

WELL WATER SUPPLY PROJECT

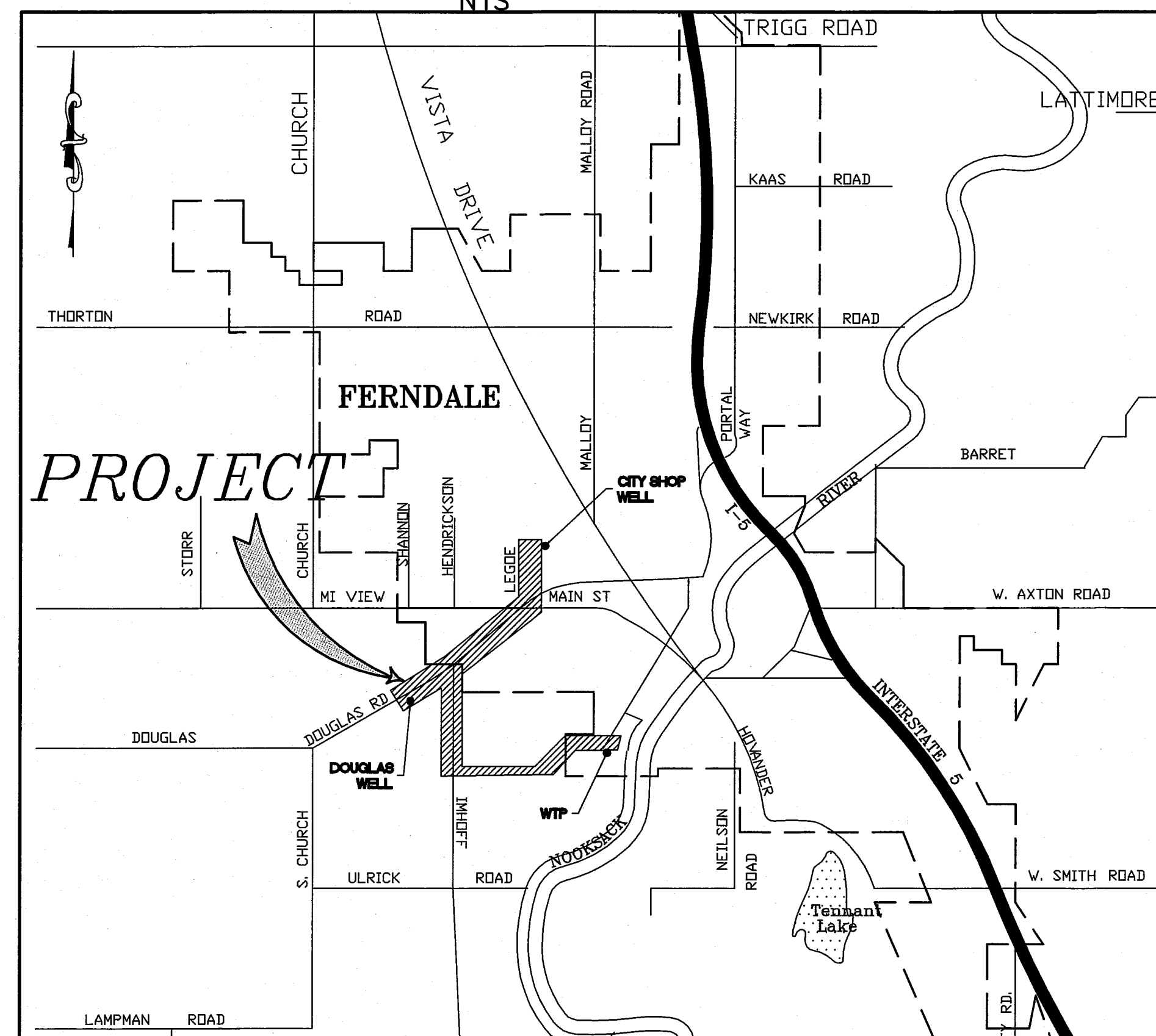
SCHEDULE B (WATER MAIN)

CITY OF FERNDALE

APRIL 2011

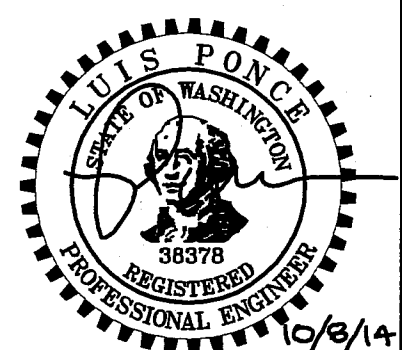
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NTS



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| 13 PLAN & PROFILE
STA 111+50 TO 117+50 | | |

DATE: 7-12-12
AS-BUILT



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CONSULTING ENGINEERS
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Lynden, Washington 98264 Fax (360) 354-0407

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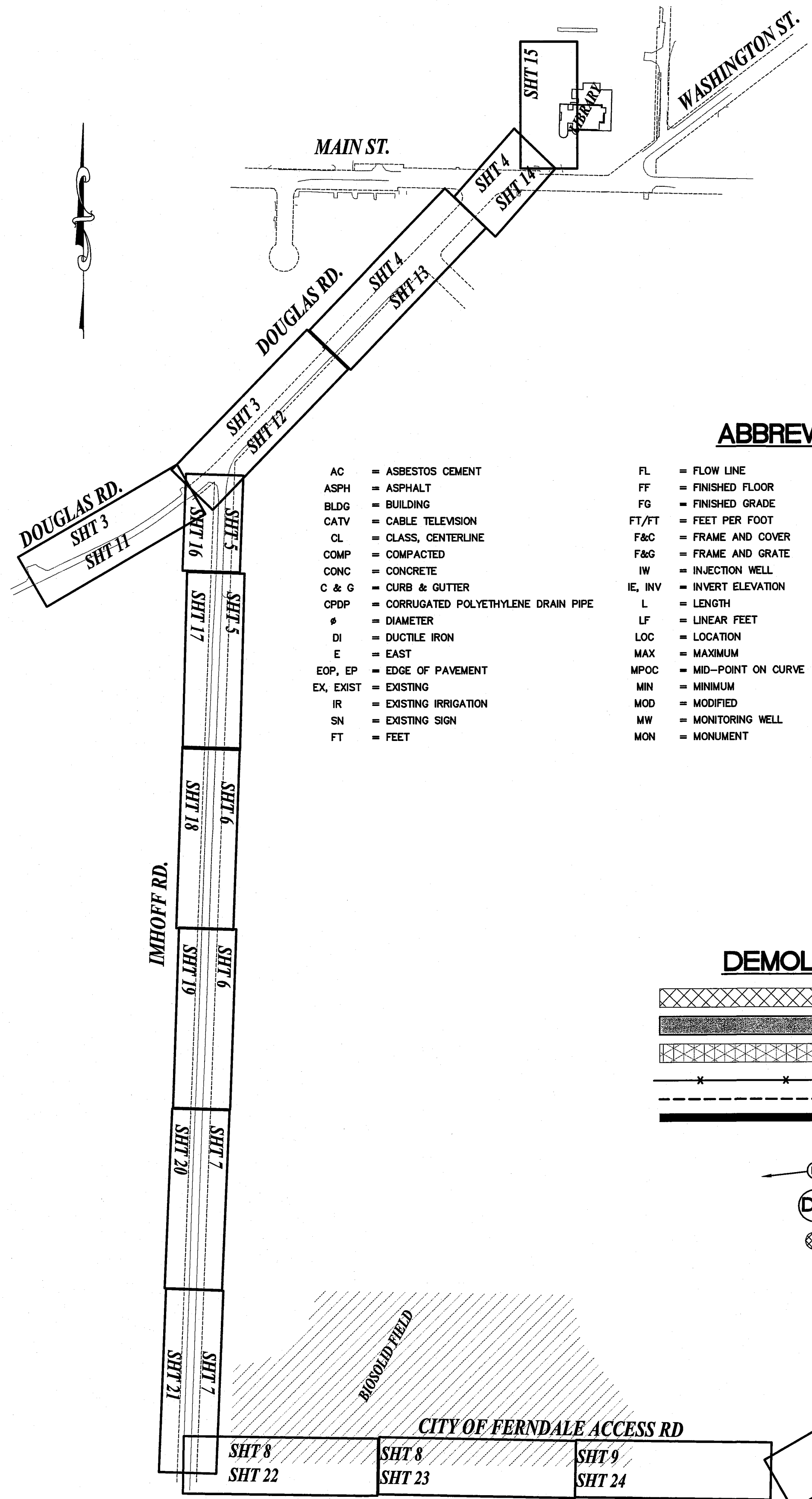
CITY OF FERNDALE
PO BOX 936
FERNDALE, WA 98248

WELL WATER SUPPLY PROJECT
COVER SHEET

JOB# / DWG 10020 SP1RF19.2.AB	DATE 5/5/11
SCALE H: N/A V: N/A	SHEET 1 of 33

00573.002 19/10/14 SH

SHEET KEY MAP



ABBREVIATIONS

AC = ASBESTOS CEMENT	FL = FLOW LINE	N = NORTH	SCH = SCHEDULE
ASPH = ASPHALT	FF = FINISHED FLOOR	OC = ON CENTER	S = SOUTH
BLDG = BUILDING	FG = FINISHED GRADE	PVMNT = PAVEMENT	STD = STANDARD
CATV = CABLE TELEVISION	FT/FT = FEET PER FOOT	PED = PEDESTAL	SP = STANDARD PLAN
CL = CLASS, CENTERLINE	F&C = FRAME AND COVER	PCC = POINT OF COMPOUND CURVATURE	STA = STATION
COMP = COMPACTED	F&G = FRAME AND GRATE	PC = POINT OF CURVATURE	SDCB = STORM DRAIN CATCH BASIN
CONC = CONCRETE	IW = INJECTION WELL	PRC = POINT OF REVERSE CURVE	SDMH = STORM DRAIN MANHOLE
C & G = CURB & GUTTER	IE, INV = INVERT ELEVATION	PT = POINT OF TANGENCY	TEL = TELEPHONE
CPDP = CORRUGATED POLYETHYLENE DRAIN PIPE	L = LENGTH	POC = POINT ON CURVE	TL = TRAFFIC LOOP
# = DIAMETER	LF = LINEAR FEET	PVC = POLYVINYL CHLORIDE	TYP = TYPICAL
DI = DUCTILE IRON	LOC = LOCATION	PCC = PORTLAND CEMENT CONCRETE	UP = UTILITY POLE
E = EAST	MAX = MAXIMUM	POSS = POSSIBLE	VLT = VAULT
EOP, EP = EDGE OF PAVEMENT	MPOC = MID-POINT ON CURVE	PROP = PROPOSED	WSDOT = WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
EX, EXIST = EXISTING	MIN = MINIMUM	R = RADIUS	W = WEST
IR = EXISTING IRRIGATION	MOD = MODIFIED	ROW = RIGHT OF WAY	WM = WATER METER
SN = EXISTING SIGN	MW = MONITORING WELL	R&C = RING AND COVER	WTP = WATER TREATMENT PLANT
FT = FEET	MON = MONUMENT	SSMH = SANITARY SEWER MANHOLE	

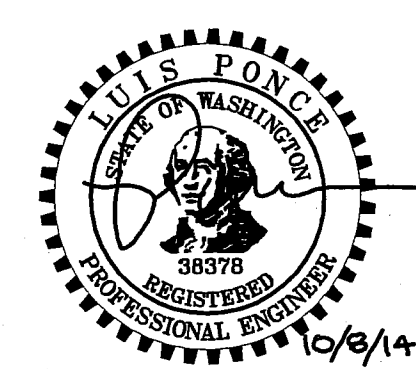
DEMOLITION/TESC LEGEND

	= PROPOSED TRENCH AREA
	= PROPOSED ACP REMOVAL AREA
	= PROPOSED GRIND AREA
	= SILT FENCE
	= PROPOSED SAWCUT
	= PROPOSED TRIANGULAR SILT DIKE (GEOTEXTILE-ENCASED CHECK DAM)
	= INLET PROTECTION (CATCH BASIN INSERT)
	= DUST CONTROL
	= POTHOLE EX UTILITY

LEGEND

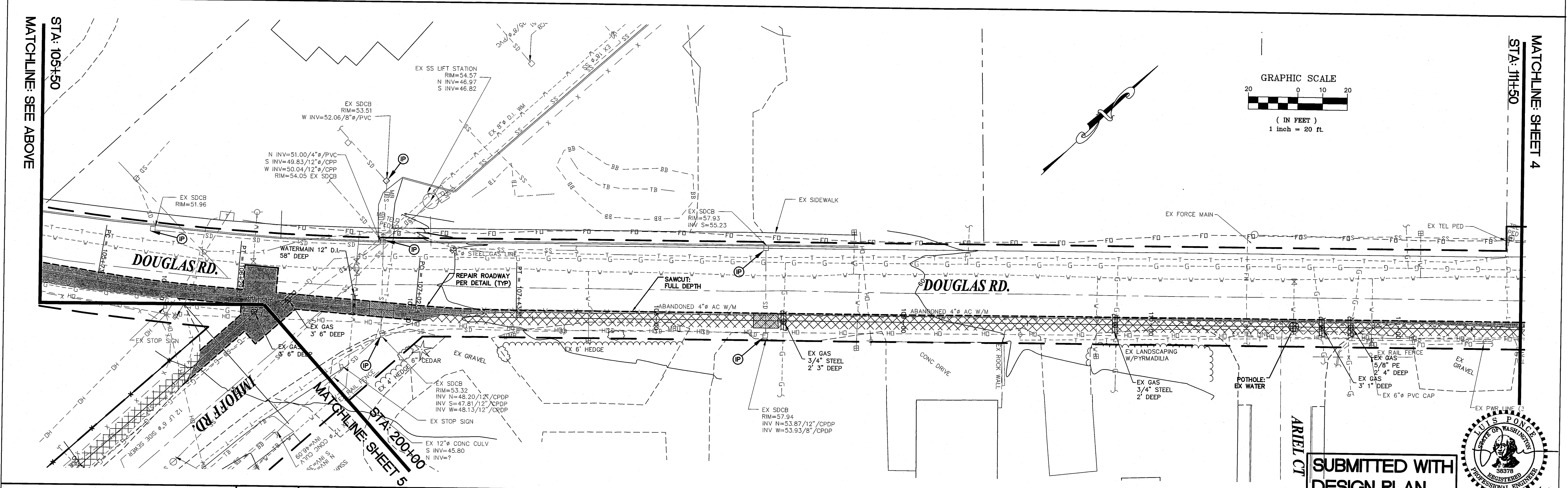
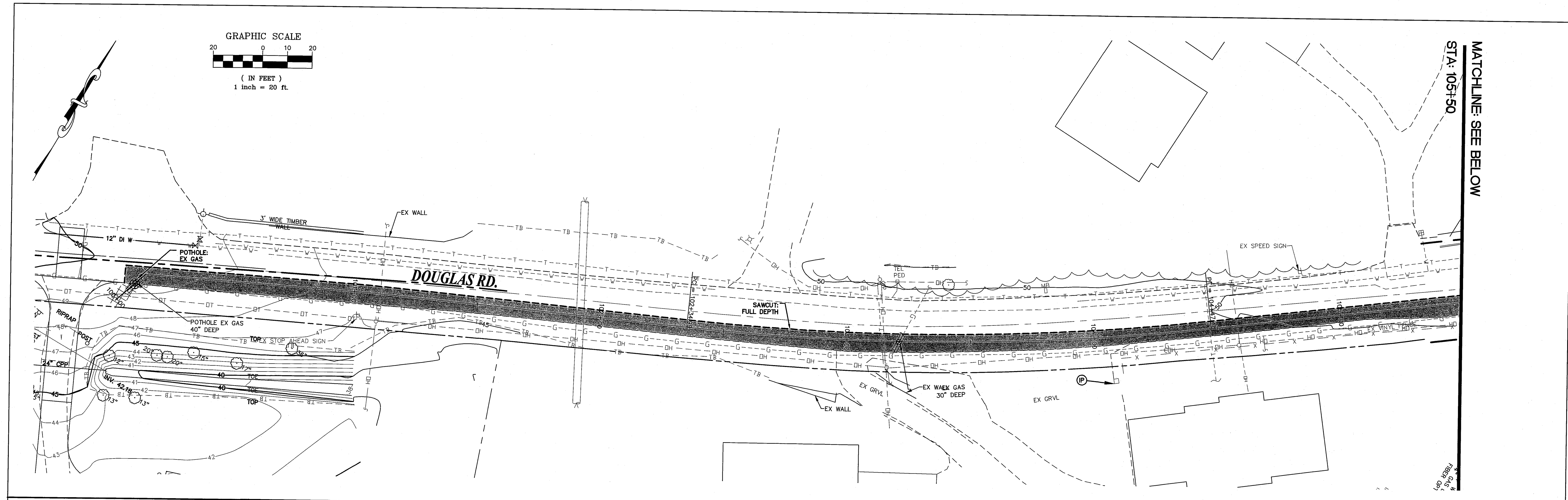
EXISTING		PROPOSED	
	= EX TOE OF BANK		= PROPOSED AUTOTURN
	= EX OVERHEAD POWER		= PROPOSED DITCH CL
	= EX CONCRETE		= PROPOSED BUILDING
	= EX MAJOR CONTOUR		= PROPOSED TOE OF BANK
	= EX MINOR CONTOUR		= PROPOSED CONDUIT
	= EX CULVERT		= PROPOSED TOP OF BANK
	= EX DITCH CL		= PROPOSED MAJOR CONTOUR
	= EX FENCE		= PROPOSED MINOR CONTOUR
	= EX FIBER OPTICS LINE		= PROPOSED FENCE
	= EX GAS MAIN		= PROPOSED HANDRAIL
	= EX GUARDRAIL		= PROPOSED CONSTRUCTION EASEMENT
	= EX GRAVEL		= PROPOSED SANITARY SEWER FORCE MAIN
	= EX PROPERTY BOUNDARY		= PROPOSED FIBER OPTICS
	= EX POWER LINE		= PROPOSED GRADE BREAK
	= EX ROAD CL		= PROPOSED GUARDRAIL
	= EX EDGE OF PAVEMENT		= PROPOSED GRAVEL
	= EX RIGHT OF WAY		= PROPOSED PATH
	= EX TREE LINE		= PROPOSED PARKING STRIPE
	= EX STORM DRAIN		= PROPOSED TRAFFIC STRIPE
	= EX TRAFFIC SIGNAL CONDUCTOR		= PROPOSED ROCK WALL
	= EX SANITARY SEWER		= PROPOSED BACK OF CURB
	= EX TRAFFIC STRIPING		= PROPOSED ROAD CL
	= EX TOP OF BANK		= PROPOSED ROAD EDGE OF PAVEMENT
	= EX TELEPHONE LINE		= PROPOSED ROAD FACE OF CURB
	= EX OVERHEAD TELEPHONE		= PROPOSED ROAD LIP OF GUTTER
	= EX TV LINE		= PROPOSED RIGHT OF WAY
	= EX WATER LINE		= PROPOSED SAWCUT
	= EX SIDEWALK		= PROPOSED STORM DRAIN
	= EX WETLANDS BOUNDARY		= PROPOSED FIELD STORM DRAIN
	= EX EASEMENT		= PROPOSED TRAFFIC SIGNAL CONDUCTOR
	= EX GRADE BREAK		= PROPOSED SILT FENCE
	= EX SANITARY SEWER FORCE MAIN		= PROPOSED SANITARY SEWER
	= EX FLOWLINE		= PROPOSED TREE LINE
			= PROPOSED WATERMAIN
			= PROPOSED SIDEWALK
			= PROPOSED PAVEMENT VALLEY
			= PROPOSED CLEAR AND GRUB / GRAVEL REMOVAL
			= PROPOSED ASPHALT/CONC. REMOVAL
			= PROPOSED GRIND
			= PROPOSED ROW TAKE
			= PROPOSED CONC. SIDEWALK / DRIVEWAY
			= PROPOSED ASPHALT
			= PROPOSED CDF
			= PROPOSED BUILDING
			= PROPOSED MONITORING WELL
			= PROPOSED STORM DRAIN CATCH BASIN TYPE I
			= PROPOSED STORM DRAIN CATCH BASIN TYPE II
			= PROPOSED PROP STORM CLEANOUT
			= PROPOSED STORM DRAIN INLET
			= PROPOSED SANITARY SEWER MANHOLE
			= PROPOSED SANITARY SEWER MANHOLE
			= PROPOSED SANITARY SEWER CLEAN OUT
			= PROPOSED HYDRANT
			= PROPOSED WATER METER
			= PROPOSED WATER VALVE
			= PROPOSED COUPLER
			= PROPOSED BLOW OFF VALVE
			= PROPOSED COMBINATION AIR/VAC RELEASE VALVE
			= PROPOSED UTILITY POLE
			= PROPOSED SIGN
			= PROPOSED FLOW ARROW
			= PROPOSED TREE

DATE: 7-18-12 **AS-BUILT**



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DRAWN BY BEK										SCALE H: N/A V: N/A	SHEET
CHECKED BY LP											2 of 33

00573.003 00573.003



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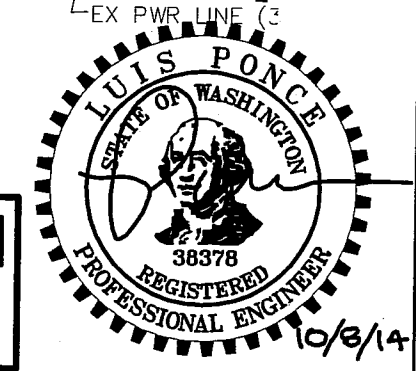
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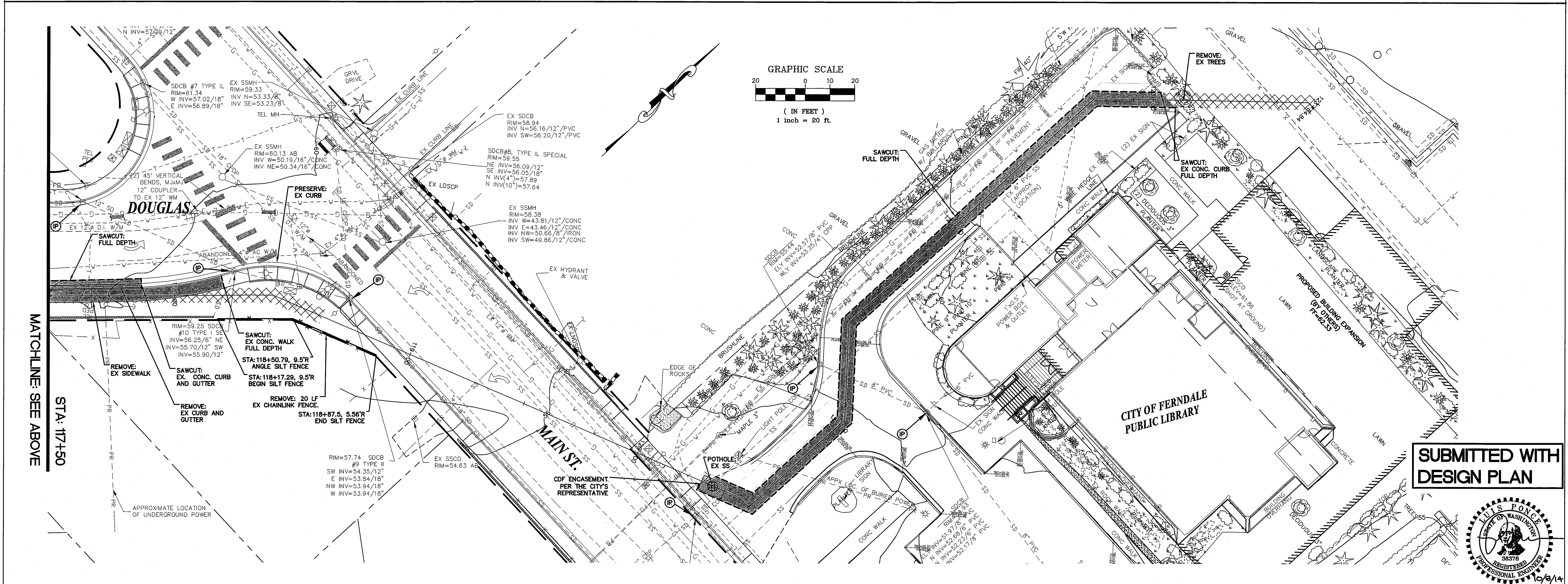
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FERDALE, WA 98248

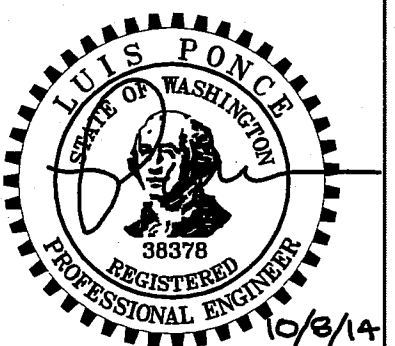
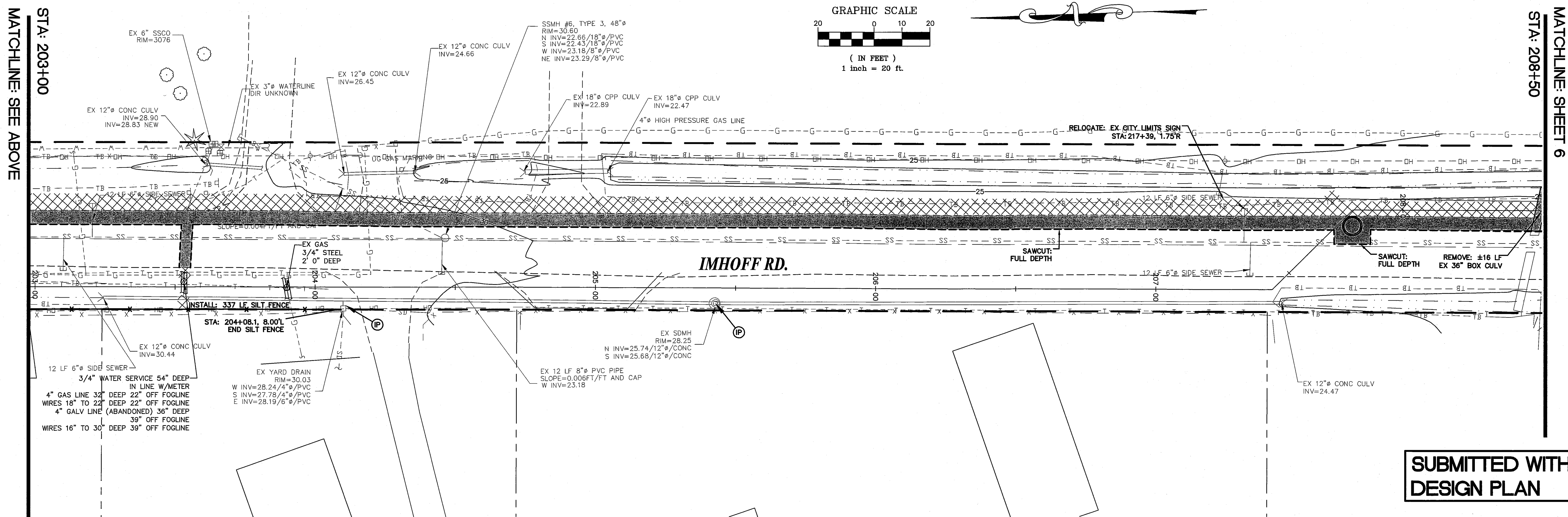
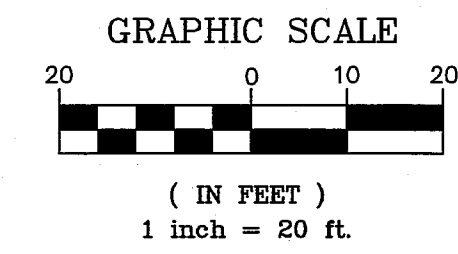
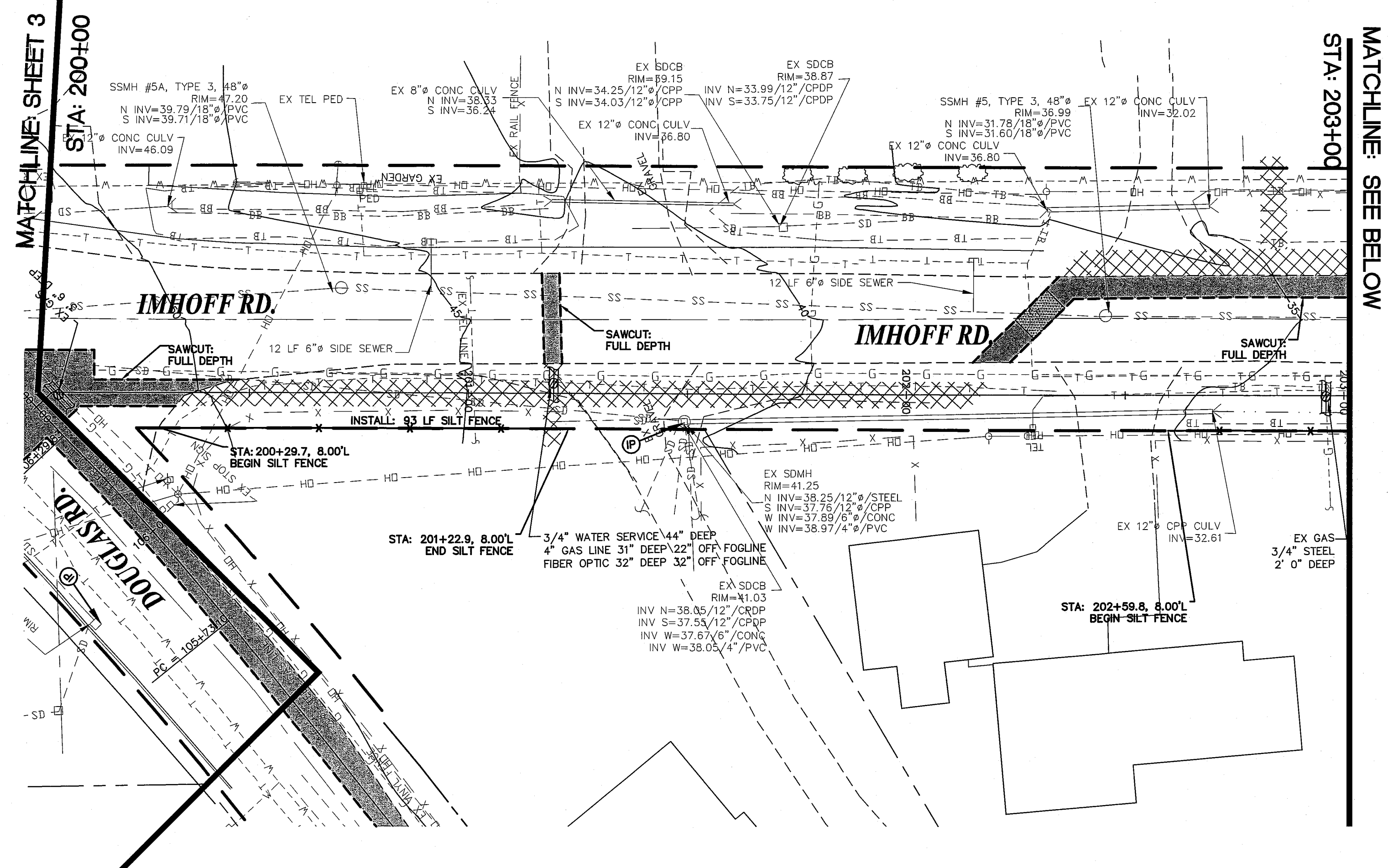
WELL WATER SUPPLY PROJECT
DEMOLITION AND ESC PLANS
DOUGLAS RD

