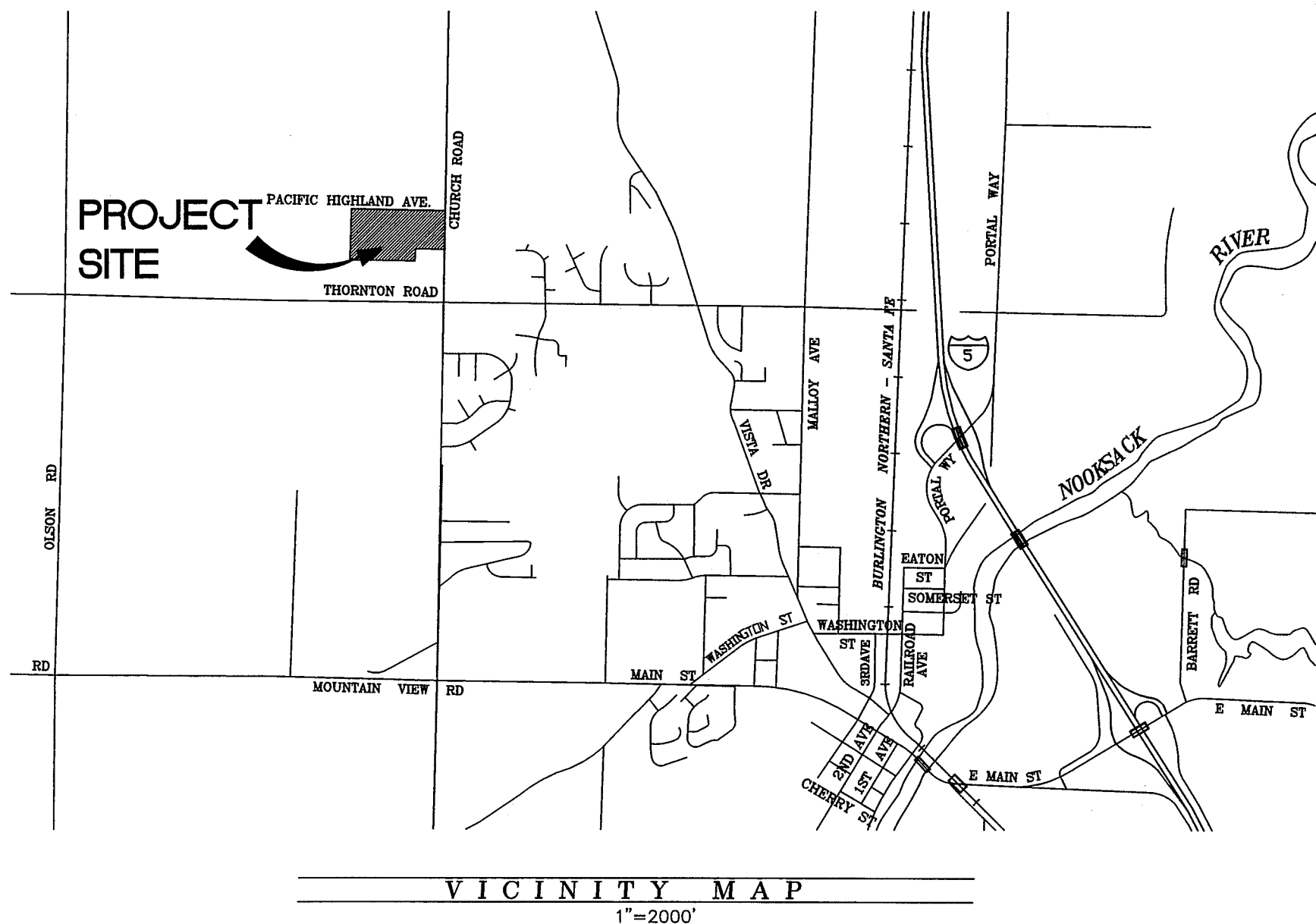
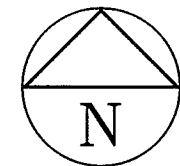




FERNDALE SCHOOL DISTRICT NEW ELEMENTARY SCHOOL FERNDALE, WASHINGTON

CONSULTING ENGINEER:
DAVID EVANS AND ASSOCIATES, INC.

RECORD DRAWING - 10/14/08

DRAWING INDEX

SHEET NO.	DRAWING TITLE
C1	COVER SHEET
C2	EXISTING CONDITIONS
C3	STORMWATER POLLUTION PREVENTION PLAN
C4	SWPPP NOTES AND DETAILS
C5	GRADING PLAN
C6	STORM DRAINAGE PLAN
C7	UTILITY PLAN
C8-C9	ROAD, STORM, WATER AND SEWER PROFILES
C10	ROADWAY AND STORM DETAILS
C10-1	CHURCH ROAD CROSS SECTION
C11	SANITARY SEWER AND WATER DETAILS
C12	STORMWATER DETAILS
C13	DRY UTILITY LAYOUT
C14	PACIFIC HIGHLANDS AVENUE DITCH REALIGNMENT

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BURIED POWER
		OVERHEAD POWER
		TELEPHONE
		GAS
		STORM DRAINAGE
		SEWER
		WATER
		SILT FENCE
		DITCH / BIOSWALE
		RIGHT-OF-WAY
		EASEMENT
		CONTOUR
		FENCE
		ROAD CENTERLINE
		CULVERT
		FIRE HYDRANT
		CATCH BASIN
		MANHOLE
		VALVE
		WATER METER
		WATER BLOWOFF
		POWER VAULT
		TELEPHONE VAULT
		TELEPHONE RISER
		SURFACE MONUMENT
		TREES
		SIGN
		RIP RAP
		UTILITY POLE
		GUY WIRE
		LIGHT POLE
		LUMINAIRE
		ASPHALT PAVEMENT
		PORTLAND CEMENT CONCRETE
		GRAVEL ROAD

NOTES

GENERAL NOTES

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION WASHINGTON STATE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS (STANDARD SPECIFICATIONS) AND STANDARD PLANS (STANDARD PLANS) FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AND THE CITY OF FERNDALE DEVELOPMENT STANDARDS (CITY STANDARDS), LATEST EDITION. ALL WORK AND MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE.
- UNDERGROUND UTILITIES ARE KNOWN TO EXIST IN THE AREA OF CONSTRUCTION. THE LOCATION OF EXISTING UTILITIES SHOWN ON THE PROJECT DRAWINGS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY OWNERS FOR LOCATIONS AND TO FIELD VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION. THE ONE-CALL NUMBER FOR UNDERGROUND UTILITY LOCATES IS 1-800-424-5555. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND FOR NOTIFYING THE ENGINEER PROMPTLY OF ANY CONFLICTS WITH EXISTING UTILITIES.
- PUBLIC RIGHTS-OF-WAY SHALL BE KEPT IN A CLEAN AND SERVICEABLE CONDITION AT ALL TIMES. IN THE EVENT THAT MATERIALS ARE INADVERTENTLY DEPOSITED IN PUBLIC RIGHTS-OF-WAY, THE MATERIAL SHALL BE PROMPTLY REMOVED. MATERIALS ARE TO BE SWEEPED AND REMOVED PRIOR TO ANY STREET WASHING. PUBLIC AND PRIVATE DRAINAGE WAYS SHALL BE PROTECTED FROM POLLUTION AND SEDIMENTATION. FAILURE TO MEET THESE REQUIREMENTS MAY RESULT IN VIOLATION OF STATE OR FEDERAL WATER QUALITY STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING AS-BUILT INFORMATION. AS-BUILT DRAWINGS SHALL INCLUDE THE EXACT LOCATION OF ALL UNDERGROUND AND ABOVE-GROUND UTILITIES. UPON COMPLETION OF THE PROJECT, THESE AS-BUILT DRAWINGS SHALL BE GIVEN TO THE PROJECT ENGINEER FOR INCORPORATION INTO THE PROJECT'S RECORD DRAWINGS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES (SILT FENCE, STRAW BALE DAMS, SILT PONDS, ETC.), THROUGHOUT THE DURATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING.
- ALL HARD SURFACE PAVEMENTS MUST BE REPAIRED AT THE CLOSE OF EACH WORK DAY. THE REPAIRS CAN BE TEMPORARY WITH ASPHALT COLD MIX OR PERMANENT WITH HOT MIX ASPHALT OR CONCRETE.

WATER MAIN SPECIFICATIONS

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTIONS 7-08 TO 7-15 AND THE CITY STANDARDS, SECTION 705, AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE.
- ALL WORK MUST BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF THE CITY OF FERNDALE DEPARTMENT OF PUBLIC WORKS. 24-HOURS NOTICE MUST BE GIVEN PRIOR TO STARTING WORK OR TO SCHEDULE INSPECTIONS.
- ALL WATER MAIN PIPE SHALL BE DUCTILE IRON, THICKNESS CLASS 50, WITH CEMENT LINING IN ACCORDANCE WITH A.W.W.A. STANDARD C151-71 AND CEMENT LINING C104-71.

- PIPE LAYING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 7-11. ALL PIPE SHALL HAVE A MINIMUM COVER OF 3.5 FEET.
- ALL VALVES SHALL BE RESILIENT SEAT GATE VALVES IN ACCORDANCE WITH CITY STANDARDS, SECTION 705.B.3.
- ALL FIRE HYDRANTS SHALL BE IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. W-1.
- ALL BLOW OFFS SHALL BE IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. W-9 FOR EXTENDABLE MAIN.
- HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTIONS 7-11.3(11) AND 7-11.3(12).

SEWER SPECIFICATIONS

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTIONS 7-08, 7-17 TO 7-19 AND THE CITY STANDARDS, SECTION 706, AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE.
- ALL WORK MUST BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF THE CITY OF FERNDALE DEPARTMENT OF PUBLIC WORKS. 24-HOURS NOTICE MUST BE GIVEN PRIOR TO STARTING WORK OR TO SCHEDULE INSPECTIONS.
- TRENCH EXCAVATION AND BEDDING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 7-08.3(1)A AND WITH CITY STANDARDS, DRAWING NO. SS-1 AND SS-15.
- SANITARY PIPE MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 7-08.3(2)B.
- PIPE LAYING SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 7-08.3(2)B.
- ALL SIDE SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. SS-6, SS-8, AND SS-13.
- ALL MANHOLES SHALL BE IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. SS-2 AND SHALL HAVE FIELD CONSTRUCTED CHANNEL AND SHELF.
- ALL CLEANOUTS SHALL BE IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. SS-5.
- ALL SEWER PIPE SHALL BE CLEANED AND AIR PRESSURE TESTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 7-17.3(2).

STREET SPECIFICATIONS

- THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A REPORT FROM A QUALIFIED GEOTECHNICAL FIRM ASCERTAINING THE SUBGRADE BEARING CAPACITY AND CERTIFYING THE COMPACTION OF THE GRAVEL BASE UNDER ALL PAVED AREAS.

- ASPHALT CONCRETE PAVEMENT SHALL BE CLASS "B". MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 5-04, EXCEPT AS MODIFIED HEREIN. CONNECTIONS TO EXISTING PAVEMENT SHALL BE TO A STRAIGHT, NEATLY-TRIMMED LINE.
- CRUSHED ROCK SURFACING FOR PAVEMENT BASE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION, SECTION 9-03.9(3); BALLAST PER SECTION 9-03-9(1).
- CEMENT CONCRETE SHALL BE CLASS 3000 (WITH AIR ENTRAINMENT) IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 6-02.3(2)B.
- CEMENT CONCRETE SIDEWALK SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER, IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. R-12.
- CEMENT CONCRETE DRIVEWAYS SHALL BE 6 INCHES THICK AND CONSTRUCTED WHERE SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. R-15. A 2-INCH LAYER OF 3/4 INCH DRAIN ROCK SHALL BE USED FOR DRIVEWAY BEDDING.
- CEMENT CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER, IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 8-04 AND CITY STANDARDS, DRAWING NO. R-9 AND ST-8. HANDICAP RAMPS PER F-3, WDOT STANDARD PLANS. WHERE NEW CEMENT CONCRETE CURB AND GUTTER IS TO BE CONSTRUCTED TO CONNECT TO EXISTING CURBED ROADWAY, CARE SHALL BE TAKEN TO ASSURE THAT NO ABRUPT OFFSETS IN LINE OR GRADE SHALL BE CONSTRUCTED WHICH WILL BE UNSIGHTLY OR IMPEDE FLOW IN THE GUTTER LINE.
- THRU-CURB BASINS AND THRU-CURB INLETS CONFORMING TO THE STANDARD SPECIFICATIONS, SECTION 7-06 SHALL BE CONSTRUCTED AT THE LOW POINTS OF THE CURBS AND TO THE LOCATIONS, DIMENSIONS, AND DETAILS AS SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER AND CITY STANDARDS, DRAWING NO. ST-8.
- TRENCH EXCAVATIONS, BEDDING, AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 7-08.
- STORM SEWER PIPE CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION, SECTION 7-04. MATERIAL SHALL BE HANCOCK SURE-LOK F477 PIPE OR CITY APPROVED EQUAL. LOTS STORM DRAIN SERVICE LINE SHALL BE 6" PVC PER THE STANDARD SPECIFICATIONS, SECTION 9-05.1(5).

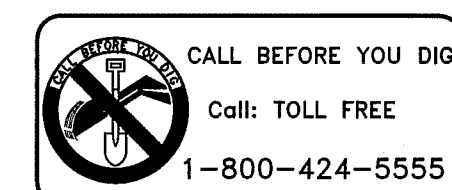
MISCELLANEOUS NOTES

- RIP-RAP SHALL BE "HAND PLACED RIP-RAP" IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 9-13.2.

APPROVED

DEC 28 2011

BY P.E.
CITY OF FERNDALE



PROJECT NUMBER:

RAIX0001

DATE: 10/01/08

DESIGN: SLG

DRAWN: SLG

CHECKED:

SCALE: AS NOTED

SHEET NO.

C1

OF

DAVID EVANS
AND ASSOCIATES, INC.
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

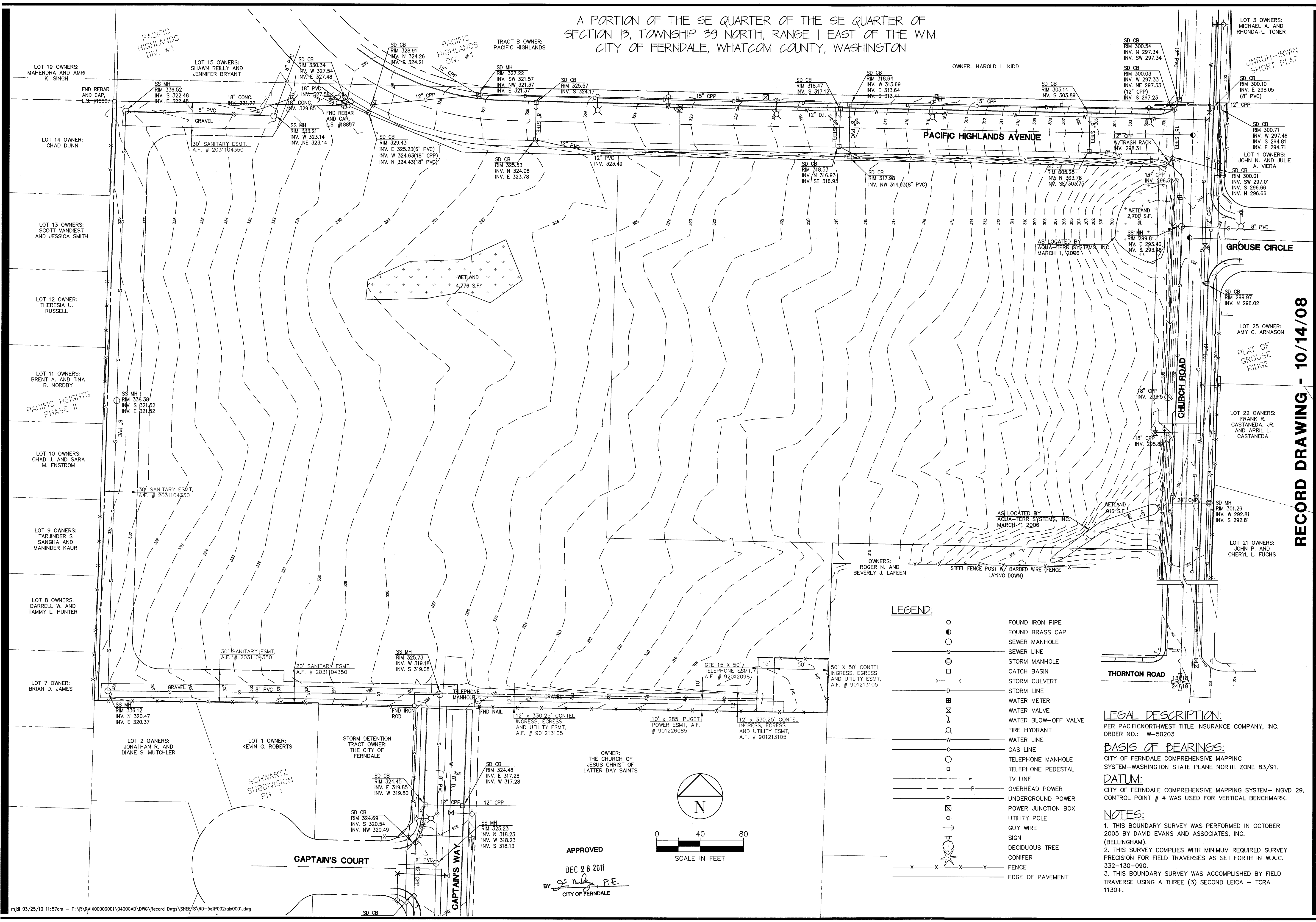
FERNDALE SCHOOL DISTRICT
FERNDALE, WASHINGTON
NEW ELEMENTARY SCHOOL
CHURCH ROAD
COVER SHEET

NO. REVISIONS: APPD.

00400.001

1.10.12

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A PORTION OF THE SE QUARTER OF THE SE QUARTER OF
SECTION 13, TOWNSHIP 39 NORTH, RANGE 1 EAST OF THE W.M.
CITY OF FERDALE, WHATCOM COUNTY, WASHINGTON

- LEGEND:**
- FOUND IRON PIPE
 - FOUND BRASS CAP
 - SEWER LINE
 - STORM MANHOLE
 - CATCH BASIN
 - STORM CULVERT
 - STORM LINE
 - WATER METER
 - WATER VALVE
 - WATER BLOW-OFF VALVE
 - FIRE HYDRANT
 - WATER LINE
 - GAS LINE
 - TELEPHONE MANHOLE
 - TELEPHONE PEDESTAL
 - TV LINE
 - OVERHEAD POWER
 - UNDERGROUND POWER
 - POWER JUNCTION BOX
 - UTILITY POLE
 - GUY WIRE
 - SIGN
 - DECIDUOUS TREE
 - CONIFER
 - FENCE
 - EDGE OF PAVEMENT

LEGAL DESCRIPTION:
PER PACIFICNORTHWEST TITLE INSURANCE COMPANY, INC.
ORDER NO.: W-50203

BASIS OF BEARINGS:
CITY OF FERDALE COMPREHENSIVE MAPPING
SYSTEM-WASHINGTON STATE PLANE NORTH ZONE 83/91.

DATUM:
CITY OF FERDALE COMPREHENSIVE MAPPING SYSTEM- NGVD 29.
CONTROL POINT # 4 WAS USED FOR VERTICAL BENCHMARK.

NOTES:

1. THIS BOUNDARY SURVEY WAS PERFORMED IN OCTOBER 2005 BY DAVID EVANS AND ASSOCIATES, INC. (BELLINGHAM).
2. THIS SURVEY COMPLIES WITH MINIMUM REQUIRED SURVEY PRECISION FOR FIELD TRAVERSES AS SET FORTH IN W.A.C. 332-130-090.
3. THIS BOUNDARY SURVEY WAS ACCOMPLISHED BY FIELD TRAVERSE USING A THREE (3) SECOND LEICA - TCRA 1130+.

