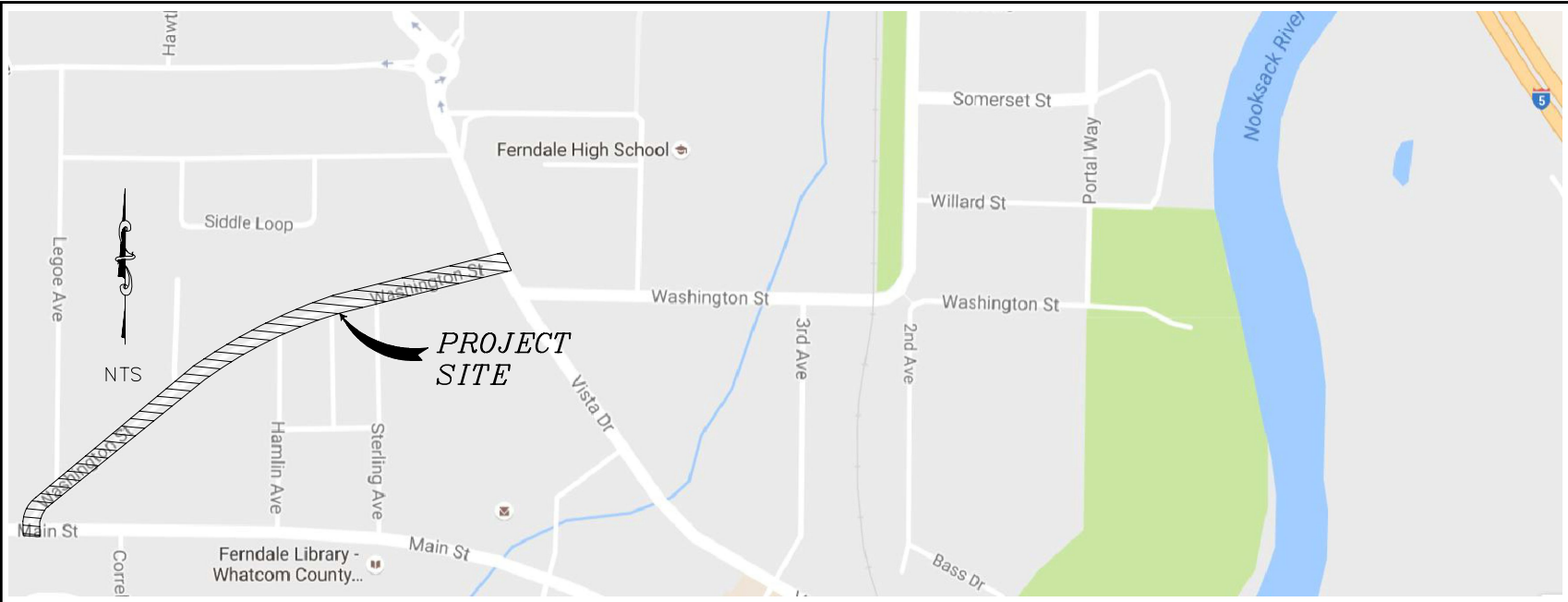


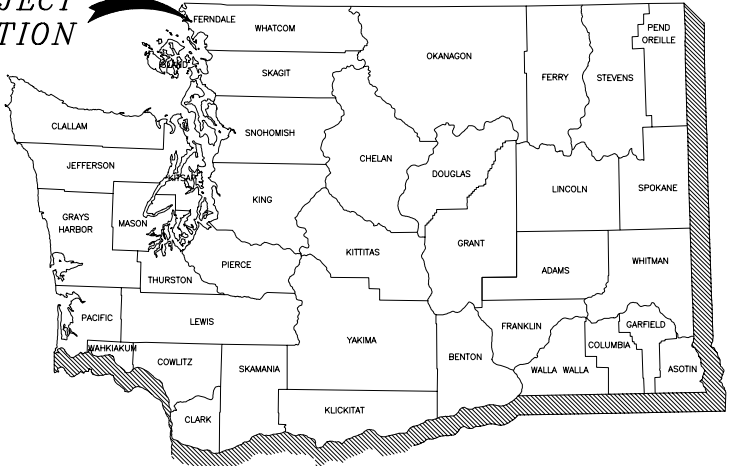
WASHINGTON STREET
IMPROVEMENT PROJECT
FERNDALE, WASHINGTON
CITY OF FERNDAL - PROJECT NO. ST2015-08
TIB PROJECT NO. 8-2-985(009)-1

VICINITY MAP

PROJECT LOCATED IN SECTION 19 & 20, TOWNSHIP 39N, RANGE 2E, W.M.



PROJECT LOCATION



SHEET SERIES INDEX

SHEET	DESCRIPTION	SHEET	DESCRIPTION
1	COVER	23	GRADING PLAN STA 10+00 TO 12+50
2	LEGEND AND ABBREVIATIONS	24	GRADING PLAN STA 12+50 TO 18+50
3	DETOUR PLAN	25	GRADING PLAN STA 18+50 TO 21+50
4	EX COND, TESC, DEMO, STA 10+00 TO 14+50	26	GRADING PLAN STA 21+50 TO 24+50
5	EX COND, TESC, DEMO, STA 14+50 TO 19+50	27	GRADING PLAN STA 24+50 TO 28+00
6	EX COND, TESC, DEMO, STA 19+50 TO 24+50	28	GRADING PLAN - ADA RAMPS
7	EX COND, TESC, DEMO, STA 24+50 TO 28+50	29	TYPICAL CROSS SECTIONS
8	TESC DETAILS	30	ROADWAY DETAILS
9	STORM AND SEWER P&P STA 10+00 TO 14+50	31	CHANNELIZATION PLAN STA 10+00 TO 19+50
10	STORM AND SEWER P&P STA 14+50 TO 19+50	32	CHANNELIZATION PLAN STA 19+50 TO 28+50
11	STORM AND SEWER P&P STA 19+50 TO 24+50	33	CHANNELIZATION DETAILS
12	STORM AND SEWER P&P STA 24+50 TO 28+50	34	CROSS SECTIONS
13	SANITARY SEWER DETAILS	35	CROSS SECTIONS
14	SANITARY SEWER DETAILS	36	CROSS SECTIONS
15	STORM SEWER DETAILS	37	CROSS SECTIONS
16	STORM SEWER DETAILS	38	CROSS SECTIONS
17	WATER P&P - STA 10+00 TO 14+50		
18	WATER P&P - STA 14+50 TO 19+50		
19	WATER P&P - STA 19+50 TO 24+50		
20	WATER P&P - STA 24+50 TO 28+50		
21	WATER DETAILS		
22	WATER DETAILS		



BID SET	DESIGNED BY ARS	R&E Reichhardt & Ebe ENGINEERING INC P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3687 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713	NO.	DATE	DESCRIPTION	BY	CITY OF FERNDAL 2095 MAIN ST FERNDAL, WA 98248	WASHINGTON STREET IMPROVEMENTS MAIN STREET TO VISTA DRIVE COVER	DWG 16026 COVER			DATE 2/13/2018
	DRAWN BY PJC								JOB# 16026	SCALE H: N/A V: N/A	SHEET 1 of 38	
CHECKED BY LP												

LEGEND

EXISTING

---	TB	---	TB	=	EXISTING TOP OF BANK
---	BB	---	BB	=	EXISTING BOTTOM OF BANK
---		---		=	EXISTING DITCH ☞
---		---		=	EXISTING GRADE BREAK
---	95	---		=	EXISTING MAJOR CONTOUR
---	95	---		=	EXISTING MINOR CONTOUR
---	☐	---	☐	=	EXISTING GUARDRAIL
---	X	---	X	=	EXISTING FENCE
---		---		=	EXISTING GRAVEL
---		---		=	EXISTING WALL
---		---		=	EXISTING BUILDING
---		---		=	EXISTING PROPERTY BOUNDARY
---		---		=	EXISTING RIGHT OF WAY
---		---		=	EXISTING RIGHT OF WAY ☞
---		---		=	EXISTING EASEMENT
---		---		=	EXISTING ROAD ☞
---		---		=	EXISTING WETLANDS BOUNDARY
---		---		=	EXISTING TRAFFIC STRIPING
---		---		=	EXISTING EDGE OF PAVEMENT
---		---		=	EXISTING FLOWLINE
---		---		=	EXISTING TOP BACK OF CURB
---		---		=	EXISTING SIDEWALK
---	UGP	---	UGP	=	EXISTING POWER BURIED
---	OHP	---	OHP	=	EXISTING OVERHEAD POWER
---	UGC	---	UGC	=	EXISTING COMMUNICATIONS BURIED
---	OHC	---	OHC	=	EXISTING OVERHEAD COMMUNICATIONS
---	FO	---	FO	=	EXISTING FIBER OPTICS BURIED
---	TV	---	TV	=	EXISTING TV BURIED
---	T	---	T	=	EXISTING TELEPHONE BURIED
---	C	---	C	=	EXISTING CONDUIT
---	G	---	G	=	EXISTING GAS MAIN
---	W	---	W	=	EXISTING WATER MAIN
---	IRR	---	IRR	=	EXISTING IRRIGATION LINE
---	FM	---	FM	=	EXISTING SANITARY SEWER FORCE MAIN
---	SS	---	SS	=	EXISTING SANITARY SEWER
---	SD	---	SD	=	EXISTING STORM DRAIN
---	OHW	---	OHW	=	EXISTING ORDINARY HIGH WATER
---		---		=	EXISTING CULVERT
---		---		=	EXISTING TREE LINE
---		---		=	EXISTING CONCRETE
---		---		=	EXISTING RR TRACKS

PROPOSED

--- TB --- TB ---	= PROPOSED TOP OF BANK
--- BB --- BB ---	= PROPOSED TOE OF BANK
---	= PROPOSED DITCH ☿
---	= PROPOSED GRADE BREAK
95	= PROPOSED MAJOR CONTOUR
95	= PROPOSED MINOR CONTOUR
□ □ □ □ □	= PROPOSED GUARDRAIL
--- X --- X --- X ---	= PROPOSED FENCE
---	= PROPOSED GRAVEL
---	= PROPOSED WALL
///	= PROPOSED BUILDING
---	= PROPOSED PAVEMENT VALLEY
---	= PROPOSED RIGHT OF WAY
--- TCE --- TCE ---	= TEMPORARY EASEMENT AND/OR GRADING LIMITS
---	= PROPOSED AUTOTURN
---	= PROPOSED CONSTRUCTION EASEMENT
---	= PROPOSED ROAD ☿
---	= PROPOSED SAWCUT
---	= PROPOSED TRAFFIC STRIPE
---	= PROPOSED ROAD EDGE OF PAVEMENT
---	= PROPOSED CURB AND GUTTER
---	= PROPOSED PATH
---	= PROPOSED SIDEWALK
---	= PROPOSED POWER LINE
◇ ◇	

EXISTING

	=	EXISTING SIGNAL POLE
	=	EXISTING SIGNAL POLE W/ LUMINAIRE
	=	EXISTING STREET LIGHT ASSEMBLY
	=	EXISTING YARD LIGHT
	=	EXISTING GUY WIRE
	=	EXISTING GAS METER
	=	EXISTING GAS VALVE
	=	EXISTING TRANSFORMER PAD
	=	EXISTING POWER VAULT
	=	EXISTING JBOX
	=	EXISTING UTILITY POT HOLE LOCATION
	=	EXISTING MAIL BOX
	=	EXISTING WATER SPIGOT
	=	EXISTING WATER BLOW OFF
	=	EXISTING WATER METER
	=	EXISTING WATER VALVE
	=	EXISTING FIRE HYDRANT
	=	EXISTING TRAFFIC SIGNAL VAULT
	=	EXISTING SEWER MANHOLE
	=	EXISTING STORM DRAIN CATCH BASIN TYPE I
	=	EXISTING STORM DRAIN CATCH BASIN TYPE II
	=	EXISTING UTILITY POLE
	=	EXISTING MONITORING WELL
	=	EXISTING STORM CLEANOUT
	=	EXISTING SEWER CLEANOUT
	=	EXISTING SIGN
	=	EXISTING TELEPHONE PEDESTAL
	=	EXISTING COMMUNICATIONS VAULT
	=	EXISTING BENCH MARK
	=	EXISTING NAIL AND SHINER
	=	EXISTING IRON PIPE
	=	EXISTING MONUMENT (IN CASE)
	=	EXISTING MONUMENT (SURFACE)
	=	EXISTING ANGLE POINT
	=	EXISTING TREE STUMP
	=	EXISTING TREE
	=	EXISTING VEGETATION

PROPOSED

	=	PROPOSED COUPLER
	=	PROPOSED WATER METER
	=	PROPOSED WATER VALVE
	=	PROPOSED STORM DRAIN INLET
	=	PROPOSED STORM DRAIN CATCH BASIN TYPE II
	=	PROPOSED SANITARY SEWER MANHOLE
	=	PROPOSED STORM DRAIN CATCH BASIN TYPE I
	=	CONNECT TO EXISTING PIPE
	=	PROPOSED HYDRANT
	=	PROPOSED UTILITY POLE
	=	PROPOSED JBOX (TYPE I, II, III)
	=	PROPOSED MONITORING WELL
	=	PROP STORM CLEANOUT
	=	PROPOSED SANITARY SEWER CLEAN OUT
	=	PROPOSED SIGN
	=	FLOW ARROW
	=	PROPOSED TREE
	=	SECTION MARK
	=	POTHOLE EXISTING UTILITY

ABBREVIATIONS

Δ = DELTA	EQUIV = EQUIVALENT	MAX = MAXIMUM	S = SOUTH
ϕ = DIAMETER	EVCE = END VERTICAL CURVE ELEVATION	MIN = MINIMUM	SCH = SCHEDULE
AC = ASBESTOS CEMENT	EVCS = END VERTICAL CURVE STATION	MOD = MODIFIED	SD = STORM DRAIN
AD = ALGEBRAIC DIFFERENCE	EX, EXIST = EXISTING	MON = MONUMENT	SDCO = STORM DRAIN CLEAN OUT
ASPH = ASPHALT	IR = EXISTING IRRIGATION	MPOC = MID-POINT ON CURVE	SDCB = STORM DRAIN CATCH BASIN
BLDG = BUILDING	F&C = FRAME AND COVER	MTR = METER	SDMH = STORM DRAIN MANHOLE
BVCE = BEGIN VERTICAL CURVE ELEVATION	F&G = FRAME AND GRATE	MW = MONITORING WELL	SE = SOUTHEAST
BVCS = BEGIN VERTICAL CURVE STATION	FF = FINISHED FLOOR	N = NORTH	SN = EXISTING SIGN
C&G = CURB & GUTTER	FG = FINISHED GRADE	NE = NORTHEAST	SP = STANDARD PLAN
CATV = CABLE TELEVISION	\mathcal{C} = FLOW LINE	NW = NORTHWEST	SSCO = SANITARY SEWER CLEAN OUT
CDF = CONTROLLED DENSITY FILL	FL = FLANGE	OC = ON CENTER	SSMH = SANITARY SEWER MANHOLE
\mathcal{C} = CLASS, CENTERLINE	FT = FEET	PVMT = PAVEMENT	STA = STATION
CMP = CORRUGATED METAL PIPE	FT/FT = FEET PER FOOT	PC = POINT OF CURVATURE	STD = STANDARD
CMU = CONCRETE MASONRY UNIT	FTR = FRONTIER	PCC = POINT OF COMPOUND CURVATURE,	SW = SOUTHWEST
CNG = CASCADE NATURAL GAS	GALV = GALVANIZED	PORTLAND CEMENT CONCRETE	TEL = TELEPHONE
COMP = COMPACTED	GRVL = GRAVEL	PED = PEDESTAL	TL = TRAFFIC LOOP
CON = CONIFER	GV = GATE VALVE	POC = POINT ON CURVE	TYP = TYPICAL
CONC = CONCRETE	HDPE = HIGH DENSITY POLYETHYLENE	POSS = POSSIBLE	UP = UTILITY POLE
CONT = CONTOUR	HMA = HOT MIX ASPHALT	PRC = POINT OF REVERSE CURVE	UTIL = UTILITY
CPSSP = CORRUGATED POLYETHYLENE STORM SEWER PIPE	HP = HIGH POINT	PROP = PROPOSED	VC = VERTICAL CURVE
CULV = CULVERT	HYD = HYDRANT	PSE = PUGENT SOUND ENERGY	VLT = VAULT
D/W = DRIVEWAY	IE, INV = INVERT ELEVATION	PT = POINT OF TANGENCY	VPC = VERTICAL POINT OF CURVATURE
DB = DIRECT BURY	IW = INJECTION WELL	PVC = POLYVINYL CHLORIDE	VPI = VERTICAL POINT OF INTERSECTION
DEC = DECIDUOUS	L = LENGTH	PM = POINT OF VERTICAL INTERSECTION	VPT = VERTICAL POINT OF TANGENCY
DI = DUCTILE IRON	LDCS = LANDSCAPING	PWR = POWER	W = WEST
E = EAST	LF = LINEAR FEET	R = RADIUS	WM = WATER MAIN
EL = ELEVATION	LOC = LOCATION	R&C = RING AND COVER	WSDOT = WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
EOP, EP = EDGE OF PAVEMENT	LP = LOW POINT	RET = RETAINING	XEOA = EXISTING EDGE OF ASPHALT
	LT = LEFT	ROW = RIGHT OF WAY	
		RT = RIGHT	



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP



Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY	

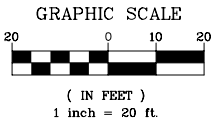
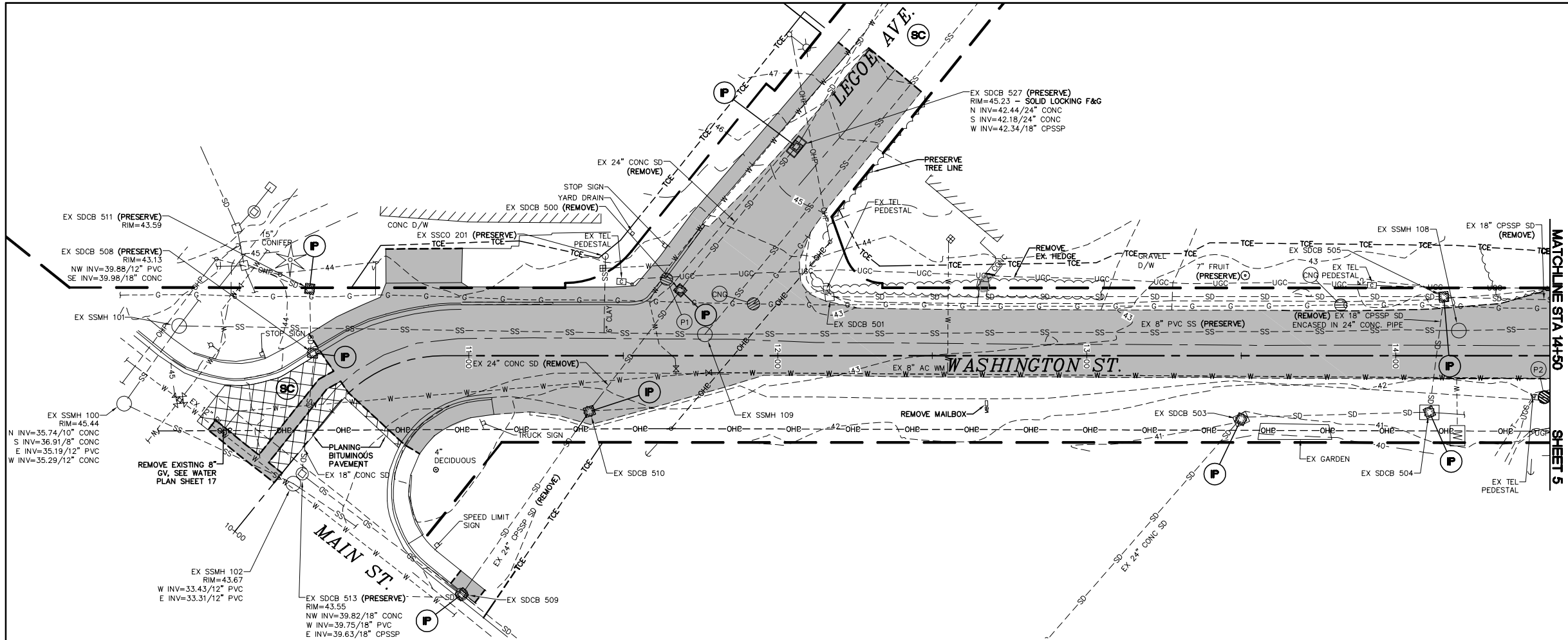
CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
LEGEND AND ABBREVIATIONS

DWG 16026 COVER
JOB# 16026

SCALE
H: N/A V: N/A

DATE
2/13/2018
SHEET
2 of 38



EROSION CONTROL LEGEND

WASHINGTON STATE DEPT. OF ECOLOGY BEST MANAGEMENT PRACTICES (BMP)
REF.: STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON, 2012

- NOTES:
- BMP C120 (PERMANENT SEEDING) SHOWN IN GRADING PLAN.
 - SEE TESC DETAILS AND TESC GENERAL NOTES, SHEET 8
 - GENERALLY THE HIGH VISIBILITY SILT FENCE AND CLEARING LIMITS FOLLOW THE RIGHT OF WAY OR CONSTRUCTION EASEMENTS UNLESS OTHERWISE DRAWN ON THE PLANS.
 - REMOVE ALL TREES WITHIN THE CLEARING LIMITS. NOT ALL TREES ARE SHOWN WITHIN THE CLEARING LIMITS.

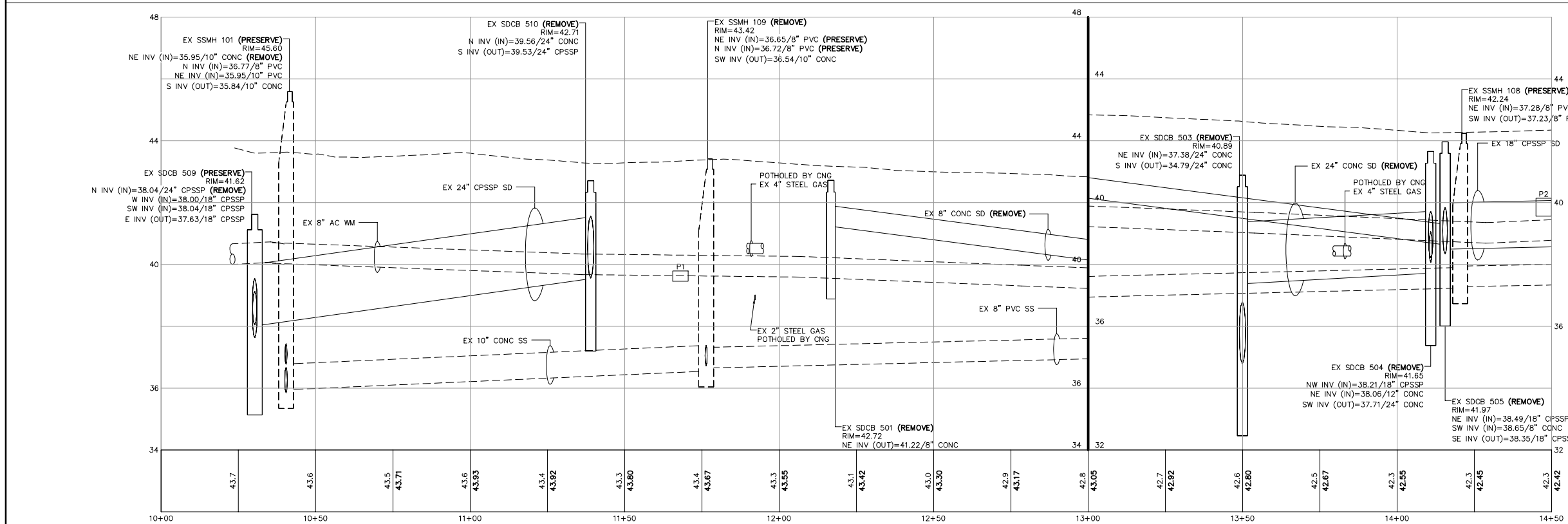
SYMBOL

- BMP C220: INLET PROTECTION - CB INSERT - SEE DETAIL SHEET 8
- ⊙ BMP C105 AND C140: STREET CLEANING

NOTES:

WATER MAIN LOCATION ASSUMED FROM APPROXIMATELY STA 10+25 TO 11+75.

⊙ = UTILITY POTHOLED LOCATION



POTHOLES		
#	DESCRIPTION	OWNER
P1	(4) 4" PVC - 3.4'± TO TOP	FTR
P2	(1) 2" PVC - 2.2'± TO TOP	FTR
	(1) 1" DB - 1.8'± TO TOP	FTR

NOTE:
POT HOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POT HOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
EX COND, TESC, DEMO, STA 10+00 TO 14+50

DWG 16026 TESC + DEMO

JOB#

16026

SCALE

H: 1"=20'

V: 1"=2'

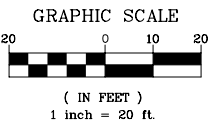
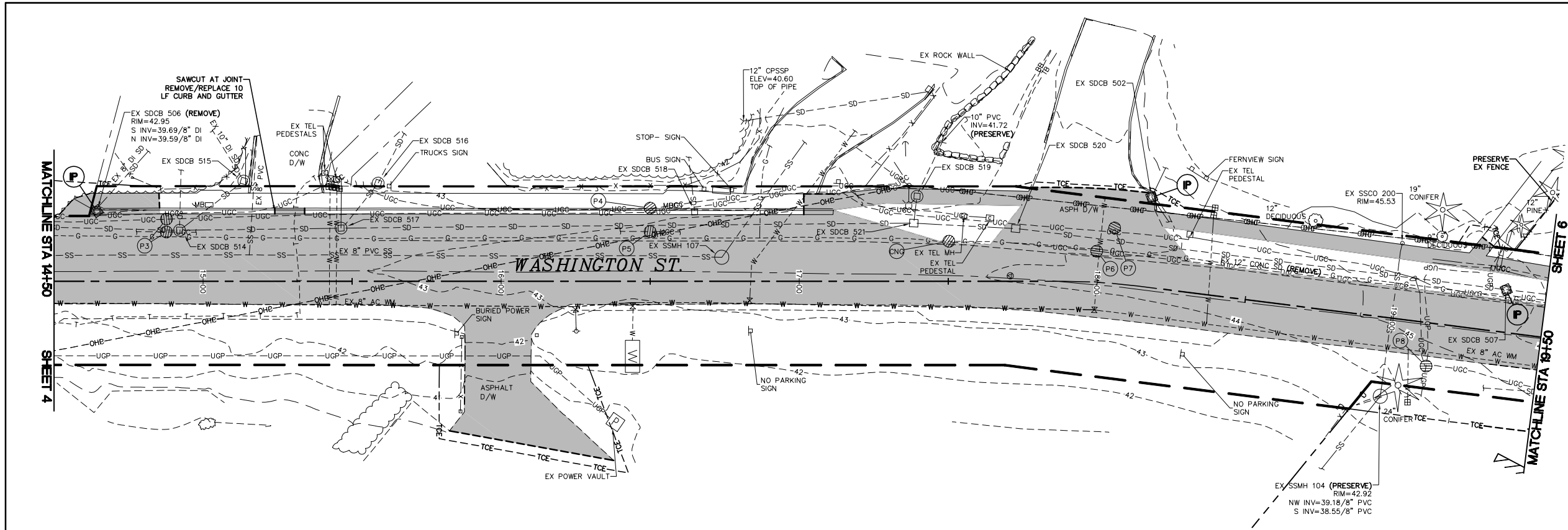
DATE

2/13/2018

SHEET

4

of 38

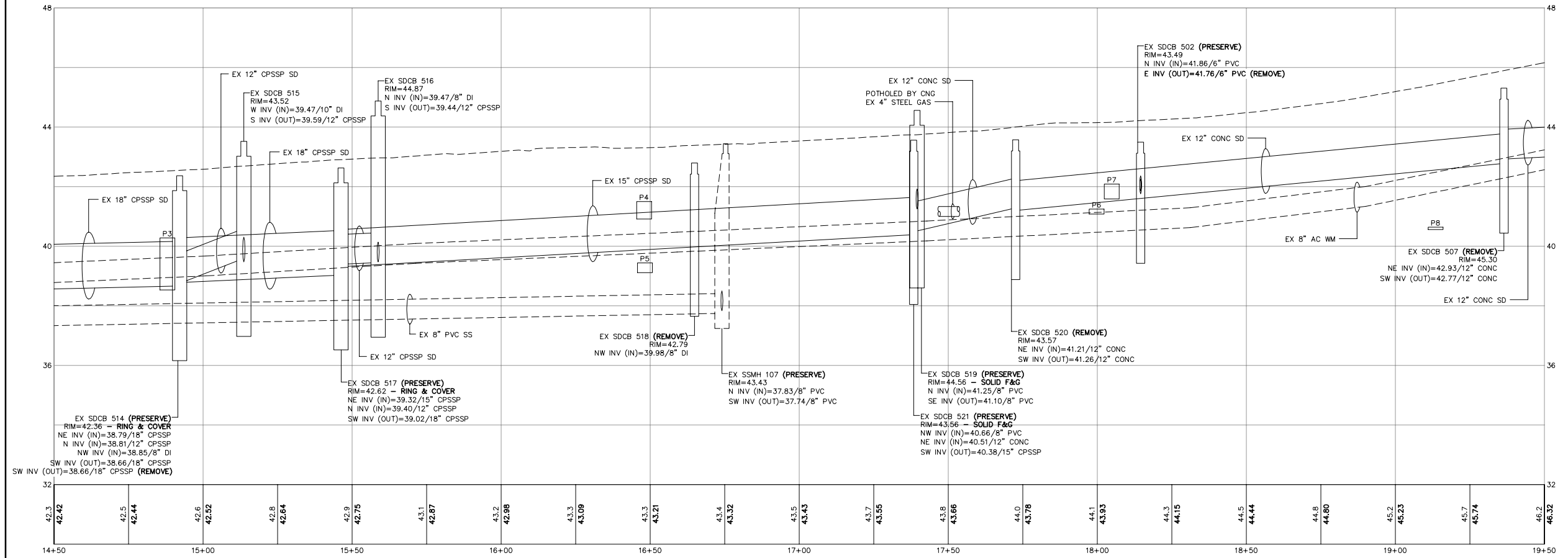


POTHOLES		
#	DESCRIPTION	OWNER
P3	(1) 4" DB - 3.3'± TO TOP	FTR
	(1) 4" PVC - 1.8'± TO TOP	
P4	(1) 2" PVC - 2.2'± TO TOP	FTR
	(1) 4" PVC - 1.8'± TO TOP	
	(1) 2" PVC - 1.8'± TO TOP	
P5	(1) 4" DB - 3.0'± TO TOP	FTR
P6	(1) 2" DB - 2.7'± TO TOP	FTR
	(1) 4" PVC - 1.7'± TO TOP	
P7	(1) 4" PE - 1.8'± TO TOP	FTR
	(1) 2" PVC - 4.0'± TO TOP	PSE
P8	(1) 1" DB - 4.0'± TO TOP	FTR

NOTE:
POTHOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POTHOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.