JOB# / DWG
10020 SP1.1ADD
SCALE
H:1"=20' V:N/A
DATE
5/5/11
SHEET
3 of 33





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								SCALE H: 1" = 20' V: N/A	SHEET 4 of 33



**SUBMITTED WITH
DESIGN PLAN**

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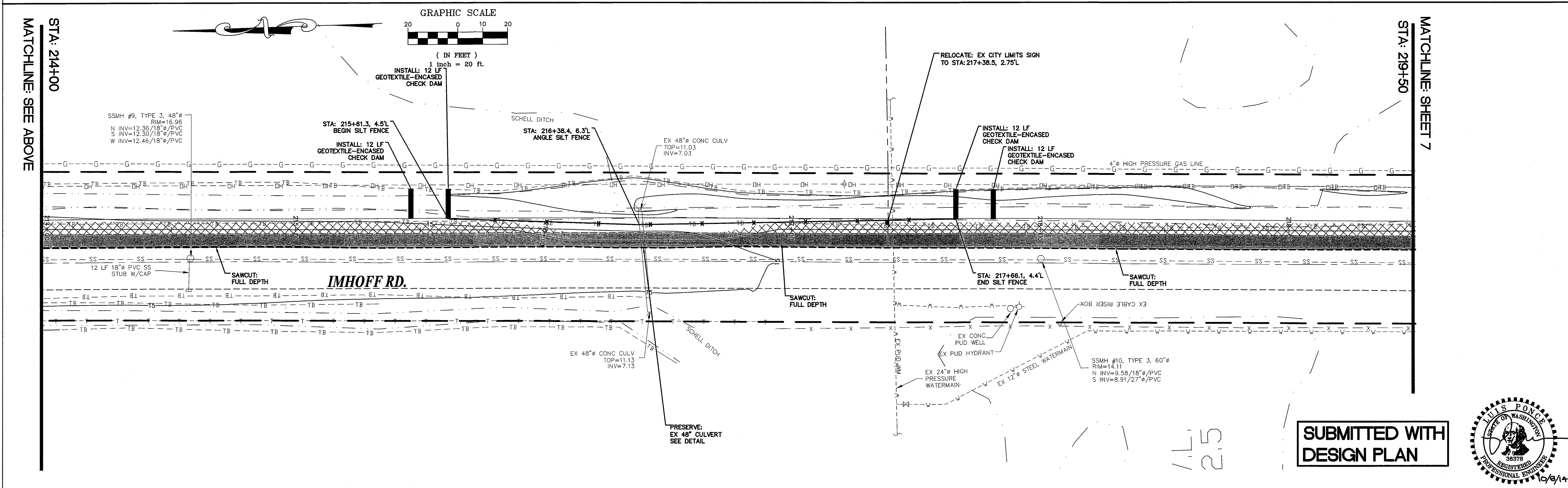
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Bellingham, Washington 98264 Fax (360) 338-1112

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**WELL WATER SUPPLY PROJECT
DEMOLITION AND ESC PLANS
IMHOFF RD**

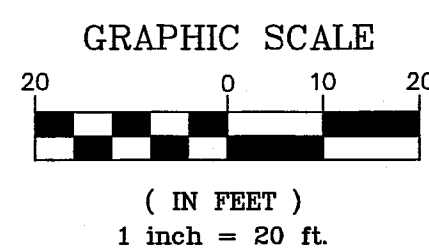
JOB# / DWG 10020 SP1.1ADD	DATE 5/5/11
SCALE H: 1"=20' v: N/A	SHEET 5 of 33



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		NO.	DATE	REVISION	BY			SCALE H:1"=20' V:N/A	SHEET 6 of 33

4/19/11 100.12500

STA: 219+50
MATCHLINE: SHEET 6



INSTALL: 12 LF
GEOTEXTILE-ENCASED
CHECK DAM

EX 18" CPP CULV
INV=10.90

SSMH #11, TYPE I, 60"Ø
RIM=17.09
N INV=8.59/27"Ø/PVC
S INV=8.52/27"Ø/PVC

INSTALL: 10 LF
GEOTEXTILE-ENCASED
CHECK DAM

EX 24" CPP CULV
INV=11.41

4"Ø HIGH PRESSURE GAS LINE

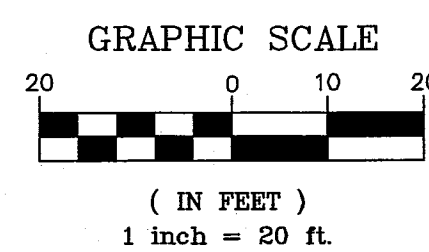
IMHOFF RD.

SAWCUT:
FULL DEPTH

EX 12"Ø STEEL WATERMAIN

STA: 225+00
MATCHLINE: SEE BELOW

STA: 225+00
MATCHLINE: SEE ABOVE



INSTALL: 12 LF
GEOTEXTILE-ENCASED
CHECK DAM

EX 18" CPP CULV
INV=10.73

EX 18" CPP CULV
INV=11.44

SSMH #12, TYPE I, 60"Ø
RIM=15.74
N INV=7.96/27"Ø/PVC
S INV=7.83/27"Ø/PVC

INSTALL: 8 LF
GEOTEXTILE-ENCASED
CHECK DAM

EX 18" CPP CULV
INV=11.27

EX 18" CPP CULV
INV=11.61

4"Ø HIGH PRESSURE GAS LINE

IMHOFF RD.

SAWCUT:
FULL DEPTH

12 LF 6"Ø SIDE SEWER

EX 4"Ø & 3"Ø WATERLINES

EX 12"Ø STEEL WATERMAIN

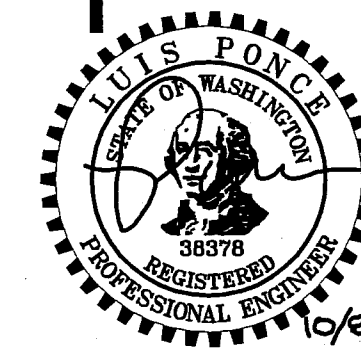
EX 4"Ø PVC WATERMAIN

EX 4"Ø AC WATERMAIN

10 LF 6"Ø SIDE SEWER

MATCHLINE: SHEET 8
STA: 230+32.15

SUBMITTED WITH
DESIGN PLAN



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NO.	DATE	REVISION	BY

CITY OF FERNDALE
PO BOX 936
FERNDALE, WA 98248

WELL WATER SUPPLY PROJECT
DEMOLITION AND ESC PLANS
IMHOFF RD

JOB# / DWG 10020 SP1.1ADD	DATE 5/5/11
SCALE H: 1" = 20' V: N/A	SHEET 7 of 33

AS 11/10/10 800-51500

MATCHLINE: SEE BELOW

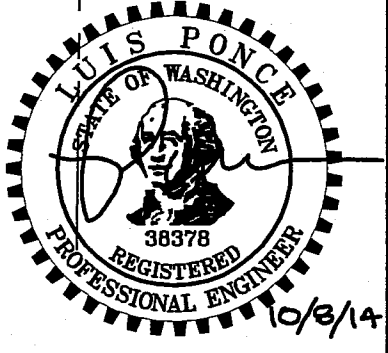
STA: 236+00

MATCHLINE: SHEET 9

STA: 242+00

10/9/14

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DESIGN PLAN



JOB# / DWG	10020	SP1.1ADD	DATE	5/5/11
SCALE	H: 1"=20'	V: N/A	SHEET	8 of 33

WELL WATER SUPPLY PROJECT
DEMOLITION AND ESC PLANS
BIOSOLID BUFFER AREA

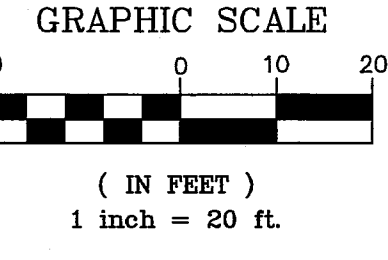
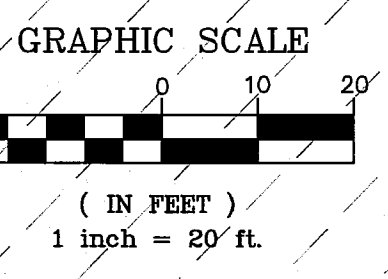
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PO BOX 936
FERNDAL, WA 98248

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MATCHLINE: SHEET 7
STA: 230+32.15

BIOSOLID BUFFER AREA

BIOSOLID BUFFER AREA

SSMH #14, TYPE I, 60"φ
RIM=16.12
W INV=6.10/27"φ/PVC
E INV=5.94/27"φ/PVC

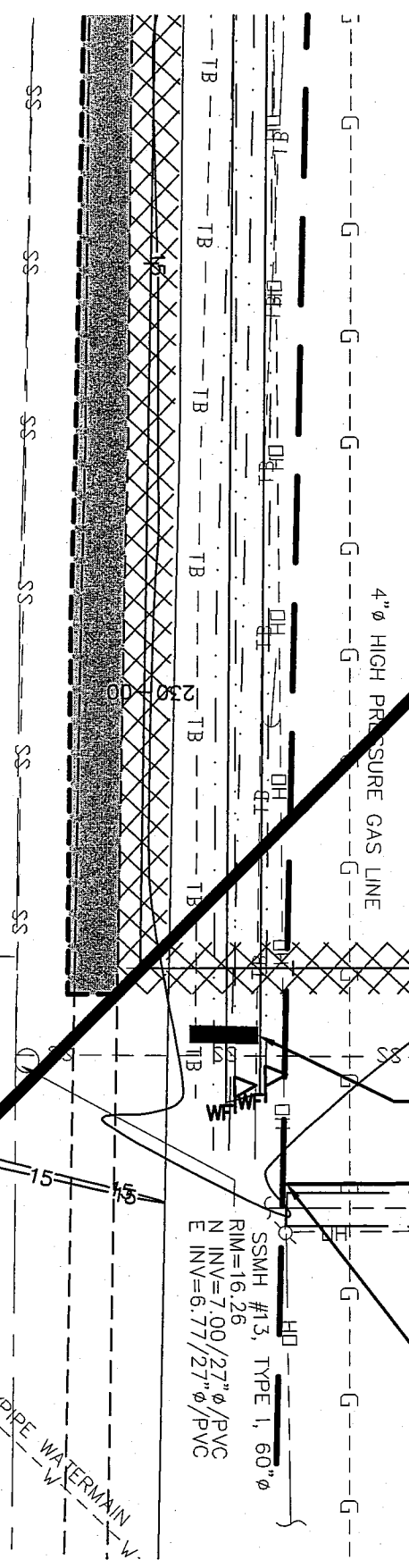
SSMH #15, TYPE I, 60"φ
RIM=18.00
W INV=5.24/27"φ/PVC
E INV=5.16/27"φ/PVC

INSTALL: 8 LF
GEOTEXTILE-ENCASED
CHECK DAM

INSTALL: 1325 LF SILT FENCE

INSTALL: 1325 LF SILT FENCE

STA: 230+49.29, 25.16'R
BEGIN SILT FENCE

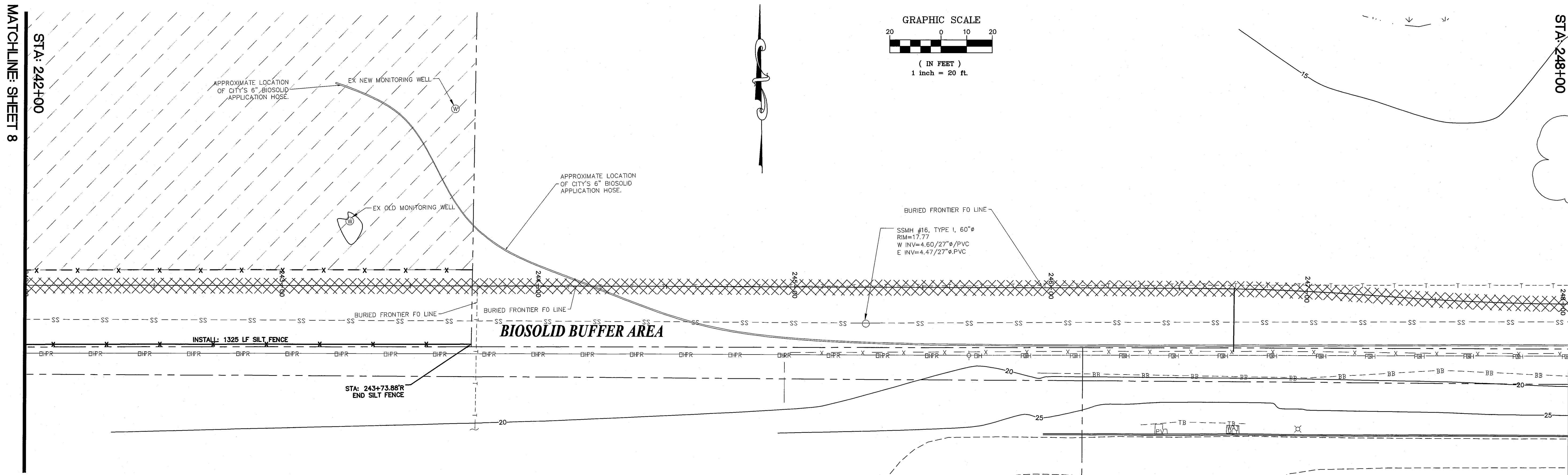
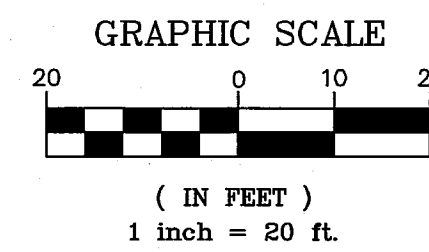


MATCHLINE: SEE ABOVE

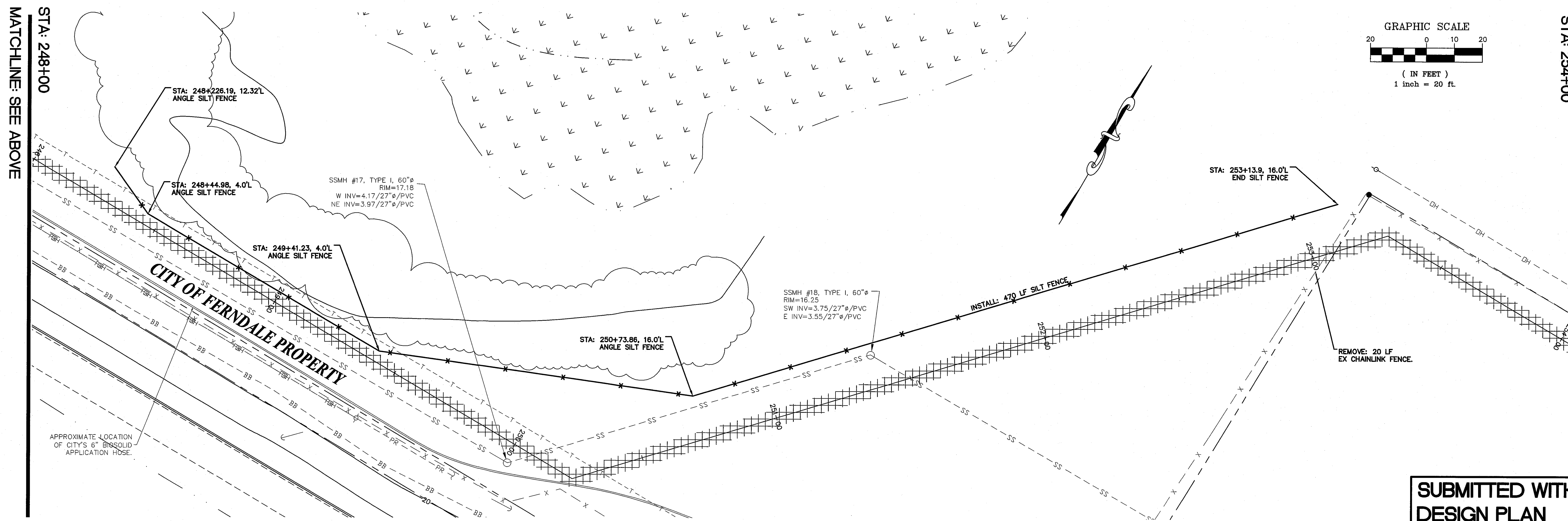
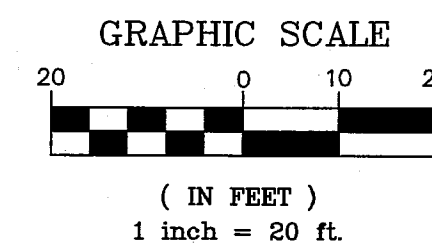
STA: 236+00

15 11/10/11 105.60.15.50

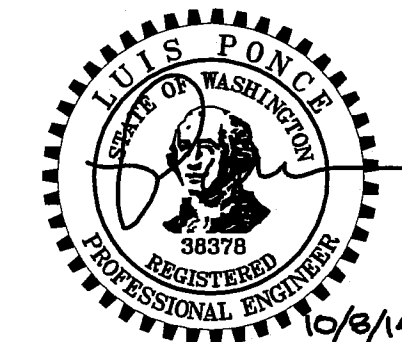
MATCHLINE: SEE BELOW
STA: 248+00



MATCHLINE: SHEET 10
STA: 254+00



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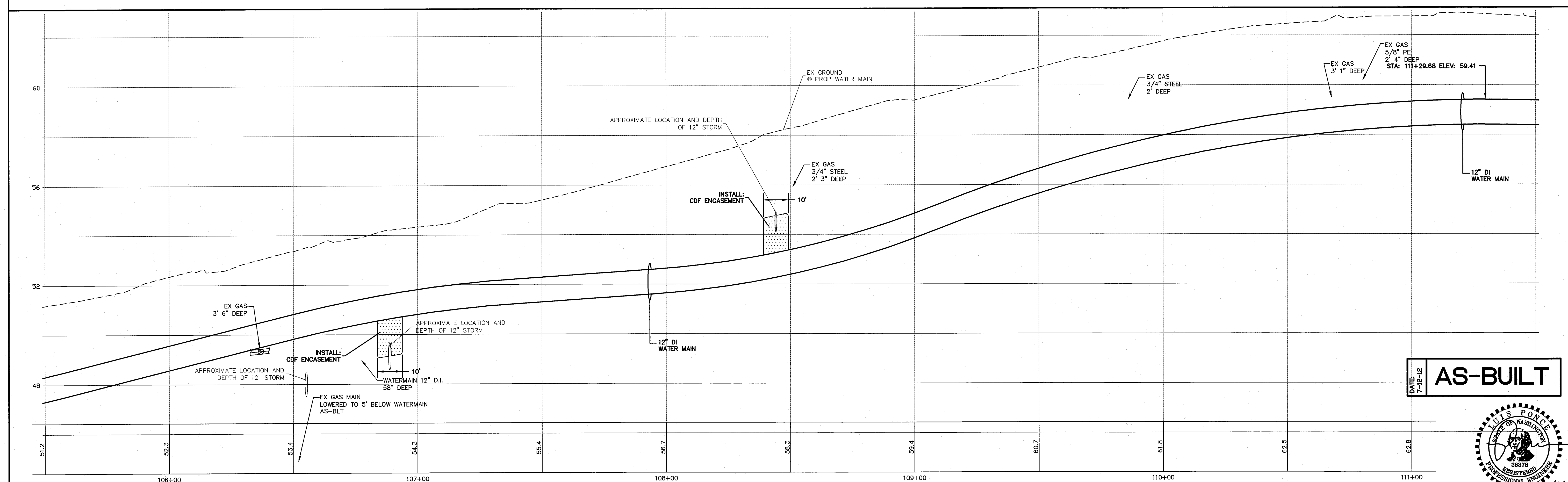
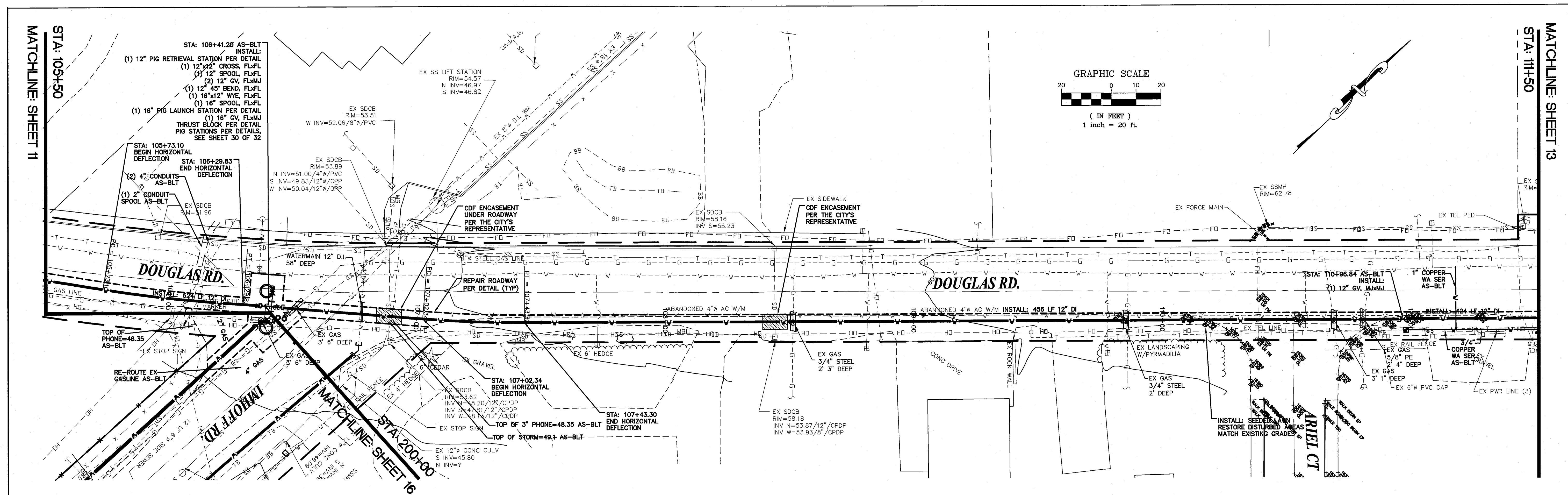
NO.	DATE	REVISION	BY

CITY OF FERNDAL
PO BOX 936
FERNDAL, WA 98248

WELL WATER SUPPLY PROJECT
DEMOLITION AND ESC PLANS
BIOSOLID BUFFER AREA

JOB# / DWG 10020 SP1.1ADD	DATE 5/5/11
SCALE H: 1"=20' V: N/A	SHEET 9 of 33

00573.012 10/10/14 SH



DATE: 7-12-12 **AS-BUILT**



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FERNDALE, WA 98248

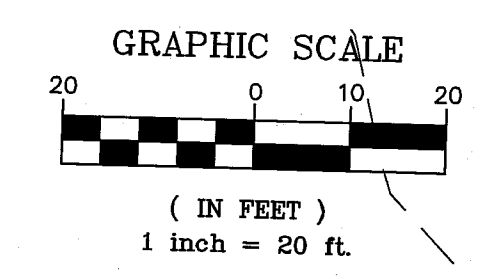
**WELL WATER SUPPLY PROJECT
PLAN AND PROFILE
DOUGLAS RD**

JOB# / DWG	DATE
10020 SP1RF119.2.AB	5/5/11

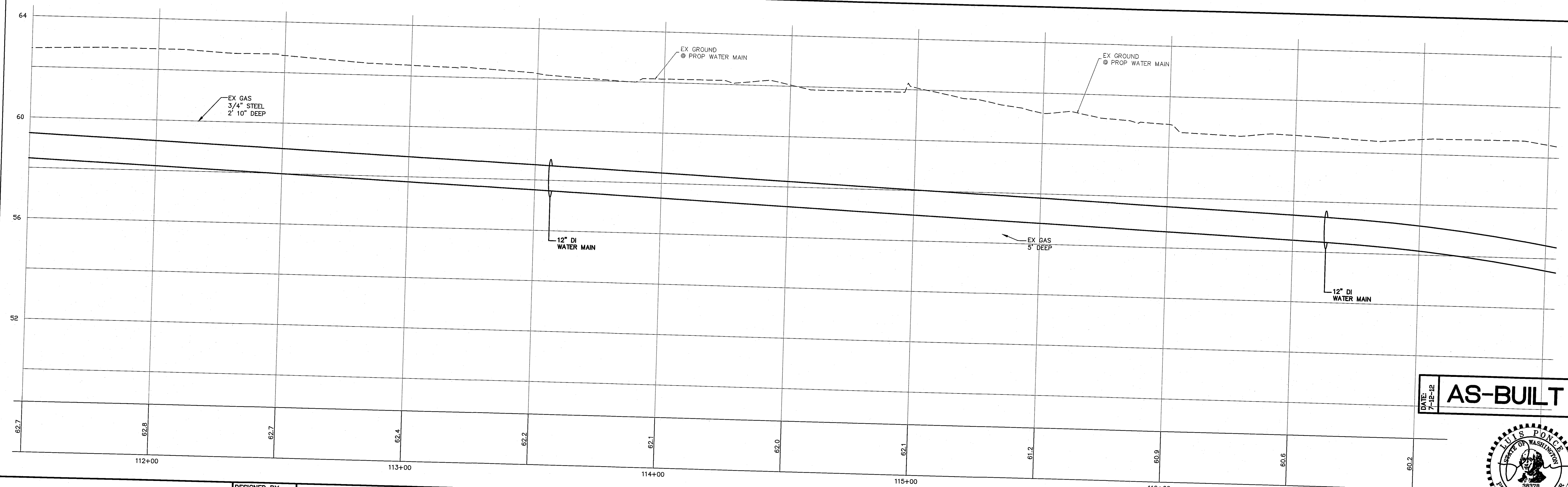
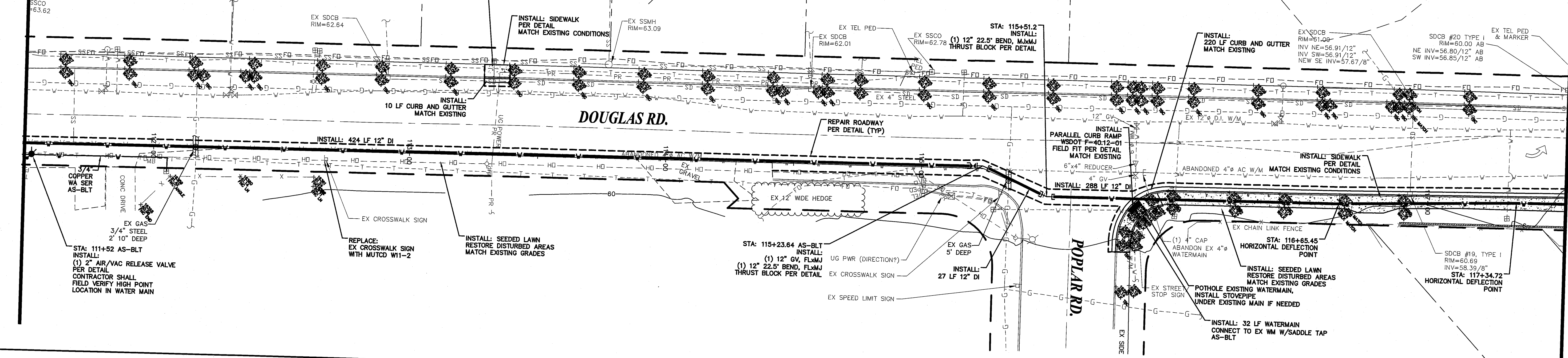
SCALE	SHEET
H: 1" = 20' V: 1" = 2'	12 of 33