APPROVED
DEC 28 2011
BY *[Signature]* P.E.
CITY OF FERDALE

RECORD DRAWING - 10/14/08

DAVID EVANS AND ASSOCIATES INC.
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

NEW ELEMENTARY SCHOOL
CHURCH ROAD
EXISTING CONDITIONS

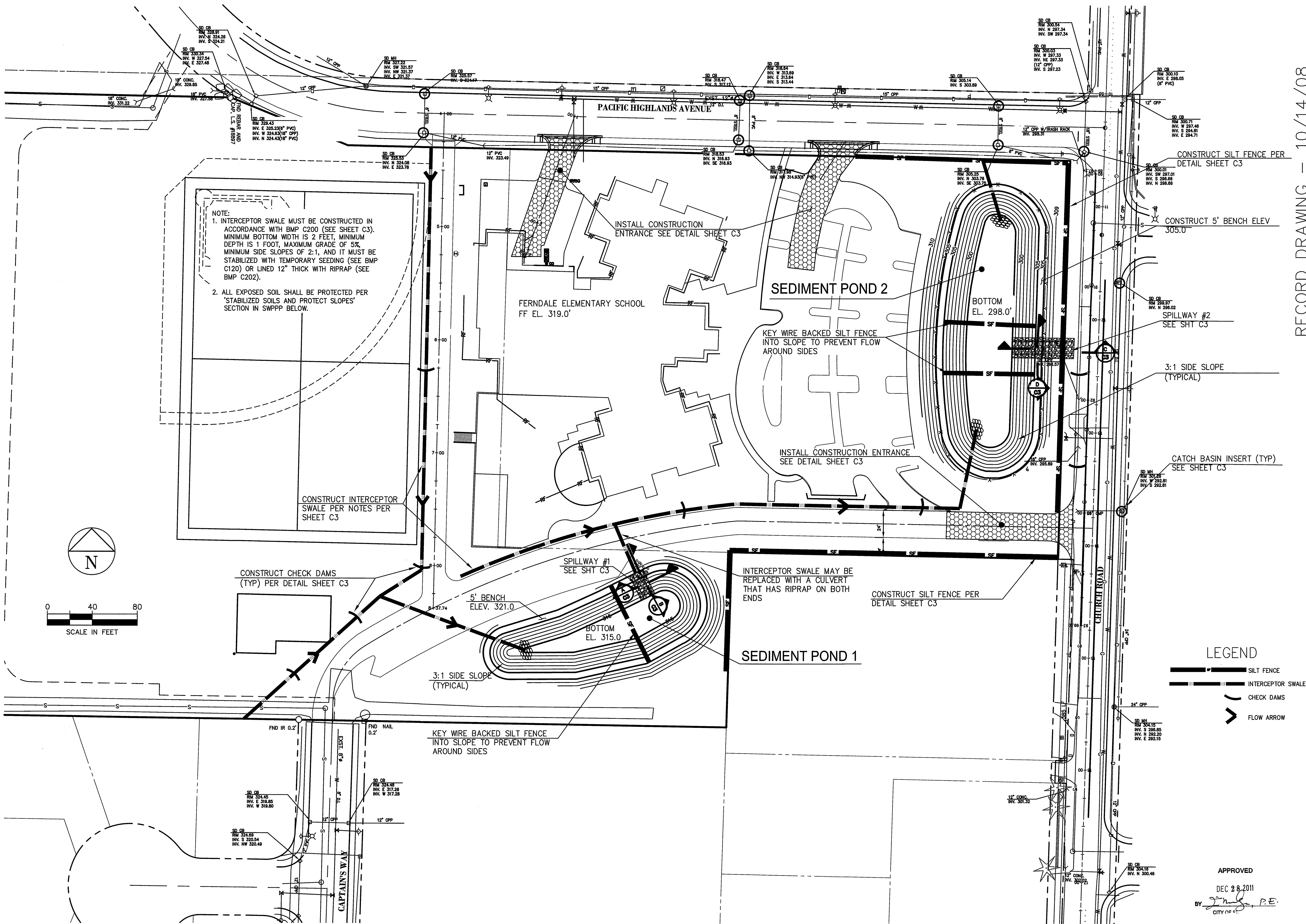
PROJECT NUMBER:
RAIX0001

DATE: 10/01/08
DESIGN: SLG
CHECKED:

SCALE: 1"=40'

SHEET NO.
C2

OF



FERNDAL, WASHINGTON
FERNDAL SCHOOL DISTRICT
NEW ELEMENTARY SCHOOL
CHURCH ROAD
STORMWATER POLLUTION PREVENTION PLAN

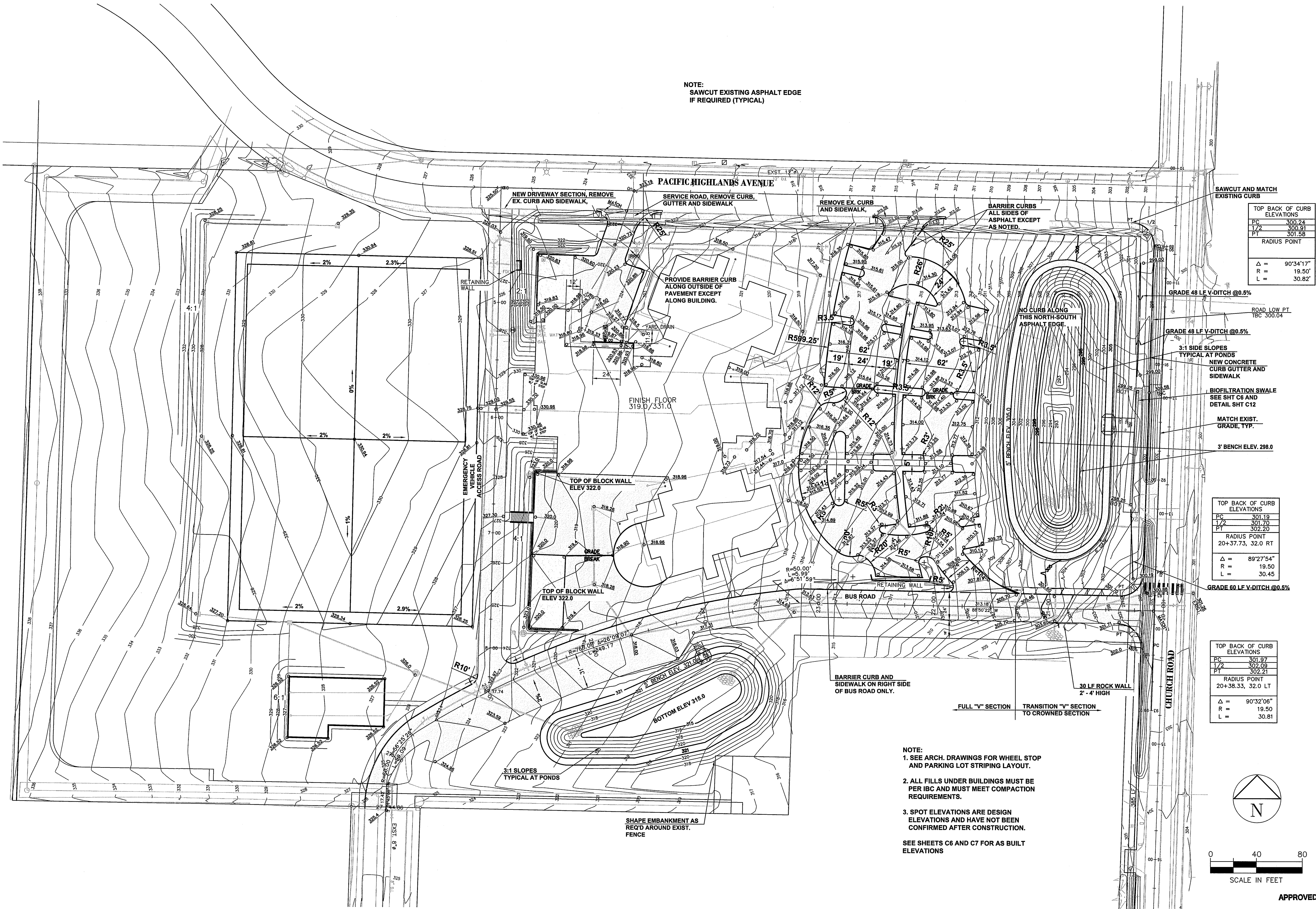
**DAVID EVANS
AND ASSOCIATES INC.**
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

PROJECT NUMBER:
RAIX0001
DATE: 10/01/08
DESIGN: MJD
DRAWN: SLG
CHECKED:
SCALE: 1"=40'
SHEET NO.
C3
OF

APPROVED
DEC 28 2011
BY *[Signature]* P.E.
CITY OF

RECORD DRAWING - 10/14/08

OF



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RECORD DRAWING - 10/14/08



DAVID EVANS
AND ASSOCIATES INC.
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

FERNDALE, WASHINGTON
FERNDALE SCHOOL DISTRICT
NEW ELEMENTARY SCHOOL
CHURCH ROAD
GRADING PLAN

PROJECT NUMBER:

RAIX0001

DATE: 10/01/08

DESIGN: MJD

DRAWN: SLG

CHECKED:

SCALE: 1"=40'

SHEET NO.

C5

OF

APPROVED

DEC 28 2011

BY P.E.
CITY OF FERNDALE

NO. REVISIONS:

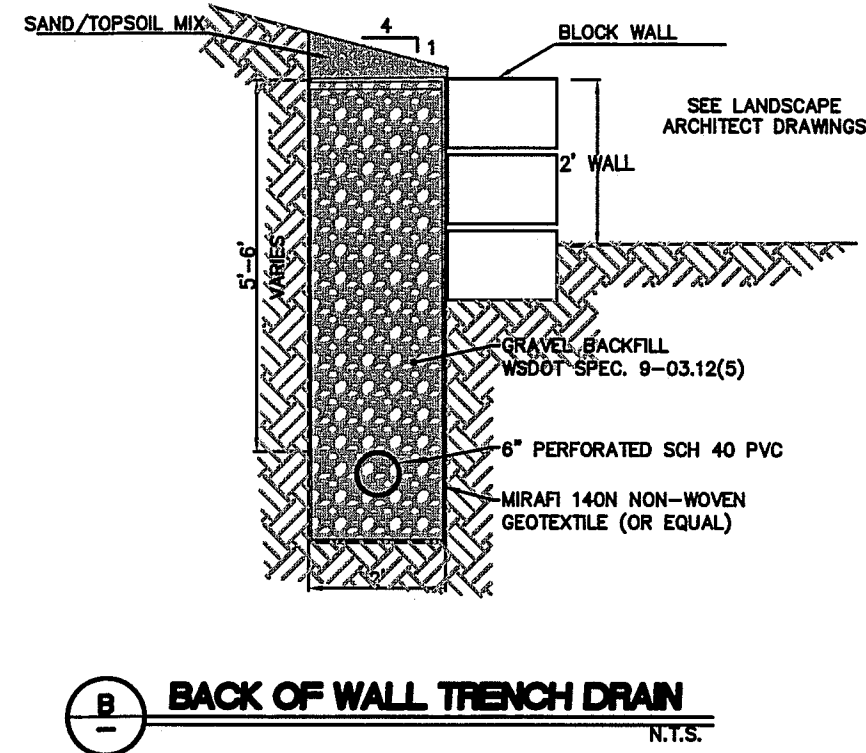
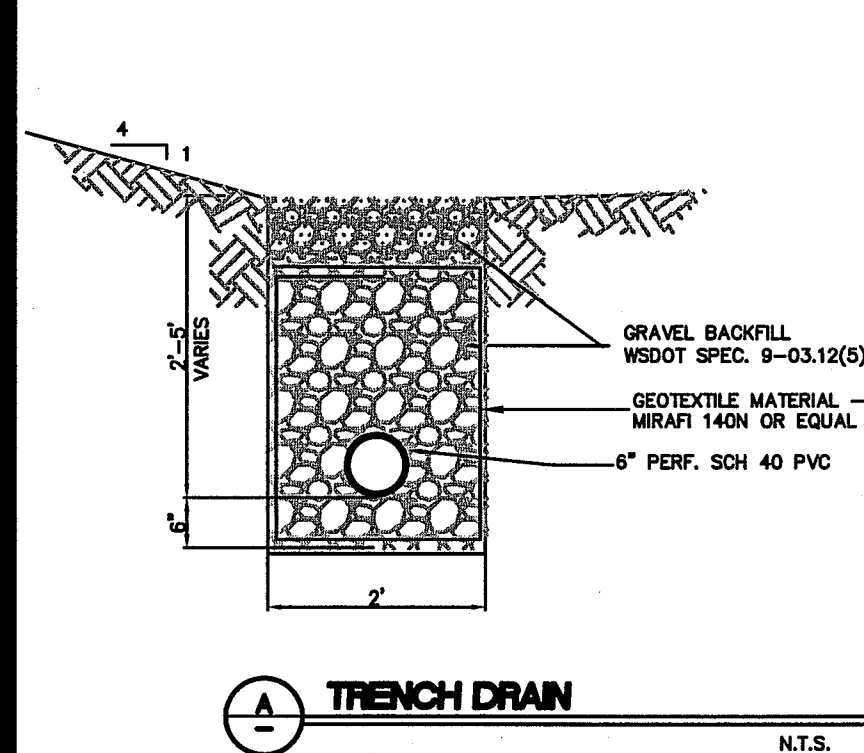
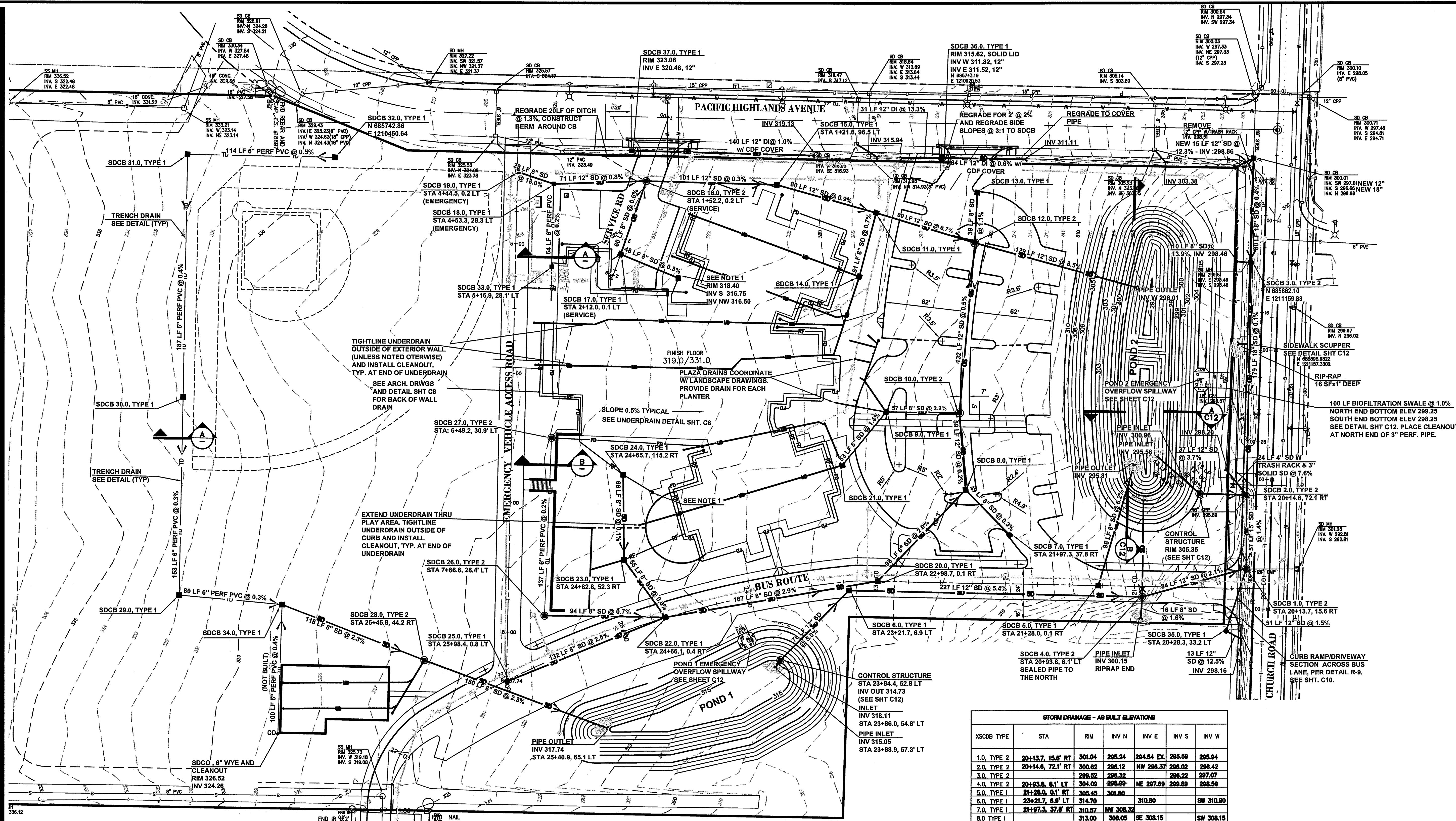
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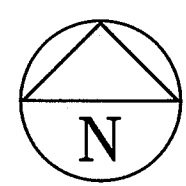
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LEGEND

- UNDER SLAB DRAIN
- FOOTING DRAIN
- GRADE BREAK
- TRENCH DRAIN
- STORM MAIN
- TIGHT LINE ROOF DRAIN



0 40 80
SCALE IN FEET

NOTES:

- COORDINATE YARD DRAIN LOCATION WITH LANDSCAPE ARCHITECT DWGS.
- STORM PIPE SHALL BE HANCOR SURE-LOK F477 OR CITY APPROVED EQUAL UNLESS NOTED OTHERWISE.

STORM DRAINAGE - AS BUILT ELEVATIONS						
XSCOB TYPE	STA	RIM	INV N	INV E	INV S	INV W
1.0, TYPE 2	20+13.7, 15.6' RT	301.04	295.24	294.54 EX.	295.59	295.94
2.0, TYPE 2	20+14.6, 72.1' RT	300.62	296.12	NW 296.37	296.02	296.42
3.0, TYPE 2		299.52	296.32		296.22	297.07
4.0, TYPE 2	20+13.8, 8.1' LT	304.09	296.99	NE 297.89	299.89	298.59
5.0, TYPE 1	21+28.0, 0.1' RT	305.45	301.80			
6.0, TYPE 1	23+21.7, 8.9' LT	314.70		310.80		SW 310.90
7.0, TYPE 1	21+97.3, 37.8' RT	310.57	NW 308.32			
8.0, TYPE 1		313.00	308.09	SE 308.15		SW 308.15
9.0, TYPE 2		314.87	NW 313.19	SE 313.09	SW 313.19	313.34
10.0, TYPE 2		317.20		307.62		311.82
11.0, TYPE 1		317.20		313.45	313.80	314.10
12.0, TYPE 2		314.83	311.33	307.03	307.19	312.88
13.0, TYPE 1		314.97			311.77	
14.0, TYPE 1	50+88.2, 9.1' RT	317.43	313.98		314.03	314.98
15.0, TYPE 1	1+21.6, 96.5' LT	318.39		314.79	315.79	314.84
16.0, TYPE 2	1+52.2, 0.2' LT	321.08		315.18	315.53	315.33
17.0, TYPE 1	2+12.0, 0.1' LT	318.48	NE 315.88	SE 316.38		SW 316.48
18.0, TYPE 1	4+53.3, 28.3' LT	319.56		315.91	315.98	316.41
19.0, TYPE 1	4+44.5, 0.2' LT	325.82		SE 321.82		
20.0, TYPE 1	22+98.7, 0.1' RT	313.61	NE 310.11			SW 310.11
21.0, TYPE 1		317.38	314.78	NE 313.93		313.88
22.0, TYPE 1	24+66.1, 0.4' RT	318.00	NW 313.30	NE 314.89	SW 315.60	315.10
23.0, TYPE 1	24+82.8, 52.3' RT	318.20	315.63	315.90	315.62	316.15
24.0, TYPE 1	24+85.7, 115.2' RT	316.36	316.61	NE 316.79		315.71
25.0, TYPE 1	25+95.4, 0.5' RT	322.85		NE 318.85		
26.0, TYPE 2	74+86.2, 28.4' LT	322.11	315.91		315.78	
27.0, TYPE 2	64+49.2, 30.9' LT	321.78	318.13	318.48	318.13	
28.0, TYPE 2	28+45.8, 44.2' RT	328.59	NW 321.18	SE 321.14		SW 321.24
29.0, TYPE 1		327.03	324.23	324.13		
30.0, TYPE 1		328.18	324.81		324.78	
31.0, TYPE 1		328.55		325.58	325.57	
32.0, TYPE 1		329.33				326.13
33.0, TYPE 1	5+16.9, 28.1' LT	319.50			316.30	
34.0, TYPE 1		327.84		323.89	NOT BUILT	323.89
35.0, TYPE 1	20+28.3, 33.2' LT	301.88	296.33	296.53		
36.0, TYPE 1		315.82		311.52		311.82
37.0, TYPE 1		323.06		320.46		

APPROVED

DEC 28 2011
BY *[Signature]* P.E.
CITY OF FERNDALE

RECORD DRAWING - 10/14/08

NEW ELEMENTARY SCHOOL CHURCH ROAD STORM DRAINAGE PLAN

FERNDAL, WASHINGTON

FERNDAL SCHOOL DISTRICT

**DAVID EVANS
AND ASSOCIATES INC.**
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

PROJECT NUMBER:

RAIX0001

DATE: 10/01/08

DESIGN: MJD

DRAWN: SLG

CHECKED:

SCALE: 1"=40'

SHEET NO.

C6

OF

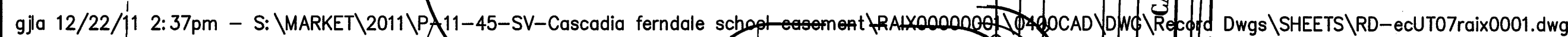
NO. REVISIONS:

00400.006

1.10.12

APPD.

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**FERNDALE SCHOOL DISTRICT
FERNDALE, WASHINGTON
NEW ELEMENTARY SCHOOL
CHURCH ROAD
UTILITY PLAN**

SCALE: 1"=40'

SHEET NO.