⊗ = UTILITY POTHOLED LOCATION

NOTES:
WATER MAIN LOCATION ASSUMED FROM APPROXIMATELY STA 18+00 TO 22+30



2/13/19

BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

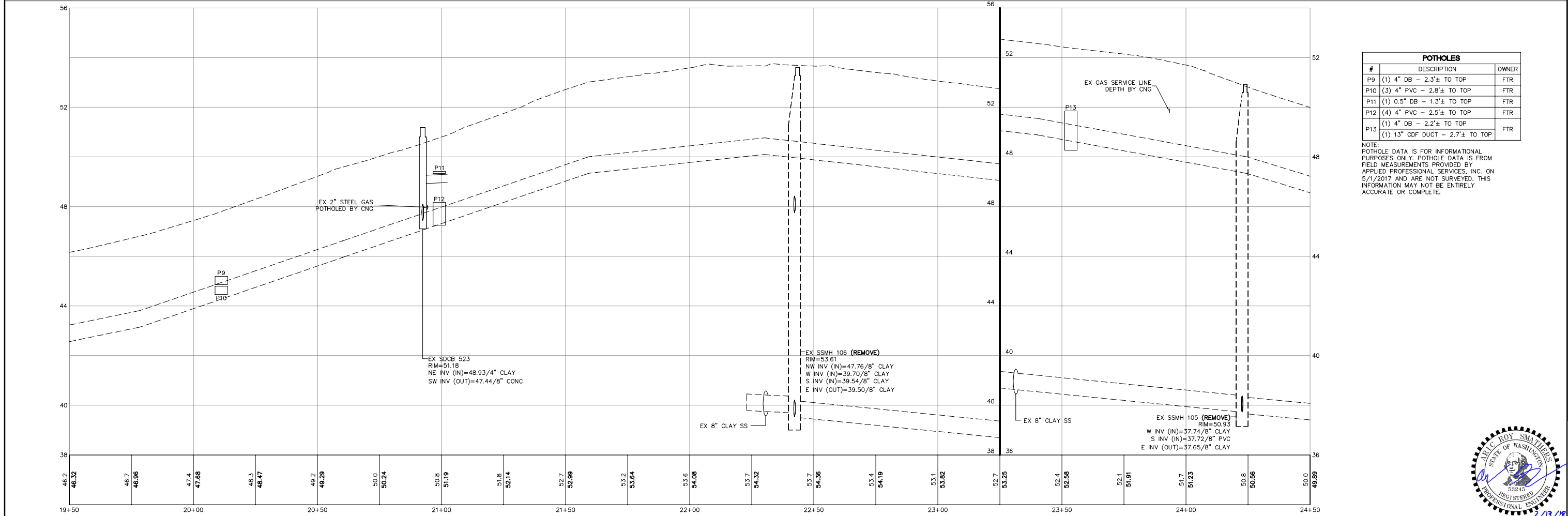
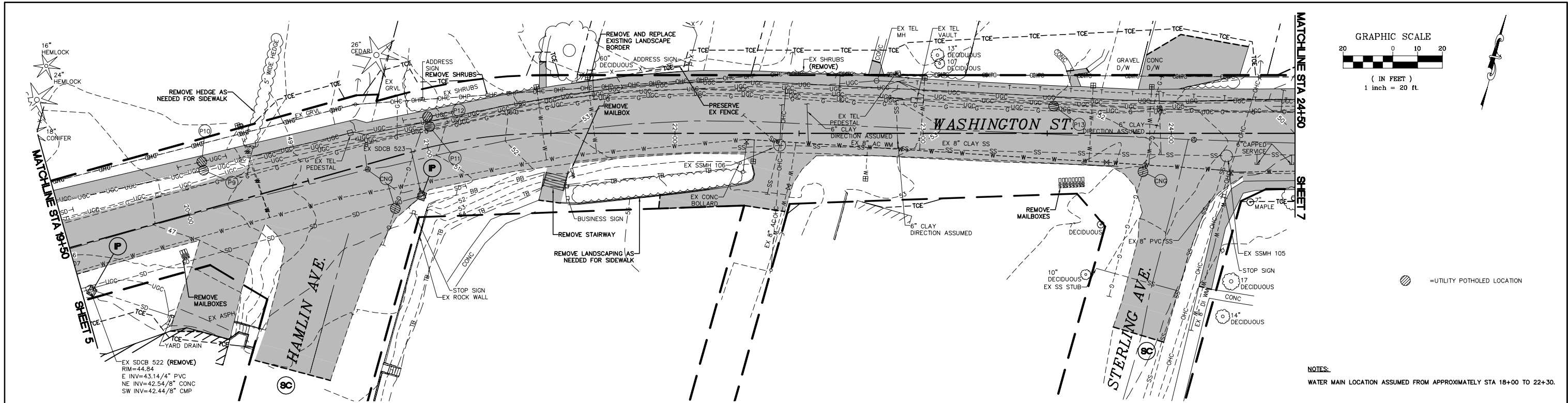
R&E Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
EX COND TESC DEMO STA 14+50 TO 19+50

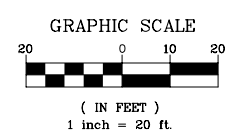
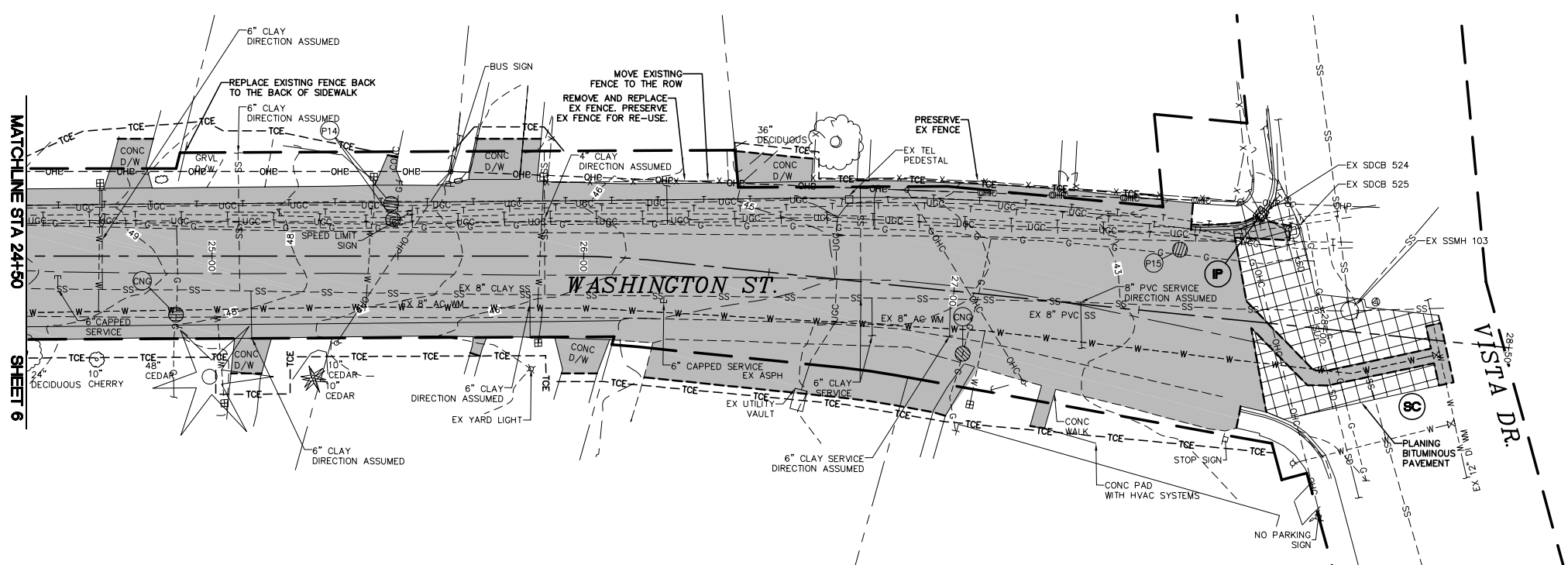
DWG 16026 TESC + DEMO		DATE 2/13/2018	
JOB# 16026	SCALE H: 1"=20' V: 1"=2'	SHEET 5 of 38	



POTHOLES		
#	DESCRIPTION	OWNER
P9	(1) 4" DB - 2.3'± TO TOP	FTR
P10	(3) 4" PVC - 2.8'± TO TOP	FTR
P11	(1) 0.5" DB - 1.3'± TO TOP	FTR
P12	(4) 4" PVC - 2.5'± TO TOP	FTR
P13	(1) 4" DB - 2.2'± TO TOP	FTR
P13	(1) 13" CDF DUCT - 2.7'± TO TOP	FTR

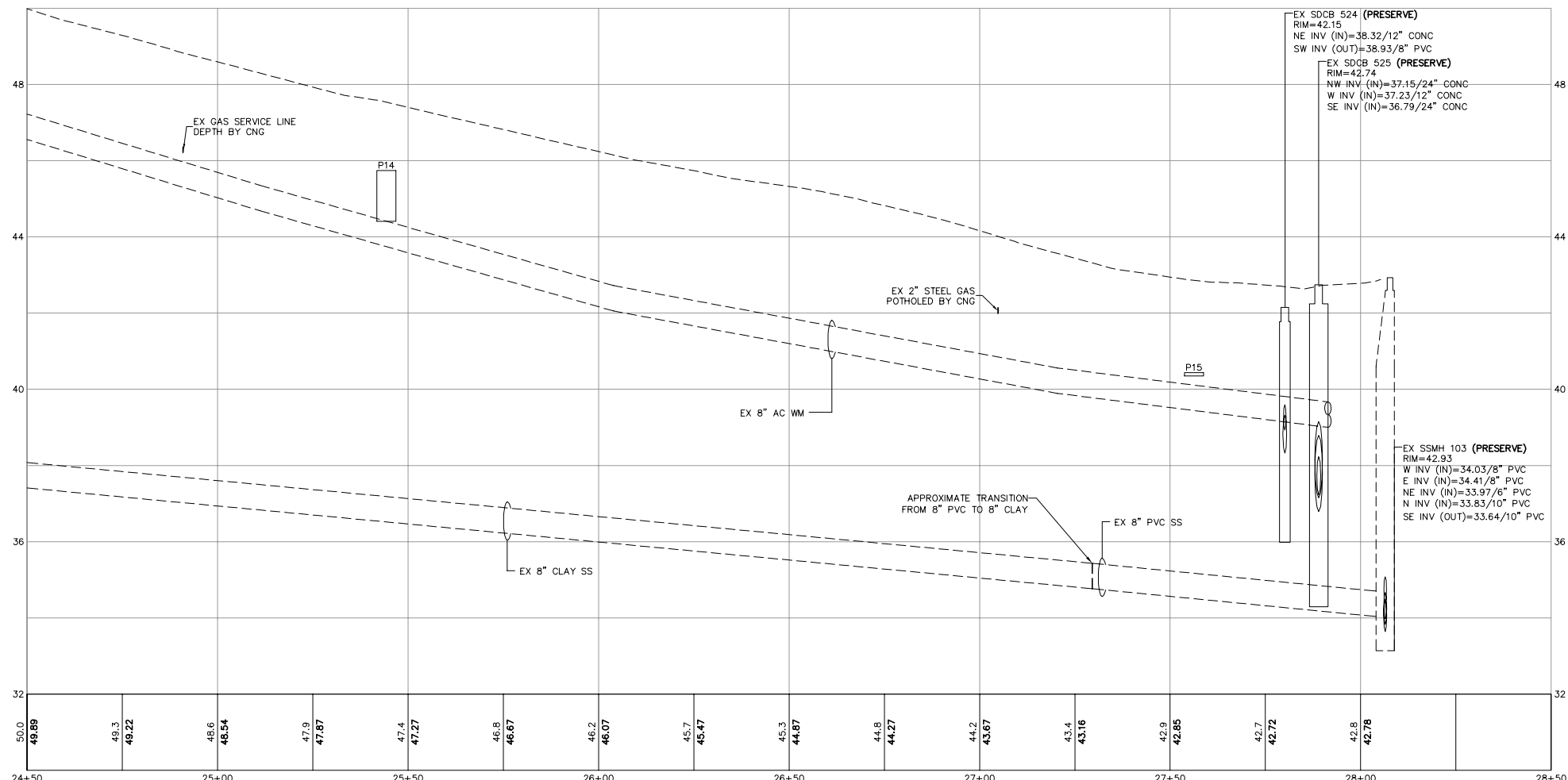
NOTE:
POTHOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POTHOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.





⊗ = UTILITY POTHOLED LOCATION

NOTES:
WATER MAIN LOCATION ASSUMED FROM APPROXIMATELY STA 18+00 TO 22+30.



POTHOLES		
#	DESCRIPTION	OWNER
P14	(1) 4" DB - 1.9'± TO TOP	FTR
	(1) 2" DB - 1.7'± TO TOP	
	(5) 1" DB - 1.7'± TO TOP	
P15	(1) 1" PVC - 2.2'± TO TOP	FTR

NOTE:
POTHOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POTHOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
EX COND TESC DEMO STA 24+50 TO 28+50

DWG 16026 TESC + DEMO		DATE	2/13/2018
JOB#	16026	SCALE	H: 1"=20' V: NA
SHEET	7	of 38	

CONSTRUCTION SWPPP ELEMENTS

THIS PLAN PROVIDES THE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL ADAPT THE PLAN IN ORDER TO PREVENT SEDIMENT LADEN STORM WATER FROM LEAVING THE SITE. THE CONTRACTOR'S CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) SHALL UTILIZE THE WASHINGTON STATE DEPARTMENT OF ECOLOGY 2014 STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (SWMMWW) FOR SELECTING, INSTALLING AND MAINTAINING THE CORRECT BMP'S BASED ON METHOD OF CONSTRUCTION UTILIZED BY THE CONTRACTOR. ALL ITEM'S SHALL BE OVERSEEN BY A CESCL AND BE SUBJECT TO INSPECTION BY THE ENGINEER AND/OR WHATCOM COUNTY PUBLIC WORKS DEPARTMENT.

ELEMENT 1: PRESERVE VEGETATION/MARK CLEARING LIMITS

- BEFORE BEGINNING LAND DISTURBING ACTIVITIES, INCLUDING CLEARING AND GRADING, CLEARLY MARK ALL CLEARING LIMITS, SENSITIVE AREAS AND THEIR BUFFERS, AND TREES THAT ARE TO BE PRESERVED WITHIN THE CONSTRUCTION AREA.
- RETAIN THE DUFF LAYER, NATIVE TOP SOIL, AND NATURAL VEGETATION IN AN UNDISTURBED STATE TO THE MAXIMUM DEGREE PRACTICABLE.
- **BMP C101: PRESERVING NATURAL VEGETATION**
- **BMP C102: BUFFER ZONES**
- **BMP C103/C233: HIGH VISIBILITY SILT FENCE**

ELEMENT 2: ESTABLISH CONSTRUCTION ACCESS

- LIMIT CONSTRUCTION VEHICLE ACCESS AND EXIT TO ONE ROUTE, IF POSSIBLE.
- STABILIZE ACCESS POINTS WITH A PAD OF QUARRY SPALLS, CRUSHED ROCK, OR OTHER EQUIVALENT BMPs, TO MINIMIZE TRACKING OF SEDIMENT ONTO PUBLIC ROADS.
- LOCATE WHEEL WASH OR TIRE BATHS ON SITE, IF THE STABILIZED CONSTRUCTION ENTRANCE IS NOT EFFECTIVE IN PREVENTING TRACKING SEDIMENT ONTO ROADS.
- IF SEDIMENT IS TRACKED OFF SITE, CLEAN THE AFFECTED ROADWAY THOROUGHLY AT THE END OF EACH DAY, OR MORE FREQUENTLY AS NECESSARY (FOR EXAMPLE, DURING WET WEATHER). REMOVE SEDIMENT FROM ROADS BY SHOVELING, SWEEPING, OR PICK UP AND TRANSPORT THE SEDIMENT TO A CONTROLLED SEDIMENT DISPOSAL AREA.
- CONDUCT STREET WASHING ONLY AFTER SEDIMENT IS REMOVED IN ACCORDANCE WITH THE ABOVE BULLET.
- CONTROL STREET WASH WASTEWATER BY PUMPING BACK ON-SITE, OR OTHERWISE PREVENT IT FROM DISCHARGING INTO SYSTEMS TRIBUTARY TO WATERS OF THE STATE.
- **BMP C105: STABILIZED CONSTRUCTION ENTRANCE/EXIT**
- **BMP C107: CONSTRUCTION ROAD/PARKING AREA STABILIZATION**

ELEMENT 3: CONTROL FLOW RATES

- PROTECT PROPERTIES AND WATERWAYS DOWNSTREAM OF DEVELOPMENT SITES FROM EROSION AND THE ASSOCIATED DISCHARGE OF TURBID WATERS DUE TO INCREASES IN THE VELOCITY AND PEAK VOLUMETRIC FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE.
- WHERE NECESSARY TO COMPLY WITH THE BULLET ABOVE, CONSTRUCT STORMWATER RETENTION OR DETENTION FACILITIES AS ONE OF THE FIRST STEPS IN GRADING. ASSURE THAT DETENTION FACILITIES FUNCTION PROPERLY BEFORE CONSTRUCTING SITE IMPROVEMENTS (E.G. IMPERVIOUS SURFACES).
- IF PERMANENT INFILTRATION PONDS ARE USED FOR FLOW CONTROL DURING CONSTRUCTION, PROTECT THESE FACILITIES FROM SILTATION DURING THE CONSTRUCTION PHASE.
- **BMP C206: TRIANGULAR SILT DIKE (GEOTEXTILE-ENCASED CHECK DAM)**

ELEMENT 4: INSTALL SEDIMENT CONTROLS

- DESIGN, INSTALL, AND MAINTAIN EFFECTIVE EROSION CONTROLS AND SEDIMENT CONTROLS TO MINIMIZE THE DISCHARGE OF POLLUTANTS.
- CONSTRUCT SEDIMENT CONTROL BMPs (SEDIMENT PONDS, TRAPS, FILTERS, ETC.) AS ONE OF THE FIRST STEPS IN GRADING. THESE BMPs SHALL BE FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES TAKE PLACE.
- MINIMIZE SEDIMENT DISCHARGES FROM THE SITE. THE DESIGN, INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROLS MUST ADDRESS FACTORS SUCH AS THE AMOUNT, FREQUENCY, INTENSITY AND DURATION OF PRECIPITATION, THE NATURE OF RESULTING STORMWATER RUNOFF, AND SOIL CHARACTERISTICS, INCLUDING THE RANGE OF SOIL PARTICLE SIZES EXPECTED TO BE PRESENT ON THE SITE.
- DIRECT STORMWATER RUNOFF FROM DISTURBED AREAS THROUGH A SEDIMENT POND OR OTHER APPROPRIATE SEDIMENT REMOVAL BMP, BEFORE THE RUNOFF LEAVES A CONSTRUCTION SITE OR BEFORE DISCHARGE TO AN INFILTRATION FACILITY. RUNOFF FROM FULLY STABILIZED AREAS MAY BE DISCHARGED WITHOUT A SEDIMENT REMOVAL BMP, BUT MUST MEET THE FLOW CONTROL PERFORMANCE STANDARD IN ELEMENT #3, BULLET #1.
- LOCATE BMPs INTENDED TO TRAP SEDIMENT ON-SITE IN A MANNER TO AVOID INTERFERENCE WITH THE MOVEMENT OF JUVENILE SALMONIDS ATTEMPTING TO ENTER OFF-CHANNEL AREAS OR DRAINAGES.
- WHERE FEASIBLE, DESIGN OUTLET STRUCTURES THAT WITHDRAW IMPOUNDED STORMWATER FROM THE SURFACE TO AVOID DISCHARGING SEDIMENT THAT IS STILL SUSPENDED LOWER IN THE WATER COLUMN.
- **BMP C206: TRIANGULAR SILT DIKE (GEOTEXTILE-ENCASED CHECK DAM)**

ELEMENT 5: STABILIZE SOILS

- STABILIZE EXPOSED AND UNWORKED SOILS BY APPLICATION OF EFFECTIVE BMPs THAT PREVENT EROSION. APPLICABLE BMPs INCLUDE, BUT ARE NOT LIMITED TO: TEMPORARY AND PERMANENT SEEDING, SODDING, MULCHING, PLASTIC COVERING, EROSION CONTROL FABRICS AND MATTING, SOIL APPLICATION OF POLYACRYLAMIDE (PAM), THE EARLY APPLICATION OF GRAVEL BASE EARLY ON AREAS TO BE PAVED, AND DUST CONTROL.
- CONTROL STORMWATER VOLUME AND VELOCITY WITHIN THE SITE TO MINIMIZE SOIL EROSION.
- CONTROL STORMWATER DISCHARGES, INCLUDING BOTH PEAK FLOW RATES AND TOTAL STORMWATER VOLUME, TO MINIMIZE EROSION AT OUTLETS AND TO MINIMIZE DOWNSTREAM CHANNEL AND STREAM BANK EROSION.
- SOILS MUST NOT REMAIN EXPOSED AND UNWORKED FOR MORE THAN THE TIME PERIODS SET FORTH BELOW TO PREVENT EROSION:
 - DURING THE DRY SEASON (MAY 1 – SEPT. 30): 7 DAYS
 - DURING THE WET SEASON (OCTOBER 1 – APRIL 30): 2 DAYS
- STABILIZE SOILS AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST.
- STABILIZE SOIL STOCKPILES FROM EROSION, PROTECTED WITH SEDIMENT TRAPPING MEASURES, AND WHERE POSSIBLE, BE LOCATED AWAY FROM STORM DRAIN INLETS, WATERWAYS AND DRAINAGE CHANNELS.
- MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITY.
- MINIMIZE THE DISTURBANCE OF STEEP SLOPES.
- MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
- **BMP C120: TEMPORARY AND PERMANENT SEEDING**
- **BMP C123: PLASTIC COVERING (AS NEEDED)**
- **BMP C130: SURFACE ROUGHENING**
- **BMP C140: DUST CONTROL**

ELEMENT 6: PROTECT SLOPES

- DESIGN AND CONSTRUCT CUT-AND-FILL SLOPES IN A MANNER TO MINIMIZE EROSION. APPLICABLE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO, REDUCING CONTINUOUS LENGTH OF SLOPE WITH TERRACING AND DIVERSIONS, REDUCING SLOPE STEEPNESS, AND ROUGHENING SLOPE SURFACES (FOR EXAMPLE, TRACK WALKING).
- DIVERT OFF-SITE STORMWATER (RUN-ON) OR GROUND WATER AWAY FROM SLOPES AND DISTURBED AREAS WITH INTERCEPTOR DIKES, PIPES AND/OR SWALES. OFF-SITE STORMWATER SHOULD BE MANAGED SEPARATELY FROM STORMWATER GENERATED ON THE SITE.
- AT THE TOP OF SLOPES, COLLECT DRAINAGE IN PIPE SLOPE DRAINS OR PROTECTED CHANNELS TO PREVENT EROSION.
- TEMPORARY PIPE SLOPE DRAINS MUST HANDLE THE PEAK VOLUMETRIC FLOW RATE CALCULATED USING A 10-MINUTE TIME STEP FROM A TYPE 1A, 10-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. ALTERNATIVELY, THE 10-YEAR AND 1-HOUR FLOW RATE PREDICTED BY AN APPROVED CONTINUOUS RUNOFF MODEL, INCREASED BY A FACTOR OF 1.6, MAY BE USED. THE HYDROLOGIC ANALYSIS MUST USE THE EXISTING LAND COVER CONDITION FOR PREDICTING FLOW RATES FROM TRIBUTARY AREAS OUTSIDE THE PROJECT LIMITS. FOR TRIBUTARY AREAS ON THE PROJECT SITE, THE ANALYSIS MUST USE THE TEMPORARY OR PERMANENT PROJECT LAND COVER CONDITION, WHICHEVER WILL PRODUCE THE HIGHEST FLOW RATES. IF USING THE WESTERN WASHINGTON HYDROLOGY MODEL (WWHM) TO PREDICT FLOWS, BARE SOIL AREAS SHOULD BE MODELED AS "LANDSCAPED" AREA.
- PLACE EXCAVATED MATERIAL ON THE UPHILL SIDE OF TRENCHES, CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS.
- PLACE CHECK DAMS AT REGULAR INTERVALS WITHIN CONSTRUCTED CHANNELS THAT ARE CUT DOWN A SLOPE.
- **BMP C120: TEMPORARY AND PERMANENT SEEDING**
- **BMP C130: SURFACE ROUGHENING**

ELEMENT 7: PROTECT DRAIN INLETS

- PROTECT ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT.
- CLEAN OR REMOVE OR REPLACE INLET PROTECTION DEVICES WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE (UNLESS A DIFFERENT STANDARD IS SPECIFIED BY THE PRODUCT MANUFACTURER).
- **BMP C220: STORM DRAIN INLET PROTECTION**

ELEMENT 8: STABILIZE CHANNELS AND OUTLETS

- DESIGN, CONSTRUCT, AND STABILIZE ALL ON-SITE CONVEYANCE CHANNELS TO PREVENT EROSION FROM THE FOLLOWING EXPECTED PEAK FLOWS:
 - CHANNELS MUST HANDLE THE PEAK VOLUMETRIC FLOW RATE CALCULATED USING A 10-MINUTE STEP FROM A TYPE 1A, 10-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. ALTERNATIVELY, THE 10-YEAR, 1-HOUR FLOW RATE INDICATED BY AN APPROVED CONTINUOUS RUNOFF MODEL, INCREASED BY A FACTOR OF 1.6, MAY BE USED. THE HYDROLOGIC ANALYSIS MUST USE THE EXISTING LAND COVER CONDITION FOR PREDICTING FLOW RATES FROM TRIBUTARY AREAS OUTSIDE THE PROJECT LIMITS. FOR TRIBUTARY AREAS ON THE PROJECT SITE, THE ANALYSIS MUST USE THE TEMPORARY OR PERMANENT PROJECT LAND COVER CONDITION, WHICHEVER WILL PRODUCE THE HIGHEST FLOW RATES. IF USING THE WESTERN WASHINGTON HYDROLOGY MODEL (WWHM) TO PREDICT FLOWS, BARE SOIL AREAS SHOULD BE MODELED AS "LANDSCAPED" AREA.
- PROVIDE STABILIZATION, INCLUDING ARMORING MATERIAL, ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAM BANKS, SLOPES AND DOWNSTREAM REACHES AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.
- **BMP C209: OUTLET PROTECTION**

ELEMENT 9: CONTROL POLLUTANTS

- DESIGN, INSTALL, IMPLEMENT AND MAINTAIN EFFECTIVE POLLUTION PREVENTION MEASURES TO MINIMIZE THE DISCHARGE OF POLLUTANTS.
- HANDLE AND DISPOSE OF ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS THAT OCCUR ON-SITE IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.
- PROVIDE COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND OTHER MATERIALS THAT HAVE THE POTENTIAL TO POSE A THREAT TO HUMAN HEALTH OR THE ENVIRONMENT. ON-SITE FUELING TANKS MUST INCLUDE SECONDARY CONTAINMENT. SECONDARY CONTAINMENT MEANS PLACING TANKS OR CONTAINERS WITHIN AN IMPERVIOUS STRUCTURE CAPABLE OF CONTAINING 110% OF THE VOLUME CONTAINED IN THE LARGEST TAKE WITHIN THE CONTAINMENT STRUCTURE. DOUBLE-WALLED TANKS DO NOT REQUIRE ADDITIONAL SECONDARY CONTAINMENT.
- CONDUCT MAINTENANCE, FUELING, AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES USING SPILL PREVENTION AND CONTROL MEASURES. CLEAN CONTAMINATED SURFACES IMMEDIATELY FOLLOWING ANY SPILL INCIDENT.
- DISCHARGE WHEEL WASH OR TIRE BATH WASTEWATER TO A SEPARATE ON-SITE TREATMENT SYSTEM THAT PREVENTS DISCHARGE TO SURFACE WATER, SUCH AS CLOSED-LOOP RECIRCULATION OR UPLAND APPLICATION, OR TO THE SANITARY SEWER, WITH LOCAL SEWER DISTRICT APPROVAL.
- APPLY FERTILIZERS AND PESTICIDES IN A MANNER AND AT APPLICATION RATES THAT WILL NOT RESULT IN LOSS OF CHEMICAL TO STORMWATER RUNOFF. FOLLOW MANUFACTURERS' LABEL REQUIREMENTS FOR APPLICATION RATES AND PROCEDURES.
- USE BMPs TO PREVENT CONTAMINATION OF STORMWATER RUNOFF BY PH MODIFYING SOURCES. THE SOURCES FOR THIS CONTAMINATION INCLUDE, BUT ARE NOT LIMITED TO: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHING AND CURING WATERS, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND SAWING, EXPOSED AGGREGATE PROCESSES, DEWATERING CONCRETE VAULTS, CONCRETE PUMPING AND MIXER WASHOUT WATERS.
- ADJUST THE PH OF STORMWATER IF NECESSARY TO PREVENT VIOLATIONS OF WATER QUALITY STANDARDS.
- ASSURE THAT WASHOUT OF CONCRETE TRUCKS IS PERFORMED OFF-SITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS. DO NOT DUMP EXCESS CONCRETE ON-SITE, EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS. CONCRETE WASHOUT DISCHARGE TO SURFACE WATERS OF THE STATE IS PROHIBITED.
- OBTAIN PRIOR APPROVAL FROM ECOLOGY BEFORE USING CHEMICAL TREATMENT OTHER THAN CO2 OR DRY ICE TO ADJUST PH.
- **BMP C151: CONCRETE HANDLING**
- **BMP C154: CONCRETE WASHOUT**

ELEMENT 10: CONTROL DE-WATERING

- DISCHARGE FOUNDATION, VAULT, AND TRENCH DE-WATERING WATER, WHICH HAS SIMILAR CHARACTERISTICS TO STORMWATER RUNOFF AT THE SITE, INTO A CONTROLLED CONVEYANCE SYSTEM BEFORE DISCHARGE TO A SEDIMENT TRAP OR SEDIMENT POND.
- DISCHARGE CLEAN, NON-TURBID DE-WATERING WATER, SUCH AS WELL-POINT GROUND WATER, TO SYSTEMS TRIBUTARY TO, OR DIRECTLY INTO SURFACE WATERS OF THE STATE, AS SPECIFIED IN ELEMENT #8, PROVIDED THE DE-WATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS. DO NOT ROUTE CLEAN DEWATERING WATER THROUGH STORMWATER SEDIMENT PONDS. NOTE THAT SURFACE WATERS OF THE STATE MAY EXIST ON A CONSTRUCTION SITE, AS WELL AS OFF-SITE; FOR EXAMPLE, A CREEK RUNNING THROUGH A SITE.
- HANDLE HIGHLY TURBID OR OTHERWISE CONTAMINATED DEWATERING WATER SEPARATELY FROM STORMWATER.
- OTHER TREATMENT OR DISPOSAL OPTIONS MAY INCLUDE:
 - 1. INFILTRATION.
 - 2. TRANSPORT OFF-SITE IN A VEHICLE, SUCH AS A VACUUM FLUSH TRUCK, FOR LEGAL DISPOSAL IN A MANNER THAT DOES NOT POLLUTE STATE WATERS.
 - 3. ECOLOGY-APPROVED ON-SITE CHEMICAL TREATMENT OR OTHER SUITABLE TREATMENT TECHNOLOGIES.
 - 4. SANITARY OR COMBINED SEWER DISCHARGE WITH LOCAL SEWER DISTRICT APPROVAL, IF THERE IS NO OTHER OPTION.
 - 5. USE OF A SEDIMENTATION BAG THAT DISCHARGES TO A DITCH OR SWALE FOR SMALL VOLUMES OF LOCALIZED DEWATERING.
- **CONTRACTOR TO UTILIZE APPROPRIATE BMPs FROM THE 2012 SWMMWW IF DE-WATERING IS NEEDED**

ELEMENT 11: MAINTAIN BMPs

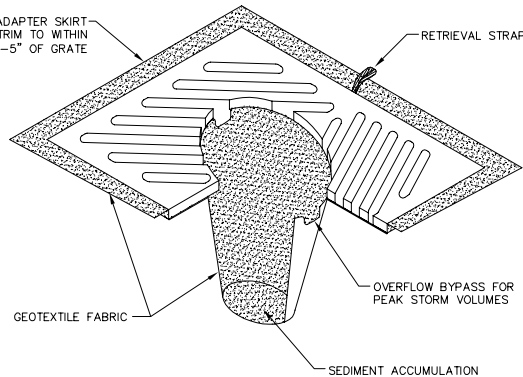
- MAINTAIN AND REPAIR ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMPs AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION IN ACCORDANCE WITH BMP SPECIFICATIONS.
- REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPs WITHIN 30 DAYS AFTER ACHIEVING FINAL SITE STABILIZATION OR AFTER THE TEMPORARY BMPs ARE NO LONGER NEEDED.
- **BMP C160: CERTIFIED EROSION AND SEDIMENT CONTROL LEAD**

ELEMENT 12: MANAGE THE PROJECT

- PHASE DEVELOPMENT PROJECTS TO THE MAXIMUM DEGREE PRACTICABLE AND TAKE INTO ACCOUNT SEASONAL WORK LIMITATIONS.
- INSPECTION AND MONITORING – INSPECT, MAINTAIN AND REPAIR ALL BMPs AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. PROJECTS REGULATED UNDER THE CONSTRUCTION STORMWATER GENERAL PERMIT MUST CONDUCT SITE INSPECTIONS AND MONITORING IN ACCORDANCE WITH SPECIAL CONDITION S4 OF THE CONSTRUCTION STORMWATER GENERAL PERMIT.
- MAINTAINING AN UPDATED CONSTRUCTION SWPPP – MAINTAIN, UPDATE, AND IMPLEMENT THE SWPPP.
- PROJECTS THAT DISTURB ONE OR MORE ACRES MUST HAVE SITE INSPECTIONS CONDUCTED BY A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL). PROJECT SITES DISTURBING LESS THAN ONE ACRE MAY HAVE A CESCL OR A PERSON WITHOUT CESCL CERTIFICATION CONDUCT INSPECTIONS. BY THE INITIATION OF CONSTRUCTION, THE SWPPP MUST IDENTIFY THE CESCL OR INSPECTOR, WHO MUST BE PRESENT ON-SITE OR ON-CALL AT ALL TIMES.
- THE CESCL OR INSPECTOR (PROJECT SITES LESS THAN ONE ACRE) MUST HAVE THE SKILLS TO ASSESS THE:
 - SITE CONDITIONS AND CONSTRUCTION ACTIVITIES THAT COULD IMPACT THE QUALITY OF STORMWATER.
 - EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL MEASURES USED TO CONTROL THE QUALITY OF STORMWATER DISCHARGES.
- THE CESCL OR INSPECTOR MUST EXAMINE STORMWATER VISUALLY FOR THE PRESENCE OF SUSPENDED SEDIMENT, TURBIDITY, DISCOLORATION, AND OIL SHEEN. THEY MUST EVALUATE THE EFFECTIVENESS OF BMPs AND DETERMINE IF IT IS NECESSARY TO INSTALL, MAINTAIN, OR REPAIR BMPs TO IMPROVE THE QUALITY OF STORMWATER DISCHARGES. BASED ON THE RESULTS OF THE INSPECTION, CONSTRUCTION SITE OPERATORS MUST CORRECT THE PROBLEMS IDENTIFIED BY:
 - REVIEWING THE SWPPP FOR COMPLIANCE WITH THE 13 CONSTRUCTION SWPPP ELEMENTS AND MAKING APPROPRIATE REVISIONS WITHIN 7 DAYS OF THE INSPECTION.
 - IMMEDIATELY BEGINNING THE PROCESS OF FULLY IMPLEMENTING AND MAINTAINING APPROPRIATE SOURCE CONTROL AND/OR TREATMENT BMPs AS SOON AS POSSIBLE, ADDRESSING THE PROBLEMS NOT LATER THAN WITHIN 10 DAYS OF THE INSPECTION. IF INSTALLATION OF NECESSARY TREATMENT BMPs IS NOT FEASIBLE WITHIN 10 DAYS, THE CONSTRUCTION SITE OPERATOR MAY REQUEST AN EXTENSION WITHIN THE INITIAL 10-DAY RESPONSE PERIOD.
 - DOCUMENTING BMP IMPLEMENTATION AND MAINTENANCE IN THE SITE LOG BOOK (SITES LARGER THAN 1 ACRE).
- THE CESCL OR INSPECTOR MUST INSPECT ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. ALL BMPs, AND ALL STORMWATER DISCHARGE POINTS AT LEAST ONCE EVERY CALENDAR WEEK AND WITHIN 24 HOURS OF ANY DISCHARGE FROM THE SITE. (FOR PURPOSES OF THIS CONDITION, INDIVIDUAL DISCHARGE EVENTS THAT LAST MORE THAN ONE DAY DO NOT REQUIRE DAILY INSPECTIONS. FOR EXAMPLE, IF A STORMWATER POND DISCHARGES CONTINUOUSLY OVER THE COURSE OF A WEEK, ONLY ONE INSPECTION IS REQUIRED THAT WEEK.) THE CESCL OR INSPECTOR MAY REDUCE THE INSPECTION FREQUENCY FOR TEMPORARY STABILIZED, INACTIVE SITES TO ONCE EVERY CALENDAR MONTH.
- **BMP C160: CERTIFIED EROSION AND SEDIMENT CONTROL LEAD**

ELEMENT 13: PROTECT LOW IMPACT DEVELOPMENT BMPs

- NOT APPLICABLE



- NOTES:
1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING & GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
 2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
 3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, & RE-INSERTING IT INTO THE CATCH BASIN.