411010 00 573.013 10/10/10

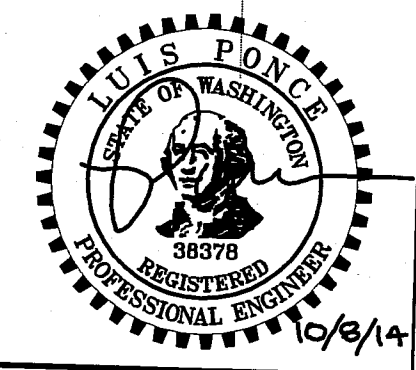
MATCHLINE: SHEET 14
617A:17+50



STA: 11+50
MATCHLINE: SHEET 12



DATE: 7-12-12
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CITY OF FERDALE
PO BOX 936
FERDALE, WA 98248

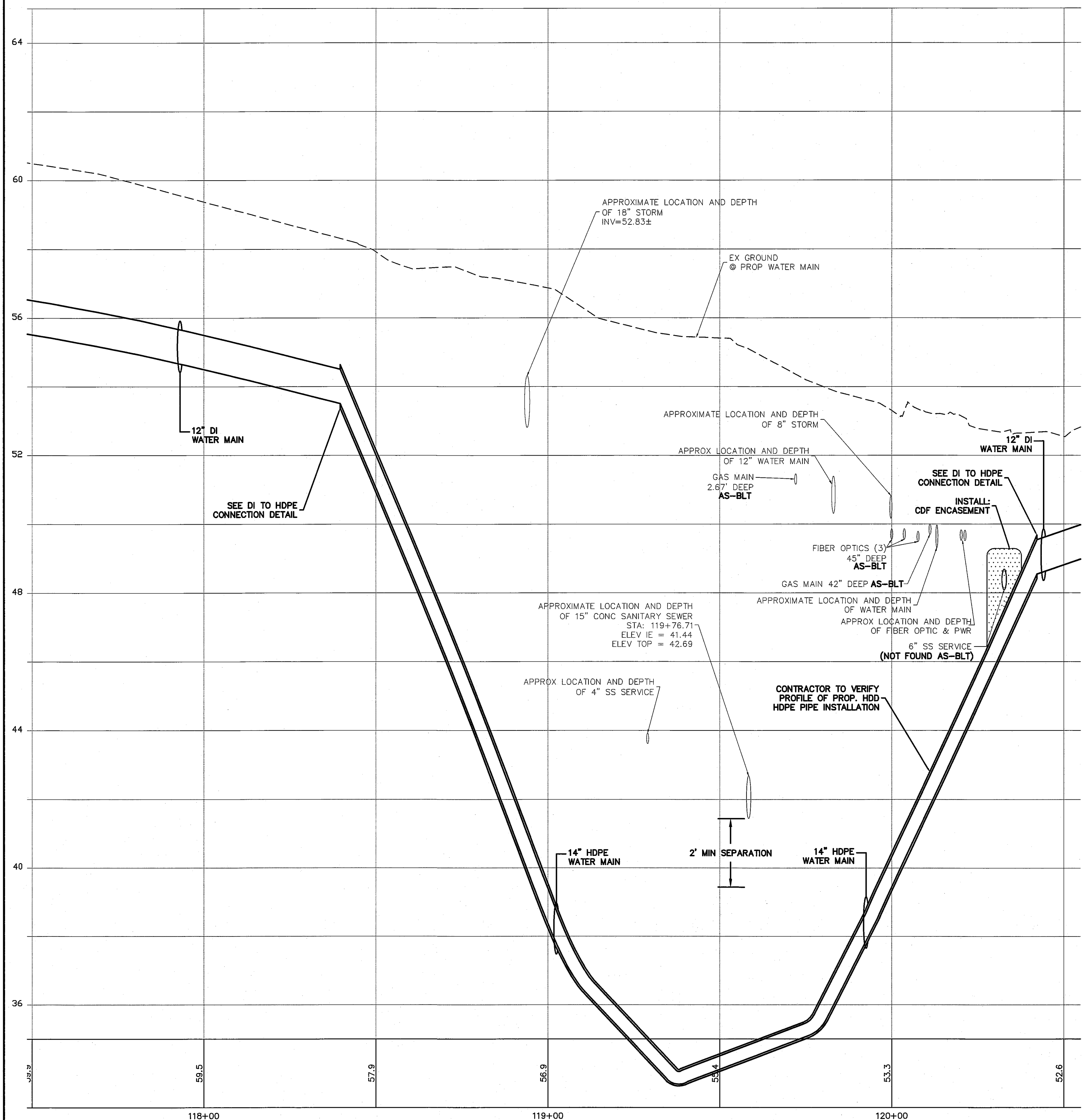
WELL WATER SUPPLY PROJECT
PLAN AND PROFILE
DOUGLAS RD

JOB# / DWG
10020 SP1RF119.2.AB

DATE
5/5/11

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

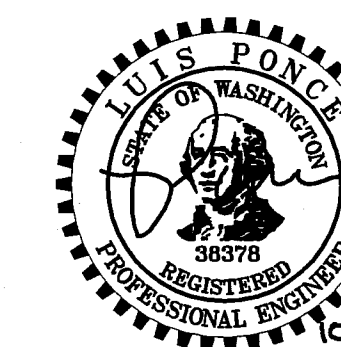
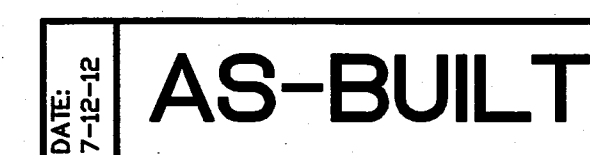
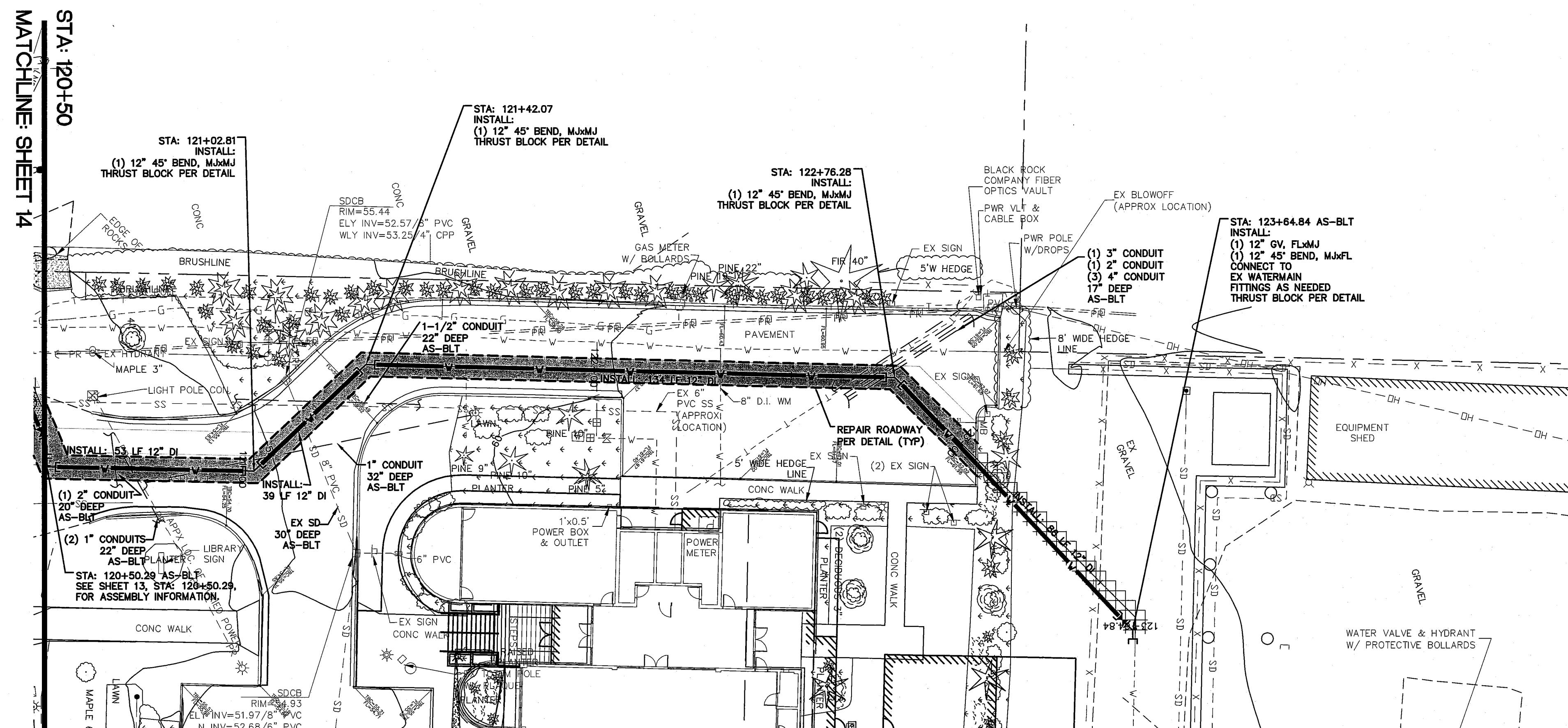
SHEET
13 of 33



10/8/14

DATE	5/5/11
SHEET	14 of 33

06573.014 10/10/14 Stt



10/8/1

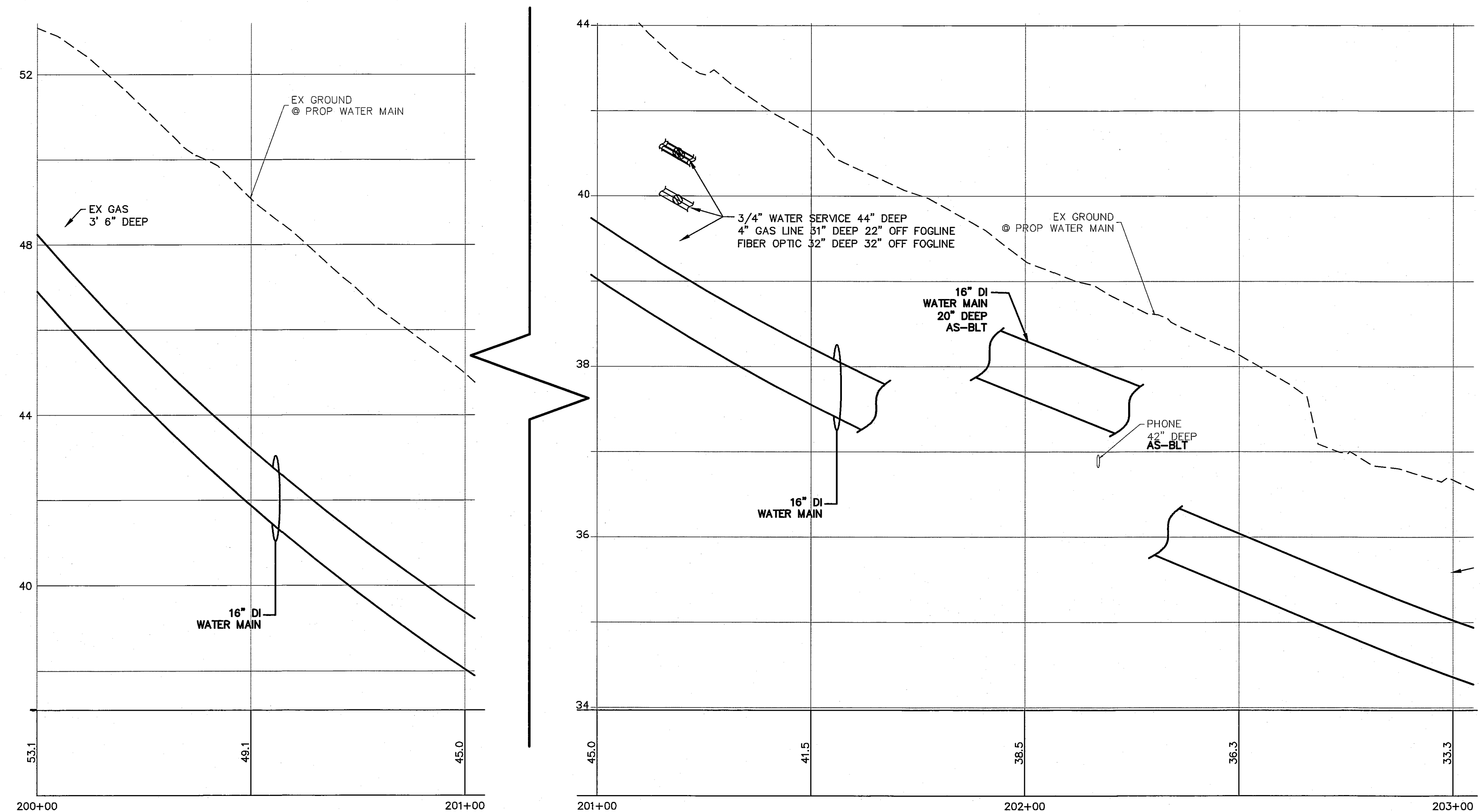
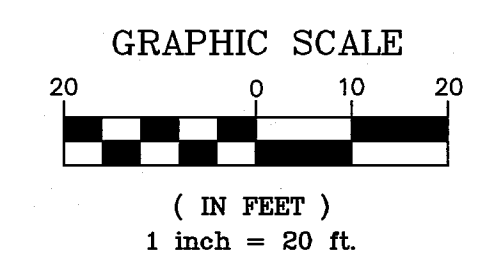
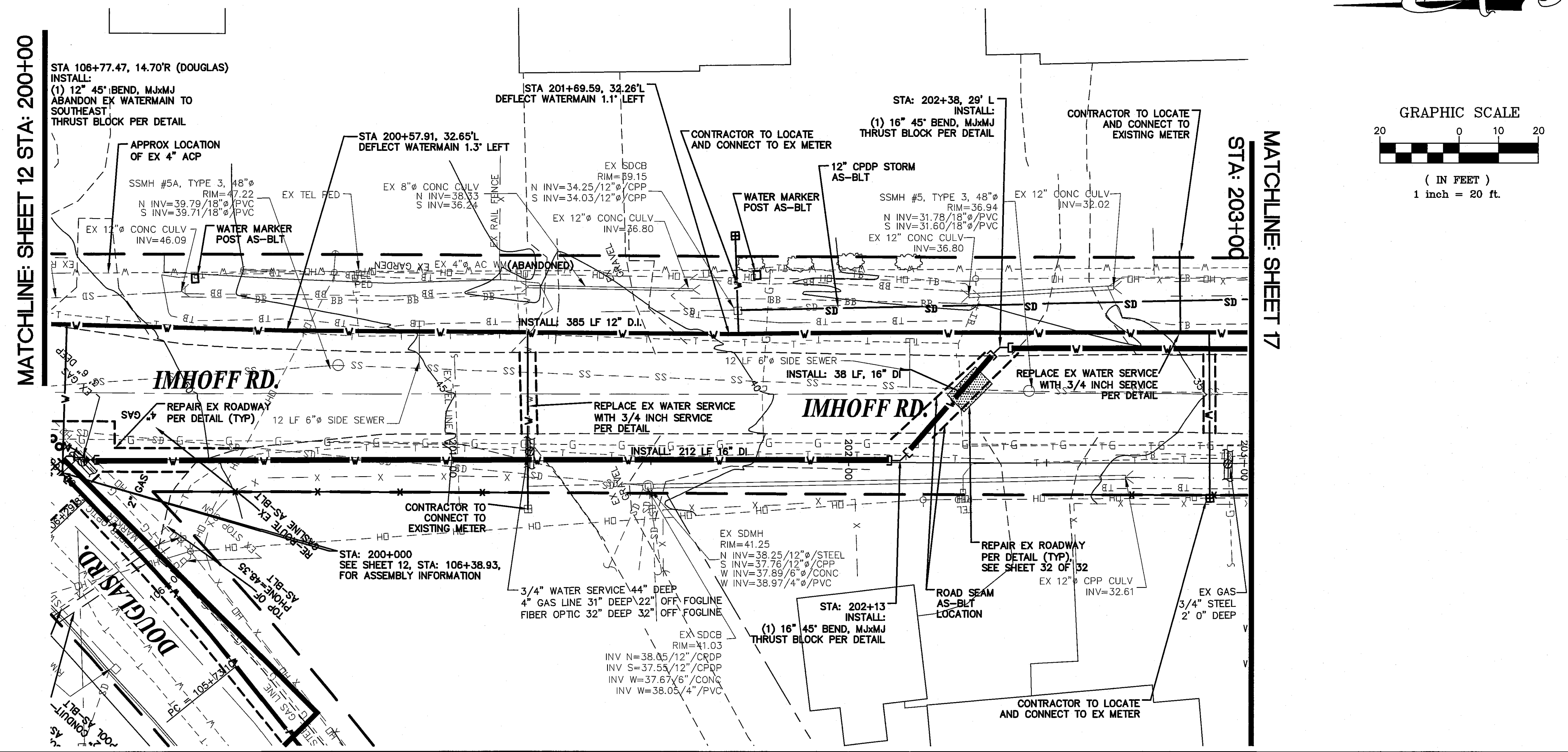
R&E

NO.	DATE	REVISION	BY

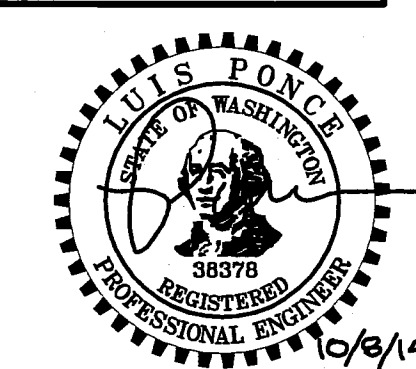
WELL WATER SUPPLY PROJECT
PLAN AND PROFILE
CITY SHOP + LIBRARY

JOB# / DWG 10020 SP1RF119.2.AB	DATE 5/5/11
SCALE H: 1" = 20' V: 1" = 2'	SHEET 15 of 33

510 22500 #3 7/10/01 10/10/01 CH

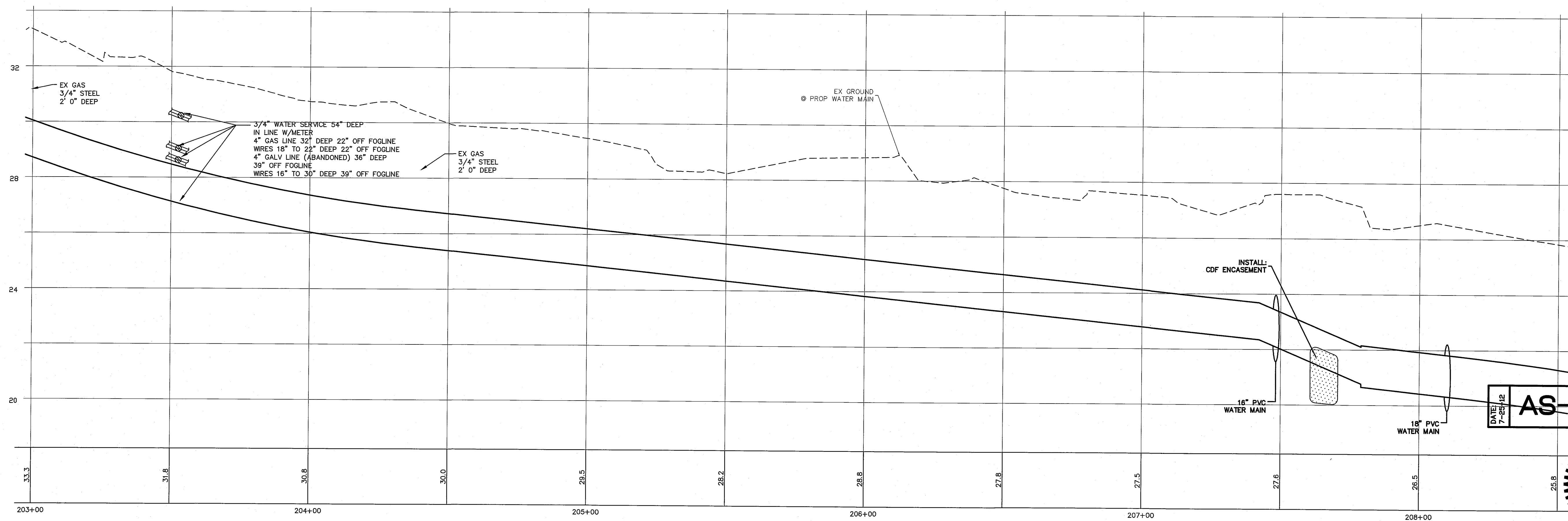
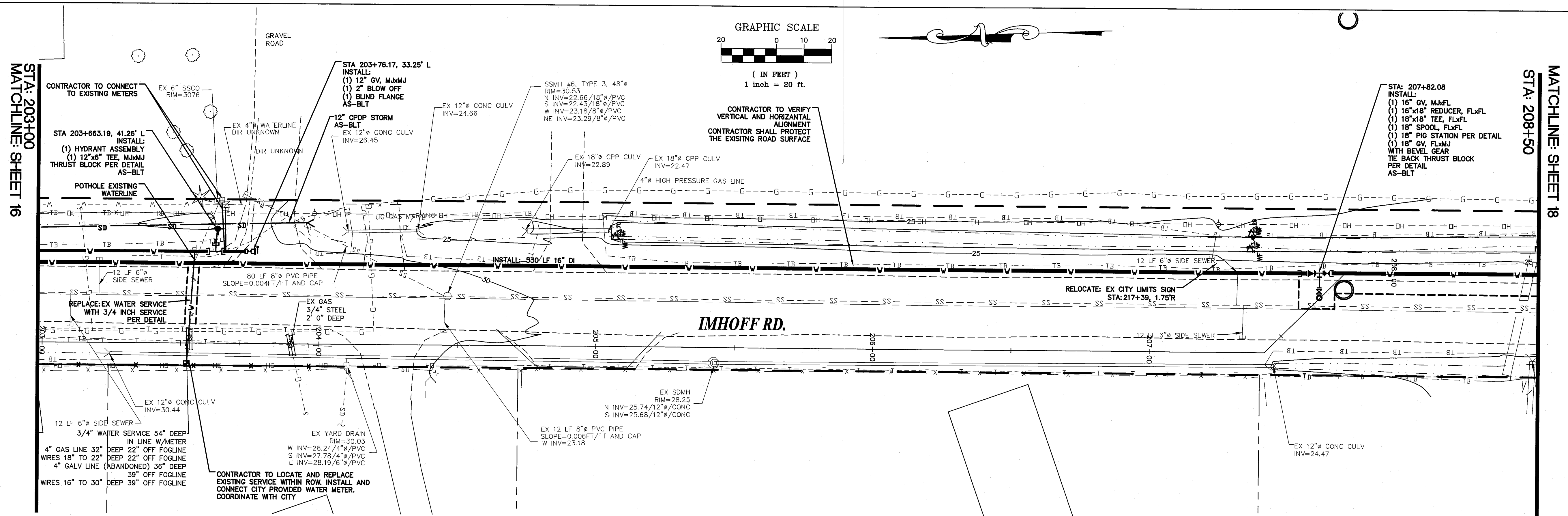


DATE: 7-25-12 **AS-BUILT**



DESIGNED BY BEK DRAWN BY BEK CHECKED BY LP		REICHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407	NO. DATE REVISION BY	CITY OF FERDALE PO BOX 936 FERDALE, WA 98248	WELL WATER SUPPLY PROJECT PLAN AND PROFILE IMHOFF RD	JOB# / DWG 10020 SP1RF19.2.AB SCALE H: 1"=20' V: 1"=2'	DATE 5/5/11 SHEET 16 of 33
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05573.010 219114 15



DESIGNED BY	BEK
DRAWN BY	BEK
CHECKED BY	IP



REICHHARDT & EBE
ENGINEERING, INC.

PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687
Lynden, Washington 98264 Fax (360) 354-0407

CITY OF FERNDALE
PO BOX 936
FERNDALE, WA 98248

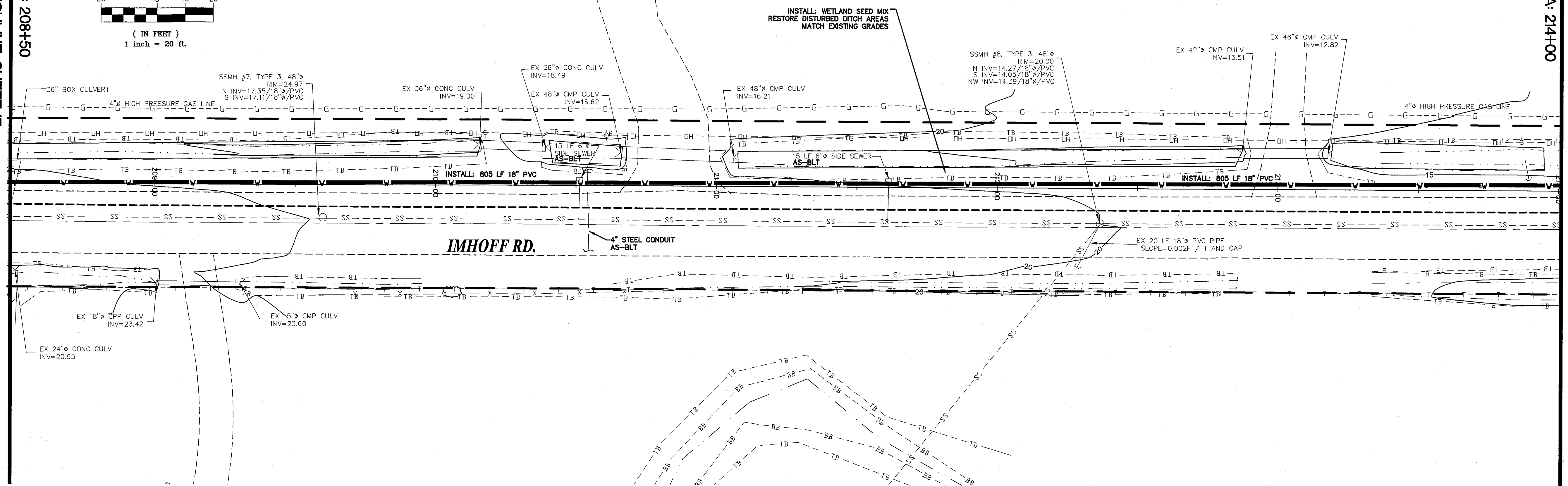
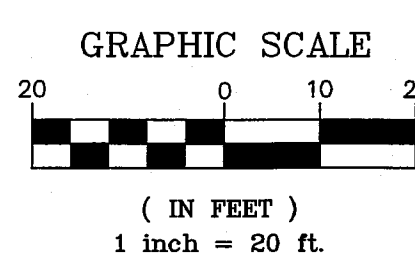
**WELL WATER SUPPLY PROJECT
PLAN AND PROFILE
IMHOFF RD**

JOB# / DWG	10020 SP1RFI19.2.AB
SCALE	H: 1"=20' v: 1"=2'

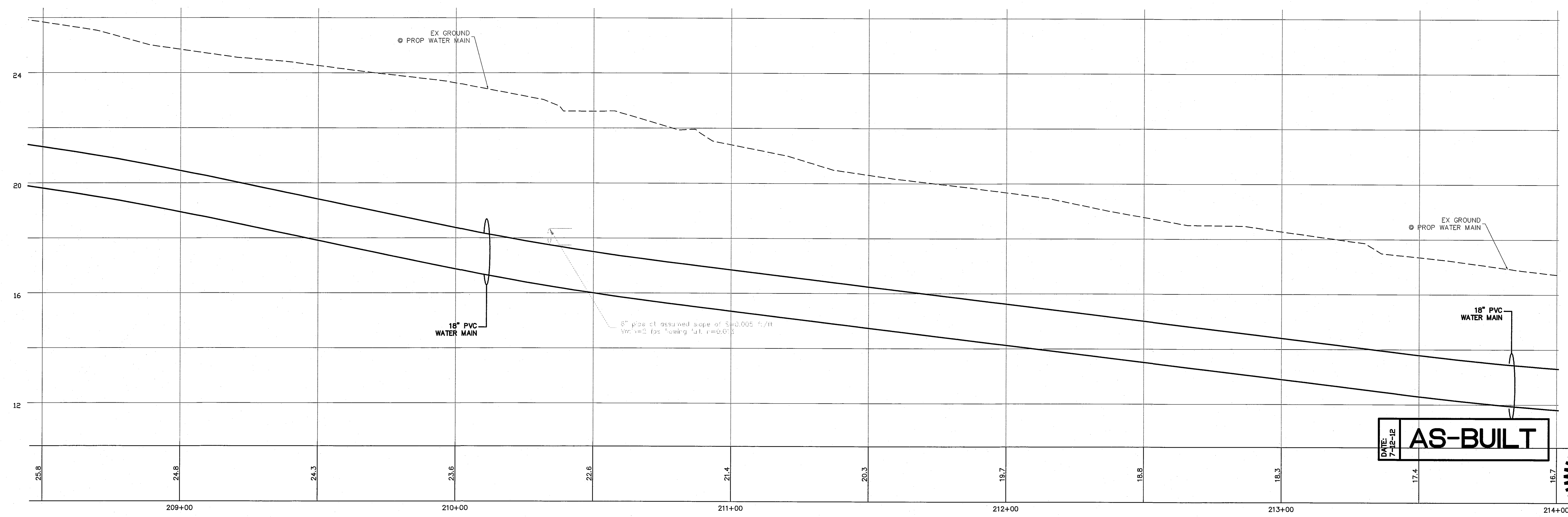
DATE	5/5/11
SHEET	17 of 33

15
H/01/01 810.42500

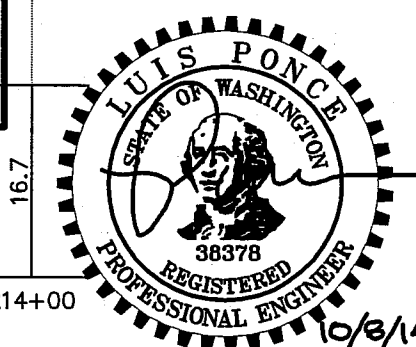
STA: 208+50
MATCHLINE: SHEET 17



STA: 214+00
MATCHLINE: SHEET 19



DATE: 7-12-12
AS-BUILT



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BEK
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BEK
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LP

R&E
REICHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201
Lynden, Washington 98264
Ph (360) 354-3687
Fax (360) 354-0407

NO.	DATE	REVISION	BY

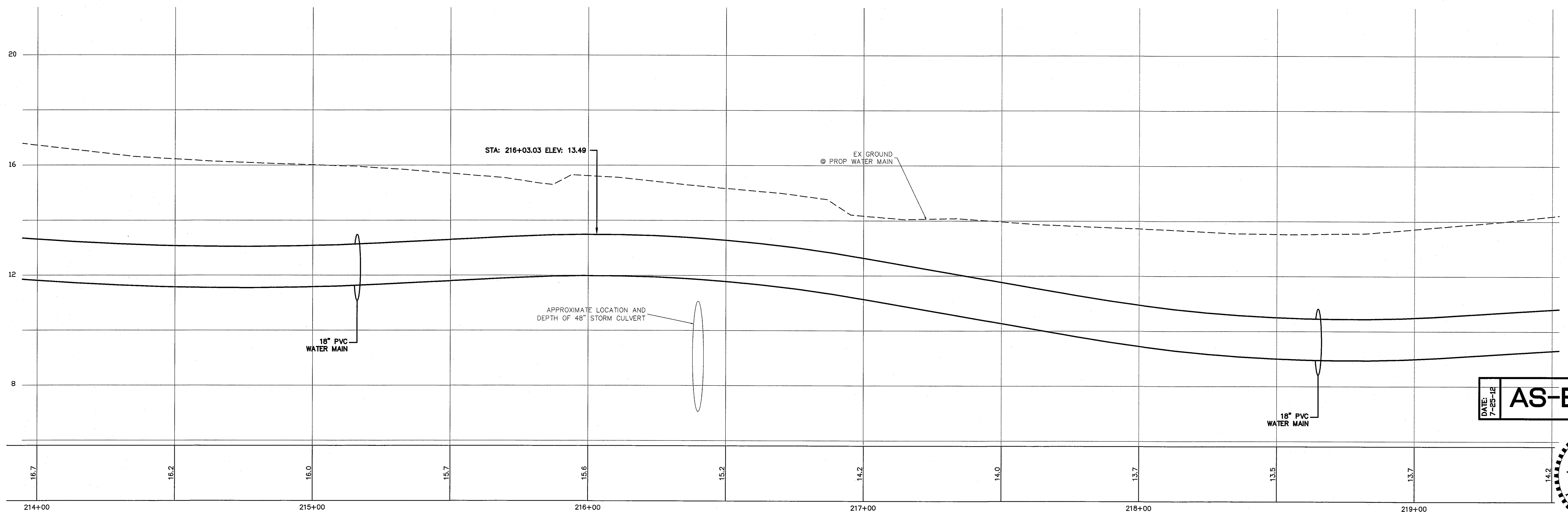
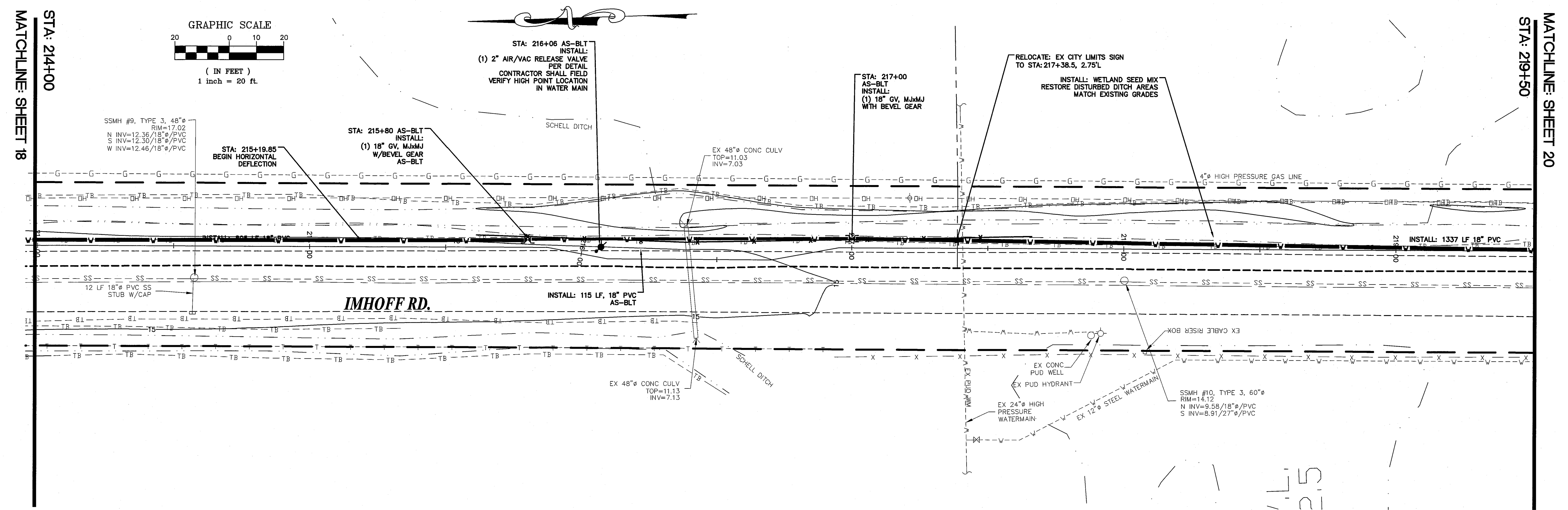
CITY OF FERDALE
PO BOX 936
FERDALE, WA 98248

WELL WATER SUPPLY PROJECT
PLAN AND PROFILE
IMHOFF RD

JOB# / DWG
10020 SP1RF19.2.AB
SCALE
H:1"=20' V:1"=2'

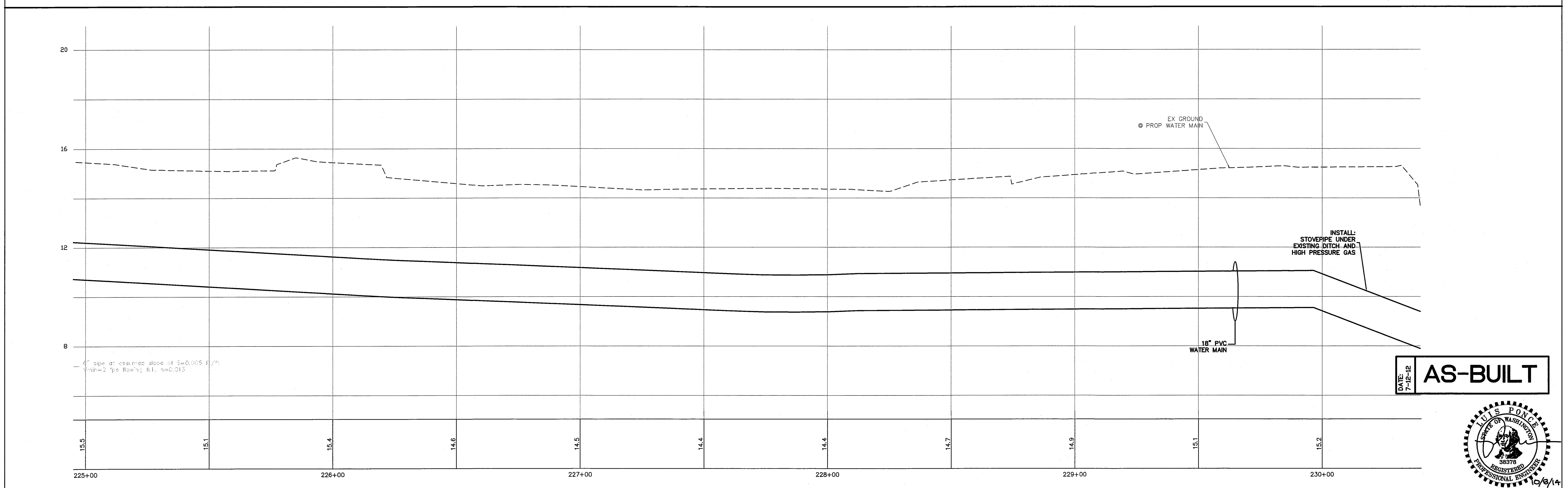
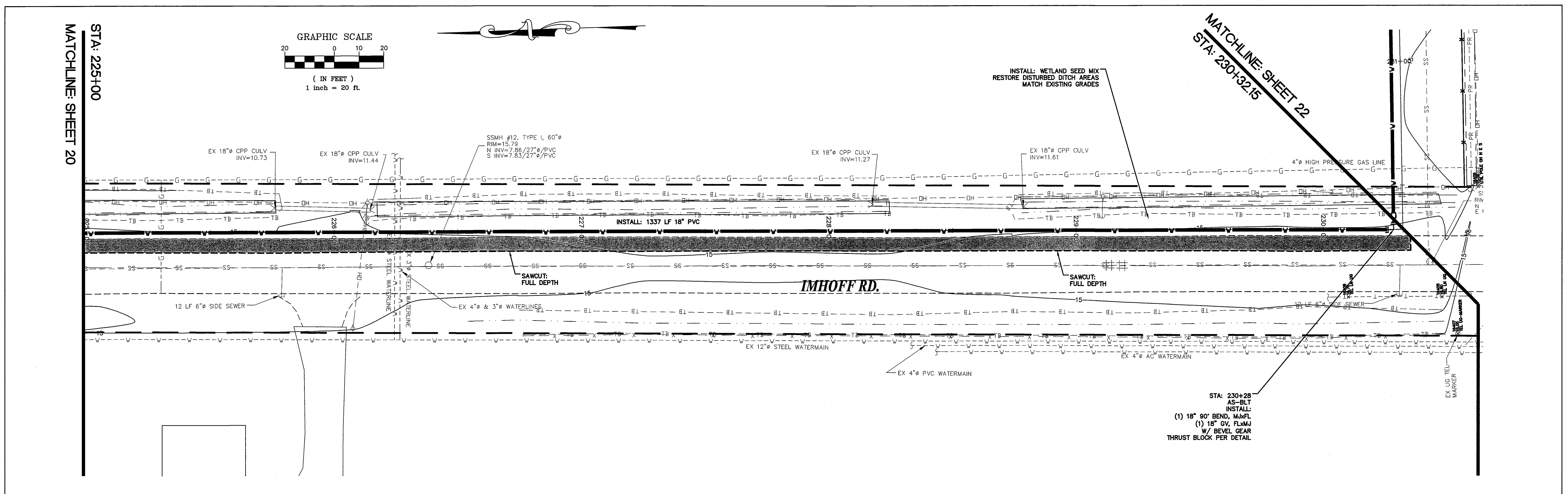
DATE
5/5/11
SHEET
18 of 33

18 4/10/11 10:10 10 573.00



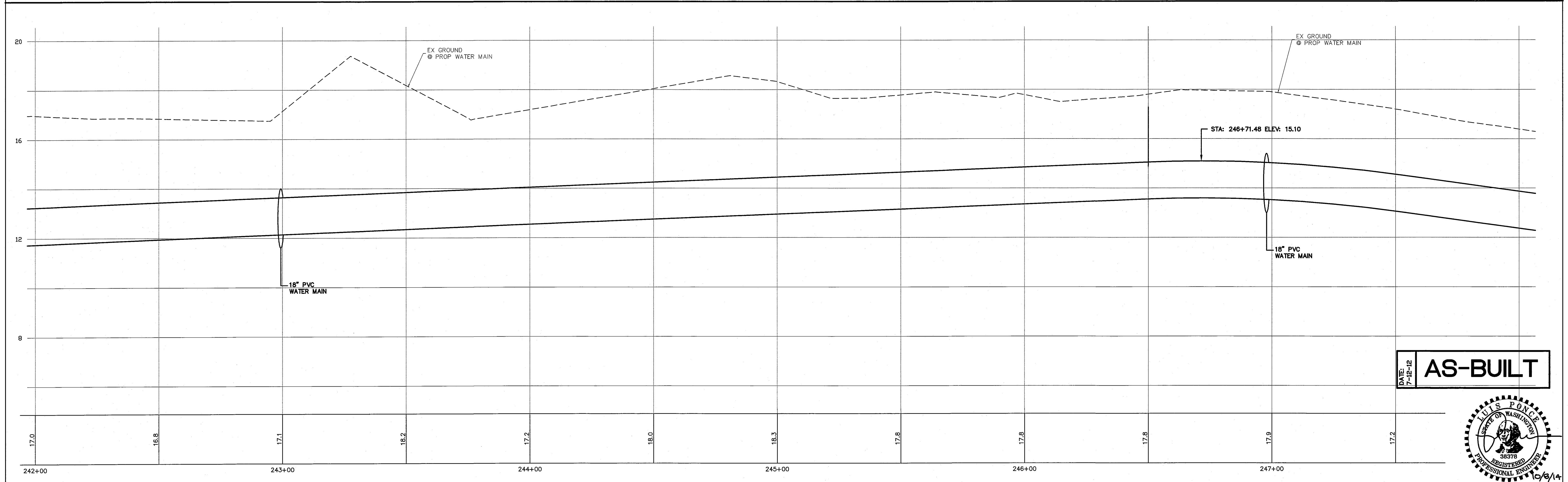
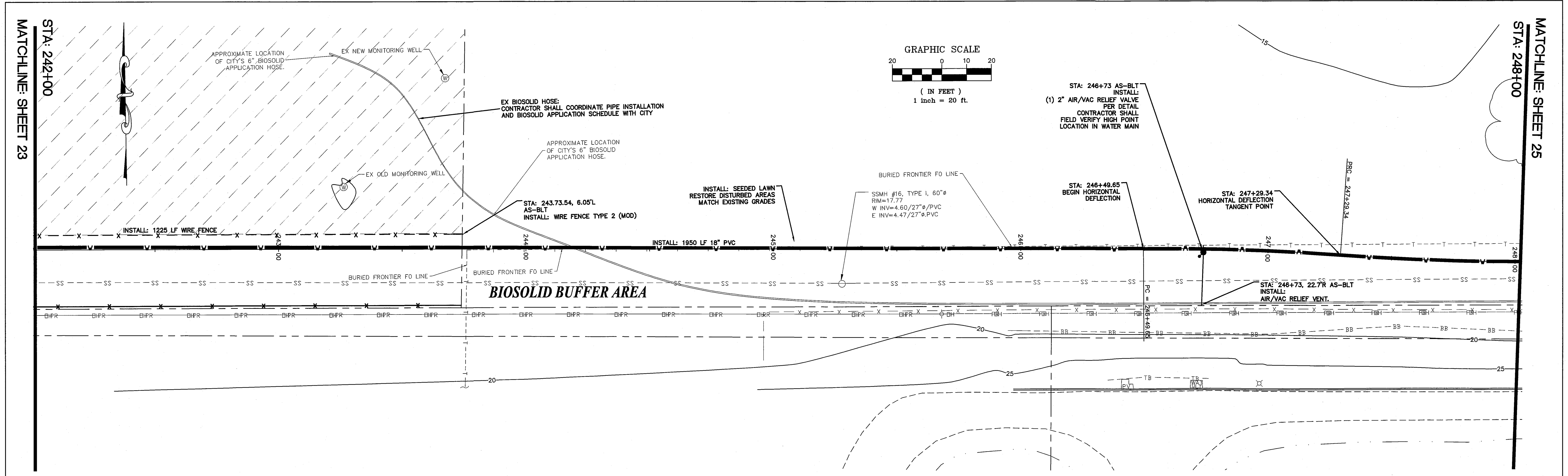
DESIGNED BY BEK	R&E REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407	NO.	DATE	REVISION	BY	CITY OF FERDALE PO BOX 936 FERDALE, WA 98248	WELL WATER SUPPLY PROJECT PLAN AND PROFILE IMHOFF RD	JOB# / DWG 10020 SP1RF119.2.AB	DATE 5/5/11
DRAWN BY BEK								SCALE H:1"=20' V:1"=2'	SHEET
CHECKED BY LP									19 of 33

As 11/10/11 120513.021

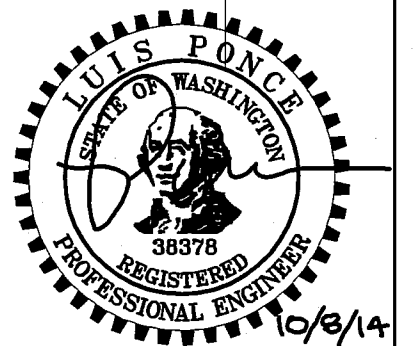


DESIGNED BY BEK	R&E REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407	NO.	DATE	REVISION	BY	CITY OF FERNDALE PO BOX 936 FERNDALE, WA 98248	WELL WATER SUPPLY PROJECT PLAN AND PROFILE IMHOFF RD	JOB# / DWG 10020 SP1RF119.2.AB	DATE 5/5/11
DRAWN BY BEK								SCALE H:1"=20' V:1"=2'	SHEET
CHECKED BY LP									21 of 33

4/10/11 12:00 PM

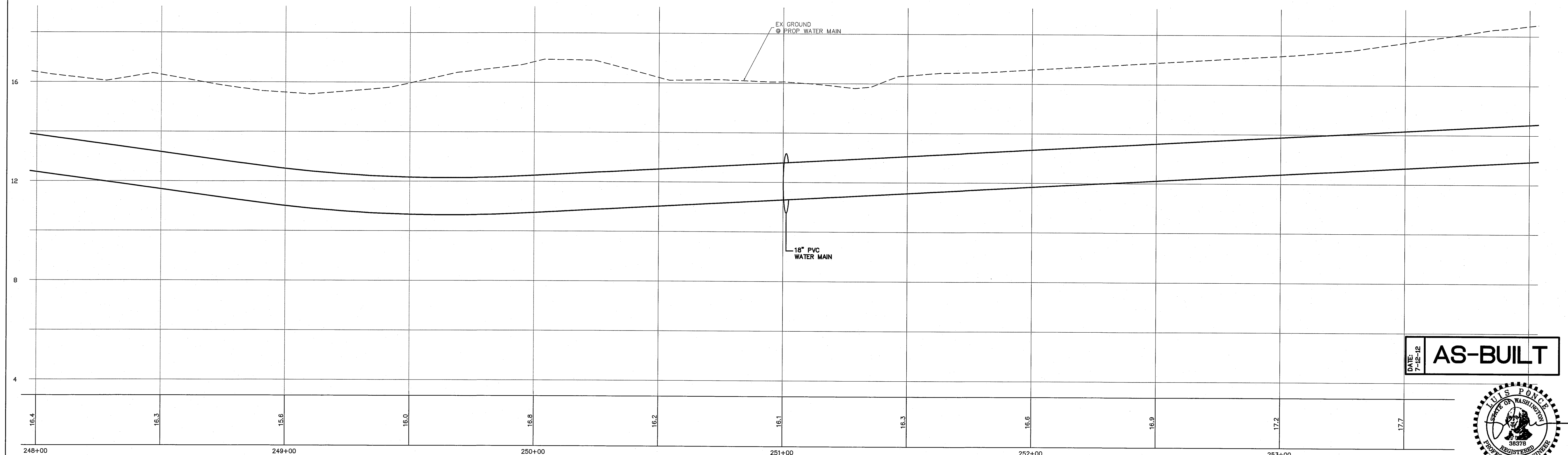
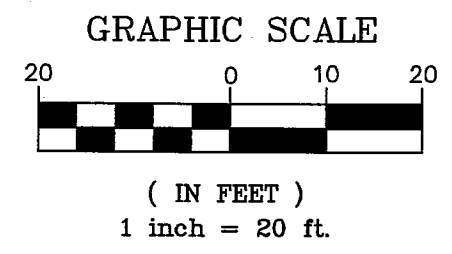
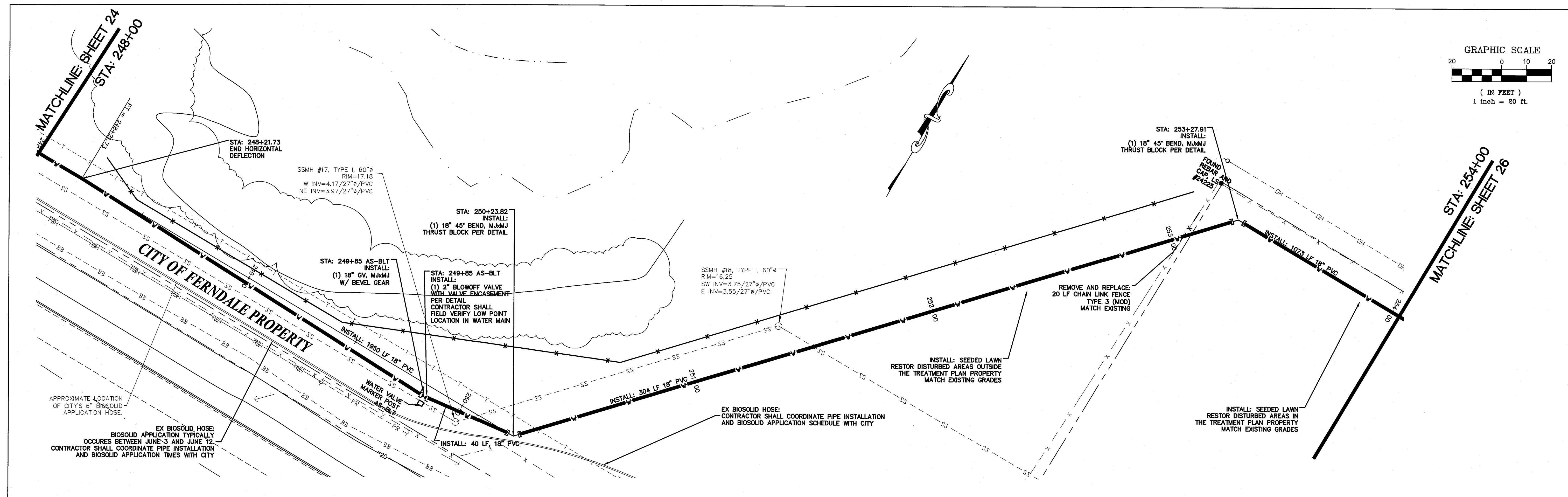


DATE: 7-12-12
AS-BUILT

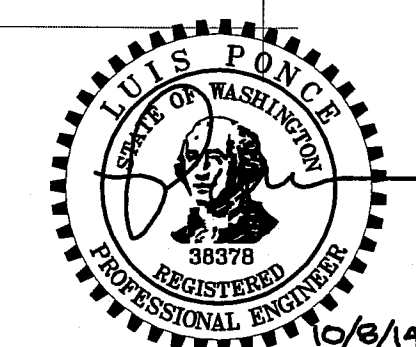


DESIGNED BY BEK		REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98284		CITY OF FERNDALE PO BOX 936 FERNDALE, WA 98248		WELL WATER SUPPLY PROJECT PLAN AND PROFILE BIOSOLID BUFFER AREA		JOB# / DWG 10020 SP1RF119.2.AB		DATE 5/5/11	
DRAWN BY BEK		Ph (360) 354-3687 Fax (360) 354-0407		NO.		DATE		SCALE H:1"=20' V:1"=2'		SHEET 24 of 33	
CHECKED BY LP				REVISION		BY					

