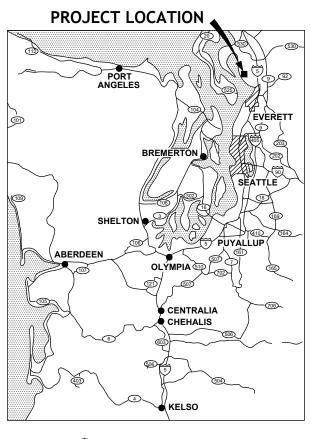
THE TULALIP TRIBES WATER SYSTEM IMPROVEMENTS



HERMOSA BEACH ROAD AND FRYBERG ESTATES, MISSION BEACH ROAD, AND 88TH ST NE **TULALIP INDIAN RESERVATION SNOHOMISH COUNTY**

















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DESIGN STANDARDS:

WSDOT DESIGN MANUAL 2024 WSDOT STANDARD PLANS 2024 SNOHOMISH COUNTY ENGINEERING DESIGN AND DEVELOPMENT STANDARDS 2021

STANDARD SPECIFICATIONS:

WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION 2024

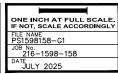
OWNER:

THE TULALIP TRIBES TULALIP, WA 98271 ATTN: CHRISTINA PARKER CELL: (360) 913-4205

ENGINEER:

PARAMETRIX 719 2ND AVE, #200 SEATTLE, WA 98104 ATTN: HAPPY LONGFELLOW OFFICE: (206) 394-3700









THE TULALIP TRIBES **2023 WATER SYSTEM IMPROVEMENTS** TULALIP WASHINGTON

COVER SHEET, PROJECT VICINITY & LOCATION MAPS 1 OF 50

G1

LEGEND

PROPOSED	EXISTING	
	•	FOUND CASED/SURFACE MONUMENT FOUND REBAR AND CAP SET HUB & MAG NAIL SET REBAR WITH CAP
		DECIDUOUS TREE
	W.	CONIFER TREE
	d	SIGN
		CATCH BASIN AREA DRAIN POWER GUY ANCHOR POWER GUY POWER POLE
		POWER POLE WITH DROP LINE, TRANSFORMER
	<u>P</u>	POWER JUNCTION BOX
		POWER METER POWER MANHOLE
	, 1	TELEPHONE HAND HOLE
	→	POWER POLE WITH LIGHT AND TRANSFORMER
	\doc	LIGHT STANDARD
	0 H	GATE POST WATER METER
ď	ω α	FIRE HYDRANT ASSEMBLY
X	X	GATE VALVE
†		BLOWOFF ASSEMBLY
↑		ARV ASSEMBLY
	MB	MAIL BOX
		WOOD POST
	<u> </u>	FLAG POST
		STANDARD MANHOLE
	т	UNDERGROUND TELECOM
	P	UNDERGROUND POWER
	OHP	OVERHEAD POWER WATER SERVICE LINE, SIZE AS NOTED
	W	WATER LINE, SIZE AS NOTED
	— ss —— ss — —————	SANITARY SEWER GRAVITY MAIN, SIZE AS NOTED STORM DRAIN PIPE, SIZE AS NOTED
		EDGE OF ASPHALT PAVEMENT
	-00	CHAIN LINK FENCE
		BUILDING OUTLINE EDGE OF VEGETATION
		ROCKERY WALL
		PROPERTY LINE
		LOT LINE

MINOR CONTOUR, 1 FT MAJOR CONTOUR, 5 FT

LOT LINE RIGHT OF WAY LINE

ARRDEVIATIONS

AGG	AGGREGATE	G	GAS
APPROX	APPROXIMATE	GND	GROUND
APWA	AMERICAN PUBLIC WORKS ASSOCIATION	GR	GRADE
ASPH	ASPHALT	GULD	GENERAL USE LEVEL DESIGNATION
ASSY	ASSEMBLY	GV	GATE VALVE
AVE	AVENUE	ID	INSIDE DIAMETER
AVG	AVERAGE	IE	INVERT ELEVATION
BC	BEGINNING OF CURVE, BOLT CIRCLE	IN	INCH
BCR	BEGINNING OF CURVE CENTER	INSTL	INSTALL, INSTALLATION
BLDG	BUILDING	INT	INTERIOR, INTERSECTION
BLVD	BOULEVARD	INV	INVERT
BM	BEAM, BENCH MARK	JB	JUNCTION BOX
BRG	BEARING	JCT	JUNCTION
BVC	BEGIN VERTICAL CURVE	LAT	LATERAL, LATITUDE
CAP	CAPACITY	LB	POUND
CEM	CEMENT	LBL	LABEL
CLR	CLEAR, CLEARANCE	LF	LINEAR FEET, LINEAR FOOT
CO	COUNTY, CLEANOUT	LN	LANE
COMP	COMPACTION	LT	LEFT
CONC	CONCRETE	MAN	MANUAL
CONN	CONNECT, CONNECTION	MATL	MATERIAL
CONST	CONSTRUCT, CONSTRUCTION	MIN	MINIMUM, MINUTE
CONTR	CONTRACTOR	MISC	MISCELLANEOUS
COORD	COORDINATE	MON	MONUMENT
CSBC	CRUSHED SURFACING BASE COURSE	MW	MONITORING WELL
CSTC	CRUSHED SURFACING TOP COURSE	N	NORTH, NORTHING
CTR	CENTER	NIC	NOT IN CONTRACT
CUFT	CUBIC FOOT, CUBIC FEET	NO.	NUMBER
CY	CUBIC YARD	NTS	NOT TO SCALE
DEMO	DEMOLITION	PC	POINT OF CURVATURE
DEPT	DEPARTMENT	PI	POINT OF INTERSECTION, PRESSURE INDICATOR
DET	DETAIL	PIVC	POINT OF INTERSECTION FOR VERTICAL CURVE
DIA	DIAMETER	PP	POWER POLE
DIM	DIMENSION	PRV	PRESSURE REGULATING VALVE, PRESSURE RELIEF
DIST	DISTANCE, DISTRICT		VALVE, PRESSURE REDUCING VALVE
DSGN	DESIGN	PSI	POUNDS PER SQUARE INCH
DWG	DRAWING	PT	POINT OF TANGENCY, POINT
E	EAST, EASTING	PVI	POINT OF VERTICAL INTERSECTION
EA	EACH	PVT	PAVEMENT, PAVING, PRIVATE
EC	END OF CURVE	PWR	POWER
EL	ELEVATION	QTY	QUANTITY
ELL	ELBOW	QUAL	QUALITY
EOP	EDGE OF PAVEMENT	R	RISER
EQUIP	EQUIPMENT	RAD	RADIUS
EVC	END VERTICAL CURVE	RD	ROAD, ROOF DRAIN
EXIST	EXISTING	RED	REDUCER
EXL	EXCAVATE	REF	REFERENCE
FCR	FINE CRUSHED ROCK	REQD	REQUIRED
FG	FINISH GRADE	RFCA	RESTRAINED FLANGED COUPLING ADAPTER
FH	FIRE HYDRANT	ROT	ROTATE
FIN	FINISH, FINISHED	ROW	RIGHT OF WAY
	,	RT	RIGHT
		RV	RELIEF VALVE
		RW	RIGHT OF WAY
		S	SOUTH
		SCH	SCHEDULE

DRAWING INDEX					
DWG NO.	SHT NO.	DESCRIPTION			
1	G1	COVER SHEET			
2	G2	LEGEND, ABBREVIATIONS & DRAWING INDEX			
3-17	HC1-HC15	HORIZONTAL CONTROL PLANS			
18	KM1	KEY MAP			
19-46	19-46 W1-W28 WATER PLAN & PROFILE				
47-50	DT1-DT4	DETAILS			

GENERAL NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING AND INSTALLING ALL MATERIALS, LABOR, AND EQUIPMENT NECESSARY TO COMPLETE THE WORK SHOWN ON THESE DRAWINGS AND TO OBTAIN ACCEPTANCE BY THE PROJECT OWNER.
- THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES WITH ADJACENT PROPERTY OWNERS. DRIVEWAYS AND ACCESSES SHALL REMAIN ACCESSIBLE AT ALL TIMES.
- EROSION CONTROL MEASURES ARE NOT LIMITED TO THE ITEMS ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES. NO SILTATION OF EXISTING DRAINAGE FACILITIES AND WETLANDS SHALL BE ALLOWED. CARE SHALL BE TAKEN TO PREVENT MIGRATION OF SILTS TO OFF-SITE PROPERTIES.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL "PRE-CONSTRUCTION" STATE OR BETTER.
- ALL CONSTRUCTION MUST COMPLY WITH THE WSDOT STANDARD SPECIFICATION (LATEST EDITION) UNLESS OTHERWISE SUPERSEDED BY TRIBAL STANDARDS.



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OUT:					J. WRIGHT	I	JC
Σ					APPROVED H LONGFELLOW	I	D

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FILE NAME PS1598158-G2	ı
JOB No. 216-1598-158	l
JULY 2025	





SERV

SHT

SQIN

SQYD SSMH ST STA

STD SUR

TEMP

THRU TOB TOT TYP

UG UP

SERVICE

SHEET

STREET STATION

STANDARD SURFACE SURVEY TELEPHONE

THROUGH TOP OF BANK

UNDERGROUND UTILITY POLE VALVE, VENT, VOLT VARIES, VARIABLE

TOTAL TYP**I**CAL

SLOPE, RAW SLUDGE SPECIFICATION

SQUARE FOOT, SQUARE FEET

SQUARE INCH, SQUARE INCHES

SQUARE YARD, SQUARE YARDS SANITARY SEWER MANHOLE

TEMPERATURE, TEMPORARY

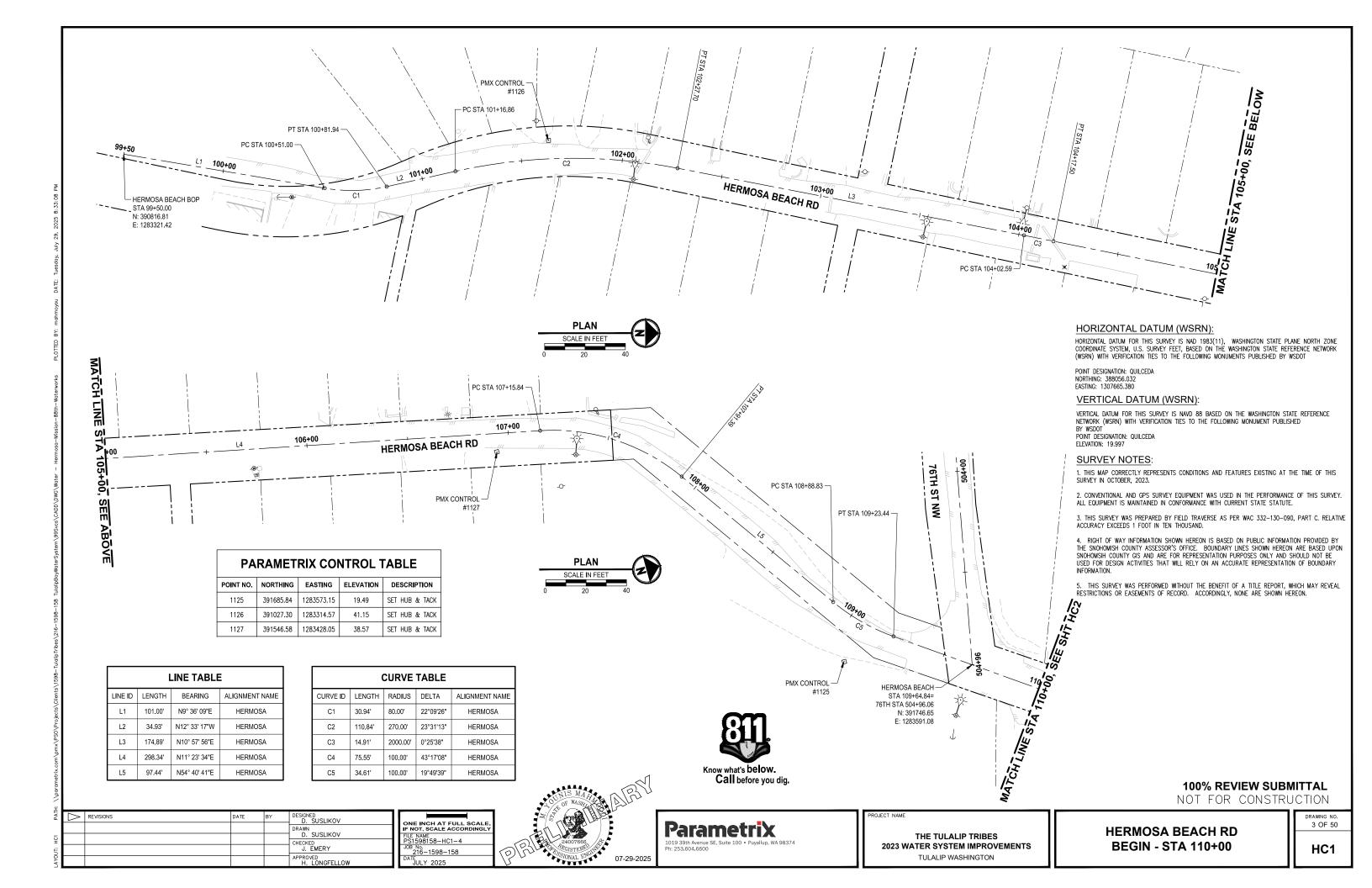
WATER, WATT, WEST, WIDTH WM WATER METER
WS WATER SURFACE
WSDOT WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

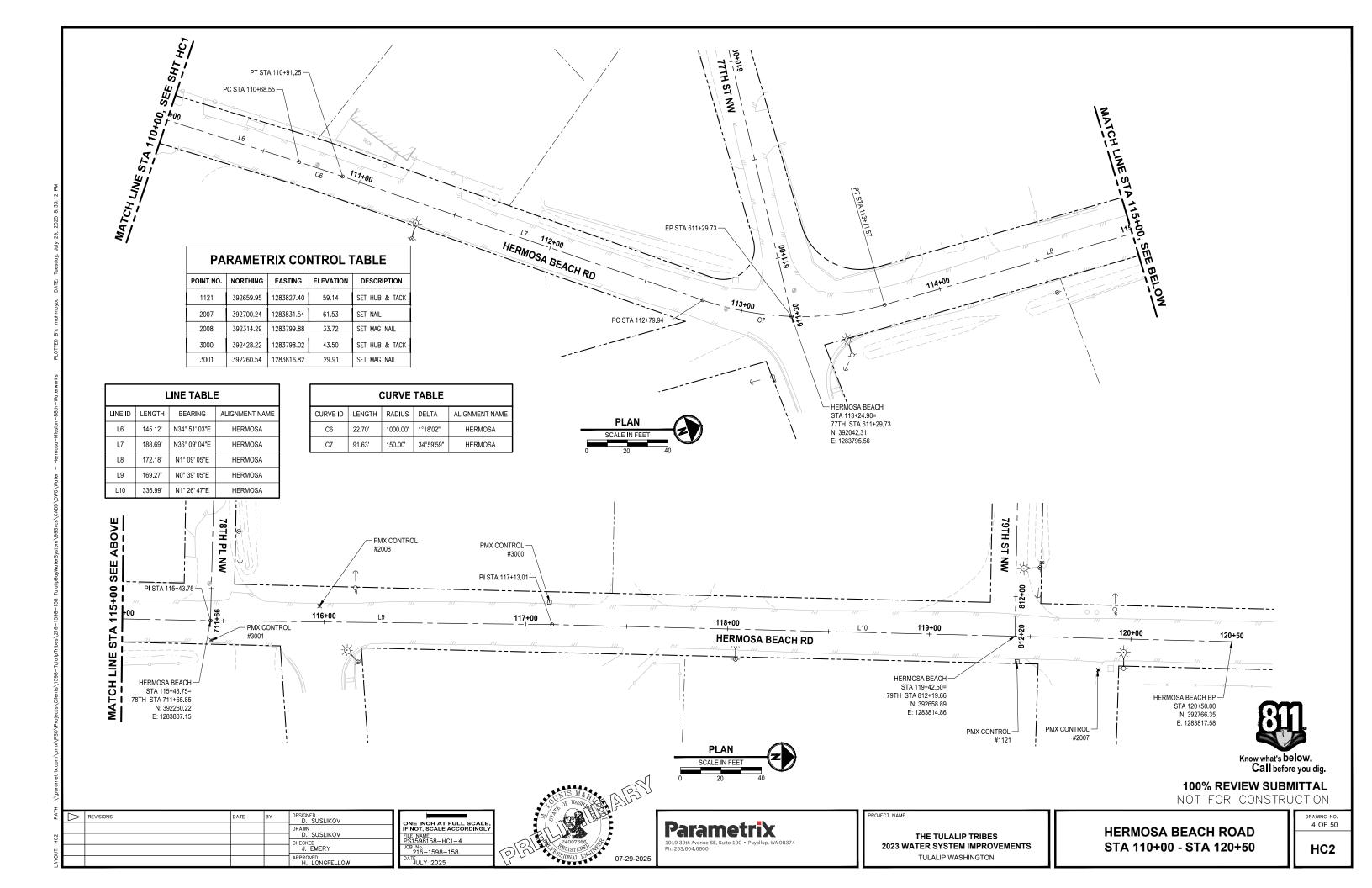
THE TULALIP TRIBES 2023 WATER SYSTEM IMPROVEMENTS TULALIP WASHINGTON

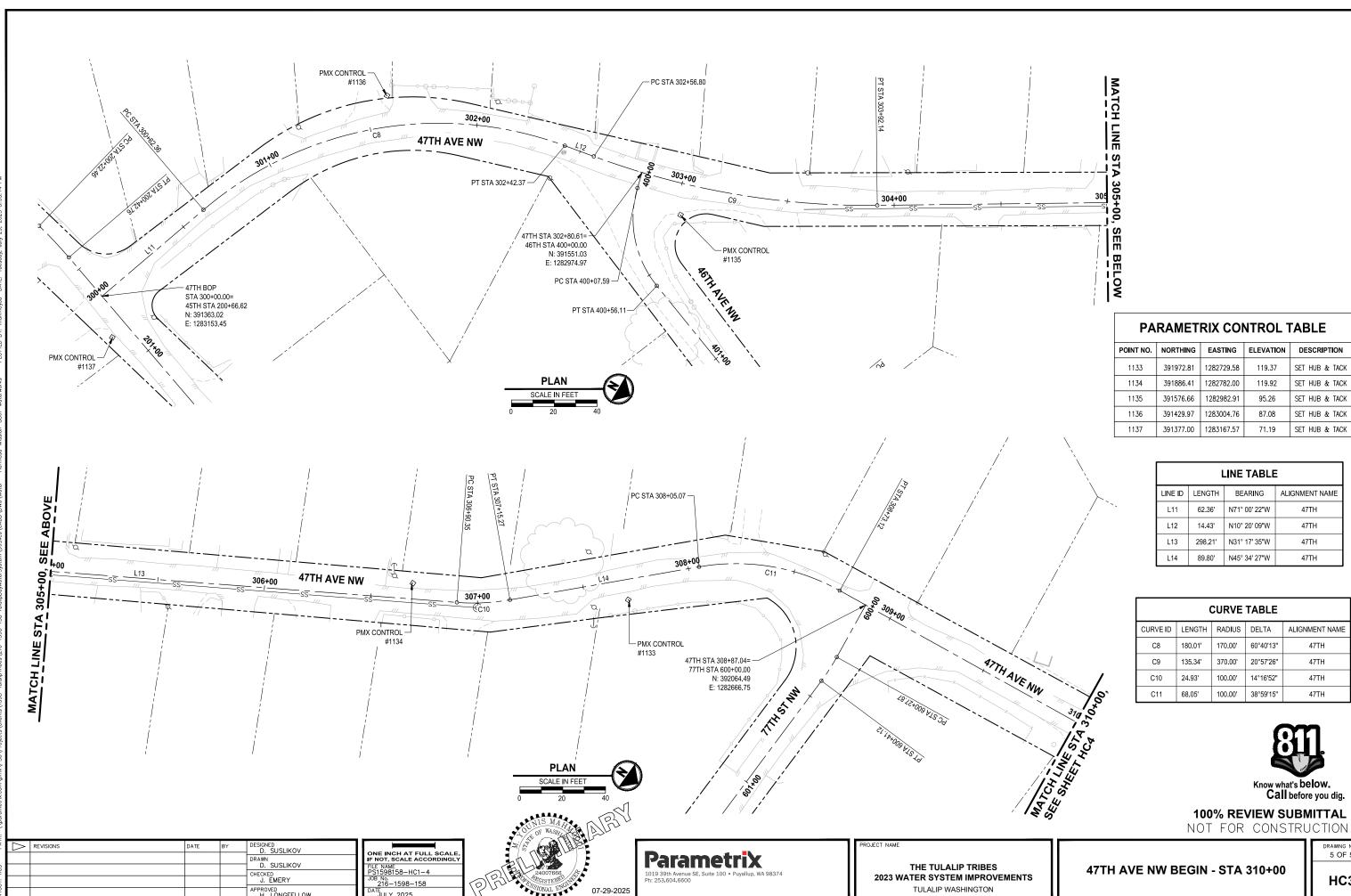
LEGEND, ABBREVIATIONS & DRAWING INDEX

2 OF 50

G2







DRAWING NO. 5 OF 50

DESCRIPTION

SET HUB & TACK

SET HUB & TACK

SET HUB & TACK

SET HUB & TACK SET HUB & TACK

ALIGNMENT NAME

47TH

47TH

47TH

ALIGNMENT NAME

47TH

119.37

119.92

95.26

71.19

BEARING

N71° 00' 22"W

N10° 20' 09"W

N31° 17' 35"W

N45° 34' 27"W

60°40'13"

20°57'26"

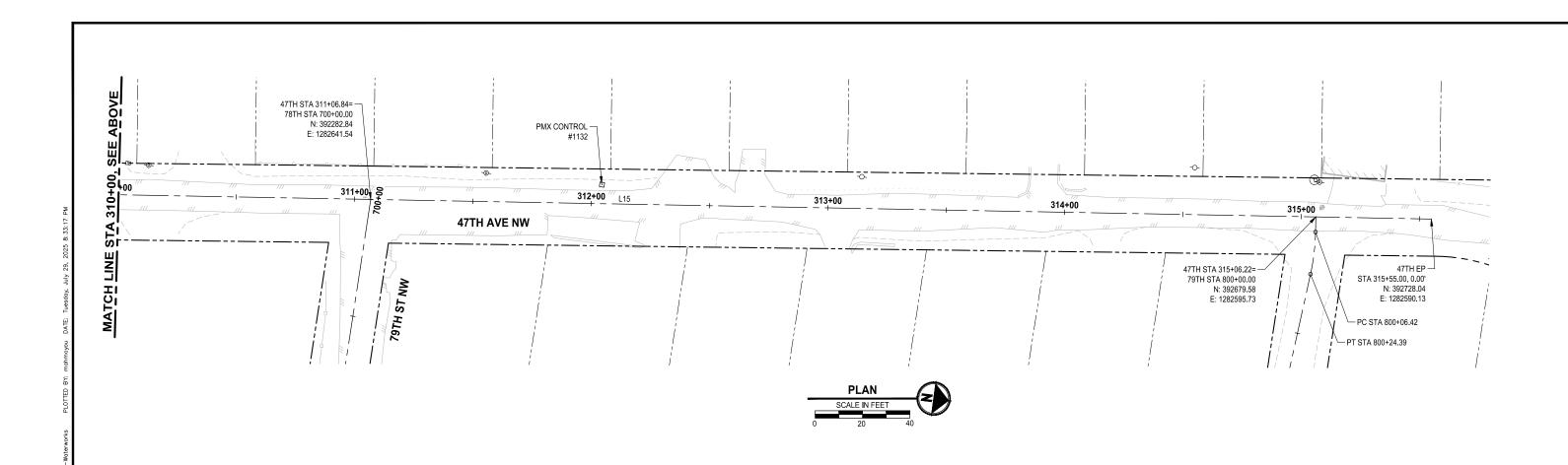
14°16'52"

38°59'15"

47TH AVE NW BEGIN - STA 310+00

TULALIP WASHINGTON

Know what's below.
Call before you dig.