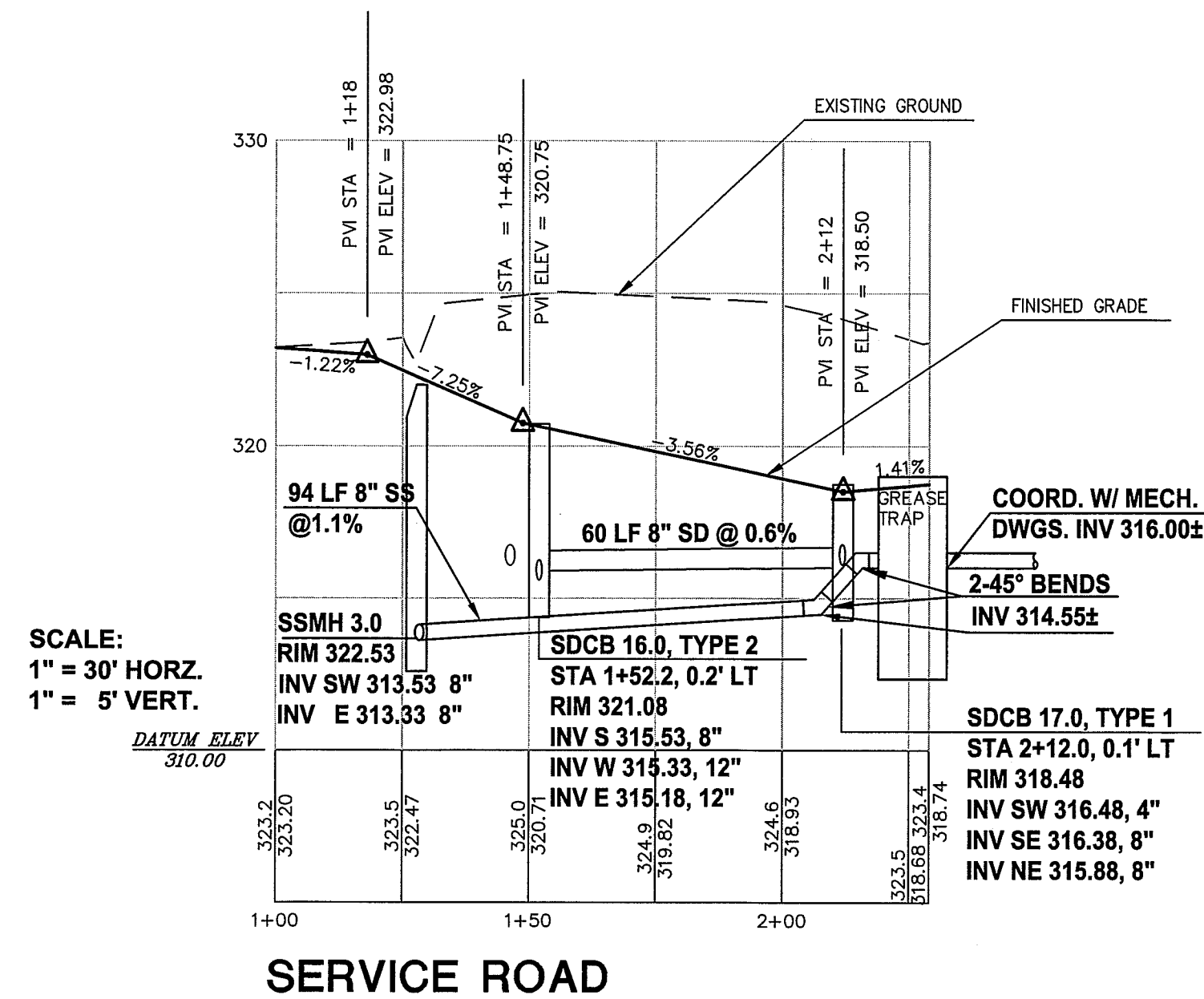
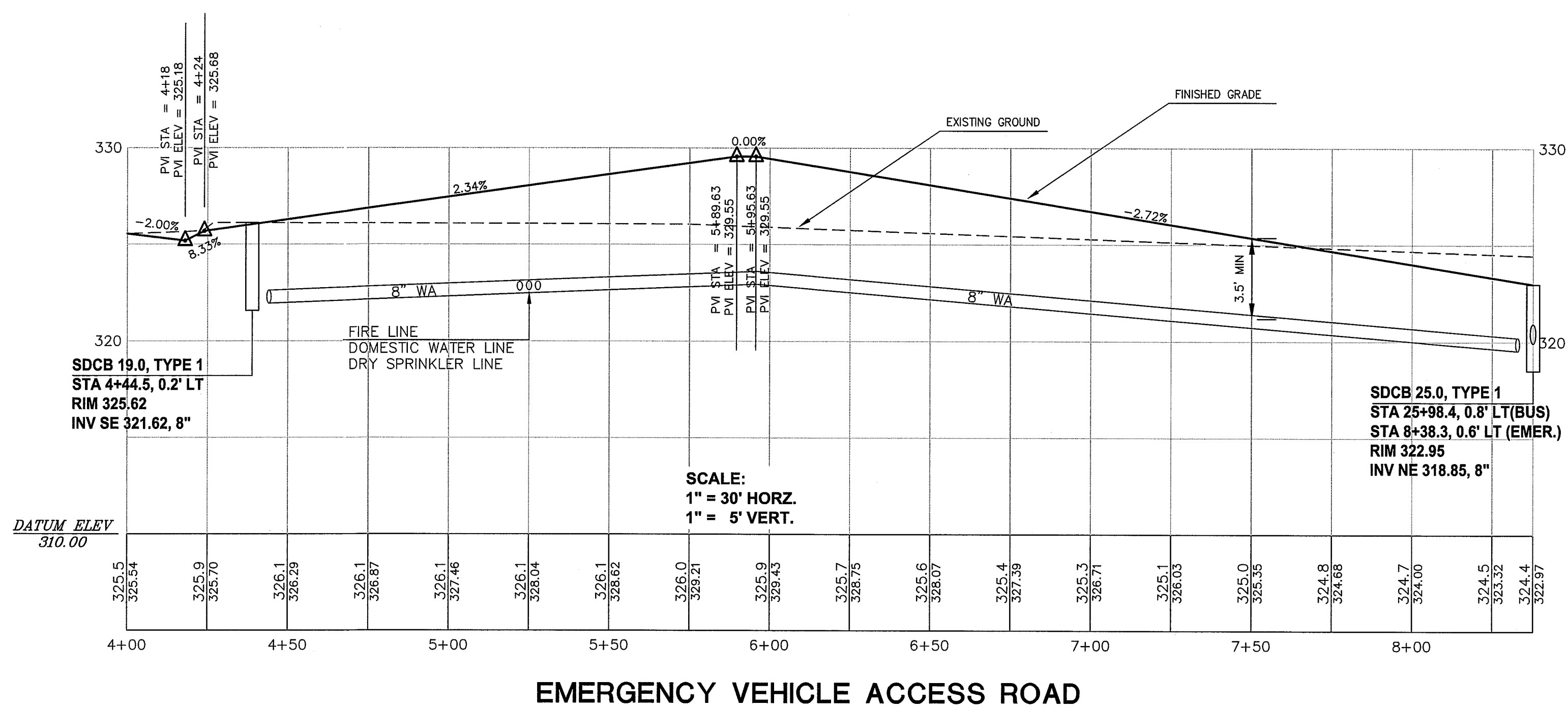
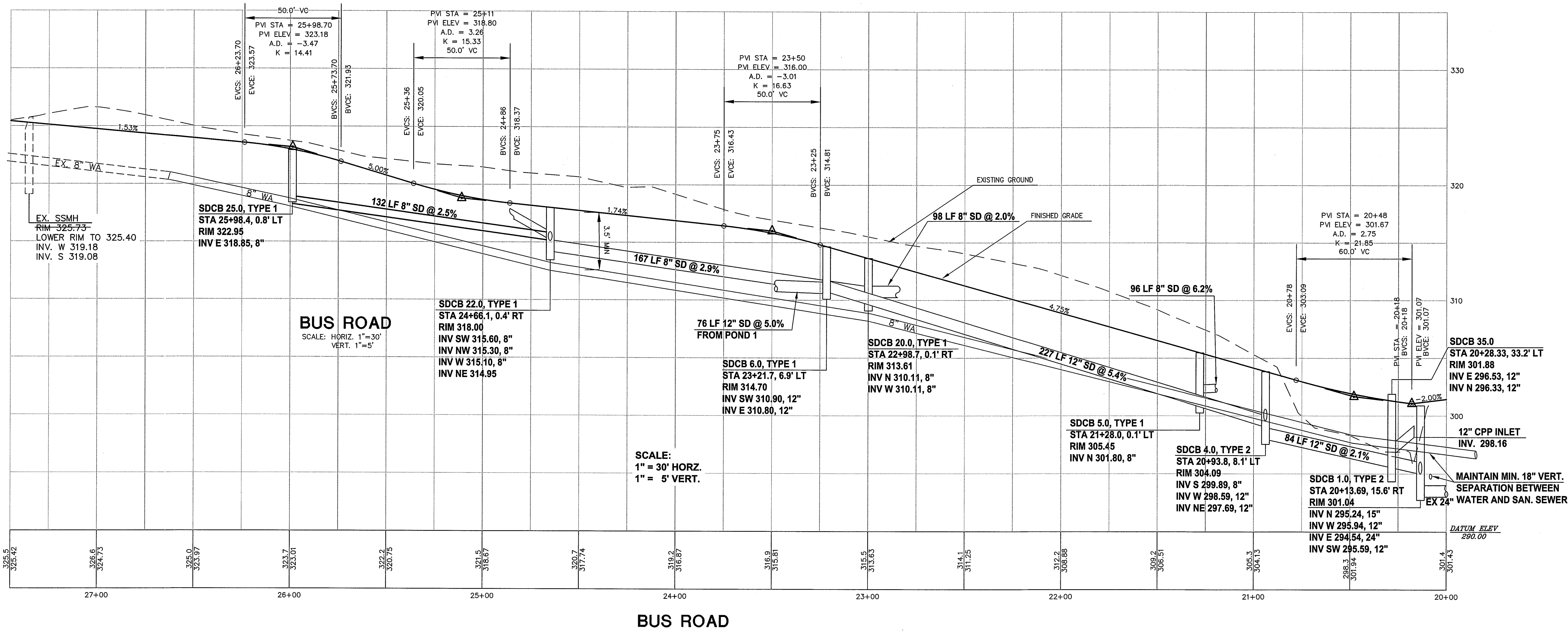
C7

OF

DE
DAVID EVANS
AND ASSOCIATES INC.

119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

NO.	REVISIONS:	APPD.
	00401.007	1.10.12 S



APPROVED
DEC 28 2011
CITY OF FERNDALE

RECORD DRAWING - 10/14/08

FERNDAL SCHOOL DISTRICT
FERNDAL, WASHINGTON
NEW ELEMENTARY SCHOOL
CHURCH ROAD
ROAD, STORM, WATER, SEWER PROFILES

PROJECT NUMBER:
RAIX0001
DATE: 10/01/08
DESIGN: MJD
DRAWN: SLG
CHECKED:
SCALE: AS NOTED
SHEET NO.

C8

OF

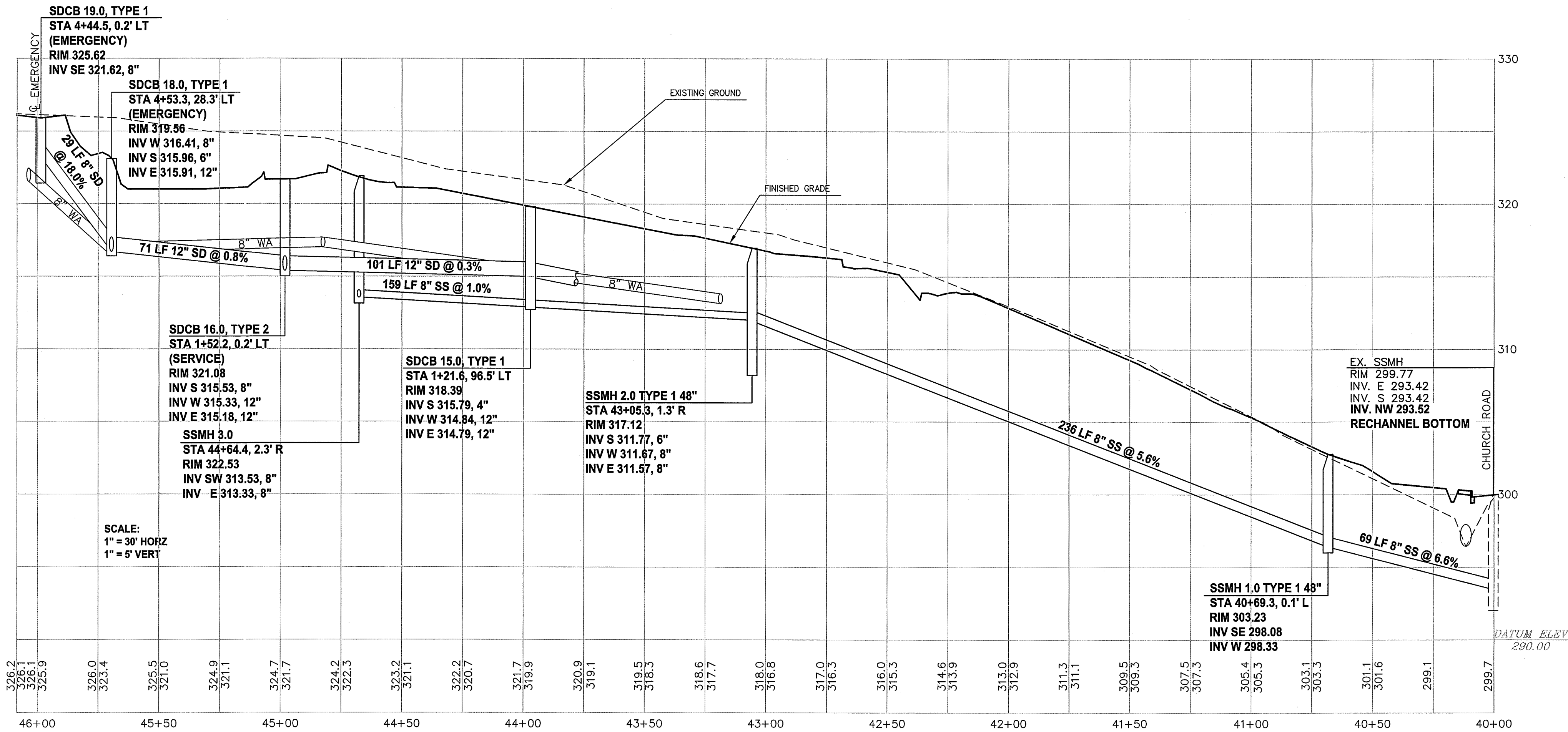
DAVID EVANS AND ASSOCIATES INC.
119 Grand Avenue, Suite D
Bellevue, WA 98004
Phone: 360.847.7161
Fax: 360.847.7160

NO. REVISIONS:

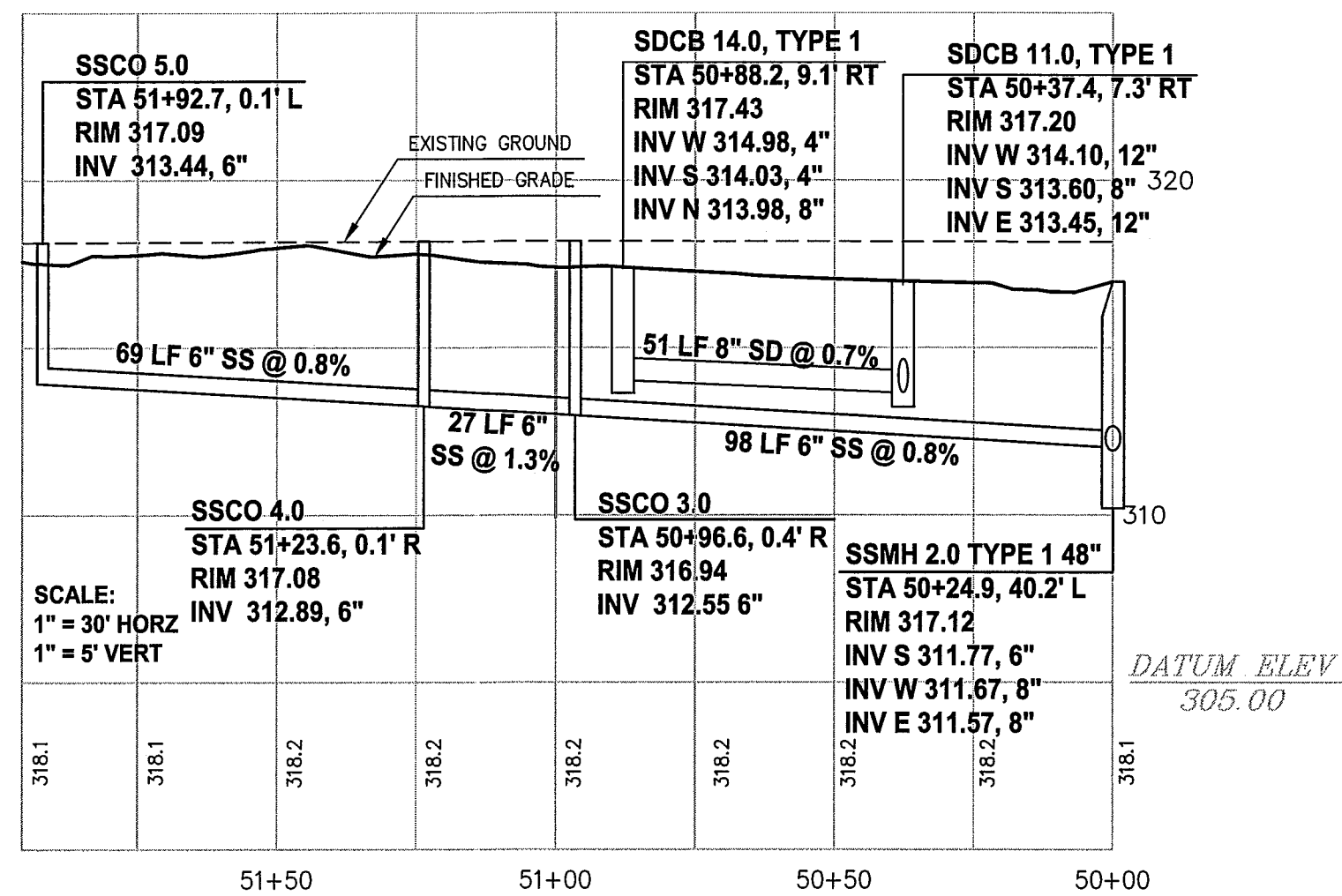
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SH



SANITARY SEWER/WATER/STORM EAST-WEST PROFILE



SAN. SEWER/STORM NORTH-SOUTH PROFILE

APPROVED
DEC 28 2011
BY *[Signature]* P.E.
CITY OF FERDALE

RECORD DRAWING - 10/14/08

FERDALE SCHOOL DISTRICT
FERDALE, WASHINGTON
NEW ELEMENTARY SCHOOL
CHURCH ROAD
ROAD, STORM, WATER, SEWER PROFILES

DE
DAVID EVANS
AND ASSOCIATES INC.
119 Grand Avenue, Suite D
Bellingham, Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

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SHEET NO.