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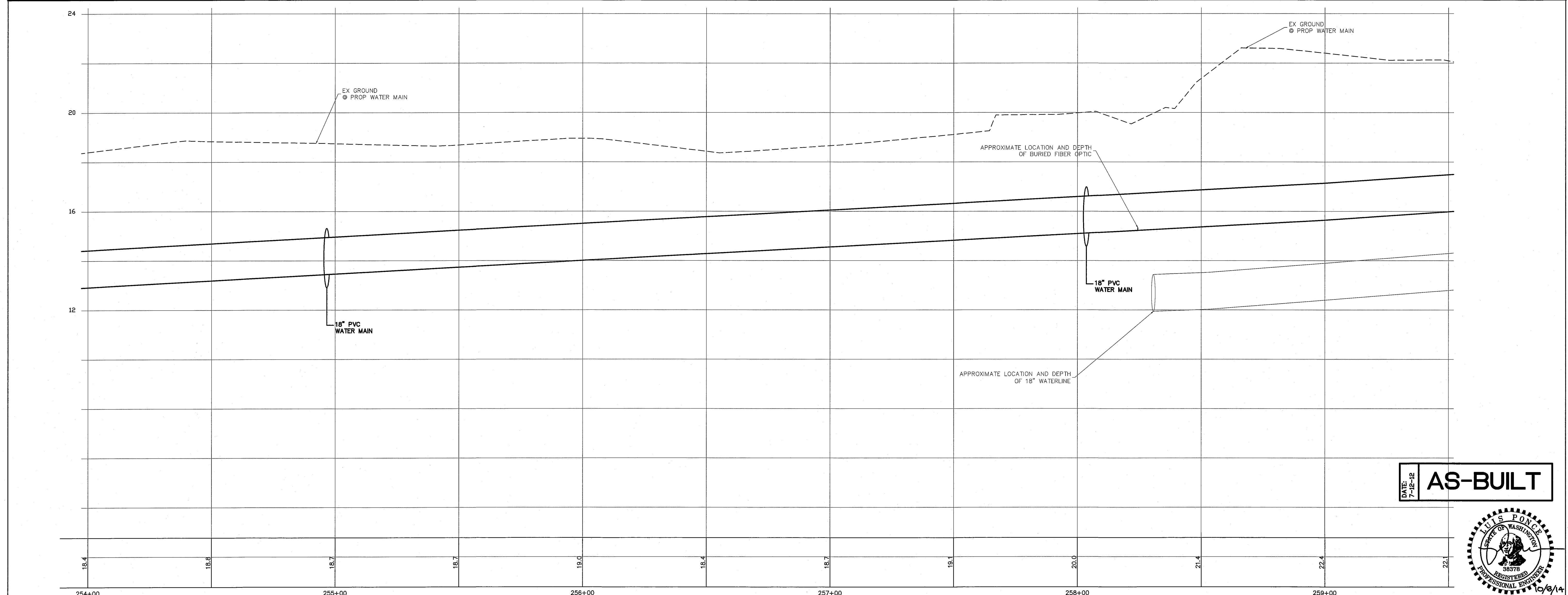
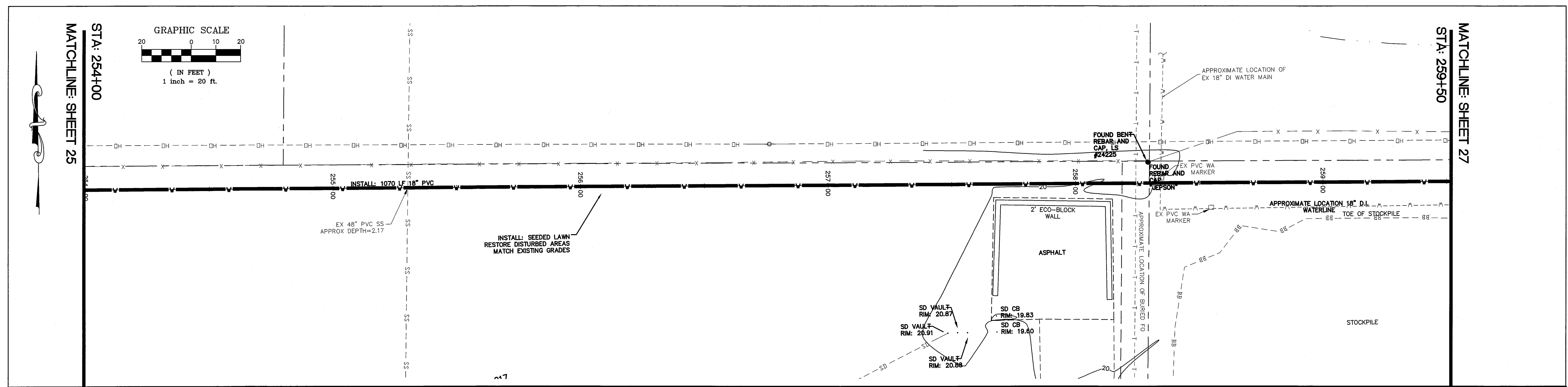


DATE: 7-12-12 **AS-BUILT**

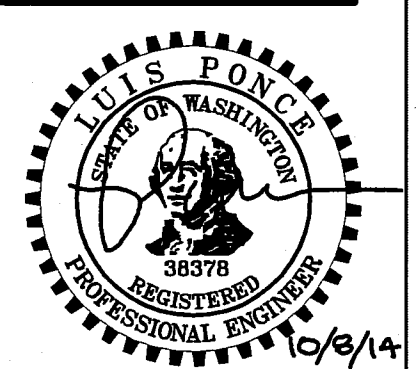


DESIGNED BY BEK		REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407	NO.	DATE	REVISION	BY	CITY OF FERNDALE PO BOX 936 FERNDALE, WA 98248	WELL WATER SUPPLY PROJECT PLAN AND PROFILE CITY PROPERTY	JOB# / DWG 10020 SP1RF19.2.AB	DATE 5/5/11
DRAWN BY BEK									SCALE H: 1"=20' V: 1"=2'	SHEET 25 of 33
CHECKED BY LP										

11/10/11 92032500

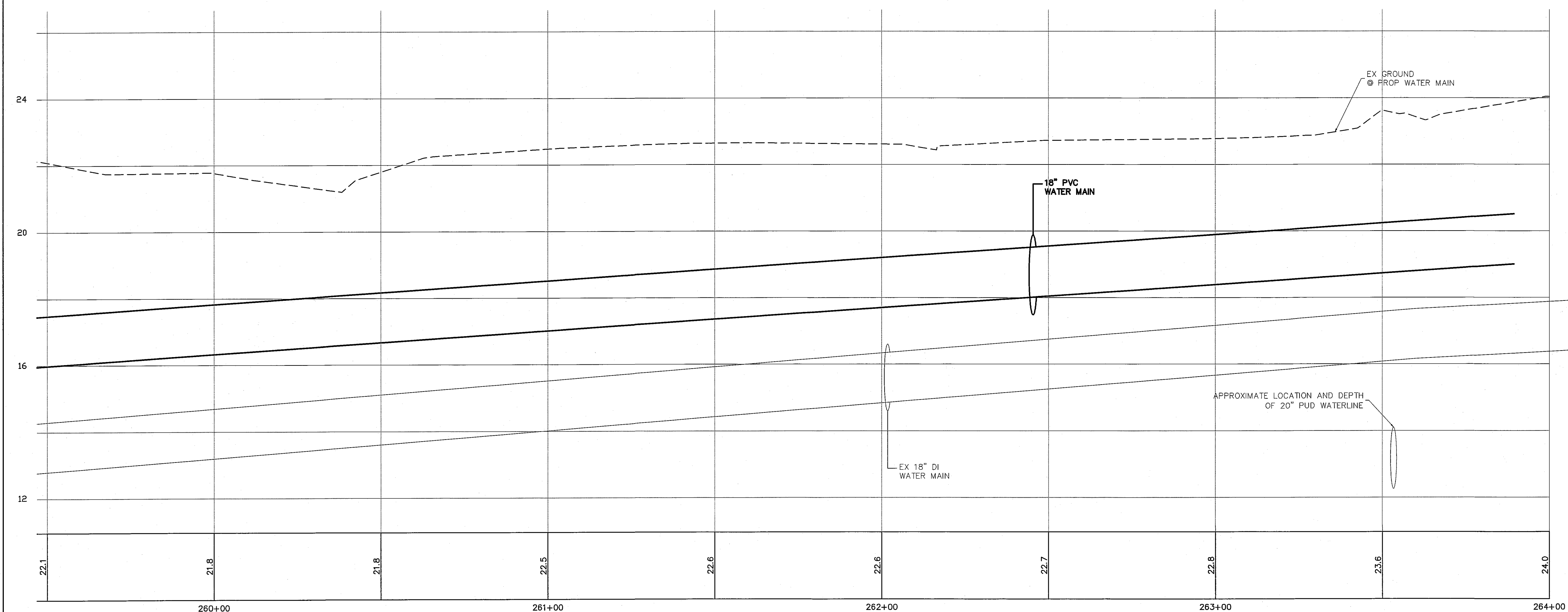
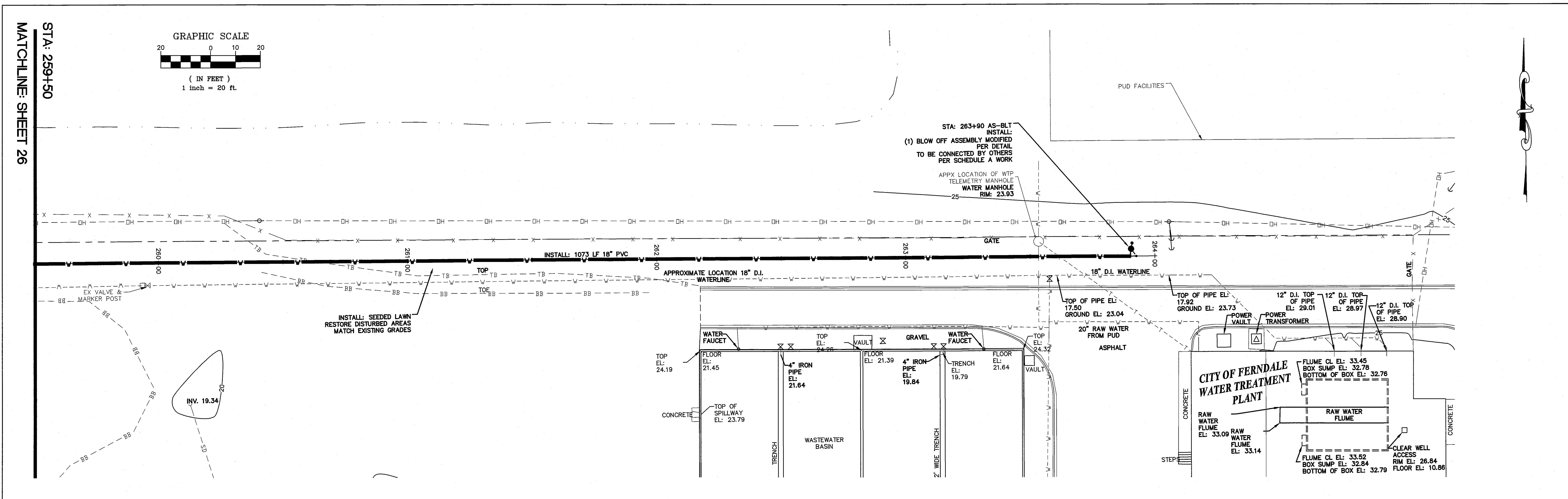


DATE: 7/12/11
AS-BUILT

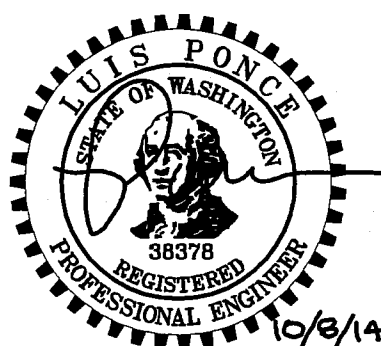


	DESIGNED BY BEK		REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407					CITY OF FERDALE PO BOX 936 FERDALE, WA 98248	WELL WATER SUPPLY PROJECT PLAN AND PROFILE WATER TREATMENT PLANT PROPERTY	JOB# / DWG 10020 SP1RF119.2.AB	DATE 5/5/11	
	DRAWN BY BEK										SCALE H: 1"=20' v: 1"=2'	SHEET
	CHECKED BY LP											
				NO.	DATE	REVISION	BY				26 of 33	

00573.027 10/10/14 84



DATE: 7-12-12
AS-BUILT



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BEK
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CHECKED BY
LP



REICHHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201
Lynden, Washington 98264
Ph (360) 354-3887
Fax (360) 354-0407

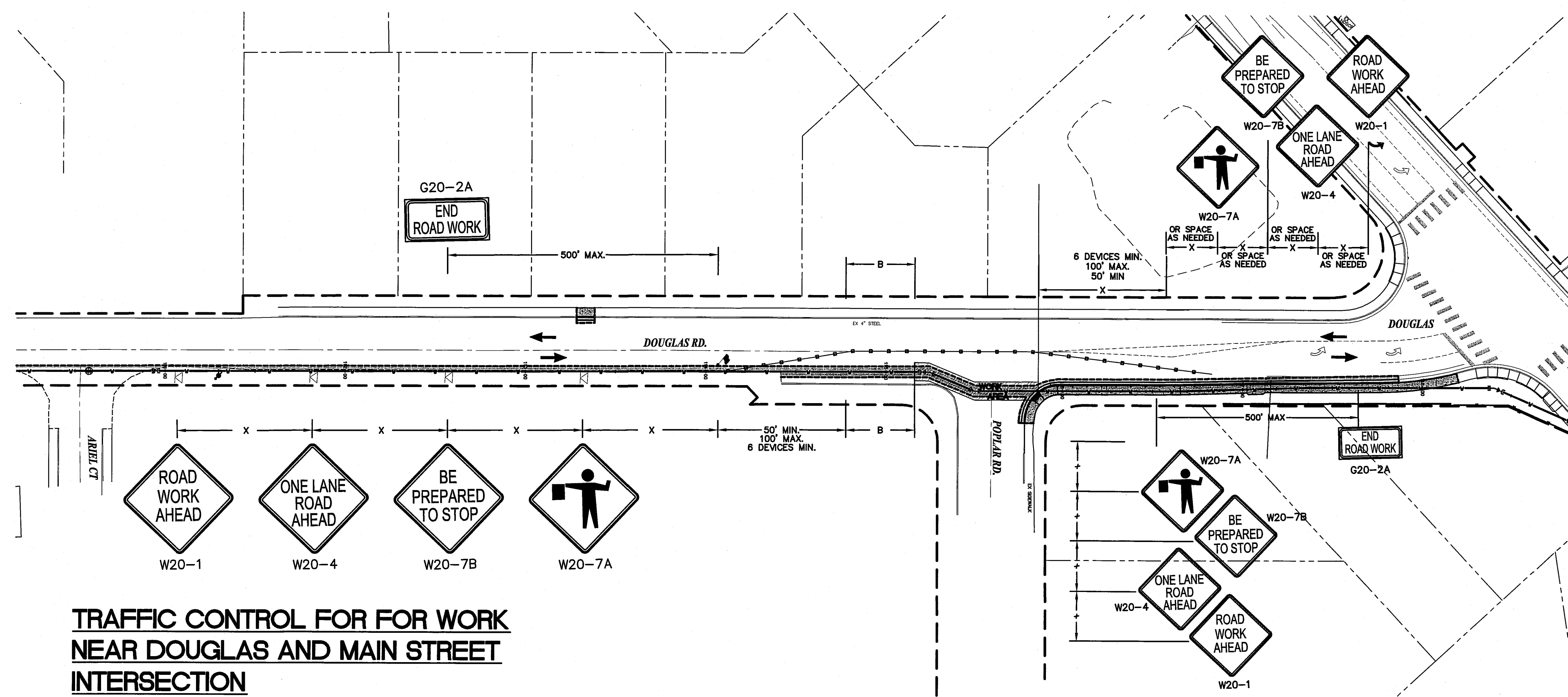
NO.	DATE	REVISION	BY

CITY OF FERNDAL
PO BOX 936
FERNDAL, WA 98248

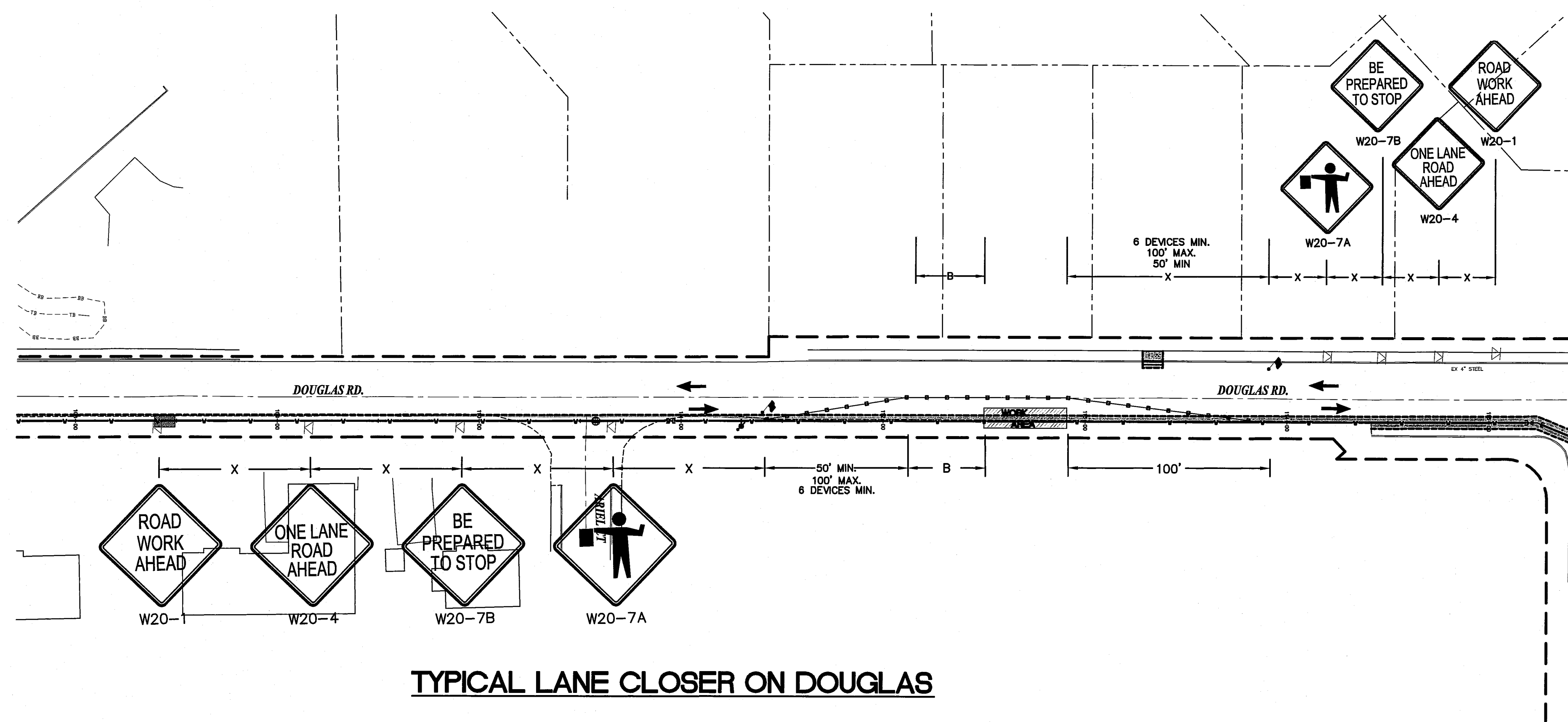
WELL WATER SUPPLY PROJECT
PLAN AND PROFILE
WATER TREATMENT PLANT PROPERTY

JOB# / DWG 10020 SP1RF119.2.AB	DATE 5/5/11
SCALE H:1"=20' V:1"=2'	SHEET 27 of 33

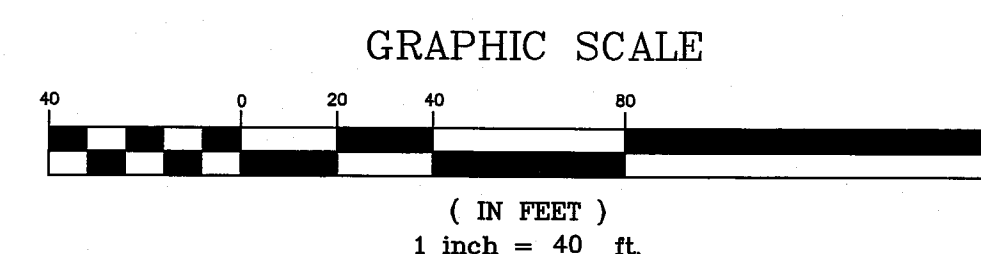
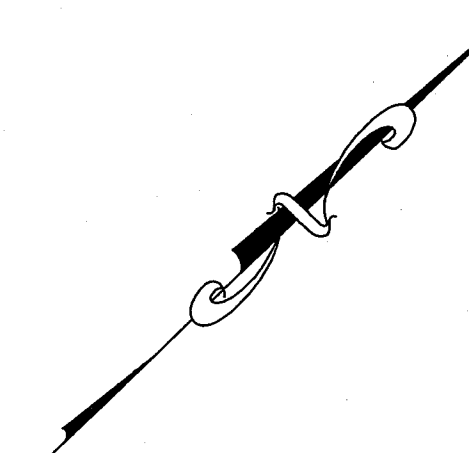
80573.028 10/10/14 st



TRAFFIC CONTROL FOR FOR WORK
NEAR DOUGLAS AND MAIN STREET
INTERSECTION



TYPICAL LANE CLOSER ON DOUGLAS



BUFFER DATA				
BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	55	85	120	170

CHANNELIZING DEVICE SPACING (FEET) (EXCEPT FOR FLAGGING REQUIREMENTS)		
MPH	TAPER	TANGENT
50/65	40	80
35/45	30	60
25/30	20	40

SIGN SPACING = X (FEET)		
RURAL ROADS	45 MPH	500'±
URBAN ARTERIALS	35/40 MPH	350'±
URBAN STREETS		
RESIDENTIAL AREAS & BUSINESS DISTRICTS	25/30 MPH	200'±*
URBAN ARTERIALS	25 MPH OR LESS	100'±*

*NOTE: THIS SPACING MAY BE REDUCED TO MEET ROADWAY CONDITIONS.

GENERAL NOTES

SIGN SEQUENCE IS THE SAME FOR BOTH DIRECTIONS OF TRAVEL ON THE HIGHWAY.

SIGNING SHOWN IS THE MINIMUM REQUIRED, ADDITIONAL SIGNS MAY BE REQUIRED TO MEET FIELD CONDITIONS.

FLAGGER STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS

EXTEND DEVICES' TAPER ACROSS SHOULDER

ALL SIGNS ARE 48"x48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED.

LEGEND

- △ SIGN LOCATION--TRIPOD MOUNTED
- TRAFFIC CONES SPACED AT 15' ON CENTER
- ⚡ FLAGGING STATION
- ▨ WORK AREA

NOTE:
CONTRACTOR SHALL APPROVE THE PROVIDED PLAN OR SUBMIT A REVISE TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL.

SUBMITTED WITH
DESIGN PLAN



DESIGNED BY
BEK
DRAWN BY
BEK
CHECKED BY
LP



REICHHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201
Lynden, Washington 98264
Ph (360) 354-3687
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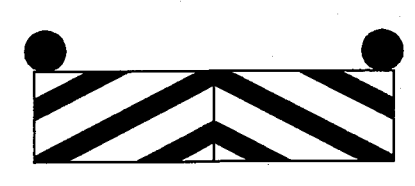
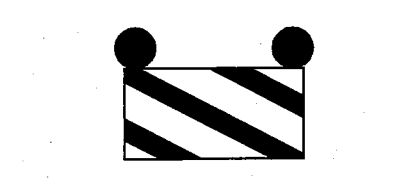
NO. DATE REVISION BY

CITY OF FERDALE
PO BOX 936
FERDALE, WA 98248

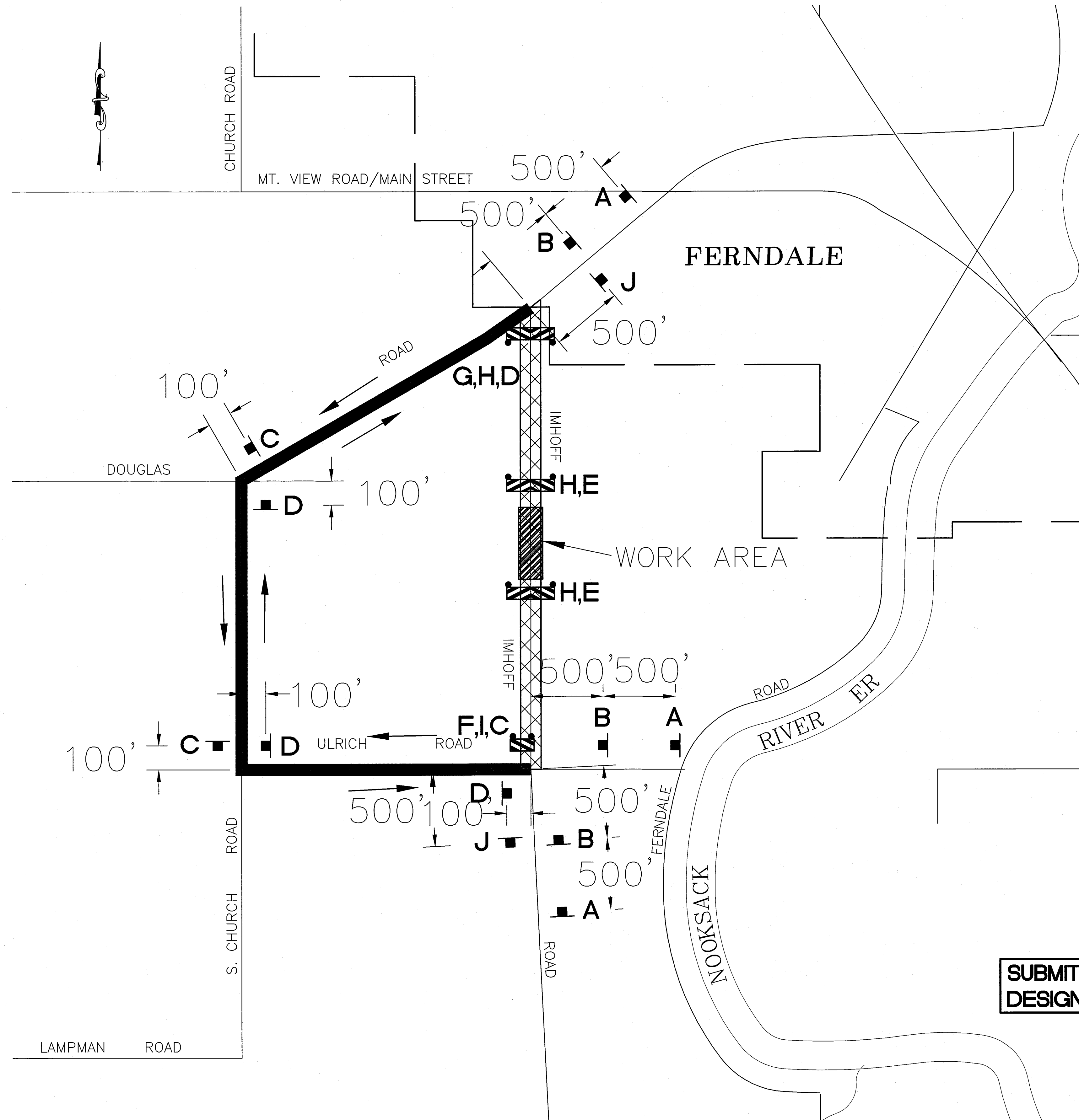
WELL WATER SUPPLY PROJECT
TRAFFIC CONTROL PLAN
DOUGLAS ROAD CLOSURE

JOB# / DWG
10020 TC
SCALE
H:n/a V:n/a
DATE
4-20-11
SHEET
28 of 33

LEGEND

- A  W 20-3
- B  W 20-2
- C  M 4-10 L
- D  M 4-10 R
- E  R 11-2
- F  R 11-3
- G  R 11-4
- H  TYPE III R AND TYPE III L BARRICADE WITH 2 TYPE A FLASHING WARNING LIGHTS--INSTALL ONE BARRICADE IN EACH LANE OF IMHOFF.
- I  TYPE III R BARRICADE WITH 2 TYPE A FLASHING WARNING LIGHTS.
- J  M 4-8 A

IMHOFF WILL BE CLOSED FOR A CONSECUTIVE 20 WORKING DAYS (4 WEEKS) BETWEEN JULY 03 AND SEPTEMBER 18 2011
NO FLAGGERS OR SPOTTERS

