SUP

PROJECT ID: 8160-03-61

WITH: N/A

COUNTY: BAYFIELD

MAR 2014

ORDER OF SHEETS

Section No. 1 Title
Section No. 2 Typical Sections and Details
Section No. 3 Estimate of Quantities
Section No. 3 Miscellaneous Quantities
~~Section No. 4 Right of Way Plat~~
Section No. 5 Plan and Profile
Section No. 6 Standard Detail Drawings
Section No. 7 Sign Plates
~~Section No. 8 Structure Plans~~
Section No. 9 Computer Earthwork Data
Section No. 9 Cross Sections

TOTAL SHEETS = 236

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8160-03-61		

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ASHLAND - BAYFIELD

USH 2 TO 7TH STREET

STH 13
BAYFIELD COUNTY

STATE PROJECT NUMBER
8160-03-61

PROJECT LOCATION



25

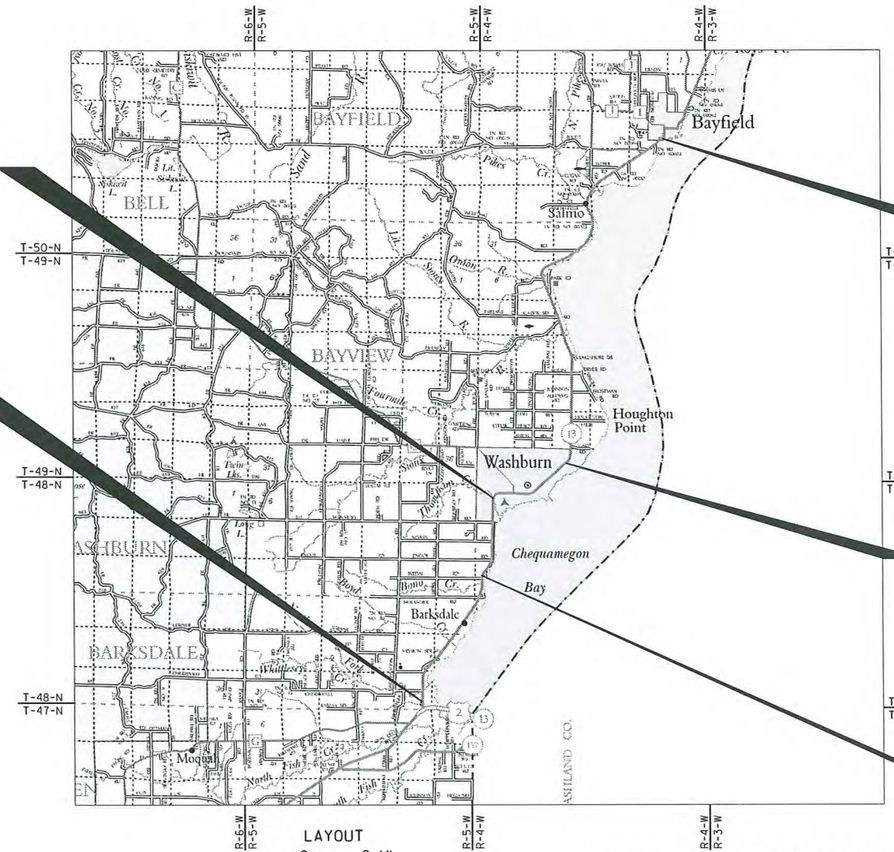
N

DESIGN DESIGNATION

	(STA. 7+91-328+56)	(STA. 38+73-602+84)
A.A.D.T.	= 9050 (2018)	5,200 (2017)
A.A.D.T.	= 10,150 (2028)	6,200 (2037)
D.H.V.	= 1320	2130
D.D.	= 61/39	61/39
T.	= 13.0%	10.0%
DESIGN SPEED	= 55 MPH	55 MPH
ESALS	= 3,401,800	3,200,000

END CONSTRUCTION
STA. 328+56.16'S'

BEGIN PROJECT
STA. 7+90.44'S'
X = 799,717.95
Y = 457,990.73



END PROJECT
STA. 602+84.21'N'

BEGIN CONSTRUCTION
STA. 37+00.00'N'
X = 818,683.34
Y = 491,488.77

EQUATION
STA. 220+94.27'S' BK. =
STA. 221+98.03'S' AH.

LAYOUT
SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 16.757 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BAYFIELD COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

ORIGINAL PLANS PREPARED BY

N.W.B.E.
NORTHERN WISCONSIN-BASED ENGINEERS, INC.

WISCONSIN
HEATHER J. HARRINGTON
E-27174
HAYWARD
WIS.
PROFESSIONAL ENGINEER

DATE: 10/21/13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NWBE, INC.
Designer	NWBE, INC.
Project Manager	PHILIP KEPPERS
Regional Examiner	DANIEL OJIBWAY
Regional Supervisor	DAVID OSTROWSKI
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 10/28/13 (Signature)

E

2

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

CURVE DATA IS BASED ON THE ARC DEFINITION. BEARINGS SHOWN ON THE PLAN ARE GRID BEARINGS AND ARE TO THE NEAREST SECOND.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE OR ASPHALTIC SURFACE COURSE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYERS SHOWN ON THE PLAN IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGER'S HOTLINE AND/OR A DIRECT CALL TO UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGER'S HOTLINE.

VERTICAL SAWCUTS SHALL BE MADE THROUGH ALL EXISTING PAVEMENTS AT REMOVAL LIMITS.

SHRINKAGE OF EARTHWORK IS VARIABLE AND IS ESTIMATED AT 25% IN THE YARDAGE SUMMARY. EXCAVATION BELOW SUBGRADE (EBS) IS ESTIMATED AND MAY VARY AS DIRECTED BY THE ENGINEER.

6-INCH BASE PATCHING ASPHALTIC SHALL BE CONSTRUCTED IN 2 LAYERS MINIMUM.

7 1/2-INCH BASE PATCHING ASPHALTIC SHALL BE CONSTRUCTED IN 3 LAYERS MINIMUM.

8-INCH BASE PATCHING ASPHALTIC SHALL BE CONSTRUCTED IN 3 LAYERS MINIMUM.

8 1/2-INCH BASE PATCHING ASPHALTIC SHALL BE CONSTRUCTED IN 3 LAYERS MINIMUM.

RADIUS DIMENSIONS AS SHOWN ON THE PLAN ARE TO THE EDGE OF PAVEMENT. ELEVATIONS SHOWN ON INTERSECTION DETAIL SHEETS ARE AT THE EDGE OF PAVEMENT.

RESTORE SIDE ROAD INTERSECTIONS, DRIVEWAYS, AND OTHER ENTRANCES TO EXISTING SURFACE CONDITIONS UNLESS SHOWN OTHERWISE ON THE PLAN. EXACT LOCATION AND THE LIMITS OF PRIVATE ENTRANCES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, AND IT SHALL BE INSTALLED PRIOR TO CONSTRUCTION.

THE EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND APPROVED BY THE ENGINEER IN CONSULTATION WITH THE DNR.

EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT OF WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

STATIONING, DISTANCES AND OFFSETS FOR PROPOSED SIGNS SHOWN ON THE PLAN ARE APPROXIMATE. ACTUAL LOCATIONS OF SIGNS ARE TO BE COORDINATED IN THE FIELD WITH THE ENGINEER.

ALL CONCRETE CULVERT PIPE AND STORM SEWER JOINTS SHALL BE TIED.

WISDOT CONTACT
WISCONSIN DEPARTMENT OF TRANSPORTATION
ATTN: PHILIP KEPPERS, PE - PROJECT MANAGER
1701 NORTH 4TH STREET
SUPERIOR, WI 54880
PHONE (715) 836-3902
EMAIL: Philip.Keppers@dot.wi.gov

WDNR CONTACT
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: SHAWN HASELEU
ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST
810 WEST AMPLE STREET
SPOONER, WI 54801
PHONE (715) 635-4228
EMAIL: Shawn.Haseleu@wisconsin.gov

DESIGN CONTACT
NORTHERN WISCONSIN-BASED ENGINEERS (NWBE)
ATTN: HEATHER HARRINGTON, PE
P.O. BOX 328
HAYWARD, WI 54843
PHONE (715) 634-4334
EMAIL: heather@cheqnet.net

BAYFIELD COUNTY CONTACT
BAYFIELD COUNTY HIGHWAY DEPARTMENT
ATTN: THOMAS TOEPFER - COMMISSIONER
P.O. BOX 428
311 SOUTH 1ST AVENUE EAST
WASHBURN, WI 54891
PHONE (715) 373-6115
EMAIL: ttoepfer@bayfieldcounty.org



LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
AADT	ANNUAL AVERAGE DAILY TRAFFIC
APPROX.	APPROXIMATE
A.E.W.	APRON END WALL
ASPH.	ASPHALTIC
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L OR ℄	CENTER LINE
C.E.	COMMERCIAL ENTRANCE
CONC.	CONCRETE
CONSTR.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
DISCH. OR DIS.	DISCHARGE
E.	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
EA.	EACH
ELEC.	ELECTRIC
EL. OR ELEV.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
F.L. OR ℄	FLOW LINE
HORIZ.	HORIZONTAL
INL.	INLET
INT.	INTERSECTION
INV.	INVERT
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
L.F.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MISC.	MISCELLANEOUS
N.	NORTH
Y	NORTH GRID COORDINATE
N.E.	NORTHEAST
N.W.	NORTHWEST
PAVT.	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQD.	REQUIRED
R/L	REFERENCE LINE
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT-OF-WAY
RD.	ROAD
SHLD.	SHOULDER
S.	SOUTH
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAYS
STA.	STATION
STRUCT.	STRUCTURE
TEL.	TELEPHONE
TEMP.	TEMPORARY
TN.	TOWN
T.	TRUCKS (PERCENT OF)
TYP.	TYPICAL
U.G.	UNDERGROUND
VAR.	VARIABLE
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE
W.	WEST
WB	WESTBOUND
W.A.	WORKING DAY
WZ	WORK ZONE

UTILITIES

BAYFIELD ELECTRIC CO-OPERATIVE
ATTN: GARY TARASEWICZ - FIELD TECHNICIAN
P.O. BOX 68
IRON RIVER, WI 54847
PHONE (715) 372-4287
MOBILE (715) 492-0725
EMAIL: gary.tarasewicz@bayfieldelectric.com

CITY OF BAYFIELD PUBLIC WORKS
ATTN: THOMAS KOVACHEVICH - PUBLIC WORKS DIRECTOR
P.O. BOX 1170
BAYFIELD, WI 54814
PHONE (715) 779-5731
MOBILE (715) 209-3956
EMAIL: citypublicworks@cityofbayfield.com

CENTURYLINK
ALAN NICKELL - ENGINEER II
P.O. BOX 369
MINONG, WI 54859
PHONE (715) 378-2131
MOBILE (715) 566-3879
EMAIL: alan.nickell@centurylink.com

CHARTER COMMUNICATIONS
TOM HAASE
2304 S. MAIN ST.
RICE LAKE, WI 54868
PHONE (715) 234-5341
MOBILE (715) 370-1601

XCEL ENERGY - ELECTRIC
ATTN: MURRAY SMERER - SENIOR DESIGNER
2400 FARM ROAD
ASHLAND, WI 54806
PHONE (715) 682-6928
EMAIL: murray.j.smerer@xcelenergy.com

UTILITIES

XCEL ENERGY - GAS
ATTN: MURRAY SMERER - SENIOR DESIGNER
2400 FARM ROAD
ASHLAND, WI 54806
PHONE (715) 682-6928

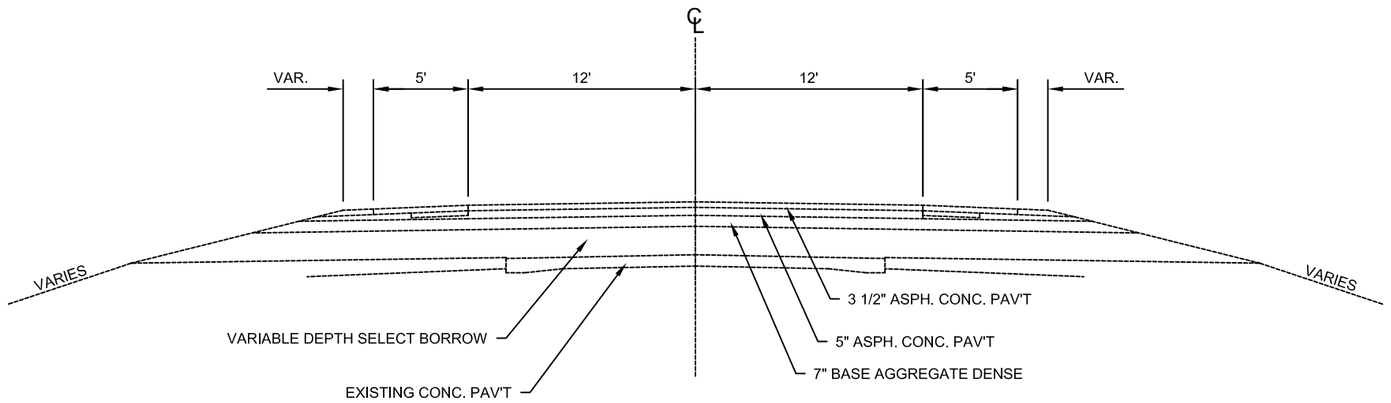
NORTHERN NATURAL GAS COMPANY
ATTN: JEFF TELKER - TEAM LEADER
1995 N. NATURAL GAS RD.
CARLTON, MN 55718
PHONE (402) 530-3499
MOBILE (218) 348-3470
EMAIL: Jeff.Telker@NNGco.com

NORVADO
ATTN: GUY FOLSOM - FIELD ENGINEER
P.O. BOX 67
CABLE, WI 54821
PHONE (715) 798-7123
MOBILE (715) 580-8123
EMAIL: gfolsom@norvado.com

PIKES BAY SANITARY DISTRICT
ATTN: REX DOLLINGER - PRESIDENT
P.O. BOX 689
BAYFIELD, WI 54814
PHONE (715) 779-9866
EMAIL: rexdoll@centurytel.net

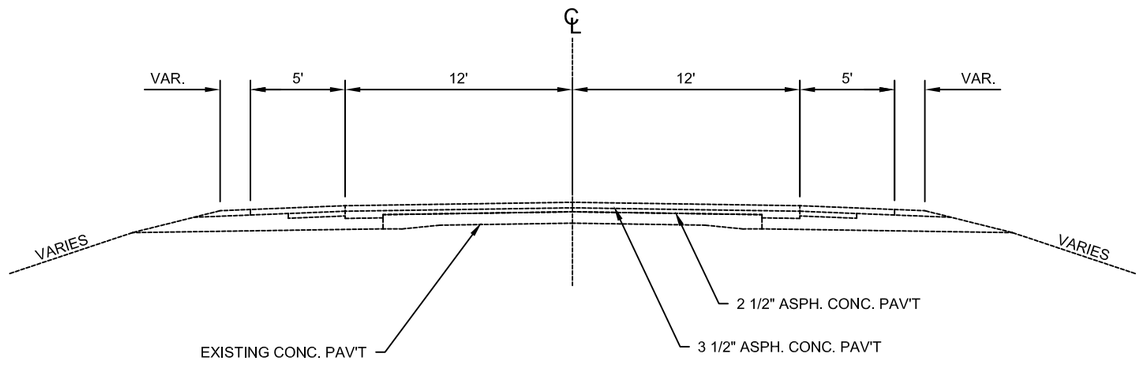
WASHBURN MUNICIPAL WATER AND SEWER UTILITY
ATTN: MICHAEL D. DECUR - DIRECTOR OF PUBLIC WORKS
P.O. BOX 638
WASHBURN, WI 54891
PHONE (715) 373-6171
MOBILE (715) 292-1325
EMAIL: dpw@cityofwashburn.org

2



TYPICAL EXISTING SECTION

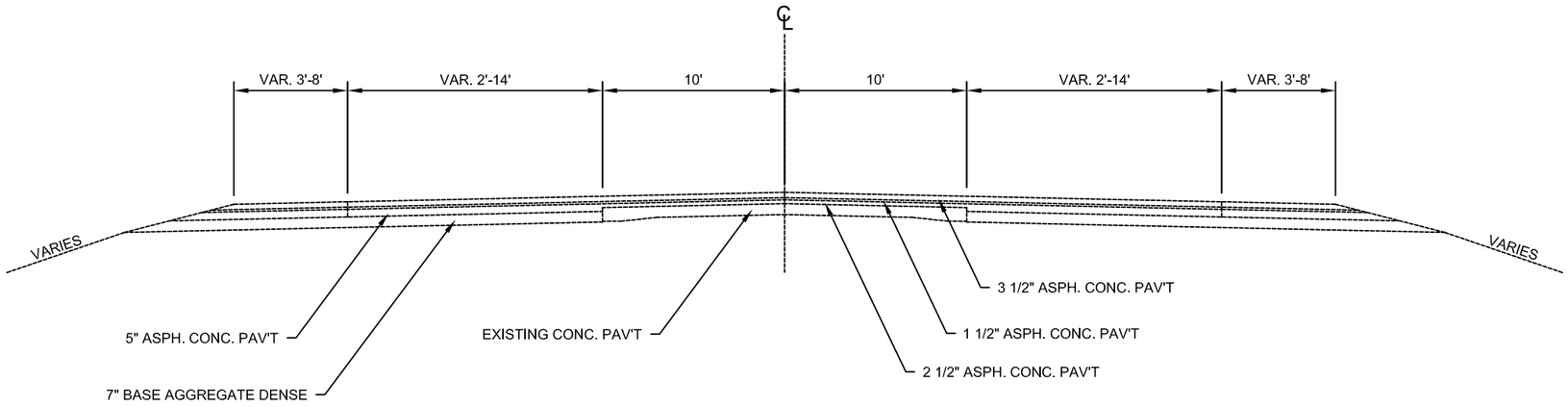
STA. 37+00'S' - 39+97'S'



TYPICAL EXISTING SECTION

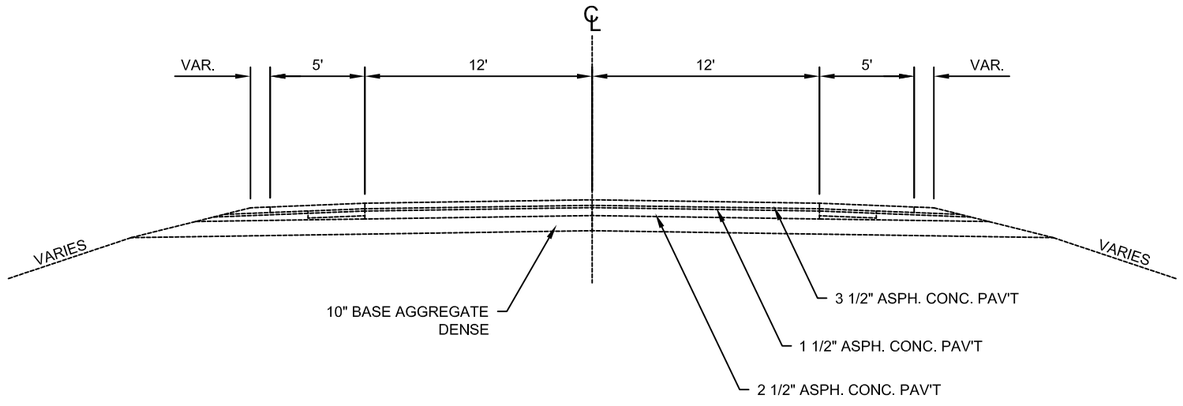
STA. 40+27'S' - 51+38'S'
STA. 60+65'S' - 121+24'S'
STA. 185+87'S' - 195+00'S'
STA. 223+00'S' - 321+00'S'

2



TYPICAL EXISTING SECTION

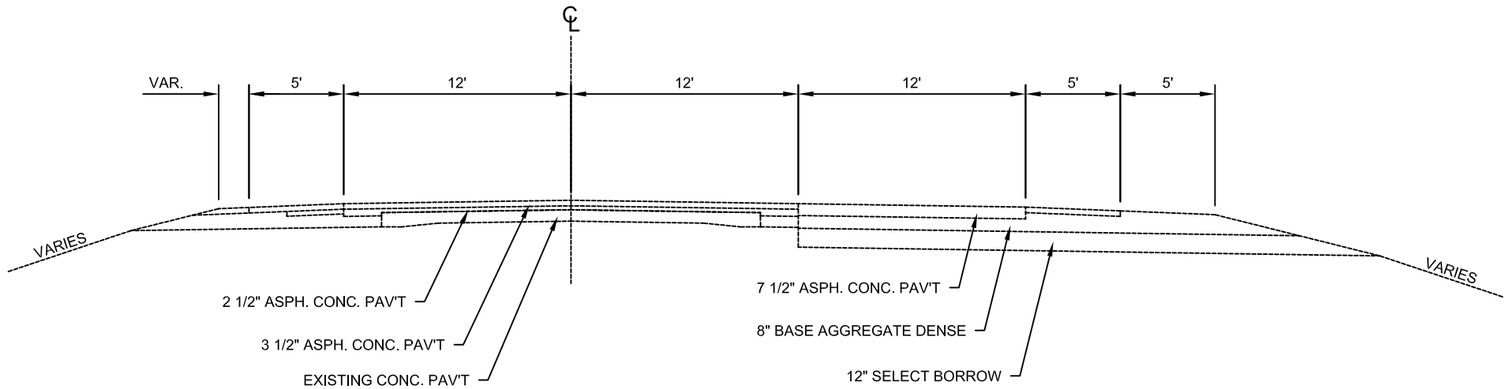
STA. 51+38'S' - 60+65'S'



TYPICAL EXISTING SECTION

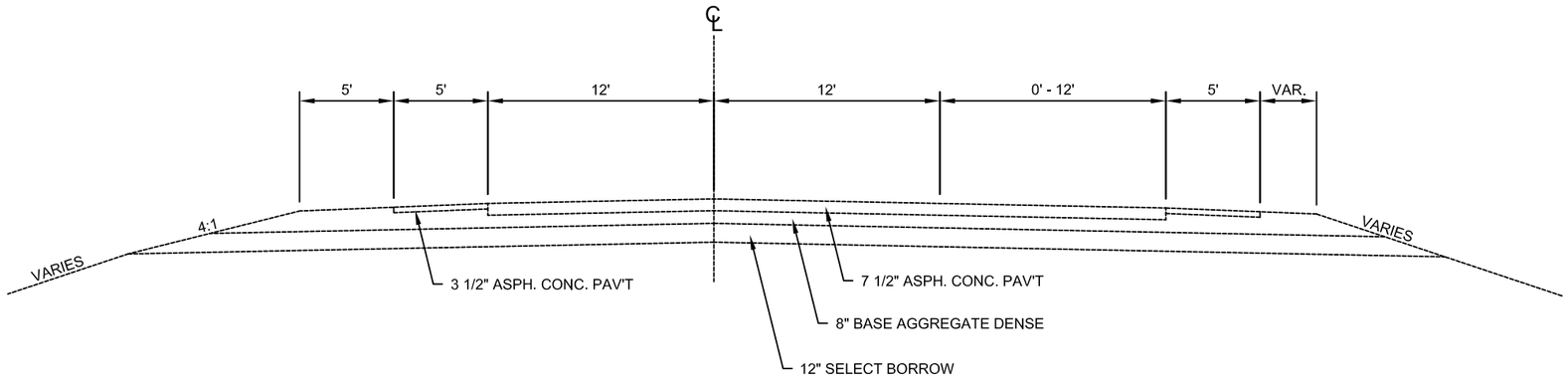
STA. 195+00'S' - 223+00'S'
STA. 321+00'S' - 328+58'S'

2



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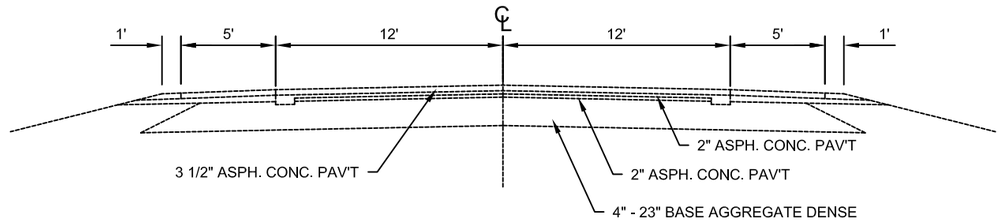
STA. 121+24'S' - 174+39'S'



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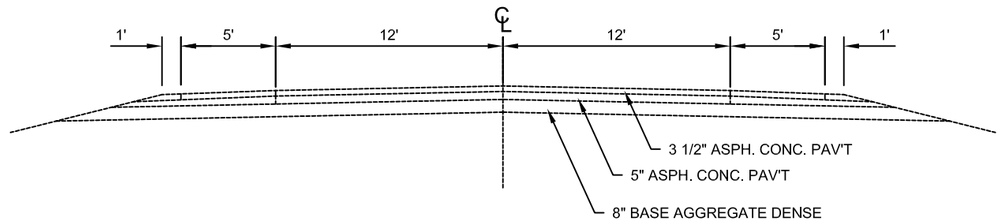
STA. 174+39'S' - 185+87'S'

2



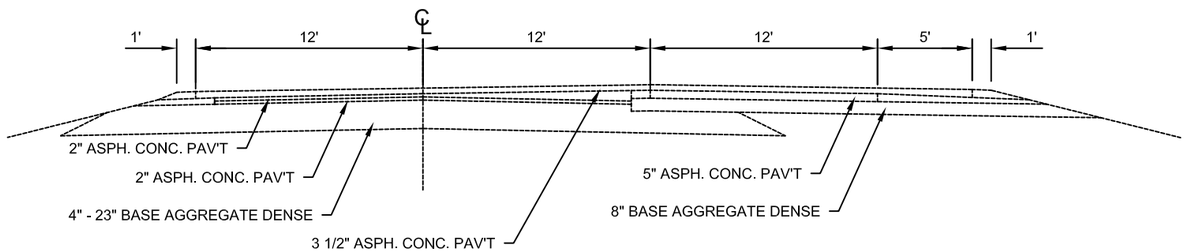
TYPICAL EXISTING SECTION

STA. 37+00'N' - 70+00'N'
STA. 77+59'N' - 232+40'N'
STA. 233+50'N' - 239+12'N'
STA. 240+22'N' - 314+50'N'
STA. 422+00'N' - 439+00'N'
STA. 440+50'N' - 442+00'N'
STA. 453+00'N' - 454+16'N'
STA. 459+44'N' - 470+77'N'
STA. 472+28'N' - 486+90'N'
STA. 550+00'N' - 572+00'N'
STA. 585+00'N' - 601+70'N'



TYPICAL EXISTING SECTION

STA. 70+00'N' - 77+59'N'
STA. 314+50'N' - 333+00'N'
STA. 391+00'N' - 398+00'N'
STA. 545+00'N' - 550+00'N'
STA. 572+00'N' - 585+00'N'

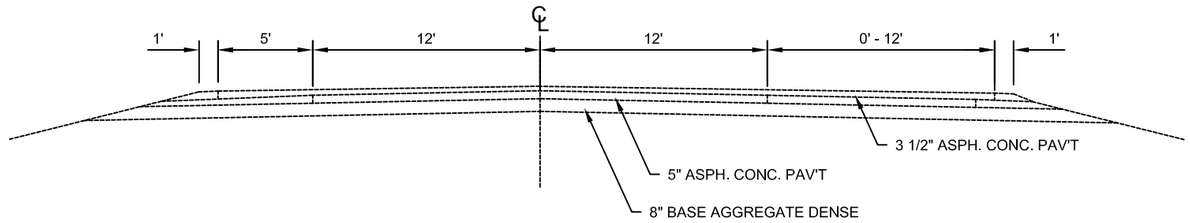


TYPICAL EXISTING SECTION

STA. 340+50'N' - 347+00'N'
STA. 353+00'N' - 357+70'N'
STA. 478+00'N' - 530+00'N'

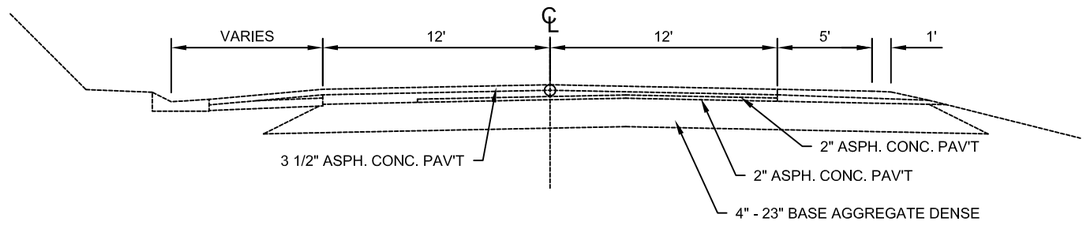
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	TYPICAL SECTIONS	SHEET 6	E

2



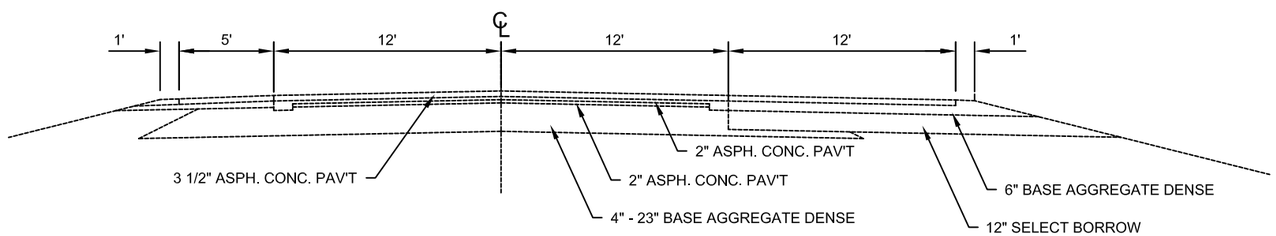
TYPICAL EXISTING SECTION

STA. 333+00'N' - 340+50'N'
STA. 347+00'N' - 353+00'N'
STA. 486+80'N' - 532+50'N'
STA. 532+50'N' - 535+00'N' (ASPH. CONC. SHLD. AND CURB AND GUTTER)
STA. 535+00'N' - 539+30'N'



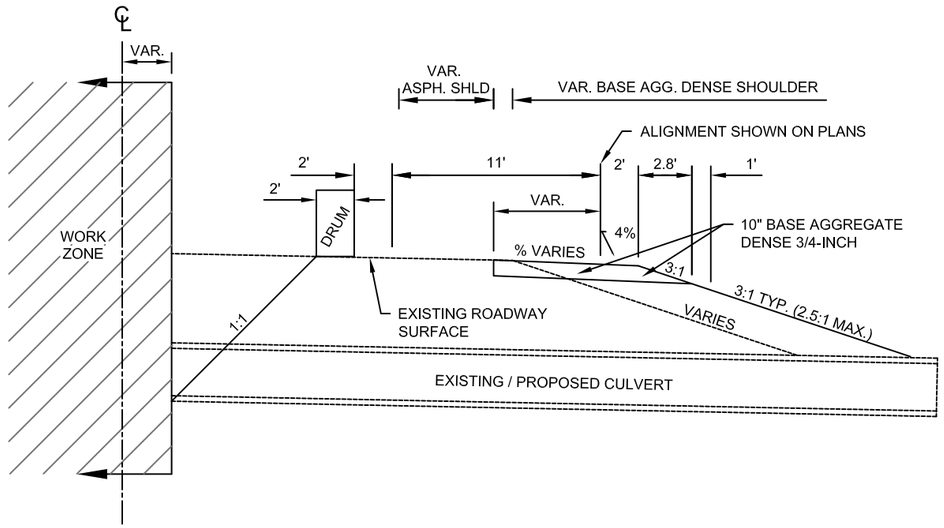
TYPICAL EXISTING SECTION

STA. 357+70'N' - 391+00'N'
STA. 398+00'N' - 422+00'N'
STA. 439+00'N' - 440+50'N'
STA. 442+00'N' - 453+00'N'

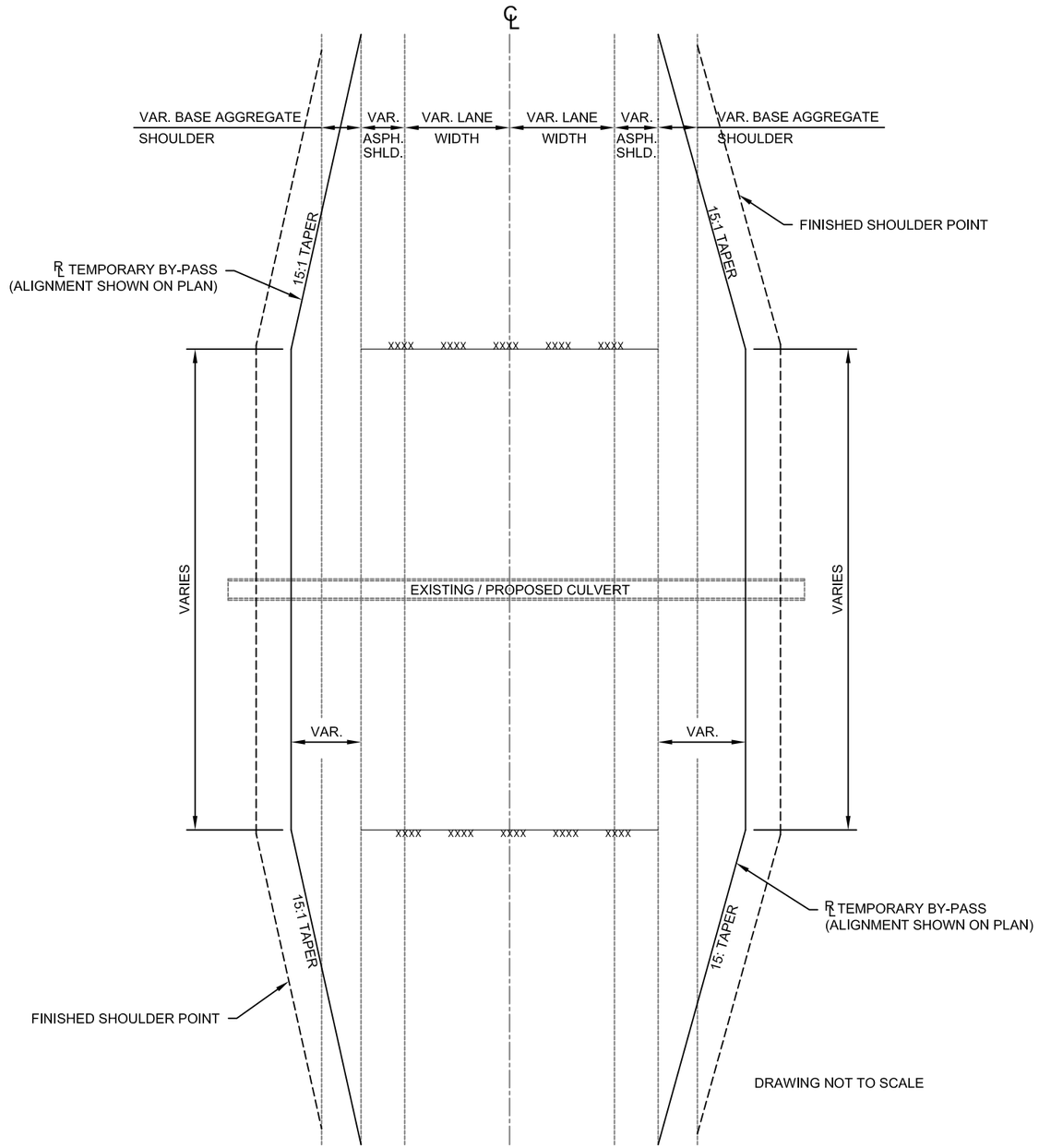


TYPICAL EXISTING SECTION

STA. 454+16'N' - 459+44'N'

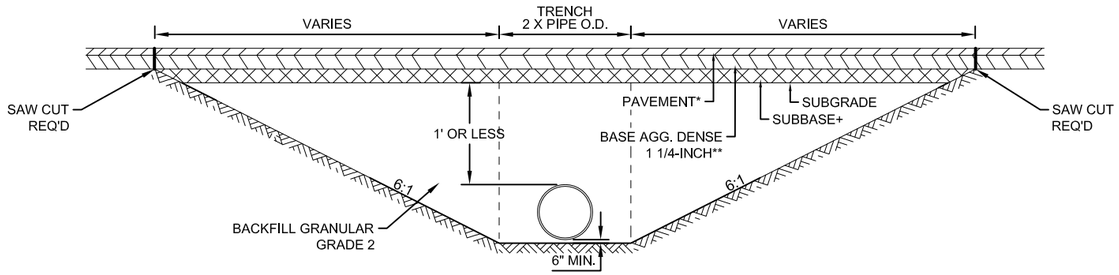


TYPICAL TEMPORARY BY-PASS SECTION
FOR CULVERT INSTALLATION

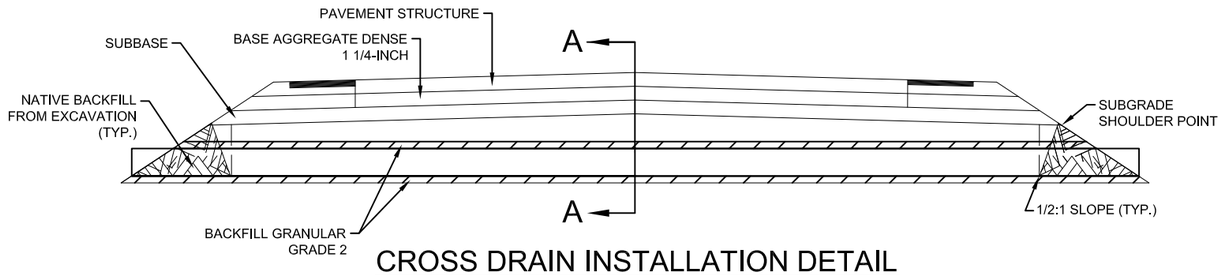


TEMPORARY BY-PASS DETAIL FOR
CULVERT INSTALLATION

PROJECT NO: 8160-03-31	HWY: STH 13	COUNTY: BAYFIELD	TYPICAL SECTIONS	SHEET 8	E

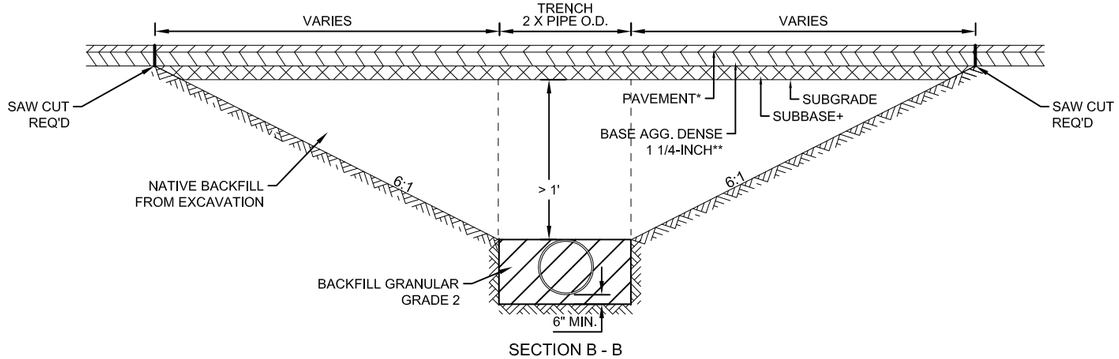


SECTION A - A

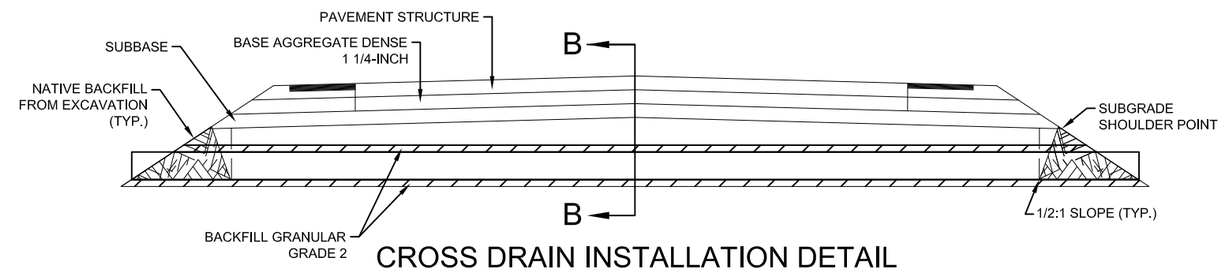


CROSS DRAIN INSTALLATION DETAIL

FOR D<5'



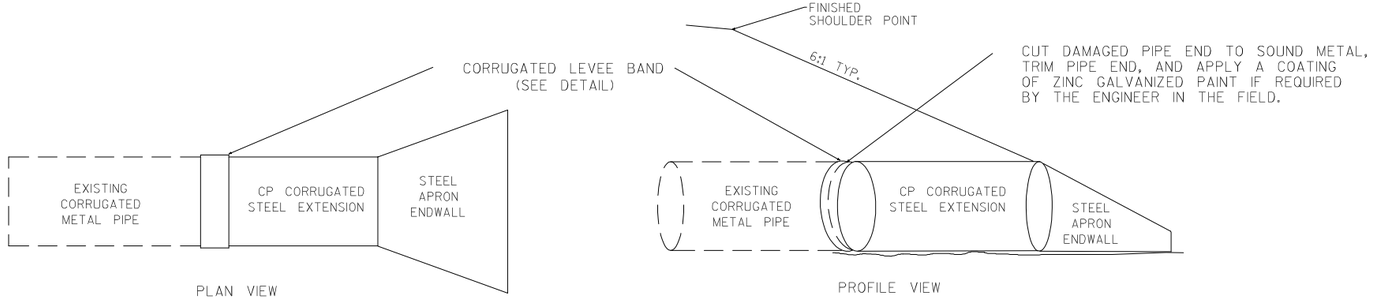
SECTION B - B



CROSS DRAIN INSTALLATION DETAIL

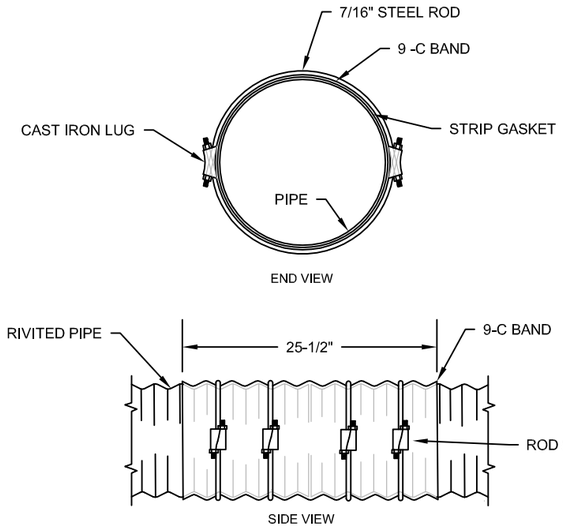
FOR D>5'

CROSS DRAIN REPLACEMENT STATION		PAVEMENT DEPTH*	BASE AGGREGATE DENSE 1 1/4-INCH DEPTH**	SUBBASE DEPTH+
		INCHES	INCHES	INCHES
44+99	'S'	6	8	12
48+85	'S'	6	8	12
67+22	'S'	6	8	12
214+22	'S'	7.5	10	---
291+69	'S'	6	8	12
306+72	'S'	6	8	12
77+85	'N'	8	8	---
111+84	N'	8	8	---
151+93	'N'	7.5	12	---
162+58	'N'	7.5	12	---
208+34	'N'	7.5	12	---
208+49	'N'	7.5	12	---
218+10	'N'	7.5	12	---
304+76	'N'	7.5	12	---
312+56	'N'	7.5	12	---
348+98	'N'	7.5	12	---
367+81	'N'	8.5	8	---
370+88	'N'	7.5	12	---
379+40	'N'	7.5	12	---
---	---	---	---	---
419+54	'N'	7.5	12	---
459+21	'N'	7.5	12	---
461+00	'N'	7.5	12	---
483+20	'N'	7.5	12	---
483+27	'N'	7.5	12	---
485+60	'N'	7.5	12	---
485+68	'N'	7.5	12	---
488+39	'N'	7.5	12	---
543+84	'N'	7.5	12	---
558+09	'N'	7.5	12	---
575+93	'N'	8.5	8	---
585+88	'N'	8.5	8	---
591+49	'N'	7.5	12	---
594+78	'N'	8.5	8	---



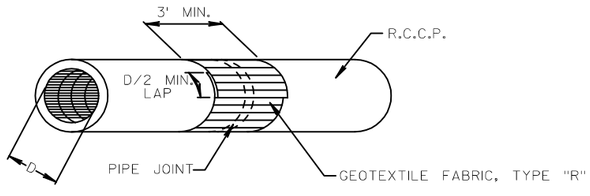
NOTE:
THE 2-FOOT WIDE METAL BAND COLLAR IS INCIDENTAL TO THE CULVERT PIPE CORRUGATED STEEL PAY ITEM, AND THE DIAMETER MUST MATCH THE PIPE EXTENSION DIAMETER.

CULVERT PIPE END EXTENSION DETAIL



NOTES:
PIPE BANDS SHALL HAVE THE SAME COATING AS THE MANUFACTURED PIPE. PIPE BANDS SHALL BE 24" WIDE CORRUGATED BANDS WITH THREADED ROD AND LUG CONNECTION. A 24" WIDE, SLEEVE OR STRIP GASKET, MADE OF 3/8" THICK FLAT CLOSED CELL NEOPRENE SHALL BE INSTALLED OVER THE PIPE JOINT PRIOR TO THE CONNECTION BAND INSTALLATION.

CORRUGATED LEVEE BAND DETAIL



NOTE: GEOTEXTILE FABRIC FOR PIPE JOINTS IS INCIDENTAL TO THE PIPE ITEM.

GEOTEXTILE FABRIC REQUIRED FOR PIPE JOINTS

PIPE DIA. (IN.)	PIPE O.D. (IN.)	FABRIC/JOINT (S.Y.)
18	23	2.3
21	26.5	2.6
24	30	3.0
27	33.5	3.3
30	37	3.6
36	44	4.3
42	51	5.0
48	58	5.7
54	65	6.4
60	72	7.1
66	79	7.8
72	86	8.5

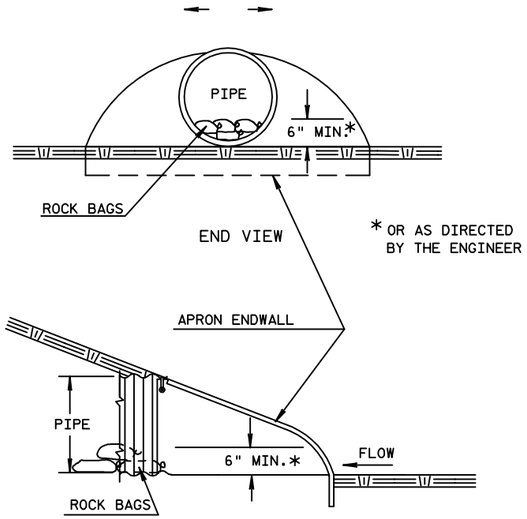
DETAIL OF WRAPPED PIPE JOINT

WRAP ALL JOINTS

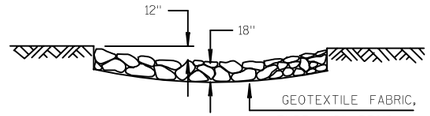
RUNOFF COEFFICIENT TABLE

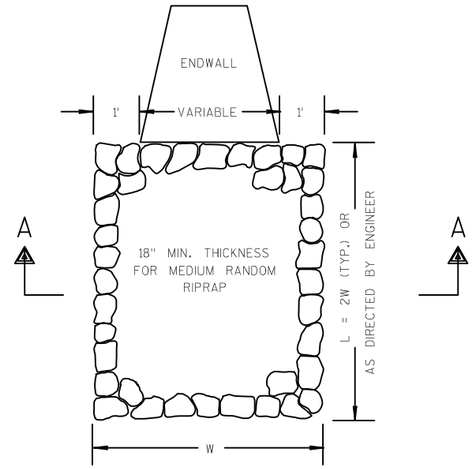
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 165 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 29.6 ACRES (INCLUDING ROADWAYS)

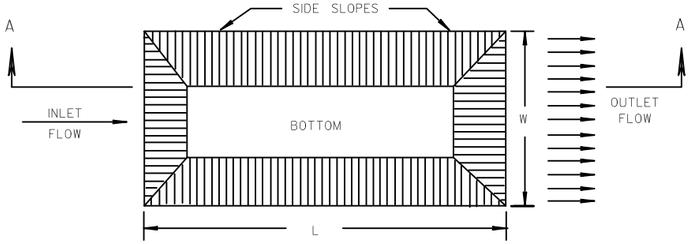


CULVERT PIPE CHECK

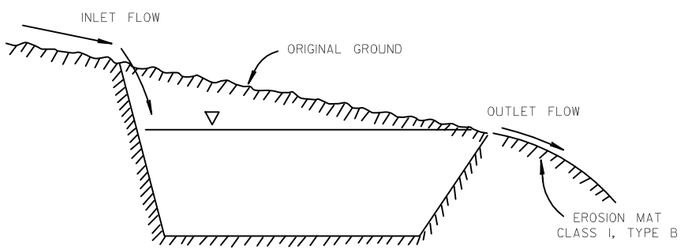




MEDIUM RIPRAP TREATMENT AT CULVERTS



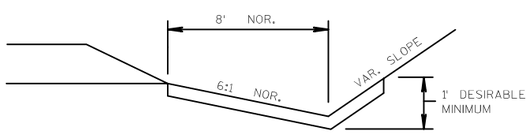
PLAN VIEW



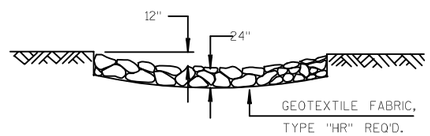
SECTION A-A

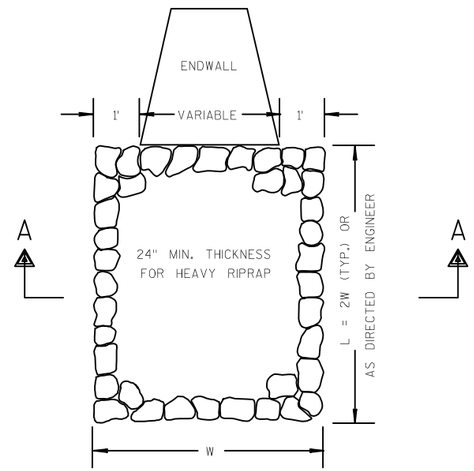
TEMPORARY SEDIMENT BASIN DETAIL

NOTE: EXCAVATION AND BACKFILL FOR SEDIMENT BASIN TO BE PAID FOR UNDER "EXCAVATION COMMON" ITEM. (EXACT LOCATIONS AND DIMENSIONS TO BE AS DIRECTED BY THE ENGINEER.)



EROSION MAT DETAIL FOR DITCHES

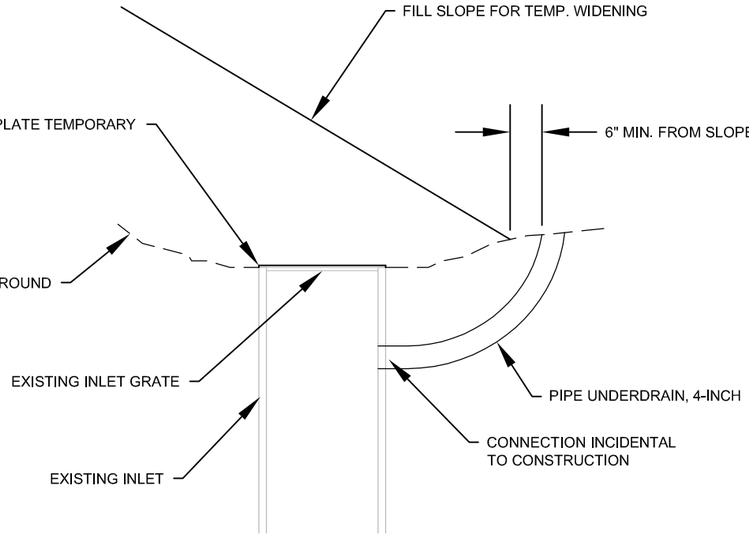




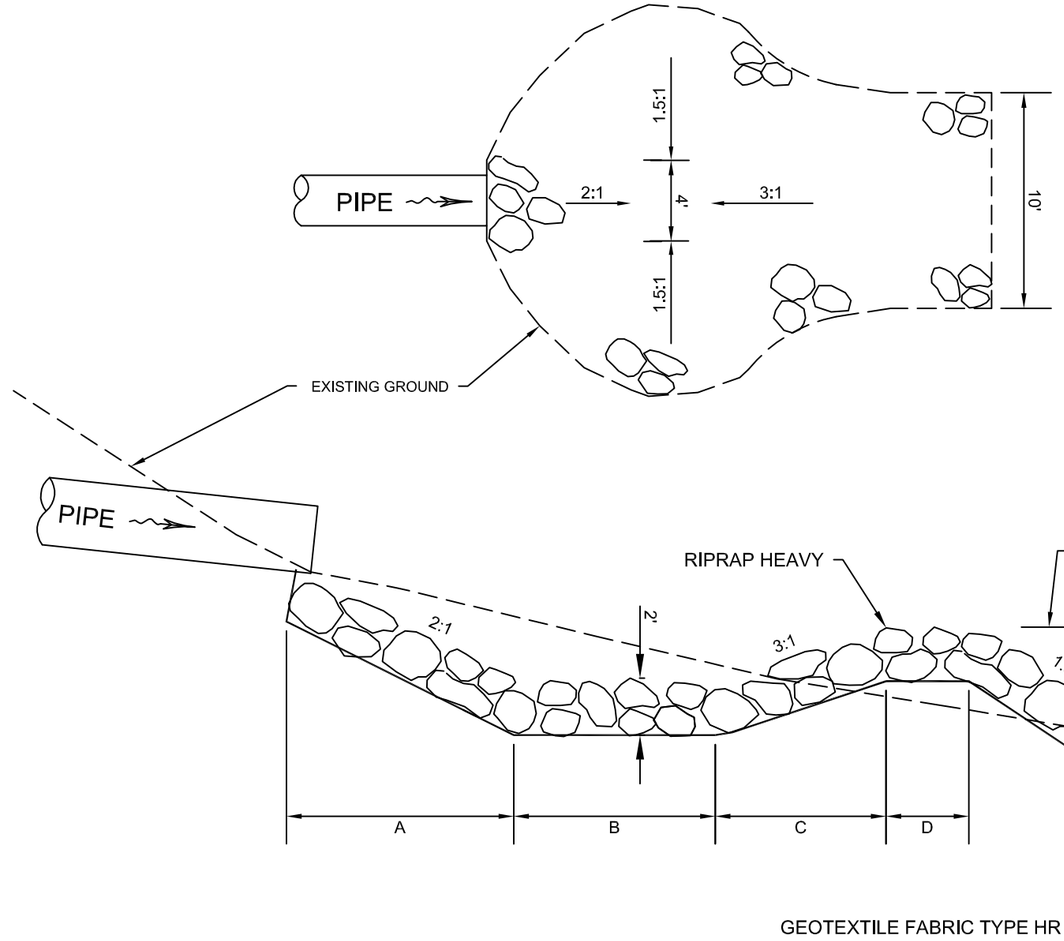
HEAVY RIPRAP TREATMENT AT CULVERTS

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CONSTRUCTION DETAILS	SHEET 11	E

2



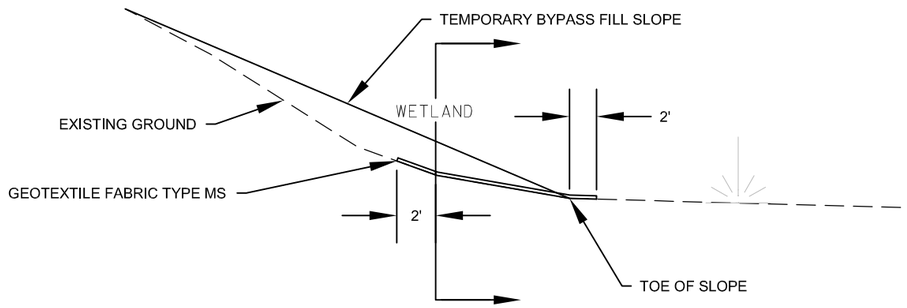
TEMPORARY WATER PASSAGE DETAIL



SECTION VIEW

CULVERT DISCHARGE RIPRAP PLUNGE BASIN DETAIL

LOCATION	PIPE DIAMETER (INCH)	A (FEET)	B (FEET)	C (FEET)	D (FEET)
—	—	—	—	—	—
—	—	—	—	—	—
438'N'+55	30	8	7	6	5



GEOTEXTILE FABRIC TYPE MS AT TEMPORARY BYPASS DETAIL

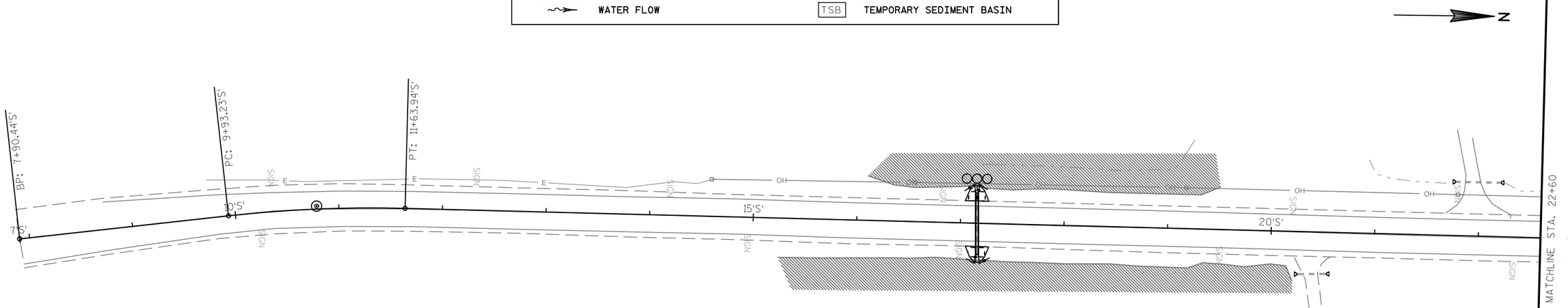
GENERAL NOTES:

TEMPORARY BYPASS REMOVAL - REMOVE TEMPOARY BYPASS AND GEOTEXTILE FABRIC IN A WAY THAT MINIMIZES THE IMPACT ON THE DISTRUBED WETLAND AREAS.

PAYMENT FOR REMOVAL GEOTEXTILE FABRIC TYPE MS IS INCIDENTAL TO GEOTEXTILE FABRIC TYPE MS, ITEM 645.0125.

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN

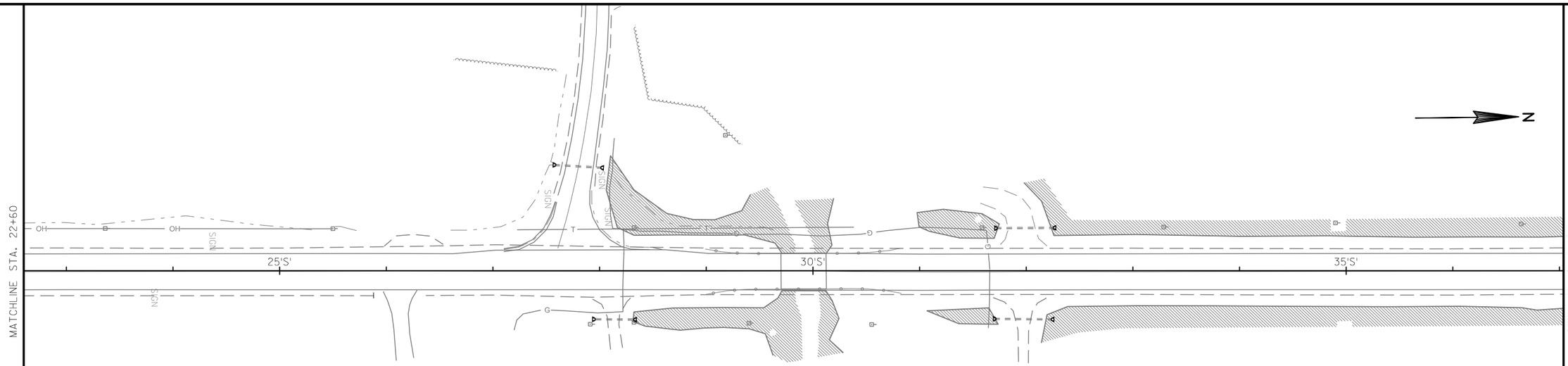


GENERAL NOTES FOR EROSION CONTROL:

ALL SILT FENCE THAT CROSSES THE FLOW LINE OF A CULVERT IS FOR CLEANING PURPOSES ONLY. THE SILT FENCE SHALL BE INSTALLED THE DAY OF THE CLEANING AND REMOVED AFTER ALL TASKS ARE COMPLETED AND WITH APPROVAL OF THE ENGINEER.

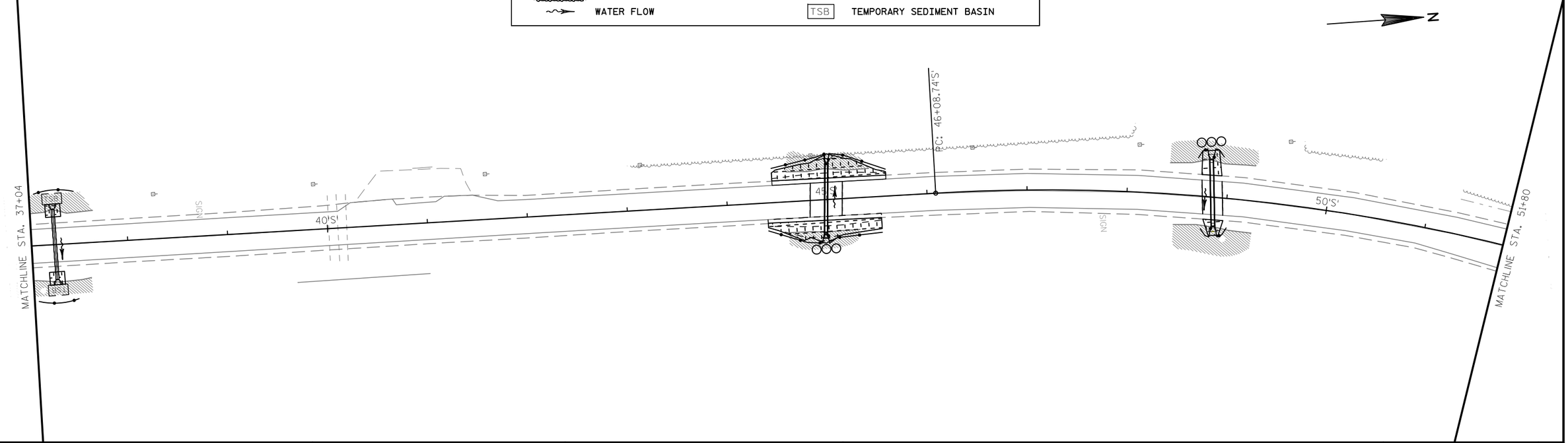
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 14	E

2



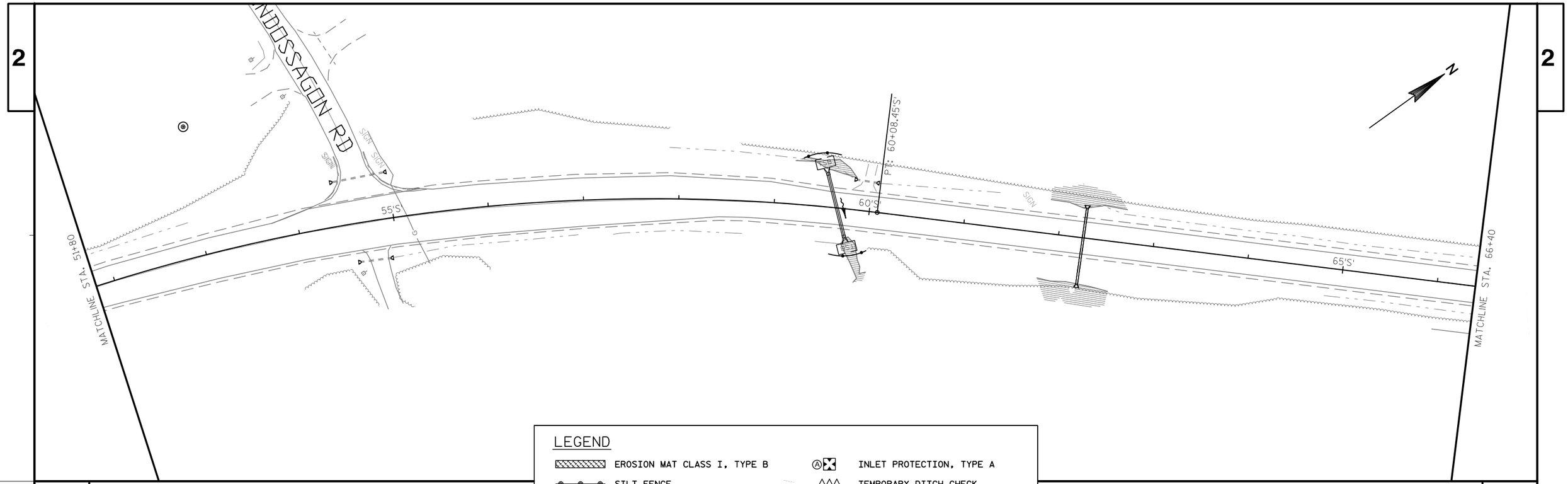
LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TEMPORARY SEDIMENT BASIN



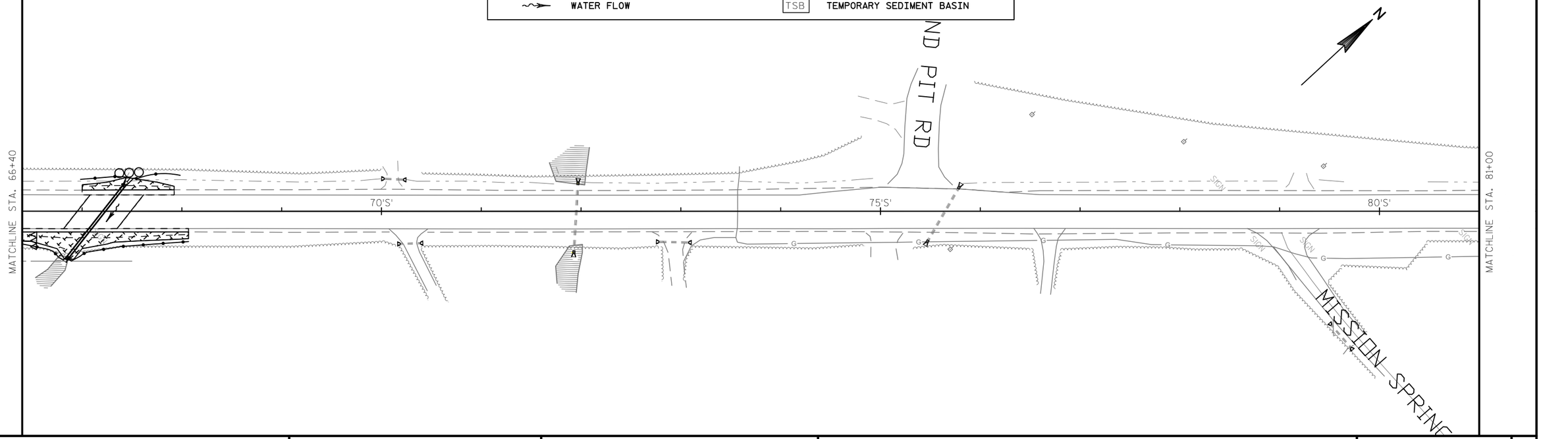
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 15 E

2

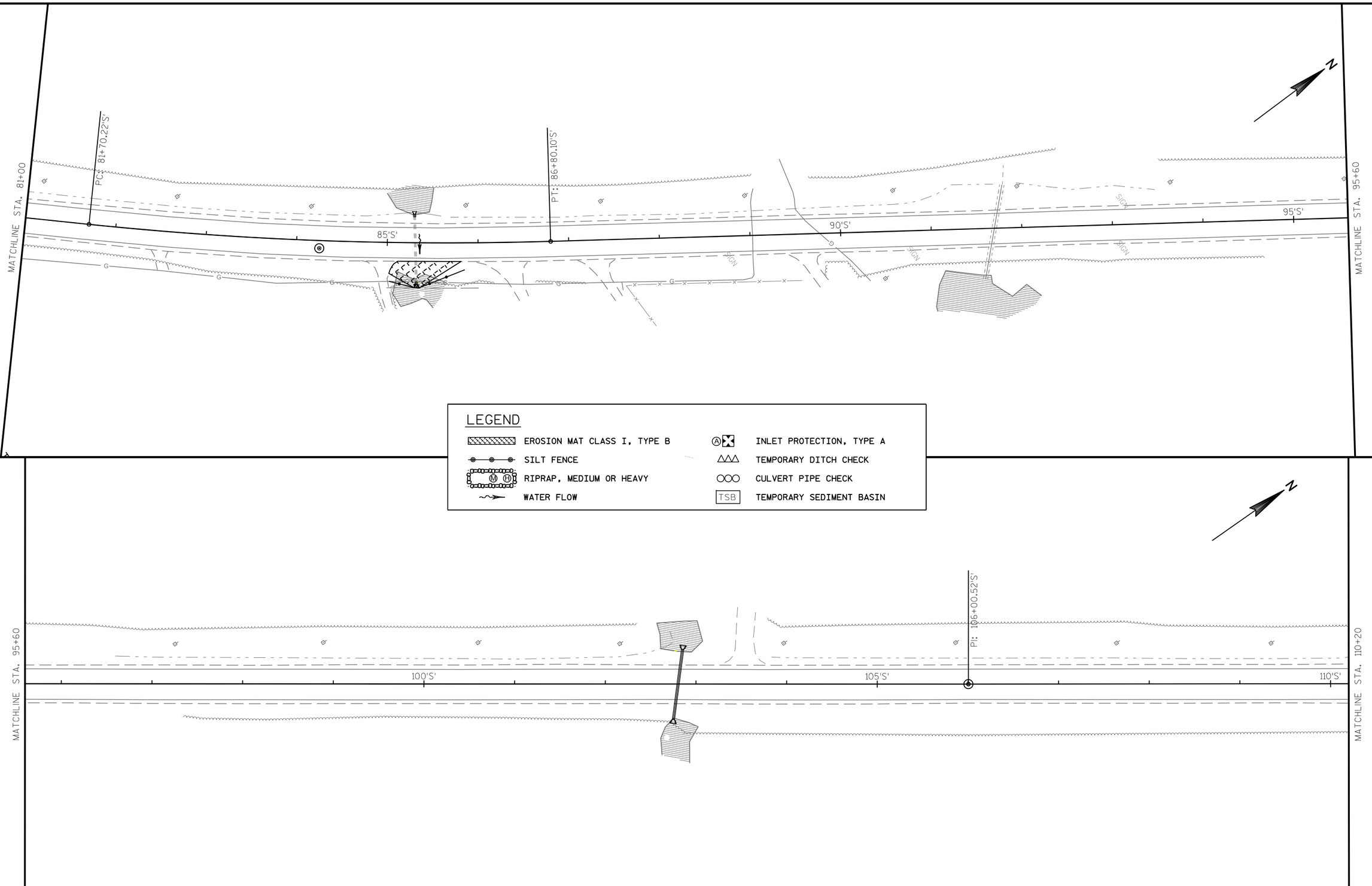


LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TEMPORARY SEDIMENT BASIN



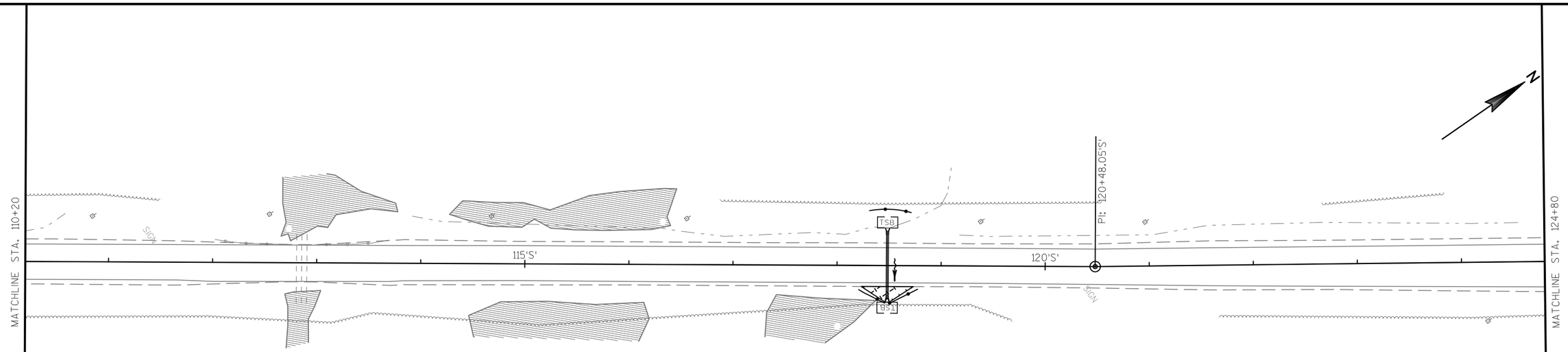
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LEGEND

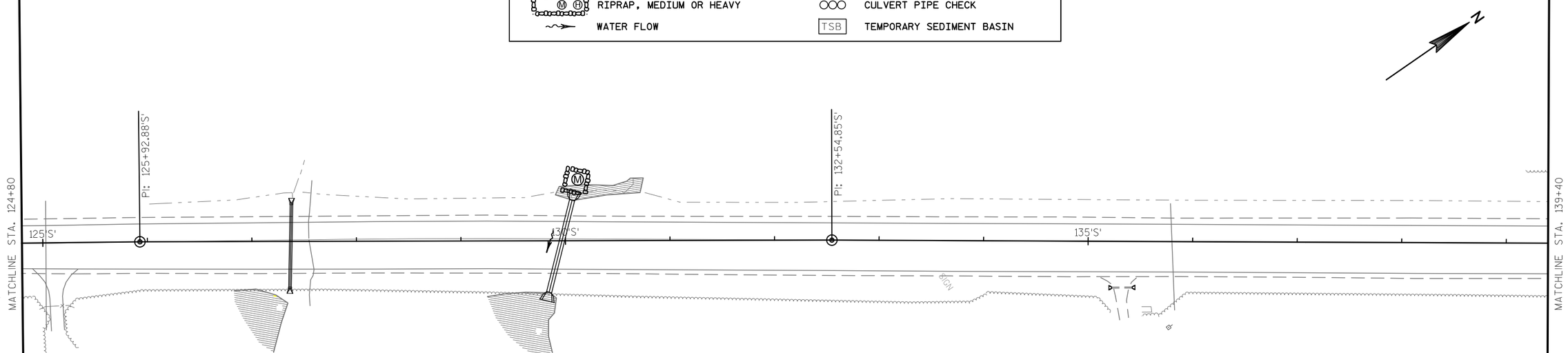
- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 17	E



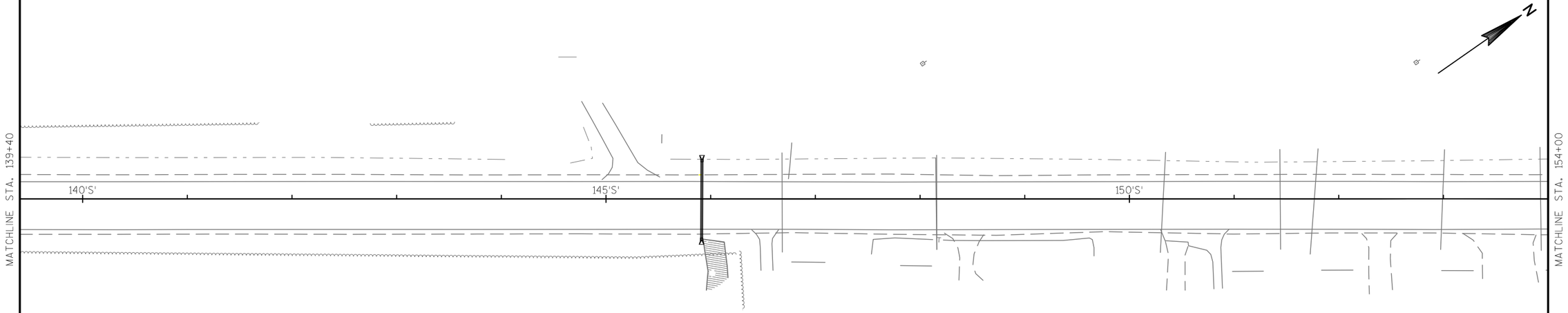
LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN



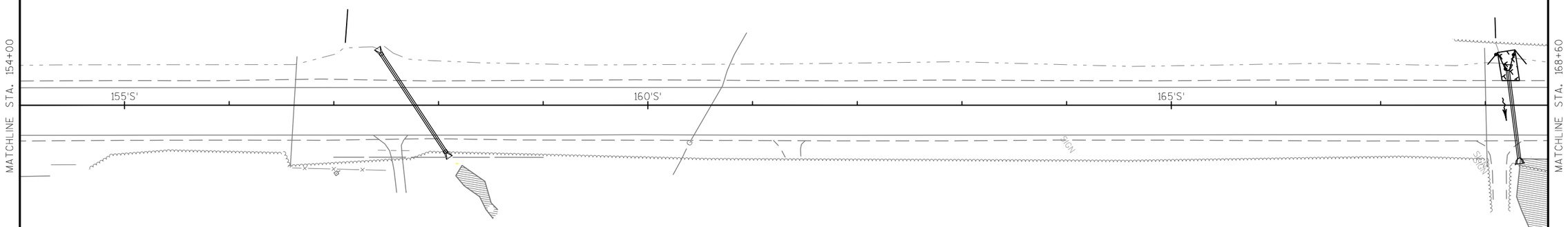
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2



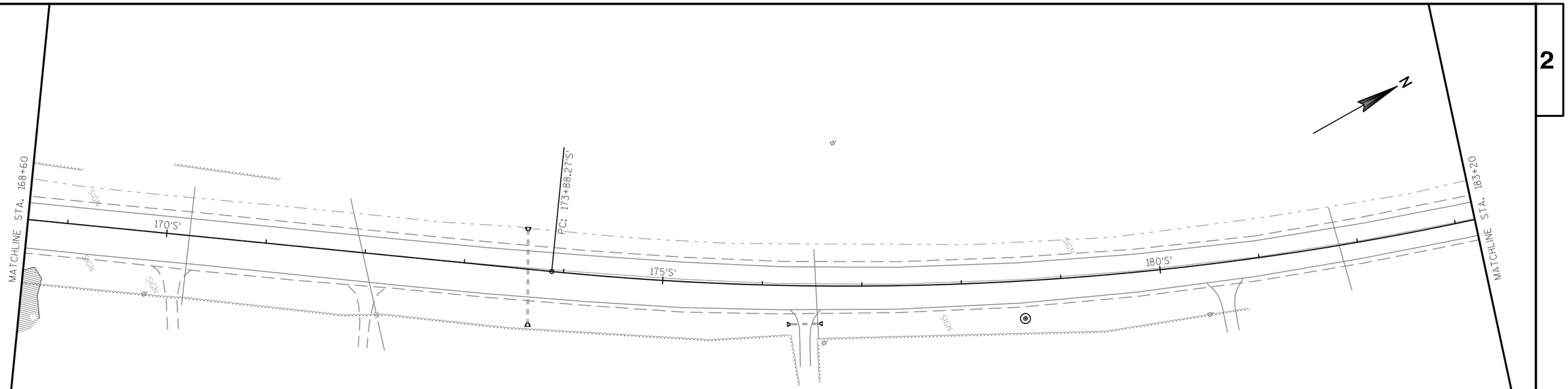
LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN



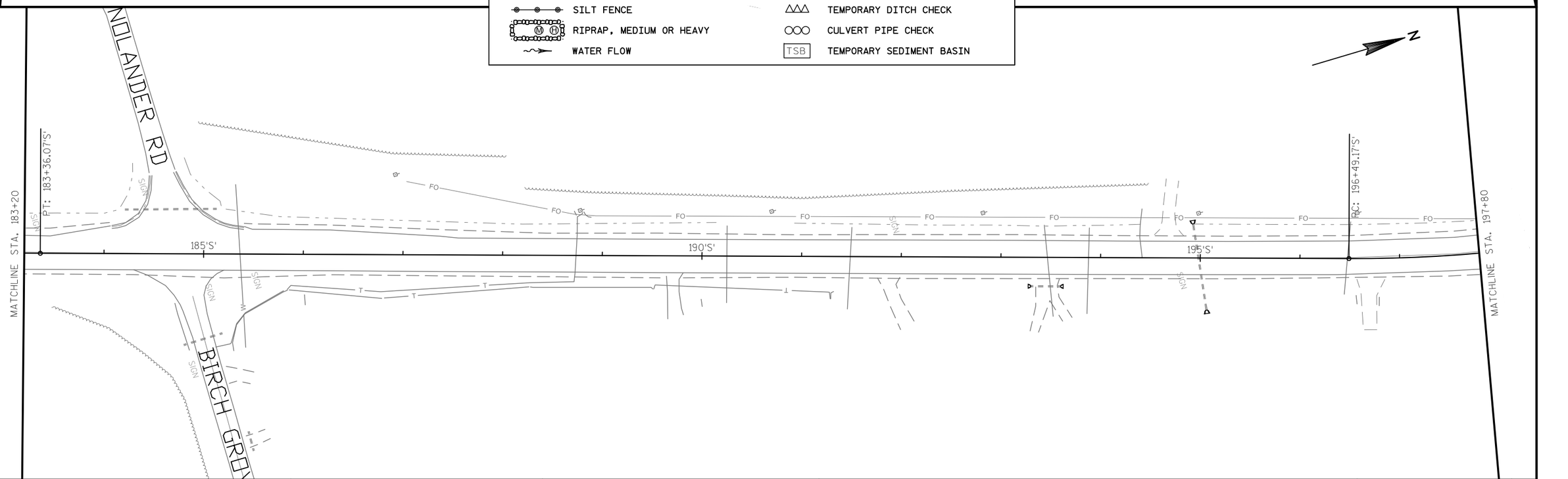
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 19	E

2



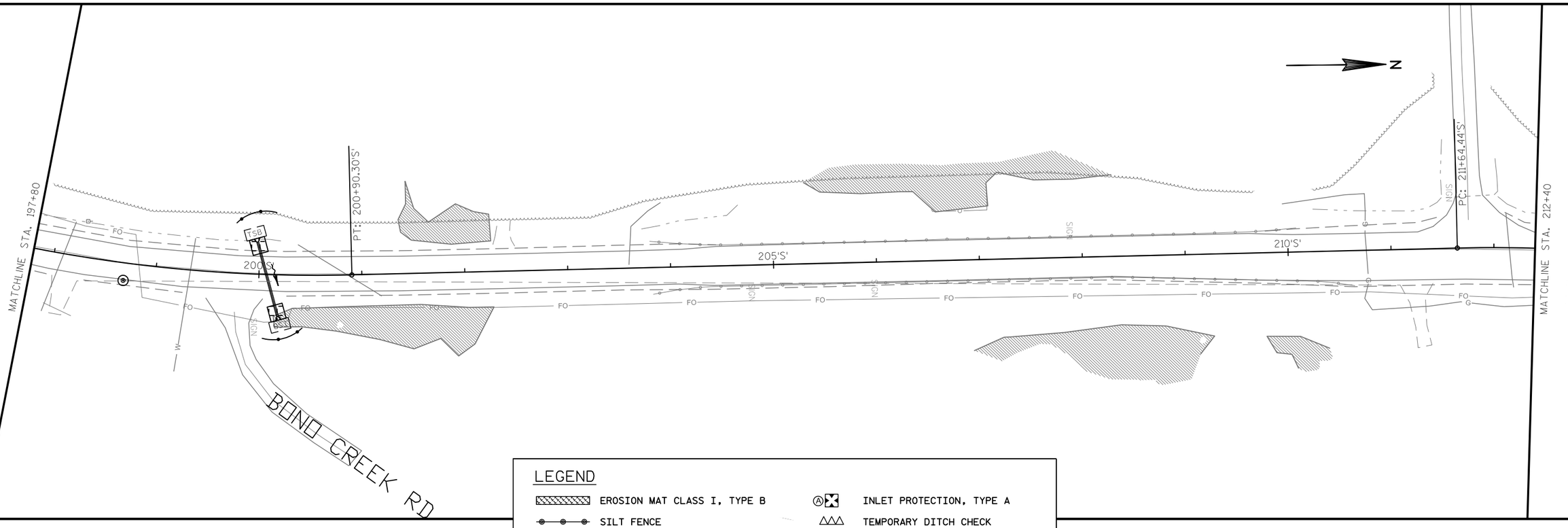
LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN



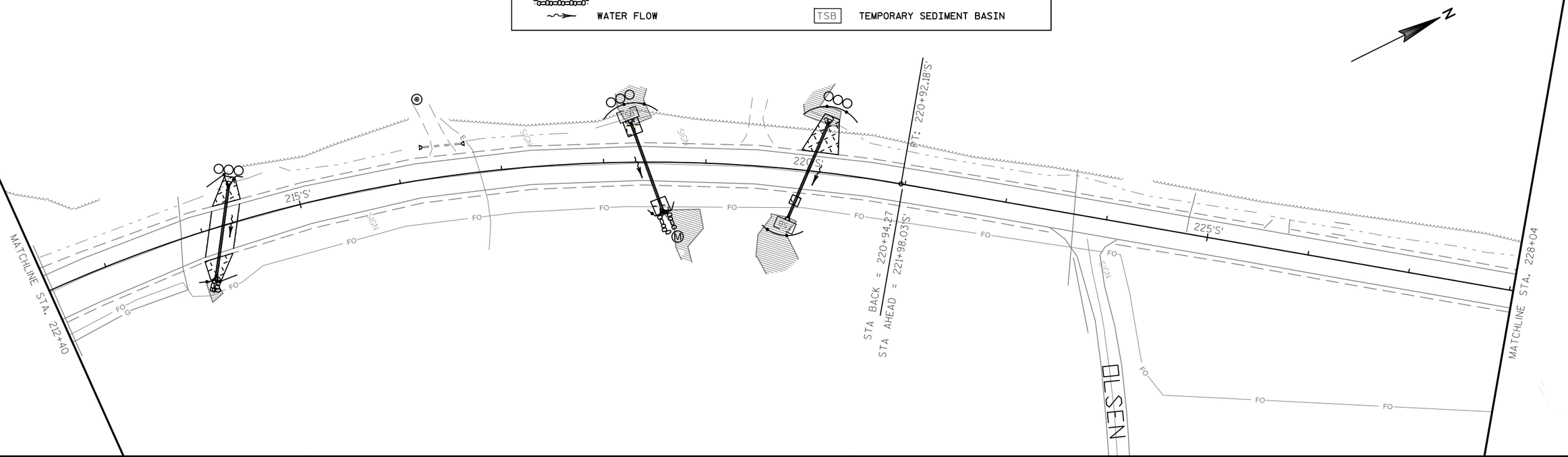
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 20	E

2



LEGEND

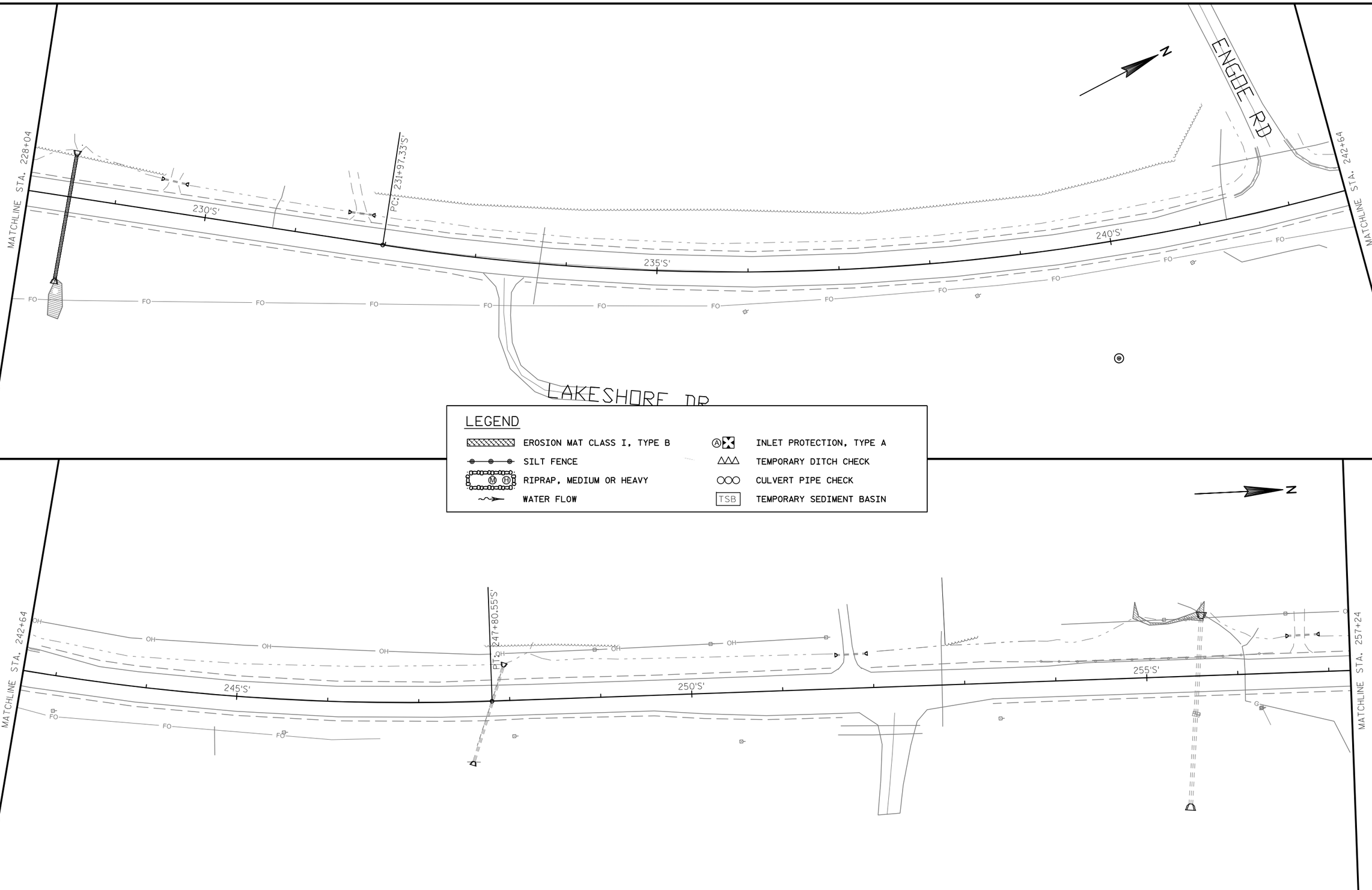
- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 21	E