INLET PROTECTION
NTS

BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP



Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
818 Metcalf Street, Sedro-Wooley, WA 98284 (360) 855-1713

NO. DATE DESCRIPTION BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
TESC DETAILS

DWG 16026 DETAILS

JOB#

16026

SCALE

H: N/A

V: N/A

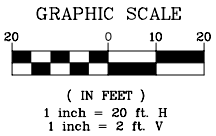
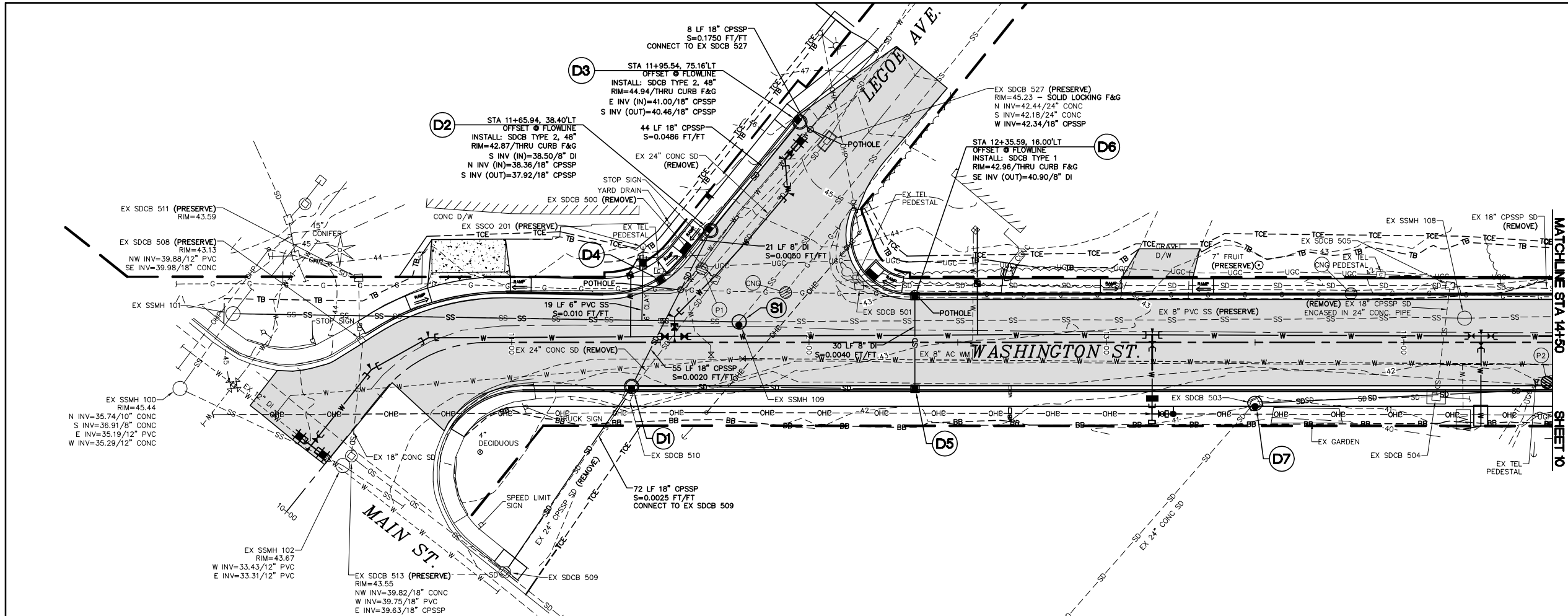
DATE

2/13/2018

SHEET

8
of 38

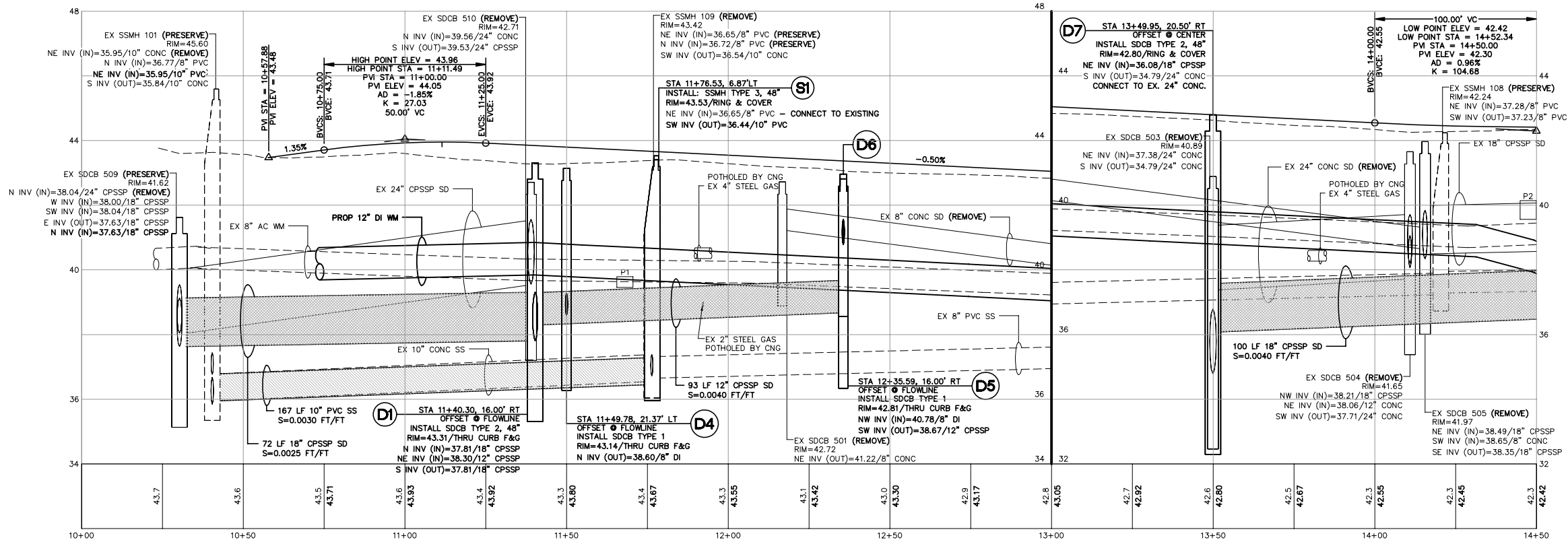




POTHOLES		
#	DESCRIPTION	OWNER
P1	(4) 4" PVC - 3.4"± TO TOP	FTR
P2	(1) 2" PVC - 2.2"± TO TOP	FTR
	(1) 1" DB - 1.8"± TO TOP	

NOTE:
POT HOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POT HOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONALS SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.

- = UTILITY POTHOLED LOCATION
- = CONNECT TO EXISTING



BID SET

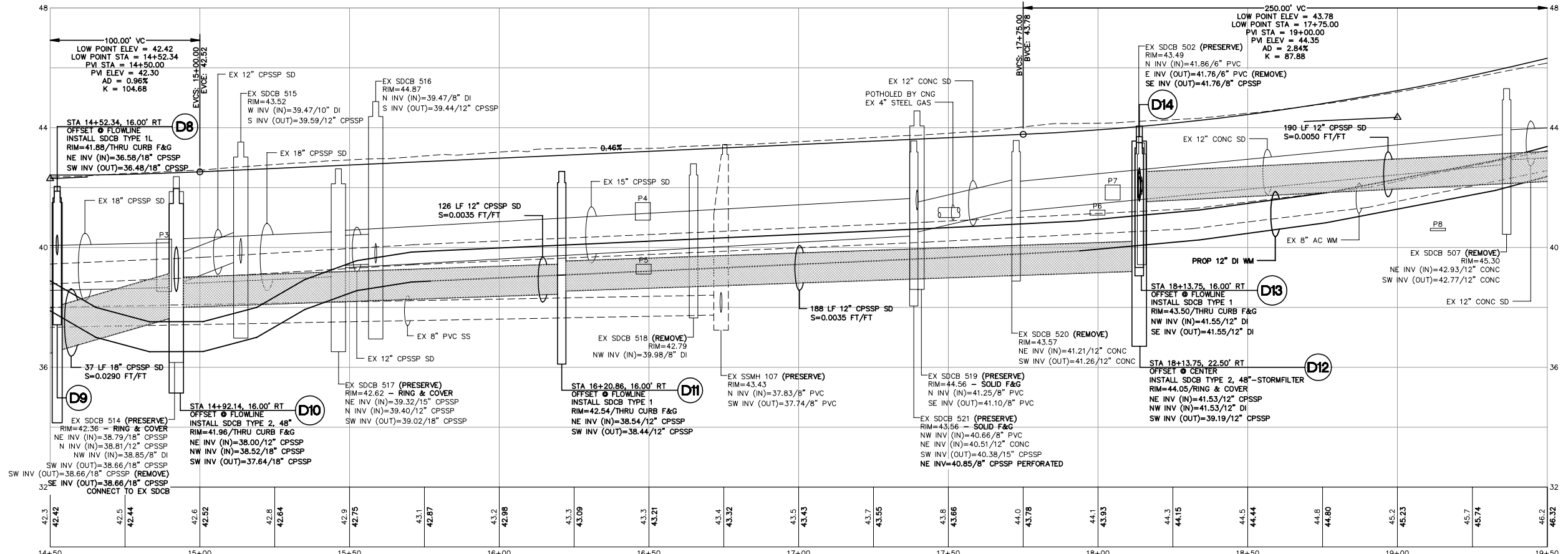
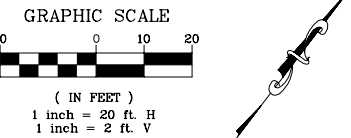
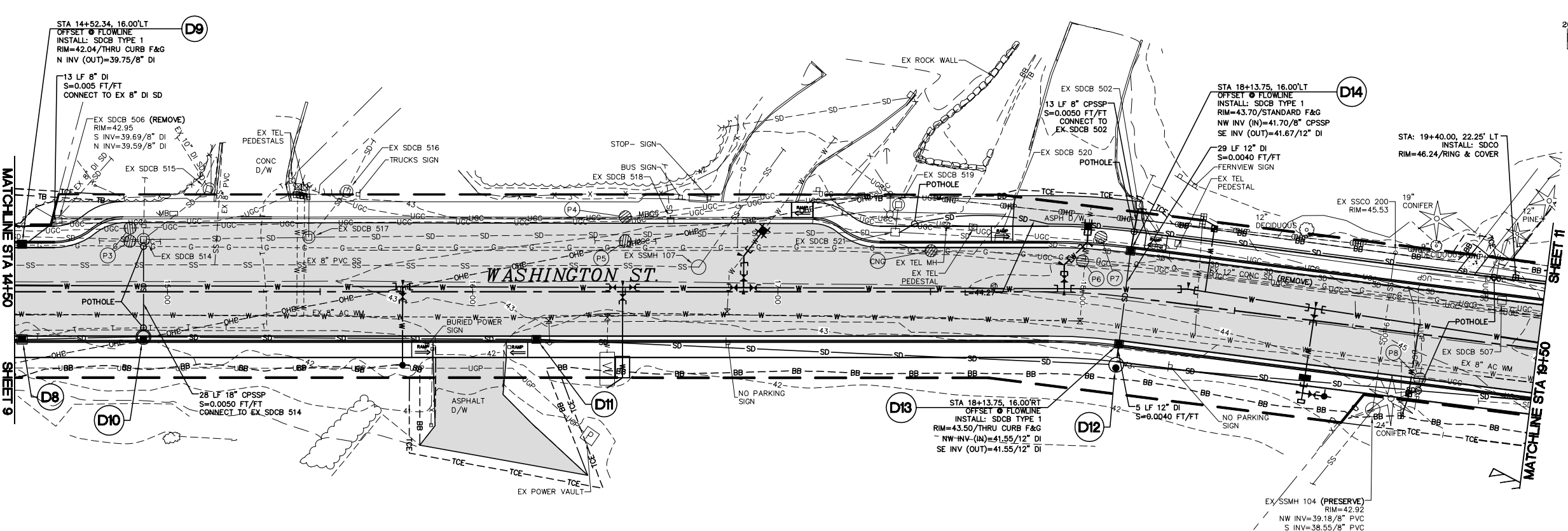
DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
STORM AND SEWER P+P STA 10+00 TO 14+50

DWG 16026 SEWER STORM PP
JOB# 16026
SCALE H: 1"=20' V: 1"=2'
DATE 2/13/2018
SHEET 9 of 38



POTHOLE DATA		
#	DESCRIPTION	OWNER
P3	(1) 4" DB - 3.3'± TO TOP (1) 4" PVC - 1.8'± TO TOP	FTR
P4	(1) 2" PVC - 2.2'± TO TOP (1) 4" PVC - 1.8'± TO TOP	FTR
P5	(1) 4" DB - 3.0'± TO TOP	FTR
P6	(1) 2" DB - 2.7'± TO TOP	FTR
P7	(1) 4" PVC - 1.7'± TO TOP (1) 4" PE - 1.8'± TO TOP	FTR
P8	(1) 1" PVC - 4.0'± TO TOP (1) 1" DB - 4.0'± TO TOP	PSE

NOTE: POTHOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POTHOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.

⊗ = UTILITY POTHOLE LOCATION
⊞ = CONNECT TO EXISTING



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

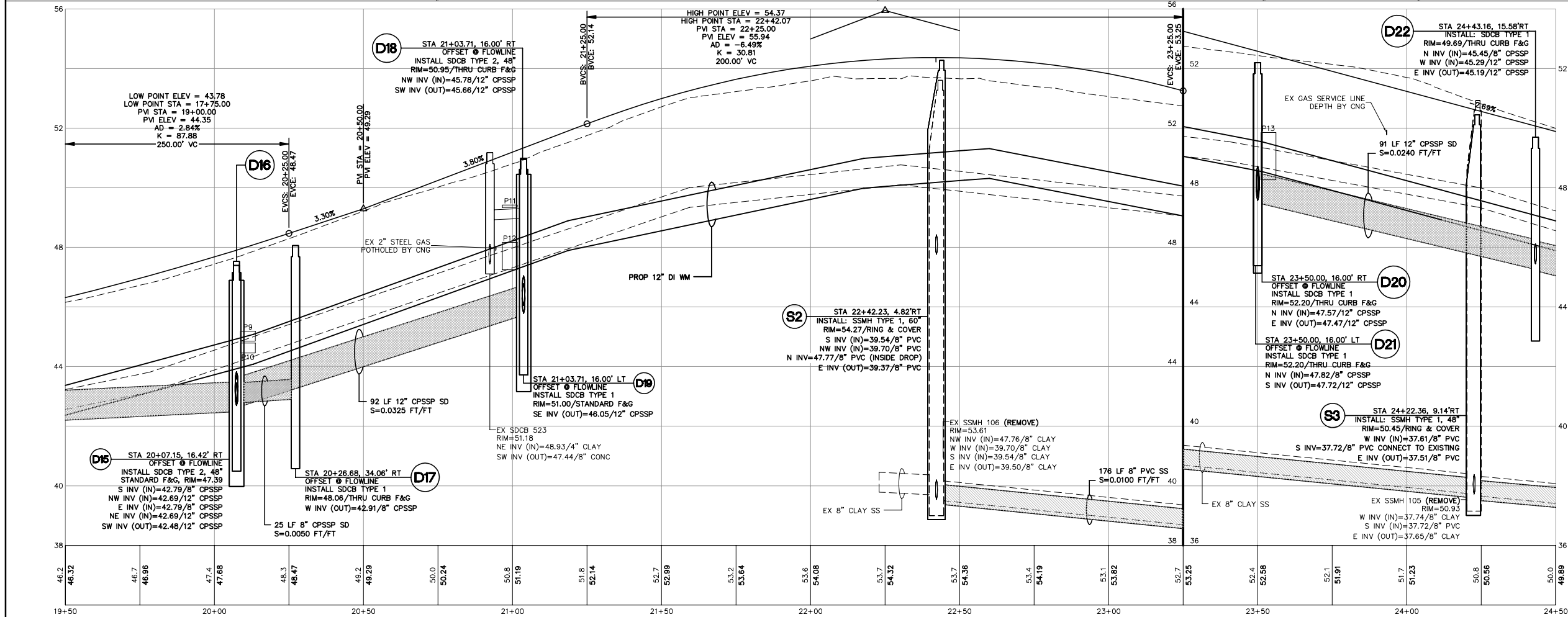
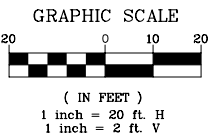
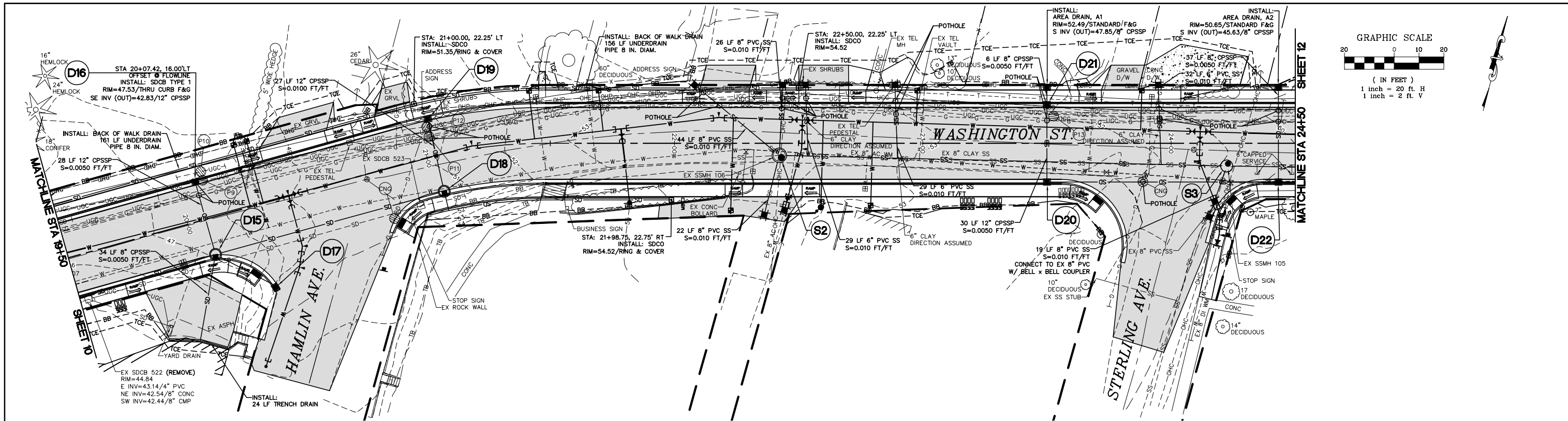
R&E Reichhardt & Ebe ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
STORM AND SEWER P+P STA 14+50 TO 19+50

DWG 16026 SEWER STORM PP
JOB# 16026
SCALE H: 1"=20' V: 1"=2'
DATE 2/13/2018
SHEET 10 of 38

NO.	DATE	DESCRIPTION	BY



POTHOLES		
#	DESCRIPTION	OWNER
P9	(1) 4" DB - 2.3'± TO TOP	FTR
P10	(3) 4" PVC - 2.8'± TO TOP	FTR
P11	(1) 0.5" DB - 1.3'± TO TOP	FTR
P12	(4) 4" PVC - 2.5'± TO TOP	FTR
P13	(1) 4" DB - 2.2'± TO TOP	FTR
	(1) 13" CDF DUCT - 2.7'± TO TOP	FTR

NOTE:
POTHOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POTHOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.

- = UTILITY POTHOLED LOCATION
- = CONNECT TO EXISTING



<div style="border: 1px solid black; padding: 5px; font-size: 24pt; font-weight: bold;">BID SET</div>	DESIGNED BY ARS DRAWN BY PJC CHECKED BY LP	R&E Reichhardt & Ebe ENGINEERING INC P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3887 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713	NO. DATE DESCRIPTION BY	CITY OF FERNDAL 2095 MAIN ST FERNDAL, WA 98248	WASHINGTON STREET IMPROVEMENTS MAIN STREET TO VISTA DRIVE STORM AND SEWER P+P STA 19+50 TO 24+50	DWG 16026 SEWER STORM PP JOB# 16026 SCALE: H: 1"=20' V: 1"=2' DATE 2/13/2018 SHEET 11 of 38
---	---	---	--	--	---	--



* 1.67 gpm/sf SPECIFIC FLOW RATE IS APPROVED WITH PHOSPHOSORB[®] (PSORB) MEDIA ONLY



SITE SPECIFIC DATA REQUIREMENTS			
STRUCTURE ID			D12
WATER QUALITY FLOW RATE (cfs)			0.0443
PEAK FLOW RATE (cfs)			0.2699
RETURN PERIOD OF PEAK FLOW (yrs)			100
CARTRIDGE HEIGHT (27", 18", LOW DROP(LD))			18"
NUMBER OF CARTRIDGES REQUIRED			3
CARTRIDGE FLOW RATE (GPM)			7.5
MEDIA TYPE (PERLITE, ZPG, PSORB)			ZPG
PIPE DATA:			
INLET PIPE #1	I.E.	MATERIAL	DIAMETER
	41.53	DI	12"
INLET PIPE #2	41.53	CPSSP	12"
OUTLET PIPE	39.19	CPSSP	12"
RIM ELEVATION			44.05
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT
		0	0
NOTES/SPECIAL REQUIREMENTS:			
* PER ENGINEER OF RECORD			

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR SITE SPECIFIC DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE.

www.contech.com

4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 5' AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO.
6. FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANNING. RADIAL MEDIA DEPTH SHALL BE 7-INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 38 SECONDS.
7. SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).
8. STORMFILTER STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

INSTALLATION NOTES

A. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.

B. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER STRUCTURE (LIFTING CLUTCHES PROVIDED).

C. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.

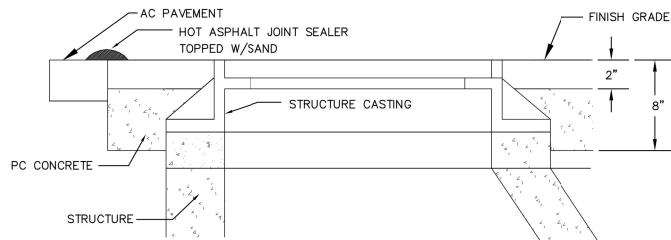
D. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET PIPE(S).

E. CONTRACTOR TO PROVIDE AND INSTALL CONNECTOR TO THE OUTLET RISER STUB. STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. IF OUTLET PIPE IS LARGER THAN 8 INCHES, CONTRACTOR TO REMOVE THE 8 INCH OUTLET STUB AT MOLDED IN CUT LINE. COUPLING BY FERROCO OR EQUAL TO BE PROVIDED BY CONTRACTOR.

F. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

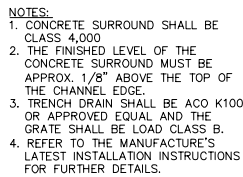
STORMFILTER STANDARD DETAIL

NTS



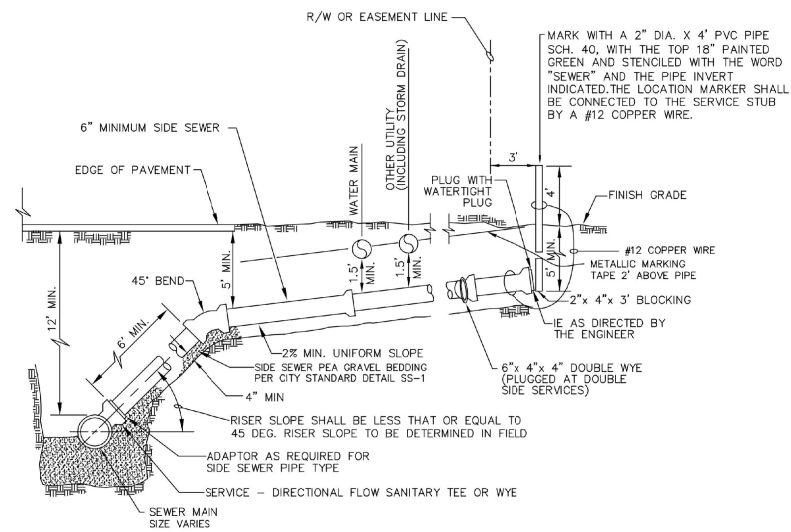
ADJUSTING CASTINGS TO FINISHED GRADE

NTS



TRENCH DRAIN

NTS



APRIL 18, 2017

**SANITARY SEWER SERVICE
DEEP MAIN CONNECTION
STANDARD DETAIL SS-8
NOT TO SCALE**



APPROVED

Public Works Director

8/11/17

Date _____

NOTES:

ALL FRAMES, COVERS AND VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADE AFTER THE FINAL LIFT OF PAVING HAS BEEN COMPLETED. THE FOLLOWING PROCEDURE SHALL BE USED:

1. CUT THE ASPHALT IN A DIAMOND AROUND THE STRUCTURE CASTING TO BE ADJUSTED.
2. REMOVE THE FILL MATERIAL WITHIN THE CUT PAVEMENT AREA TO 8 INCHES MIN. BELOW FINISH GRADE.
3. PLACE THE CASTING AT FINISH GRADE.
4. PLACE PORTLAND CEMENT CONCRETE TO WITHIN THE TOP 2 INCHES OF FINISH GRADE.
5. APPLY TACK TO THE STRUCTURE CASTING, CUT PAVEMENT, AND PC CONCRETE.
6. SEAL AND COMPACT 2 INCHES OF COMMERCIAL HMA TO FINISH GRADE.
7. PLACE PAVEMENT JOINTS WITH HOT ASPHALT JOINT SEALER AND TOP WITH SAND.



2/13/19

BID SET

DESIGNED BY	ARS
DRAWN BY	PJC
CHECKED BY	LP

R&E Reichhardt & Ebe
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
SANITARY SEWER DETAILS

DWG 16026 DETAILS

DATE	DESCRIPTION	AMOUNT	CHECK NO.	BANK	INITIALS
10/1/20	DEPOSIT	100.00			
10/5/20	PAYROLL	50.00	101		
10/10/20	RENT	200.00	102		
10/15/20	SALES	75.00			
10/20/20	UTILITIES	30.00	103		
10/25/20	SALES	60.00			
10/30/20	PAYROLL	50.00	104		
10/31/20	SALES	80.00			
TOTAL		695.00			

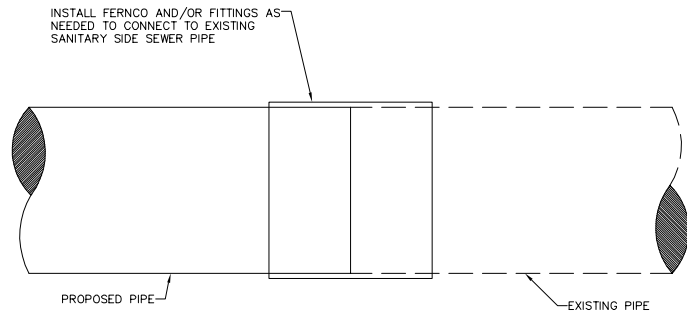
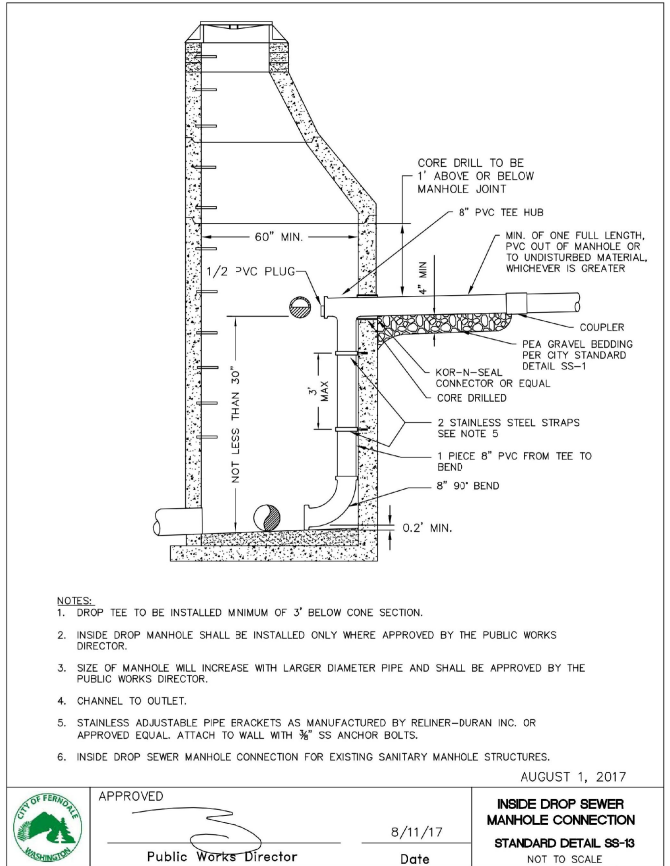
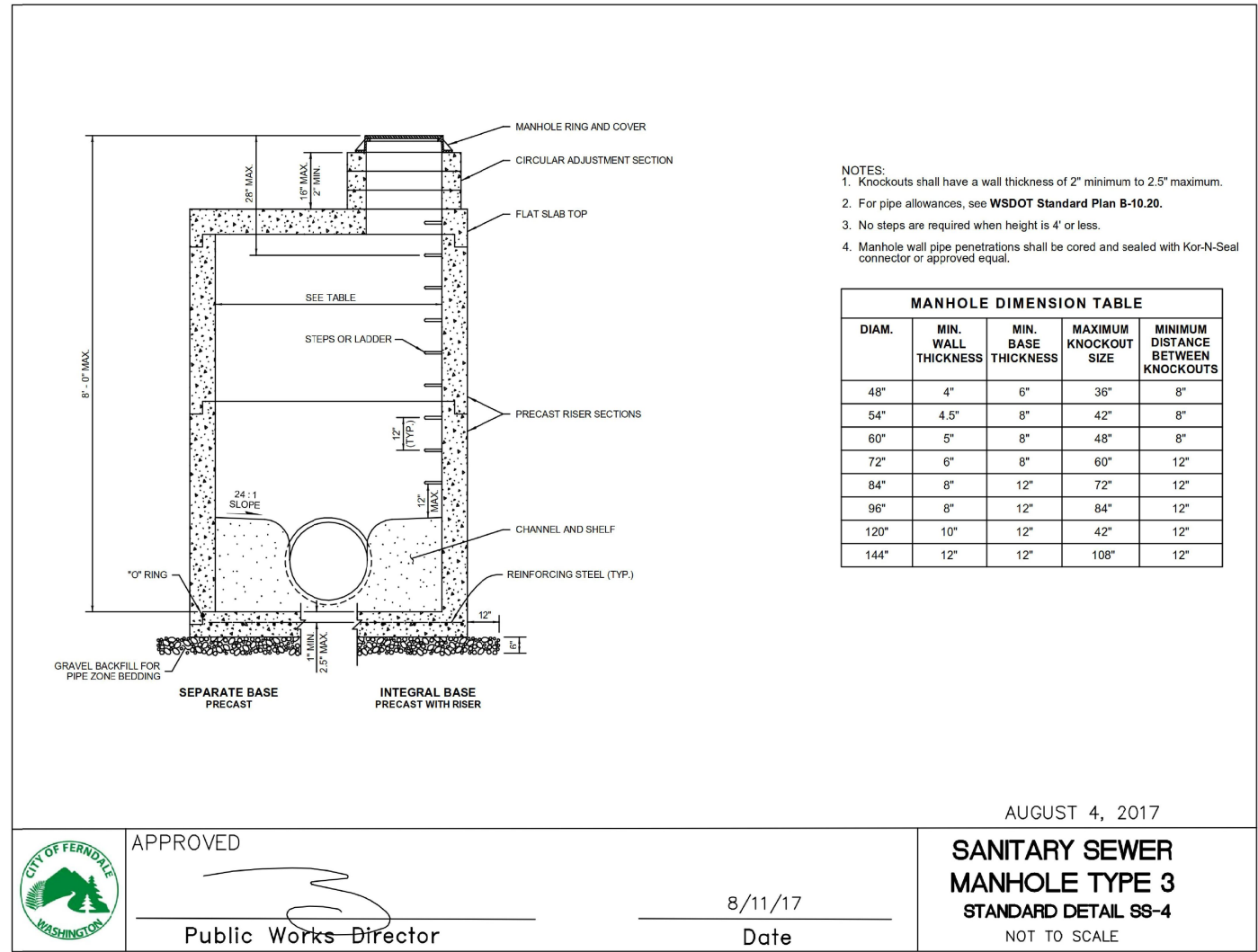
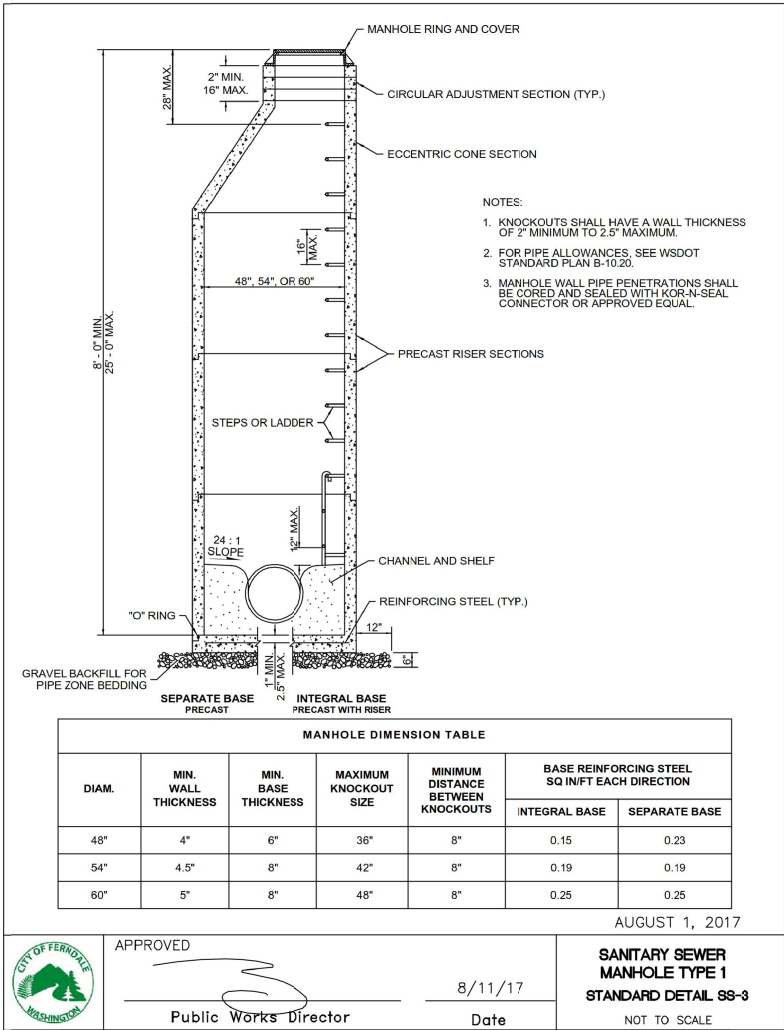
SCALE

 $v: N/A$

DATE _____

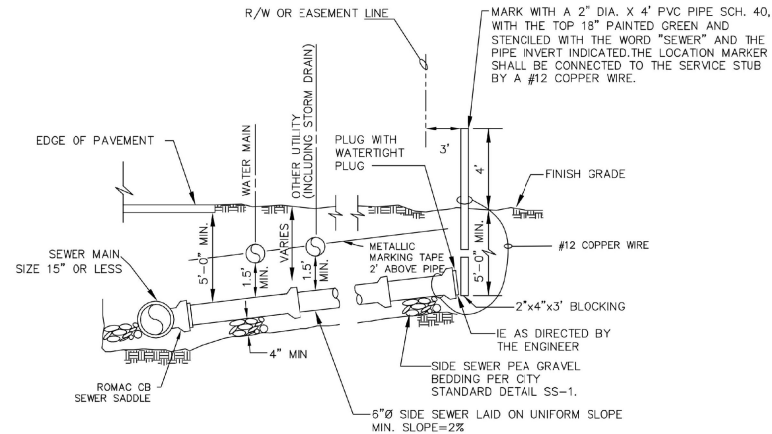
SHEET 10

of 38



CONNECT TO EXISTING SIDE SEWER PIPE DETAIL

NTS



NOVEMBER 25, 2016

APPROVED

Public Works Director

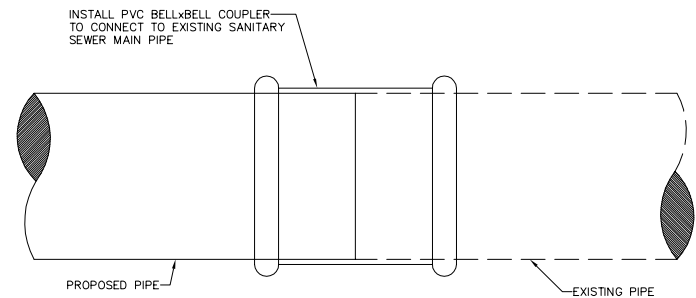
8/11/17

Date

SANITARY SEWER SERVICE CONNECTION 15" OR LESS

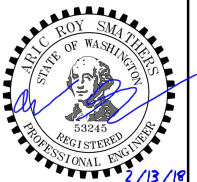
STANDARD DETAIL SS-6

NOT TO SCALE



CONNECT TO EXISTING SEWER MAIN PIPE DETAIL

NTS



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

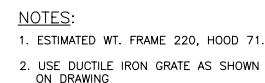
R&E Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

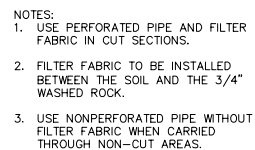
CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
SANITARY SEWER DETAILS

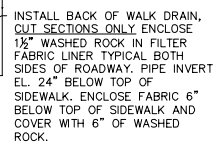
DWG 16026 DETAILS	DATE 2/13/2018
JOB# 16026	SCALE H: N/A V: N/A
SHEET 14 of 38	



NTS



NTS



1. ALL GRATES SHALL BE BOLT DOWN. PROVIDE TWO SLOTS IN THE GRATE THAT ARE VERTICALLY ALIGNED WITH THE HOLES IN THE FRAME. LOCATION OF BOLT DOWN SLOTS VARIES AMONG DIFFERENT MANUFACTURERS.
2. THE THICKNESS OF THE GRATE SHALL NOT EXCEED 1-5/8".