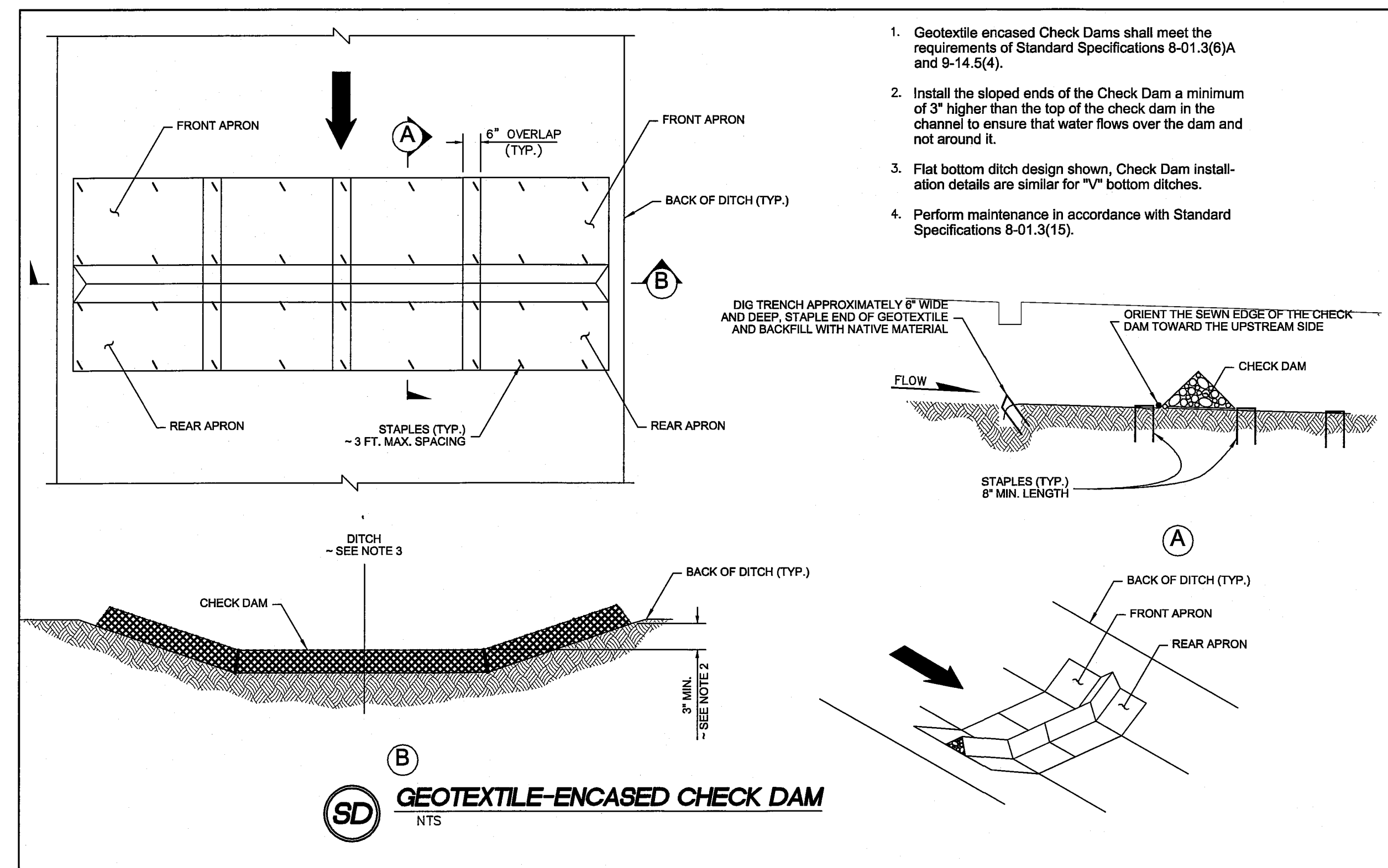
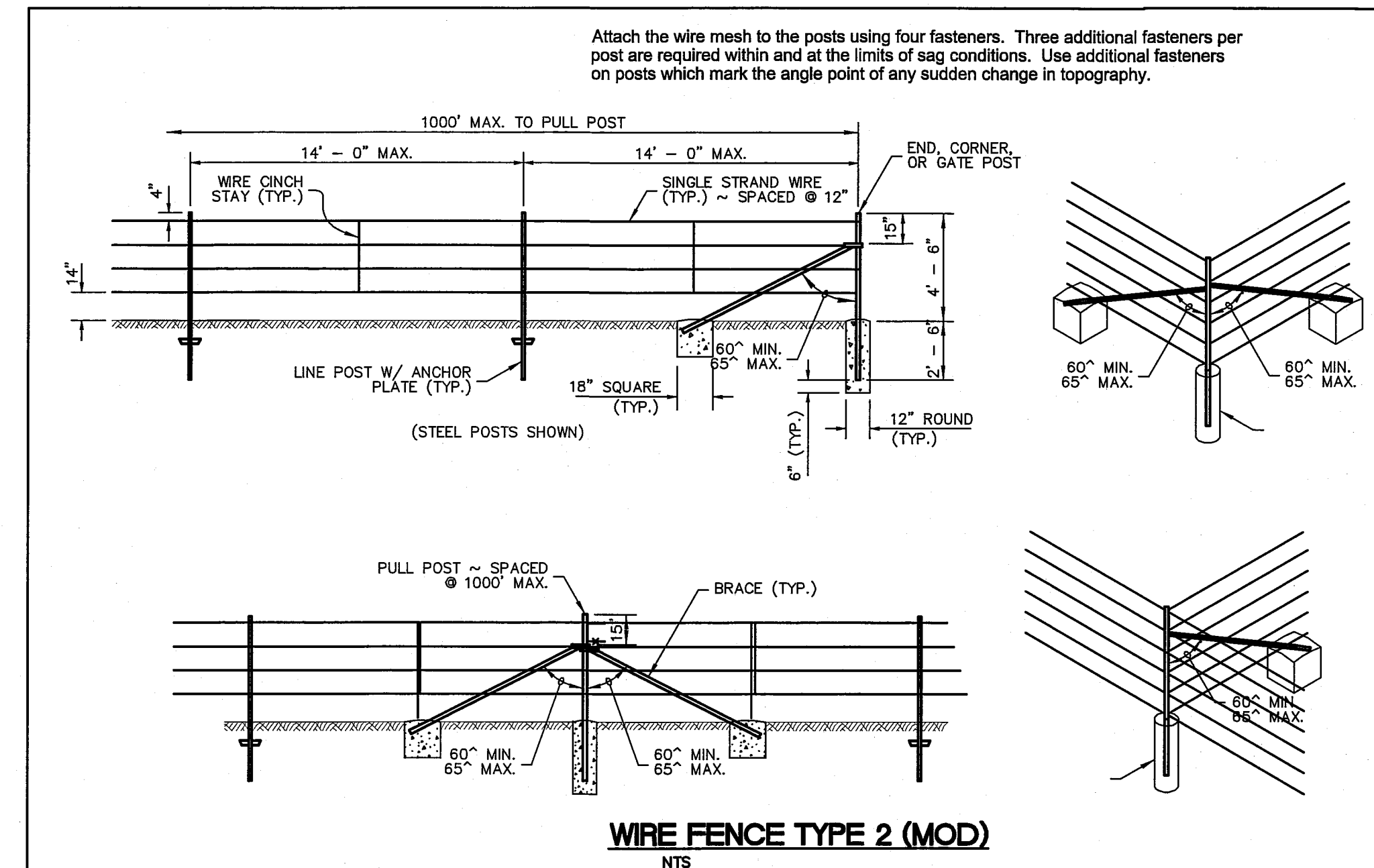
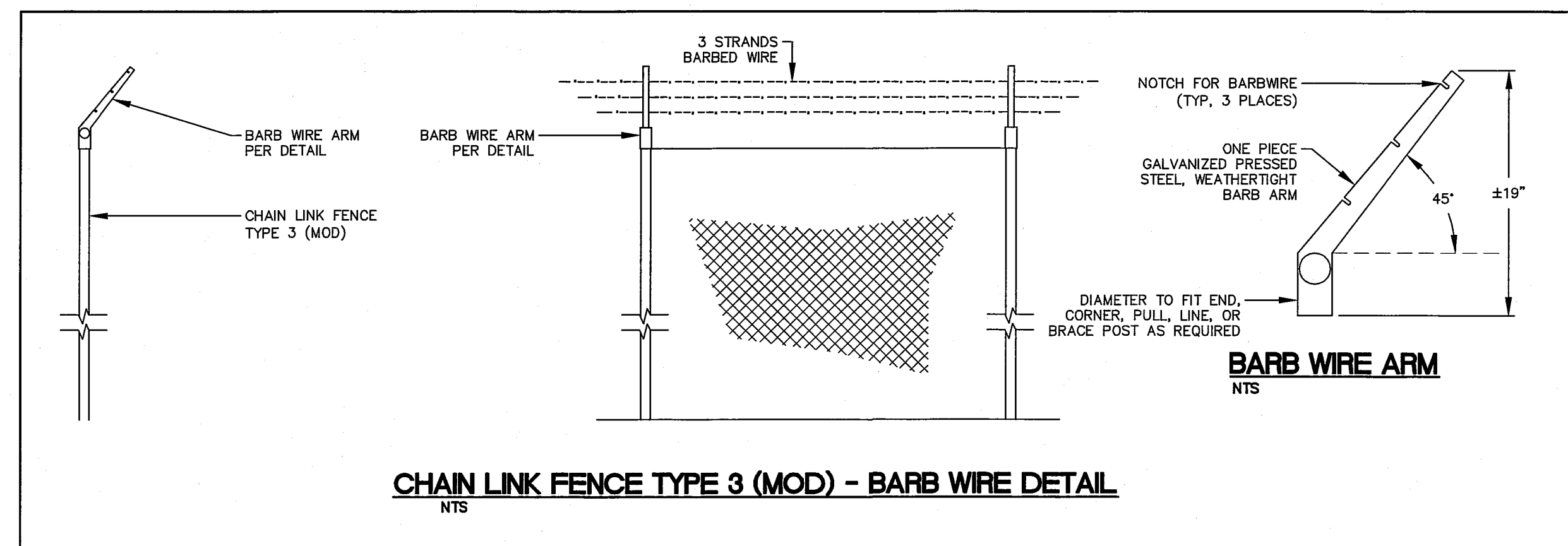


SUBMITTED WITH
DESIGN PLAN

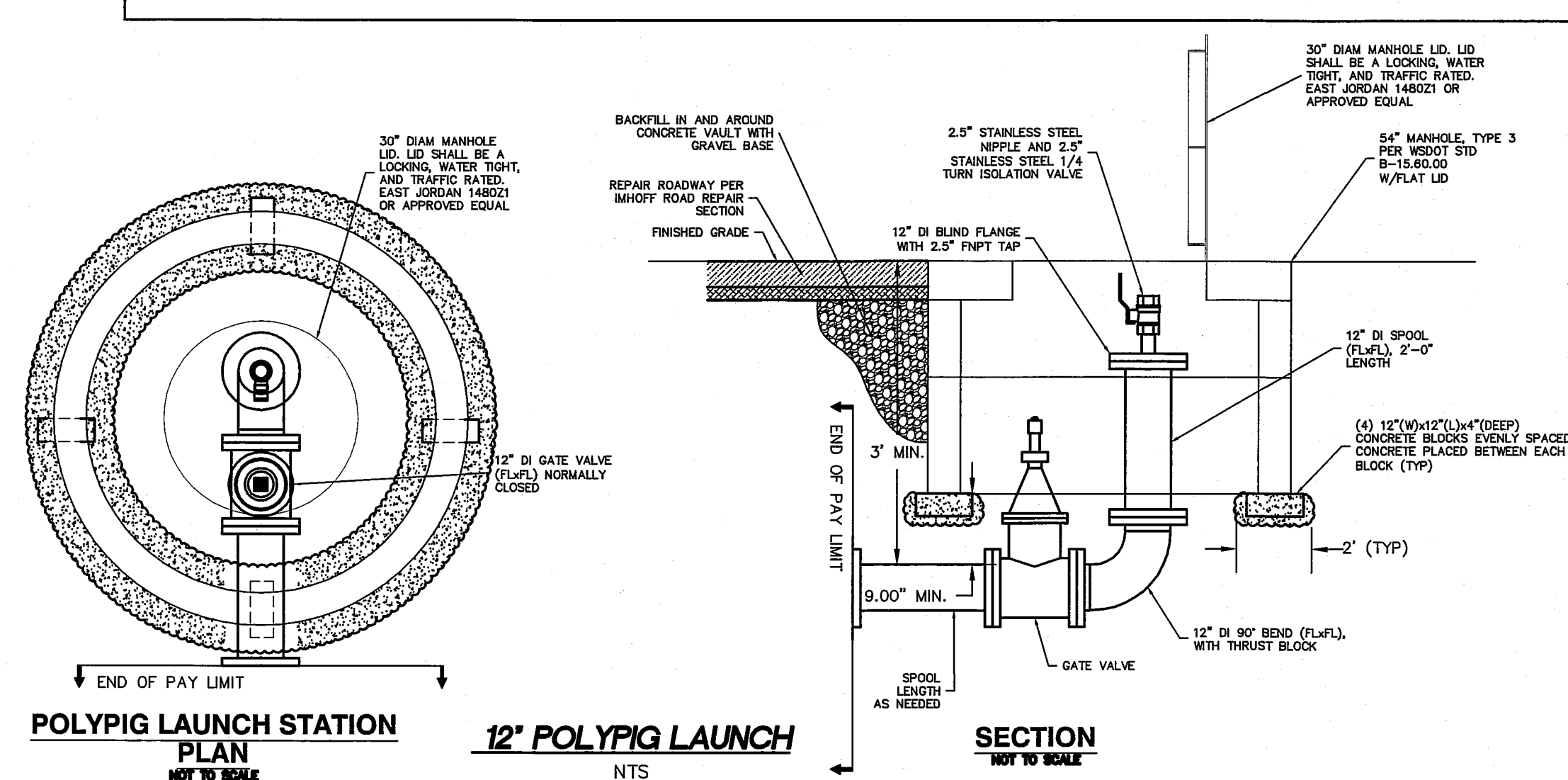
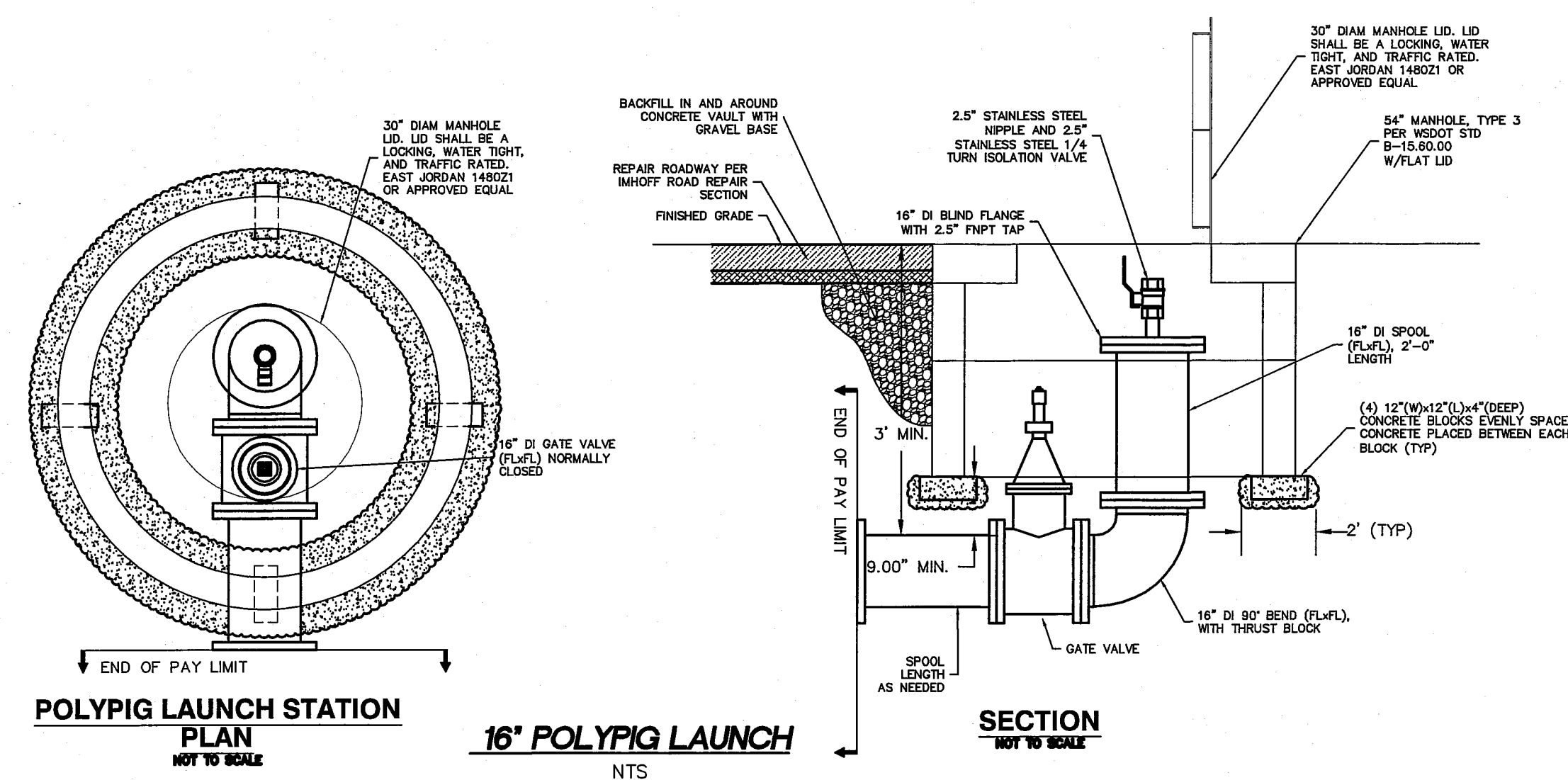
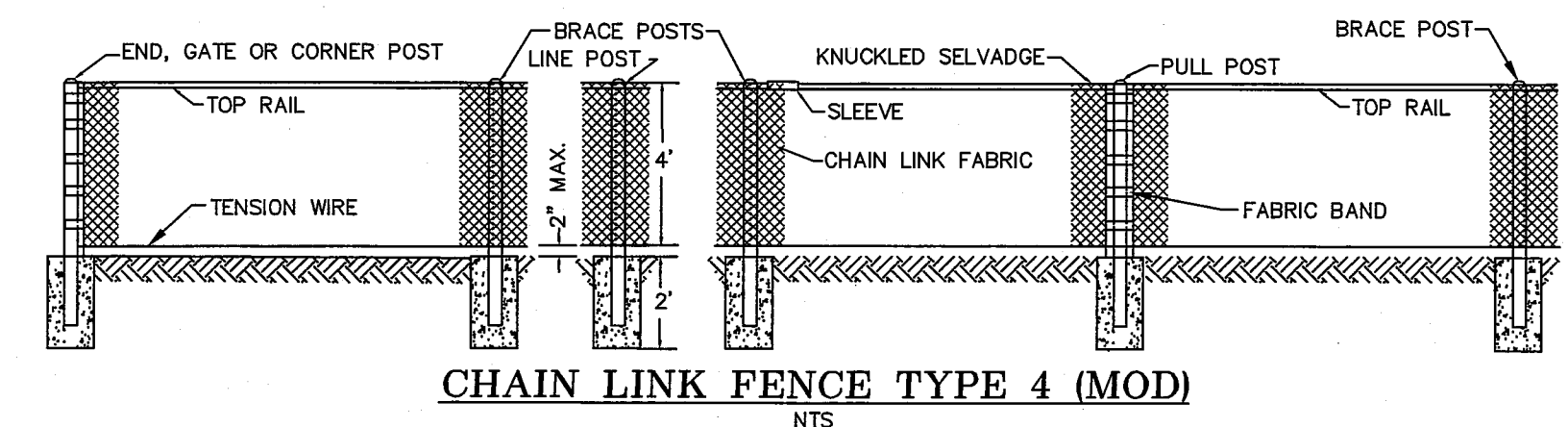
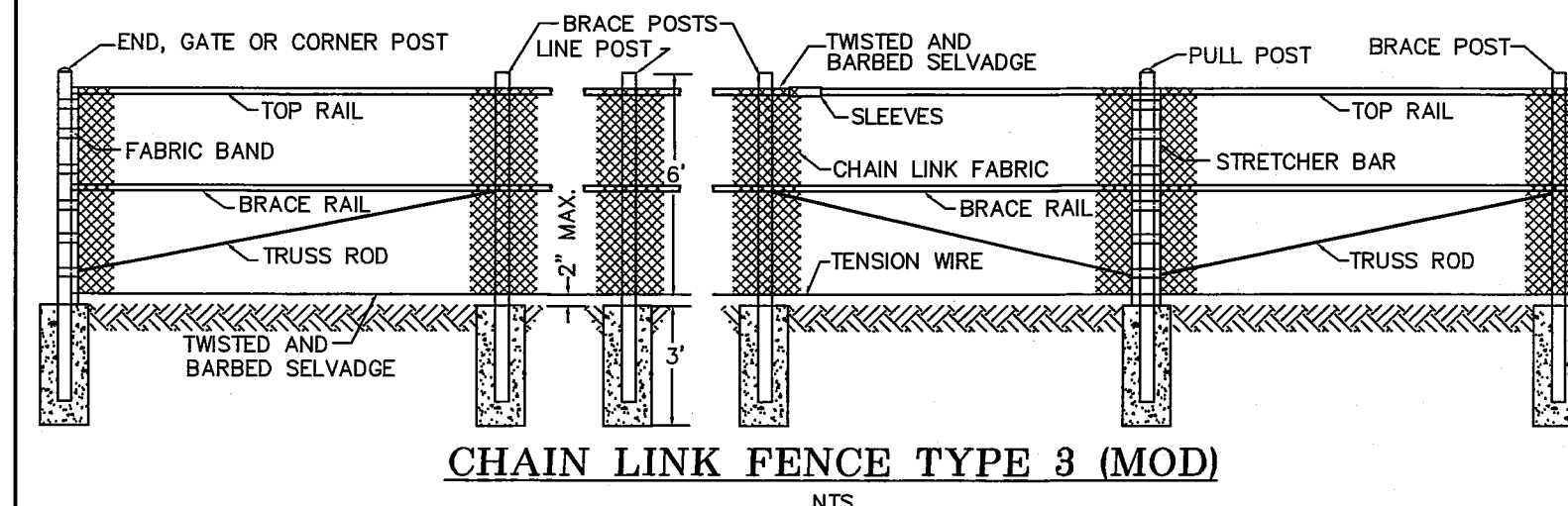


DESIGNED BY BEK DRAWN BY BEK CHECKED BY LP		REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407	NO. DATE REVISION BY	CITY OF FERNDAL PO BOX 936 FERNDAL, WA 98248	WELL WATER SUPPLY PROJECT TRAFFIC CONTROL PLAN IMHOFF ROAD CLOSURE	JOB# / DWG 10020 TC SCALE H:n/a V:n/a	DATE 4-20-11 SHEET 29 of 33
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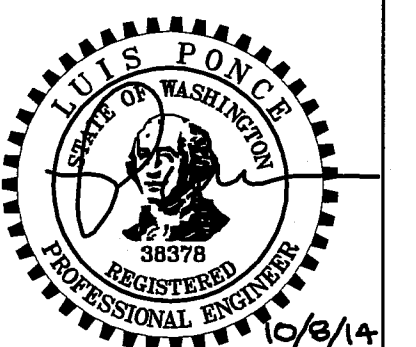
00573.029 10/10/14 SH



TYPE	MEMBER																			LENGTH
	BRACE RAIL & TOP RAIL						LINE & BRACE POST						END, CORNER & PULL POST			GATE POST				
	ROUND		H-COLUMN		ROLL FORMED		ROUND		H-COLUMN		ROLL FORMED		ROUND		ROLL FORMED		ROUND			
	I.D. PIPE (INCHES)	WEIGHT PER FOOT (POUNDS)	SIZE (INCHES)	WEIGHT PER FOOT (POUNDS)	SIZE (INCHES)	WEIGHT PER FOOT (POUNDS)	I.D. PIPE (INCHES)	WEIGHT PER FOOT (POUNDS)	SIZE (INCHES)	WEIGHT PER FOOT (POUNDS)	SIZE (INCHES)	WEIGHT PER FOOT (POUNDS)	I.D. PIPE (INCHES)	WEIGHT PER FOOT (POUNDS)	SIZE (INCHES)	WEIGHT PER FOOT (POUNDS)	I.D. PIPE (INCHES)	WEIGHT PER FOOT (POUNDS)		
3	1 1/4	2.27	1 1/4 x 1 5/8	1.35	1 5/8 x 1 1/4	1.35	2	3.65	2 1/4	4.0	1 5/8 x 1 7/8	2.34	2 1/2	5.79	3 1/2 x 3 1/2	5.14	3 1/2	9.1	8"–8"	
4	1 1/4	2.27	1 1/4 x 1 5/8	1.35	1 5/8 x 1 1/4	1.35	2	3.65	2 1/4	4.0	1 5/8 x 1 7/8	2.34	2 1/2	5.79	3 1/2 x 3 1/2	5.14	3 1/2	9.1	5"–6"	



**SUBMITTED WITH
DESIGN PLAN**





VOL. = Approx. Volume of Blocking Material Required in cu. ft.

SOIL BEARING CAPACITY 1500 PSF MINIMUM
100 P.S.I. OPERATING PRESSURE



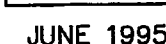
VOL. = Approx. Volume of Blocking Material Required in cu. ft.



*VOL. = Approx. Volume of Blocking Material Required in cu. ft.
RODS: A36 STEEL MINIMUM

THRUST BLOCKING NTS

VOL. = Approx. Volume of Blocking Material Required in cu. ft.

THRUST BLOCKING NTS

1. The size of the combination air release / air vacuum valve shall be specified in the Contract. The piping and valves shall be the same size as the combination air release / air vacuum valve.
2. Locate at the high point of the main, tap top of main.



**SUBMITTED WITH
DESIGN PLAN**



REICHHARDT & EBE
ENGINEERING, INC.