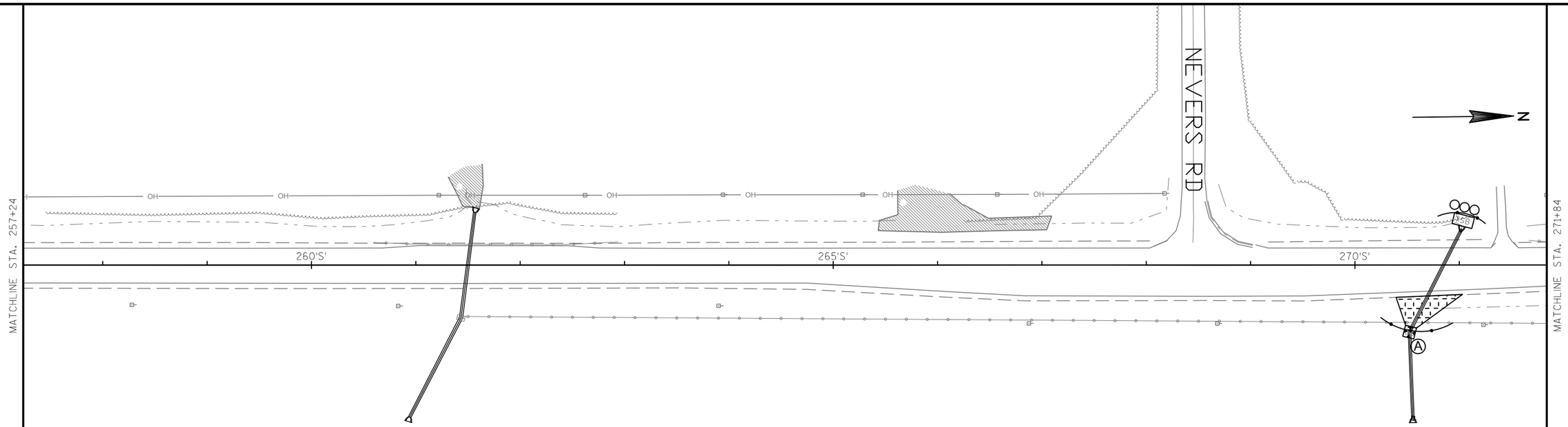
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\022001_EC.DWG PLOT DATE : 12/19/2013 9:22 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1" = 100'_XREF

2



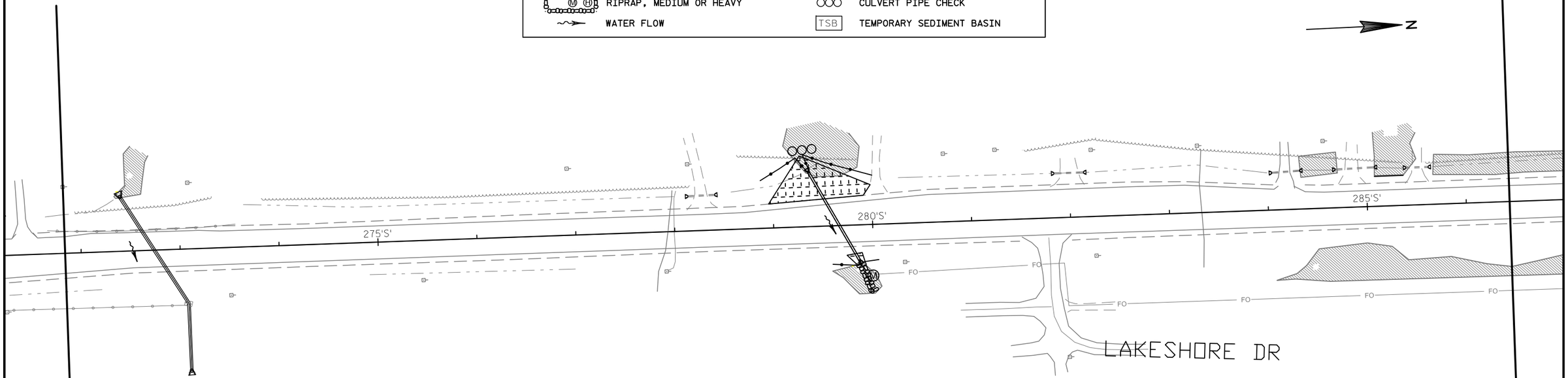
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 22	E

2

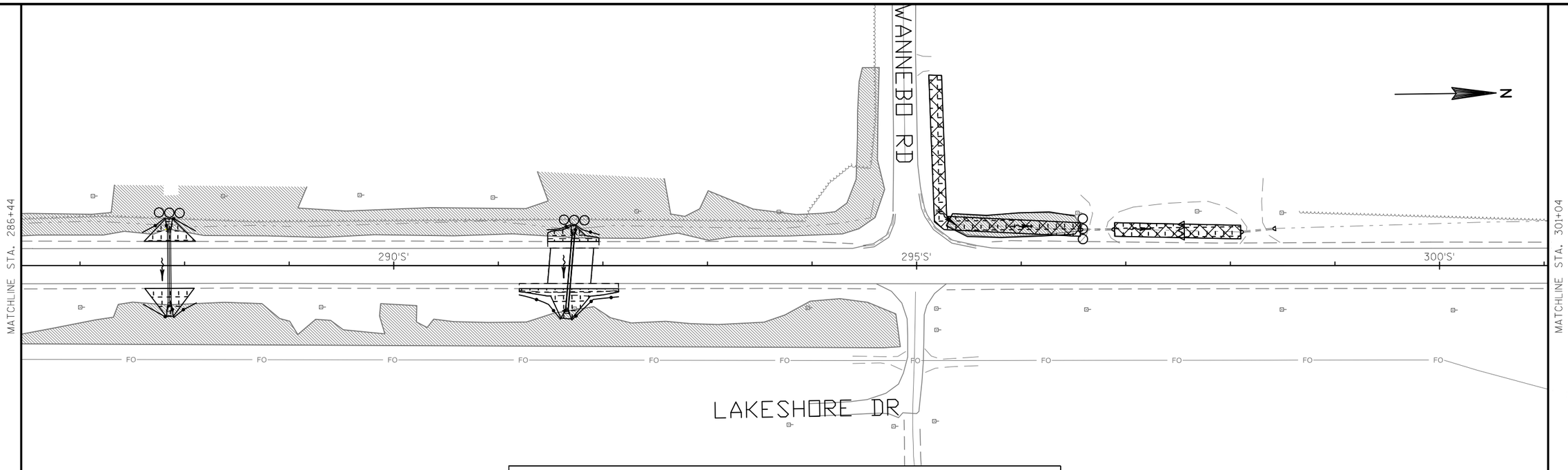


LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN

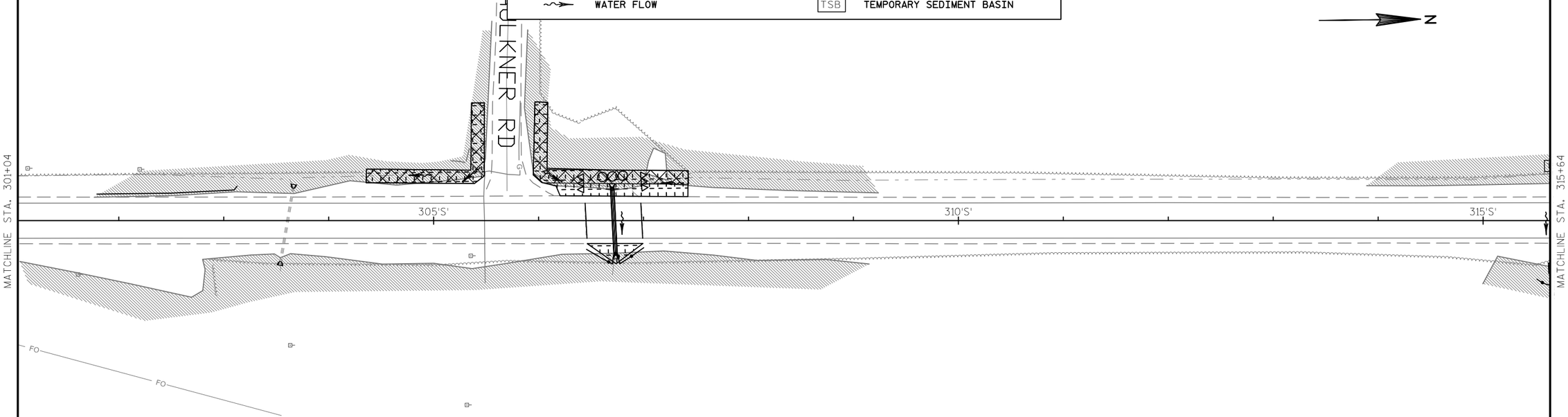


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 23	E

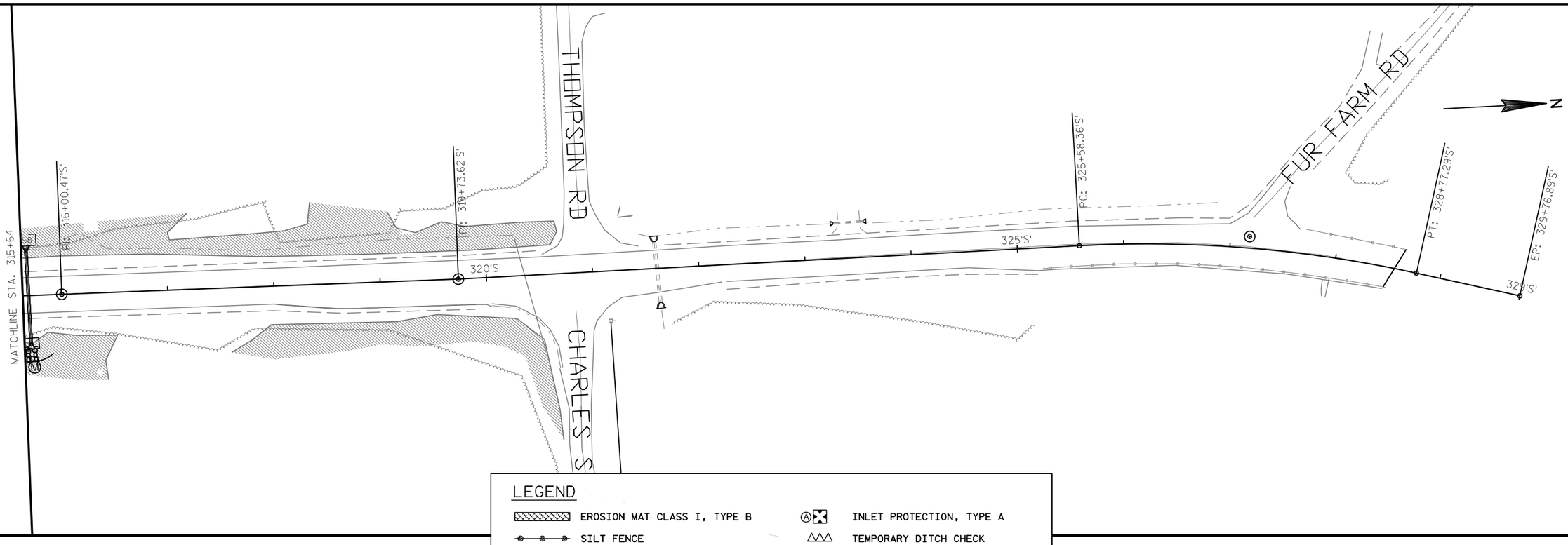


LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 24	E



LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB TEMPORARY SEDIMENT BASIN

2

2

BP: 37+00.00

37'N'

40'N'

45'N'

PC: 47+35.00

50'N'

TSB

SUPERIOR AVE

N

LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TSB TEMPORARY SEDIMENT BASIN

WILLIAMS RD

PT: 62+82.29

55'N'

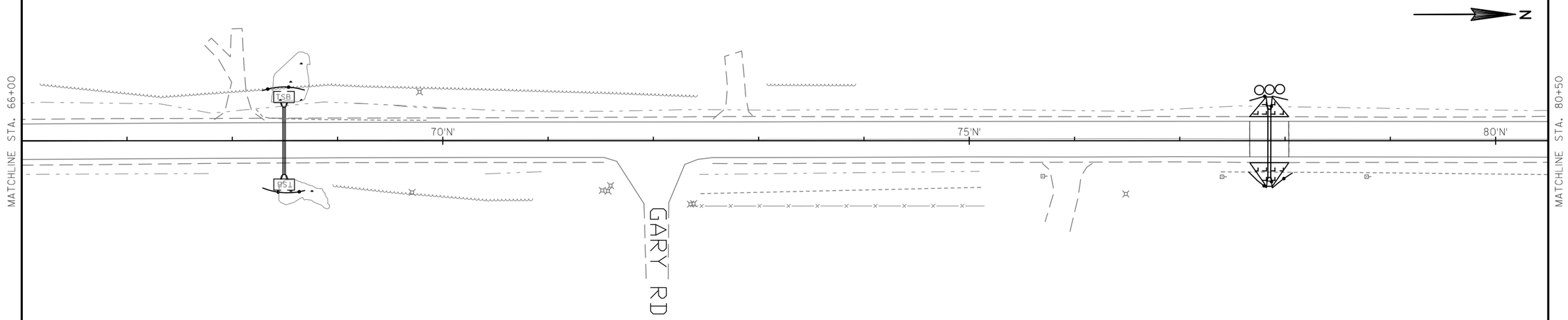
60'N'

65'N'

N

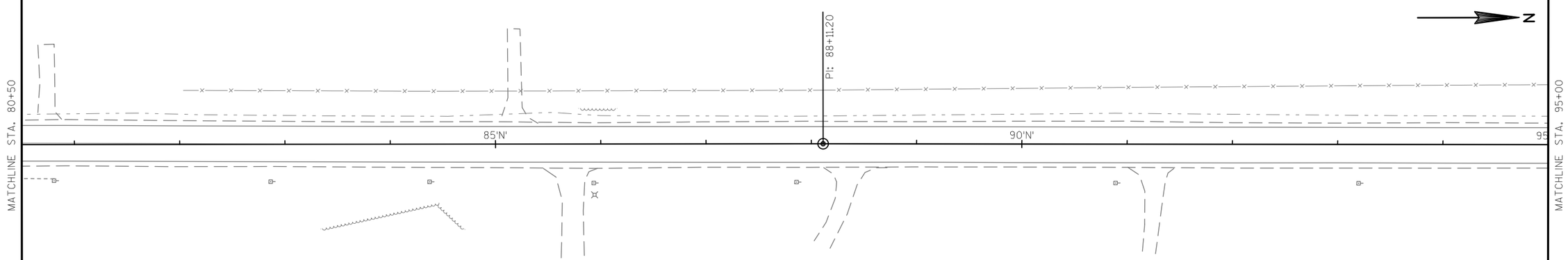
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 26	E

2



LEGEND

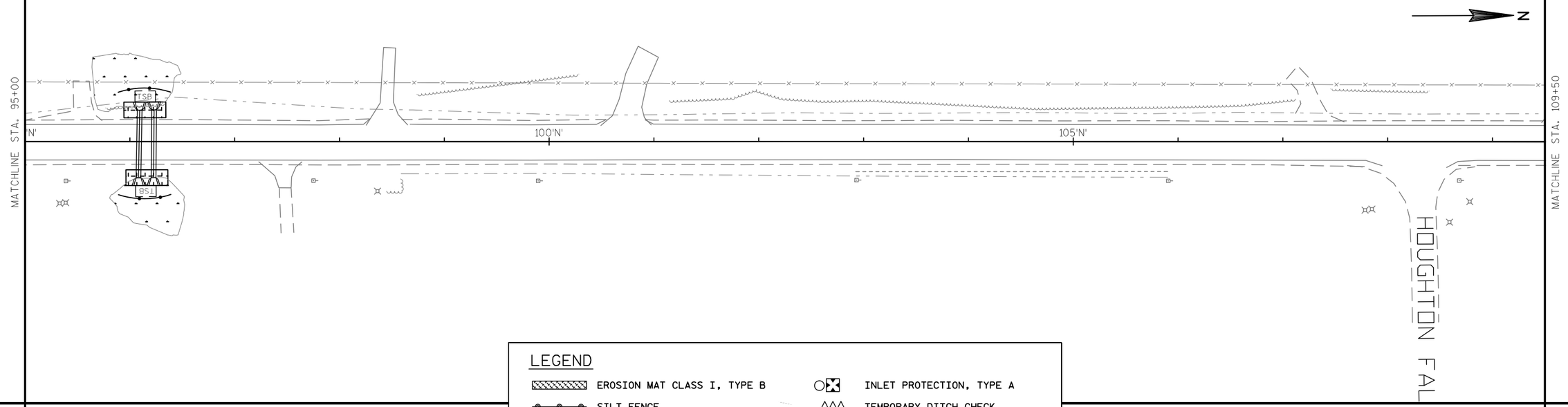
EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TSB TEMPORARY SEDIMENT BASIN



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 27	E

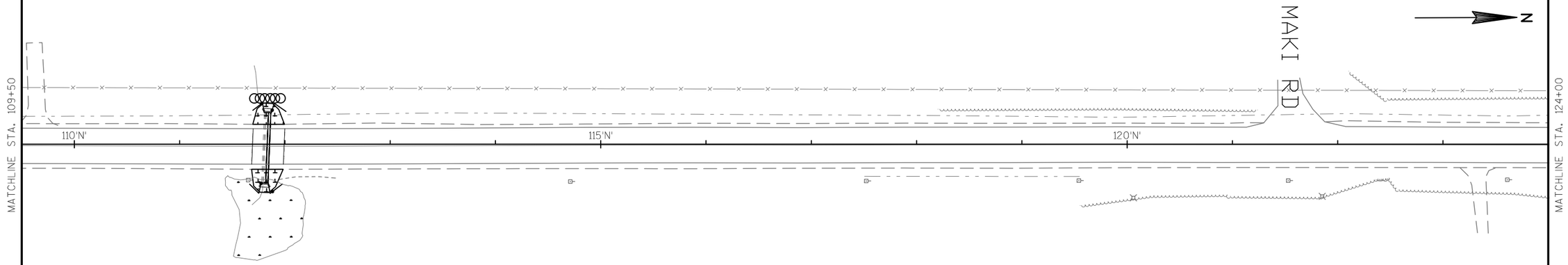
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WISDOT/CADDS SHEET 44

2



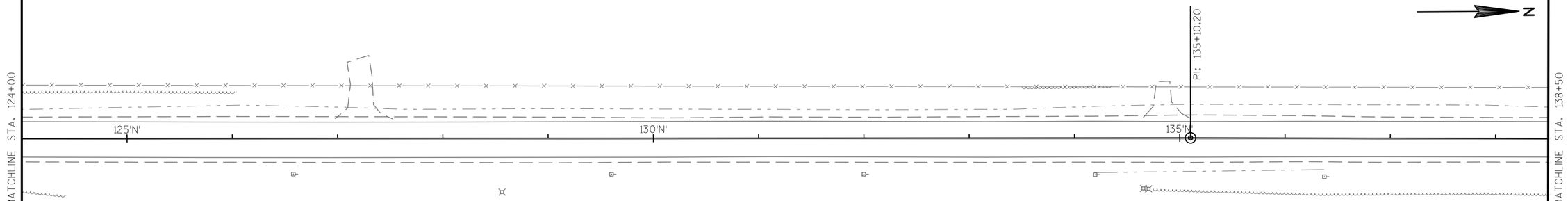
LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB TEMPORARY SEDIMENT BASIN



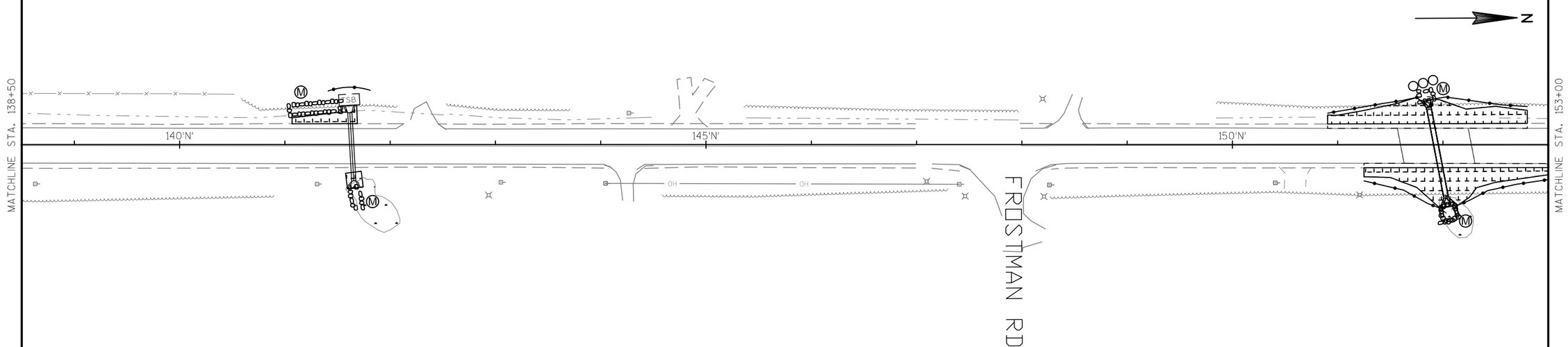
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 28	E

2



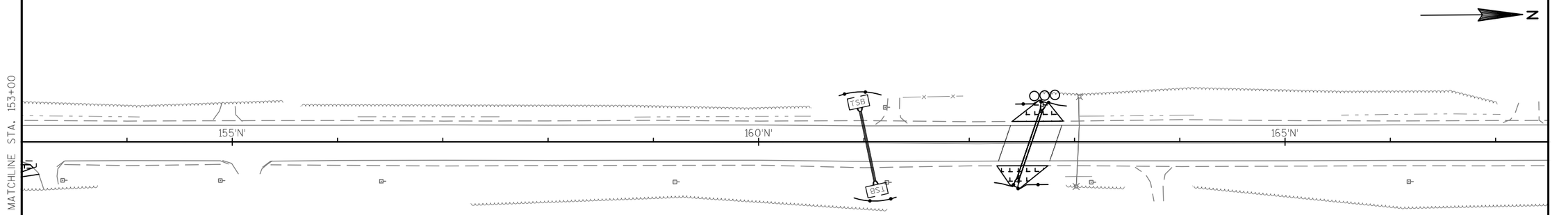
LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TSB TEMPORARY SEDIMENT BASIN



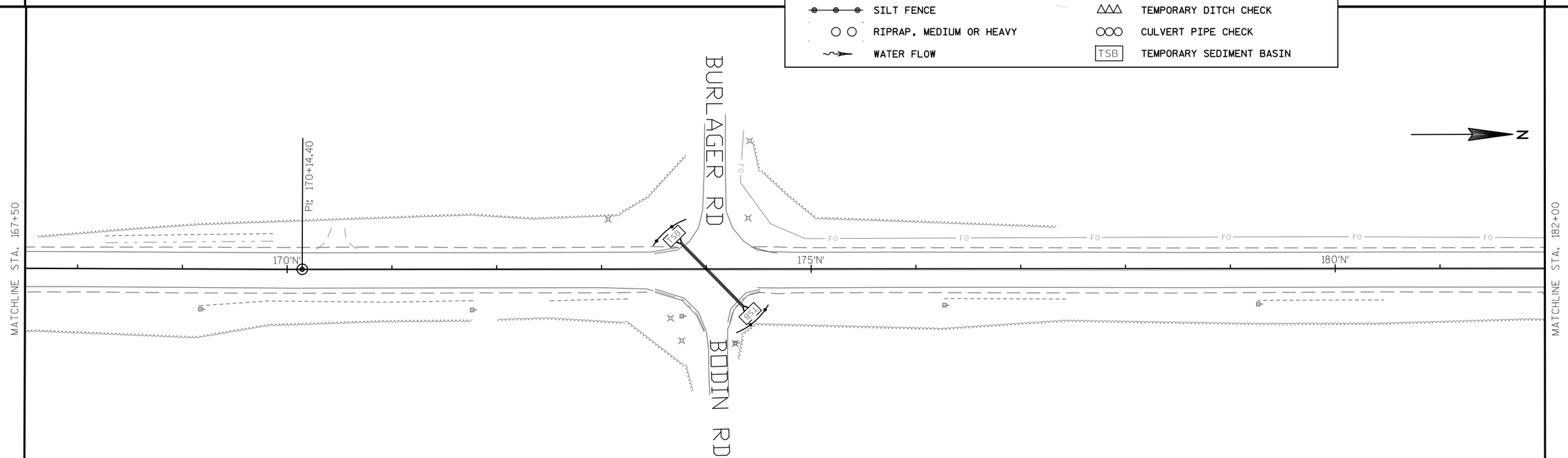
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2

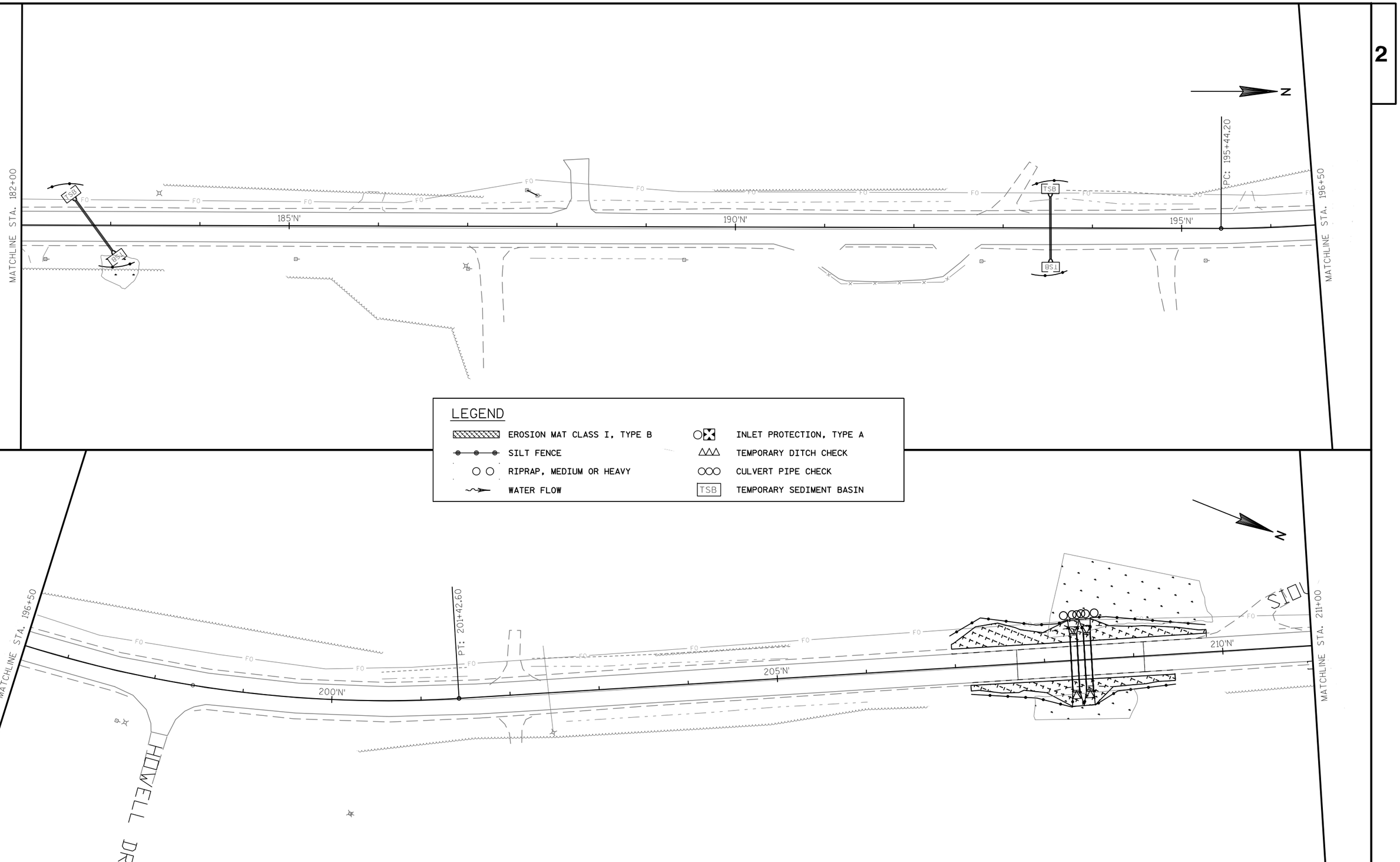


LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TSB TEMPORARY SEDIMENT BASIN

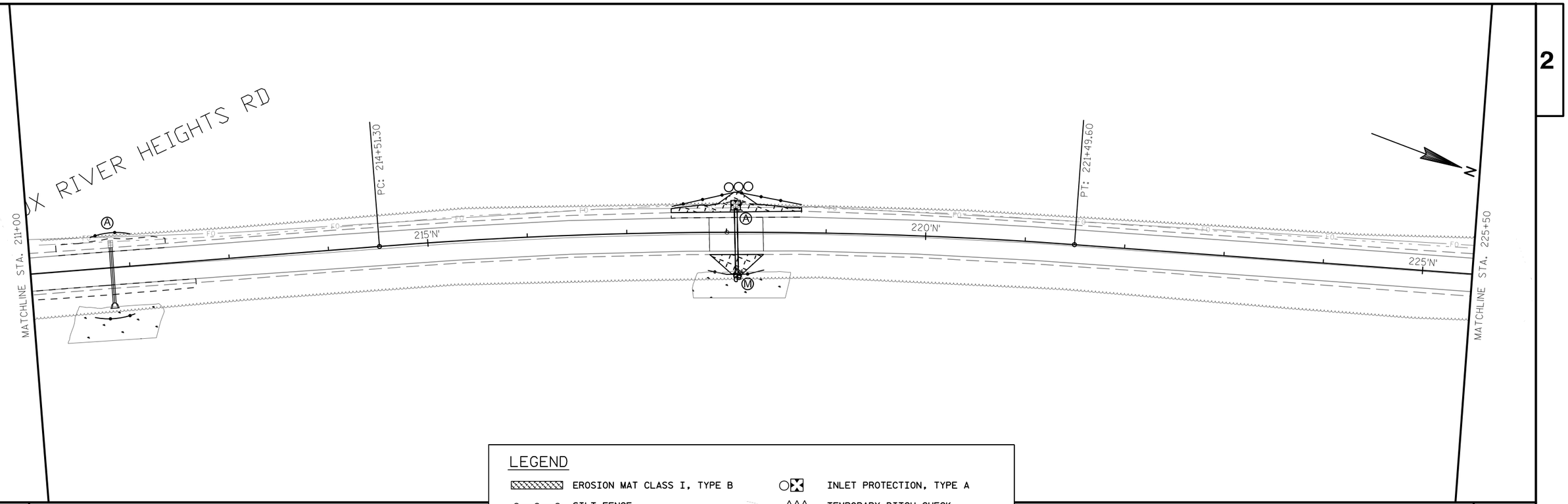


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLXXX	SHEET 30	E



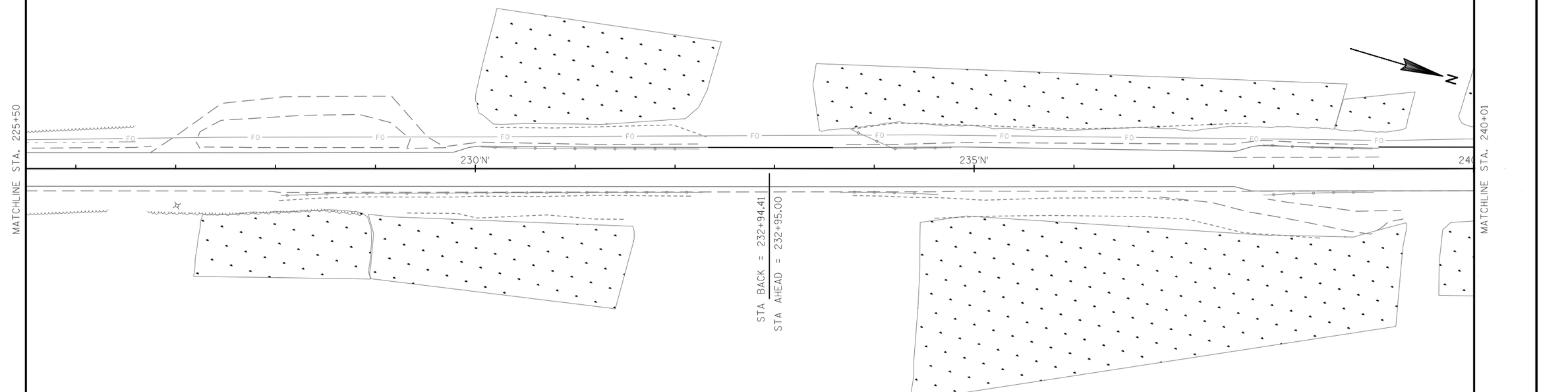
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 31	E

2



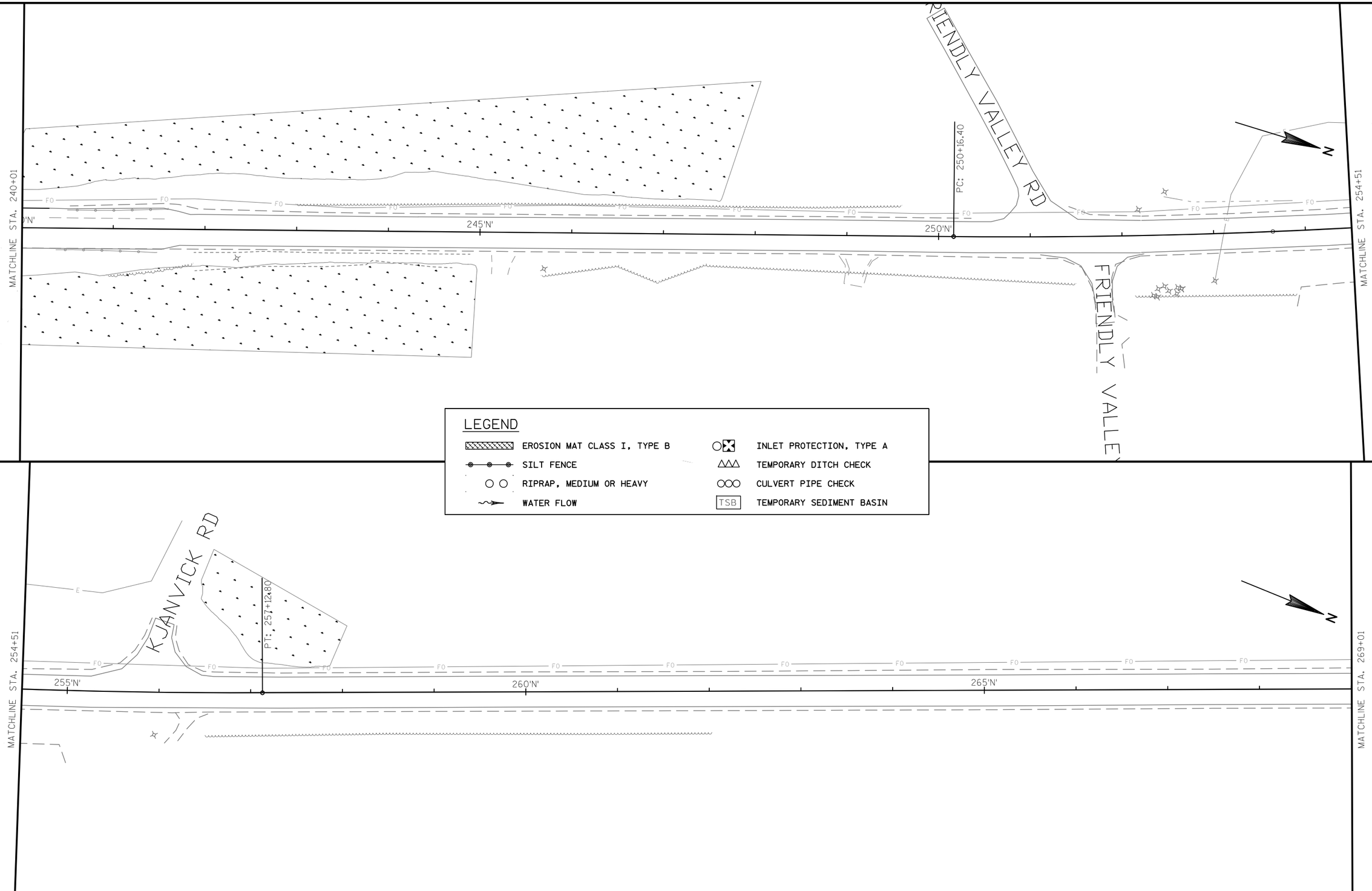
LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB TEMPORARY SEDIMENT BASIN



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 32	E

2



LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN

2

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 33 E

2

2

MATCHLINE STA. 269+01

MATCHLINE STA. 283+51

270'N'

275'N'

280'N'

F0

N

LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TSB TEMPORARY SEDIMENT BASIN

MATCHLINE STA. 283+51

MATCHLINE STA. 298+01

285'N'

290'N'

295'N'

BAYVIEW PARK RD

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 34	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\022001_EC_STH_13_BAYFIELD.DWG PLOT DATE : 12/19/2013 9:42 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:100_XREF

2

2

MATCHLINE STA. 298+01

MATCHLINE STA. 312+51

300'N'

305'N'

310'N'

FO

N

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN

MCCULLOCH RD

P.C. 346+47.50

TSB

BSI

315'N'

320'N'

325'N'

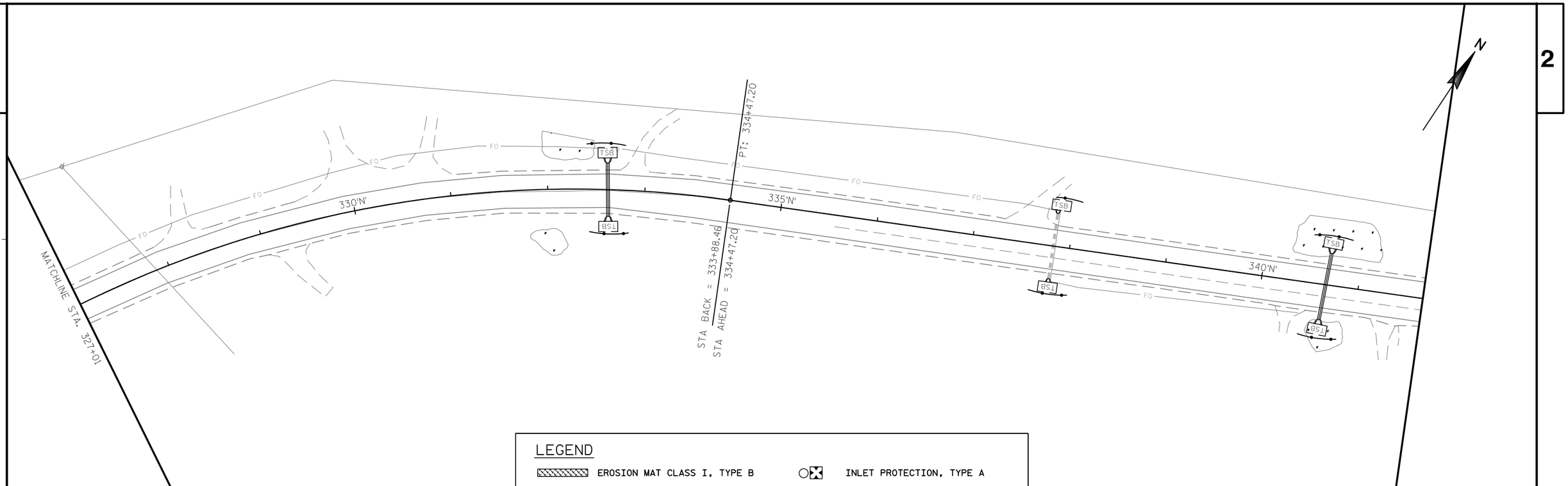
MATCHLINE STA. 321+51

MATCHLINE STA. 327+01

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 35	E

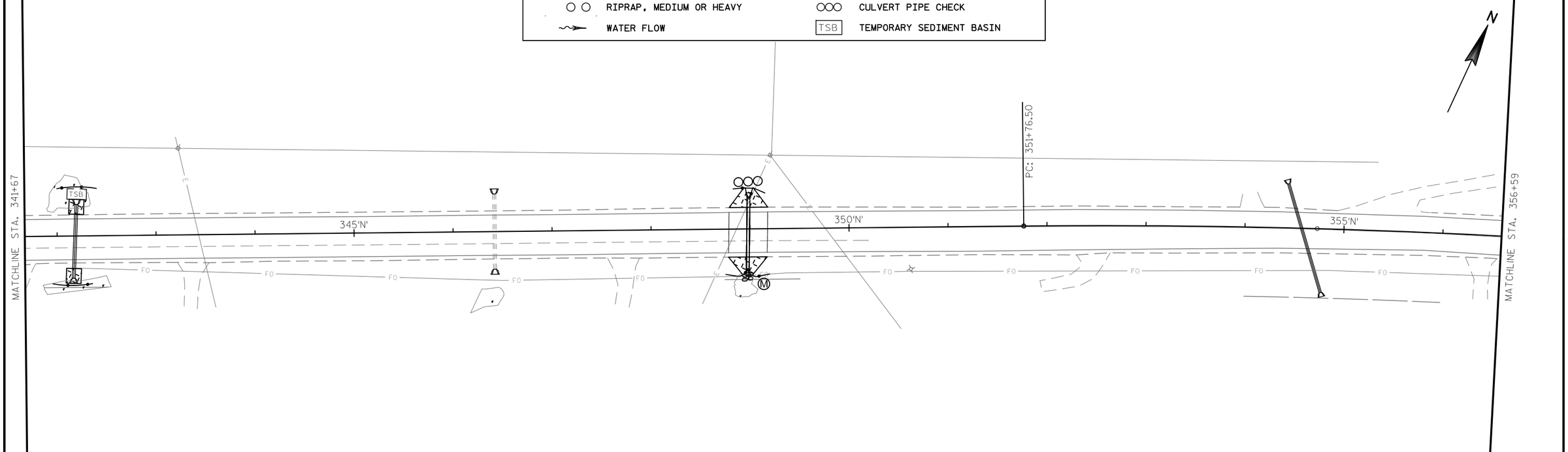
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\022001_EC_STH_13_BAYFIELD.DWG PLOT DATE : 12/19/2013 9:42 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 44

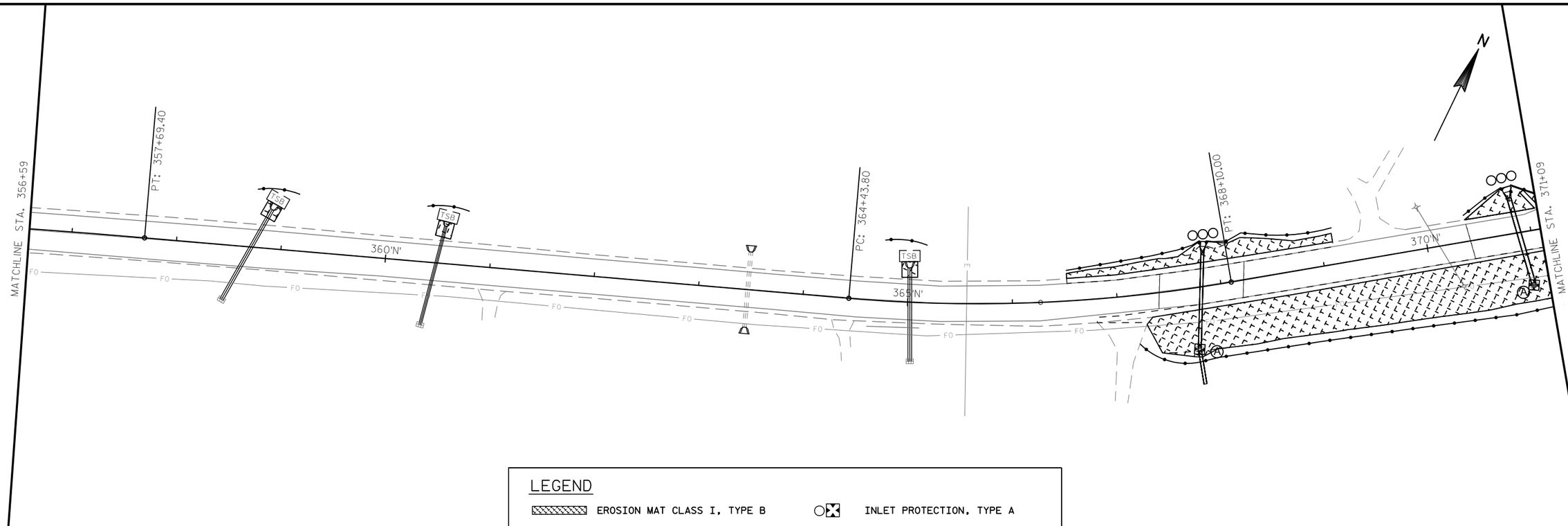


LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB TEMPORARY SEDIMENT BASIN

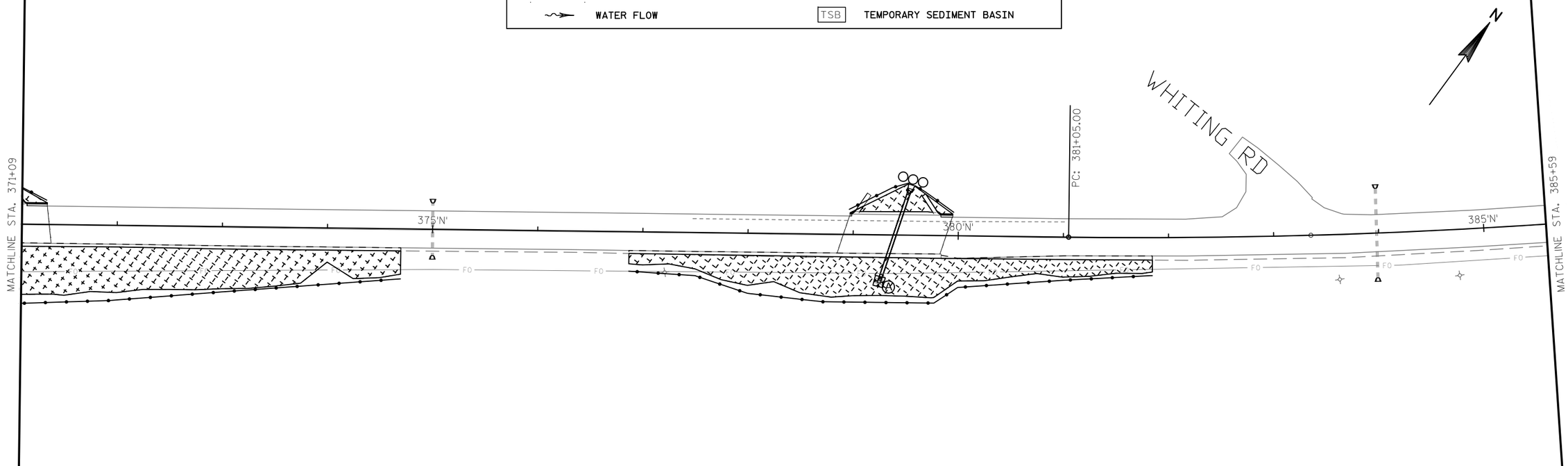


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 36	E

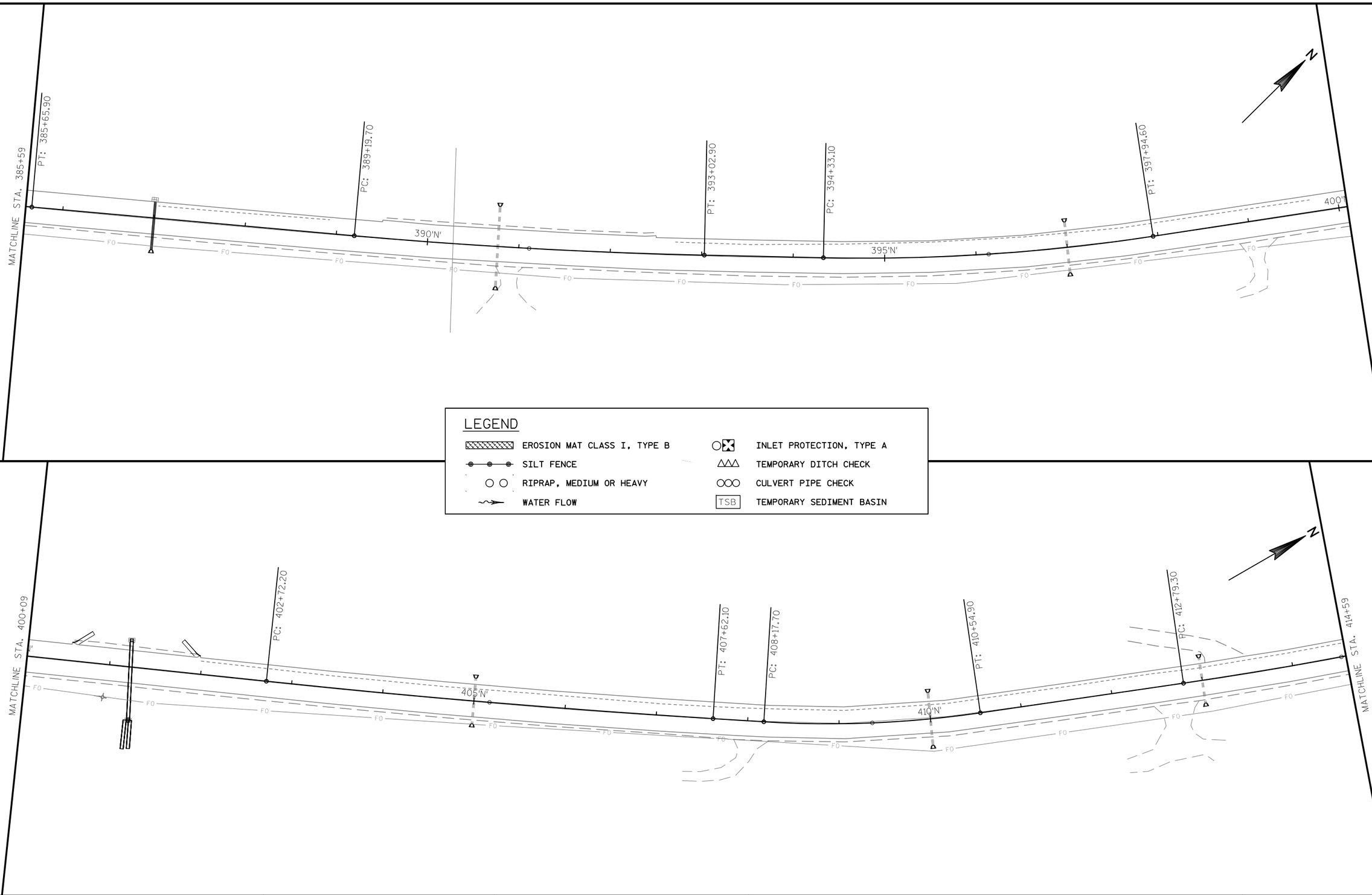


LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN



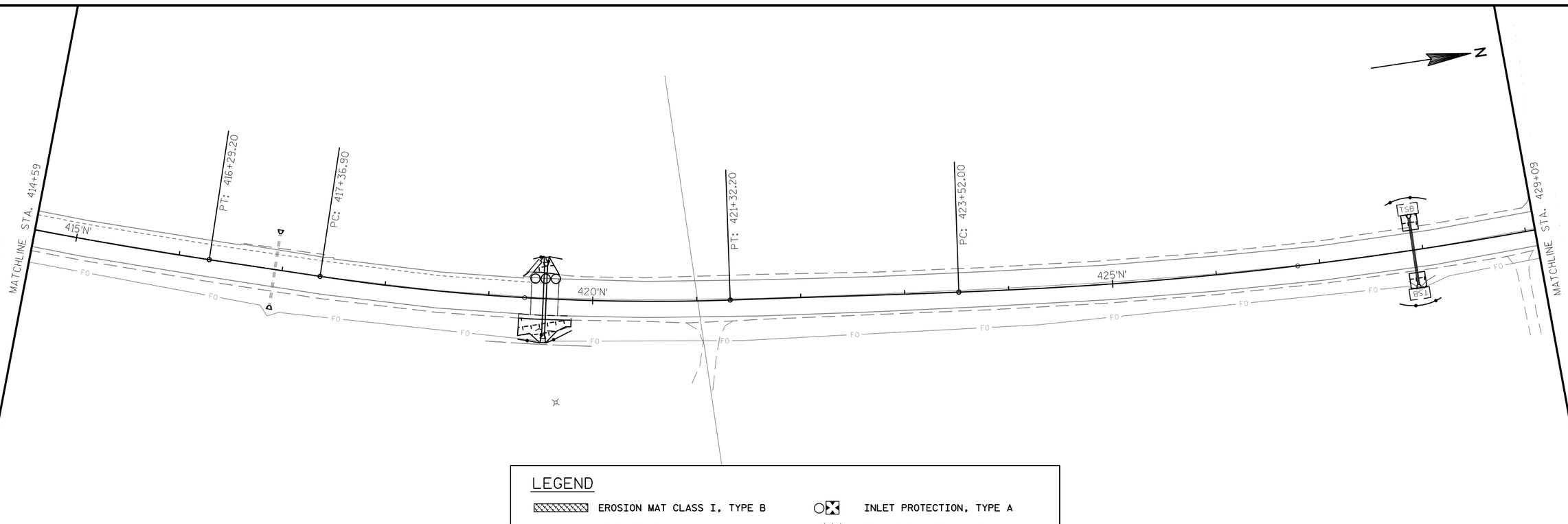
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 37	E



LEGEND

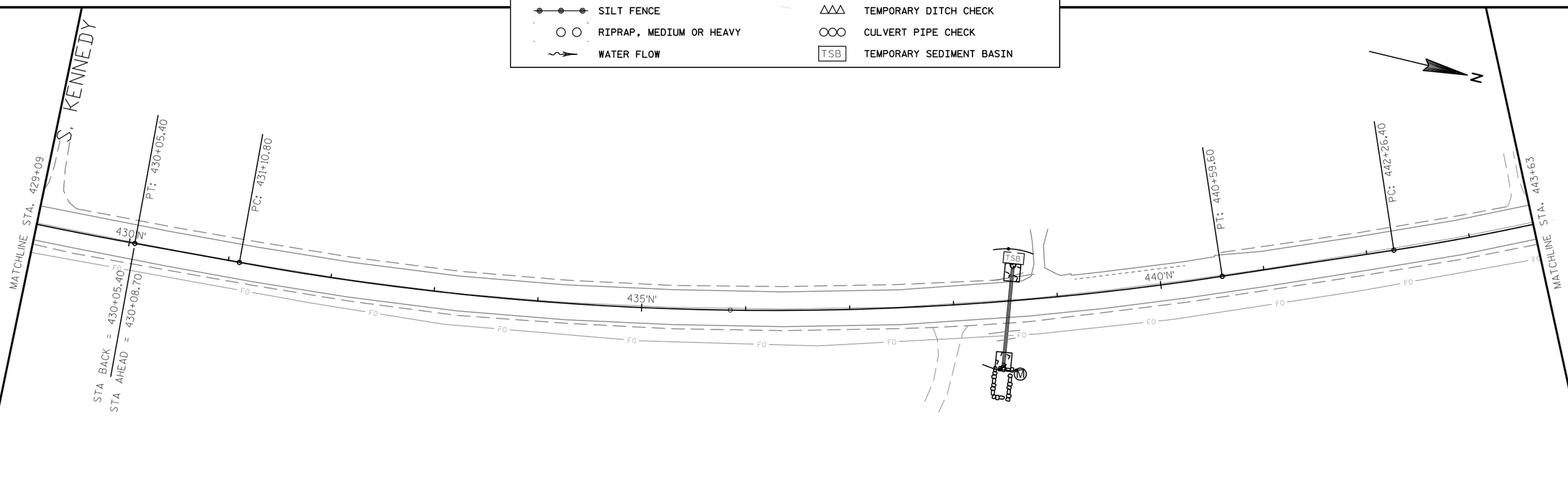
- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN

2



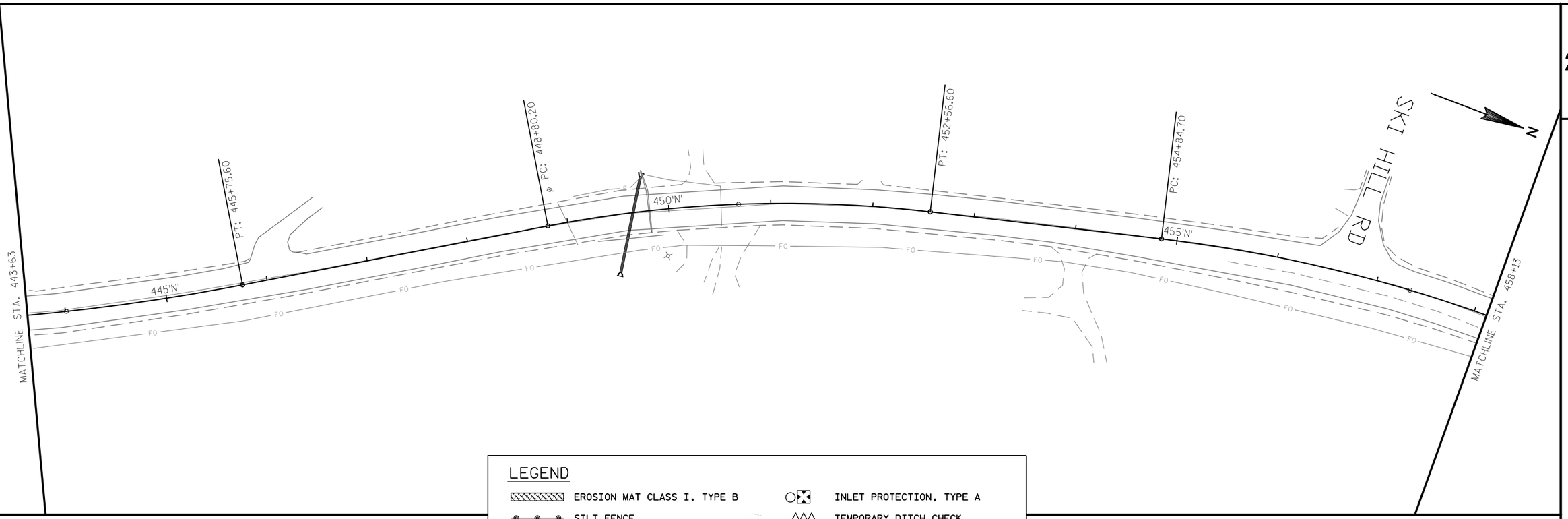
LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 39 E

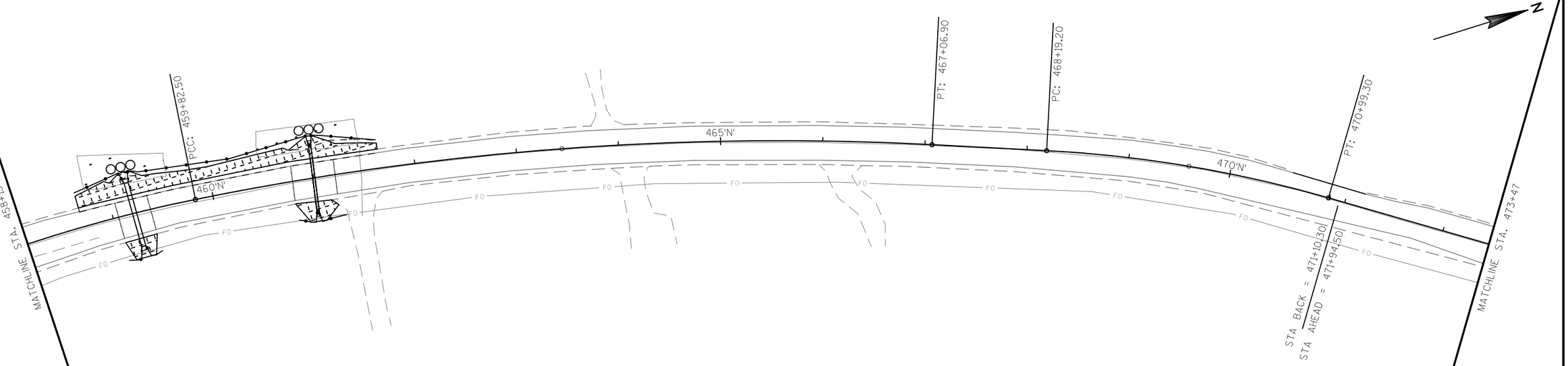
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2

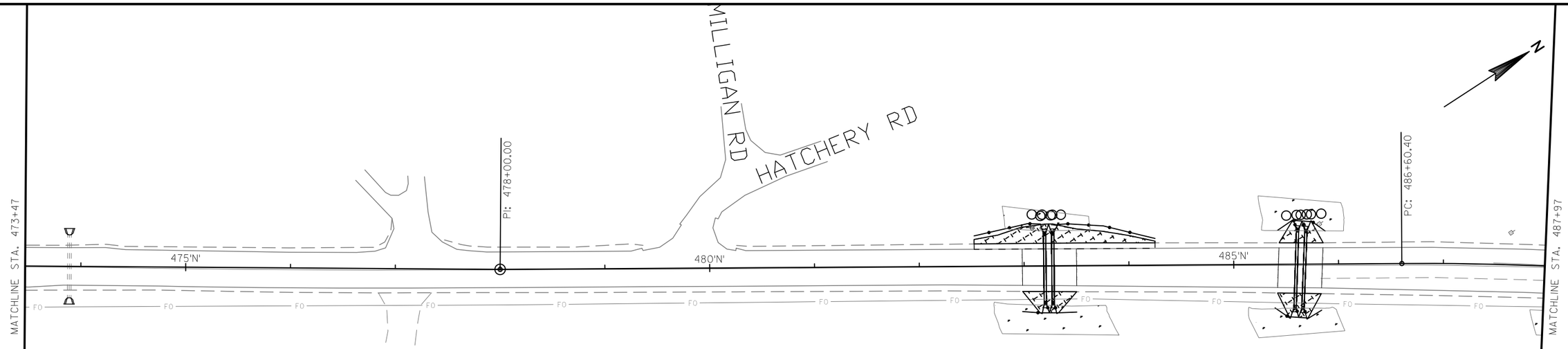
LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN



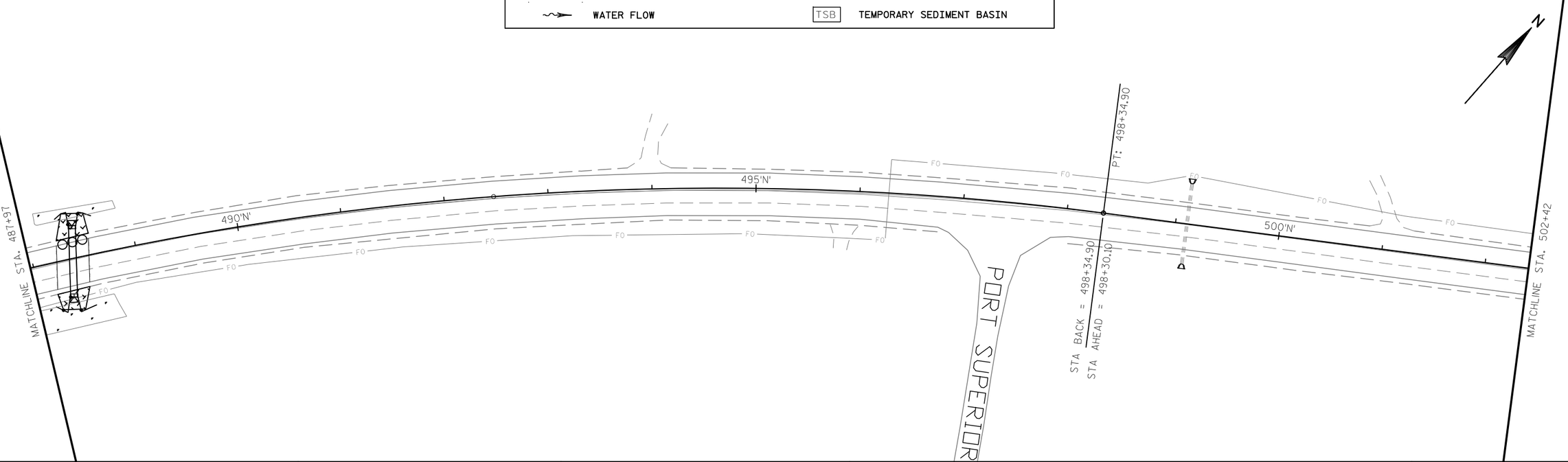
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2



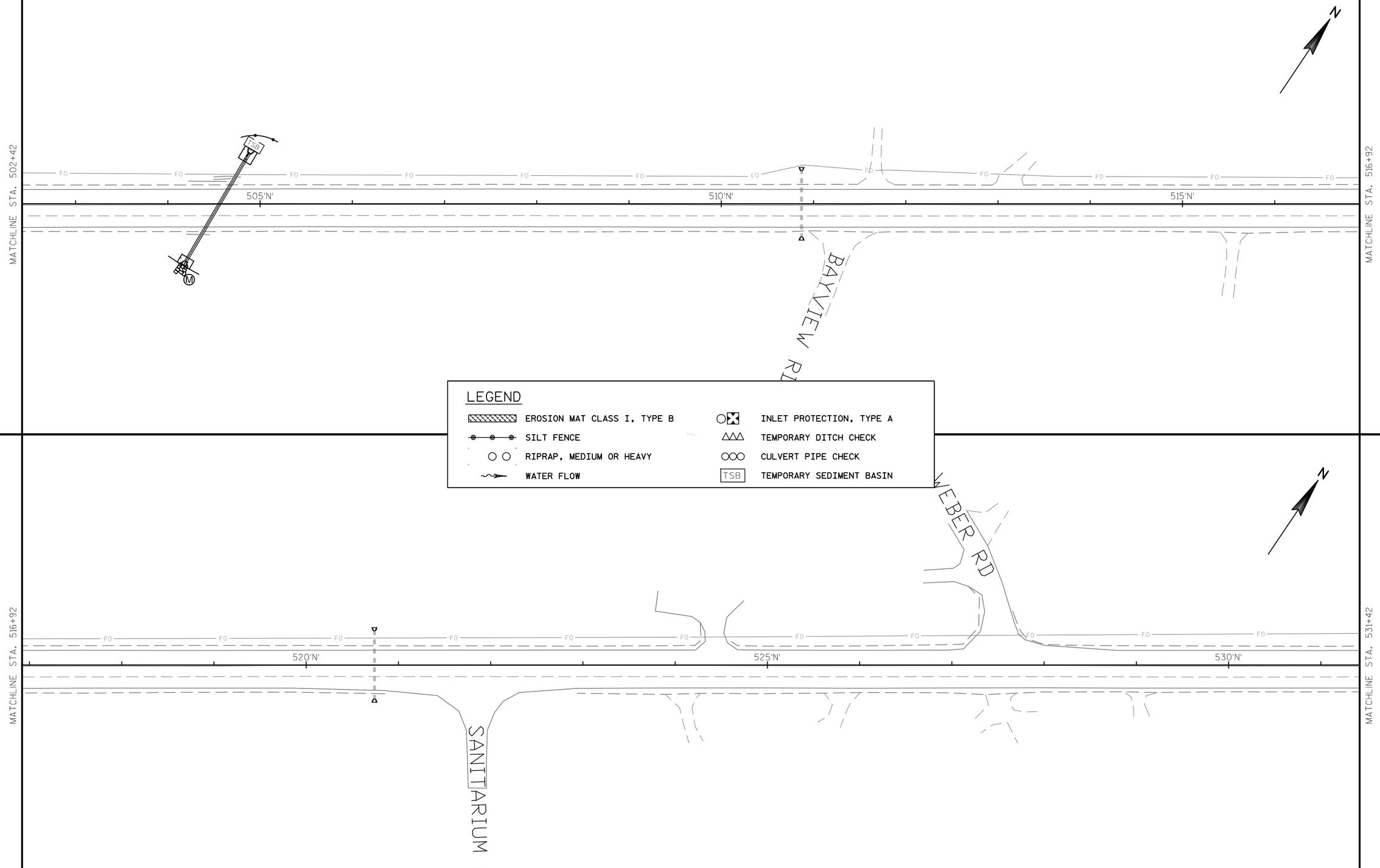
LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TSB TEMPORARY SEDIMENT BASIN



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 41 E

2

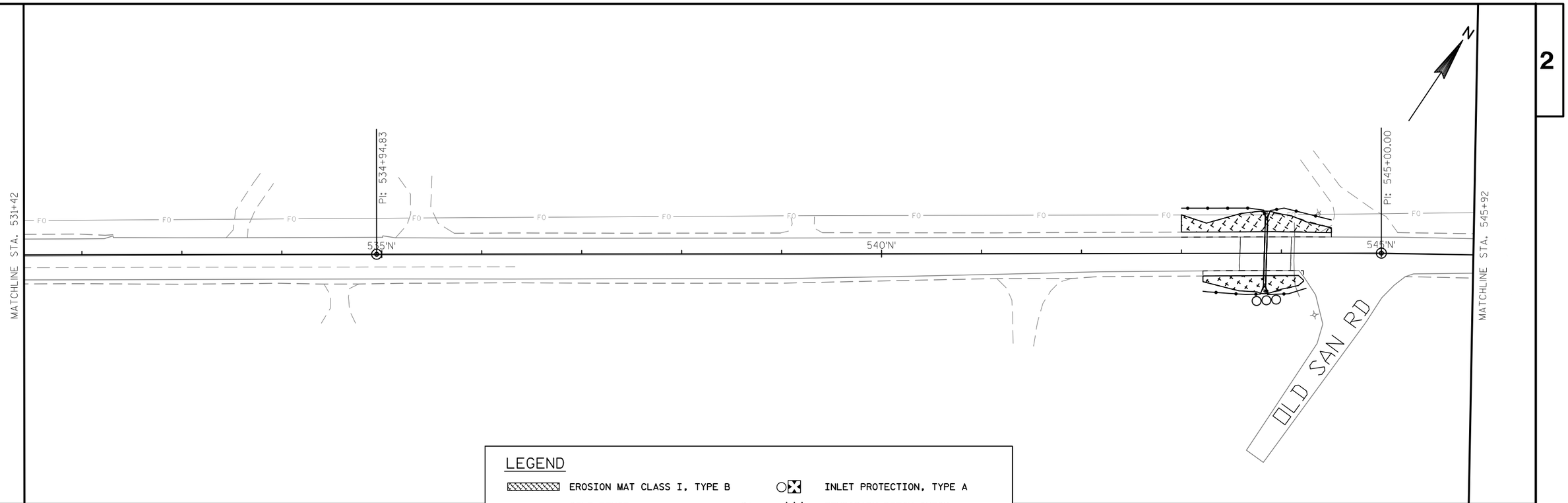


LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TSB TEMPORARY SEDIMENT BASIN

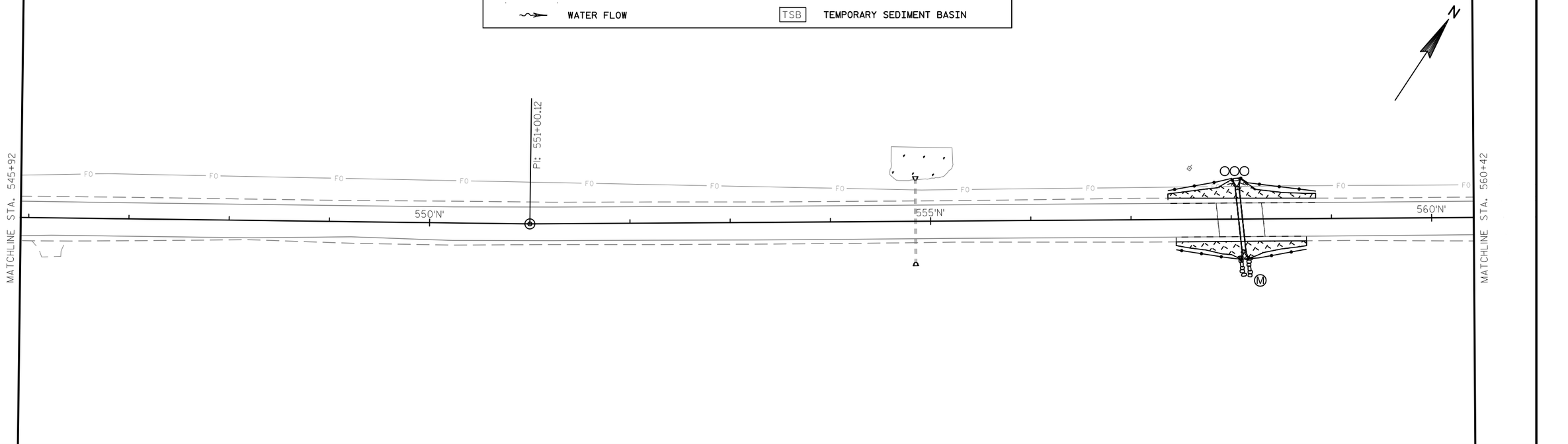
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 42	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\022001_EC_STH_13_BAYFIELD.DWG PLOT DATE : 12/19/2013 9:44 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 44

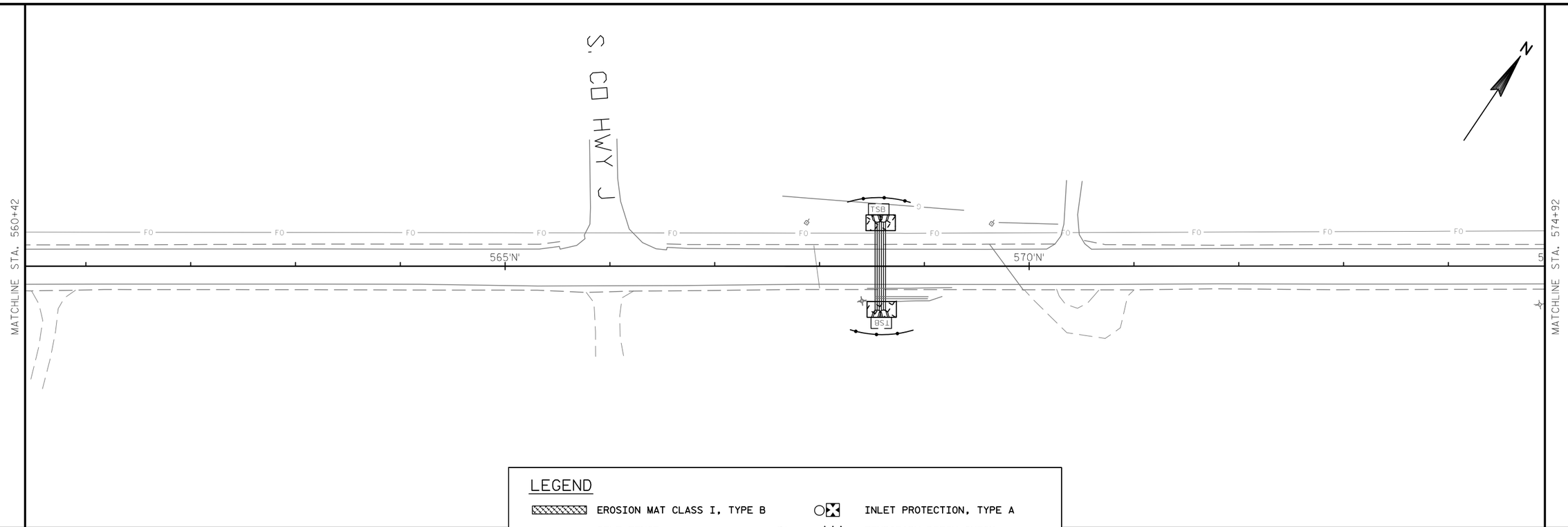


LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP, MEDIUM OR HEAVY
- WATER FLOW
- INLET PROTECTION, TYPE A
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- TSB — TEMPORARY SEDIMENT BASIN

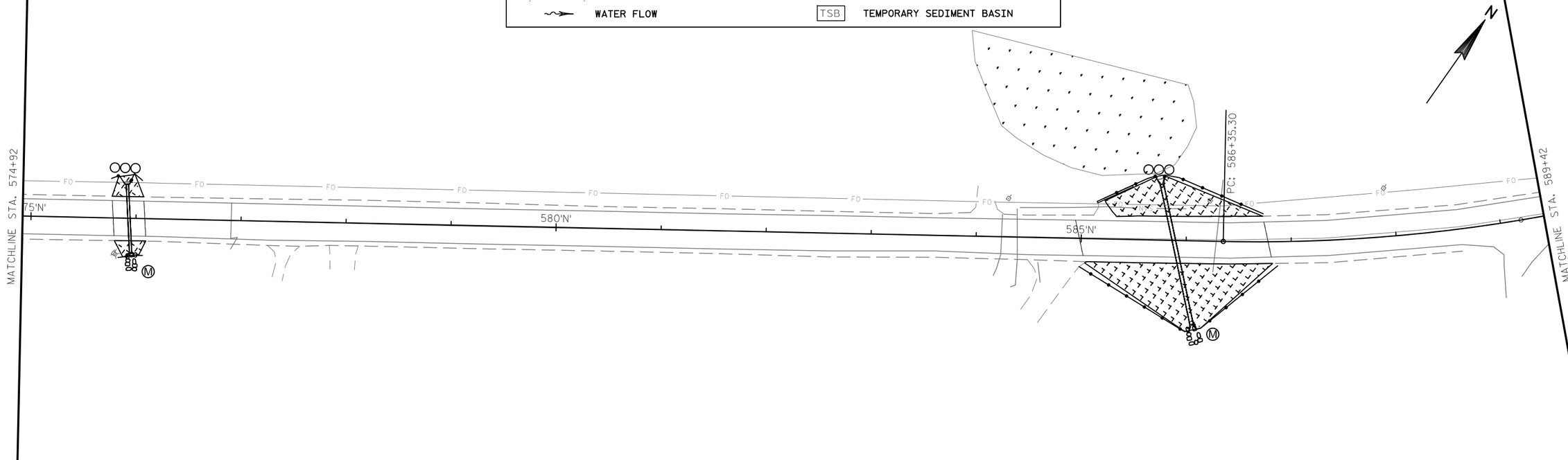


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 43	E

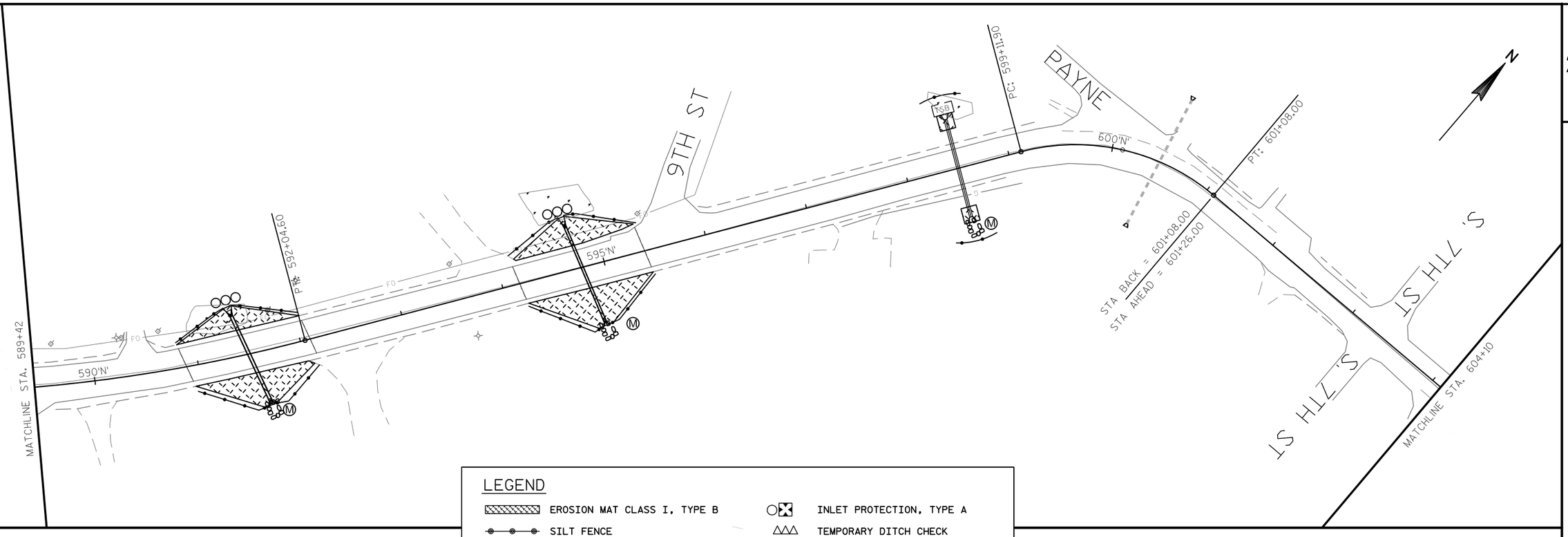


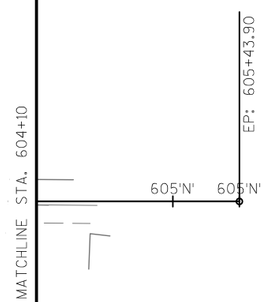
LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION, TYPE A
SILT FENCE	TEMPORARY DITCH CHECK
RIPRAP, MEDIUM OR HEAVY	CULVERT PIPE CHECK
WATER FLOW	TSB TEMPORARY SEDIMENT BASIN



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 44	E







PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	EROSION CONTROL PLAN	SHEET 45	E

NOTES:

PLACE SIGNS IN EACH DIRECTION AT THE END OF EACH WORK DAY, AND WHEN CULVERT PIPE REPLACEMENT WORK IS COMPLETE.

'ROAD WORK AHEAD' SIGNS ARE NOT REQUIRED WHEN REPLACEMENT WORK ZONES ARE SPACED LESS THAN 1500 FEET APART.

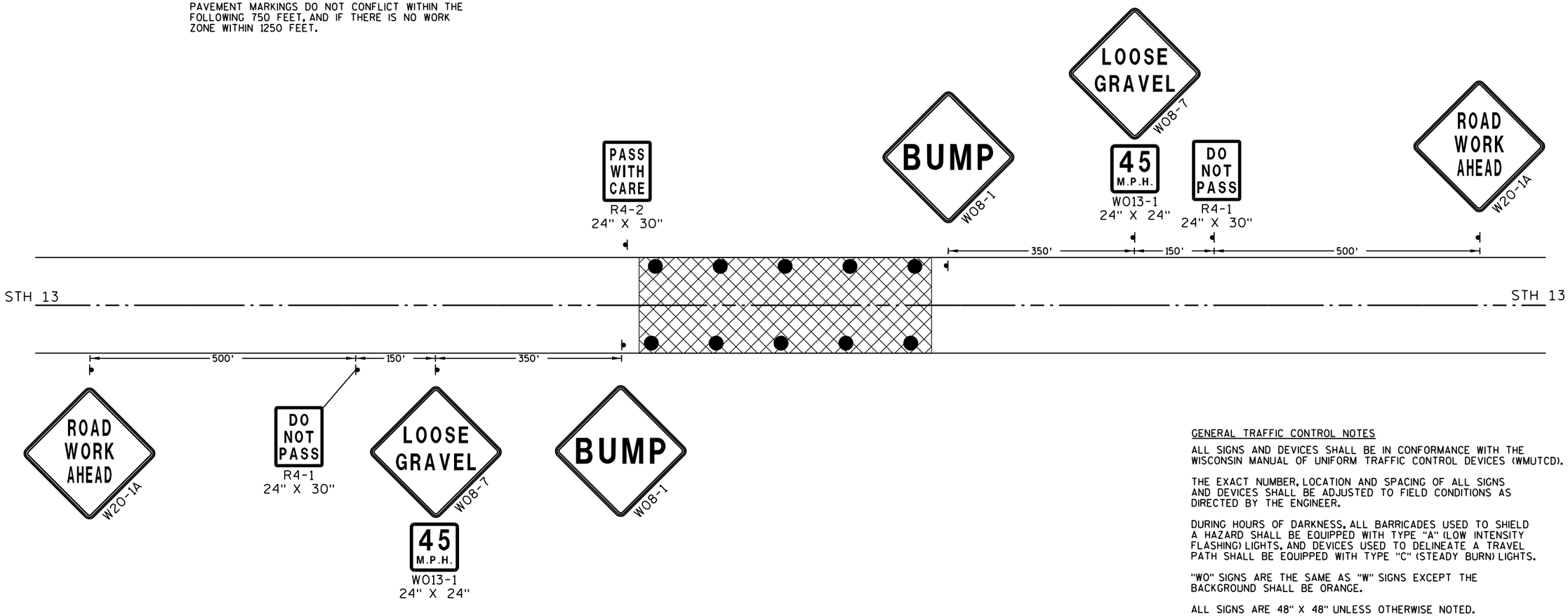
MAINTAIN 'BUMP' AND 'LOOSE GRAVEL' SIGNS UNTIL ASPHALTIC SURFACE PAVEMENT IS COMPLETED.

PLACE DRUMS ON GRAVEL 15 FEET FROM CENTERLINE UNTIL ASPHALTIC SURFACING AND SHOULDERS ARE IN PLACE.

PLACE 'PASS WITH CARE' SIGNS ONLY IF EXISTING PAVEMENT MARKINGS DO NOT CONFLICT WITHIN THE FOLLOWING 750 FEET, AND IF THERE IS NO WORK ZONE WITHIN 1250 FEET.

TRAFFIC CONTROL LEGEND

- CULVERT REPLACEMENT ZONE
- POST MOUNTED SIGN
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- DRUM (TYP. 25 FOOT SPACING)



GENERAL TRAFFIC CONTROL NOTES

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING) LIGHTS, AND DEVICES USED TO DELINEATE A TRAVEL PATH SHALL BE EQUIPPED WITH TYPE "C" (STEADY BURN) LIGHTS.

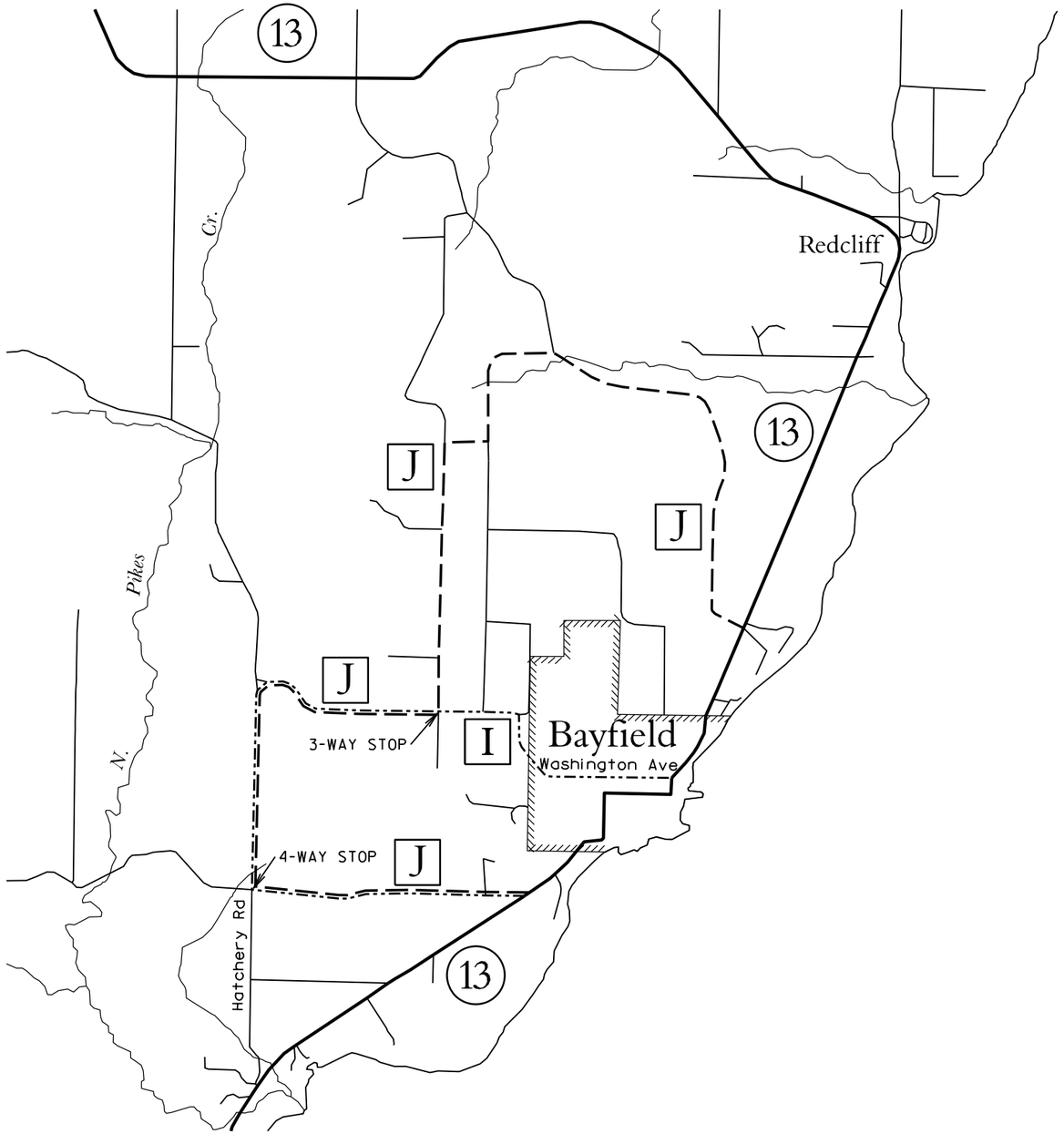
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND SHALL BE ORANGE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL 'IN USE', SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER.

PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED IF TRAFFIC CONTROL WILL BE INPLACE FOR MORE THAN 4 DAYS.

ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 8 FEET. BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.



DETOUR OVERVIEW LEGEND

- CTH J DETOUR ROUTE (FOR STH 13 TRUCK TRAFFIC)
- CTH J/CTH I/WASHINGTON AVE DETOUR ROUTE (FOR STH 13 AUTO TRAFFIC)

GENERAL DETOUR NOTES:

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH "TYPE A" FLASHING WARNING LIGHTS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE CONSTRUCTION TRAFFIC PATTERN SHALL BE REMOVED OR COVERED.

