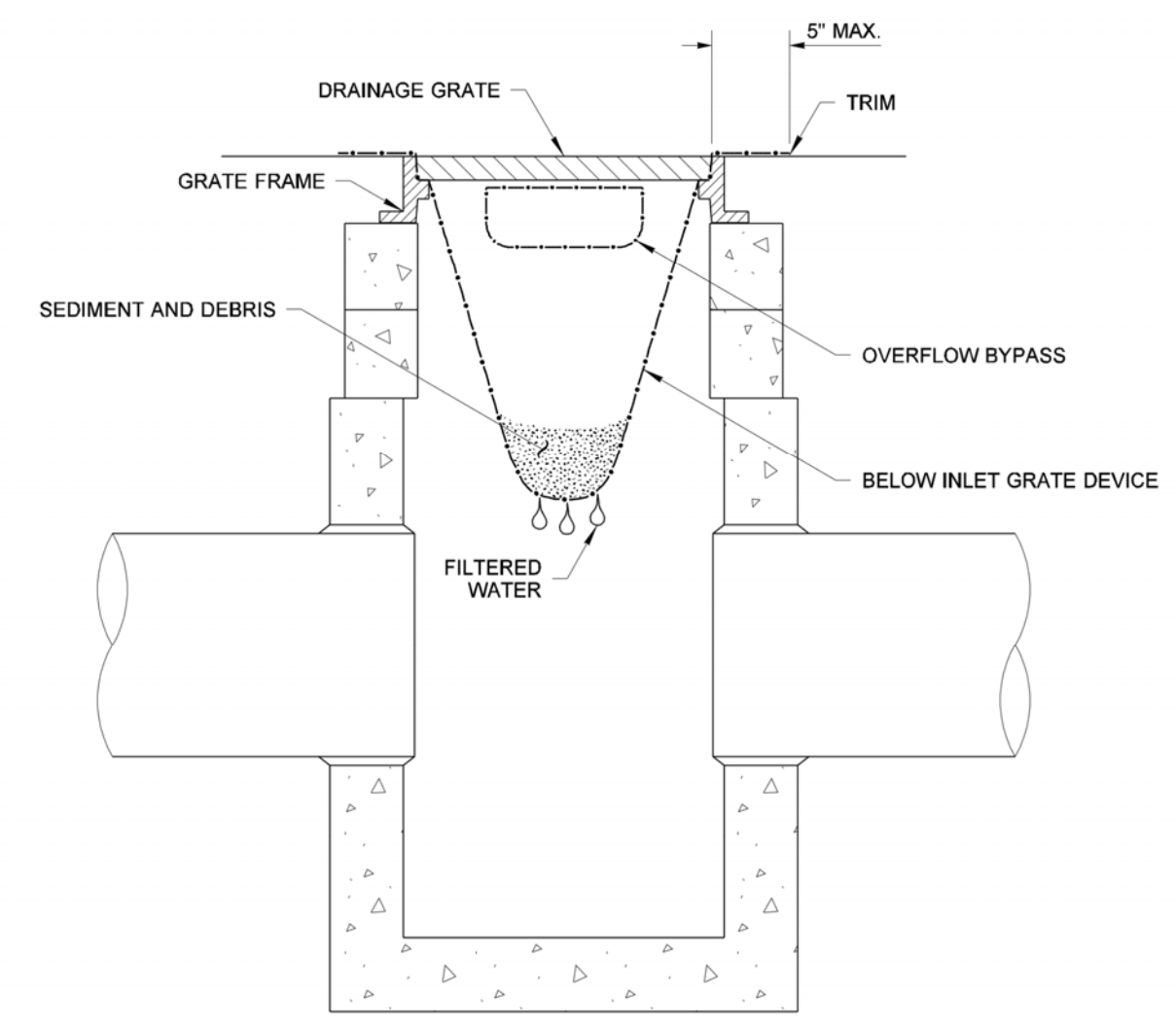
CITY OF **Marysville** WASHINGTON

STANDARD PLAN 4-040-008

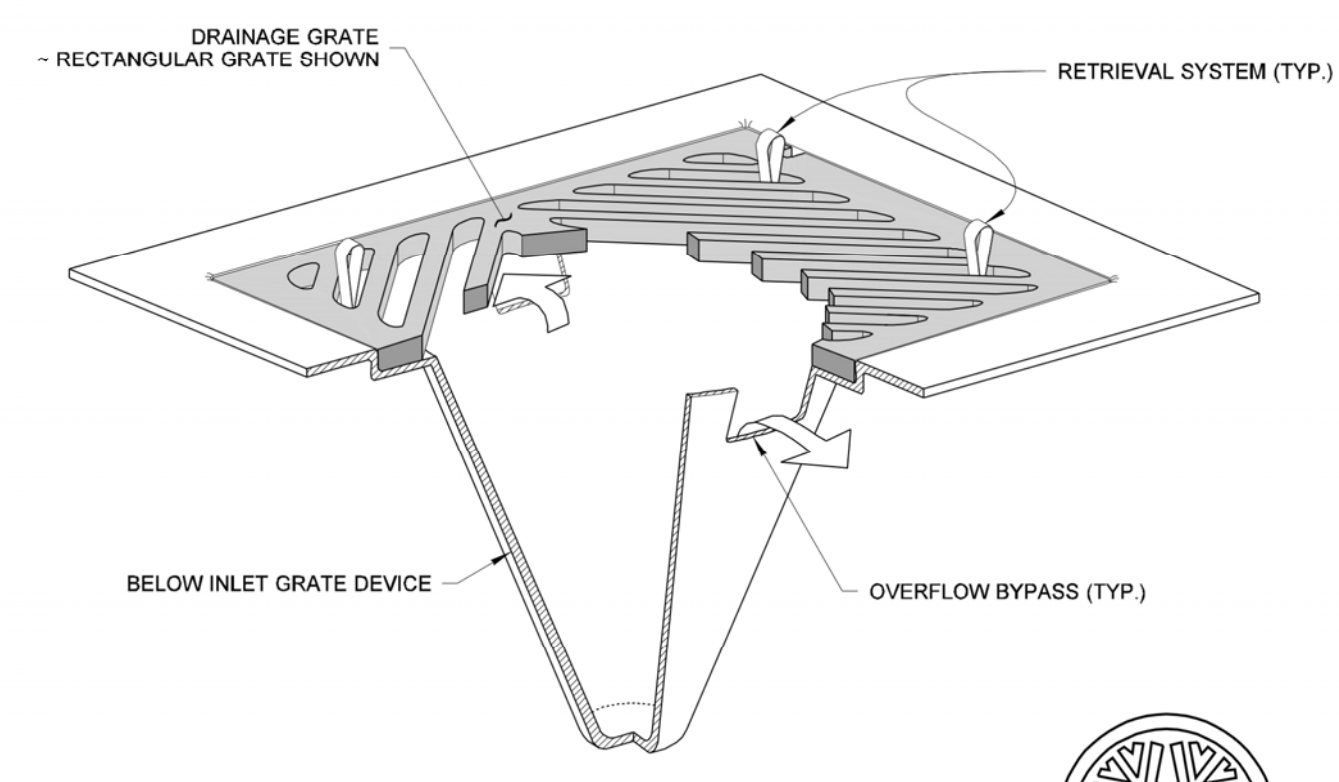
LAST REVISED 03/24/15

DETAIL 1
NTS

DRAWN BY: LISA CYFORD



SECTION VIEW
NOT TO SCALE



ISOMETRIC VIEW

- NOTES**
1. Size the Below Inlet Grate Device (BIGD) for the storm water structure it will service.
 2. The BIGD shall have a built-in high-flow relief system (overflow bypass).
 3. The retrieval system must allow removal of the BIGD without spilling the collected material.
 4. Perform maintenance in accordance with Standard Specification 8-01.3(15).

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
MARK W. MAURER
 CERTIFICATE NO. 000598

STORM DRAIN INLET PROTECTION
 STANDARD PLAN I-40.20-00
 SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
Pasco Bakotich III 09-20-07
 STATE DESIGN ENGINEER DATE
 Washington State Department of Transportation

DETAIL 2
NTS

2-6-20A



REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			D. PETERSON
			M. OLLIVANT
			H. LONGFELLOW

ONE INCH AT FULL SCALE. IF NOT, SCALE ACCORDINGLY

FILE NAME: PSI1598101-4thSt-DT1-7
 JOB No: 554-1598-101
 DATE: FEBRUARY 2019

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PROJECT NAME
THE TULALIP TRIBES
4TH STREET SEWER EXTENSION TO
MBR PLANT
 TULALIP, WASHINGTON

UTILITY DETAILS

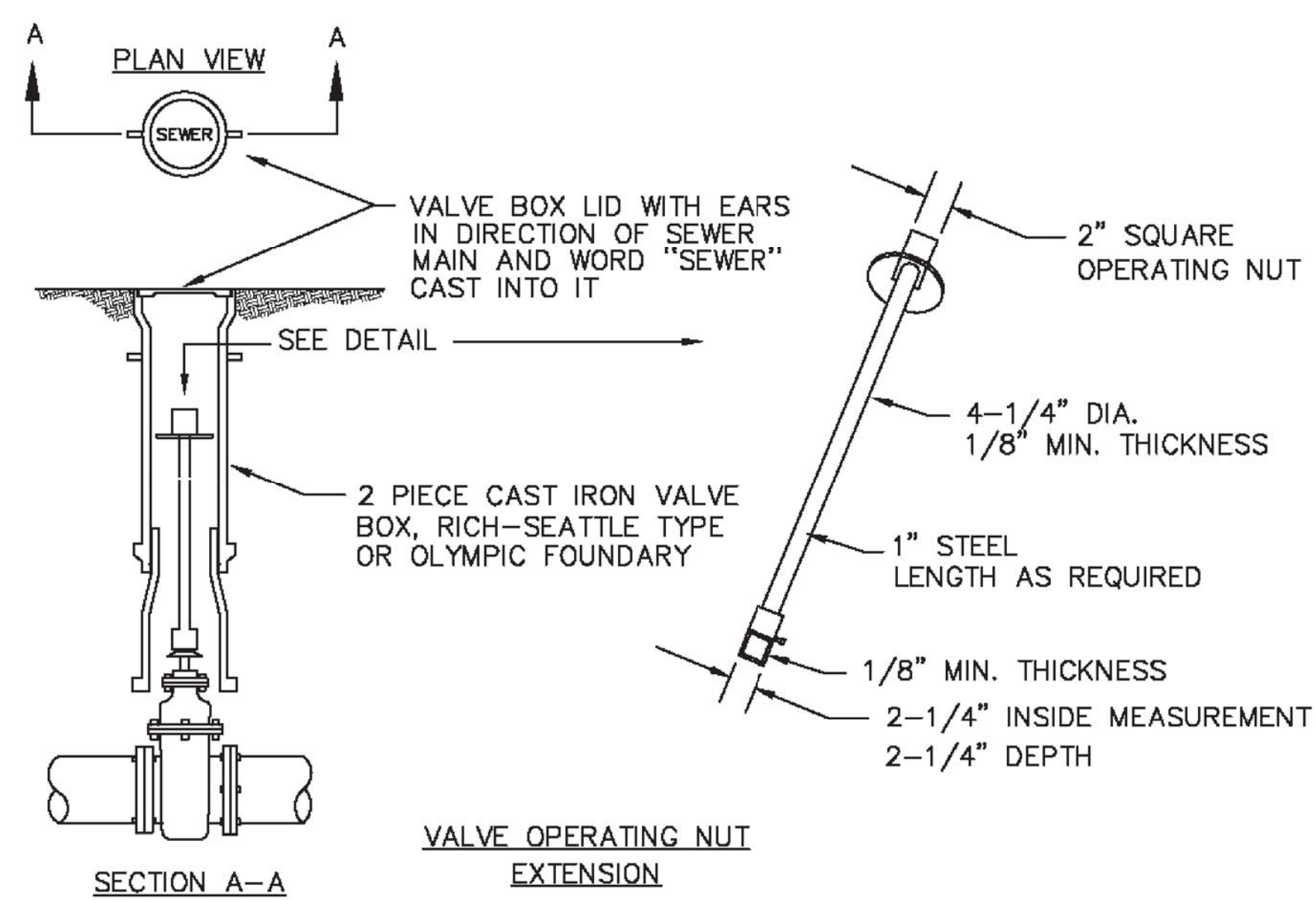
DRAWING NO.
10 OF 18

DT2

PATH: U:\PSO\Projects\Clients\TulipTribes\1598-101_0Rdw\improve\fract\99Sves\CADD\DWG\PH 3 4th St Sewer Extension to MBR\

 LAYOUT: DT3

 PLOTTED BY: peterden DATE: Thursday, February 7, 2019 7:35:17 AM

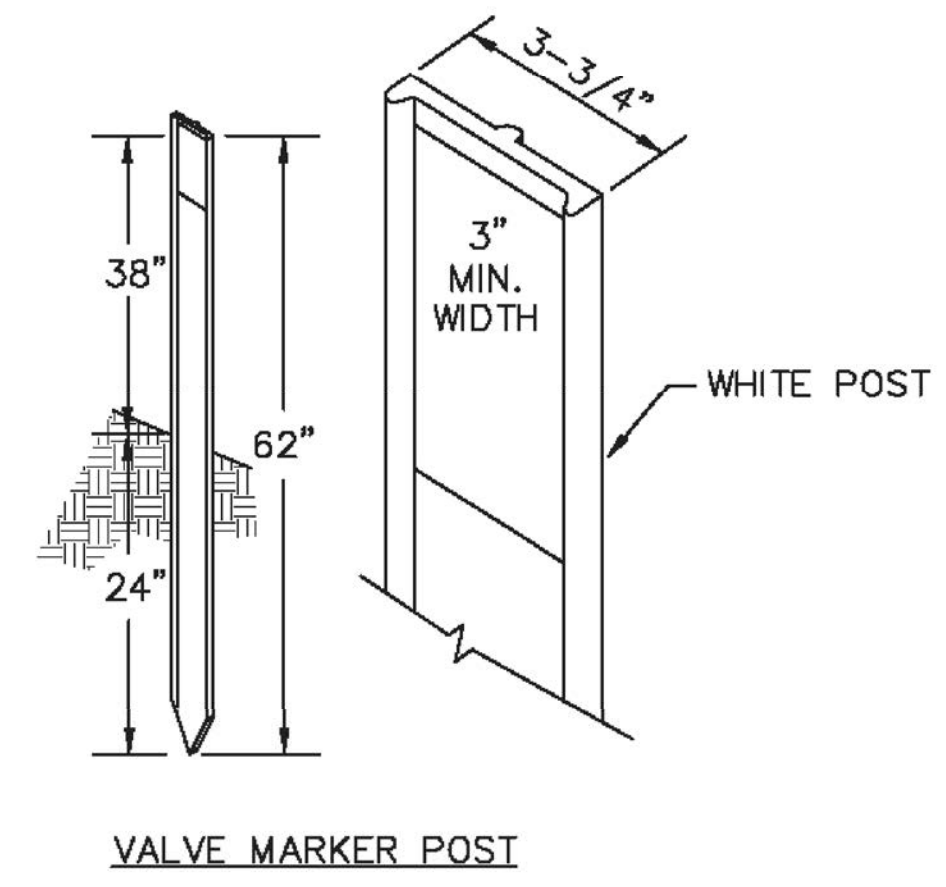


VALVE OPERATION NUT EXTENSION NOTES:

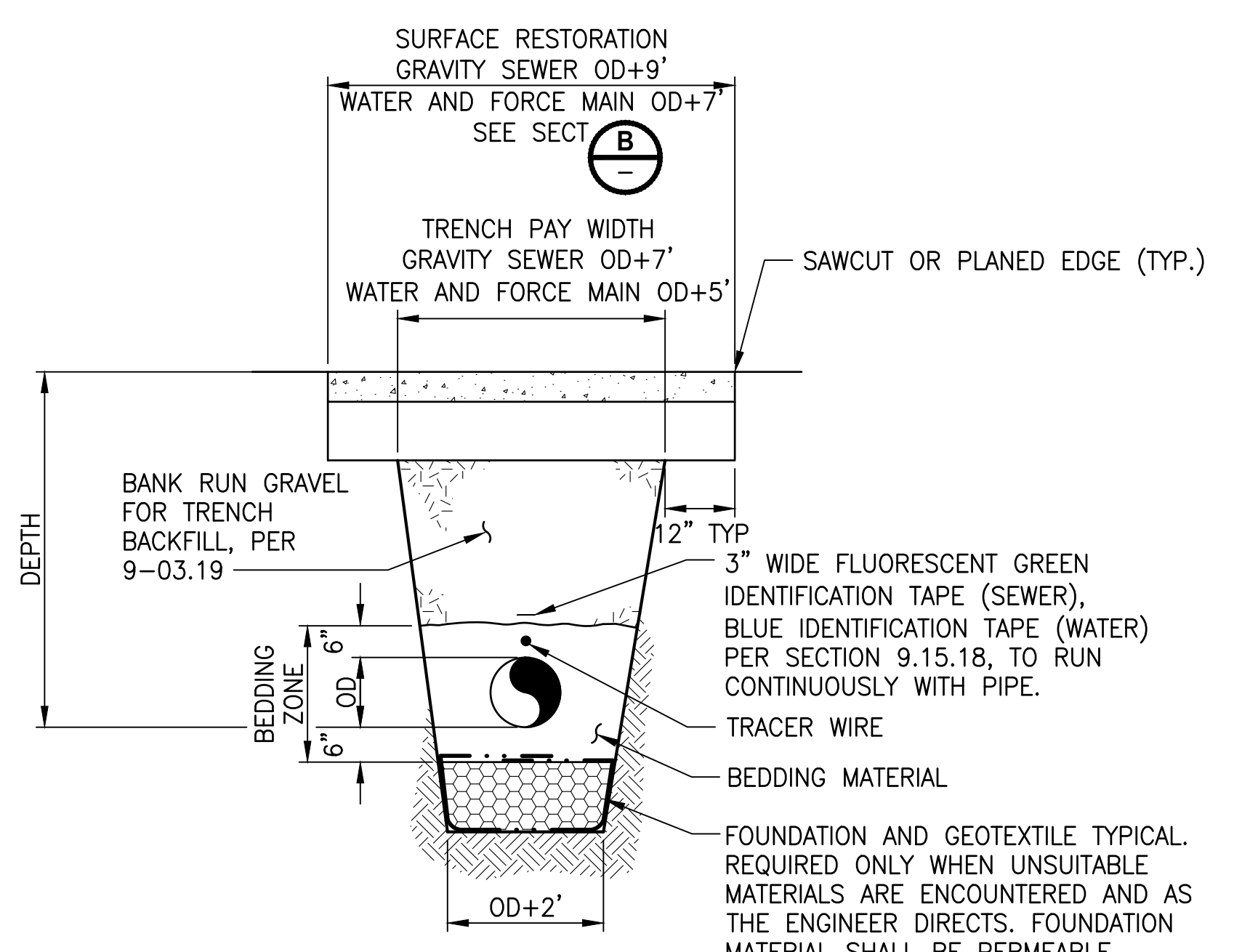
- EXTENSIONS ARE REQUIRED WHEN VALVE NUT IS MORE THAN THREE (3) FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG. ONLY ONE EXTENSION TO BE USED PER VALVE.
- ALL EXTENSIONS ARE TO BE MADE OF STEEL, SIZED AS NOTED, AND PAINTED WITH TWO COATS OF METAL PAINT.

VALVE MARKER POST NOTES:

- VALVE MARKERS SHALL BE EQUAL TO CARSONITE UTILITY MARKER.
- VALVE MARKER POST TO BE USED FOR ALL MAIN LINE VALVES OUTSIDE PAVED AREAS.
- VALVE MARKER POST SHALL IDENTIFY VALVES AS SEWER.
- THE DISTANCE FROM THE MARKER POST TO THE CENTER OF VALVE SHALL BE STENCILED ON THE MARKER POST IN MINIMUM 2" HIGH NUMBERS.



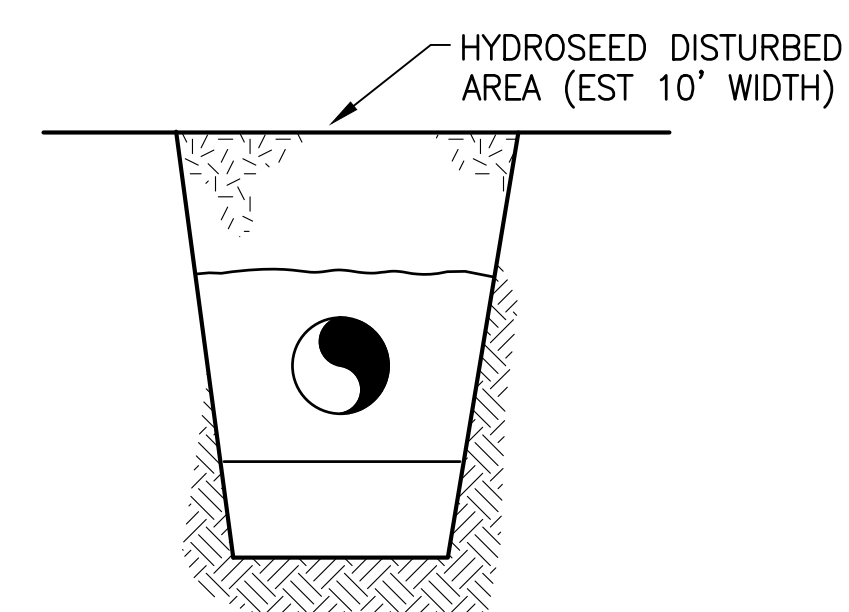
SEWER VALVE OPERATING NUT EXTENSION AND VALVE MARKER POST



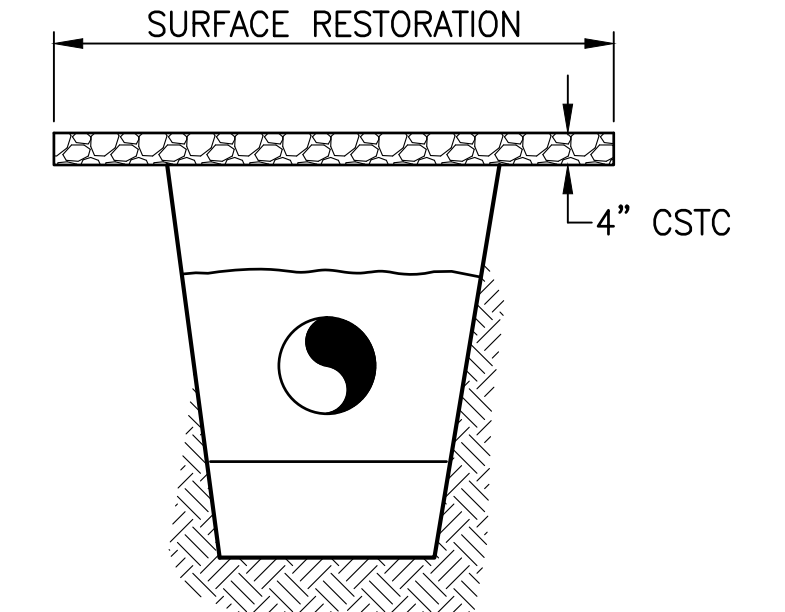
NOTES:

- COMPACTION: BEDDING SHALL BE COMPACTED TO 95% MAX. AS DETERMINED BY ASTM D1557. BACKFILL SHALL BE COMPACTED TO 95% IN PAVED OR SHOULDER AREAS AS DETERMINED BY ASTM D1557.
- ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT WSDOT/APWA STANDARD SPECIFICATIONS.
- NATIVE MATERIAL MEETING REQUIREMENTS OF 9-03.19 IS ACCEPTABLE FOR TRENCH BACKFILL.

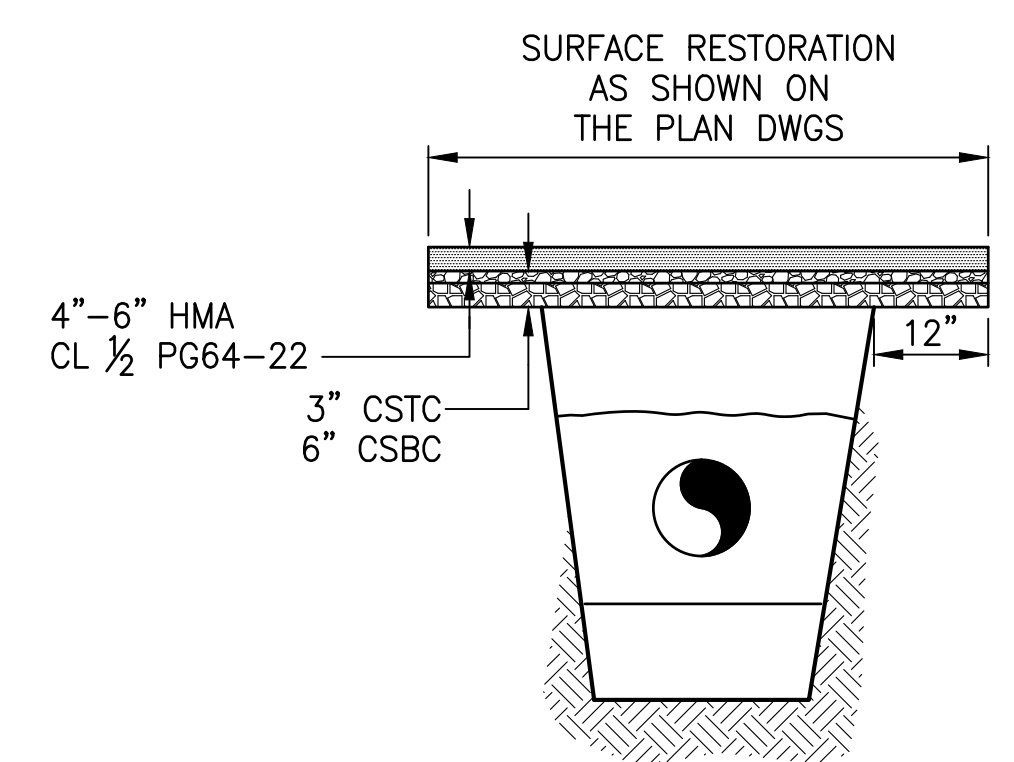
TYPICAL TRENCH (ALL UTILITIES)



UNIMPROVED RESTORATION SECTION

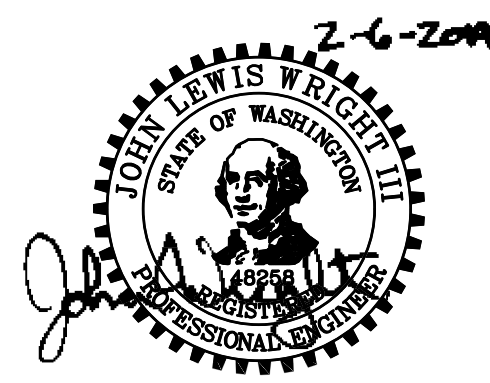


GRAVEL ROADWAY RESTORATION SECTION



ASPHALT ROADWAY RESTORATION SECTION

TYPICAL RESTORATION SECTION



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PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