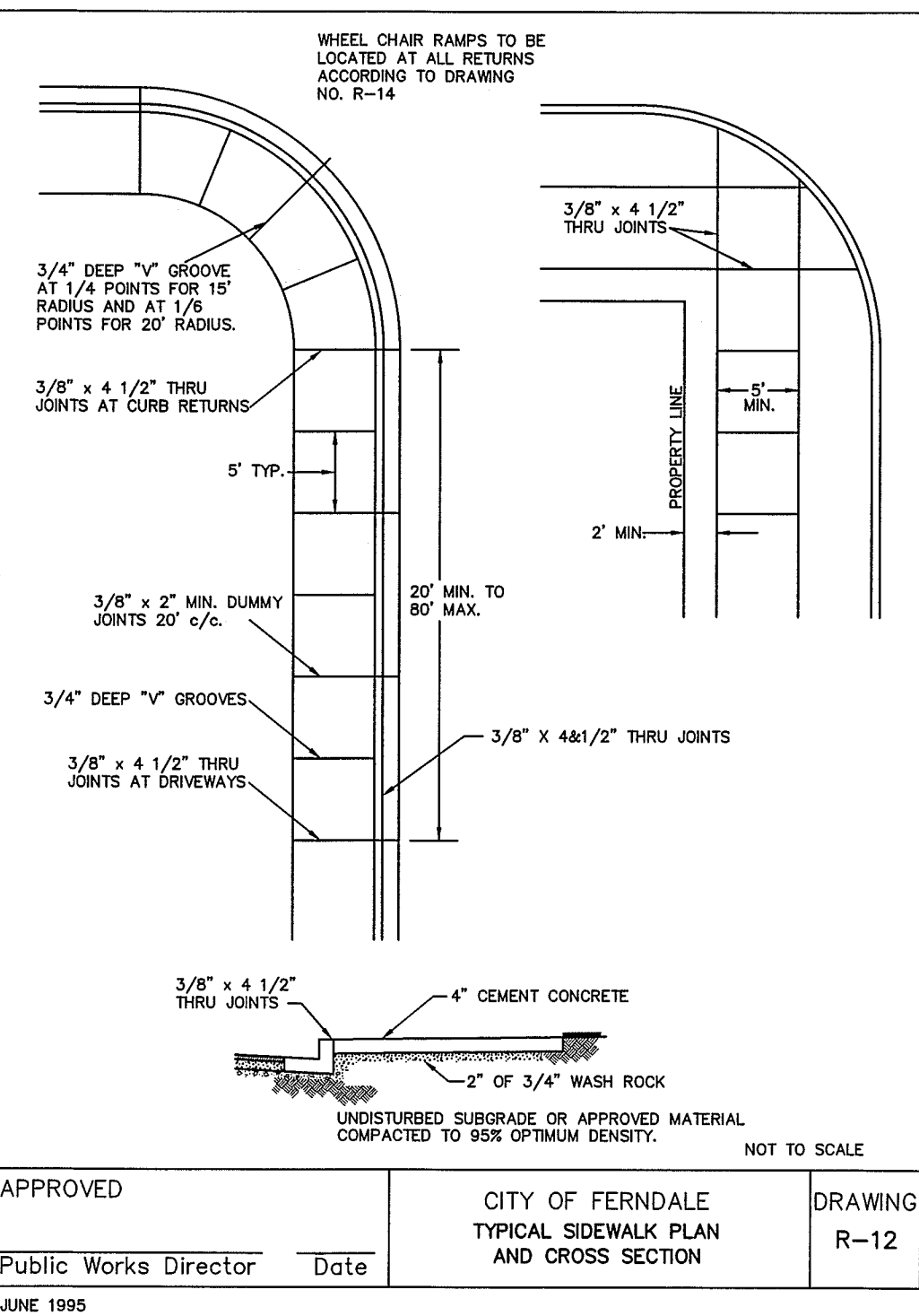
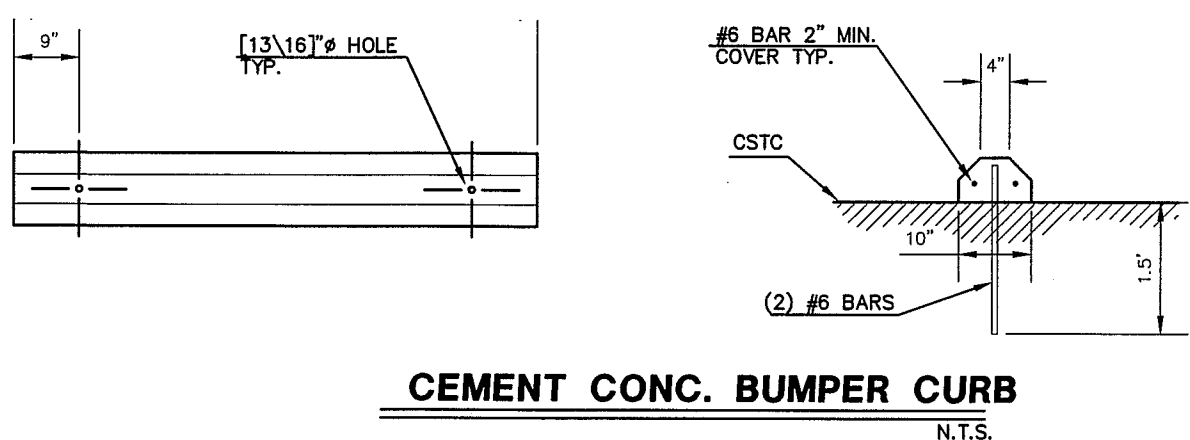
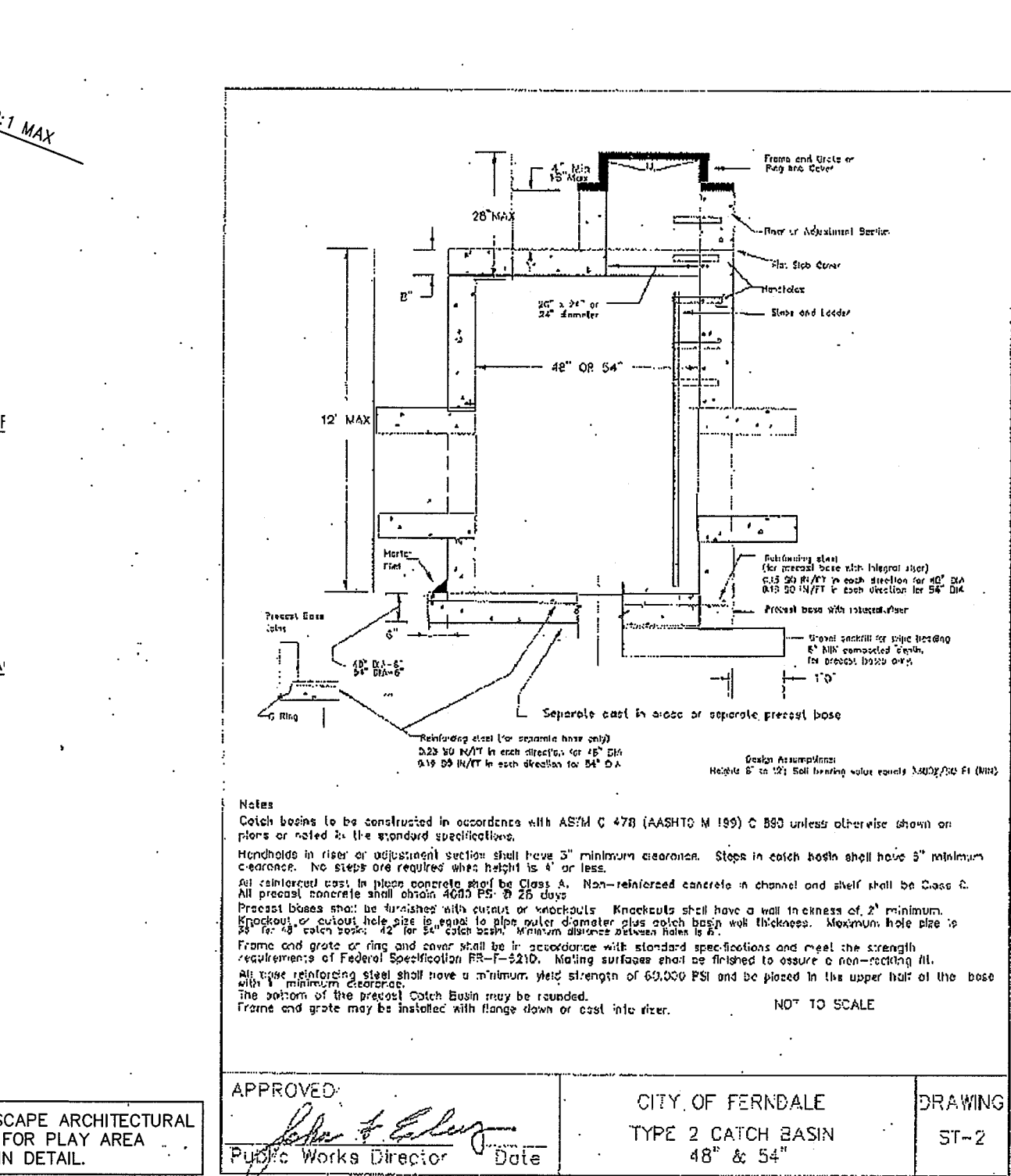
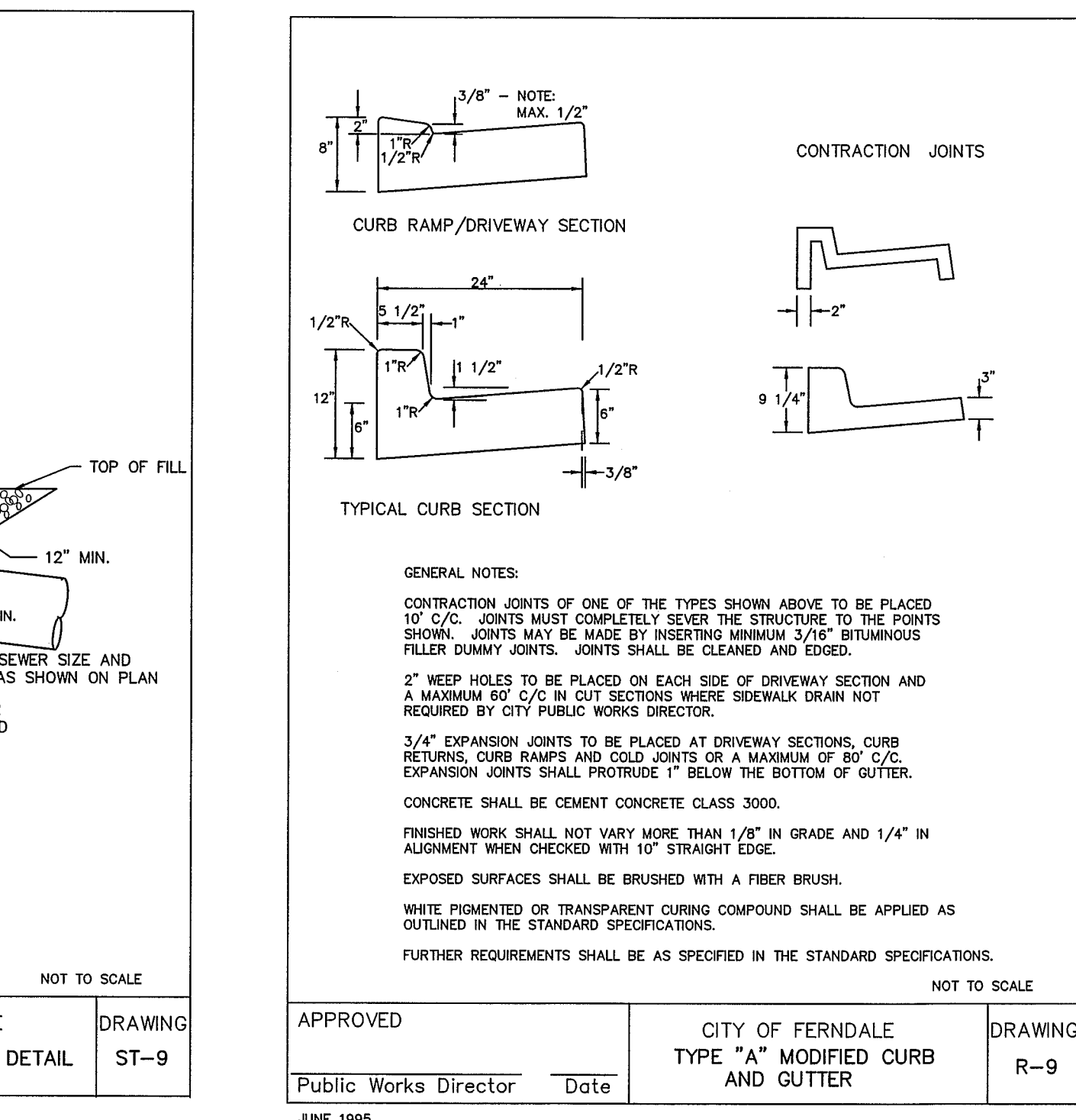
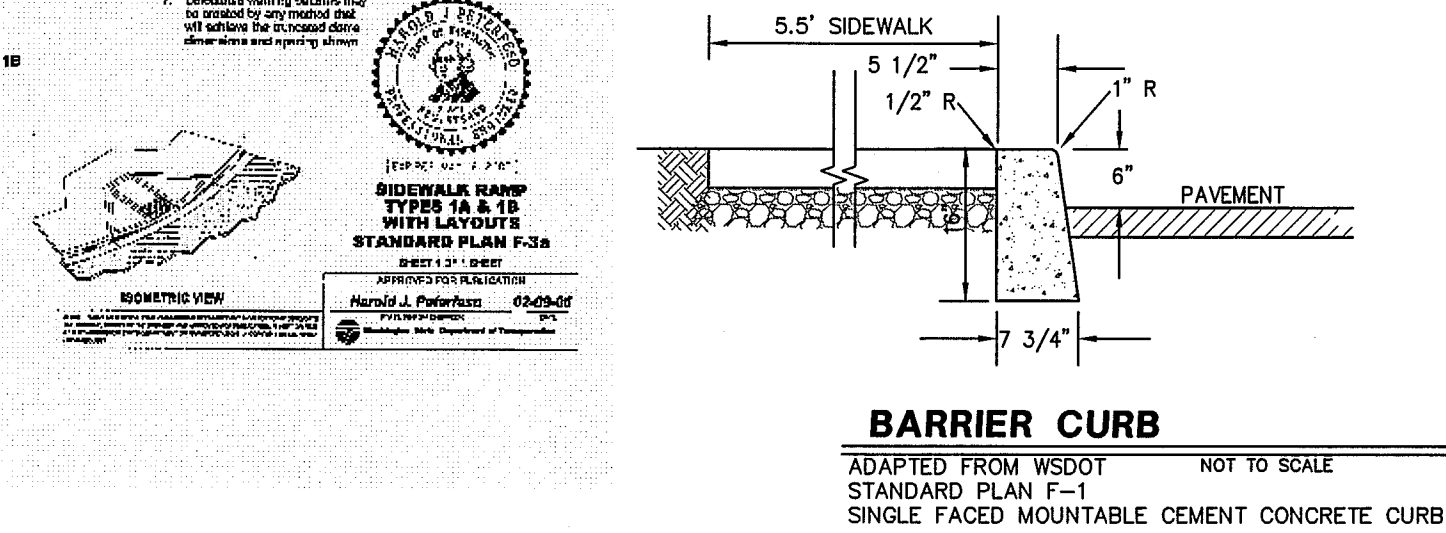
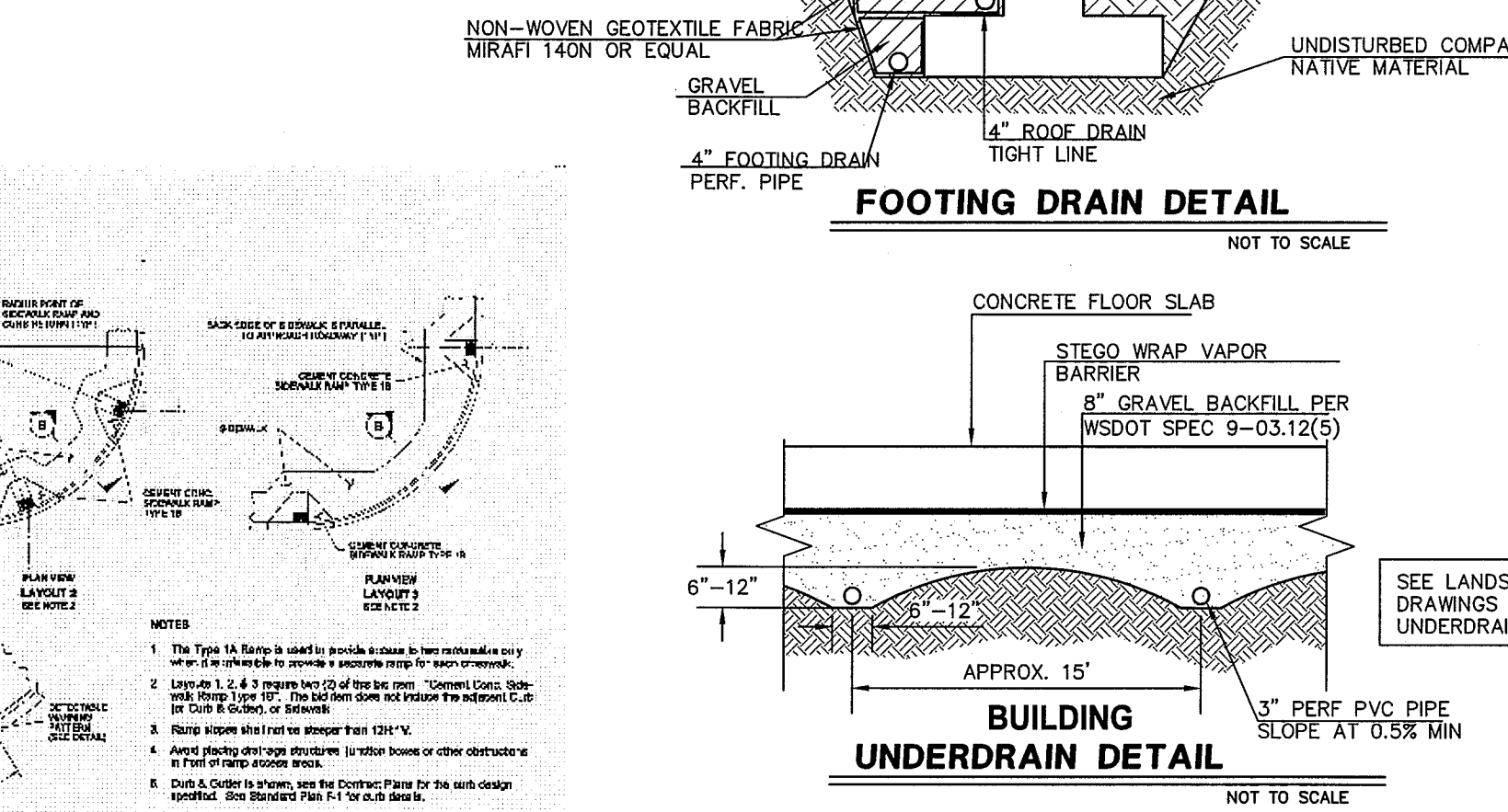
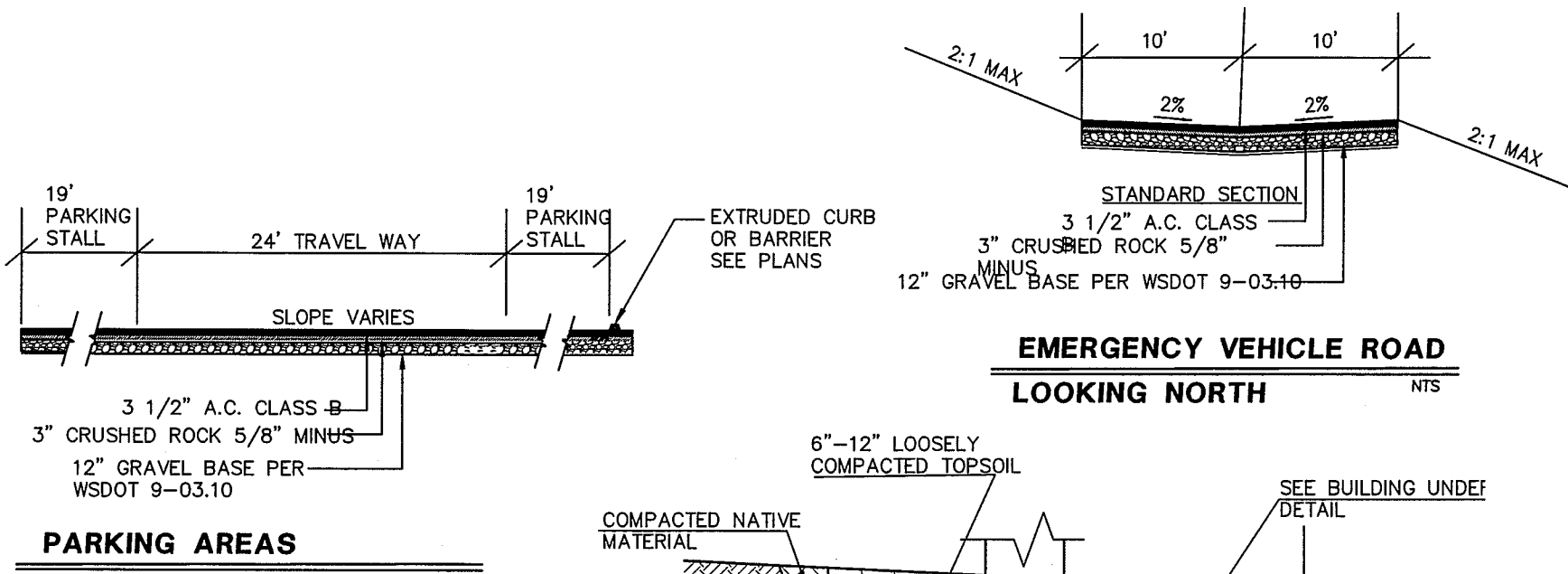
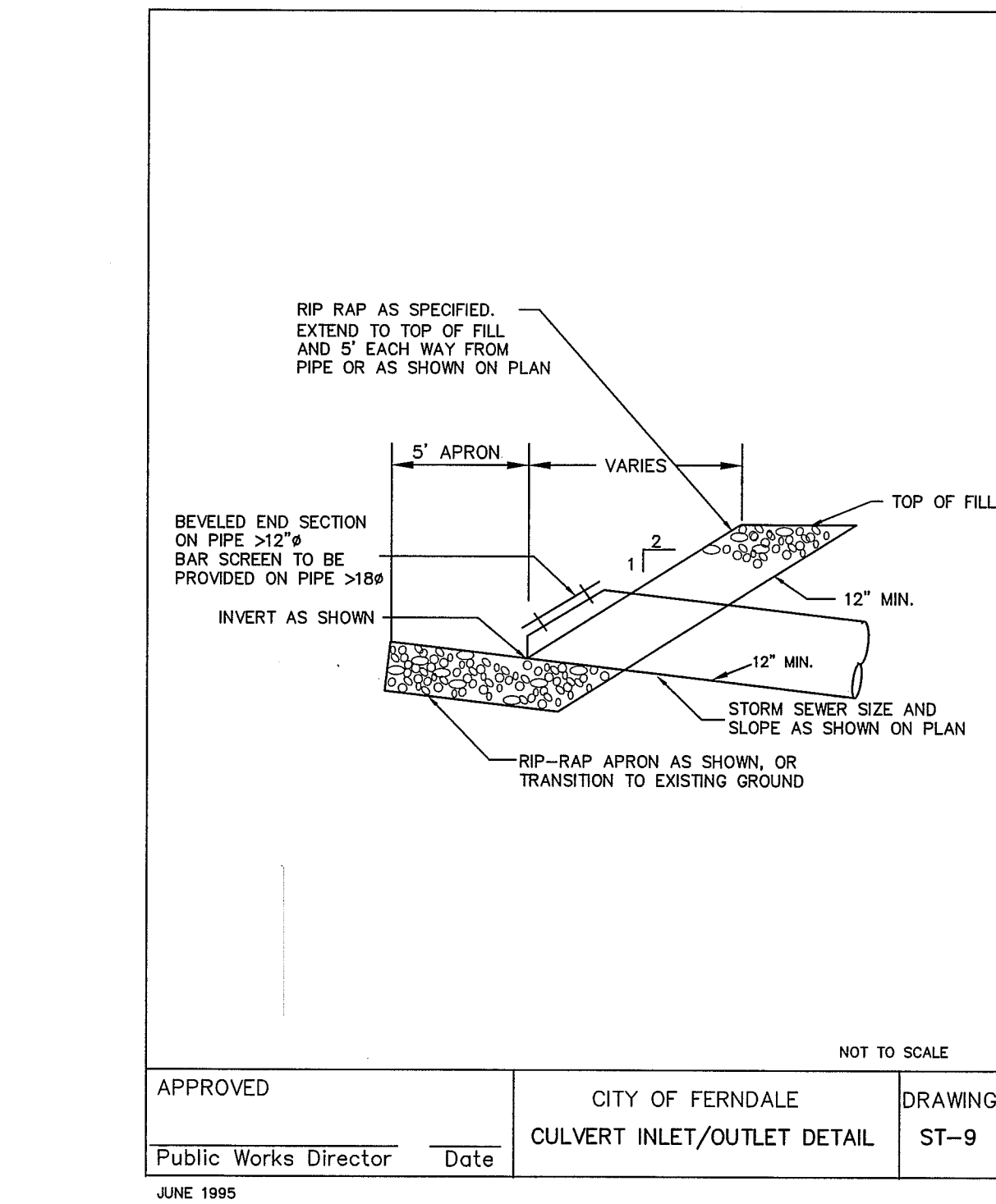
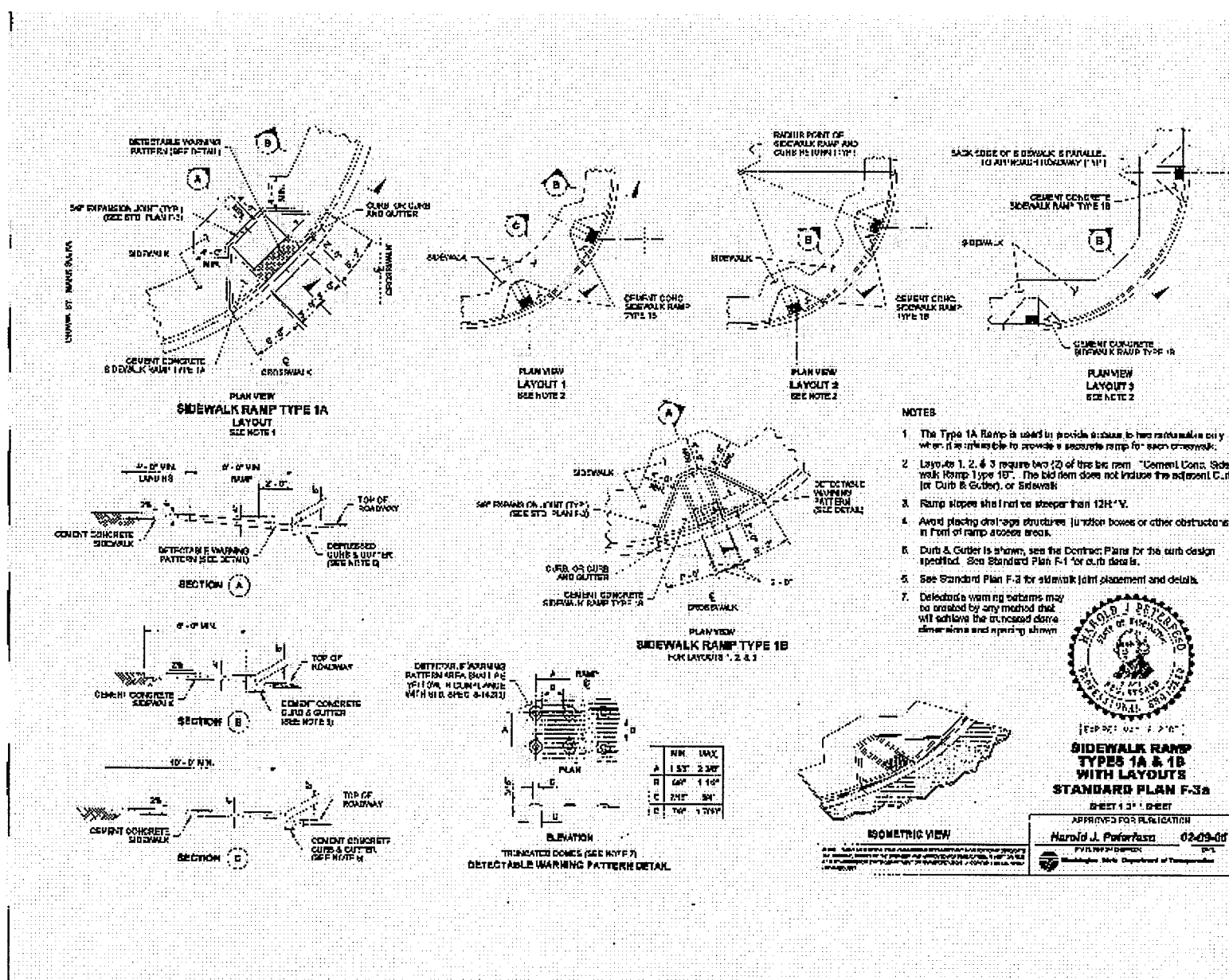
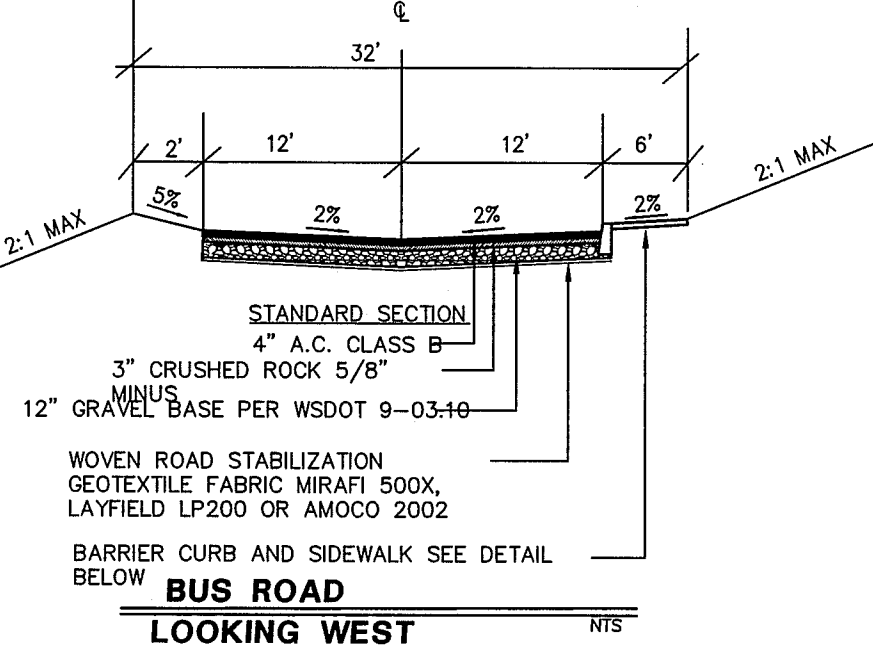
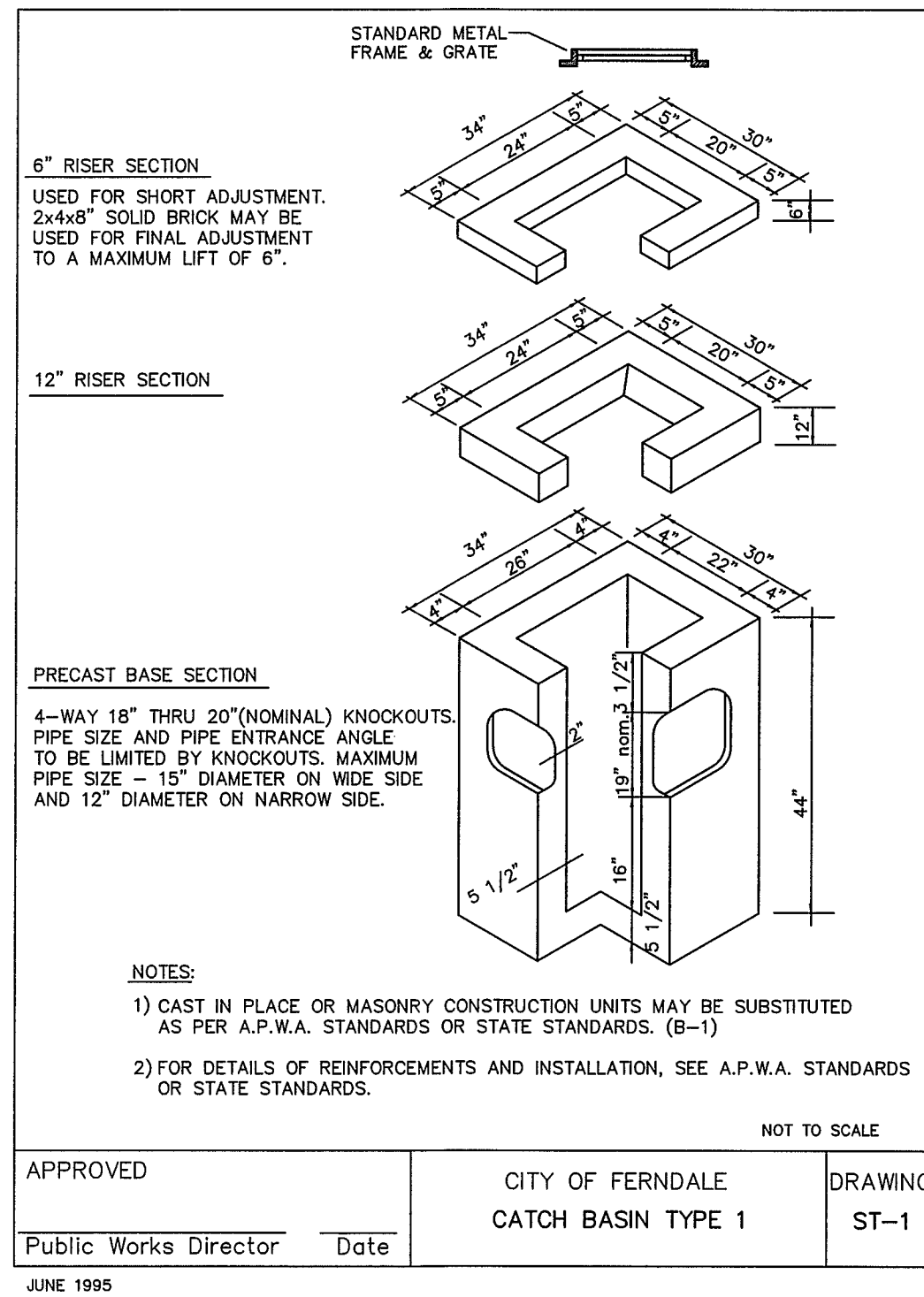
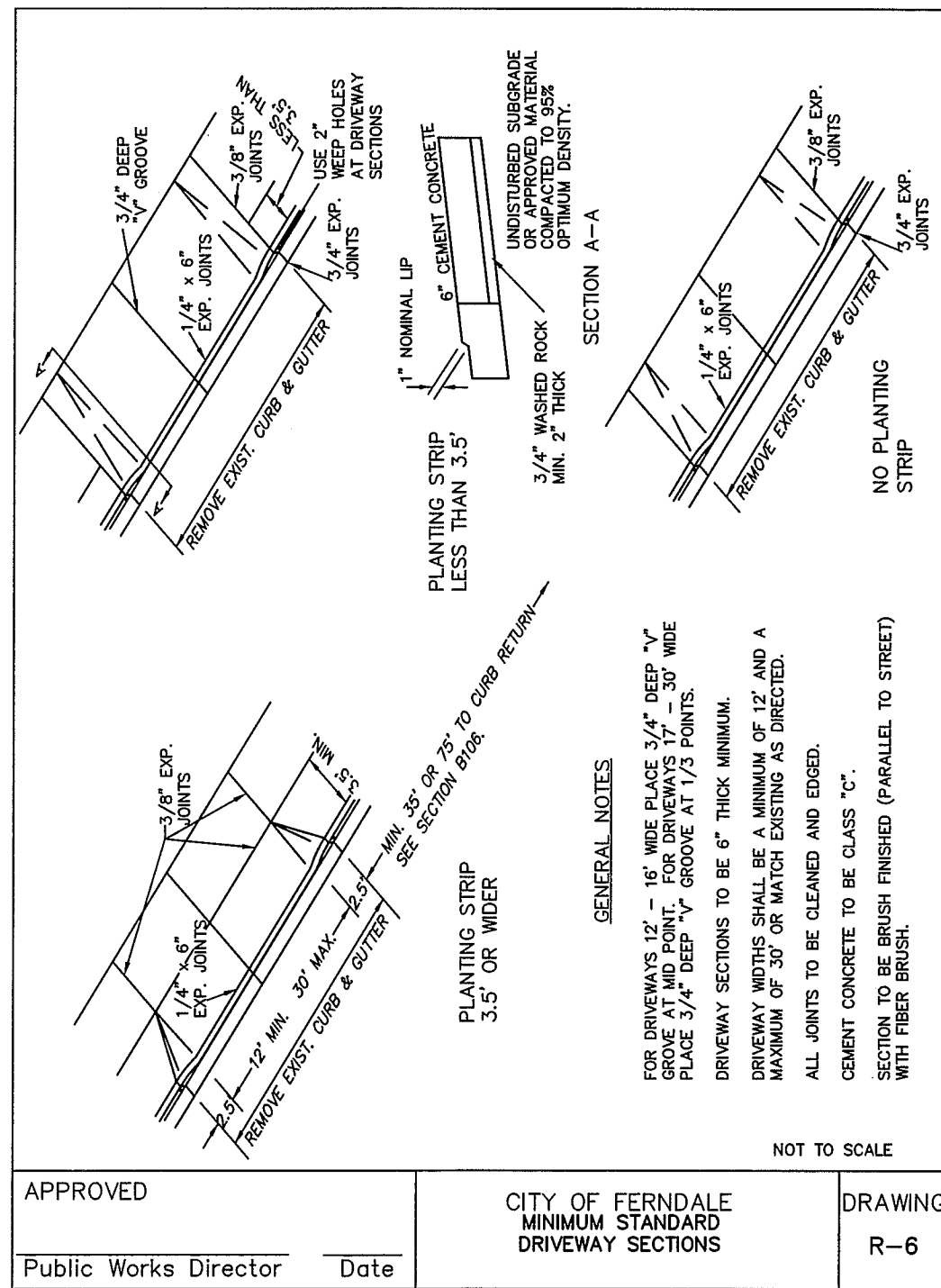
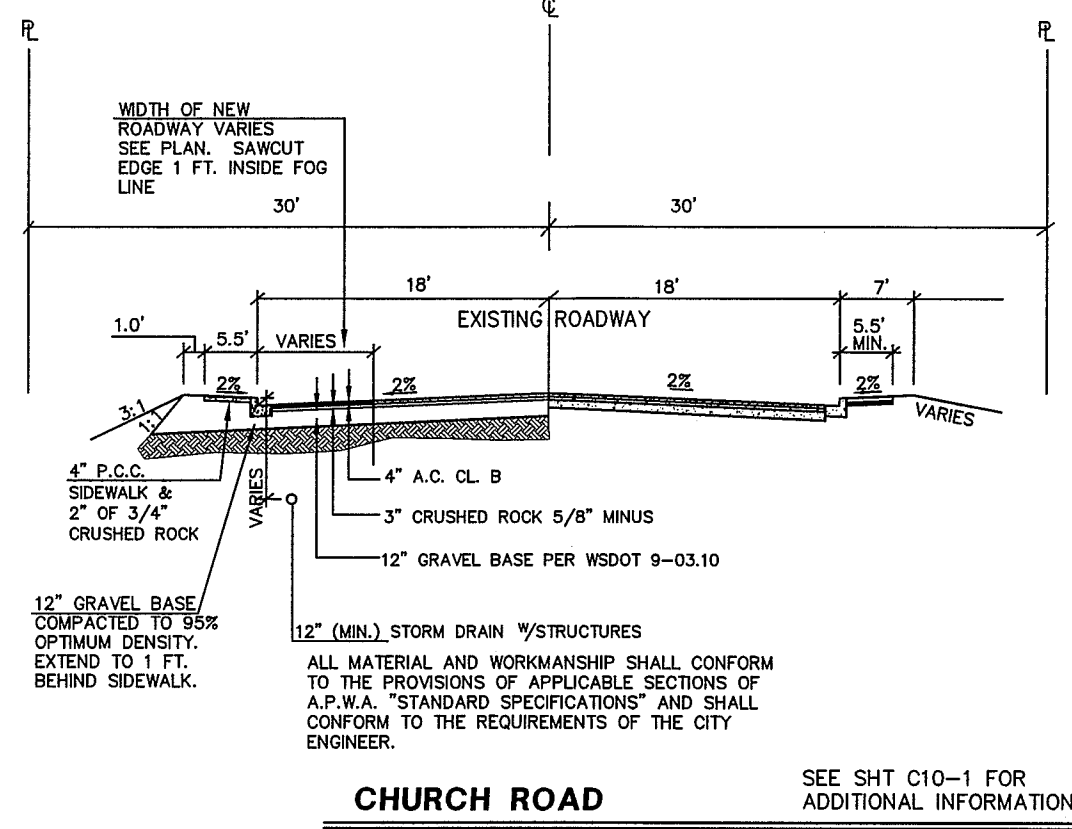
C9