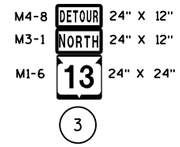
PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED IF TRAFFIC CONTROL WILL BE INPLACE FOR MORE THAN 4 DAYS.



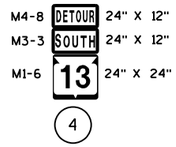
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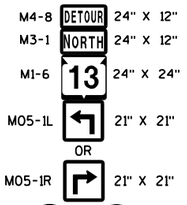
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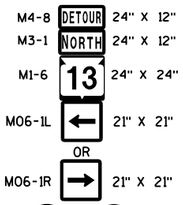
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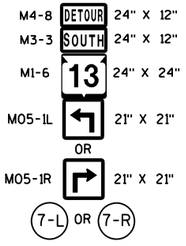
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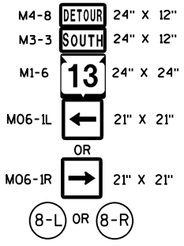
5-L OR 5-R



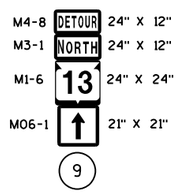
6-L OR 6-R



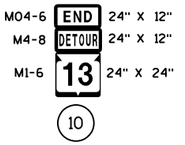
7-L OR 7-R



8-L OR 8-R



9



10

GENERAL DETOUR NOTES:

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH "TYPE A" FLASHING WARNING LIGHTS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

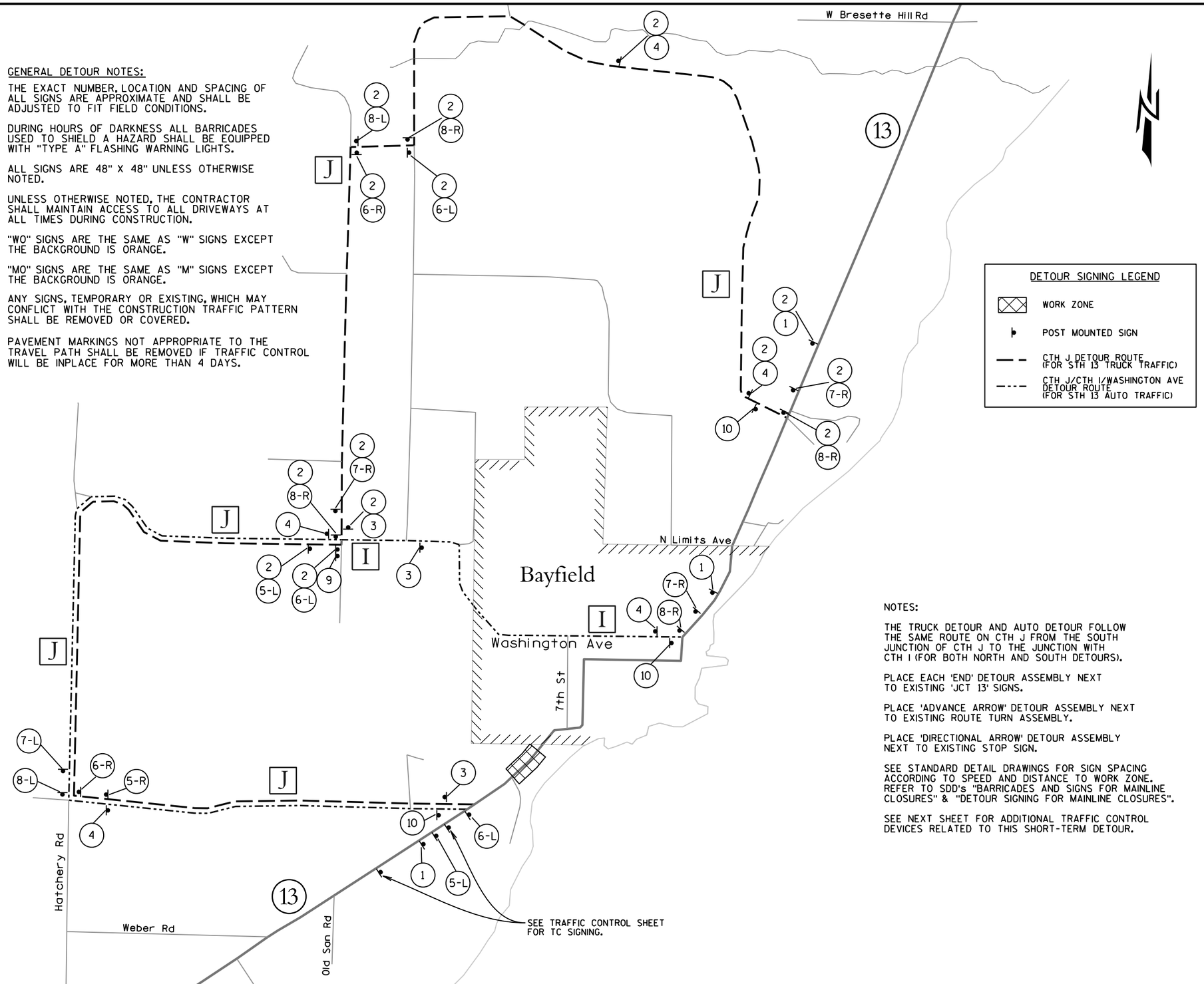
UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES DURING CONSTRUCTION.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE CONSTRUCTION TRAFFIC PATTERN SHALL BE REMOVED OR COVERED.

PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED IF TRAFFIC CONTROL WILL BE INPLACE FOR MORE THAN 4 DAYS.



DETOUR SIGNING LEGEND

- WORK ZONE
- POST MOUNTED SIGN
- CTH J DETOUR ROUTE (FOR STH 13 TRUCK TRAFFIC)
- CTH J/CTH I/WASHINGTON AVE DETOUR ROUTE (FOR STH 13 AUTO TRAFFIC)

NOTES:

THE TRUCK DETOUR AND AUTO DETOUR FOLLOW THE SAME ROUTE ON CTH J FROM THE SOUTH JUNCTION OF CTH J TO THE JUNCTION WITH CTH I (FOR BOTH NORTH AND SOUTH DETOURS).

PLACE EACH 'END' DETOUR ASSEMBLY NEXT TO EXISTING 'JCT 13' SIGNS.

PLACE 'ADVANCE ARROW' DETOUR ASSEMBLY NEXT TO EXISTING ROUTE TURN ASSEMBLY.

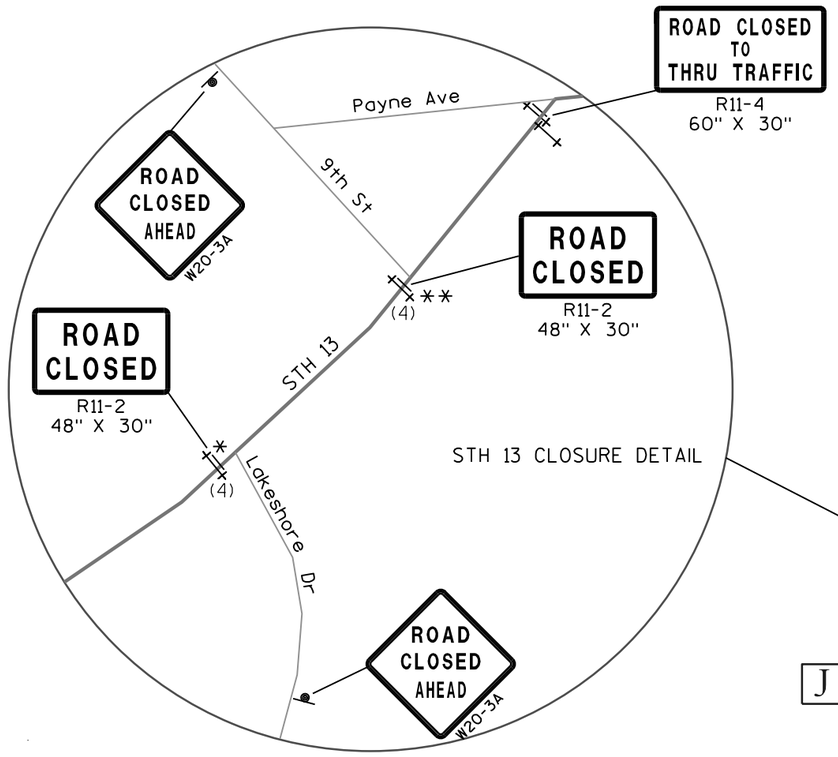
PLACE 'DIRECTIONAL ARROW' DETOUR ASSEMBLY NEXT TO EXISTING STOP SIGN.

SEE STANDARD DETAIL DRAWINGS FOR SIGN SPACING ACCORDING TO SPEED AND DISTANCE TO WORK ZONE. REFER TO SDD's "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" & "DETOUR SIGNING FOR MAINLINE CLOSURES".

SEE NEXT SHEET FOR ADDITIONAL TRAFFIC CONTROL DEVICES RELATED TO THIS SHORT-TERM DETOUR.

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	DETOURS SIGNING	SHEET	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



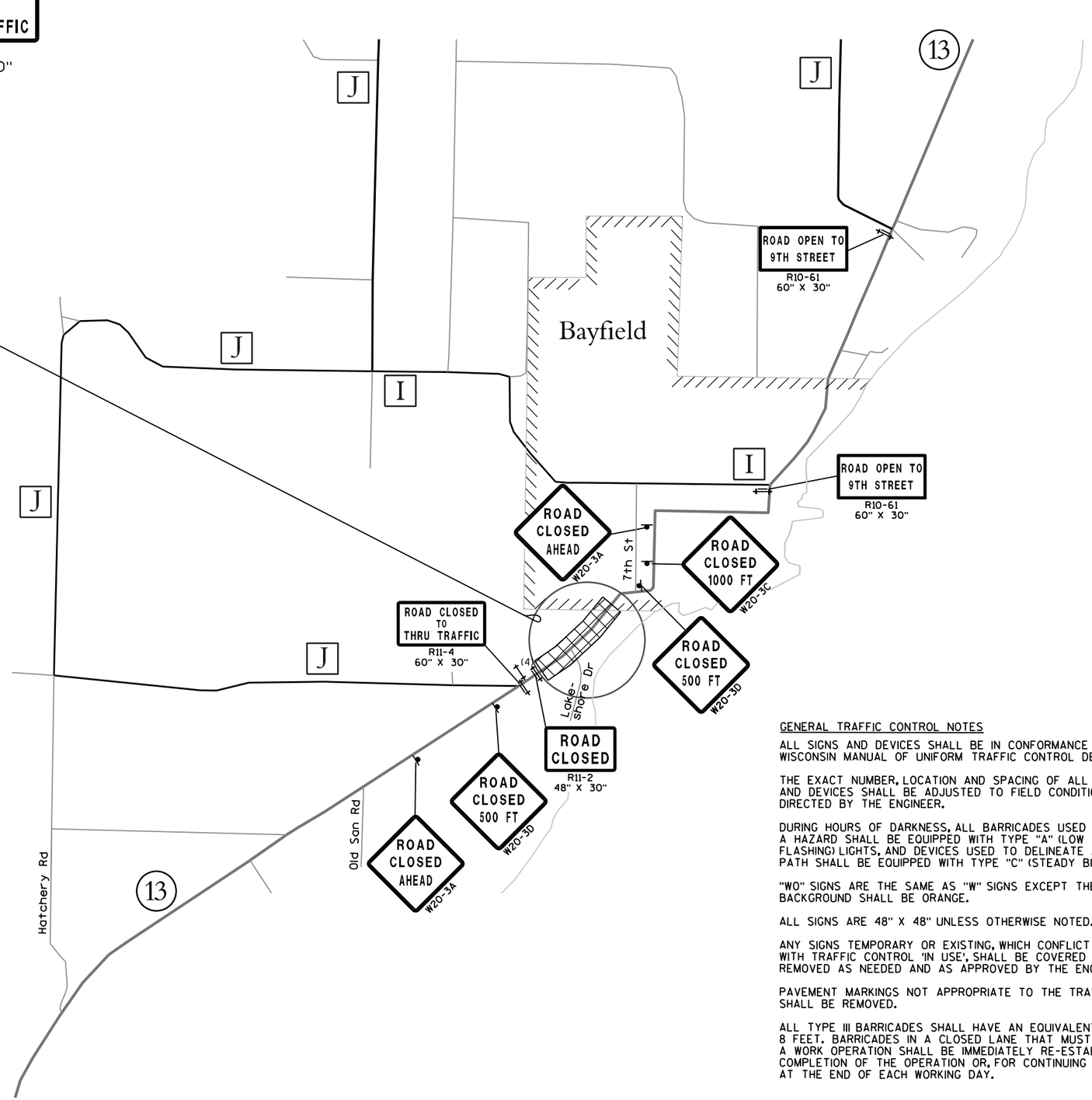
NOTES:

* CLOSE STH 13 SOUTHBOUND AT LAKESHORE DRIVE WHEN PIPES BETWEEN CTH J AND LAKESHORE DRIVE ARE BEING REPLACED.

** CLOSE STH 13 SOUTHBOUND AT 9TH STREET WHEN PIPES BETWEEN LAKESHORE DRIVE AND 9TH STREET ARE BEING REPLACED, AND ADD BARRICADES AND 'CLOSED' SIGN FACING STH 13 NORTHBOUND TRAFFIC NORTH OF LAKESHORE DRIVE.

TRAFFIC CONTROL LEGEND

- ROAD CLOSURE WORK ZONE
- POST MOUNTED SIGN
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN



GENERAL TRAFFIC CONTROL NOTES

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD).

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

DURING HOURS OF DARKNESS, ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING) LIGHTS, AND DEVICES USED TO DELINEATE A TRAVEL PATH SHALL BE EQUIPPED WITH TYPE "C" (STEADY BURN) LIGHTS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND SHALL BE ORANGE.

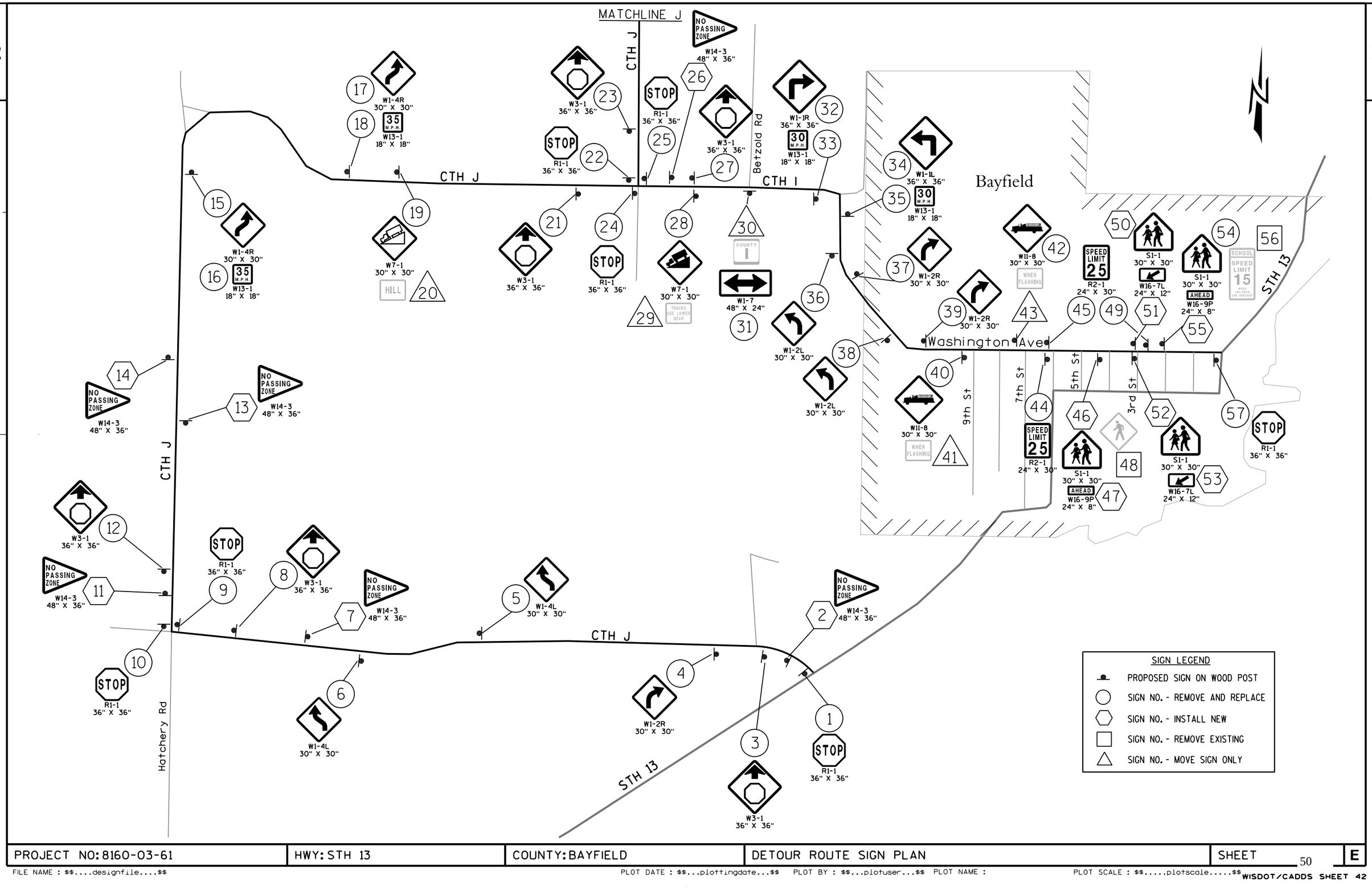
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL 'IN USE', SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER.

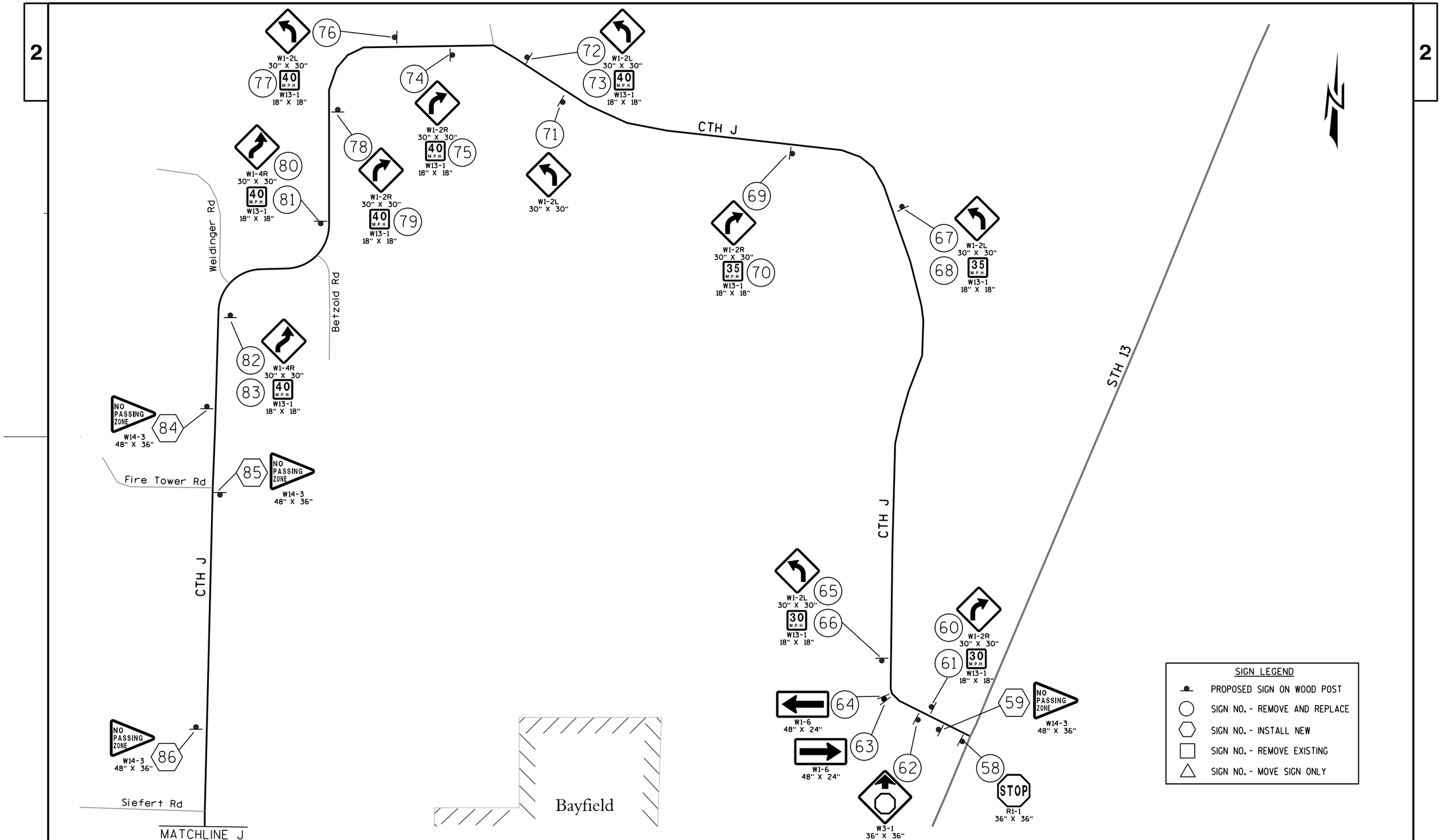
PAVEMENT MARKINGS NOT APPROPRIATE TO THE TRAVEL PATH SHALL BE REMOVED.

ALL TYPE III BARRICADES SHALL HAVE AN EQUIVALENT WIDTH OF 8 FEET. BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	TRAFFIC CONTROL - STH 13 CLOSURE	SHEET 49	E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	DETOUR ROUTE SIGN PLAN	SHEET 50 E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	DETOUR ROUTE SIGN PLAN	SHEET	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

DATE 29JAN14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8160-03-61 QUANTITY
0010	201.0105	CLEARING	STA	39.000	39.000
0020	201.0205	GRUBBING	STA	39.000	39.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	33.000	33.000
0040	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 208+34'N'	LS	1.000	1.000
0050	203.0200	REMOVING OLD STRUCTURE (STATION) 02. 208+49'N'	LS	1.000	1.000
0060	204.0150	REMOVING CURB & GUTTER	LF	34.000	34.000
0070	204.0190	REMOVING SURFACE DRAINS	EACH	6.000	6.000
0080	204.9060.S	REMOVING (ITEM DESCRIPTION) 01. APRON ENDWALLS	EACH	34.000	34.000
0090	205.0100	EXCAVATION COMMON	CY	6,237.000	6,237.000
0100	208.0100	BORROW	CY	5,144.000	5,144.000
0110	209.0100	BACKFILL GRANULAR	CY	4,249.000	4,249.000
0120	213.0100	FINISHING ROADWAY (PROJECT) 01. 8160-03-61	EACH	1.000	1.000
0130	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	3,560.000	3,560.000
0140	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	5,006.000	5,006.000
0150	350.0145	SUBBASE 12-INCH	SY	1,088.000	1,088.000
0160	465.0105	ASPHALTIC SURFACE	TON	3,011.000	3,011.000
0170	465.0315	ASPHALTIC FLUMES	SY	60.000	60.000
0180	504.0900	CONCRETE MASONRY ENDWALLS	CY	4.800	4.800
0190	520.0124	CULVERT PIPE CLASS III 24-INCH	LF	330.000	330.000
0200	520.0130	CULVERT PIPE CLASS III 30-INCH	LF	182.000	182.000
0210	520.0142	CULVERT PIPE CLASS III 42-INCH	LF	152.000	152.000
0220	520.0148	CULVERT PIPE CLASS III 48-INCH	LF	88.000	88.000
0230	520.0324	CULVERT PIPE CLASS IV 24-INCH	LF	168.000	168.000
0240	520.0330	CULVERT PIPE CLASS IV 30-INCH	LF	152.000	152.000
0250	520.0336	CULVERT PIPE CLASS IV 36-INCH	LF	136.000	136.000
0260	520.1024	APRON ENDWALLS FOR CULVERT PIPE 24-INCH	EACH	8.000	8.000
0270	520.1030	APRON ENDWALLS FOR CULVERT PIPE 30-INCH	EACH	5.000	5.000
0280	520.1036	APRON ENDWALLS FOR CULVERT PIPE 36-INCH	EACH	2.000	2.000
0290	520.1042	APRON ENDWALLS FOR CULVERT PIPE 42-INCH	EACH	3.000	3.000
0300	520.1048	APRON ENDWALLS FOR CULVERT PIPE 48-INCH	EACH	2.000	2.000
0310	520.4024	CULVERT PIPE TEMPORARY 24-INCH	LF	24.000	24.000
0320	520.4030	CULVERT PIPE TEMPORARY 30-INCH	LF	6.000	6.000
0330	520.7000	CLEANING CULVERT PIPES	EACH	17.000	17.000
0340	520.8000	CONCRETE COLLARS FOR PIPE	EACH	3.000	3.000
0350	520.9700.S	CULVERT PIPE LINERS (SIZE) 01. 24-INCH	LF	360.000	360.000
0360	520.9700.S	CULVERT PIPE LINERS (SIZE) 02. 30-INCH	LF	277.000	277.000
0370	520.9700.S	CULVERT PIPE LINERS (SIZE) 03. 36-INCH	LF	362.000	362.000
0380	520.9700.S	CULVERT PIPE LINERS (SIZE) 04. 42-INCH	LF	188.000	188.000
0390	520.9700.S	CULVERT PIPE LINERS (SIZE) 05. 48-INCH	LF	66.000	66.000
0400	520.9700.S	CULVERT PIPE LINERS (SIZE) 06. 54-INCH	LF	128.000	128.000
0410	520.9750.S	CLEANING CULVERT PIPES FOR LINER VERIFICATION	EACH	17.000	17.000
0420	521.0124	CULVERT PIPE CORRUGATED STEEL 24-INCH	LF	10.000	10.000
0430	521.0130	CULVERT PIPE CORRUGATED STEEL 30-INCH	LF	116.000	116.000
0440	521.0728	PIPE ARCH CORRUGATED STEEL 28X20-INCH	LF	132.000	132.000
0450	521.0742	PIPE ARCH CORRUGATED STEEL 42X29-INCH	LF	64.000	64.000
0460	521.1024	APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	EACH	10.000	10.000
0470	521.1030	APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH	EACH	9.000	9.000

3

DATE 29JAN14 E S T I M A T E O F Q U A N T I T I E S

LINE 8160-03-61

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8160-03-61 QUANTITY
0480	521.1036	APRON ENDWALLS FOR CULVERT PIPE STEEL 36-INCH	EACH	10.000	10.000
0490	521.1042	APRON ENDWALLS FOR CULVERT PIPE STEEL 42-INCH	EACH	2.000	2.000
0500	521.1048	APRON ENDWALLS FOR CULVERT PIPE STEEL 48-INCH	EACH	6.000	6.000
0510	521.1054	APRON ENDWALLS FOR CULVERT PIPE STEEL 54-INCH	EACH	4.000	4.000
0520	521.1228	APRON ENDWALLS FOR PIPE ARCH STEEL 28X20-INCH	EACH	4.000	4.000
0530	521.1242	APRON ENDWALLS FOR PIPE ARCH STEEL 42X29-INCH	EACH	2.000	2.000
0540	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	506.000	506.000
0550	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	68.000	68.000
0560	522.0136	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	66.000	66.000
0570	522.0330	CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH	LF	60.000	60.000
0580	522.0354	CULVERT PIPE REINFORCED CONCRETE CLASS IV 54-INCH	LF	60.000	60.000
0590	522.0384	CULVERT PIPE REINFORCED CONCRETE CLASS IV 84-INCH	LF	124.000	124.000
0600	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	13.000	13.000
0610	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	4.000	4.000
0620	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	4.000	4.000
0630	522.1054	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 54-INCH	EACH	2.000	2.000
0640	522.1084	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 84-INCH	EACH	4.000	4.000
0650	523.0138	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 38X60-INCH	LF	64.000	64.000
0660	523.0148	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 48X76-INCH	LF	62.000	62.000
0670	523.0538	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 38X60-INCH	EACH	2.000	2.000
0680	523.0548	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 48X76-INCH	EACH	2.000	2.000
0690	601.0557	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	LF	34.000	34.000
0700	606.0200	RIPRAP MEDIUM	CY	121.000	121.000
0710	606.0300	RIPRAP HEAVY	CY	34.000	34.000
0720	611.0430	RECONSTRUCTING INLETS	EACH	5.000	5.000
0730	611.0642	INLET COVERS TYPE MS	EACH	1.000	1.000
0740	611.8115	ADJUSTING INLET COVERS	EACH	1.000	1.000
0750	611.8120.S	COVER PLATES TEMPORARY	EACH	4.000	4.000
0760	611.9800.S	PIPE GRATES	EACH	1.000	1.000
0770	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 8160-03-61	EACH	1.000	1.000
0780	619.1000	MOBILIZATION	EACH	1.000	1.000

3

DATE 29JAN14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8160-03-61 QUANTITY
0790	625.0100	TOPSOIL	SY	201.000	201.000
0800	625.0500	SALVAGED TOPSOIL	SY	15,176.000	15,176.000
0810	628.1504	SILT FENCE	LF	10,424.000	10,424.000
0820	628.1520	SILT FENCE MAINTENANCE	LF	10,424.000	10,424.000
0830	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	8.000	8.000
0840	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	4.000	4.000
0850	628.2004	EROSION MAT CLASS I TYPE B	SY	21,184.000	21,184.000
0860	628.6505	SOIL STABILIZER TYPE A	ACRE	1.530	1.530
0870	628.7005	INLET PROTECTION TYPE A	EACH	5.000	5.000
0880	628.7504	TEMPORARY DITCH CHECKS	LF	50.000	50.000
0890	628.7555	CULVERT PIPE CHECKS	EACH	343.000	343.000
0900	629.0210	FERTILIZER TYPE B	CWT	17.350	17.350
0910	630.0110	SEEDING MIXTURE NO. 10	LB	267.500	267.500
0920	630.0200	SEEDING TEMPORARY	LB	732.800	732.800
0930	633.5200	MARKERS CULVERT END	EACH	214.000	214.000
0940	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	60.000	60.000
0950	637.2210	SIGNS TYPE II REFLECTIVE H	SF	74.680	74.680
0960	637.2230	SIGNS TYPE II REFLECTIVE F	SF	371.940	371.940
0970	638.2102	MOVING SIGNS TYPE II	EACH	5.000	5.000
0980	638.2602	REMOVING SIGNS TYPE II	EACH	74.000	74.000
0990	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	58.000	58.000
1000	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
1010	643.0100	TRAFFIC CONTROL (PROJECT) 01. 8160-03-61	EACH	1.000	1.000
1020	643.0300	TRAFFIC CONTROL DRUMS	DAY	20,510.000	20,510.000
1030	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	196.000	196.000
1040	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	392.000	392.000
1050	643.0900	TRAFFIC CONTROL SIGNS	DAY	17,325.000	17,325.000
1060	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 8160-03-61	EACH	1.000	1.000
1070	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	1,764.000	1,764.000
1080	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	454.000	454.000
1090	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	494.000	494.000
1100	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	7,964.000	7,964.000
1110	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	6,643.000	6,643.000
1120	650.5000	CONSTRUCTION STAKING BASE	LF	6,643.000	6,643.000
1130	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	34.000	34.000
1140	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 8160-03-61	LS	1.000	1.000
1150	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	4,861.000	4,861.000
1160	690.0150	SAWING ASPHALT	LF	2,165.000	2,165.000
1170	690.0250	SAWING CONCRETE	LF	209.000	209.000
1180	SPV.0060	SPECIAL 01. RESETTING APRON ENDWALLS	EACH	3.000	3.000
1190	SPV.0060	SPECIAL 02. TEMPORARY WATER PASSAGE	EACH	4.000	4.000
1200	SPV.0090	SPECIAL 01. RESETTING PIPES	LF	60.000	60.000
1210	SPV.0090	SPECIAL 02. REGRADE DITCH	LF	647.000	647.000
1220	SPV.0090	SPECIAL 03. CONSTRUCTION STAKING SUBBASE	LF	199.000	199.000
1230	SPV.0090	SPECIAL 04. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT	LF	34.000	34.000
1240	SPV.0090	SPECIAL 05. CURED-IN-PLACE PIPE LINING (CIPP) 30-INCH	LF	96.000	96.000

3

CLEARING AND GRUBBING

STATION	-	STATION	LOCATION		201.0105 CLEARING STA	201.0205 GRUBBING STA
315+60		315+75	STH 13 'S'	RT	1	1
37+30	-	38+15	STH 13'N'	LT	1	1
141+05	-	141+70	STH 13'N'	LT	1	1
150+90	-	153+10	STH 13'N'	RT	3	3
337+63	-	338+03	STH 13'N'	RT	1	1
358+75	-	359+00	STH 13'N'	RT	1	1
360+45	-	360+60	STH 13'N'	RT	1	1
366+55	-	374+70	STH 13'N'	RT	9	9
376+85	-	381+85	STH 13'N'	RT	5	5
399+20	-	403+70	STH 13'N'	RT	5	5
438+40	-	438+60	STH 13'N'	RT	1	1
568+45	-	568+70	STH 13'N'	RT	1	1
585+05	-	586+80	STH 13'N'	LT & RT	4	4
590+95	-	592+10	STH 13'N'	RT	2	2
594+20	-	595+45	STH 13'N'	RT	2	2
598+40	-	598+55	STH 13'N'	RT	1	1
TOTALS					39	39

REMOVING PIPE CULVERTS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	203.0200 REMOVING OLD STRUCTURE STA	204.9060.S.01 REMOVING APRON ENDWALLS EACH
37+27	STH 13 'S'	-	-	2
44+99	STH 13 'S'	1	-	-
48+85	STH 13 'S'	1	-	-
67+22	STH 13 'S'	1	-	-
200+20	STH 13 'S'	-	-	2
214+22	STH 13 'S'	1	-	-
218+35	STH 13 'S'	-	-	1
220+00	STH 13 'S'	-	-	1
270+93	STH 13 'S'	1	-	1
279+66	STH 13 'S'	1	-	-
287+85	STH 13 'S'	1	-	-
291+69	STH 13 'S'	1	-	-
306+72	STH 13 'S'	1	-	-
37+94	STH 13 'N'	-	-	2
77+85	STH 13 'N'	1	-	-
96+09	STH 13 'N'	-	-	2
96+23	STH 13 'N'	-	-	2
141+63	STH 13 'N'	-	-	2
151+93	STH 13 'N'	1	-	-
162+58	STH 13 'N'	1	-	-
208+34	STH 13 'N'	-	1	-
208+49	STH 13 'N'	-	1	-
218+10	STH 13 'N'	1	-	-
304+76	STH 13 'N'	1	-	-
312+56	STH 13 'N'	1	-	-
340+63	STH 13 'N'	-	-	2
342+10	STH 13 'N'	-	-	2
348+98	STH 13 'N'	1	-	-
358+75	STH 13 'N'	-	-	1
360+51	STH 13 'N'	-	-	1
364+93	STH 13 'N'	-	-	1
367+81	STH 13 'N'	1	-	-
370+88	STH 13 'N'	1	-	-
379+40	STH 13 'N'	1	-	-
419+54	STH 13 'N'	1	-	-
427+93	STH 13 'N'	-	-	2
438+55	STH 13 'N'	-	-	2
459+21	STH 13 'N'	1	-	-
461+00	STH 13 'N'	1	-	-
SUB-TOTALS		22	2	26

REMOVING PIPE CULVERTS CONT'D

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	203.0200 REMOVING OLD STRUCTURE STA	204.9060.S.01 REMOVING APRON ENDWALLS EACH
483+20	STH 13 'N'	1	-	-
483+27	STH 13 'N'	1	-	-
485+60	STH 13 'N'	1	-	-
485+68	STH 13 'N'	1	-	-
488+39	STH 13 'N'	1	-	-
504+25	STH 13 'N'	-	-	2
543+84	STH 13 'N'	1	-	-
558+09	STH 13 'N'	1	-	-
568+55	STH 13 'N'	-	-	2
568+61	STH 13 'N'	-	-	2
575+93	STH 13 'N'	1	-	-
585+88	STH 13 'N'	1	-	-
591+49	STH 13 'N'	1	-	-
594+78	STH 13 'N'	1	-	-
598+50	STH 13 'N'	-	-	2
SUB-TOTALS		11	0	8
TOTALS		33	2	34

CURB AND GUTTER ITEMS

STATION	-	STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF	SPV.0090.04 CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT LF
371+14	-	371+33	'N' LT	19	19	19
378+95	-	378+99	'N' LT	4	4	4
379+83	-	379+94	'N' LT	11	11	11
TOTALS				34	34	34

BACKFILL GRANULAR

PIPE CULVERT STATION	LOCATION	209.0100 BACKFILL GRANULAR (GRADE 2) CY	PIPE CULVERT DIAMETER INCH	DEPTH FROM CL PROFILE TO TOP OF PIPE CULVERT FT
44+99	'S'	42	30	3.6
48+85	'S'	59	36	2.3
67+22	'S'	28	24	4.2
214+22	'S'	35	24	3.2
291+69	'S'	31	24	4.2
306+72	'S'	235	30	1.5
77+85	'N'	118	20	2.0
111+84	N'	56	24	2.4
151+93	'N'	101	48	6.3
162+58	'N'	170	24	2.1
208+34	'N'	817	84	2.1
208+49	'N'	798	84	1.8
218+10	'N'	229	30	2.0
304+76	'N'	563	54	1.8
312+56	'N'	74	38	2.9
348+98	'N'	54	30	4.1
367+81	'N'	42	30	7.8
370+88	'N'	82	42	8.7
379+40	'N'	45	30	9.0
419+54	'N'	16	20	3.5
459+21	'N'	30	29	3.9
461+00	N'	31	24	3.1
483+20	'N'	33	24	4.8
483+27	'N'	33	24	5.0
485+60	'N'	35	24	4.1
485+68	'N'	35	24	4.0
488+39	'N'	117	48	3.1
543+84	'N'	32	24	5.2
558+09	'N'	81	42	4.7
575+93	'N'	114	24	2.9
585+88	'N'	45	36	15.5
591+49	'N'	37	30	11.0
594+78	'N'	31	24	11.4
TOTAL		4249		

ASPHALTIC SURFACE & ASSOCIATED ITEMS

STATION	-	STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	305.0110** BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	350.0145 SUBBASE 12-INCH SY
44+83	-	45+15	'S'	41	10	70	160
48+75	-	48+95	'S'	25	6	43	100
66+95	-	67+48	'S'	85	17	116	298
214+07	-	214+36	'S'	60	12	81	---
291+48	-	291+89	'S'	52	13	89	231
306+45	-	306+98	'S'	66	17	116	298
77+66	-	78+03	'N'	63	9	76	---
111+69	-	111+91	N'	37	5	45	---
151+60	-	152+26	'N'	105	14	206	---
162+34	-	162+80	'N'	77	10	144	---
207+69	-	209+11	'N'	225	30	443	---
217+83	-	218+37	'N'	86	11	168	---
304+34	-	305+18	'N'	133	18	262	---
312+44	-	312+67	'N'	48	5	72	---
348+78	-	349+17	'N'	75	8	122	---
367+40	-	368+20	'N'	142	20	191	---
370+42	-	371+36	'N'	154	22	293	---
378+91	-	379+88	'N'	167	10	348	---
419+41	-	419+67	'N'	44	5	81	---
459+05	-	459+37	'N'	53	3	96	---
460+79	-	461+21	'N'	67	9	134	---
482+98	-	483+50	'N'	85	11	166	
485+42	-	485+85	'N'	76	9	134	---
488+22	-	488+54	'N'	63	7	100	---
543+58	-	544+10	'N'	83	13	172	---
557+84	-	558+34	'N'	73	12	152	---
575+78	-	576+08	'N'	54	9	75	---
584+96	-	586+79	'N'	334	46	377	---
590+88	-	592+10	'N'	194	25	381	---
594+16	-	595+40	'N'	246	31	255	---
TOTALS				3011	415	5006	1088

**SUB-TOTAL FOR ITEM 305.0110 (SEE ADDITIONAL QUANTITIES)

			205.0100 EXCAVATION COMMON														208.0100 BORROW	
Division	From/To Station	Location	Common Excavation (1)		Salvaged / Unusable Pavement Material (4)	Available Material (5)	Marsh Excavation (6)	Rock Excavation (7)	Reduced Marsh in Fill (8)	Reduced EBS in Fill (9)	Expanded Marsh Backfill (10)	Expanded EBS Backfill (11)	Expanded Rock (12)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	Borrow	Comment:
			Cut (2)	EBS Excavation (3)					Factor 0.60	Factor 0.80	Factor 1.50	Factor 1.30	Factor 1.10		Factor 1.25				
1	7+90'S'-328+56'S'	STH 13 -TEMP. WIDENING LT & RT	79	0	0	79	0	0	0	0	0	0	0	114	143	-64	0	64	
	37+00'N'-602+84'N'	STH 13 -TEMP. WIDENING LT & RT	611	0	0	611	0	0	0	0	0	0	0	4553	5691	-5080	0	5080	
Division 1 Subtotal			690	0	0	690	0	0	0	0	0	0	0	4667	5834	-5144	0	5144	
2	7+90'S'-328+56'S'	STH 13 -REMOVE TEMP. WIDENING LT & RT	174	0	0	174	0	0	0	0	0	0	0	0	0	174	174	0	
	37+00'N'-602+84'N'	STH 13 -REMOVE TEMP. WIDENING LT & RT	5373	0	0	5373	0	0	0	0	0	0	0	0	0	5373	5373	0	
Division 2 Subtotal			5547	0	0	5547	0	0	0	0	0	0	0	0	0	5547	5547	0	
Grand Total			6237	0	0	6237	0	0	0	0	0	0	0	4667	5834	403	5547	5144	
		Total Com. Exc.	6237									0							

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Marsh Excavation - to be backfilled with Select Borrow Material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well. Item number 205.0500
7) Rock Excavation item number 205.0200
8) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6
9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item number 208.11
11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.11
12) Expanded Rock - Factor = 1.1.
13) Expanded Fill. Factor = 1.25
Depending on selections: **Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh - Reduced EBS) * Fill Factor**
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced EBS) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor - Reduced Marsh) * Fill Factor
Or Expanded Fill = (Unexpanded Fill - Rock* Rock Factor) * Fill Factor
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE DENSE 3/4-INCH

PIPE CULVERT REPLACEMENT STATION	STATION	-	STATION	LOCATION		305.0110** BASE AGGREGATE DENSE 3/4-INCH TON	COMMENT
44+99	44+46	-	45+60	'S'	LT	48	TEMP. WIDENING
	44+40	-	45+53	'S'	RT	48	TEMP. WIDENING
48+85	48+30	-	49+40	'S'	LT & RT	22	SHLD MAINTENANCE
67+22	67+00	-	67+92	'S'	LT	42	TEMP. WIDENING
	67+00	-	67+92	'S'	RT	67	TEMP. WIDENING
214+22	213+67	-	214+77	'S'	LT & RT	22	SHLD MAINTENANCE
291+69	291+47	-	291+96	'S'	LT	23	TEMP. WIDENING
	291+20	-	292+15	'S'	RT	38	TEMP. WIDENING
306+72	306+17	-	307+27	'S'	LT & RT	22	SHLD MAINTENANCE
77+85	77+30	-	78+40	'N'	LT & RT	22	SHLD MAINTENANCE
111+84	111+69	-	111+91	N'	LT & RT	22	SHLD MAINTENANCE
151+93	150+90	-	152+80	'N'	LT	151	TEMP. WIDENING
	151+25	-	153+14	'N'	RT	110	TEMP. WIDENING
162+58	162+03	-	163+13	'N'	LT & RT	22	SHLD MAINTENANCE
208+34, 208+49	206+97	-	209+83	'N'	LT	174	TEMP. WIDENING
	207+16	-	209+45	'N'	RT	122	TEMP. WIDENING
218+10	217+45	-	218+75	'N'	LT	66	TEMP. WIDENING
	217+55	-	218+65	'N'	RT	11	SHLD MAINTENANCE
304+76	304+21	-	305+31	'N'	LT	11	SHLD MAINTENANCE
	304+00	-	305+50	'N'	RT	73	TEMP. WIDENING
312+56	312+01	-	313+11	'N'	LT & RT	22	SHLD MAINTENANCE
348+98	348+43	-	349+53	'N'	LT & RT	22	SHLD MAINTENANCE
367+81	366+53	-	369+12	'N'	LT	147	TEMP. WIDENING
	366+79	-	374+70	'N'	RT	810	TEMP. WIDENING
370+88	370+33	-	371+43	'N'	LT & RT	22	SHLD MAINTENANCE
379+40	378+85	-	379+95	'N'	LT	11	SHLD MAINTENANCE
	376+87	-	381+85	'N'	RT	391	TEMP. WIDENING
419+54	418+99	-	420+09	'N'	LT	11	SHLD MAINTENANCE
	419+30	-	419+80	'N'	RT	23	TEMP. WIDENING
459+21	458+70	-	461+65	'N'	LT	129	TEMP. WIDENING
	458+66	-	459+76	'N'	RT	11	SHLD MAINTENANCE
461+00	460+45	-	461+55	'N'	LT & RT	22	SHLD MAINTENANCE
483+20, 483+27	482+52	-	484+25	'N'	LT	82	TEMP. WIDENING
	482+65	-	483+81	'N'	RT	11	SHLD MAINTENANCE
485+60	485+05	-	486+15	'N'	LT & RT	22	SHLD MAINTENANCE
485+68	485+13	-	486+23	'N'	LT & RT	22	SHLD MAINTENANCE
488+39	487+84	-	488+94	'N'	LT & RT	22	SHLD MAINTENANCE
543+84	543+00	-	544+50	'N'	LT	76	TEMP. WIDENING
	543+21	-	544+22	'N'	RT	50	TEMP. WIDENING
558+09	557+35	-	558+86	'N'	LT	71	TEMP. WIDENING
	557+43	-	558+72	'N'	RT	52	TEMP. WIDENING
TOTAL						3145	

**SUB-TOTAL FOR ITEM 305.0110 (SEE ADDITIONAL QUANTITIES)

ASPHALTIC FLUMES

STATION	-	STATION	LOCATION		465.0315 ASPHALTIC FLUMES SY	204.0190 REMOVING SURFACE DRAINS EACH
370+95	-	371+13	STH 13 'N'	LT	10	1
378+98	-	379+15	STH 13 'N'	LT	10	1
379+65	-	379+84	STH 13 'N'	LT	10	1
400+56	-	400+80	STH 13 'N'	LT	10	1
401+76	-	401+97	STH 13 'N'	LT	10	1
419+32	-	419+50	STH 13 'N'	LT	10	1
TOTALS					60	6

CONCRETE COLLARS

STATION	LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH
270+93	STH 13 'S'	1
279+66	STH 13 'S'	1
287+85	STH 13 'S'	1
TOTAL		3

CONCRETE MASONRY ENDWALLS

STATION	LOCATION	504.0900 CONCRETE MASONRY ENDWALLS CY
111+80 'N'	LT	1.2
111+80 'N'	RT	1.2
575+93 'N'	LT	1.2
575+93 'N'	RT	1.2
TOTAL		4.8

CULVERT PIPE TEMPORARY

STATION	LOCATION		520.4024 CULVERT PIPE TEMPORARY 24-INCH LF	520.4030 CULVERT PIPE TEMPORARY 30-INCH LF
67+22.0	STH 13 'S'	LT	8	-
218+10.0	STH 13 'N'	LT	-	6
483+20.0	STH 13 'N'	LT	6	-
483+27.0	STH 13 'N'	LT	6	-
543+84.0	STH 13 'N'	RT	4	-
TOTAL			24	6

PIPE CULVERT ITEMS

STATION	LOCATION	520.0124 CULVERT PIPE CLASS III 24-INCH* LF	520.0130 CULVERT PIPE CLASS III 30-INCH** LF	520.0142 CULVERT PIPE CLASS III 42-INCH**** LF	520.0148 CULVERT PIPE CLASS III 48-INCH**** LF	520.0324 CULVERT PIPE CLASS IV 24-INCH* LF	520.0330 CULVERT PIPE CLASS IV 30-INCH** LF	520.0336 CULVERT PIPE CLASS IV 36-INCH*** LF	520.1024 APRON ENDWALLS FOR CULVERT PIPE 24-INCH EACH	520.1030 APRON ENDWALLS FOR CULVERT PIPE 30-INCH EACH	520.1036 APRON ENDWALLS FOR CULVERT PIPE 36-INCH EACH	520.1042 APRON ENDWALLS FOR CULVERT PIPE 42-INCH EACH	520.1048 APRON ENDWALLS FOR CULVERT PIPE 48-INCH EACH
111+84	STH 13 'N'	66	-	-	-	-	-	-	-	-	-	-	-
151+93	STH 13 'N'	-	-	-	88	-	-	-	-	-	-	-	2
162+58	STH 13 'N'	-	-	-	-	68	-	-	2	-	-	-	-
218+10	STH 13 'N'	-	-	-	-	-	62	-	-	1	-	-	-
367+81	STH 13 'N'	-	94	-	-	-	-	-	-	1	-	-	-
370+88	STH 13 'N'	-	-	86	-	-	-	-	-	-	-	1	-
379+40	STH 13 'N'	-	88	-	-	-	-	-	-	1	-	-	-
461+00	STH 13 'N'	66	-	-	-	-	-	-	2	-	-	-	-
543+84	STH 13 'N'	70	-	-	-	-	-	-	2	-	-	-	-
558+09	STH 13 'N'	-	-	66	-	-	-	-	-	-	-	2	-
575+93	STH 13 'N'	128	-	-	-	-	-	-	-	-	-	-	-
585+88	STH 13 'N'	-	-	-	-	-	-	136	-	-	2	-	-
591+49	STH 13 'N'	-	-	-	-	-	90	-	-	2	-	-	-
594+78	STH 13 'N'	-	-	-	-	100	-	-	2	-	-	-	-
TOTALS		330	182	152	88	168	152	136	8	5	2	3	2

*MINIMUM THICKNESS = STEEL = 0.064", ALUMINUM = 0.075"
**MINIMUM THICKNESS = STEEL = 0.079", ALUMINUM = 0.075"
***MINIMUM THICKNESS = STEEL = 0.079", ALUMINUM = 0.105"
****MINIMUM THICKNESS = STEEL = 0.109", ALUMINUM = 0.105"

RIENFORCED CONCRETE PIPE CULVERT ITEMS

STATION	LOCATION	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	522.0136 CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	522.0330 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	522.0354 CULVERT PIPE REINFORCED CONCRETE CLASS IV 54-INCH LF	522.0384 CULVERT PIPE REINFORCED CONCRETE CLASS IV 84-INCH LF	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.1054 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 54-INCH EACH	522.1084 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 84-INCH EACH
44+99	STH 13 'S'	-	68	-	-	-	-	-	2	-	-	-
48+85	STH 13 'S'	-	-	62	-	-	-	-	-	2	-	-
67+22	STH 13 'S'	88	-	-	-	-	-	1	-	-	-	-
214+22	STH 13 'S'	84	-	-	-	-	-	2	-	-	-	-
287+85	STH 13 'S'	-	-	4	-	-	-	-	-	2	-	-
291+69	STH 13 'S'	68	-	-	-	-	-	2	-	-	-	-
306+72	STH 13 'S'	-	-	-	60	-	-	-	2	-	-	-
208+34	STH 13 'N'	-	-	-	-	-	62	-	-	-	-	2
208+49	STH 13 'N'	-	-	-	-	-	62	-	-	-	-	2
304+76	STH 13 'N'	-	-	-	-	60	-	-	-	-	2	
483+20	STH 13 'N'	62	-	-	-	-	-	2	-	-	-	-
483+27	STH 13 'N'	64	-	-	-	-	-	2	-	-	-	-
485+60	STH 13 'N'	70	-	-	-	-	-	2	-	-	-	-
485+68	STH 13 'N'	70	-	-		-	-	2	-	-	-	-
TOTALS		506	68	66	60	60	124	13	4	4	2	4

PIPE CULVERT LINER AND CLEANING ITEMS

STATION	LOCATION	520.9700.S.1 CULVERT PIPE LINERS 24-INCH LF	520.9700.S.2 CULVERT PIPE LINERS 30-INCH LF	520.9700.S.3 CULVERT PIPE LINERS 36-INCH LF	520.9700.S.4 CULVERT PIPE LINERS 42-INCH LF	520.9700.S.5 CULVERT PIPE LINERS 48-INCH LF	520.9700.S.6 CULVERT PIPE LINERS 54-INCH LF	520.9750.S CLEANING CULVERT PIPES FOR LINER EACH	520.7000 CLEANING CULVERT PIPES EACH
37+27	STH 13 'S'	-	-	70	-	-	-	1	-
59+65	STH 13 'S'	-	-	-	-	-	-	-	1
118+27	STH 13 'S'	-	-	-	-	-	-	-	1
218+35	STH 13 'S'	82	-	-	-	-	-	1	-
220+00	STH 13 'S'	110	-	-	-	-	-	1	-
270+93	STH 13 'S'	-	110	-	-	-	-	1	-
279+66	STH 13 'S'	104	-	-	-	-	-	1	-
287+85	STH 13 'S'	-	-	-	-	-	-	-	1
37+94	STH 13 'N'	-	-	80	-	-	-	1	-
68+45	STH 13 'N'	-	-	-	-	-	-	-	1
96+09	STH 13 'N'	-	-	-	-	-	64	1	-
96+23	STH 13 'N'	-	-	-	-	-	64	1	-
141+63	STH 13 'N'	-	-	-	-	66	-	1	-
161+00	STH 13 'N'	-	-	-	-	-	-	-	1
174+02	STH 13 'N'	-	-	-	-	-	-	-	1
182+82	STH 13 'N'	-	-	-	-	-	-	-	1
193+53	STH 13 'N'	-	-	-	-	-	-	-	1
211+82	STH 13 'N'	-	-	-	-	-	-	-	1
315+23	STH 13 'N'	-	-	-	-	-	-	-	1
317+69	STH 13 'N'	-	-	-	-	-	-	-	2
332+62	STH 13 'N'	-	-	-	-	-	-	-	1
337+83	STH 13 'N'	-	-	-	-	-	-	-	1
340+63	STH 13 'N'	-	69	-	-	-	-	1	-
342+10	STH 13 'N'	-	-	76	-	-	-	1	-
358+75	STH 13 'N'	-	-	-	100	-	-	1	-
360+51	STH 13 'N'	-	98	-	-	-	-	1	-
364+93	STH 13 'N'	-	-	-	88	-	-	1	-
427+93	STH 13 'N'	64	-	-	-	-	-	1	-
438+55	STH 13 'N'	-	-	-	-	-	-	1	-
504+25	STH 13 'N'	-	-	136	-	-	-	1	-
568+55	STH 13 'N'	-	-	-	-	-	-	-	1
568+61	STH 13 'N'	-	-	-	-	-	-	-	1
598+50	STH 13 'N'	-	-	-	-	-	-	-	1
TOTALS		360	277	362	188	66	128	17	17

CORRUGATED STEEL PIPE CULVERT ITEMS

STATION	LOCATION	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH* LF	521.0130 CULVERT PIPE CORRUGATED STEEL 30-INCH** LF	521.0728 PIPE ARCH CORRUGATED STEEL 28X20-INCH** LF	521.0742 PIPE ARCH CORRUGATED STEEL 42X29-INCH*** LF	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	521.1030 APRON ENDWALLS FOR CULVERT PIPE STEEL 30-INCH EACH	521.1036 APRON ENDWALLS FOR CULVERT PIPE STEEL 36-INCH EACH	521.1042 APRON ENDWALLS FOR CULVERT PIPE STEEL 42-INCH EACH	521.1048 APRON ENDWALLS FOR CULVERT PIPE STEEL 48-INCH EACH	521.1054 APRON ENDWALLS FOR CULVERT PIPE STEEL 54-INCH EACH	521.1228 APRON ENDWALLS FOR PIPE ARCH STEEL 28X20-INCH EACH	521.1242 APRON ENDWALLS FOR PIPE ARCH STEEL 42X29-INCH EACH
37+27	STH 13 'S'	-	-	-	-	-	-	2	-	-	-	-	-
200+20	STH 13 'S'	-	-	-	-	2	-	-	-	-	-	-	-
218+35	STH 13 'S'	-	-	-	-	2	-	-	-	-	-	-	-
220+00	STH 13 'S'	-	-	-	-	2	-	-	-	-	-	-	-
270+93	STH 13 'S'		42	-	-	-	1	-	-	-	-	-	-
279+66	STH 13 'S'	10	-	-	-	2	-	-	-	-	-	-	-
315+73	STH 13 'S'	-	-	-	-	-	1	-	-	-	-	-	-
37+94	STH 13 'N'	-	-	-	-	-	-	2	-	-	-	-	-
77+85	STH 13 'N'	-	-	66	-	-	-	-	-	-	-	2	-
96+09	STH 13 'N'	-	-	-	-	-	-	-	-	-	2	-	-
96+23	STH 13 'N'	-	-	-	-	-	-	-	-	-	2	-	-
141+63	STH 13 'N'	-	-	-	-	-	-	-	-	2	-	-	-
340+63	STH 13 'N'	-	-	-	-	-	2	-	-	-	-	-	-
342+10	STH 13 'N'	-	-	-	-	-	-	2	-	-	-	-	-
348+98	STH 13 'N'	-	74	-	-	-	2	-	-	-	-	-	-
358+75	STH 13 'N'	-	-	-	-	-	-	-	1	-	-	-	-
360+51	STH 13 'N'	-	-	-	-	-	1	-	-	-	-	-	-
364+93	STH 13 'N'	-	-	-	-	-	-	-	1	-	-	-	-
419+54	STH 13 'N'	-	-	66	-	-	-	-	-	-	-	2	-
427+93	STH 13 'N'	-	-	-	-	2	-	-	-	-	-	-	-
438+55	STH 13 'N'	-	-	-	-	-	2	-	-	-	-	-	-
459+21	STH 13 'N'	-	-	-	64	-	-	-	-	-	-	-	2
504+25	STH 13 'N'	-	-	-	-	-	-	2	-	-	-	-	-
568+55	STH 13 'N'	-	-	-	-	-	-	-	-	2	-	-	-
568+61	STH 13 'N'	-	-	-	-	-	-	-	-	2	-	-	-
598+50	STH 13 'N'	-	-	-	-	-	-	2	-	-	-	-	-
TOTALS		10	116	132	64	10	9	10	2	6	4	4	2

*MINIMUM THICKNESS = STEEL = 0.064", ALUMINUM = 0.075"
**MINIMUM THICKNESS = STEEL = 0.079", ALUMINUM = 0.075"
***MINIMUM THICKNESS = STEEL = 0.079", ALUMINUM = 0.105"

HORIZONTAL ELLIPTICAL PIPE CULVERT ITEMS

STATION	LOCATION	523.0138 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 38X60-INCH LF	523.0148 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 48X76-INCH LF	523.0538 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 38X60-INCH EACH	523.0548 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 48X76-INCH EACH
312+56	STH 13 'N'	64	-	2	-
488+39	STH 13 'N'	-	62	-	2
TOTALS		64	62	2	2

RIPRAP ITEMS

STATION	- STATION	LOCATION		606.0200 RIPRAP MEDIUM CY	606.0300 RIPRAP HEAVY CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
130+10	- -	STH 13 'S'	46' LT	22	-	57
214+20	- -	STH 13 'S'	49' RT	3	-	12
218+61	- -	STH 13 'S'	55' RT	8	-	25
279+87	- -	STH 13 'S'	40' RT	8	-	28
315+70	- -	STH 13 'S'	52' RT	4	-	15
141+04	- 141+53	STH 13 'N'	35' LT	21	-	60
141+67	- -	STH 13 'N'	55' RT	8	-	25
151+83	- -	STH 13 'N'	46' LT	5	-	17
152+05	- -	STH 13 'N'	65' RT	13	-	35
218+09	- -	STH 13 'N'	42' RT	1	-	5
348+98	- -	STH 13 'N'	47' RT	1	-	5
438+55	- -	STH 13 'N'	66' RT	-	27	58
504+15	- -	STH 13 'N'	70' RT	4	-	12
558+09	- -	STH 13 'N'	40' RT	5	-	17
575+95	- -	STH 13 'N'	40' RT	3	-	12
586+10	- -	STH 13 'N'	88' RT	-	7	20
591+60	- -	STH 13 'N'	56' RT	5	-	17
594+85	- -	STH 13 'N'	64' RT	5	-	17
598+50	- -	STH 13 'N'	58' RT	5	-	17
TOTALS				121	34	454

GEOTEXTILE FABRIC TYPE SAS

STATION	- STATION	LOCATION	645.0140 GEOTEXTILE FABRIC TYPE SAS SY
44+32	- 45+45	STH 13 'S' LT	81
44+32	- 45+45	STH 13 'S' RT	45
66+74	- 66+95	STH 13 'S' RT	9
291+50	- 292+00	STH 13 'S' LT	30
291+70	- 291+80	STH 13 'S' RT	6
208+05	- 208+75	STH 13 'N' LT	71
208+05	- 208+75	STH 13 'N' RT	71
304+50	- 305+05	STH 13 'N' RT	62
458+86	- 459+61	STH 13 'N' LT	40
460+48	- 461+45	STH 13 'N' LT	50
482+88	- 483+65	STH 13 'N' LT	29
TOTALS			494

INLET PROTECTION

STATION	LOCATION	628.7005 INLET PROTECTION TYPE A EACH
270+93	STH 13 'S'	1
218+10	STH 13 'N'	1
367+81	STH 13 'N'	1
370+88	STH 13 'N'	1
379+40	STH 13 'N'	1
TOTALS		5

PIPE GRATE ITEM

STATION	LOCATION	611.9800.S PIPE GRATE EACH
488+39	STH 13 'N'	1
TOTAL		1

MOBILIZATIONS EROSION CONTROL

LOCATION		628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
PROJECT LIMITS	STH 13 'S'	4	2
PROJECT LIMITS	STH 13 'N'	4	2
TOTALS		8	4

RECONSTRUCT INLET ITEMS

STATION	LOCATION	611.0430 RECONSTRUCTING INLETS EACH	611.0642 INLET COVERS TYPE MS EACH
218+10	STH 13 'N'	1	-
270+93	STH 13 'S'	1	-
367+81	STH 13 'N'	1	-
370+88	STH 13 'N'	1	-
379+40	STH 13 'N'	1	1
TOTALS		5	1

ADJUSTING INLET COVERS

STATION	LOCATION	611.8115 ADJUSTING INLET COVERS EACH
387+00'N'	LT	1
TOTAL		1

CURED-IN-PLACE PIPE LINING (CIPP)

STATION	LOCATION	SPV.0090.05 CURED-IN-PLACE LINING (CIPP) 30-INCH LF
438+55	STH 13 'N'	96
TOTALS		96

LANDSCAPING ITEMS

STATION	-	STATION	LOCATION		625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.6505 SOIL STABILZER TYPE A ACRE	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	COMMENTS
17+05	-	17+25	STH 13 'S'	LT	-	26	26	-	0.02	0.4	0.7	
17+05	-	17+25	STH 13 'S'	RT	-	26	26		0.02	0.4	0.7	
37+20	-	37+35	STH 13 'S'	RT	-	20	20	-	0.01	0.3	0.5	
37+20	-	37+35	STH 13 'S'	LT	-	20	20	-	0.01	0.3	0.5	
44+40	-	45+55	STH 13 'S'	RT	-	184	184	-	0.12	2.5	5.0	
44+45	-	45+60	STH 13 'S'	LT	-	188	188	-	0.12	2.5	5.1	
48+75	-	49+00	STH 13 'S'	RT	-	26	26	-	0.02	0.3	0.7	
48+75	-	48+95	STH 13 'S'	LT	-	50	50	-	0.03	0.7	1.4	
66+40	-	68+05	STH 13 'S'	RT	-	244	244	-	0.15	3.3	6.6	
67+00	-	67+95	STH 13 'S'	LT	-	85	85	-	0.05	1.1	2.3	
85+00	-	85+80	STH 13 'S'	RT	-	165	165	-	0.10	2.2	4.5	
118+20	-	118+70	STH 13 'S'	RT	-	56	56	-	0.04	0.8	1.5	
157+65	-	158+30	STH 13 'S'	RT	-	73	73	-	0.05	1.0	2.0	
168+10	-	168+30	STH 13 'S'	LT	-	53	53	-	0.03	0.7	1.4	
199+85	-	200+05	STH 13 'S'	LT	-	25	25	-	0.02	0.3	0.7	
200+10	-	200+30	STH 13 'S'	RT	-	25	25	-	0.02	0.3	0.7	
213+50	-	214+65	STH 13 'S'	RT	-	163	163	-	0.10	2.2	4.4	
213+75	-	214+85	STH 13 'S'	LT	-	147	147	-	0.09	2.0	4.0	
218+18	-	218+36	STH 13 'S'	LT	-	25	25	-	0.02	0.3	0.7	
218+46	-	218+65	STH 13 'S'	RT	-	25	25	-	0.02	0.3	0.7	
219+85	-	219+95	STH 13 'S'	RT	1	-	1	-	0.01	0.0	0.0	
219+90	-	220+25	STH 13 'S'	LT	102	-	-	-	0.06	1.4	2.8	
270+30	-	270+95	STH 13 'S'	RT	-	173	173	-	0.11	2.3	4.7	
272+30	-	272+50	STH 13 'S'	LT	-	22	22	-	0.01	0.3	0.6	
278+95	-	280+00	STH 13 'S'	LT	-	297	297	-	0.19	4.0	8.0	
279+20	-	280+30	STH 13 'S'	RT	-	20	20	-	0.01	0.3	0.5	
287+60	-	288+10	STH 13 'S'	RT	-	80	80	-	0.05	1.1	2.2	
287+60	-	288+10	STH 13 'S'	LT	-	67	67	-	0.04	0.9	1.8	
291+20	-	292+15	STH 13 'S'	RT	-	120	120	-	0.08	1.6	3.2	REGRADE DITCH
291+45	-	291+95	STH 13 'S'	LT	-	52	52	-	0.03	0.7	1.4	REGRADE DITCH
295+10	-	296+55	STH 13 'S'	LT	-	-	380	-	-	-	-	REGRADE DITCH
296+90	-	298+10	STH 13 'S'	LT	-	-	174	-	-	-	-	
304+35	-	305+50	STH 13 'S'	LT	-	-	246	-	-	-	-	
305+95	-	306+20	STH 13 'S'	LT	-	-	132	-	-	-	-	
306+20	-	307+40	STH 13 'S'	LT	-	335	335	-	0.21	4.5	9.0	
306+45	-	307+00	STH 13 'S'	RT	-	57	57	-	0.04	0.8	1.5	
315+60	-	315+75	STH 13 'S'	RT	-	20	20	-	0.01	0.3	0.5	
37+29	-	37+50	STH 13 'N'	RT	-	25	25	-	0.02	0.3	0.7	
37+96	-	38+15	STH 13 'N'	LT	-	25	25	-	0.02	0.3	0.7	
77+65	-	78+05	STH 13 'N'	RT	-	53	53	-	0.03	0.7	1.4	
77+65	-	78+05	STH 13 'N'	LT	-	44	44	-	0.03	0.6	1.2	
95+95	-	96+35	STH 13 'N'	RT	-	66	66	-	0.04	0.9	1.8	
95+95	-	96+95	STH 13 'N'	LT	-	66	66	-	0.04	0.9	1.8	
SUB-TOTALS					103	3149	4082	0.00	2.07	43.8	87.9	

LANDSCAPING ITEMS CONT'D

STATION	-	STATION	LOCATION		625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.65 SOIL STABILZER TYPE A ACRE	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	COMMENTS
111+70	-	112+00	STH 13 'N'	LT	-	49	49	-	0.03	0.7	1.3	
111+70	-	112+00	STH 13 'N'	RT	-	55	55		0.03	0.7	1.5	
141+05	-	141+70	STH 13 'N'	LT	72	-	72	-	0.05	-	-	
141+55	-	141+75	STH 13 'N'	RT	-	25	25	-	0.02	0.3	0.7	
150+90	-	152+80	STH 13 'N'	LT	-	341	341	-	0.22	4.6	9.2	
151+25	-	153+10	STH 13 'N'	RT	-	357	357	-	0.23	4.8	9.6	
162+25	-	162+75	STH 13 'N'	RT	-	65	65	-	0.04	0.9	1.8	
162+40	-	162+90	STH 13 'N'	LT	-	65	65	-	0.04	0.9	1.7	
206+95	-	209+85	STH 13 'N'	LT	-	511	511	-	0.32	6.9	13.8	
207+15	-	209+45	STH 13 'N'	RT	-	352	352	-	0.22	4.7	9.5	
217+45	-	218+75	STH 13 'N'	LT	-	123	123	-	0.08	1.7	3.3	
217+80	-	218+35	STH 13 'N'	RT	-	87	87	-	0.06	1.2	2.4	
304+00	-	305+50	STH 13 'N'	RT	-	293	293	-	0.18	4.0	7.9	
304+35	-	305+20	STH 13 'N'	LT	-	107	107	-	0.07	1.4	2.9	
312+35	-	312+60	STH 13 'N'	RT	-	61	61	-	0.04	0.8	1.6	
312+55	-	312+75	STH 13 'N'	LT	-	34	34	-	0.02	0.5	0.9	
348+80	-	349+15	STH 13 'N'	RT	-	49	49	-	0.03	0.7	1.3	
348+80	-	349+15	STH 13 'N'	LT	-	53	53	-	0.03	0.7	1.4	
358+75	-	359+00	STH 13 'N'	LT	-	25	25	-	0.02	0.3	0.7	
360+45	-	360+60	STH 13 'N'	LT	-	25	25	-	0.02	0.3	0.7	
364+90	-	365+10	STH 13 'N'	LT	-	25	25	-	0.02	0.3	0.7	
366+55	-	369+10	STH 13 'N'	LT	-	304	304	-	0.19	4.1	8.2	
367+20	-	374+70	STH 13 'N'	RT	-	-	-	0.66	2.04	-	87.5	TEMPORARY WIDENING
367+20	-	374+55	STH 13 'N'	RT	-	3240	3240	-	2.04	43.7	87.5	TEMP. WIDENING REMOVAL
370+40	-	371+35	STH 13 'N'	LT	-	109	109	-	0.07	1.5	2.9	
376+85	-	381+85	STH 13 'N'	RT	-	-	-	0.26	0.81	-	32.0	TEMPORARY WIDENING
376+85	-	381+85	STH 13 'N'	RT	-	1279	1279		0.81	17.3	32.0	TEMP. WIDENING REMOVAL
378+95	-	379+95	STH 13 'N'	LT	-	133	133	-	0.08	1.8	3.6	
399+20	-	403+70	STH 13 'N'	RT	-	-	-	0.30	0.93	-	39.7	TEMPORARY WIDENING
419+30	-	419+80	STH 13 'N'	RT	-	86	86	-	0.05	1.2	2.3	
419+40	-	419+65	STH 13 'N'	LT	-	24	24	-	0.02	0.3	0.7	
427+80	-	428+00	STH 13 'N'	RT	-	25	25	-	0.02	0.3	0.7	
427+80	-	428+00	STH 13 'N'	LT	-	25	25	-	0.02	0.3	0.7	
438+40	-	438+60	STH 13 'N'	RT	-	25	25	-	0.02	0.3	0.7	
438+45	-	438+60	STH 13 'N'	LT	-	25	25	-	0.02	0.3	0.7	
458+70	-	461+65	STH 13 'N'	LT	-	478	478	-	0.30	6.5	12.9	
459+05	-	459+40	STH 13 'N'	RT	-	55	55	-	0.03	0.7	1.5	
460+80	-	461+20	STH 13 'N'	RT	-	64	64	-	0.04	0.9	1.7	
482+50	-	484+25	STH 13 'N'	LT	-	214	214	-	0.13	2.9	5.8	
482+95	-	483+50	STH 13 'N'	RT	-	78	78	-	0.05	1.1	2.1	
485+40	-	485+85	STH 13 'N'	RT	-	76	76	-	0.05	1.0	2.1	
485+40	-	485+85	STH 13 'N'	LT	-	69	69	-	0.04	0.9	1.9	
488+15	-	488+50	STH 13 'N'	RT	-	53	53	-	0.03	0.7	1.4	
488+25	-	488+60	STH 13 'N'	LT	-	66	66	-	0.04	0.9	1.8	
504+10	-	504+25	STH 13 'N'	RT	-	25	25	-	0.02	0.3	0.7	
504+75	-	504+95	STH 13 'N'	LT	-	25	25	-	0.02	0.3	0.7	
SUB-TOTALS					72	9180	9252	1.22	9.64	123.7	404.7	

LANDSCAPING ITEMS CONT'D

STATION	-	STATION	LOCATION		625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.6505 SOIL STABILZER TYPE A ACRE	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0200 SEEDING TEMPORARY LB	COMMENTS
543+00	-	544+50	STH 13 'N'	LT	-	238	238	-	0.15	3.2	6.4	
543+20	-	544+20	STH 13 'N'	RT	-	143	143	-	0.09	1.9	3.9	
557+35	-	558+85	STH 13 'N'	LT	-	146	146	-	0.09	2.0	4.0	
557+45	-	558+75	STH 13 'N'	RT	-	144	144	-	0.09	1.9	3.9	
568+45	-	568+70	STH 13 'N'	RT	-	47	47	-	0.03	0.6	1.3	
568+45	-	568+70	STH 13 'N'	LT	-	47	47	-	0.03	0.6	1.3	
575+78	-	576+08	STH 13 'N'	LT	-	51	51	-	0.03	0.7	1.4	
575+78	-	576+08	STH 13 'N'	RT	-	35	35	-	0.02	0.5	0.9	
585+05	-	586+80	STH 13 'N'	LT	-	668	668	-	0.42	9.0	18.0	
585+20	-	586+75	STH 13 'N'	RT	-	368	368	-	0.23	5.0	9.9	
590+80	-	592+05	STH 13 'N'	LT	-	167	167	-	0.11	2.3	4.5	
590+95	-	592+10	STH 13 'N'	RT	-	241	241	-	0.15	3.2	6.5	
594+15	-	595+35	STH 13 'N'	LT	-	210	210	-	0.13	2.8	5.7	
594+20	-	595+45	STH 13 'N'	RT	-	293	293	-	0.18	3.9	7.9	
598+40	-	598+55	STH 13 'N'	RT	-	25	25	-	0.02	0.3	0.7	
598+40	-	598+55	STH 13 'N'	LT	-	25	25	-	0.02	0.3	0.7	
UNDISTRIBUTED					26	-	5003	0.31	3.85	61.8	163.2	
SUB-TOTALS					26	2848	7851	0.31	5.64	100.0	240.2	
TOTALS					201	15176	21184	1.53	17.35	267.5	732.8	

SILT FENCE ITEMS

STATION	-	STATION		LOCATION	628.1504 SILT FENCE LF	628.1905 SILT FENCE MAINTENANCE LF
17+00	-	17+25	LT	STH 13 'S'	25	25
17+00	-	17+25	RT	STH 13 'S'	25	25
37+05	-	37+45	LT	STH 13 'S'	40	40
37+05	-	37+45	RT	STH 13 'S'	40	40
44+40	-	45+55	RT	STH 13 'S'	125	125
44+45	-	45+90	LT	STH 13 'S'	125	125
48+70	-	48+90	LT	STH 13 'S'	30	30
48+80	-	49+00	RT	STH 13 'S'	30	30
59+30	-	59+70	LT	STH 13 'S'	40	40
59+60	-	60+00	RT	STH 13 'S'	40	40
66+40	-	68+05	RT	STH 13 'S'	185	185
67+00	-	68+95	RT	STH 13 'S'	110	110
85+05	-	85+90	RT	STH 13 'S'	90	90
118+15	-	118+85	RT	STH 13 'S'	70	70
168+00	-	168+40	LT	STH 13 'S'	40	40
199+75	-	200+15	LT	STH 13 'S'	40	40
200+00	-	200+40	RT	STH 13 'S'	40	40
213+80	-	214+20	RT	STH 13 'S'	40	40
214+15	-	214+55	LT	STH 13 'S'	40	40
218+00	-	218+55	LT	STH 13 'S'	60	60
218+45	-	218+70	RT	STH 13 'S'	30	30
219+60	-	220+00	RT	STH 13 'S'	40	40
219+90	-	220+40	LT	STH 13 'S'	60	60
270+27	-	270+96	RT	STH 13 'S'	70	70
270+80	-	271+25	LT	STH 13 'S'	50	50
278+90	-	280+00	LT	STH 13 'S'	120	120
279+60	-	280+00	RT	STH 13 'S'	40	40
287+60	-	288+10	RT	STH 13 'S'	60	60
287+60	-	288+10	LT	STH 13 'S'	60	60
291+20	-	292+15	RT	STH 13 'S'	100	100
291+50	-	292+00	LT	STH 13 'S'	50	50
306+45	-	307+00	RT	STH 13 'S'	55	55
315+50	-	315+90	RT	STH 13 'S'	40	40
37+10	-	37+45	RT	STH 13 'N'	40	40
37+95	-	38+35	LT	STH 13 'N'	40	40
68+20	-	68+60	RT	STH 13 'N'	40	40
68+20	-	68+60	LT	STH 13 'N'	40	40
SUB-TOTAL					2170	2170

SILT FENCE ITEMS CONT'D

STATION	-	STATION		LOCATION	628.1504 SILT FENCE LF	628.1905 SILT FENCE MAINTENANCE LF
77+65	-	78+00	LT	STH 13 'N'	40	40
77+65	-	78+00	RT	STH 13 'N'	40	40
95+90	-	96+40	RT	STH 13 'N'	50	50
95+90	-	96+40	LT	STH 13 'N'	50	50
111+70	-	112+00	RT	STH 13 'N'	30	30
111+70	-	112+00	LT	STH 13 'N'	30	30
141+40	-	141+80	LT	STH 13 'N'	40	40
150+90	-	152+80	LT	STH 13 'N'	200	200
151+25	-	153+15	RT	STH 13 'N'	205	205
160+75	-	161+15	LT	STH 13 'N'	40	40
160+90	-	161+30	RT	STH 13 'N'	40	40
162+25	-	162+75	RT	STH 13 'N'	55	55
162+45	-	162+95	LT	STH 13 'N'	55	55
173+50	-	173+80	LT	STH 13 'N'	40	40
174+30	-	174+60	RT	STH 13 'N'	40	40
182+30	-	182+70	LT	STH 13 'N'	40	40
182+85	-	183+25	RT	STH 13 'N'	40	40
193+30	-	193+70	RT	STH 13 'N'	40	40
193+30	-	193+70	RT	STH 13 'N'	40	40
206+95	-	209+80	LT	STH 13 'N'	305	305
207+15	-	209+45	RT	STH 13 'N'	230	230
211+60	-	212+00	LT	STH 13 'N'	40	40
211+60	-	212+00	RT	STH 13 'N'	40	40
217+45	-	218+75	LT	STH 13 'N'	135	135
217+80	-	218+35	RT	STH 13 'N'	60	60
304+00	-	305+50	RT	STH 13 'N'	160	160
304+35	-	305+20	LT	STH 13 'N'	100	100
312+30	-	312+60	RT	STH 13 'N'	40	40
312+50	-	312+75	LT	STH 13 'N'	20	20
315+00	-	315+40	RT	STH 13 'N'	40	40
315+05	-	315+45	LT	STH 13 'N'	40	40
317+35	-	317+95	RT	STH 13 'N'	60	60
317+45	-	318+00	LT	STH 13 'N'	60	60
332+40	-	332+80	RT	STH 13 'N'	40	40
332+45	-	332+85	LT	STH 13 'N'	40	40
337+60	-	338+00	RT	STH 13 'N'	40	40
337+80	-	338+05	LT	STH 13 'N'	40	40
340+45	-	340+85	RT	STH 13 'N'	40	40
340+50	-	340+90	LT	STH 13 'N'	40	40
341+95	-	342+35	RT	STH 13 'N'	40	40
342+00	-	342+40	LT	STH 13 'N'	40	40
348+75	-	349+20	RT	STH 13 'N'	50	50
348+75	-	349+20	LT	STH 13 'N'	50	50
358+75	-	359+15	LT	STH 13 'N'	40	40
360+35	-	360+75	LT	STH 13 'N'	40	40
364+75	-	365+15	LT	STH 13 'N'	40	40
SUB-TOTAL					2985	2985

SILT FENCE ITEMS CONT'D

STATION	-	STATION		LOCATION	628.1504 SILT FENCE LF	628.1905 SILT FENCE MAINTENANCE LF
366+55	-	369+10	LT	STH 13 'N'	225	225
367+15	-	374+70	RT	STH 13 'N'	765	765
370+40	-	371+30	LT	STH 13 'N'	100	100
376+85	-	381+85	RT	STH 13 'N'	505	505
378+95	-	379+95	LT	STH 13 'N'	115	115
419+30	-	419+80	RT	STH 13 'N'	60	60
419+40	-	419+70	LT	STH 13 'N'	40	40
427+70	-	428+10	RT	STH 13 'N'	40	40
427+70	-	428+10	LT	STH 13 'N'	40	40
438+35	-	438+75	LT	STH 13 'N'	40	40
438+35	-	438+75	RT	STH 13 'N'	40	40
458+70	-	461+65	LT	STH 13 'N'	325	325
459+05	-	459+40	RT	STH 13 'N'	45	45
460+80	-	461+25	RT	STH 13 'N'	60	60
482+50	-	484+25	LT	STH 13 'N'	185	185
483+00	-	483+50	RT	STH 13 'N'	65	65
485+40	-	485+85	RT	STH 13 'N'	60	60
485+40	-	485+85	LT	STH 13 'N'	60	60
488+10	-	488+50	RT	STH 13 'N'	55	55
488+30	-	488+65	LT	STH 13 'N'	50	50
504+00	-	504+60	RT	STH 13 'N'	40	40
504+80	-	505+20	LT	STH 13 'N'	40	40
543+00	-	544+50	LT	STH 13 'N'	160	160
543+20	-	544+20	RT	STH 13 'N'	110	110
557+35	-	558+85	LT	STH 13 'N'	150	150
557+45	-	558+75	RT	STH 13 'N'	135	135
568+25	-	568+85	LT	STH 13 'N'	60	60
568+30	-	538+89	RT	STH 13 'N'	60	60
575+75	-	576+05	LT	STH 13 'N'	40	40
575+75	-	576+05	RT	STH 13 'N'	40	40
584+95	-	586+85	RT	STH 13 'N'	235	235
585+20	-	586+75	LT	STH 13 'N'	170	170
590+80	-	592+05	LT	STH 13 'N'	135	135
590+95	-	592+10	RT	STH 13 'N'	150	150
594+15	-	595+35	LT	STH 13 'N'	150	150
594+20	-	595+45	RT	STH 13 'N'	160	160
598+30	-	598+70	LT	STH 13 'N'	40	40
598+30	-	598+70	RT	STH 13 'N'	40	40
UNDISTRIBUTED					479	479
SUB-TOTAL					5269	5269
TOTAL					10424	10424

DITCH AND PIPE CHECK ITEMS

STATION	LOCATION		628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
17+16	STH 13 'S'	LT	-	5
44+99	STH 13 'S'	RT	-	6
48+85	STH 13 'S'	LT	-	7
66+45	STH 13 'S'	RT	10	-
67+22	STH 13 'S'	LT	-	5
214+22	STH 13 'S'	LT	-	5
218+35	STH 13 'S'	LT	-	5
220+00	STH 13 'S'	LT	-	5
270+93	STH 13 'S'	LT	-	6
279+66	STH 13 'S'	LT	-	5
287+85	STH 13 'S'	LT	-	7
291+69	STH 13 'S'	LT	-	5
296+55	STH 13 'S'	LT	-	3
297+55	STH 13 'S'	LT	10	-
306+40	STH 13 'S'	LT	10	-
306+72	STH 13 'S'	LT	-	6
306+97	STH 13 'S'	LT	10	-
77+85	STH 13 'N'	LT	-	5
111+80	STH 13 'N'	LT	-	5
111+84	STH 13 'N'	LT	-	5
151+93	STH 13 'N'	LT	-	10
162+58	STH 13 'N'	LT	-	5
208+34	STH 13 'N'	LT	-	20
208+49	STH 13 'N'	LT	-	20
218+10	STH 13 'N'	LT	-	6
304+76	STH 13 'N'	LT	-	12
312+56	STH 13 'N'	LT	-	10
348+98	STH 13 'N'	LT	-	6
367+81	STH 13 'N'	LT	-	6
370+88	STH 13 'N'	LT	-	8
379+40	STH 13 'N'	LT	-	6
419+54	STH 13 'N'	LT	-	5
459+21	STH 13 'N'	LT	-	7
461+00	STH 13 'N'	LT	-	5
483+20	STH 13 'N'	LT	-	5
483+27	STH 13 'N'	LT	-	5
485+60	STH 13 'N'	LT	-	5
485+68	STH 13 'N'	LT	-	5
488+39	STH 13 'N'	LT	-	10
543+84	STH 13 'N'	RT	-	5
558+09	STH 13 'N'	LT	-	8
575+93	STH 13 'N'	LT	-	7
585+88	STH 13 'N'	LT	-	7
591+49	STH 13 'N'	LT	-	6
594+78	STH 13 'N'	LT	-	5
UNDISTRIBUTED			10	69
TOTALS			50	343

CULVERT END MARKER ITEM

STATION	DESCRIPTION	633.5200 MARKERS CULVERT END EACH
37+27	STH 13 'S'	2
44+99	STH 13 'S'	2
48+85	STH 13 'S'	2
59+65	STH 13 'S'	2
62+26	STH 13 'S'	2
67+22	STH 13 'S'	2
71+96	STH 13 'S'	2
75+65	STH 13 'S'	2
85+31	STH 13 'S'	2
91+70	STH 13 'S'	2
102+77	STH 13 'S'	2
118+27	STH 13 'S'	2
127+30	STH 13 'S'	2
129+92	STH 13 'S'	2
145+98	STH 13 'S'	2
157+90	STH 13 'S'	2
168+30	STH 13 'S'	2
173+80	STH 13 'S'	2
194+95	STH 13 'S'	2
200+20	STH 13 'S'	2
214+22	STH 13 'S'	2
218+35	STH 13 'S'	2
220+00	STH 13 'S'	2
228+49	STH 13 'S'	2
247+82	STH 13 'S'	2
255+58	STH 13 'S'	2
261+59	STH 13 'S'	2
270+93	STH 13 'S'	2
272+75	STH 13 'S'	2
273+06	STH 13 'S'	2
279+66	STH 13 'S'	2
287+85	STH 13 'S'	2
291+69	STH 13 'S'	2
303+63	STH 13 'S'	2
306+72	STH 13 'S'	2
315+73	STH 13 'S'	2
321+73	STH 13 'S'	2
SUB-TOTAL		74

CULVERT END MARKER ITEM CONT'D

STATION	DESCRIPTION	633.5200 MARKERS CULVERT END EACH
37+94	STH 13 'N'	2
55+83	STH 13 'N'	2
68+45	STH 13 'N'	2
77+85	STH 13 'N'	2
96+09	STH 13 'N'	2
96+23	STH 13 'N'	2
111+75	STH 13 'N'	2
141+63	STH 13 'N'	2
151+93	STH 13 'N'	2
161+00	STH 13 'N'	2
162+58	STH 13 'N'	2
174+02	STH 13 'N'	2
182+82	STH 13 'N'	2
193+53	STH 13 'N'	2
208+34	STH 13 'N'	2
208+49	STH 13 'N'	2
211+82	STH 13 'N'	2
218+10	STH 13 'N'	2
304+76	STH 13 'N'	2
312+56	STH 13 'N'	2
315+23	STH 13 'N'	2
317+69	STH 13 'N'	2
332+62	STH 13 'N'	2
337+83	STH 13 'N'	2
340+63	STH 13 'N'	2
342+10	STH 13 'N'	2
346+42	STH 13 'N'	2
348+98	STH 13 'N'	2
354+60	STH 13 'N'	2
358+75	STH 13 'N'	2
360+51	STH 13 'N'	2
364+93	STH 13 'N'	2
367+81	STH 13 'N'	2
370+88	STH 13 'N'	2
375+00	STH 13 'N'	2
379+40	STH 13 'N'	2
383+98	STH 13 'N'	2
387+00	STH 13 'N'	2
390+77	STH 13 'N'	2
397+00	STH 13 'N'	2
401+23	STH 13 'N'	2
405+00	STH 13 'N'	2
410+00	STH 13 'N'	2
419+54	STH 13 'N'	2
416+93	STH 13 'N'	2
427+93	STH 13 'N'	2
SUB-TOTAL		92

CULVERT END MARKER ITEM CONT'D

STATION	DESCRIPTION	633.5200 MARKERS CULVERT END EACH
438+55	STH 13 'N'	2
449+79	STH 13 'N'	2
459+21	STH 13 'N'	2
461+00	STH 13 'N'	2
473+89	STH 13 'N'	2
483+20	STH 13 'N'	2
483+27	STH 13 'N'	2
485+60	STH 13 'N'	2
485+68	STH 13 'N'	2
488+39	STH 13 'N'	2
504+25	STH 13 'N'	2
510+87	STH 13 'N'	2
520+74	STH 13 'N'	2
543+84	STH 13 'N'	2
554+85	STH 13 'N'	2
558+09	STH 13 'N'	2
568+55	STH 13 'N'	2
568+61	STH 13 'N'	2
575+93	STH 13 'N'	2
585+88	STH 13 'N'	2
591+49	STH 13 'N'	2
594+78	STH 13 'N'	2
598+50	STH 13 'N'	2
607+47	STH 13 'N'	2
SUB-TOTAL		48
TOTAL		214