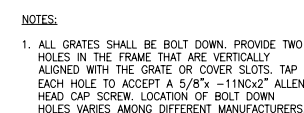
NTS



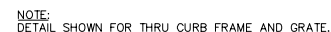
NTS



NTS



- NOTES:**
1. ALL GRATES SHALL BE BOLT DOWN. PROVIDE TWO HOLES IN THE FRAME THAT ARE VERTICALLY ALIGNED WITH THE GRATE OR COVER SLOTS. TAP EACH HOLE TO ACCEPT A 5/8"x -11NCx2" ALLEN HEAD CAP SCREW. LOCATION OF BOLT DOWN HOLES VARIES AMONG DIFFERENT MANUFACTURERS



DESIGNED BY	ARS
DRAWN BY	PJC
CHECKED BY	IP

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
STORM SEWER DETAILS

DWG 16026 DETAILS

	JOB
--	-----

SCALE

DATE

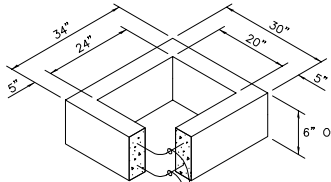
SHEET	15
-------	----

15
of 38

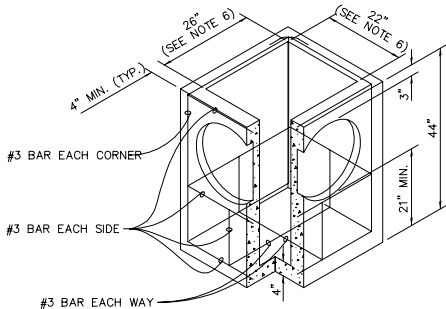
2/13/11

NOTES

1. AS ACCEPTABLE ALTERNATIVES TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE STANDARD SPECIFICATIONS), OR WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT SHALL BE USED WITH THE MINIMUM REQUIRED REBAR SHOWN IN THE ALTERNATIVE PRECAST BASE SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
2. THE KNOCKOUT DIAMETER SHALL NOT BE GREATER THAN 20". KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR IN ACCORDANCE WITH STANDARD SPECIFICATION 9-04.3.
3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5'.
4. THE FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE UP OR DOWN. THE FRAME MAY BE CAST INTO THE ADJUSTMENT SECTION.
5. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR, AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
6. THE OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE SECTION.
7. ALL PICKUP HOLES SHALL BE GROUTED FULL AFTER THE BASIN HAS BEEN PLACED.



ONE #3 BAR HOOP FOR 6" HEIGHT
TWO #3 BAR M HOOPS FOR 12" HEIGHT



#3 BAR EACH CORNER
#3 BAR EACH SIDE
#3 BAR EACH WAY

#3 BAR HOOP

SEE NOTE 1

CATCH BASIN TYPE 1

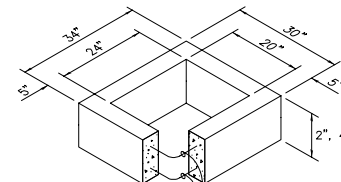
NTS

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	18"
ALL METAL PIPE	21"
CPSSP * (STD. SPEC. 9-05.20)	18"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	21"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	21"

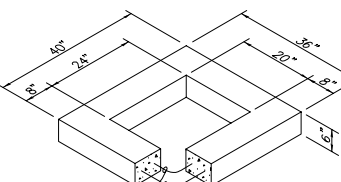
* CORRUGATED POLYETHYLENE STORM SEWER PIPE

NOTES

1. AS ACCEPTABLE ALTERNATIVES TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE STANDARD SPECIFICATIONS), OR WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT, SHALL BE USED WITH THE MINIMUM REQUIRED REBAR SHOWN IN THE ALTERNATIVE PRECAST BASE SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
2. THE KNOCKOUT SHALL NOT BE GREATER THAN 26", IN ANY DIRECTION. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR IN ACCORDANCE WITH STANDARD SPECIFICATION 9-04.3.
3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5'.
4. THE FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE DOWN OR INTEGRALLY CAST INTO THE ADJUSTMENT SECTION WITH FLANGE UP.
5. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR, AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
6. THE OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE SECTION.
7. ALL PICKUP HOLES SHALL BE GROUTED FULL AFTER THE BASIN HAS BEEN PLACED.



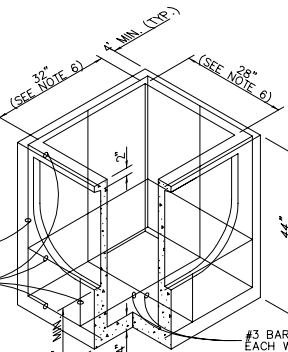
RECTANGULAR ADJUSTMENT SECTION



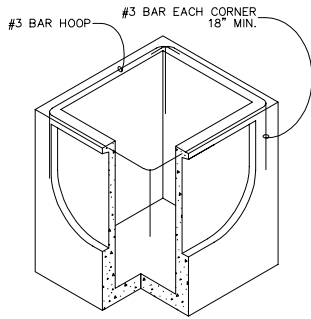
TWO #3 BAR HOOPS

REDUCING SECTION

#3 BAR EACH CORNER
#3 BAR EACH SIDE



PRECAST BASE SECTION

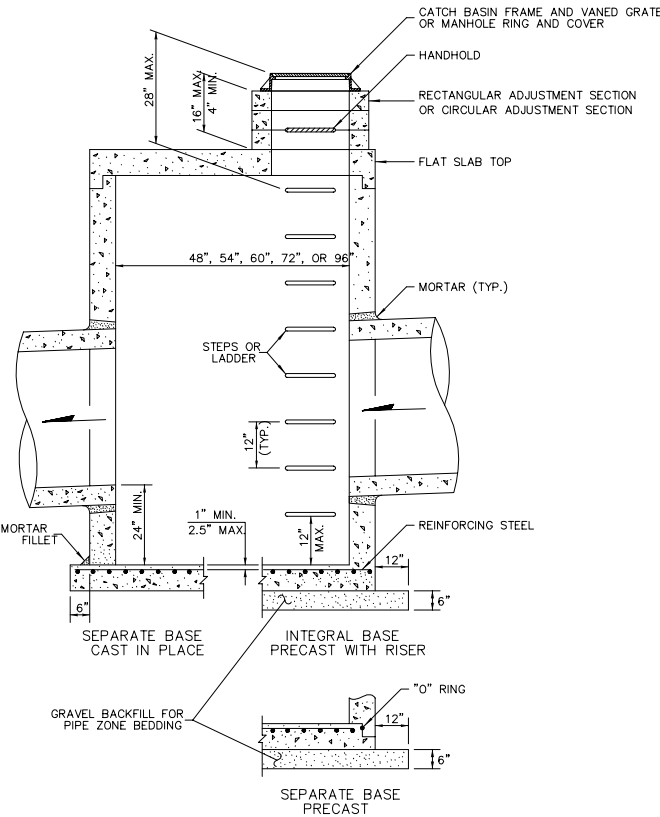


(SEE NOTE 1)

ALTERNATIVE PRECAST BASE SECTION

CATCH BASIN TYPE 1L

NTS



NOTES

1. NO STEPS ARE REQUIRED WHEN HEIGHT IS 4' OR LESS.
2. THE BOTTOM OF THE PRECAST CATCH BASIN MAY BE SLOPED TO FACILITATE CLEANING.
3. FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO ADJUSTMENT SECTION.
4. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR IN ACCORDANCE WITH STD. SPEC. 9-04.3.

CATCH BASIN DIMENSIONS						
CATCH BASIN DIAMETER	WALL THICKNESS	BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS	BASE REINFORCING STEEL IN 2' FT IN EACH DIRECTION	
48"	4"	6"	36"	8"	INTEGRAL	SEPARATE
					0.15	0.23

PIPE ALLOWANCES				
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER			
	CONCRETE	ALL METAL	CPSSP ①	PROFILE WALL PVC ③
48"	24"	30"	24"	27"

① CORRUGATED POLYETHYLENE STORM SEWER PIPE (STD. SPEC. 9-05.20)
② (STD. SPEC. 9-05.12(1))
③ (STD. SPEC. 9-05.12(2))

STORM DRAIN CATCH BASIN, TYPE 2

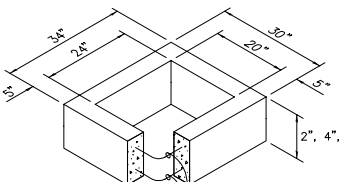
NTS

PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	18"
ALL METAL PIPE	21"
CPSSP * (STD. SPEC. 9-05.20)	18"
SOLID WALL PVC (STD. SPEC. 9-05.12(1))	21"
PROFILE WALL PVC (STD. SPEC. 9-05.12(2))	21"

* CORRUGATED POLYETHYLENE STORM SEWER PIPE

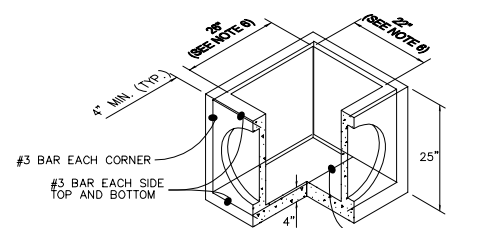
NOTES

1. AS ACCEPTABLE ALTERNATIVES TO THE REBAR SHOWN IN THE PRECAST BASE SECTION, FIBERS (PLACED ACCORDING TO THE STANDARD SPECIFICATIONS), OR WIRE MESH HAVING A MINIMUM AREA OF 0.12 SQUARE INCHES PER FOOT, SHALL BE USED WITH THE MINIMUM REQUIRED REBAR SHOWN IN THE ALTERNATIVE PRECAST BASE SECTION. WIRE MESH SHALL NOT BE PLACED IN THE KNOCKOUTS.
2. THE KNOCKOUT SHALL NOT BE GREATER THAN 26", IN ANY DIRECTION. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM TO 2.5" MAXIMUM. PROVIDE A 1.5" MINIMUM GAP BETWEEN THE KNOCKOUT WALL AND THE OUTSIDE OF THE PIPE. AFTER THE PIPE IS INSTALLED, FILL THE GAP WITH JOINT MORTAR IN ACCORDANCE WITH STANDARD SPECIFICATION 9-04.3.
3. THE MAXIMUM DEPTH FROM THE FINISHED GRADE TO THE LOWEST PIPE INVERT SHALL BE 5'.
4. THE FRAME AND GRATE MAY BE INSTALLED WITH THE FLANGE DOWN OR INTEGRALLY CAST INTO THE ADJUSTMENT SECTION WITH FLANGE UP.
5. THE PRECAST BASE SECTION MAY HAVE A ROUNDED FLOOR, AND THE WALLS MAY BE SLOPED AT A RATE OF 1:24 OR STEEPER.
6. THE OPENING SHALL BE MEASURED AT THE TOP OF THE PRECAST BASE SECTION.
7. ALL PICKUP HOLES SHALL BE GROUTED FULL AFTER THE BASIN HAS BEEN PLACED.



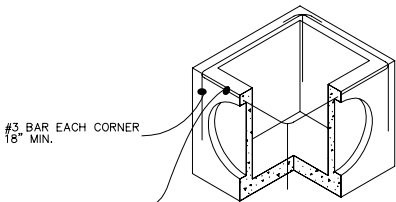
ONE #3 BAR FOR EACH 6" HEIGHT INCREMENT, SPACED EQUALLY

RECTANGULAR ADJUSTMENT SECTION



#3 BAR EACH CORNER
#3 BAR EACH SIDE TOP AND BOTTOM

PRECAST BASE SECTION



#3 BAR EACH CORNER
#3 BAR HOOP

SEE NOTE 1

ALTERNATIVE PRECAST BASE SECTION

CONCRETE INLET

NTS



2/13/19

BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP



Reichhardt & Ebe
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
STORM SEWER DETAILS

DWG 16026 DETAILS

JOB#

SCALE

H: N/A

V: N/A

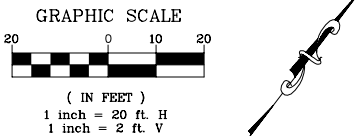
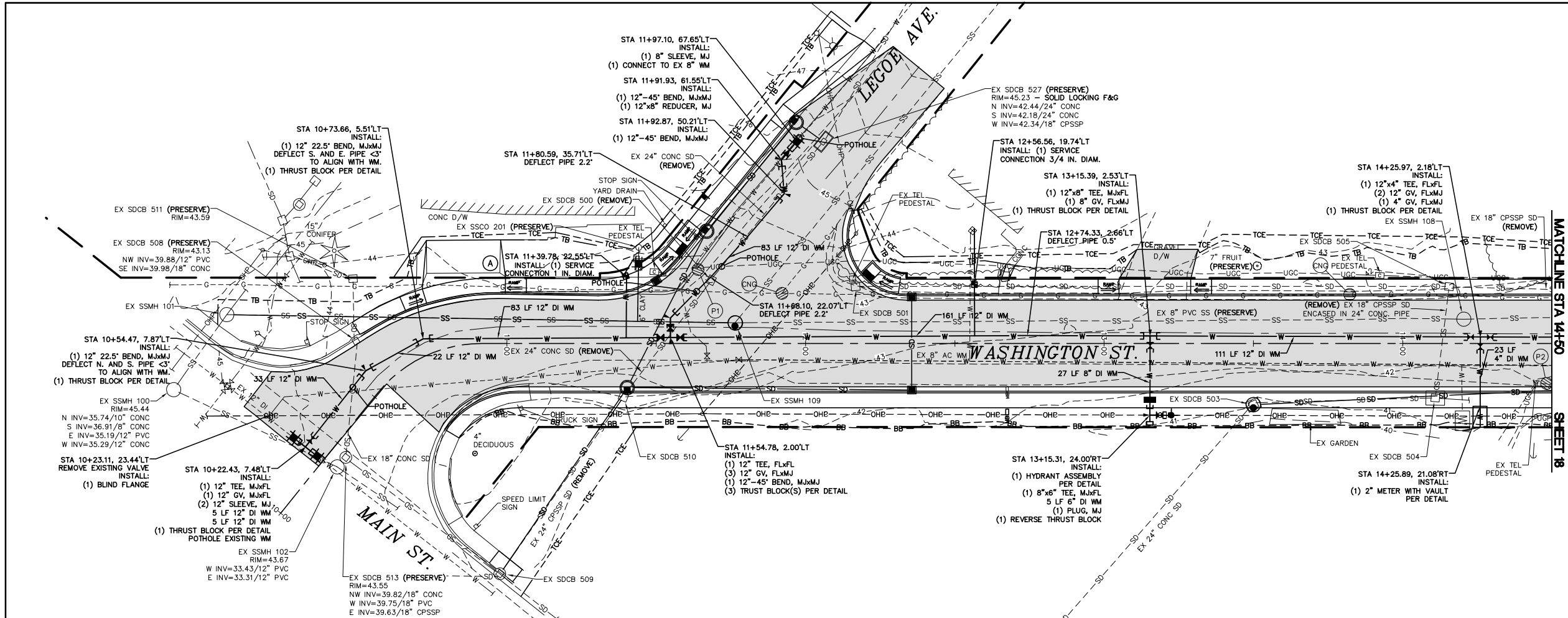
DATE

2/13/2018

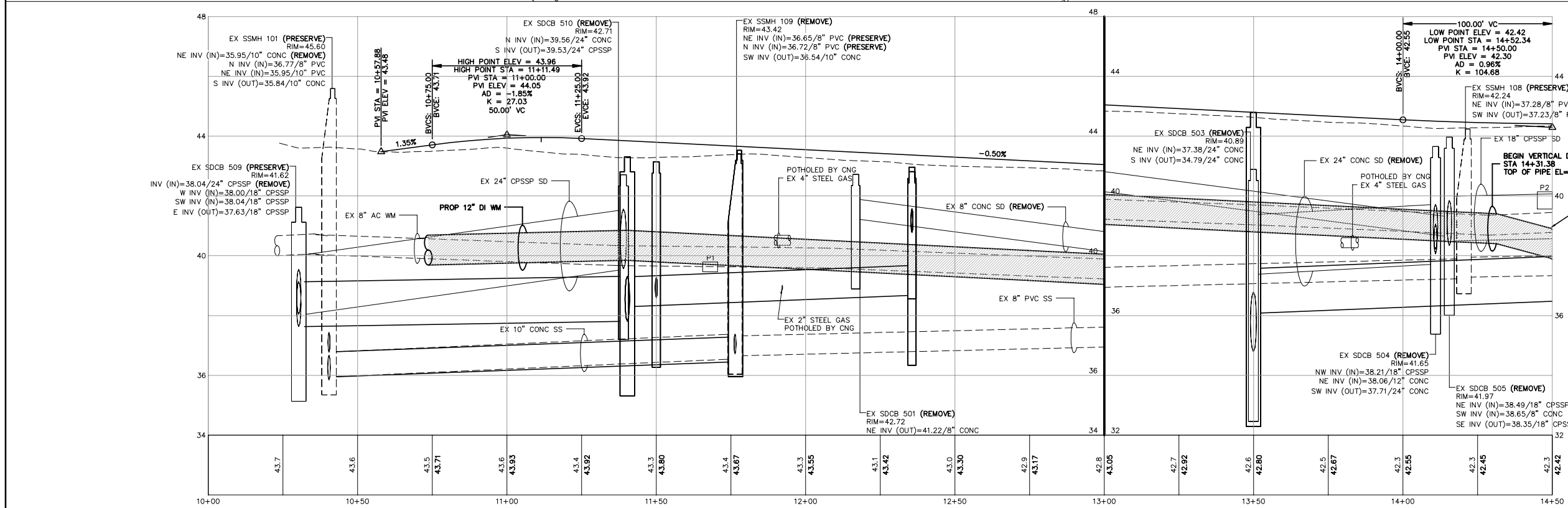
SHEET

16

of 38



WATER SERVICE CONNECTION NOTES:
A INSTALL 3/4 IN DIAMETER METER SETTER, SEE DETAIL

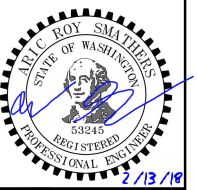


POTHOLES		
#	DESCRIPTION	OWNER
P1	(4) 4\" PVC - 3.4'± TO TOP	FTR
P2	(1) 2\" PVC - 2.2'± TO TOP	FTR
	(1) 1\" DB - 1.8'± TO TOP	

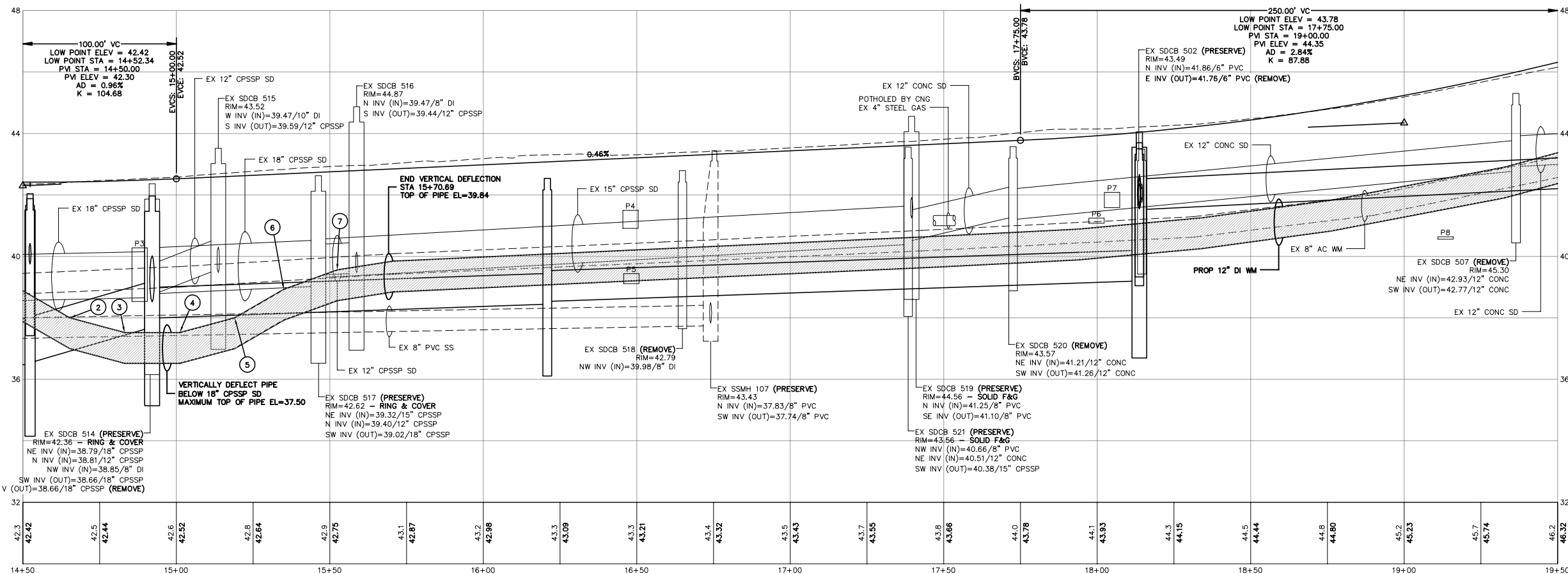
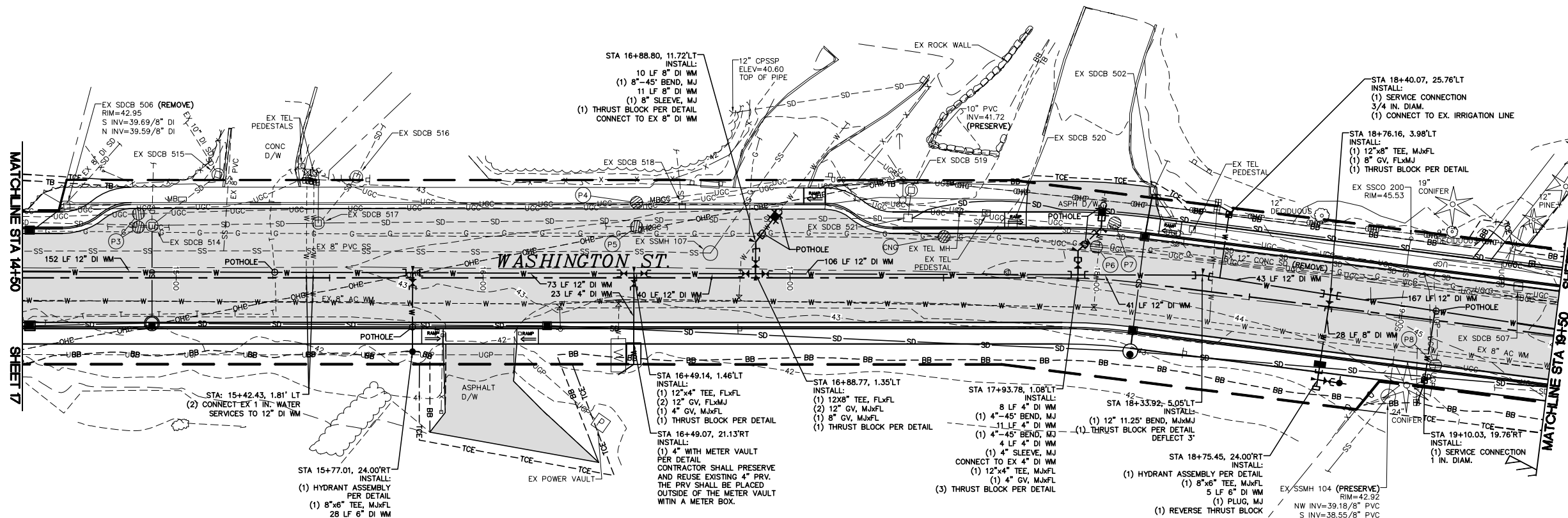
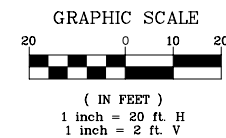
NOTE:
POTHOLES DATA IS FOR INFORMATIONAL PURPOSES ONLY. POTHOLES DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.

UTILITY POTHOLED LOCATION

VERTICAL DEFLECTION NOTES:
1 STATION 14+49.25, VERTICALLY DEFLECT PIPE TOP OF PIPE EL=38.92



BID SET	DESIGNED BY ARS	R&E Reichhardt & Ebe ENGINEERING INC P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3887 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713	NO.	DATE	DESCRIPTION	BY	CITY OF FERNDAL 2095 MAIN ST FERNDAL, WA 98248	WASHINGTON STREET IMPROVEMENTS MAIN STREET TO VISTA DRIVE WATER P+P - STA 10+00 TO 14+50	DWG 16026 WATER PP		DATE 2/13/2018
	DRAWN BY PJC								JOB# 16026	SCALE H: 1\"=20' V: 1\"=2'	SHEET 17 of 38
	CHECKED BY LP										

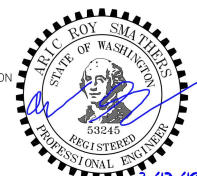


- VERTICAL DEFLECTION NOTES:**
- STATION 14+65.27, VERTICALLY DEFLECT PIPE TOP OF PIPE EL=38.00
 - STATION 14+83.14, VERTICALLY DEFLECT PIPE TOP OF PIPE EL=37.52
 - STATION 15+01.14, VERTICALLY DEFLECT PIPE TOP OF PIPE EL=37.52
 - STATION 15+19.01, VERTICALLY DEFLECT PIPE TOP OF PIPE EL=38.00
 - STATION 15+35.03, VERTICALLY DEFLECT PIPE TOP OF PIPE EL=38.92
 - STATION 15+52.41, VERTICALLY DEFLECT PIPE TOP OF PIPE EL=39.56

POTHOLES		
#	DESCRIPTION	OWNER
P3	(1) 4" DB - 3.3'± TO TOP	FTR
	(1) 4" PVC - 1.8'± TO TOP	
P4	(1) 2" PVC - 2.2'± TO TOP	FTR
	(1) 4" PVC - 1.8'± TO TOP	
P5	(1) 2" PVC - 1.8'± TO TOP	FTR
	(1) 4" DB - 3.0'± TO TOP	
P6	(1) 2" DB - 2.7'± TO TOP	FTR
	(1) 4" PVC - 1.7'± TO TOP	
P7	(1) 4" PE - 1.8'± TO TOP	FTR
	(1) 1" DB - 4.0'± TO TOP	
P8	(1) 1" DB - 4.0'± TO TOP	FTR
	(1) 1" DB - 4.0'± TO TOP	

NOTE:
POTHOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POTHOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.

⊗ = UTILITY POTHOLE LOCATION



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

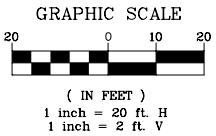
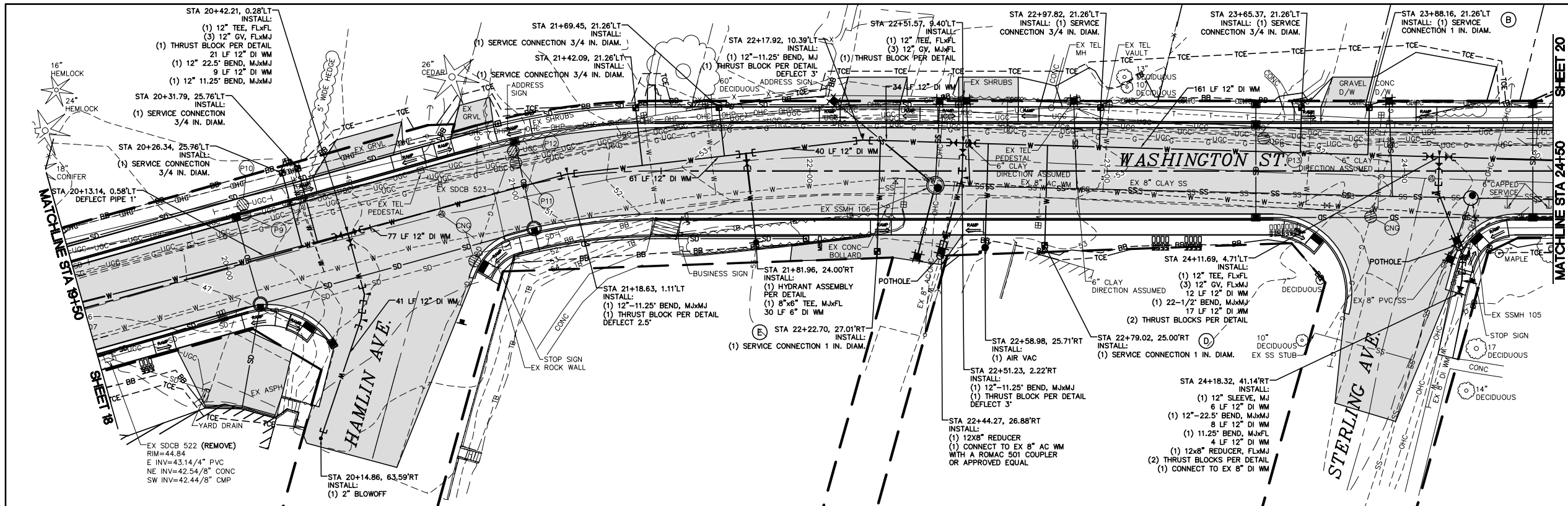
NO. DATE DESCRIPTION BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

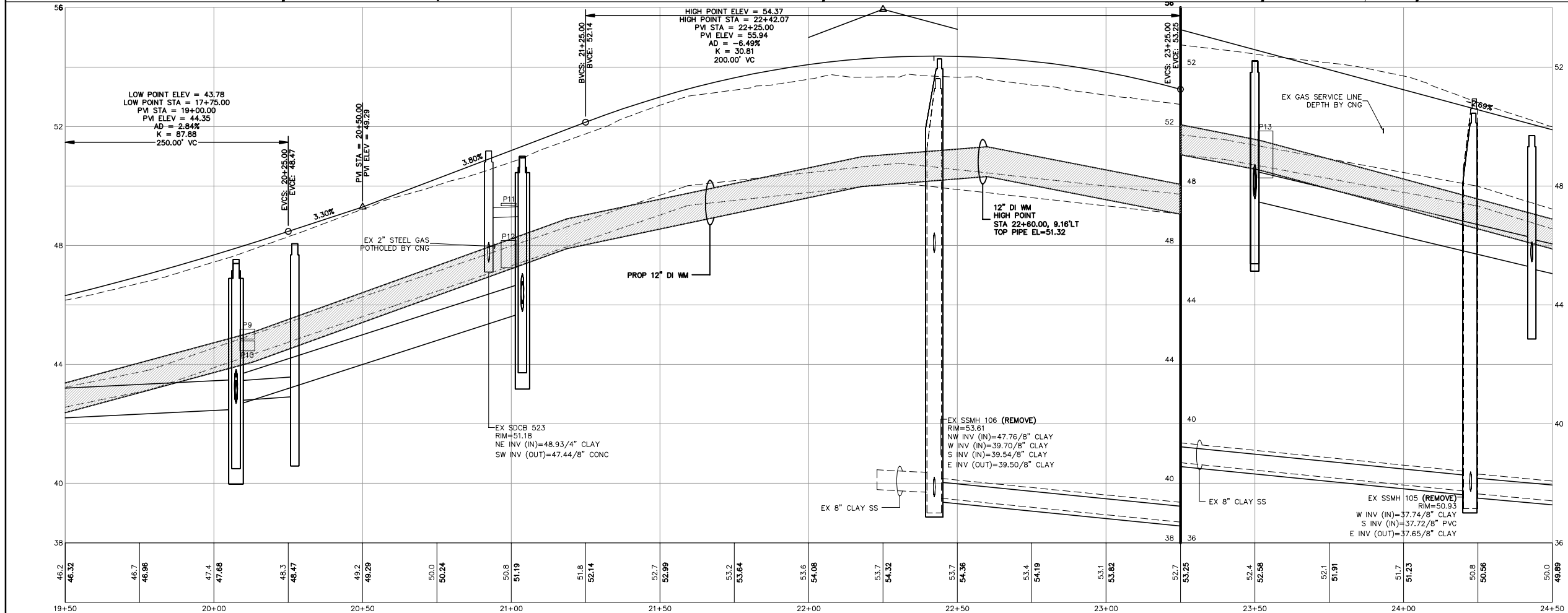
WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
WATER P+P - STA 14+50 TO 19+50

DWG 16026 WATER PP
JOB# 16026
SCALE H: 1"=20' V: 1"=2'

DATE 2/13/2018
SHEET 18 of 38



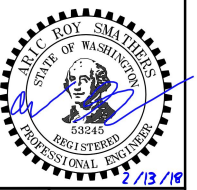
- WATER SERVICE CONNECTION NOTES:
- (B) INSTALL 3/4 IN DIAMETER METER SETTER, SEE DETAIL
 - (D) INSTALL 3/4 IN DIAMETER METER SETTER, SEE DETAIL
 - (E) INSTALL 3/4 IN DIAMETER METER SETTER, SEE DETAIL



POTHOLES		
#	DESCRIPTION	OWNER
P9	(1) 4" DB - 2.3'± TO TOP	FTR
P10	(3) 4" PVC - 2.8'± TO TOP	FTR
P11	(1) 0.5" DB - 1.3'± TO TOP	FTR
P12	(4) 4" PVC - 2.5'± TO TOP	FTR
P13	(1) 4" DB - 2.2'± TO TOP	FTR
P13	(1) 13" CDF DUCT - 2.7'± TO TOP	FTR

NOTE:
POT HOLE DATA IS FOR INFORMATIONAL PURPOSES ONLY. POT HOLE DATA IS FROM FIELD MEASUREMENTS PROVIDED BY APPLIED PROFESSIONAL SERVICES, INC. ON 5/1/2017 AND ARE NOT SURVEYED. THIS INFORMATION MAY NOT BE ENTIRELY ACCURATE OR COMPLETE.