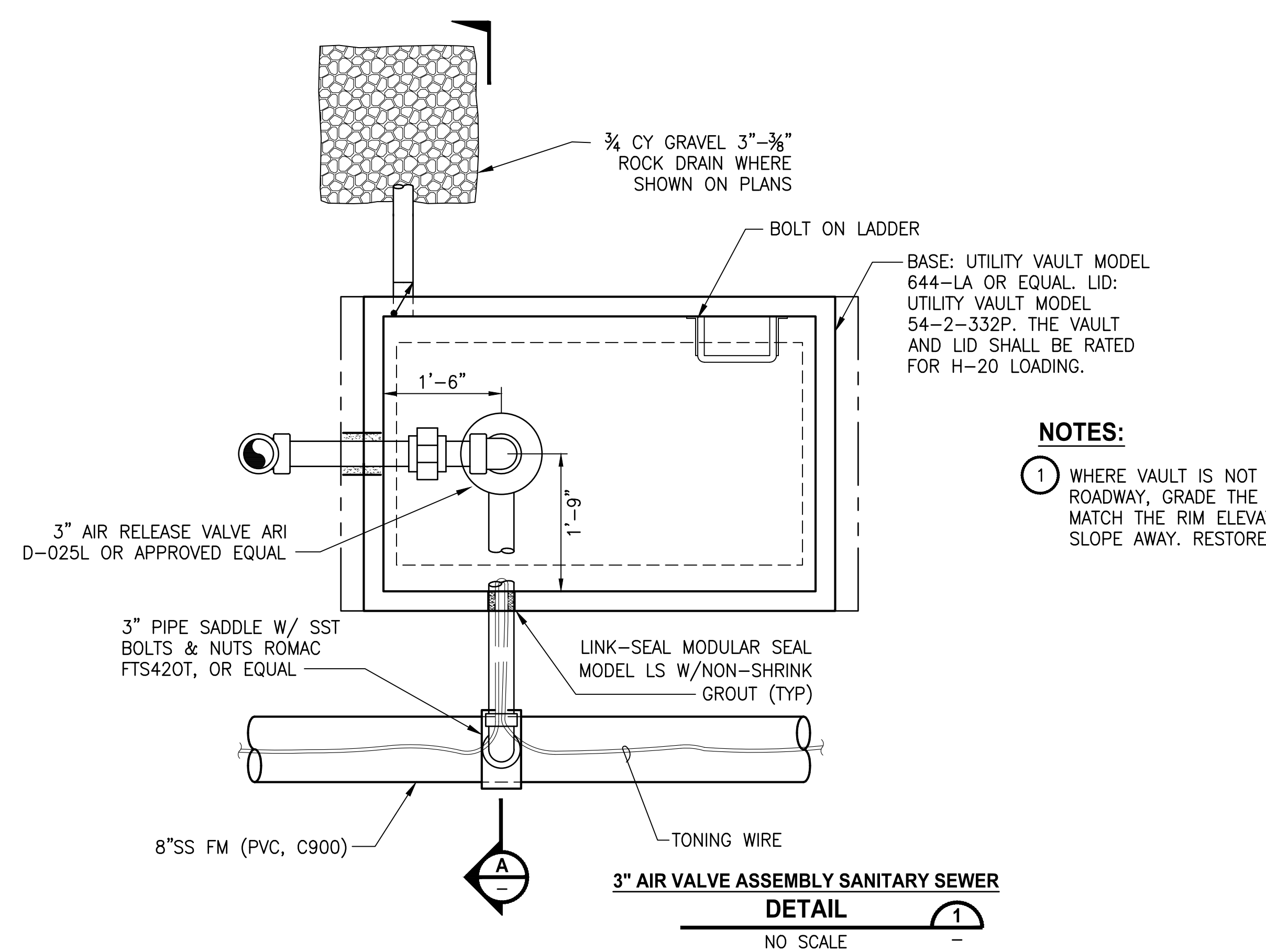
**UTILITY DETAILS
 AND SECTIONS**

DRAWING NO.
 11 OF 18
DT3

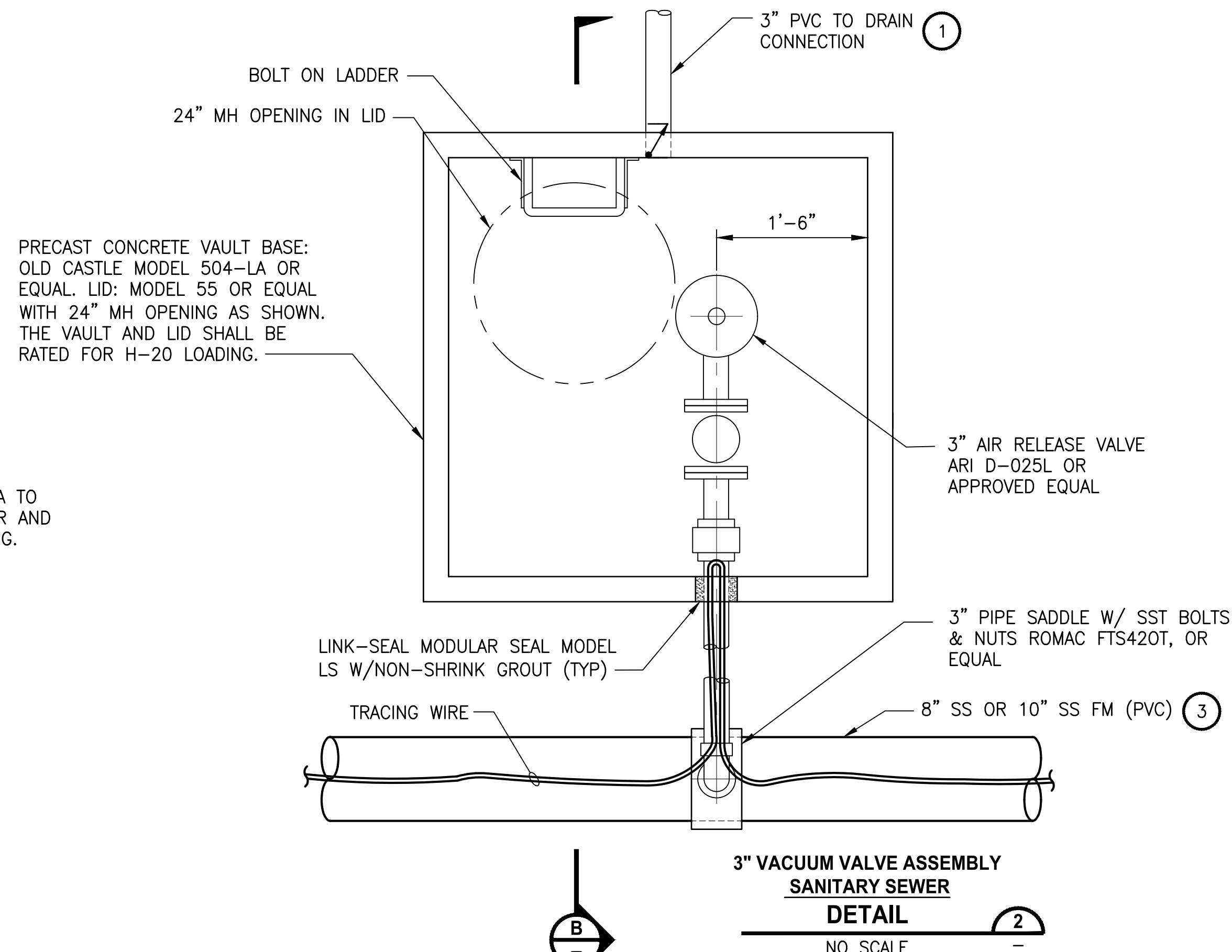
REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			DRAWN D. PETERSON
			CHECKED M. OLLIVANT
			APPROVED H. LONGFELLOW

**ONE INCH AT FULL SCALE.
 IF NOT, SCALE ACCORDINGLY**
 FILE NAME
 PS1598101-4thSt-DT1-7
 JOB No.
 554-1598-101
 DATE
 FEBRUARY 2019

LAYOUT: DT4
 PATH: U:\PSO\Projects\Clients\1598-Tulip Tribes\1598-Tulip Tribes\554-1598-101 ORdwymprove\infrastr\99Sves\CADD\DWG\PH 3 4th St Sewer Extension to MBR\1598-Tulip Tribes\554-1598-101 ORdwymprove\infrastr\99Sves\CADD\DWG\PH 3 4th St Sewer Extension to MBR\



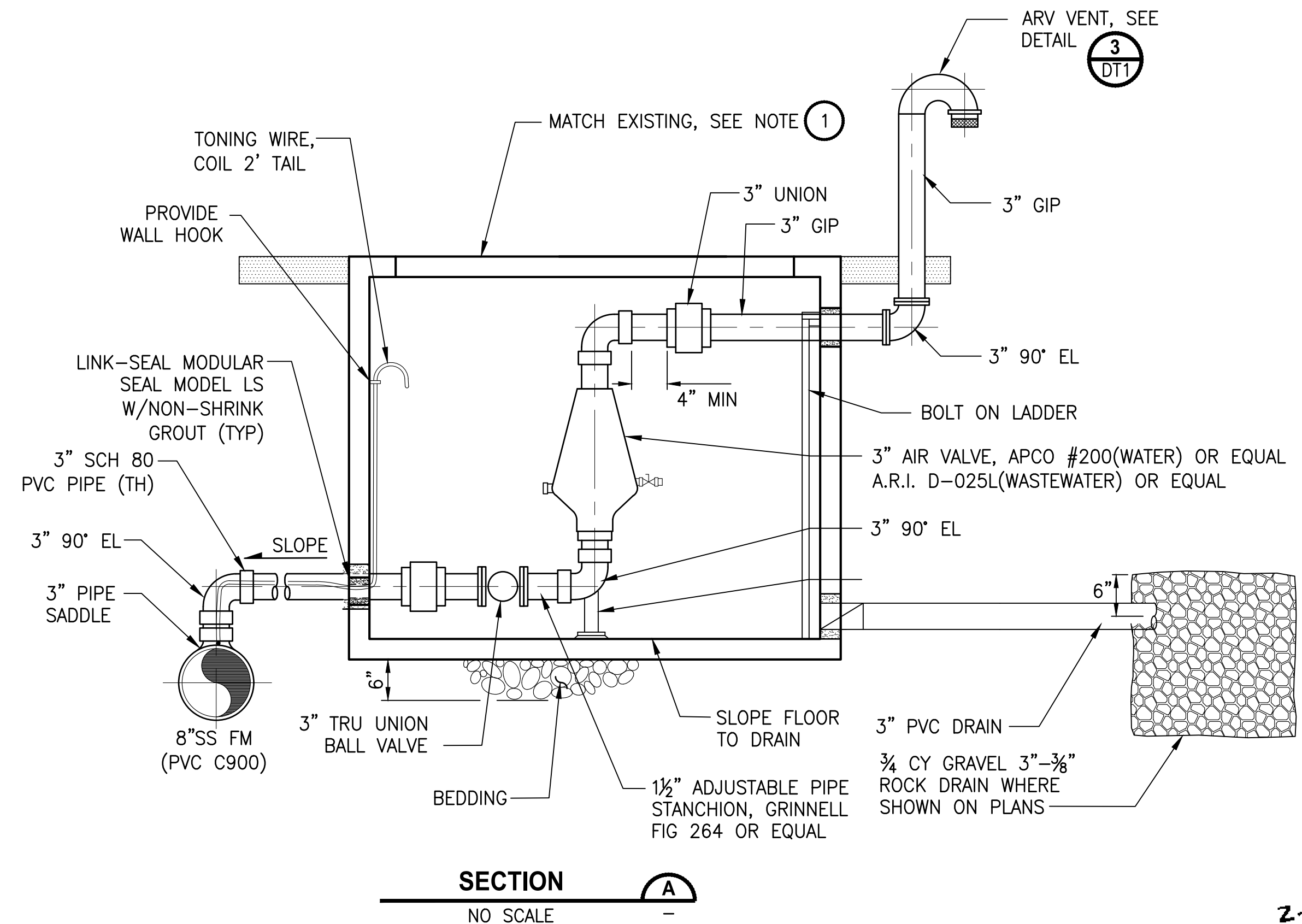
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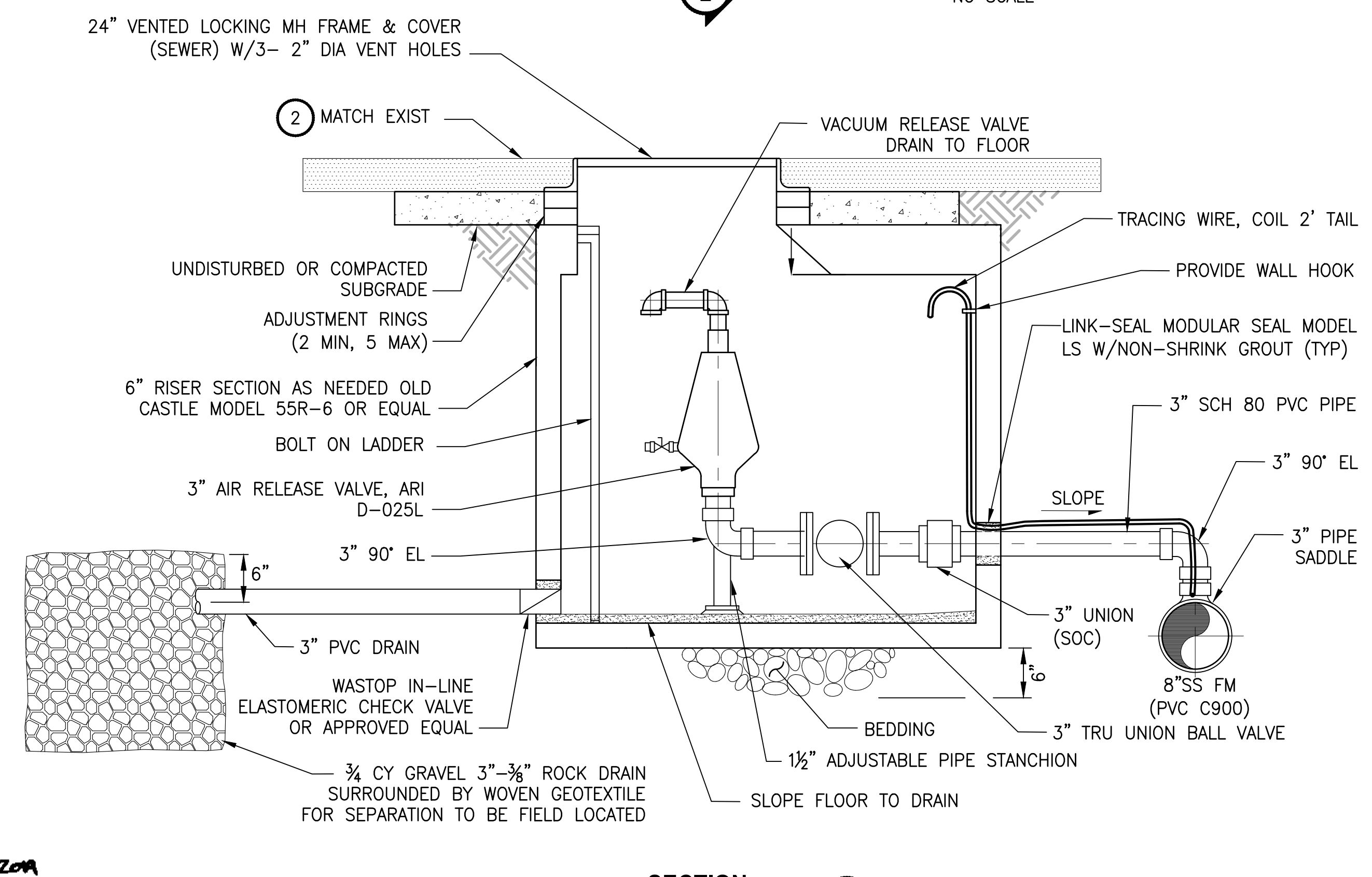
3\"/>

- NOTES:**
- HORIZONTAL LOCATION OF THE DRAIN ASSEMBLY SHALL BE AS SHOWN ON THE PLAN.
 - WHERE VAULT IS NOT INSTALLED IN THE ROADWAY, GRADE THE SURROUNDING AREA TO MATCH THE RIM ELEVATION OF THE COVER AND SLOPE AWAY. RESTORE TO MATCH EXISTING.
 - SEE FORCE MAIN DRAWINGS FOR PIPE SIZE AND MATERIAL.
 - ALL EXPOSED STEEL AND HARDWARE IN VAULT SHALL BE 316L STAINLESS STEEL.
 - ALL PRESSURE PIPING SHALL BE RESTRAINED.

- NOTES:**
- WHERE VAULT IS NOT INSTALLED IN THE ROADWAY, GRADE THE SURROUNDING AREA TO MATCH THE RIM ELEVATION OF THE COVER AND SLOPE AWAY. RESTORE TO MATCH EXISTING.