SIGNS TYPE II ITEMS

SIGN NO.	LOCATION	SIGN CODE	SIGN SIZE W X H (INCHES)	637.2210 SIGNS TYPE II REFLECTVE H SF	637.2230 SIGNS TYPE II REFLECTVE F SF	634.0616 POSTS WOOD 4X6-INCH 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	CTH J	R1-1	36 X 36	7.46	---	1	---	1	1	
2	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
3	CTH J	W3-1	36 X 36	---	9.00	1	---	1	1	
4	CTH J	W1-2R	30 X 30	---	6.25	1	---	1	1	
5	CTH J	W1-4L	30 X 30	---	6.25	1	---	1	1	
6	CTH J	W1-4L	30 X 30	---	6.25	1	---	1	1	
7	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
8	CTH J	W3-1	36 X 36	---	9.00	1	---	1	1	
9	CTH J	R1-1	36 X 36	7.46	---	1	---	1	1	
10	CTH J	R1-1	36 X 36	7.46	---	1	---	1	1	
11	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
12	CTH J	W3-1	36 X 36	---	9.00	1	---	1	1	
13	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
14	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
15	CTH J	W1-4R	30 X 30	---	6.25	1	---	1	1	
16	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"35 M.P.H." below Sign No. 15
17	CTH J	W1-4R	30 X 30	---	6.25	1	---	1	1	
18	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"35 M.P.H." below Sign No. 17
19	CTH J	W7-1	30 X 30	---	6.25	1	---	1	1	
20	CTH J	---	---	---	---	---	1	---	---	Move existing sign below Sign No. 19
21	CTH J	W3-1	36 X 36	---	9.00	1	---	1	1	
22	CTH J	R1-1	36 X 36	7.46	---	1	---	1	1	
23	CTH J	W3-1	36 X 36	---	9.00	1	---	1	1	
24	CTH J	R1-1	36 X 36	7.46	---	1	---	1	1	
25	CTH I	R1-1	36 X 36	7.46	---	1	---	1	1	
26	CTH I	W14-3	48 X 36	---	6.00	1	---	1	1	
27	CTH I	W3-1	36 X 36	---	9.00	1	---	1	1	
28	CTH I	W7-1	30 X 30	---	6.25	1	---	1	1	
29	CTH I	---	---	---	---	---	1	---	---	Move existing sign below Sign No. 28
30	CTH I	---	---	---	---	---	1	---	---	Move existing sign above Sign No. 31
31	CTH I	W1-7	48 X 24	---	8.00	1	---	1	1	
32	CTH I	W1-1R	36 X 36	---	9.00	1	---	1	1	
33	CTH I	W13-1	18 X 18	---	2.25	---	---	1	---	"30 M.P.H." below Sign No. 32
34	CTH I	W1-1L	36 X 36	---	9.00	1	---	1	1	
35	CTH I	W13-1	18 X 18	---	2.25	---	---	1	---	"30 M.P.H." below Sign No. 34
36	CTH I	W1-2L	30 X 30	---	6.25	1	---	1	1	
37	CTH I	W1-2R	30 X 30	---	6.25	1	---	1	1	
38	Washington Ave. EB	W1-2L	30 X 30	---	6.25	1	---	1	1	
39	Washington Ave. EB	W1-2R	30 X 30	---	6.25	1	---	1	1	
40	Washington Ave. EB	W11-8	30 X 30	---	6.25	1	---	1	1	
41		---	---	---	---	---	1	---	---	Move existing sign below Sign No. 40
42	Washington Ave. WB	W11-8	30 X 30	---	6.25	1	---	1	1	
43		---	---	---	---	---	1	---	---	Move existing sign below Sign No. 42
44	Washington Ave. EB	R2-1	24 X 30	5.00	---	1	---	1	1	"25"
45	Washington Ave. WB	R2-1	24 X 30	5.00	---	1	---	1	1	"25"
SUBTOTALS				54.76	206.25	36	5	40	36	

SIGNS TYPE II ITEMS CONT'D

SIGN NO.	LOCATION	SIGN CODE	SIGN SIZE W X H (INCHES)	637.2210 REFLECTVE H SF	637.2230 REFLECTVE F SF	634.0616 4X6-INCH 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SUPPORTS EACH	REMARKS
46	Washington Ave. EB	S1-1	30 X 30	---	4.69	1	---	---	---	
47		S16-9P	24 X 8	---	1.34	---	---	---	---	Install below Sign No. 46
48	Washington Ave. EB Ped sign	---	---	---	---	---	---	1	1	Install Signs 46&47 @ this location
49	Washington Ave. WB	R2-1	24 X 30	5.00	---	1	---	1	1	"25"
50	Washington Ave. WB	S1-1	30 X 30	---	4.69	1	---	---	---	
51		S16-7L	24 X 12	---	2.00	---	---	---	---	"Arrow Down Left" below Sign No. 50
52	Washington Ave. EB	S1-1	30 X 30	---	4.69	1	---	---	---	
53		S16-7L	24 X 12	---	2.00	---	---	---	---	"Arrow Down Left" below Sign No. 52
54	Washington Ave. EB	S1-1	30 X 30	---	4.69	1	---	1	1	
55		S16-9P	24 X 8	---	1.34	---	---	---	---	Install below Sign No. 54
56	Washington Ave. WB SL 15 sign	---	---	---	---	---	---	1	---	Sign on same post as Sign No. 54
57	Washington Ave. EB	R1-1	36 X 36	7.46	---	1	---	1	1	
58	CTH J	R1-1	36 X 36	7.46	---	1	---	1	1	
59	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
60	CTH J	W1-2R	30 X 30	---	6.25	1	---	1	1	
61	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"30 M.P.H" below sign No. 60
62	CTH J	W3-1	36 X 36	---	9.00	1	---	1	1	
63	CTH J	W1-6	48 X 24	---	8.00	1	---	1	1	
64	CTH J	W1-6	48 X 24	---	8.00	---	---	1	---	Install on same post as Sign No. 63
65	CTH J	W1-2L	30 X 30	---	6.25	1	---	1	1	
66	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"30 M.P.H." below Sign No. 65
67	CTH J	W1-2L	30 X 30	---	6.25	1	---	1	1	
68	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"35 M.P.H." below Sign No. 67
69	CTH J	W1-2R	30 X 30	---	6.25	1	---	1	1	
70	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"35 M.P.H." below Sign No. 69
71	CTH J	W1-2L	30 X 30	---	6.25	1	---	1	1	
72	CTH J	W1-2L	30 X 30	---	6.25	1	---	1	1	
73	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"40 M.P.H." below Sign No. 72
74	CTH J	W1-2R	30 X 30	---	6.25	1	---	1	1	
75	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"40 M.P.H." below Sign No. 74
76	CTH J	W1-2L	30 X 30	---	6.25	1	---	1	1	
77	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"40 M.P.H." below Sign No. 76
78	CTH J	W1-2R	30 X 30	---	6.25	1	---	1	1	
79	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"40 M.P.H." below Sign No. 78
80	CTH J	W1-4R	30 X 30	---	6.25	1	---	1	1	
81	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"40 M.P.H." below Sign No. 80
82	CTH J	W1-4R	30 X 30	---	6.25	1	---	1	1	
83	CTH J	W13-1	18 X 18	---	2.25	---	---	1	---	"40 M.P.H." below Sign No. 82
84	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
85	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
86	CTH J	W14-3	48 X 36	---	6.00	1	---	1	1	
SUBTOTALS				19.92	165.69	24	0	34	22	
	TOTALS			74.68	371.94	60	5	74	58	

TRAFFIC CONTROL DEVICES (FOR PIPE REPLACEMENTS)

STATION	-	STATION	LOCATION	DRUMS (AVE. # DAYS)	643.0300 TRAFFIC CONTROL DRUMS (COUNT)	DAY	SIGNS (AVE. # DAYS)	643.0900 TRAFFIC CONTROL SIGNS (COUNT)	DAY
43+95	-	46+01	'S' RT & LT	35	24	840	35	10	350
47+82	-	49+92	'S' RT & LT	35	16	560	35	10	350
65+73	-	68+38	'S' RT & LT	35	24	840	35	10	350
213+15	-	215+25	'S' RT & LT	35	16	560	35	10	350
290+64	-	292+74	'S' RT & LT	35	24	840	35	10	350
305+67	-	307+77	'S' RT & LT	35	16	560	35	10	350
76+80	-	78+90	'N' RT & LT	35	16	560	35	10	350
150+06	-	153+73	'N' RT & LT	35	24	840	35	10	350
161+56	-	163+66	'N' RT & LT	35	16	560	35	10	350
206+97	-	209+86	'N' RT & LT	35	24	840	35	10	350
217+06	-	219+16	'N' RT & LT	35	20	700	35	10	350
303+60	-	305+94	'N' RT	35	20	700	35	5	175
303+71	-	305+81	'N' LT	35	8	280	35	5	175
347+93	-	350+03	'N' RT & LT	35	16	560	35	10	350
366+19	-	374+60	'N' RT	35	30	1050	35	5	175
366+58	-	369+12	'N' LT	35	10	350	35	5	175
369+75	-	371+85	'N' RT & LT	35	16	560	35	10	350
376+58	-	382+08	'N' RT	35	20	700	35	5	175
378+35	-	380+45	'N' LT	35	8	280	35	5	175
398+61	-	403+87	'N' RT	35	22	770	35	5	175
418+49	-	420+59	'N' RT & LT	35	16	560	35	10	350
458+16	-	460+26	'N' RT	35	8	280	35	5	175
458+21	-	461+87	N' LT	35	20	700	35	5	175
459+95	-	462+05	'N' RT & LT	35	16	560	35	10	350
482+22	-	484+32	'N' RT	35	8	280	35	5	175
481+73	-	484+74	'N' LT	35	20	700	35	5	175
484+55	-	486+73	'N' RT & LT	35	16	560	35	10	350
487+34	-	489+44	'N' RT & LT	35	16	560	35	10	350
542+79	-	544+89	'N' RT & LT	35	16	560	35	10	350
557+04	-	559+14	'N' RT & LT	35	16	560	35	10	350
574+88	-	576+98	'N' RT & LT	35	16	560	35	10	350
584+84	-	586+94	'N' RT & LT	35	16	560	35	10	350
590+45	-	592+55	'N' RT & LT	35	16	560	35	10	350
593+75	-	595+85	'N' RT & LT	35	16	560	35	10	350
TOTAL						20510			
								SUBTOTAL*	9975

*SEE ADDITIONAL QUANTITY FOR PROJECT TC SIGNS

TRAFFIC CONTROL DEVICES

LOCATION	(EST. DAYS)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (COUNT)	DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A (COUNT)	DAY	643.0900 TRAFFIC CONTROL SIGNS (COUNT)	DAY	SIGN CODE
STH 13'N' PROJECT TERMINI	112	---	---	---	---	2	224	G20-1
STH 13'S' PROJECT TERMINI	112	---	---	---	---	2	224	G20-1
STH 13'N' PROJECT TERMINI	112	---	---	---	---	2	224	G20-2A
STH 13'S' PROJECT TERMINI	112	---	---	---	---	2	224	G20-2A
STH 13'N' ADVANCE SIGINING	112	---	---	---	---	3	336	SEE SDD 15C4-1
STH 13'S' ADVANCE SIGINING	112	---	---	---	---	3	336	SEE SDD 15C4-2
STH 13 ADD'L SIGNS AT WORK ZONES	112	---	---	---	---	10	1120	W20-1
PROJECT SIDEROADS (40)	112	---	---	---	---	40	4480	W20-1
STH 13 NB CLOSURE	14	6	84	12	168	4	56	SEE DETOUR CLOSURE
STH 13 SB CLOSURE	14	6	84	12	168	5	70	SEE DETOUR CLOSURE
STH 13 SB CLOSURE	14	2	28	4	56	2	28	R10-61; SEE CLOSURE
LAKESHORE DR FOR STH 13 CLOSURE	14	---	---	---	---	1	14	W20-3
9TH ST FOR STH 13 CLOSURE	14	---	---	---	---	1	14	W20-3
TOTALS			196		392			
						SUBTOTAL*	7350	

*SEE ADDITIONAL QUANTITY FOR PIPE REPLACEMENT TC SIGNS

TRAFFIC CONTROL DETOUR SIGNS

LOCATION	(EST. DAYS)	643.3000 TRAFFIC CONTROL DETOUR SIGNS (COUNT)	DAY
STH 13 NB AUTO DETOUR	14	9	126
CTH J NB AUTO DETOUR	14	15	210
CTH I NB AUTO DETOUR	14	6	84
CTH J NB TRUCK DETOUR	14	27	378
STH 13 SB TRUCK DETOUR	14	12	168
CTH J SB TRUCK DETOUR	14	28	392
STH 13 SB AUTO DETOUR	14	20	280
CTH J SB AUTO DETOUR	14	9	126
TOTAL			1764

PERMANENT PAVEMENT MARKINGS

STATION	-	STATION		646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	YELLOW LF	Comment
44+73	-	45+25	'S'	104	65	Solid Yellow Nbound/Skips Sbound
48+65	-	49+05	'S'	80	50	Solid Yellow Nbound/Skips Sbound
66+85		67+58	S'	146	91	Solid Yellow Nbound/Skips Sbound
213+97	-	214+46	'S'	98	98	DBL Yellow
291+38	-	291+99	'S'	122	16	Yellow Skips
306+35	-	307+08	'S'	146	19	Yellow Skips
77+56	-	78+13	'N'	114	114	DBL Yellow
111+80	-	111+80	N'	1	1	
151+50	-	152+36	'N'	172	87	Yellow Skips
162+34	-	162+90	'N'	112	70	Solid Yellow Nbound/Skips Sbound
207+59	-	209+21	'N'	256	203	Yellow Skips Nbound/Solid Sbound
217+73	-	218+47	'N'	148	19	Yellow Skips
304+34	-	305+28	'N'	188	24	Yellow Skips
312+44	-	312+77	'N'	66	42	Solid Yellow Nbound/Skips Sbound
348+68	-	349+27	'N'	148	118	DBL Yellow/White Skips Pass Lane
367+30	-	368+30	'N'	200	125	Yellow Skips Nbound/Solid Sbound
370+32	-	371+46	'N'	228	143	Yellow Skips Nbound/Solid Sbound
378+81	-	379+98	'N'	234	30	Yellow Skips
419+31	-	419+77	'N'	92	92	DBL Yellow
458+95	-	459+47	'N'	104	104	DBL Yellow
460+69	-	461+31	N'	124	124	DBL Yellow
482+88	-	483+60	'N'	144	144	DBL Yellow
485+32	-	485+95	'N'	126	126	DBL Yellow
488+12	-	488+64	'N'	130	104	DBL Yellow/White Skips Pass Lane
543+48	-	544+20	'N'	144	144	DBL Yellow
557+74	-	558+44	'N'	140	88	Solid Yellow Nbound/Skips Sbound
575+68	-	576+18	'N'	100	100	DBL Yellow
584+86	-	586+89	'N'	406	406	DBL Yellow
590+78	-	592+20	'N'	284	284	DBL Yellow
594+06	-	595+50	'N'	288	288	DBL Yellow
SUB-TOTALS				4645	3319	
		TOTAL		7964		

SAWING ITEMS

STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
44+83	STH 13 'S'	34	20
45+15	STH 13 'S'	34	20
48+75	STH 13 'S'	34	20
48+95	STH 13 'S'	34	20
66+95	STH 13 'S'	43	20
67+48	STH 13 'S'	43	20
214+07	STH 13 'S'	45	-
214+36	STH 13 'S'	44	-
291+48	STH 13 'S'	34	20
291+89	STH 13 'S'	34	20
306+45	STH 13 'S'	33	20
306+98	STH 13 'S'	34	20
77+66	STH 13 'N'	34	-
78+03	STH 13 'N'	34	-
111+69	STH 13 'N'	34	-
111+91	STH 13 'N'	34	-
151+60	STH 13 'N'	34	-
152+26	STH 13 'N'	34	-
162+34	STH 13 'N'	36	-
162+80	STH 13 'N'	36	-
207+69	STH 13 'N'	34	-
209+11	STH 13 'N'	34	-
217+83	STH 13 'N'	34	-
218+37	STH 13 'N'	34	-
304+34	STH 13 'N'	34	-
305+18	STH 13 'N'	34	-
312+44	STH 13 'N'	38	-
312+67	STH 13 'N'	51	-
348+78	STH 13 'N'	41	-
349+17	STH 13 'N'	41	-
367+40	STH 13 'N'	33	-
368+20	STH 13 'N'	34	-
370+42	STH 13 'N'	34	-
371+36	STH 13 'N'	36	3
378+91	STH 13 'N'	37	3
379+88	STH 13 'N'	37	3
419+41	STH 13 'N'	36	-
419+67	STH 13 'N'	36	-
459+05	STH 13 'N'	36	-
459+37	STH 13 'N'	35	-
SUB-TOTALS		1451	209

SAWING ITEMS CONT'D

STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
460+79	STH 13 'N'	34	-
461+21	STH 13 'N'	34	-
482+98	STH 13 'N'	35	-
483+50	STH 13 'N'	35	-
485+42	STH 13 'N'	38	-
485+85	STH 13 'N'	38	-
488+22	STH 13 'N'	42	-
488+54	STH 13 'N'	42	-
543+58	STH 13 'N'	34	-
544+10	STH 13 'N'	34	-
557+84	STH 13 'N'	34	-
558+34	STH 13 'N'	34	-
575+78	STH 13 'N'	34	-
576+08	STH 13 'N'	34	-
584+96	STH 13 'N'	35	-
586+79	STH 13 'N'	34	-
590+88	STH 13 'N'	34	-
592+10	STH 13 'N'	34	-
594+16	STH 13 'N'	34	-
595+40	STH 13 'N'	41	-
SUB-TOTALS		714	0
TOTALS		2165	209

CONSTRUCTION STAKING ROADWAY ITEMS

STATION	-	STATION		LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	SPV.0090.03 CONSTRUCTION STAKING SUBBASE LF	COMMENT
44+46	-	45+53	'S'	LT	107	107	107	-	TEMPORARY WIDENING
67+00	-	67+92	'S'	LT	92	92	92	-	TEMPORARY WIDENING
291+47	-	291+96	'S'	LT	49	49	49	-	TEMPORARY WIDENING
44+40	-	45+53	'S'	RT	113	113	113	-	TEMPORARY WIDENING
66+40	-	68+07	'S'	RT	167	167	167	-	TEMPORARY WIDENING
291+20	-	292+15	'S'	RT	95	95	95	-	TEMPORARY WIDENING
150+90	-	152+80	'N'	LT	190	190	190	-	TEMPORARY WIDENING
206+97	-	209+83	'N'	LT	286	286	286	-	TEMPORARY WIDENING
217+45	-	218+75	'N'	LT	130	130	130	-	TEMPORARY WIDENING
366+53	-	369+12	'N'	LT	259	259	259	-	TEMPORARY WIDENING
458+70	-	461+65	'N'	LT	295	295	295	-	TEMPORARY WIDENING
482+52	-	484+25	'N'	LT	173	173	173	-	TEMPORARY WIDENING
543+00	-	544+50	'N'	LT	150	150	150	-	TEMPORARY WIDENING
557+37	-	558+84	'N'	LT	147	147	147	-	TEMPORARY WIDENING
151+25	-	153+14	'N'	RT	189	189	189	-	TEMPORARY WIDENING
207+16	-	209+45	'N'	RT	229	229	229	-	TEMPORARY WIDENING
304+00	-	305+50	'N'	RT	150	150	150	-	TEMPORARY WIDENING
366+79	-	374+70	'N'	RT	791	791	791	-	TEMPORARY WIDENING
376+87	-	381+85	'N'	RT	498	498	498	-	TEMPORARY WIDENING
398+99	-	403+69	'N'	RT	470	470	470	-	TEMPORARY WIDENING
419+30	-	419+80	N'	RT	50	50	50	-	TEMPORARY WIDENING
543+21	-	544+22	'N'	RT	101	101	101	-	TEMPORARY WIDENING
557+45	-	558+75	'N'	RT	130	130	130	-	TEMPORARY WIDENING
44+83	-	45+15	'S'	-	32	32	-	32	PIPE CULVERT REPLACEMENT
48+75	-	48+95	'S'	-	20	20	-	20	PIPE CULVERT REPLACEMENT
66+95	-	67+48	'S'	-	53	53	-	53	PIPE CULVERT REPLACEMENT
214+07	-	214+36	'S'	-	29	29	-	-	PIPE CULVERT REPLACEMENT
291+48	-	291+89	'S'	-	41	41	-	41	PIPE CULVERT REPLACEMENT
306+45	-	306+98	'S'	-	53	53	-	53	PIPE CULVERT REPLACEMENT
77+66	-	78+03	'N'	-	37	37	-	-	PIPE CULVERT REPLACEMENT
111+69		111+91	N'		22	22	-	-	PIPE CULVERT REPLACEMENT
151+60	-	152+26	'N'	-	66	66	-	-	PIPE CULVERT REPLACEMENT
162+34	-	162+80	'N'	-	46	46	-	-	PIPE CULVERT REPLACEMENT
207+69	-	209+11	'N'	-	142	142	-	-	PIPE CULVERT REPLACEMENT
217+83	-	218+37	'N'	-	54	54	-	-	PIPE CULVERT REPLACEMENT
304+34	-	305+18	'N'	-	84	84	-	-	PIPE CULVERT REPLACEMENT
312+44	-	312+67	'N'	-	23	23	-	-	PIPE CULVERT REPLACEMENT
348+78	-	349+17	'N'	-	39	39	-	-	PIPE CULVERT REPLACEMENT
367+40	-	368+20	'N'	-	80	80	-	-	PIPE CULVERT REPLACEMENT
370+42	-	371+36	'N'	-	94	94	-	-	PIPE CULVERT REPLACEMENT
378+91	-	379+88	'N'	-	97	97	-	-	PIPE CULVERT REPLACEMENT
419+41	-	419+67	'N'	-	26	26	-	-	PIPE CULVERT REPLACEMENT
459+05	-	459+37	'N'	-	32	32	-	-	PIPE CULVERT REPLACEMENT
SUB-TOTALS					5931	5931	4861	199	

STATION	-	STATION		LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	SPV.0090.03 CONSTRUCTION STAKING SUBBASE LF	COMMENT
460+79	-	461+21	N'	-	42	42	-	-	PIPE CULVERT REPLACEMENT
482+98	-	483+50	'N'	-	52	52	-	-	PIPE CULVERT REPLACEMENT
485+42	-	485+85	'N'	-	43	43	-	-	PIPE CULVERT REPLACEMENT
488+22	-	488+54	'N'	-	32	32	-	-	PIPE CULVERT REPLACEMENT
543+58	-	544+10	'N'	-	52	52	-	-	PIPE CULVERT REPLACEMENT
557+88	-	558+30	'N'	-	42	42	-	-	PIPE CULVERT REPLACEMENT
575+82	-	576+05	'N'	-	23	23	-	-	PIPE CULVERT REPLACEMENT
584+98	-	586+78	'N'	-	180	180	-	-	PIPE CULVERT REPLACEMENT
590+88	-	592+10	'N'	-	122	122	-	-	PIPE CULVERT REPLACEMENT
594+16	-	595+40	'N'	-	124	124	-	-	PIPE CULVERT REPLACEMENT
SUB-TOTALS					712	712	0	0	
TOTALS					6643	6643	4861	199	

CONSTRUCTION STAKING PIPE CULVERT ITEM

STATION	LOCATION	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH
44+99	STH 13 'S'	1
48+85	STH 13 'S'	1
67+22	STH 13 'S'	1
214+22	STH 13 'S'	1
291+69	STH 13 'S'	1
306+72	STH 13 'S'	1
77+85	STH 13 'N'	1
111+80	STH 13 'N'	1
151+93	STH 13 'N'	1
162+58	STH 13 'N'	1
208+34	STH 13 'N'	1
208+49	STH 13 'N'	1
218+10	STH 13 'N'	1
304+76	STH 13 'N'	1
312+56	STH 13 'N'	1
348+98	STH 13 'N'	1
367+81	STH 13 'N'	1
370+88	STH 13 'N'	1
379+40	STH 13 'N'	1
419+54	STH 13 'N'	1
459+21	STH 13 'N'	1
461+00	STH 13 'N'	1
483+20	STH 13 'N'	1
483+27	STH 13 'N'	1
485+60	STH 13 'N'	1
485+68	STH 13 'N'	1
488+39	STH 13 'N'	1
543+84	STH 13 'N'	1
558+09	STH 13 'N'	1
575+93	STH 13 'N'	2
585+88	STH 13 'N'	1
591+49	STH 13 'N'	1
594+78	STH 13 'N'	1
TOTAL		34

RESETTING PIPE ITEMS

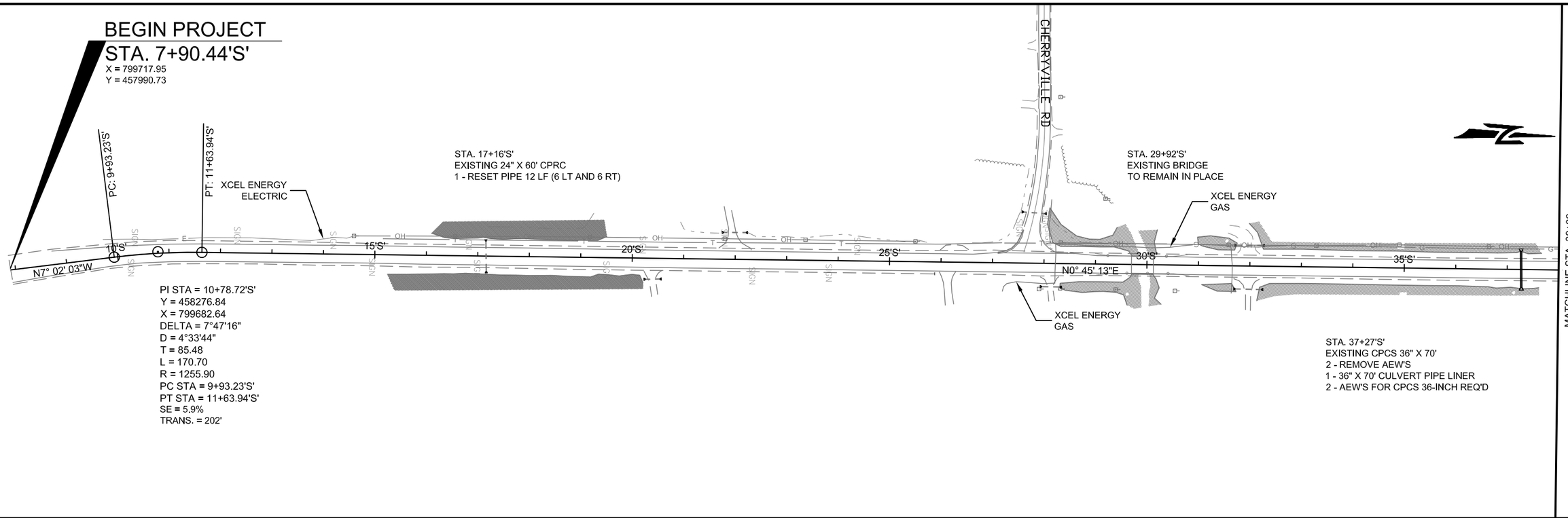
STATION	LOCATION	SPV.0060.01 RESETTING APRON ENDWALL EACH	SPV.0090.01 RESETTING PIPES LF
17+16	STH 13 'S' LT	-	12
85+31	STH 13 'S' RT	1	28
118+27	STH 13 'S' RT	1	8
168+30	STH 13 'S' LT	1	-
287+85	STH 13 'S' RT	-	12
TOTALS		3	60

TEMPORARY WATER PASSAGE ITEMS

STATION	LOCATION	OFFSET		611.8120.S COVER PLATE TEMPORARY EACH	SPV.0060.02 TEMPORARY WATER PASSAGE EACH
367+71	STH 13 'N'	58	RT	1	1
370+94	STH 13 'N'	51	RT	1	1
375+01	STH 13 'N'	50	RT	1	1
379+25	STH 13 'N'	44	RT	1	1
TOTALS				4	4

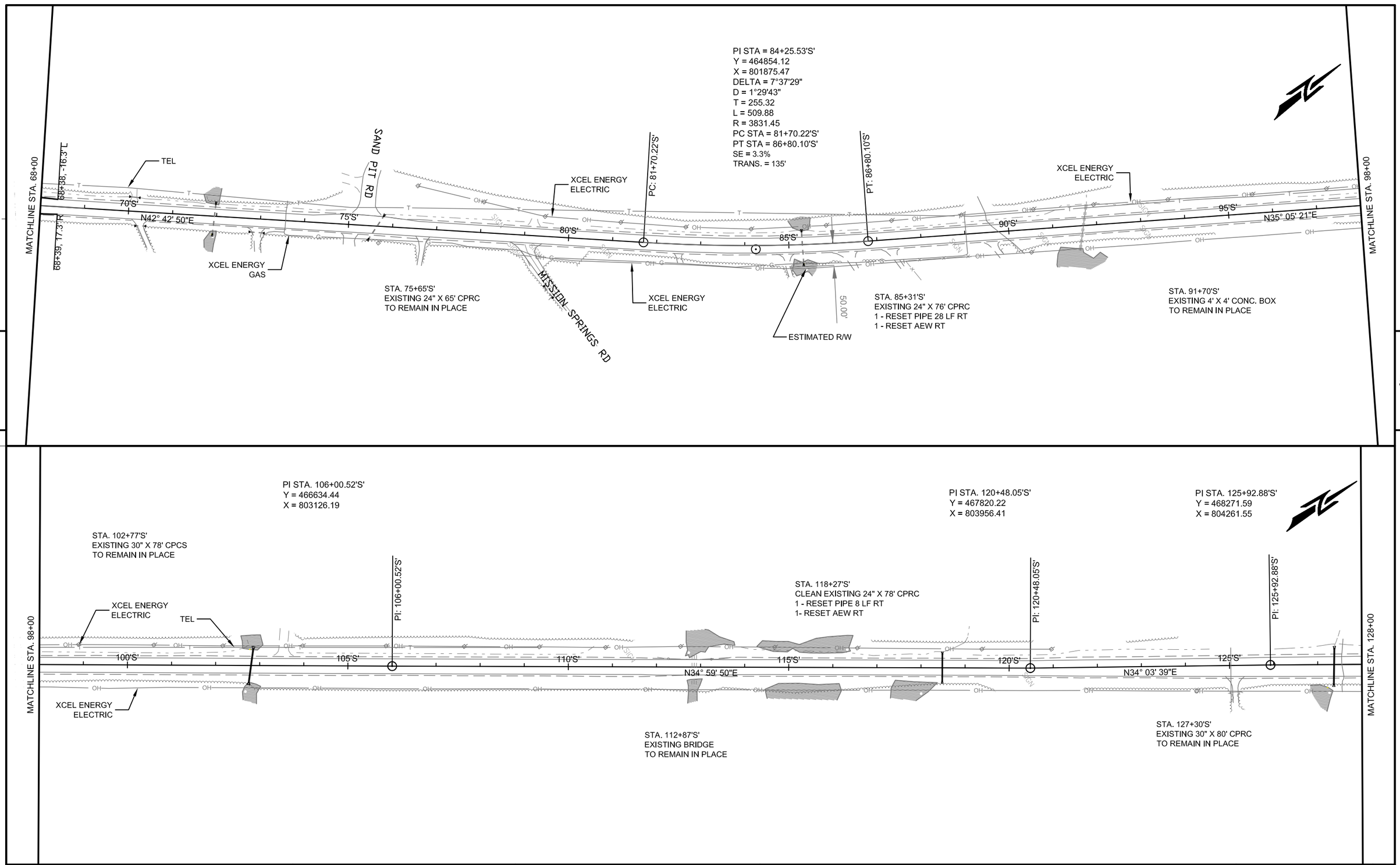
REGRADE DITCH

STATION	-	STATION	LOCATION		SPV.0090.02 REGRADE DITCH LF
295+11	-	296+56	STH 13 'S'	LT	268
296+89	-	298+10	STH 13 'S'	LT	120
304+36	-	305+48	STH 13 'S'	LT	172
305+94	-	307+43	STH 13 'S'	LT	87
TOTAL					647



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13	SHEET 74	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\050201_PN_STH_13.DWG PLOT DATE : 12/19/2013 9:29 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1" = 200'_XREF



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13	SHEET 75 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\050201_PN_STH_13.DWG PLOT DATE : 12/19/2013 9:29 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1" = 200'_XREF

WISDOT/CADDS SHEET 44

PI STA. 132+54.85'S'
Y = 468816.86
X = 804636.90

STA. 129+92'S'
EXISTING 60" X ' CSCP
TO REMAIN IN PLACE

PI: 132+54.85'S'

MATCHLINE STA. 128+00

130'S'
135'S'
140'S'
145'S'
150'S'
155'S'

N34° 32' 32"E

N34° 55' 25"E

XCEL ENERGY
ELECTRIC

XCEL ENERGY
GAS

TEL

STA. 145+98'S'
EXISTING 24" X 60' CPRC
TO REMAIN IN PLACE

STA. 157+90'S'
EXISTING 36" X 108' CPRC
TO REMAIN IN PLACE

ESTIMATED R/W

MATCHLINE STA. 158+19

5

5

MATCHLINE STA. 158+19

TEL

160'S'
165'S'
170'S'
175'S'
180'S'
185'S'

XCEL ENERGY
ELECTRIC

STA. 168+30'S'
EXISTING 36" X 76' LINED CSCP
1 - RESET AEW LT

PC: 173+88.27'S'

PI STA = 178+66.15'S'
Y = 472597.73
X = 807276.79
DELTA = 18°05'18"
D = 1°54'30"
T = 477.88
L = 947.80
R = 3002.20
PC STA = 173+88.27'S'
PT STA = 183+36.07'S'
SE = 3.9%
TRANS. = 151'

STA. 173+80'S'
EXISTING 24" X 68' LINED CPCS
TO REMAIN IN PLACE

XCEL ENERGY
GAS

PT: 183+36.07'S'

NOLANDER RD

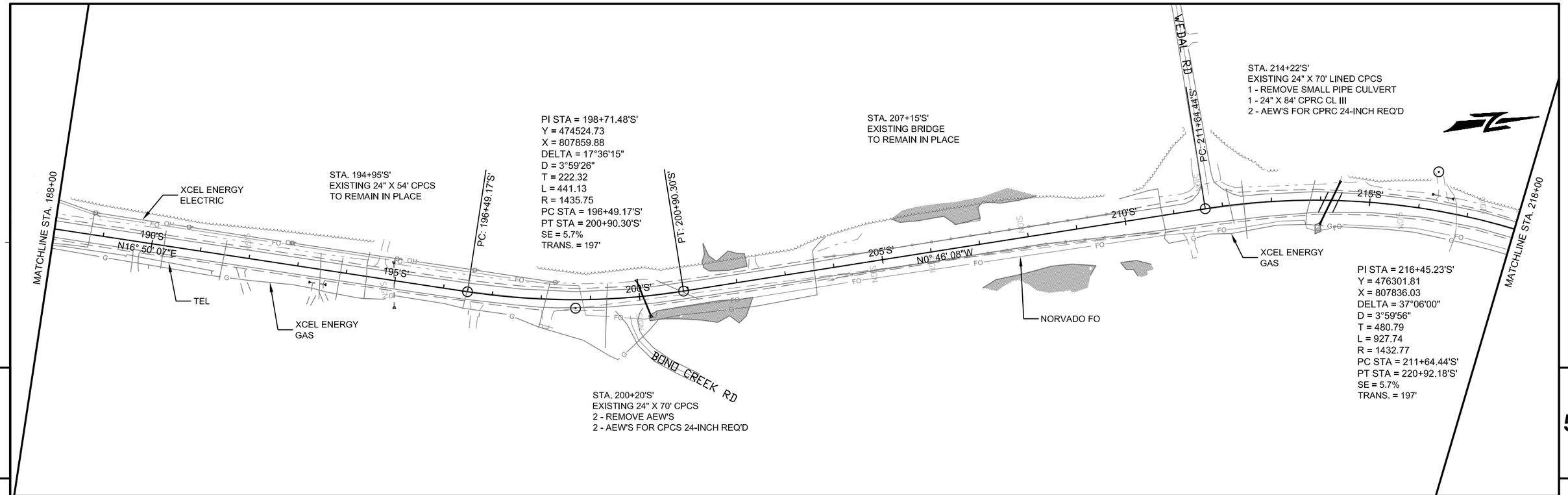
XCEL ENERGY
ELECTRIC

BIRCH GROVE RD

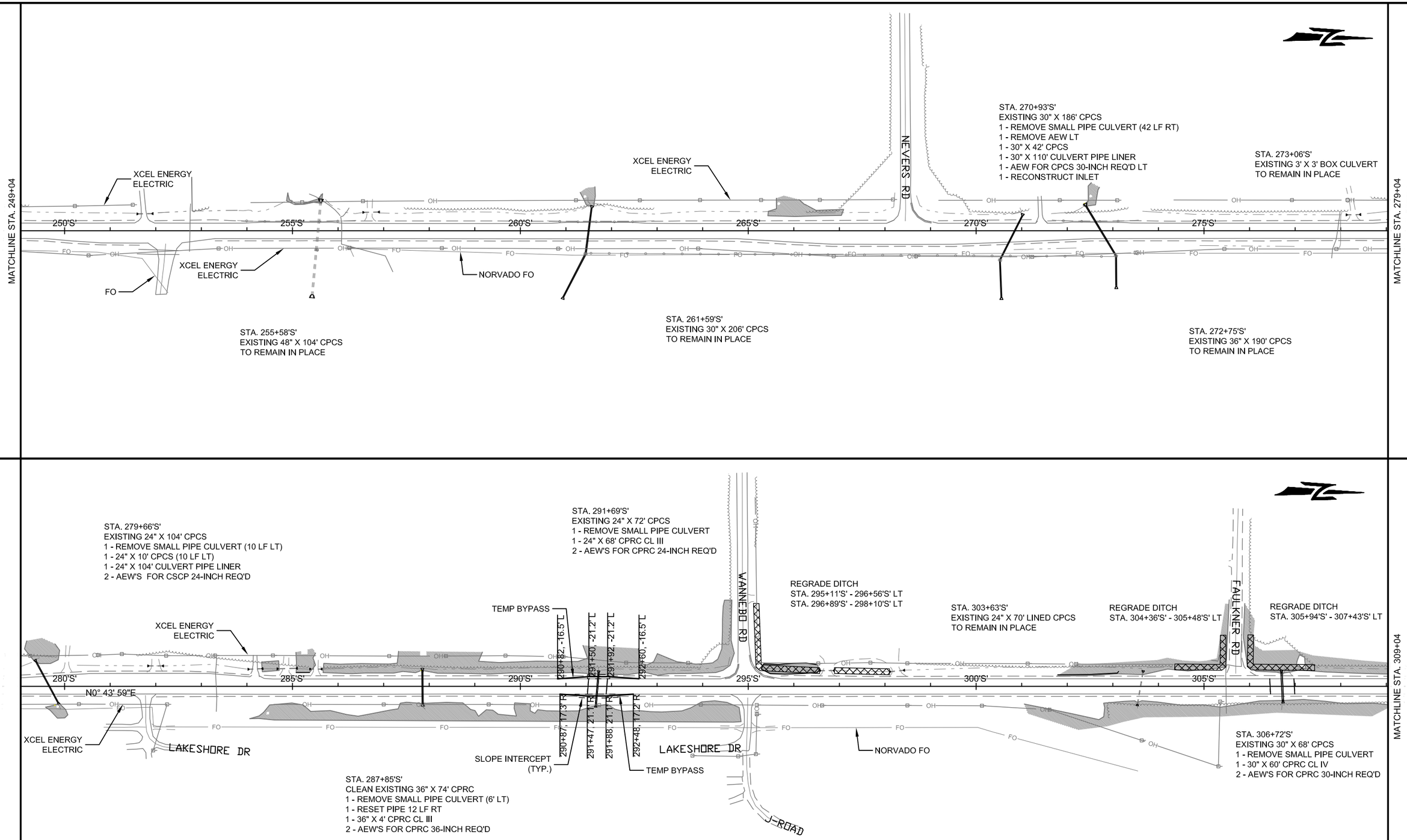
TEL

MATCHLINE STA. 188+00

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13	SHEET 76	E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13	SHEET 77	E

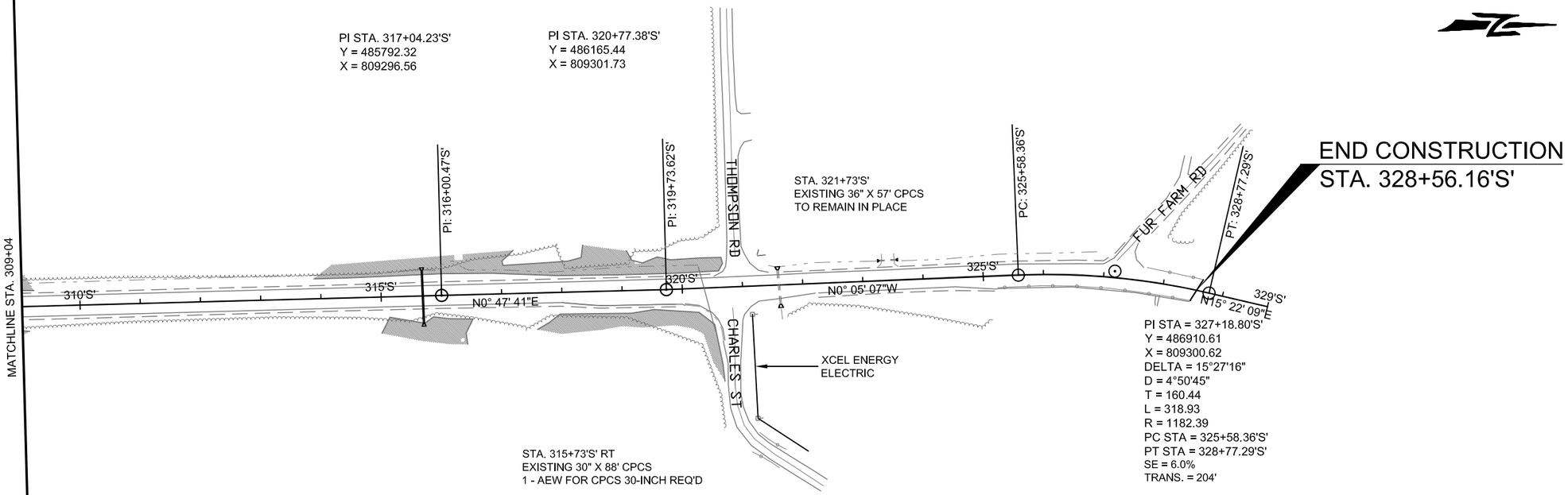


5

5

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13	SHEET 78	E

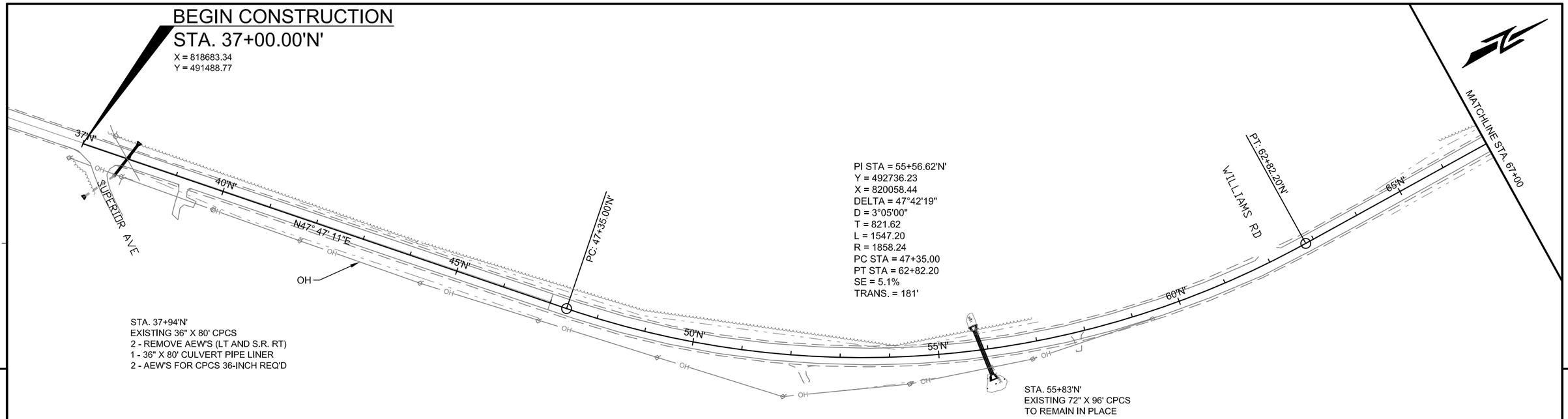
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\050201_PN_STH_13.DWG PLOT DATE : 12/19/2013 9:30 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1" = 200'_XREF
WISDOT/CADDS SHEET 44

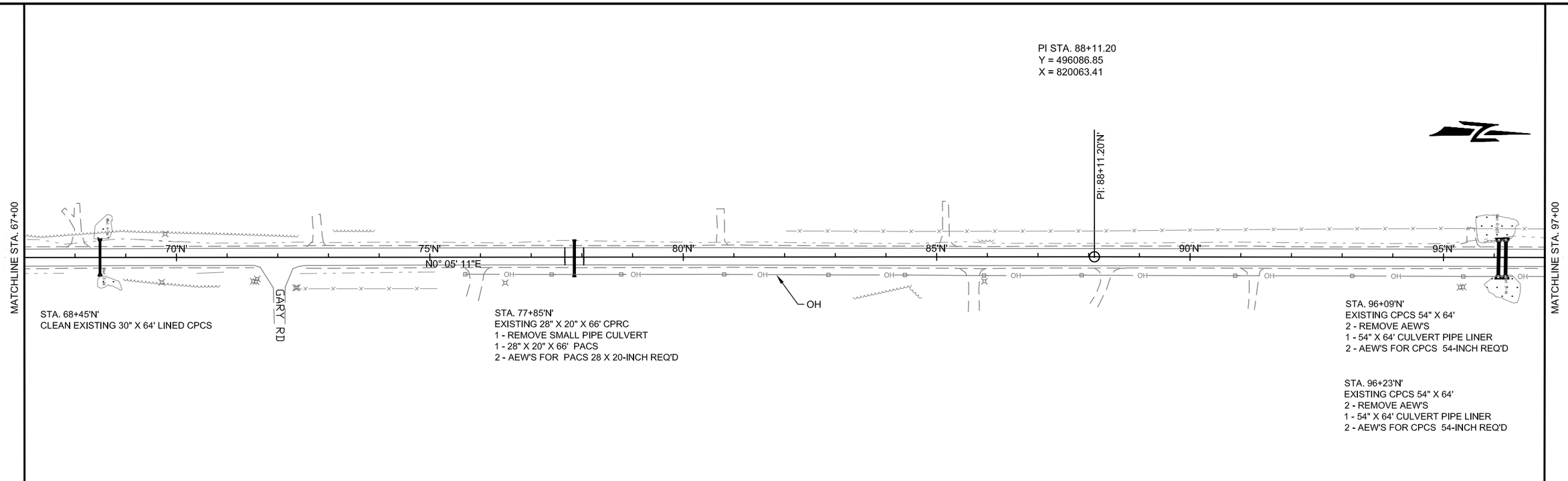


5

5

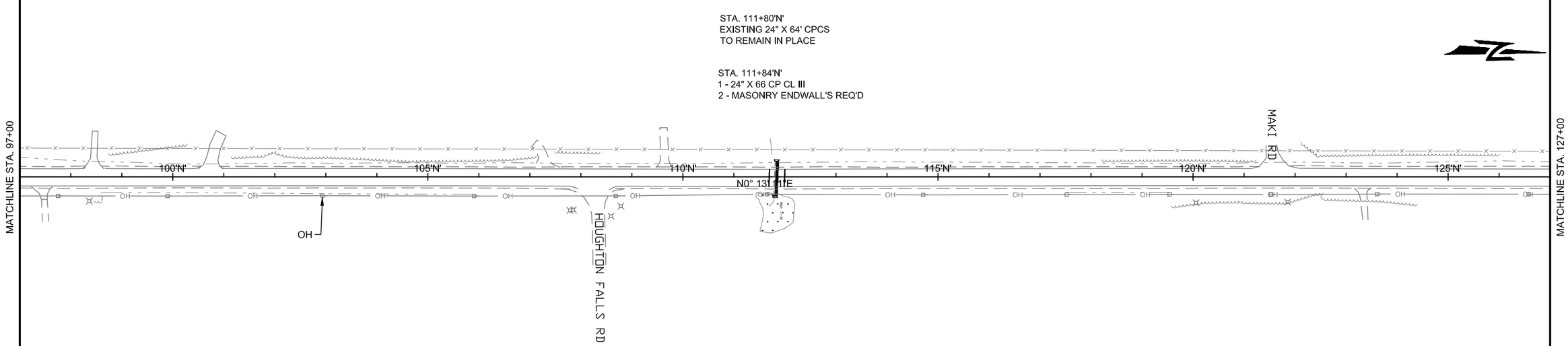
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13	SHEET 79	E

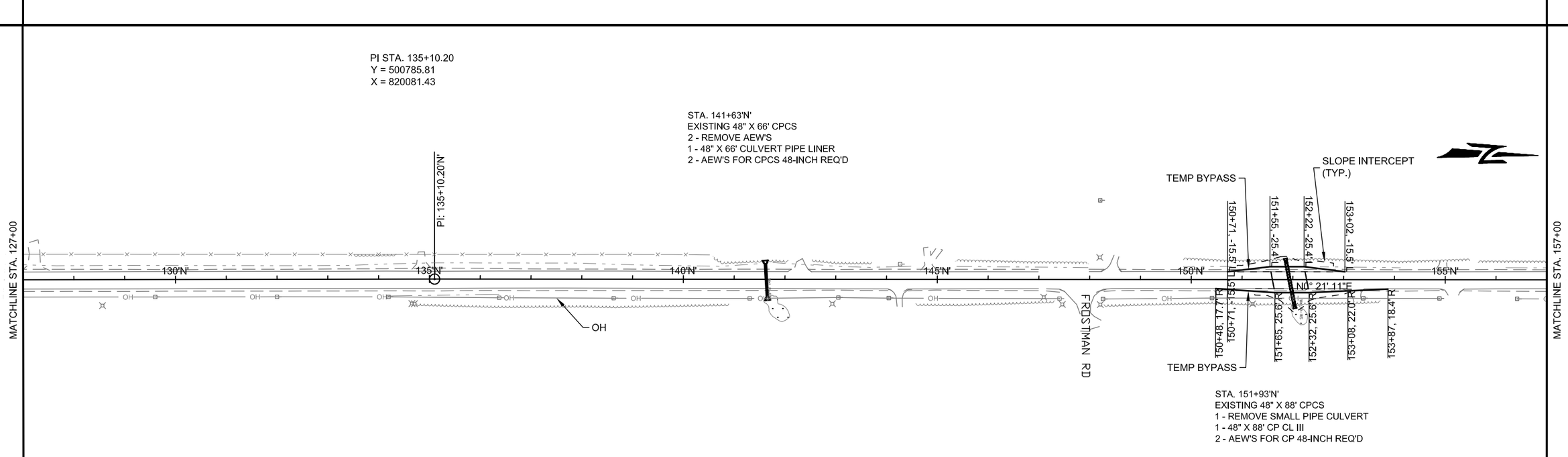




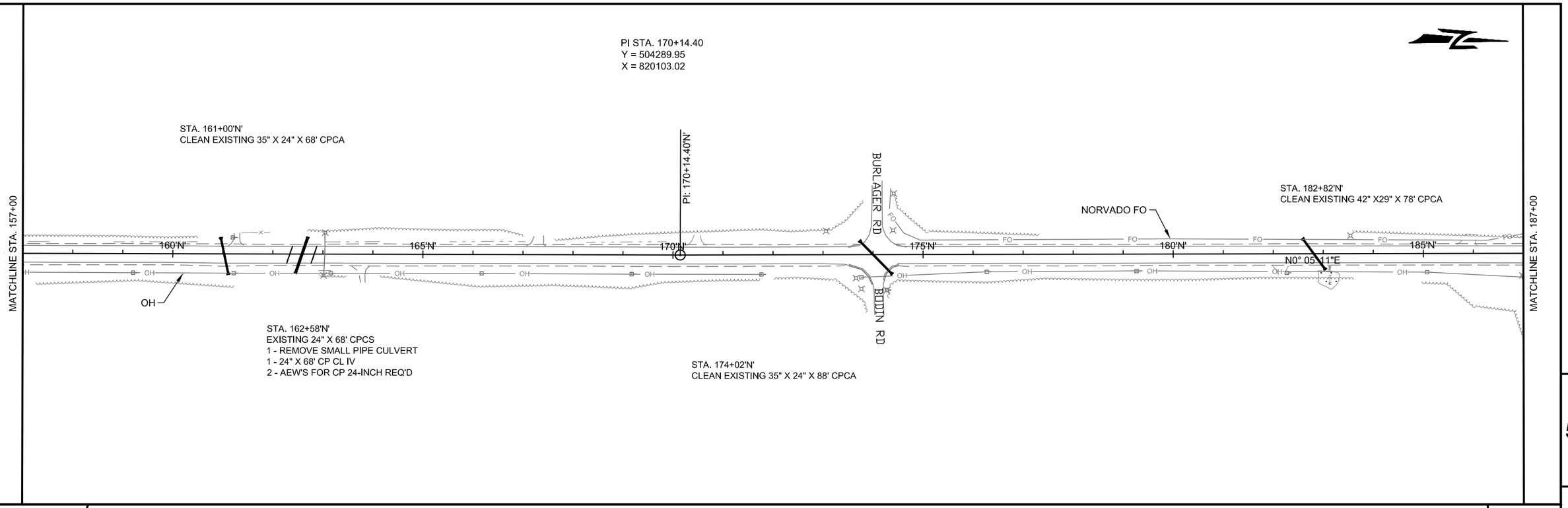
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 80 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\STH 13 (SUPERIOR ST - 7TH ST.).DWG PLOT DATE : 12/19/2013 10:52 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:200 FT



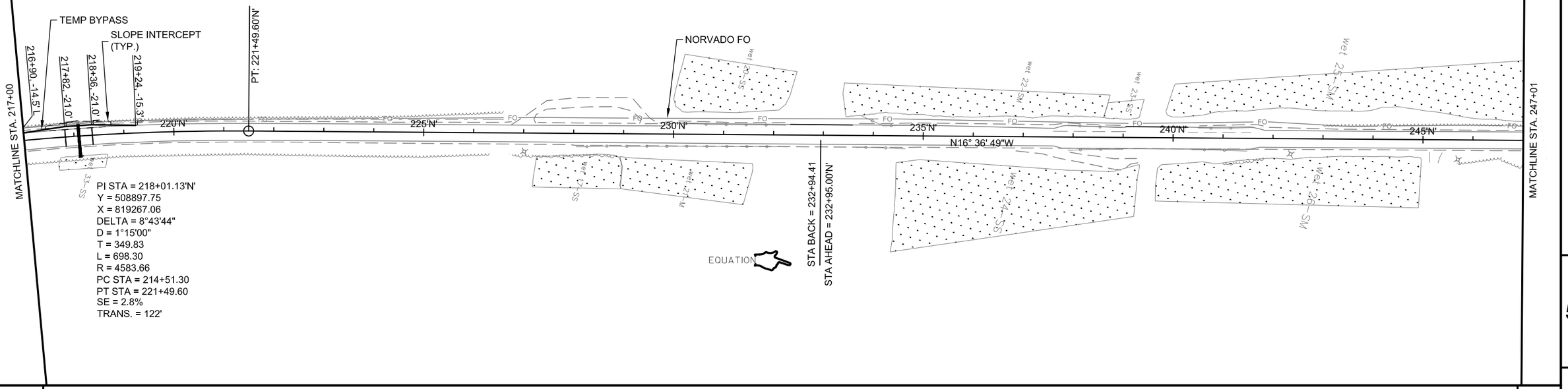


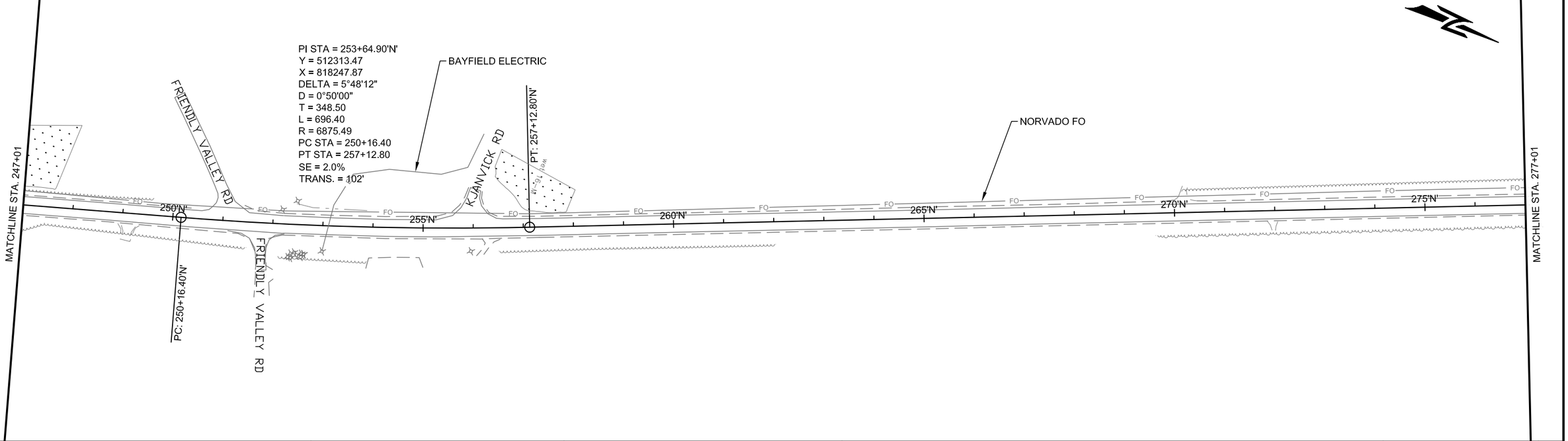
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 81 E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 82 E

STA. 218+10'N'
EXISTING 30" X 62' CPCS INLET
1 - REMOVE SMALL PIPE CULVERT
1 - 30" X 62' CP CL IV
1 - AEW FOR CP 30-INCH REQ'D
1 - RECONSTRUCT INLET





PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 83	E

MATCHLINE STA. 277+01

MATCHLINE STA. 307+01

STA. 304+76'N'
EXISTING 48" X 66' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 54" X 60' CPRC CL IV
2 - AEW'S FOR CPRC 54-INCH REQ'D

NORVADO FO

TEL

FO

280'N'

285'N'

290'N'

295'N'

300'N'

305'N'

N22° 24' 49"W

BAYVIEW PARK RD

43.00'

303+46, 15.9' R

304+35, 21.8' R

305+19, 21.8' R

306+09, 15.6' R

TEMP BYPASS

ESTIMATED R/W

SLOPE INTERCEPT
(TYP.)

5

5

STA. 317+69'N'
2 - CLEAN EXISTING 48" X 70' CPCS

PC: 316+47.50'N'

320'N'

325'N'

NORVADO FO

BAYFIELD ELECTRIC

PI STA = 327+35.85'N'
Y = 519128.13
X = 815437.16
DELTA = 87°02'53"
D = 5°00'00"
T = 1088.35
L = 1740.96
R = 1145.92
PC STA = 316+47.50
PT STA = 334+47.20
SE = 6.0%
TRANS. = 204'

330'N'

STA. 332+62'N'
CLEAN EXISTING 36" X 55' CPCS

PT: 334+47.20'N'

335'N'

STA. 312+56'N'
EXISTING 57" X 38" X 70' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 38" X 60" X 64' CPRC CL HE - III
2 - AEW'S FOR CPRC 38X60-INCH REQ'D

MCCULLOCH RD

315'N

STA. 315+23'N'
CLEAN EXISTING 48" X 64' CPCS

FO

310'N'

43.00'

ESTIMATED R/W

BAYFIELD ELECTRIC

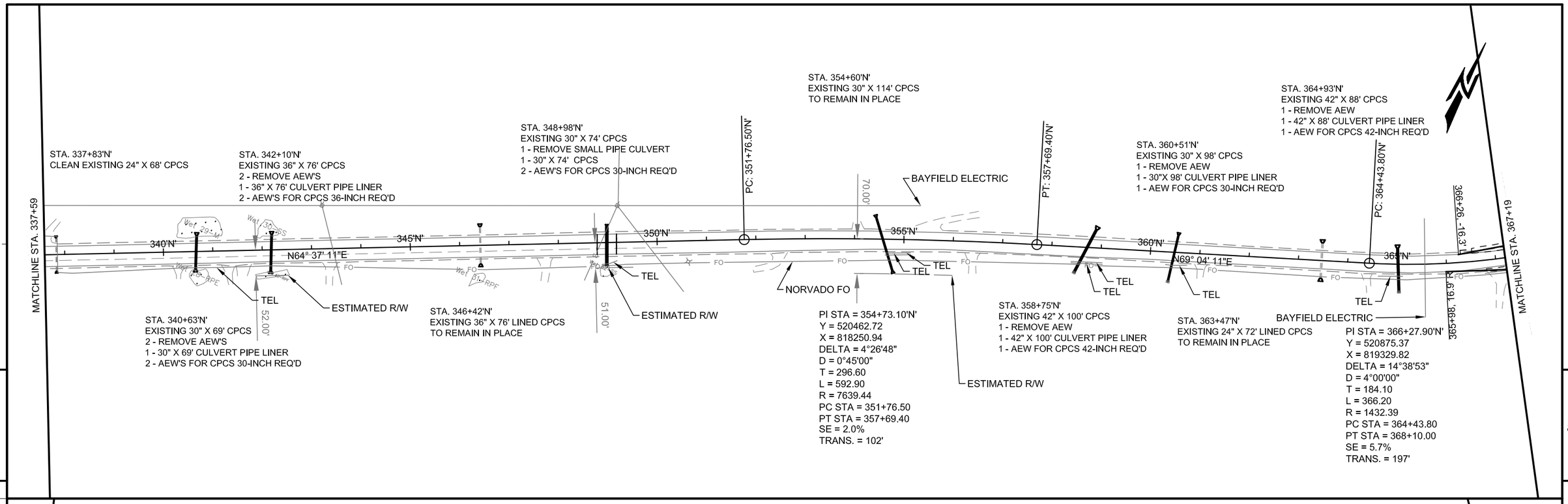
EQUATION

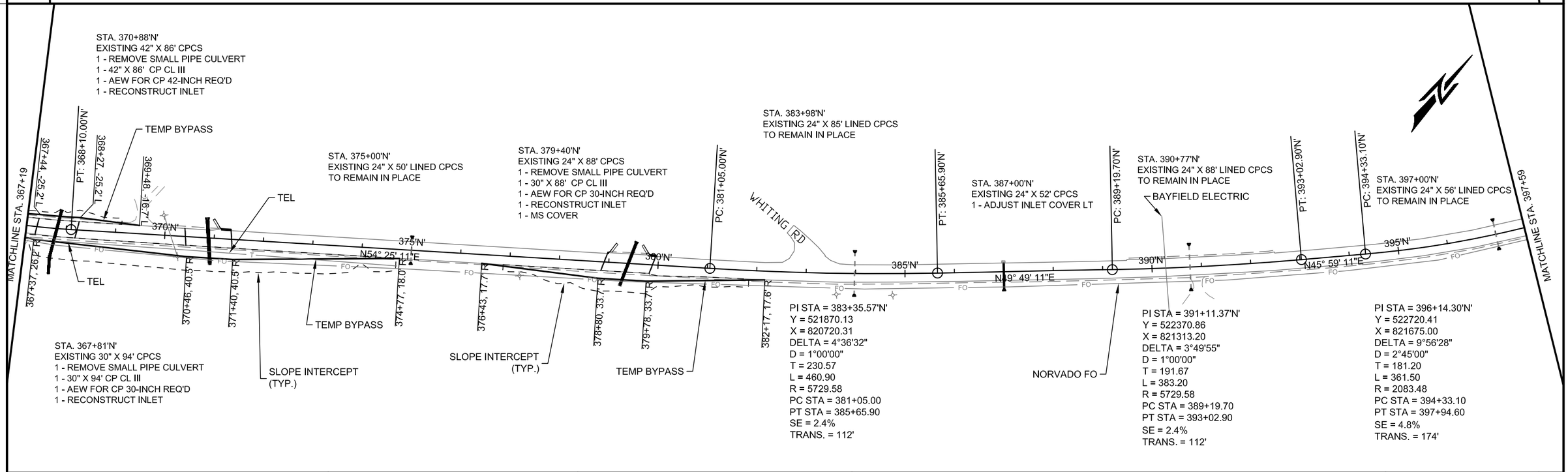
STA BACK = 333+86.46
STA AHEAD = 334+47.20'N'

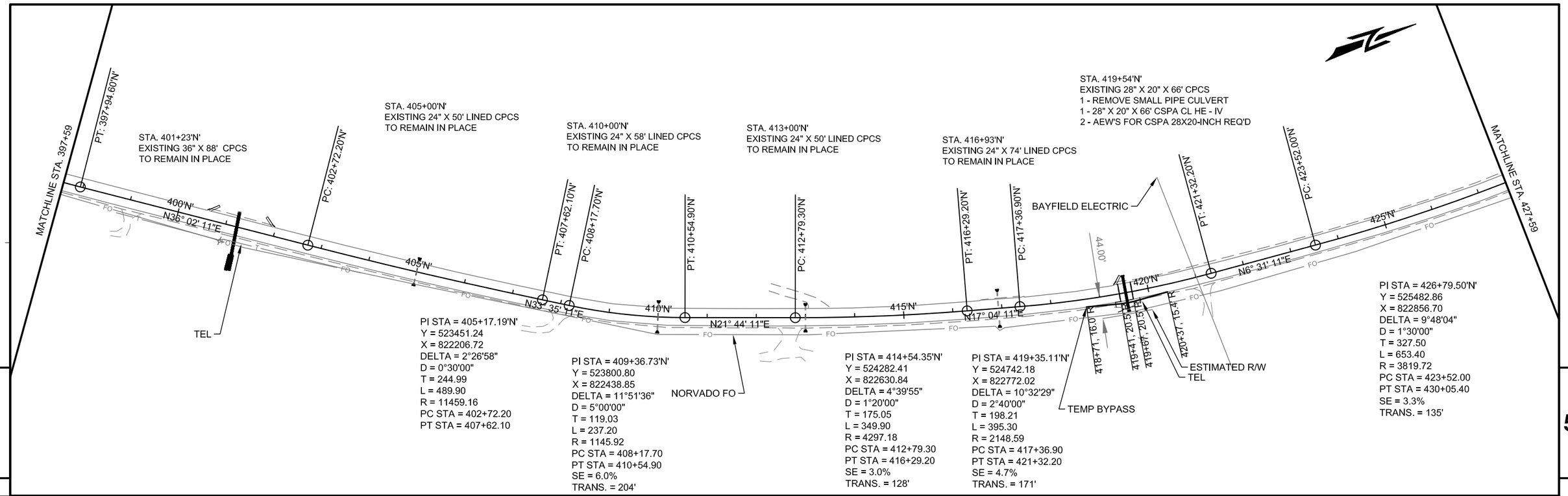
MATCHLINE STA. 307+

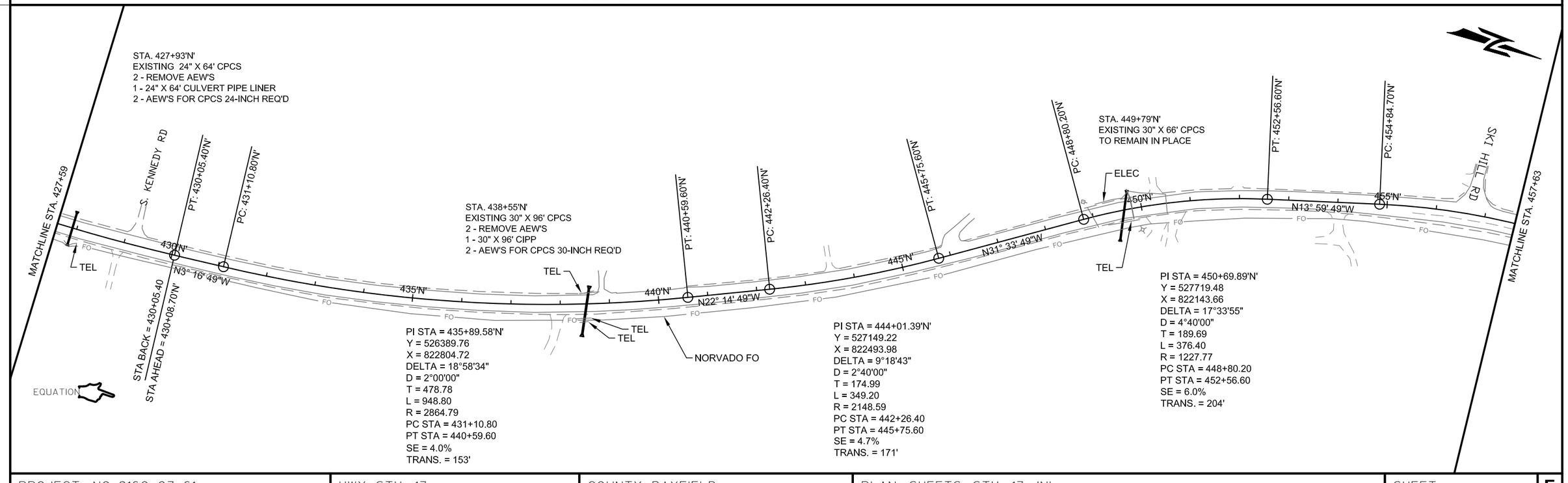
MATCHLINE STA. 337+59

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 84	E


MATCHLINE STA. 337+59
STA. 337+83'N'
CLEAN EXISTING 24" X 68' CPCS
STA. 340+63'N'
EXISTING 30" X 69' CPCS
2 - REMOVE AEW'S
1 - 30" X 69' CULVERT PIPE LINER
2 - AEW'S FOR CPCS 30-INCH REQ'D
STA. 342+10'N'
EXISTING 36" X 76' CPCS
2 - REMOVE AEW'S
1 - 36" X 76' CULVERT PIPE LINER
2 - AEW'S FOR CPCS 36-INCH REQ'D
STA. 346+42'N'
EXISTING 36" X 76' LINED CPCS
TO REMAIN IN PLACE
STA. 348+98'N'
EXISTING 30" X 74' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 30" X 74' CPCS
2 - AEW'S FOR CPCS 30-INCH REQ'D
STA. 354+60'N'
EXISTING 30" X 114' CPCS
TO REMAIN IN PLACE
PI STA = 354+73.10'N'
Y = 520462.72
X = 818250.94
DELTA = 4°26'48"
D = 0°45'00"
T = 296.60
L = 592.90
R = 7639.44
PC STA = 351+76.50
PT STA = 357+69.40
SE = 2.0%
TRANS. = 102'
STA. 358+75'N'
EXISTING 42" X 100' CPCS
1 - REMOVE AEW
1 - 42" X 100' CULVERT PIPE LINER
1 - AEW FOR CPCS 42-INCH REQ'D
STA. 360+51'N'
EXISTING 30" X 98' CPCS
1 - REMOVE AEW
1 - 30"X 98' CULVERT PIPE LINER
1 - AEW FOR CPCS 30-INCH REQ'D
STA. 363+47'N'
EXISTING 24" X 72' LINED CPCS
TO REMAIN IN PLACE
STA. 364+93'N'
EXISTING 42" X 88' CPCS
1 - REMOVE AEW
1 - 42" X 88' CULVERT PIPE LINER
1 - AEW FOR CPCS 42-INCH REQ'D
PI STA = 366+27.90'N'
Y = 520875.37
X = 819329.82
DELTA = 14°38'53"
D = 4°00'00"
T = 184.10
L = 366.20
R = 1432.39
PC STA = 364+43.80
PT STA = 368+10.00
SE = 5.7%
TRANS. = 197'
PC: 351+76.50'N'
PT: 357+69.40'N'
PC: 364+43.80'N'
BAYFIELD ELECTRIC
NORVADO FO
TEL
ESTIMATED R/W
N64° 37' 11"E
N69° 04' 11"E
340'N'
345'N'
350'N'
355'N'
360'N'
365'N'
52.00'
51.00'
70.00'
366+26, -16.3', R
365+98, 16.9', R
MATCHLINE STA. 367+19
5


MATCHLINE STA. 367+19
STA. 367+81'N'
EXISTING 30" X 94' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 30" X 94' CP CL III
1 - AEW FOR CP 30-INCH REQ'D
1 - RECONSTRUCT INLET
STA. 370+88'N'
EXISTING 42" X 86' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 42" X 86' CP CL III
1 - AEW FOR CP 42-INCH REQ'D
1 - RECONSTRUCT INLET
STA. 375+00'N'
EXISTING 24" X 50' LINED CPCS
TO REMAIN IN PLACE
STA. 379+40'N'
EXISTING 24" X 88' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 30" X 88' CP CL III
1 - AEW FOR CP 30-INCH REQ'D
1 - RECONSTRUCT INLET
1 - MS COVER
STA. 383+98'N'
EXISTING 24" X 85' LINED CPCS
TO REMAIN IN PLACE
STA. 387+00'N'
EXISTING 24" X 52' CPCS
1 - ADJUST INLET COVER LT
STA. 390+77'N'
EXISTING 24" X 88' LINED CPCS
TO REMAIN IN PLACE
STA. 397+00'N'
EXISTING 24" X 56' LINED CPCS
TO REMAIN IN PLACE
PI STA = 383+35.57'N'
Y = 521870.13
X = 820720.31
DELTA = 4°36'32"
D = 1°00'00"
T = 230.57
L = 460.90
R = 5729.58
PC STA = 381+05.00
PT STA = 385+65.90
SE = 2.4%
TRANS. = 112'
PI STA = 391+11.37'N'
Y = 522370.86
X = 821313.20
DELTA = 3°49'55"
D = 1°00'00"
T = 191.67
L = 383.20
R = 5729.58
PC STA = 389+19.70
PT STA = 393+02.90
SE = 2.4%
TRANS. = 112'
PI STA = 396+14.30'N'
Y = 522720.41
X = 821675.00
DELTA = 9°56'28"
D = 2°45'00"
T = 181.20
L = 361.50
R = 2083.48
PC STA = 394+33.10
PT STA = 397+94.60
SE = 4.8%
TRANS. = 174'
PC: 381+05.00'N'
PT: 385+65.90'N'
PC: 389+19.70'N'
PT: 393+02.90'N'
PC: 394+33.10'N'
WHITING RD
BAYFIELD ELECTRIC
NORVADO FO
TEMP BYPASS
SLOPE INTERCEPT (TYP.)
TEL
N54° 25' 11"E
N49° 49' 11"E
N45° 59' 11"E
370'N'
375'N'
380'N'
385'N'
390'N'
395'N'
367+37, 26.8', R
367+44, -26.2', L
368+10.00'N'
368+21, -26.2', L
369+48, -16.7', L
370+46, 40.5', R
371+40, 40.8', R
374+77, 18.0', R
376+43, 17.7', R
378+80, 33.7', R
379+78, 33.7', R
382+17, 17.6', R
MATCHLINE STA. 397+59
5





PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 86 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\STH 13 (SUPERIOR ST - 7TH ST.).DWG PLOT DATE : 12/19/2013 10:53 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

STA. 459+21'N'
EXISTING 42" X 29" X 64' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 42" X 29" X 64' PACS
2 - AEW'S FOR PACS 42X29-INCH REQ'D

SLOPE INTERCEPT (TYP.)

TEMP BYPASS

POC: 459+82.50'N'

459+37 -19.1'L

460+19 -19.6'

461+22 -19.3'L

461+88 -15.7'L

458+34 -15.2'L

459+05 -19.1'L

458+56 -16.0'L

MATCHLINE STA. 457+63

465'N'

460'N'

ELEC

TEL

TEL

PI STA = 457+36.14'N'
Y = 528368.84
X = 821981.79
DELTA = 19°54'43"
D = 4°00'00"
T = 251.44
L = 497.80
R = 1432.39
PC STA = 454+84.70
PT STA = 459+82.50
SE = 5.7%
TRANS. = 197'

STA. 461+00'N'
EXISTING 24" X 66' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 24" X 66' CP CL III
2 - AEW'S FOR CP 24-INCH REQ'D

PT: 467+06.90'N'

PC: 468+19.20'N'

PI STA = 463+46.64'N'
Y = 528981.14
X = 822045.23
DELTA = 14°29'17"
D = 2°00'00"
T = 364.14
L = 724.40
R = 2864.79
PC STA = 459+82.50
PT STA = 467+06.90
SE = 4.0%
TRANS. = 153'

PI STA = 469+59.86'N'
Y = 529559.52
X = 822260.37
DELTA = 13°04'17"
D = 4°40'00"
T = 140.66
L = 280.10
R = 1227.77
PC STA = 468+19.20
PT STA = 470+99.30
SE = 6.0%
TRANS. = 204'

PT: 470+99.30'N'

470'N'

N20° 24' 11"E

EQUATION

STA BACK = 471+10.30
STA AHEAD = 471+94.50'N'

STA. 473+89'N'
EXISTING 42" X 60' CPCS
TO REMAIN IN PLACE

NORVADO FO

475'N'

N33° 28' 11"E

PI STA. 479+46.83
Y = 530191.12
X = 822677.95

PI: 478+00.00'N'

480'N'

MILLIGAN RD

HATCHERY RD

N32° 41' 11"E

SLOPE INTERCEPT (TYP.)

482+06 -16.3'L

482+98 -22.3'L

483+50 -22.3'L

484+44 -16.3'L

TEMP BYPASS

TEL

TEL

485'N'

GAS

TEL

OH

TEL

GAS

PC: 486+60.40'N'

STA. 485+60'N'
EXISTING 24" X 76' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 24" X 70' CPRC CL III
2 - AEW'S FOR CPRC 24-INCH REQ'D

STA. 485+68'N'
EXISTING 24" X 76' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 24" X 70' CPRC CL III
2 - AEW'S FOR CPRC 24-INCH REQ'D

CAUTION

CAUTION

STA. 483+20'N'
EXISTING 24" X 68' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 24" X 62' CPRC CL III
2 - AEW'S FOR CPRC 24-INCH REQ'D

STA. 483+27'N'
EXISTING 24" X 68' CPCS
1 - REMOVE SMALL PIPE CULVERT
1 - 24" X 64' CPRC CL III
2 - AEW'S FOR CPRC 24-INCH REQ'D

STA. 488+39'N'
EXISTING 48" X 70' CPCS
REMOVE SMALL PIPE CULVERT
1 - 48" X 76" X 62' CPRC HE-III
2 - AEW'S FOR CPRC HE 48X76-INCH REQ'D
1 - PIPE GRATE RT
MAINTAIN EXISTING STREAM FLOW WITH PUMPING DEVICE THAT DISCHARGES TO PIPES AT STA. 485+60'N' AND STA. 485+68'N'

MATCHLINE STA. 488+88

STA. 504+25'N'
EXISTING 36" X 136' CPCS
2 - REMOVE AEW'S
1 - 36" X 136' CULVERT PIPE LINER
2 - AEW'S FOR CPCS 36-INCH REQ'D

NORVADO FO

PT: 498+34.90'N'

490'N'

495'N'

500'N'

PORT SUPERIOR RD

EQUATION

STA BACK = 498+34.90
STA AHEAD = 498+30.10'N'

PI STA = 492+55.95'N'
Y = 531416.50
X = 823464.22
DELTA = 23°23'32"
D = 1°59'30"
T = 595.55
L = 1174.50
R = 2876.78
PC STA = 486+60.40
PT STA = 498+34.90
SE = 4.0%
TRANS. = 153'

STA. 499+11'N'
EXISTING 36" X 78' CPCS
TO REMAIN IN PLACE

GAS

TEL

TEL

505'N'

TEL

STA. 510+87'N'
EXISTING 24" X 72' LINED CPCS
TO REMAIN IN PLACE

510'N'

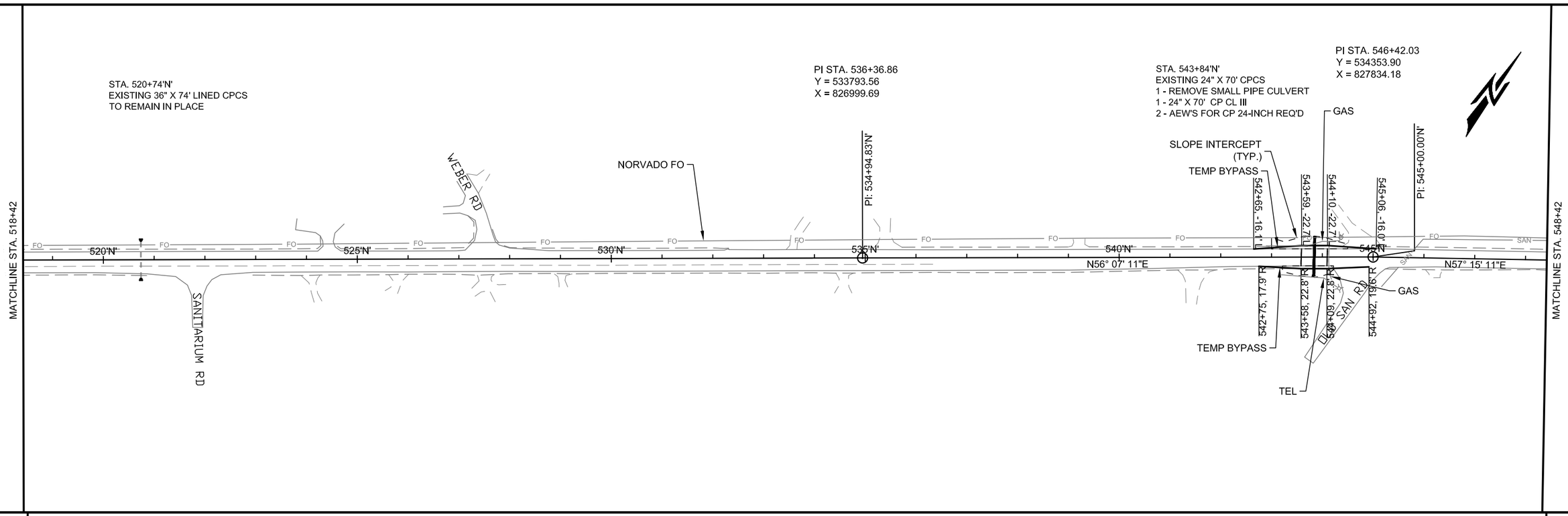
BAYVIEW RD

515'N'

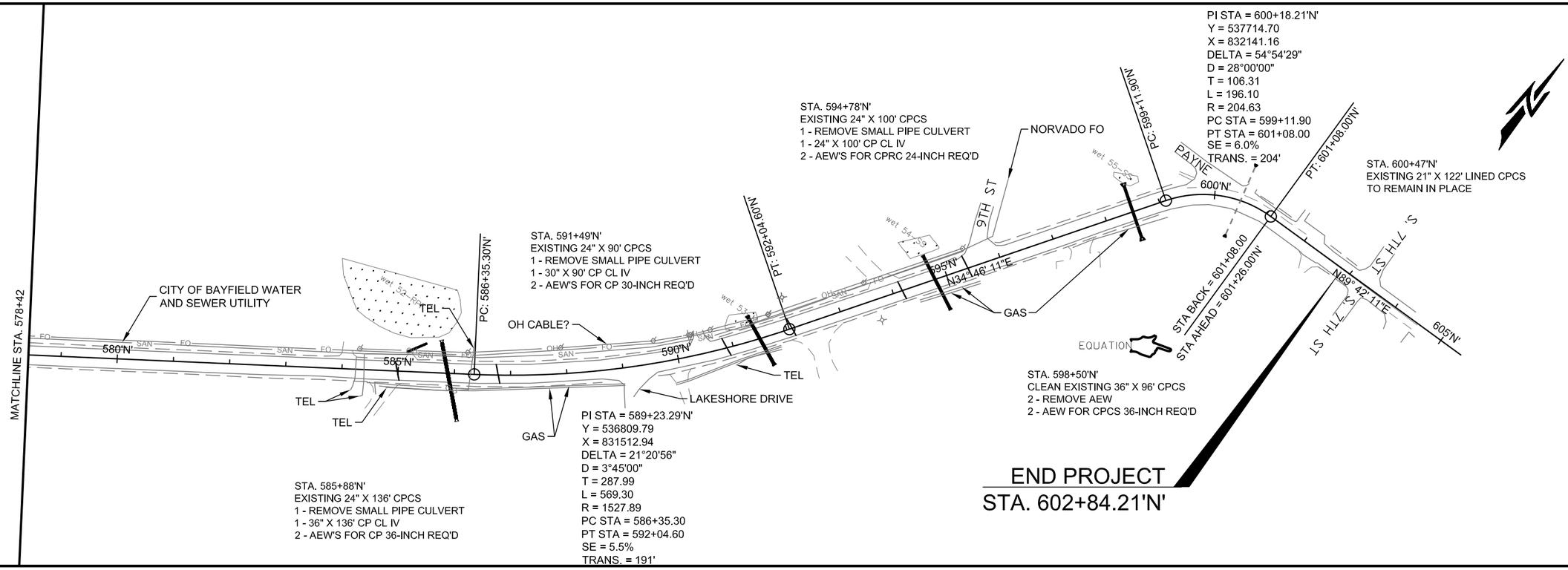
N56° 05' 11"E

MATCHLINE STA. 518+42

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 87	E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 88 E



5

5

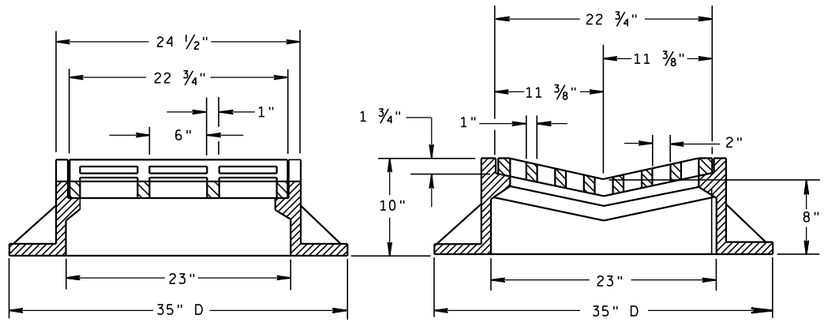
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	PLAN SHEETS: STH 13 'N'	SHEET 89	E

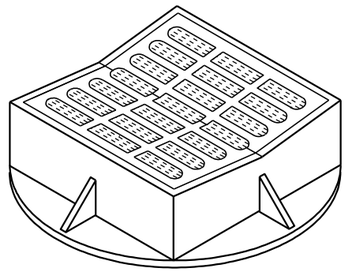
Standard Detail Drawing List

08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

6

6

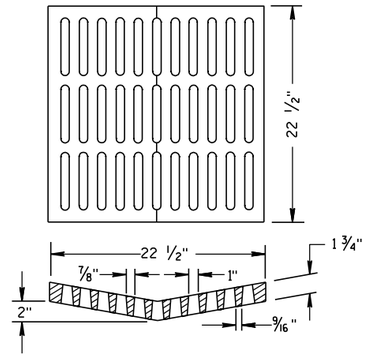




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

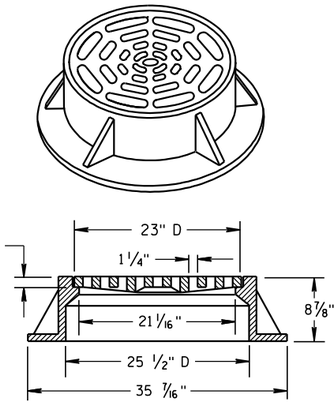


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

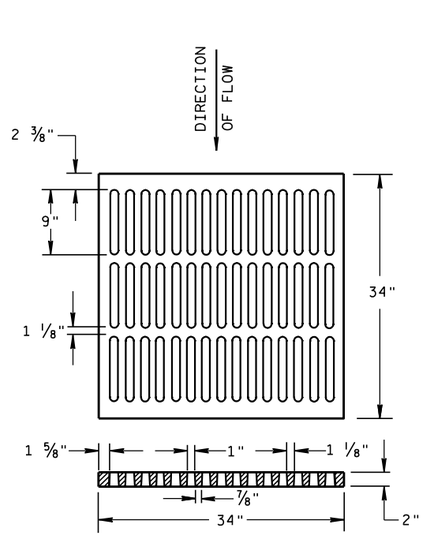
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

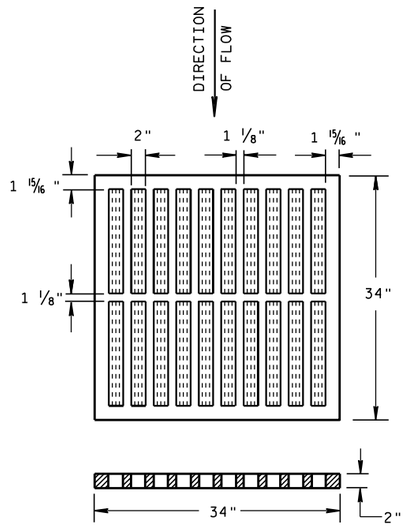


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

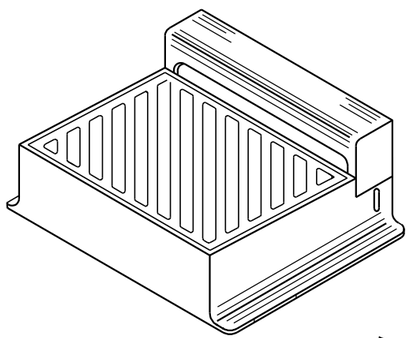


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

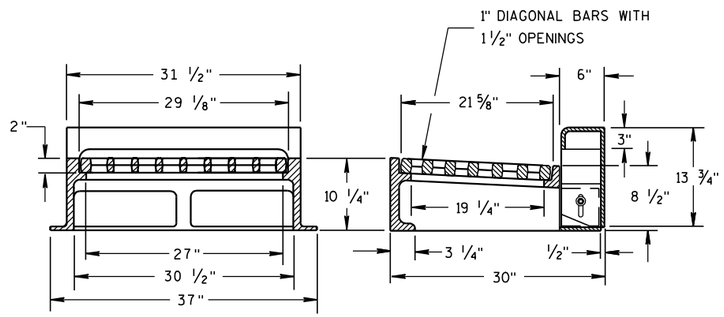
USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER

91

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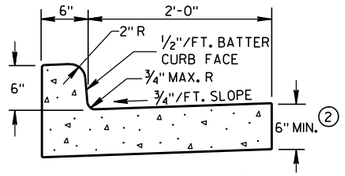
FHWA

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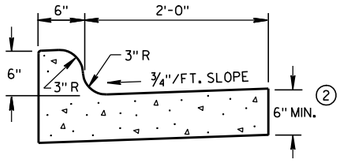
S.D.D. 8 A 5-18b

6

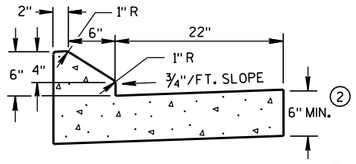
S.D.D. 8 A 5-18b



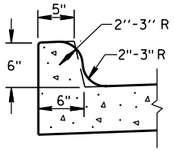
TYPES A & D (1)



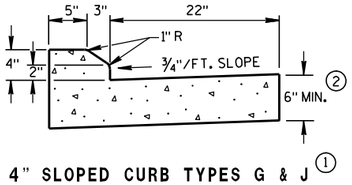
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