OF

NO. REVISIONS: APPD.

00400.009 1.10.12 SH

mjd 03/25/10 12:37pm - P:\RAIX\00000001\0400CAD\DWG\Record Dwg\Sheets\RD-e0101raix0001.dwg



RECORD DRAWING - 10/14/08

FERDALE SCHOOL DISTRICT
FERDALE, WASHINGTON
NEW ELEMENTARY SCHOOL
CHURCH ROAD
ROADWAY AND STORM DETAILS

PROJECT NUMBER:
RAIX0001
DATE: 10/01/08
DESIGN: MJD
DRAWN: SLG
CHECKED:
SCALE: AS NOTED
SHEET NO.

C10

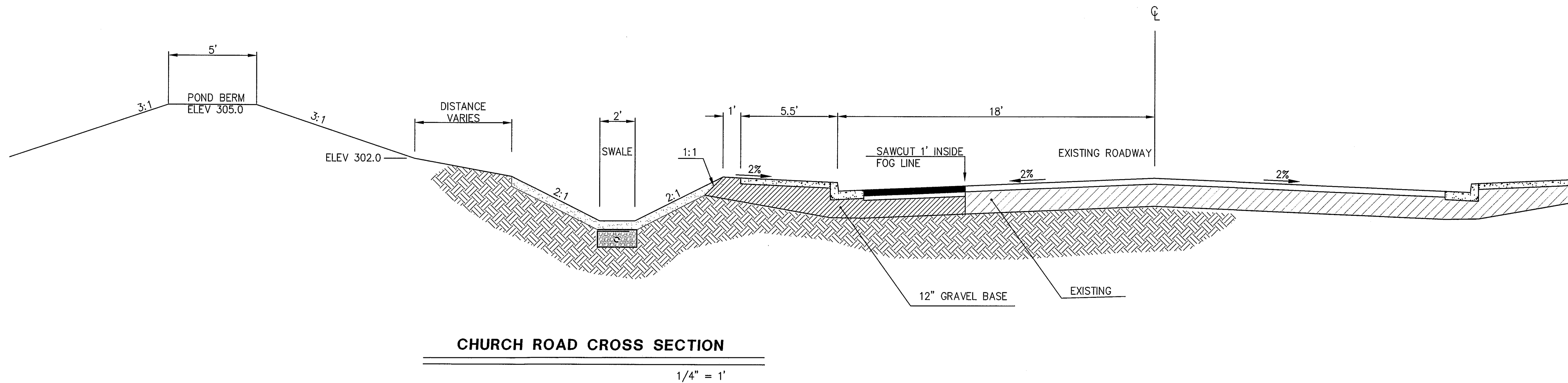
OF

DAVID EVANS INC.
AND ASSOCIATES INC.
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

NO. REVISIONS: APPD.

00400.010 1.10.12 SH

mjd 03/25/10 12:39pm - P:\R\RAIX00000001\0400CAD\DWG\Record Dwg\Sheets\RD-edt010-trax0001.dwg



APPROVED
DEC 28 2011
BY *[Signature]* P.E.
CITY OF FERNDAL

RECORD DRAWING - 10/14/08

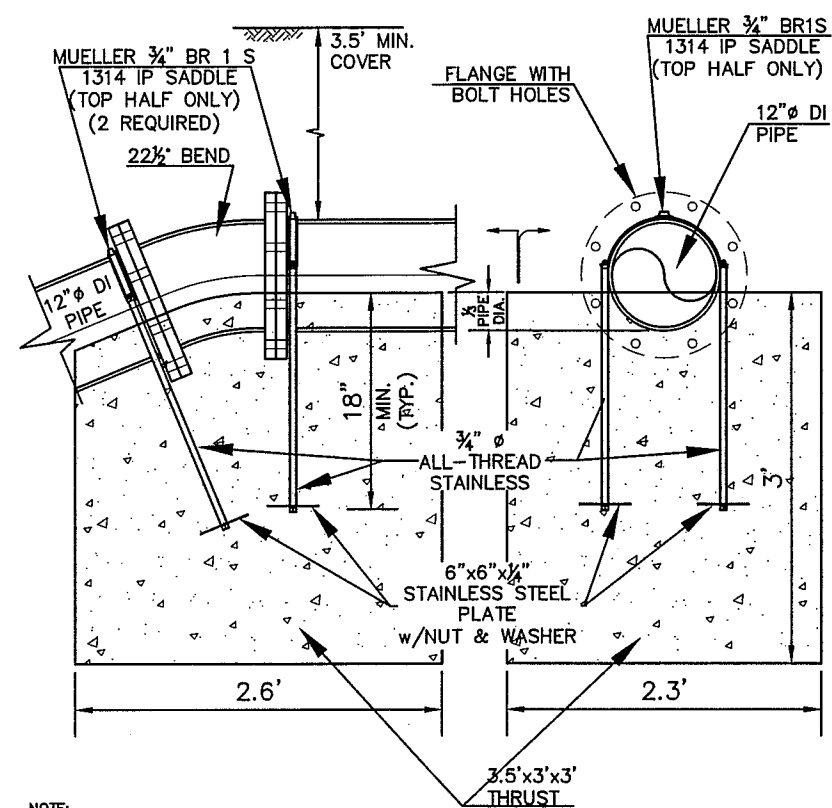
FERNDAL SCHOOL DISTRICT
FERNDAL, WASHINGTON
NEW ELEMENTARY SCHOOL
CHURCH ROAD
CROSS SECTION

PROJECT NUMBER:
RAIX0001
DATE: 10/01/08
DESIGN: MJD
DRAWN: SLG
CHECKED:
SCALE: AS NOTED
SHEET NO.