SECTION A
NO SCALE



SECTION B
NO SCALE

REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOODI
			D. PETERSON
			M. OLLIVANT
			H. LONGFELLOW

ONE INCH AT FULL SCALE, IF NOT, SCALE ACCORDINGLY
 FILE NAME: PSI1598101-4thSt-DT1-7
 JOB No: 554-1598-101
 DATE: FEBRUARY 2019



2-6-20A

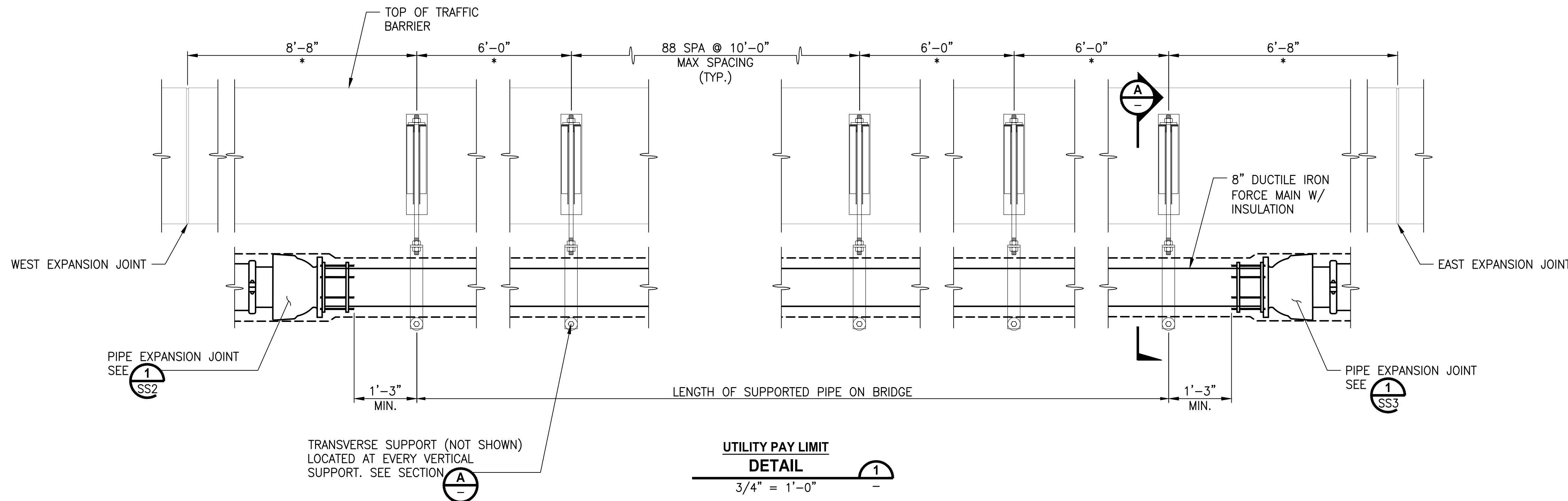
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PROJECT NAME
THE TULIP TRIBES
4TH STREET SEWER EXTENSION TO
MBR PLANT
 TULALIP, WASHINGTON

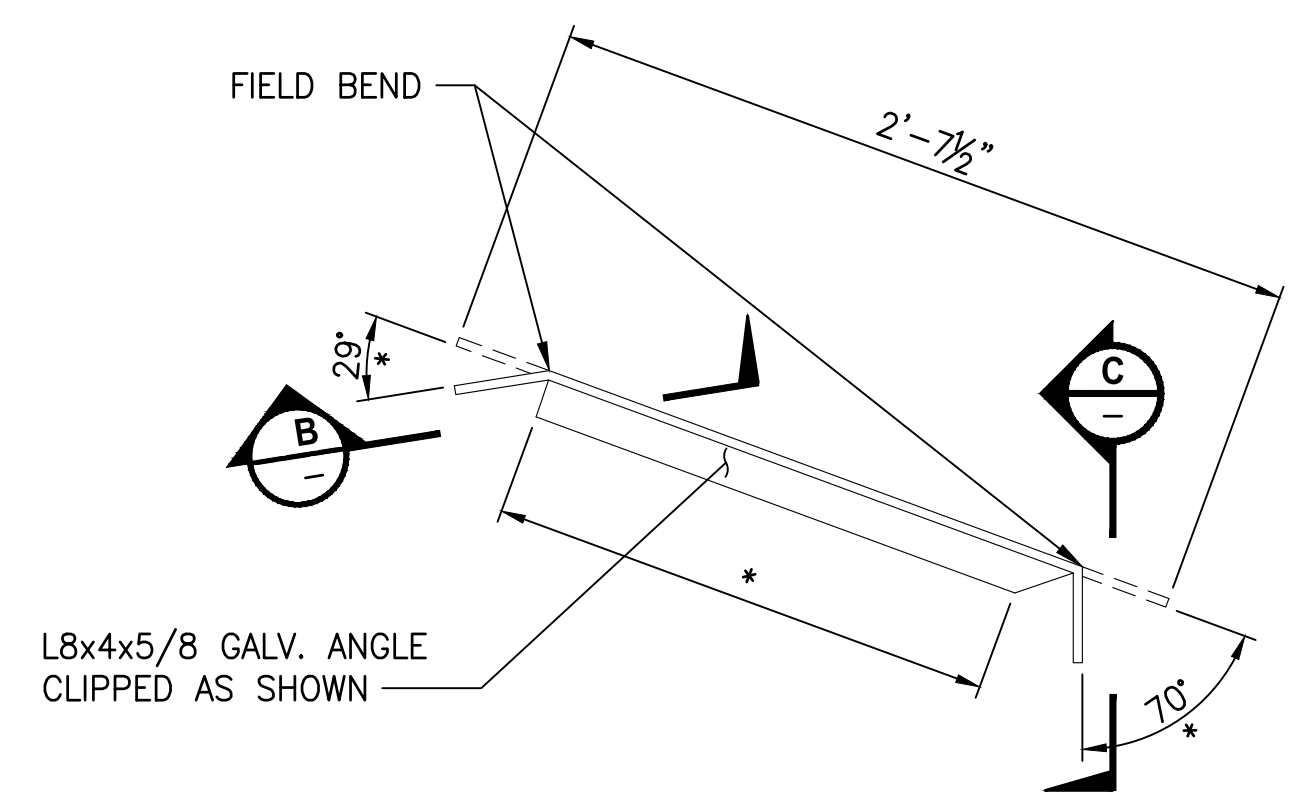
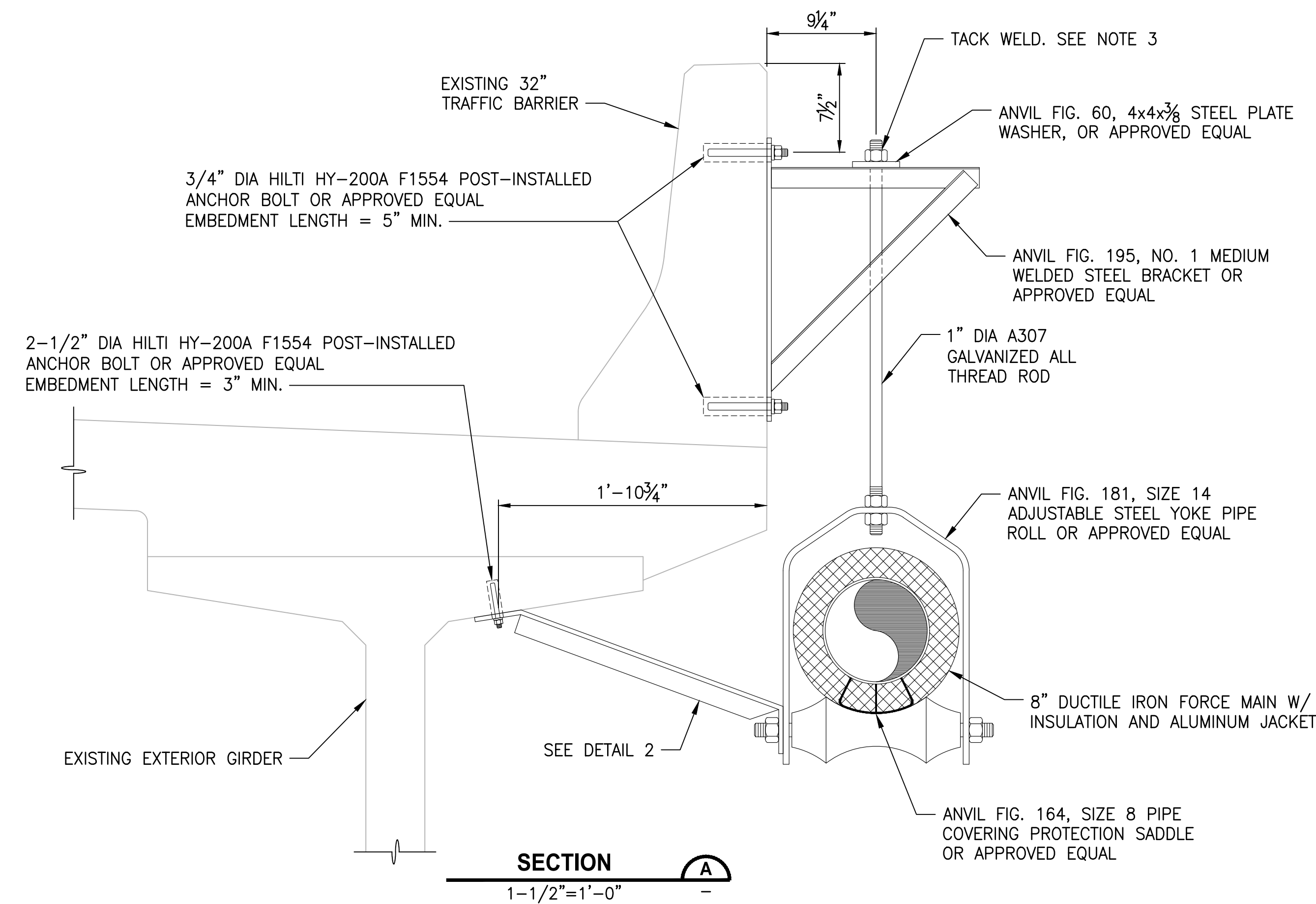
UTILITY DETAILS
AND SECTIONS

DRAWING NO.
 12 OF 18
DT4

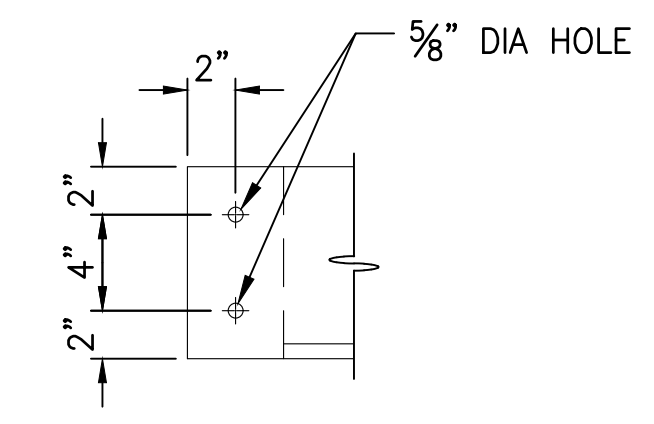
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 PLOTTED BY: peterden DATE: Thursday, February 7, 2019 7:38:01 AM



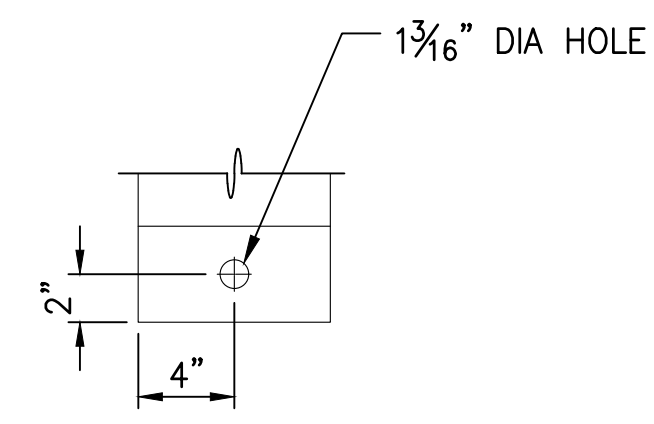
- NOTES:**
- ALL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION PER AASHTO M-111 OR AASHTO-M232 EXCEPT PIPE ROLLERS.
 - PAINT PIPE ROLLERS WITH THREE COATS OF GALVANIZING REPAIR PAINT. SEE STD SPEC SECTION 9-08.1(2)B.
 - GALVANIZE DAMAGE FROM TACK WELD SHALL BE PAINTED WITH ONE COAT OF GALVANIZING REPAIR PAINT IN ACCORDANCE WITH STD SPEC SECTION 9-08.1(2)B.
 - AT EACH BRACKET LOCATION THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE FOLLOWING:
 - EXISTING REINFORCEMENT IN THE CONCRETE BARRIER
 - DUMMY JOINTS IN BARRIER
- IF A CONFLICT EXISTS WITH EITHER THE EXISTING REINFORCEMENT OR THE DUMMY JOINTS THEN THE BRACKET LOCATION SHALL BE ADJUSTED A MINIMUM OF 3".
- * CONTRACTOR TO FIELD VERIFY MEASUREMENTS PRIOR TO FABRICATION



DETAIL 2
1-1/2" = 1'-0"



SECTION B
1-1/2" = 1'-0"

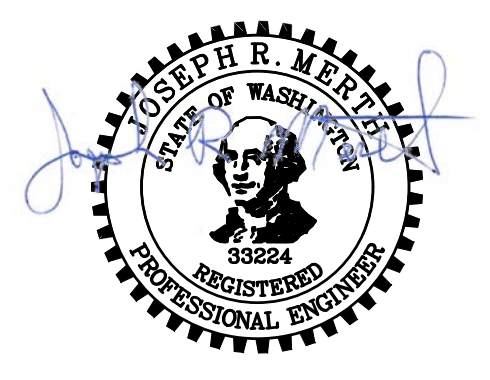


SECTION C
1-1/2" = 1'-0"

REVISIONS	DATE	BY	DESIGNED
			A. MENDOZA
			A. MENDOZA
			R. MURRAY
			H. LONGFELLOW

ONE INCH AT FULL SCALE, IF NOT, SCALE ACCORDINGLY

FILE NAME: PS1598101-4thSt-DT1-7
 JOB No.: 554-1598-101
 DATE: FEBRUARY 2019



FEBRUARY 6, 2019

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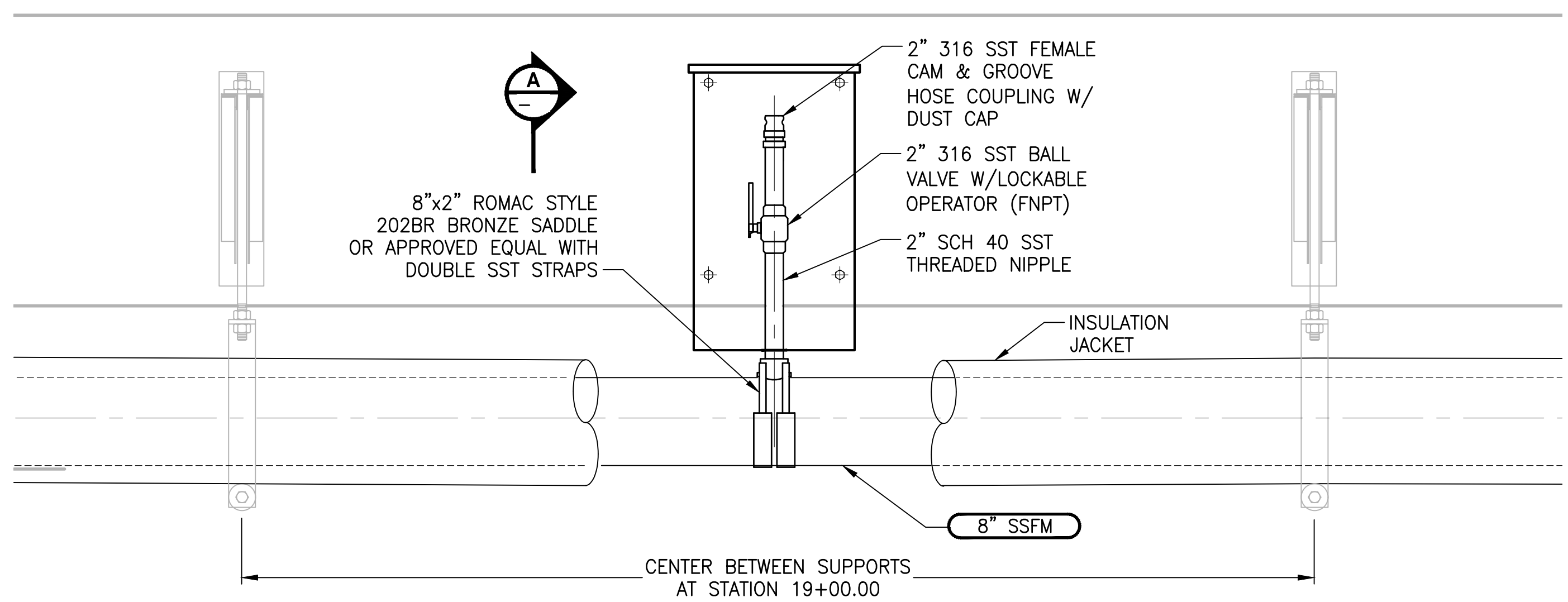
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PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