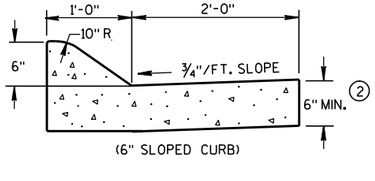


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

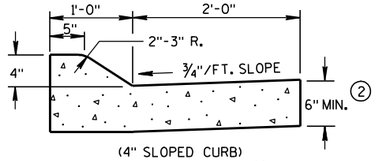


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

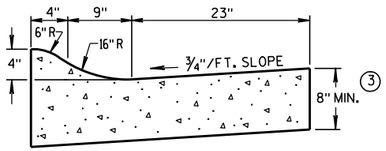


(6" SLOPED CURB)



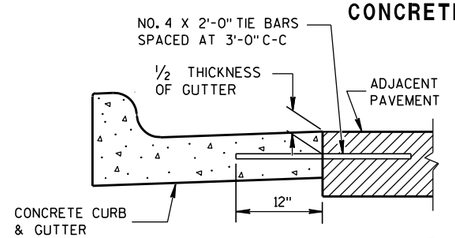
(4" SLOPED CURB)

TYPES A & D (1)

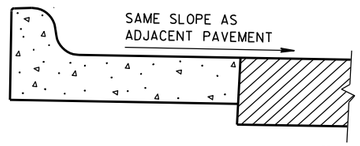


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

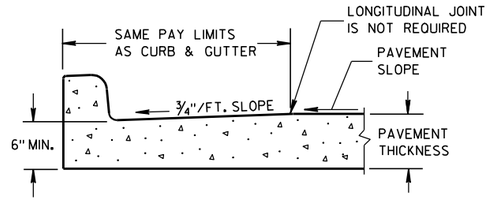
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

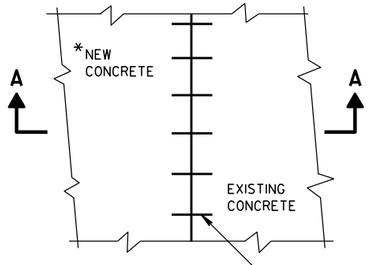
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

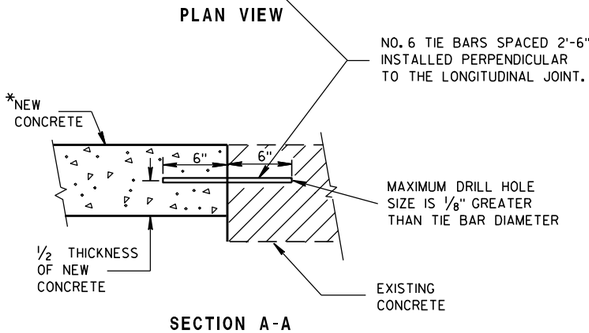


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



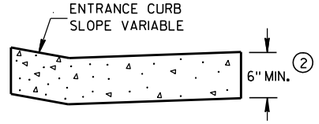
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

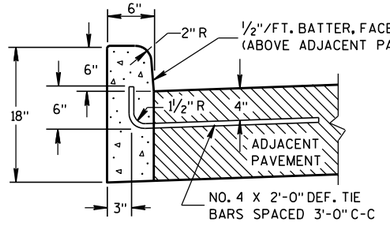


SECTION A-A

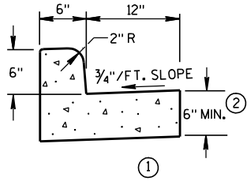
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

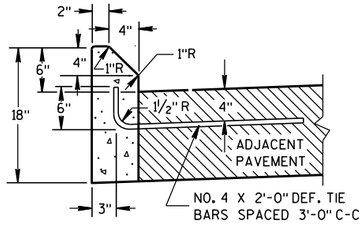


(1) TYPES A & D

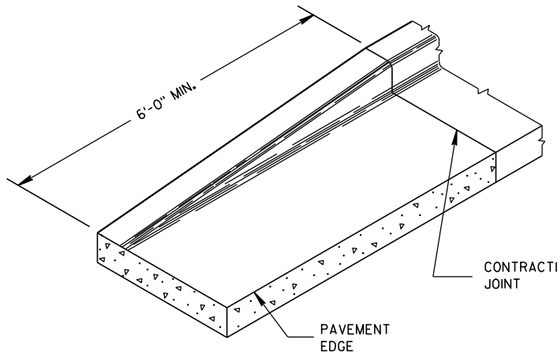


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

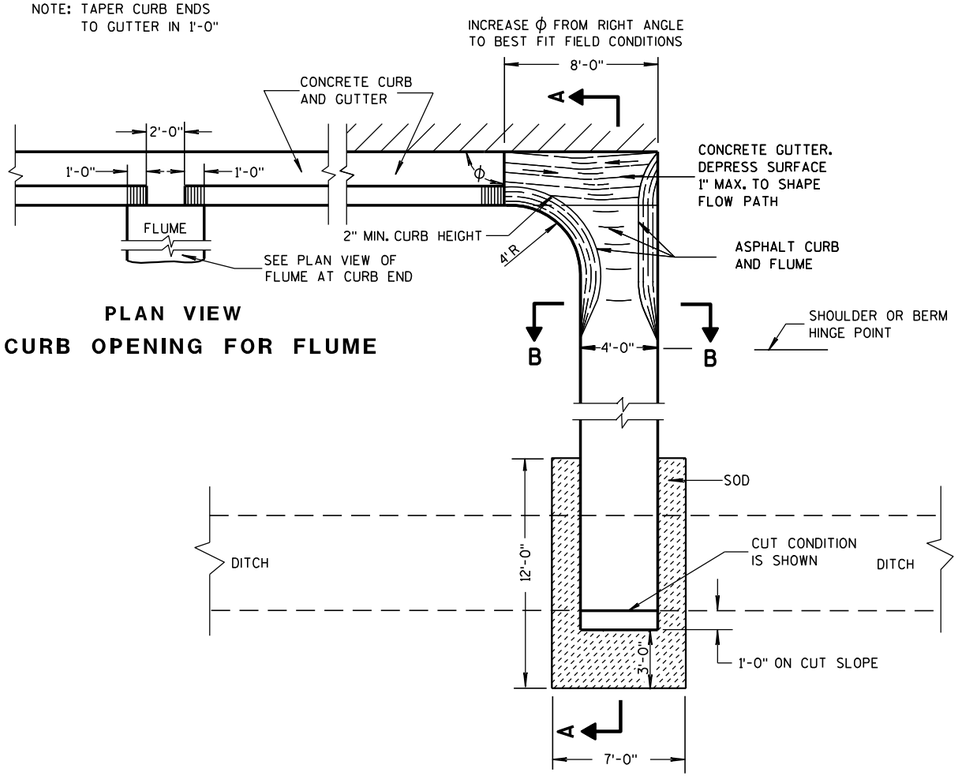
APPROVED
9/4/08 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

6

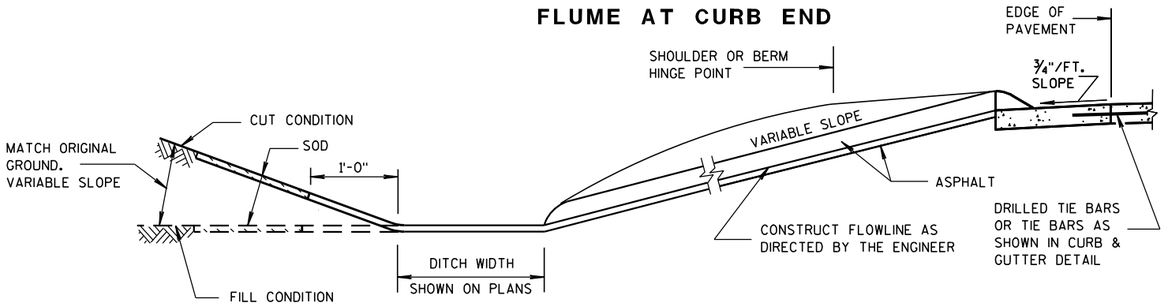
S.D.D. 8 D 1-17

ASPHALTIC FLUME

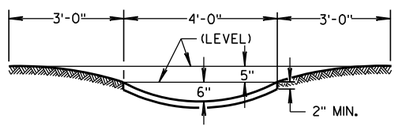


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

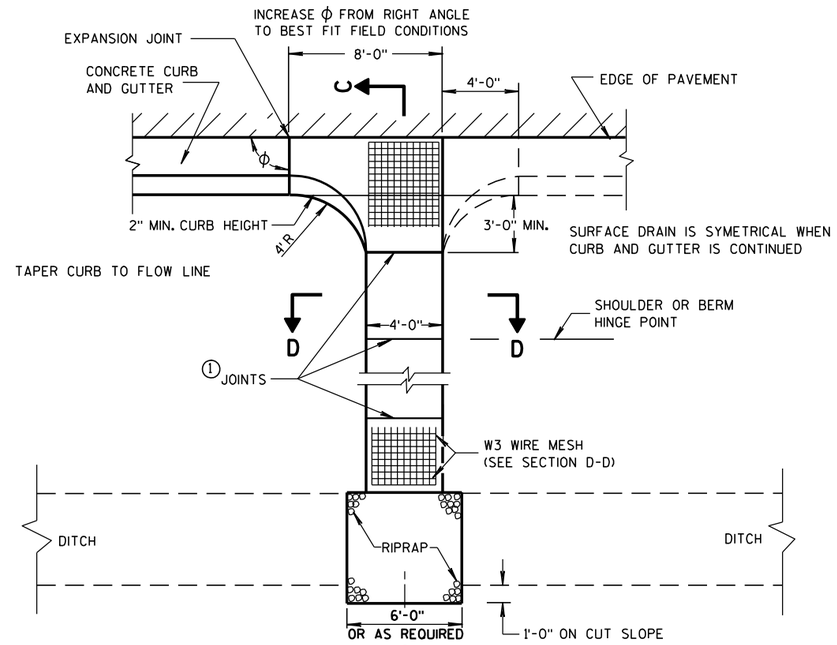
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

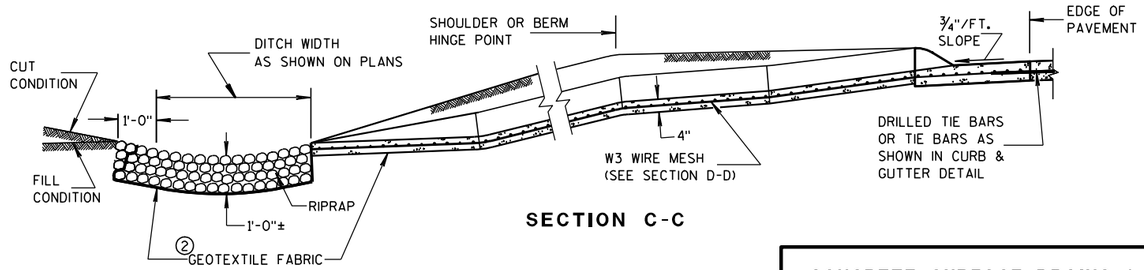
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

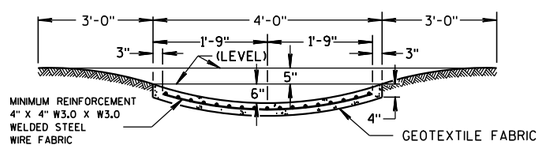
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

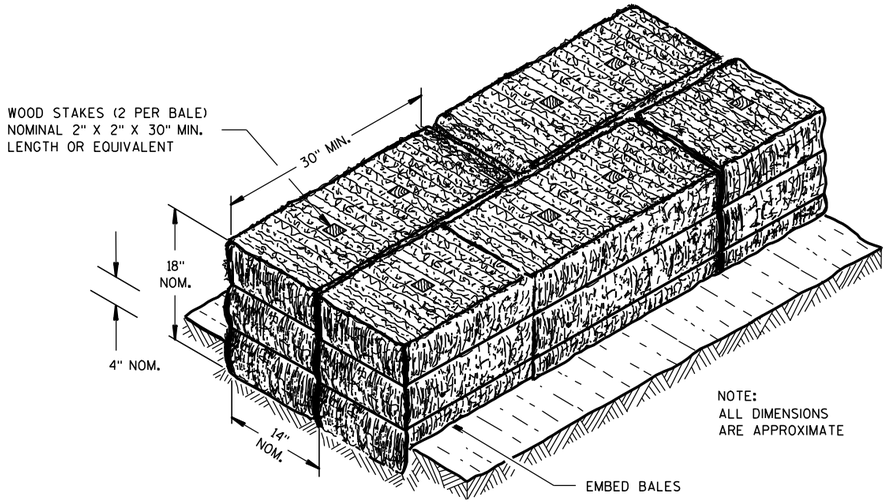
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
93
MENT
FHWA

6

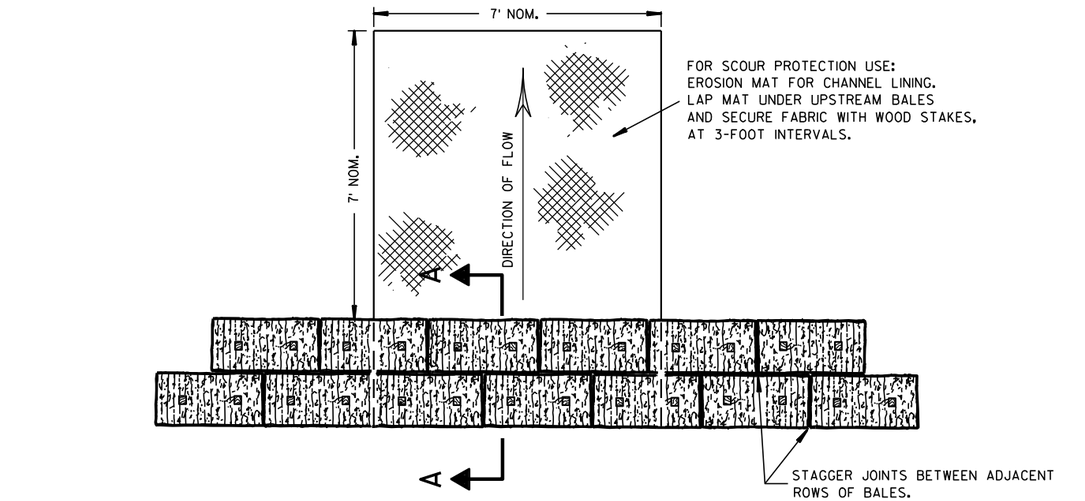
S.D.D. 8 D 4-5

6

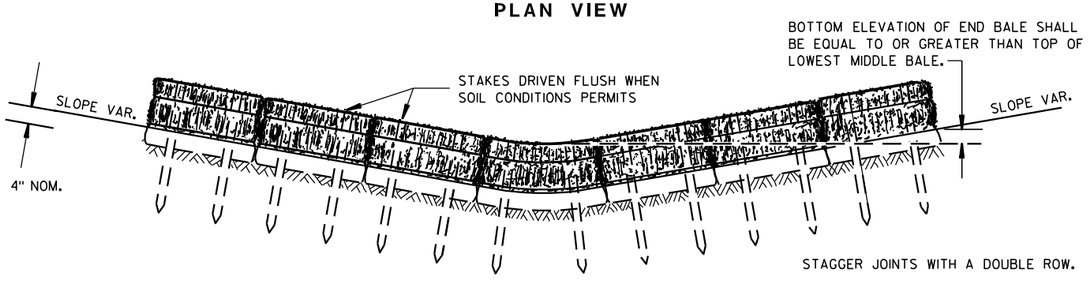
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



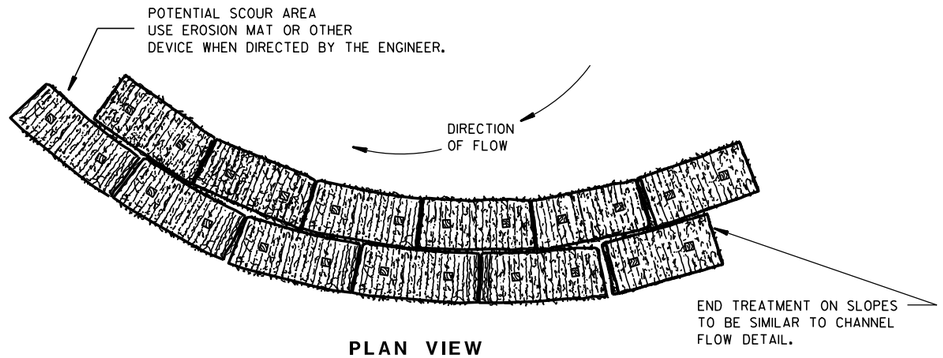
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

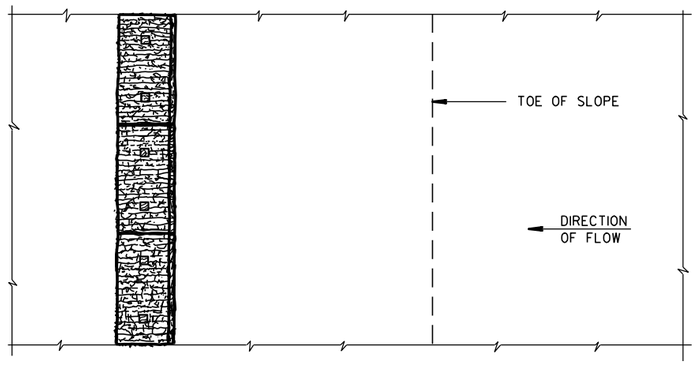
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

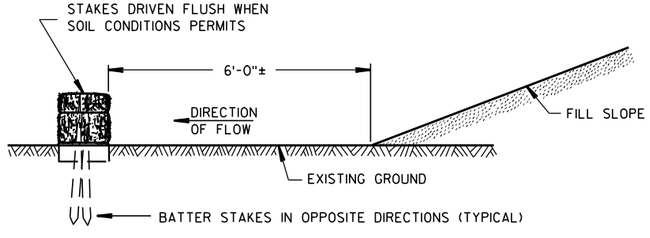


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

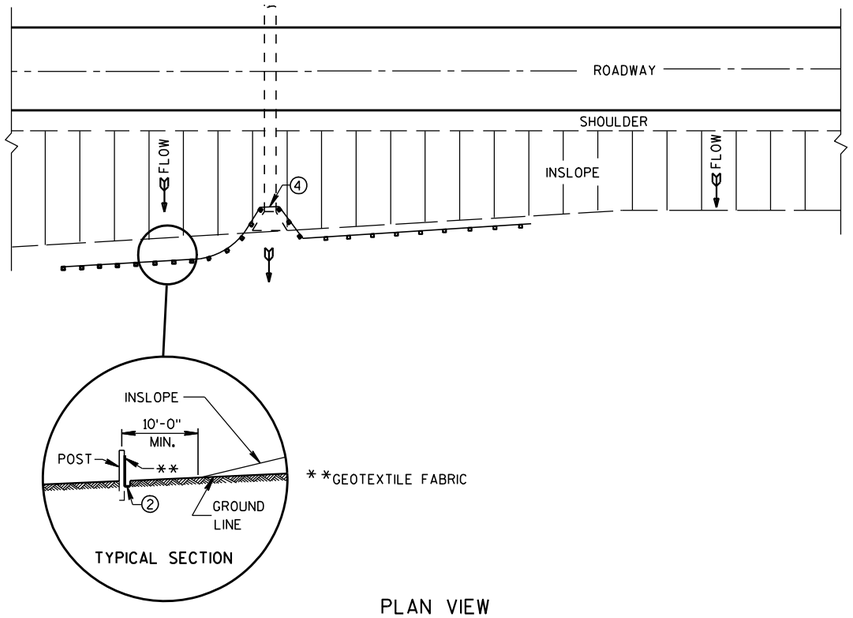
FHWA

6

S.D.D. 8 E 8-3

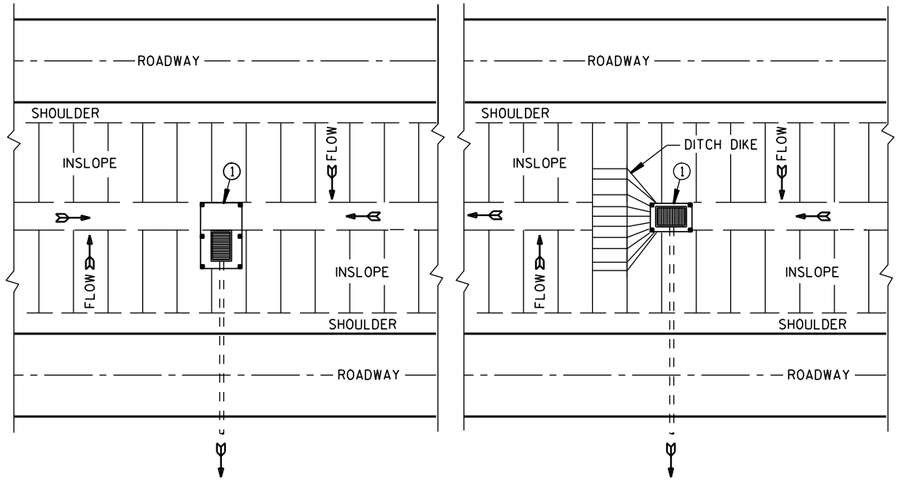
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

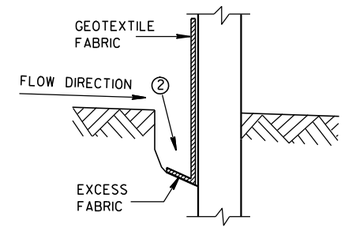
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

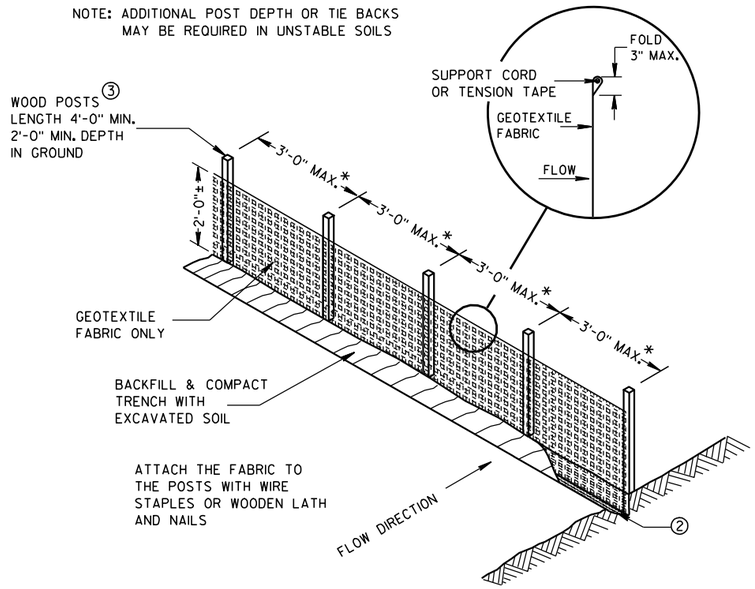
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

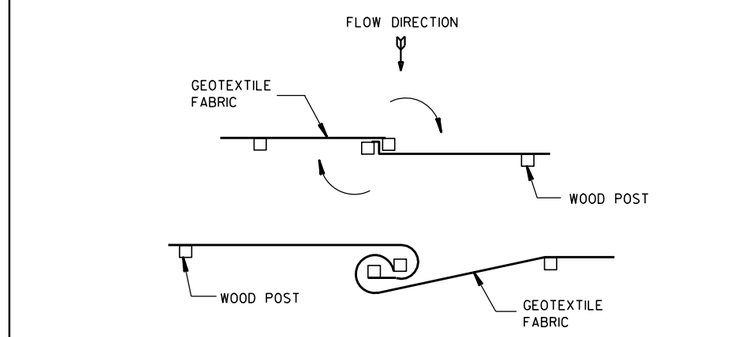


TRENCH DETAIL

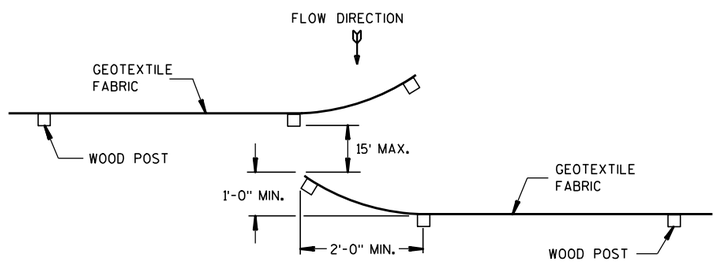


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

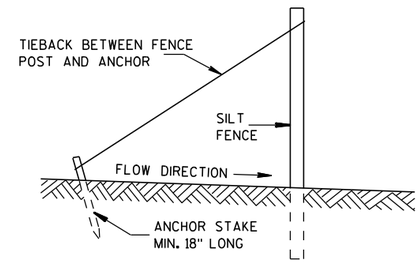


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

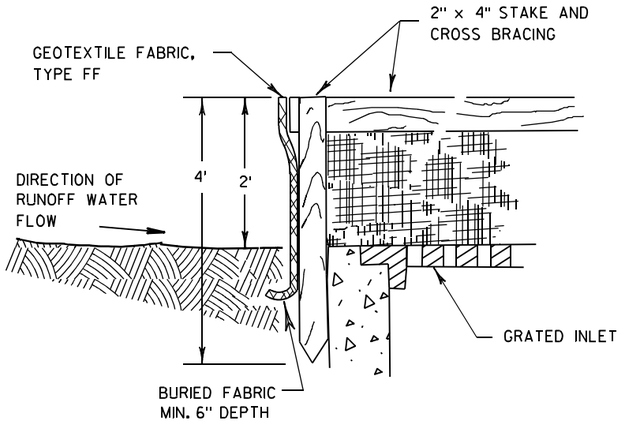
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

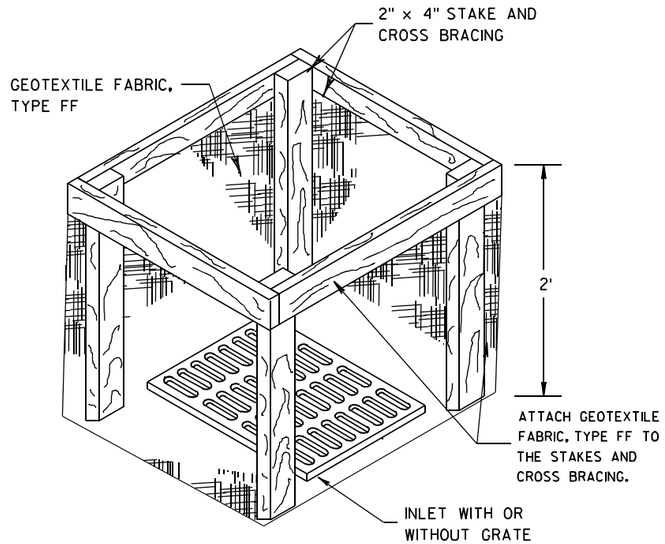
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S.D.D. 8 E 9-6

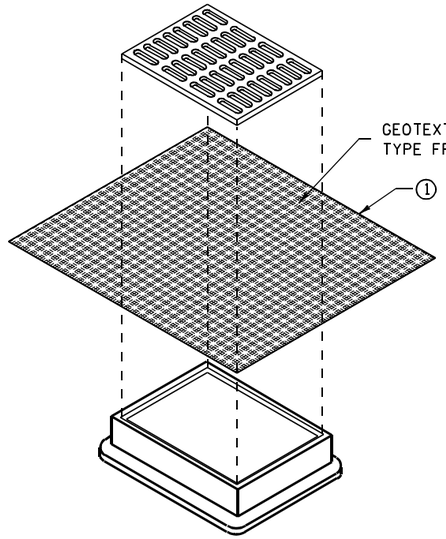
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S.D.D. 8 E 9-6



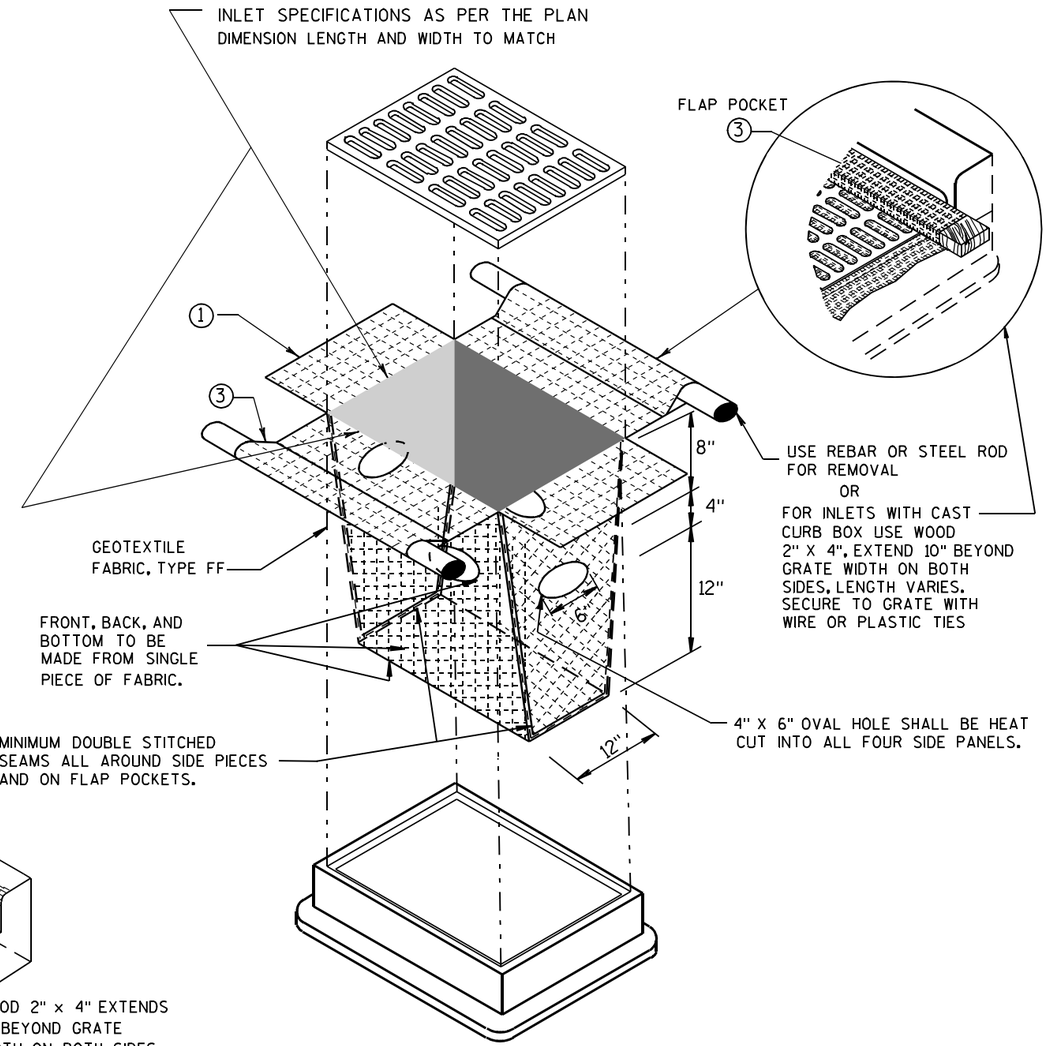


INLET PROTECTION, TYPE A



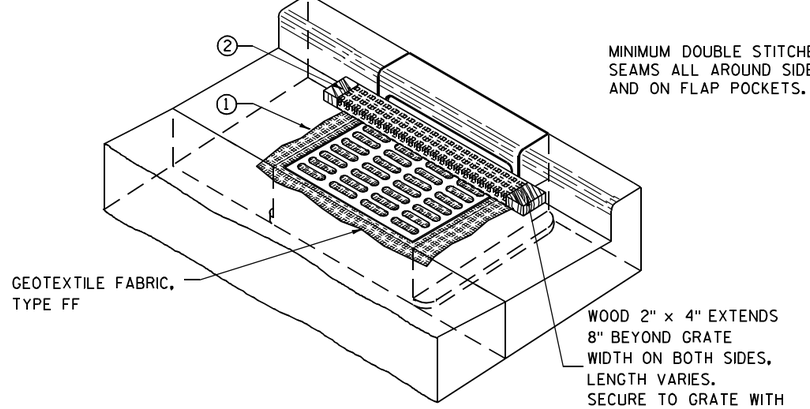
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2

METAL APRON ENDWALLS

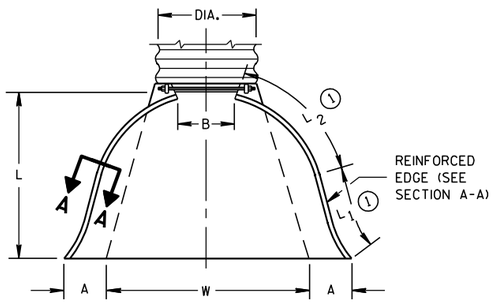
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

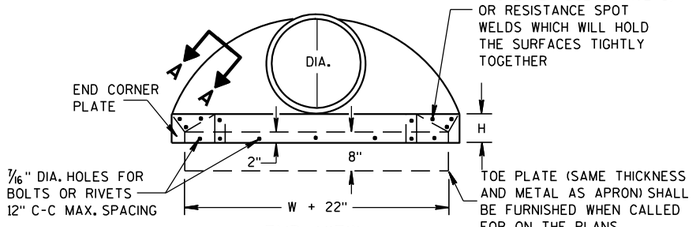
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

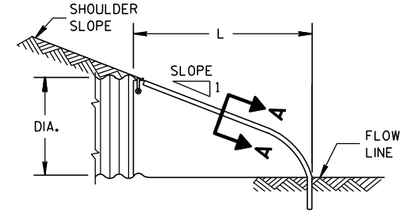
*MINIMUM
**MAXIMUM



PLAN VIEW

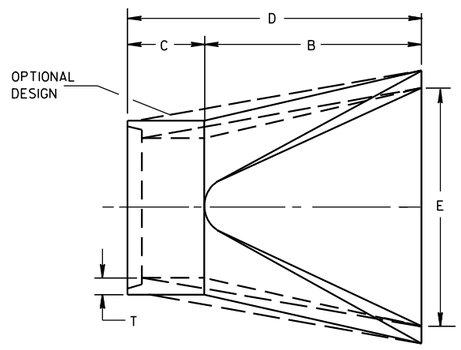


END VIEW

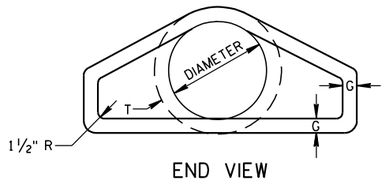


SIDE ELEVATION

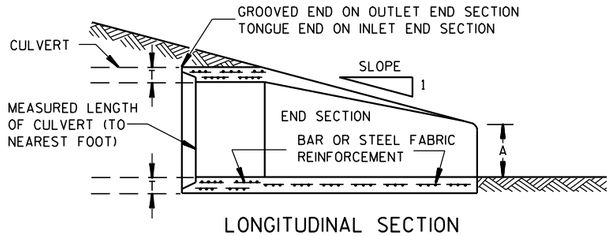
METAL ENDWALLS



PLAN

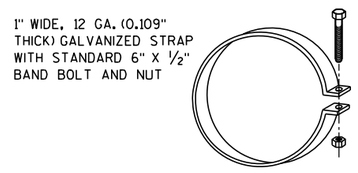


END VIEW



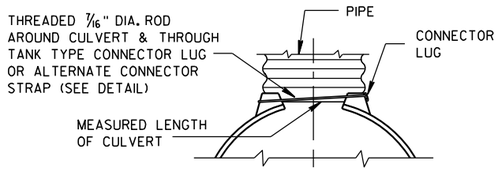
LONGITUDINAL SECTION

CONCRETE ENDWALLS

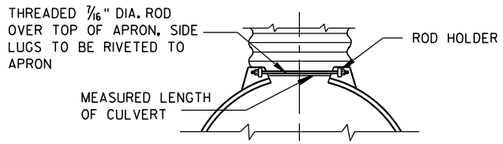


ALTERNATE FOR TYPE 1 CONNECTION

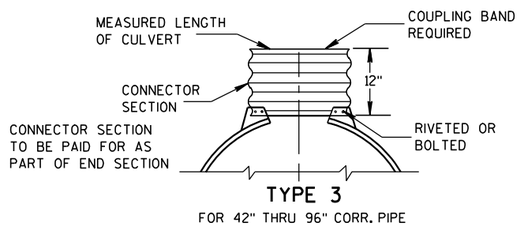
END SECTION CONNECTOR STRAP



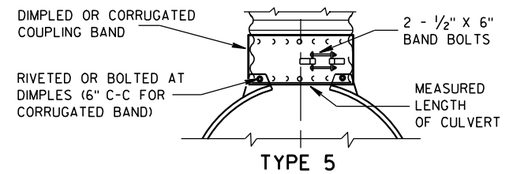
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

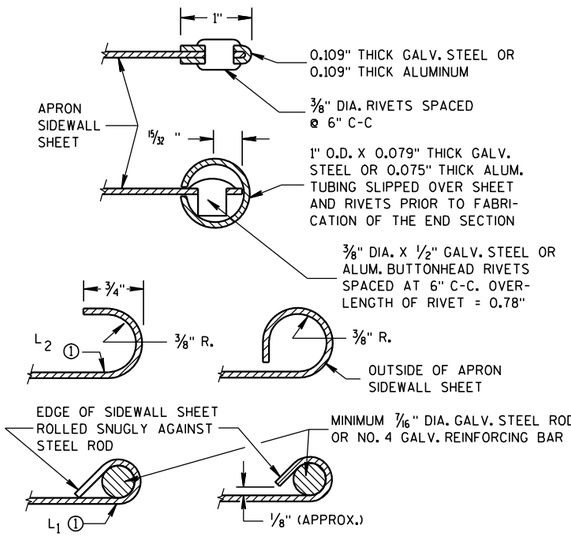
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

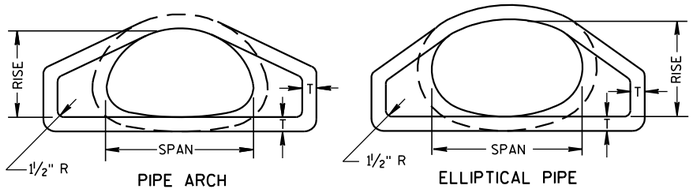
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

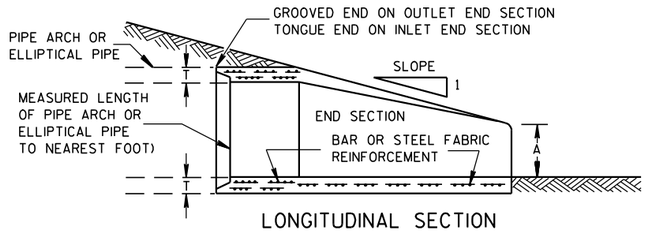
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

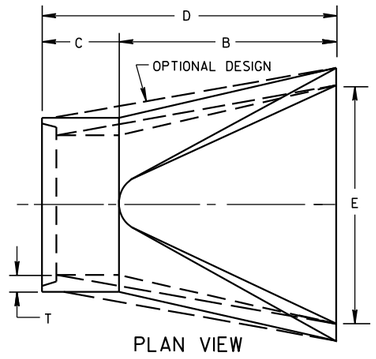
6
S.D.D. 8 F 1-11



END VIEW

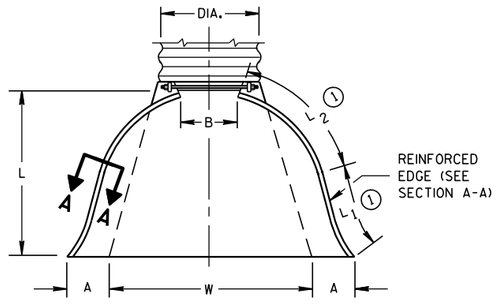


LONGITUDINAL SECTION

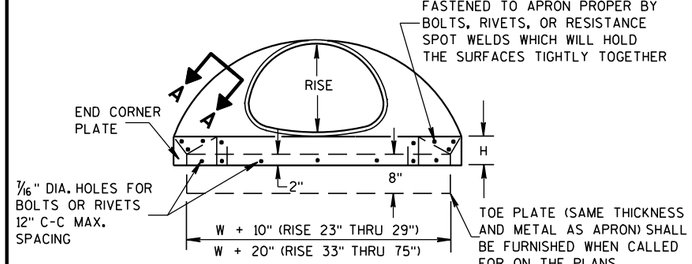


PLAN VIEW

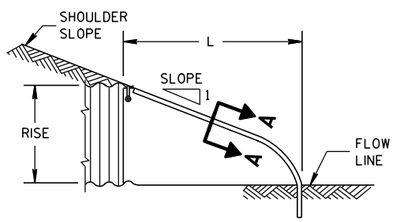
CONCRETE ENDWALLS



PLAN VIEW

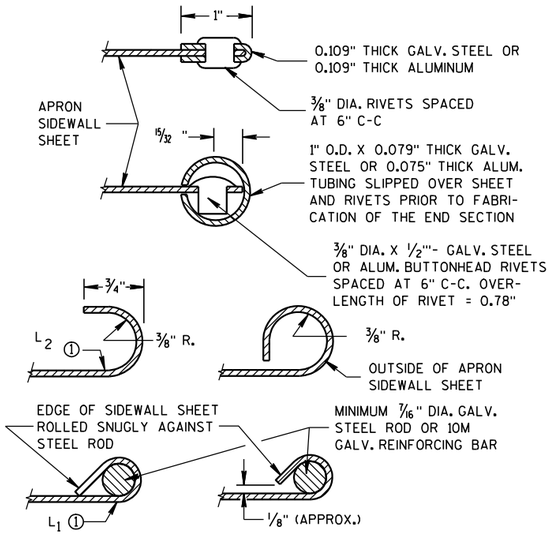


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

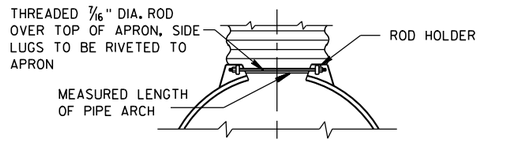
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

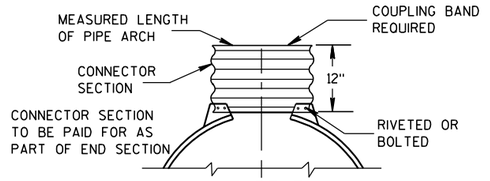
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



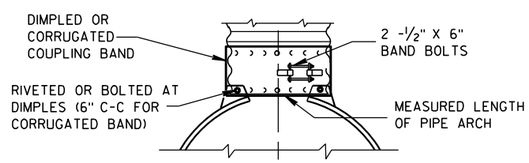
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

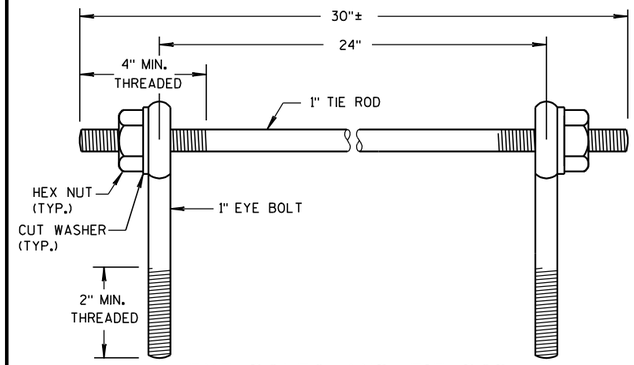
APPROVED

11/30/94 — DATE

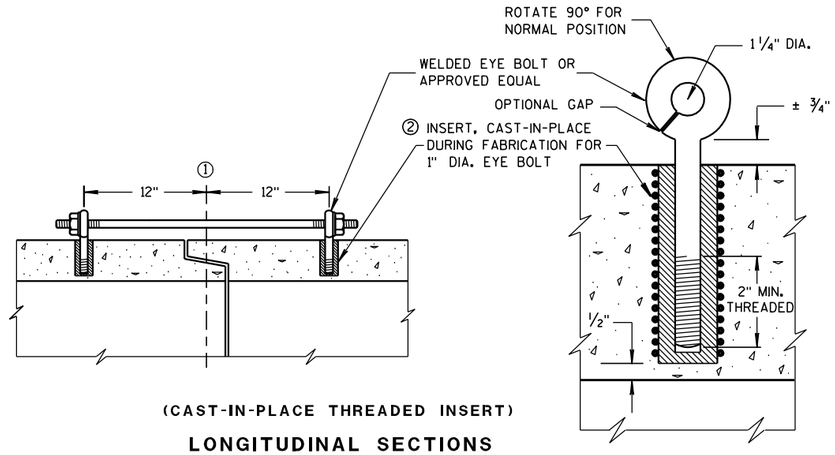
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6 S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

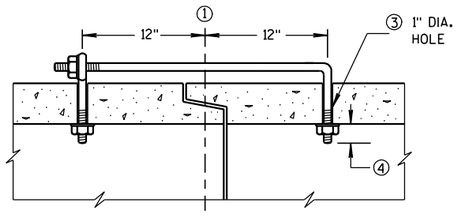
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

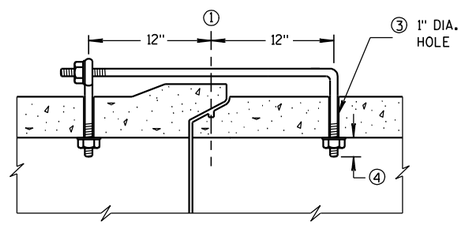
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

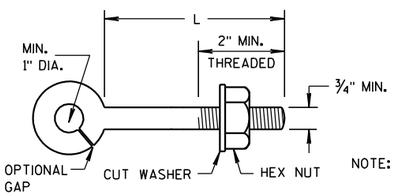


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

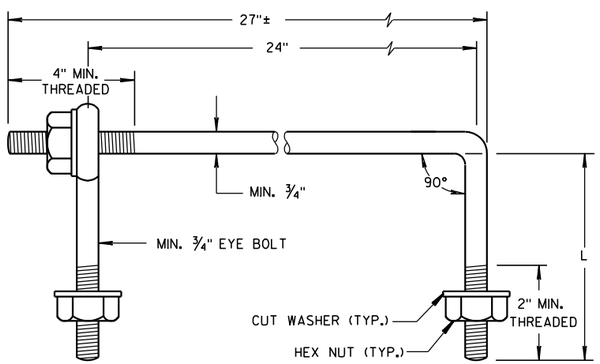
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

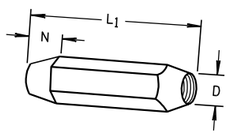
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

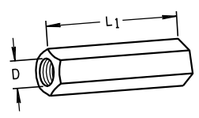
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



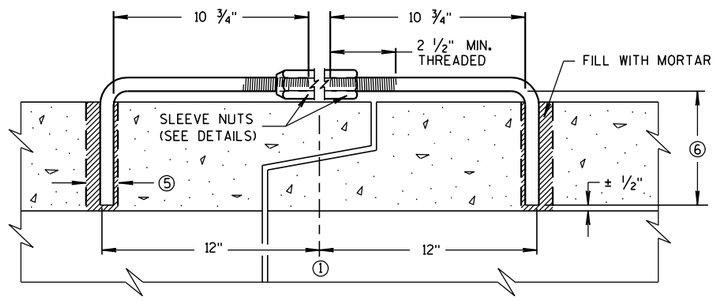
TAPERED



PLAIN

RIGHT AND LEFT THREADS

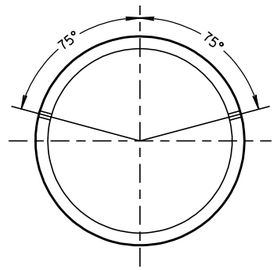
SLEEVE NUTS



LONGITUDINAL SECTION

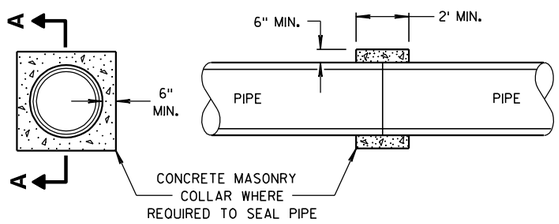
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS 99 ENGINEER
FHWA

6

S.D.D. 8 F 4-7

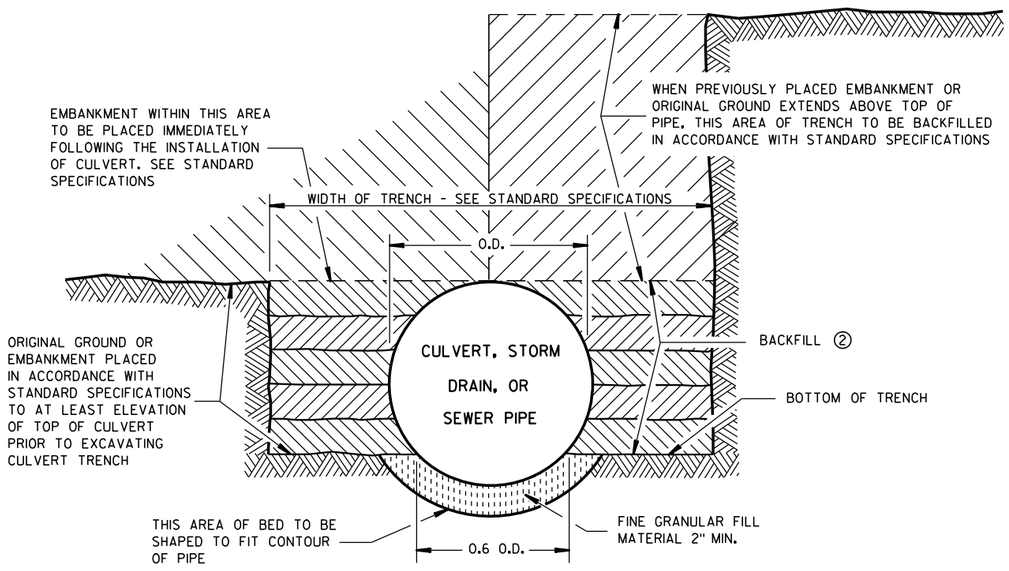
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

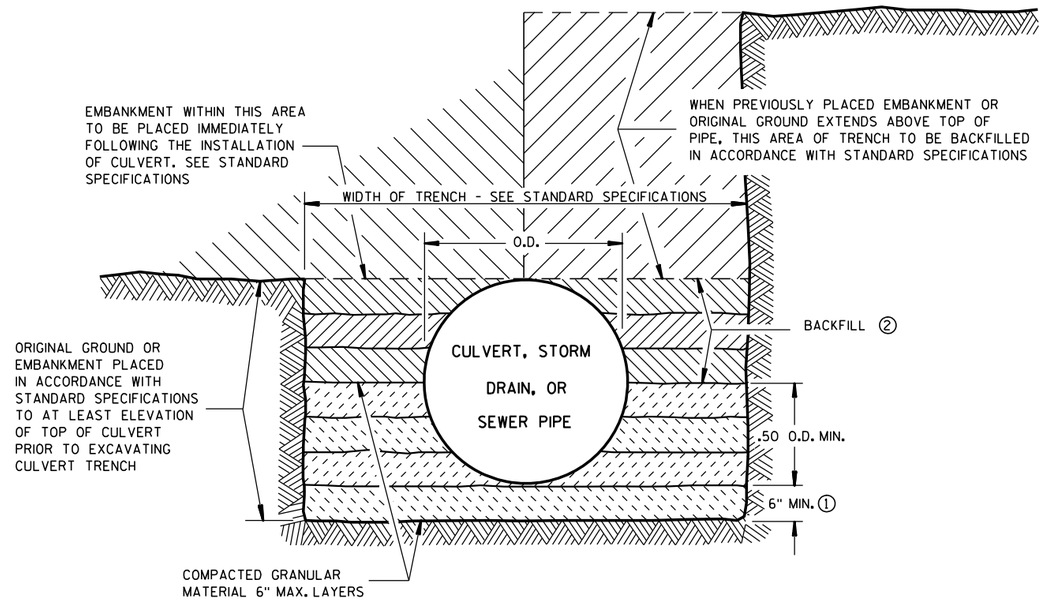
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO ½ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.

② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



GRANULAR FOUNDATION

CLASS "B" BEDDING

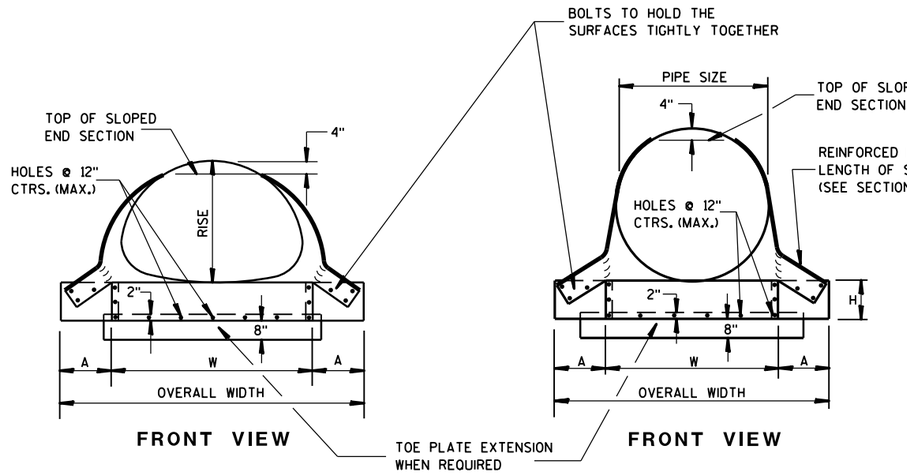
CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/7/83 DATE	/S/ D. L. Strand STATE DESIGN ENGINEER
FHWA	HWYS

6

S.D.D. 8 F 5-1

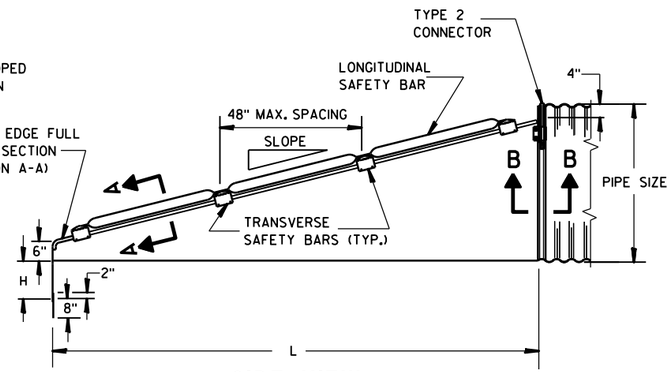
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S.D.D. 8 F 5-1



FRONT VIEW

FRONT VIEW



SIDE VIEW
(48" SIZE ILLUSTRATED)

GENERAL NOTES

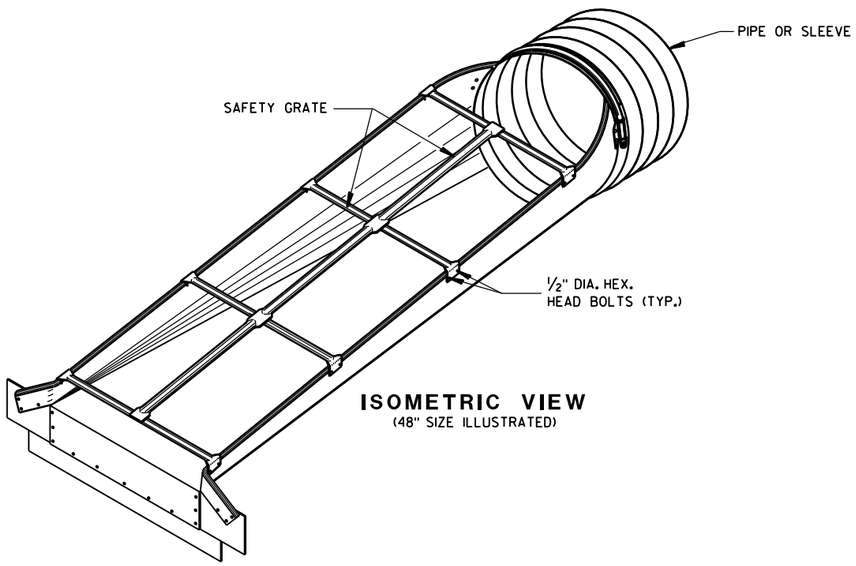
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

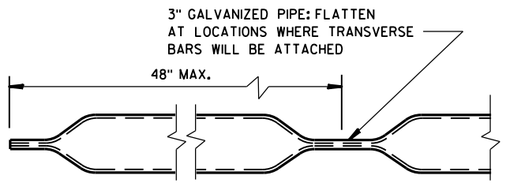
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS

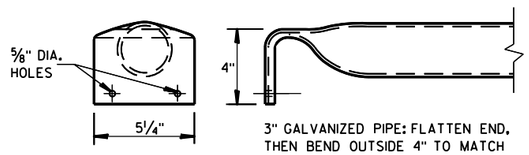
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300



ISOMETRIC VIEW
(48" SIZE ILLUSTRATED)



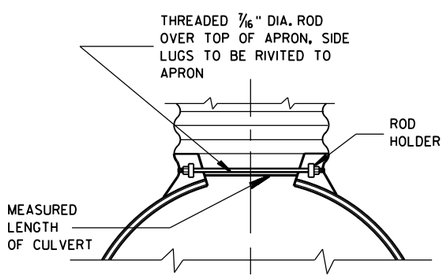
LONGITUDINAL SAFETY BAR



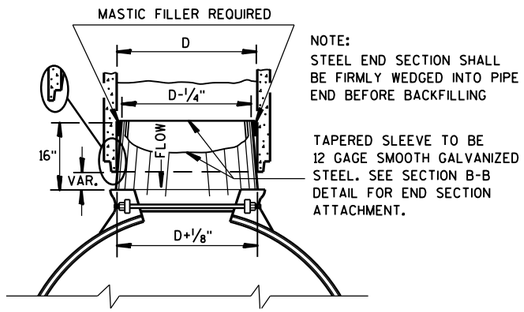
TRANSVERSE SAFETY BAR

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS

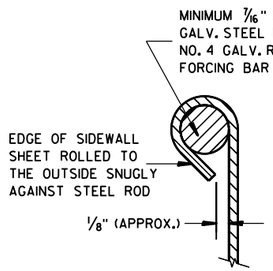
EQUIV. DIA. (IN.)	INCHES		MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	SPAN	RISE	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



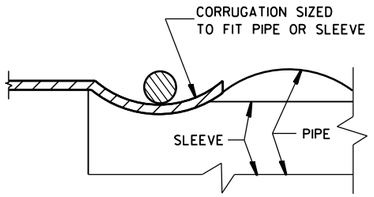
TYPE 2 CONNECTOR DETAIL



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



SECTION A-A



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

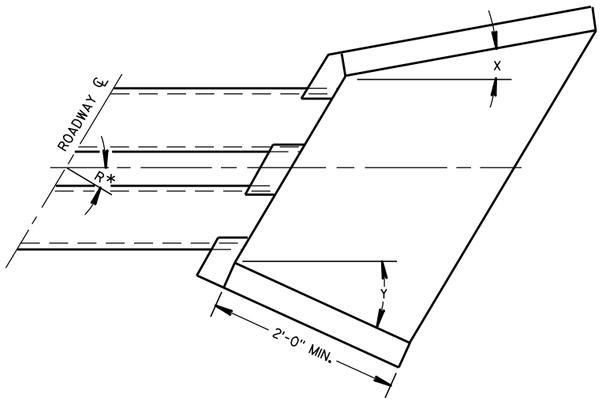
FHWA

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S.D.D. 8 F 8-2

6

S.D.D. 8 F 8-2



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

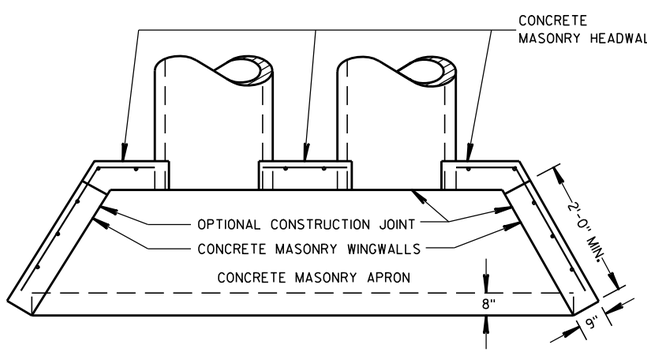
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

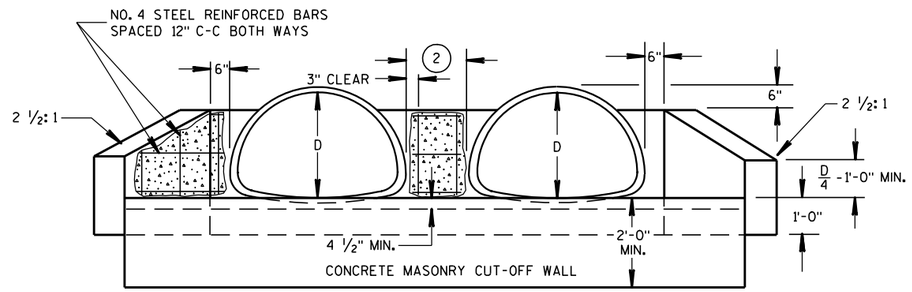
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3'-0"



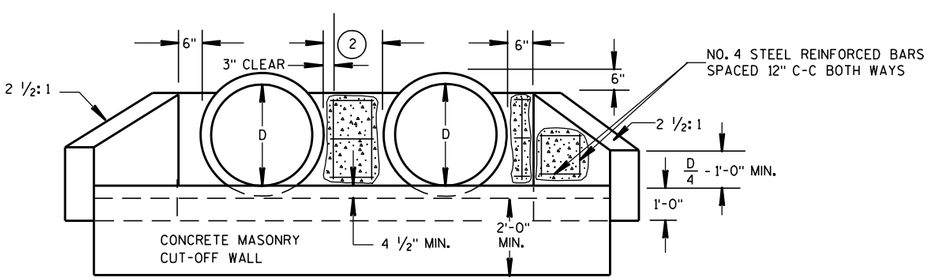
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



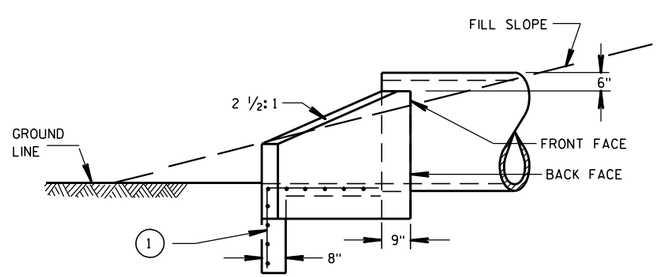
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

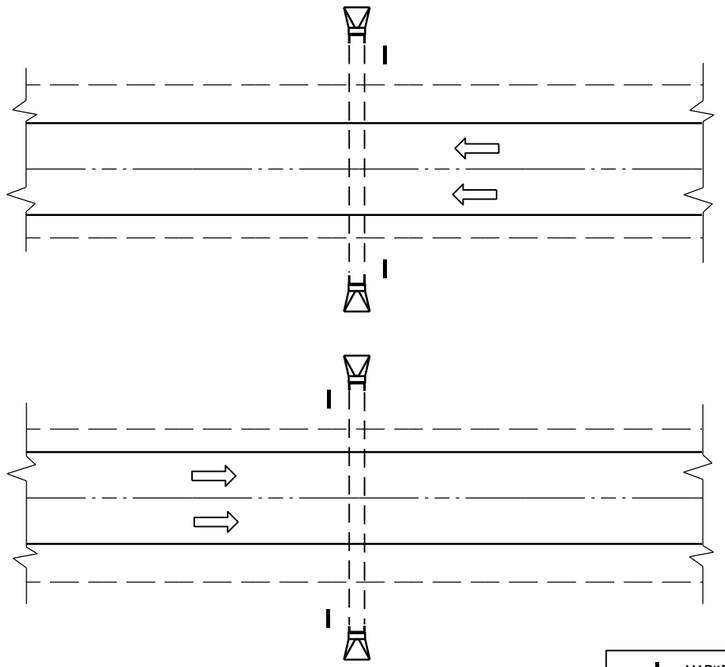
9/14/98 — DATE

/S/ Rory L. Rhinehart — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

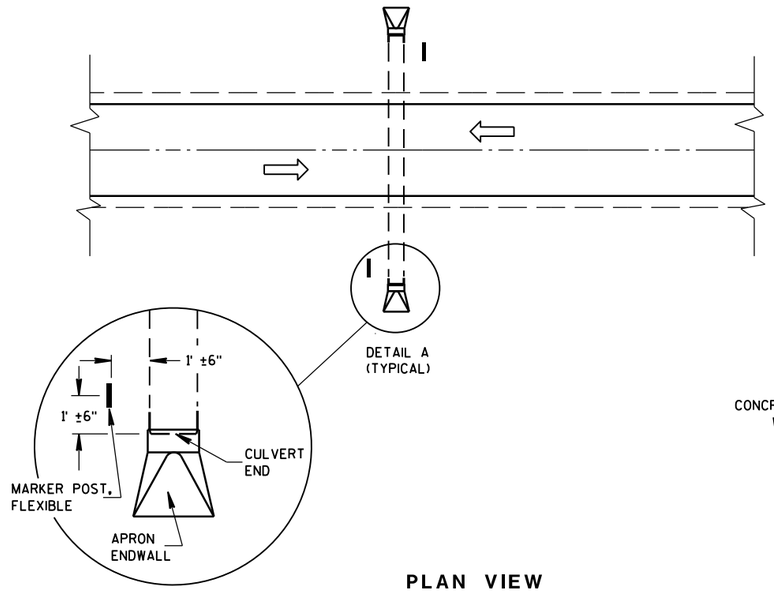
6

S.D.D. 8 F 10-1



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

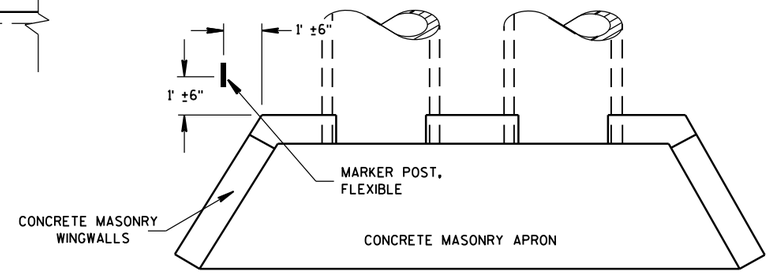
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

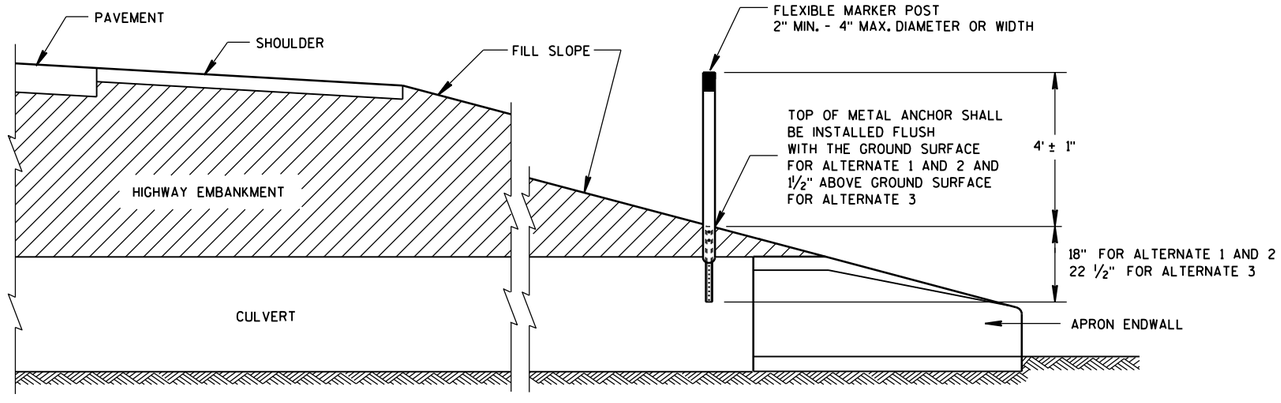
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

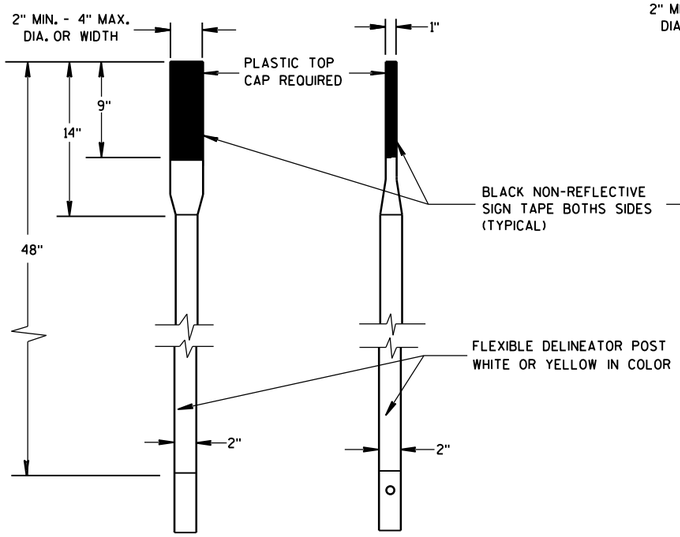
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

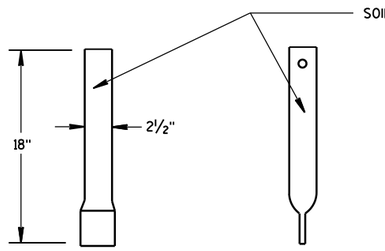
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S.D.D. 15 A 3-2a

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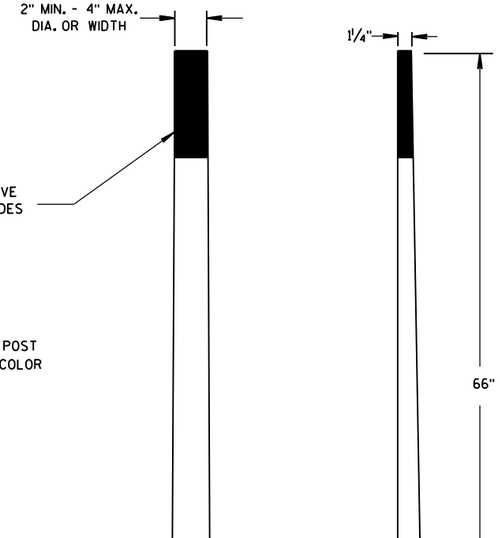
S.D.D. 15 A 3-2a





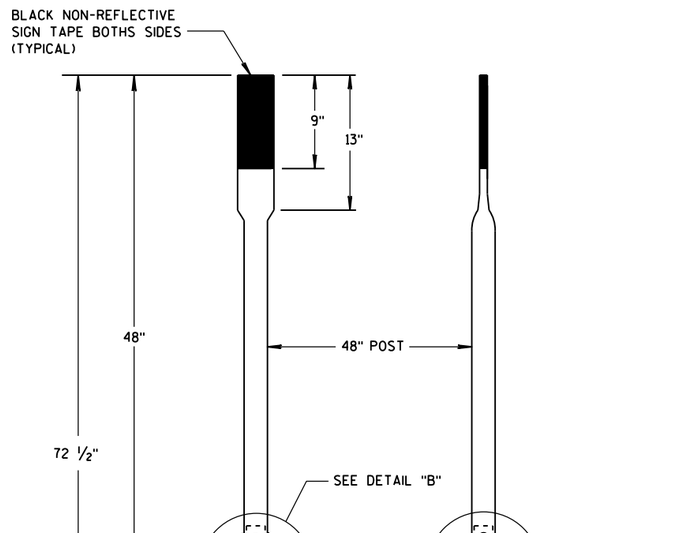
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

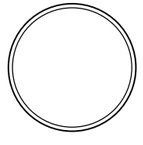
ALTERNATE 2



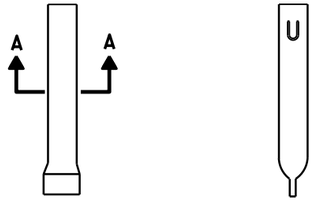
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

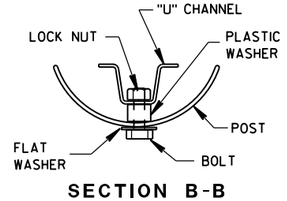


SECTION A-A

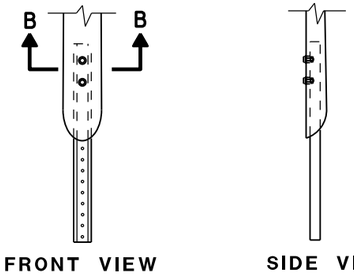


FRONT VIEW SIDE VIEW

ALTERNATE 1

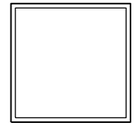


SECTION B-B

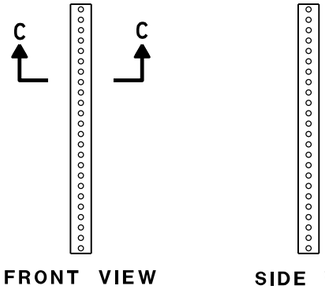


FRONT VIEW SIDE VIEW

ALTERNATE 2



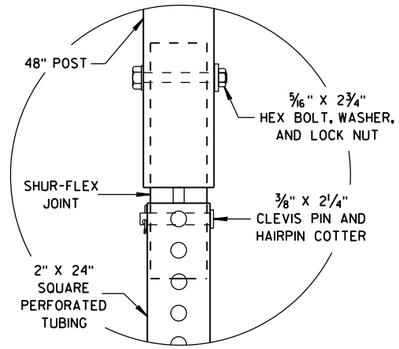
SECTION C-C



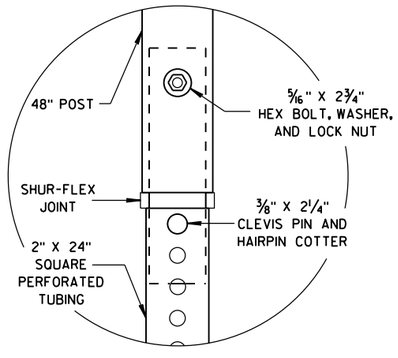
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

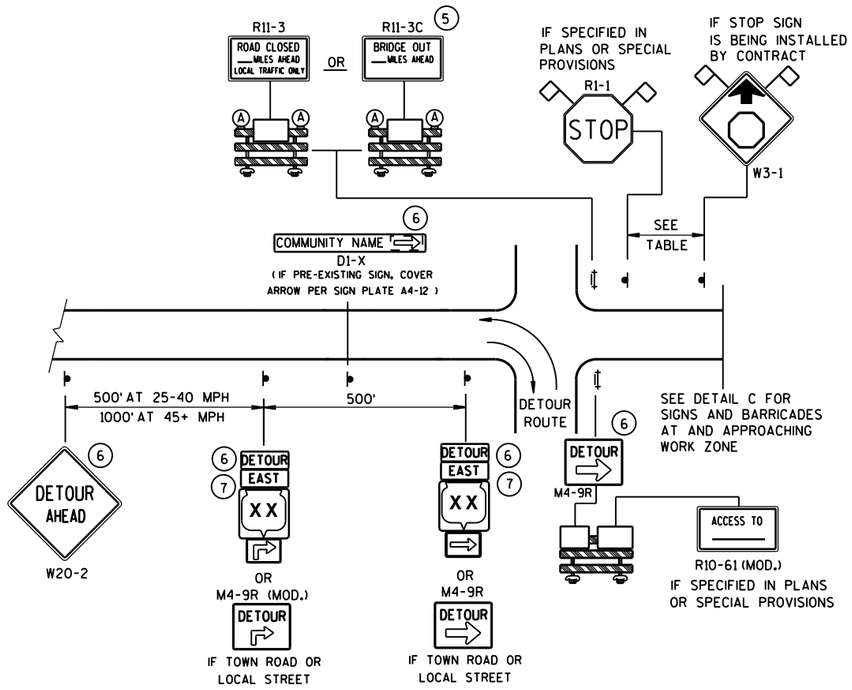
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

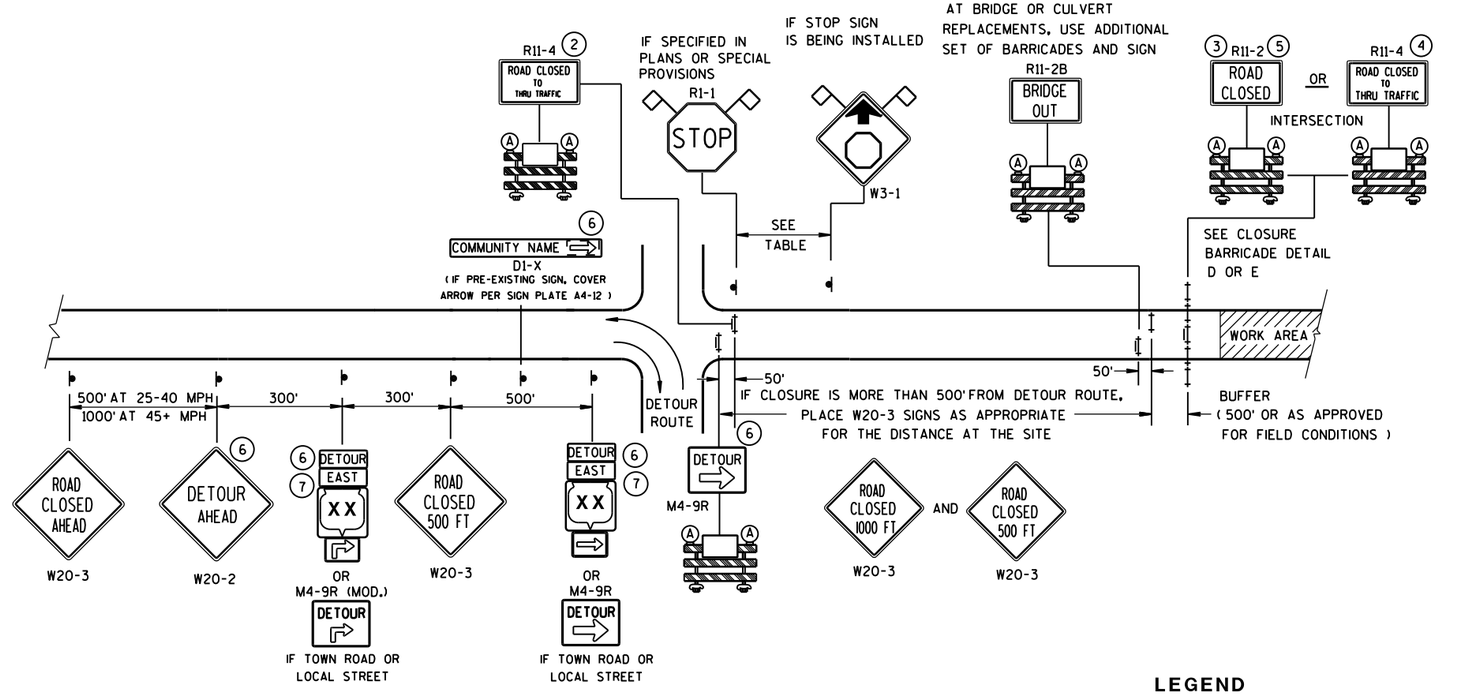
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S.D.D. 15 A 3-2b



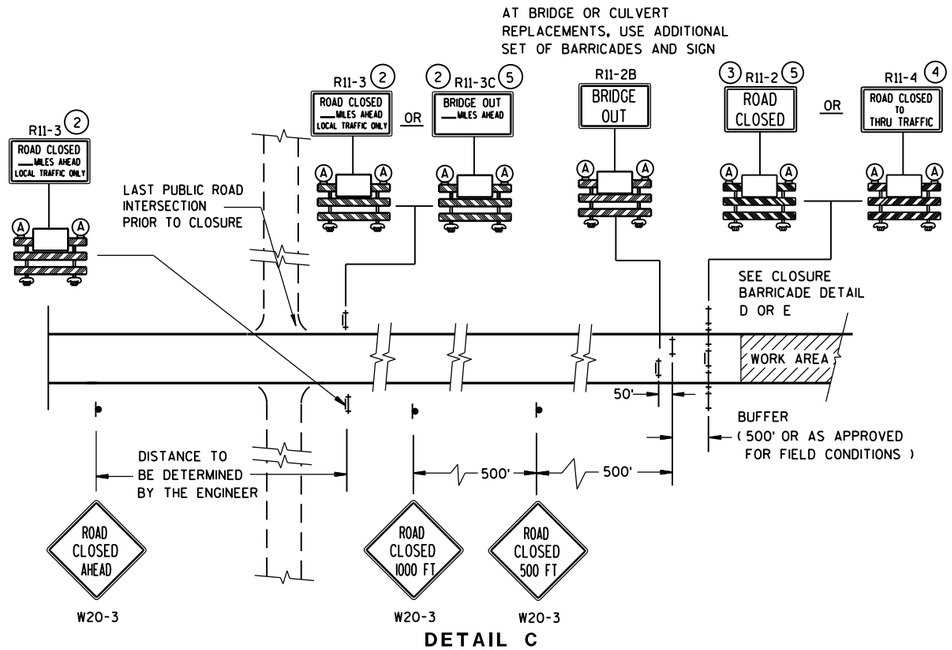
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

105

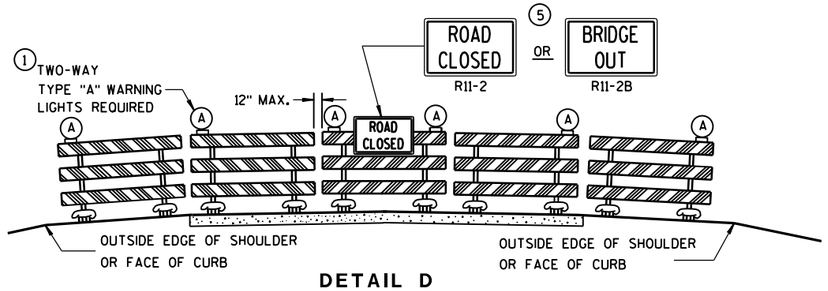
FHWA

6

S.D.D. 15 C 2-5a

6

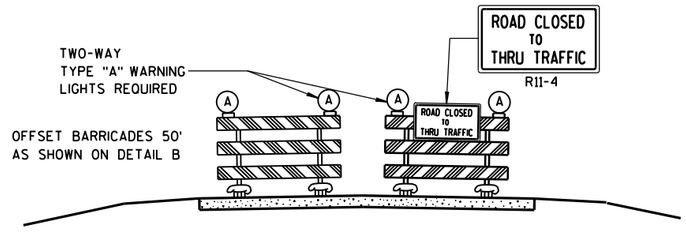
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 2-5b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

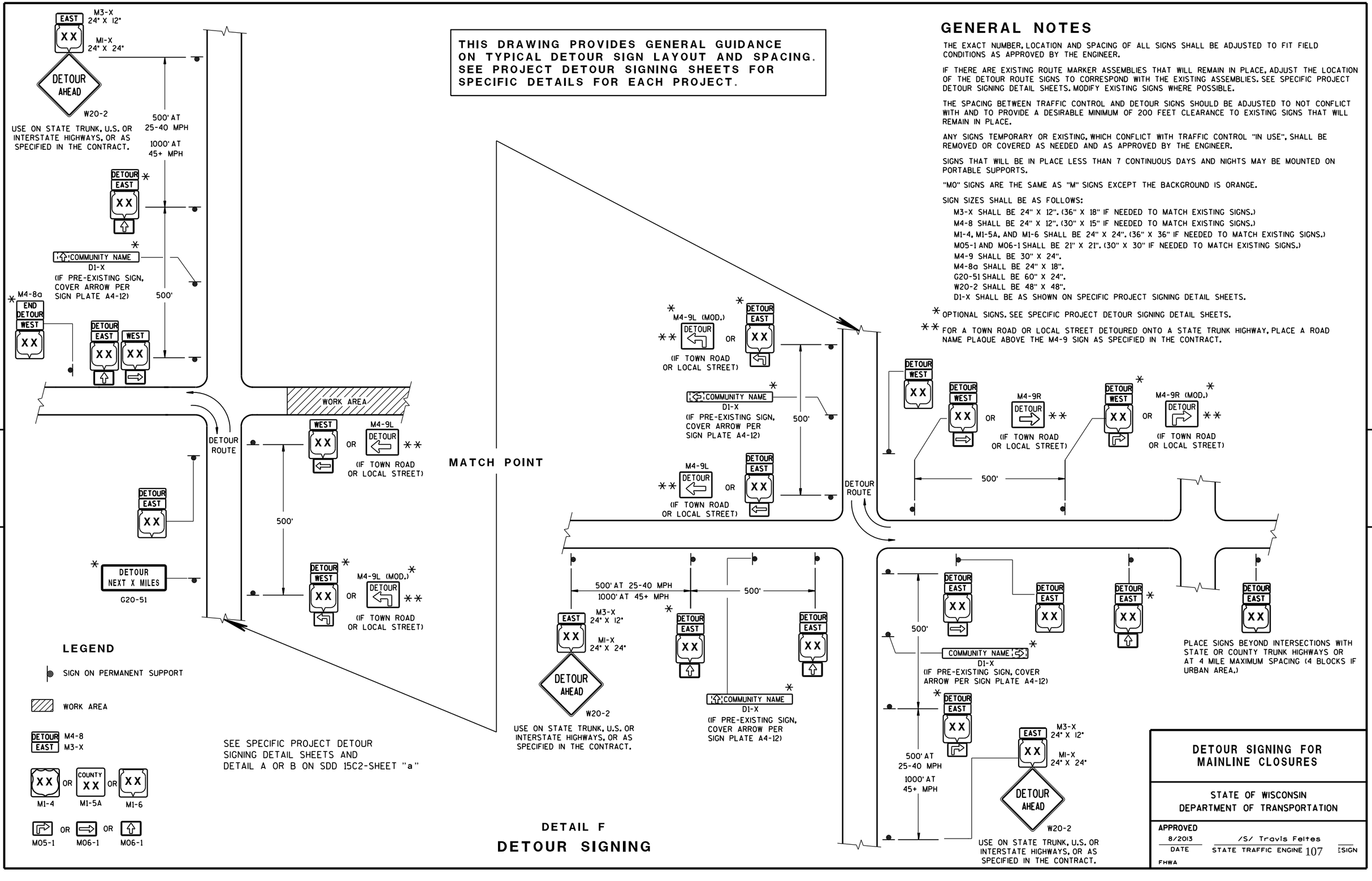
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETAIL F

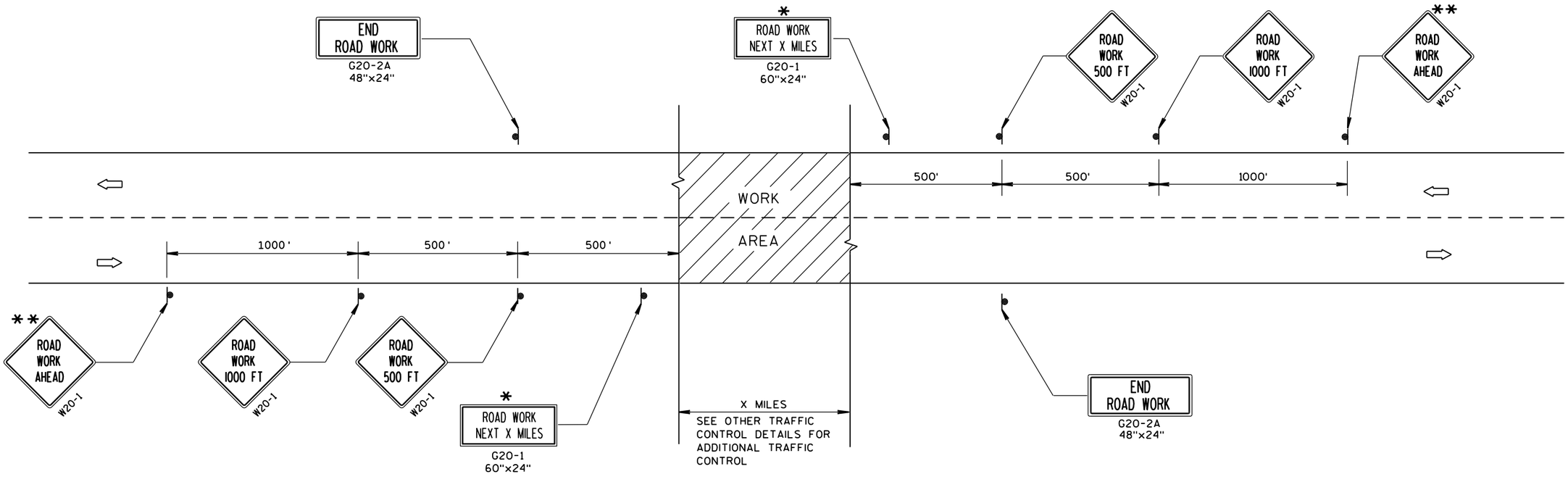
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINE ESIGN
FHWA

6 S.D.D. 15 C 2-5c



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

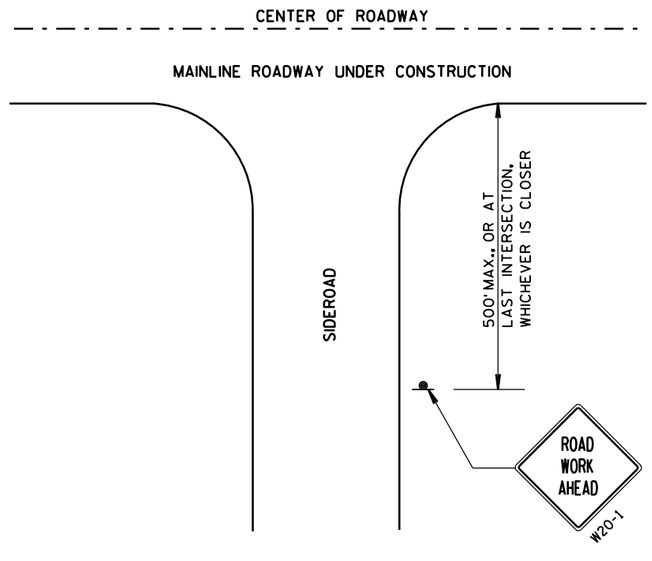
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