⊗ = UTILITY POT HOLED LOCATION



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

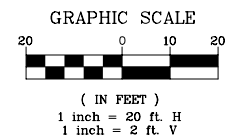
NO.	DATE	DESCRIPTION	BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

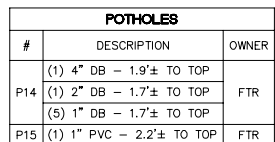
WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
WATER P+P - STA 19+50 TO 24+50

DWG 16026 WATER PP
JOB# 16026
SCALE H: 1"=20' V: 1"=2'

DATE 2/13/2018
SHEET 19
of 38



©



NOTE:
POTHOLE DATA IS FOR INFORMATIONAL
PURPOSES ONLY. POTHOLE DATA IS FROM
FIELD MEASUREMENTS PROVIDED BY
APPLIED PROFESSIONAL SERVICES, INC. ON
5/1/2017 AND ARE NOT SURVEYED. THIS
INFORMATION MAY NOT BE ENTIRELY
ACCURATE OR COMPLETE.

 =UTILITY POTHOLED LOCATION

2/13/18

BID SET

DESIGNED BY	ARS
DRAWN BY	PJC
CHECKED BY	LP

R&E **Reichhardt & Ebe**
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
WATER P+P - STA 24+50 TO 28+50

DWG 16026 WATER PP

JOB#	
------	--

SCALE

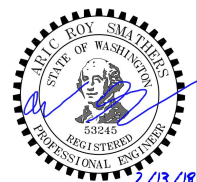
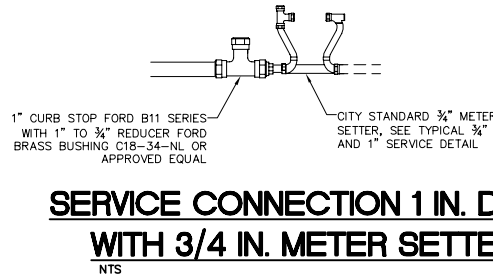
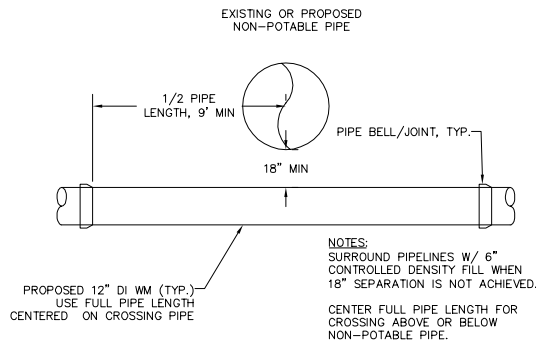
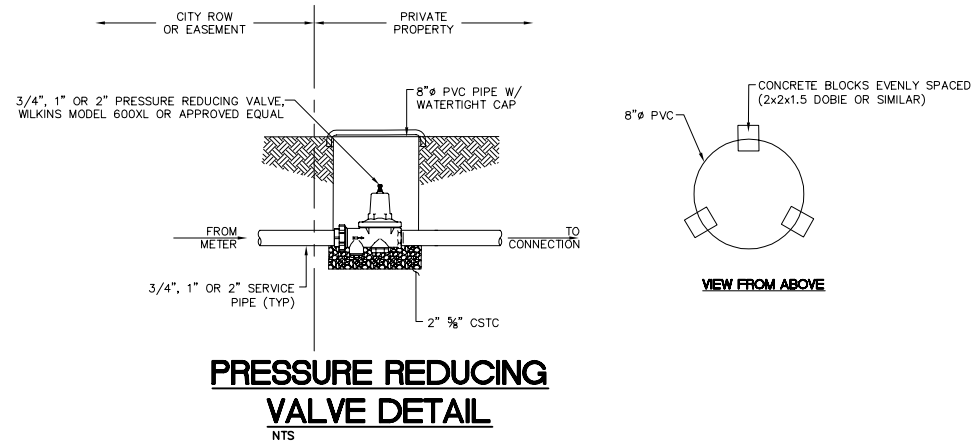
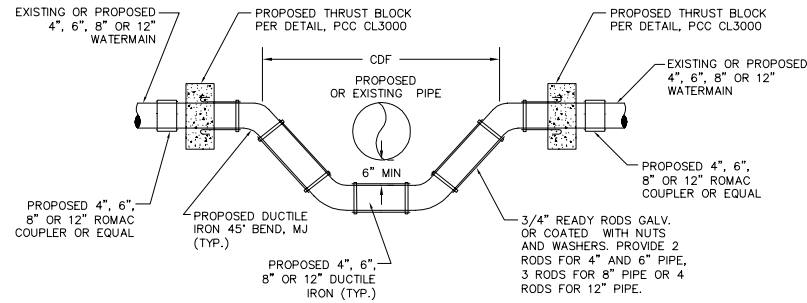
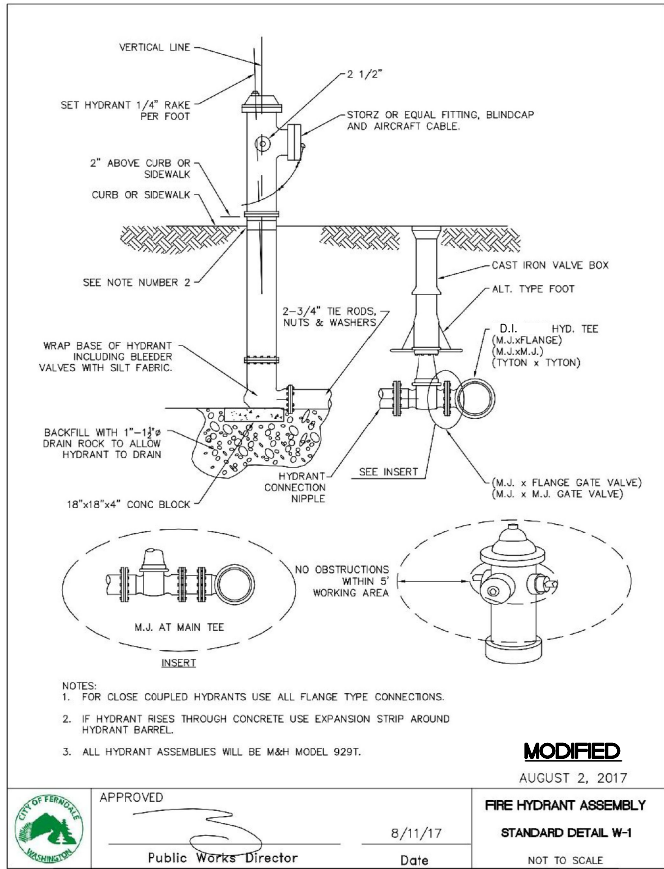
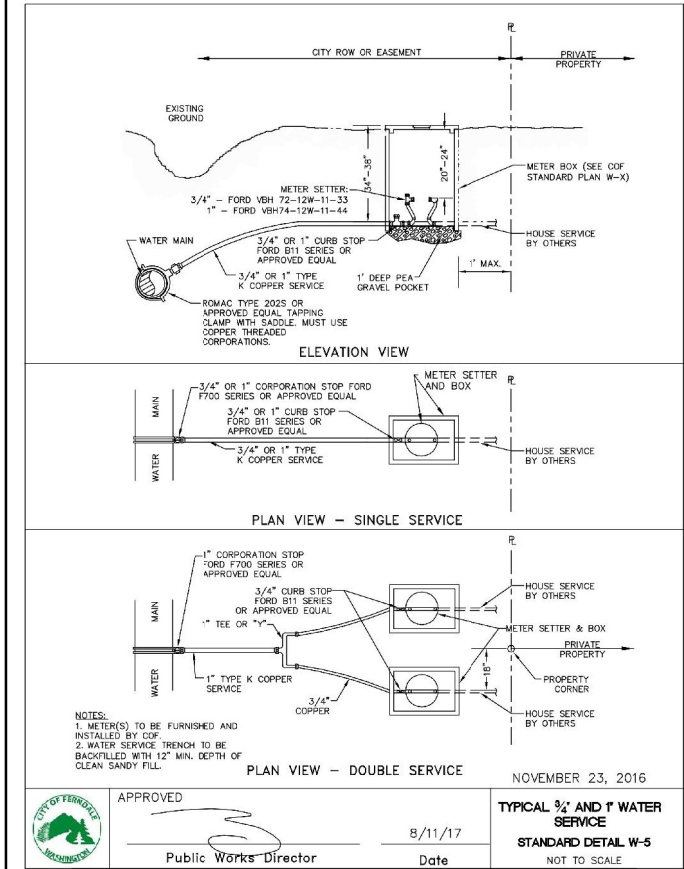
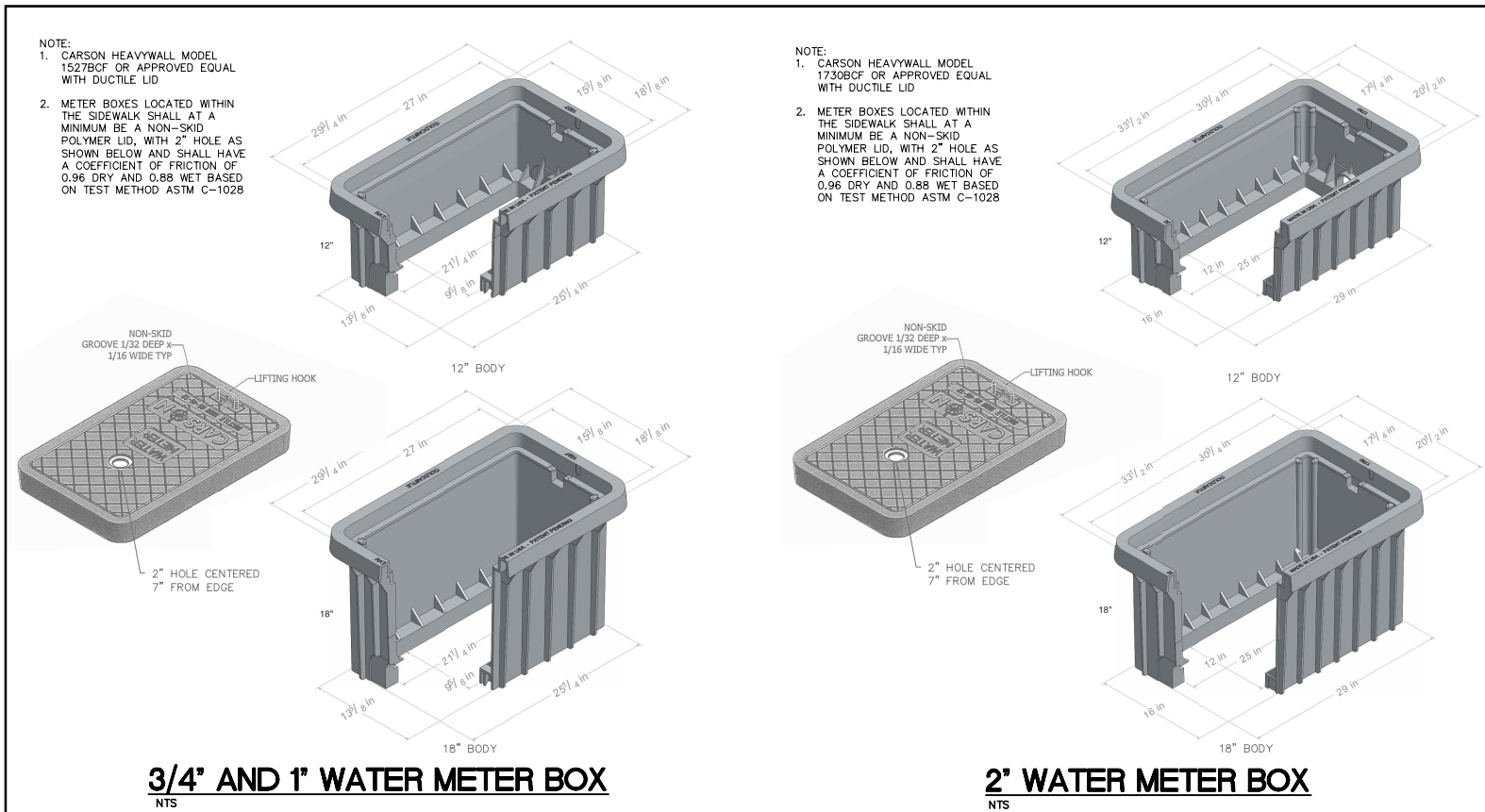
V: $1''=2'$

DATE 2/13/

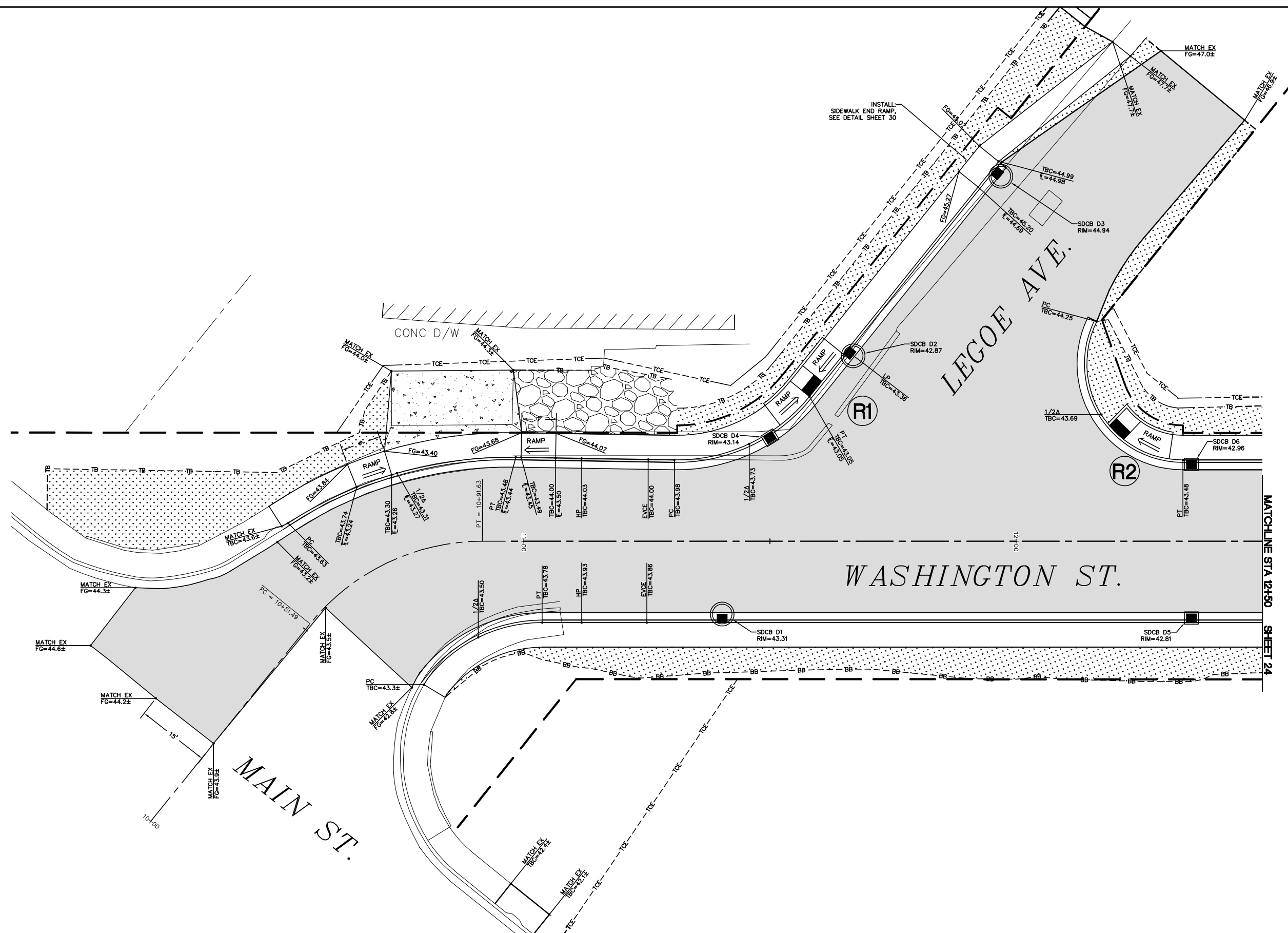
SHEET	30
-------	----

20
of 38

2:\Projects\16026\16_Civil_3D_2015\Plan Sheet\16026 WATER PP.dwg 20 WATER P&P STA 24+50 TO 28+50 2/13/2018 3:38:56 PM PDFXChange Printer 2012



<div>BID SET</div>	DESIGNED BY ARS	<div><div>R&E</div><div>Reichhardt & Ebe ENGINEERING INC</div><div>P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3887 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713</div></div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
--------------------	--------------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



BID SET

DESIGNED BY	ARS
DRAWN BY	PJC/LMH
CHECKED BY	LP

R&E **Reichhardt & Ebe**
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY
-----	------	-------------	----

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
GRADING PLAN STA 10+00 TO 12+50

DWG 16026 GRADING

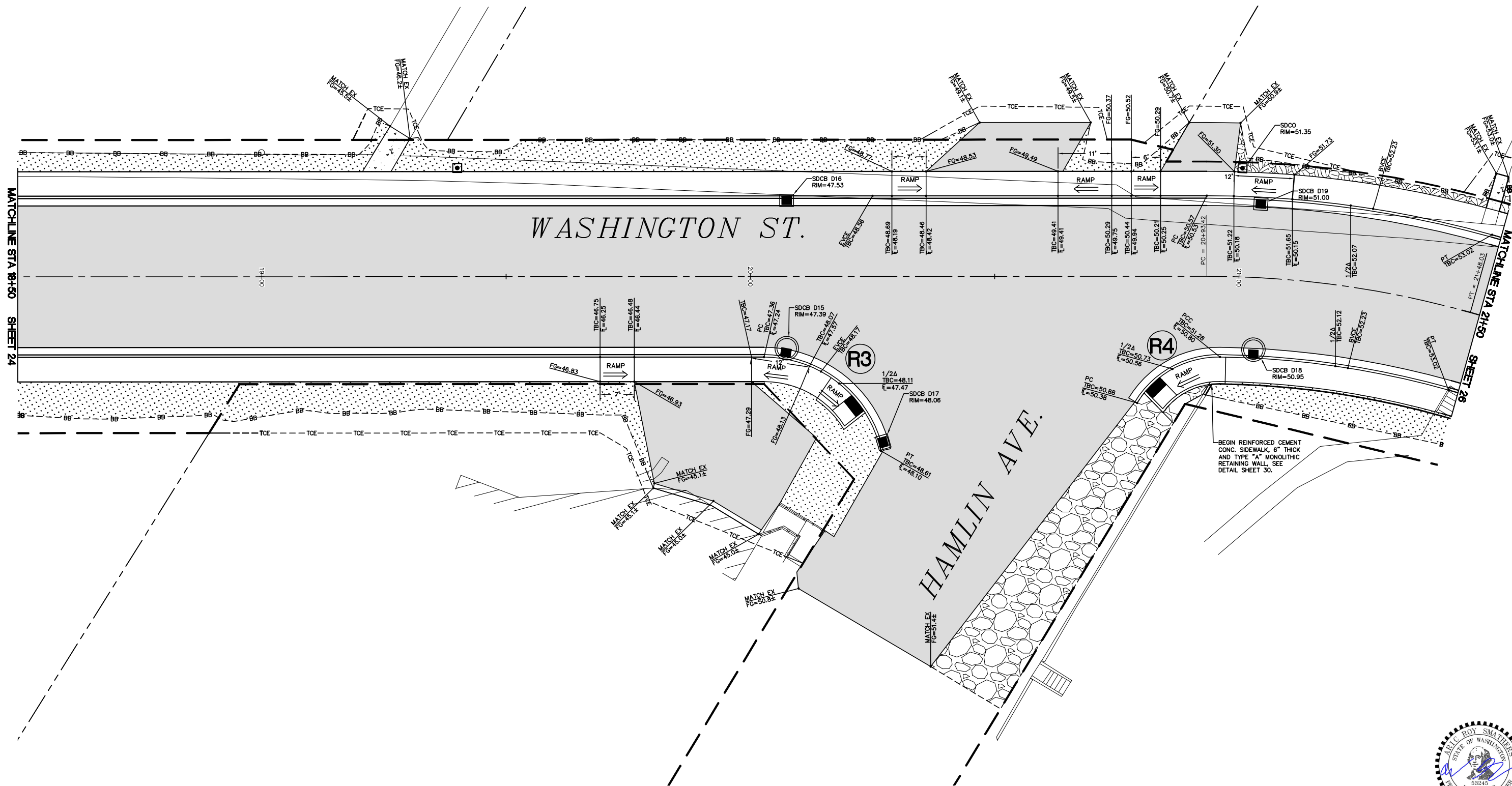
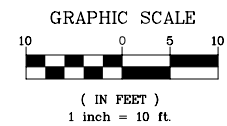
JOB#	
------	--

SCALE
H: 1"=10'

v: **N/A**

DATE

SHEET **23**
of 38



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC/LMH
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
GRADING PLAN STA 18+50 TO 21+50

DWG 16026 GRADING

JOB#

16026

SCALE

H: 1"=10'

V: N/A

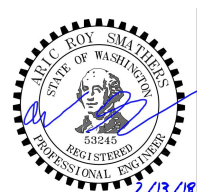
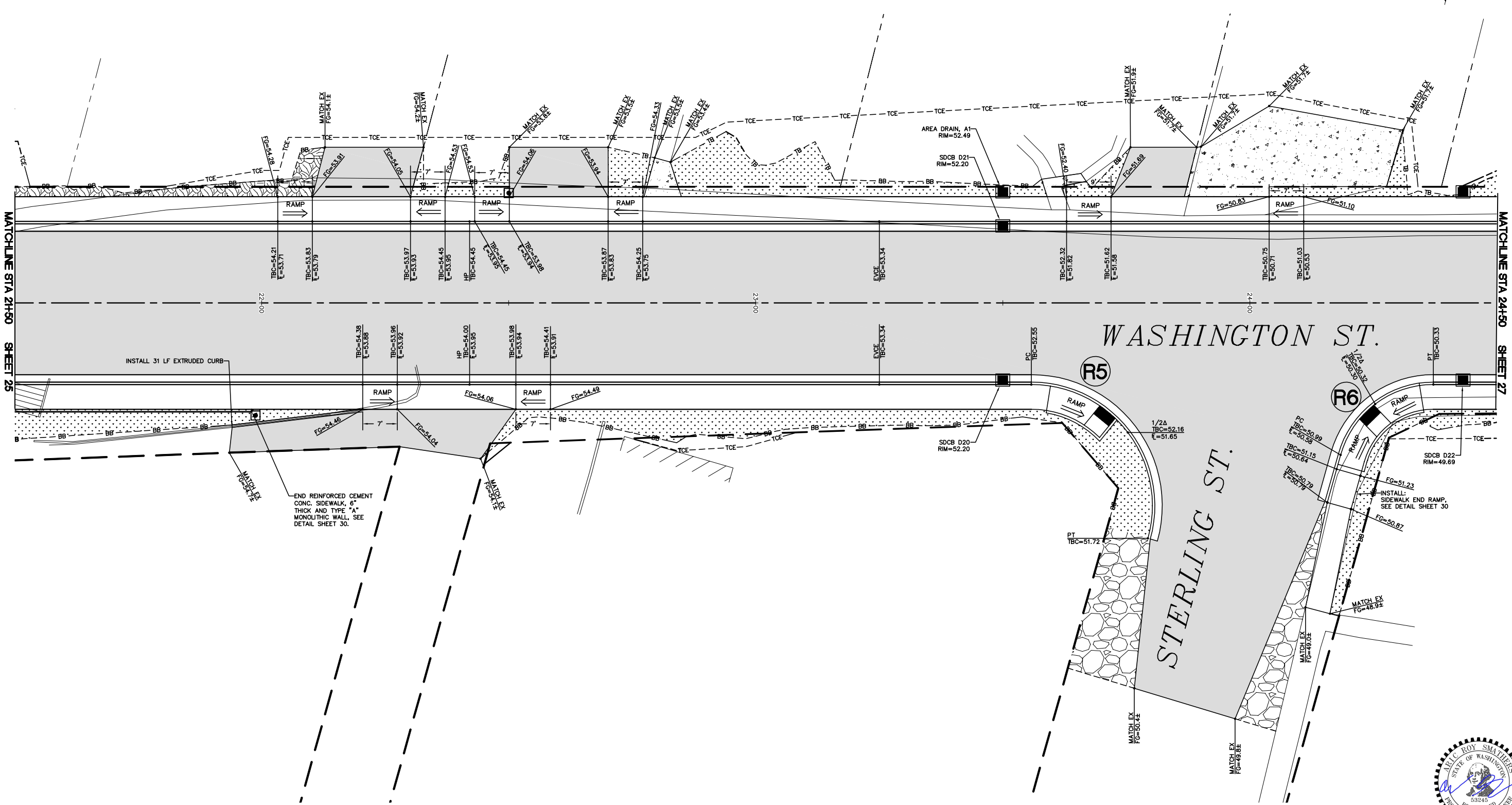
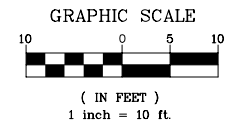
DATE

2/13/2018

SHEET

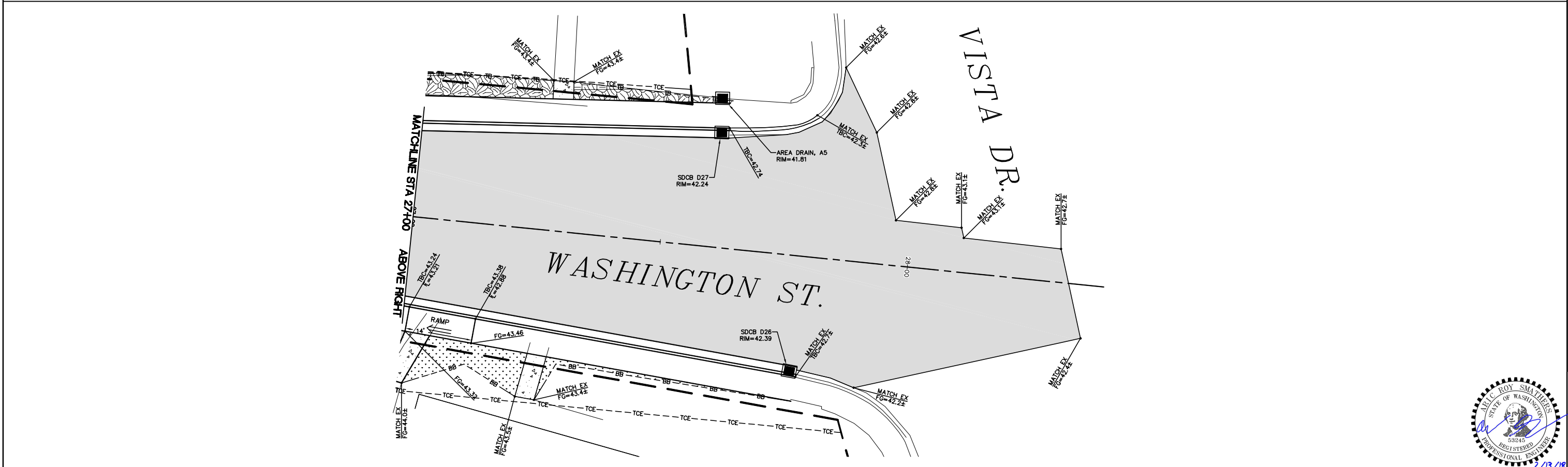
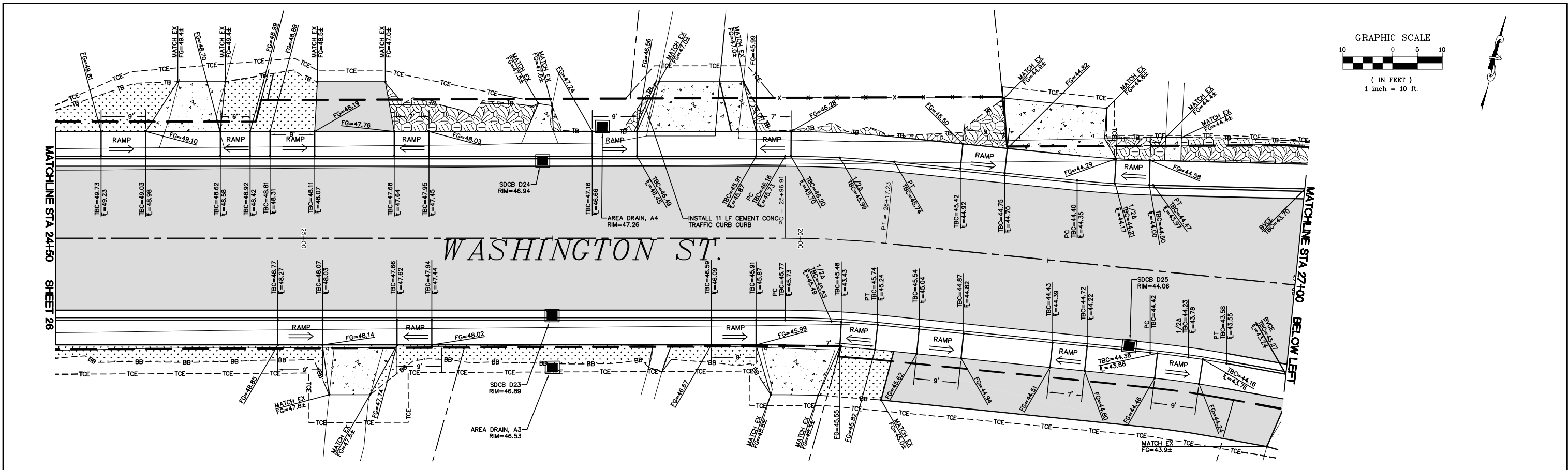
25