PARAMETRIX CONTROL TABLE					
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION	
1132	392378.84	1282622.36	110.91	SET HUB & TACK	

LINE TABLE					
LINE ID	LINE ID LENGTH BEARING		ALIGNMENT NAME		
L15	681.88'	N6° 35' 11"W	47TH		



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REVISIONS

DATE
BY
DESIGNED
D. SUSLIKOV
DRAWN
D. SUSLIKOV
CHECKED
J. EMERY
APPROVED
APPROVED
APPROVED
LONGFELLOW

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FILE NAME
PS1598158-HC1-4
JOB No. 1598-158
DATE
DATE
DULY 2025

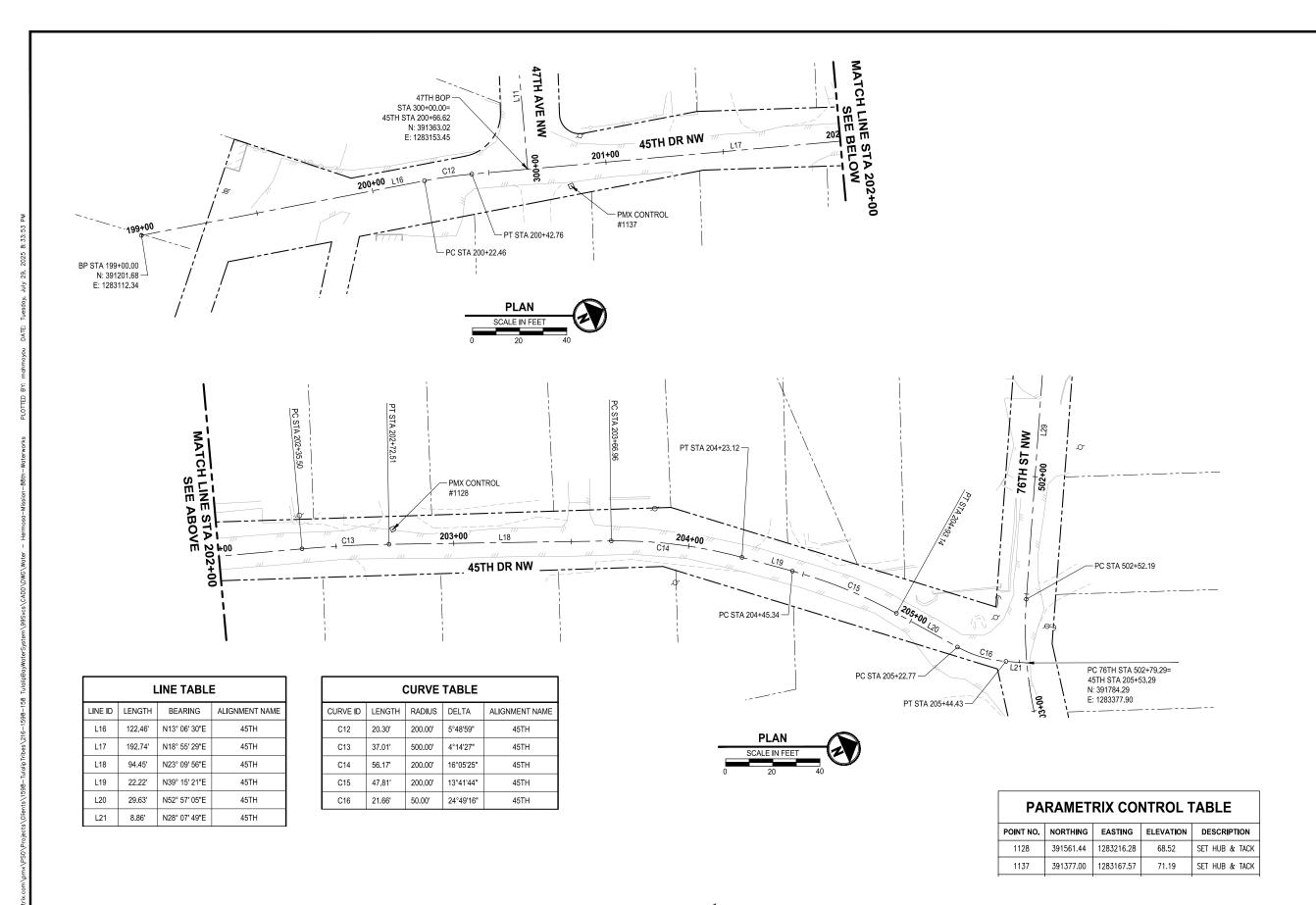




ROJECT NAME

THE TULALIP TRIBES
2023 WATER SYSTEM IMPROVEMENTS
TULALIP WASHINGTON

47TH AVE NW STA 310+00 - END DRAWING NO. 6 OF 50



DATE BY DESIGNED D. SUSLIKOV

DRAWN
D. SUSLIKOV

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J. EMERY

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DATE
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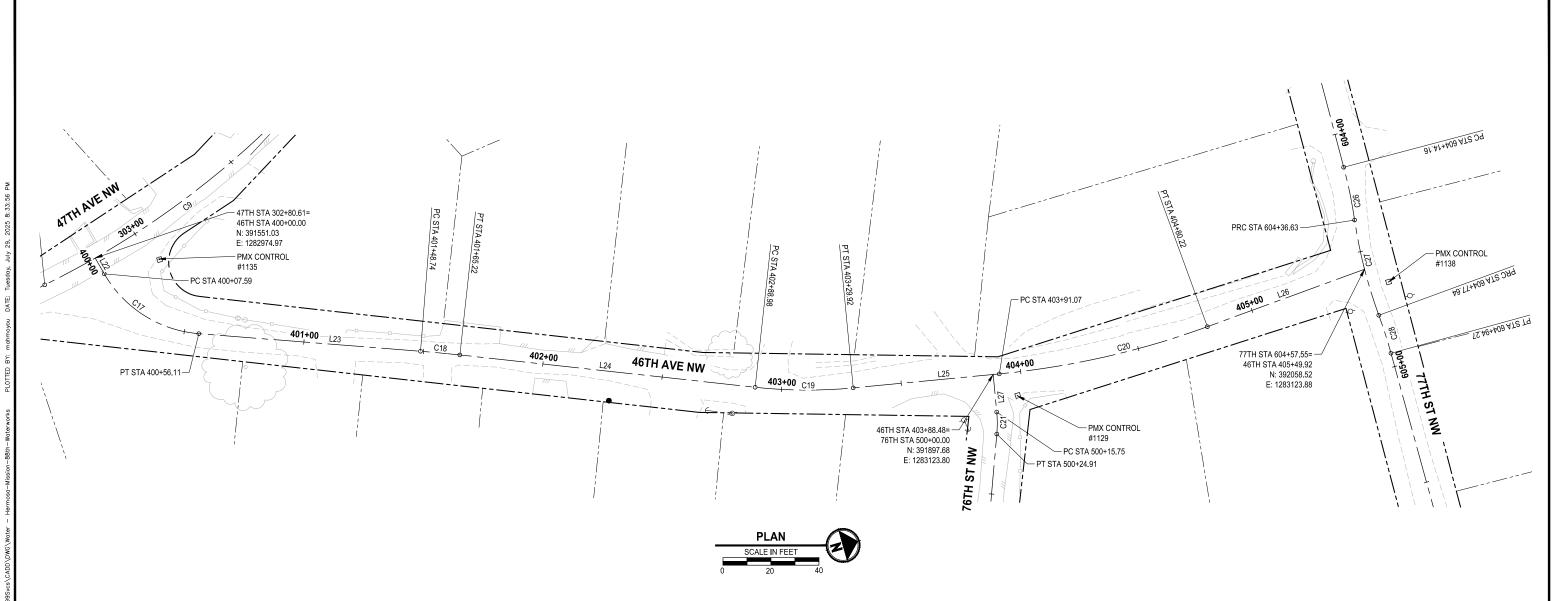
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TULALIP WASHINGTON

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45TH DR NW

ı	DRAWING NO.
ı	7 OF 50
ı	

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LINE TABLE					
LINE ID	LENGTH	BEARING	ALIGNMENT NAME		
L22	7.59'	N75° 58' 37"E	46TH		
L23	92.64'	N20° 22' 31"E	46TH		
L24	123.76'	N22° 05' 30"E	46TH		
L25	61.14'	N10° 21' 50"E	46TH		
L26	69.70'	N4° 13' 50"W	46TH		

	CURVE TABLE						
CURVE ID	LENGTH	RADIUS	DELTA	ALIGNMENT NAME			
C17	48.52'	50.00'	55°36'06"	46TH			
C18	16.48'	550.00'	1°43'00"	46TH			
C19	40.94'	200.00'	11°43'40"	46TH			
C20	89.15'	350.00'	14°35'40"	46TH			

PA	PARAMETRIX CONTROL TABLE					
POINT NO. NORTHING EASTING ELEVATION DESCRIPTION						
1129	391905.20	1283135.02	88.47	SET HUB & TACK		
1135	391576.66	1282982.91	95.26	SET HUB & TACK		
1138	392066.71	1283131.70	81.36	SET HUB & TACK		



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D. SUSLIKOV

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J. EMERY

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JOB No.
216-1598-158
DATE
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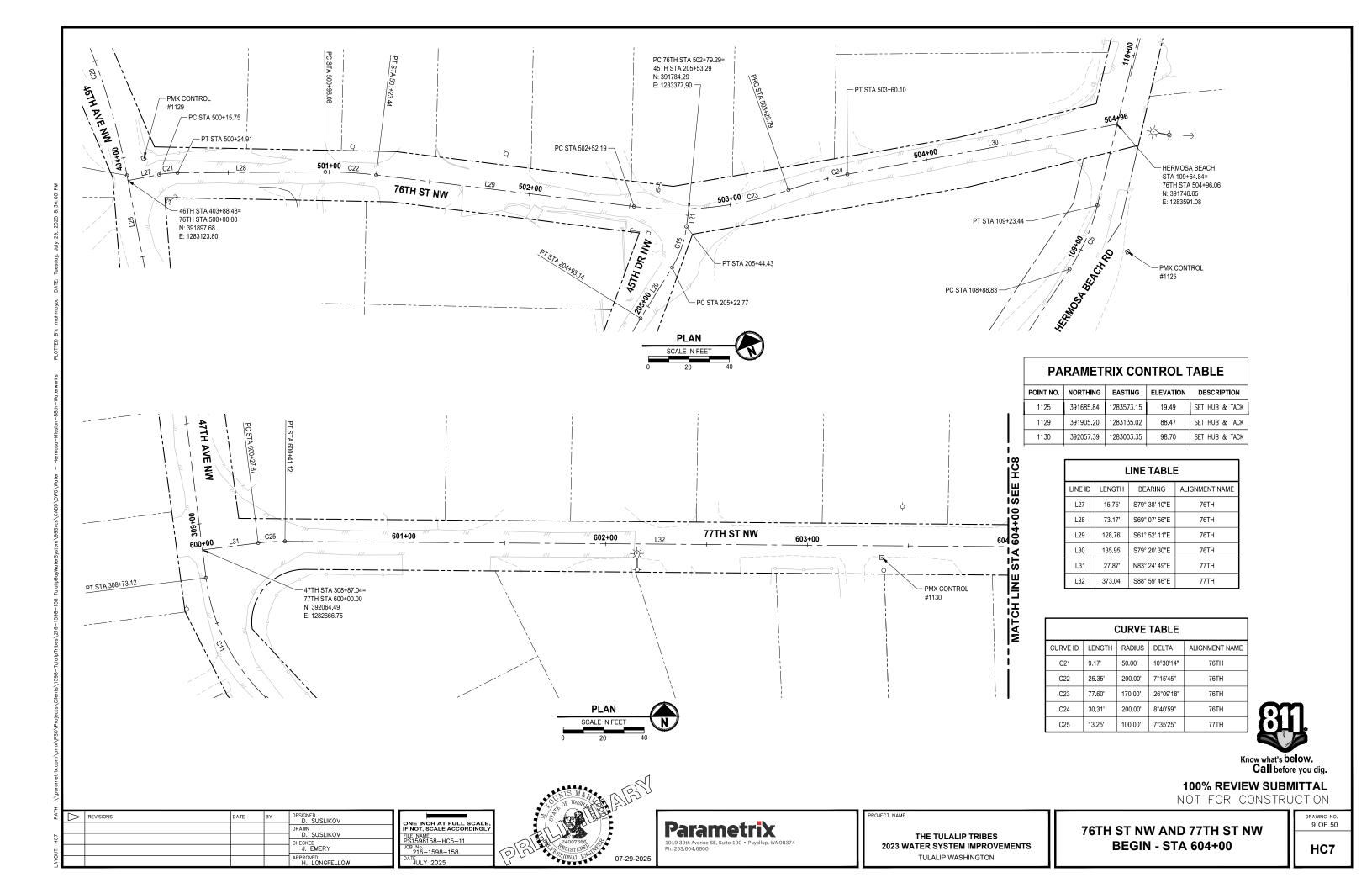


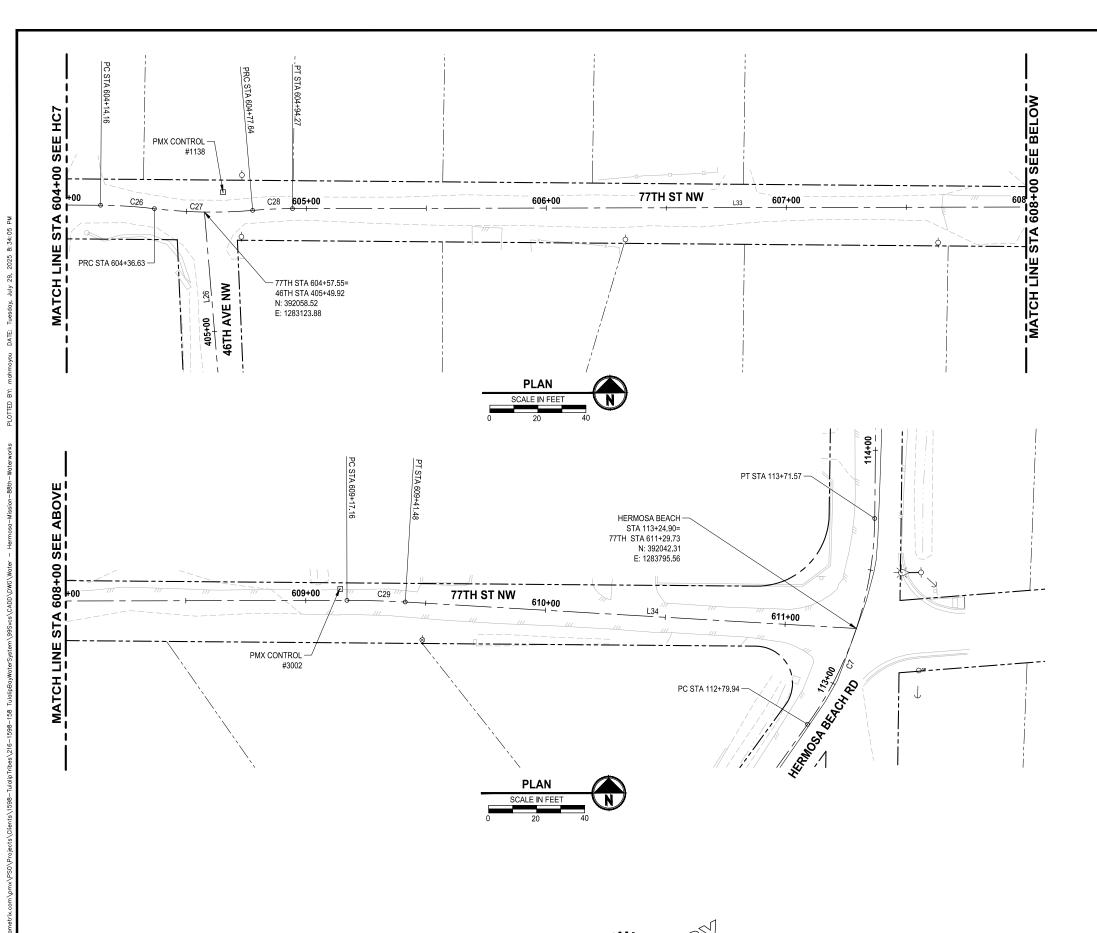
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THE TULALIP TRIBES
2023 WATER SYSTEM IMPROVEMENTS
TULALIP WASHINGTON

46TH AVE NW

DRAWING NO. 8 OF 50





PARAMETRIX CONTROL TABLE							
OINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION			
1138	392066.71	1283131.70	81.36	SET HUB & TACK			
3002	392060 96	1283580.70	26.76	SET HUR & TACK			

	L	INE TABLE	=
LINE ID	LENGTH	BEARING	ALIGNMENT NAME
L33	422.89'	S89° 32' 26"E	77TH
L34	188.25'	S86° 03' 25"E	77TH

CURVE TABLE					
CURVE ID	LENGTH	RADIUS	DELTA	ALIGNMENT NAME	
C26	22.47'	200.00'	6°26'17"	77TH	
C27	41.00'	200.00'	11°44'49"	77TH	
C28	16.63'	200.00'	4°45'53"	77TH	
C29	24.32'	400.00'	3°29'01"	77TH	

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DRAWING NO. 10 OF 50

77TH ST NW STA 604+00 - END

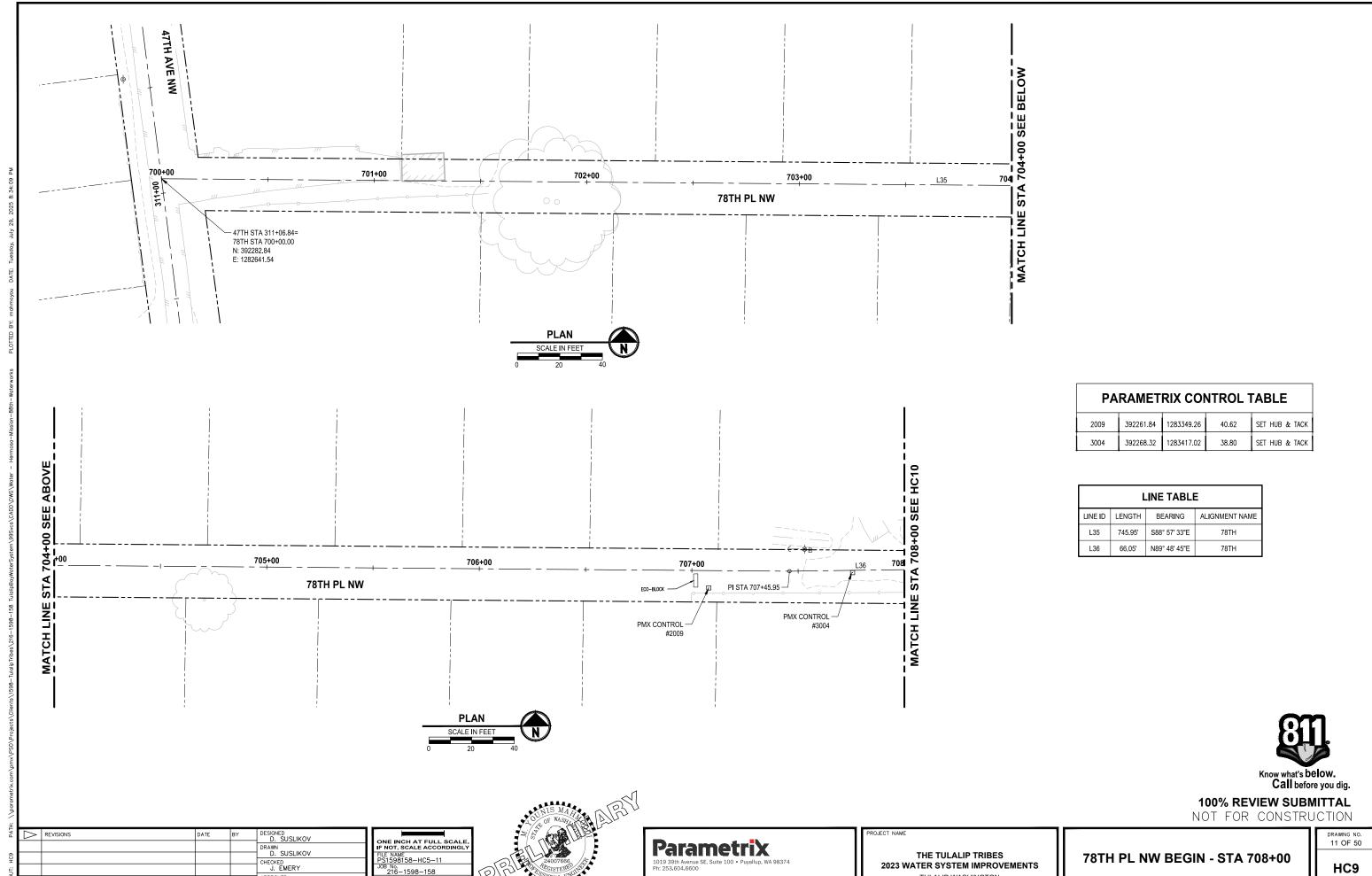
\triangle	REVISIONS	DATE	BY	DESIGNED D. SUSLIKOV
				DRAWN
				D. SUSLIKOV CHECKED
				J. EMERY
				APPROVED H LONGFELLOW

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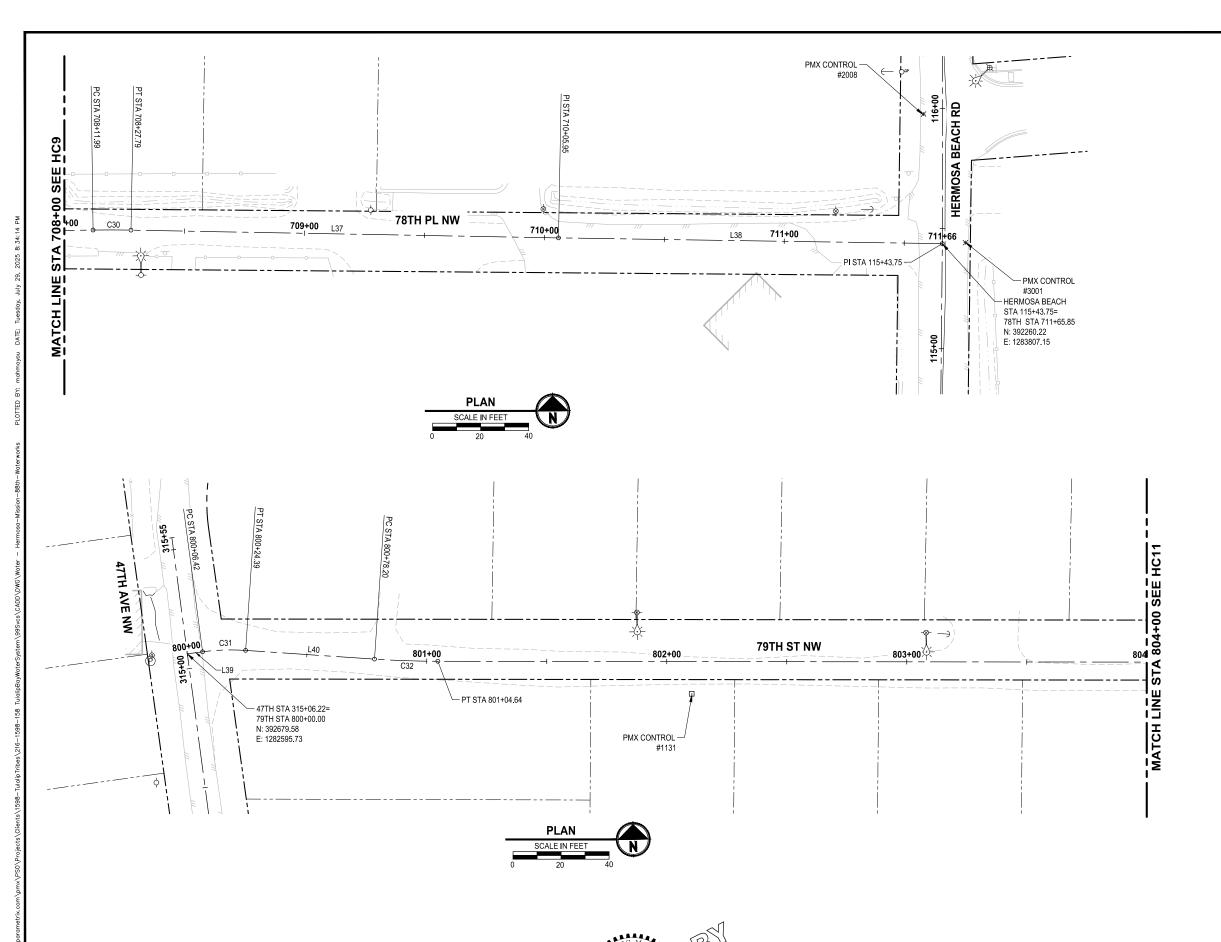




THE TULALIP TRIBES 2023 WATER SYSTEM IMPROVEMENTS TULALIP WASHINGTON



TULALIP WASHINGTON



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D. SUSLIKOV
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J. EMERY

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PARAMETRIX CONTROL TABLE					
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION	
1131	392659.26	1282805.56	111.18	SET HUB & TACK	
2008	392314.29	1283799.88	33.72	SET MAG NAIL	
3001	392260.54	1283816.82	29.91	SET MAG NAIL	

LINE TABLE					
LINE ID	LENGTH	BEARING	ALIGNMENT NAME		
L37	178.16'	S88° 22' 37"E	78TH		
L38	159.91'	S88° 33' 06"E	78TH		
L39	6.42'	N83° 24' 49"E	79TH		
L40	53.82'	S85° 08' 42"E	79TH		

	(CURVE	TABLE	
CURVE ID	LENGTH	RADIUS	DELTA	ALIGNMENT NAME
C30	15.80'	500.00'	1°48'37"	78TH
C31	17.97'	90.00'	11°26'29"	79TH
C32	26.44'	400.00'	3°47'15"	79TH



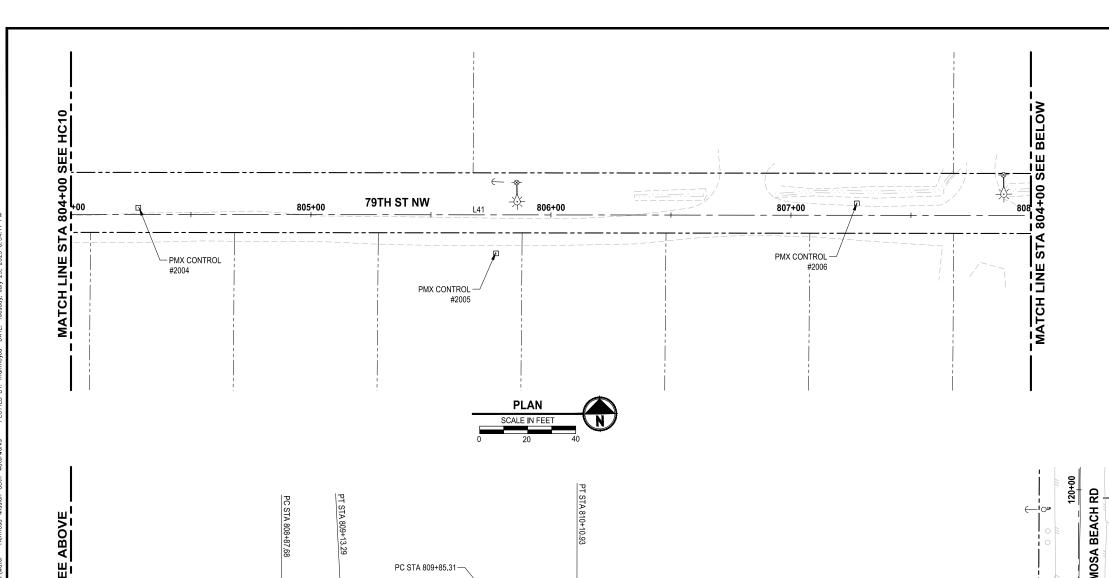
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Parametrix

07-29-2025

THE TULALIP TRIBES
2023 WATER SYSTEM IMPROVEMENTS
TULALIP WASHINGTON

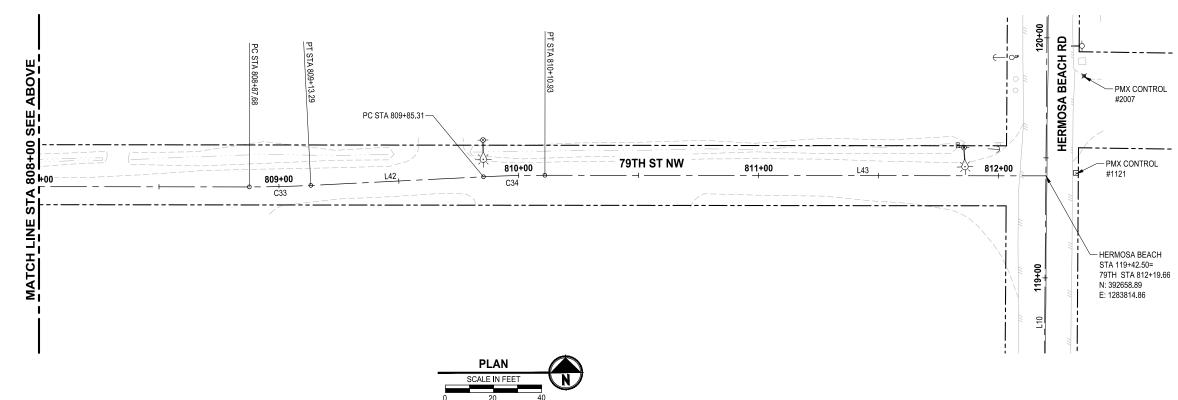
78TH PL NW STA 708+00 - END AND 79TH ST NW BEGIN - 804+00 DRAWING NO. 12 OF 50



PA	PARAMETRIX CONTROL TABLE					
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION		
1121	392659.95	1283827.40	59.14	SET HUB & TACK		
2005	392649.82	1283172.20	75.88	SET HUB & TACK		
2006	392668.01	1283322.86	67.88	COMPARE 1124		
2007	392700.24	1283831.54	61.53	SET NAIL		