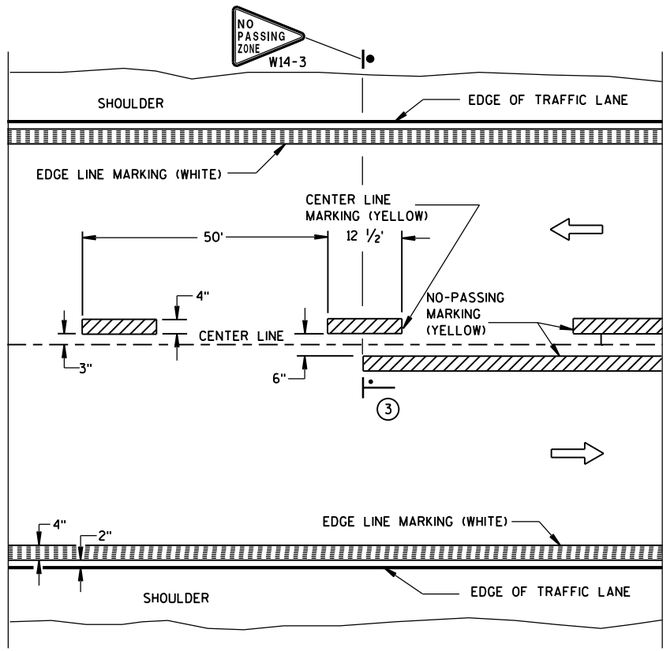
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

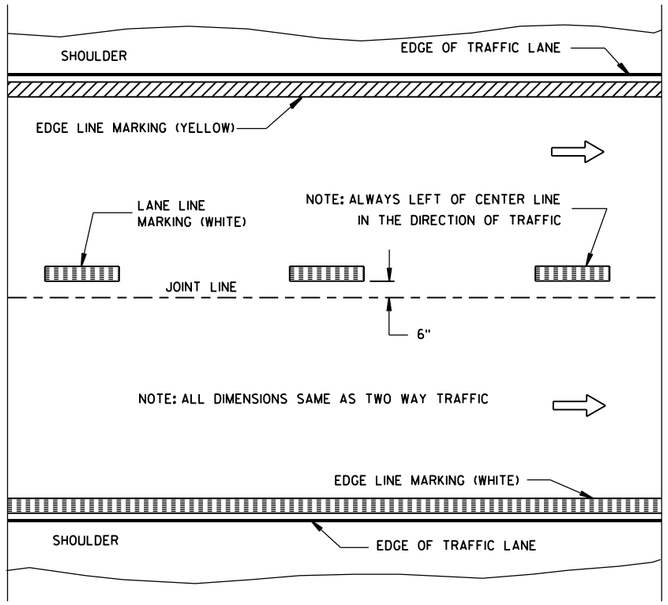
SIGN

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S.D.D. 15 C 4-2



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

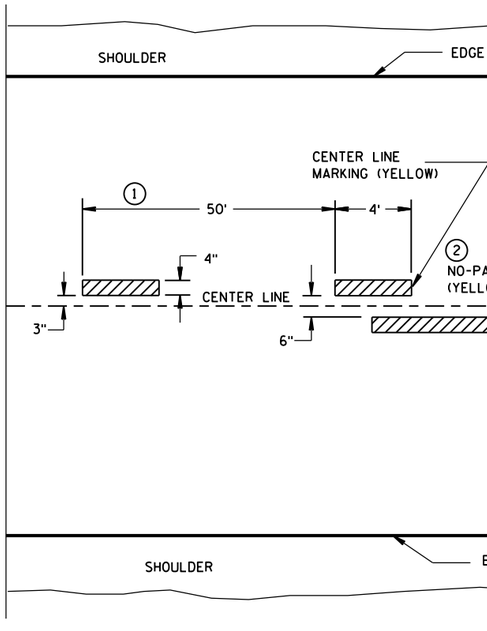
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

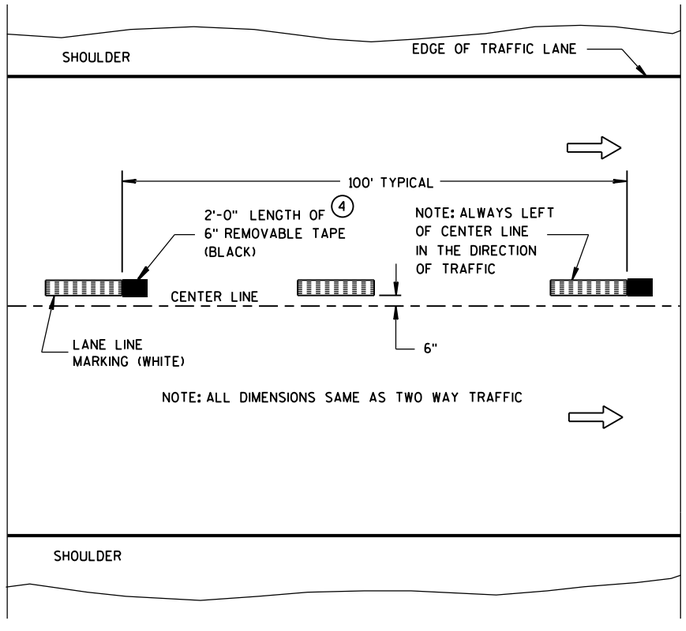
1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



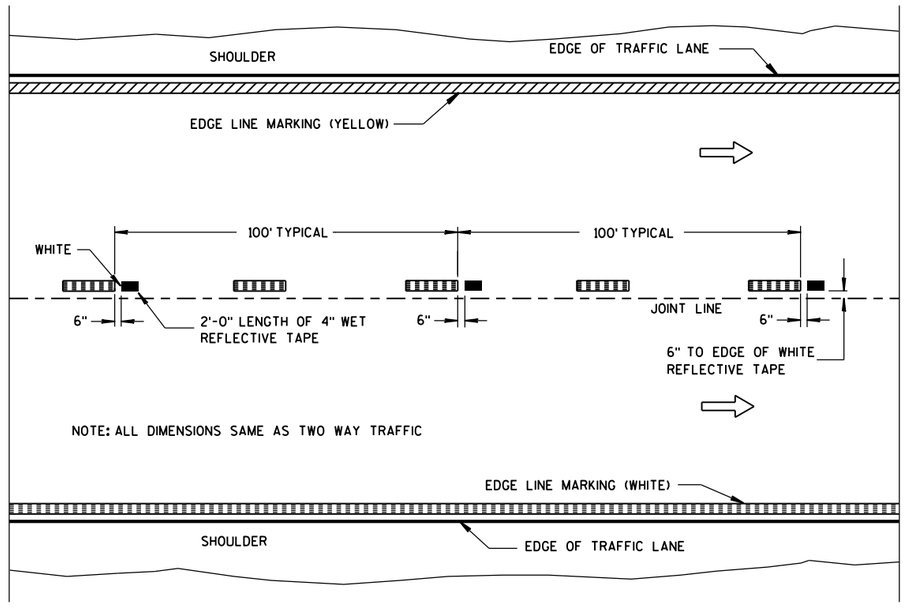
TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

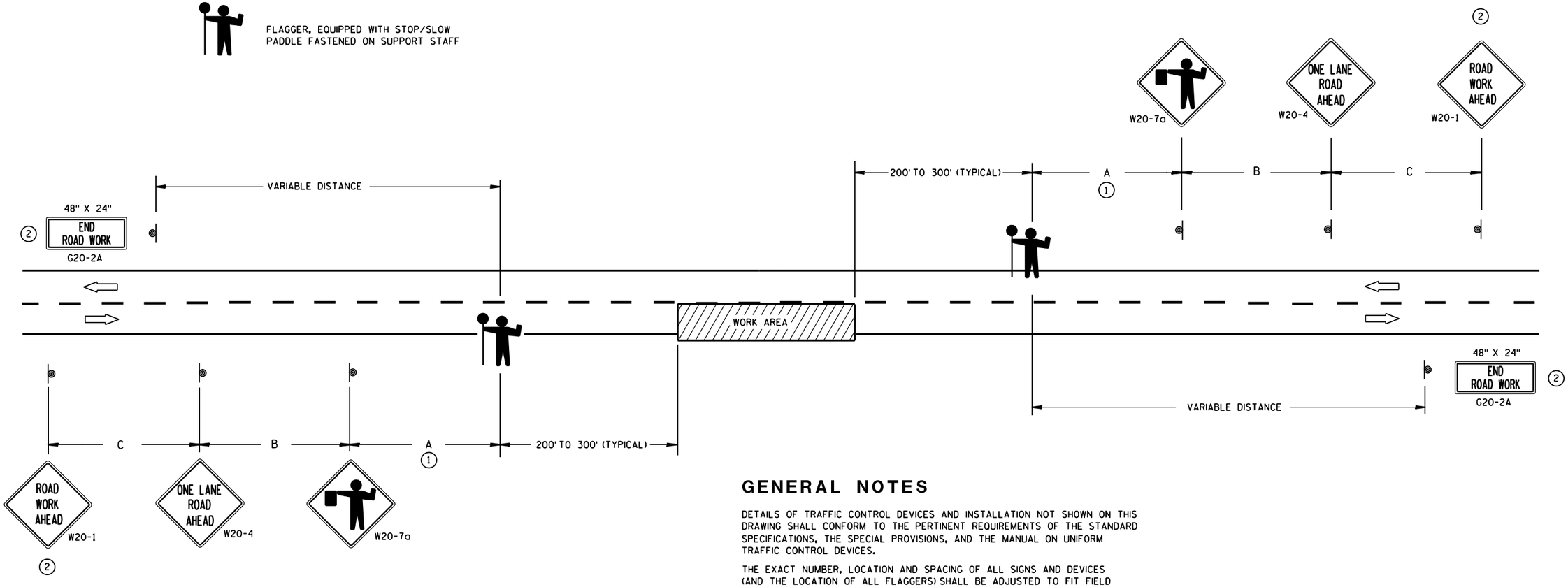
SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

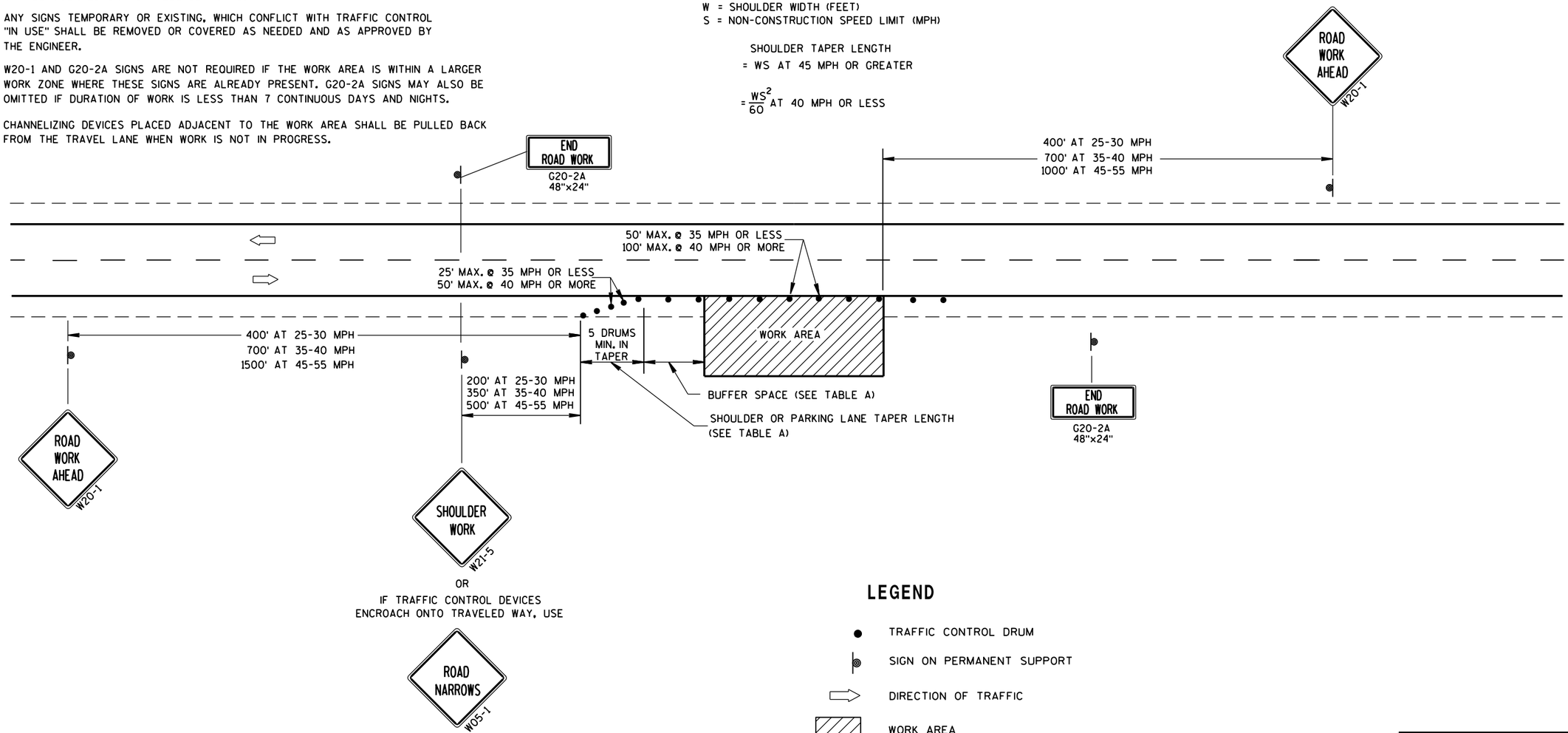
TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

$= \frac{WS^2}{60}$ AT 40 MPH OR LESS



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

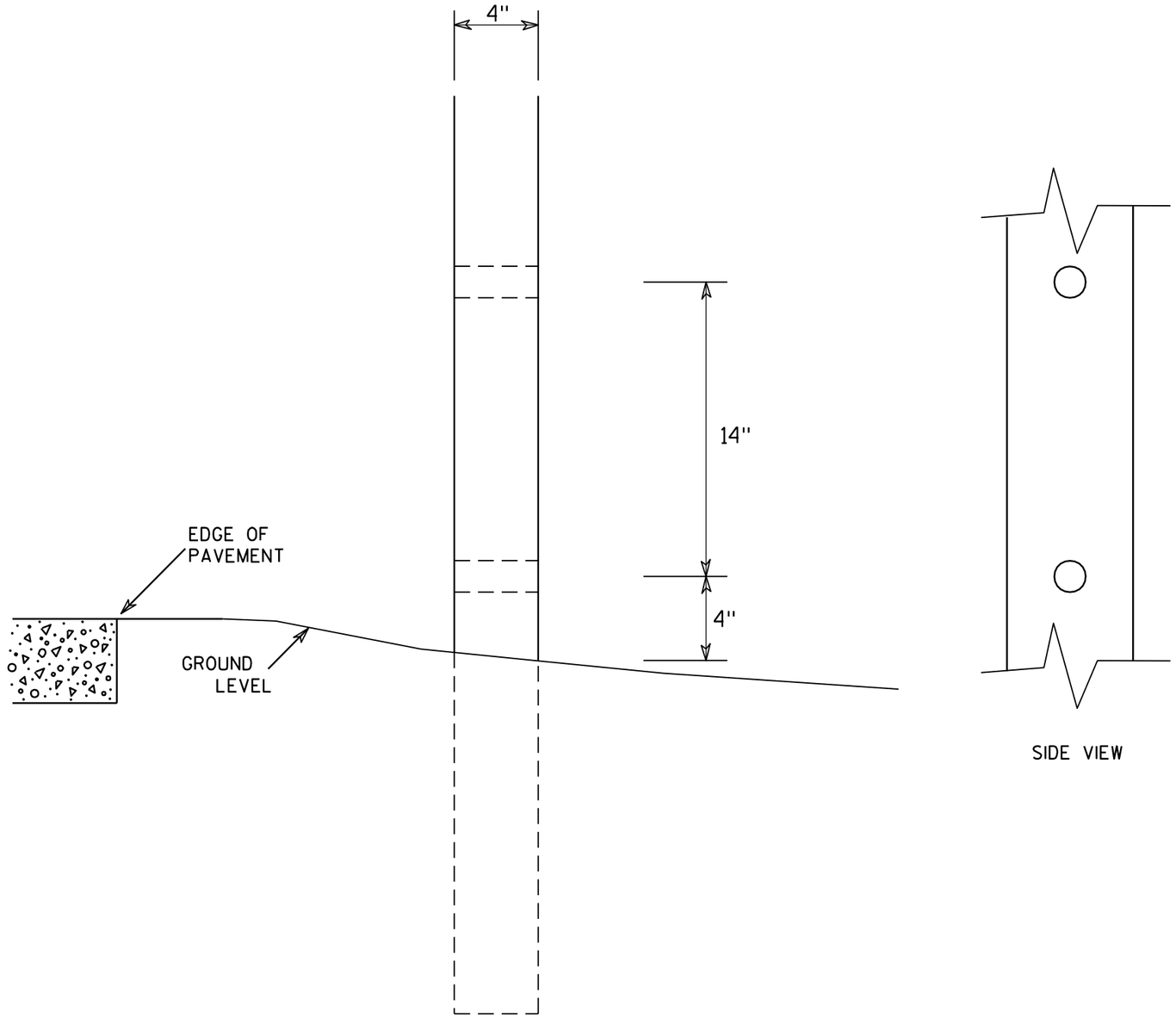
FHWA

6

S.D.D. 15 D 28-2

6

S.D.D. 15 D 28-2



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

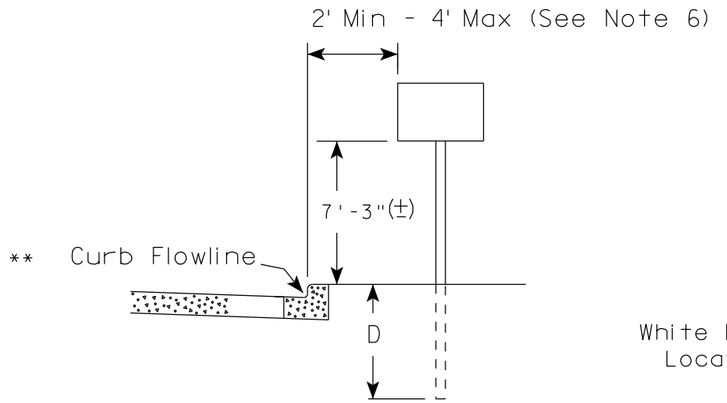
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

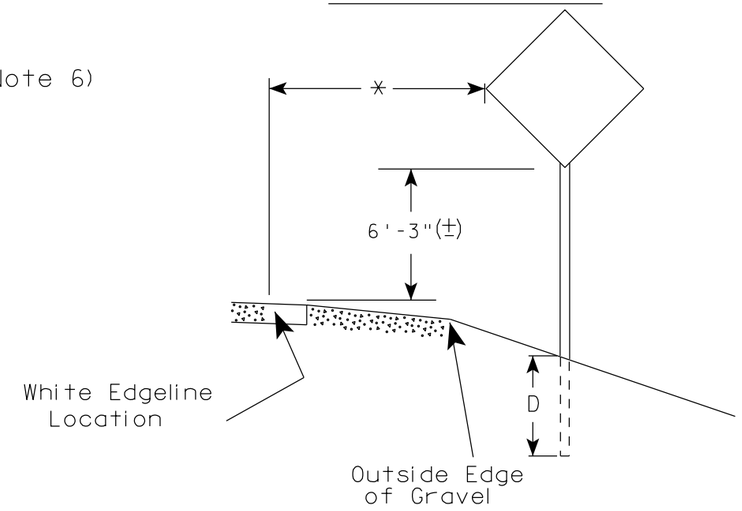
DATE 3/27/97 PLATE NO. A4-11.2

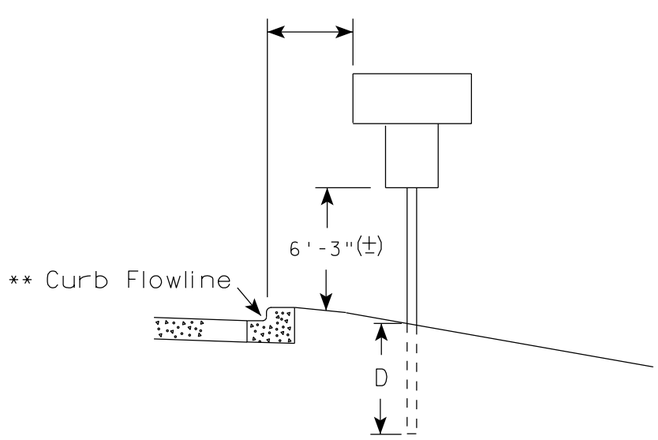
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 112	E

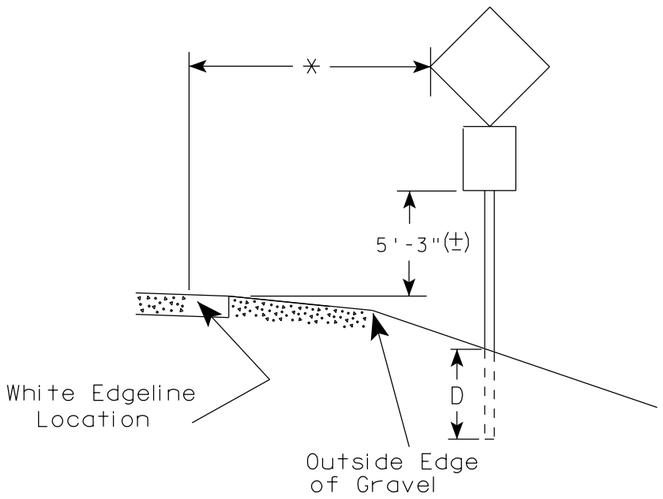
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

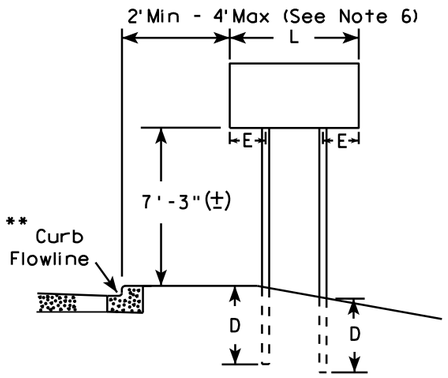
APPROVED Matthew R Rauch
for State Traffic Engineer

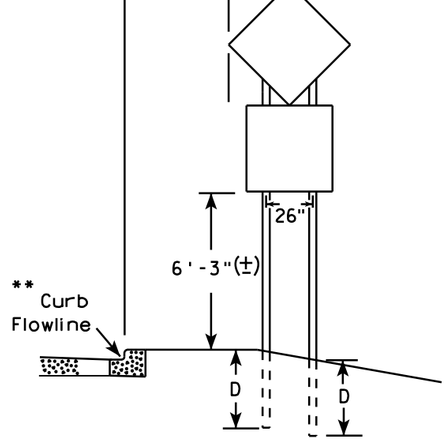
DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

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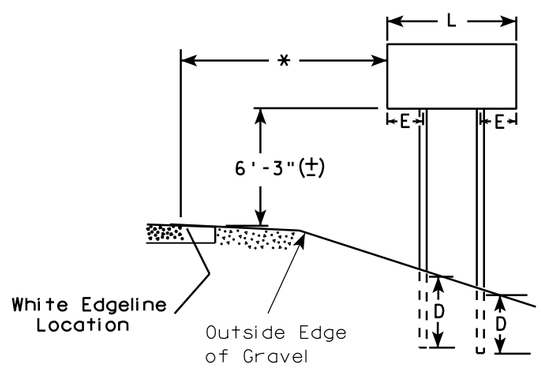
URBAN AREA

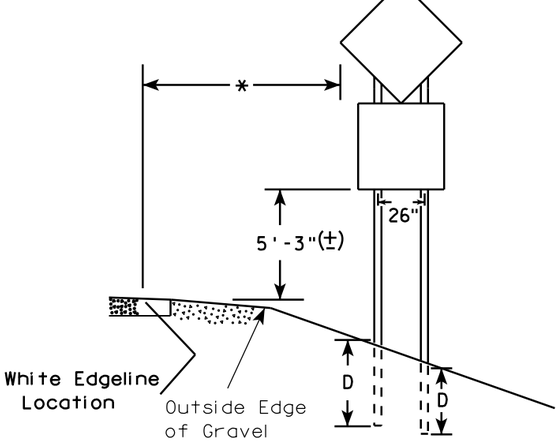




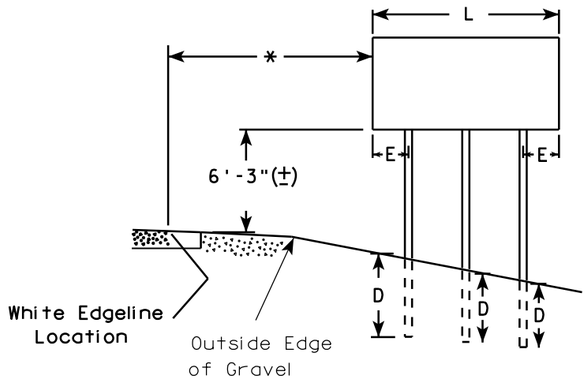
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
*** Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

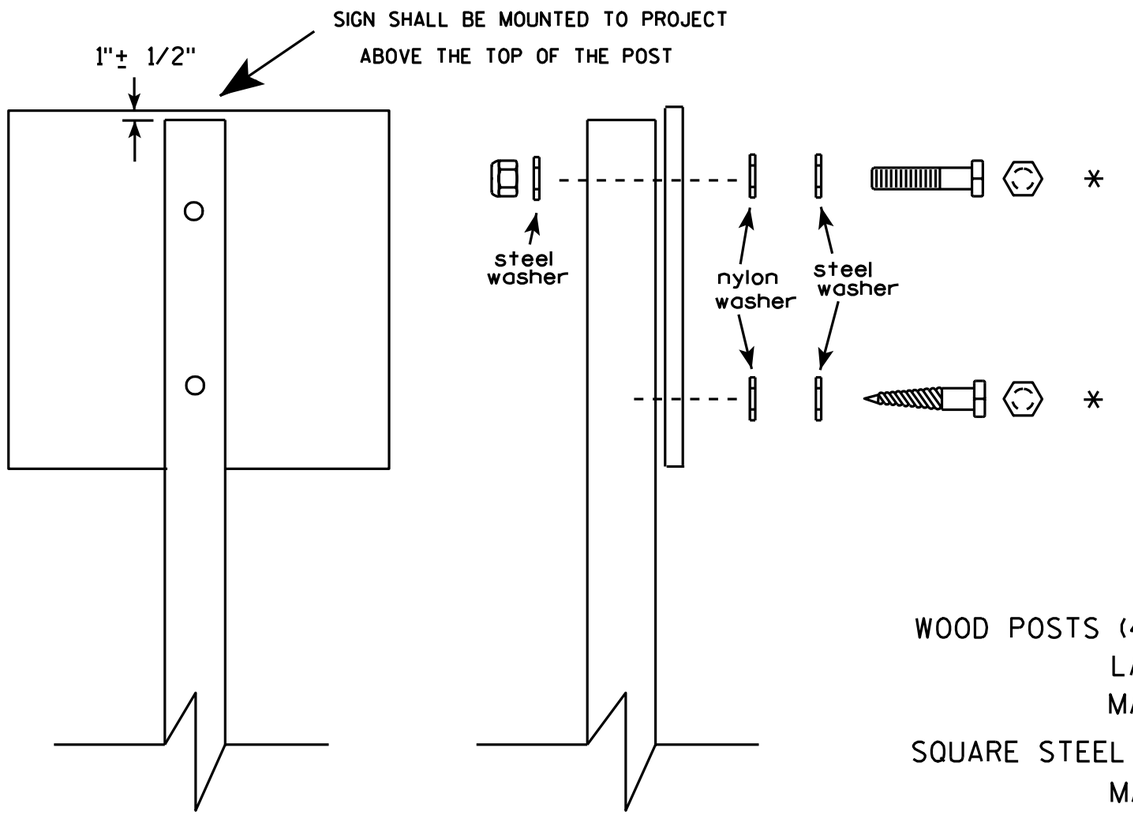
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4 12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 30-SEP-2013 13:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

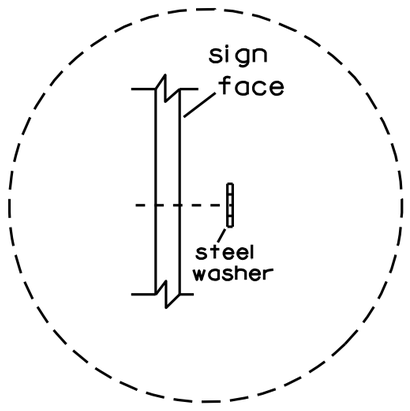
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

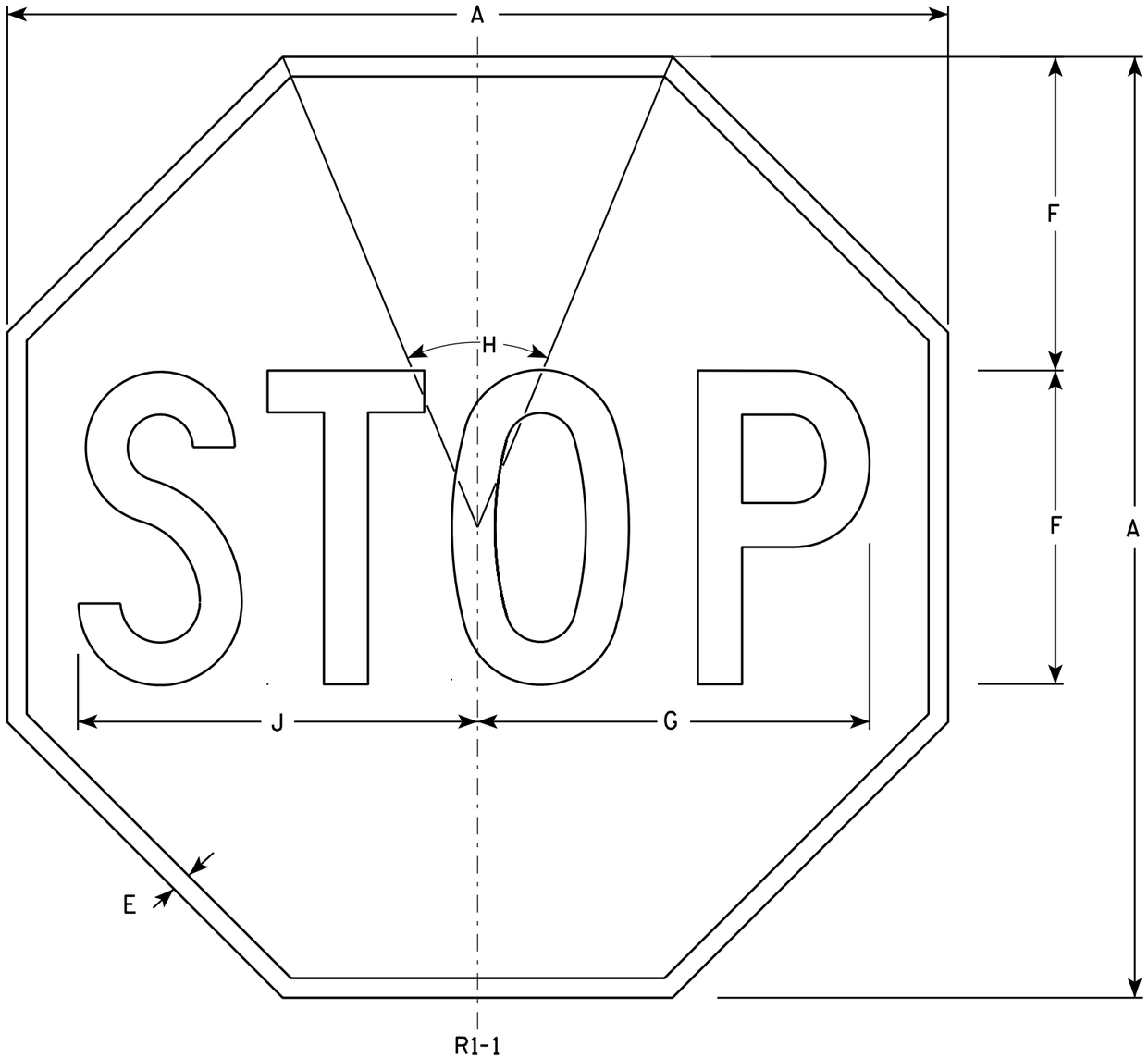
DATE 3/23/10 PLATE NO. A4-8.7

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PROJECT NO:

SHEET NO: 115 E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

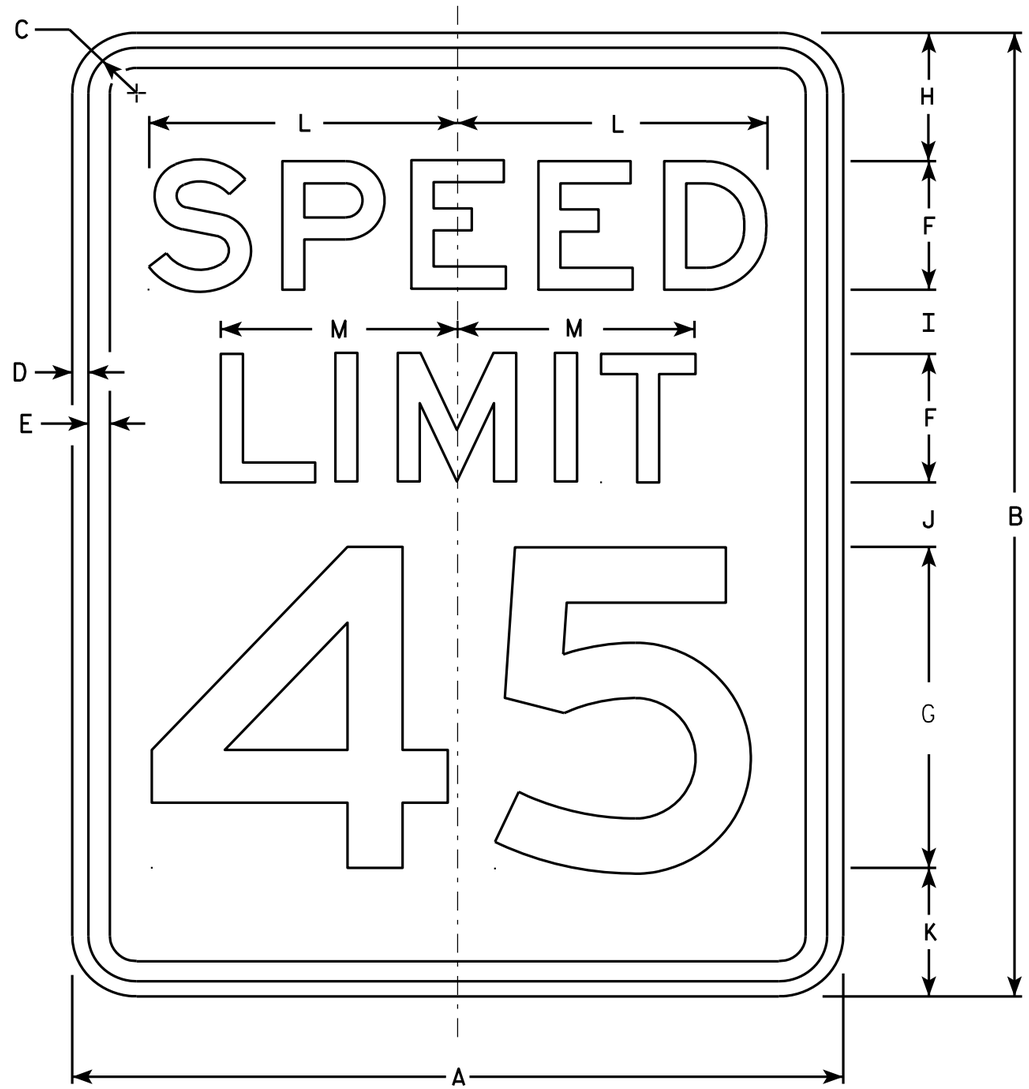
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 116	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

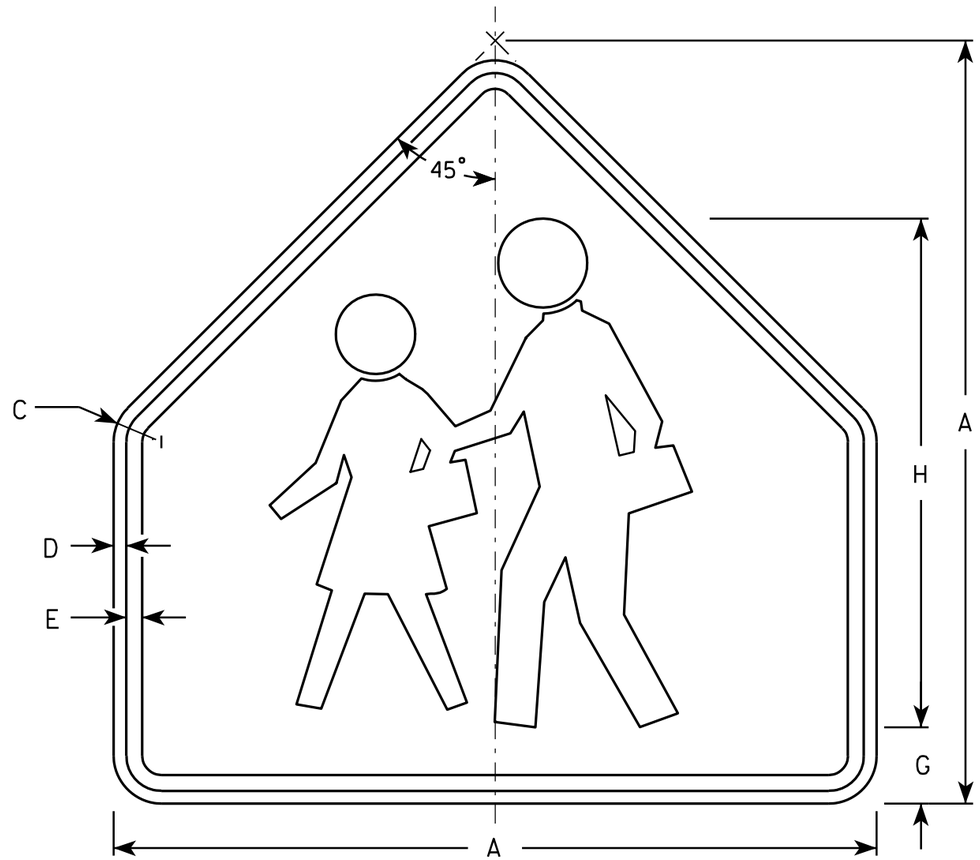
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | E



S1-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

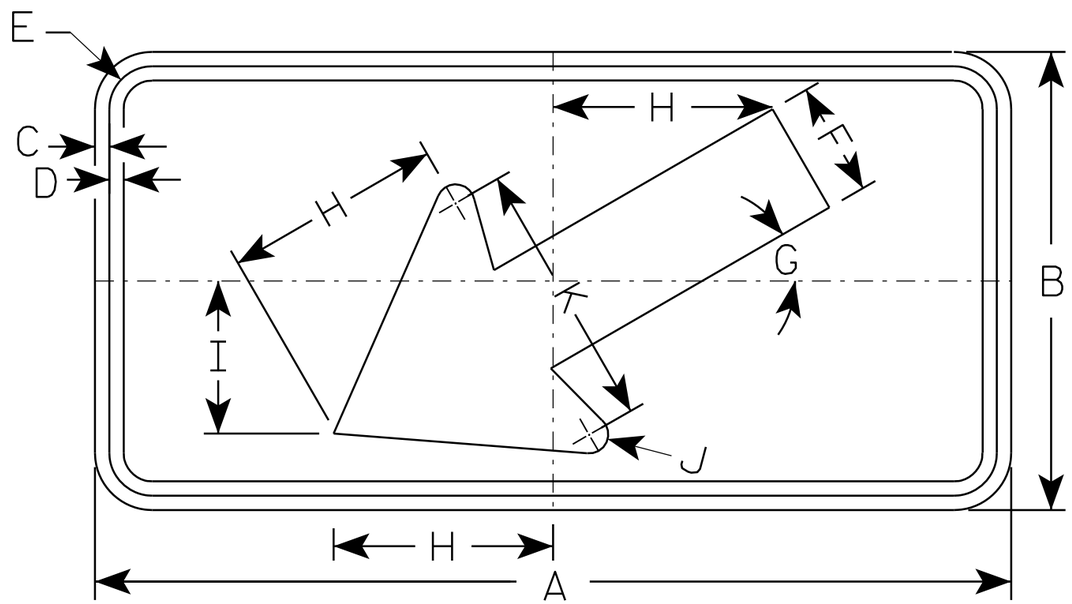
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 118	E



S16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. S16-7R are the same as S16-7L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

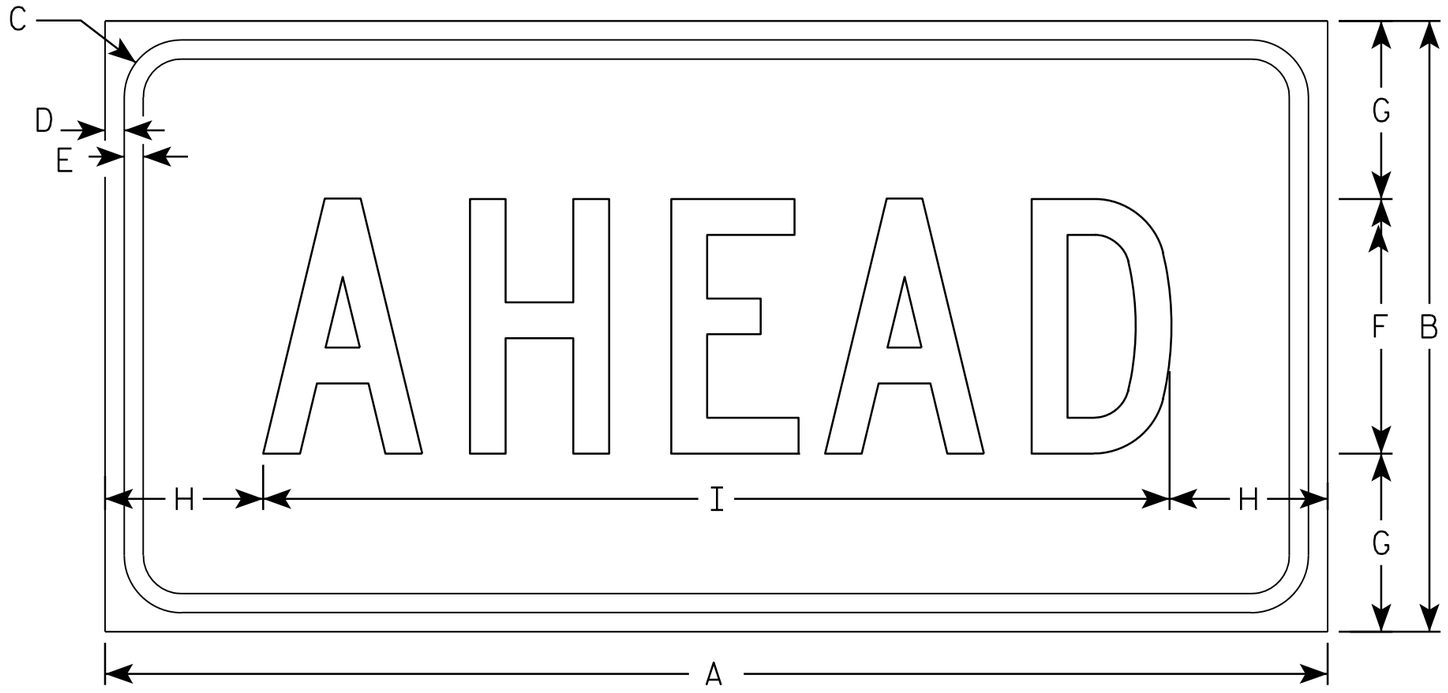
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 119 | E



S16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
S16-9P

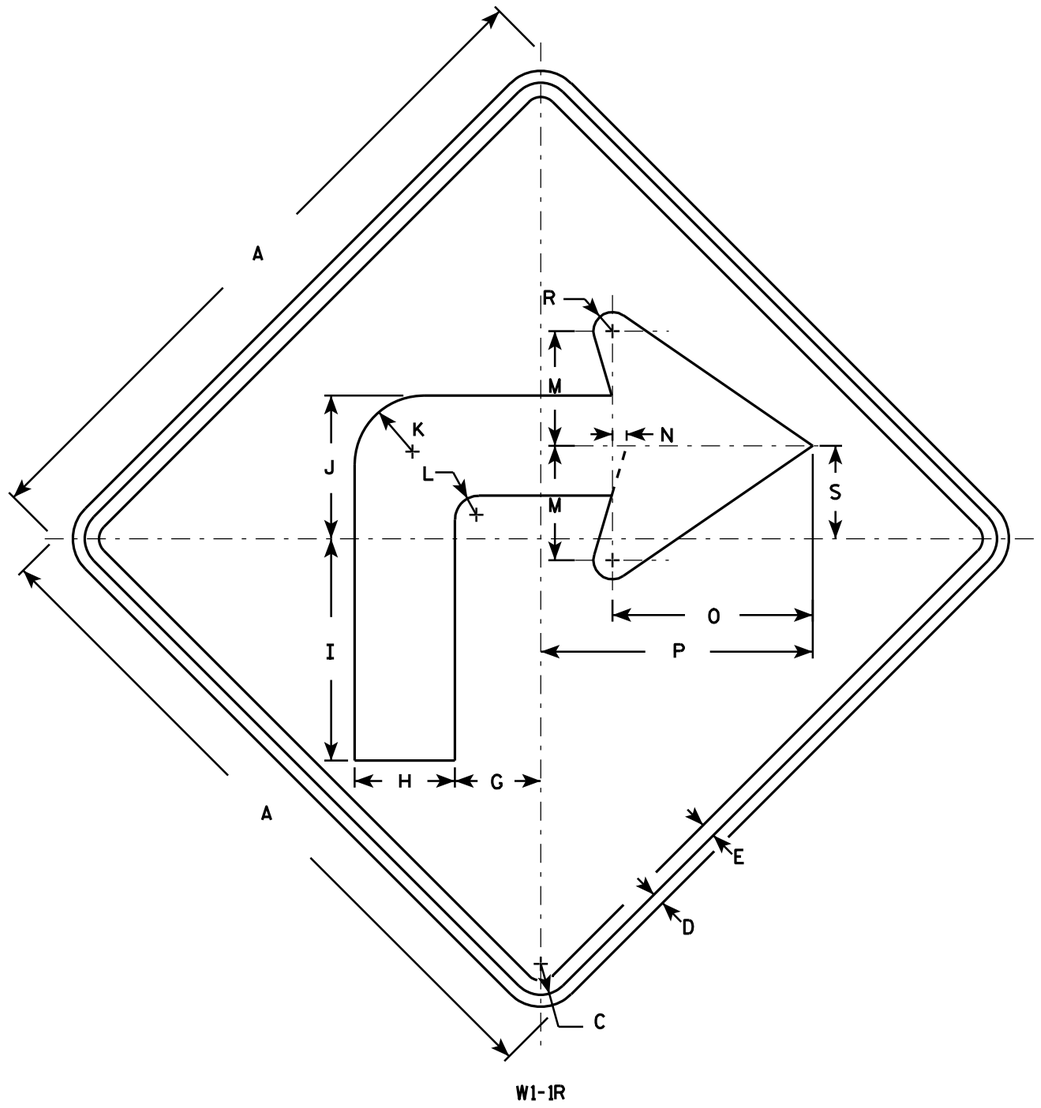
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 120 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\S169P.dgn PLOT DATE : 22-JUL-2013 10:32 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 2.977140:1.000000
WISDOT/CADDS SHEET 42



W1-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

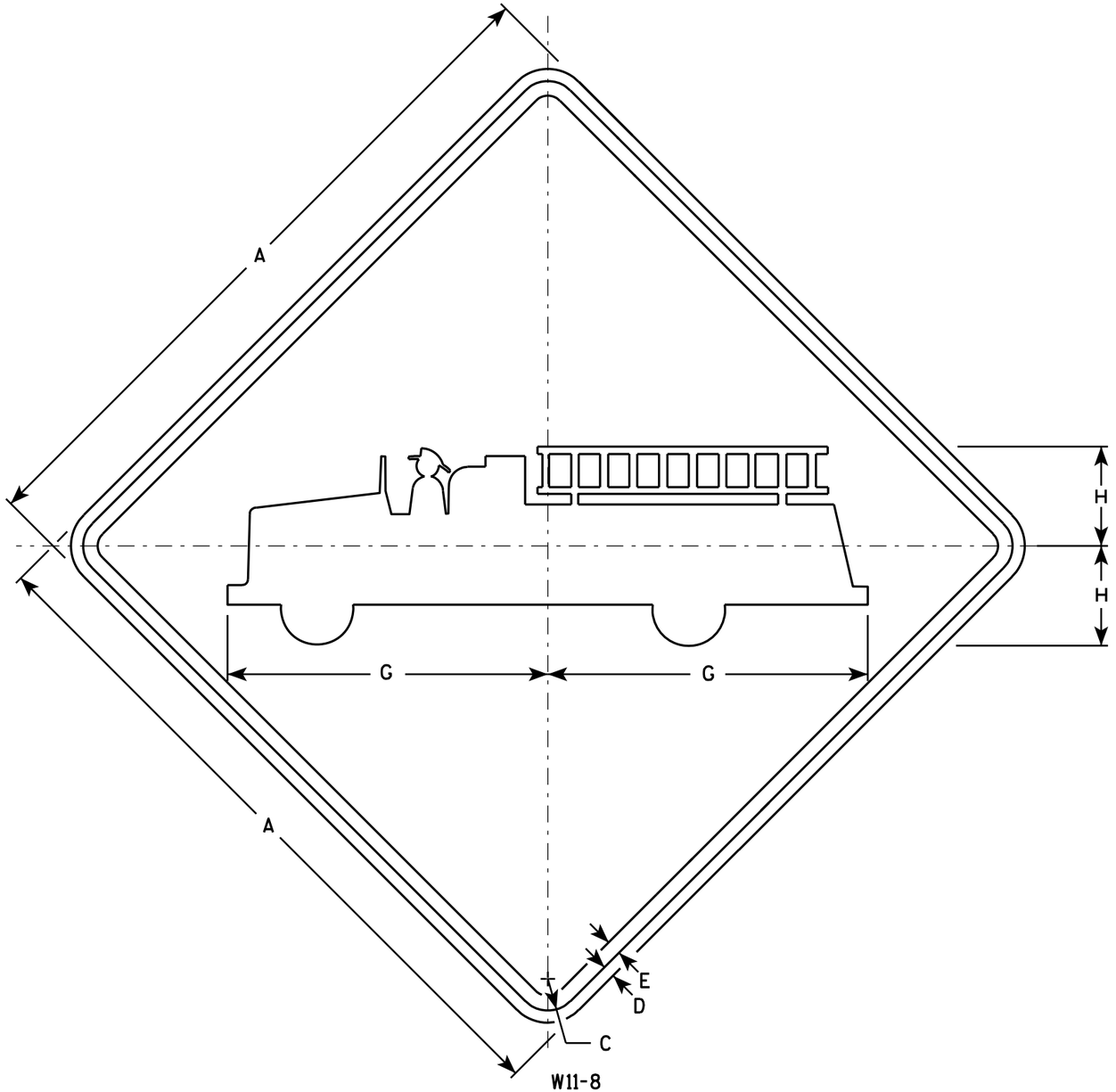
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 121 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W11.DGN PLOT DATE : 15-MAY-2012 13:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.939035:1.000000
WISDOT/CADDS SHEET 42



W11-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

STANDARD SIGN
W11-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-8.7

PROJECT NO:

SHEET NO: 122 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W118.DGN PLOT DATE : 13-MAR-2013 12:58 PLOT BY : mscj9h

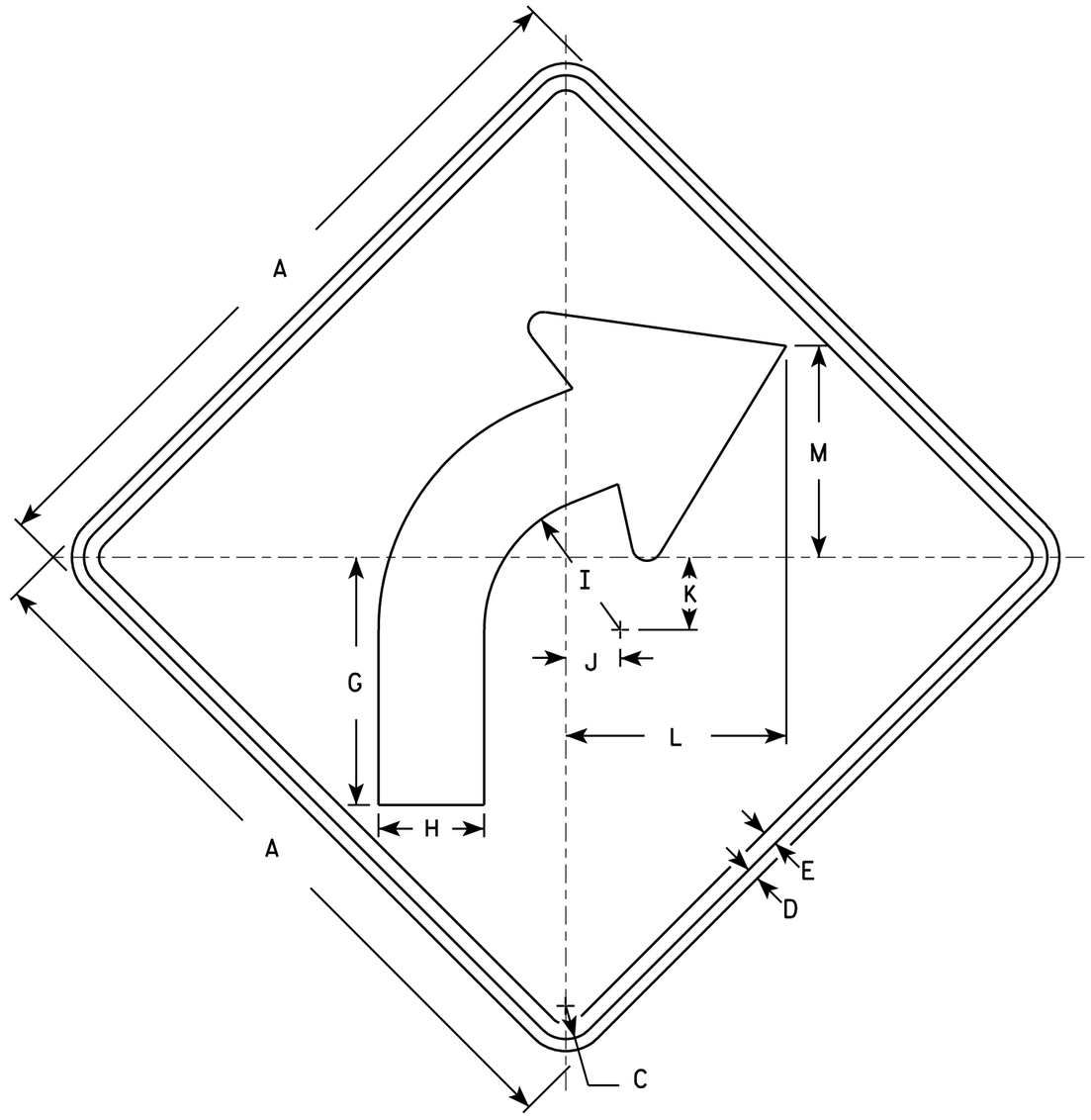
WISDOT/CADDS SHEET 42

7

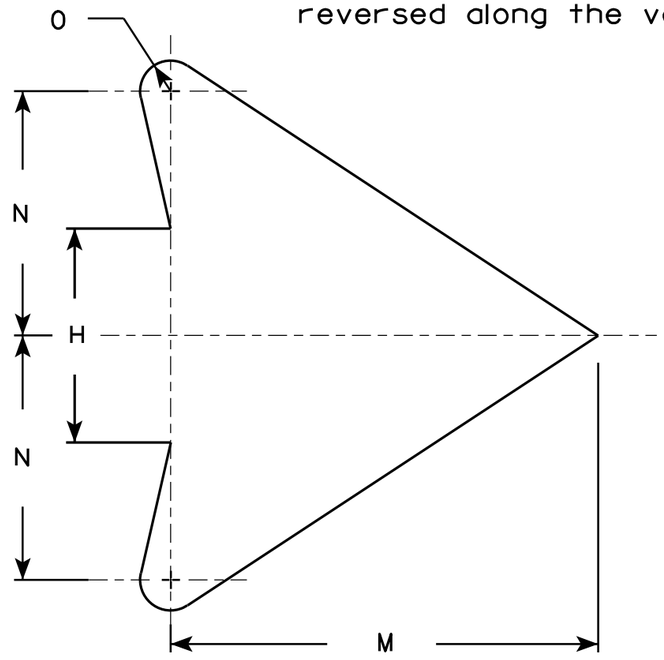
7

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

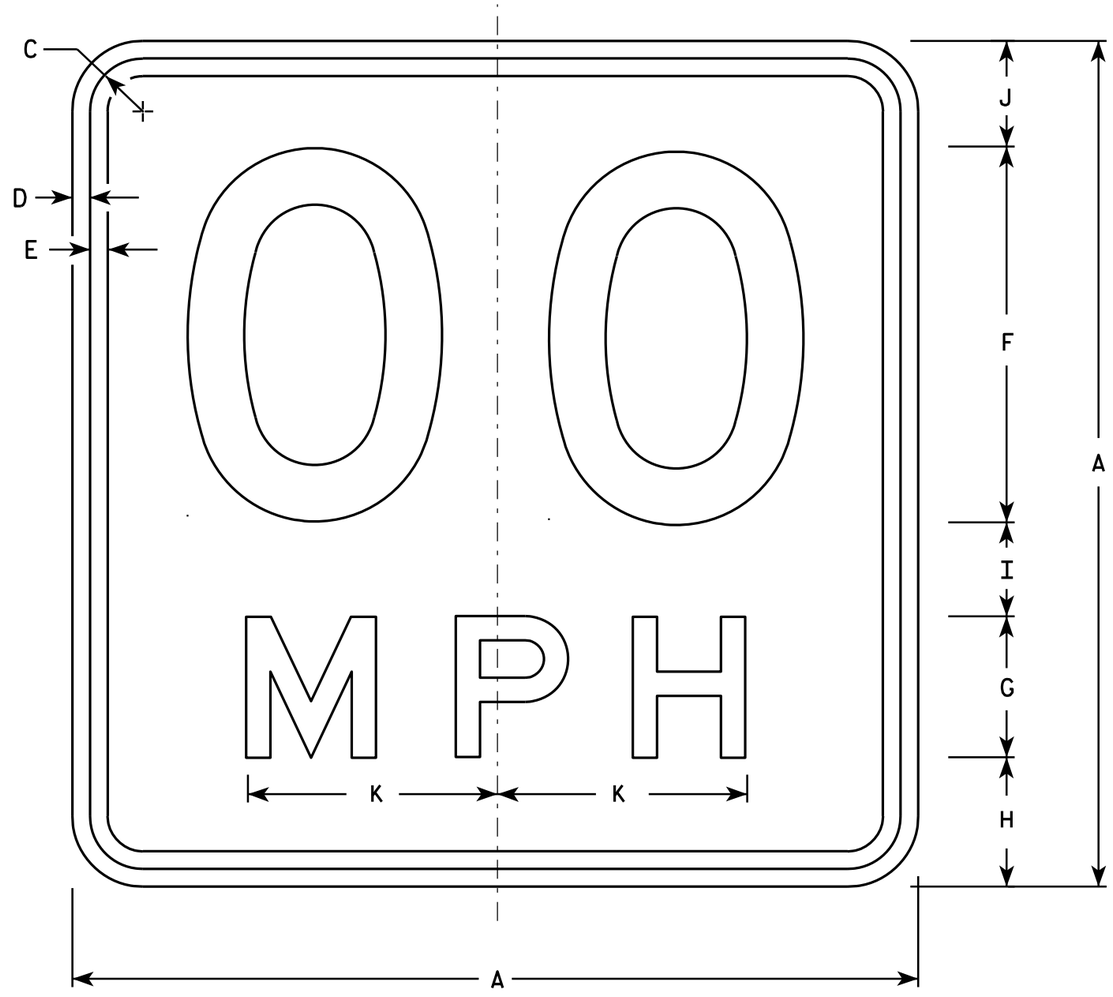
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 123	E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

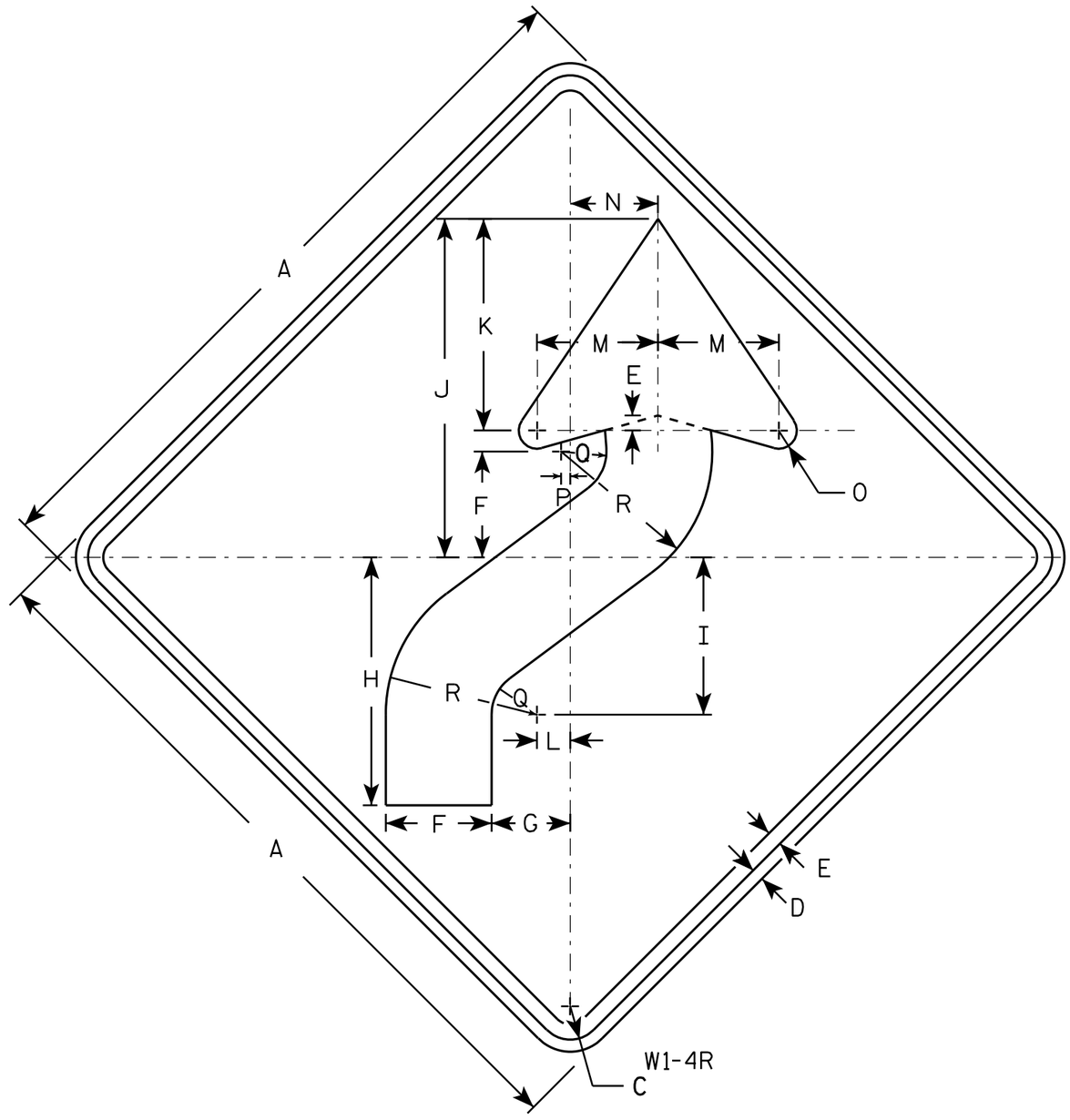
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 124 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W1-4

WISCONSIN DEPT OF TRANSPORTATION

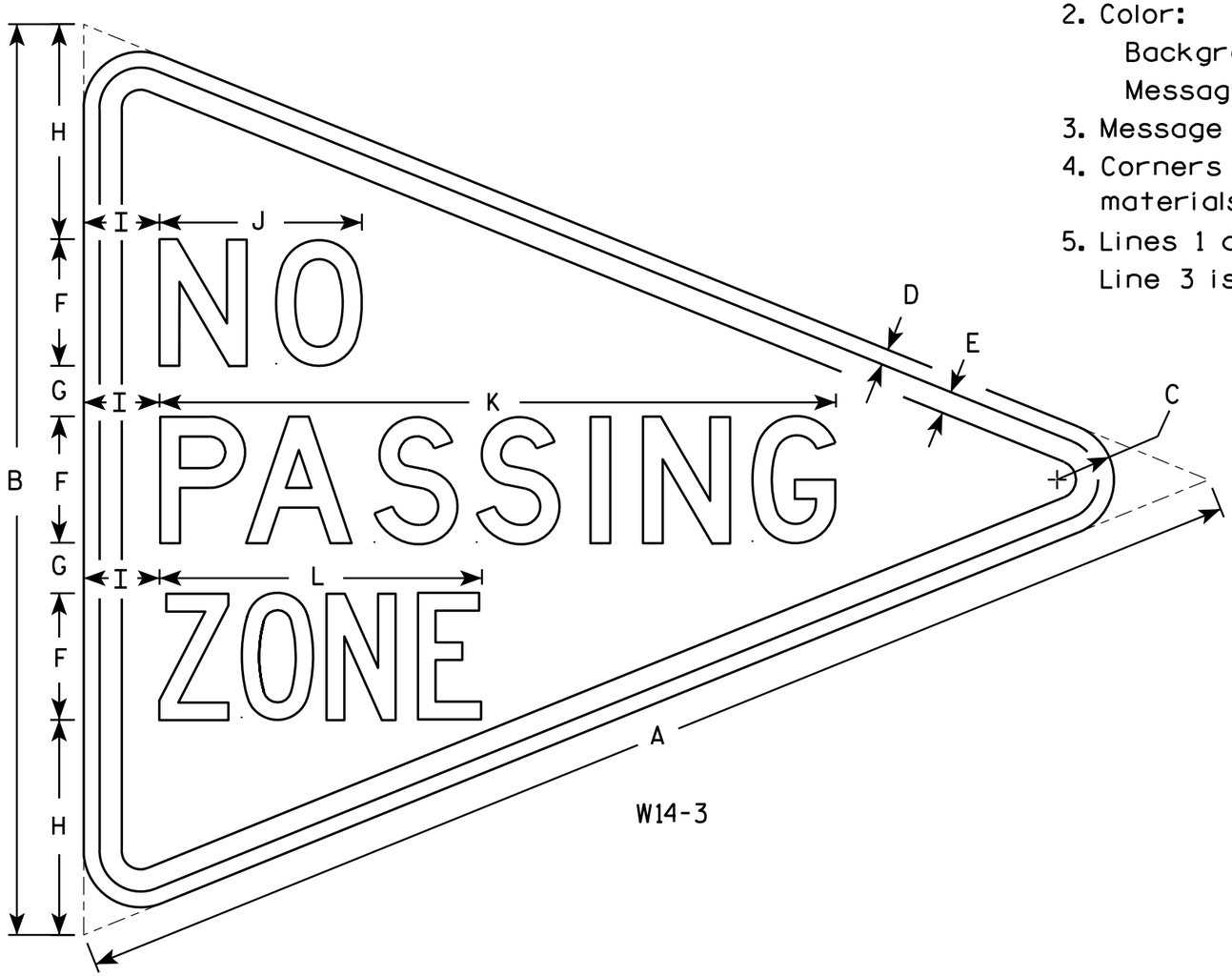
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 125 | E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

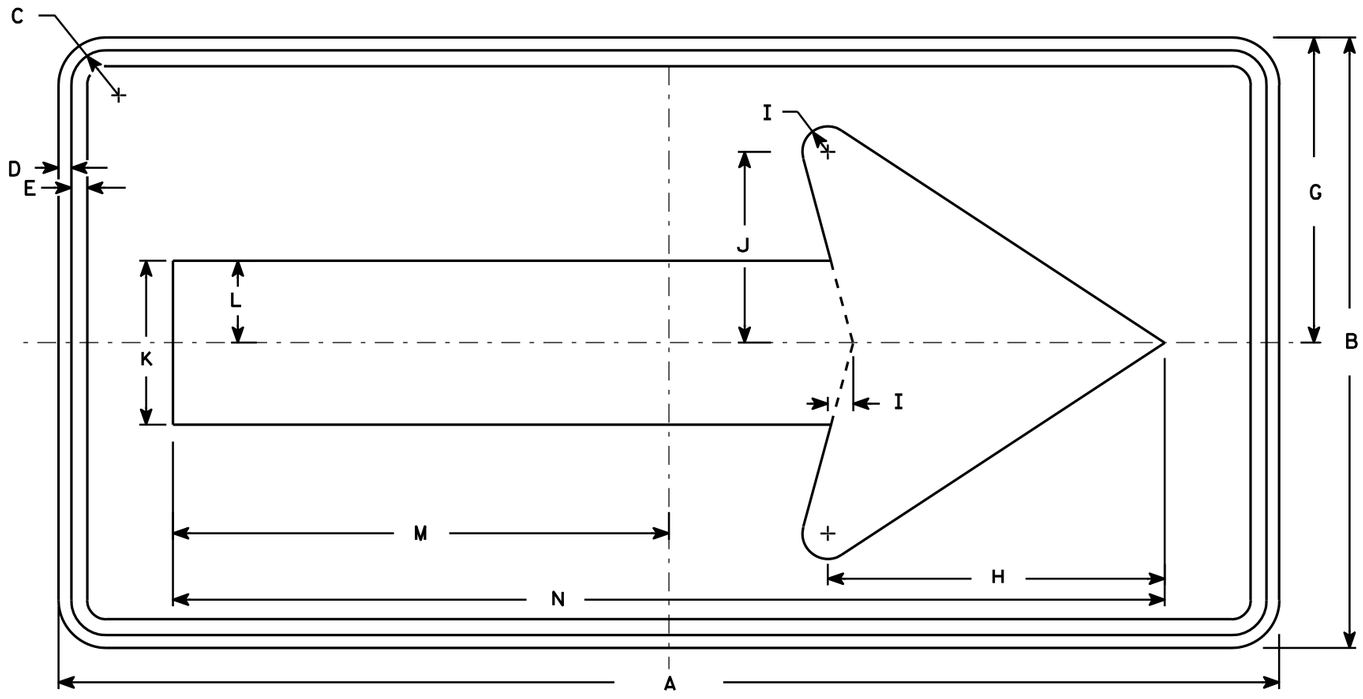
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 126	E



W1-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

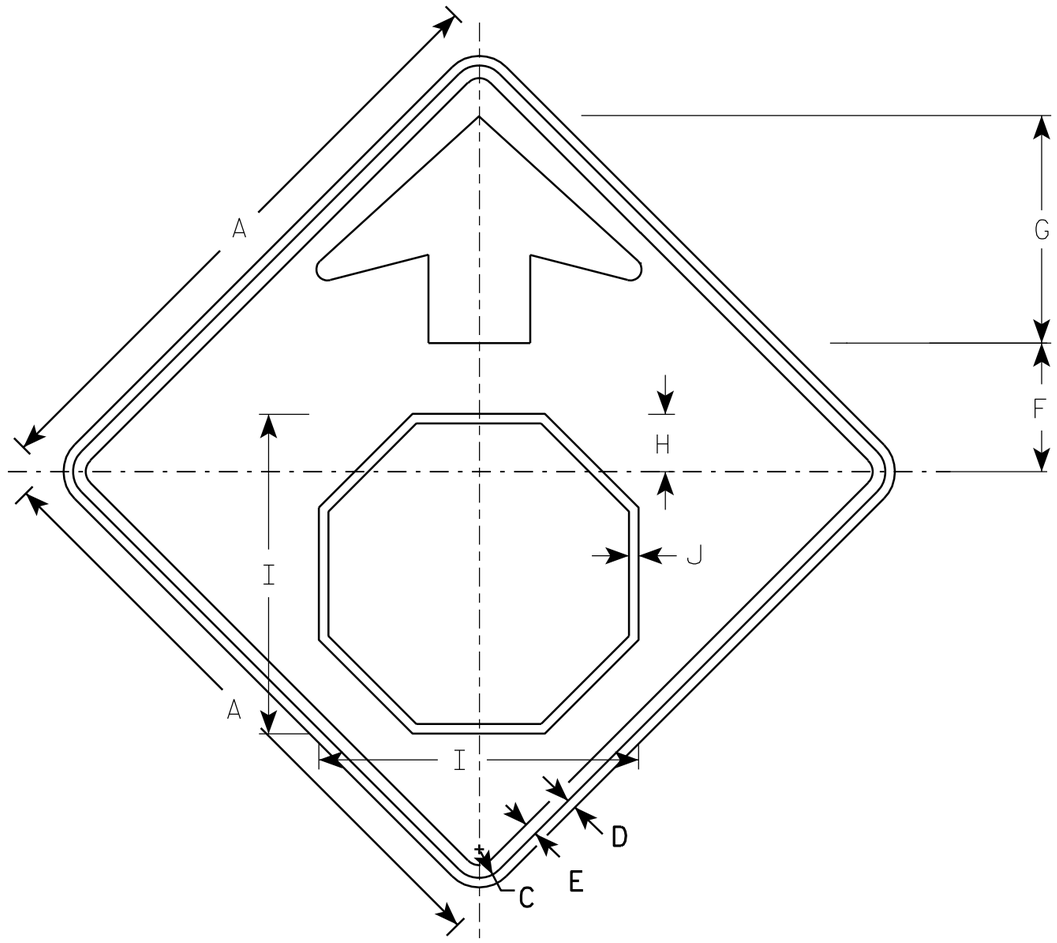
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

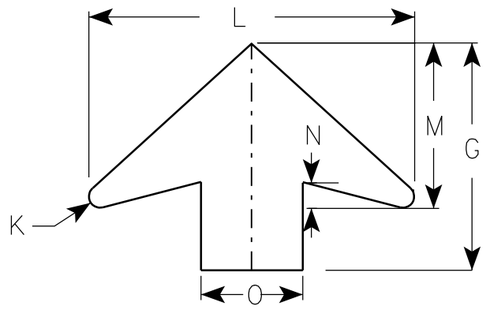
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 127



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

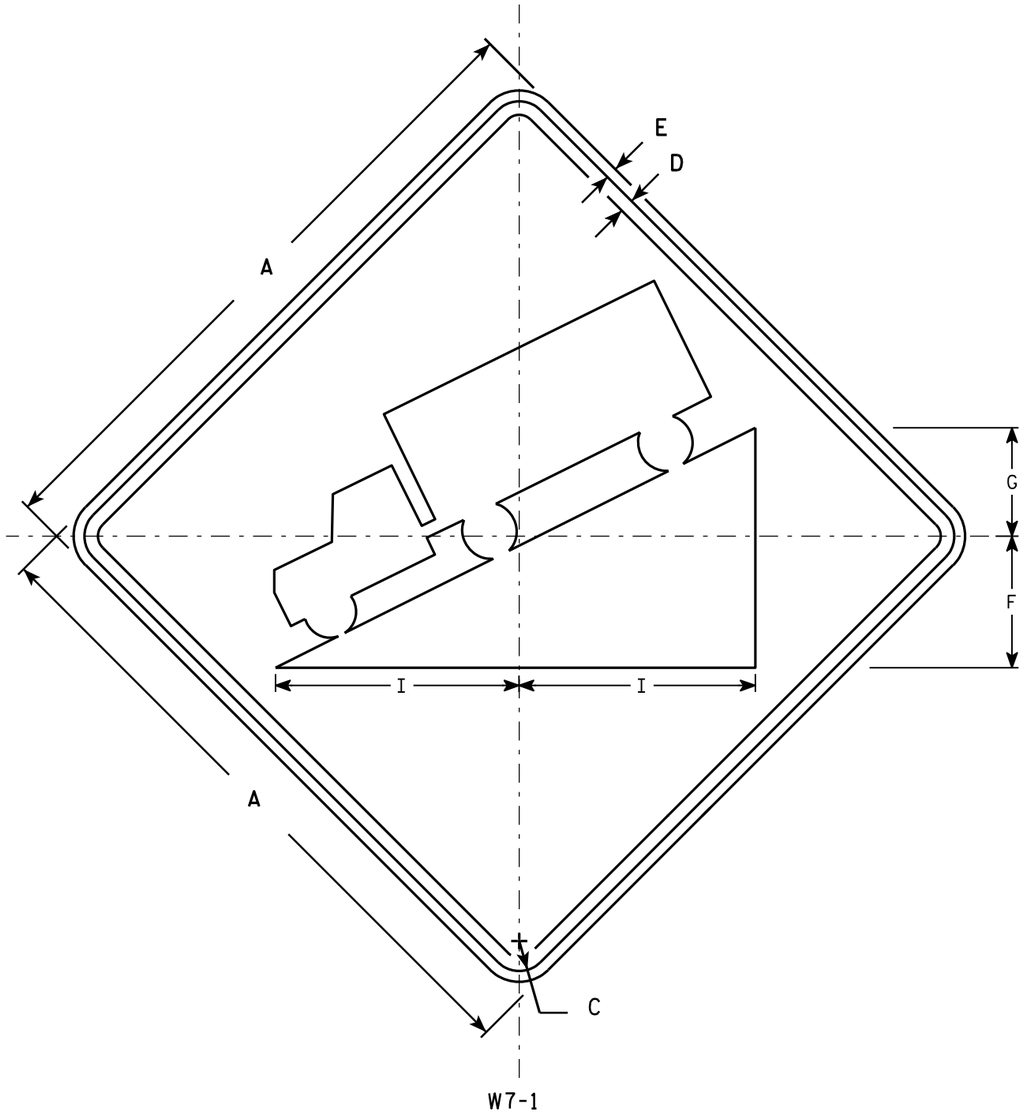
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 128 E



W7-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	3/8	5	4		8 3/4																		4.0
2S	30		1 3/8	1/2	5/8	6	5		11																		6.25
2M	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
3	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
4	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
5	48		2 1/4	3/4	1	9 3/4	8		17 1/2																		16.0

STANDARD SIGN
W7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W7-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 129	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W71.DGN PLOT DATE : 12-MAR-2013 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000

WISDOT/CADDS SHEET 42

FILE NAME : $$....designfile....$$
PLOT DATE : $$....plottingdate...$$
PLOT BY : $$....plotuser...$$
PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 44+99'S' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
44+46	3.3	0.7	-	-	-	-	-	-
44+50	3.3	1.3	0	0	0	0	0	0
44+84	3.2	11.0	4	8	10	5	10	-5
44+99	3.1	17.6	2	8	10	6	20	-13
45+16	3.2	16.6	2	11	13	8	33	-25
45+50	3.5	0.3	4	11	13	13	47	-34
45+60	3.6	0.0	1	0	0	14	47	-33
TOTALS			14	37	47			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 44+99'S' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
44+46	1.9	0.0	-	-	-	-	-	-
44+50	2.7	0.0	0	0	0	0	0	0
44+84	14.5	0.0	11	0	0	11	0	11
44+99	21.1	0.0	10	0	0	21	0	21
45+16	20.1	0.0	13	0	0	34	0	34
45+50	1.6	0.0	14	0	0	48	0	48
45+60	0.6	0.0	0	0	0	48	0	48
TOTALS			48	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 44+99'S' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
44+40	3.4	0.0	-	-	-	-	-	-
44+50	3.4	0.7	1	0	0	1	0	1
44+82	3.5	9.1	4	6	7	5	7	-2
44+99	3.6	7.4	2	5	6	8	14	-6
45+00	3.6	7.3	0	0	0	8	14	-7
45+14	3.5	7.3	2	4	5	10	19	-9
45+50	3.6	1.3	5	6	7	14	26	-12
45+53	3.6	0.5	0	0	0	15	26	-12
TOTALS			15	21	26			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 44+99'S' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
44+40	1.1	0.0	-	-	-	-	-	-
44+50	2.2	0.0	1	0	0	1	0	1
44+82	12.3	0.0	9	0	0	9	0	9
44+99	10.6	0.0	7	0	0	16	0	16
45+00	10.4	0.0	0	0	0	17	0	17
45+14	10.5	0.0	5	0	0	22	0	22
45+50	2.4	0.0	9	0	0	31	0	31
45+53	1.5	0.0	0	0	0	31	0	31
TOTALS			31	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 67+22'S' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
67+00	4.6	0.1	-	-	-	-	-	-
67+12	4.2	0.7	2	0	0	2	0	2
67+43	4.2	18.7	5	11	14	7	14	-7
67+50	4.2	9.2	1	4	5	8	19	-11
67+65	4.2	3.4	2	4	4	10	23	-13
67+92	4.4	0.0	4	2	2	15	25	-11
TOTALS			15	20	25			

FILE NAME : $$....designfile....$$

PLOT DATE : $$....plottingdate....$$ PLOT BY : $$....plotuser....$$ PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 67+22'S' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
67+00	1.5	0.0	-	-	-	-	-	-
67+12	2.8	0.0	1	0	0	1	0	1
67+43	21.1	0.0	14	0	0	15	0	15
67+50	11.7	0.0	4	0	0	19	0	19
67+65	5.6	0.0	5	0	0	24	0	24
67+92	0.8	0.0	3	0	0	27	0	27
TOTALS			27	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 67+22'S' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
66+40	3.3	1.1	-	-	-	-	-	-
66+50	3.3	2.2	1	1	1	1	1	0
66+78	3.2	7.5	3	5	6	5	7	-2
66+85	3.2	8.5	1	2	3	5	10	-4
67+00	3.0	7.3	2	4	5	7	15	-8
67+31	2.6	4.3	3	7	8	10	23	-13
67+50	2.4	3.6	2	3	3	12	27	-15
68+00	2.1	1.4	4	5	6	16	33	-16
68+07	2.2	1.0	1	0	0	17	33	-16
TOTALS			17	26	33			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 67+22'S' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
66+40	2.1	0.0	-	-	-	-	-	-
66+50	3.7	0.0	1	0	0	1	0	1
66+78	10.6	0.0	7	0	0	8	0	8
66+85	11.7	0.0	3	0	0	11	0	11
67+00	10.7	0.0	6	0	0	18	0	18
67+31	8.1	0.0	11	0	0	28	0	28
67+50	6.9	0.0	5	0	0	34	0	34
68+00	3.3	0.0	9	0	0	43	0	43
68+07	2.5	0.0	1	0	0	44	0	44
TOTALS			44	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 291+69'S' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
291+47	4.4	1.6	-	-	-	-	-	-
291+50	4.4	2.2	0	0	0	0	0	0
291+66	4.4	4.1	3	2	2	3	3	0
291+69	4.4	10.3	0	1	1	4	4	0
291+92	4.4	0.2	4	4	6	7	9	-2
291+96	4.4	0.1	1	0	0	8	9	-1
TOTALS			8	7	9			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 291+69'S' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
291+47	3.5	0.0	-	-	-	-	-	-
291+50	4.2	0.0	0	0	0	0	0	0
291+66	6.2	0.0	3	0	0	4	0	4
291+69	12.3	0.0	1	0	0	5	0	5
291+92	2.2	0.0	6	0	0	11	0	11
291+96	1.9	0.0	0	0	0	11	0	11
TOTALS			11	0	0			

FILE NAME : $$....designfile....$$

PLOT DATE : $$....plottingdate....$$ PLOT BY : $$....plotuser....$$ PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 291+69'S' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
291+20	3.0	0.2	-	-	-	-	-	-
291+47	2.9	1.0	3	1	1	3	1	2
291+50	2.8	1.0	0	0	0	3	1	2
291+69	2.7	0.8	2	1	1	5	2	4
291+88	2.6	1.4	2	1	1	7	3	4
292+00	2.6	0.9	1	1	1	8	3	5
292+15	2.7	0.2	1	0	0	10	4	6
TOTALS			10	3	4			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 291+69'S' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
291+20	1.6	0.0	-	-	-	-	-	-
291+47	4.1	0.0	3	0	0	3	0	3
291+50	4.1	0.0	0	0	0	3	0	3
291+69	4.0	0.0	3	0	0	6	0	6
291+88	4.7	0.0	3	0	0	9	0	9
292+00	3.6	0.0	2	0	0	11	0	11
292+15	1.9	0.0	2	0	0	13	0	13
TOTALS			13	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 151+93'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
150+90	7.0	0.0	-	-	-	-	-	-
151+00	3.3	1.5	2	0	0	2	0	2
151+50	3.2	20.3	6	20	25	6	25	-19
151+55	3.2	23.3	1	4	5	7	30	-24
151+86	3.4	39.2	4	36	45	10	75	-65
152+00	3.4	8.4	2	12	15	12	91	-78
152+22	3.1	5.2	3	6	7	15	97	-83
152+50	11.5	0.3	8	3	4	22	101	-79
152+80	15.8	0.0	15	0	0	38	101	-64
TOTALS			39	81	102			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 151+93'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
150+90	0.9	0.0	-	-	-	-	-	-
151+00	6.1	0.0	1	0	0	1	0	1
151+50	29.7	0.0	33	0	0	33	0	33
151+55	33.1	0.0	6	0	0	39	0	39
151+86	48.7	0.0	47	0	0	86	0	86
152+00	17.9	0.0	17	0	0	103	0	103
152+22	15.1	0.0	13	0	0	117	0	117
152+50	5.9	0.0	11	0	0	128	0	128
152+80	0.0	0.0	3	0	0	131	0	131
TOTALS			132	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 151+93'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
151+25	5.9	0.1	-	-	-	-	-	-
151+50	5.9	0.0	5	0	0	5	0	5
151+65	4.3	10.9	3	3	4	8	4	4
152+03	4.2	94.4	6	74	93	14	96	-82
152+32	4.1	13.2	4	58	72	19	169	-150
152+50	4.4	7.9	3	7	9	22	177	-156
153+00	5.2	0.4	9	8	10	30	187	-157
153+14	4.5	0.0	3	0	0	33	187	-154
TOTALS			33	150	187			

PROJECT NO:8160-03-61
HWY:STH 13
COUNTY:BAYFIELD
EARTHWORK
SHEET 133
E
FILE NAME : $$....designfile....$$
PLOT DATE : $$...plottingdate...$$
PLOT BY : $$...plotuser...$$
PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 151+93'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
151+25	1.3	0.0	-	-	-	-	-	-
151+50	2.8	0.0	2	0	0	2	0	2
151+65	15.7	0.0	5	0	0	7	0	7
152+03	99.3	0.0	81	0	0	88	0	88
152+32	18.2	0.0	63	0	0	151	0	151
152+50	11.9	0.0	10	0	0	161	0	161
153+00	1.5	0.0	12	0	0	174	0	174
153+14	0.2	0.0	0	0	0	174	0	174
TOTALS			174	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 208+32'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
206+97	5.2	0.0	-	-	-	-	-	-
207+00	5.6	0.0	1	0	0	1	0	1
207+50	40.6	0.0	43	0	0	43	0	43
207+69	18.1	2.2	21	1	1	64	1	63
208+00	3.1	2.2	12	3	3	76	4	72
208+34	3.2	2.2	4	3	3	80	8	73
208+49	2.7	2.2	2	1	2	82	9	73
209+00	3.7	2.2	6	4	5	88	14	74
209+12	3.7	2.2	2	1	1	89	16	74
209+50	3.5	2.2	5	3	4	95	19	75
209+83	4.6	2.2	5	3	3	100	23	77
TOTALS			100	18	23			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 208+32'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
206+97	1.2	0.0	-	-	-	-	-	-
207+00	1.2	0.0	0	0	0	0	0	0
207+50	3.2	0.0	4	0	0	4	0	4
207+69	7.7	0.0	4	0	0	8	0	8
208+00	22.7	0.0	17	0	0	25	0	25
208+34	41.0	0.0	40	0	0	66	0	66
208+49	36.8	0.0	22	0	0	87	0	87
209+00	12.0	0.0	46	0	0	133	0	133
209+12	12.1	0.0	5	0	0	139	0	139
209+50	6.0	0.0	13	0	0	151	0	151
209+83	1.0	0.0	4	0	0	156	0	156
TOTALS			151		0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 208+32'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
207+16	5.2	0.0	-	-	-	-	-	-
207+50	4.9	1.7	6	1	1	6	1	5
207+69	6.9	1.1	4	0	0	11	2	9
208+00	4.3	3.6	5	3	4	16	6	10
208+34	5.6	0.3	6	2	3	22	9	13
208+49	5.0	0.4	3	0	0	25	9	16
209+00	5.6	0.9	10	1	2	35	10	25
209+11	5.7	0.7	2	0	0	37	11	27
209+45	7.1	0.0	8	0	1	45	11	34
TOTALS			45	9	11			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 208+32'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
207+16	0.3	0.0	-	-	-	-	-	-
207+50	3.6	0.0	2	0	0	2	0	2
207+69	2.3	0.0	1	0	0	3	0	3
208+00	7.0	0.0	6	0	0	9	0	9
208+34	2.5	0.0	6	0	0	15	0	15
208+49	3.3	0.0	2	0	0	17	0	17
209+00	3.2	0.0	6	0	0	23	0	23
209+11	3.1	0.0	1	0	0	24	0	24
209+45	0.4	0.0	2	0	0	27	0	27
TOTALS			27	0	0			

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EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 218+10'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
217+45	4.0	0.2	-	-	-	-	-	-
217+50	4.0	0.4	1	0	0	1	0	1
217+82	4.1	1.0	5	1	1	6	1	4
218+00	5.4	2.5	3	1	1	9	3	6
218+10	4.2	13.6	2	3	4	10	6	4
218+36	4.0	1.0	4	7	9	14	15	-1
218+50	3.7	0.7	2	0	1	16	16	1
218+75	3.3	0.0	3	0	0	20	16	4
TOTALS			20	13	16			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 218+10'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
217+45	1.7	0.0	-	-	-	-	-	-
217+50	2.2	0.0	0	0	0	0	0	0
217+82	4.7	0.0	4	0	0	4	0	4
218+00	4.9	0.0	3	0	0	8	0	8
218+10	17.1	0.0	4	0	0	12	0	12
218+36	4.6	0.0	10	0	0	22	0	22
218+50	3.6	0.0	2	0	0	24	0	24
218+75	1.6	0.0	2	0	0	27	0	27
TOTALS			27	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 304+76'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
304+00	5.1	0.0	-	-	-	-	-	-
304+35	5.1	7.8	7	5	6	7	6	0
304+50	5.2	3.8	3	3	4	9	10	-1
304+77	2.7	0.2	4	2	3	13	13	1
305+00	5.2	2.5	3	1	1	17	14	3
305+19	5.2	5.9	4	3	4	20	18	2
305+50	5.1	1.5	6	4	5	26	23	3
TOTALS			26	19	23			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 304+76'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
304+00	0.8	0.0	-	-	-	-	-	-
304+35	10.3	0.0	7	0	0	7	0	7
304+50	6.3	0.0	5	0	0	12	0	12
304+77	2.6	0.0	4	0	0	16	0	16
305+00	4.9	0.0	3	0	0	19	0	19
305+19	8.4	0.0	5	0	0	24	0	24
305+50	2.4	0.0	6	0	0	30	0	30
TOTALS			30	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 367+81'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
366+53	3.5	0.3	-	-	-	-	-	-
367+00	5.3	0.0	8	0	0	7.7	0	
367+44	7.0	0.0	10	0	0	17.7	0	18
367+50	6.8	0.0	2	0	0	19.2	0	19
367+87	5.1	20.1	8	14	17	27.4	17	10
368+00	5.6	3.0	3	6	7	29.9	24	6
368+27	19.6	0.0	13	2	2	42.5	26	17
368+50	7.0	0.0	11	0	0	53.9	26	28
369+00	7.9	0.0	14	0	0	67.7	26	42
369+12	0.0	0.0	2	0	0	69.4	26	43
TOTALS			69	21	26			