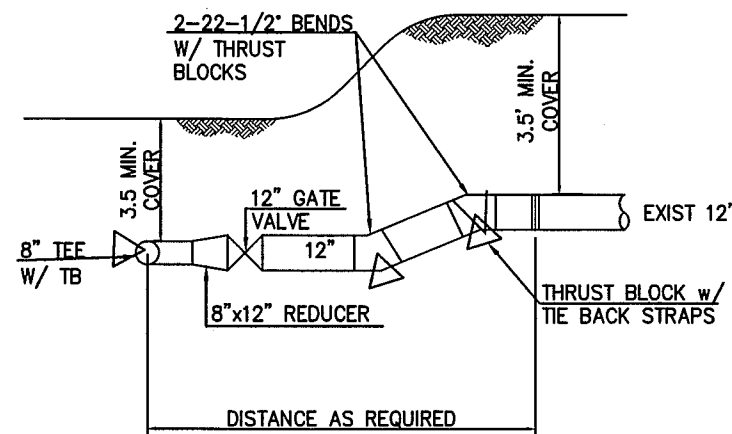
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OF

DAVID EVANS AND ASSOCIATES INC.
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

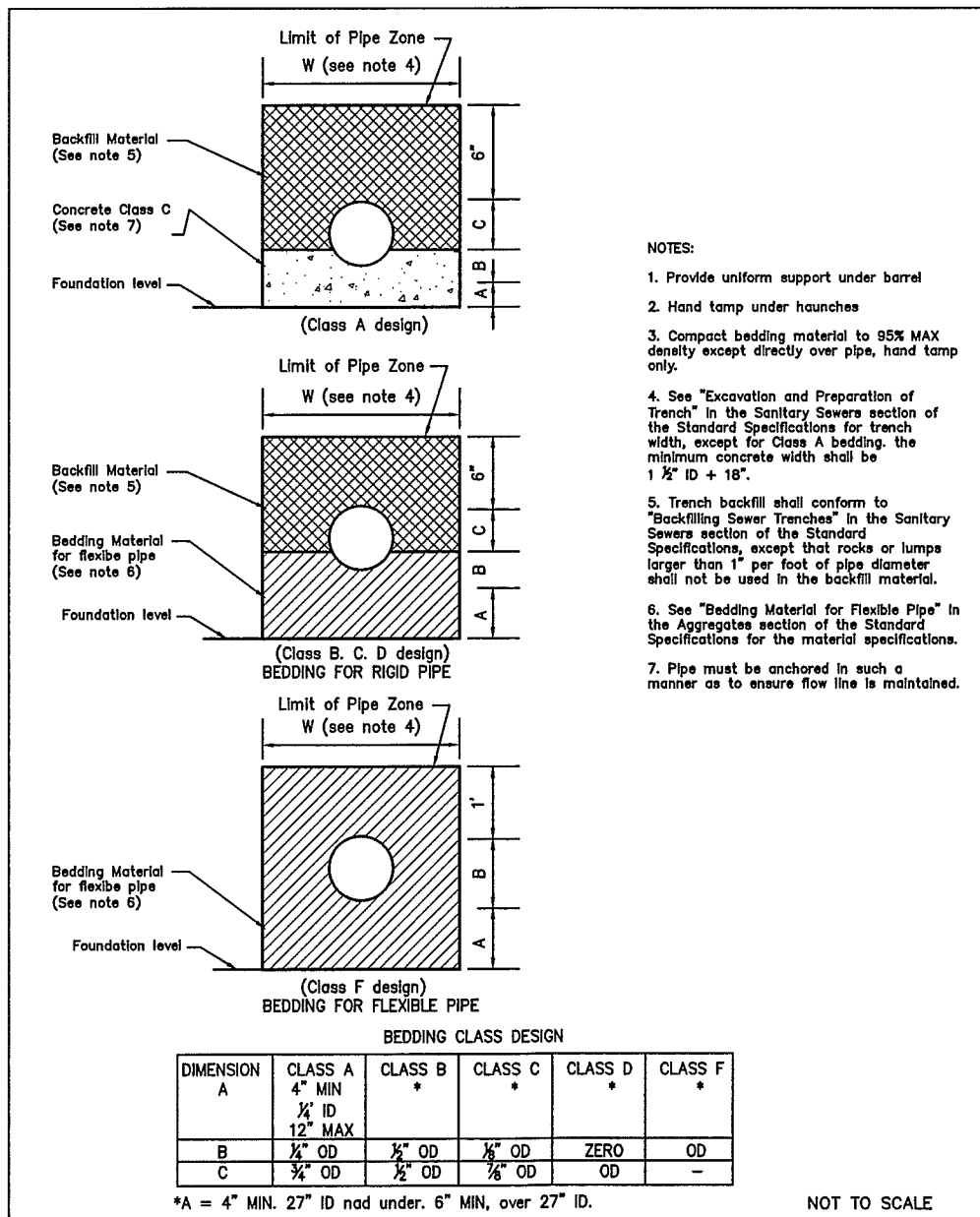
NO.	REVISIONS:	APPD.



VERTICAL THRUST BLOCK
SCALE: 1" = 1'



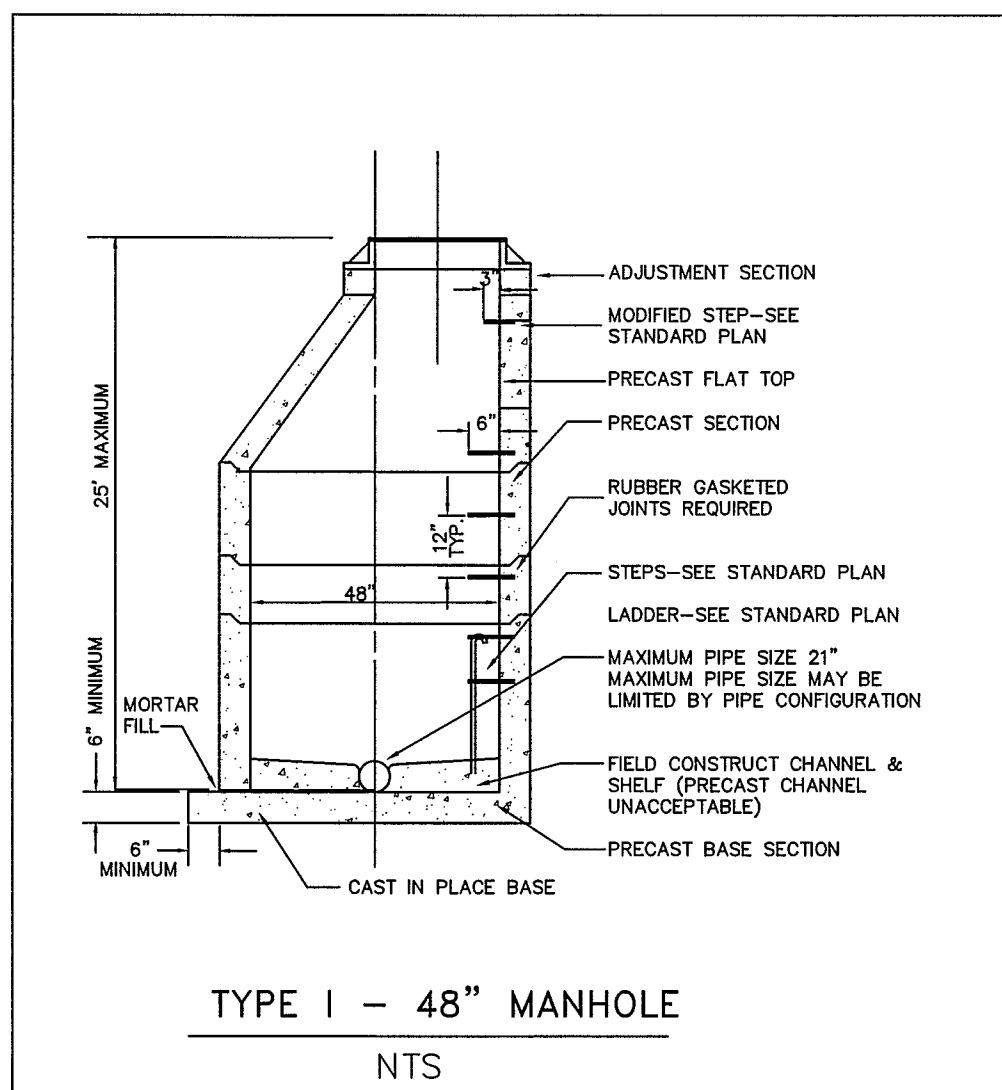
WATERLINE CONNECTION
SCALE 1"=3'



NOTES:
1. Provide uniform support under barrel.
2. Hand tamp under haunches.
3. Compact bedding material to 90% max density except directly over pipe, hand tamp only.
4. See "Excavation and Preparation of Trench" in the Sanitary Sewers section of the Standard Specifications for the Trenching and Backfilling of Trenches.
5. Trench backfill shall conform to "Backfilling Sewer Trenches" in the Sanitary Sewers section of the Standard Specifications for the Trenching and Backfilling of Trenches.
6. See "Bedding Material for Flexible Pipe" in the appropriate section of the Standard Specifications for the material specifications.
7. Pipe must be anchored in such a manner as to ensure flow line is maintained.

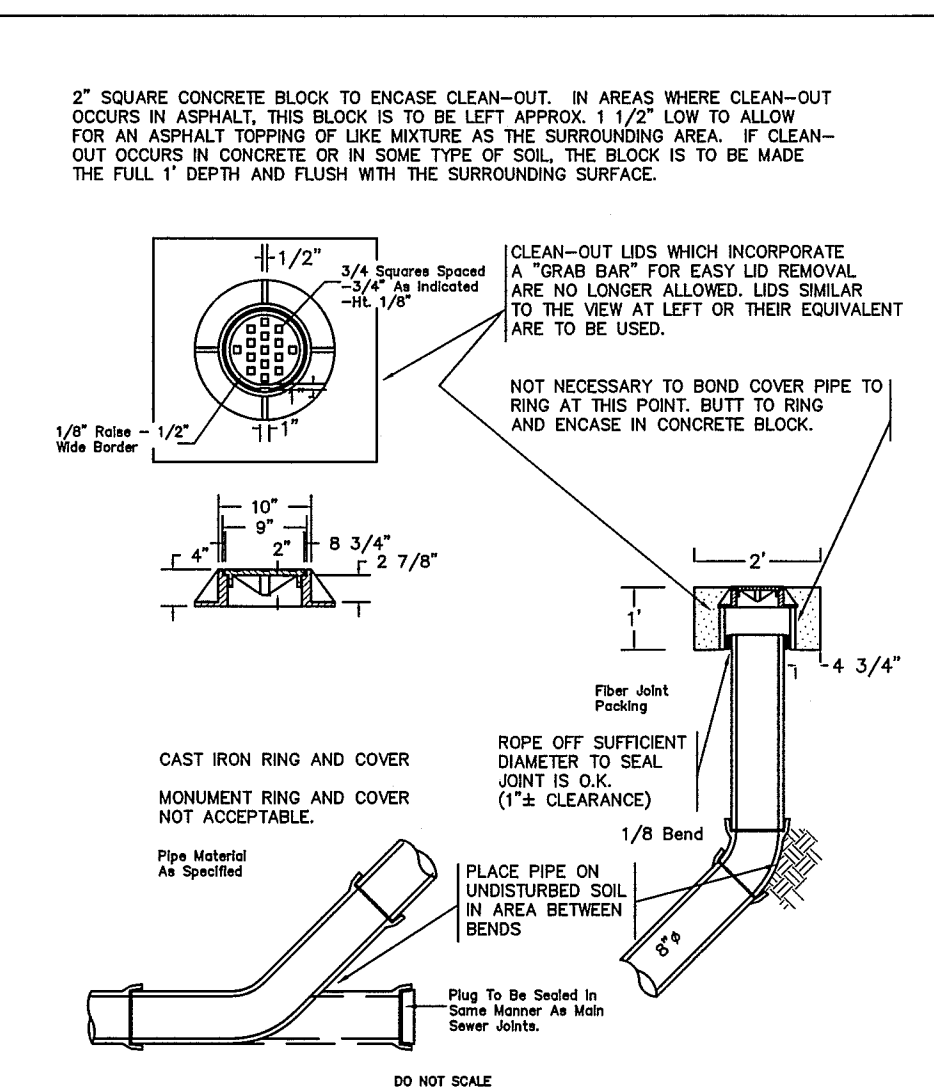
NOT TO SCALE

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
SANITARY SEWERS
DRAWING
SS-1



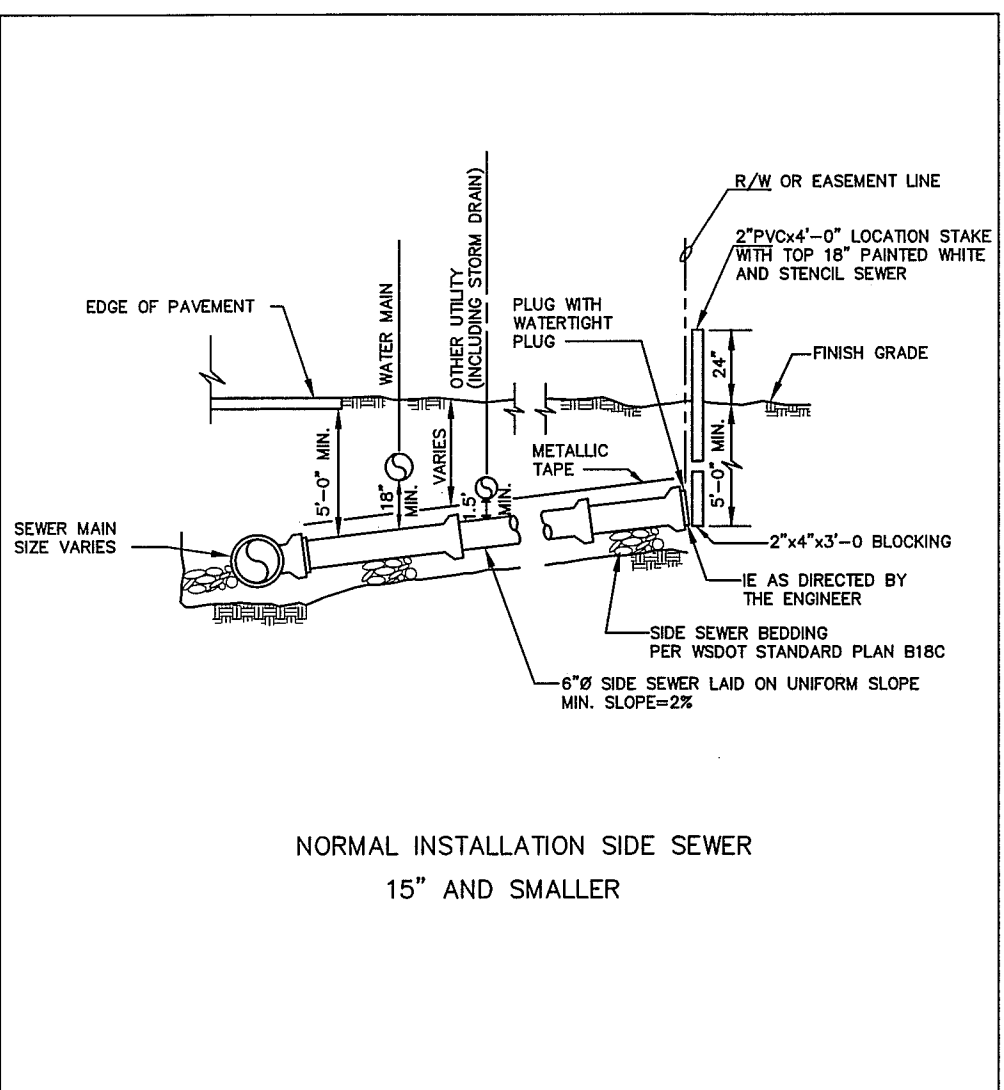
TYPE I - 48" MANHOLE
NTS

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
TYPE I 48" MANHOLE
DRAWING
SS-2