LINE TABLE				
LINE ID	LENGTH	BEARING	ALIGNMENT NAME	
L41	783.03'	S88° 55' 57"E	79TH	
L42	72.02'	N88° 07' 56"E	79TH	
L43	208.73'	S88° 55' 57"E	79TH	

CURVE TABLE				
CURVE ID	LENGTH	RADIUS	DELTA	ALIGNMENT NAME
C33	25.62'	500.00'	2°56'07"	79TH
C34	25.62'	500.00'	2°56'07"	79TH





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REVISIONS

DATE
BY
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D. SUSLIKOV
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D. SUSLIKOV
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J. EMERY
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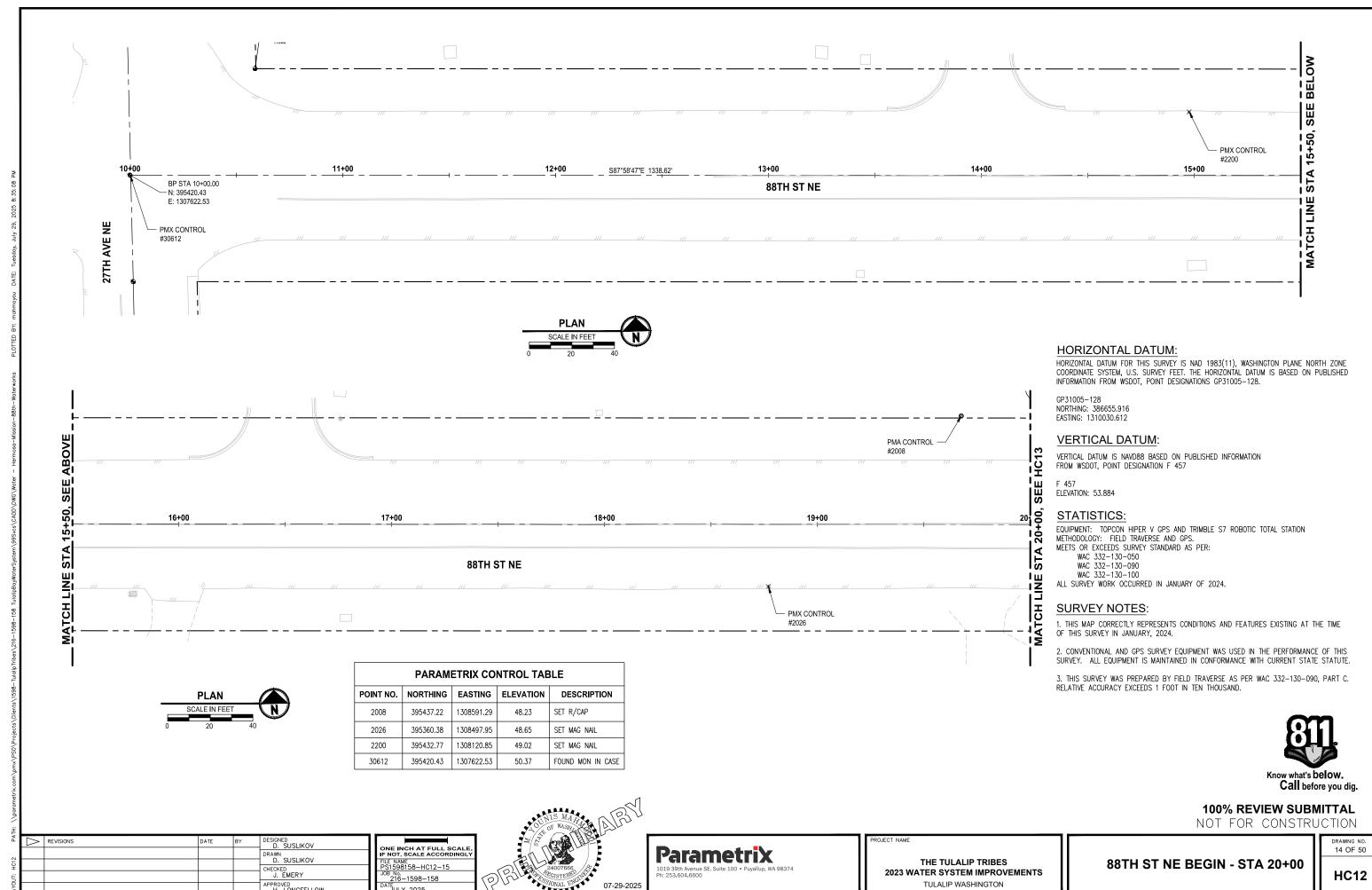


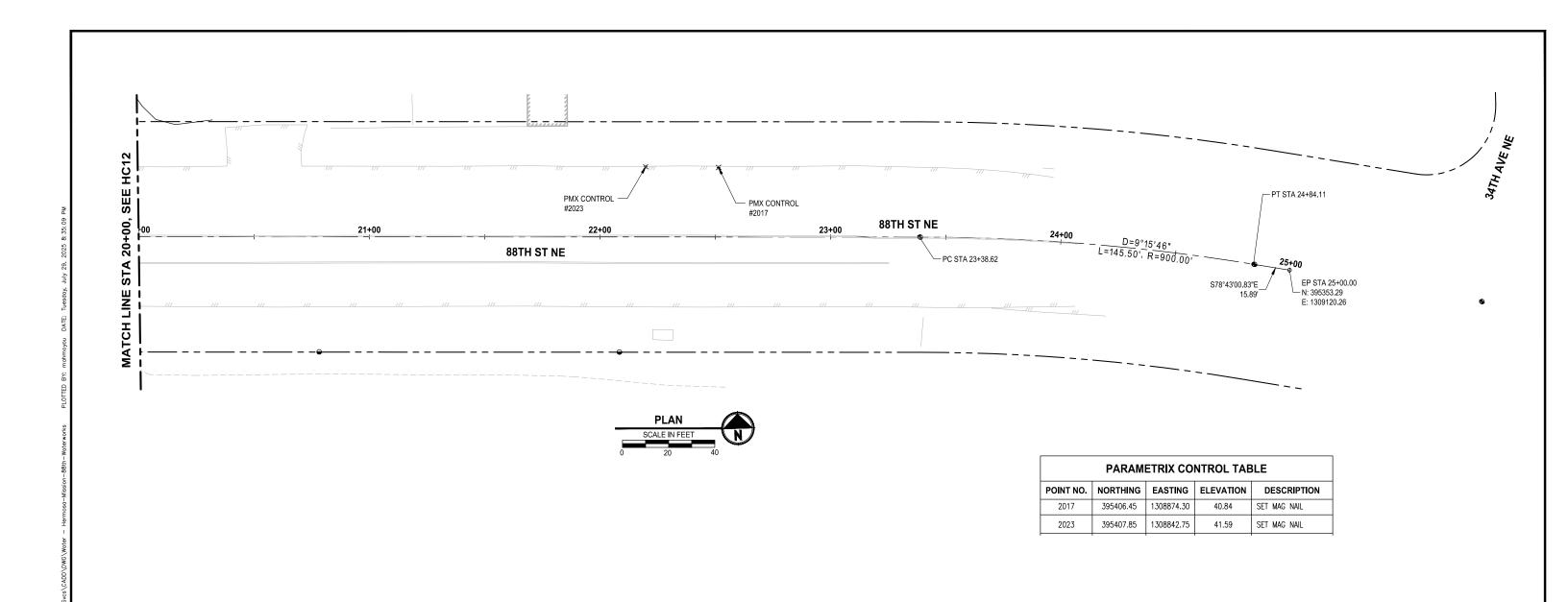
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THE TULALIP TRIBES
2023 WATER SYSTEM IMPROVEMENTS
TULALIP WASHINGTON

79TH ST NW STA 804+00 - END

DRAWING NO. 13 OF 50







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D. SUSLIKOV
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J. EMERY

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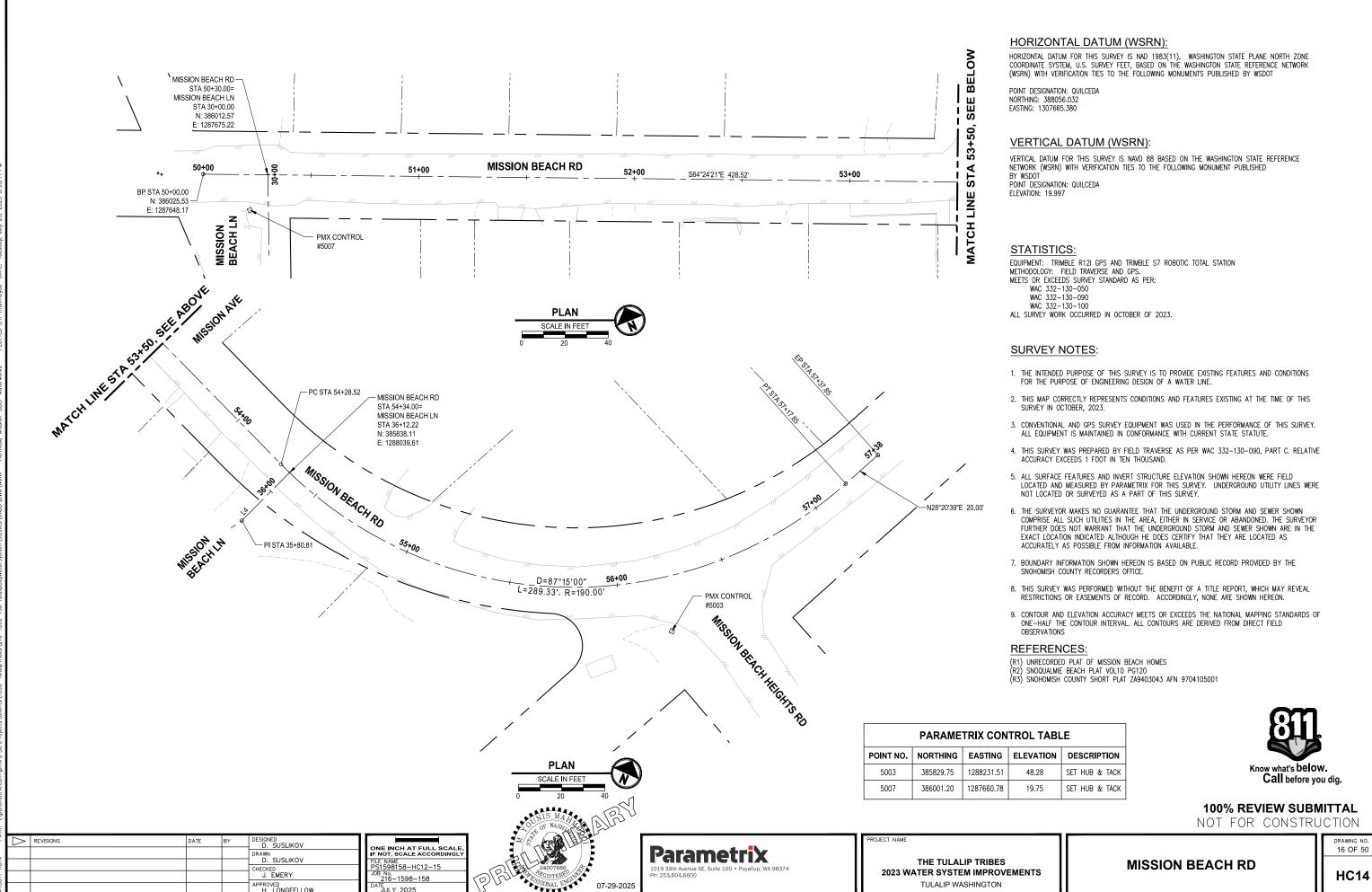




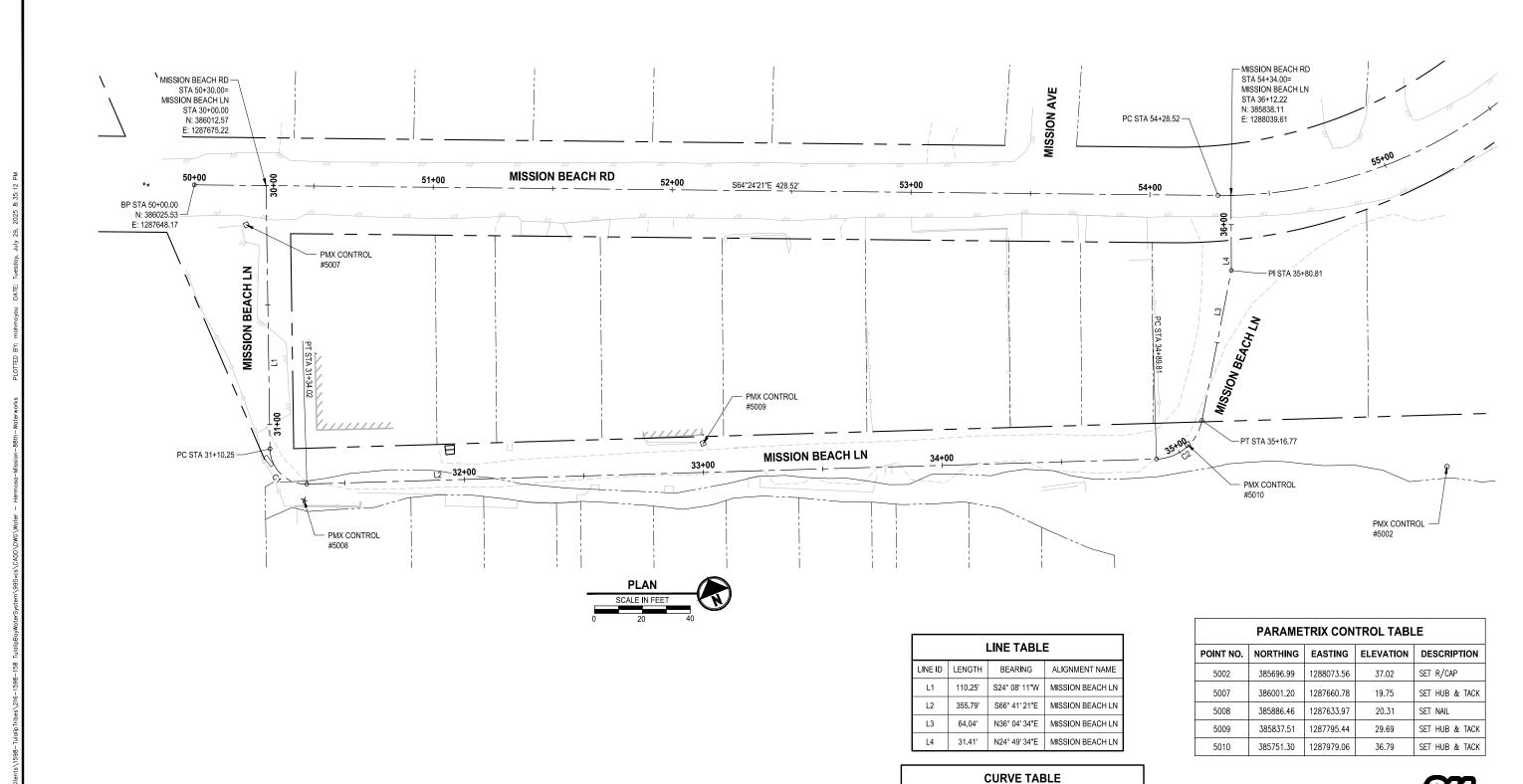
THE TULALIP TRIBES
2023 WATER SYSTEM IMPROVEMENTS TULALIP WASHINGTON

88TH ST NE STA 20+00 - END

DRAWING NO. 15 OF 50



TULALIP WASHINGTON





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FILE NAME
PSI 598158 -HC12-15
JOB No.
216-1598-158
DATE
JULY 2025





DJECT NAME

CURVE ID | LENGTH | RADIUS | DELTA

20.00'

23.78'

THE TULALIP TRIBES
2023 WATER SYSTEM IMPROVEMENTS
TULALIP WASHINGTON

ALIGNMENT NAME
MISSION BEACH LN

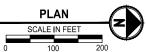
MISSION BEACH LN

MISSION BEACH LN

DRAWING NO. 17 OF 50

BEACH LN HC15





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DATE
BY
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Y. MAHMOODI
DRAWN
Y. MAHMOODI
CHECKED
J. WRIGHT

APPROVED

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FILE NAME
PS1598158-KM1
JOB No.
216-1598-158
DATE
JULY 2025