of 38



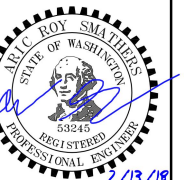
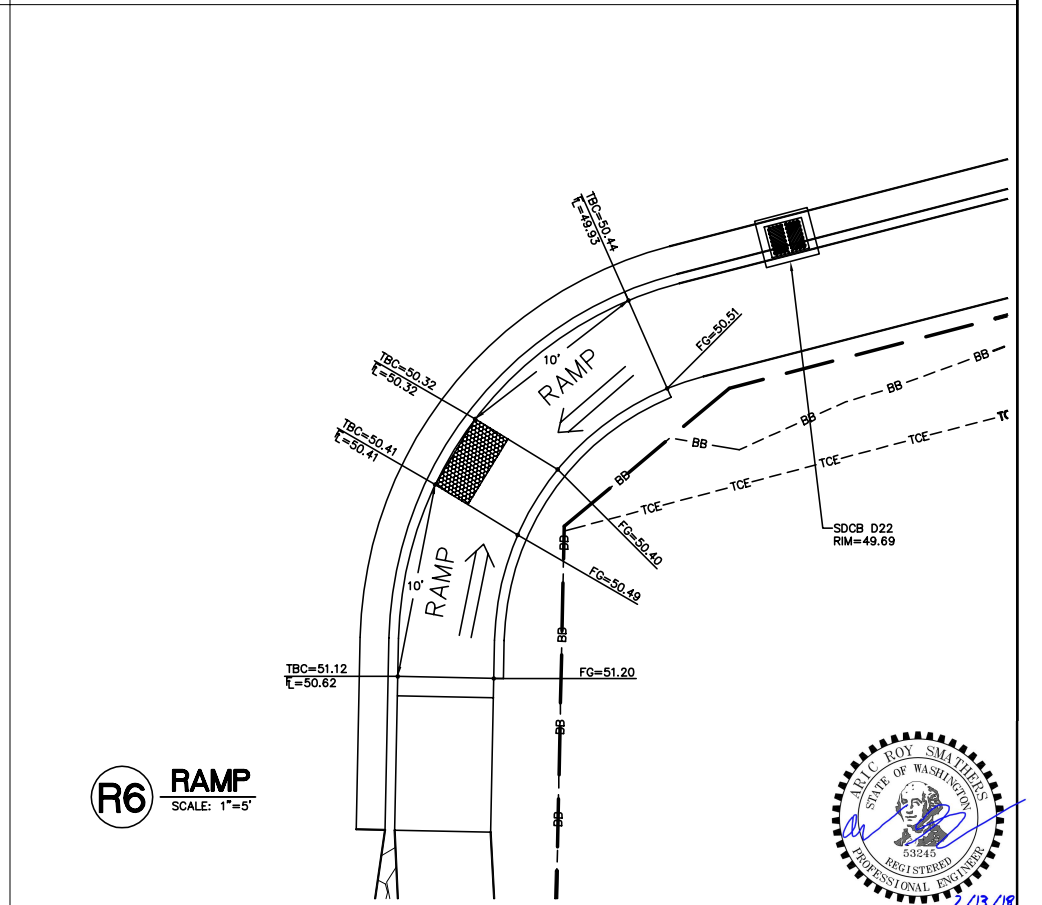
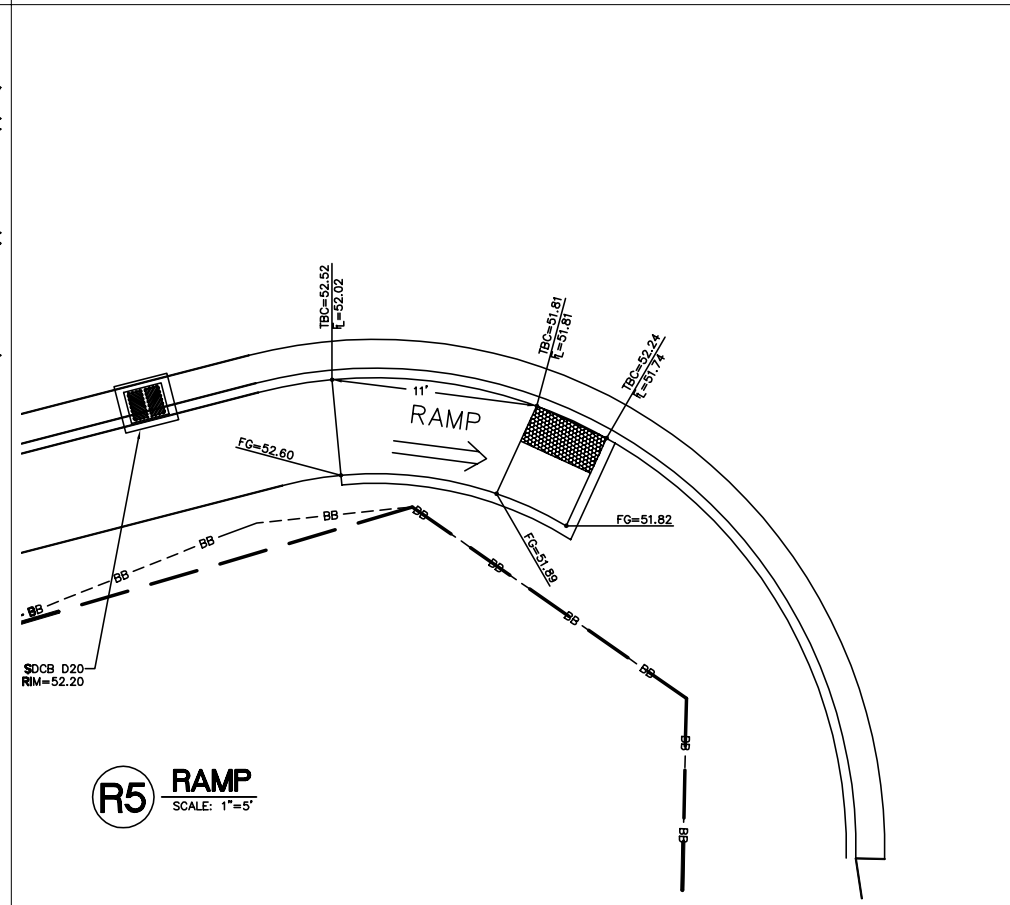
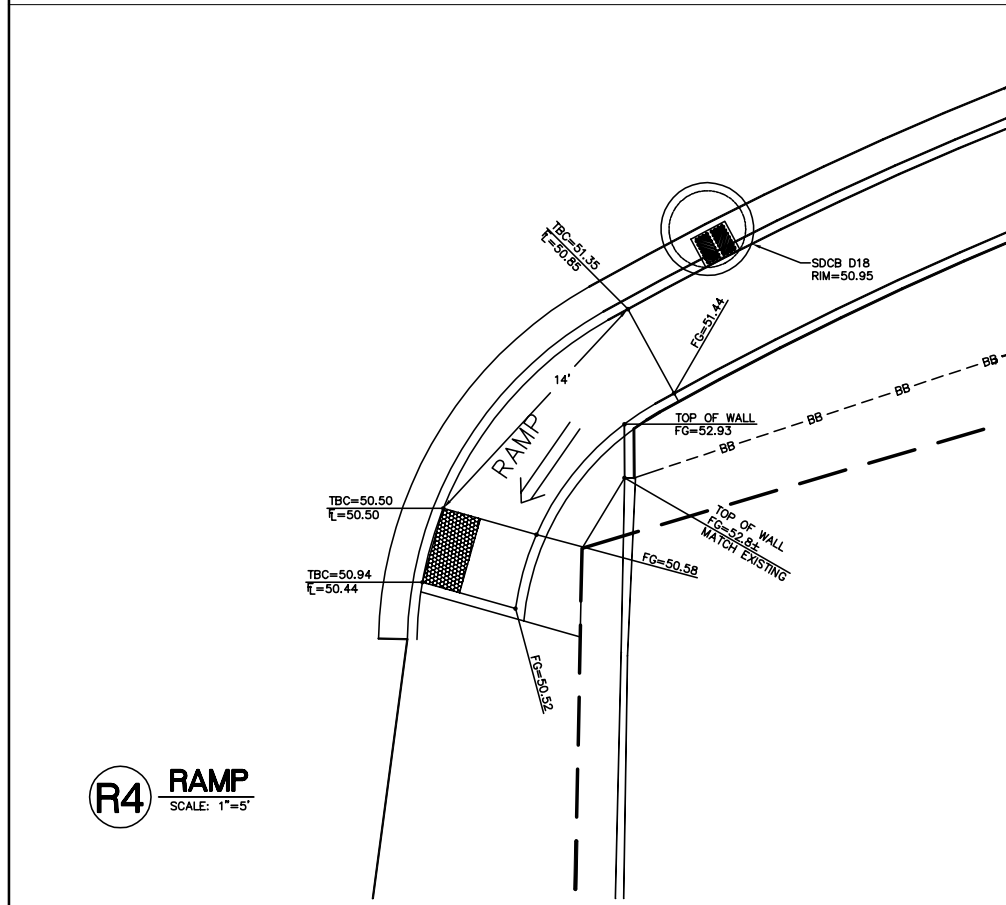
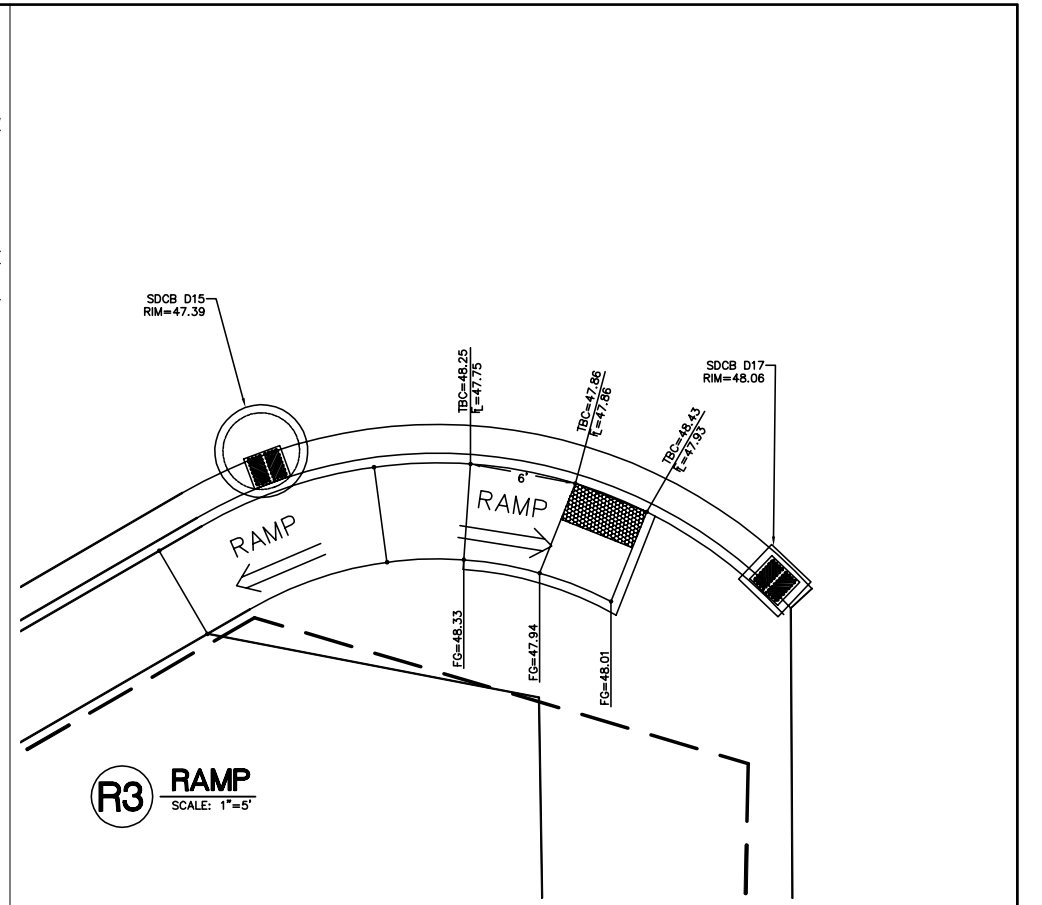
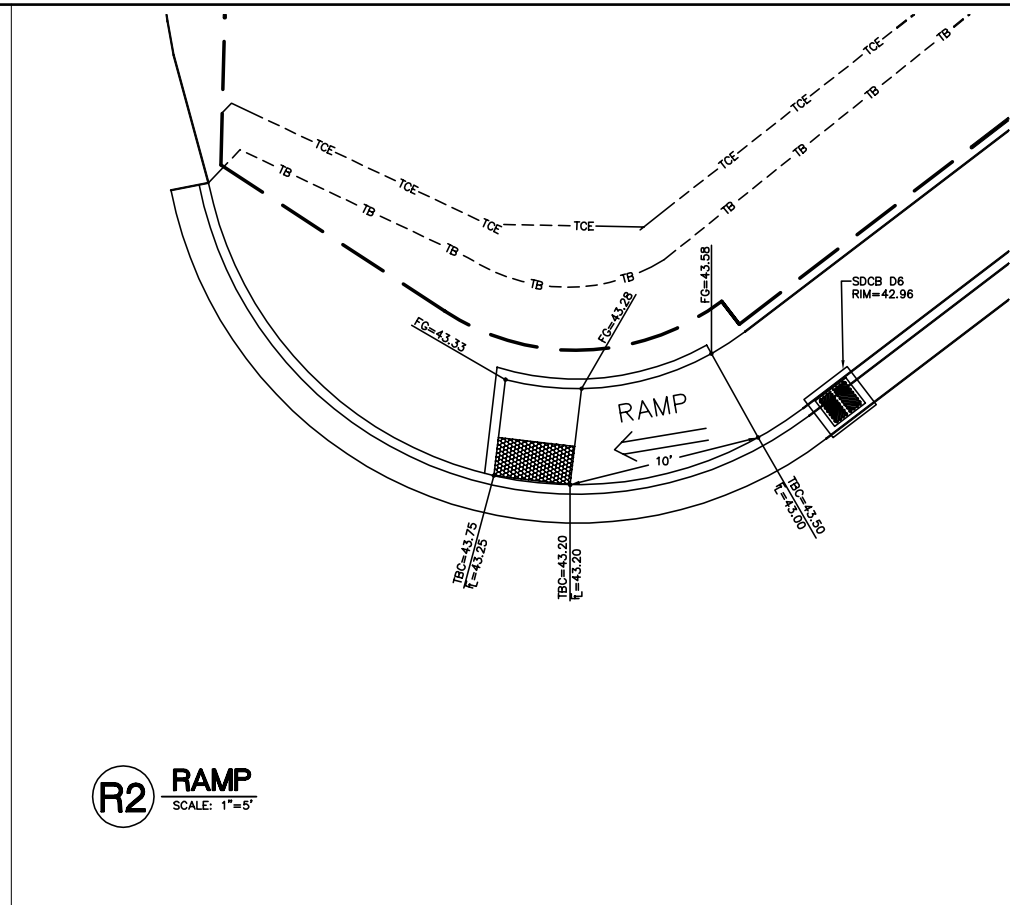
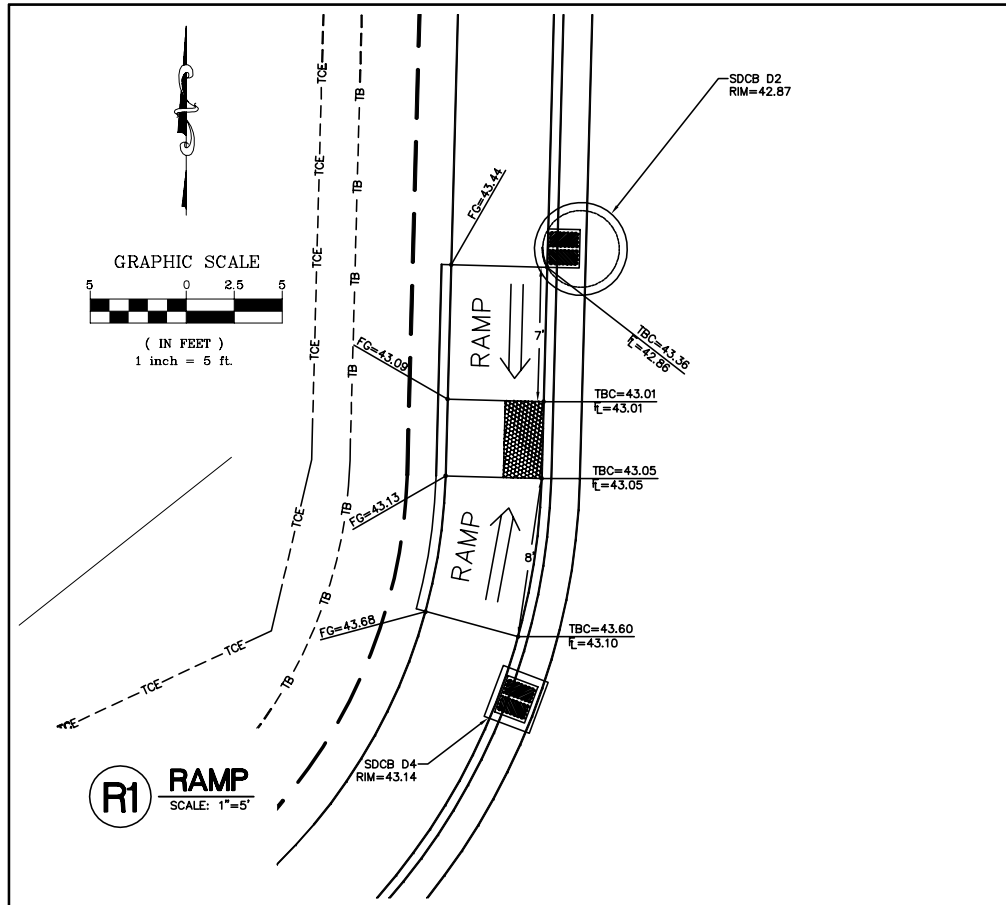
<div>BID SET</div>	DESIGNED BY ARS	<div><div>R&E</div><div>Reichhardt & Ebe ENGINEERING INC</div><div>P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3687 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713</div></div>					CITY OF FERNDAL 2095 MAIN ST FERNDAL, WA 98248	WASHINGTON STREET IMPROVEMENTS MAIN STREET TO VISTA DRIVE GRADING PLAN STA 2H+50 TO 24+50	DWG 16026 GRADING		DATE 2/13/2018	
	DRAWN BY PJC/LMH								JOB# 16026	SCALE H: 1"=10' V: N/A		SHEET 26 OF 38
	CHECKED BY LP		NO.	DATE	DESCRIPTION	BY						

BID SET



<div>BID SET</div>	DESIGNED BY ARS	<div><div>R&E</div><div>Reichhardt & Ebe ENGINEERING INC</div><div>P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3887 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713</div></div>						CITY OF FERNDALE 2095 MAIN ST FERNDALE, WA 98248	WASHINGTON STREET IMPROVEMENTS MAIN STREET TO VISTA DRIVE GRADING PLAN STA 24+50 TO 28+00	DWG 16026 GRADING		DATE 2/13/2018
	DRAWN BY PJC/LMH									JOB# 16026	SCALE H: 1"=10' V: N/A	SHEET 27
	CHECKED BY LP											of 38
			NO.	DATE	DESCRIPTION	BY						

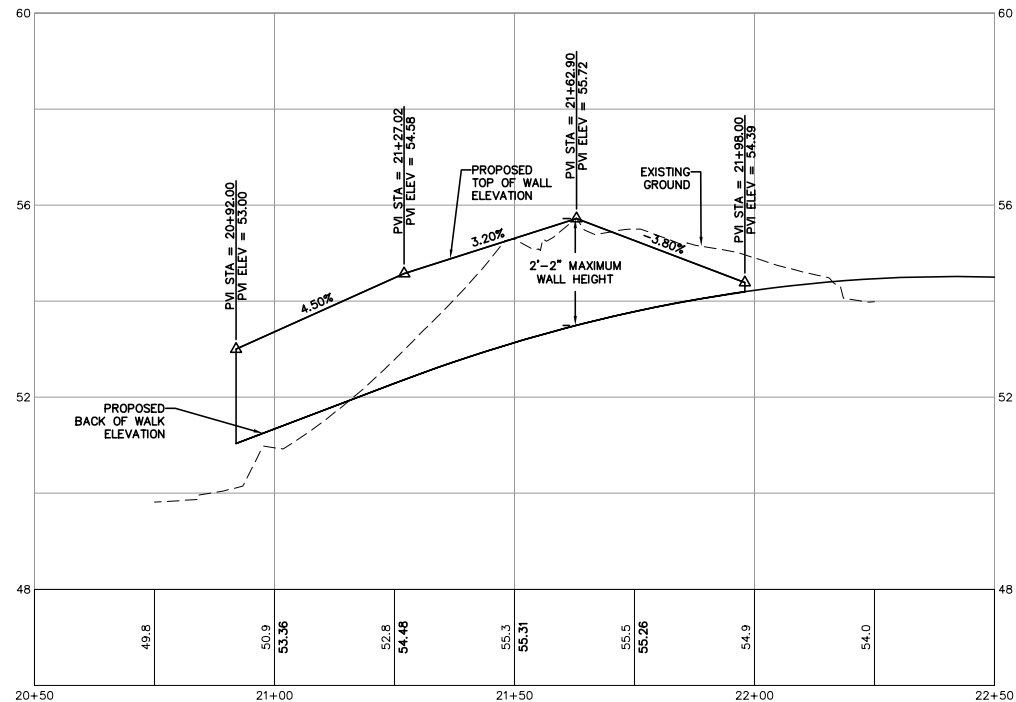




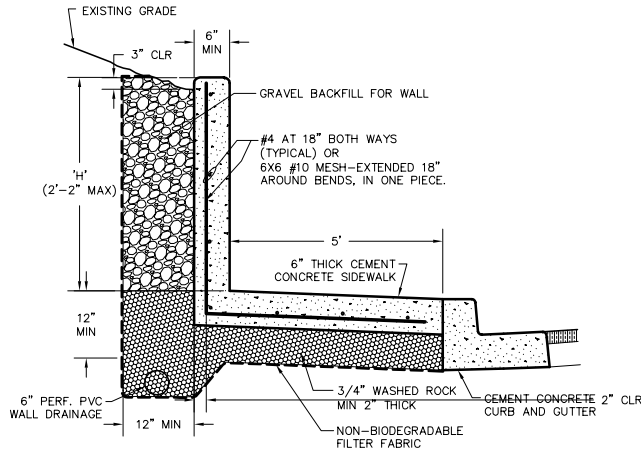
BID SET	DESIGNED BY ARS	<div><div><div>R&E</div><div>Reichhardt & Ebe ENGINEERING INC</div></div><div>P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3687 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713</div></div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
---------	--------------------	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



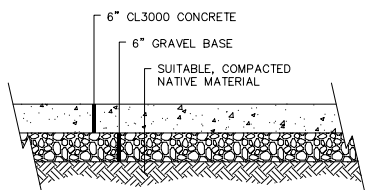
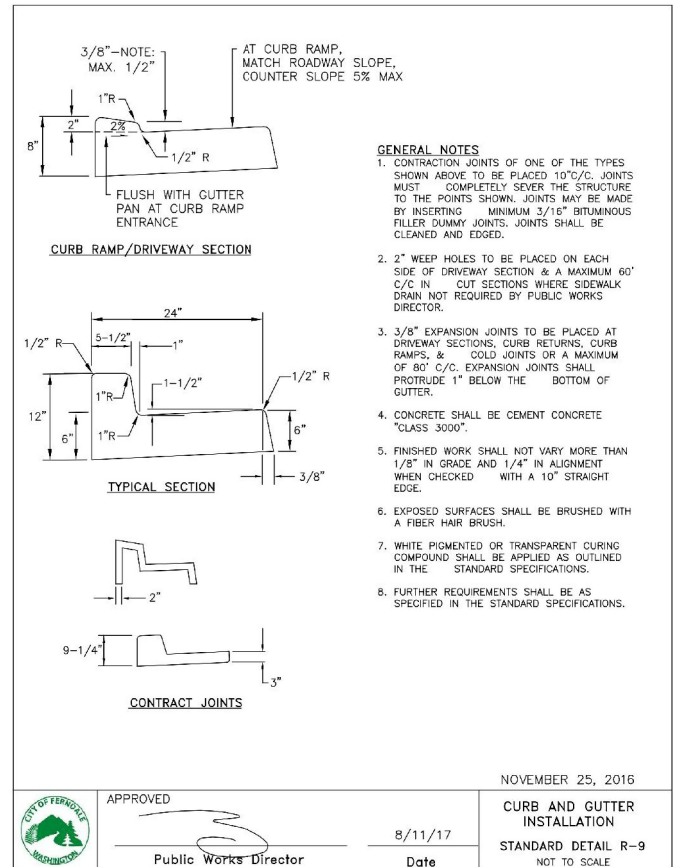
DATE	2/13/2018
SHEET	29 of 38



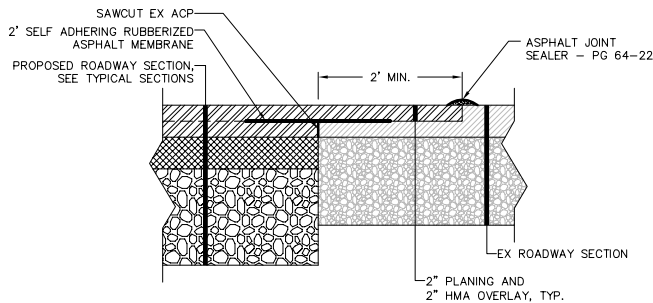
PROFILE VIEW
TYPE "A" MONOLITHIC RETAINING WALL
AND SIDEWALK
NTS



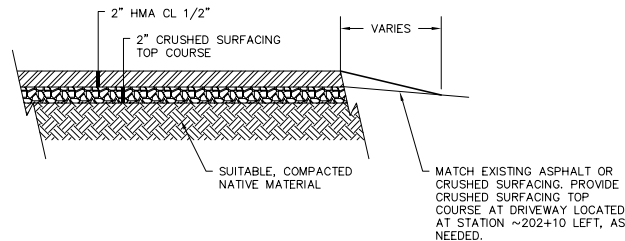
TYPE "A" MONOLITHIC RETAINING WALL
AND SIDEWALK (TYP)
NTS



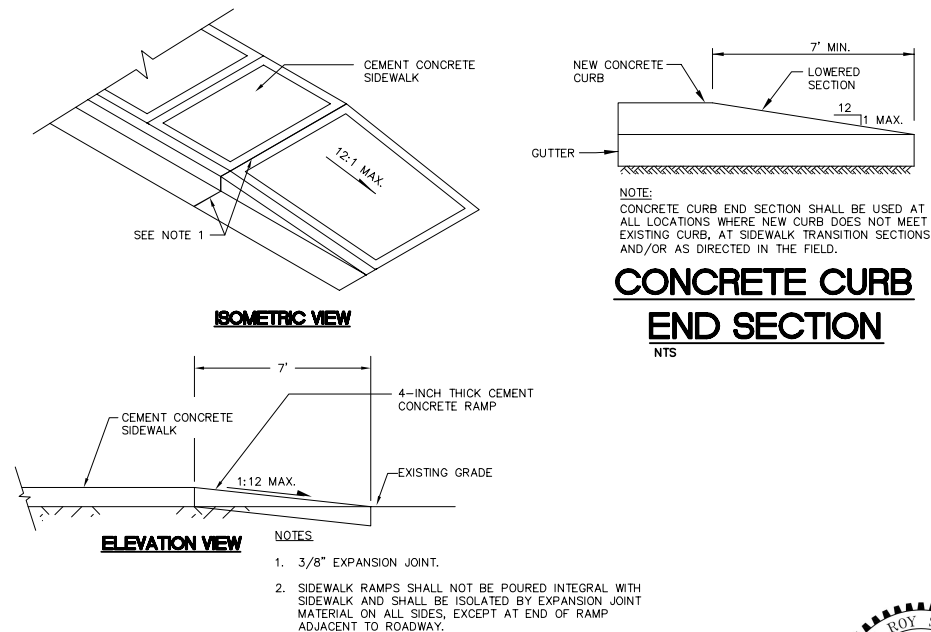
TYPICAL CONCRETE
DRIVEWAY SECTION
NTS



ROADWAY PAVEMENT
MATCH SECTION
NTS



HMA MATCH DETAIL AND
HMA DRIVEWAY SECTION
NTS



SIDEWALK END RAMP
NTS

BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP



Reichhardt & Ebe
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
ROADWAY DETAILS

DWG 16026 DETAILS

JOB#

16026

SCALE

H: N/A

V: N/A

DATE

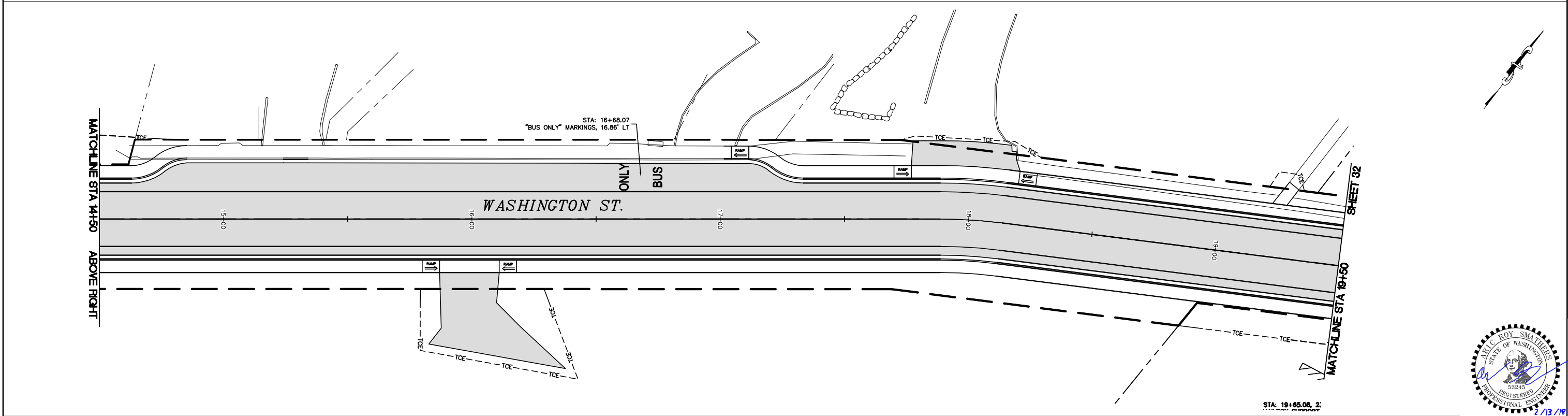
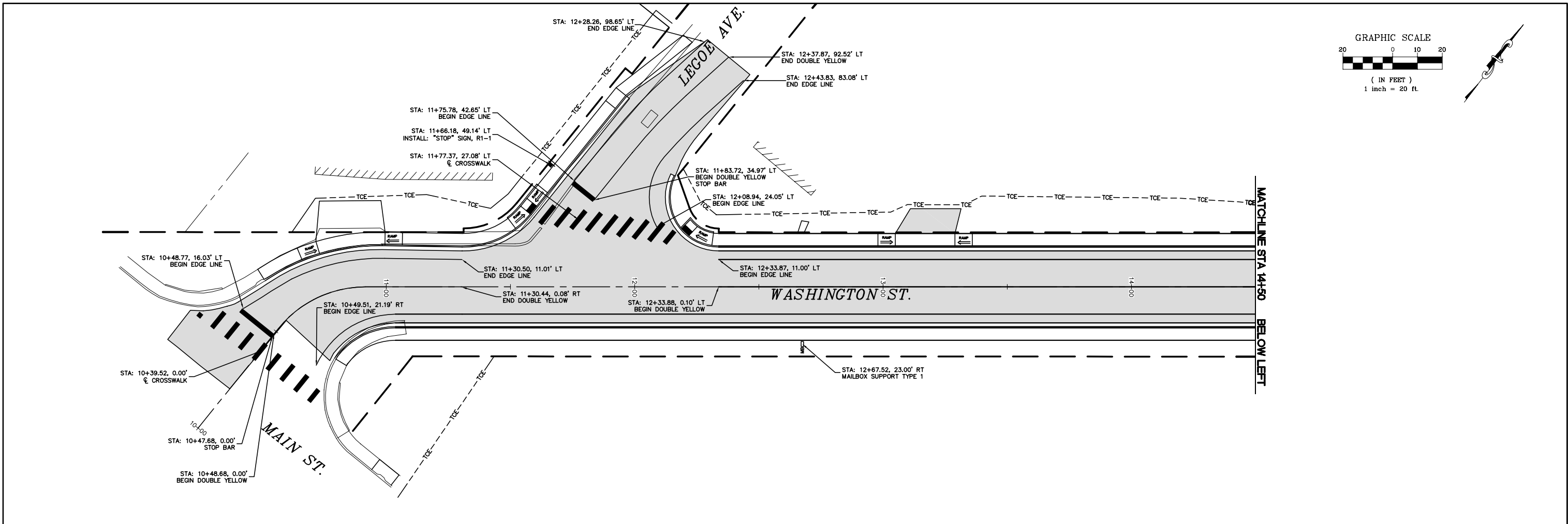
2/13/2018

SHEET

30

of 38





BID SET

DESIGNED BY
ARS

DRAWN BY
PJC

CHECKED BY
LP

R&E

Reichhardt & Ebe

ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264

813 Metcalf Street, Sedro-Woolley, WA 98284

(360) 354-3687

(360) 855-1713

NO.