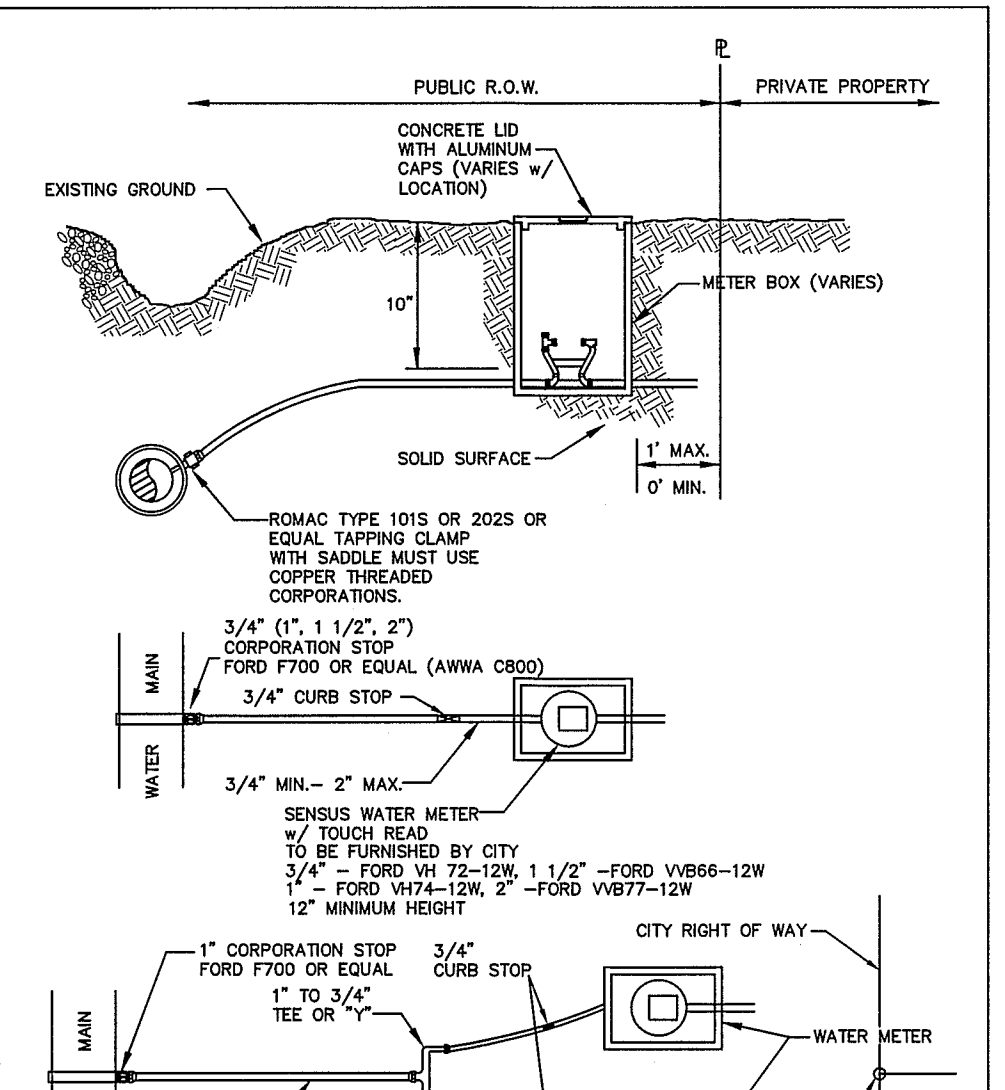
8" CLEAN OUT
SSCO 04/30/92 16:17

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
8" CLEAN OUT
DRAWING
SS-5



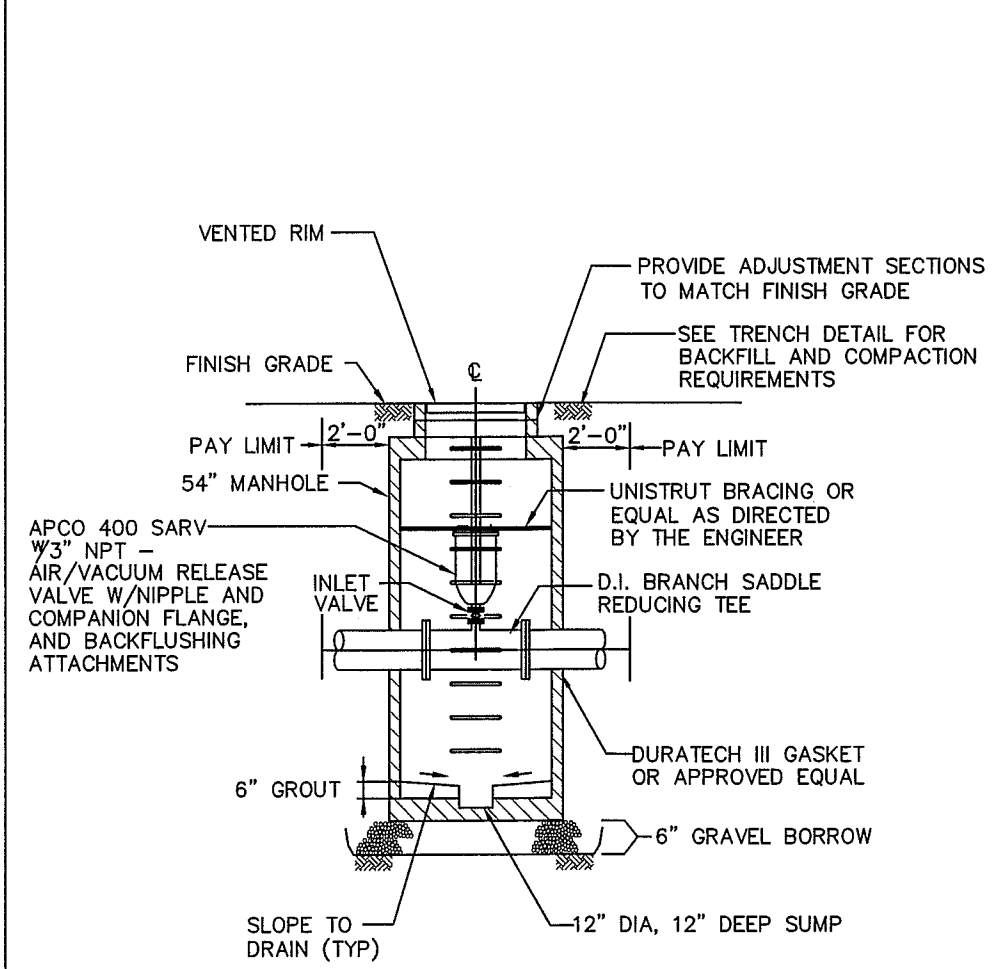
15" AND SMALLER SEWER MAINS

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
NORMAL INSTALLATION
15" AND SMALLER SEWER MAINS
DRAWING
SS-6



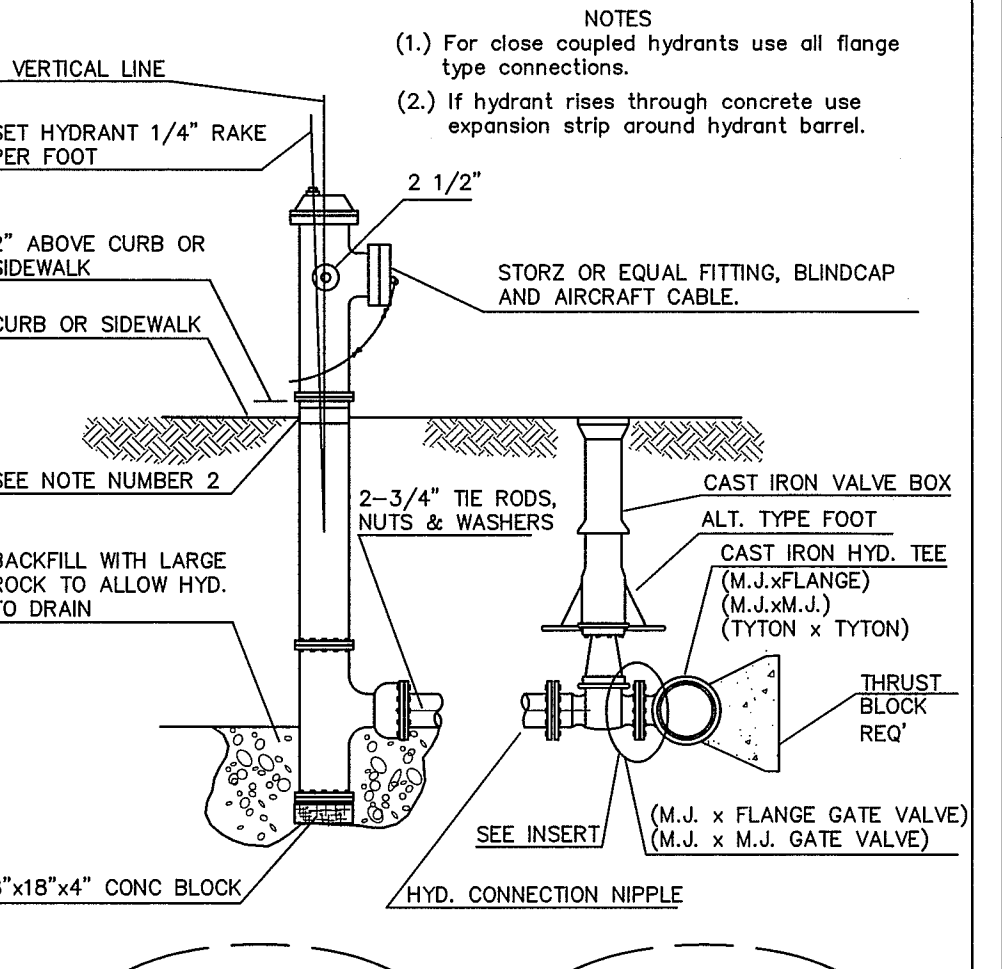
TYPICAL WATER SERVICE (3/4" TO 2")

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
TYPICAL WATER SERVICE
(3/4" TO 2")
DRAWING
W-5



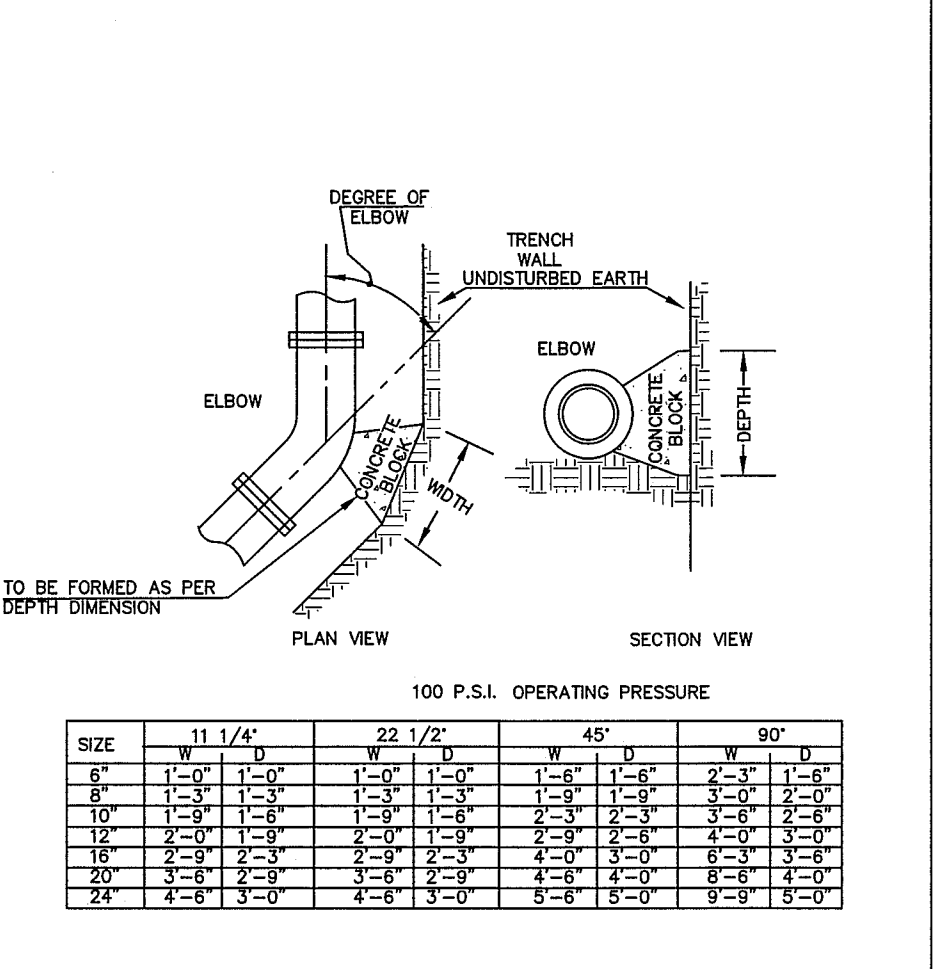
APCO 400 SARV 73" NPT - AIR/VACUUM RELEASE VALVE

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
AIR - VACUUM
RELEASE ASSEMBLY
DRAWING
W-13



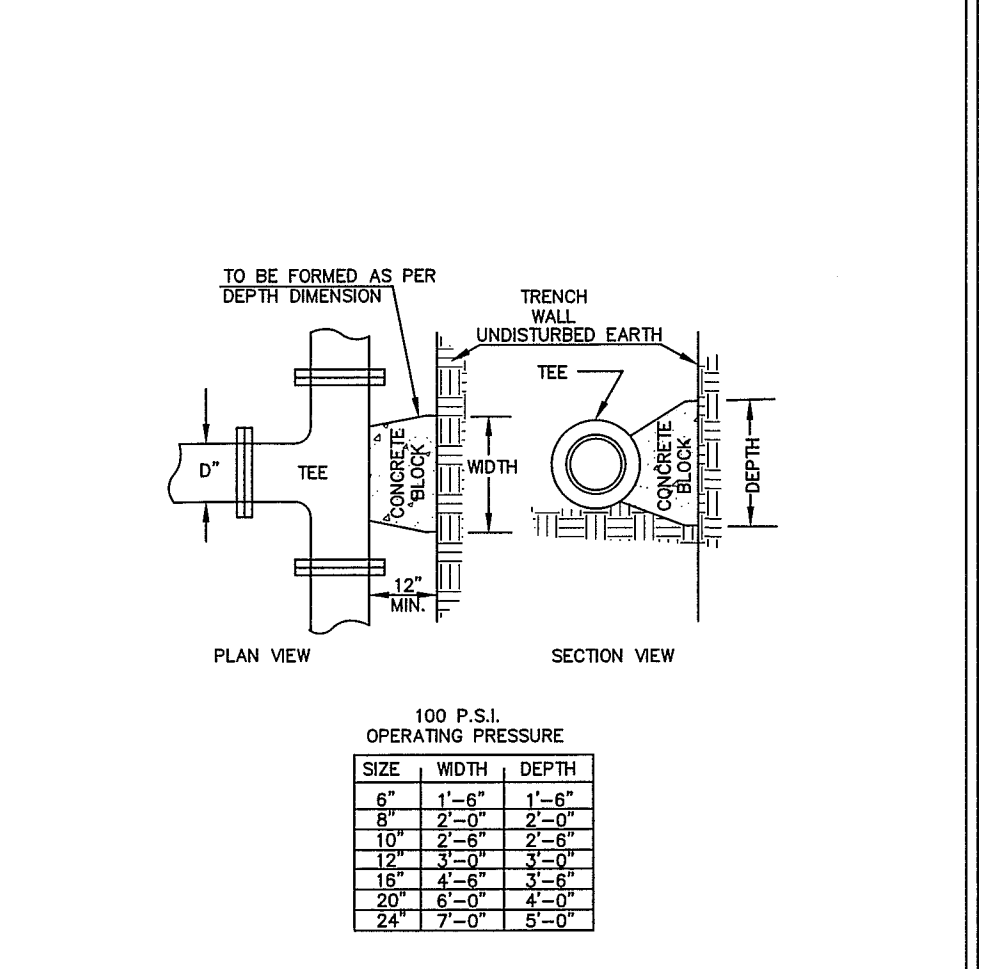
FIRE HYDRANT ASSEMBLY

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
FIRE HYDRANT ASSEMBLY
DRAWING
W-1



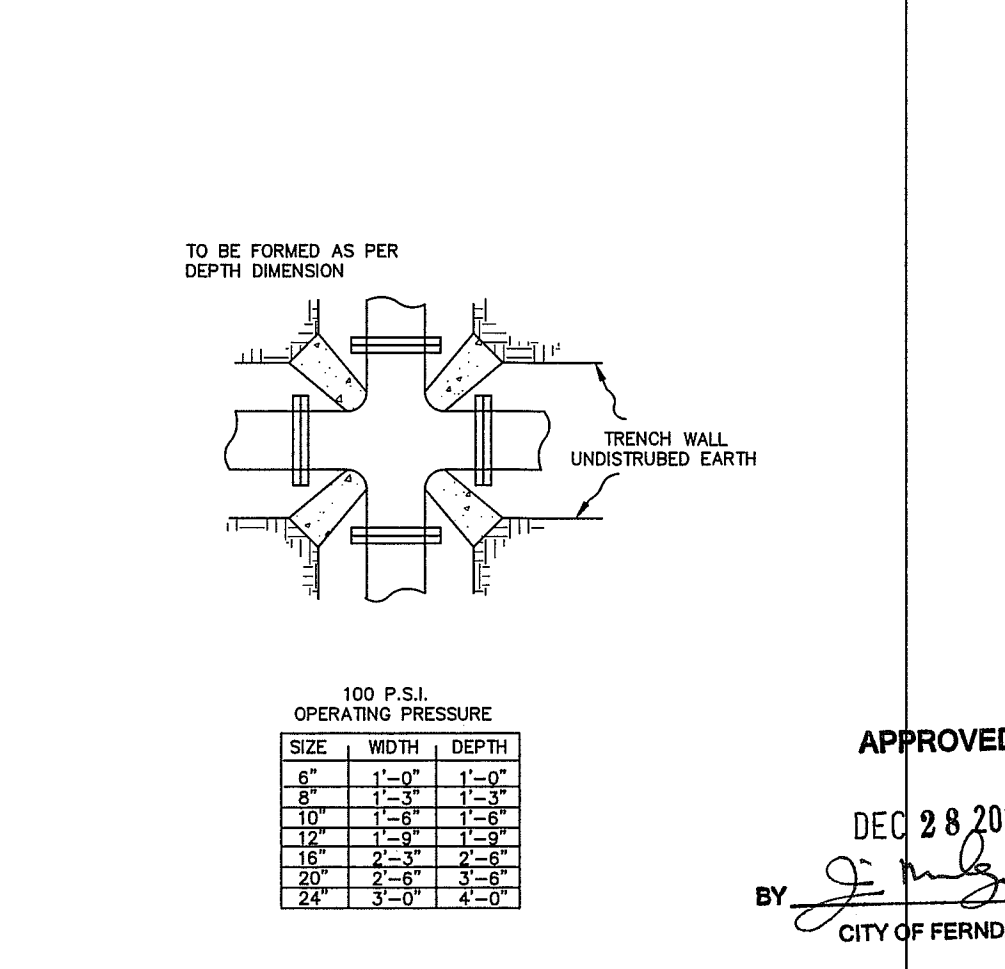
THRUST BLOCKING

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
THRUST BLOCKING
ELBOWS
DRAWING
W-2



THRUST BLOCKING

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
THRUST BLOCKING
TEES
DRAWING
W-3



THRUST BLOCKING

APPROVED _____
Public Works Director _____ Date _____
CITY OF FERDALE
THRUST BLOCKING
4-WAY INTERSECTION
DRAWING
W-4

RECORD DRAWING - 10/14/08

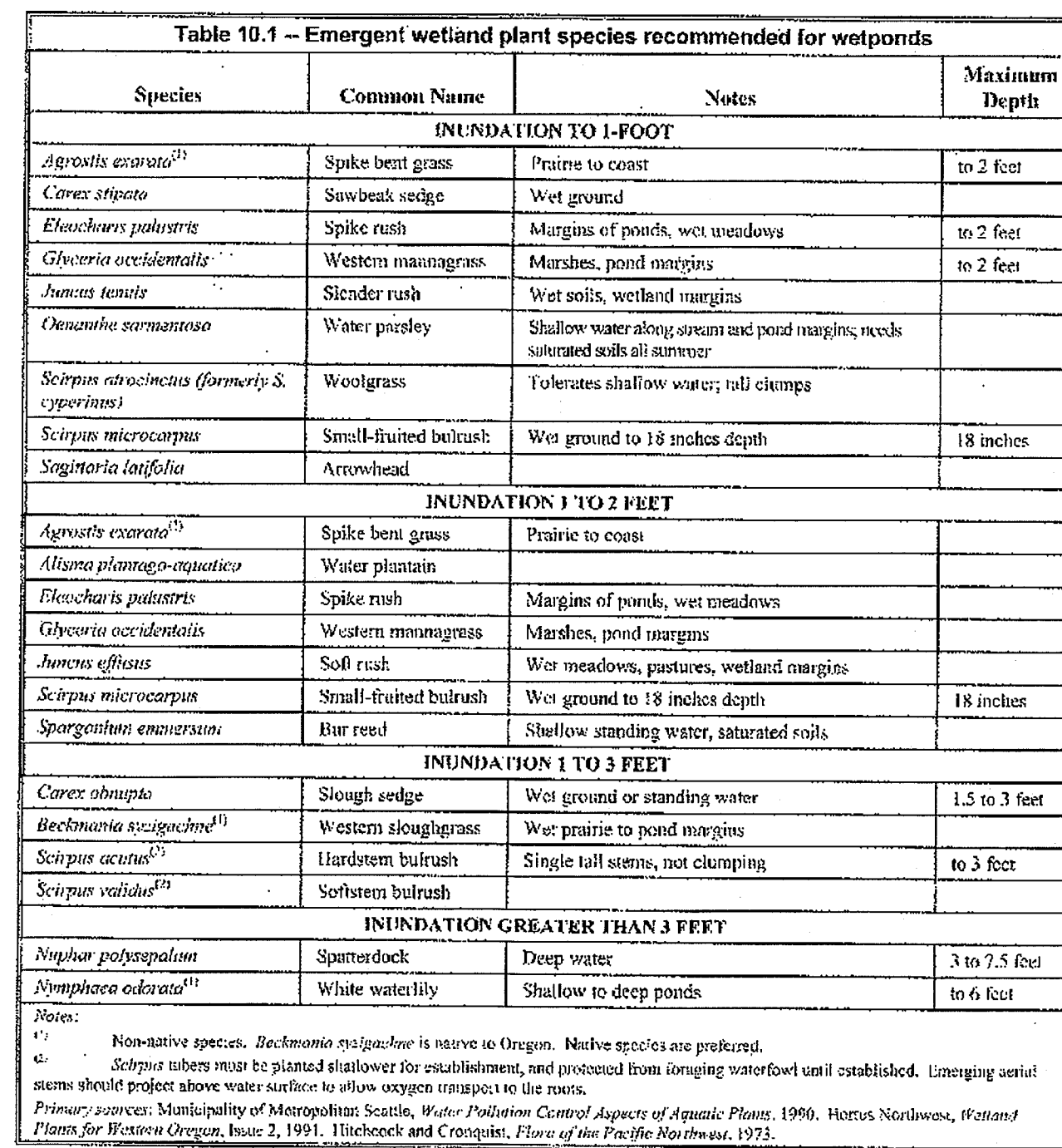
FERDALE SCHOOL DISTRICT
FERDALE, WASHINGTON
NEW ELEMENTARY SCHOOL
CHURCH ROAD
SANITARY SEWER AND WATER DETAILS

PROJECT NUMBER:
RAIX0001
DATE: 10/01/08
DESIGN: MJD
DRAWN: SLG
CHECKED:
SCALE: AS NOTED
SHEET NO.
C11

DAVID EVANS INC.
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

NO. REVISIONS:

00400.012 1.10.12 APPD.



Species	Common Name	Notes	Maximum Depth
INUNDATION TO 1-FOOT			
<i>Agrostis exaristata</i> ²³	Spike bent grass	Prairie to coast	to 2 feet
<i>Carex stipata</i>	Sawbeak sedge	Wet ground	
<i>Eleocharis palustris</i>	Spike rush	Margins of ponds, wet meadows	to 2 feet
<i>Glyceria occidentalis</i>	Western monnagrass	Marshes, pond margins	to 2 feet
<i>Juncus tenuis</i>	Slender rush	Wet soils, wetland margins	
<i>Oenothera biennis</i>	Water poppley	Shallow water along stream and pond margins, needs saturated soils all summer	
<i>Scirpus atrovirens</i> (formerly <i>S. cyperinus</i>)	Woolgrass	Tolerates shallow water; tall clumps	
<i>Scirpus microcarpus</i>	Small-fruited bulrush	Wet ground to 18 inches depth	18 inches
<i>Stagittaria trifolia</i>	Arrowhead		
INUNDATION 1' TO 2 FEET			
<i>Agrostis exaristata</i> ²³	Spike bent grass	Prairie to coast	
<i>Alisma plantago-aquatica</i>	Water plantain		
<i>Eleocharis palustris</i>	Spike rush	Margins of ponds, wet meadows	
<i>Glyceria occidentalis</i>	Western monnagrass	Marshes, pond margins	
<i>Juncus effusus</i>	Soft rush	Wet meadows, pastures, wetland margins	
<i>Scirpus microcarpus</i>	Small-fruited bulrush	Wet ground to 18 inches depth	18 inches
<i>Sparganium angustifolium</i>	Bur reed	Shallow standing water, saturated soils.	
INUNDATION 1 TO 3 FEET			
<i>Carex obnupta</i>	Slough sedge	Wet ground or standing water	1.5 to 3 feet
<i>Baccharis scirpoides</i> ²⁴	Western sloughgrass	Wet prairie to pond margins	
<i>Scirpus acutus</i> ²⁵	Hardstem bulrush	Single tall stems, not clumping	to 3 feet
<i>Scirpus validus</i> ²⁶	Softstem bulrush		
INUNDATION GREATER THAN 3 FEET			
<i>Najas polypodioides</i>	Spamweed	Deep water	3 to 7.5 feet
<i>Najas adansonia</i> ²⁷	White waterlily	Shallow to deep ponds	to 6 feet

Notes:

²³ Non-native species. *Agrostis exaristata* is native to Oregon. Native species are preferred.