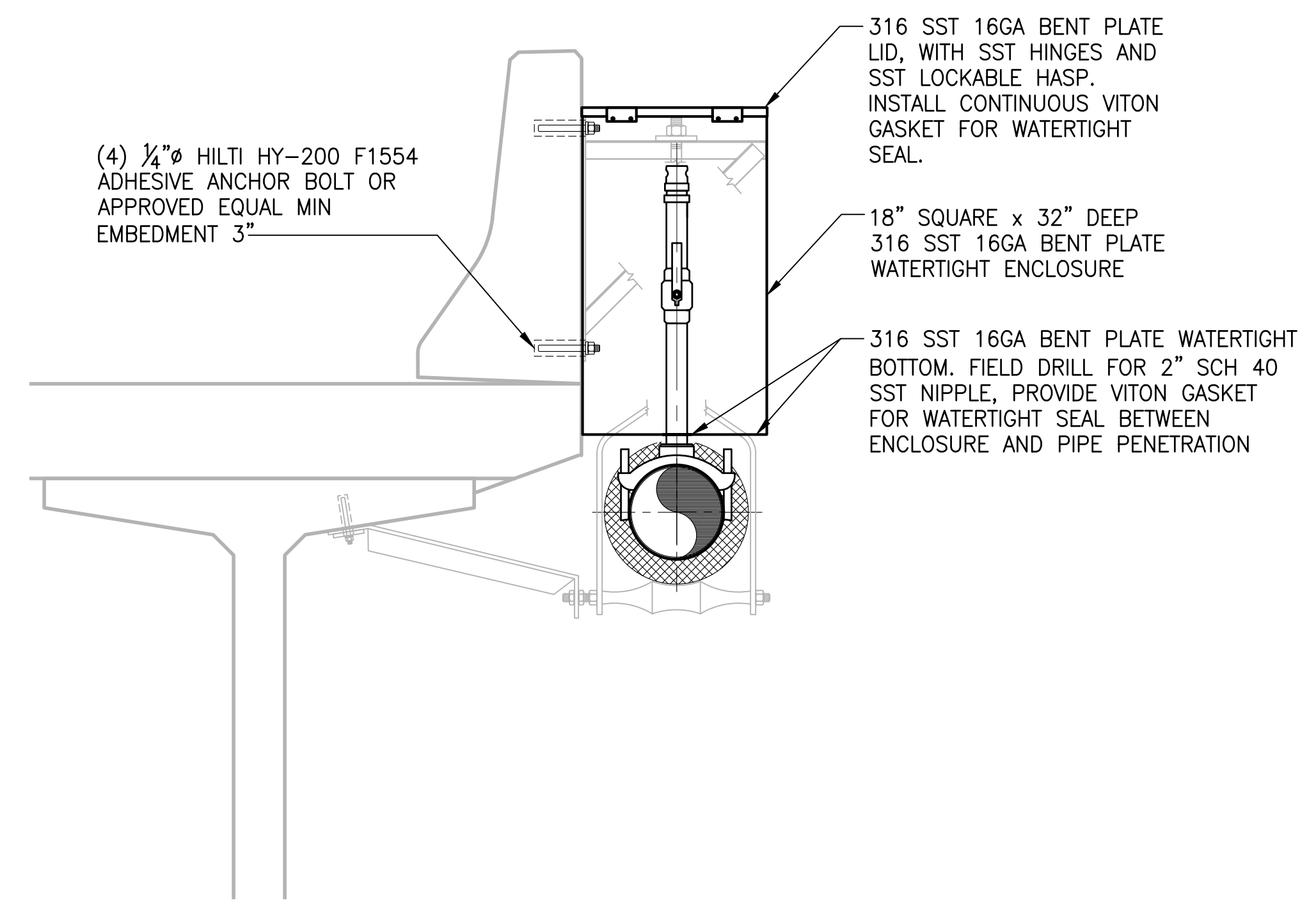
**SANITARY SEWER
 BRIDGE CROSSING
 DETAILS AND SECTIONS**

DRAWING NO.
 13 OF 18
DT5

PATH: U:\PSO\Projects\Clients\1598-TulipTribes\1598-101 ORdwymprove&infratr\99Svcs\CADD\DWG\PH_3_4th St Sewer Extension to MBR\ LAYOUT: DT6 PLOTTED BY: peterden DATE: Thursday, February 7, 2019 9:01:00 AM



**MANUAL AIR RELEASE VALVE
DETAIL**
 NO SCALE 1 SS2, SS3



SECTION
 NO SCALE A

2-6-20A



REVISIONS	DATE	BY	DESIGNED
			J. WRIGHT
			D. PETERSON
			M. OLLIVANT
			H. LONGFELLOW

**ONE INCH AT FULL SCALE,
IF NOT, SCALE ACCORDINGLY**
 FILE NAME
 PSI1598101-4thSt-DT1-7
 JOB No.
 554-1598-101
 DATE
 FEBRUARY 2019

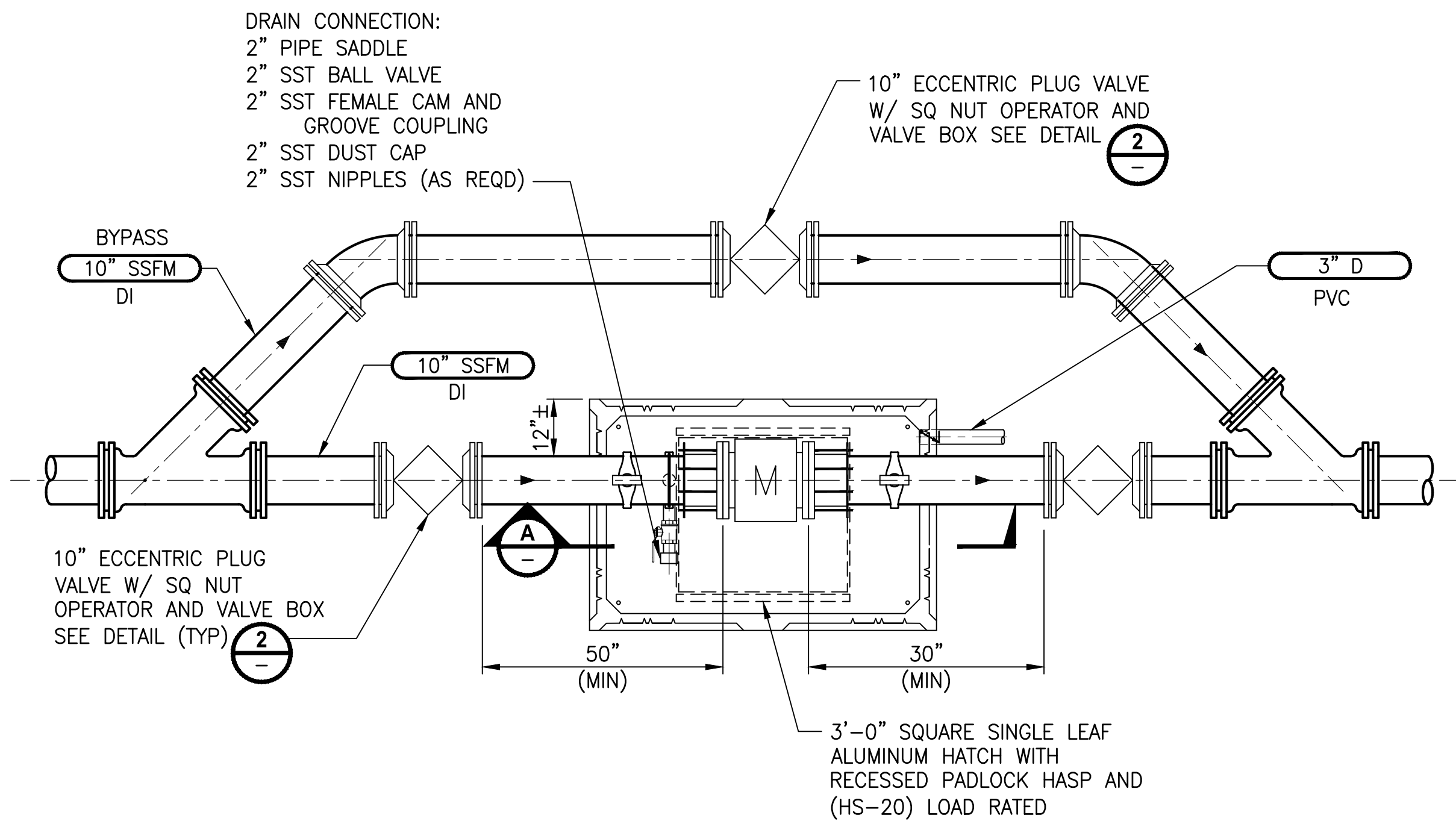
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PROJECT NAME
**THE TULALIP TRIBES
4TH STREET SEWER EXTENSION TO
MBR PLANT**
 TULALIP, WASHINGTON

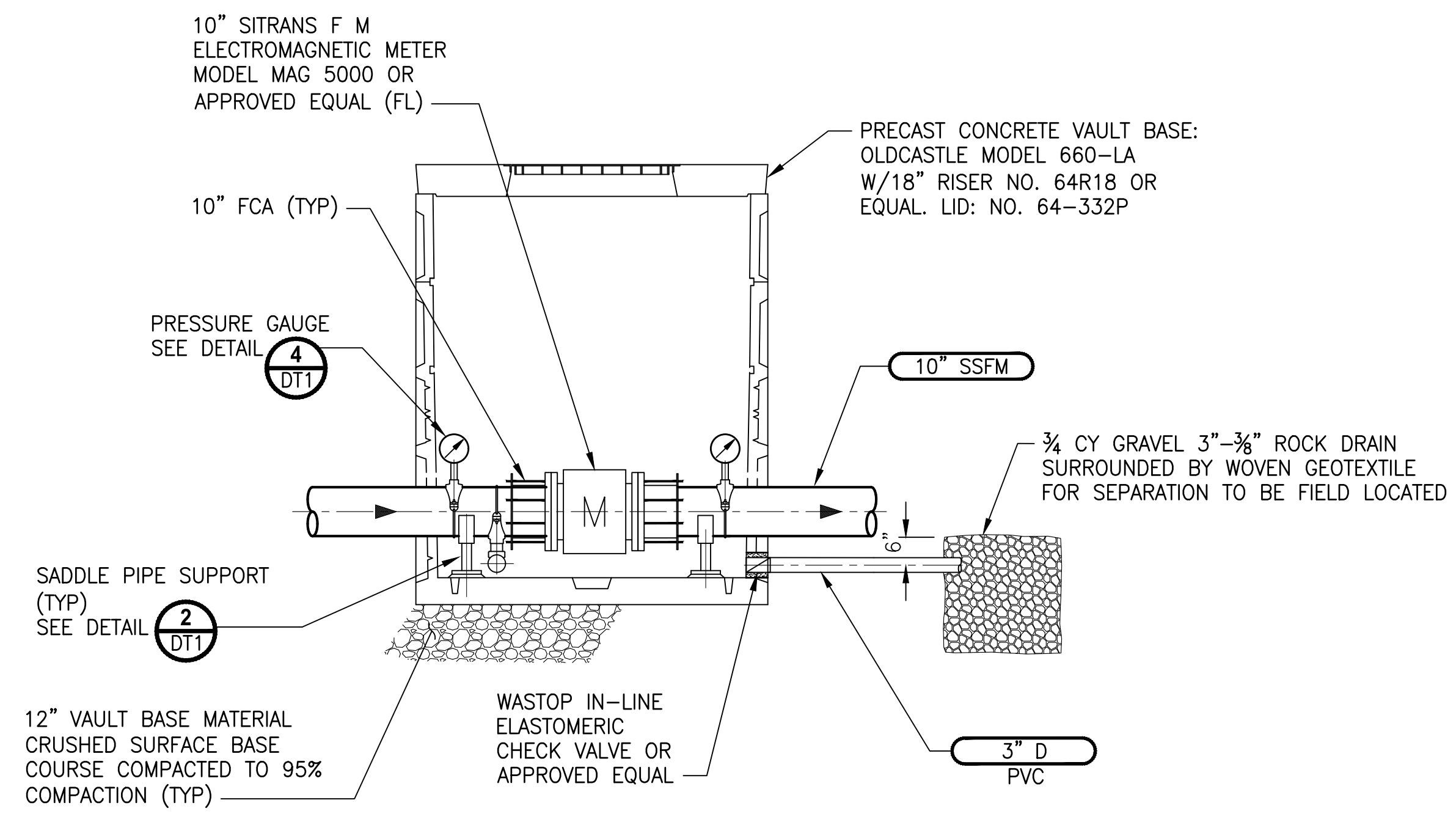
**MANUAL AIR RELEASE
DETAIL AND SECTION**