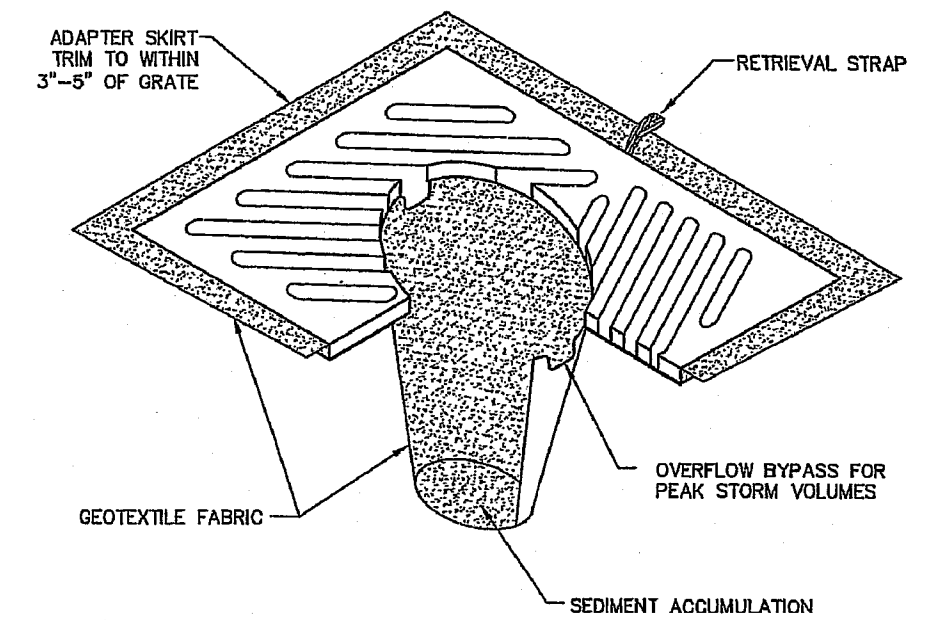
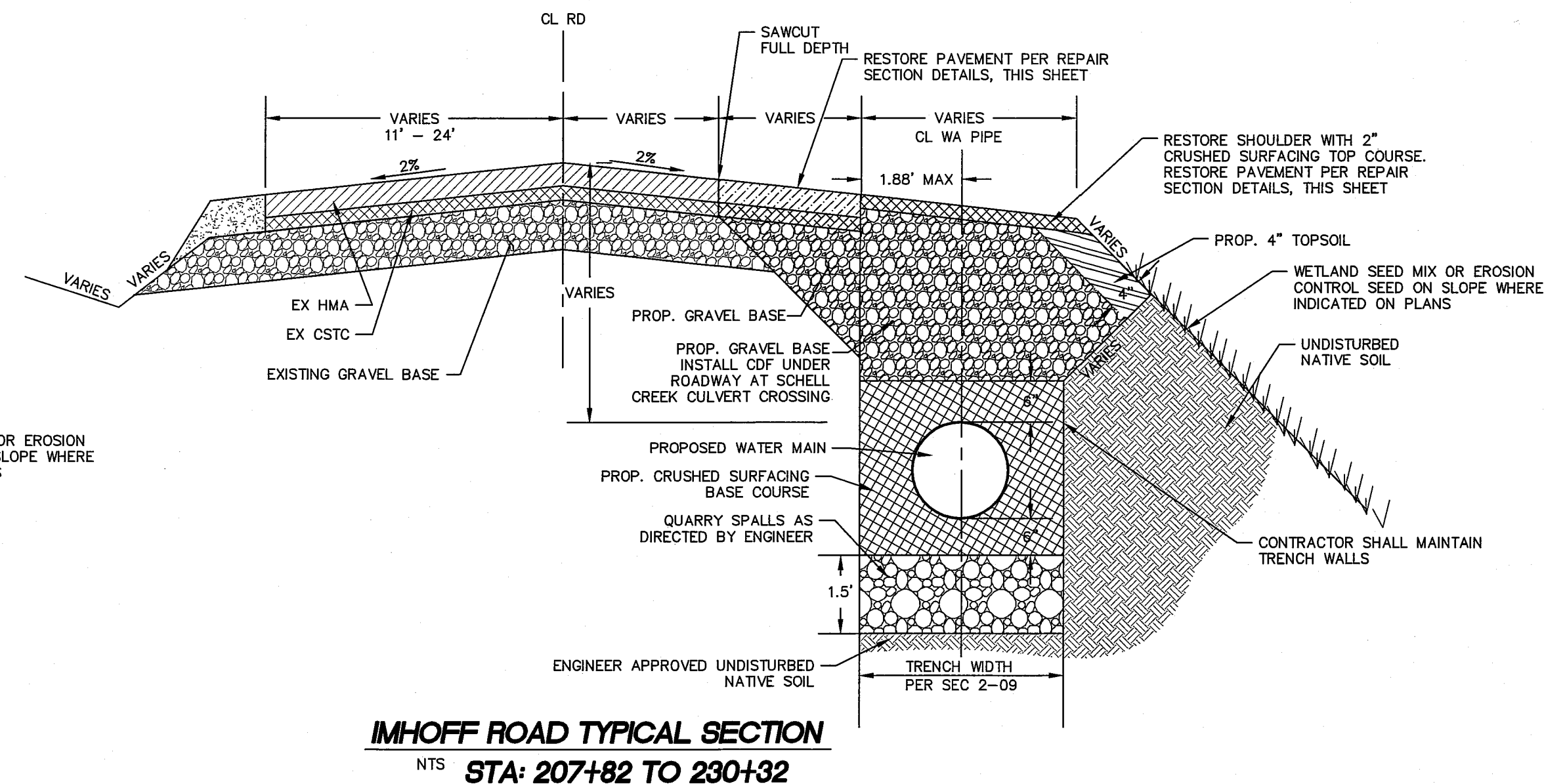
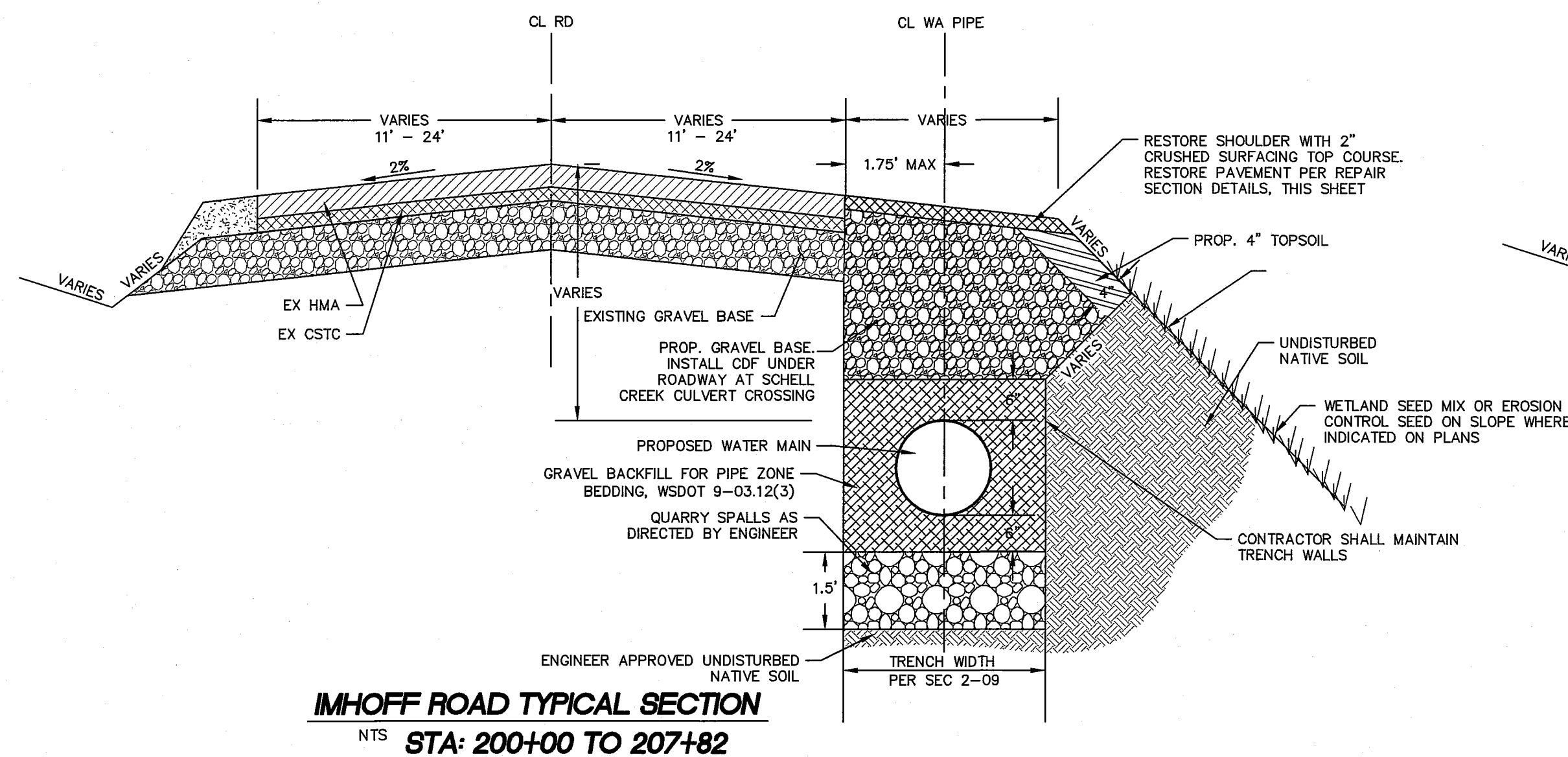
PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687
Lynden, Washington 98264 Fax (360) 354-0407

CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA 98248

WELL WATER SUPPLY PROJECT DETAIL SHEET

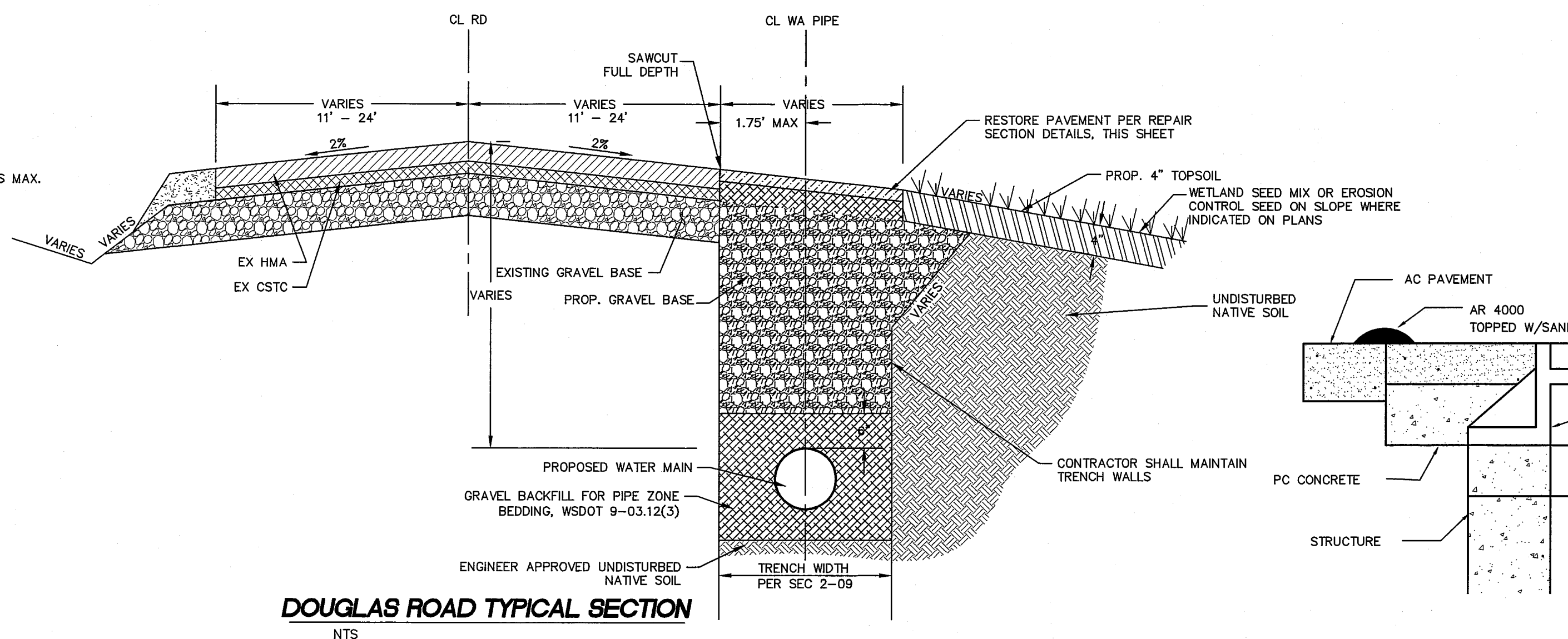
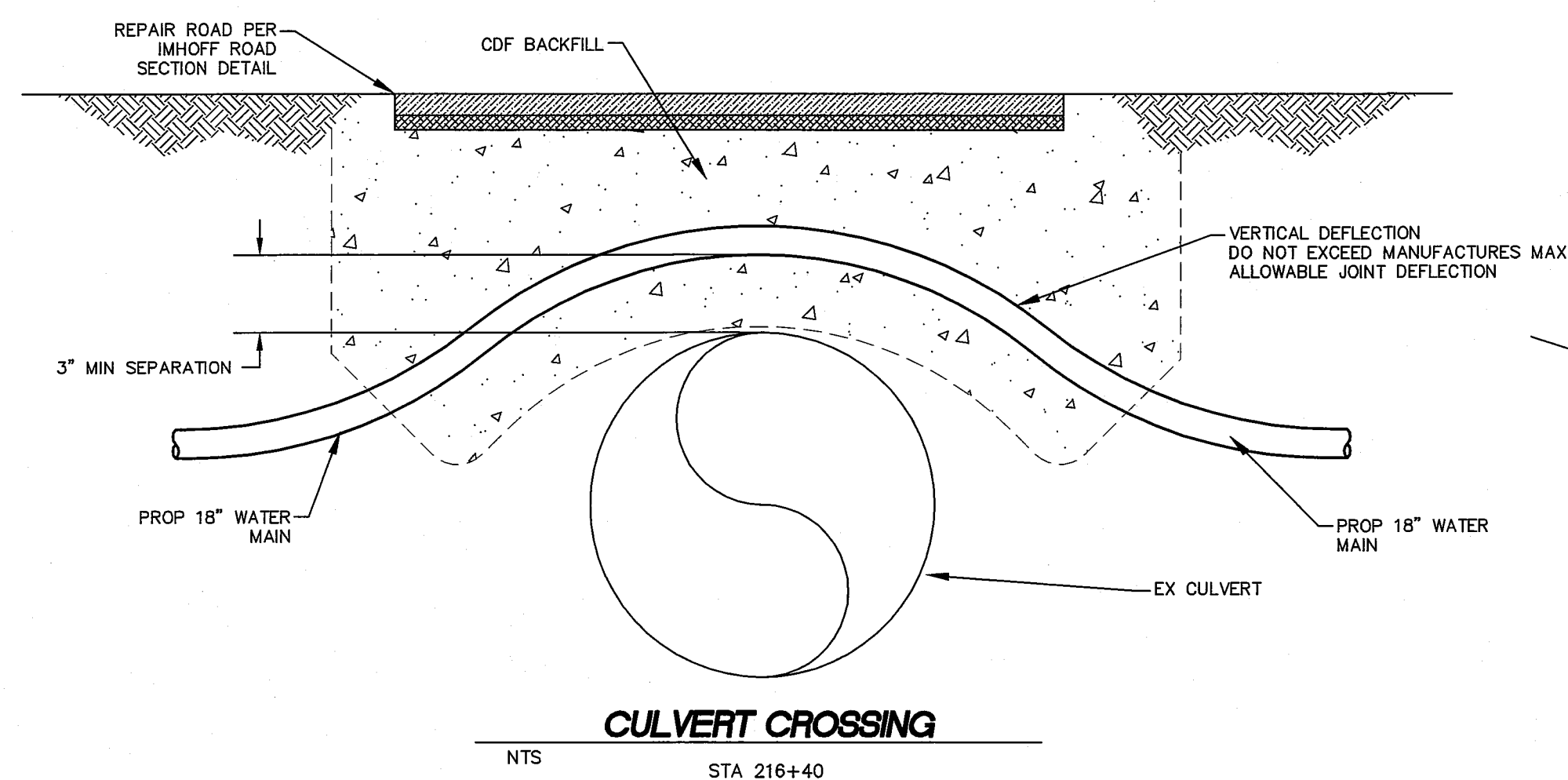
JOB# / DWG 10020	DET.1ADD	DATE 5/5/11
SCALE H: N/A v: N/A		SHEET 31 of 33

AS 4/10/01 728-26500

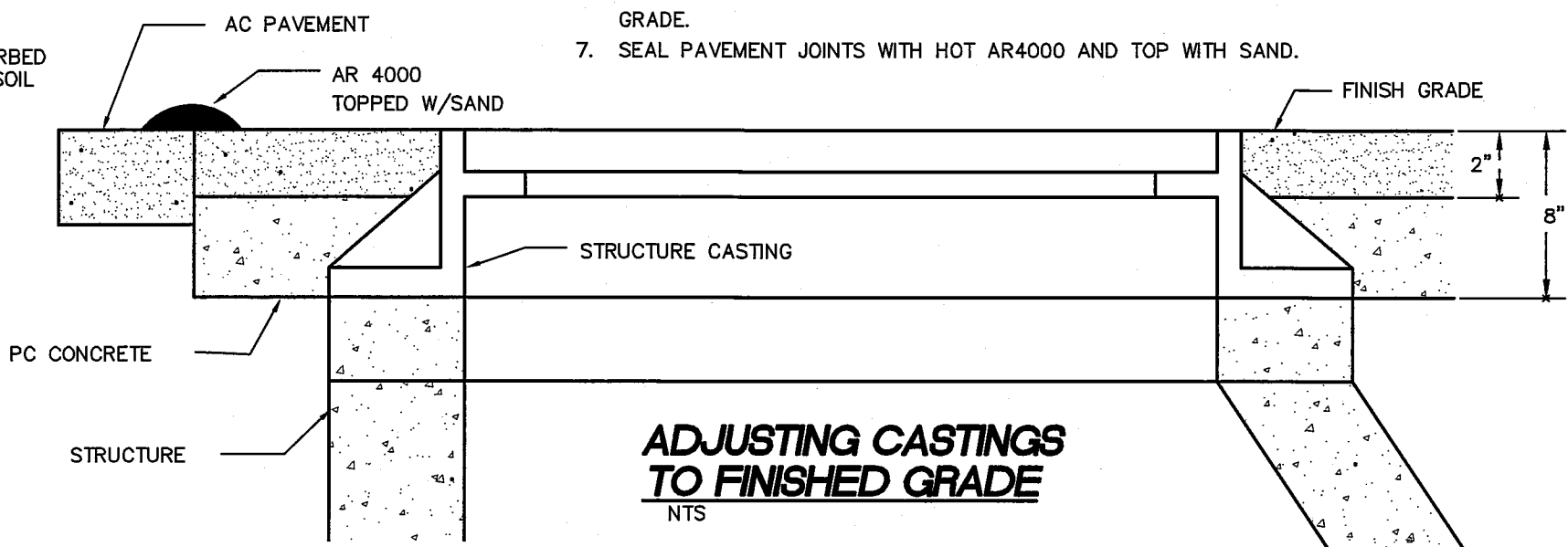


- NOTES:**
1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
 2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
 3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH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

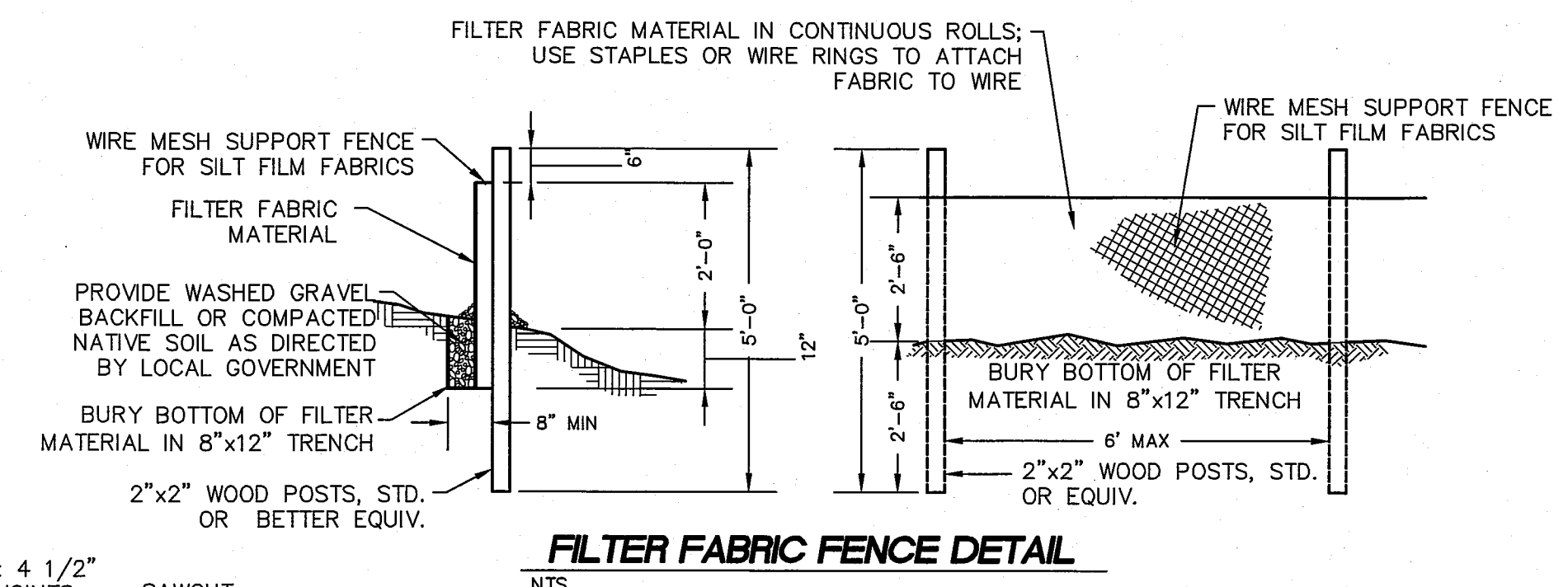
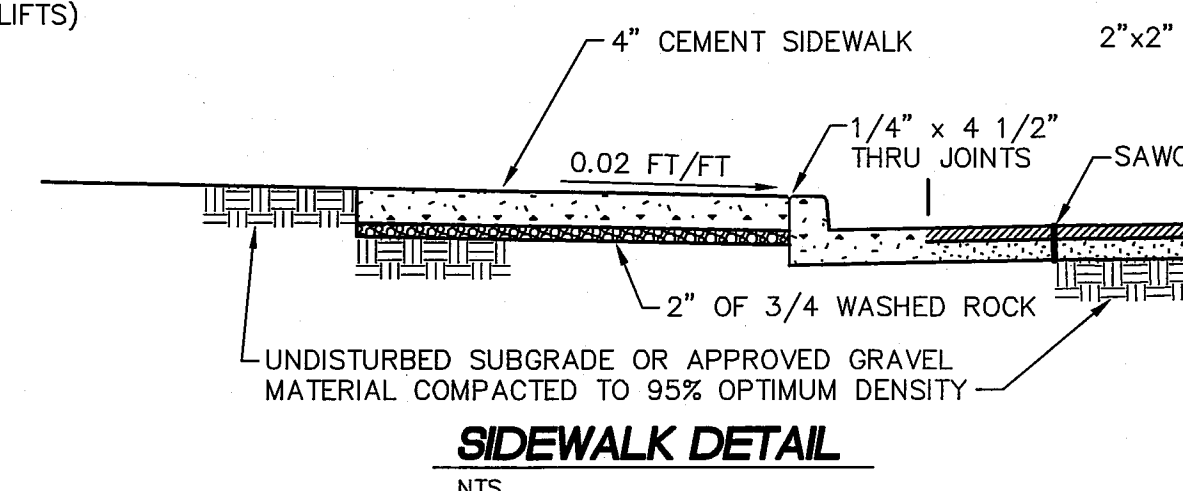
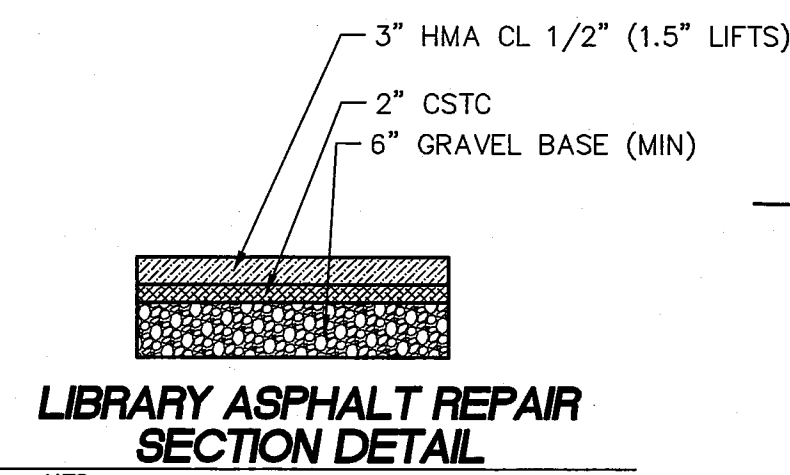
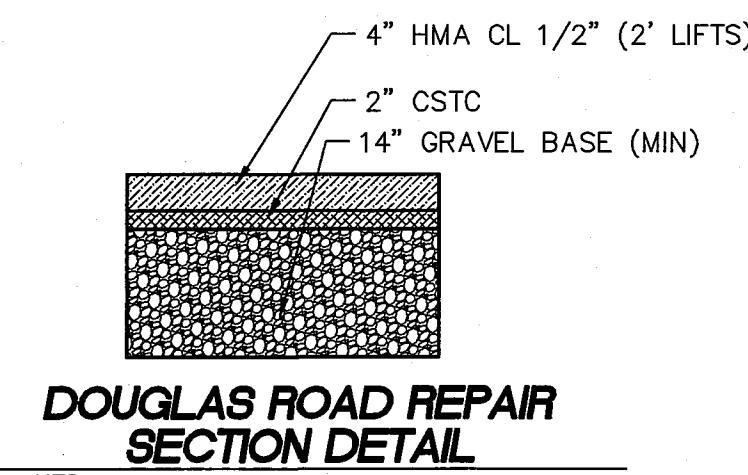
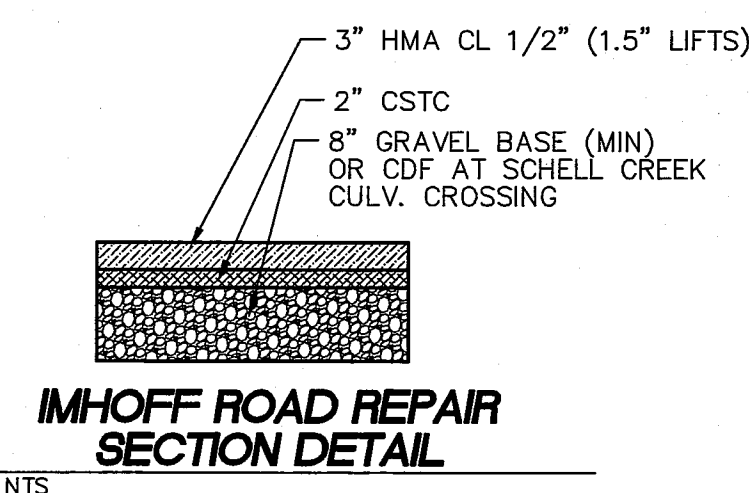
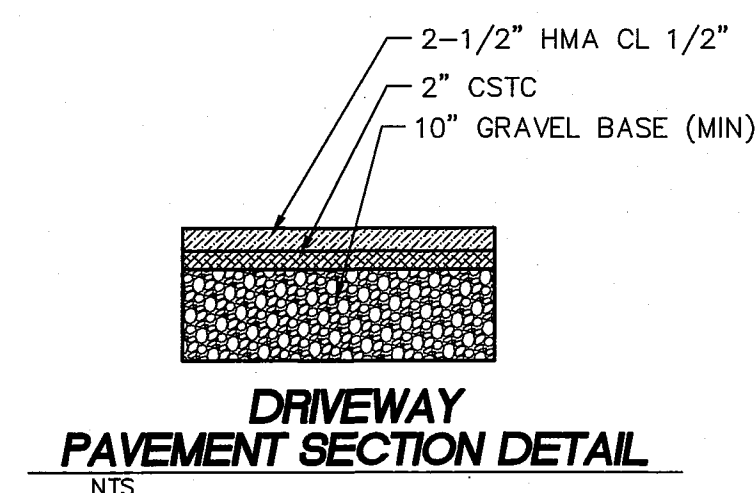
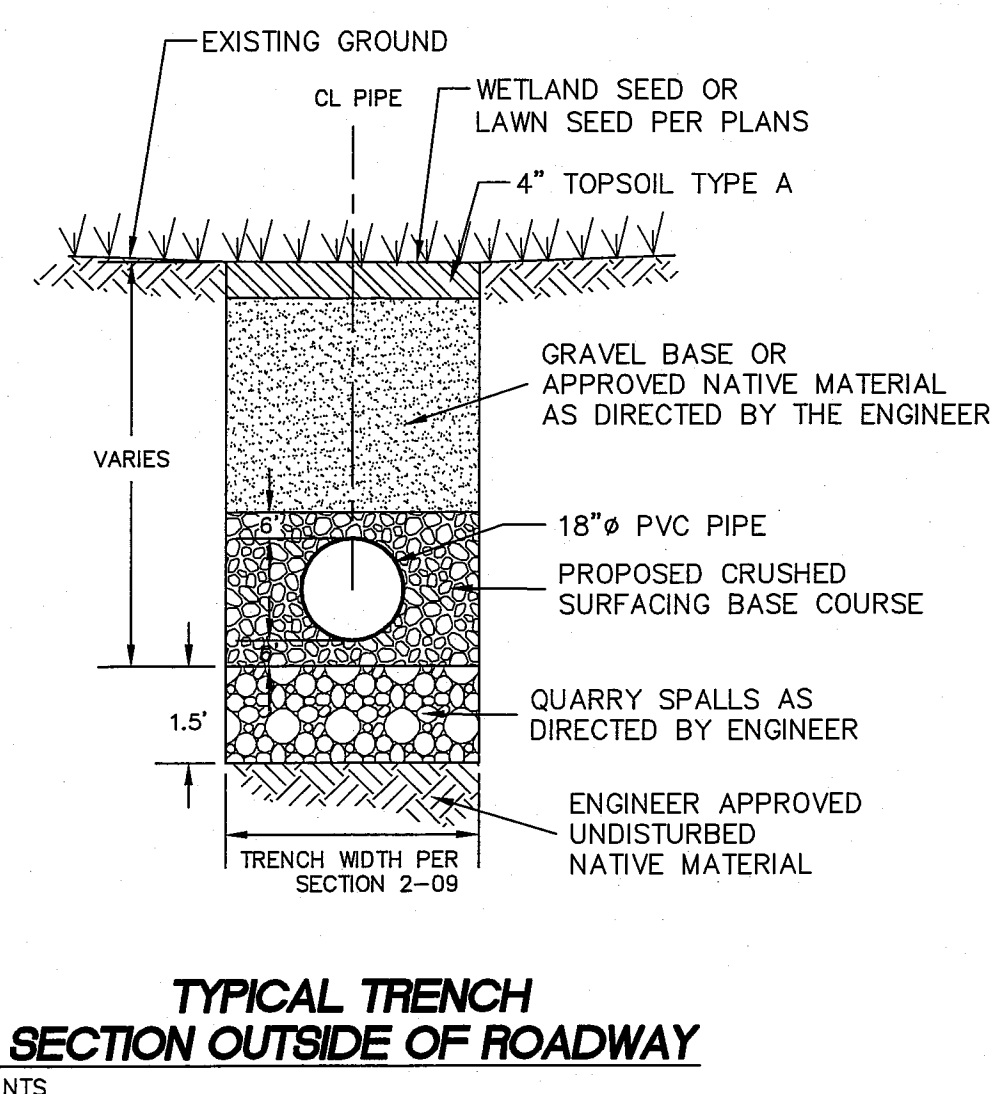
INLET PROTECTION
NTS



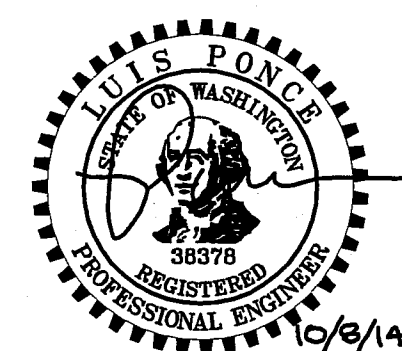
- NOTES:**
- ALL FRAMES, COVERS AND VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADE AFTER THE FINAL LIFT OF PAVING HAS BEEN COMPLETED. THE FOLLOWING PROCEDURE SHALL BE USED:
1. CUT THE ASPHALT IN AN EVEN CIRCLE AROUND THE STRUCTURE CASTING TO BE ADJUSTED.
 2. REMOVE THE FILL MATERIAL WITHIN THE CUT PAVEMENT 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. PLACE AND COMPACT 2 INCHES OF ASPHALT CONCRETE CLASS B TO FINISH GRADE.
 7. SEAL PAVEMENT JOINTS WITH HOT AR4000 AND TOP WITH SAND.