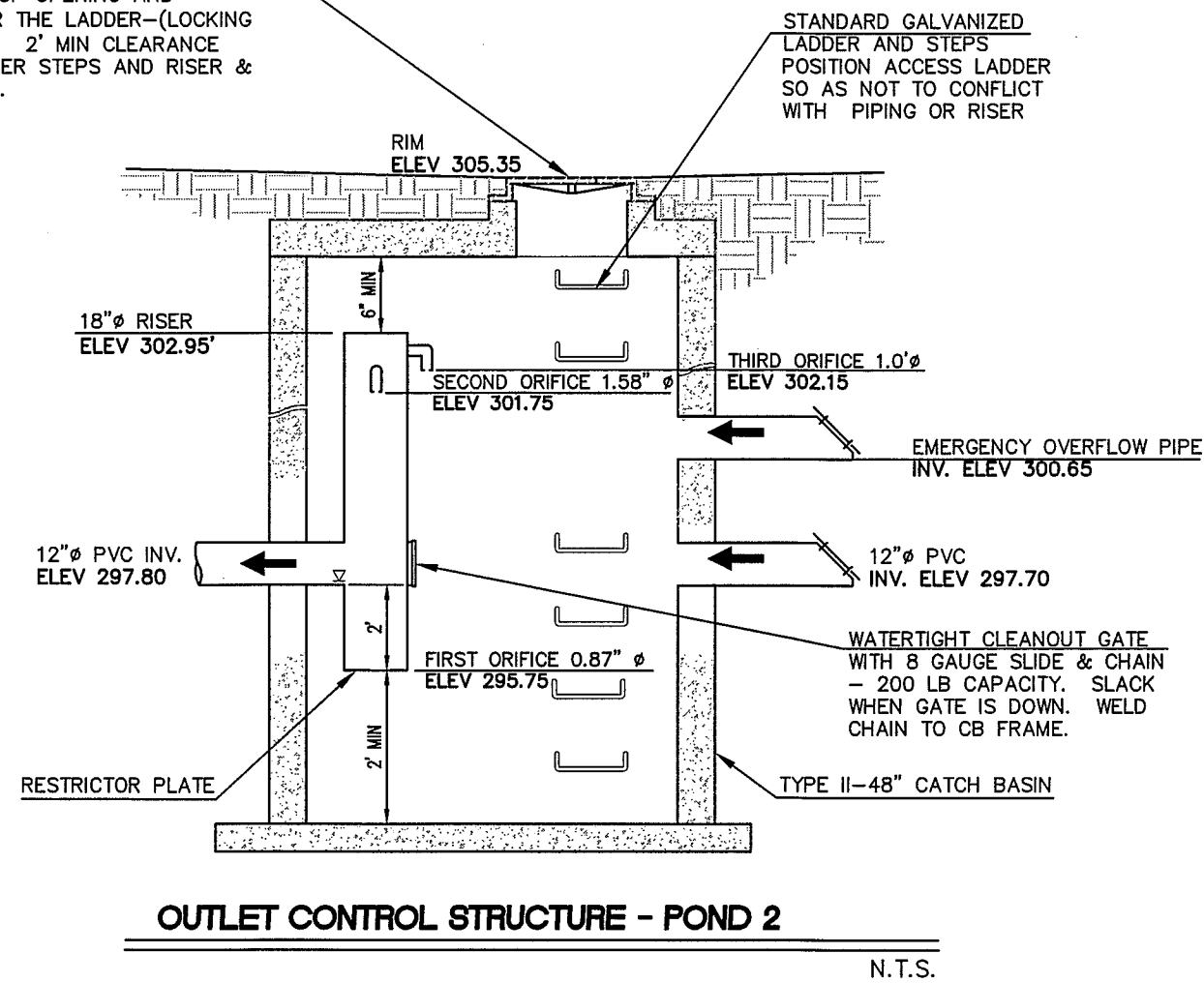
²⁴ *Scirpus* species may be planted shallower for establishment, and produced from irrigating waterfowl until established. Unweeding until stems should prefer above water surface to allow oxygen transport in its stems.

²⁵ *Scirpus acutus* may be planted shallower for establishment, and produced from irrigating waterfowl until established. Unweeding until stems should prefer above water surface to allow oxygen transport in its stems.

²⁶ *Scirpus validus* may be planted shallower for establishment, and produced from irrigating waterfowl until established. Unweeding until stems should prefer above water surface to allow oxygen transport in its stems.

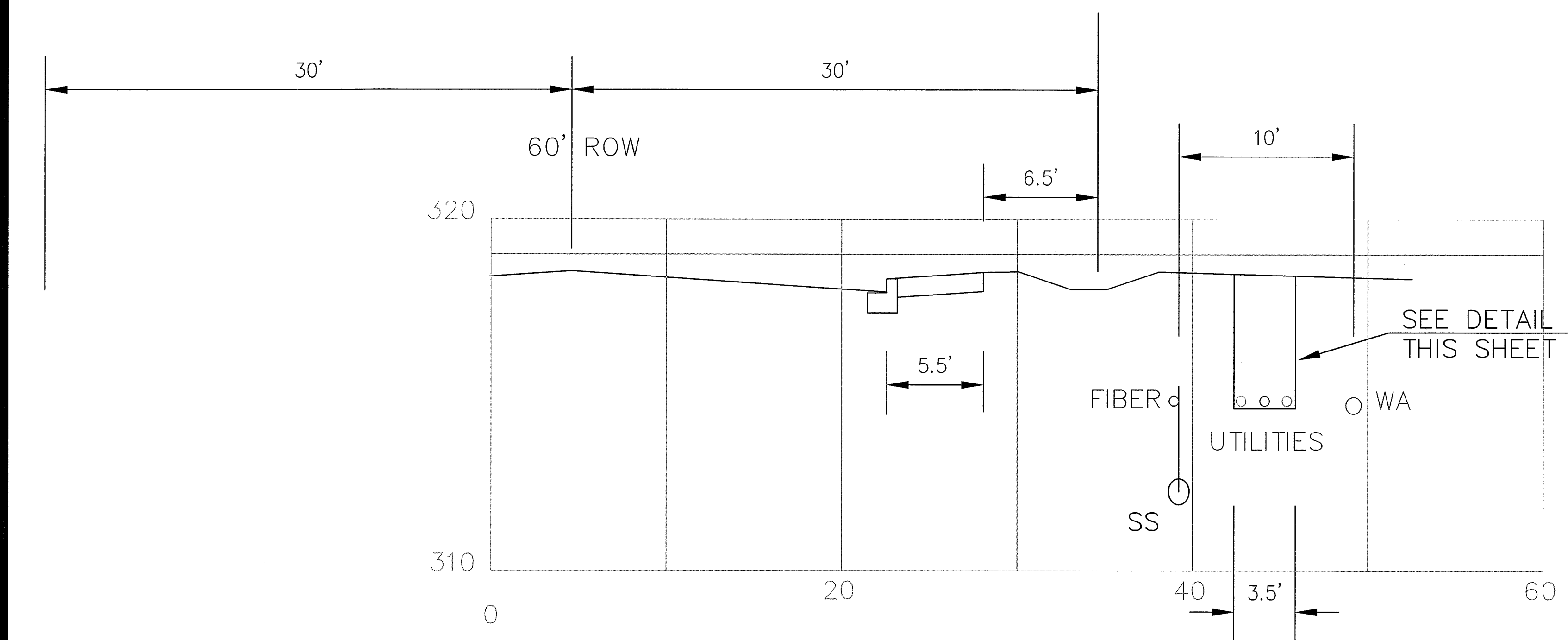
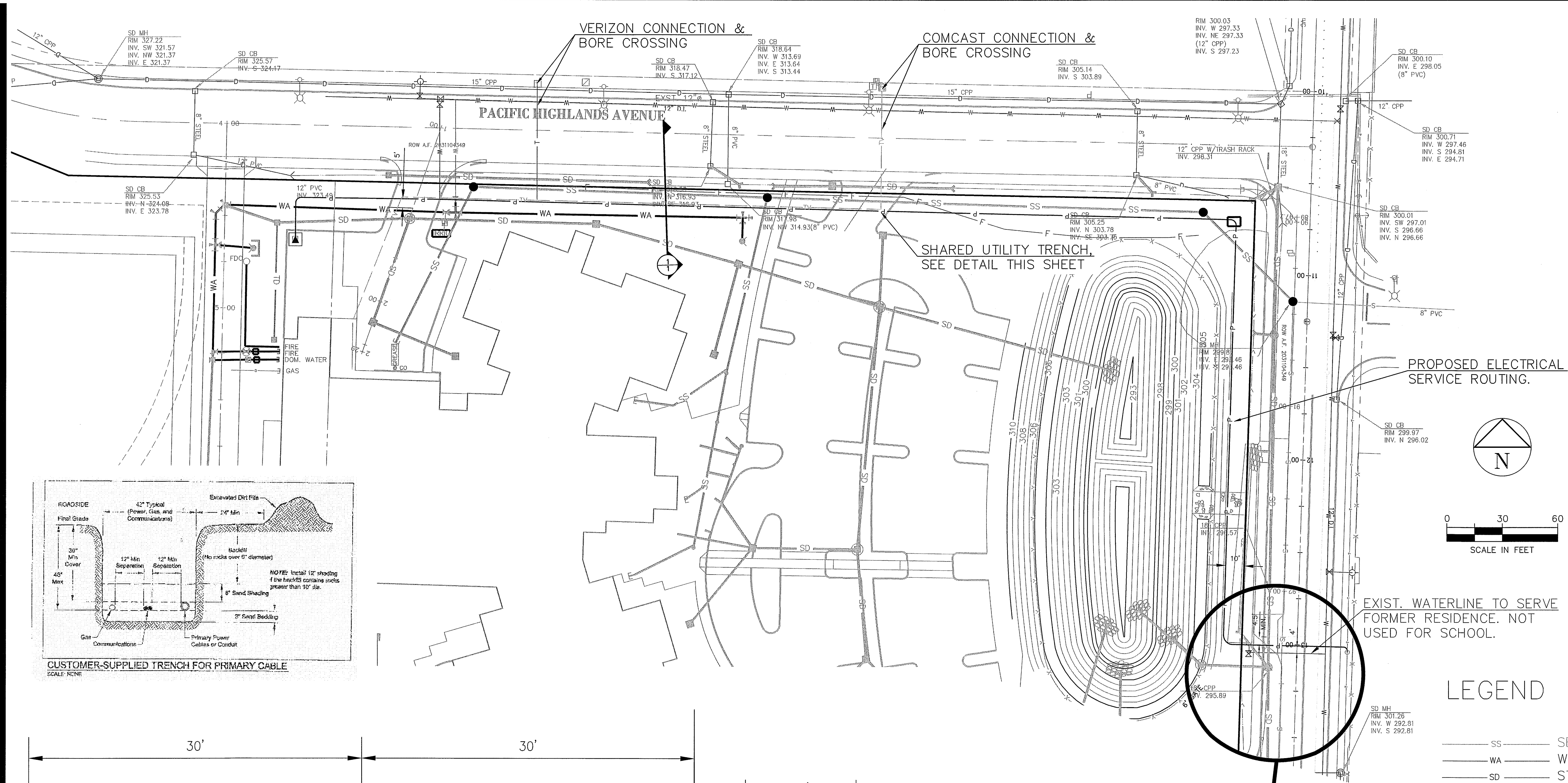
²⁷ *Najas adansonia* may be planted shallower for establishment, and produced from irrigating waterfowl until established. Unweeding until stems should prefer above water surface to allow oxygen transport in its stems.

Primary sources: Municipality of Metropolitan Seattle, *Water Pollution Control Aspects of Aquatic Plants*, 1960, Marcus Mathews, *Wetland Plants for Western Oregon*, Issue 2, 1991, Hitchcock and Cronquist, *Flora of the Pacific Northwest*, 1973.



APPROVED
DEC 28 2011
BY J. M. [Signature] P.E.
CITY OF FERNDALE

RECORD DRAWING - 10/14/08



- LEGEND
- SS SEWER
 - WA WATER
 - SD STORM
 - P ELECTRICAL
 - V VERIZON
 - F COMCAST
 - F FIBER
 - PROPERTY LINE

APPROVED
DEC 28 2011
BY *[Signature]* P.E.
CITY OF FERDALE

RECORD DRAWING - 10/14/08

FERDALE SCHOOL DISTRICT
FERDALE, WASHINGTON
DRY UTILITY LAYOUT

PROJECT NUMBER:
RAIX0001
DATE: 10/01/08
DESIGN: MJD
DRAWN: SLG
CHECKED:
SCALE: AS NOTED
SHEET NO.

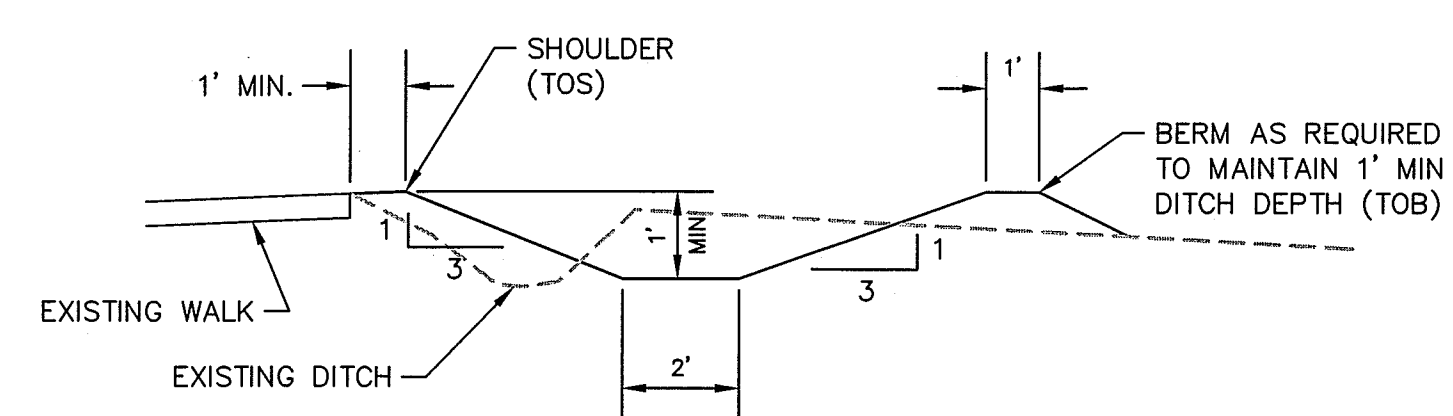
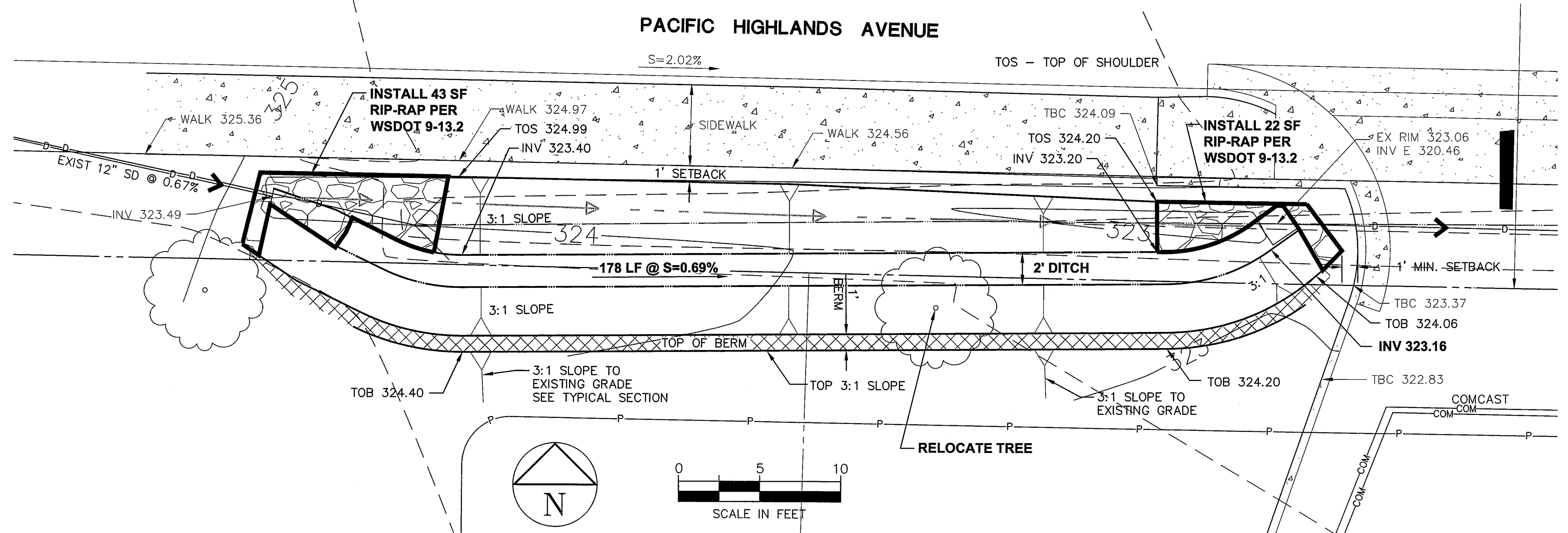
C13

OF

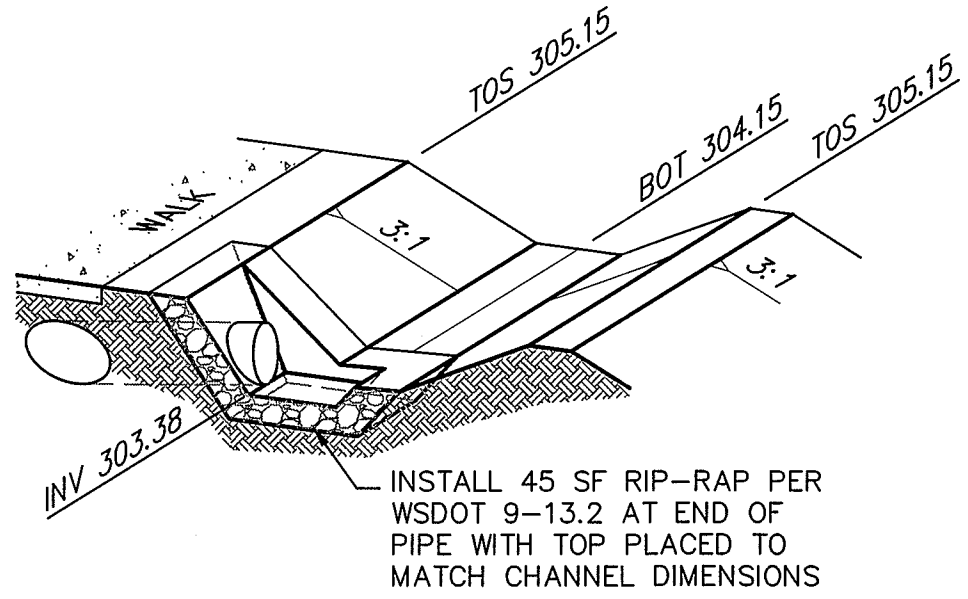
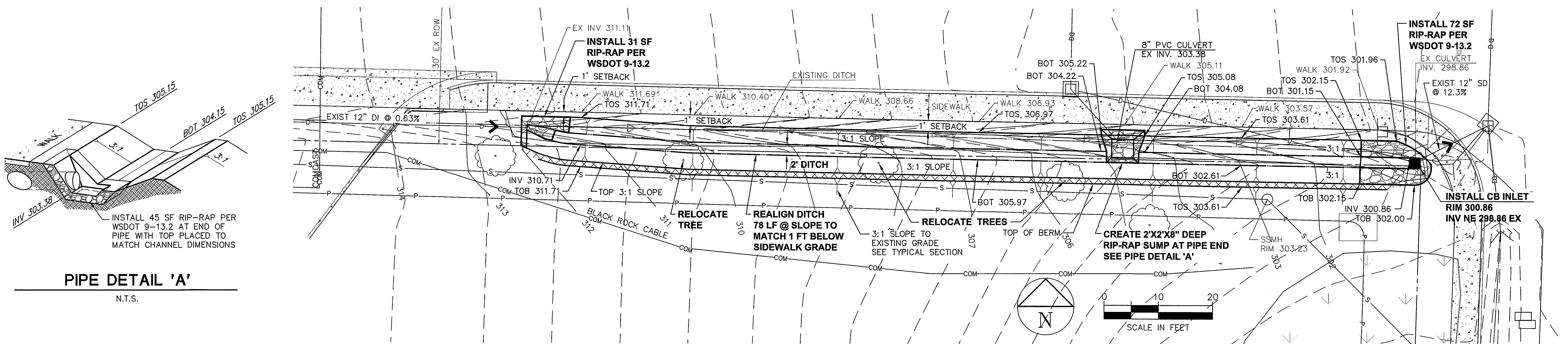
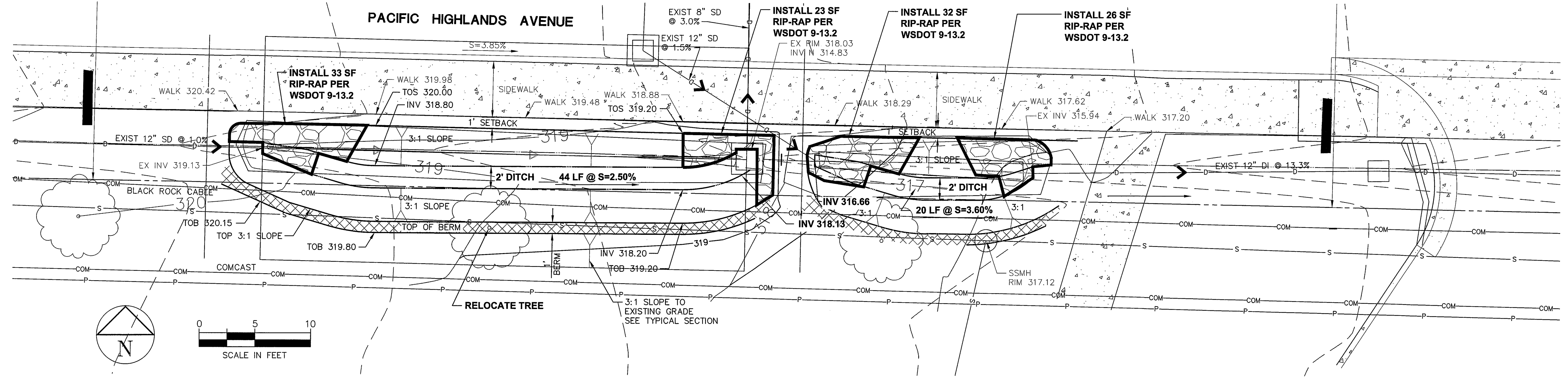
DAVID EVANS
AND ASSOCIATES INC.
119 Grand Avenue, Suite D
Bellingham, Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

NO. REVISIONS: APPD.

00400.014 1.10.12 SH



NOTE:
1. SLIP ON TRASH RACK ON ALL PVC ENDS.
NO PVC SHALL BE EXPOSED.



PIPE DETAIL 'A'
N.T.S.

DAVID EVANS AND ASSOCIATES INC.
119 Grand Avenue, Suite D
Bellingham Washington 98225
Phone: 360.647.7151
Fax: 360.647.7160

NEW ELEMENTARY SCHOOL
PACIFIC HIGHLANDS AVENUE
DITCH REALIGNMENT

PROJECT NUMBER:
RAIX0001
DATE: JAN 22, 2009
DESIGN: KSLT
DRAWN: JXWA
CHECKED:
SCALE: AS NOTED
SHEET NO.

C14

APPROVED
DEC 28 2011
BY *[Signature]* P.E.
CITY OF FERDALE