DRAWING NO.
 14 OF 18
DT6

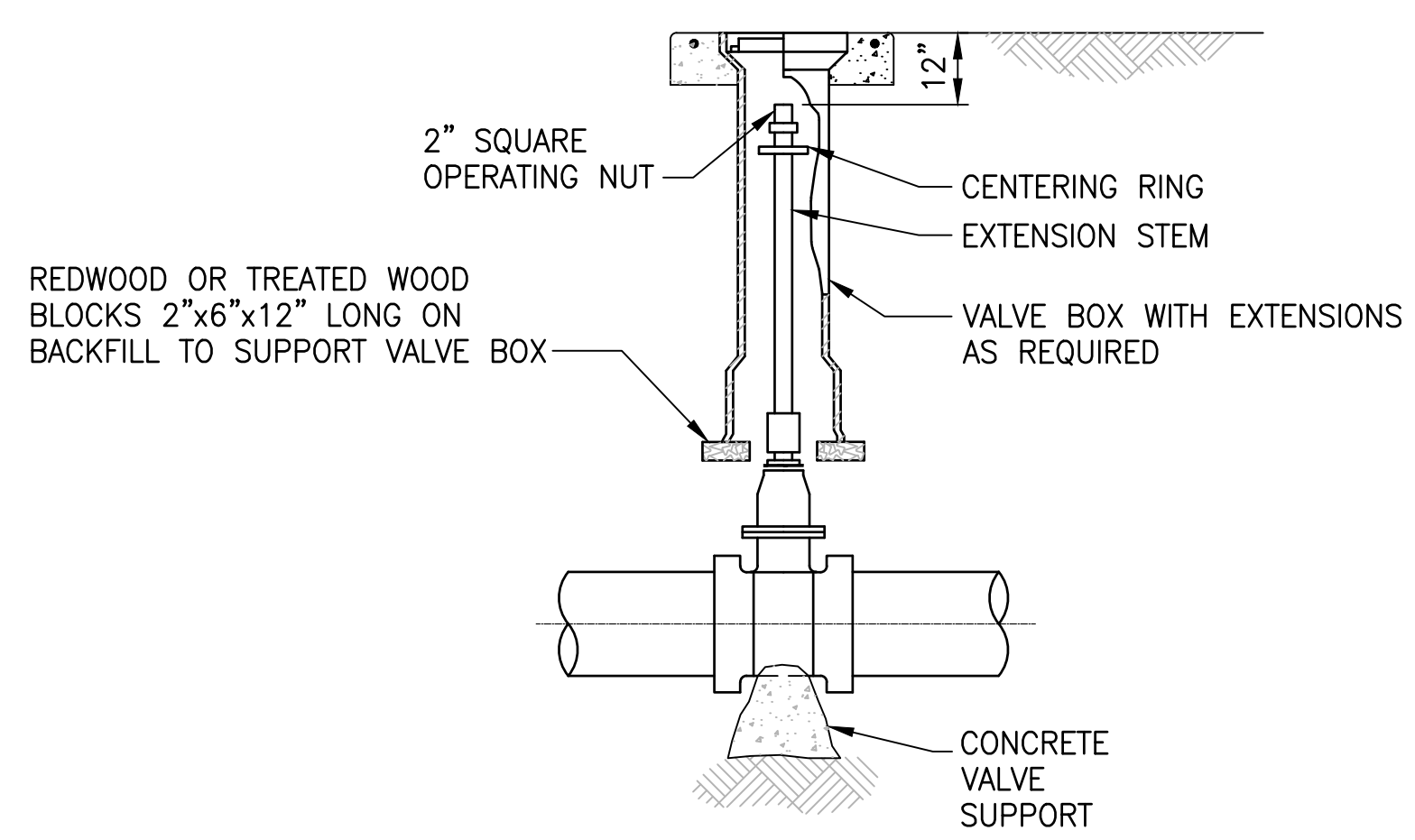
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 PLOTTED BY: peterden DATE: Thursday, February 7, 2019 7:40:19 AM



MASTER SEWER METER VAULT
DETAIL 1
 SCALE: 1:2 SS5



SECTION A
 SCALE: 1:2



VALVE BOX
DETAIL 2
 NO SCALE

2-6-20A

REVISIONS	DATE	BY	DESIGNED
			Y. MAHMOUDI
			DRAWN D. PETERSON
			CHECKED M. OLLIVANT
			APPROVED H. LONGFELLOW

ONE INCH AT FULL SCALE.
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 FILE NAME
 PS1598101-4thSt-DT1-7
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PROJECT NAME
THE TULIP TRIBES
4TH STREET SEWER EXTENSION TO
MBR PLANT
 TULALIP, WASHINGTON

MASTER SEWER METER
DETAIL AND SECTION

DRAWING NO.
 15 OF 18
DT7

PATH: U:\PSO\Projects\Clients\1598-Tulalip Tribes\1598-101_06\dwg\improvements\frst\995\ica\cadd\DWG\PH_3_4th St Sewer Extension to MBR
 PLOTTED BY: peterden DATE: Wednesday, February 6, 2019 3:28:26 PM
 LAYOUT: S1

INSPECTIONS

CONTRACTOR SHALL BE RESPONSIBLE FOR REQUESTING AND COORDINATING REQUIRED BUILDING DEPARTMENT INSPECTIONS. IN ADDITION, SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE TABLE ON THIS SHEET. THESE INSPECTIONS SHALL BE PERFORMED BY A CURRENTLY WABO CERTIFIED INSPECTOR UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER.

THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE GENERAL CONTRACTOR FOR CORRECTION. THEN IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE REPORTED TO THE DESIGN PROFESSIONAL AND TO THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL SUBMIT A SEALED FINAL REPORT BY A REGISTERED PROFESSIONAL ENGINEER STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC.

MISCELLANEOUS

REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF RECESSES, DUCT OPENINGS, PIPING, CONDUITS, EQUIPMENT LOCATION AND ANCHORAGES, ETC., NOT SHOWN.

SUBMIT ALL REQUIRED SHOP DRAWINGS AND RECEIVE THEIR SATISFACTORY REVIEW FROM THE OWNER'S REPRESENTATIVE, PRIOR TO FABRICATION.

COORDINATE AND VERIFY ALL DIMENSIONS WITH ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWINGS AND VERIFY ALL DIMENSIONS AND CONDITIONS AT THE PROJECT SITE PRIOR TO STARTING WORK AND NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES.

REFER TO SPECIFICATIONS FOR INFORMATION NOT CONTAINED IN THESE GENERAL NOTES.

CONCRETE

ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS, SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES ACI 315, LATEST EDITION.

CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318 BUILDING CODE.

DESIGN STRENGTH

CAST-IN-PLACE CONCRETE, UNLESS OTHERWISE NOTED:
 FOUNDATIONS $f_c = 4000$ psi AT 28 DAYS
 REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615, GRADE 60. LAP SPLICES SHALL BE PER TABLE SHOWN ON S2.

CONCRETE COVER

CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, BUT NOT LESS THAN ONE BAR DIAMETER:

FOOTINGS AND MATS FORMED AGAINST SOIL	3"
CONCRETE IN CONTACT WITH SOIL, WEATHER OR WATER	2"
CONCRETE NOT EXPOSED TO SOIL, WEATHER OR WATER	1 1/2"
BEAMS AND COLUMNS (TO STIRRUPS)	1 1/2"
SLAB ON GRADE	
UNDER 6" THICK	AT SLAB CENTER
6" AND OVER	AS SHOWN

ANCHOR BOLTS

ANCHOR BOLTS FOR BUILDING STRUCTURE SHALL CONFORM TO ASTM A307 HOT DIPPED GALVANIZED. SET ALL BOLTS BY TEMPLATE

DRILLED-IN EXPANSION BOLTS

EXPANSION BOLTS SHALL BE STAINLESS STEEL "KWIK BOLTS" BY HILTI CORP., OR APPROVED EQUAL. ICBO CERTIFICATION AND SPECIAL INSPECTION IS REQUIRED. MINIMUM SPACING SHALL BE 12 BOLT DIAMETERS AND MINIMUM EDGE DISTANCE 6 BOLT DIAMETERS UNLESS NOTED OTHERWISE.

BOLT DIAMETER (IN.)	1/2	5/8	3/4	7/8	1
MIN. EMBEDMENT IN STRUCTURAL CONCRETE (IN.)	4	4	5	6	7

ADHESIVE/EPOXY ANCHORING SYSTEM

ANCHORS SHALL BE STAINLESS STEEL RODS COMPLYING TO AISI 318. REINFORCING BARS AND RODS ANCHORED INTO EXISTING CONCRETE SHALL BE IN DRILLED HOLE WITH THREADED CODE APPROVED ADHESIVE ANCHORING MATERIALS. ICC-ES REPORTS ARE REQUIRED FOR USE IN CRACKED CONCRETE FOR WIND OR SEISMIC LOADING. MINIMUM EMBEDMENT IN STRUCTURAL CONCRETE SHALL BE 8 BAR DIAMETERS. MINIMUM EDGE DISTANCE 6 BAR DIAMETERS.

STRUCTURAL ABBREVIATIONS

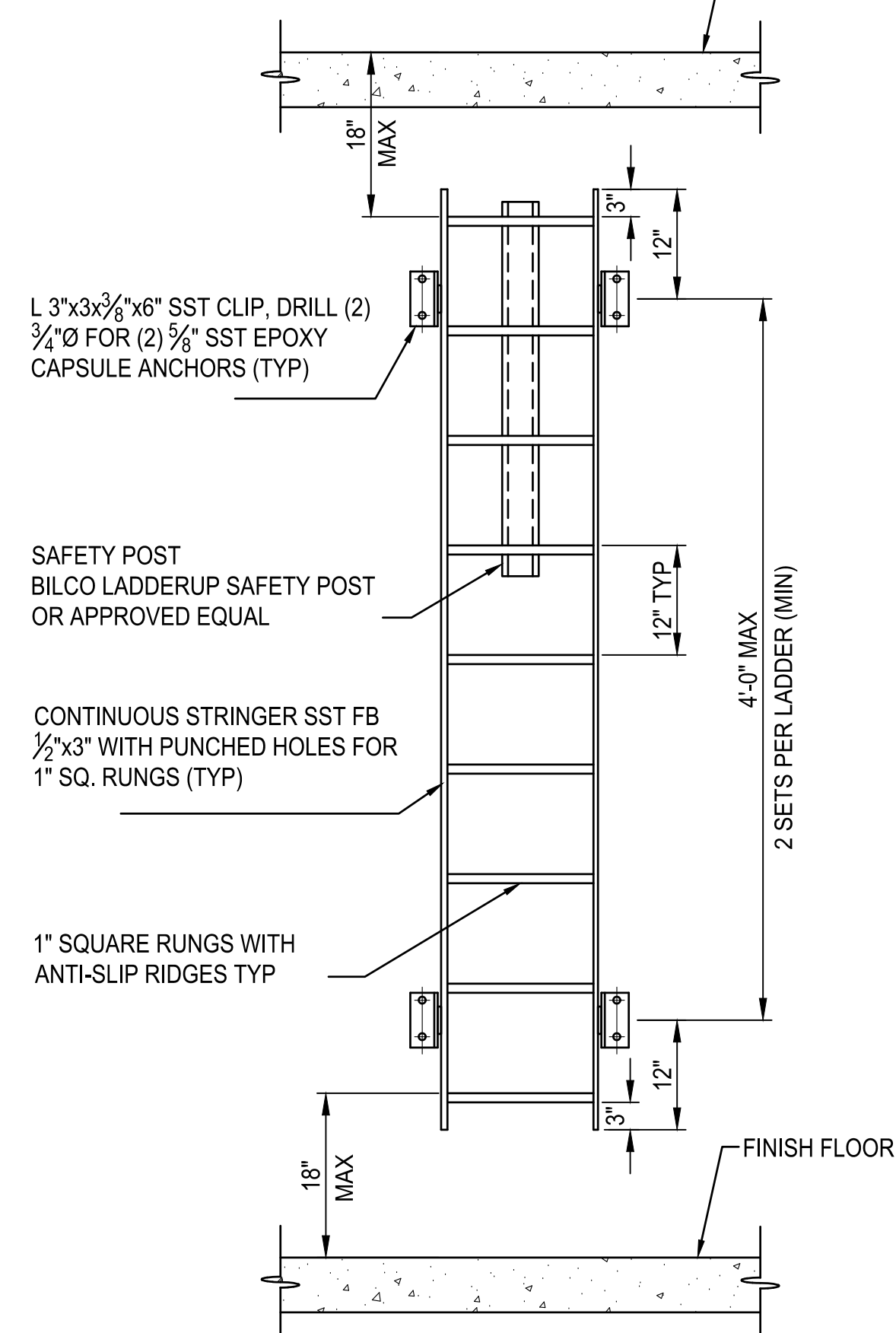
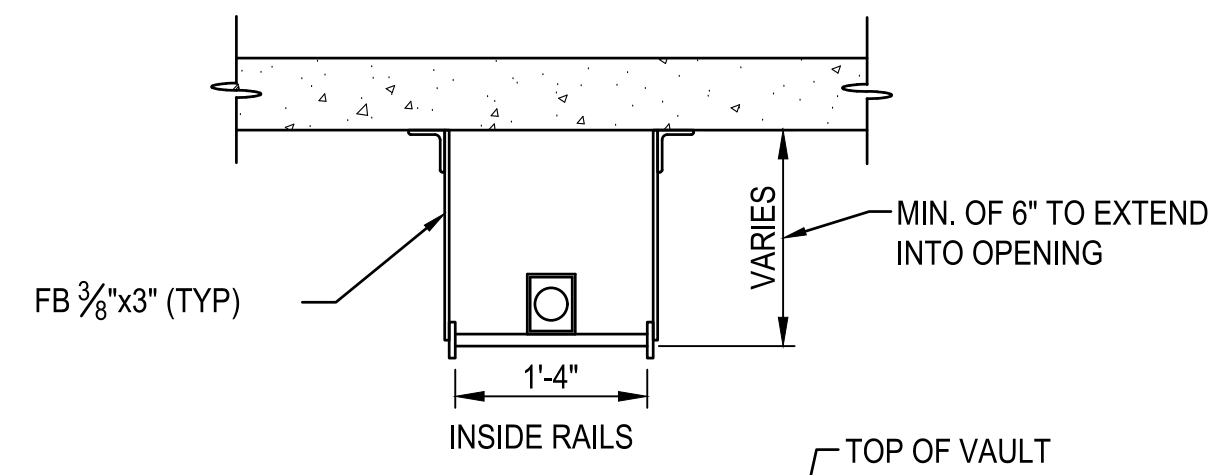
AB	ANCHOR BOLT
C	CHANNEL
CLR	CLEAR
CSBC	CRUSHED SURFACING BASE
CY	CUBIC YARD
DS	DOWNSPOUT
HMA	HOT MIX ASPHALT
HSS	HOLLOW STRUCTURAL SHAPE
L	ANGLE
M	MISCELLANEOUS SHAPE
MAX	MAXIMUM
MB	MACHINE BOLT
MIN	MINIMUM
PL	PLATE
PT	PRESSURE TREATED
S	S SHAPE
SCH	PIPE SCHEDULE
SST	STAINLESS STEEL
TOW	TOP OF WALL
TYP	TYPICAL
W	WIDE FLANGE

SPECIAL INSPECTION SCHEDULE

ITEM	CI	PI	REMARKS/REFERENCES
GENERAL:			
PREFABRICATED ITEMS		X	
SITE PREPARATION, FILL PLACEMENT, SOIL COMPACTION	X		BY GEOTECHNICAL ENGINEER OR AN APPROVED TESTING AGENCY
CONCRETE:			
REINFORCING MATERIALS		X	ASTM AS NOTED, ACI 318 7.1-7.4
REINFORCING PLACEMENT		X	ACI 318 7.5-7.8
WELDING - REINFORCING		NA	AWS D1.4
ANCHOR RODS, EMBEDDED BOLTS & INSERTS	X		PRIOR TO AND DURING CONCRETE PLACEMENT
USE OF REQUIRED MIX DESIGN		X	
CONCRETE SLUMP, AIR CONTENT, TEMPERATURE & TEST SPECIMENS	X		WHILE MAKING SPECIMENS FOR STRENGTH TESTS, ACI 318 5.6
CONCRETE PLACEMENT	X		ACI 318 5.9, 5.10
CONCRETE CURING		X	ACI 318 5.11, 5.13
POST-INSTALLED ANCHORS			
GROUTED ANCHORS	X		
ADHESIVE ANCHORS	X		
MECHANICAL ANCHORS	X		

INSPECTION SCHEDULE NOTES

- ITEMS MARKED WITH AN "X" REQUIRE INSPECTION BY A SPECIAL INSPECTOR APPROVED BY THE BUILDING OFFICIAL.
- ITEMS MARKED "NA" ARE NOT APPLICABLE TO THIS PROJECT.
- CI = CONTINUOUS INSPECTION DURING PROGRESS OF WORK BY SPECIAL INSPECTOR.
- PI = PERIODIC INSPECTION BY SPECIAL INSPECTOR AS REQUIRED TO CONFIRM CONFORMANCE OF WORK.
- TESTING AND INSPECTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER, BUILDING OFFICIAL AND CONTRACTOR.