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EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 367+81'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
366+53	1.6	0.0	-	-	-	-	-	-
367+00	3.0	0.0	4	0	0	4.0	0	
367+44	3.0	0.0	5	0	0	8.9	0	9
367+50	2.8	0.0	1	0	0	9.5	0	10
367+87	24.2	0.0	19	0	0	28.0	0	28
368+00	6.6	0.0	7	0	0	35.5	0	35
368+27	4.1	0.0	5	0	0	40.8	0	41
368+50	2.9	0.0	3	0	0	43.8	0	44
369+00	0.4	0.0	3	0	0	46.8	0	47
369+12	0.0	0.0	0	0	0	46.9	0	47
TOTALS			47	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 368+81'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
366+79	2.6	0.0	-	-	-	-	-	-
367+00	3.3	0.3	2	0	0	2	0	2
367+37	4.5	55.0	5	38	47	8	48	-40
367+50	4.5	80.5	2	33	41	10	88	-78
367+71	4.3	90.3	3	66	83	13	171	-158
368+00	4.5	84.7	5	94	117	18	289	-271
368+50	4.1	108.4	8	179	223	26	512	-486
369+00	3.9	141.7	7	232	289	33	802	-768
369+50	3.4	170.7	7	289	362	40	1163	-1123
370+00	3.0	181.3	6	326	407	46	1571	-1525
370+46	3.0	197.3	5	323	403	51	1974	-1923
370+50	3.0	198.3	0	29	37	52	2011	-1959
370+88	2.9	220.8	4	295	369	56	2379	-2323
371+00	2.9	211.7	1	96	120	57	2499	-2442
371+40	3.1	180.5	4	291	363	61	2862	-2801
371+50	3.1	177.8	1	66	83	63	2945	-2883
372+00	2.7	146.0	5	300	375	68	3320	-3252
372+50	2.4	118.3	5	245	306	73	3626	-3553
373+00	2.5	116.2	5	217	271	77	3897	-3820
373+50	2.5	63.1	5	166	208	82	4105	-4023
374+00	2.6	5.0	5	63	79	87	4184	-4097
374+50	2.3	18.6	5	22	27	91	4211	-4120
374+70	2.3	10.8	2	11	14	93	4225	-4132
TOTALS			93	3380	4225			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 368+81'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
366+79	0.1	0.0	-	-	-	-	-	-
367+00	0.6	0.0	0	0	0	0	0	0
367+37	61.0	0.0	42	0	0	42	0	42
367+50	86.8	0.0	36	0	0	78	0	78
367+71	97.1	0.0	72	0	0	150	0	150
368+00	92.2	0.0	102	0	0	251	0	251
368+50	118.1	0.0	195	0	0	446	0	446
369+00	153.5	0.0	251	0	0	697	0	697
369+50	185.1	0.0	314	0	0	1011	0	1011
370+00	198.1	0.0	355	0	0	1366	0	1366
370+46	216.1	0.0	353	0	0	1719	0	1719
370+50	217.0	0.0	32	0	0	1751	0	1751
370+88	239.6	0.0	321	0	0	2072	0	2072
371+00	230.4	0.0	104	0	0	2176	0	2176
371+40	199.0	0.0	318	0	0	2495	0	2495
371+50	195.8	0.0	73	0	0	2568	0	2568
372+00	161.4	0.0	331	0	0	2898	0	2898
372+50	131.1	0.0	271	0	0	3169	0	3169
373+00	126.1	0.0	238	0	0	3407	0	3407
373+50	70.1	0.0	182	0	0	3589	0	3589
374+00	9.2	0.0	73	0	0	3662	0	3662
374+50	20.4	0.0	27	0	0	3690	0	3690
374+70	11.5	0.0	12	0	0	3702	0	3702
TOTALS			3702	0	0			

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EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 379+40'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
376+87	3.1	6.3	-	-	-	-	-	-
377+00	2.8	6.6	1	3	4	1	4	-2
377+50	2.3	11.5	5	17	21	6	25	-19
378+00	3.3	37.4	5	45	57	11	81	-70
378+50	1.8	50.1	5	81	101	16	183	-167
378+80	3.3	89.0	3	77	97	19	279	-260
379+00	3.3	94.7	2	68	85	21	364	-343
379+25	3.3	101.9	3	91	114	24	478	-454
379+50	3.0	74.4	3	82	102	27	580	-553
379+78	2.9	42.5	3	61	76	30	656	-626
380+00	1.2	22.0	2	26	33	32	689	-657
380+50	6.2	0.0	7	20	25	39	714	-675
381+00	3.0	15.9	9	15	18	47	733	-685
381+50	1.7	9.9	4	24	30	52	762	-711
381+85	3.2	2.9	3	8	10	55	773	-718
TOTALS			55	618	773			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 379+40'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
376+87	8.2	0.0	-	-	-	-	-	-
377+00	9.4	0.0	4	0	0	4	0	4
377+50	17.5	0.0	25	0	0	29	0	29
378+00	45.4	0.0	58	0	0	87	0	87
378+50	62.4	0.0	100	0	0	187	0	187
378+80	101.9	0.0	91	0	0	278	0	278
379+00	107.2	0.0	77	0	0	356	0	356
379+25	114.5	0.0	103	0	0	459	0	459
379+50	87.5	0.0	94	0	0	552	0	552
379+78	55.6	0.0	74	0	0	626	0	626
380+00	32.4	0.0	36	0	0	662	0	662
380+50	5.5	0.0	35	0	0	697	0	697
381+00	21.4	0.0	25	0	0	722	0	722
381+50	14.2	0.0	33	0	0	755	0	755
381+85	4.0	0.0	12	0	0	767	0	767
TOTALS			767	0	0			

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EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 419+54'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
419+30	6.1	0.8	-	-	-	-	-	-
419+41	5.3	2.5	2	1	1	2	1	1
419+50	5.3	1.5	2	1	1	4	2	2
419+54	5.3	1.5	1	0	0	5	2	3
419+67	5.4	1.4	3	1	1	7	3	5
419+80	6.3	0.0	3	0	0	10	3	7
TOTALS			10	3	3			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 419+54'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
419+30	0.8	0.0	-	-	-	-	-	-
419+41	3.7	0.0	1	0	0	1	0	1
419+50	2.8	0.0	1	0	0	2	0	2
419+54	2.8	0.0	0	0	0	2	0	2
419+67	2.6	0.0	1	0	0	4	0	4
419+80	0.0	0.0	1	0	0	4	0	4
TOTALS			4	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 459+21'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
458+70	3.1	4.0	-	-	-	-	-	-
459+00	3.0	12.4	3	9	11	3	11	-8
459+05	3.3	8.7	1	2	2	4	14	-10
459+21	3.4	15.6	2	7	9	6	23	-17
459+37	3.0	14.6	2	9	11	8	34	-26
459+50	2.9	12.9	1	7	8	9	42	-33
460+00	3.5	4.8	6	16	20	15	63	-48
460+50	3.3	5.8	6	10	12	21	75	-54
460+80	3.2	3.7	4	5	7	25	82	-57
461+00	3.5	1.9	2	2	3	28	84	-57
461+22	2.9	5.9	3	3	4	30	88	-58
461+50	2.7	2.3	3	4	5	33	94	-60
461+65	2.6	0.6	1	1	1	35	95	-60
TOTALS			35	76	95			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 459+21'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
458+70	5.0	0.0	-	-	-	-	-	-
459+00	15.6	0.0	11	0	0	11	0	11
459+05	12.1	0.0	3	0	0	14	0	14
459+21	19.1	0.0	9	0	0	23	0	23
459+37	18.4	0.0	11	0	0	34	0	34
459+50	16.4	0.0	8	0	0	43	0	43
460+00	7.4	0.0	22	0	0	65	0	65
460+50	8.5	0.0	15	0	0	80	0	80
460+80	6.6	0.0	8	0	0	88	0	88
461+00	4.6	0.0	4	0	0	92	0	92
461+22	9.3	0.0	6	0	0	98	0	98
461+50	4.3	0.0	7	0	0	105	0	105
461+65	1.9	0.0	2	0	0	106	0	106
TOTALS			106	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 483+27'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
482+52	3.2	0.3	-	-	-	-	-	-
482+75	3.1	1.8	2.7	1	1	3	1	2
482+98	2.7	8.8	2.5	5	6	5	7	-2
483+00	2.7	9.7	0.2	1	1	5	8	-2
483+20	2.7	18.7	2.0	11	13	7	21	-13
483+27	2.9	18.1	0.7	5	6	8	27	-19
483+50	2.9	11.8	2.5	13	16	11	43	-32
484+00	3.0	1.8	5.5	13	16	16	58	-42
484+25	3.0	0.0	2.8	1	1	19	59	-41
TOTALS			19	48	59			

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WISDOT/CADDS SHEET 49

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 483+27'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
482+52	2.4	0.0	-	-	-	-	-	-
482+75	5.3	0.0	3.3	0	0	3	0	3
482+98	13.8	0.0	8.1	0	0	11	0	11
483+00	14.8	0.0	1.1	0	0	12	0	12
483+20	23.8	0.0	14.3	0	0	27	0	27
483+27	23.0	0.0	6.1	0	0	33	0	33
483+50	16.8	0.0	17.0	0	0	50	0	50
484+00	3.8	0.0	19.1	0	0	69	0	69
484+25	0.7	0.0	2.1	0	0	71	0	71
TOTALS			71	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 543+84'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
543+00	3.4	7.0	-	-	-	-	-	-
543+50	3.2	9.9	6	16	20	6	20	-13
543+59	3.3	9.9	1	3	4	7	24	-16
543+84	3.7	21.9	3	15	18	10	42	-32
544+00	4.1	11.2	2	10	12	13	54	-42
544+10	3.9	9.4	1	4	5	14	59	-45
544+50	3.4	0.2	5	7	9	20	68	-48
TOTALS			20	54	68			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 543+84'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
543+00	1.2	0.0	-	-	-	-	-	-
543+50	6.8	0.0	7	0	0	7	0	7
543+59	6.8	0.0	2	0	0	10	0	10
543+84	6.8	0.0	6	0	0	16	0	16
544+00	6.3	0.0	4	0	0	20	0	20
544+10	6.6	0.0	2	0	0	22	0	22
544+50	2.4	0.0	7	0	0	29	0	29
TOTALS			29	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 543+84'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
543+21	3.3	0.3	-	-	-	-	-	-
543+50	3.1	5.1	3	3	4	3	4	0
543+58	3.1	6.8	1	2	2	4	6	-1
543+84	3.7	14.3	3	10	13	8	19	-11
544+00	4.1	3.3	2	5	7	10	25	-15
544+09	4.3	2.4	1	1	1	11	26	-15
544+22	5.0	0.4	2	1	1	14	27	-13
TOTALS			14	22	27			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 543+84'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
543+21	2.3	0.0	-	-	-	-	-	-
543+50	8.8	0.0	6	0	0	6	0	6
543+58	10.9	0.0	3	0	0	9	0	9
543+84	17.9	0.0	14	0	0	23	0	23
544+00	6.4	0.0	7	0	0	30	0	30
544+09	5.4	0.0	2	0	0	32	0	32
544+22	2.1	0.0	2	0	0	34	0	34
TOTALS			34	0	0			

FILE NAME : $$....designfile....$$

PLOT DATE : $$....plottingdate...$$ PLOT BY : $$....plotuser....$$ PLOT NAME :
PLOT SCALE : $$....plotscale....$$
WISDOT/CADDS SHEET 49

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 558+09'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
557+37	3.5	0.3	-	-	-	-	-	-
557+50	3.6	0.8	2	0	0	2	0	1
557+86	3.6	3.6	5	3	4	7	4	3
558+00	3.6	8.3	2	3	4	8	8	1
558+09	3.9	9.3	1	3	4	10	12	-2
558+28	3.8	2.3	3	4	5	12	17	-4
558+50	3.9	0.2	3	1	1	15	18	-2
558+84	3.8	0.0	5	0	0	20	18	2
TOTALS			20	14	18			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 558+09'N' LT

STATION (LT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
557+37	1.8	0.0	-	-	-	-	-	-
557+50	2.6	0.0	1	0	0	1	0	1
557+86	7.8	0.0	7	0	0	8	0	8
558+00	12.5	0.0	5	0	0	13	0	13
558+09	13.2	0.0	4	0	0	18	0	18
558+28	6.3	0.0	7	0	0	24	0	24
558+50	2.8	0.0	4	0	0	28	0	28
558+84	1.0	0.0	2	0	0	31	0	31
TOTALS			31	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CROSS DRAIN AT STA. 558+09'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
557+45	2.4	0.5	-	-	-	-	-	-
557+50	2.4	0.8	0	0	0	0	0	0
557+91	2.7	8.7	4	7	9	4	9	-5
558+00	2.7	7.6	1	3	3	5	13	-7
558+09	2.7	15.0	1	4	5	6	17	-11
558+32	2.6	4.4	2	8	10	8	28	-19
558+50	2.7	3.9	2	3	3	10	31	-21
558+75	2.8	0.6	3	2	3	13	34	-21
TOTALS			13	27	34			

EARTHWORK - TEMP. WIDENING REMOVAL FOR CROSS DRAIN AT STA. 558+09'N' RT

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
557+45	1.9	0.0	-	-	-	-	-	-
557+50	2.5	0.0	0	0	0	0	0	0
557+91	12.4	0.0	11	0	0	12	0	12
558+00	11.3	0.0	4	0	0	16	0	16
558+09	18.6	0.0	5	0	0	21	0	21
558+32	8.2	0.0	11	0	0	32	0	32
558+50	6.6	0.0	5	0	0	37	0	37
558+75	1.8	0.0	4	0	0	41	0	41
TOTALS			41	0	0			

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$....plotscale....$$ WISDOT/CADDS SHEET 49

EARTHWORK - TEMPORARY WIDENING FOR CTH J AND HATCHERY ROAD

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
0+00	3.8	3.1	-	-	-	-	-	-
0+22	3.8	33.8	3	15	19	3	19	-16
0+50	4.9	10.9	4	23	29	8	48	-40
0+90	4.2	6.4	7	13	16	14	64	-50
1+00	0.0	0.0	1	1	1	15	65	-50
1+09	0.0	0.0	0	0	0	15	65	-50
TOTALS			15	52	65			

EARTHWORK - TEMPORARY WIDENING REMOVAL FOR CTH J AND HATCHERY ROAD

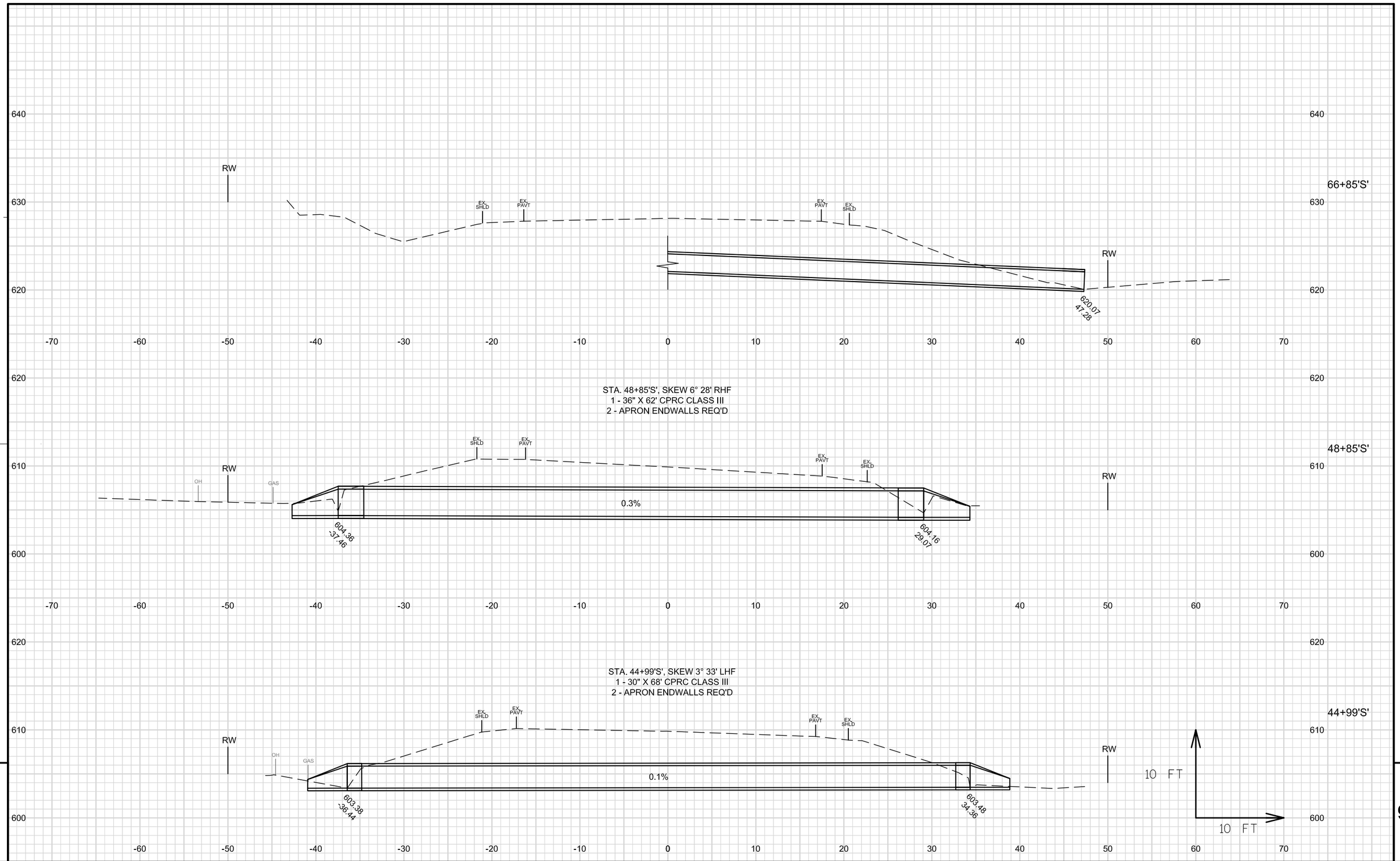
STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
0+00	3.7	0.0	-	-	-	-	-	-
0+22	44.0	0.0	19	0	0	19	0	19
0+50	18.9	0.0	33	0	0	52	0	52
0+90	7.8	0.0	20	0	0	72	0	72
1+00	0.0	0.0	1	0	0	73	0	73
1+09	0.0	0.0	0	0	0	73	0	73
TOTALS			73	0	0			

EARTHWORK - TEMPORARY WIDENING FOR CTH J AND HATCHERY ROAD

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
2+00	2.2	0.0	-	-	-	-	-	-
2+25	4.9	0.7	3	0	0	3	0	3
2+50	9.4	0.6	7	1	1	10	1	9
2+75	14.5	0.0	11	0	0	21	2	19
3+00	5.1	0.0	9	0	0	30	2	29
3+04	0.0	0.0	0	0	0	30	2	29
TOTALS			30	1	2			

EARTHWORK - TEMPORARY WIDENING REMOVAL FOR CTH J AND HATCHERY ROAD

STATION (RT)	CUT END AREA	FILL END AREA	CUT RAW VOLUME	FILL RAW VOLUME	(ADJUSTED) FILL RAW VOLUME * 1.25	CUMULATIVE CUT VOLUME	(ADJUSTED) CUMULATIVE FILL VOLUME	MASS ORDINATE
	SF	SF	CY	CY	9	CY	CY	CY
2+00	0.2	0.0	-	-	-	-	-	-
2+25	4.6	0.0	2	0	0	2	0	2
2+50	11.4	0.0	7	0	0	10	0	10
2+75	3.9	0.0	7	0	0	17	0	17
3+00	0.3	0.0	2	0	0	19	0	19
3+04	0.1	0.0	0	0	0	19	0	19
TOTALS			19	0	0			

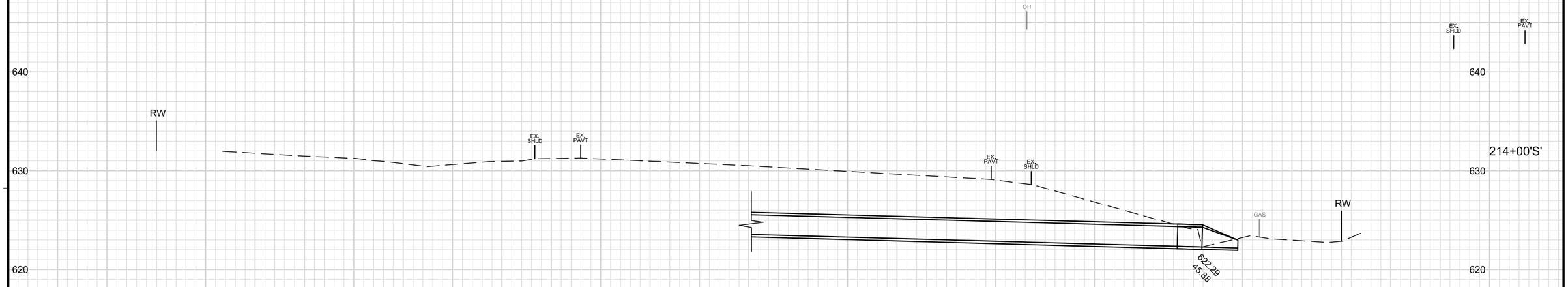


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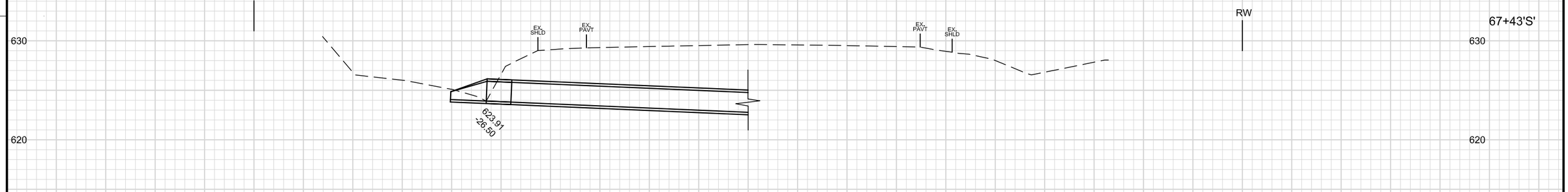
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' CROSS DRAINS	SHEET 141	E

214+00'S'

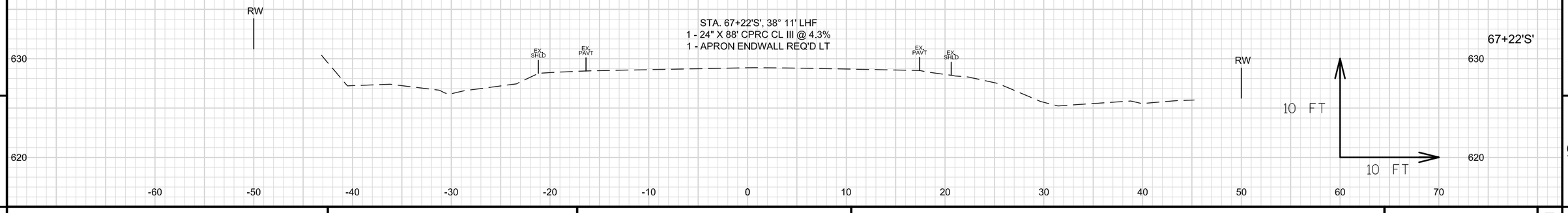


67+43'S'



67+22'S'

STA. 67+22'S', 38° 11' LHF
1 - 24" X 88' CPRC CL III @ 4.3%
1 - APRON ENDWALL REQ'D LT



9

9

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' CROSS DRAINS	SHEET 142	E

270+56'S'

EX. PAVT
EX. SHLD
OH
RW
640
630
620
10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

214+38'S'

RW
EX. SHLD
EX. PAVT
627.80
36.25
GAS
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

STA. 214+22'S', SKEW 24° 33' LHF
1 - 24" X 84' CPRC CLASS III @ 6.1%
2 - APRON ENDWALLS REQ'D

214+22'S'

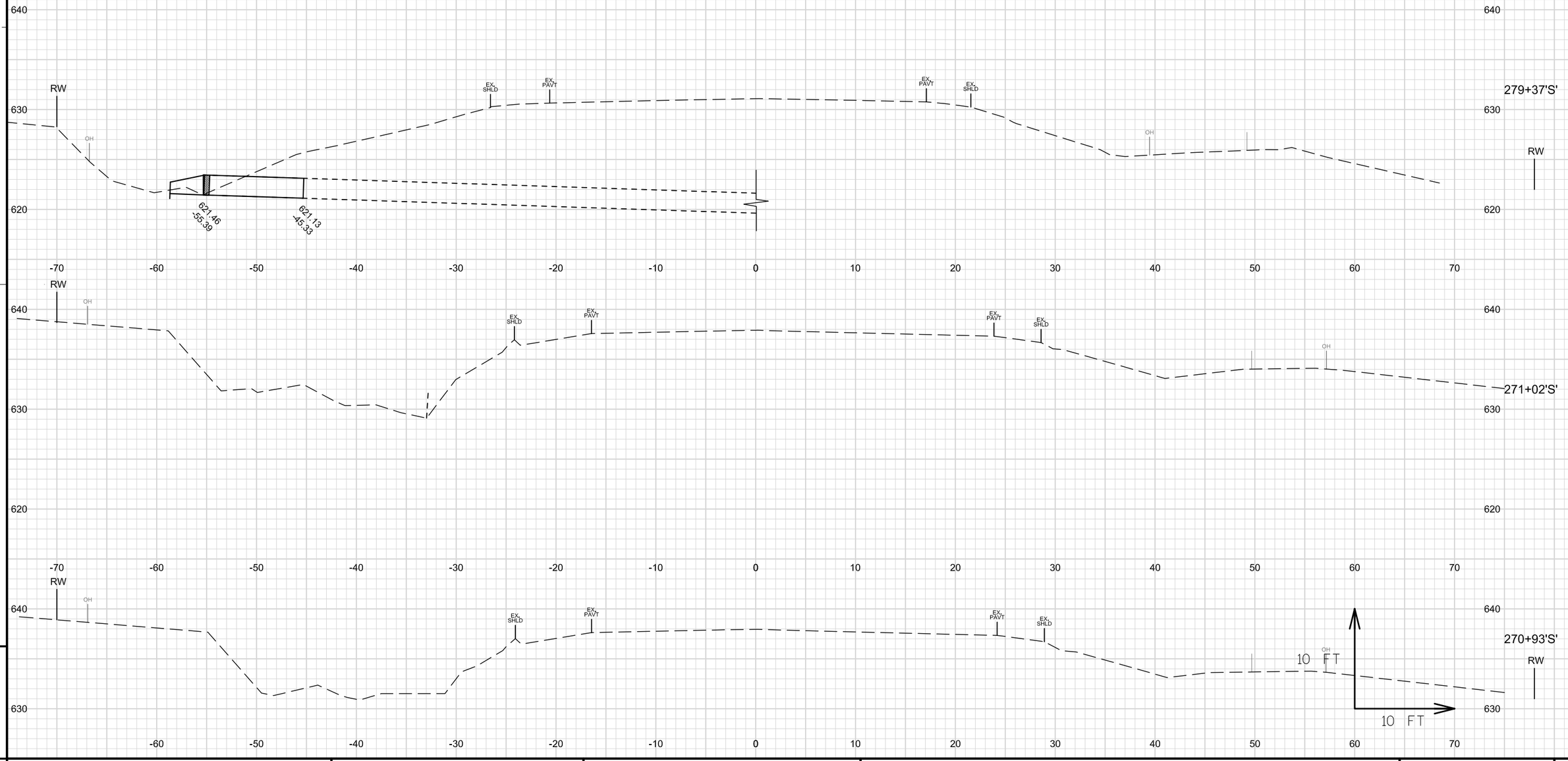
10 FT
10 FT

9

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' CROSS DRAINS	SHEET 143	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090202_XS_STH_13_PIPE_REPLACEMENTS.DWG PLOT DATE : 10/31/2013 2:01 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT

279+37'S'



271+02'S'

270+93'S'

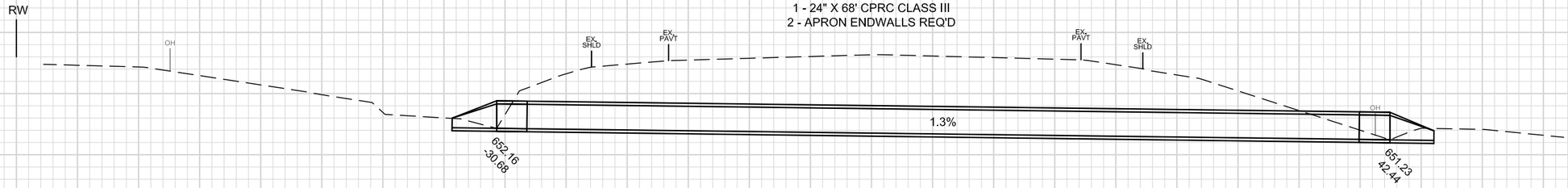
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9

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' CROSS DRAINS	SHEET 144	E

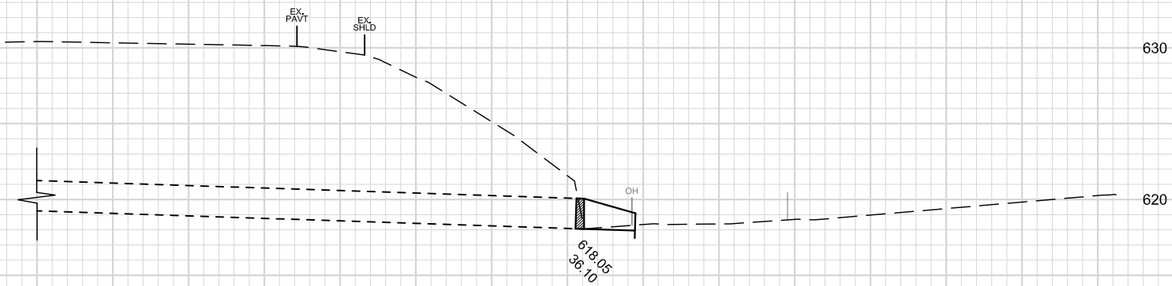
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090202_XS_STH_13_PIPE_REPLACEMENTS.DWG PLOT DATE : 10/31/2013 2:02 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT WISDOT/CADDS SHEET 49

STA. 291+69'S', SKEW 4° 52 LHF
1 - 24" X 68' CPRC CLASS III
2 - APRON ENDWALLS REQ'D



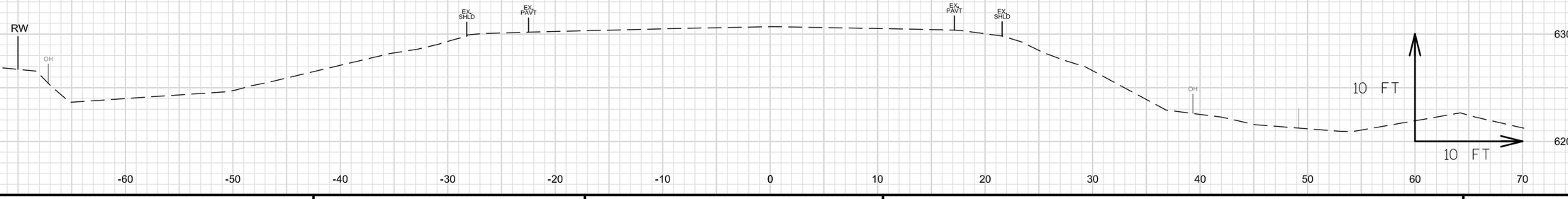
291+69'S'

STA. 279+86'S', SKEW 28° 12' RHF
1 - 24" X 10' CPCS @ 3.3%
(10 LF LT)
2 - APRON ENDWALLS REQ'D



279+86'S'

STA. 279+66'S', SKEW 28° 12' RHF
1 - 24" X 10' CPCS @ 3.3%
(10 LF LT)
2 - APRON ENDWALLS REQ'D

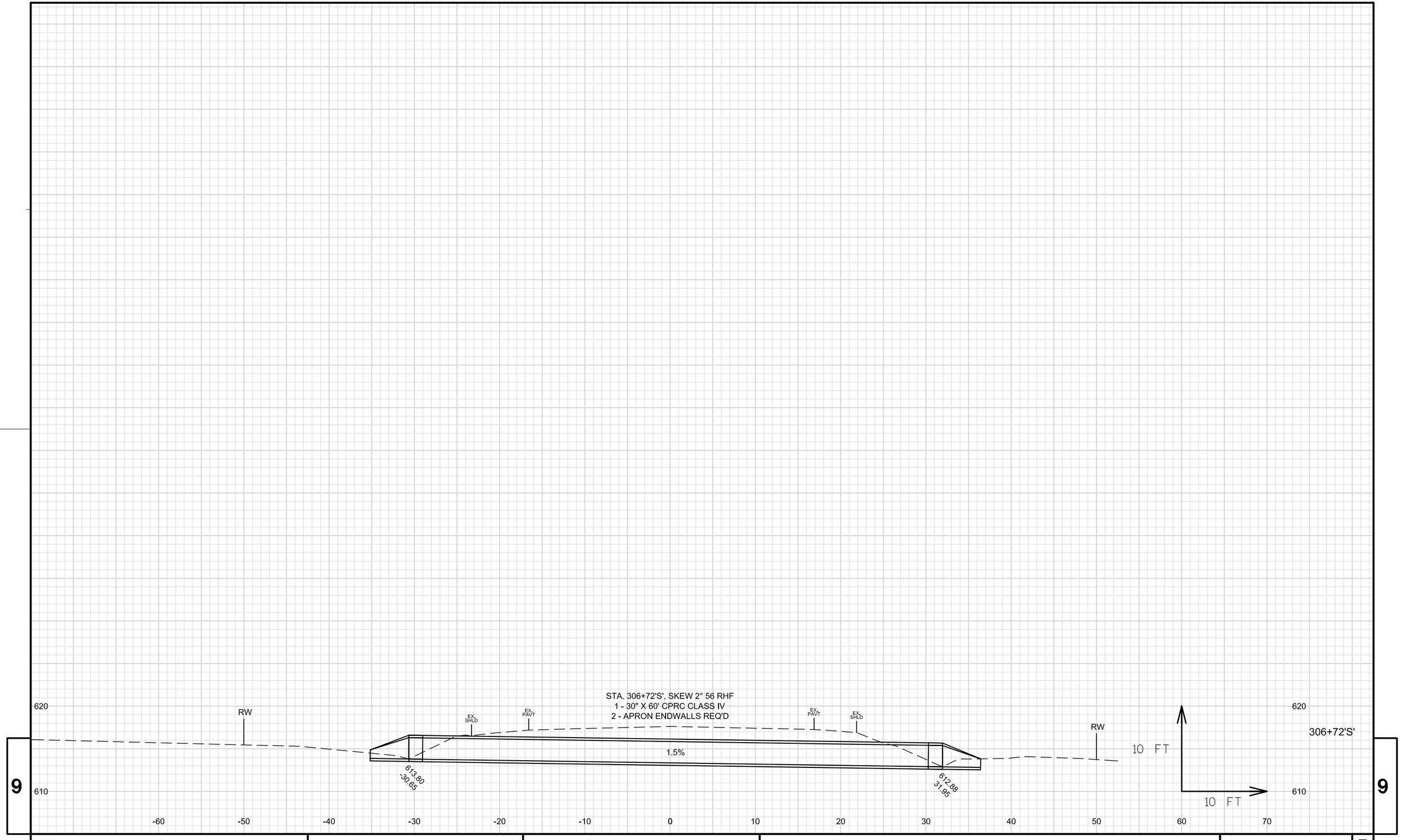


279+66'S'

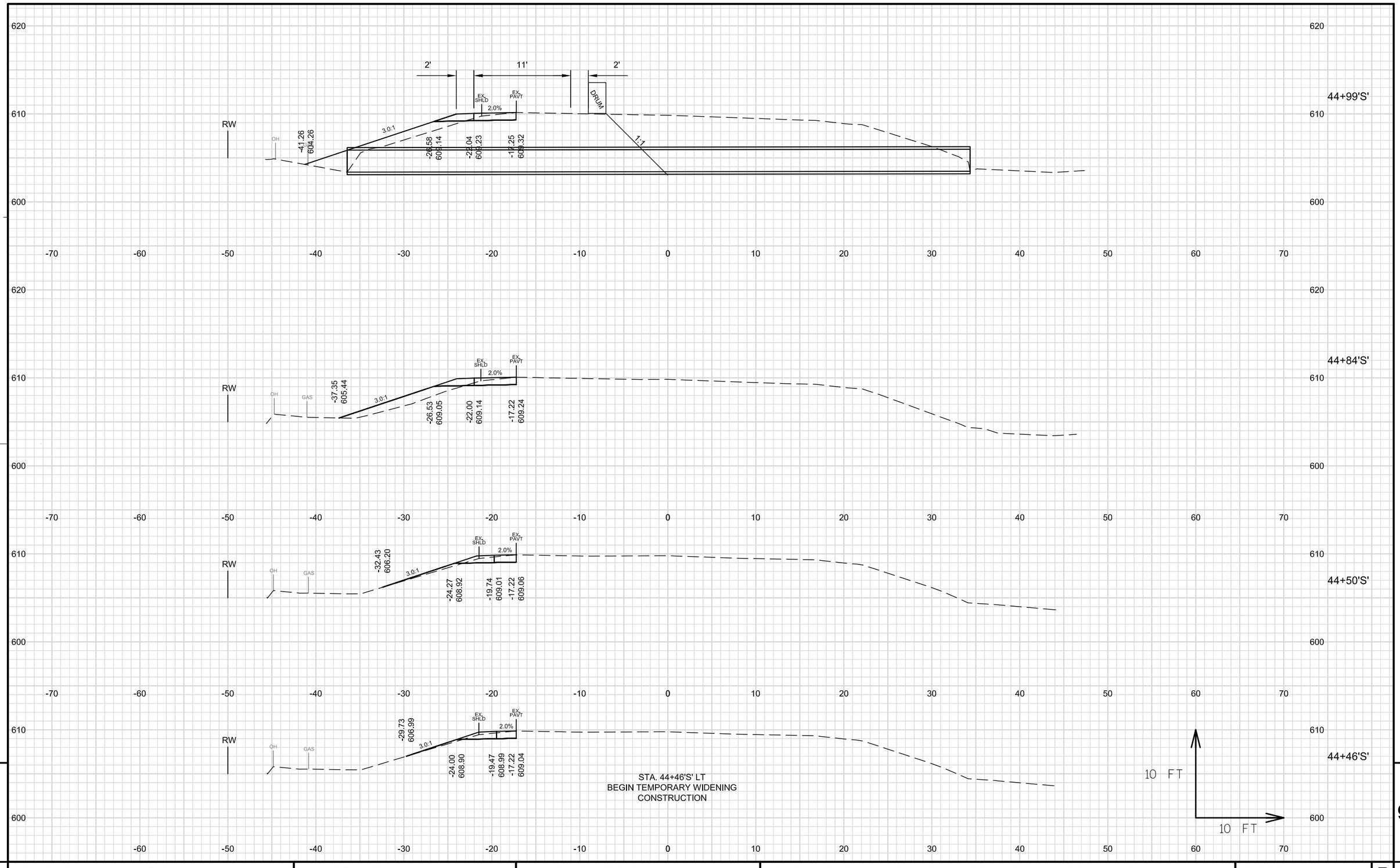
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' CROSS DRAINS	SHEET 145	E



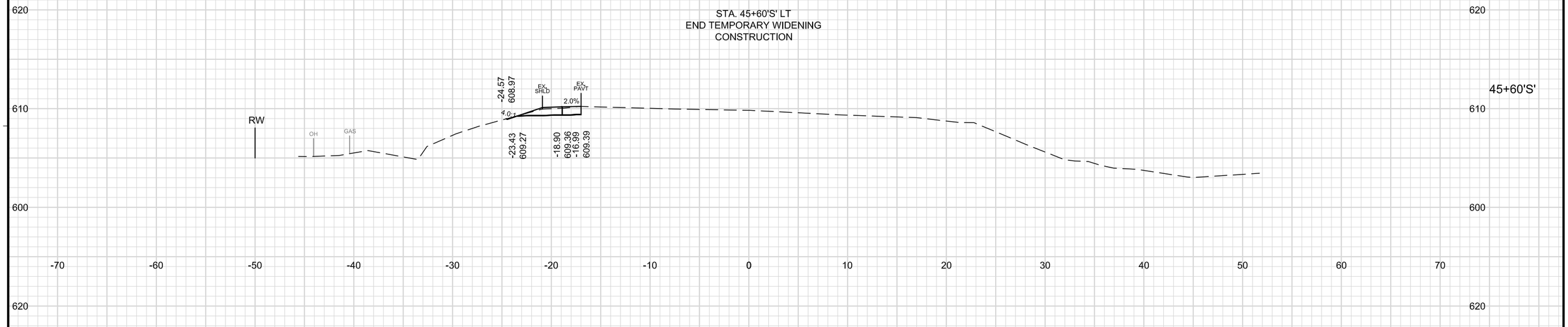
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' CROSS DRAINS	SHEET 146	E

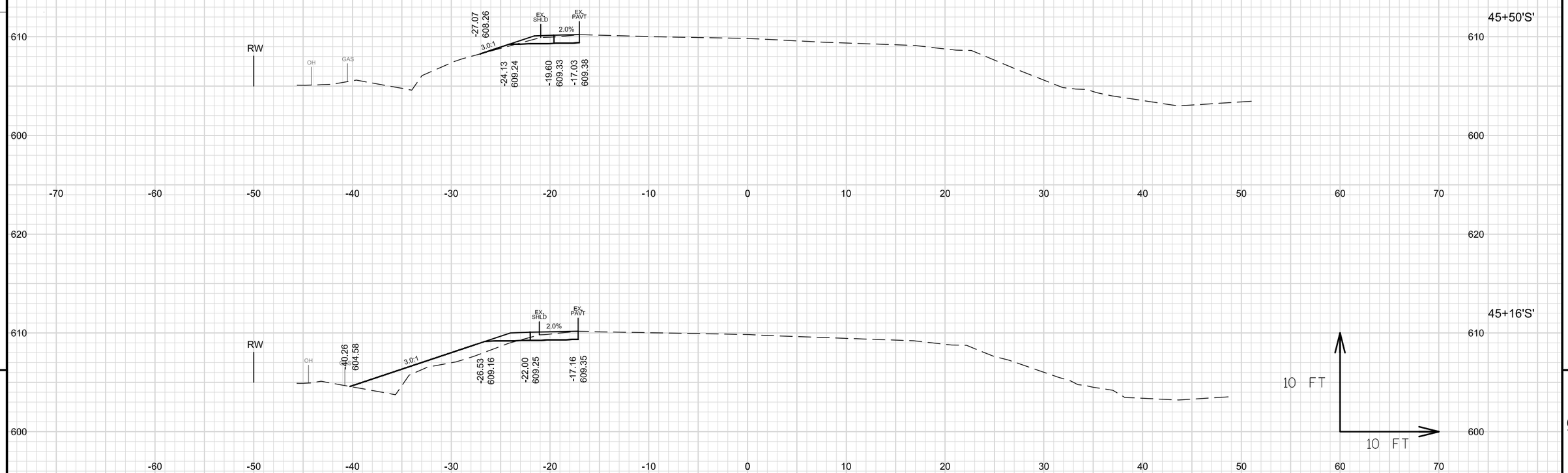


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 147	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090201_XS_STH_13_TEMP_WIDENING.DWG PLOT DATE : 10/30/2013 11:12 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

STA. 45+60'S' LT
END TEMPORARY WIDENING
CONSTRUCTION

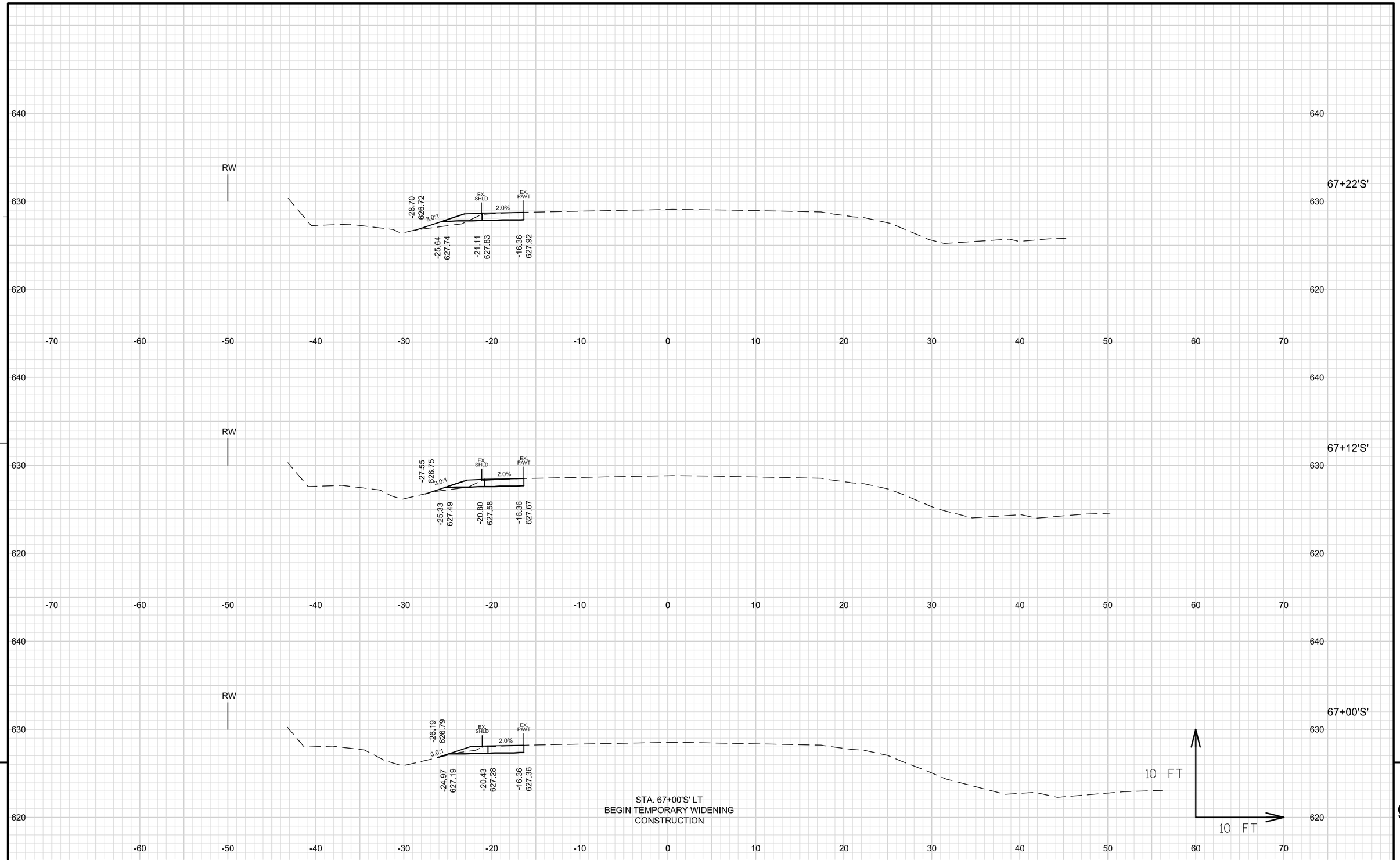




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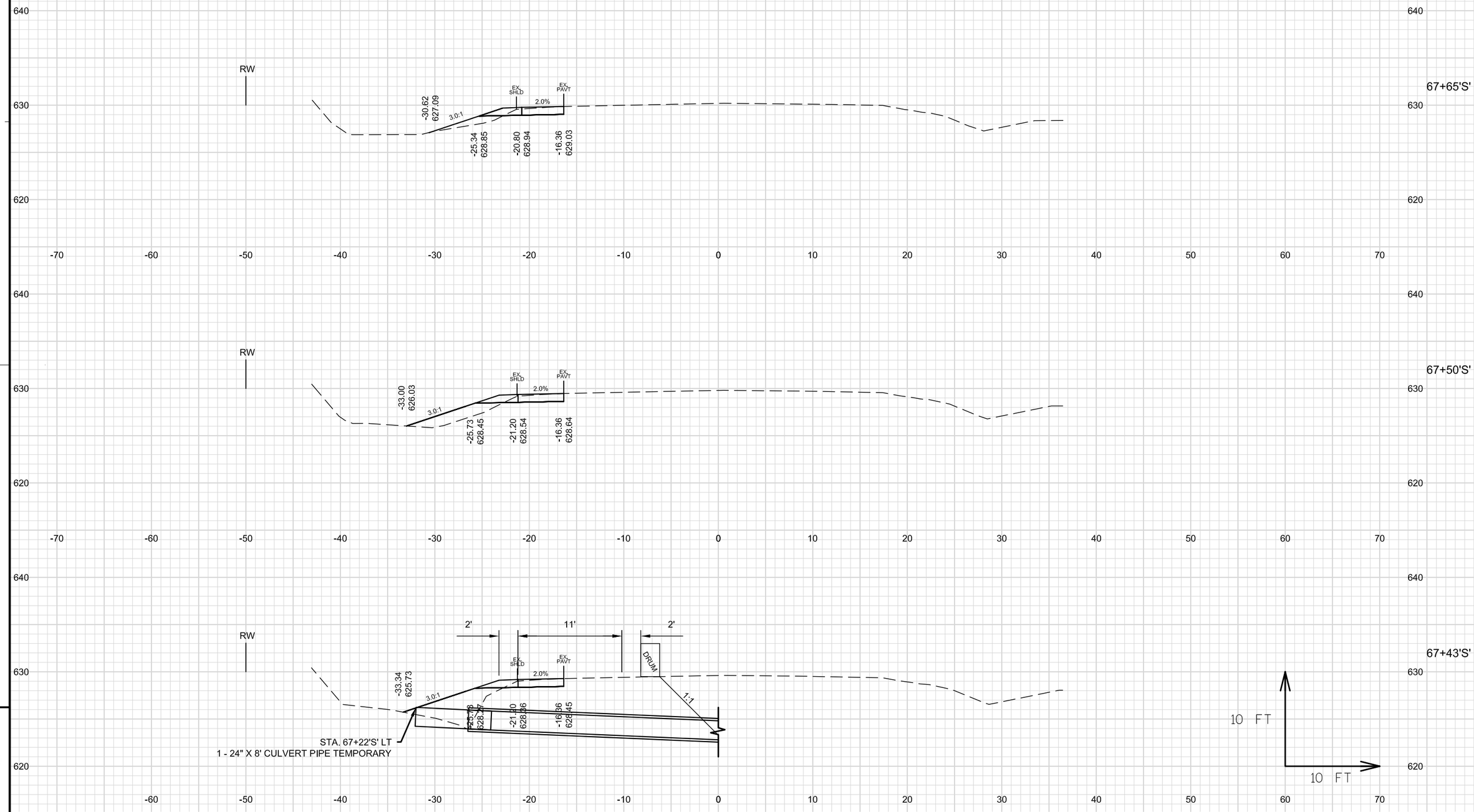
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 148	E



9

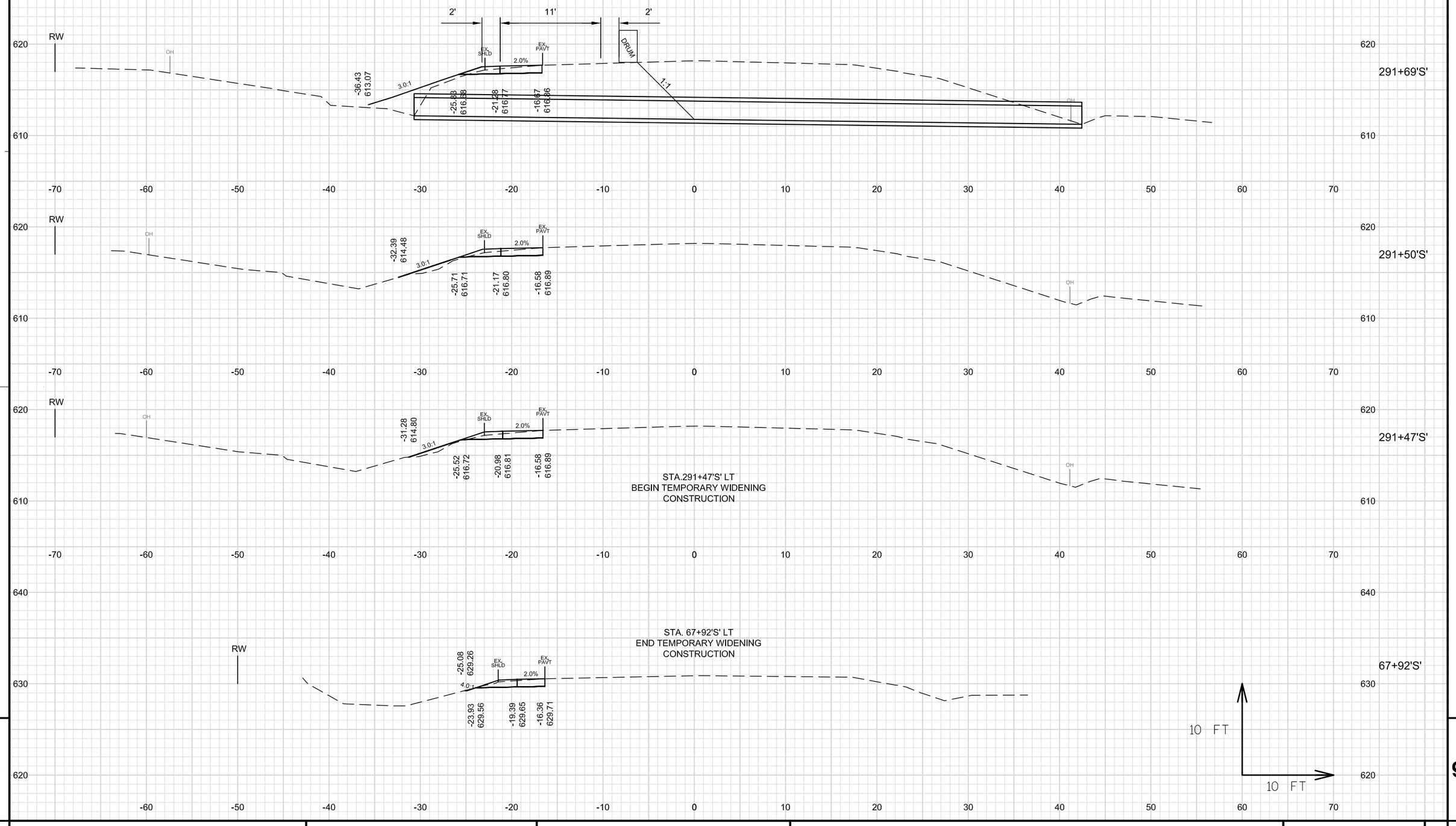
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 149	E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 150 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090201_XS_STH_13_TEMP_WIDENING.DWG PLOT DATE : 10/30/2013 11:12 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT



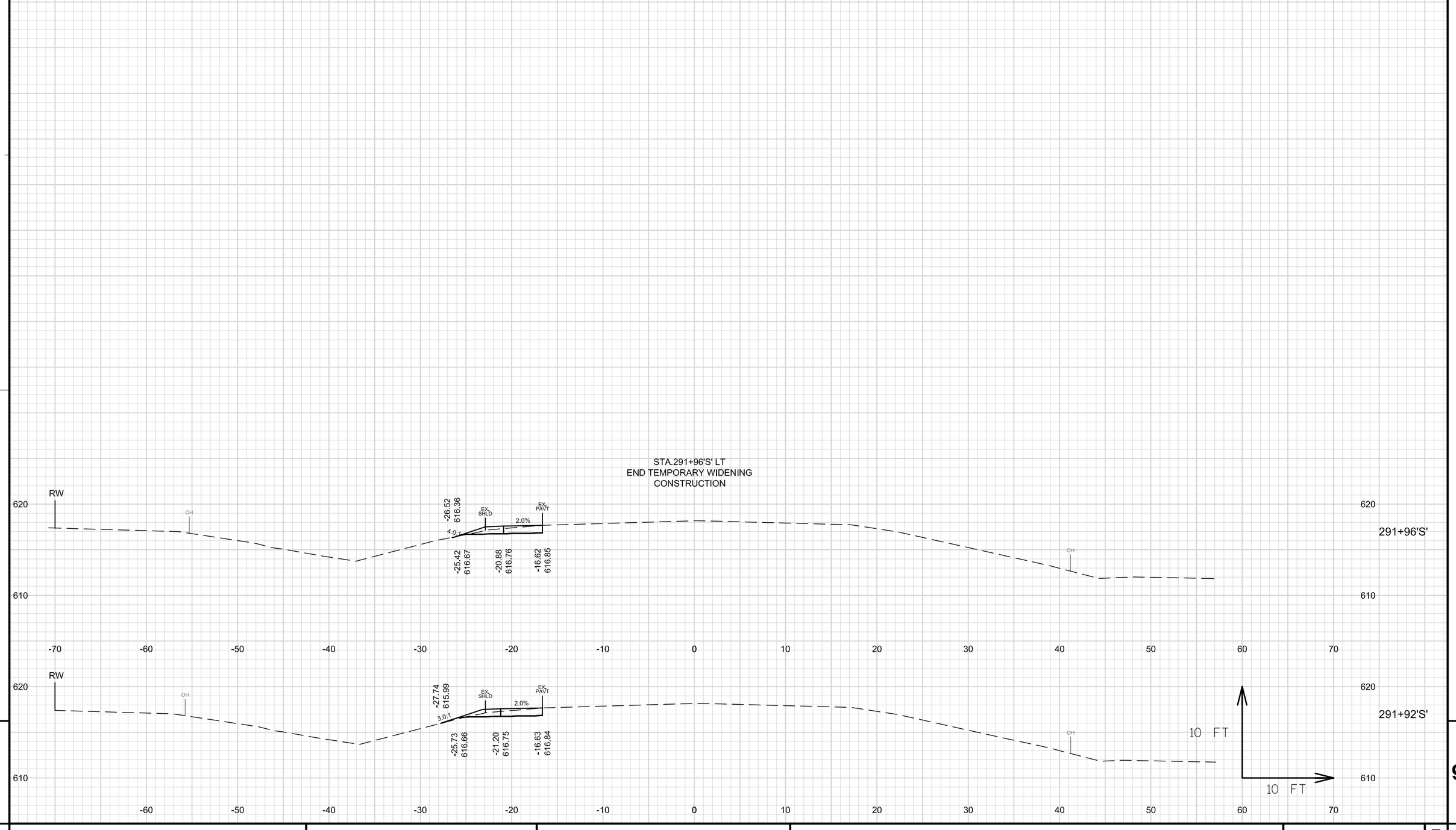
9

9

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 151	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090201_XS_STH_13_TEMP_WIDENING.DWG PLOT DATE : 10/30/2013 11:12 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

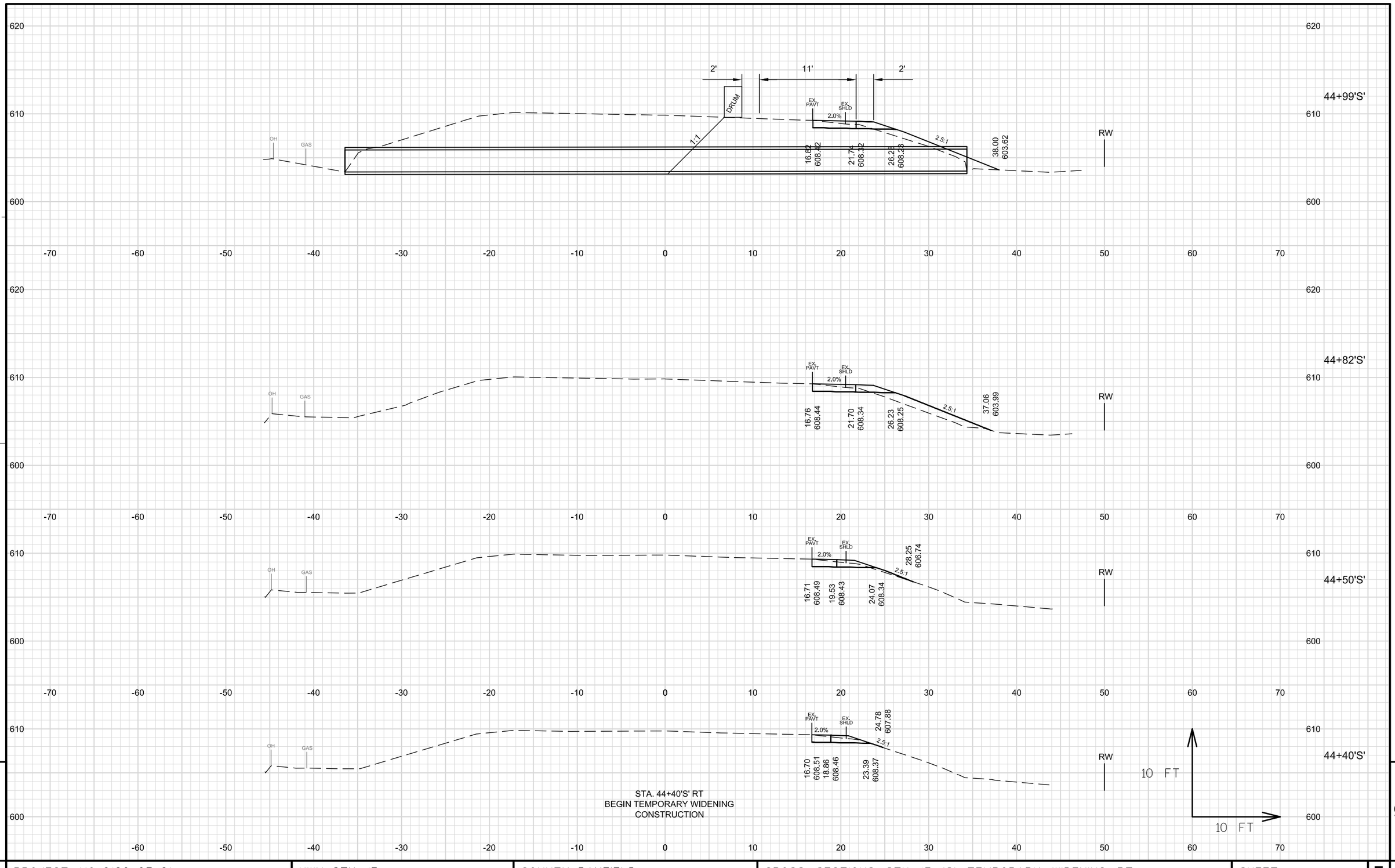
STA.291+96'S' LT
END TEMPORARY WIDENING
CONSTRUCTION



9

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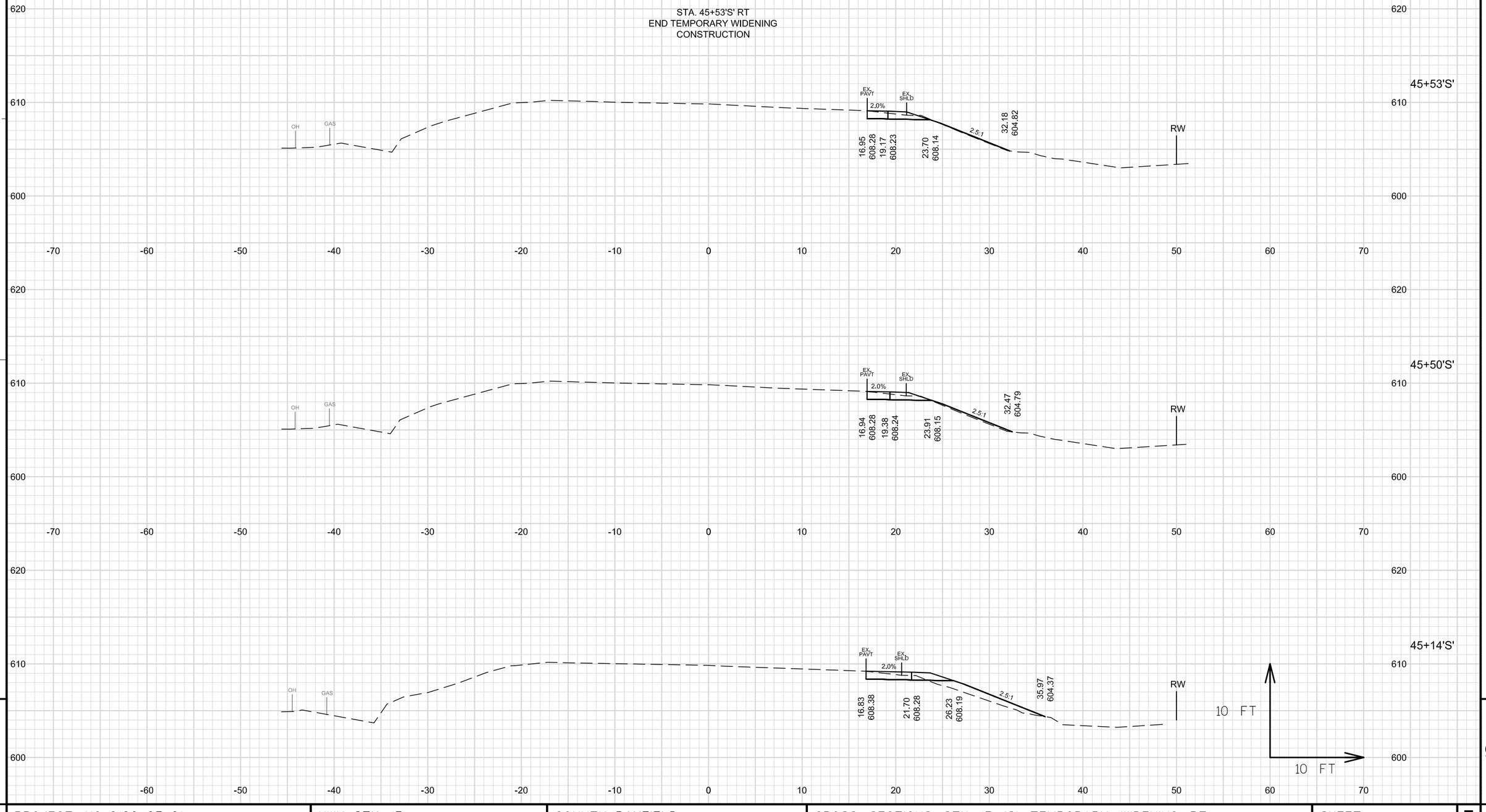
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 152	E



STA. 44+40'S' RT
BEGIN TEMPORARY WIDENING
CONSTRUCTION

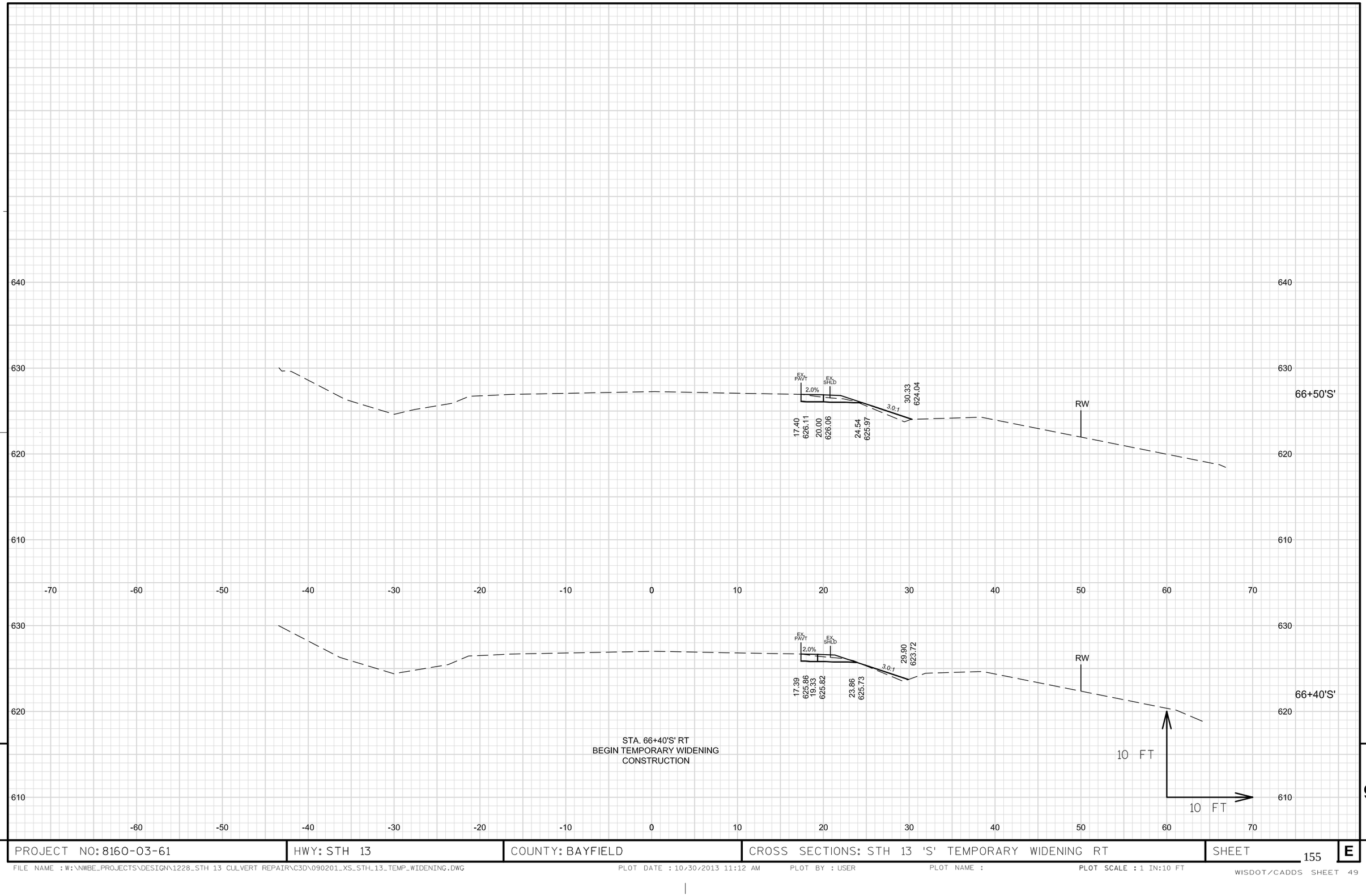
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING RT	SHEET 153	E

STA. 45+53'S' RT
END TEMPORARY WIDENING
CONSTRUCTION



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING RT	SHEET 154 E

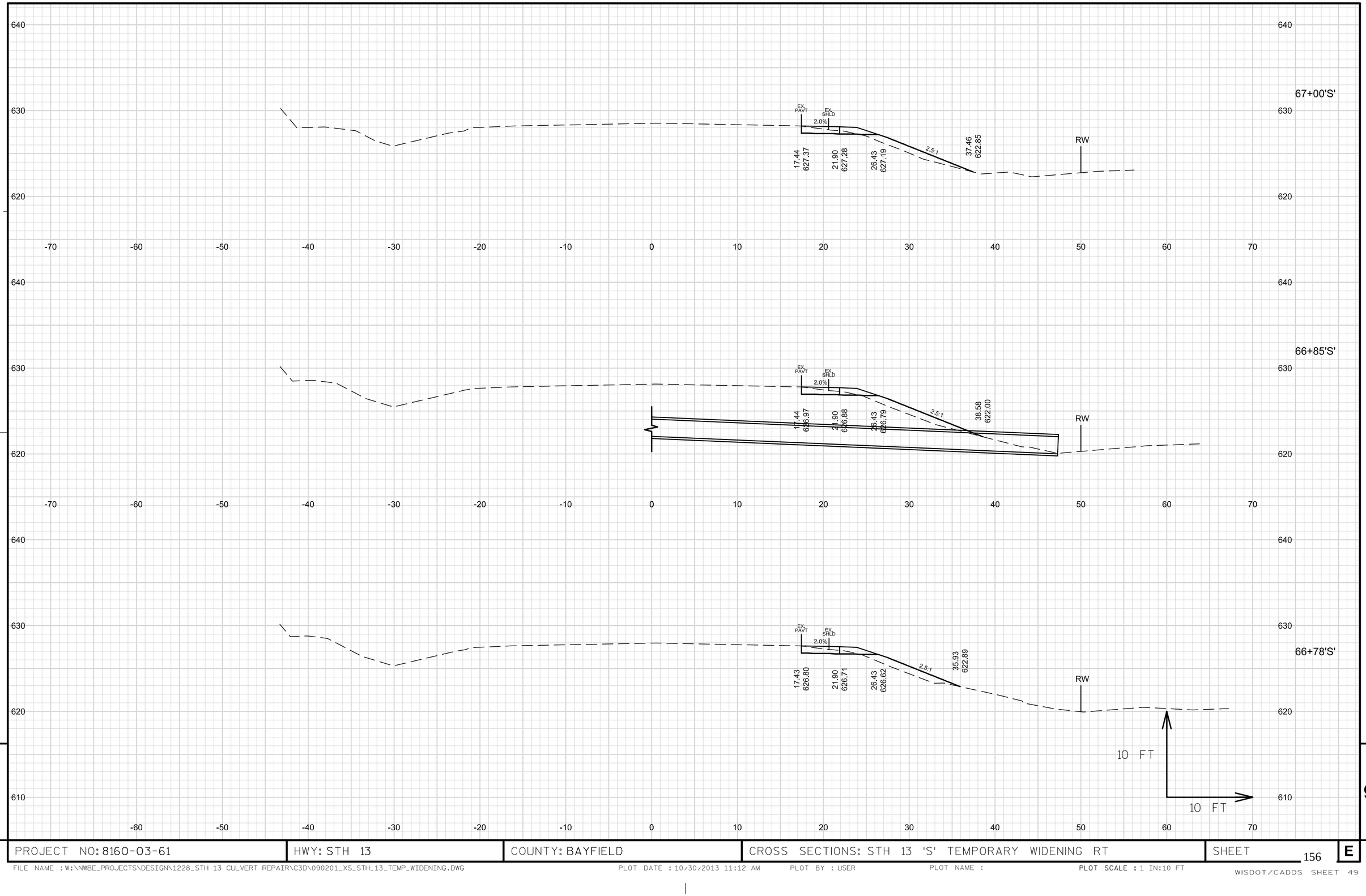
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090201_XS_STH_13_TEMP_WIDENING.DWG PLOT DATE : 10/30/2013 11:12 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



STA. 66+40'S' RT
BEGIN TEMPORARY WIDENING
CONSTRUCTION

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING RT	SHEET 155	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090201_XS_STH_13_TEMP_WIDENING.DWG PLOT DATE : 10/30/2013 11:12 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT

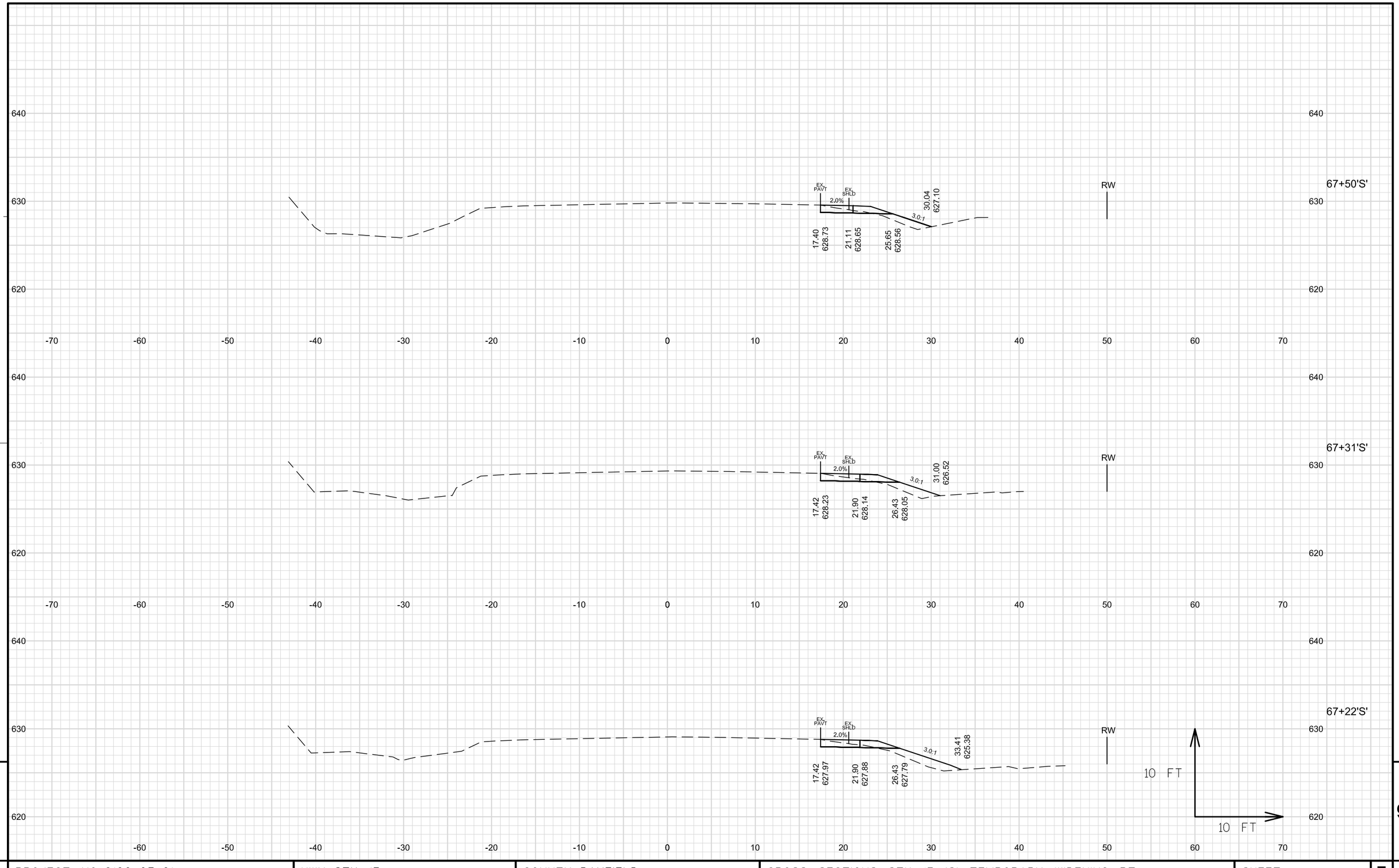


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING RT	SHEET 156 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090201_XS_STH_13_TEMP_WIDENING.DWG PLOT DATE : 10/30/2013 11:12 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING RT	SHEET 157	E

291+47'S'

EX. PAVT
EX. SHLD
2.0%
2.5:1
29.08
615.47
17.18
616.95
21.10
616.88
25.63
616.79
OH
OH

291+20'S'

EX. PAVT
EX. SHLD
2.0%
3.0:1
25.00
616.50
17.23
616.99
19.40
616.95
23.93
616.86
OH
OH

STA. 291+20'S' RT
BEGIN TEMPORARY WIDENING
CONSTRUCTION

STA. 68+07'S' RT
END TEMPORARY WIDENING
CONSTRUCTION

68+07'S'

EX. PAVT
EX. SHLD
2.0%
3.0:1
27.48
628.69
17.37
630.21
18.99
630.19
23.24
630.10
RW

68+00'S'

EX. PAVT
EX. SHLD
2.0%
3.0:1
27.84
628.51
17.37
630.07
18.99
630.04
23.53
629.95
RW

10 FT
10 FT

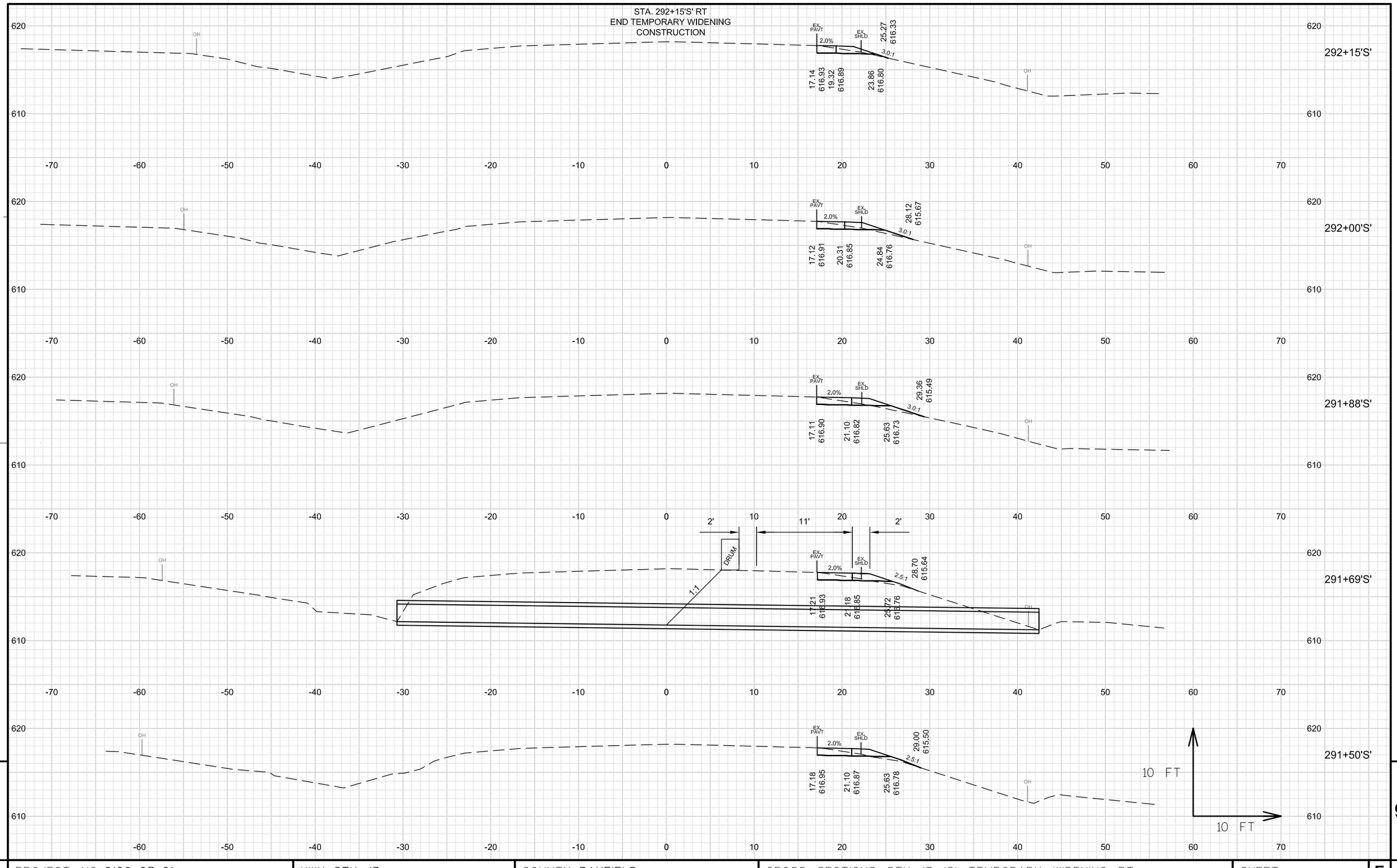
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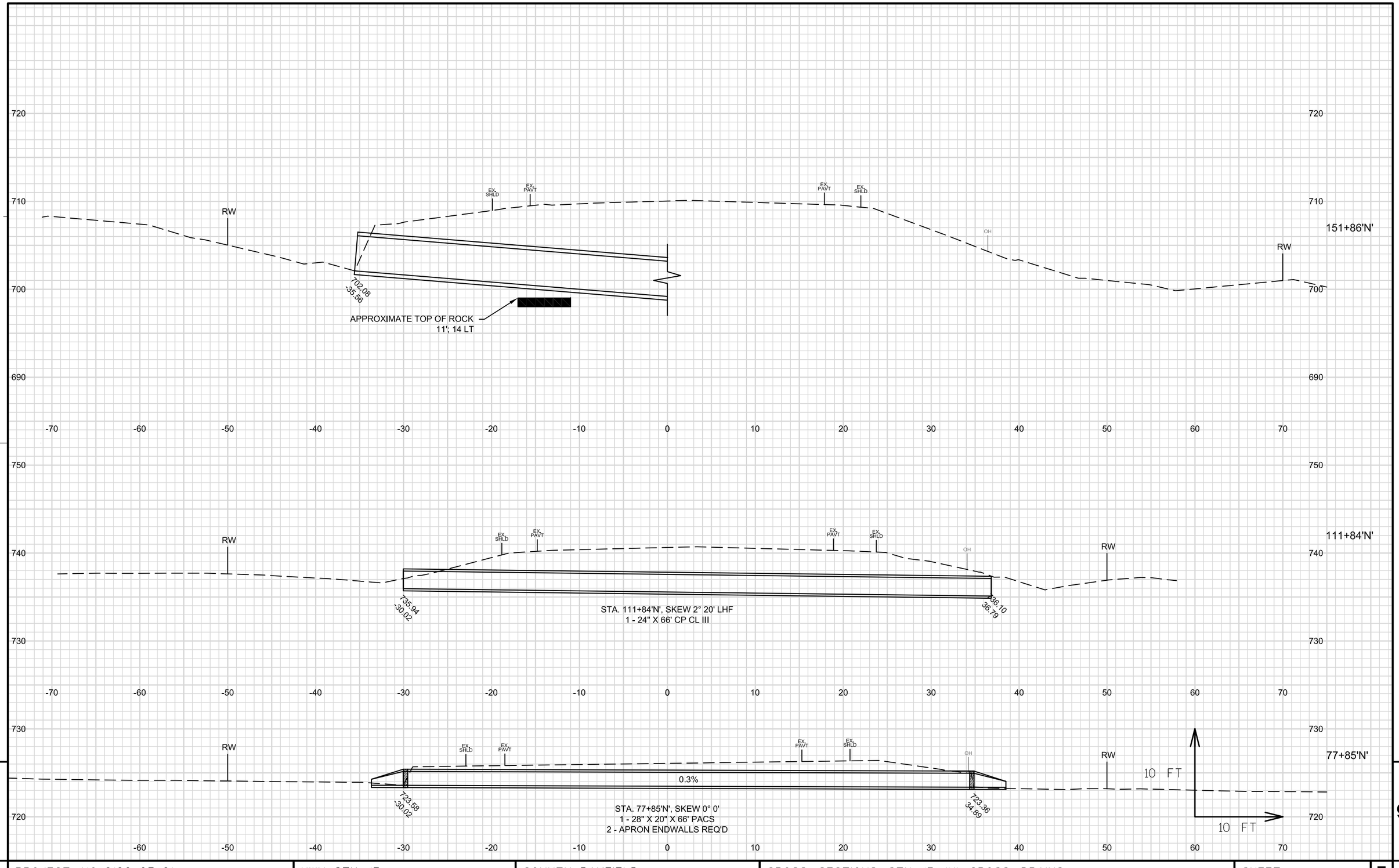
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING RT	SHEET 158 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1228_STH 13 CULVERT REPAIR\C3D\090201_XS_STH_13_TEMP_WIDENING.DWG PLOT DATE : 10/30/2013 11:12 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1 IN:10 FT

STA. 292+15'S' RT
END TEMPORARY WIDENING
CONSTRUCTION



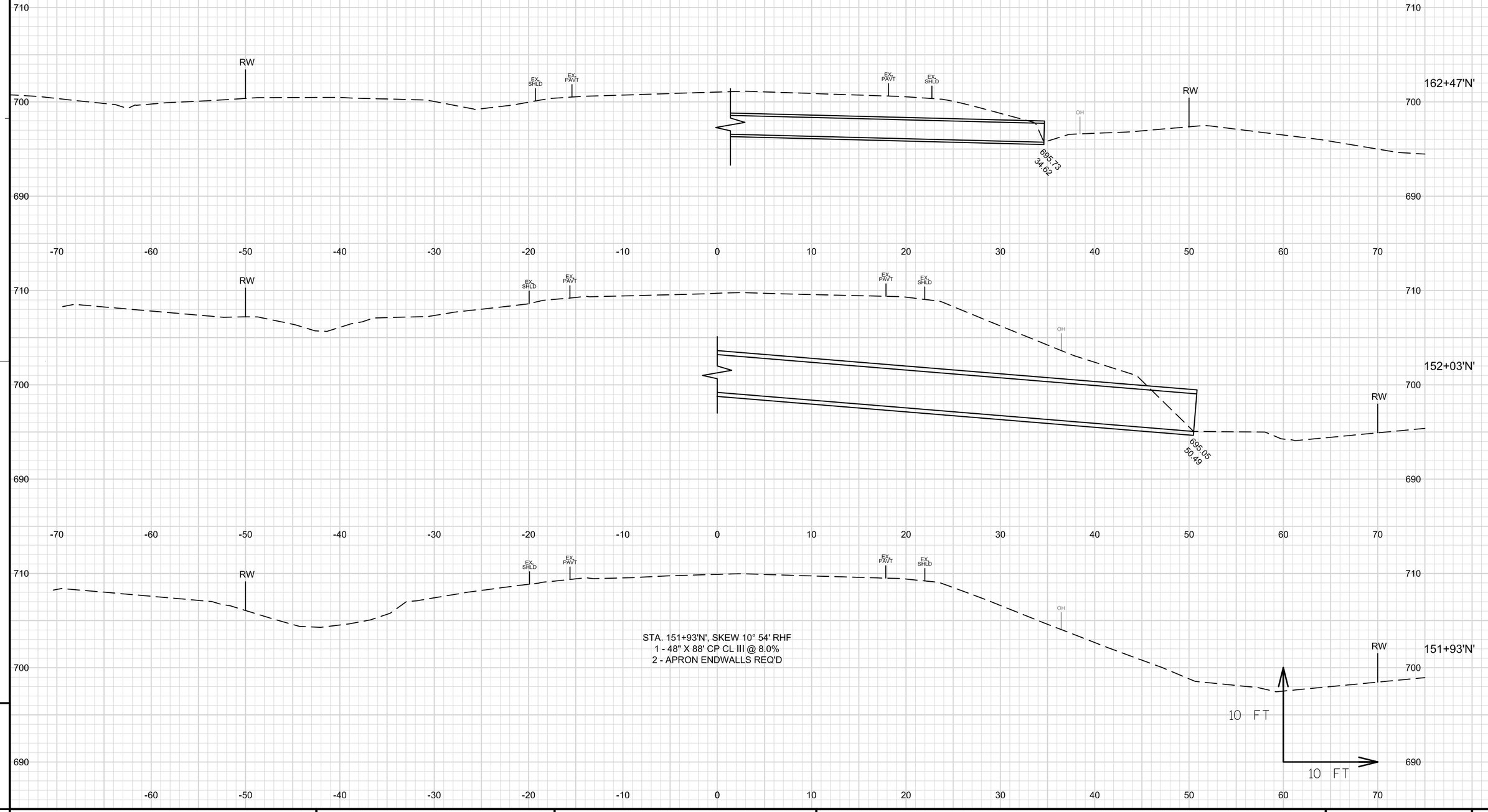
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING RT	SHEET 159	E