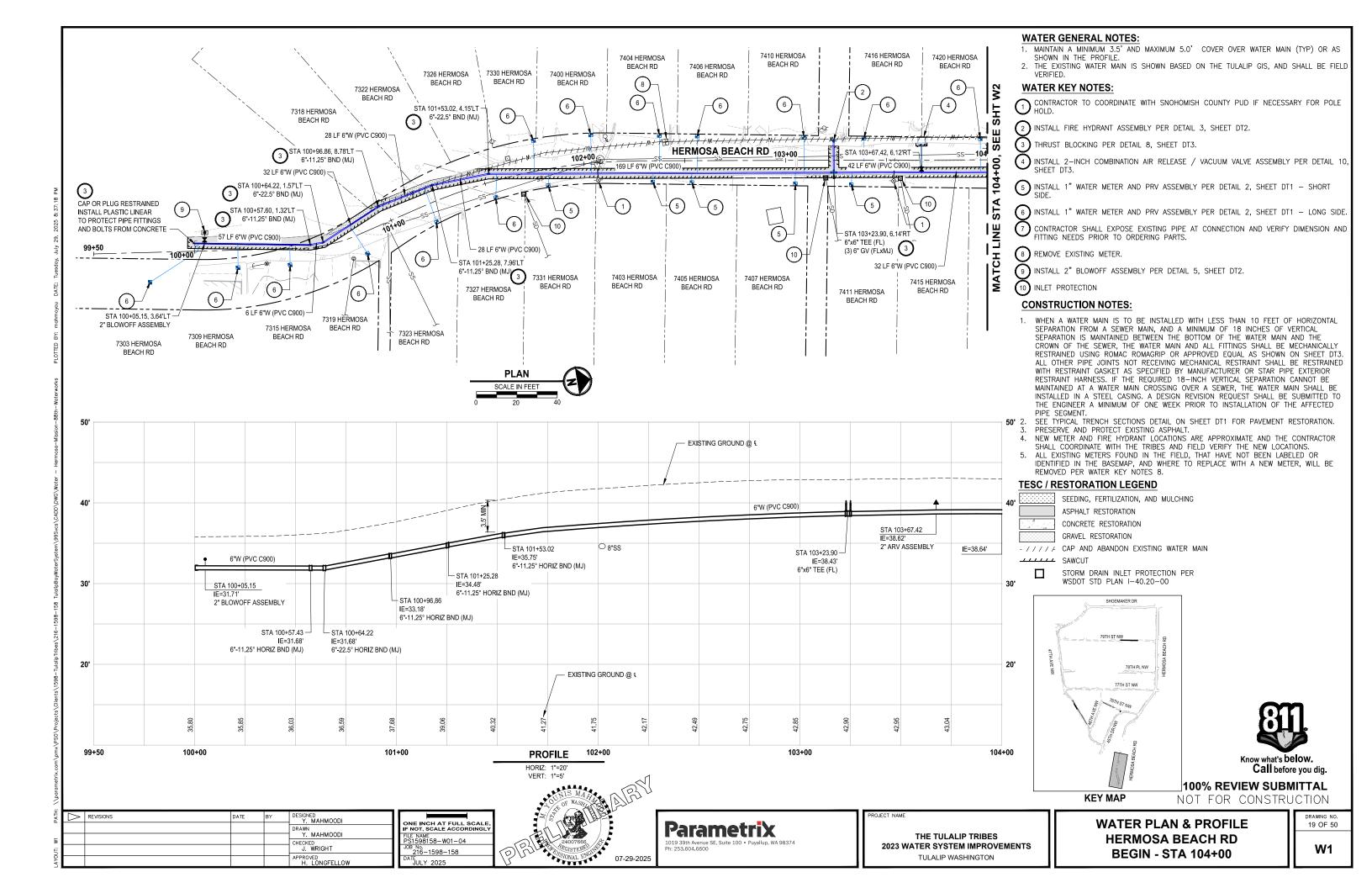


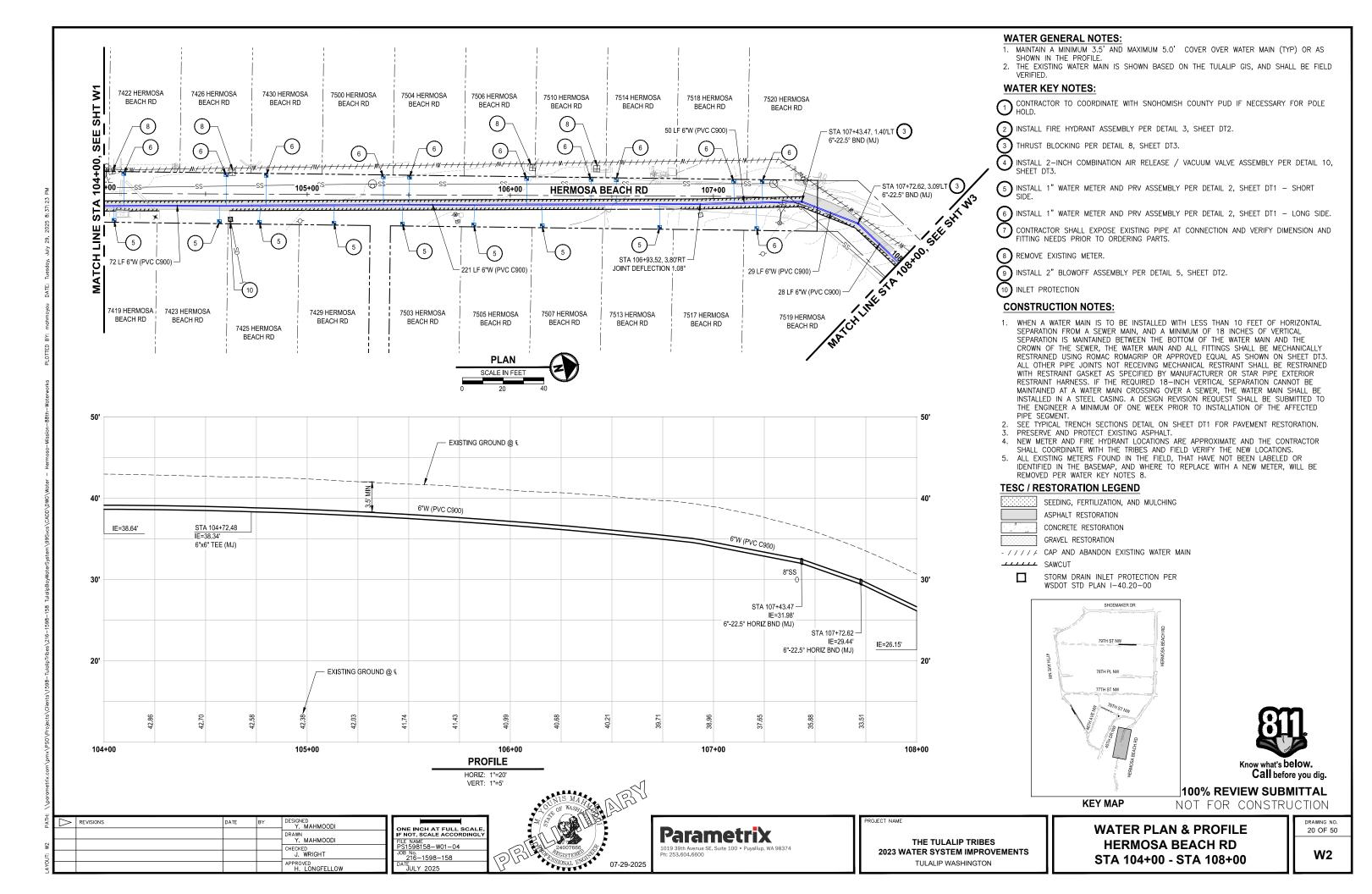


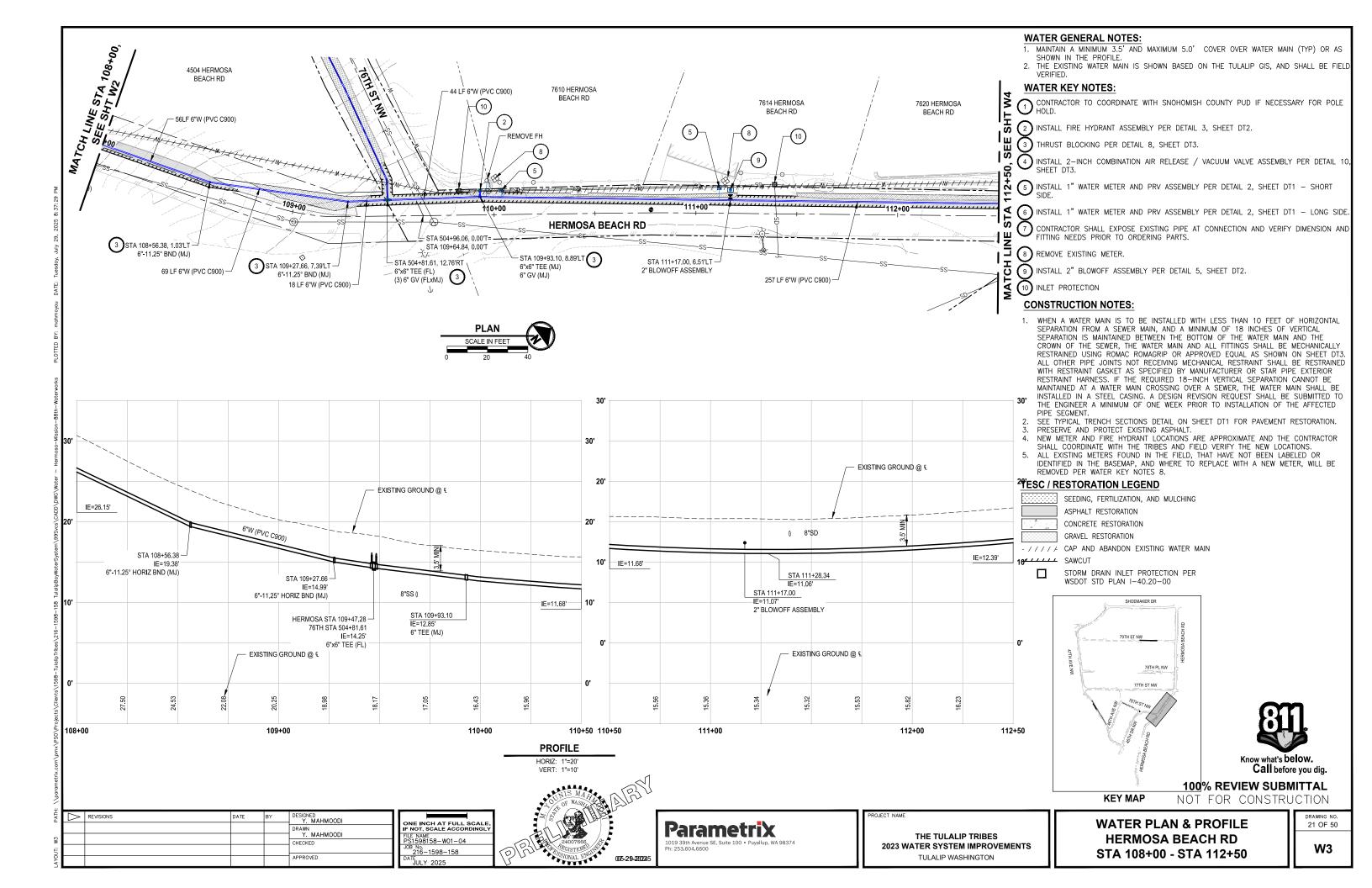
THE TULALIP TRIBES
2023 WATER SYSTEM IMPROVEMENTS
TULALIP WASHINGTON

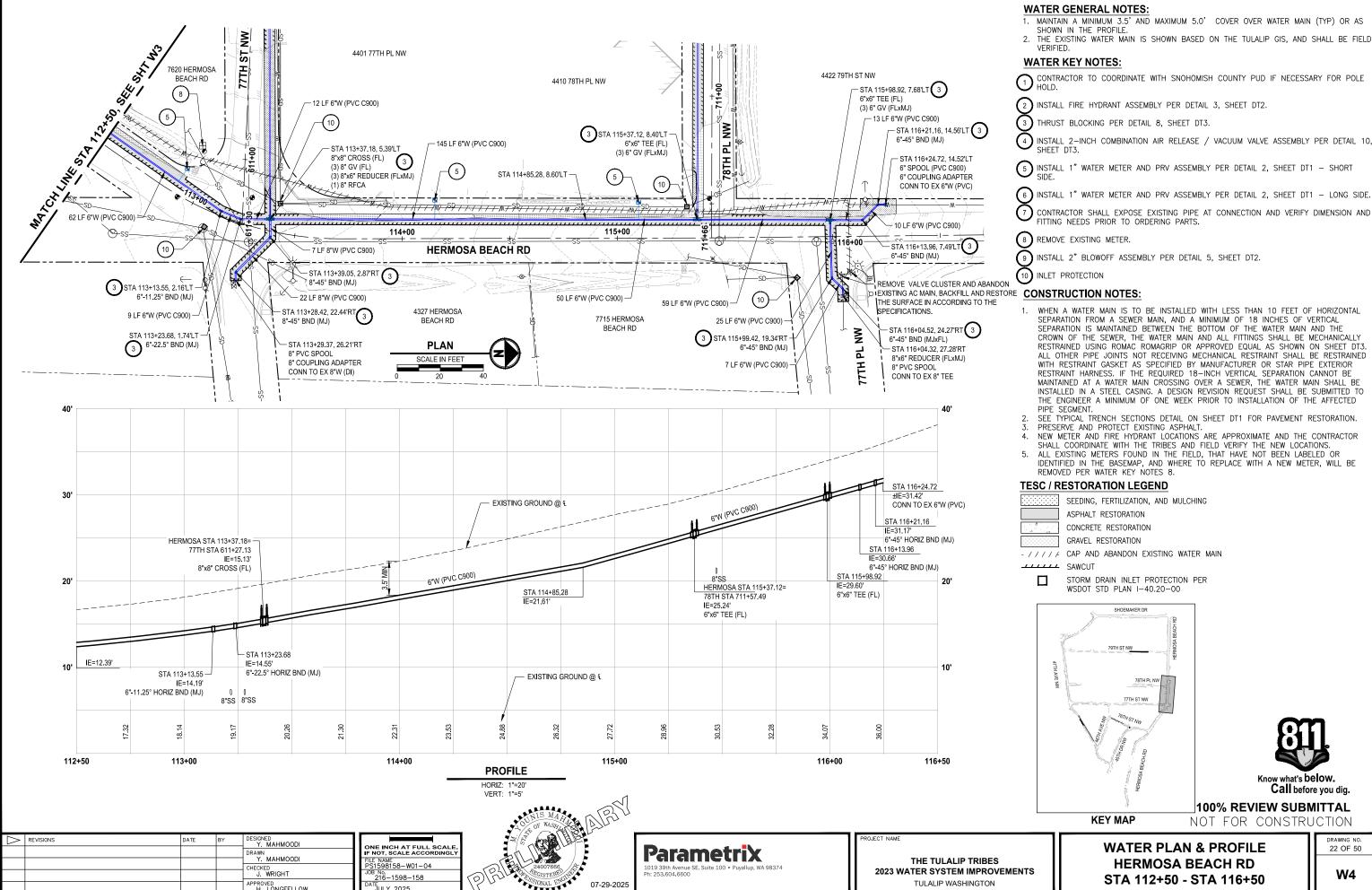
KEY MAP - HERMOSA BEACH RD AND FRYBERG ESTATES DRAWING NO. 18 OF 50

KM1

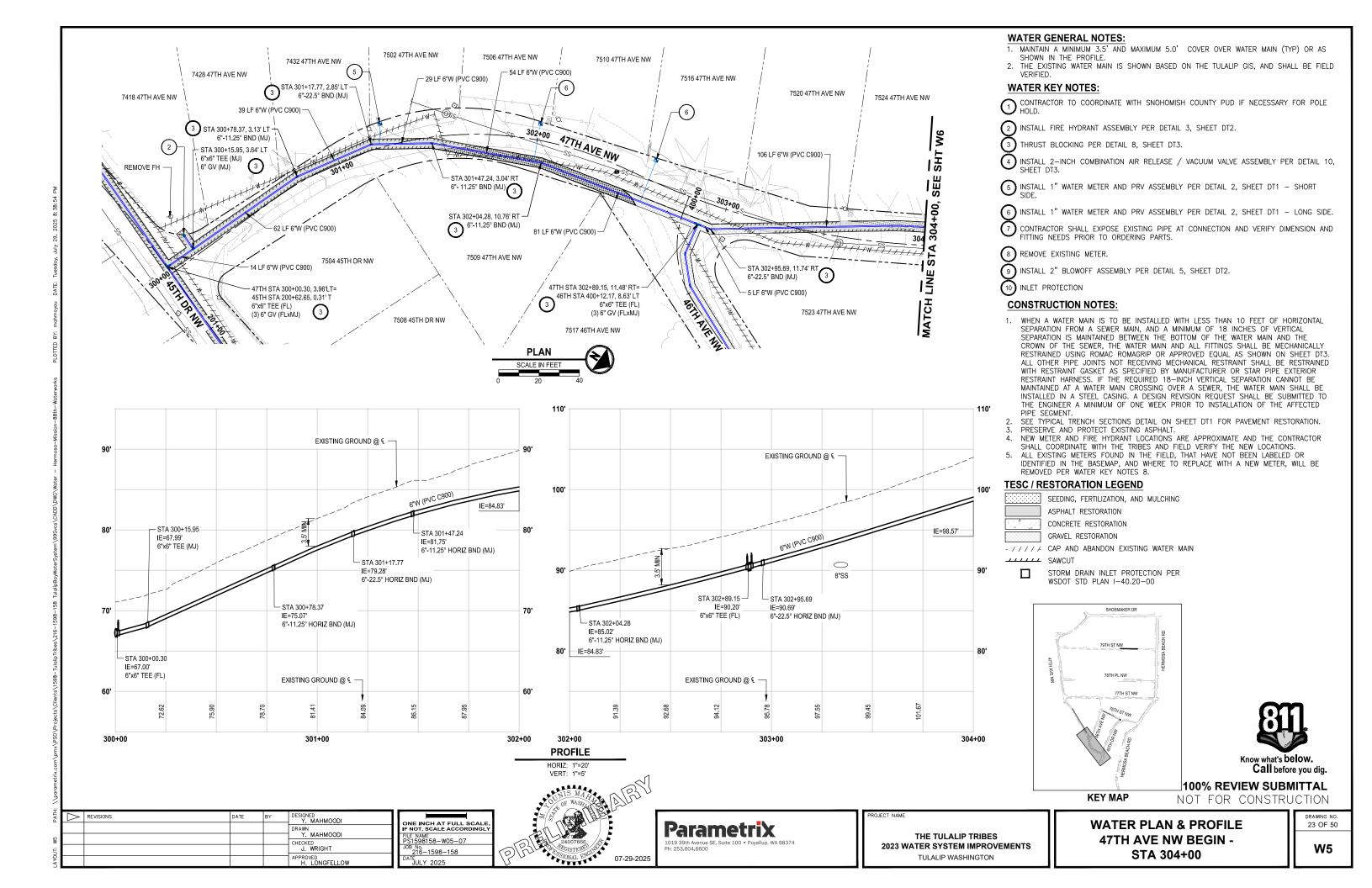


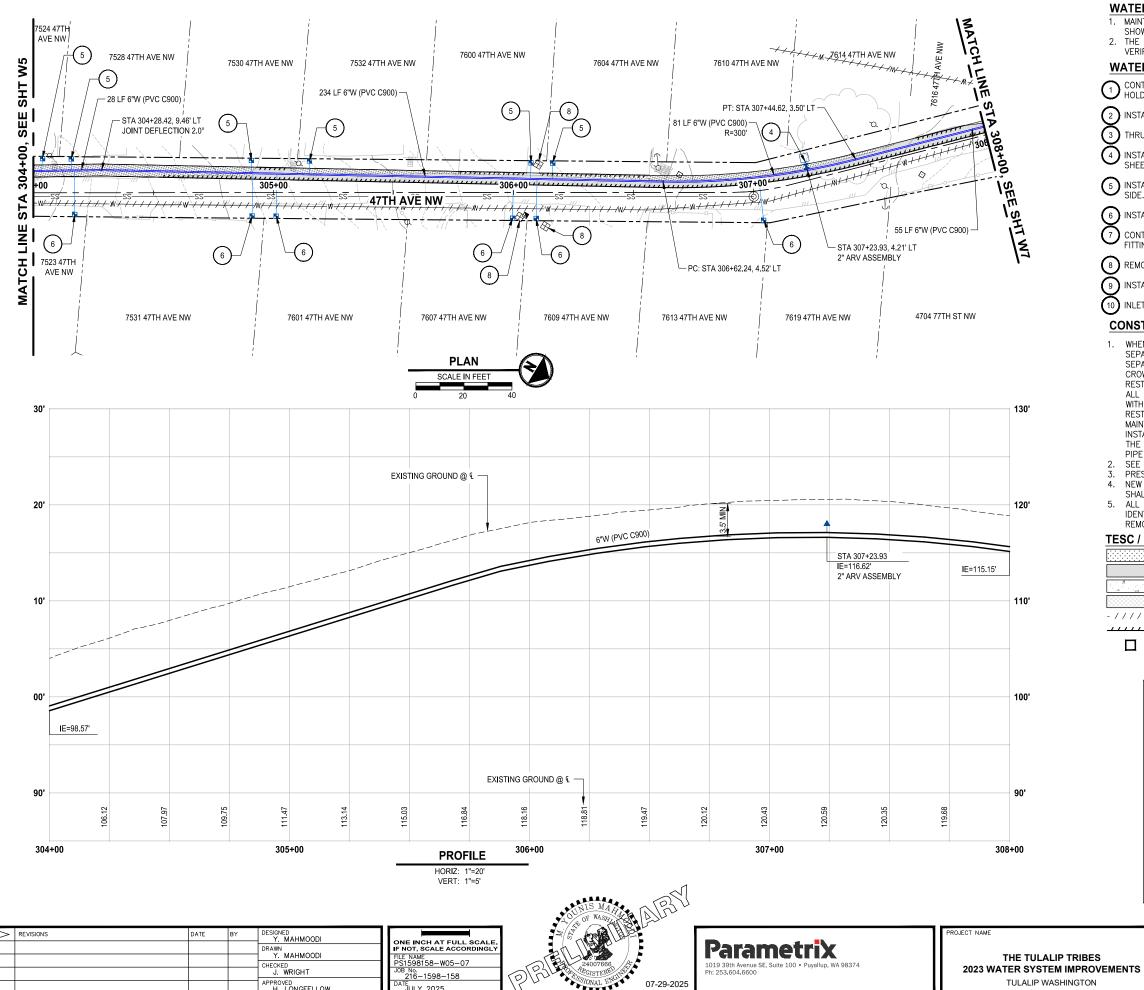






TULALIP WASHINGTON





WATER GENERAL NOTES:

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD

WATER KEY NOTES:

ONTRACTOR TO COORDINATE WITH SNOHOMISH COUNTY PUD IF NECESSARY FOR POLE HOLD.

(2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.

(3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.

4 INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10, SHEET DT3.

5 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 - SHORT SIDE.

(6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 - LONG SIDE.

CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.

8 REMOVE EXISTING METER.

9 INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.

(10) INLET PROTECTION

CONSTRUCTION NOTES:

- 1. WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER, THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS, IF THE REQUIRED 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED
- PIPE SEGMENT.
 SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION.
 PRESERVE AND PROTECT EXISTING ASPHALT.

- NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
- ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

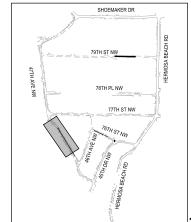
TESC / RESTORATION LEGEND

SEEDING, FERTILIZATION, AND MULCHING ASPHALT RESTORATION CONCRETE RESTORATION GRAVEL RESTORATION

- / / / / CAP AND ABANDON EXISTING WATER MAIN

TULALIP WASHINGTON

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00



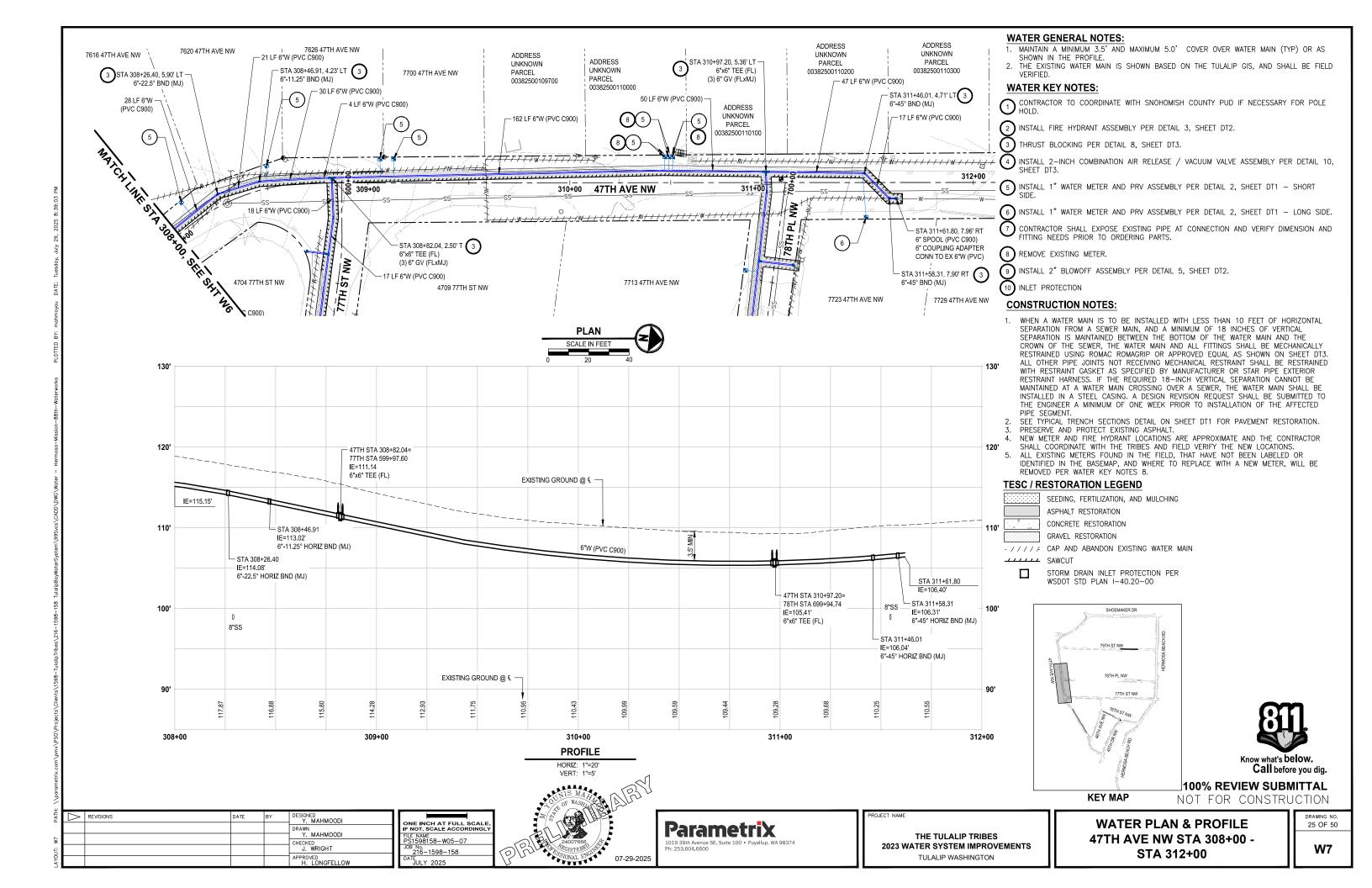
KEY MAP

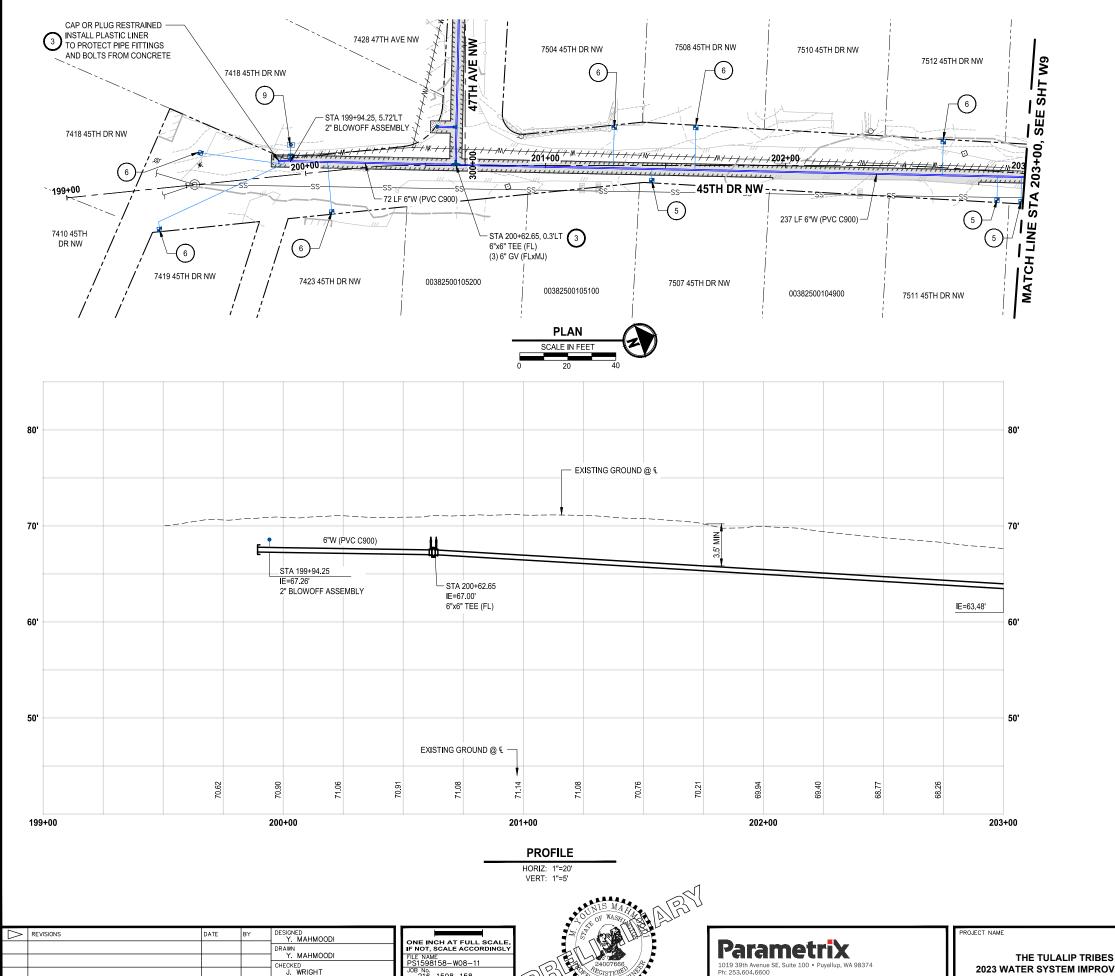


100% REVIEW SUBMITTAL NOT FOR CONSTRUCTION

WATER PLAN & PROFILE 47TH AVE NW STA 304+00 -STA 308+00

24 OF 50





CHECKED J. WRIGHT

No. 216-1598-158 DATE.

WATER GENERAL NOTES:

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD

WATER KEY NOTES:

CONTRACTOR TO COORDINATE WITH SNOHOMISH COUNTY PUD IF NECESSARY FOR POLE HOLD.

(2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.

(3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.

(4) INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10,

5 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 - SHORT SIDE.

(6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 - LONG SIDE.

(7) CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.

(8) REMOVE EXISTING METER.

(9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.

(10) INLET PROTECTION

CONSTRUCTION NOTES:

- 1. WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER. THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS. IF THE REQUIRED 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED PIPE SEGMENT.
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION.

PRESERVE AND PROTECT EXISTING ASPHALT.

- NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.

 ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR
- IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

TESC / RESTORATION LEGEND

SEEDING, FERTILIZATION, AND MULCHING ASPHALT RESTORATION

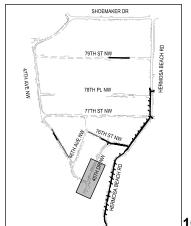
CONCRETE RESTORATION GRAVEL RESTORATION

- / / / / CAP AND ABANDON EXISTING WATER MAIN

2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00



KEY MAP

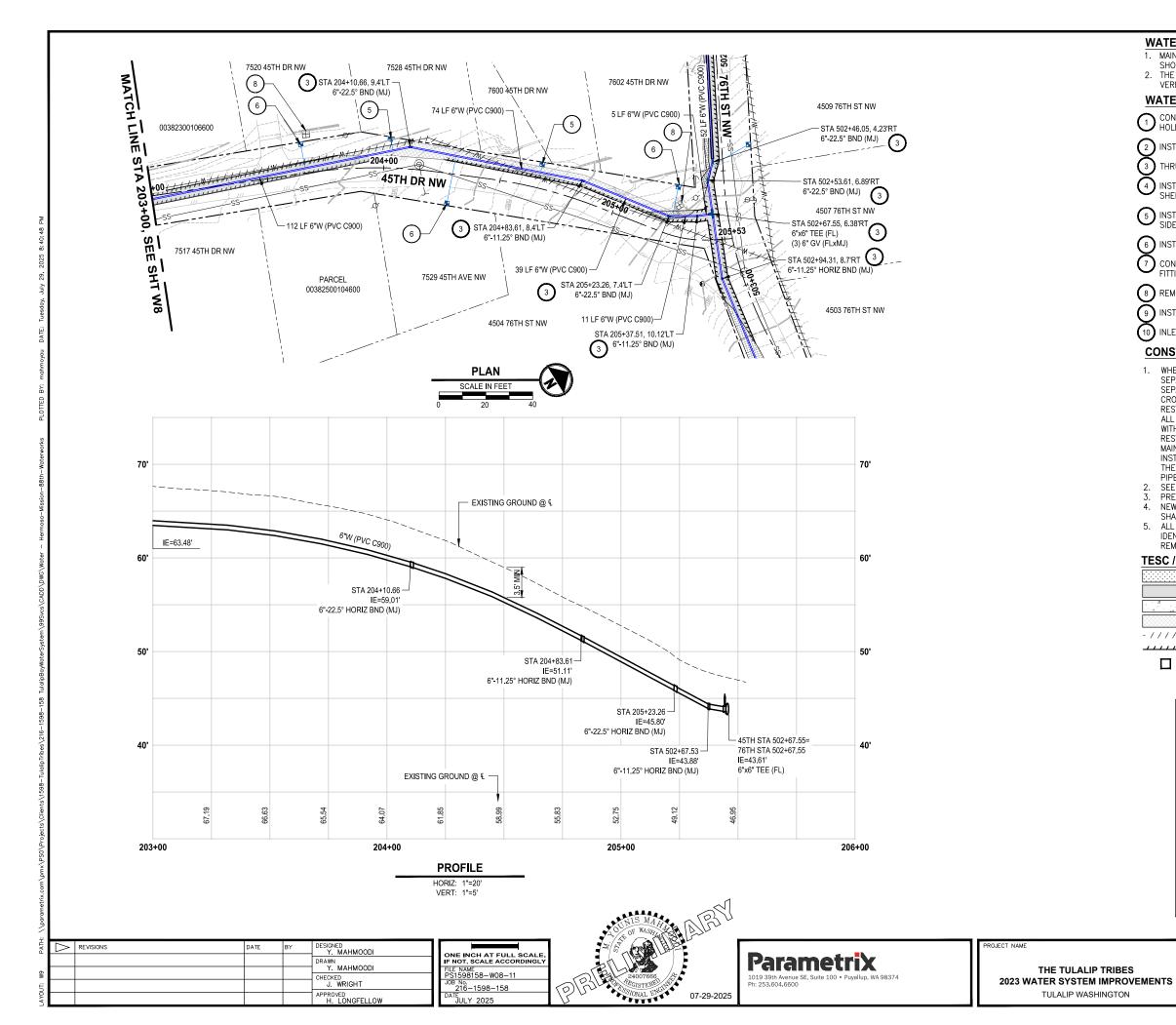


100% REVIEW SUBMITTAL NOT FOR CONSTRUCTION

WATER PLAN & PROFILE 45TH DR NW BEGIN - STA

203+00

26 OF 50



WATER GENERAL NOTES:

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE
- THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD VERIFIED.