DATE

DESCRIPTION

BY

CITY OF FERNDAL

2095 MAIN ST

FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS

MAIN STREET TO VISTA DRIVE

CHANNELIZATION PLAN STA 10+00 TO 19+50

DWG 16026 CHAN

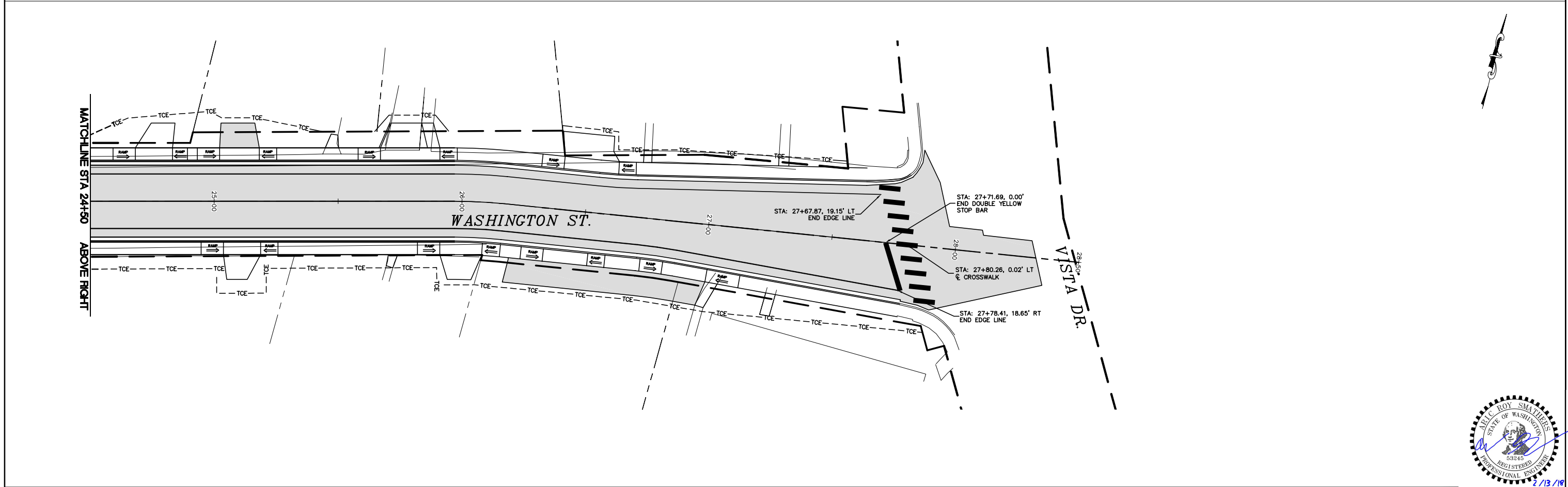
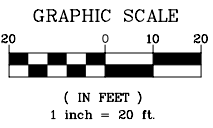
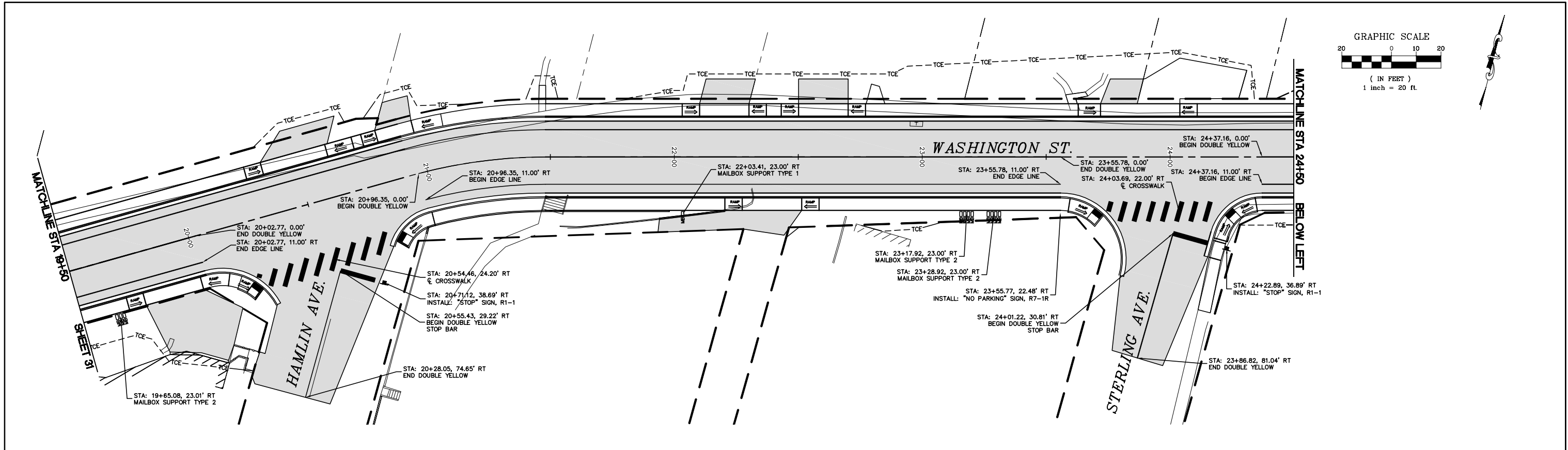
JOB# 16026

SCALE H: 1"=20' V: N/A

DATE 2/13/2018

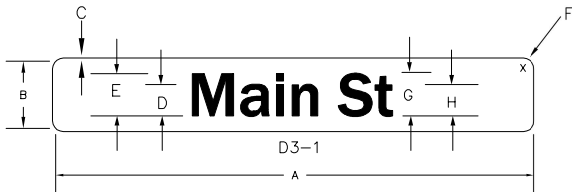
SHEET 31 of 38

P:\Program\16026\16026 CHAN.dwg 31 CHANNELIZATION PLAN STA 10+00 TO 19+50 2/13/2018 3:24:41PM PDF-Change Review 2012



<div>BID SET</div>	DESIGNED BY ARS	<div><div>R&E</div><div>Reichhardt & Ebe</div><div>ENGINEERING INC</div></div> <div>P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3687 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713</div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
--------------------	--------------------	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

P:\Program\16026\16026 CHAN.dwg 32 CHANNELIZATION PLAN STA 19+50 TO 28+50 2/13/2018 3:03:11 PM PDF-Change Review 2012



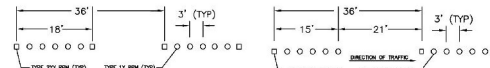
SIGNING DETAILS (TYP)

DIMENSIONS (INCHES)							
A	B	C	D	E	F	G	H
VA	6	5/8	3	4	1 1/2	3	2 1/4

COLORS

LETTERS - WHITE (REFL)
BACKGROUND - GREEN (REFL)

TYPICAL SIGN DETAIL
NTS



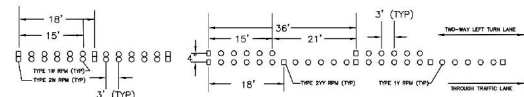
SKIP CENTER STRIPE DETAIL
RAISED PAVEMENT MARKER SUBSTITUTION
PER CITY OF FERNDALÉ

LANE STRIPE DETAIL
RAISED PAVEMENT MARKER SUBSTITUTION
PER CITY OF FERNDALÉ



DOUBLE YELLOW STRIPE DETAIL
RAISED PAVEMENT MARKER SUBSTITUTION
PER CITY OF FERNDALÉ

NO PASS STRIPE
RAISED PAVEMENT MARKER SUBSTITUTION
PER CITY OF FERNDALÉ



GORE STRIPE DETAIL
RAISED PAVEMENT MARKER SUBSTITUTION
PER CITY OF FERNDALÉ

TWO-WAY LEFT TURN STRIPE DETAIL
RAISED PAVEMENT MARKER SUBSTITUTION
PER CITY OF FERNDALÉ

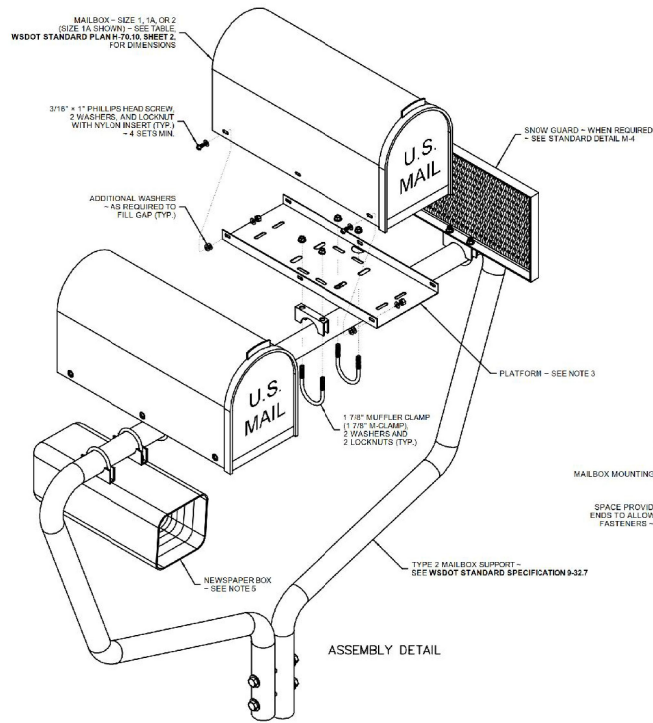


SKIP GORE STRIPE DETAIL
RAISED PAVEMENT MARKER SUBSTITUTION
PER CITY OF FERNDALÉ

BARRIER STRIPE DETAIL
RAISED PAVEMENT MARKER SUBSTITUTION
PER CITY OF FERNDALÉ

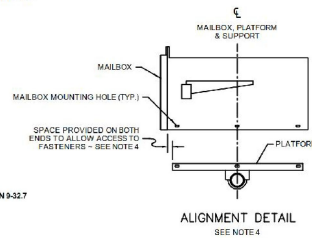
NOVEMBER 25, 2016

APPROVED	8/11/17	STRIPING STANDARD DETAIL R-20
Public Works Director	Date	NOT TO SCALE



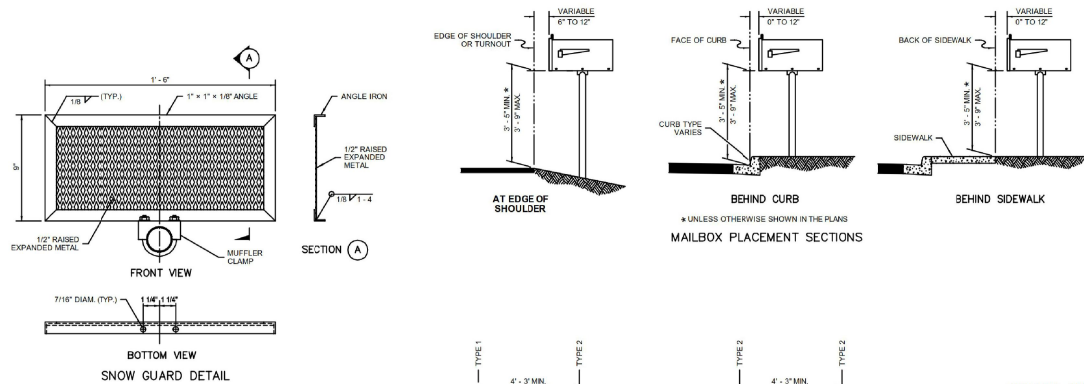
NOTES

- The anchoring system shall meet NCHRP 350 crash test criteria. Use a socket and wedge system or the anchoring system supplied by or recommended by the Type 2 Support manufacturer.
- A maximum of five mailboxes may be installed on a Type 2 Support.
- The Platform design shown in this plan is detailed in the PLATFORM DETAIL, WSDOT Standard Plan H-70.10, Sheet 2. The design features slots that accommodate several types of mailbox supports, only those slots necessary for assembling the type being installed are required. An adjustable platform may be used in lieu of this platform design. Adjustable platforms must fit the 1 7/8" M-Clamp.
- Center the mailbox on the platform to ensure space for the mailbox door to open and to allow space for installing the fasteners (see ALIGNMENT DETAIL). Spacing of mailbox mounting holes varies among manufacturers. Attachment of the mailbox to the platform may require drilling additional holes through the mailbox to fit the platform.
- Attach a newspaper box to a Type 2 Support with two 1 7/8" Muffler Clamps spaced 4" apart. Field drill 7/16" holes in the newspaper box to fit. Newspaper boxes must not extend beyond the front of the mailbox when the mailbox door is closed.



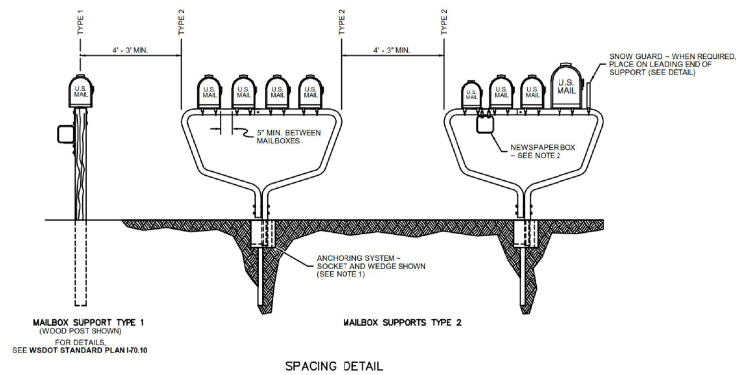
NOVEMBER 25, 2016

APPROVED	8/11/17	MAILBOX SUPPORT TYPE 2 STANDARD DETAIL M-3 NOT TO SCALE
Public Works Director	Date	



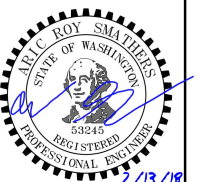
NOTES

- The anchoring system shall meet NCHRP 350 crash test criteria. Use a socket and wedge system or the anchoring system supplied by or recommended by the Type 2 Support manufacturer.
- Attach a newspaper box to a Type 2 Support with two 1 7/8" Muffler Clamps spaced 4" apart. Field drill 7/16" holes in the newspaper box to fit. Newspaper boxes must not extend beyond the front of the mailbox when the mailbox door is closed.



NOVEMBER 25, 2016

APPROVED	8/11/17	MAILBOX SUPPORT TYPE 2 INSTALLATION STANDARD DETAIL M-4 NOT TO SCALE
Public Works Director	Date	



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC

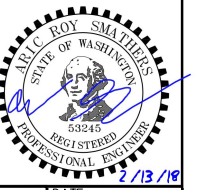
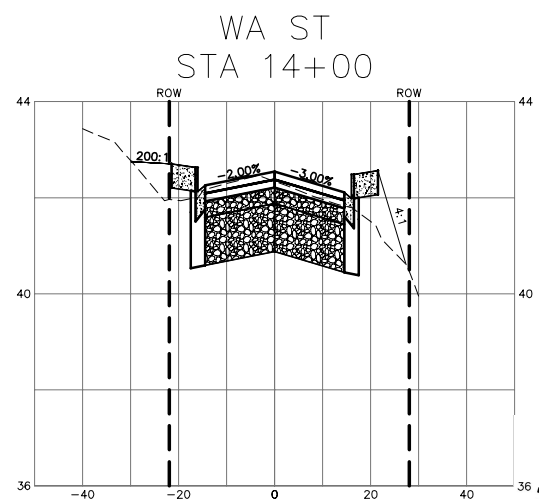
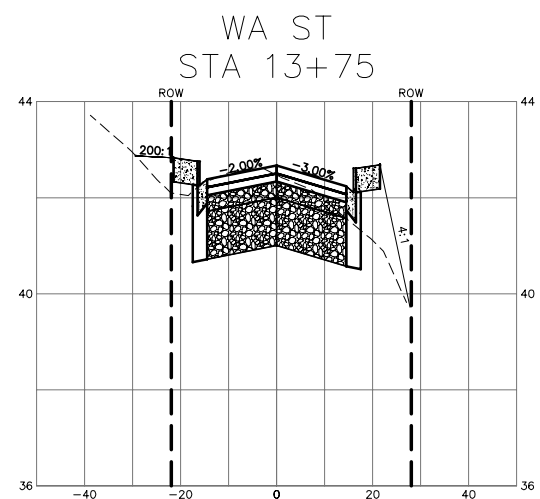
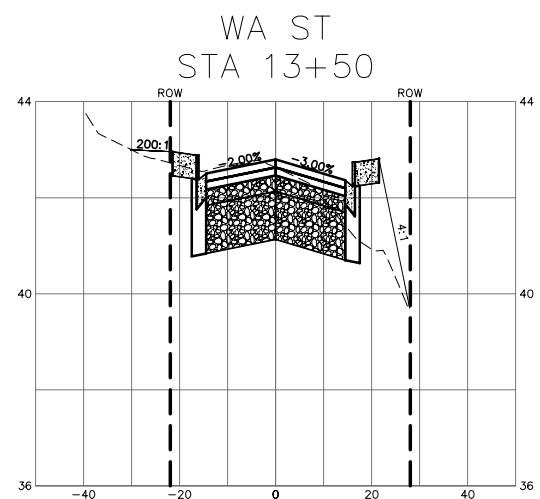
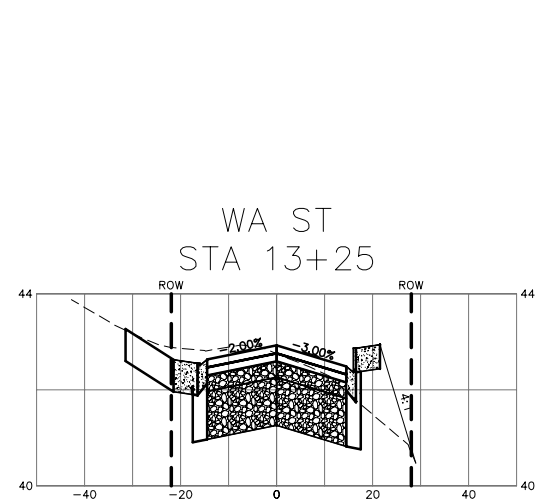
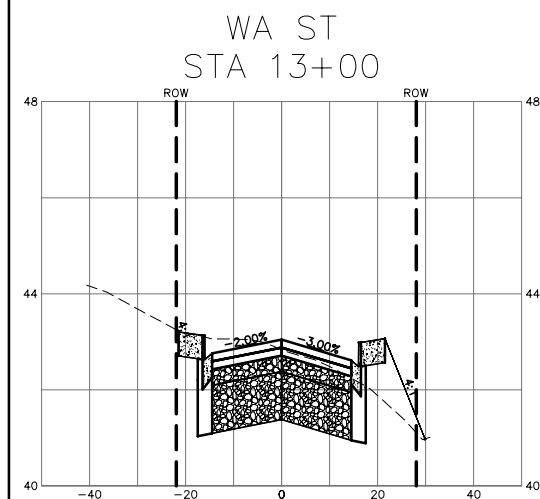
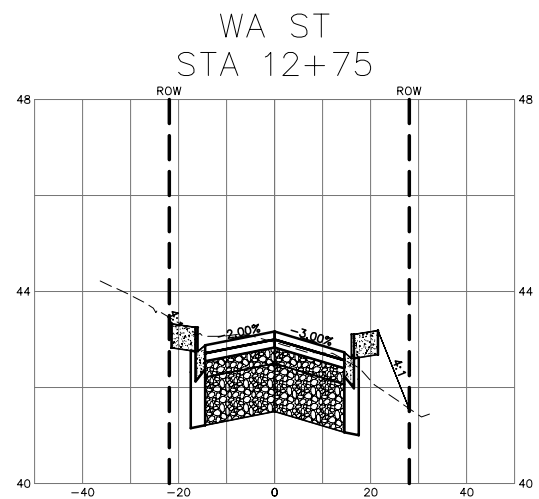
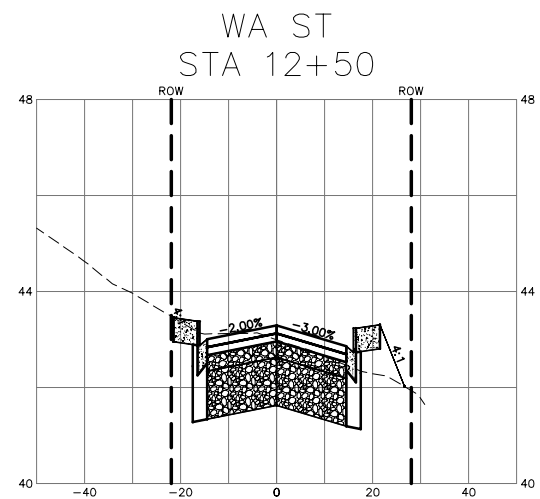
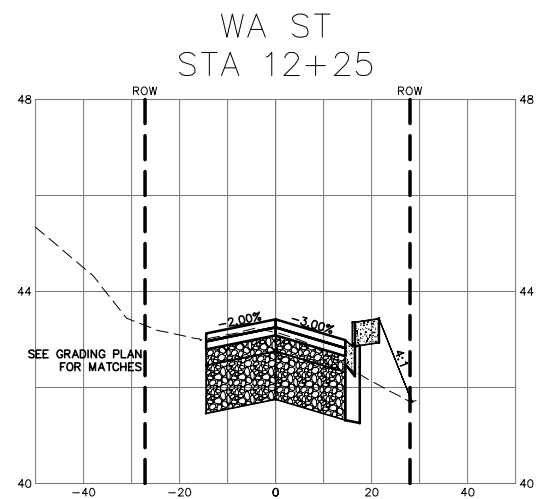
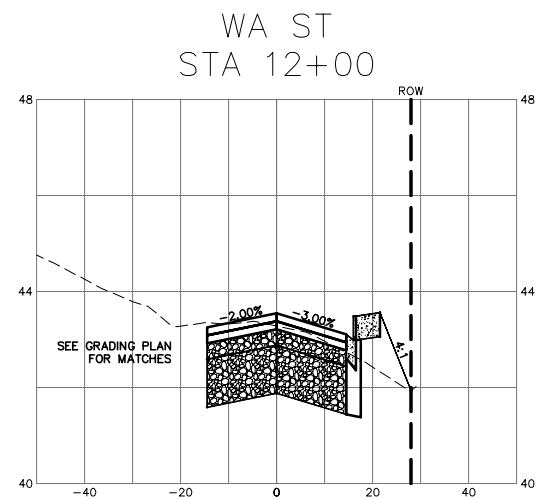
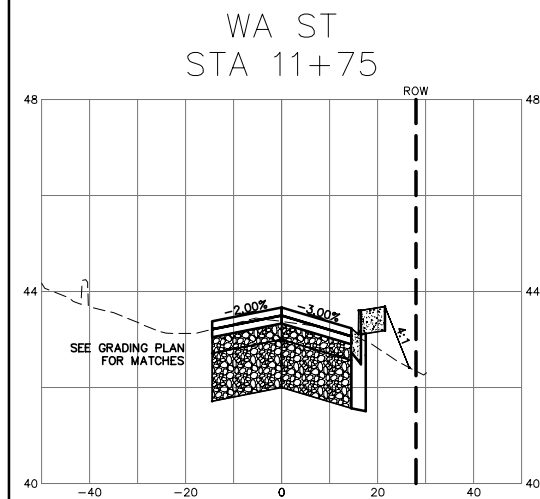
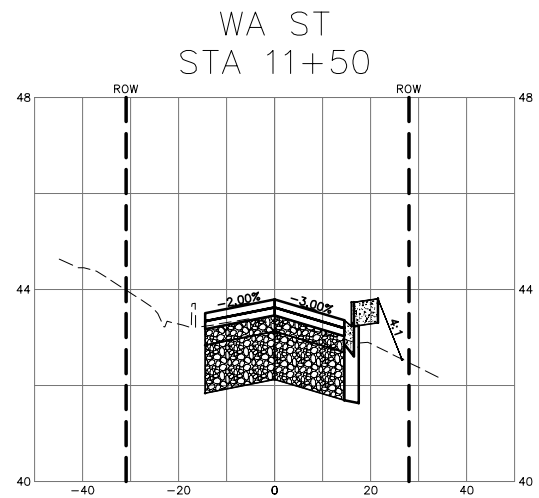
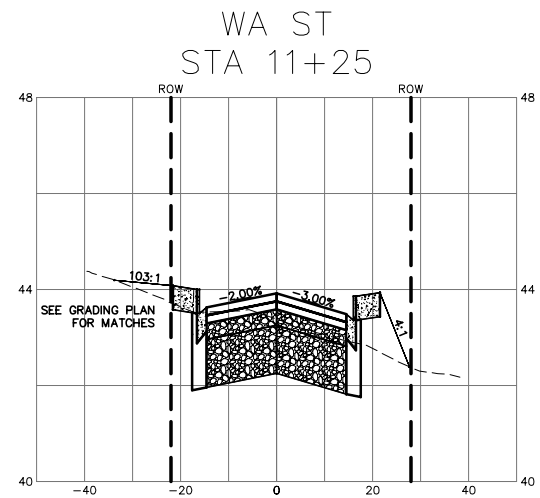
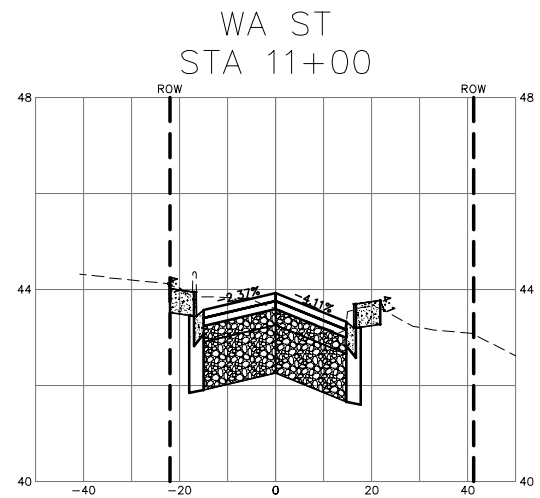
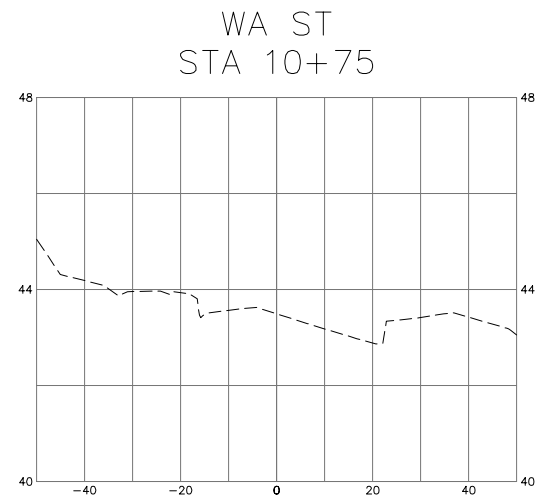
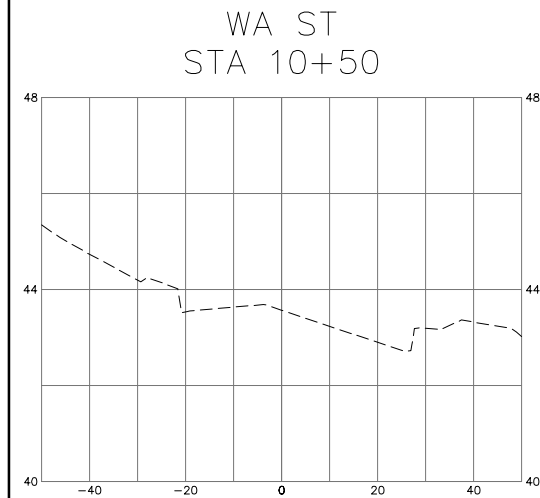
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERNDALÉ
2095 MAIN ST
FERNDALÉ, WA 98248

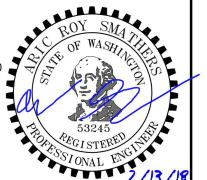
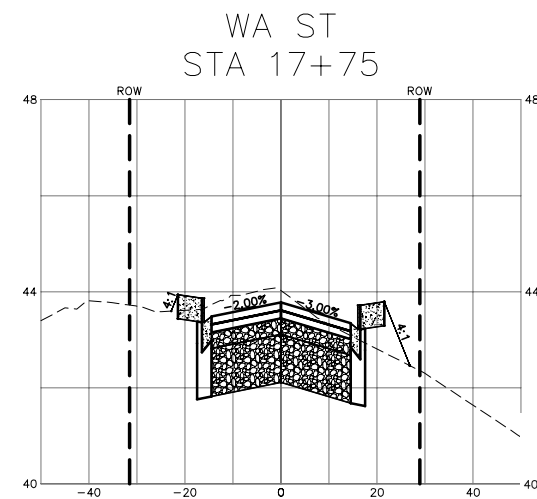
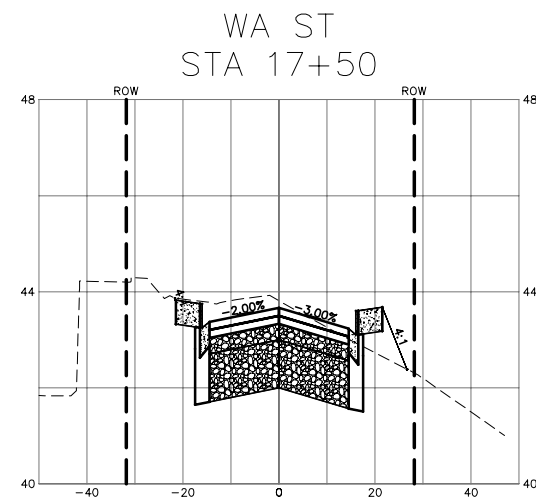
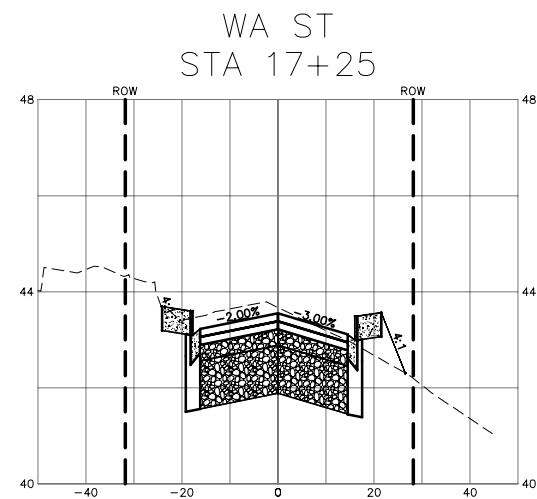
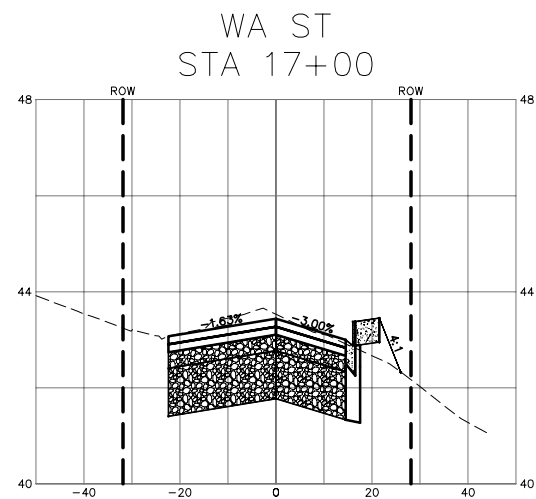
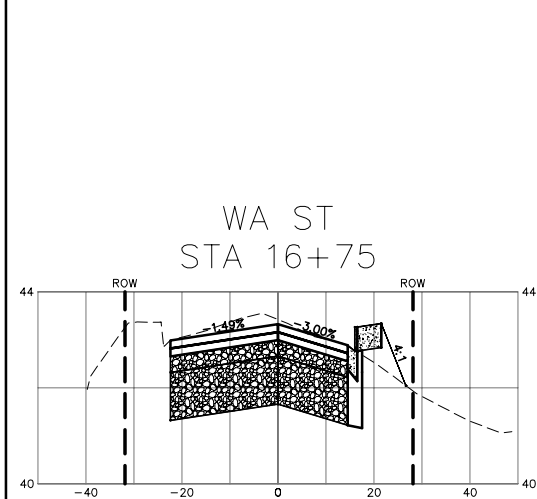
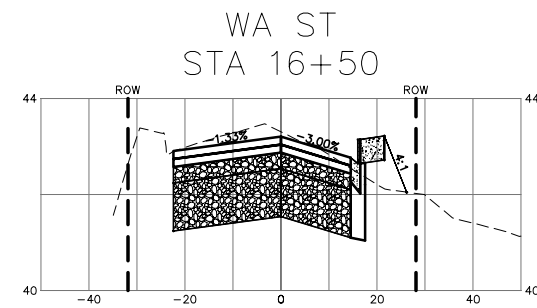
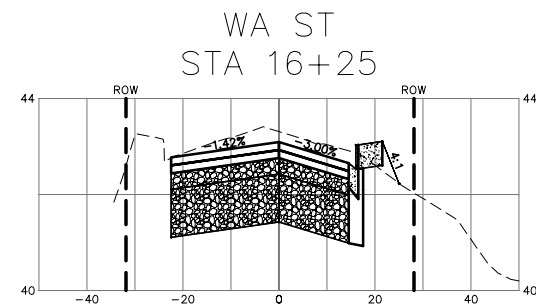
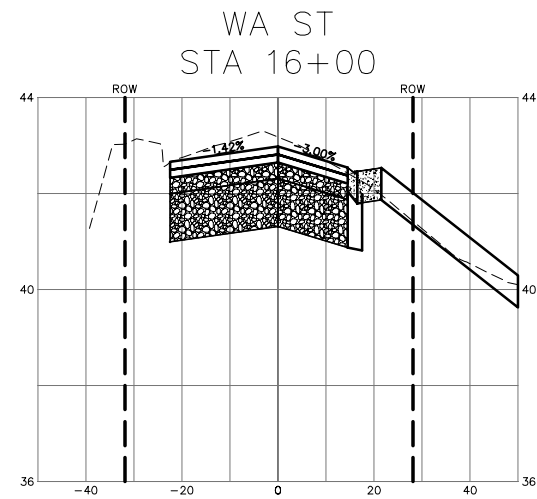
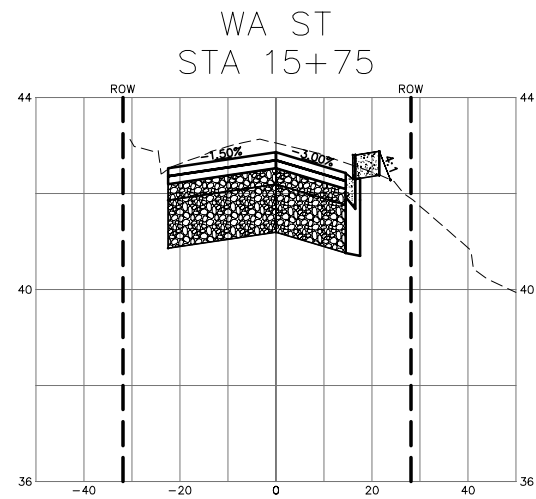
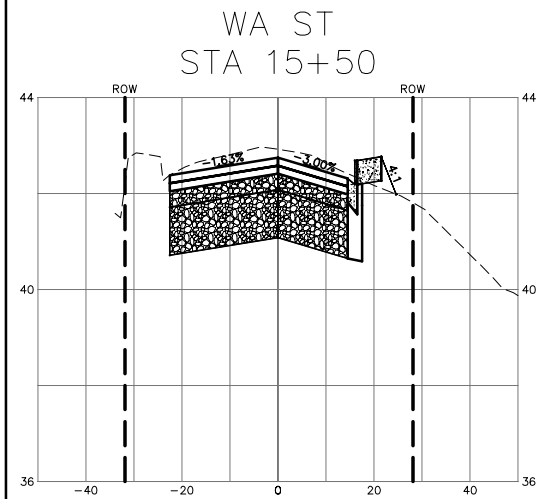
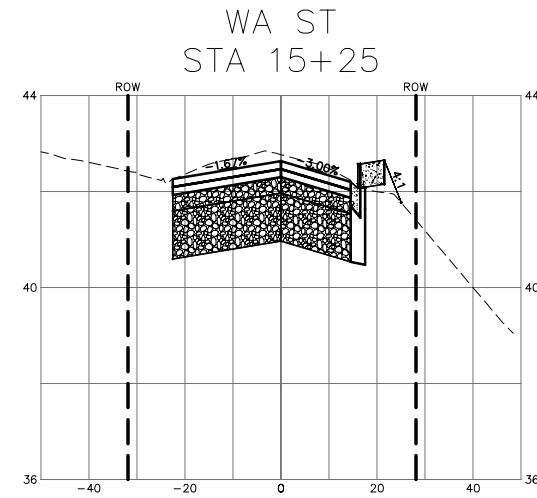
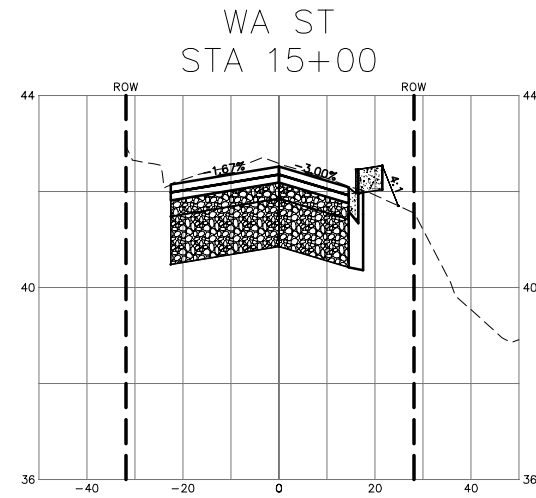
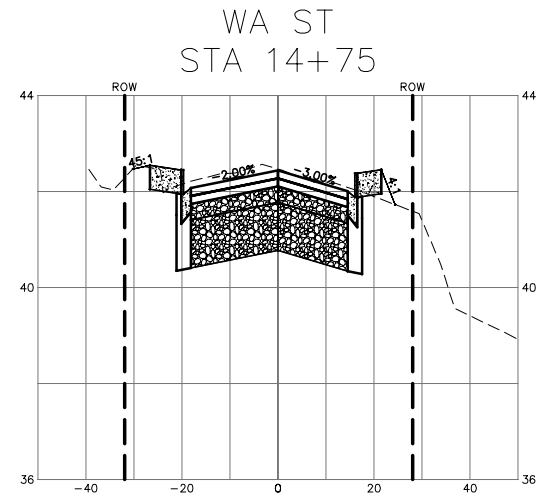
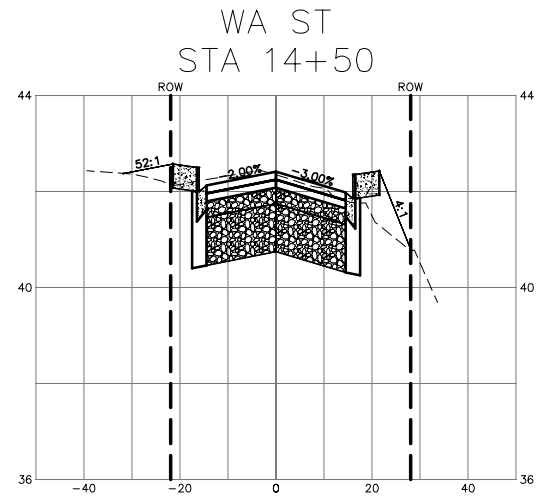
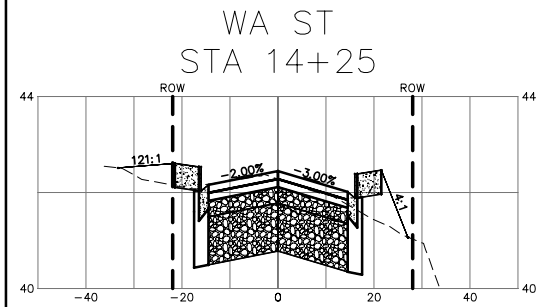
WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
CHANNELIZATION DETAILS