TYPICAL LADDER DETAIL

SCALE: 3/4"=1'-0"



FEBRUARY 6, 2019

REVISIONS	DATE	BY	DESIGNED
			S. WAGNER
			DRAWN D. PETERSON
			CHECKED M. OLLIVANT
			APPROVED H. LONGFELLOW

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FILE NAME	PS1598101-4thSt-S1
JOB No.	554-1598-101
DATE	FEBRUARY 2019

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PROJECT NAME
THE TULALIP TRIBES
4TH STREET SEWER EXTENSION TO
MBR PLANT
 TULALIP, WASHINGTON

STRUCTURAL NOTES,
ABBREVIATIONS AND DETAILS

DRAWING NO.
16 OF 18

S1

DATE: Wednesday, February 6, 2019 3:25:11 PM
PLOTTER BY: peterden
PATH: U:\PSO\Projects\Clients\1598-101_084\improvements\354-1598-101_084\improvements\354-1598-101_084\DWG\PH_3_4th St\4th St Sewer Extension to MBR
LAYOUT: E1

ABBREVIATIONS			
a	CIRCUIT BREAKER AUX. CONTACT, CLOSED WHEN BREAKER IS CLOSED	FU	FUSE
A	AMMETER, AMPERES	(F)	FUTURE FUT.
AC	ALTERNATING CURRENT	FVNR	FULL VOLTAGE, NON REVERSING
A/D	ANALOG TO DIGITAL	FVR	FULL VOLTAGE, REVERSING
ADJ	ADJUSTABLE	FWD	FORWARD
AF	AMPERE FRAME	GEN	GENERATOR
AFD	ADJUSTABLE FREQUENCY DRIVE	GFI	GROUND FAULT INTERRUPTER
AIC	AMPERES INTERRUPTING CAPACITY	GND	GROUND
AMP	AMPERES	GRS	GALVANIZED RIGID STEEL
ANN	ANNUNCIATOR	O ₂ H ₂	HYDROGEN PEROXIDE
AS	AMMETER SWITCH	HH	HANDHOLE
AT	AMPERE TRIP	HOA	HAND-OFF-AUTOMATIC
ATS	AUTOMATIC TRANSFER SWITCH	HOR	HAND-OFF-REMOTE
AUTO	AUTOMATIC	HPS	HIGH PRESSURE SODIUM HEATER
AWG	AMERICAN WIRE GAGE	HT	HEAT TAPE, HEAT TRACE
b	CIRCUIT BREAKER AUX. CONTACT, CLOSED WHEN BREAKER IS OPEN	HTR	HEATER
BCG	BARE COPPER GROUND	HV	HIGH VOLTAGE
C	CONDUIT	HZ	HERTZ (CYCLES PER SECOND)
CAB	CABINET	IND LT	INDICATING LIGHT
CAP	CAPACITOR	INCAND	INCANDESCENT
CB	CIRCUIT BREAKER	INSTR	INSTRUMENT, INSTRUMENTATION
CC	CONTROL CABLE, CLOSING COIL	I/O	INPUT/OUTPUT
CHH	COMMUNICATION HANDHOLE	ISB	INTRINSICALLY SAFE BARRIER
CC	CLARIFIER CONSOLE	ISR	INTRINSICALLY SAFE RELAY
CKT	CIRCUIT	JB	JUNCTION BOX
CMH	COMMUNICATION MANHOLE	KA	KILOAMPERES
CO	CONDUIT ONLY	KCMIL	THOUSANDS OF CIRCULAR MILS
COMM	COMMUNICATION	KV	KILOVOLTS
COND	CONDUCTOR	KVA	KILOVOLT AMPERES
CPT	CONTROL POWER TRANSFORMER	KVARH	KILOVOLT AMPERES HOURS
CP	CONTROL PANEL	KWH	KILOWATT HOURS
CR	CONTROL RELAY	LCS	LOCAL CONTROL STATION
CS	CONTROL STATION	LTG	LIGHTING
CT	CURRENT TRANSFORMER	LTS	LIGHTS
DB	DIRECT BURIAL	LP	LIGHTING PANEL
DC	DIRECT CURRENT	LR	LINE REACTOR
DIAG	DIAGRAM	(M)	MODIFIED
DISC	DISCONNECT	mA	MILLIAMPERES
DISTR	DISTRIBUTION	MCC	MOTOR CONTROL CENTER
DIV	DIVISION	MCP	MOTOR CIRCUIT PROTECTION OR MAIN CONTROL PANEL
DP	DISTRIBUTION PANEL	MCM	THOUSAND CIRCULAR MILS (KCMIL)
DPDT	DOUBLE POLE, DOUBLE THROW	MLO	MAIN LUGS ONLY
DPST	DOUBLE POLE, SINGLE THROW	MON	MONITOR
(E)	EXISTING	MOV	MOTOR OPERATED VALVE
EE	ELECTRICAL ENCLOSURE	MS	MOTOR STARTER
EHH	ELECTRICAL HANDHOLE	MTD	MOUNTED
ELEM	ELEMENTARY	MTG	MOUNTING
EMERG	EMERGENCY	MTS	MANUAL TRANSFER SWITCH
ENCL	ENCLOSURE	MV	MEDIUM VOLTAGE
EFFL	EFFLUENT	(N)	NEW
EGC	EQUIPMENT GROUND CONDUCTOR	NC	NORMALLY CLOSED
EMT	ELECTRICAL METALLIC TUBING	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOC.
EQPT	EQUIPMENT	NEUT	NEUTRAL
ETM	ELAPSED TIME METER	NO	NORMALLY OPEN, NUMBER
FDR	FEEDER	OCF	OZONE CONTROL PANEL
FE	FLOW ELEMENT	OL	OVERLOAD
FIT	FLOW INDICATING TRANSMITTER	OT	OVER TEMPERATURE
FLEX	FLEXIBLE	OVL	THERMAL OVERLOAD RELAY
FLUOR	FLUORESCENT	OIT	OPERATOR INTERFACE TERMINAL
FREQ	FREQUENCY	P	POLE, PUMP
FSH	FLOAT SWITCH HIGH	PB	PULLBOX
FSO	FLOAT SWITCH OVERFLOW	PBSW	PUSHBUTTON SWITCH
		PC	PHOTO CELL

GENERAL NOTES

01 THE INSTALLATION OF ALL EQUIPMENT SHOWN ON THESE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE LATEST EDITIONS OF ALL APPLICABLE CODES AND UTILITY COMPANY STANDARDS. CONTACT THE UTILITY COMPANY REPRESENTATIVES AND VERIFY THEIR REQUIREMENTS.

02 THIS IS A GENERALIZED LEGEND SHEET. THIS CONTRACT MAY NOT USE ALL INFORMATION SHOWN.

03 NOTIFY THE ENGINEER IMMEDIATELY IF CONFLICTS IN EQUIPMENT LOCATIONS ARE DISCOVERED OR IF PROBLEMS ARISE DUE TO FIELD CONDITIONS, LACK OF INFORMATION OR ANY OTHER REASON.

04 INFORMATION SHOWN MAY NOT BE ALL INCLUSIVE. SEE ALSO ANSI C37.2, Y1.1, Y32.2, AND Y32.9.

05 REFER TO THE MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND FOR CERTAIN CONNECTIONS TO BE MADE TO ELECTRICAL CIRCUITS.

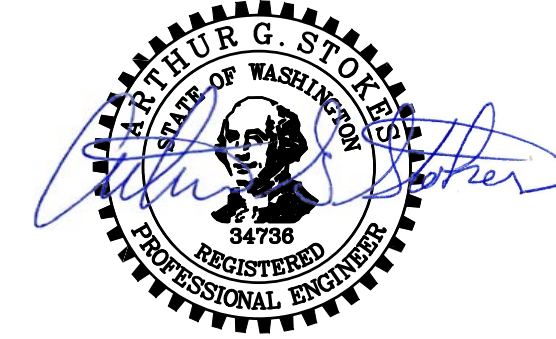
06 EQUIPMENT SHOWN IN 1/2 TONE OR GREY TONE ARE EXISTING OR BY OTHERS.

07 VERIFY ALL COLOR REQUIREMENTS BEFORE ORDERING MATERIALS.

REVISIONS	DATE	BY	DESIGNED
			B. WILLIAMS
			D. PETERSON
			A. STOKES
			H. LONGFELLOW

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FILE NAME: PS1598101-4thSt-E1-2
JOB No: 594-1598-101
DATE: FEBRUARY 2019



FEBRUARY 6, 2019

PLAN SYMBOLS	
	OVERHEAD POWER LINE
	UNDERGROUND POWER
	UNDERGROUND DUCT LINE (CONC. ENCASMENT)
	UNDERGROUND DIRECT BURIAL CONDUITS
	CONDUIT CONCEALED IN FLOOR, WALL OR CEILING
	EXPOSED CONDUIT
	CALLOUT INDICATING CONDUIT SIZE, NUMBER OF WIRES AND WIRE SIZE
	CALLOUT INDICATING CONDUIT PER SCHEDULE
	CONDUIT RUN, HATCH MARKS INDICATE NUMBER OF #12 CONDUCTORS, NO HATCH MARKS IS (2) #12 AND (1) #12 GND
	HOME RUN TO PANELBOARD OR AS INDICATED
	FLEXIBLE CONDUIT
	CONDUIT RUN, BROKEN AND CONTINUED SAME SHEET OR AS NOTED
	CONDUIT WITH SEAL FITTING
	CAP ON CONDUIT STUB
	OPEN CIRCLE DENOTES UPWARD CONDUIT RISER
	SOLID CIRCLE DENOTES DOWNWARD CONDUIT RISER
	INDICATES REMOVAL
	CABLE TRAY
	SURFACE MOUNTED PANELBOARD
	FLUSH MOUNTED PANELBOARD
	LOCAL CONTROL STATION
	CONTROL STATION W/SAFETY SWITCH (SEE NOTE P4)
	EQUIPMENT MOUNTING STAND
	MOTOR
	SAFETY SWITCH (SEE NOTE P4)
	COMBINATION MOTOR STARTER AND SAFETY SWITCH (SEE NOTE P4)
	MANUAL MOTOR STARTER
	GROUND ROD AND BOX
	GROUNDING BRANCH CONNECTION
	CONDUIT NUMBER P-POWER C-CONTROL S-SIGNAL
	SINGLE POLE SWITCH (SEE NOTES P2 & P3)
	WALL/CEILING MOUNTED FIXTURE
	POLE MOUNTED FIXTURE
	WALL/CEILING MOUNTED EXIT LIGHT - DIRECTIONAL ARROW WHERE INDICATED, SHADED AREA INDICATES ILLUMINATED FACE
	WALL/CEILING MOUNTED EMERGENCY LIGHT WITH REMOTE BATTERY
	PHOTO ELECTRIC CELL
	EMERGENCY LIGHT WITH SELF CONTAINED BATTERY
	LIGHT FIXTURE IDENTIFICATION
	SINGLE RECEPTACLE, 120V
	SINGLE RECEPTACLE, 208V/240V
	DUPLEX WALL RECEPTACLE, 120V WP = WEATHERPROOF G = GROUNDED IG = ISOLATED GROUND GF = GROUND FAULT INTERRUPTER
	DOUBLE DUPLEX, 120V
	DUPLEX FLOOR RECEPTACLE, 120V
	MULTI-OUTLET ASSEMBLY WITH SINGLE RECEPTACLE, 120V SPACING (X INCHES) AS NOTED MOUNTING HEIGHT AS NOTED
	SPECIAL PURPOSE WALL RECEPTACLE, RATING AS NOTED
	FLOOR, WALL AND CEILING JUNCTION BOXES
	WALL TELEPHONE OUTLET (+12V)
	WALL TELEPHONE OUTLET (+60V)
	FLOOR TELEPHONE OUTLET
	BELL/BUZZER
	ELECTRIC METER SOCKET
	MANHOLE OR HANDHOLE
	EQUIPMENT CONNECTION
	INSTRUMENT
	THERMOSTAT

PLAN SYMBOL NOTES

P1 CONDUIT SIZE AND FILL SHALL BE AS INDICATED, WHERE NO SIZE IS SHOWN, THE CONDUIT SHALL BE SIZED IN ACCORDANCE WITH THE EDITION OF THE NATIONAL ELECTRICAL CODE ADOPTED BY THE AUTHORITY HAVING CODE ENFORCEMENT JURISDICTION. WHERE NO FILL IS INDICATED, PROVIDE (3) #12 WIRES. PROVIDE 3/16 INCH NYLON PULL ROPE IN EACH EMPTY CONDUIT.

P2 LOWER CASE LETTERS IN PARENTHESIS ADJACENT TO A SWITCH OR LIGHT FIXTURE INDICATE A SWITCHED CIRCUIT AND IDENTIFY THE FIXTURE/SWITCH COMBINATIONS. FOR FOUR LAMP FLUORESCENT FIXTURES WIRED IN PAIRS WITHIN EACH FIXTURE, THE "a" SWITCH CONTROLS THE OUTER LAMPS AND THE "b" SWITCH CONTROLS THE INNER LAMPS. WIRE 3 LAMP FIXTURES SIMILARLY.

P3 NUMBERS IN PARENTHESIS ADJACENT TO A LIGHT FIXTURE OR RECEPTACLE INDICATE THE LIGHTING PANEL BRANCH CIRCUIT FEEDING THE DEVICE.

P4 NUMBER INDICATES THE AMPERAGE RATING OF THE SWITCH. IDENTIFIERS IN PARENTHESIS INDICATE THAT THE SWITCH IS PROVIDED WITH FUSES AND THE AMPERAGE RATING OF THE FUSE(S).