WATER KEY NOTES:

- CONTRACTOR TO COORDINATE WITH SNOHOMISH COUNTY PUD IF NECESSARY FOR POLE HOLD.
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
- 3 THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- 4 INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10, SHEET DT3.
- 5 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 SHORT
- igg(6ig) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 LONG SIDE.
- O CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- 8 REMOVE EXISTING METER.
- (9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.
- 10 INLET PROTECTION

CONSTRUCTION NOTES:

- 1. WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER, THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS. IF THE REQUIRED 18—INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION.
- . PRESERVE AND PROTECT EXISTING ASPHALT.
- NEW METER AND FROTEET EXISTING ASTRACT.
 NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
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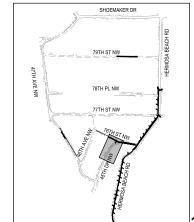
TESC / RESTORATION LEGEND

	SEEDING, FERTILIZATION, AND	MULCHING
	ASPHALT RESTORATION	
. A. 45	CONCRETE RESTORATION	
	GRAVEL RESTORATION	

- / / / / / CAP AND ABANDON EXISTING WATER MAIN

----- SAWCUT

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00

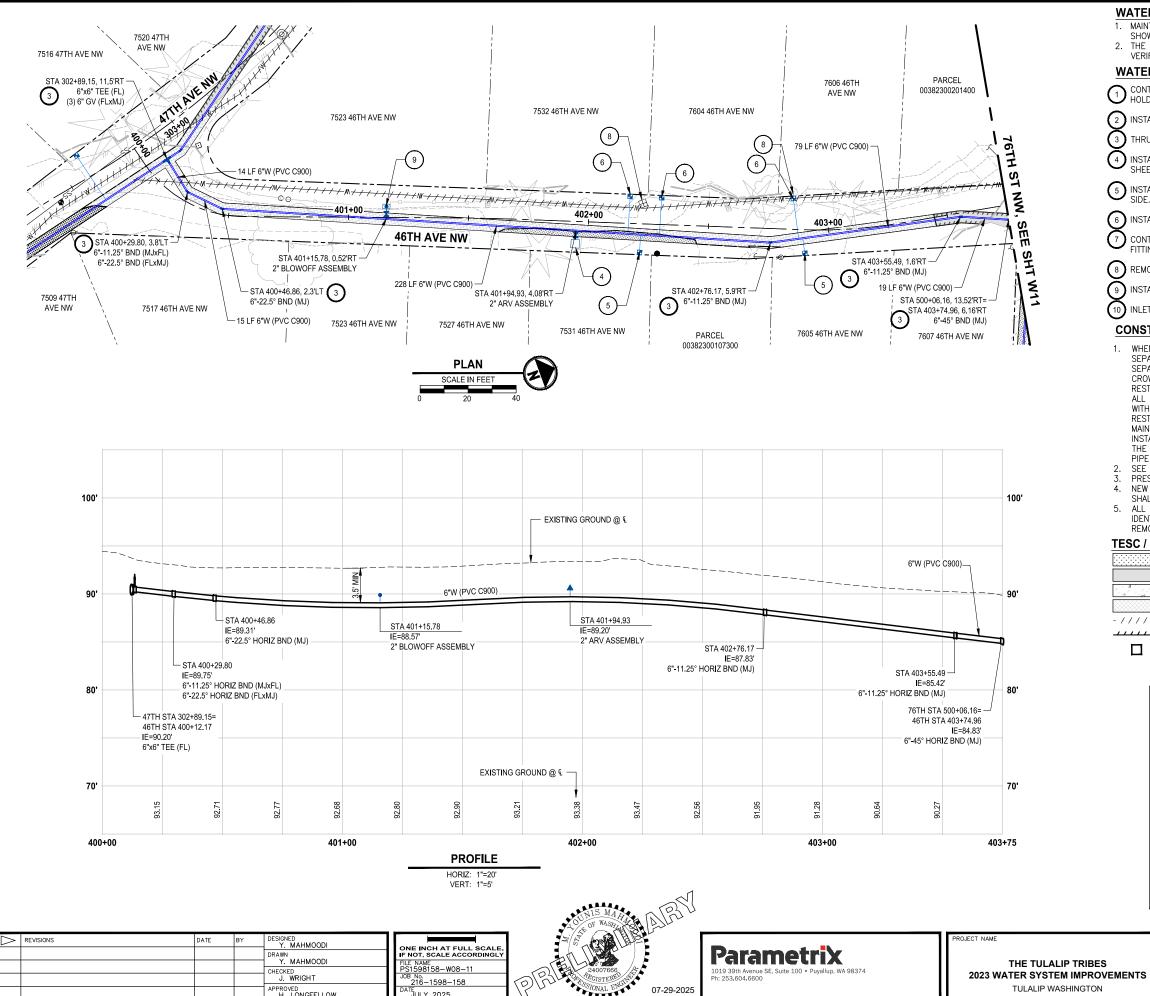


KEY MAP



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NOT FOR CONSTRUCTION

WATER PLAN & PROFILE 45TH DR NW STA 203+00 -END DRAWING NO. 27 OF 50



WATER GENERAL NOTES:

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD

WATER KEY NOTES:

- \bigcirc Contractor to coordinate with snohomish county pud if necessary for pole hold.
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
- (3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- 4 INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10,
- (6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 LONG SIDE.
- CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- 8 REMOVE EXISTING METER.
- (9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.
- (10) INLET PROTECTION

CONSTRUCTION NOTES:

- 1. WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER. THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS. IF THE REQUIRED 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED PIPE SEGMENT.
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION.
- PRESERVE AND PROTECT EXISTING ASPHALT.
- NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR
- SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.

 ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

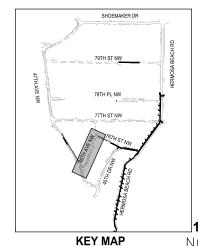
TESC / RESTORATION LEGEND

	SEEDING, FERTILIZATION, AND MULCHING	
	ASPHALT RESTORATION	
.4 .44	CONCRETE RESTORATION	
	GRAVEL RESTORATION	

- / / / / CAP AND ABANDON EXISTING WATER MAIN

TULALIP WASHINGTON

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00

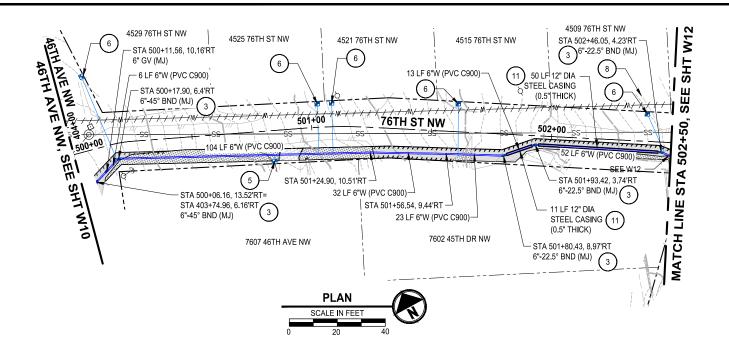


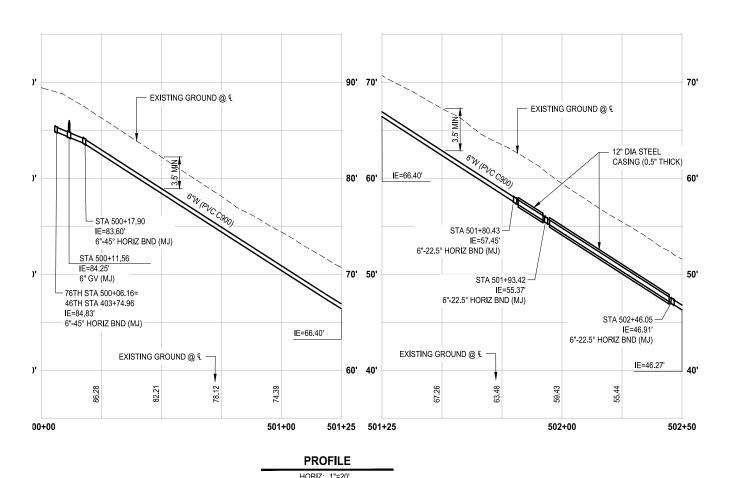


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WATER PLAN & PROFILE 46TH AVE NW BEGIN - STA 403+75

28 OF 50





VERT: 1"=5'

No. 216-1598-158 DATE, ...

CASING END SEALS SHALL BE RUBBER, STANDARD PULL-ON MODEL S, MANUFACTURED BY PIPELINE SEAL AND INSULATOR CO., OR APPROVED EQUAL. CASING SPACERS SHALL BE STAINLESS STEEL, MODEL CCS RESTRAINED, AS MANUFACTURED BY CASCADE WATERWORKS OR APPROVED EQUAL. MAXIMUM SPACING BETWEEN SPACERS SHALL NOT EXCEED 6 FEET ON CENTER.

WATER GENERAL NOTES:

- MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD

WATER KEY NOTES:

- ONTRACTOR TO COORDINATE WITH SNOHOMISH COUNTY PUD IF NECESSARY FOR POLE HOLD.
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
 - THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- (4) INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10,
- 5 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 SHORT
- (6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 LONG SIDE.
- (7) CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- (8) REMOVE EXISTING METER.
- (9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.
- (10) INLET PROTECTION

CONSTRUCTION NOTES:

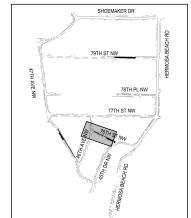
- WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER. THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS. IF THE REQUIRED 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION.
- PRESERVE AND PROTECT EXISTING ASPHALT.
- NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
- ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

TESC / RESTORATION LEGEND

	SEEDING, FERTILIZATION, AND MULCHING
	ASPHALT RESTORATION
8	CONCRETE RESTORATION
	GRAVEL RESTORATION

- / / / / CAP AND ABANDON EXISTING WATER MAIN
- ----- SAWCUT

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00





KEY MAP

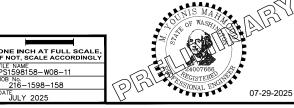
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WATER PLAN & PROFILE 76TH ST NW BEGIN - STA 502+50

29 OF 50

W11

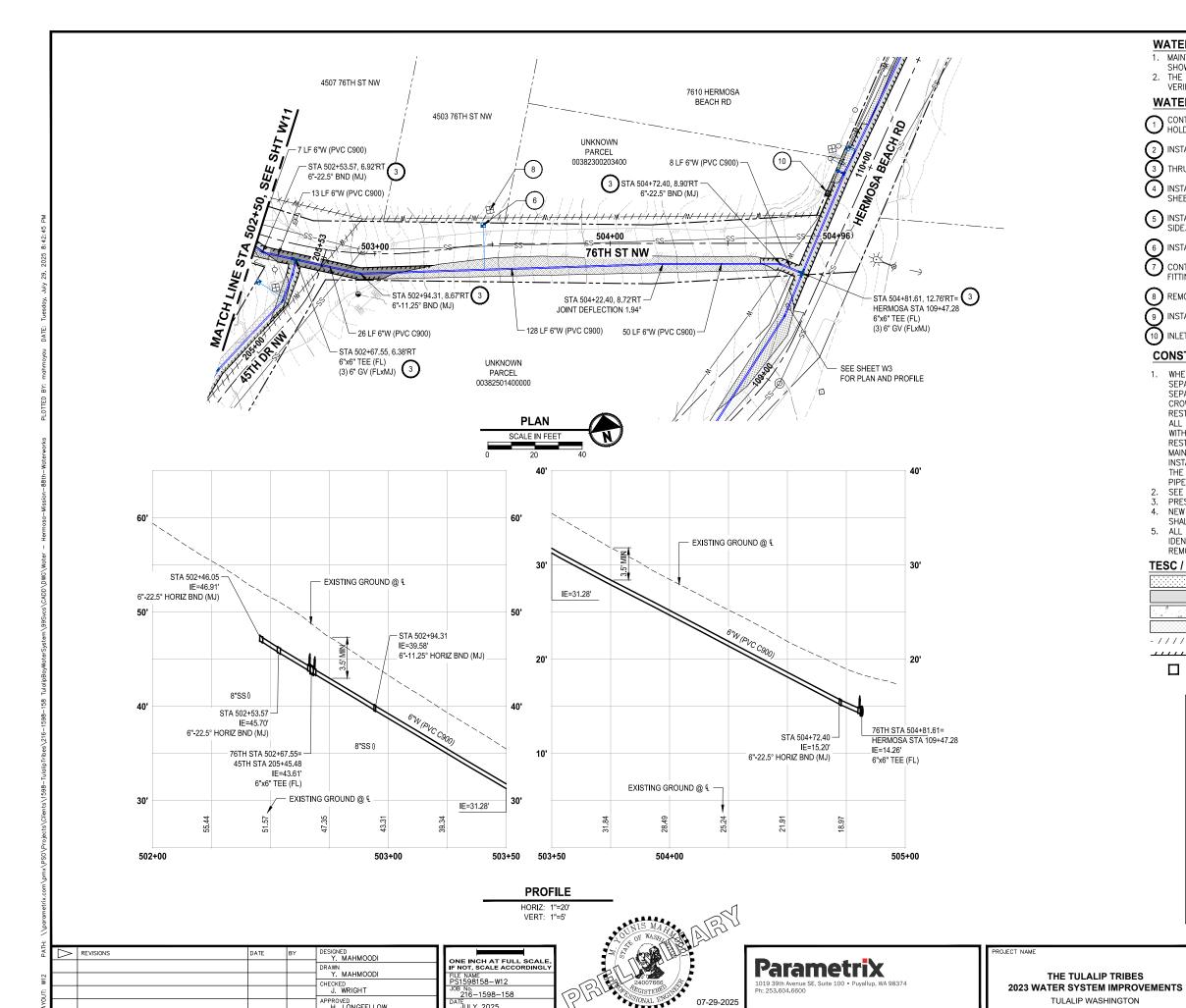
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ROJECT NAME

THE TULALIP TRIBES 2023 WATER SYSTEM IMPROVEMENTS **TULALIP WASHINGTON**



WATER GENERAL NOTES:

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD

WATER KEY NOTES:

- CONTRACTOR TO COORDINATE WITH SNOHOMISH COUNTY PUD IF NECESSARY FOR POLE HOLD.
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
- (3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- 4 INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10, SHEET DT3.
- 5 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 SHORT SIDE.
- (6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 LONG SIDE.
- CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- 8 REMOVE EXISTING METER.
- 9 INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.
- (10) INLET PROTECTION

CONSTRUCTION NOTES:

- 1. WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER, THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS, IF THE REQUIRED 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED PIPE SEGMENT.
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION. PRESERVE AND PROTECT EXISTING ASPHALT.
- NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
- ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

TESC / RESTORATION LEGEND

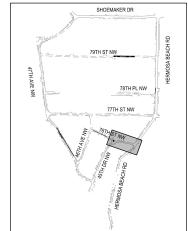
SEEDING, FERTILIZATION, AND MULCHING

ASPHALT RESTORATION CONCRETE RESTORATION

GRAVEL RESTORATION - / / / / CAP AND ABANDON EXISTING WATER MAIN

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STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN 1-40.20-00

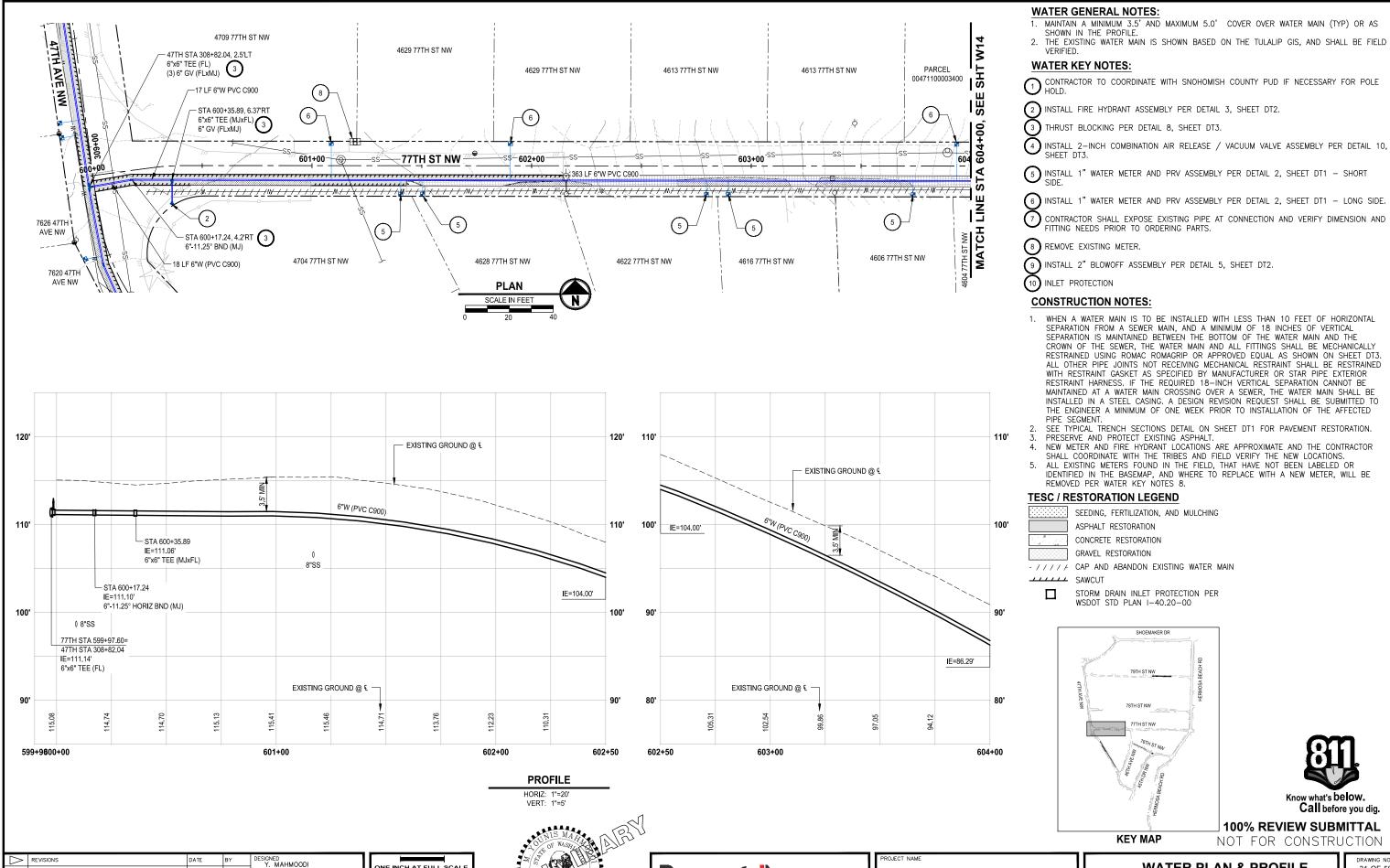


KEY MAP



100% REVIEW SUBMITTAL NOT FOR CONSTRUCTION

WATER PLAN & PROFILE 76TH ST NW STA 502+50 - END 30 OF 50



07-29-2025

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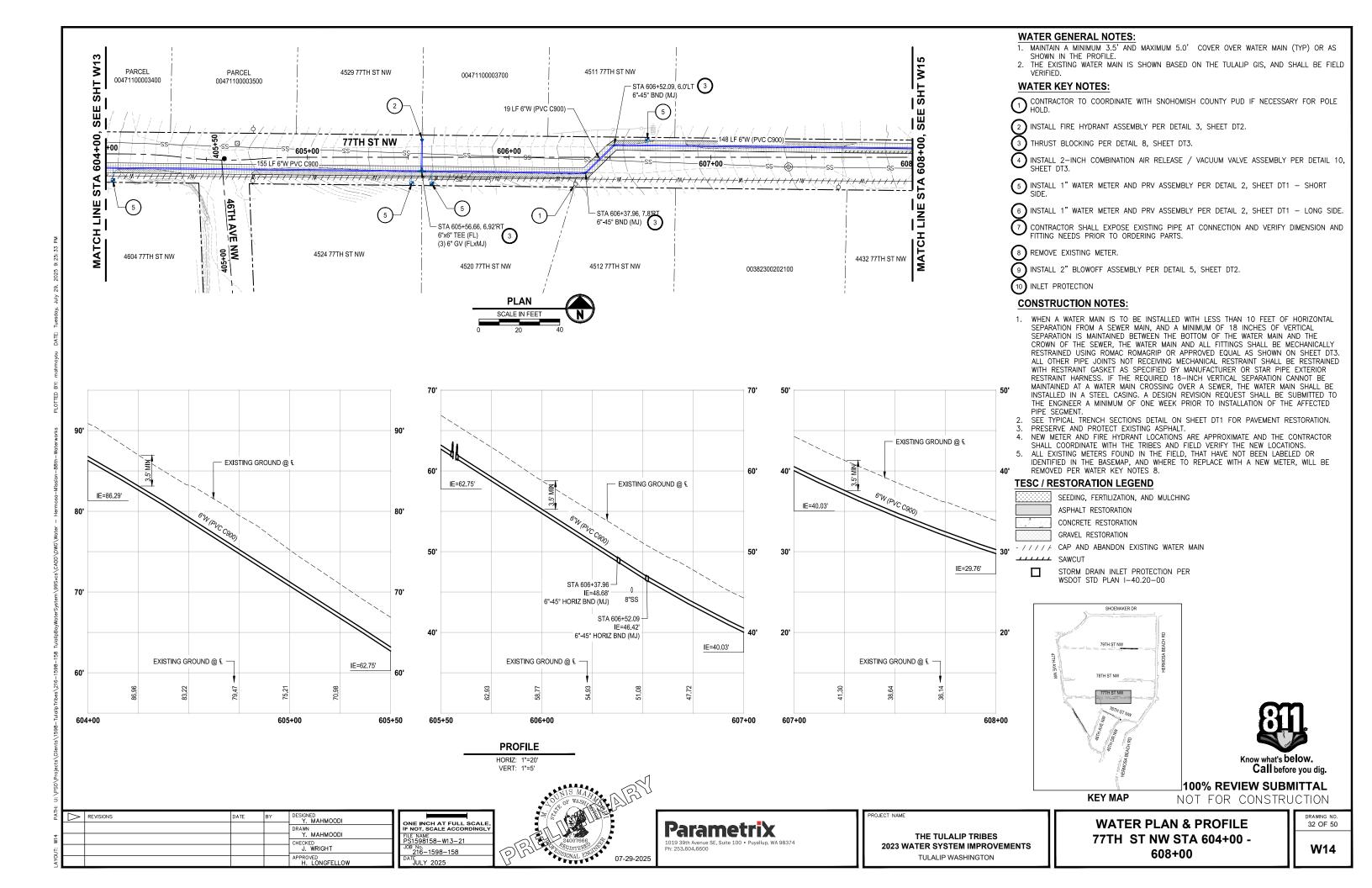
WATER PLAN & PROFILE 77TH ST NW BEGIN - STA 604+00

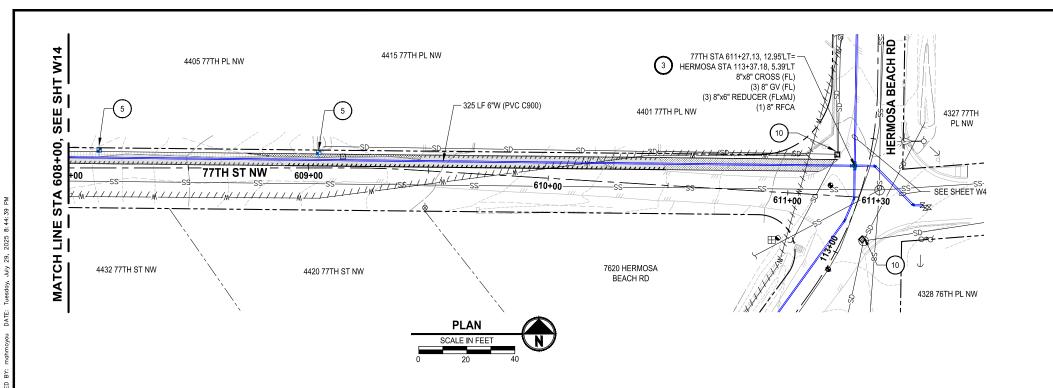
THE TULALIP TRIBES

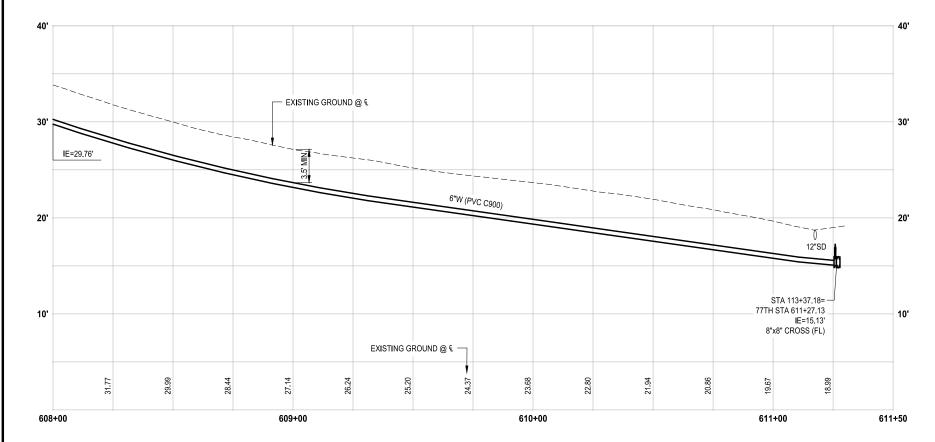
2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

31 OF 50







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

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FILE NAME PS1598158-W13-21 JOB No. 216-1598-158





THE TULALIP TRIBES 2023 WATER SYSTEM IMPROVEMENTS TULALIP WASHINGTON

WATER PLAN & PROFILE 77TH ST NW STA 608+00 -**END**

5 INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 - SHORT

(6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 - LONG SIDE.

(4) INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10,

1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS

2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD

CONTRACTOR TO COORDINATE WITH SNOHOMISH COUNTY PUD IF NECESSARY FOR POLE HOLD.

(7) CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.

8 REMOVE EXISTING METER.

WATER GENERAL NOTES:

SHOWN IN THE PROFILE.

WATER KEY NOTES:

(9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.

2 INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.

(3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.

(10) INLET PROTECTION

CONSTRUCTION NOTES:

- 1. WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER, THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS. IF THE REQUIRED 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED PIPE SEGMENT.
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PRESERVE AND PROTECT EXISTING ASPHALT.

NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR

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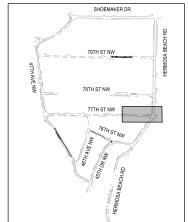
TESC / RESTORATION LEGEND

SEEDING, FERTILIZATION, AND MULCHING ASPHALT RESTORATION CONCRETE RESTORATION GRAVEL RESTORATION

- / / / / CAP AND ABANDON EXISTING WATER MAIN

----- SAWCUT

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00

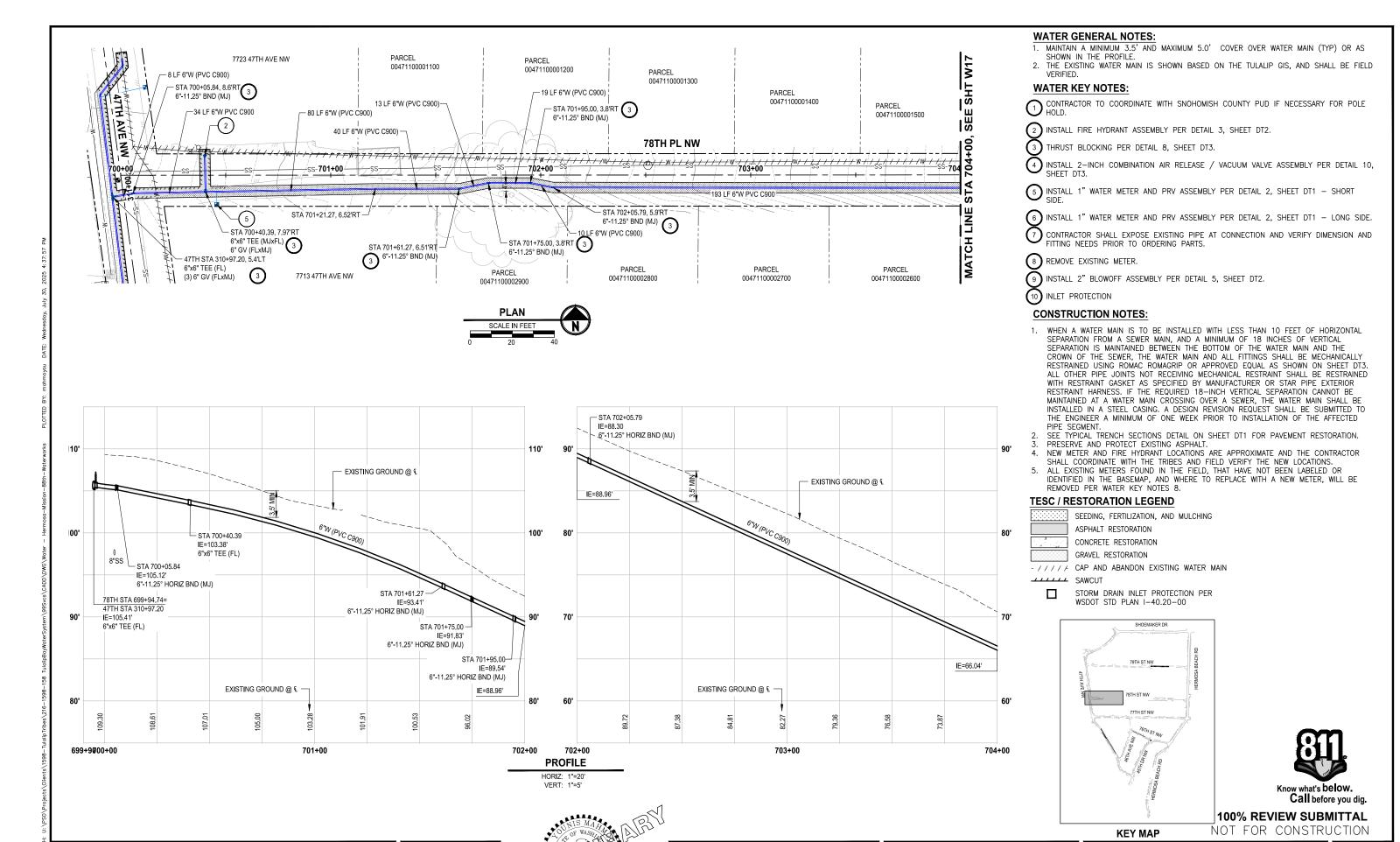


KEY MAP



100% REVIEW SUBMITTAL NOT FOR CONSTRUCTION

33 OF 50



07-29-2025

REVISIONS

DESIGNED
Y. MAHMOODI

DRAWN Y. MAHMOODI

CHECKED J. WRIGHT FILE NAME PS1598158-W13-21 JOB No.

216-1598-158 DATE WATER PLAN & PROFILE 78TH ST NW BEGIN - STA 704+00

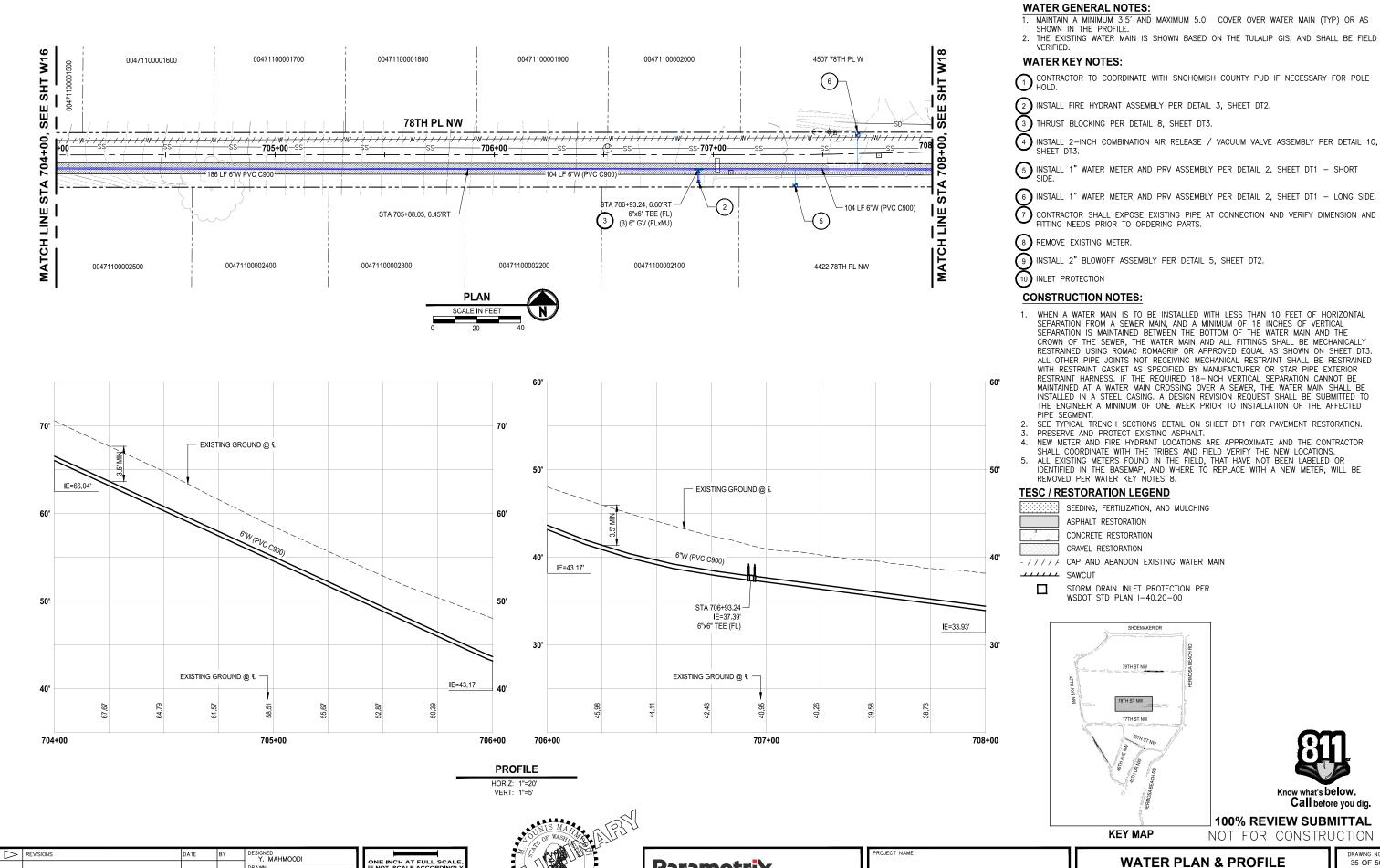
ROJECT NAME

THE TULALIP TRIBES

2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

34 OF 50



THE TULALIP TRIBES

2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

DRAWN Y. MAHMOODI

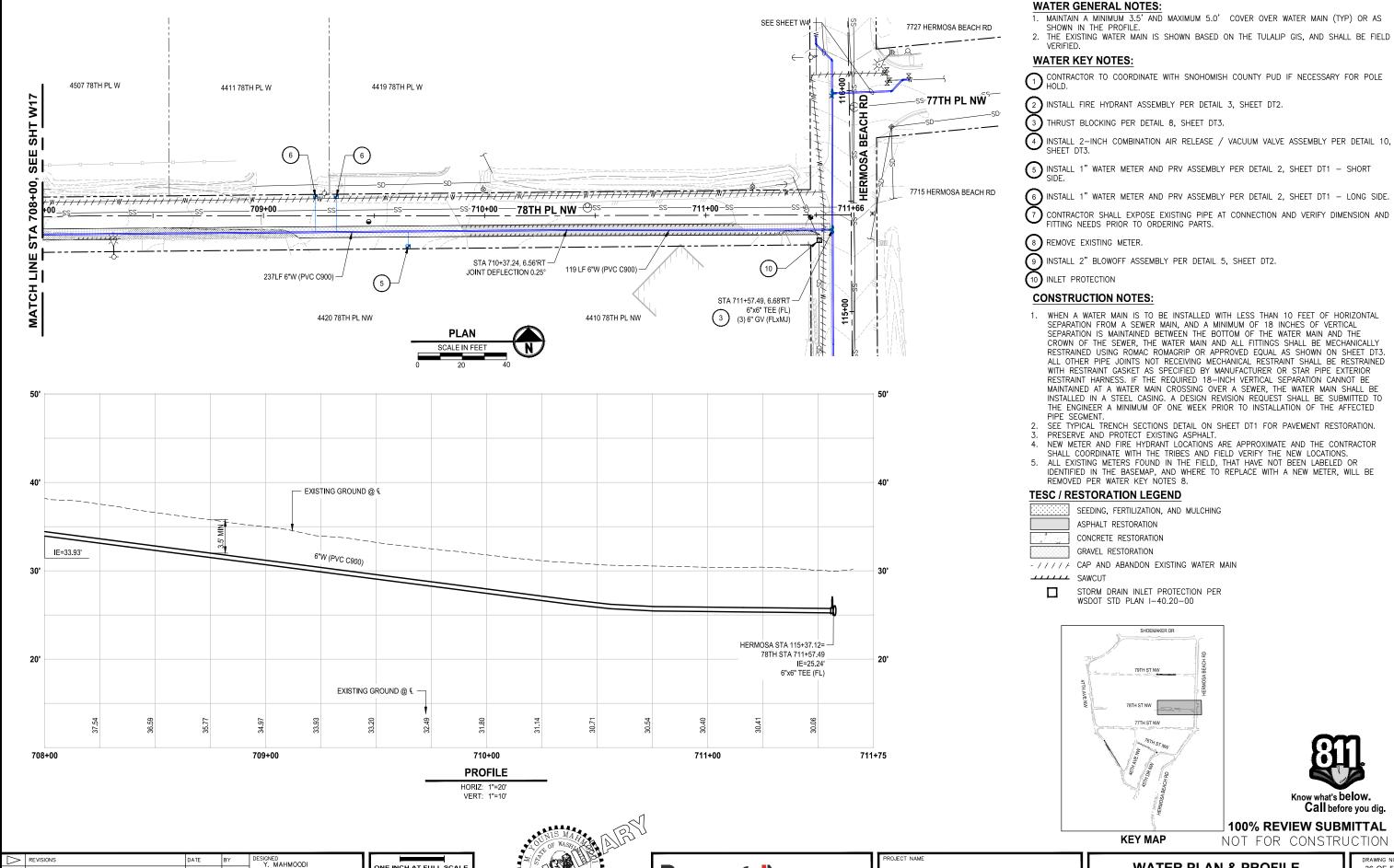
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216-1598-158 DATE, ...

78TH ST NW STA 704+00 -STA 708+00

35 OF 50



07-29-2025

DRAWN Y. MAHMOODI

CHECKED J. WRIGHT

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008 No. 216-1598-158 DATE

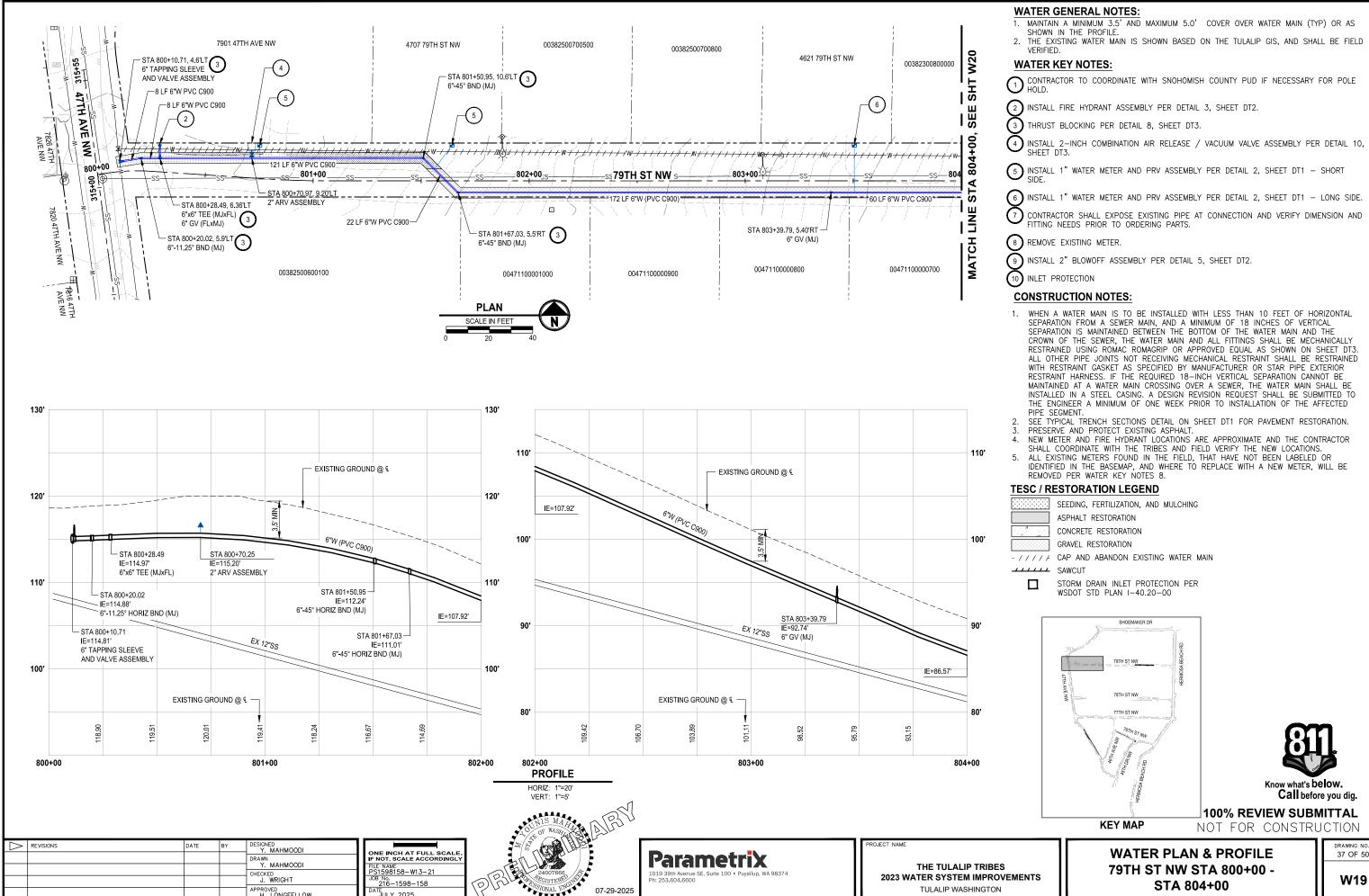
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THE TULALIP TRIBES

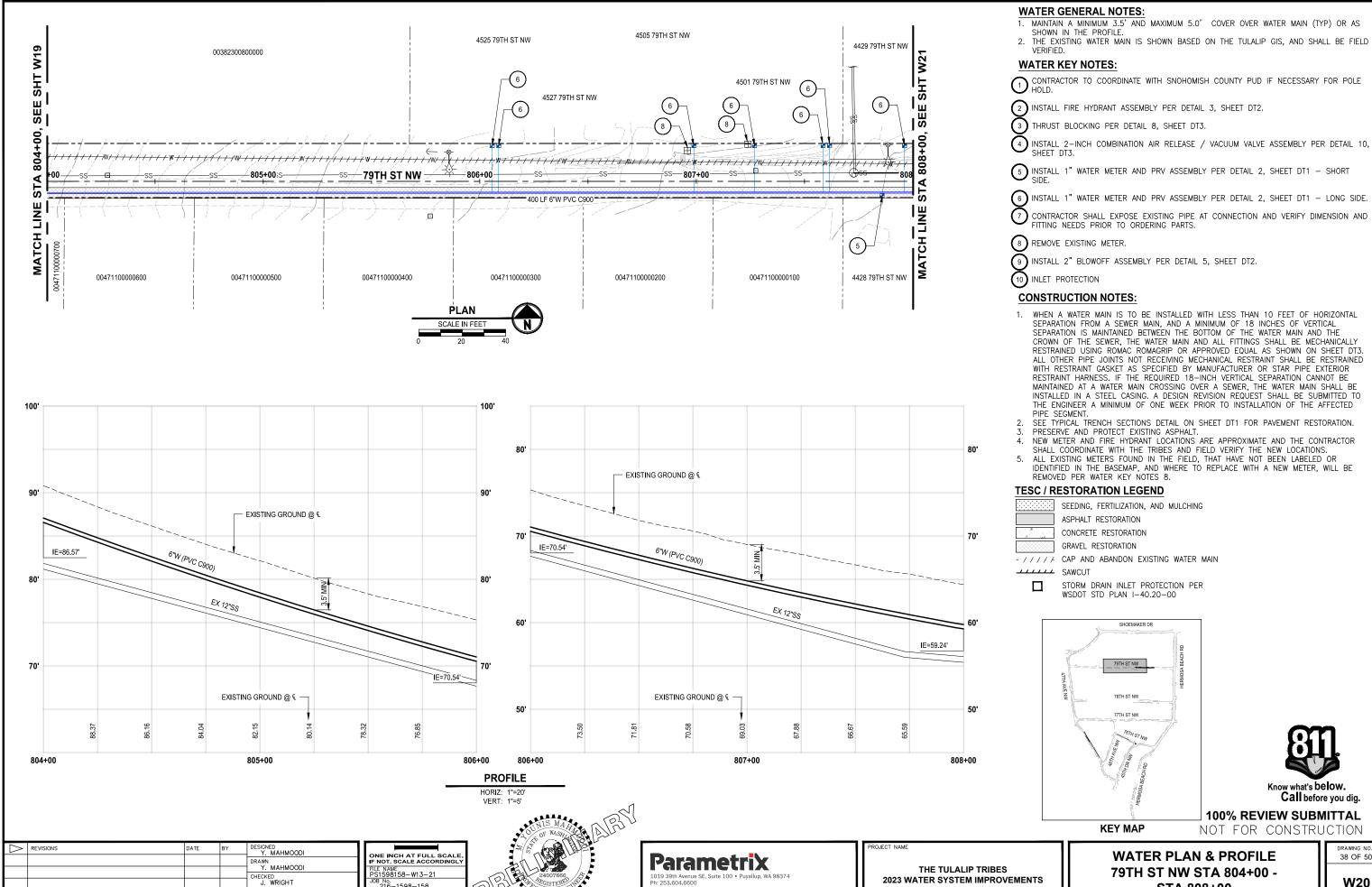
2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

36 OF 50 W18



37 OF 50



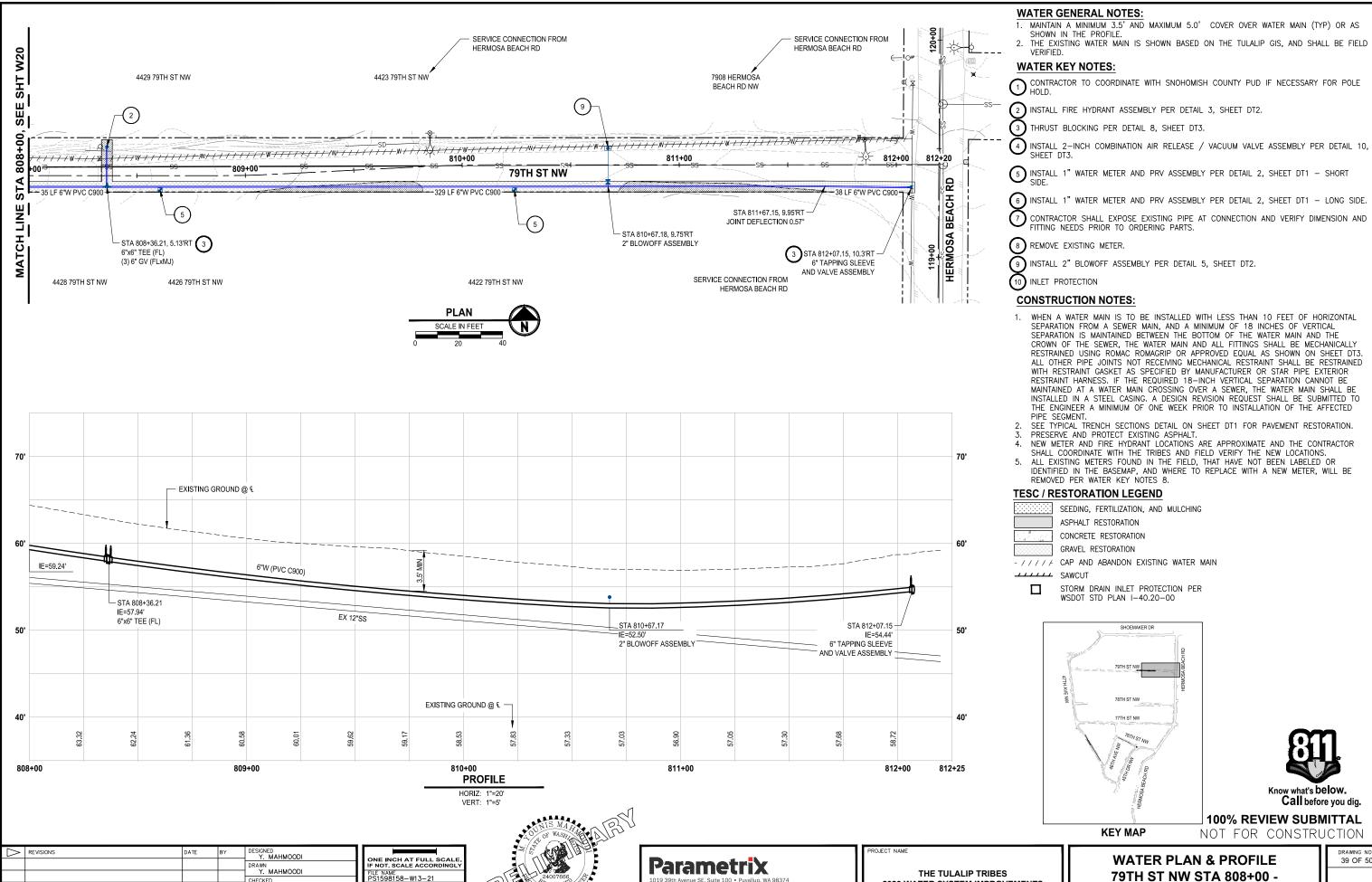
JOB No. 216-1598-158 DATE JULY 2025

79TH ST NW STA 804+00 -STA 808+00

2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

38 OF 50



FILE NAME PS1598158-W13-21 JOB No.

216-1598-158 DATE

CHECKED J. WRIGHT

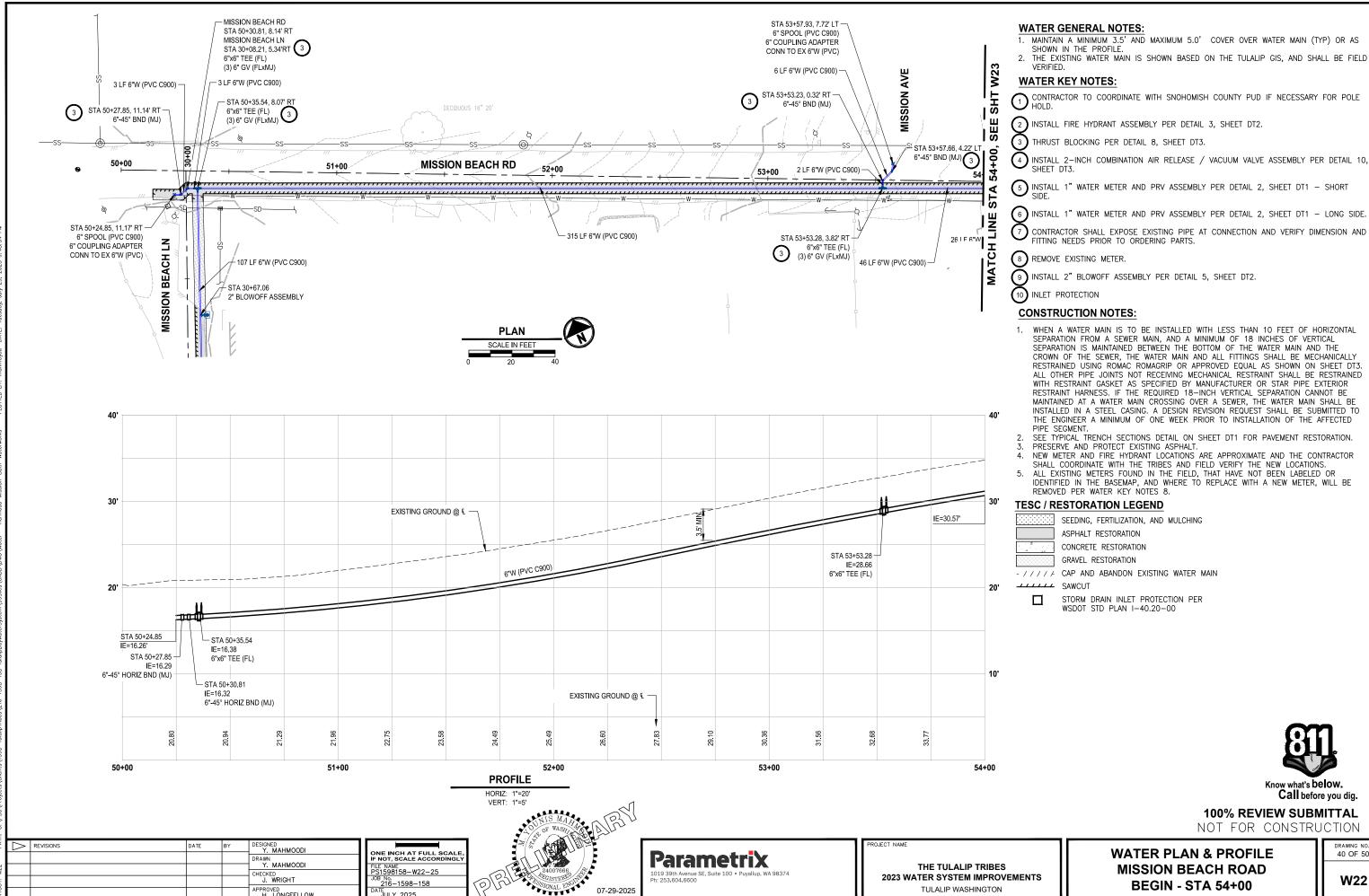
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THE TULALIP TRIBES

2023 WATER SYSTEM IMPROVEMENTS

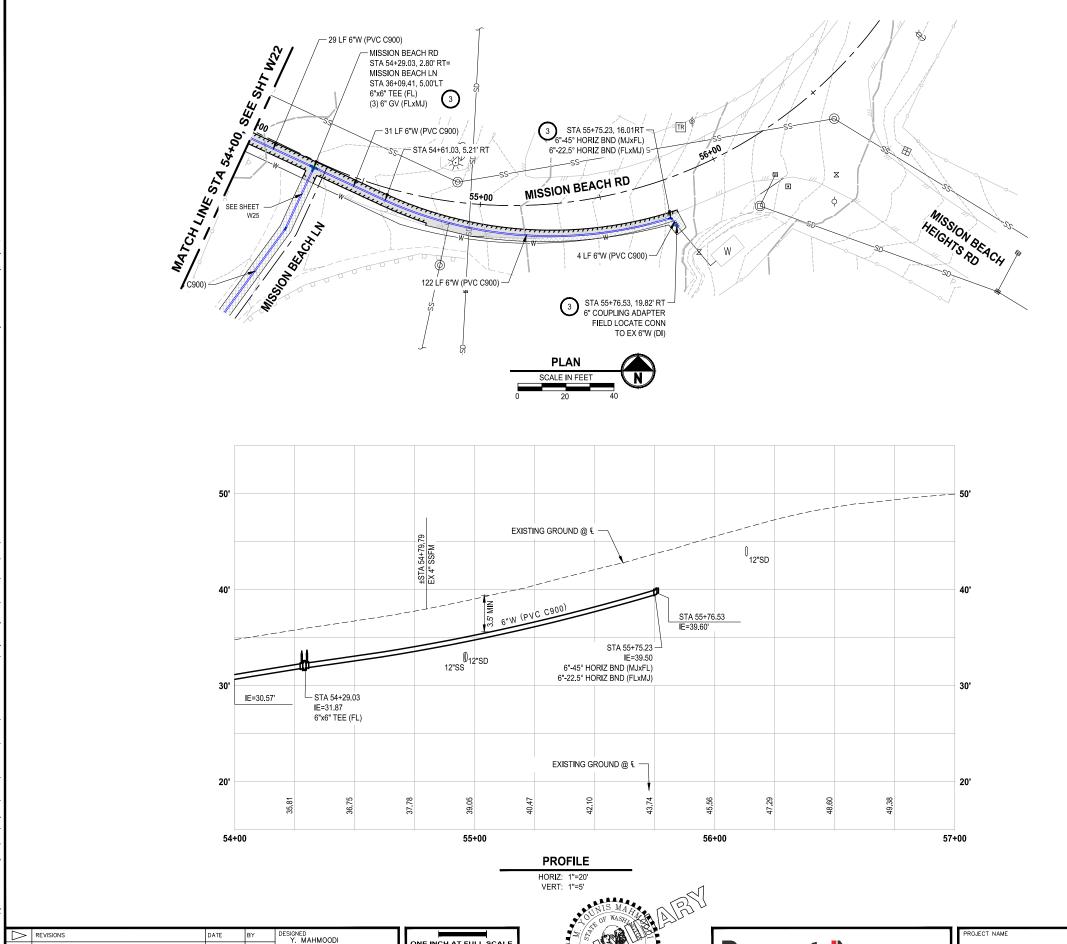
TULALIP WASHINGTON

39 OF 50



TULALIP WASHINGTON

DRAWING NO. 40 OF 50



DRAWN Y. MAHMOODI

CHECKED J. WRIGHT

FILE NAME PS1598158-W22-25 JOB No.