ADJUSTING CASTINGS TO FINISHED GRADE
NTS



SUBMITTED WITH DESIGN PLAN



DESIGNED BY
BEK
DRAWN BY
BEK
CHECKED BY
LP



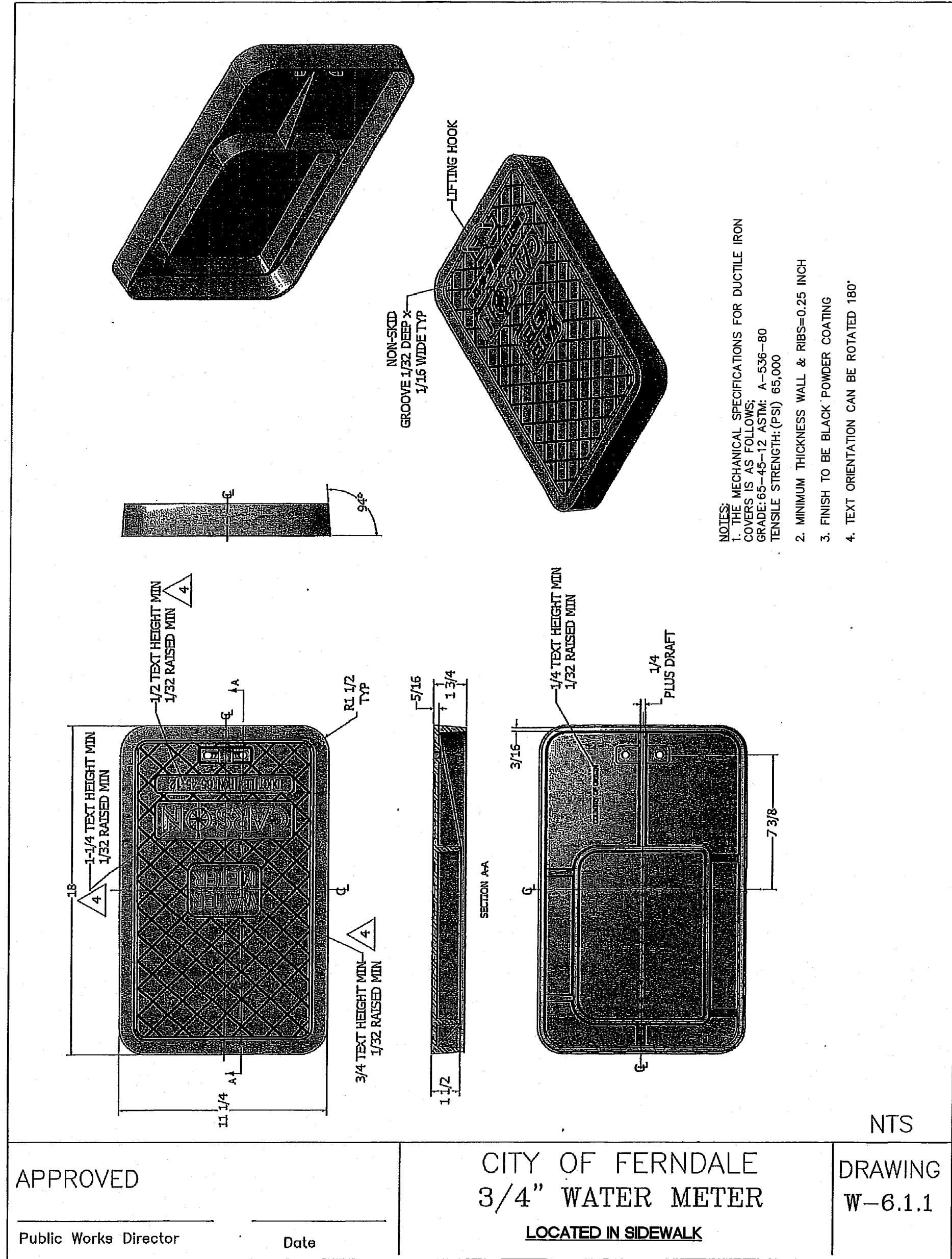
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PO Box 978 423 Front St., Ste 201
Lynden, Washington 98264
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NO.	DATE	REVISION	BY

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2095 MAIN STREET
FERDALE, WA 98248

WELL WATER SUPPLY PROJECT
DETAIL SHEET

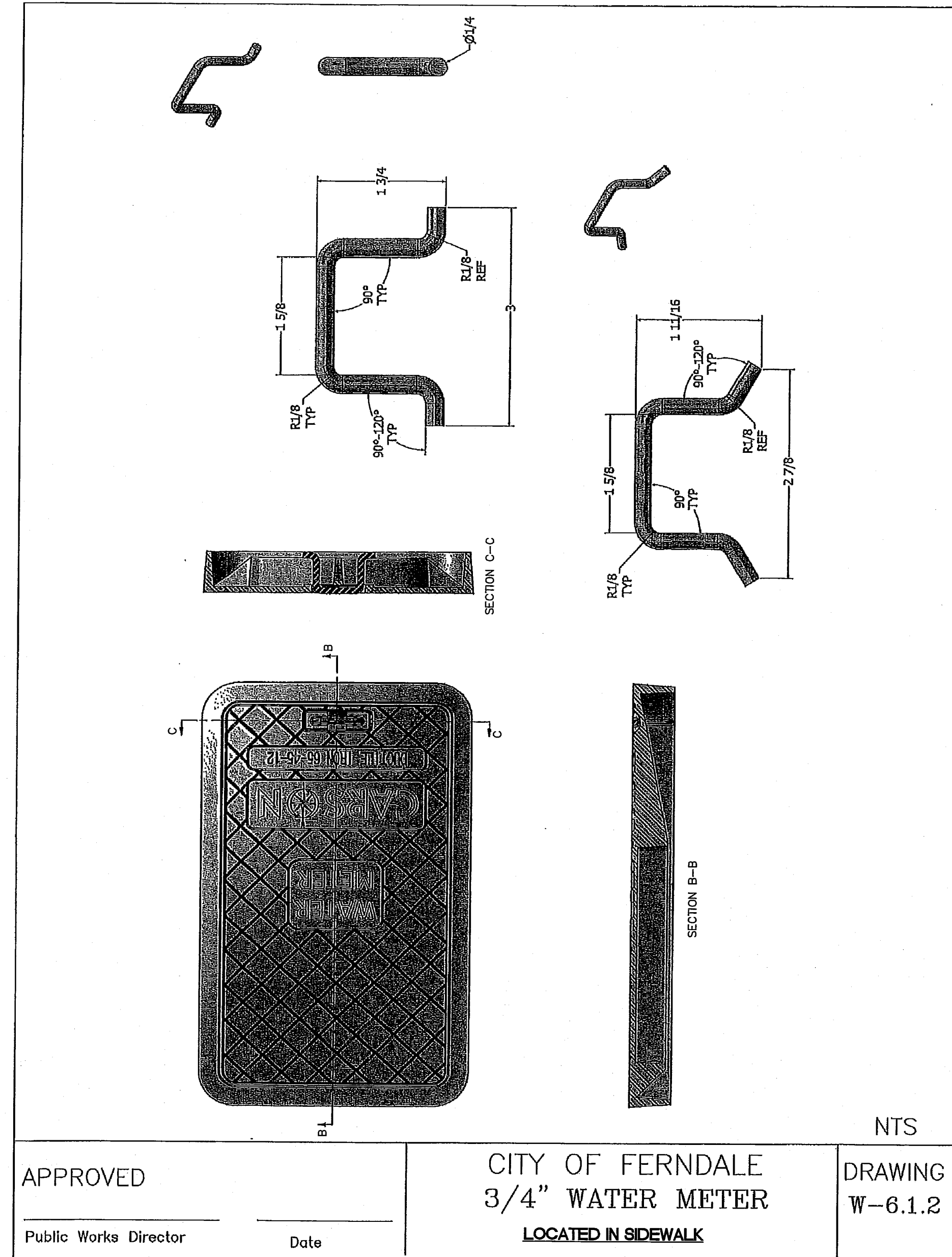
JOB# / DWG	10020	DET.1ADD	DATE	5/5/11
SCALE	H: N/A	V: N/A	SHEET	32 of 33



APPROVED _____ Date _____
Public Works Director

CITY OF FERNDAL
3/4" WATER METER
LOCATED IN SIDEWALK

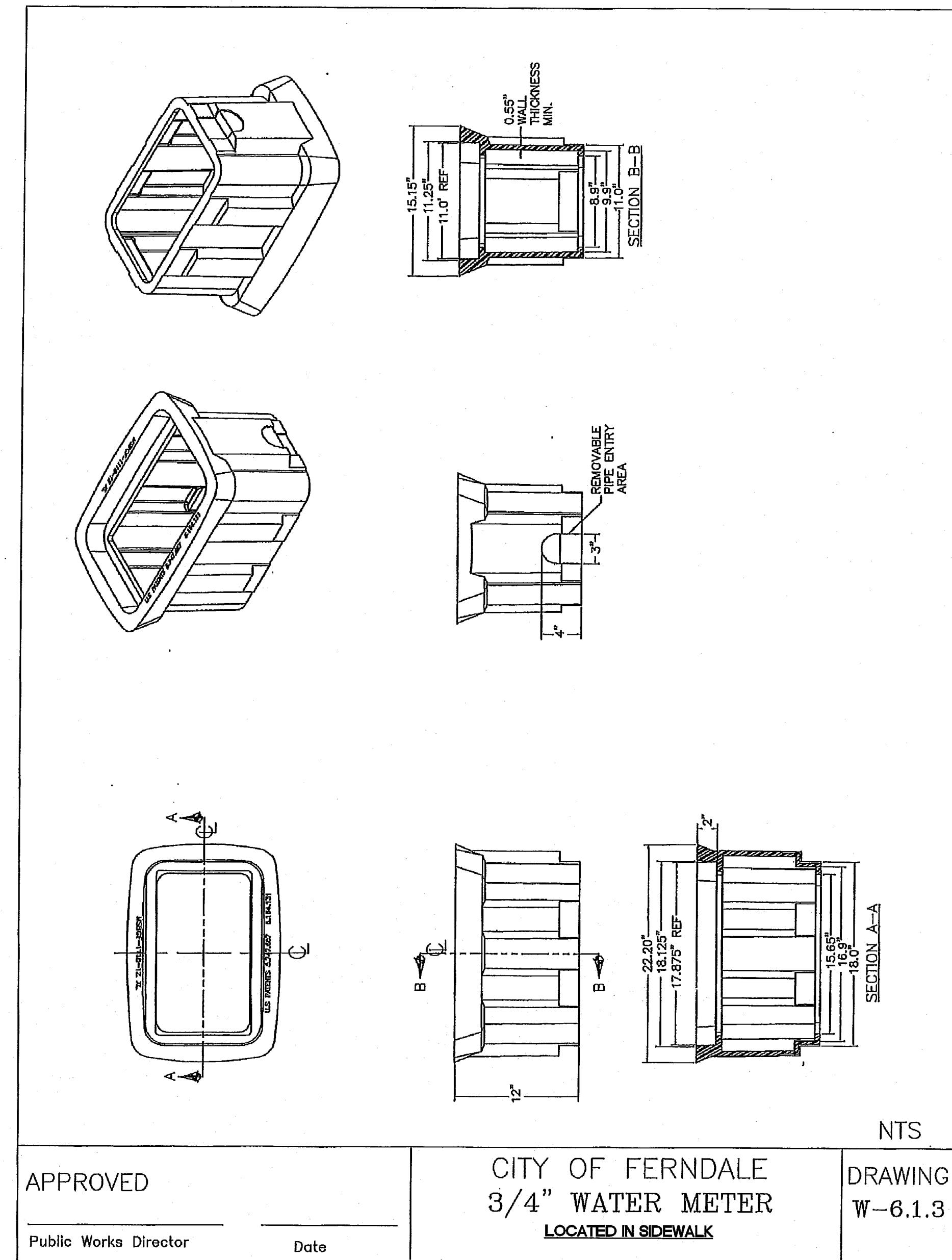
DRAWING
W-6.1.1



APPROVED _____ Date _____
Public Works Director

CITY OF FERNDAL
3/4" WATER METER
LOCATED IN SIDEWALK

DRAWING
W-6.1.2

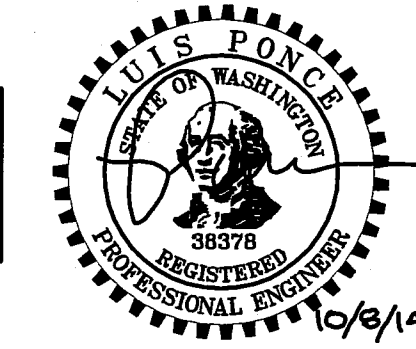


APPROVED _____ Date _____
Public Works Director

CITY OF FERNDAL
3/4" WATER METER
LOCATED IN SIDEWALK

DRAWING
W-6.1.3

SUBMITTED WITH
DESIGN PLAN



DESIGNED BY
BEK
DRAWN BY
BEK
CHECKED BY
LP

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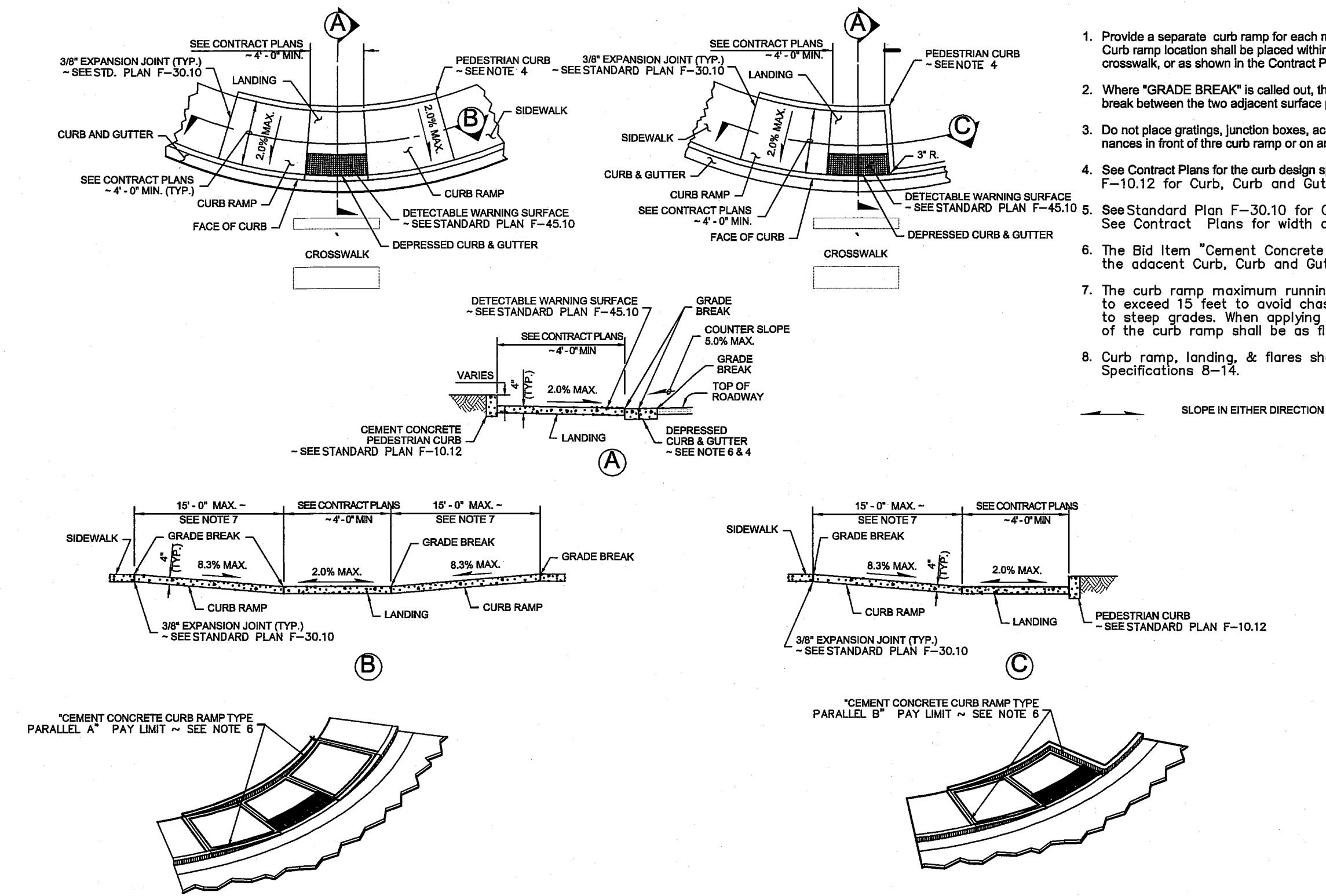
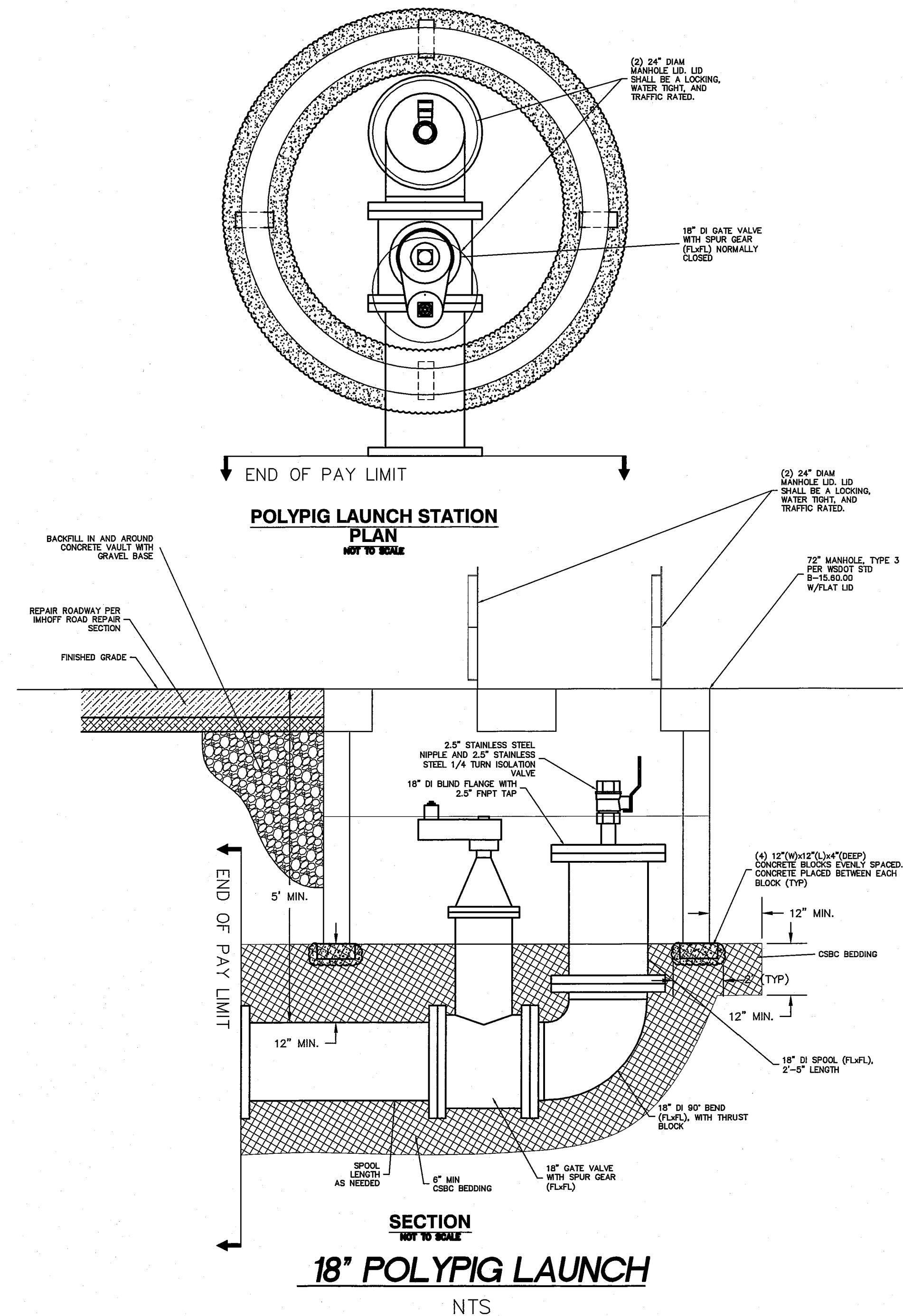
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FERNDAL, WA 98248

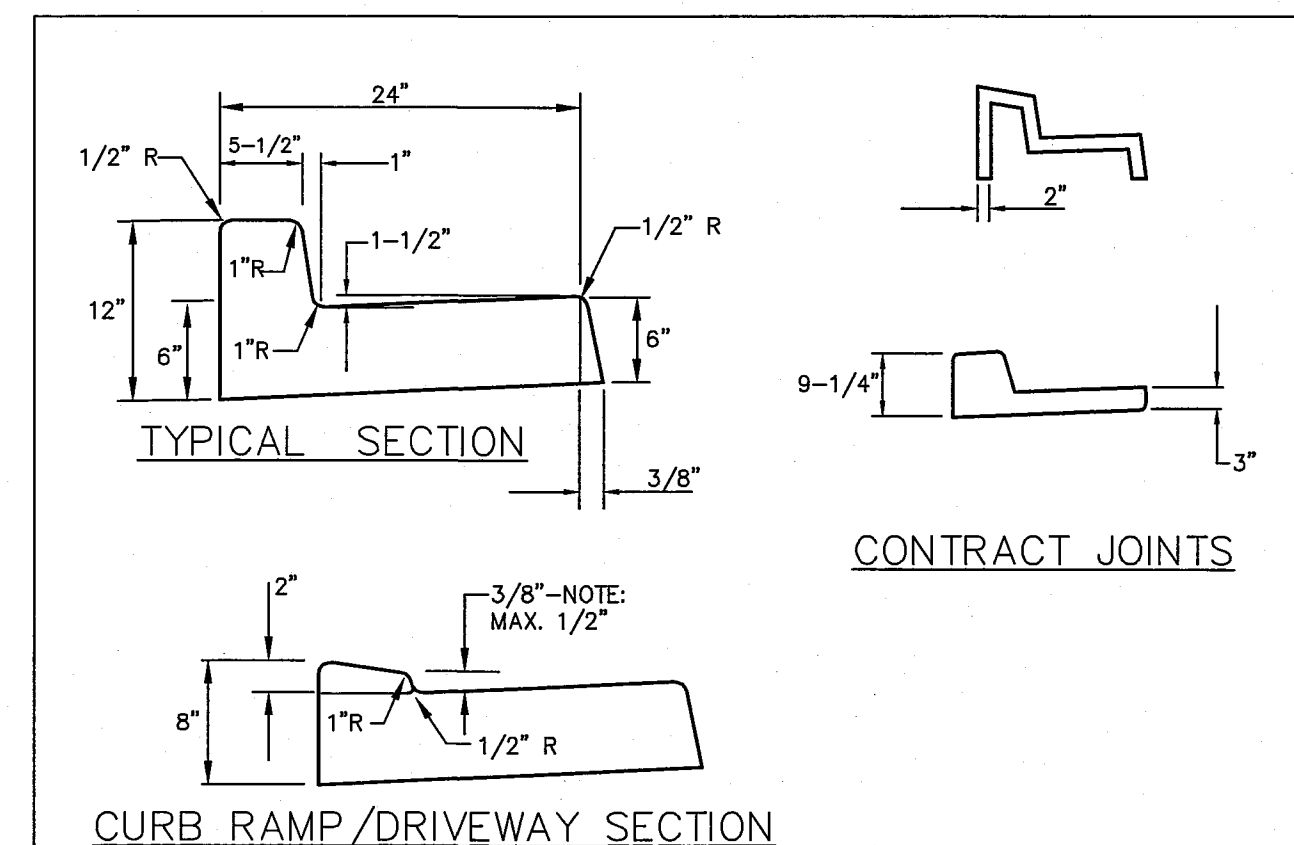
WELL WATER SUPPLY PROJECT
DETAIL SHEET

JOB# / DWG
10020 DET.1ADD
SCALE
H: N/A V: N/A
DATE
5/5/11
SHEET
33 of 33

00573.033 10/10/14 SH



1. Provide a separate curb ramp for each marked or unmarked crosswalk. Curb ramp location shall be placed within the width of the associated crosswalk, or as shown in the Contract Plans.
2. Where "GRADE BREAK" is called out, the entire length of the grade break between the two adjacent surface planes shall be flush.
3. Do not place gratings, junction boxes, access covers, or other appurtenances in front of the curb ramp or on any part of the curb ramp or landing.
4. See Contract Plans for the curb design specified. See Standard Plan F-10.12 for Curb, Curb and Gutter, and Pedestrian Curb Details.
5. See Standard Plan F-30.10 for Cement Concrete Sidewalk Details. See Contract Plans for width and placement of sidewalk.
6. The Bid Item "Cement Concrete Curb Ramp Type ___" does not include the adjacent Curb, Curb and Gutter, Pedestrian Curb or Sidewalks.
7. The curb ramp maximum running slope shall not require the ramp length to exceed 15 feet to avoid chasing the slope indefinitely when connecting to steep grades. When applying the 15 foot max. length, the running slope of the curb ramp shall be as flat as feasible.
8. Curb ramp, landing, & flares shall receive broom finish. See Standard Specifications 8-14.



GENERAL NOTES

CONTRACTION JOINTS OF ONE OF THE TYPES SHOWN ABOVE TO BE PLACED 10°C/C. JOINTS MUST COMPLETELY SEVER THE STRUCTURE TO THE POINTS SHOWN. JOINTS MAY BE MADE BY INSERTING MIN. 3/16" BITUMINOUS FILLER DUMMY JOINTS. JOINTS SHALL BE CLEANED AND EDGED.

2" WEEP HOLES TO BE PLACED ON EACH SIDE OF DRIVEWAY SECTION & A MAX. 60" C/C IN OUT SECTIONS WHERE SIDEWALK DRAIN NOT REQUIRED BY PUBLIC WORKS DIRECTOR.

3/4" EXPANSION JOINTS TO BE PLACED AT DRIVEWAY SECTIONS, CURB RETURNS, CURB RAMPS, & COLD JOINTS OR A MAX. OF 80" C/C. EXPANSION JOINTS SHALL PROTRUDE 1" BELOW THE BOTTOM OF GUTTER.

CONCRETE SHALL BE CEMENT CONCRETE "CLASS 3000".

FINISHED WORK SHALL NOT VARY MORE THAN 1/8" IN GRADE AND 1/4" IN ALIGNMENT WHEN CHECKED WITH A 10" STRAIGHT EDGE.

EXPOSED SURFACES SHALL BE BRUSHED WITH A FIBER HAIR BRUSH.

WHITE PIGMENTED OR TRANSPARENT CURING COMPOUND SHALL BE APPLIED AS OUTLINED IN THE STANDARD SPECIFICATIONS.

FURTHER REQUIREMENTS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

**SUBMITTED WITH
DESIGN PLAN**



NOT TO SCALE		
APPROVED	CITY OF FERNDAL	DRAWING
Public Works Director	CURB AND GUTTER	R-9
DATE		

JULY 2001

DESIGNED BY
BEK
DRAWN BY
BEK
CHECKED BY
LP

R&E

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05573-033.1 10/10/14 SH