DWG 16026 DETAILS	DATE 2/13/2018
JOB# 16026	SHEET 33 of 38
SCALE H: N/A v: N/A	



<div>BID SET</div>	DESIGNED BY ARS	<div><div><div>R&E</div><div>Reichhardt & Ebe</div><div>ENGINEERING INC</div></div><div>P.O. Box 978 423 Front Street, Lynden, WA 98264 (360) 354-3687 813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713</div></div>						CITY OF FERDALE 2095 MAIN ST FERDALE, WA 98248	WASHINGTON STREET IMPROVEMENTS MAIN STREET TO VISTA DRIVE CROSS SECTIONS	DWG 16026 SEWER STORM PP			DATE 2/13/2018
	DRAWN BY PJC									JOB# 16026	SCALE H: 1"=20' V: 1"=2'	SHEET 34 of 38	
	CHECKED BY LP												
			NO.	DATE	DESCRIPTION	BY							

P:\Program\16026\16026 SEWER STORM PP.dwg, 34 CROSS SECTIONS, 2/13/2018 3:44:18 PM, PDF-XChange viewer 2017



2/13/18

BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC

P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3887
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERDALE
2095 MAIN ST
FERDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
CROSS SECTIONS

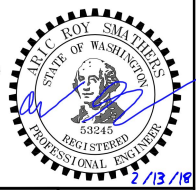
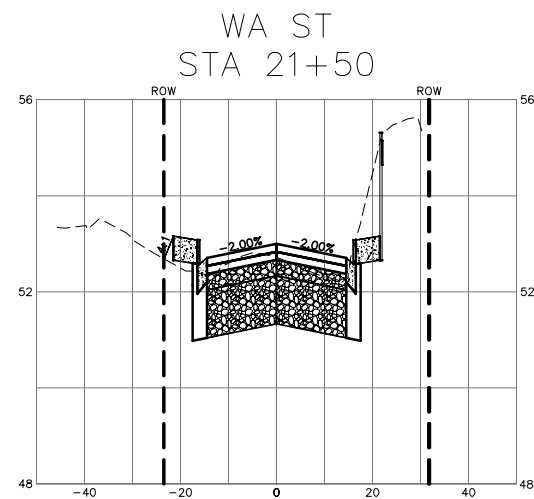
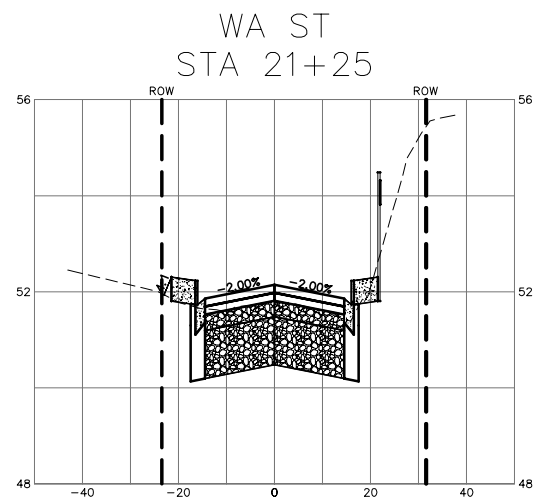
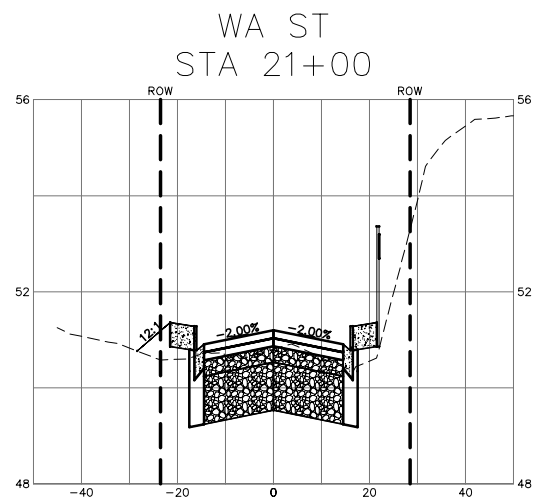
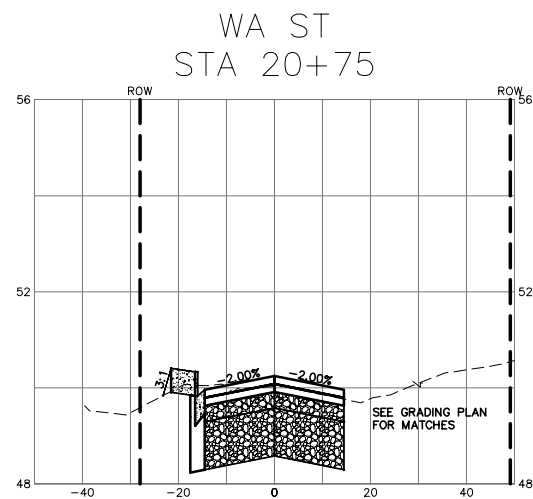
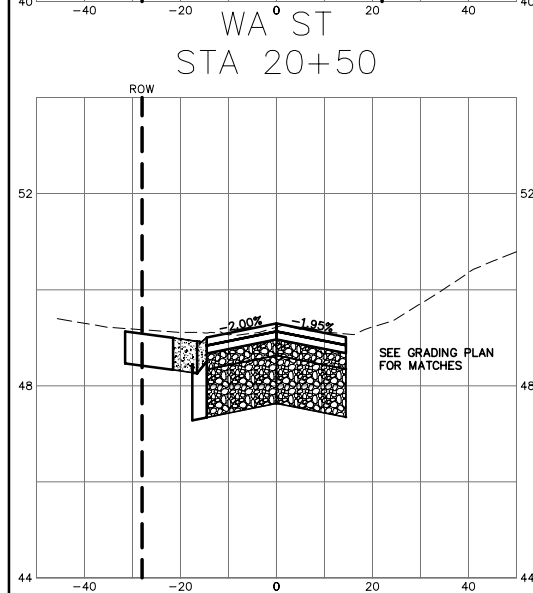
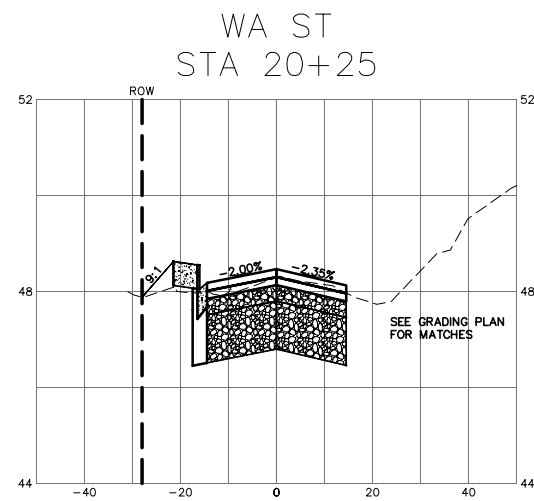
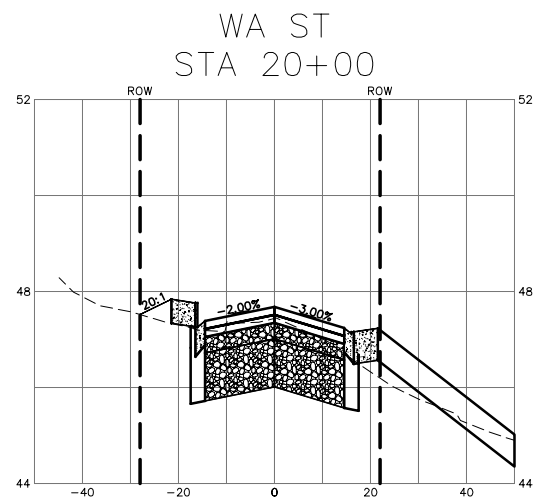
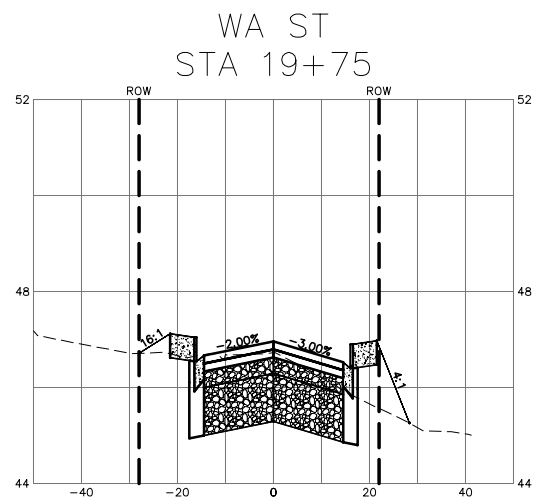
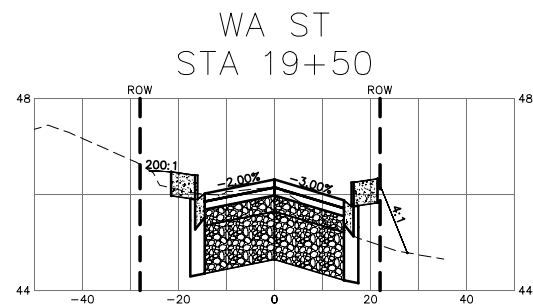
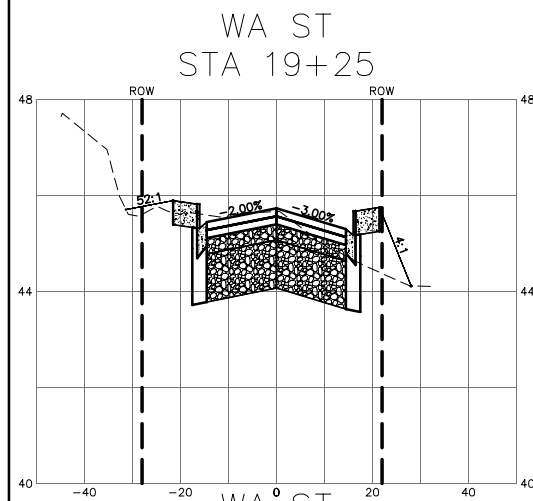
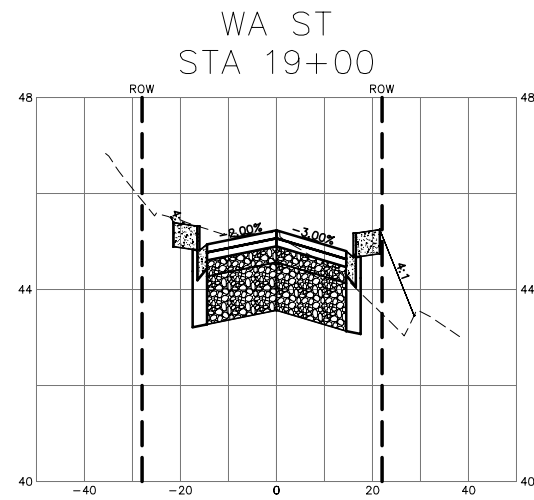
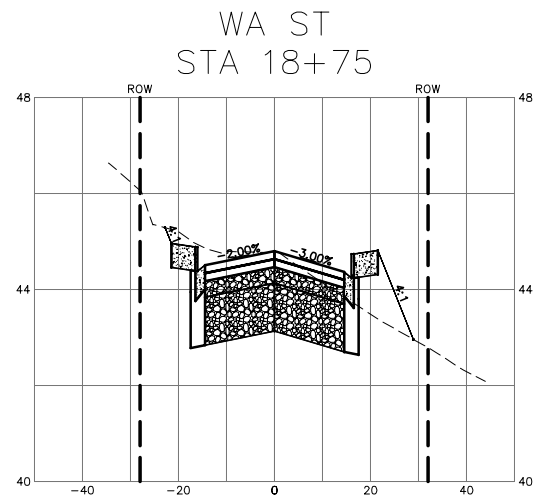
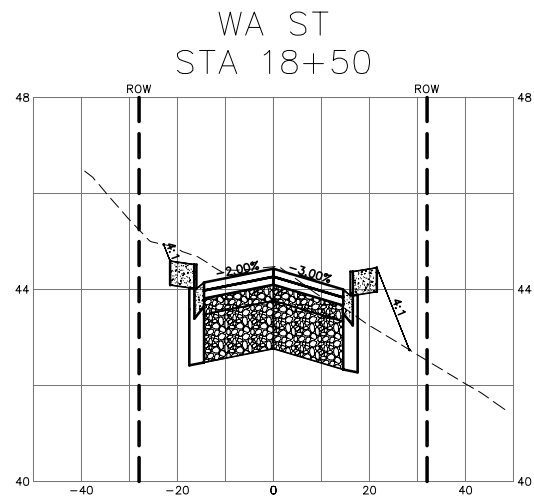
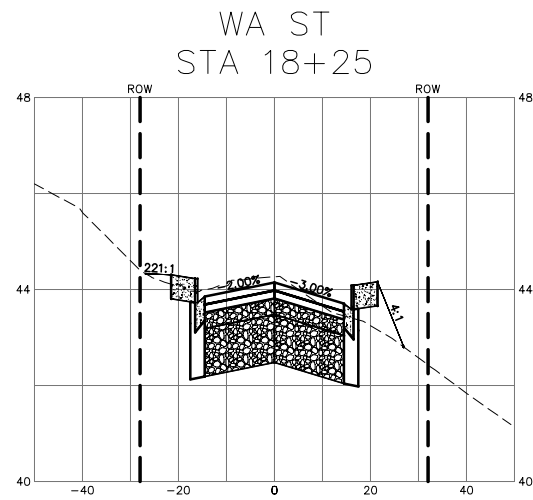
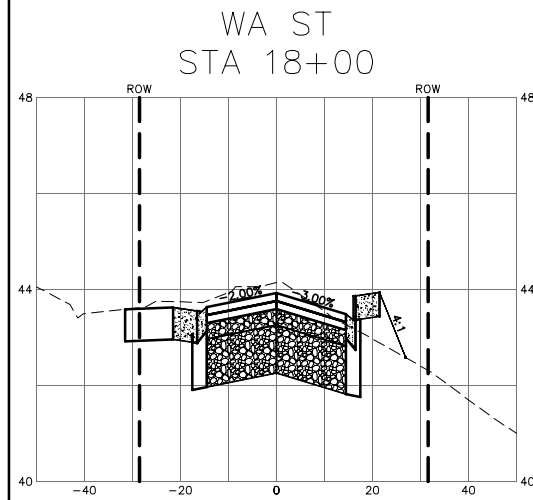
DWG 16026 SEWER STORM PP

JOB#
16026

SCALE
H: 1"=20' V: 1"=2'

DATE
2/13/2018

SHEET
35
of 38



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

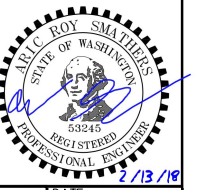
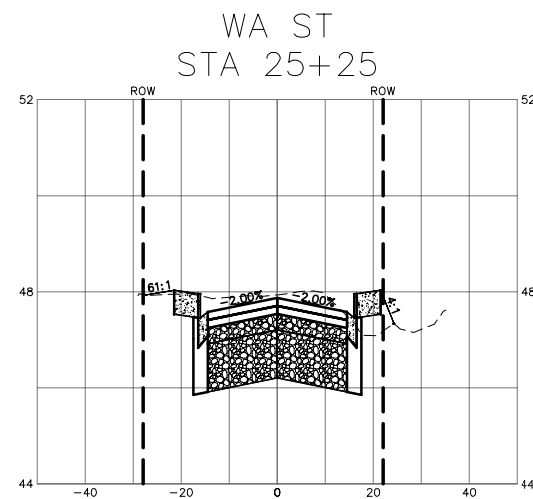
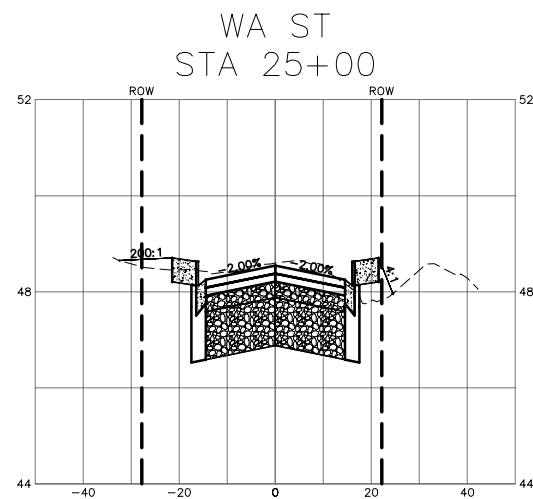
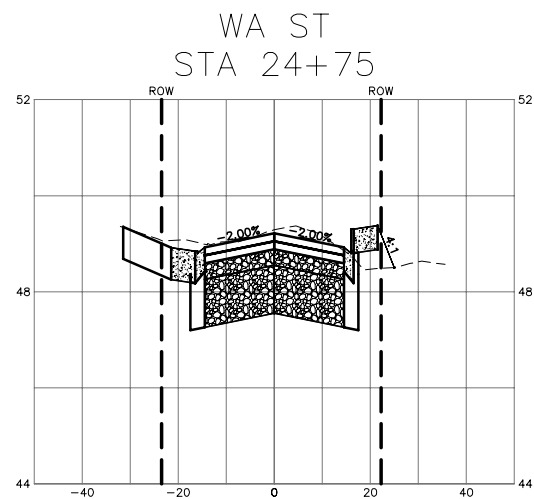
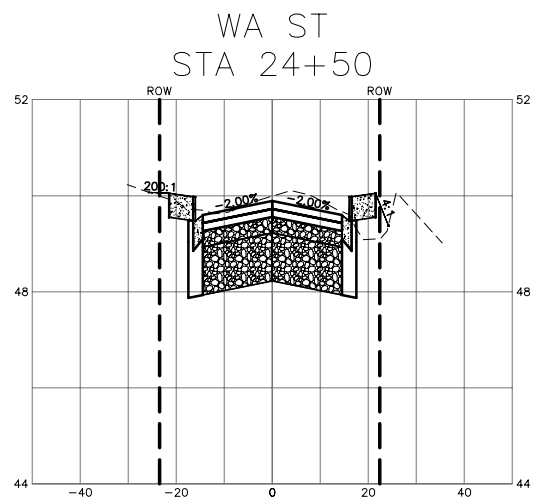
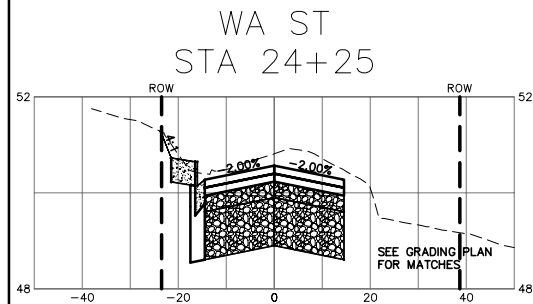
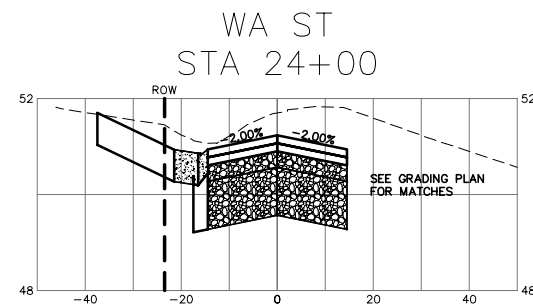
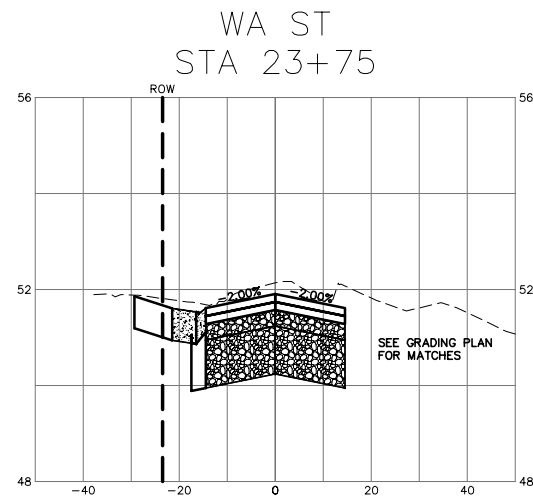
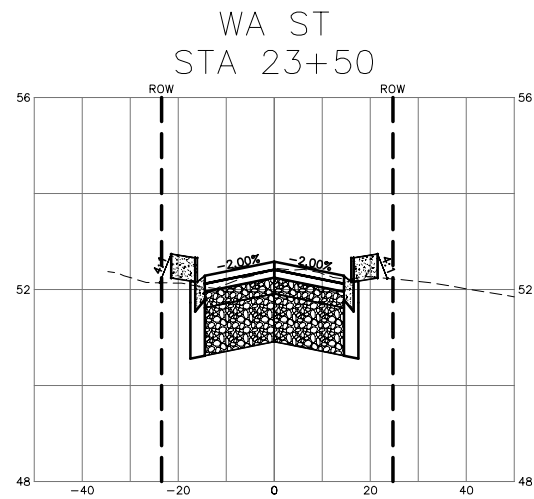
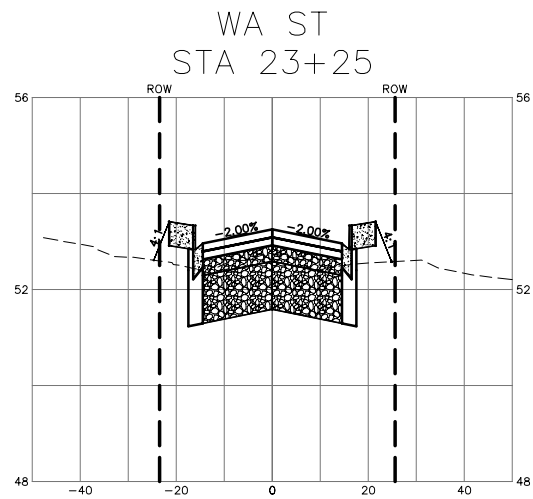
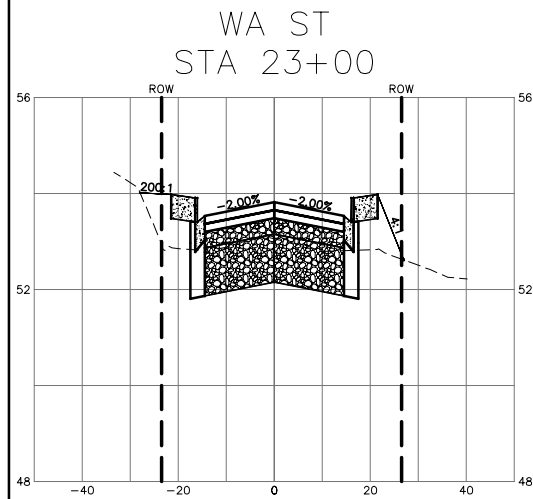
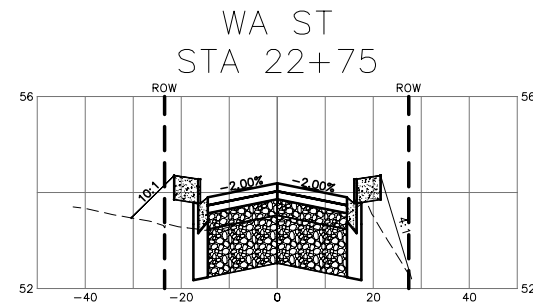
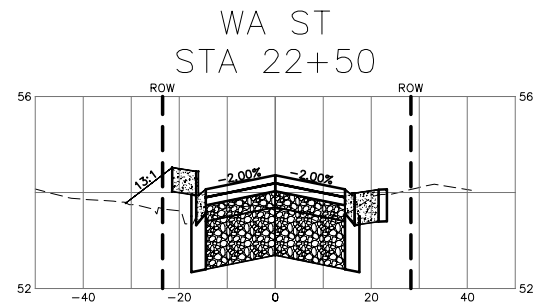
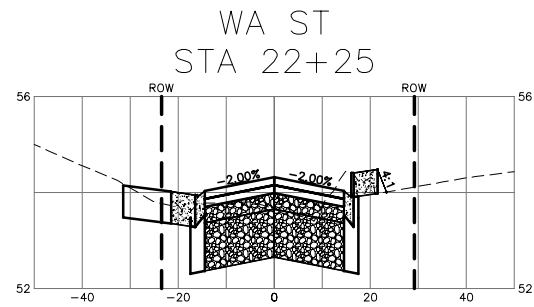
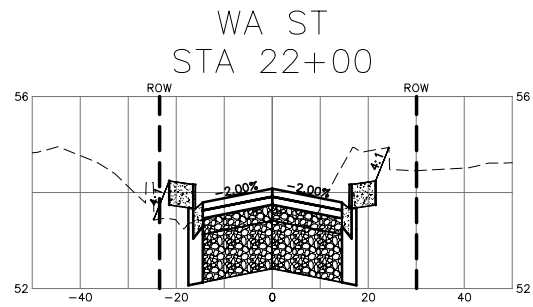
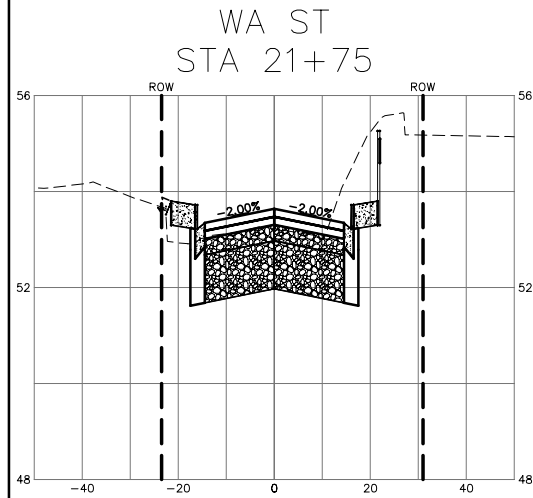
NO.	DATE	DESCRIPTION	BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
CROSS SECTIONS

DWG 16026 SEWER STORM PP
JOB# 16026
SCALE H: 1"=20' V: 1"=2'

DATE 2/13/2018
SHEET 36
of 38



BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

**R&E Reichhardt & Ebe
ENGINEERING INC**
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

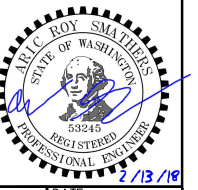
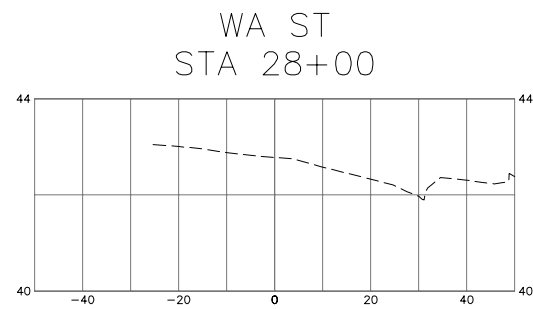
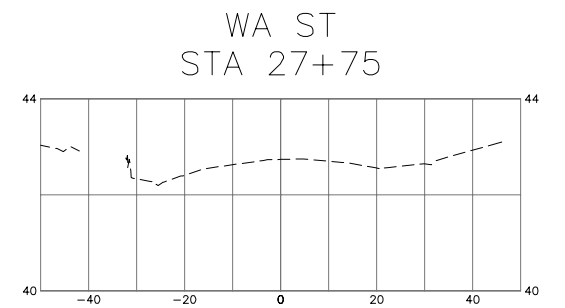
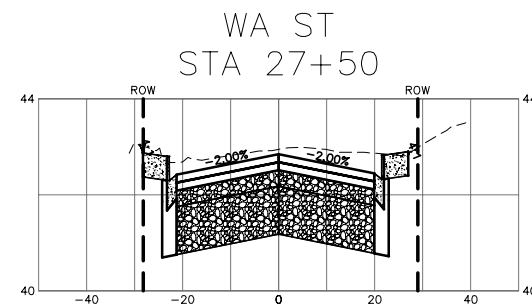
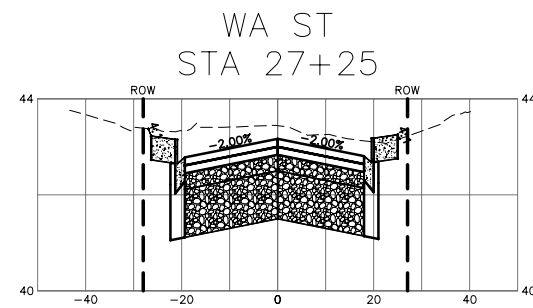
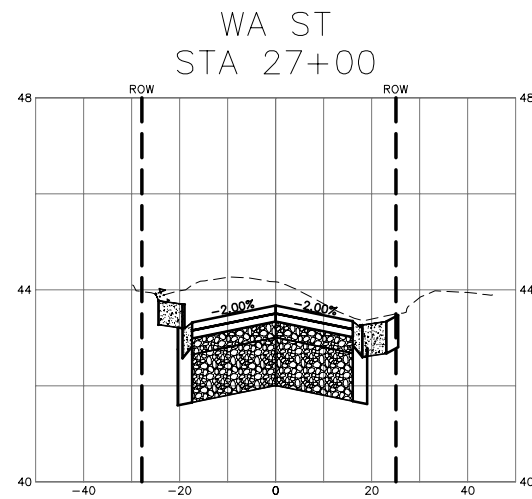
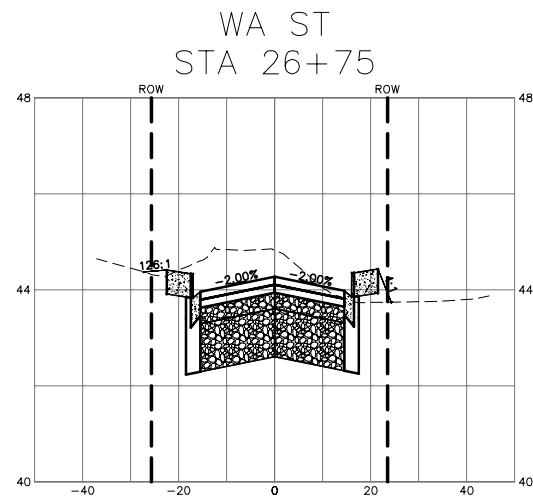
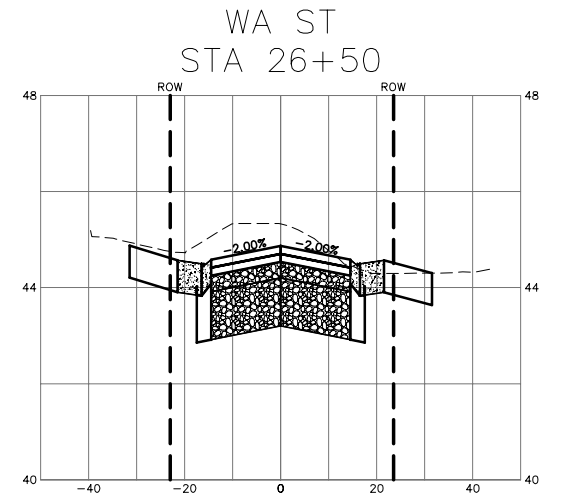
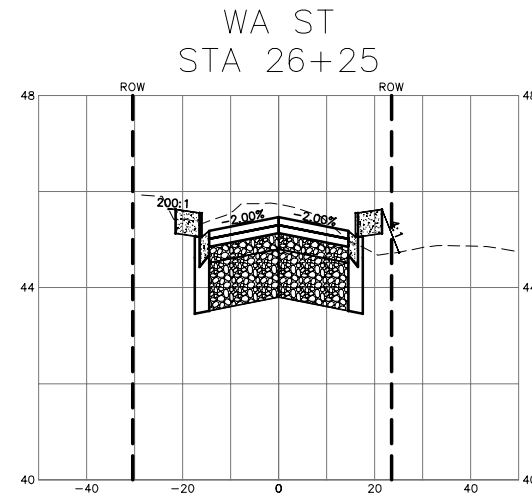
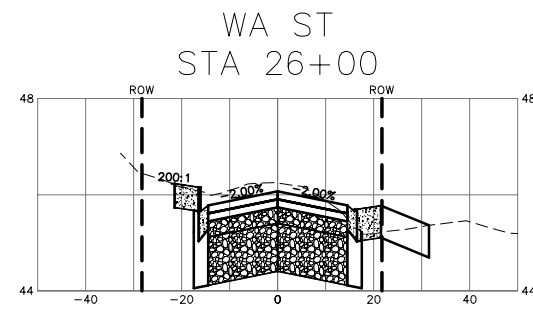
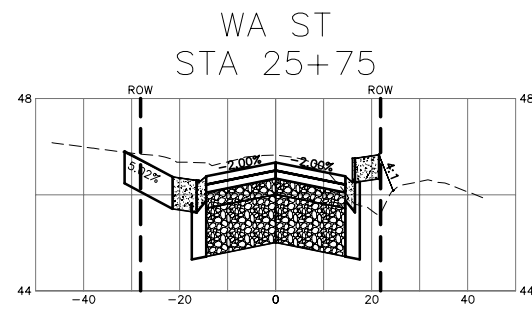
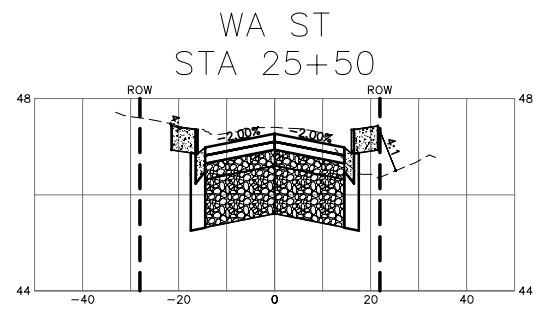
NO.	DATE	DESCRIPTION	BY

CITY OF FERNDAL
2095 MAIN ST
FERNDAL, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
CROSS SECTIONS

DWG 16026 SEWER STORM PP
JOB# 16026
SCALE H: 1"=20' V: 1"=2'

DATE
2/13/2018
SHEET
37
of 38



2/13/18

BID SET

DESIGNED BY
ARS
DRAWN BY
PJC
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC
P.O. Box 978 | 423 Front Street, Lynden, WA 98264 (360) 354-3687
813 Metcalf Street, Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	DESCRIPTION	BY

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

WASHINGTON STREET IMPROVEMENTS
MAIN STREET TO VISTA DRIVE
CROSS SECTIONS

DWG 16026 SEWER STORM PP	DATE 2/13/2018
JOB# 16026	SCALE H: 1"=20' V: 1"=2'
SHEET 38 of 38	