JOB No. 216-1598-158 DATE

WATER GENERAL NOTES:

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD

WATER KEY NOTES:

 \bigcirc Contractor to coordinate with snohomish county pud if necessary for pole hold.

(2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.

(3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.

4 INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10, SHEET DT3.

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(6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 - LONG SIDE.

7 CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.

8 REMOVE EXISTING METER.

9 INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.

(10) INLET PROTECTION

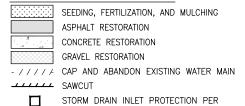
CONSTRUCTION NOTES:

- WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER, THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS. IF THE REQUIRED 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED PIPE SEGMENT.
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION.
 PRESERVE AND PROTECT EXISTING ASPHALT.
 NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR

SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.

ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

TESC / RESTORATION LEGEND



WSDOT STD PLAN I-40.20-00



100% REVIEW SUBMITTAL NOT FOR CONSTRUCTION

THE TULALIP TRIBES

2023 WATER SYSTEM IMPROVEMENTS

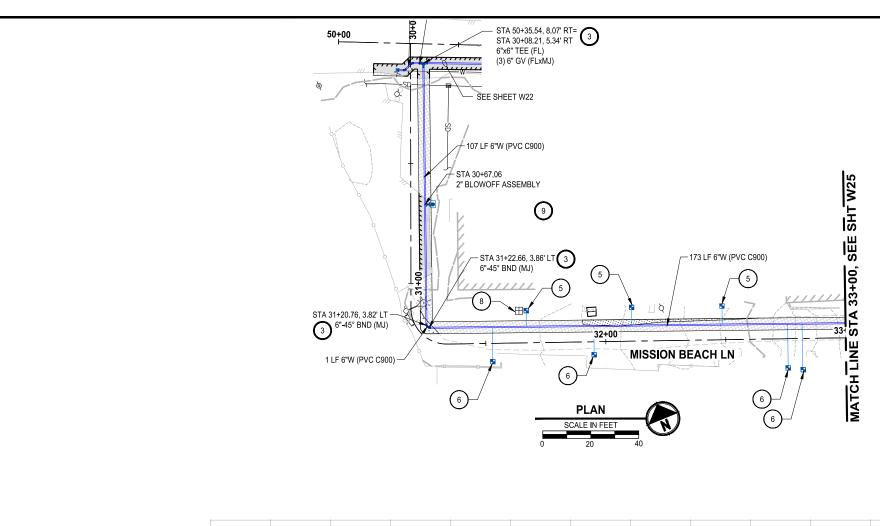
TULALIP WASHINGTON

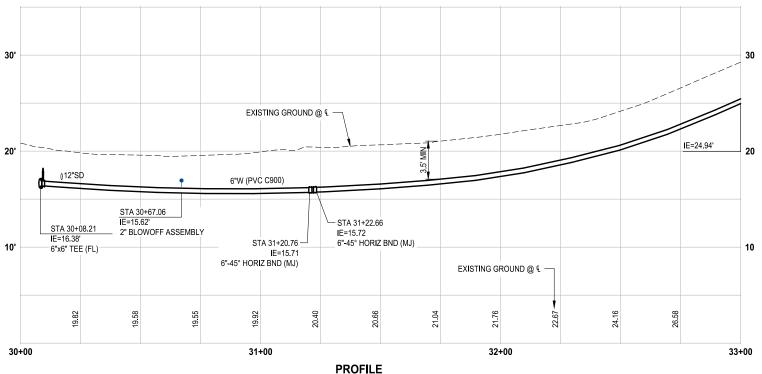
Parametrix

07-29-2025

WATER PLAN & PROFILE MISSION BEACH ROAD STA 54+00 - END

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

FILE NAME PS1598158-W22-25 JOB No.

JOB No. 216-1598-158 DATE JULY 2025

Parametrix

DESIGNED
Y. MAHMOODI

DRAWN Y. MAHMOODI

CHECKED J. WRIGHT

REVISIONS

WATER GENERAL NOTES:

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
- 2. THE EXISTING WATER MAIN IS SHOWN BASED ON THE TULALIP GIS, AND SHALL BE FIELD

WATER KEY NOTES:

- \bigcirc Contractor to coordinate with snohomish county pud if necessary for pole hold.
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
- (3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- (4) INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10, SHEET DT3.
- $\ensuremath{\mbox{5}}$ install 1" water meter and PRV assembly PER detail 2, sheet dt1 short side.
- (6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 LONG SIDE.
- CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- 8 REMOVE EXISTING METER.
- 9 INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.

CONSTRUCTION NOTES:

- 1. WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER, THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS. IF THE REQUIRED 18—INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED PIPE SEGMENT.
- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION. PRESERVE AND PROTECT EXISTING ASPHALT.

 NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR
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- ALL EXISTING METERS FOUND IN THE FIELD, THAT HAVE NOT BEEN LABELED OR IDENTIFIED IN THE BASEMAP, AND WHERE TO REPLACE WITH A NEW METER, WILL BE REMOVED PER WATER KEY NOTES 8.

TESC / RESTORATION LEGEND

:::::		SEEDING,	FERTILIZATI	ON, AND	MULCHIN	G
		ASPHALT I	RESTORATIO	N		
1	25	CONCRETE RESTORATION				
		GRAVEL RESTORATION				
- /	1111	CAP AND	ABANDON	EXISTING	WATER	MAIN

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THE TULALIP TRIBES

2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00



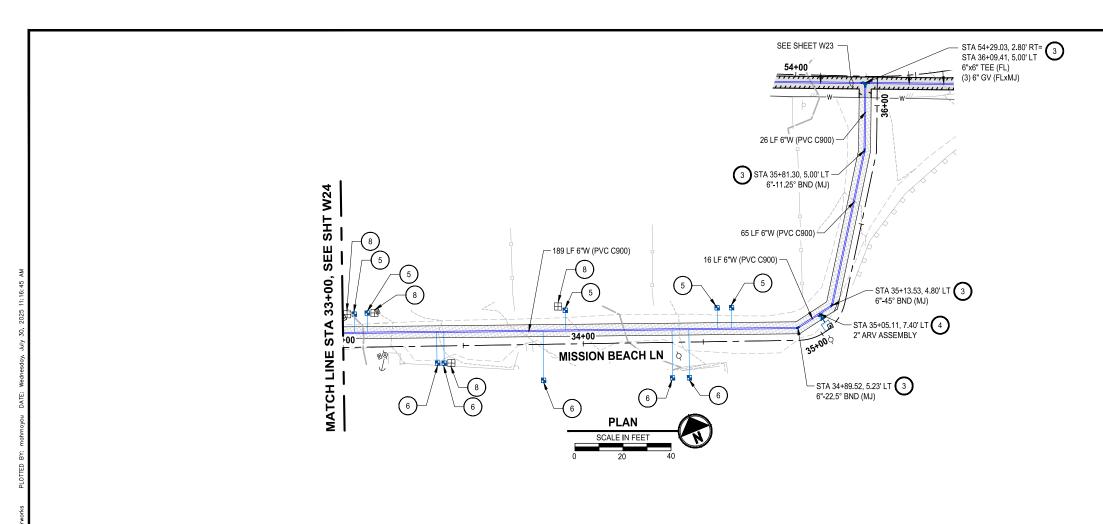
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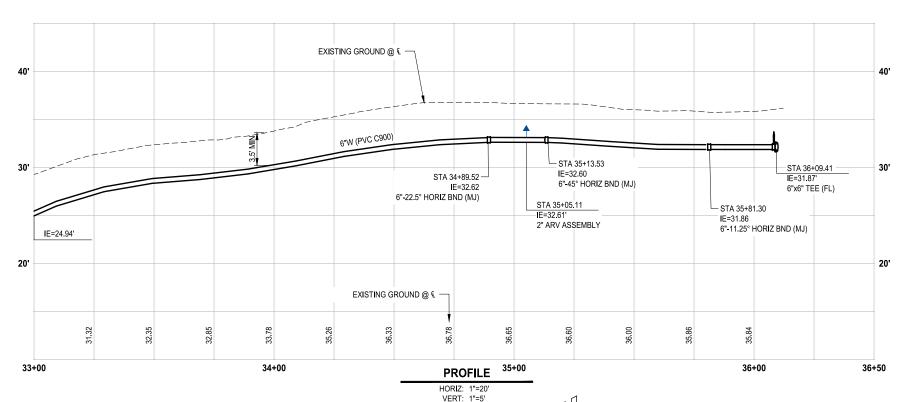
DRAWING NO. 42 OF 50

W24

WATER PLAN & PROFILE MISSION BEACH LANE

BEGIN - STA 33+00





Parametrix

REVISIONS

DESIGNED
Y. MAHMOODI

DRAWN Y. MAHMOODI

CHECKED J. WRIGHT

FILE NAME PS1598158-W22-25 JOB No.

JOB No. 216-1598-158 DATE JULY 2025

WATER GENERAL NOTES:

- 1. MAINTAIN A MINIMUM 3.5' AND MAXIMUM 5.0' COVER OVER WATER MAIN (TYP) OR AS SHOWN IN THE PROFILE.
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WATER KEY NOTES:

- \bigodot contractor to coordinate with snohomish county pud if necessary for pole hold.
- (2) INSTALL FIRE HYDRANT ASSEMBLY PER DETAIL 3, SHEET DT2.
- (3) THRUST BLOCKING PER DETAIL 8, SHEET DT3.
- (4) INSTALL 2-INCH COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY PER DETAIL 10,
- $\begin{picture}(60,0)\put(0,0){\line(0,0){10}}\put(0,0){\line(0,0){10}$
- 6) INSTALL 1" WATER METER AND PRV ASSEMBLY PER DETAIL 2, SHEET DT1 LONG SIDE.
- 7 CONTRACTOR SHALL EXPOSE EXISTING PIPE AT CONNECTION AND VERIFY DIMENSION AND FITTING NEEDS PRIOR TO ORDERING PARTS.
- 8 REMOVE EXISTING METER.
- (9) INSTALL 2" BLOWOFF ASSEMBLY PER DETAIL 5, SHEET DT2.

CONSTRUCTION NOTES:

- WHEN A WATER MAIN IS TO BE INSTALLED WITH LESS THAN 10 FEET OF HORIZONTAL SEPARATION FROM A SEWER MAIN, AND A MINIMUM OF 18 INCHES OF VERTICAL SEPARATION IS MAINTAINED BETWEEN THE BOTTOM OF THE WATER MAIN AND THE CROWN OF THE SEWER, THE WATER MAIN AND ALL FITTINGS SHALL BE MECHANICALLY RESTRAINED USING ROMAC ROMAGRIP OR APPROVED EQUAL AS SHOWN ON SHEET DT3. ALL OTHER PIPE JOINTS NOT RECEIVING MECHANICAL RESTRAINT SHALL BE RESTRAINED WITH RESTRAINT GASKET AS SPECIFIED BY MANUFACTURER OR STAR PIPE EXTERIOR RESTRAINT HARNESS. IF THE REQUIRED 18-INCH VERTICAL SEPARATION CANNOT BE MAINTAINED AT A WATER MAIN CROSSING OVER A SEWER, THE WATER MAIN SHALL BE INSTALLED IN A STEEL CASING. A DESIGN REVISION REQUEST SHALL BE SUBMITTED TO THE ENGINEER A MINIMUM OF ONE WEEK PRIOR TO INSTALLATION OF THE AFFECTED

- SEE TYPICAL TRENCH SECTIONS DETAIL ON SHEET DT1 FOR PAVEMENT RESTORATION. PRESERVE AND PROTECT EXISTING ASPHALT.

 NEW METER AND FIRE HYDRANT LOCATIONS ARE APPROXIMATE AND THE CONTRACTOR SHALL COORDINATE WITH THE TRIBES AND FIELD VERIFY THE NEW LOCATIONS.
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TESC / RESTORATION LEGEND

	SEEDING, FERTILIZATION, AND MULCHING
	ASPHALT RESTORATION
. A	CONCRETE RESTORATION
	GRAVEL RESTORATION
-////	CAP AND ABANDON EXISTING WATER MAIN

THE TULALIP TRIBES

2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

STORM DRAIN INLET PROTECTION PER WSDOT STD PLAN I-40.20-00



100% REVIEW SUBMITTAL

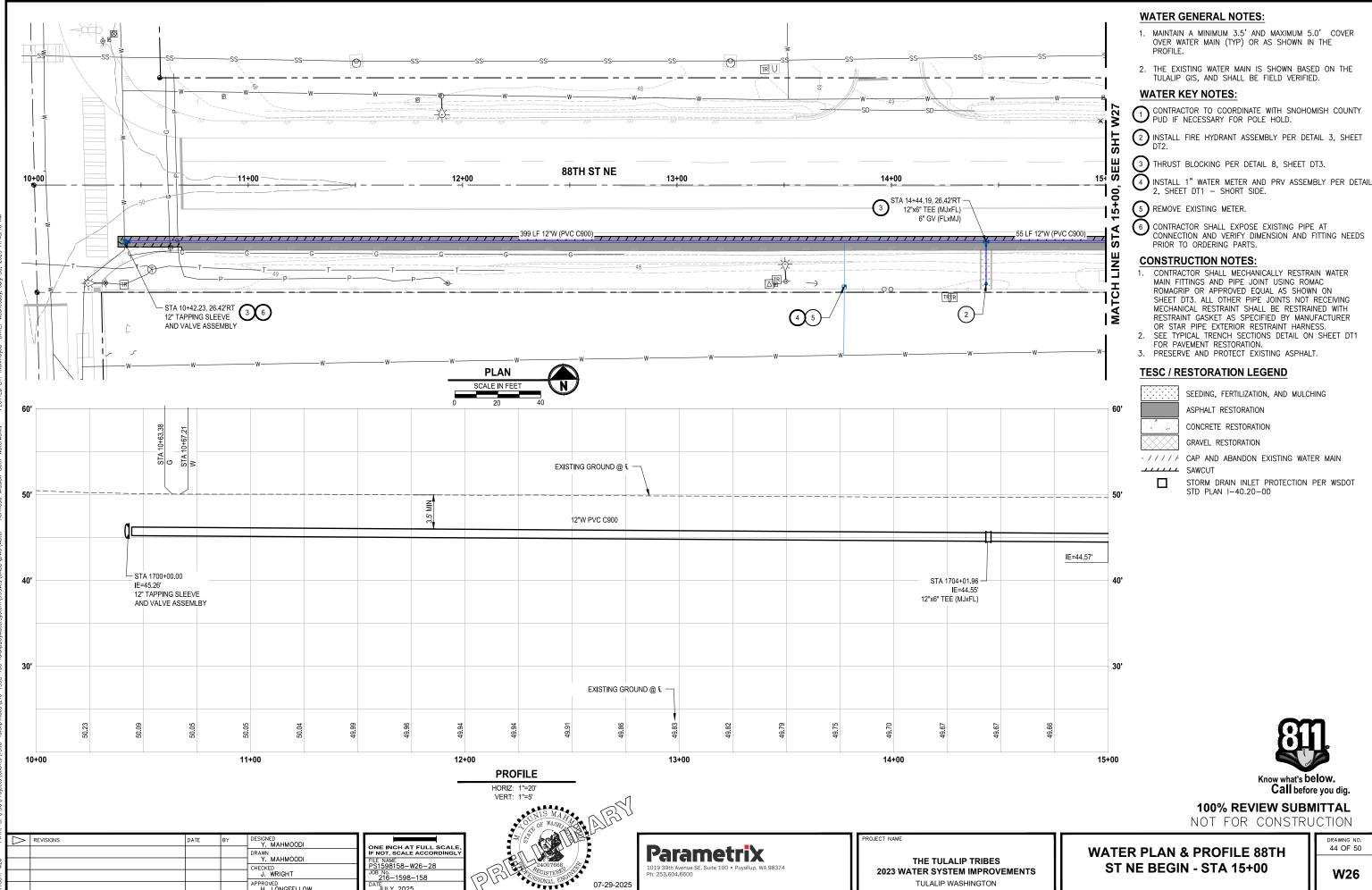
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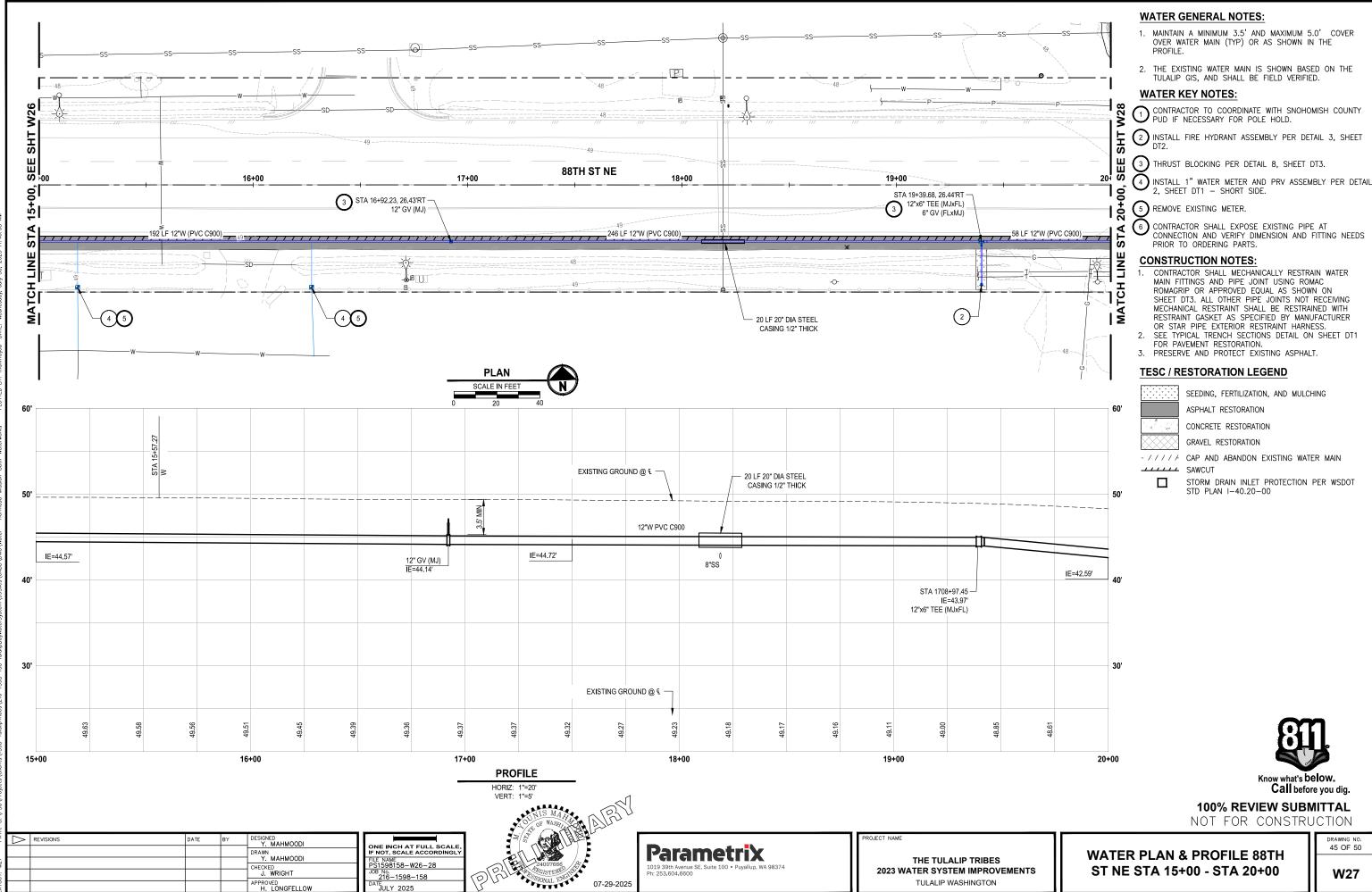
DRAWING NO. 43 OF 50

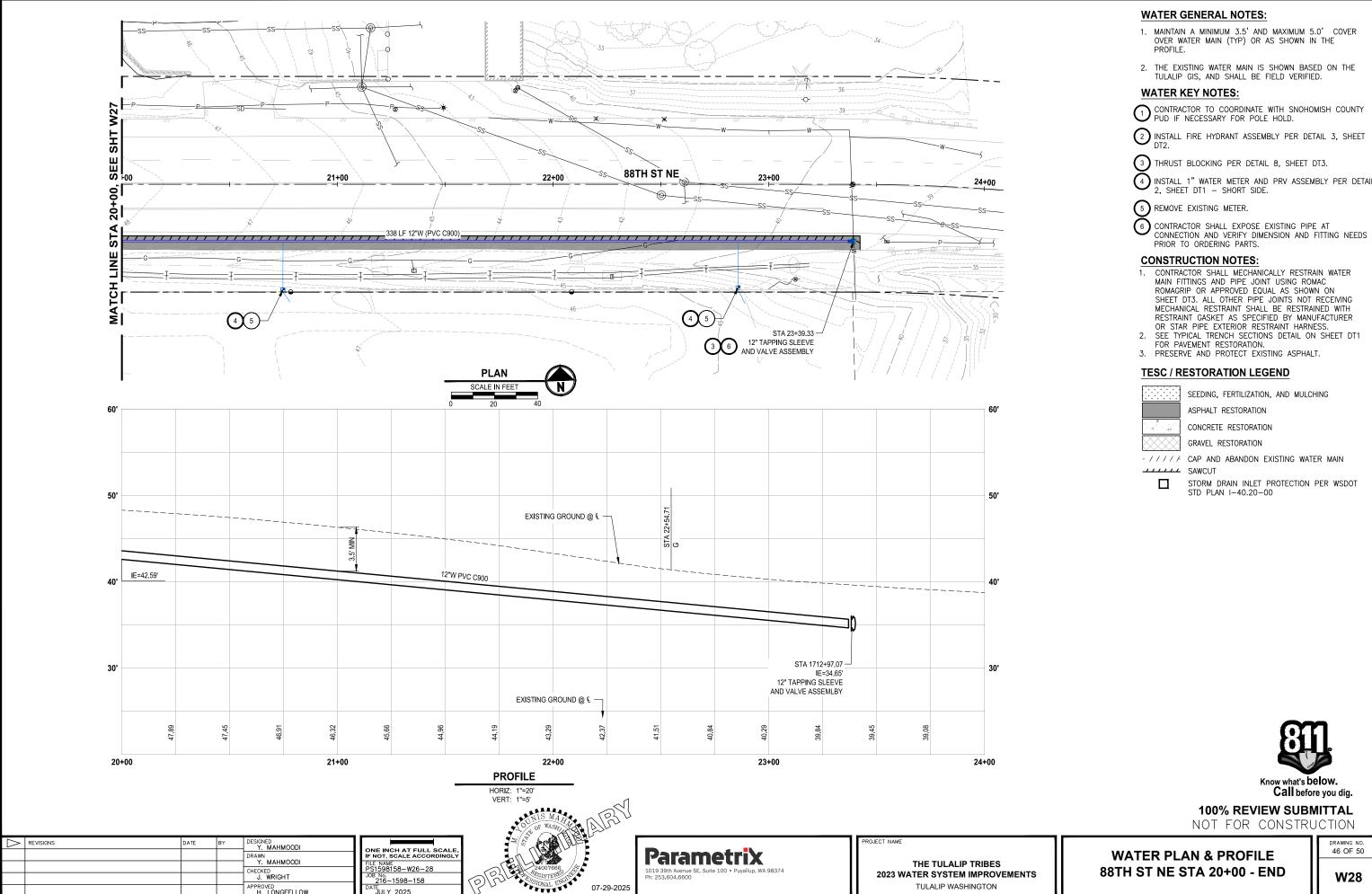
W25

WATER PLAN & PROFILE MISSION BEACH LANE

STA 33+00 - END







Know what's below.
Call before you dig.