SINGLE LINE SYMBOLS	
	GROUND CONNECTION
	SWITCH, 3 POLE EXCEPT WHERE NOTED, RATING IN AMPERES AS NOTED (NOTE 1)
	TEST SWITCH WITH SHORTING BLOCK
	AUTOMATIC TRANSFER SWITCH 3 POLE, RATING AS NOTED
	SHUNT TRIP
	FUSE
	FUSE CUTOUT
	CIRCUIT BREAKER, 3 POLE EXCEPT WHERE NOTED, RATING IN AMPERES AS NOTED.
	POWER CIRCUIT BREAKER DRAWOUT ABOVE 1500V RATING AS NOTED
	SURGE ARRESTER
	CURRENT TRANSFORMER
	VOLTAGE TRANSFORMER
	POWER OR DISTRIBUTION TRANSFORMER RATING AS NOTED
	MOTOR, NUMBER INDICATES HORSEPOWER
	GENERATOR
	SOFT START
	BUS STAB ON MCC OR SWITCHGEAR, CORD & PLUG CONNECTION FOR MOTORS
	THERMAL OVERLOAD
	* A - AMMETER V - VOLTMETER WH - WATTHOUR METER GS - GROUND FAULT SENSOR AMMETER SWITCH
	VOLTMETER SWITCH
	ELEMENTARY DIAGRAM NUMBER
	KIRK KEY INTERLOCK
	POWER RECEPTACLE FOR PORTABLE EQUIPMENT
	TERMINATOR/POTHEAD
	SPLICE, TERMINATION
	* MOTOR STARTER, NUMBER INDICATES NEMA SIZE (NONE) FULL VOLTAGE NONREVERSING A = AUTOTRANSFORMER REDUCED VOLTAGE SS = SOLID STATE -2S = TWO SPEED
	CAPACITOR - KVAR INDICATED
	VACUUM BREAK SWITCH
	VARIABLE FREQUENCY DRIVE
	CALLOUT INDICATING CONDUIT AND WIRE PER SCHEDULE
	SURGE PROTECTION DEVICE

LOOP WIRING/ELEMENTARY DIAGRAM SYMBOLS			
	FUSE, RATING IN AMPERES		BUS STAB ON MCC, CORD & PLUG CONNECTION FOR MOTORS
	MOTOR		THERMAL OVERLOAD
	ELAPSED TIME METER		BUZZER
	CONTROL DEVICE COIL, NUMBER, WHEN USED, DISTINGUISHES BETWEEN DEVICES OF THE SAME TYPE.		HORN
	ALT - ALTERNATOR CR - CONTROL RELAY GR - GENERAL RELAY ISR - INTRINSICALLY SAFE RELAY		BELL
	LR - LATCH RELAY SV - SOLENOID VALVE PR - PROBE RELAY TR - TIMING RELAY TOF - TIMING OFF RELAY MPR - MODE PRIORITY RELAY		CIRCUIT BREAKER
	SENSING SWITCHES		
CLOSE ON		SENSED VARIABLE	
↑	↓	↑	↓
LIMIT SWITCHES			
	CLOSE ON REACHING LIMIT		
	CLOSE ON LEAVING LIMIT		
TIMED CONTACTS			
SYMBOL	NORMAL	OPEN TO CLOSED	CLOSED TO OPEN
	OPEN	DELAYED	INSTANTANEOUS
	CLOSED	INSTANTANEOUS	DELAYED
	OPEN	INSTANTANEOUS	DELAYED
	CLOSED	DELAYED	INSTANTANEOUS
ELEMENTARY DIAGRAMS			
E1	"NORMAL" STATUS OF SWITCHES OR CONTACTS IS THE SHELF POSITION.		
E2	NUMBERS AND LETTERS IDENTIFY DEVICE.		
	HAND-OFF-AUTOMATIC SWITCH		
	HAND-OFF-REMOTE SWITCH		
	REACTOR		
	CONTACT		
	WIRING INSIDE ENCLOSURE		
	FIELD WIRING		
	MOTOR HEATER		
FIRE ALARM			
	FIRE ALARM CONTROL PANEL		
	HORN AND STROBE		
	MANUAL PULL STATION		
	COMBINATION SMOKE/HEAT DETECTOR		

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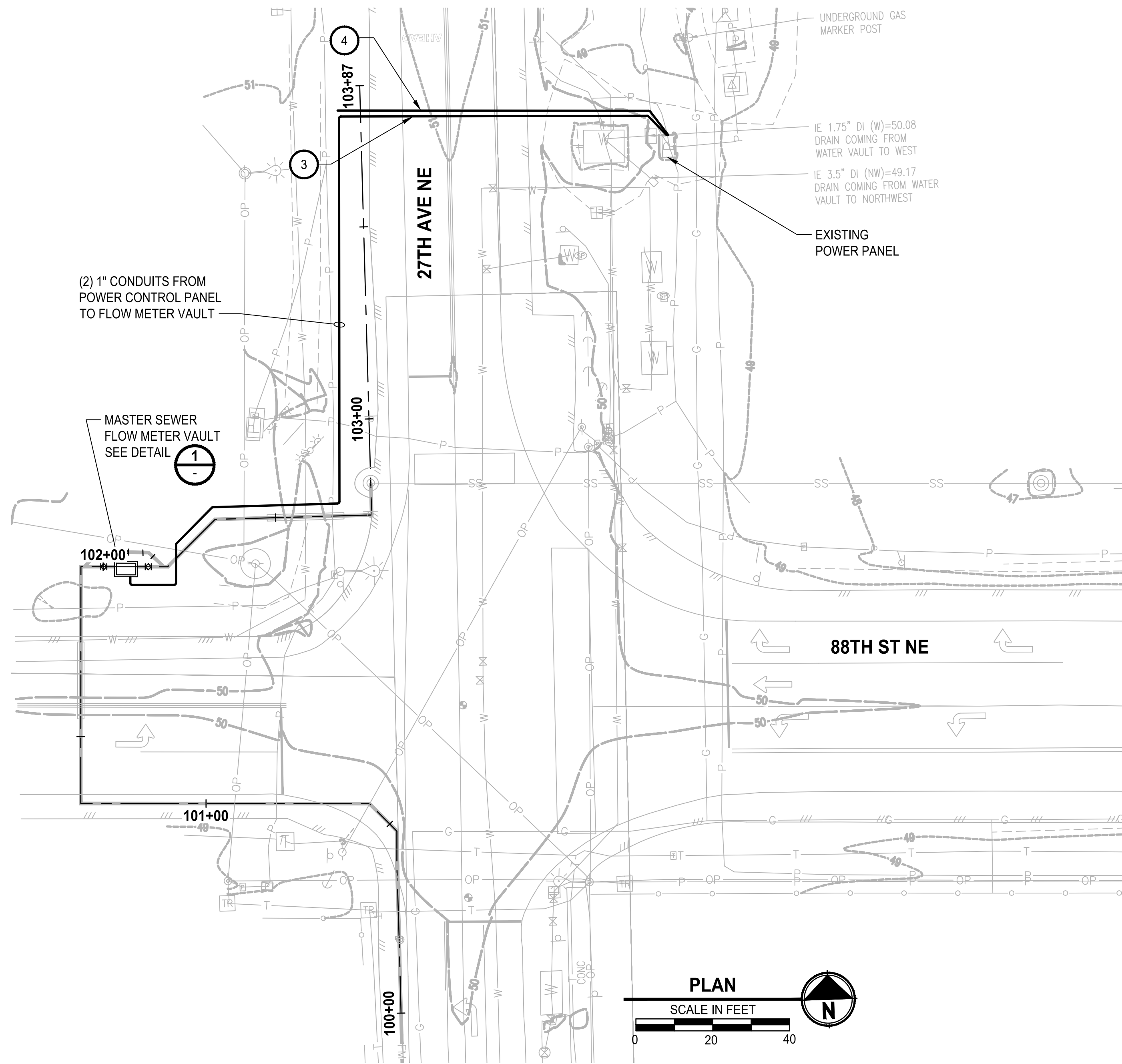
PROJECT NAME
**THE TULALIP TRIBES
4TH STREET SEWER EXTENSION TO
MBR PLANT**
TULALIP, WASHINGTON

**ELECTRICAL LEGEND AND
ABBREVIATIONS**

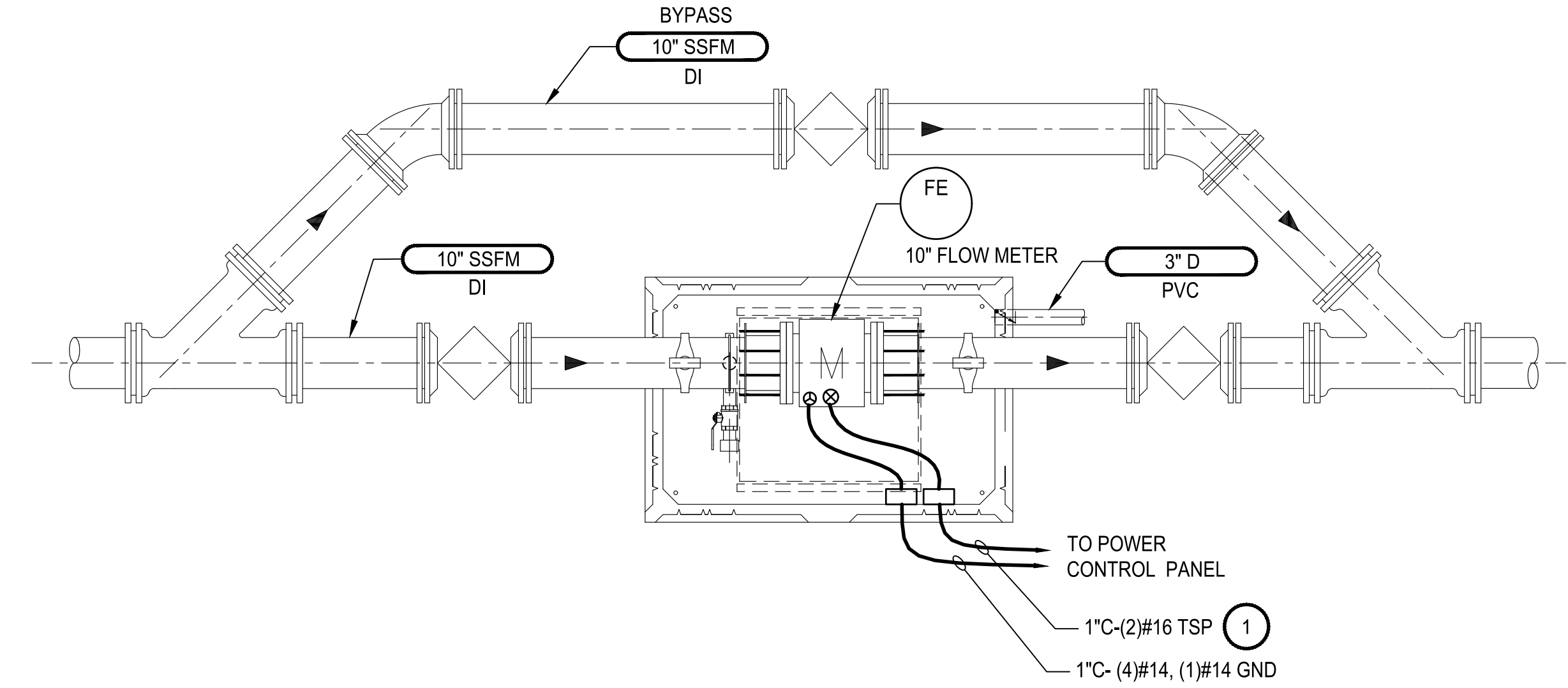
DRAWING NO.
17 OF 18

E1

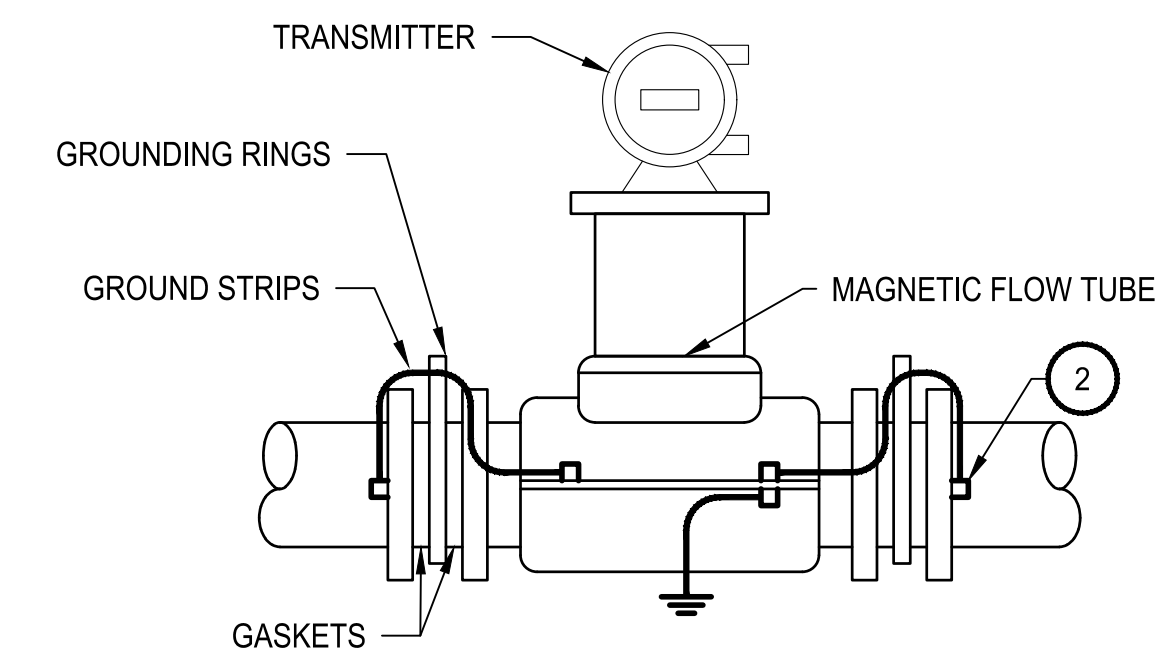
LAYOUT: E2
 PATH: U:\PSO\Projects\Clients\1598-Tulip\Tribes\554-1598-101_Ordwy\improve\fraser\995\cadd\dwg\PH_3_4th St Sewer Extension to MBR
 PLOTTED BY: peterden DATE: Wednesday, February 6, 2019 3:26:33 PM



- NOTES:**
- 1 TSP SHIELD TO BE GROUNDED ONLY AT THE CONTROL PANEL END. INSULATE AND CAP TSP SHIELD AT THE FLOW METER VAULT.
 - 2 CONTRACTOR TO FOLLOW MANUFACTURERS RECOMMENDED GROUNDING INSTALLATION INSTRUCTIONS.
 - 3 CONDUITS SHALL BE INSTALLED VIA DIRECTIONAL DRILL UNDER ROADWAY. SEE SPECIFICATIONS.
 - 4 ADD SPARE CONDUIT UNDER ROADWAY.



**MASTER SEWER FLOW METER VAULT
 DETAIL**
 SCALE: 1/2"=1'-0"



**FLOW METER GROUNDING
 DETAIL**
 SCALE: NOT TO SCALE

PCP-01 I/O LIST				
I/O CARD	TYPE	DESCRIPTION	FROM DEVICE	NOTES
ADDITIONAL AI	AI	UPSTREAM PRESSURE TRANSMITTER	PT-XX	LOCATED IN PRV VAULT.
ADDITIONAL AI	AI	DOWNSTREAM PRESSURE TRANSMITTER	PT-XX	LOCATED IN PRV VAULT.
ADDITIONAL AI	AI	WATER FLOWMETER FLOW RATE	FIT-XX	LOCATED IN MASTER METER VAULT.
ADDITIONAL AI	AI	(SPARE)		

REVISIONS	DATE	BY	DESIGNED
			B. WILLIAMS
			J. VONDERAHE
			A. STOKES
			H. LONGFELLOW

**ONE INCH AT FULL SCALE.
 IF NOT, SCALE ACCORDINGLY**
 FILE NAME
 PS1598101-4thSt-E1-2
 JOB No.
 554-1598-101
 DATE
 FEBRUARY 2019



FEBRUARY 6, 2019

Parametrix
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PROJECT NAME
**THE TULALIP TRIBES
 4TH STREET SEWER EXTENSION TO
 MBR PLANT**
 TULALIP, WASHINGTON

**MASTER SEWER FLOW
 METER VAULT AND DETAILS**

DRAWING NO.
 18 OF 18
E2