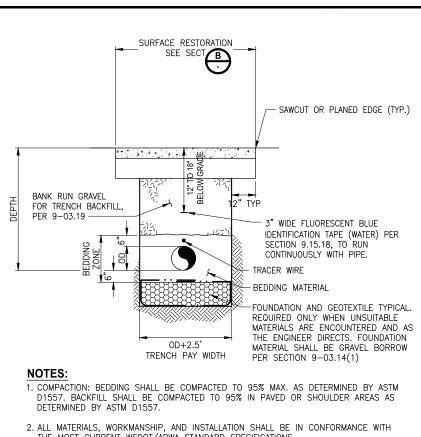
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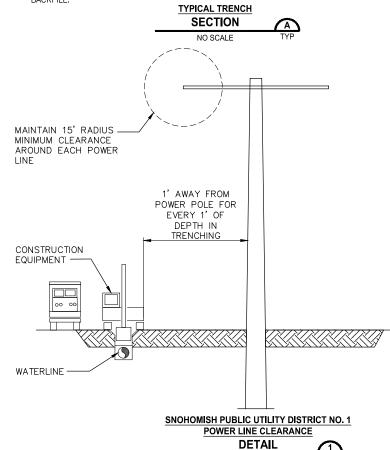
88TH ST NE STA 20+00 - END

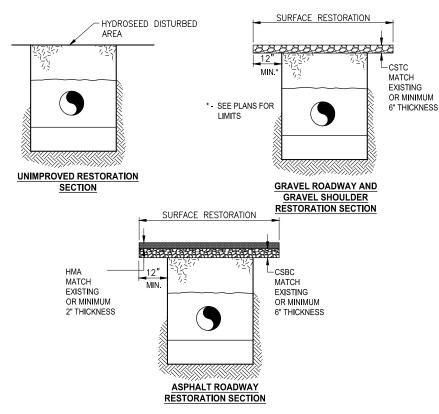
TULALIP WASHINGTON

DRAWING NO. 46 OF 50



- 2. ALL MATERIALS, WORKMANSHIP, AND INSTALLATION SHALL BE IN CONFORMANCE WITH THE MOST CURRENT WSDOT/APWA STANDARD SPECIFICATIONS.
- 3. NATIVE MATERIAL MEETING REQUIREMENTS OF 9-03.19 IS ACCEPTABLE FOR TRENCH





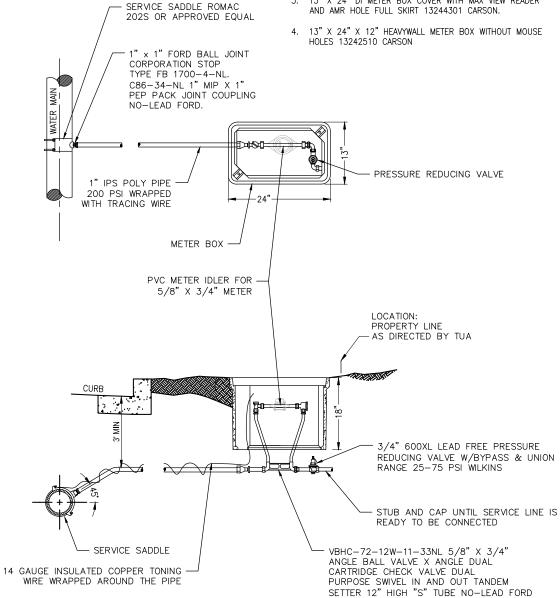
TYPICAL RESTORATION

SECTION

- 1. THE CONTRACTOR WORKING ADJACENT TO OR UNDERNEATH POWER LINES SHALL MEET THE REQUIREMENTS OF WAC 296-24-960.
- 2. POWER WIRES ARE LOCATED JUST INSIDE (SOUTH SIDE OF MARINE DR) 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.
- HEIGHT OF POWER LINE IS LOWEST AT APPROXIMATELY THE CENTER OF SPAN WHERE SAG IS GREATEST. SAG MAY INCREASE DURING WINDY OR VARYING CLIMATE
- 4. SEE EASEMENT AND PERMIT AGREEMENTS IN THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- 5. 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.
- 6. IN CASE OF EMERGENCY, CALL SNOHOMISH COUNTY PUBLIC UTILITY DISTRICT AT 425-783-1000 TO DISPATCH A QUALIFIED ELECTRICAL WORKER.

APPROVED METER BOX

- 13" X 24" X 18" DEEP RPM METER BOX WITH MOUSEHOLES 20K RATED A6001946PCX12 ARMORCAST.
- 2. 13" X 24" RPM COVER WITH HINGED CI READER LID & TOUCH READ HOLE 10K RATED MARKED "WATER METER" A6001866RCI-H7 ARMORCAST.
- 13" X 24" DI METER BOX COVER WITH MAX VIEW READER



- STAINLESS STEEL INSERTS
 REQUIRED FOR ALL PACK JOINTS
- 2. ALL SERVICE SADDLES AND FITTINGS SHALL HAVE I.P. THREADS.



100% REVIEW SUBMITTAL

NOT FOR CONSTRUCTION

REVISIONS DESIGNED
Y. MAHMOODI DRAWN Y. MAHMOODI CHECKED J. WRIGHT

NO SCALE

ONE INCH AT FULL SCALE F NOT, SCALE ACCORDINGL FILE NAME PS1598158-DT1-4 JOB No. 4500 450 216-1598-158 DATE, ...

07-29-2025

Parametrix

THE TULALIP TRIBES 2023 WATER SYSTEM IMPROVEMENTS TULALIP WASHINGTON

ROJECT NAME

1" WATER SERVICE

METER ASSEMBLY

DETAIL

NO SCALE

WATER DETAILS

DT1

47 OF 50

- 1. ALL MATERIALS AND FITTINGS SHALL BE AS SPECIFIED OR APPROVED EQUAL
- 2. WATER MAINS SHALL HAVE A MINIMUM COVER OF 42" IN IMPROVED RIGHT-OF-WAY, AND A MINIMUM 48" IN UNIMPROVED RIGHT-OF-WAY AND EASEMENTS.
- 3. THE FIRE HYDRANT AND CONCRETE GUARD POSTS SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 (TWO COATS) OR AN APPROVED EQUAL.
- 4. FIRE HYDRANTS SHALL HAVE TWO 2½" HOSE PORTS (NATIONAL STANDARD THREAD) WITH CAPS AND CHAINS AND ONE 4½" PUMPER PORT (TACOMA STEAMER PORT THREAD, STEAMER PORT SHALL FACE THE STREET), 14" PENTAGONAL OPERATING NUT (COUNTER-CLOCKWISE OPENING), O-RING TYPE STUFFING BOX, AUTOMATIC BARREL DRAINS AND 51/4" MAIN VALVE OPENING. HYDRANTS SHALL BE DESIGNED IN A MANNER THAT WILL PREVENT BARREL BREAKAGE WHEN STRUCK BY A VEHICLE. HYDRANTS SHALL CONFORM TO THE LATEST REVISION OF AWWA SPECIFICATIONS NO. C 502-73 FOR FIRE HYDRANTS FOR ORDINARY WATER SERVICE. FIRE HYDRANTS SHALL INCLUDE THE ENTIRE ASSEMBLY COMPLETE, INCLUDING HYDRANT, GATE VALVE AND BOX, CONNECTING PIPING FITTINGS AND ACCESSORIES.
- 5. FIRE HYDRANTS SHALL BE M&H, MUELLER CENTURION OR APPROVED EQUAL MEETING REQUIREMENTS OF ANSI/AWWA C502.
- 6. VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECES (IF NECESSARY), AS MANUFACTURED BY THE VANRICH #940 SEATTLE OR APPROVED EQUAL. THE WORD "WATER" SHALL BE CAST IN RELIEF IN THE TOP.
- 7. GATE VALVES SHALL CONFORM TO THE LATEST AWWA SPECIFICATIONS FOR COLD WATER, RESILIENT SEATED WEDGE GATE VALVES, 200 PSI WORKING PRESSURE. THEY SHALL BE IRON—BODIED BRONZE—MOUNTED, NON—RISING STEM, COUNTER—CLOCKWISE OPENING, MECHANICAL JOINT BY FLANGED. VALVE STEMS SHALL BE PROVIDED WITH O-RING SEALS AND SHALL BE AS MANUFACTURED BY THE MUELLER, M&H, OR APPROVED
- 8. THE HOLDING SPOOL SHALL BE A MECHANICAL-JOINT (MJ) HOLDING SPOOL, WITH THE USE OF CLASS 53 DUCTILE IRON PIPE OR THE USE OF LUG STYLE PIPE RESTRAINT CONNECTORS WITH CLASS 53 DUCTILE IRON PIPE (ROMAC ROMAGRIP OR APPROVED EQUAL). EBAA IRON FITTINGS ARE NOT ALLOWED TO BE USED ON THIS
- 9. IF DISTANCE BETWEEN WATER MAIN AND FIRE HYDRANT IS GREATER THAN 17 FEET, RESTRAINED JOINTS ARE REQUIRED FOR EACH ADDITIONAL JOINT. MAXIMUM HYDRANT RUN ALLOWED IS 50 FEET.
- 10. THE CONTRACTOR SHALL PLACE A 6 0Z. GEOTEXTILE FABRIC AROUND THE WASHED ROCK AREA. ENDS TO
- 11. A FLUORESCENT ORANGE BAG MUST COVER AND BE SECURED TO THE FIRE HYDRANT UNTIL APPROVED FOR USE BY TULALIP TRIBE PUBLIC WORKS. HYDRANT ASSEMBLY



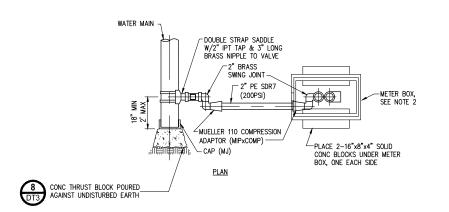


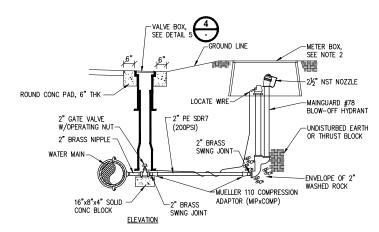
3" MIN. THICKNESS ASPHALT PATCH W/ 6 MIN. THORNESS STREET THAT IN MY MIN. CRUSHED SURFACING TOP COURSE % MINUS. SEAM SEAL WITH A NARROW WAFER THIN APPLICATION OF AR4000. SEE NOTE 7 2" SQUARE X 2" DEEP OPERATING NUT ——— 4 ½" DIA. x ¼" (MIN. —— THICKNESS) IDLER PLATE ັద *∞ ≥ 1" SOLID STEEL BAR SQUARE SOCKET 2 1/4"
INSIDE, 2 1/4" DEPTH (1/4"
MIN. WALL THICKNESS).
DO NOT INSTALL SET
SCREW (EQUAL BOTH SIDES) -18" TOP SECTION 3.5" MIN. THICKNESS. CONC. MUST BE REINFORCED WITH A #4 REBAR HOOP. SLOPE COLLAR 2% AWAY USE STANDARD 2' BASE SECTION UNTIL MIN. OVERLAP CANNOT BE ACHIEVED. FOR DEEPER INSTALLATIONS USE A 3' OR 4' BASE SECTION UNTIL OVERLAP CANNOT BE ACHIEVED. 5" SOIL PIPE SHALL BE USED TO MAKE UP LENGTH FOR DEEPEST INSTALLATIONS. DO NOT STACK BASE SECTIONS. 6" MIN. EXTEND COLLAR AROUND VALVE CLUSTERS. 010 0

VALVE BOX INSTALLATION DETAIL

NOTES:

- 1. VALVE BOX TO BE 045/046 SEATTLE/TACOMA TOP AND LID.
- 2. VALVE BOX LIDS TO BE 4" DEEP IN TRAFFIC AREAS AND A MIN. OF 3" IN OTHER LOCATIONS. LOCKING VALVE BOX LIDS (AMPRO STYLE 940) REQUIRED IF LIDS WILL NOT STAY PUT DUE TO TRAFFIC.
- 3. SAWCUT VALVE BOX COMPONENTS. BROKEN OR JAGGED VALVE BOX SECTIONS NOT ACCEPTABLE.
- 4. OVERLAY ADJUSTMENT RINGS NOT ALLOWED, UNLESS APPROVED TUA.
- 5. VALVE BOX COLLARS REQUIRED IF VALVE BOX OUT OF PAVING. COLLARS TO BE FLUSH WITH FINISH SURFACE. SLOPE COLLARS AWAY FROM LID @ 2%
- 6. VALVE BOX COLLAR REQUIRED WHEN VALVE BOX OUTSIDE OF PAVING.
- 7. VALVE BOXES SHALL BE ADJUSTED AFTER PAVING AND PATCHED AS SHOWN ABOVE. VALVES CONNECTED TO THE EXISTING SYSTEM SHALL BE MADE ACCESSIBLE AT ALL TIMES.





ROJECT NAME

- BLOW-OFF HYDRANTS SHALL BE #78 MAINGUARD HYDRANT (THE KUPFERLE FOUNDRY CO).
- 2. SET UNDERGROUND IN ARMORCAST B36 W/ LID OR EQUIVALENT CARSON HD BOX & LID, (30"x17"x12").
- 3. THE OUTLET SHALL ALSO BE BRONZE AND BE 2-1/2" NST
- 4. HYDRANTS SHALL BE LOCKABLE TO PREVENT UNAUTHORIZED USE.

2" BLOWOFF ASSEMBLY

DETAIL

NO SCALE

TULALIP WASHINGTON

- 5. LOCATE WIRE SHALL BE 10 GAUGE WIRE FROM 2" GV TO METER BOX W/ 6" MIN EXPOSED WITHIN BOX.
- 6 THRUST BLOCKS TO BE DETERMINED BY LWD INSPECTOR
- 7. METER BOX AND HYDRANT SHALL BE INSTALLED OUTSIDE OF CONCRETE AND PAVED SURFACES.



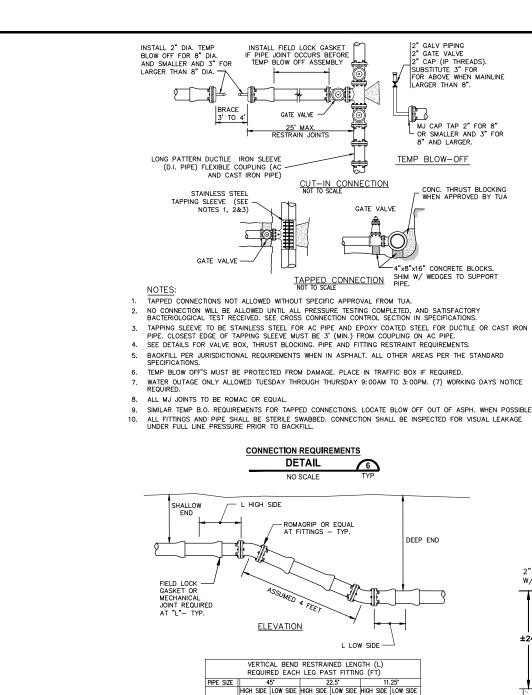
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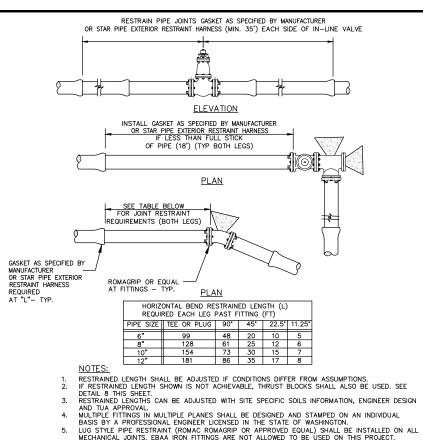
THE TULALIP TRIBES 2023 WATER SYSTEM IMPROVEMENTS

WATER DETAILS

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DT2





ASSUMPTIONS:

UNION

- 18"X18"X6"

CONCRETE COLLAR

FOR STABILIZATION

2" APCO #145C

AIR/VACUUM VALVE

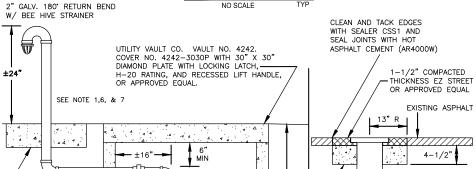
WASHED ROCK —— 6" MINIMUM DEPTH

OR APPROVED FOUAL

- TEST PRESSURE 250 PSI. LAYING CONDITION 3.

- LATING CONDITION 3:
 SAND-SILT SOIL DESIGNATION.
 COVER ON 6" & 8" DIA. AT 3 FEET.
 SAFETY FACTOR 1.5
- SAFETY FACTOR 1.5
 VALUES DEVELOPED WITH DIPRA THRUST RESTRAINT CALCULATOR.





#12 LOCATE WIRE

2" HIGH DENSITY

SEE NOTE 3 - 16"X8"X4"

POLY (IRON PIPE SIZE MEETING ASTM D 2239

-SIDR 7 (PE 3408) 200 PSI MINIMUM

CONCRETE

BLOCK

NOTES:

- NOTICES.

 RESTRAINED LENGTH SHALL BE ADJUSTED IF CONDITIONS DIFFER FROM ASSUMPTIONS. IF RESTRAINED LENGTH SHOWN IS NOT ACHIEVABLE, THRUST BLOCKS SHALL ALSO BE USED. CONTACT DISTRICT FOR THRUST BLOCKING DETAIL. ALL PIPE BETWEEN VERTICAL BENDS SHALL BE RESTRAINED. RESTRAINED LENGTHS CAN BE ADJUSTED WITH SITE SPECIFIC SOILS INFORMATION, ENGINEER DESIGN AND DISTRICT APPROVAL.

- PO' VERTICAL BENDS ARE NOT ALLOWED.

 MULTIPLE FITTINGS IN MULTIPLE PLANES SHALL BE DESIGNED AND STAMPED ON AN INDIVIDUAL BASIS BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.
- ASSUMPTIONS:
- TEST PRESSURE 250 PSI.
- LAYING CONDITION 3.
 SAND—SLIT SOIL DESIGNATION.
 SHALLOW END COVER ON 6", 8", 10" & 12" DIA. AT 3 FEET.
 LENGTH BETWEEN FITTINGS ASSUMED TO BE 4 FEET SO KNOWN LENGTH IS 2 FEET.
 SAFETY FACTOR 1.5
 VALUES DEVELOPED WITH DIPRA THRUST RESTRAINT CALCULATOR.

VERTICAL BEND RESTRAINT **DETAIL** NO SCALE

REVISIONS DESIGNED
Y. MAHMOODI PRAWN Y. MAHMOODI CHECKED J. WRIGHT

ONE INCH AT FULL SCALI TILE NAME PS1598158-DT1-4 216-1598-158 DATE...

BED PIPE AND FITTINGS 2" X (MAIN SIZE) DOUBLE STRAP SADDLE IN 1-1/4" CRUSHED ROCK TAPPED ON TOP **Parametrix** 07-29-2025

SEE NOTE

THE TULALIP TRIBES 2023 WATER SYSTEM IMPROVEMENTS **TULALIP WASHINGTON**

WATER DETAILS

PLUGGED TEE HORIZONTAL BEND UNDISTURBED EARTH - 20 LB. BUILDING PAPER OR 4 MIL TEE POLY (TYP) THRUST BLOCK TABLE 45* 22 ½* 11 ¼*

CROSS WITH PLUG

ELEVATION

1. BEARING AREA OF CONC. THRUST BLOCK BASED ON 200 PSI PRESSURE AND SOIL BEARING LOAD OF 2000 POUNDS PER SQUARE FOOT.

MINIMUM BEARING AREA AGAINST UNDISTURBED EARTH (SQUARE FEET)

PLAN

2. AREAS MUST BE ADJUSTED FOR OTHER SIZE PIPES, PRESSURES AND SOIL CONDITIONS

90°

STEEL PLATE.
FORM TO ALLOW
FOR BOLT
REMOVAL

* USE 12" OR

- 3000 PSI CONCRETE

FORMED TO ALLOW FOR

PIPE SIZE TEE OR END PLUG

REMOVAL OF BOLTS -

L/2, WHICHEVER IS GREATER.

- 3. CONCRETE BLOCKING SHALL BE CAST IN PLACE AND HAVE A MINIMUM OF ½ SQUARE FOOT BEARING AGAINST THE FITTING. SIDES SHALL BE FORMED WITH PLYWOOD OR EQUIVALENT.
- 4. THRUST BLOCK SHALL BEAR AGAINST FITTING ONLY AND SHALL BE CLEAR OF JOINTS TO PERMIT
- 5. CONCRETE TO BE 3000 PSI MINIMUM. PRE-MIX CONCRETE IS PREFERRED. IF CONCRETE IS HAND MIXED THE PROPORTIONS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. COMPRESSIVE TESTS OF "HAND MIXED" CONCRETE MAY BE REQUIRED. PRE-INSPECTION OF BLOCKING AREA REQUIRED PRIOR TO PLACEMENT OF CONCRETE.
- 6. CONTRACTOR SHALL INSTALL BLOCKING ADEQUATE TO WITHSTAND FULL TEST PRESSURE AS WELL AS TO CONTINUOUSLY WITHSTAND OPERATING PRESSURE UNDER ALL CONDITIONS OF SERVICE.
- 7. SEE DETAIL NO. 7 FOR PIPE AND FITTING RESTRAINT REQUIREMENTS.
- PROVIDE 4"X8"X16" CONCRETE BLOCKS UNDER ALL GATE VALVES. SHIM WITH WEDGES AS NEEDED TO ENSURE FIRM AND LEVEL SUPPORT OF THE PIPE DURING INSTALLATION, TESTING, AND OPERATION.



CAST IRON

VALVE BOX SEE NOTE 2

WATER MAIN

(VARIOUS SIZES)

ROJECT NAME

2" THREADED RESILIENT SEATED WEDGE GATE VALVE WITH 2" SQUARE OPERATING NUT

CONCRETE

COLLAR

- ALL FITTINGS FROM THE WATER MAIN TO THE BOTTOM OF THE AIR/VACUUM VALVE SHALL BE BRASS. ALL FITTINGS ABOVE THE AIR/VACUUM VALVE SHALL BE GALVANIZED STEEL. WRAP GALVANIZED PIPE BELOW GROUND WITH 3M TAPE OR FOUAL TO 1" ABOVE GROUND LEVEL
- VALVE BOXES SHALL BE TWO-PIECE, ADJUSTABLE, CAST IRON WITH EXTENSION PIECE (IF NECESSARY). VALVE BOX TO BE 045/046 - SEATTLE/TACOMA TOP AND LID. THE WORD "WATER" SHALL BE CAST IN RELIEF IN THE TOP.
- 2" HIGH DENSITY POLY PIPE SHALL MAINTAIN A MINIMUM ONE-DEGREE RISE FROM THE WATER MAIN TO THE AIR/VACUUM VALVE.
- AIR/VACUUM VALVE VAULT AND VENT RISER TO BE INSTALLED OUT OF THE STREET. EXACT LOCATION TO BE DETERMINED BY THE OWNER'S REPRESENTATIVE
- TO STABILIZE AIR/VACUUM VALVE, BURY 2" GALVANIZED PIPE ALONG SIDE VALVE. SECURE WITH STAINLESS STEEL STRAP. SET TOP OF GALVANIZED PIPE 2" BELOW AIR/VACUUM FLANGE.
- VENT RISER AND RETURN BEND SHALL BE PAINTED, RUST-OLEUM SAFETY YELLOW #7543 OR APPROVED
- $^{7.}$ IF NEW PLAT, INCLUDE EASEMENT BEHIND SIDEWALK FOR VENT RISER. VENT RISER SHALL BE NO MORE THAN 2' BEHIND SIDEWALK

2" COMBINATION AIR RELEASE / AIR VACUUM VALVE ASSEMBLY DETAIL NO SCALI

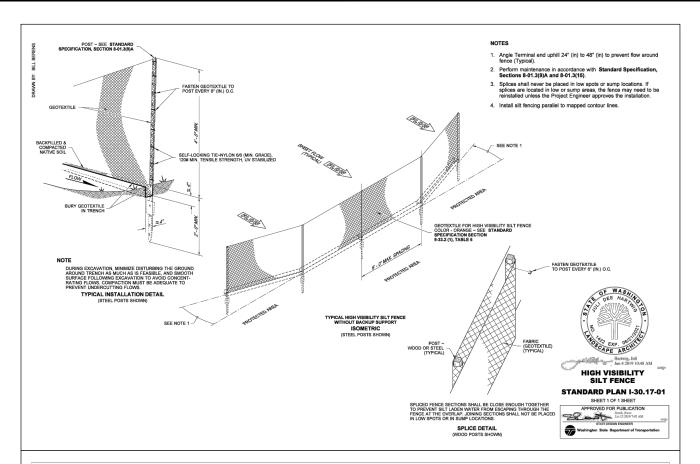


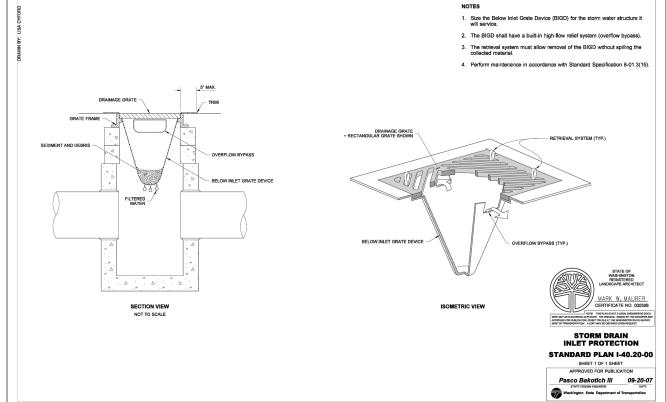
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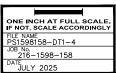
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DT3





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Ë					J. WRIGHT	ı		
4,40					APPROVED H LONGFELLOW	ı		







ROJECT NAME

THE TULALIP TRIBES

2023 WATER SYSTEM IMPROVEMENTS

TULALIP WASHINGTON

EROSION/SEDIMENTATION CONTROL NOTES

- CONTRACTOR SHALL SUBMIT A TEMPORARY WATER POLLUTION/EROSION CONTROL PLAN PER THE CONTRACT PROVISIONS.
- ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION SHALL BE OBSERVED DURING CONSTRUCTION.
- . ALL REQUIRED SEDIMENTATION/EROSION CONTROL FACILITIES SHALL BE IN OPERATION PRIOR TO LAND CLEARING AND/OR OTHER CONSTRUCTION ACTIVITIES TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE EXISTING DRAINAGE SYSTEM. ALL EROSION AND SEDIMENT FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT AND ADDITIONS TO EROSION/SEDIMENTATION CONTROL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE EROSION AND SEDIMENTATION CONTROL SYSTEMS DEPICTED ON THIS DRAWING ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND AS UNEXPECTED OR SEASONAL CONDITIONS DISTATE, THE CONTRACTOR SHOULD ANTICIPATE THAT MORE EROSION AND SEDIMENTATION CONTROL FACILITIES WILL BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE PROPOSED SITE. 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 TO PROTECT ADJACENT PROPERTIES AND THE WATER QUALITY OF THE RECEIVING DRAINAGE SYSTEM.
- AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF THE SEDIMENT. ALL STORM DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS SHALL BE CLEANED AFTER COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHALL REMOVE MATERIAL DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO THE RIGHT-OF-WAY OR INTO THE EXISTING STORM DRAINAGE SYSTEM. DEBRIS SHALL NOT BE WASHED INTO THE STORM DRAINAGE SYSTEM.
- TEMPORARY EROSION CONTROL FACILITIES SHALL BE INSPECTED WEEKLY AND MAINTAINED WITHIN 24 HOURS FOLLOWING A STORM EVENT. SEDIMENT SHALL BE REMOVED TO INSURE THE FACILITIES WILL FUNCTION PROPERLY. THE FACILITIES SHALL BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
- ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORM WATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- 9. NO DISTURBED SOIL SHALL REMAIN UNSTABILIZED FOR MORE THAN SEVEN CALENDAR DAYS.



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TESC DETAILS

DRAWING NO. 50 OF 50

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