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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 160	E



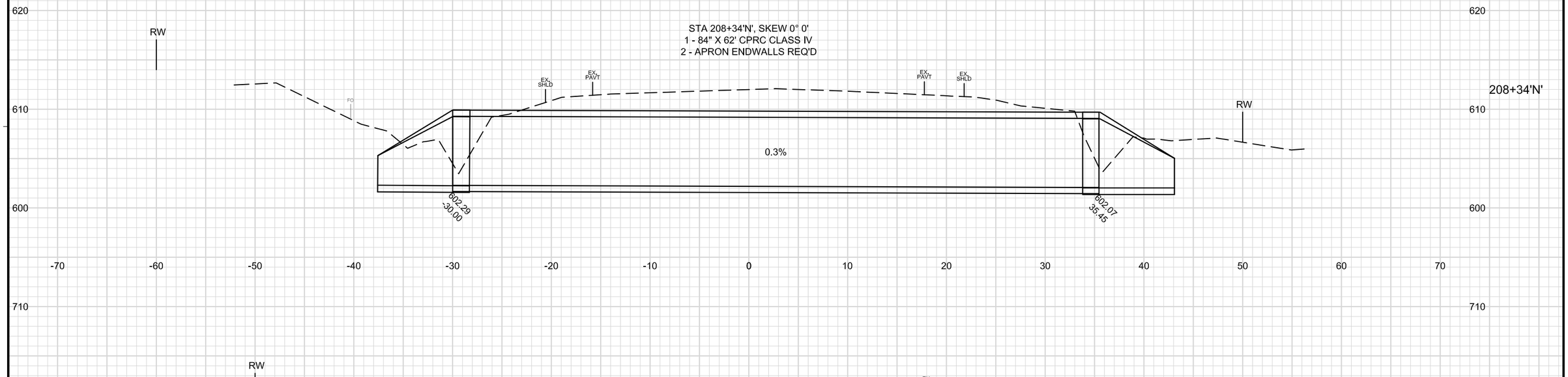
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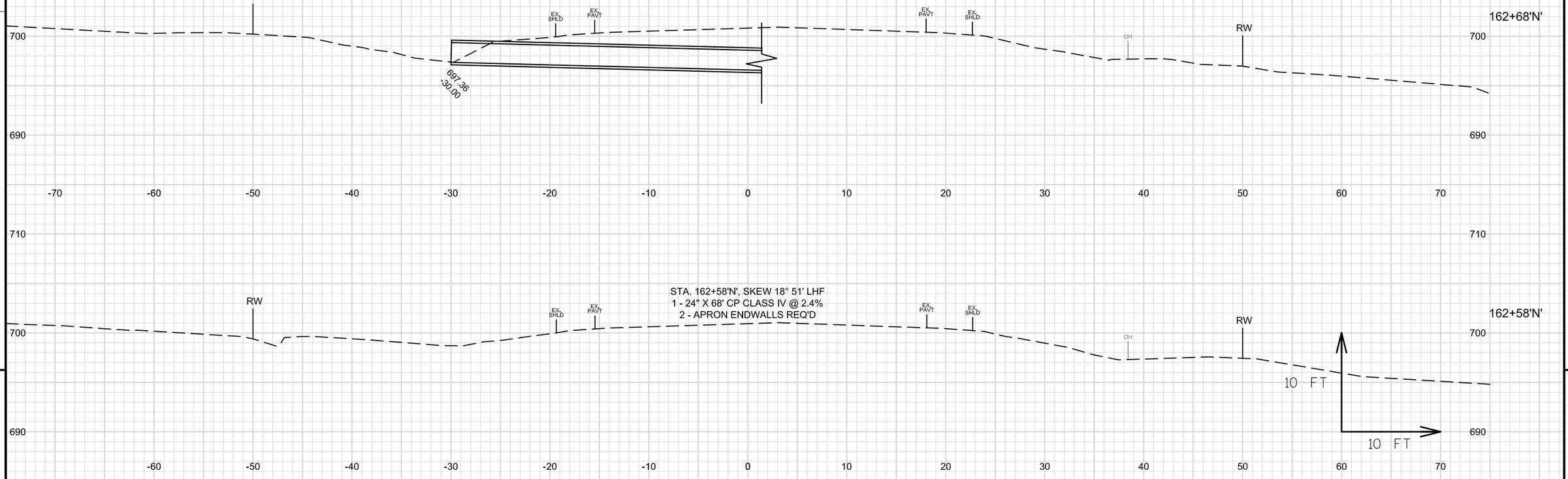
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 161	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 9:59 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

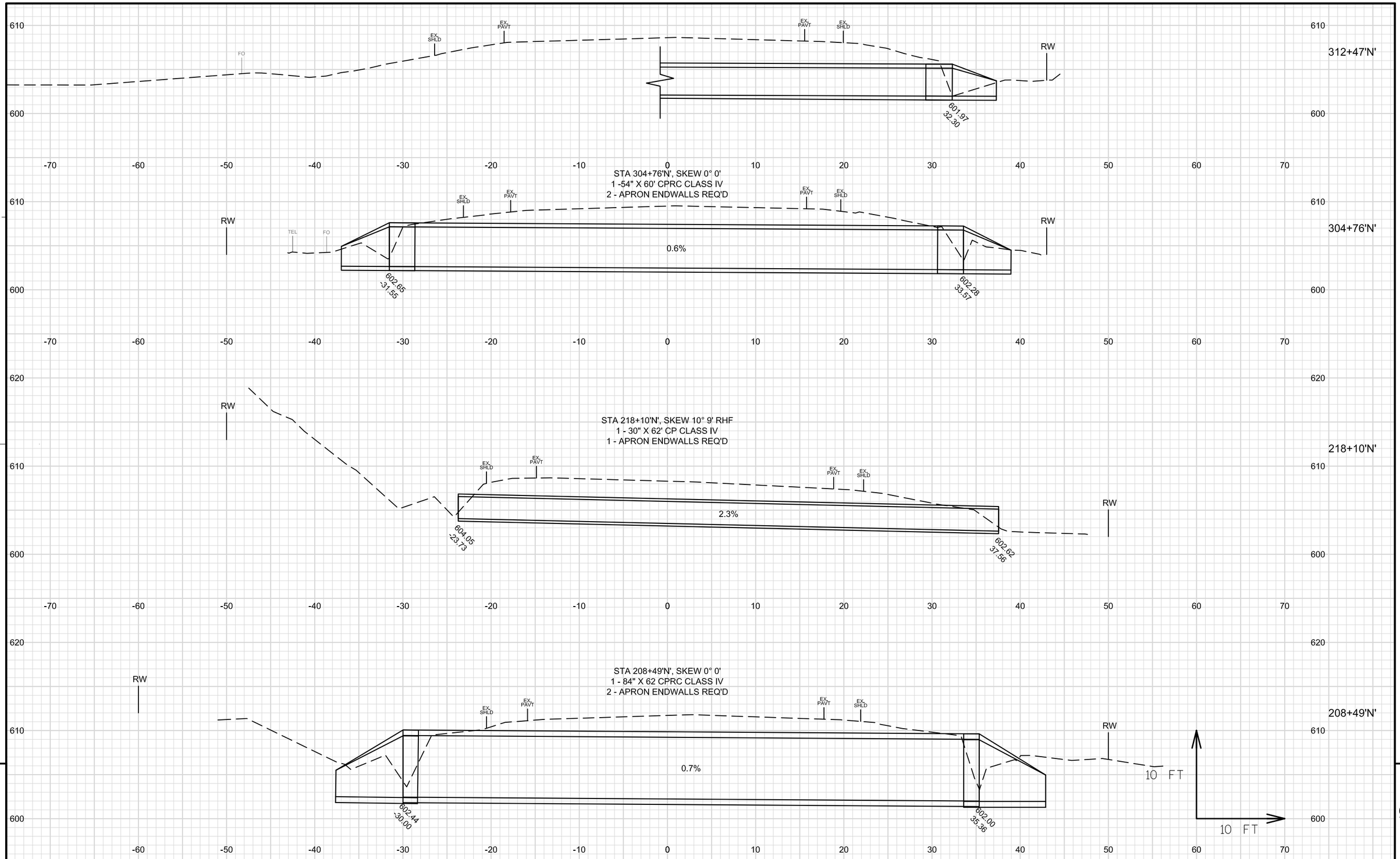
STA 208+34'N', SKEW 0° 0'
1 - 84" X 62' CPRC CLASS IV
2 - APRON ENDWALLS REQ'D





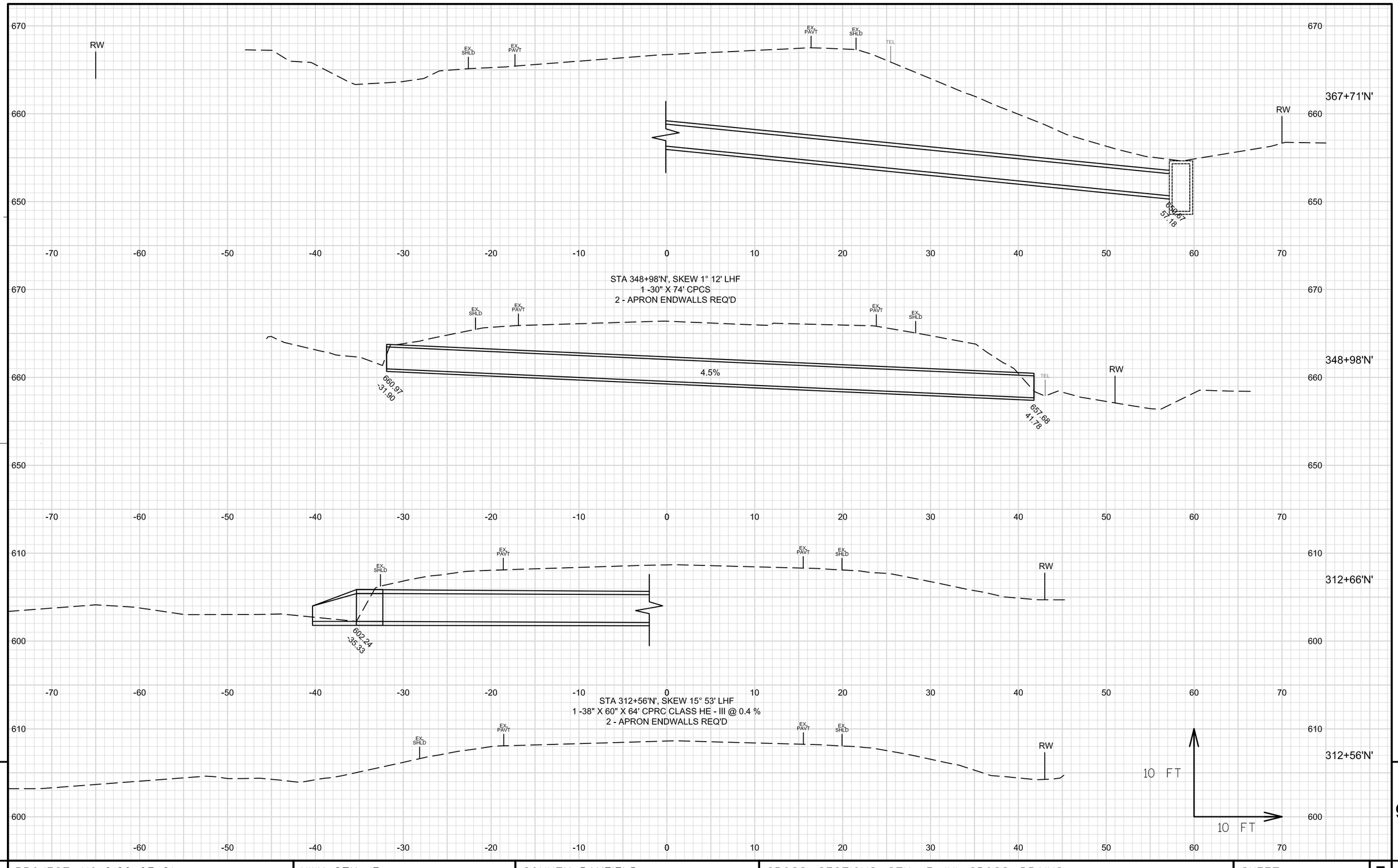
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 162 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 9:59 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 163	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 9:59 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

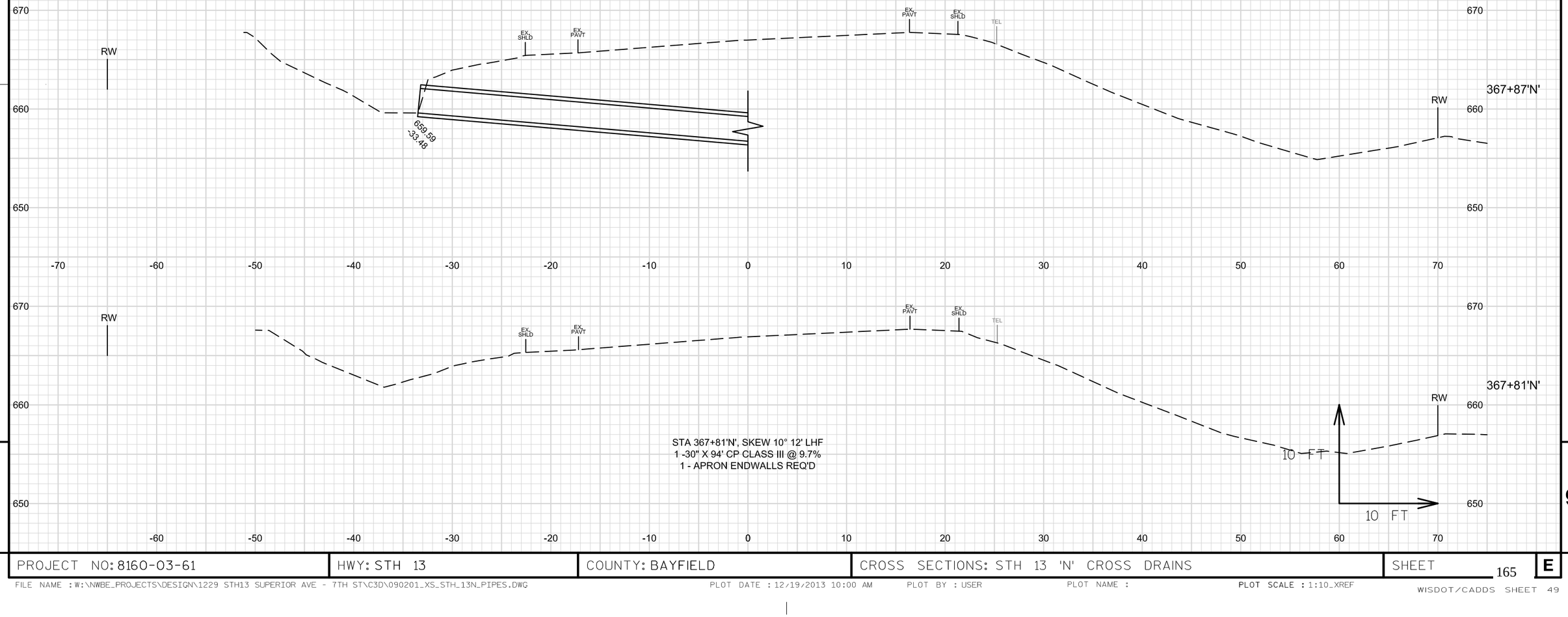


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 164	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 10:59 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

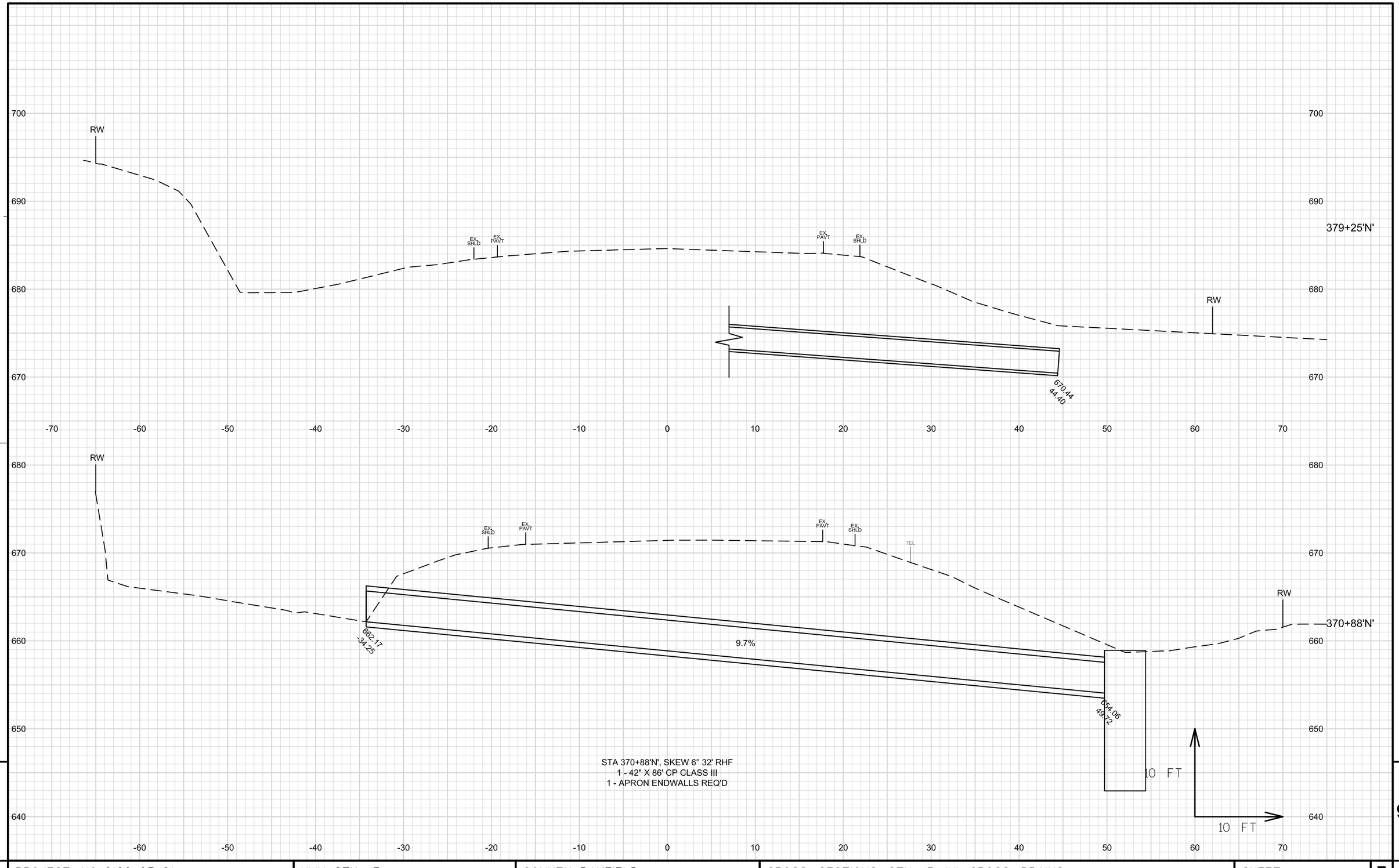


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 165	E

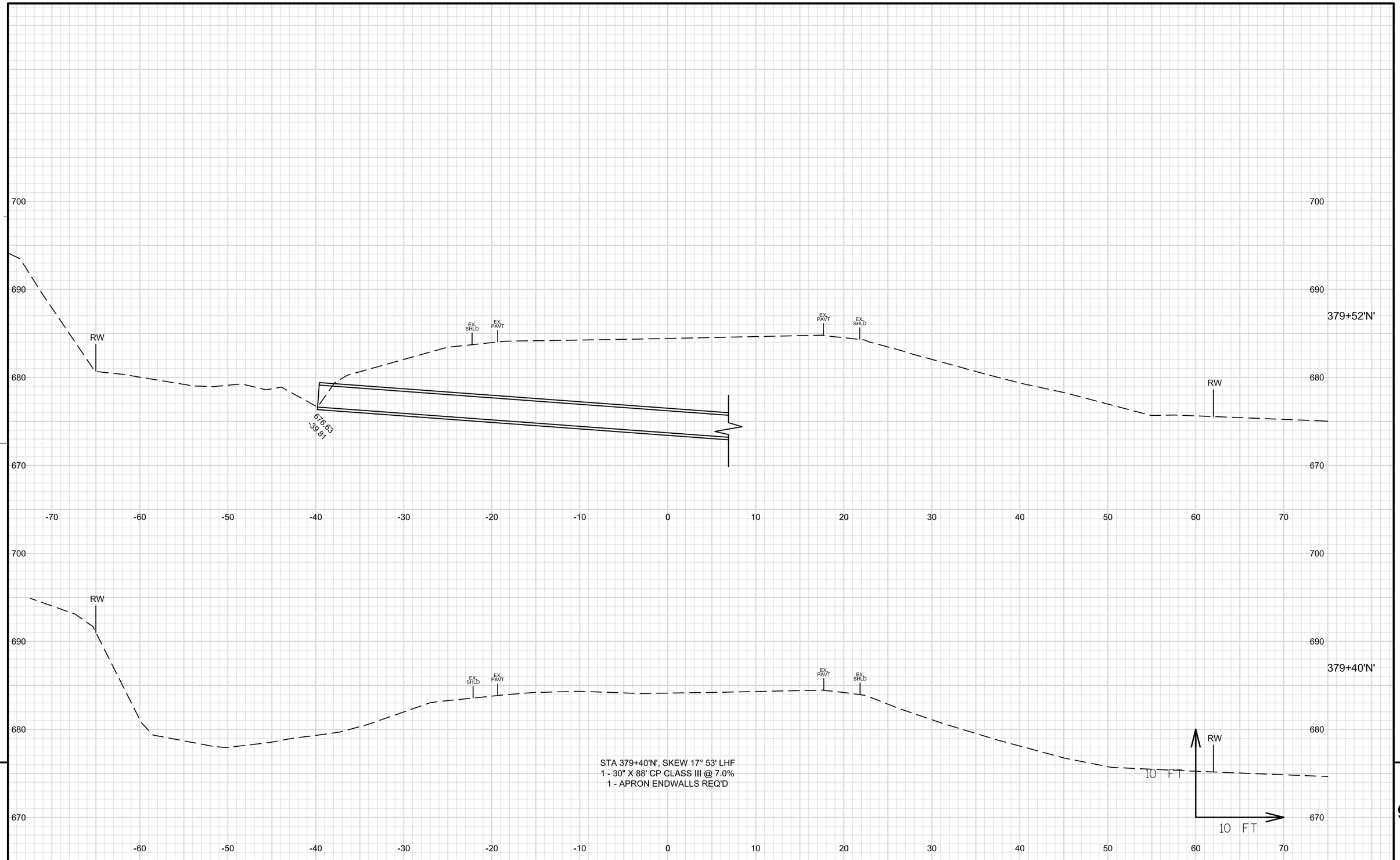
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 10:00 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF



STA 370+88'N', SKEW 6° 32' RHF
1 - 42" X 86' CP CLASS III
1 - APRON ENDWALLS REQ'D

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 166	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 10:00 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

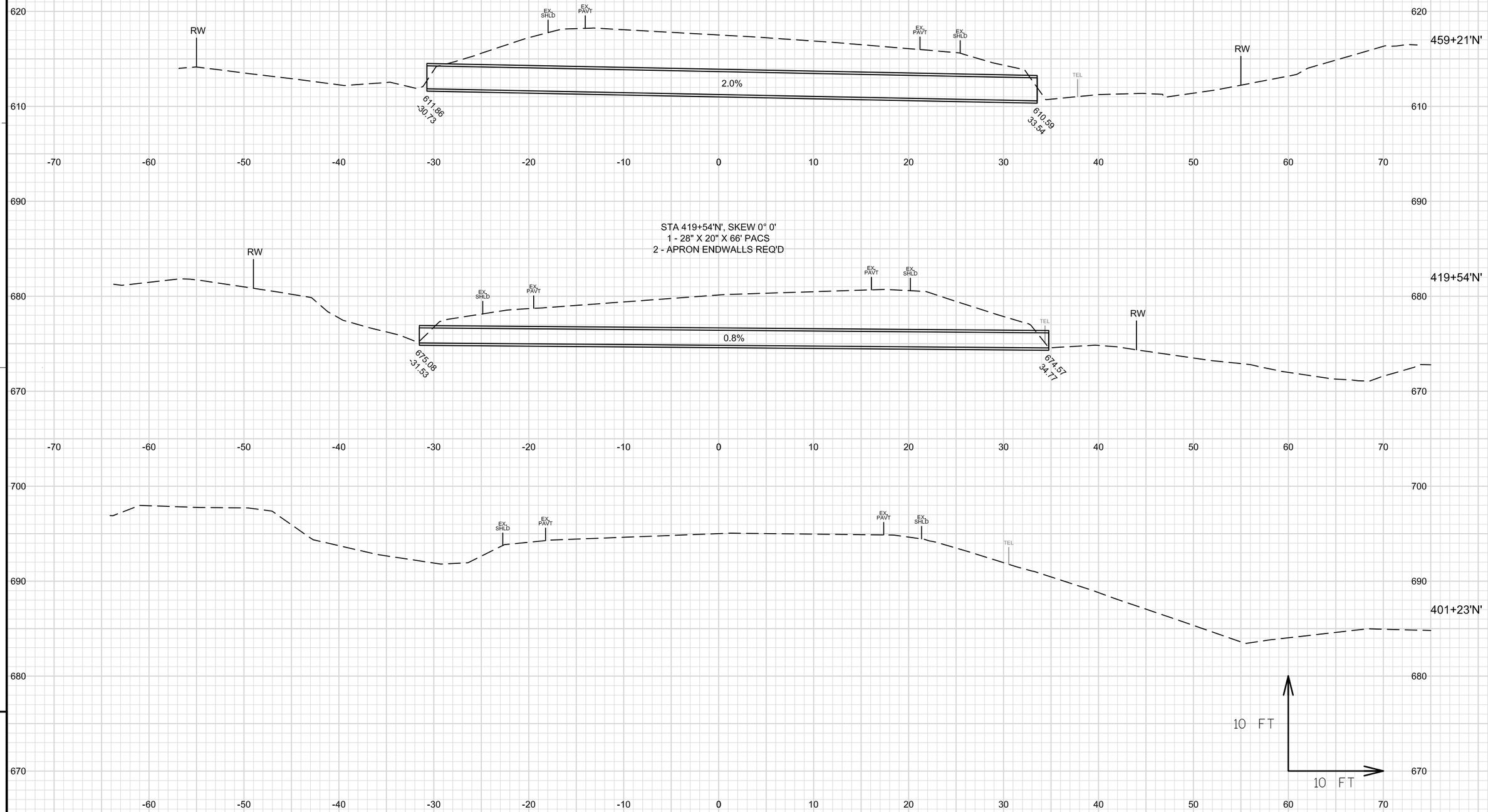


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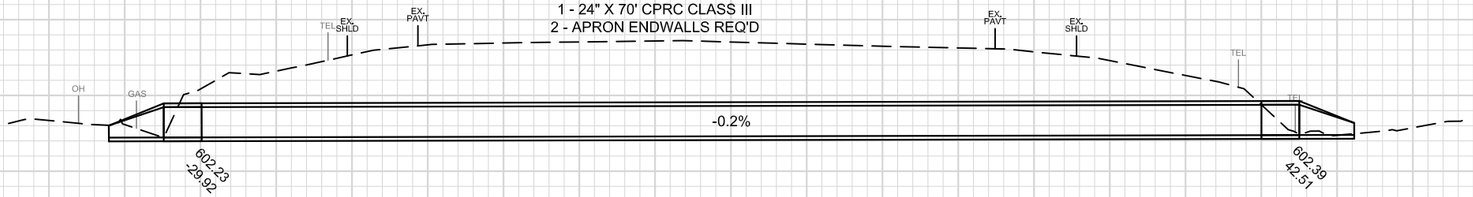
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 167	E

STA 459+21'N', SKEW 1° 39' RHF
1 - 42" X 29" X 64' PACS
2 - APRON ENDWALLS REQ'D



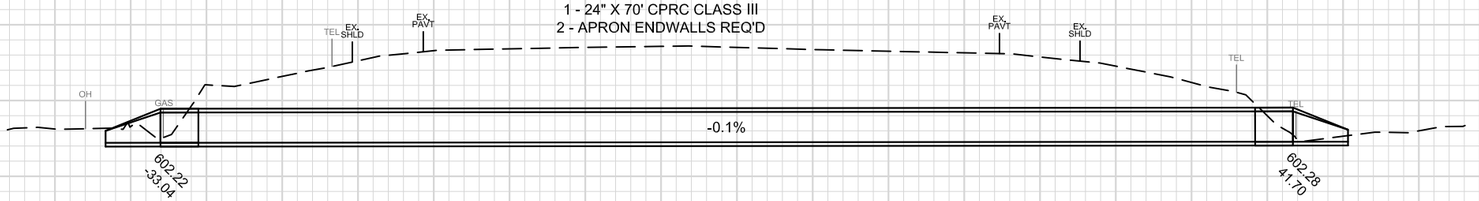
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 168	E

STA 485+68'N', SKEW 2° 8' LHF
1 - 24" X 70' CPRC CLASS III
2 - APRON ENDWALLS REQ'D



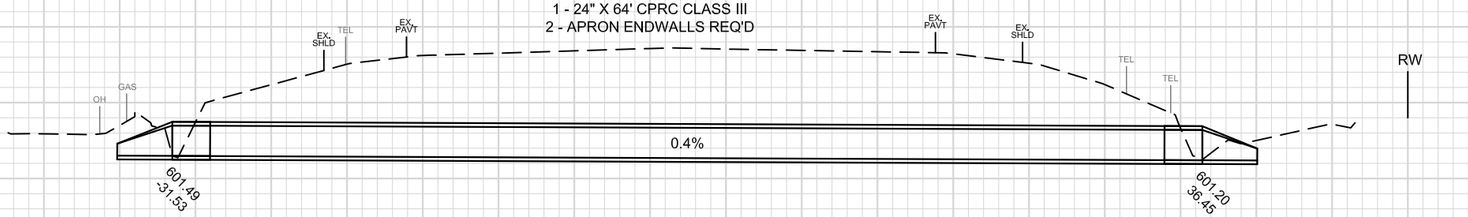
485+68'N'

STA 485+60'N', SKEW 2° 8' LHF
1 - 24" X 70' CPRC CLASS III
2 - APRON ENDWALLS REQ'D



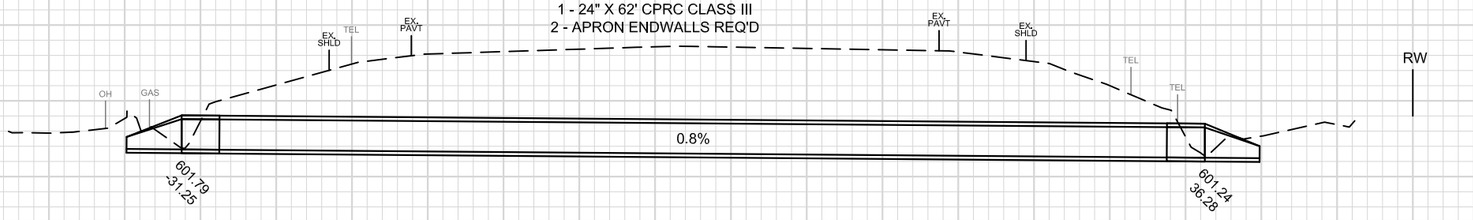
485+60'N'

STA 483+27'N', SKEW 0° 0'
1 - 24" X 64' CPRC CLASS III
2 - APRON ENDWALLS REQ'D



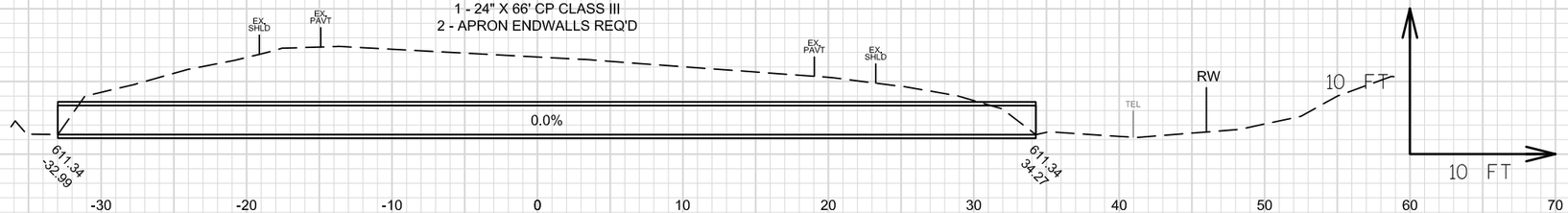
483+27'N'

STA 483+20'N', SKEW 0° 0'
1 - 24" X 62' CPRC CLASS III
2 - APRON ENDWALLS REQ'D



483+20'N'

STA 461+00'N', SKEW 1° 47' LHF
1 - 24" X 66' CP CLASS III
2 - APRON ENDWALLS REQ'D



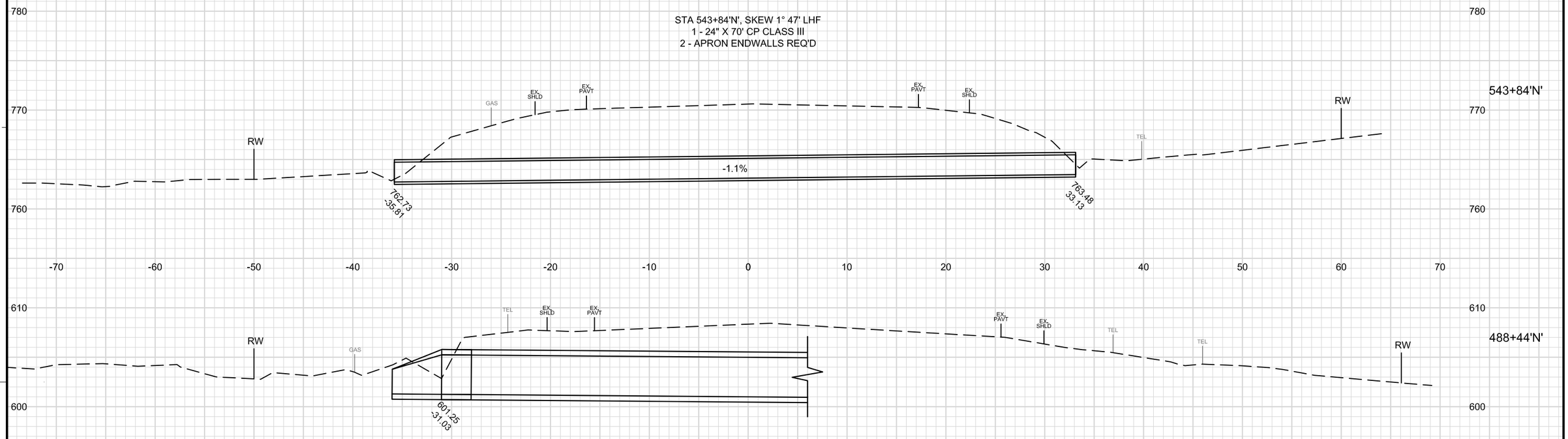
461+00'N'

9

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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 169	E

STA 543+84'N', SKEW 1° 47' LHF
1 - 24" X 70' CP CLASS III
2 - APRON ENDWALLS REQ'D

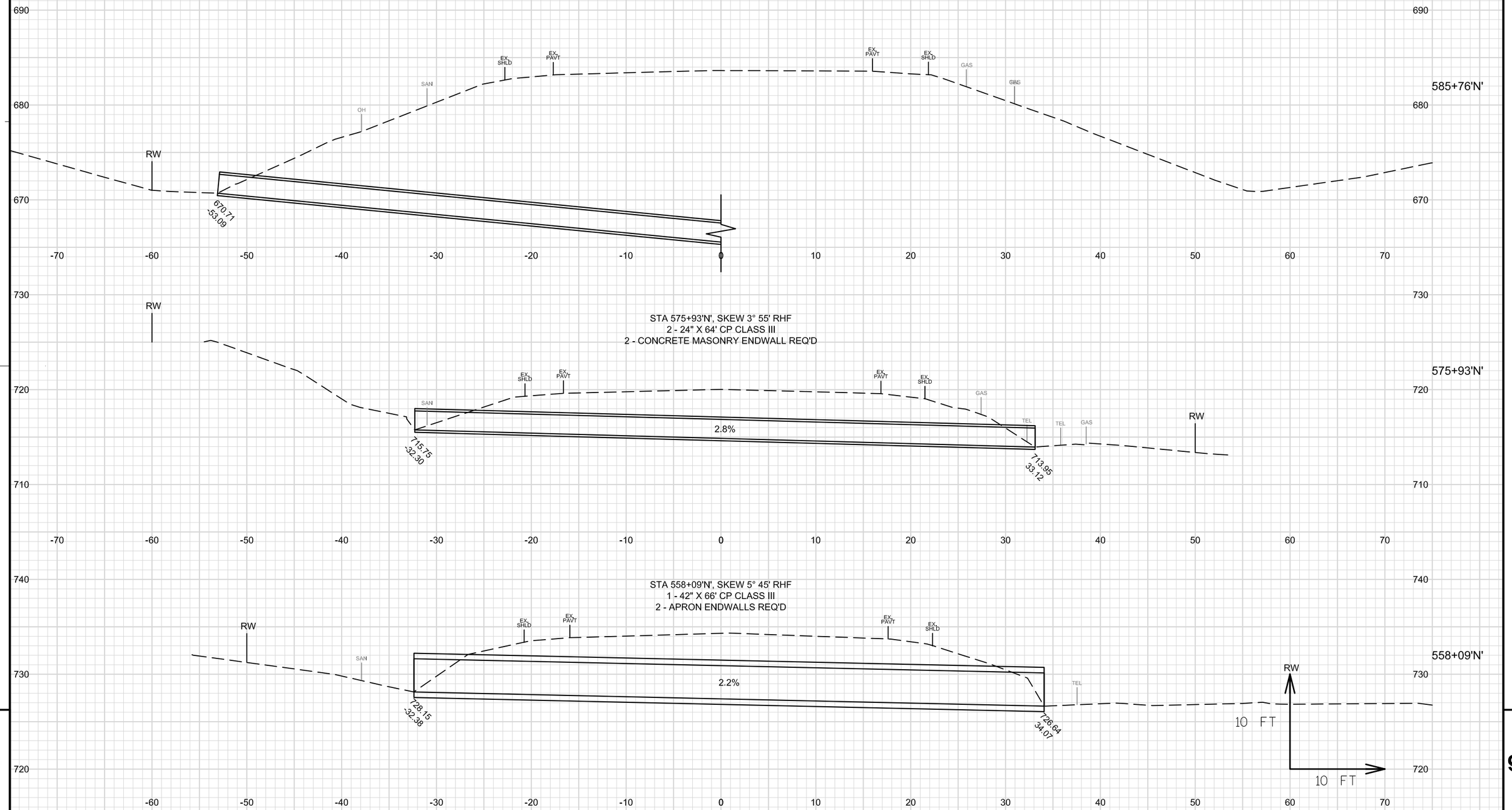


STA 488+39'N', SKEW 10° 35' LHF
1 - 48" X 76" X 62' CPRC HE - III @ 0.8%
2 - APRON ENDWALLS REQ'D

9

9

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 170	E



9

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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 171	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 10:02 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

STA 585+88'N', SKEW 13° 09' RHF
1 - 36" X 136' CP CLASS IV @ 9.4%
2 - APRON ENDWALLS REQ'D

586+07'N'

585+88'N'

RW

OH

SAN

EX. SHLD

EX. PAVT

GAS

TEL

10 FT

10 FT

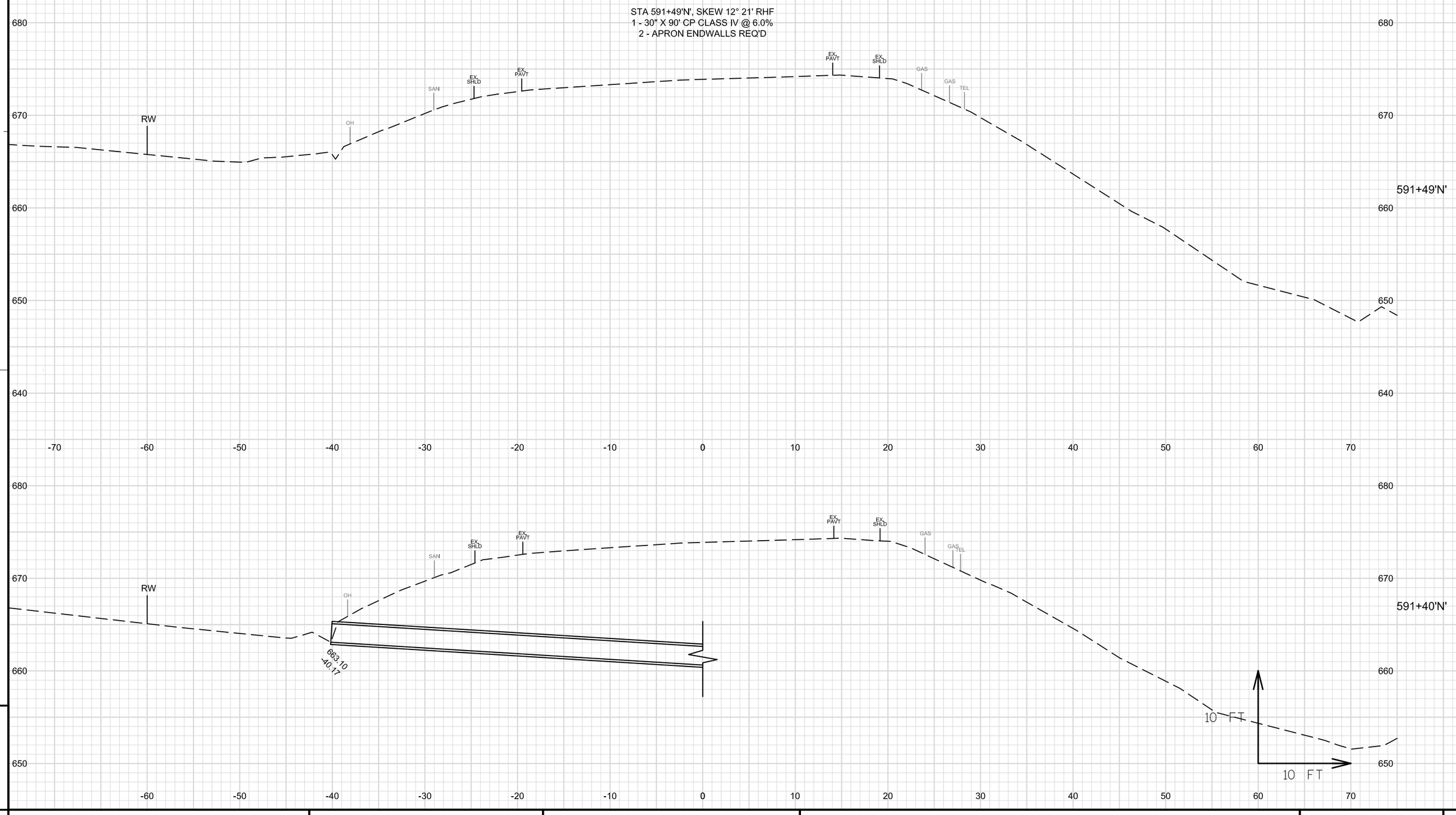
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 172	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 10:02 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

STA 591+49'N', SKEW 12° 21' RHF
1 - 30" X 90' CP CLASS IV @ 6.0%
2 - APRON ENDWALLS REQ'D

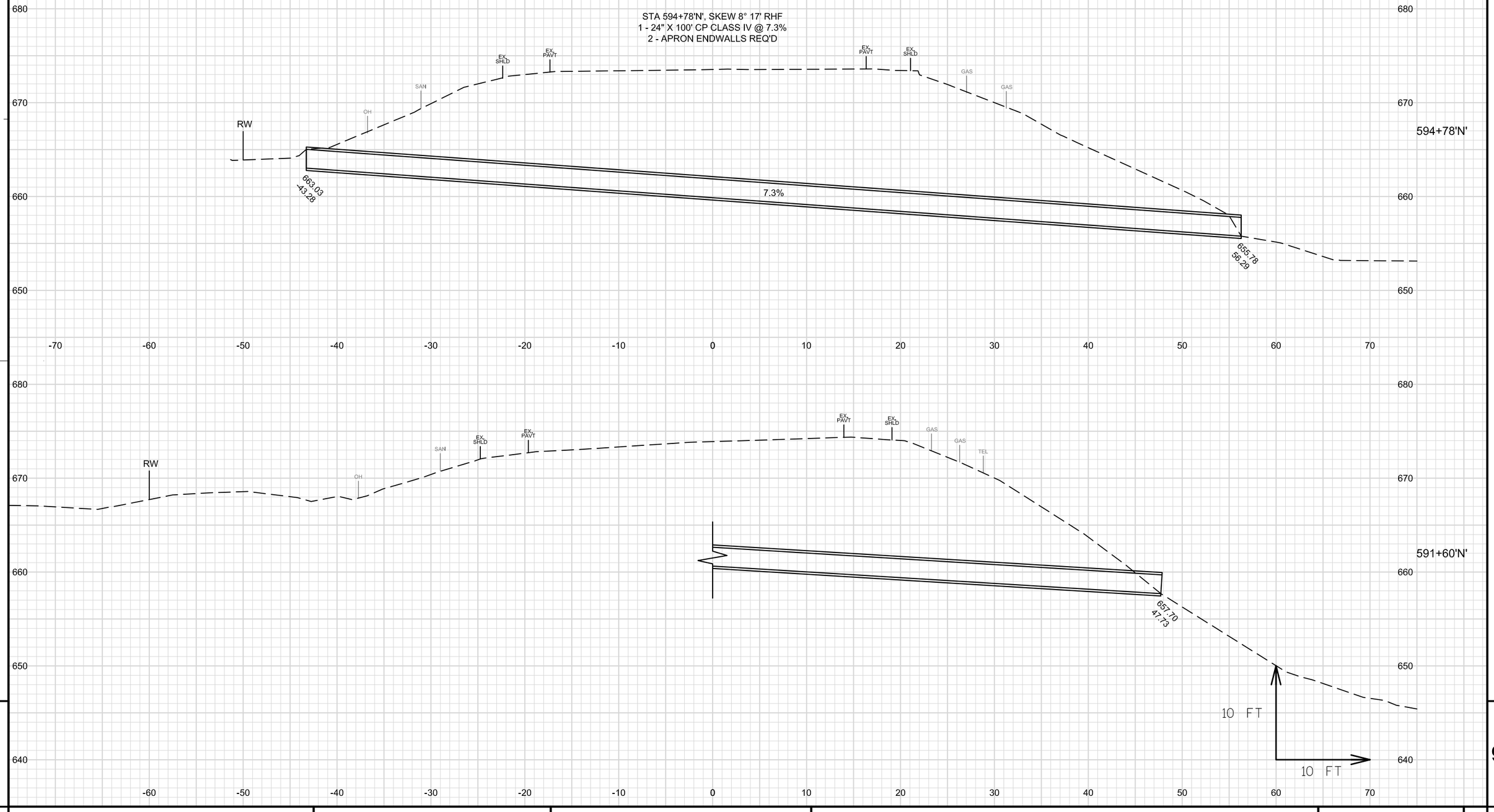


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 173	E

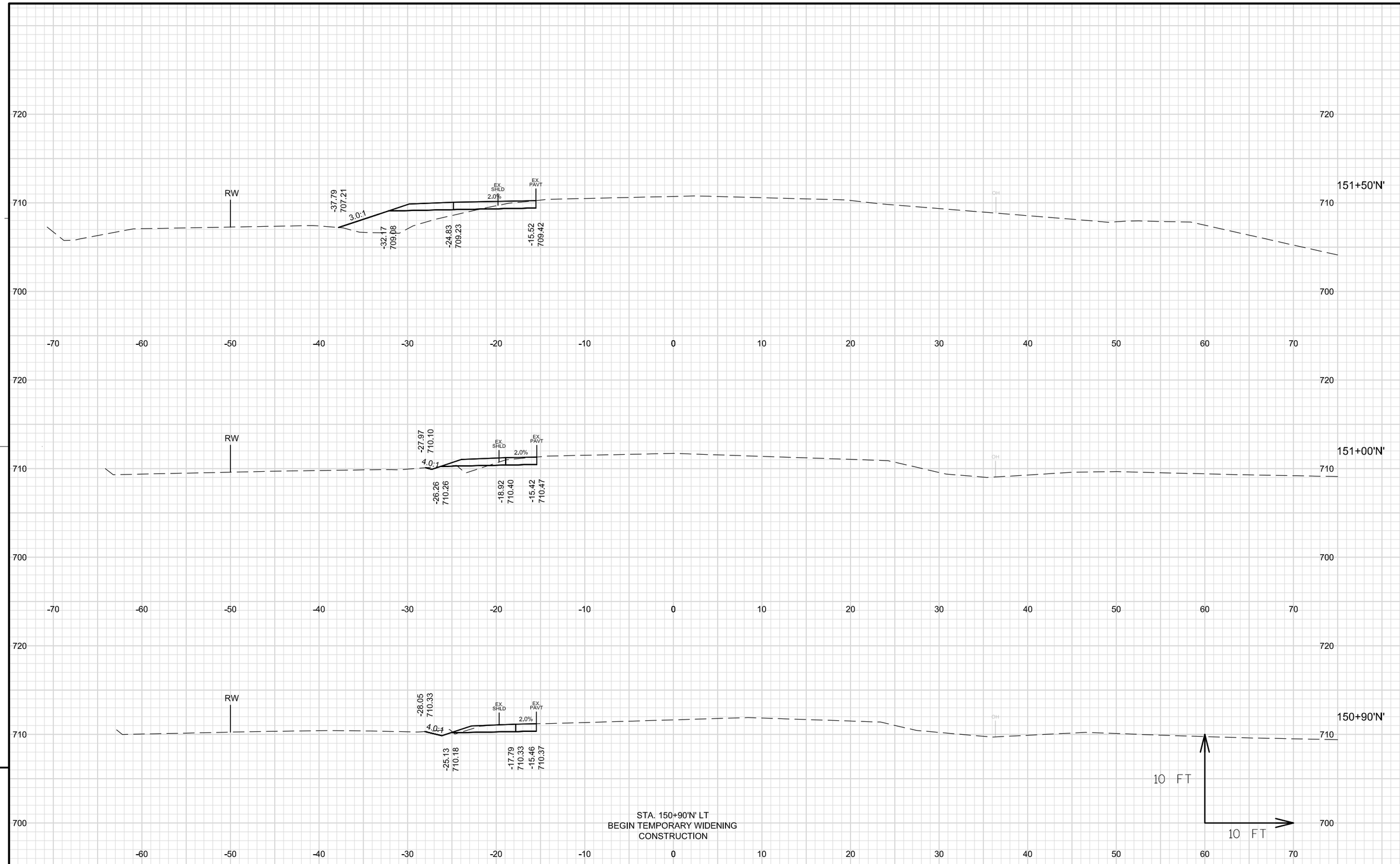
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090201_XS_STH_13N_PIPES.DWG PLOT DATE : 12/19/2013 10:02 AM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

STA 594+78'N', SKEW 8° 17' RHF
1 - 24" X 100' CP CLASS IV @ 7.3%
2 - APRON ENDWALLS REQ'D



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' CROSS DRAINS	SHEET 174	E

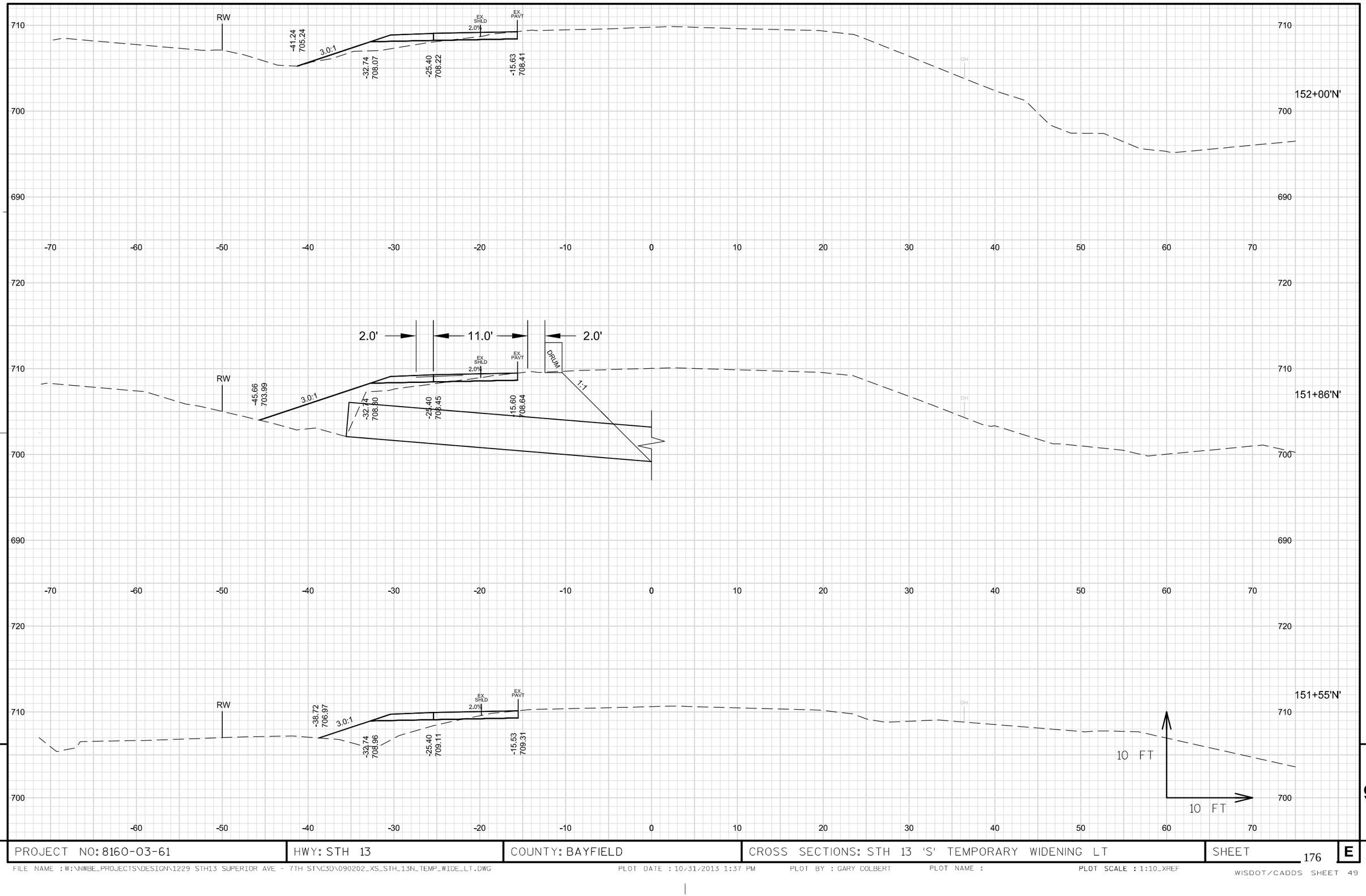


STA. 150+90'N' LT
BEGIN TEMPORARY WIDENING
CONSTRUCTION

9

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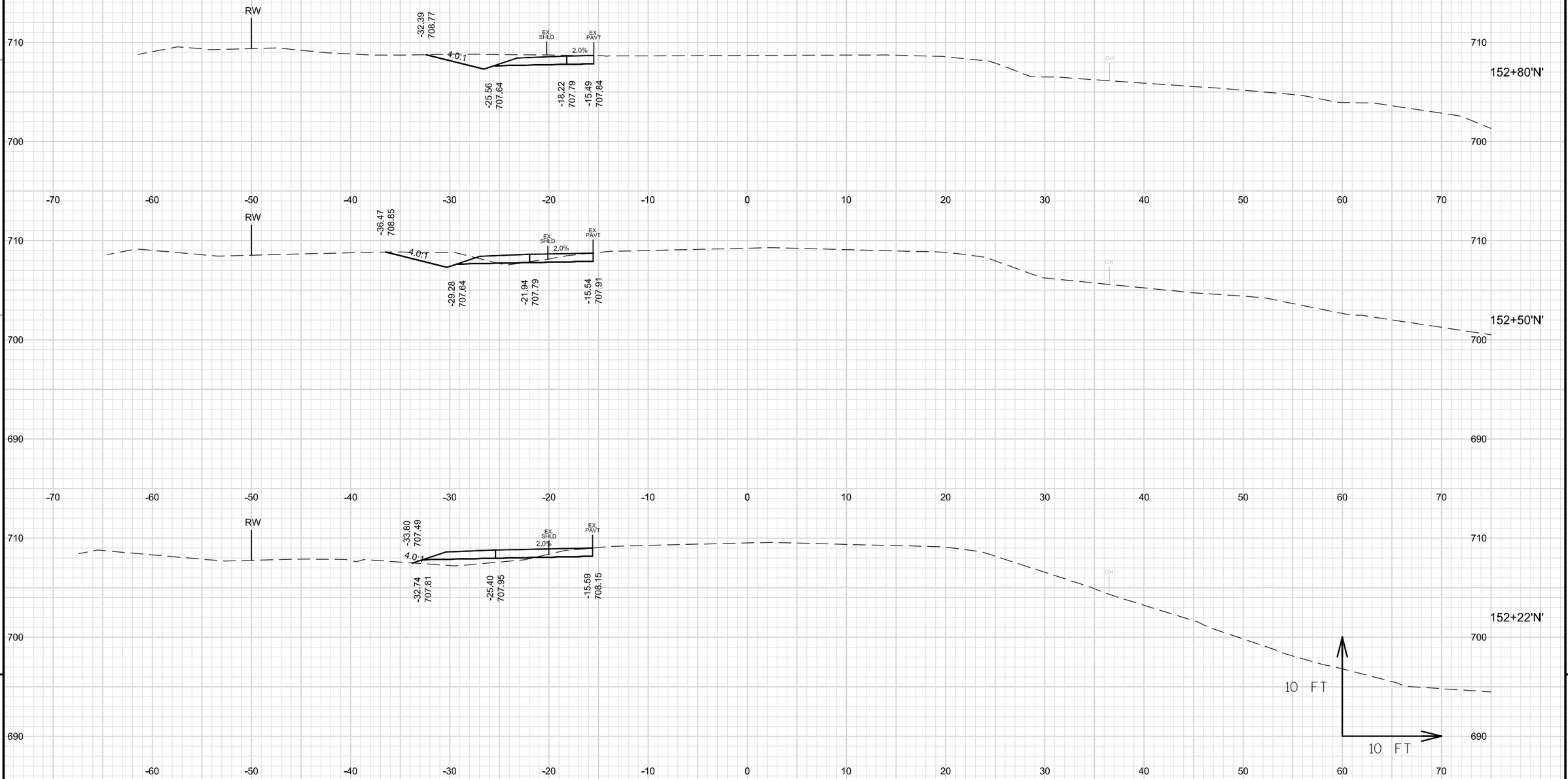
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 175	E



9

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 176	E

STA. 152+80'N' LT
END TEMPORARY WIDENING
CONSTRUCTION

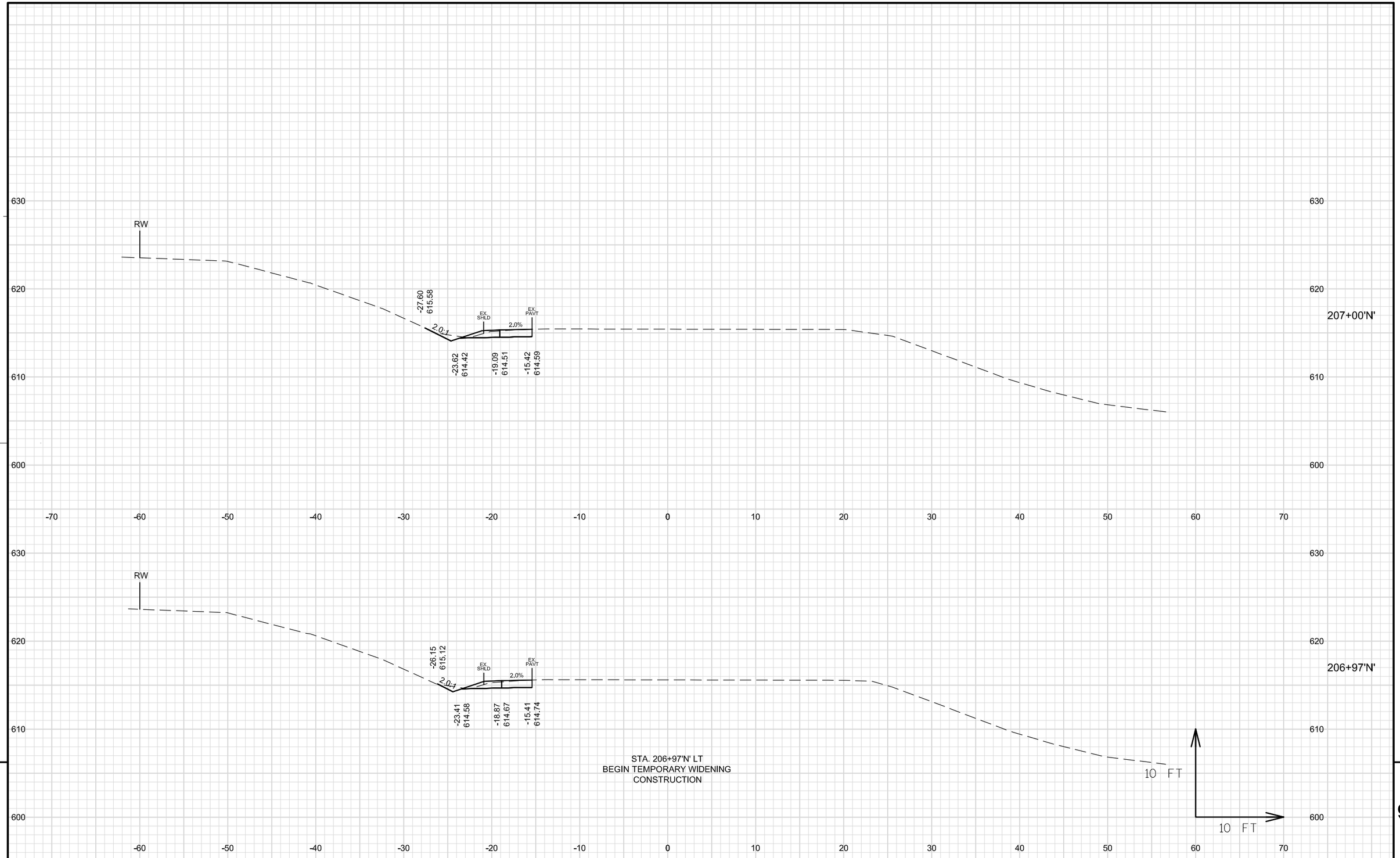


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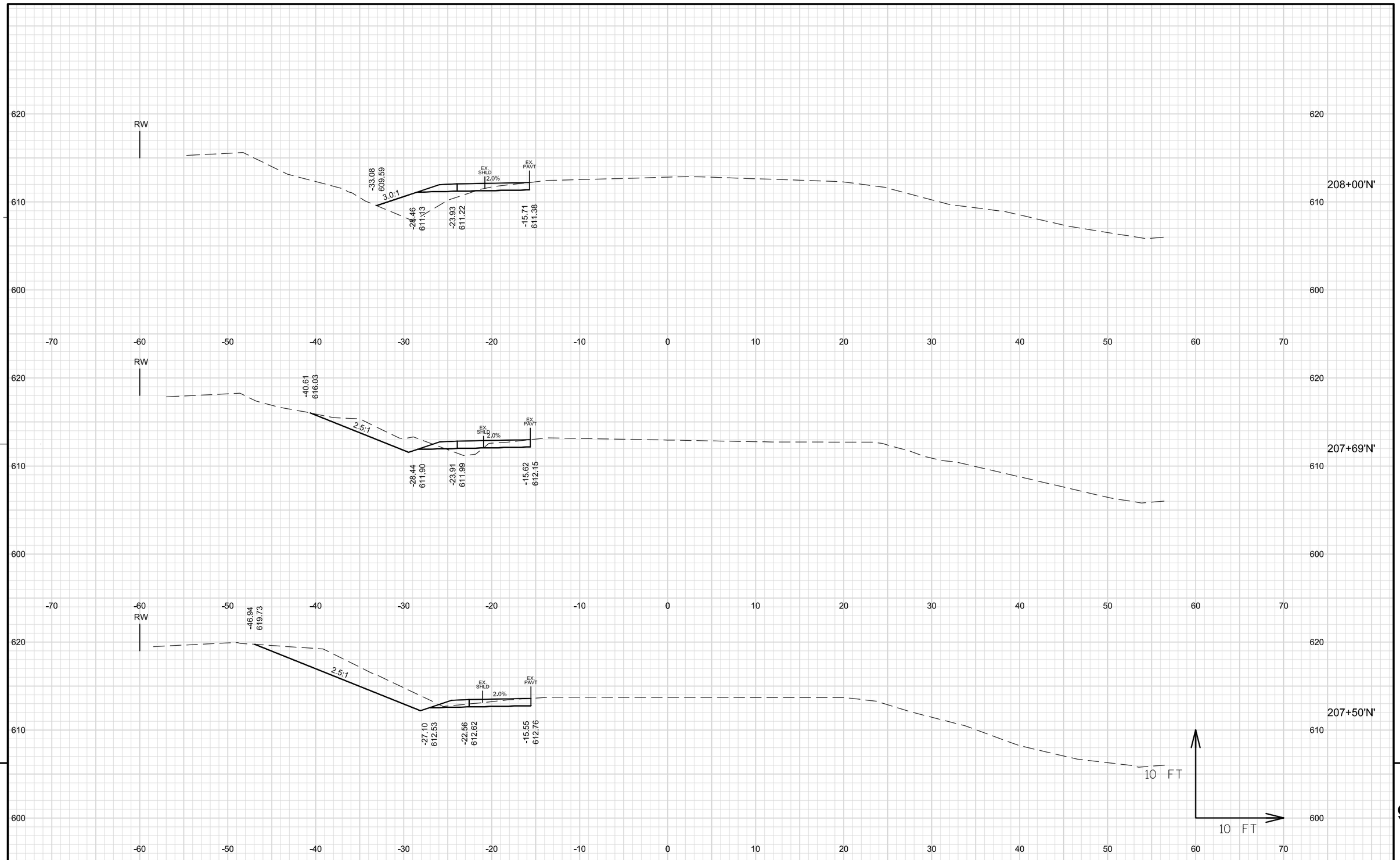
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 177	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:37 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



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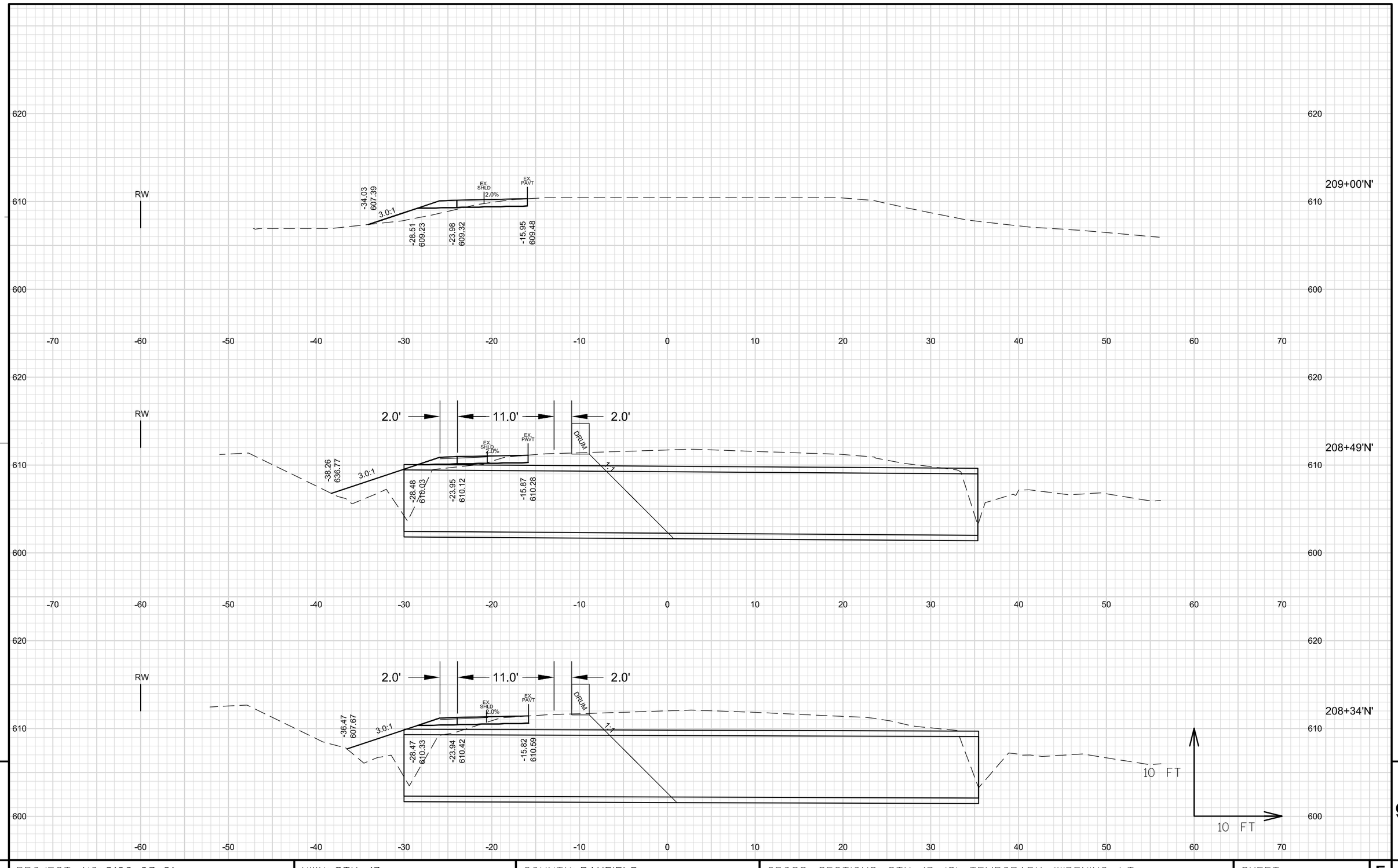
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 178	E



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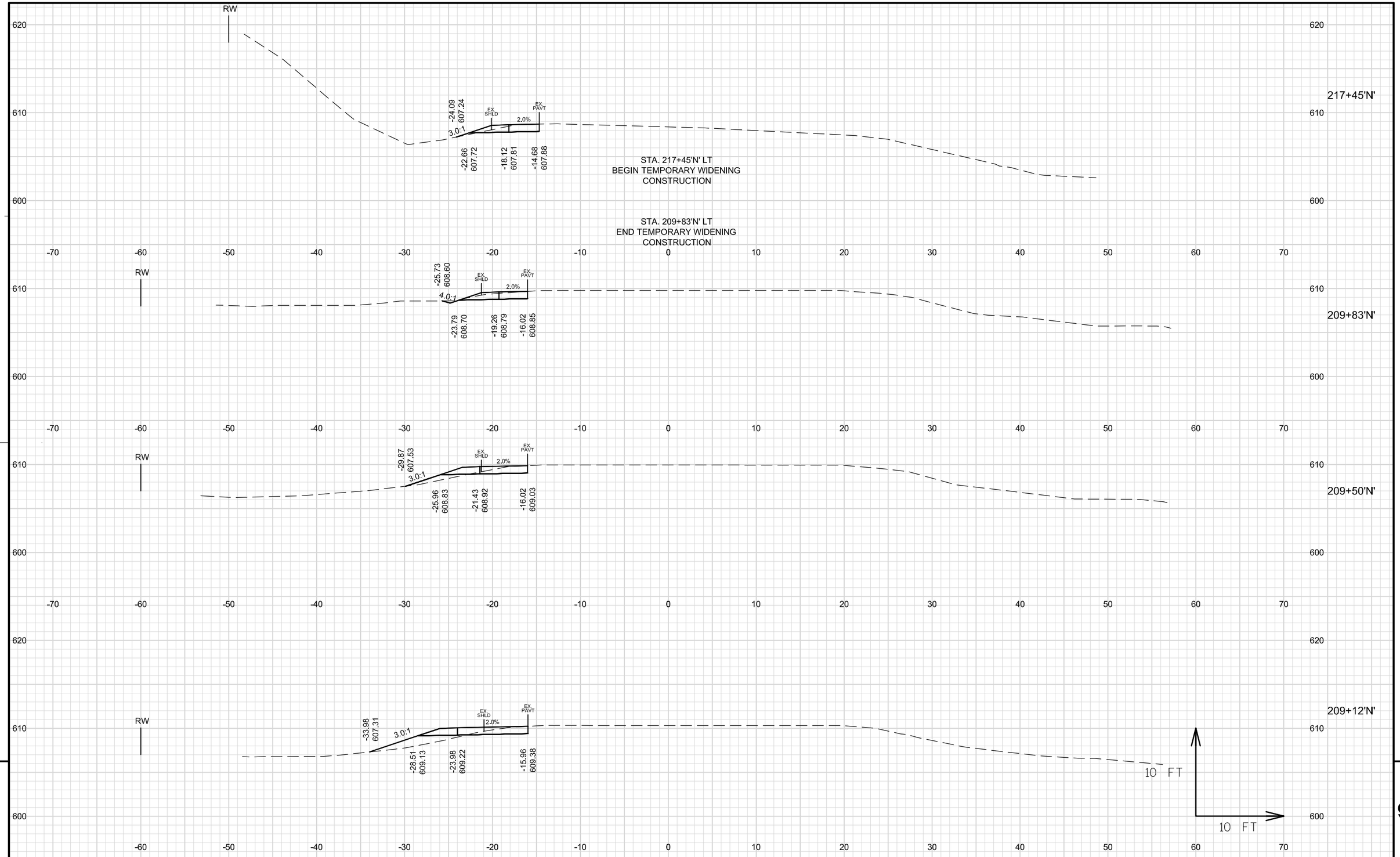


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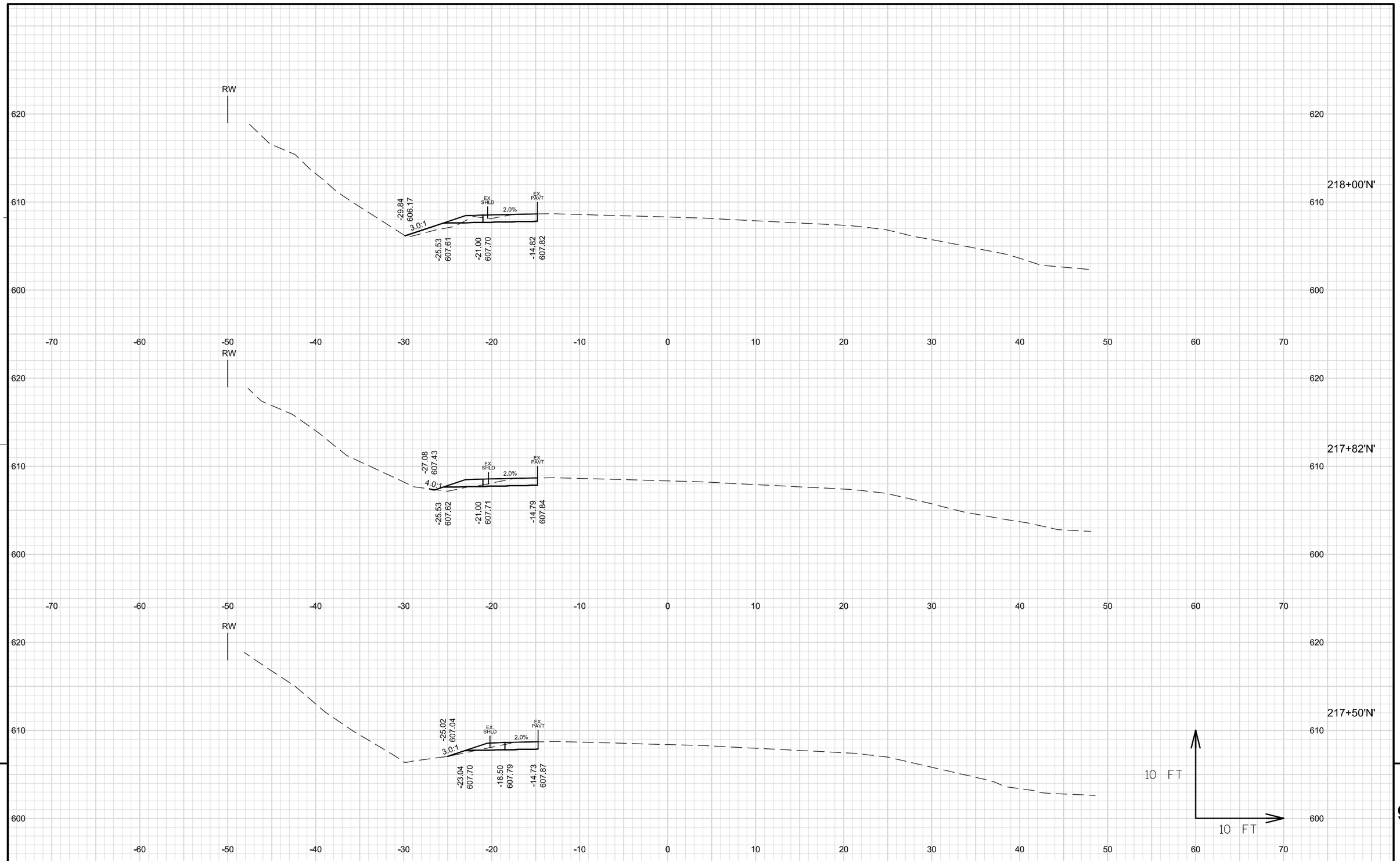
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 180	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:39 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF

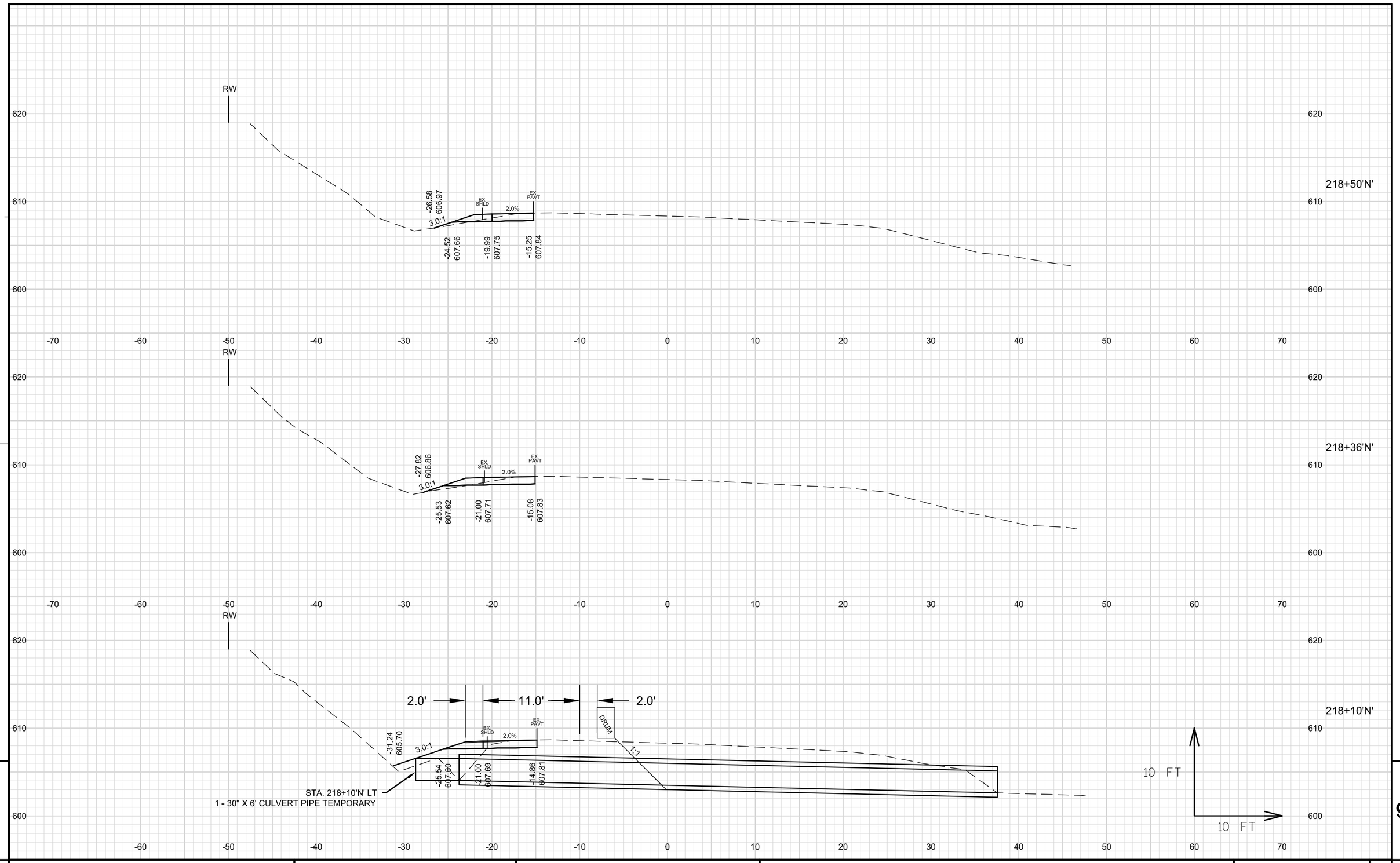


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 181	E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 182	E

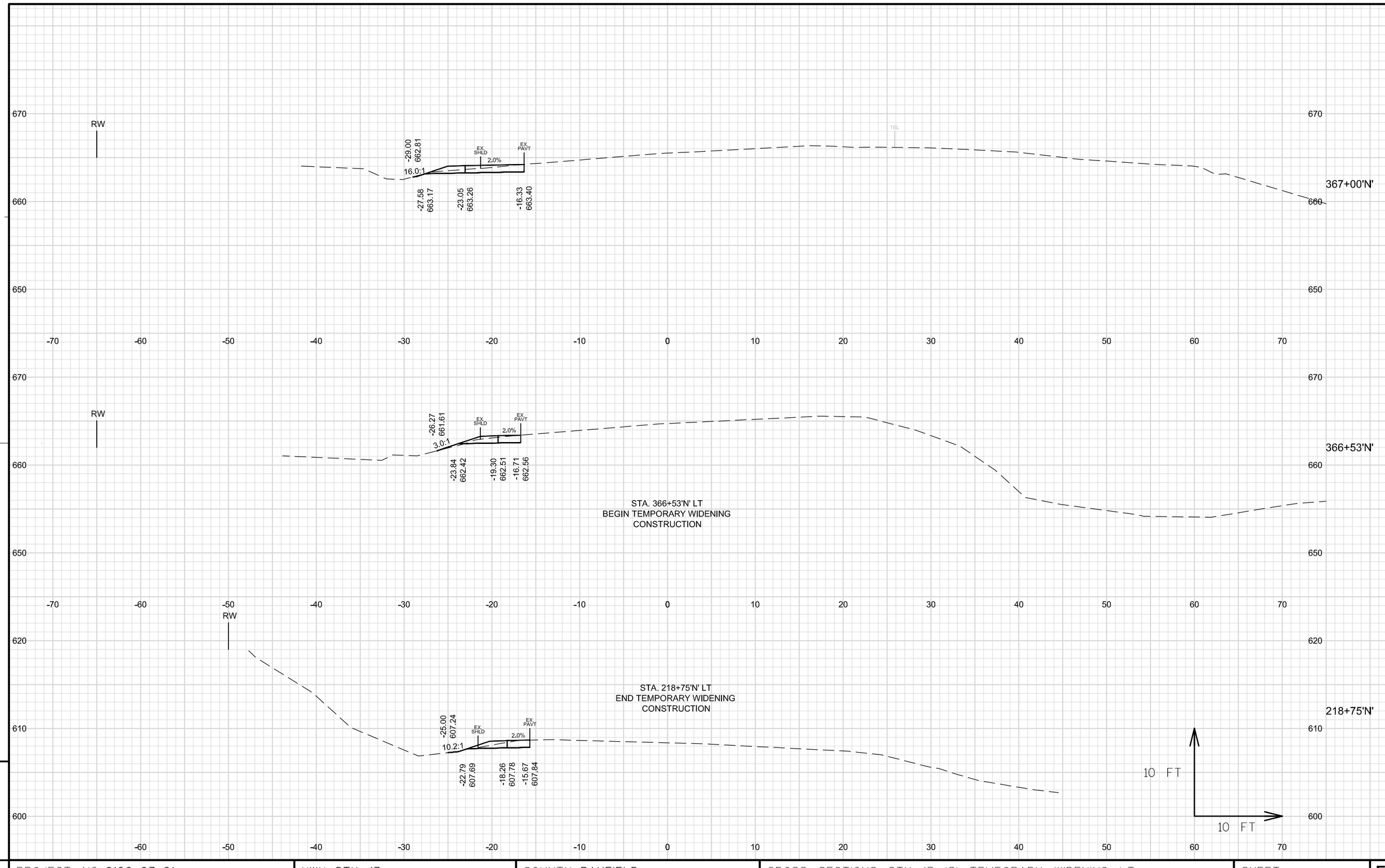
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:39 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 183	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:40 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

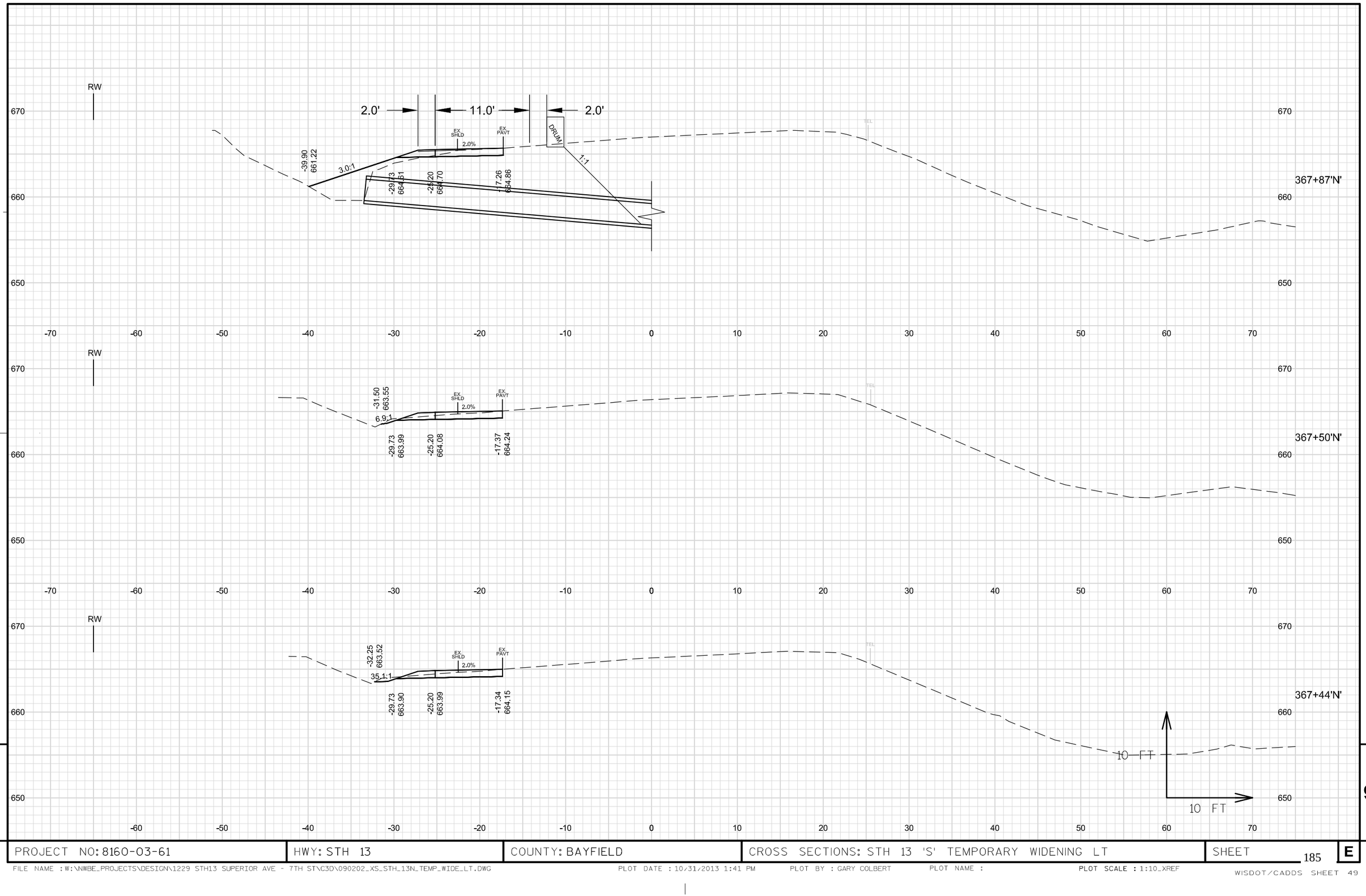


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 184	E

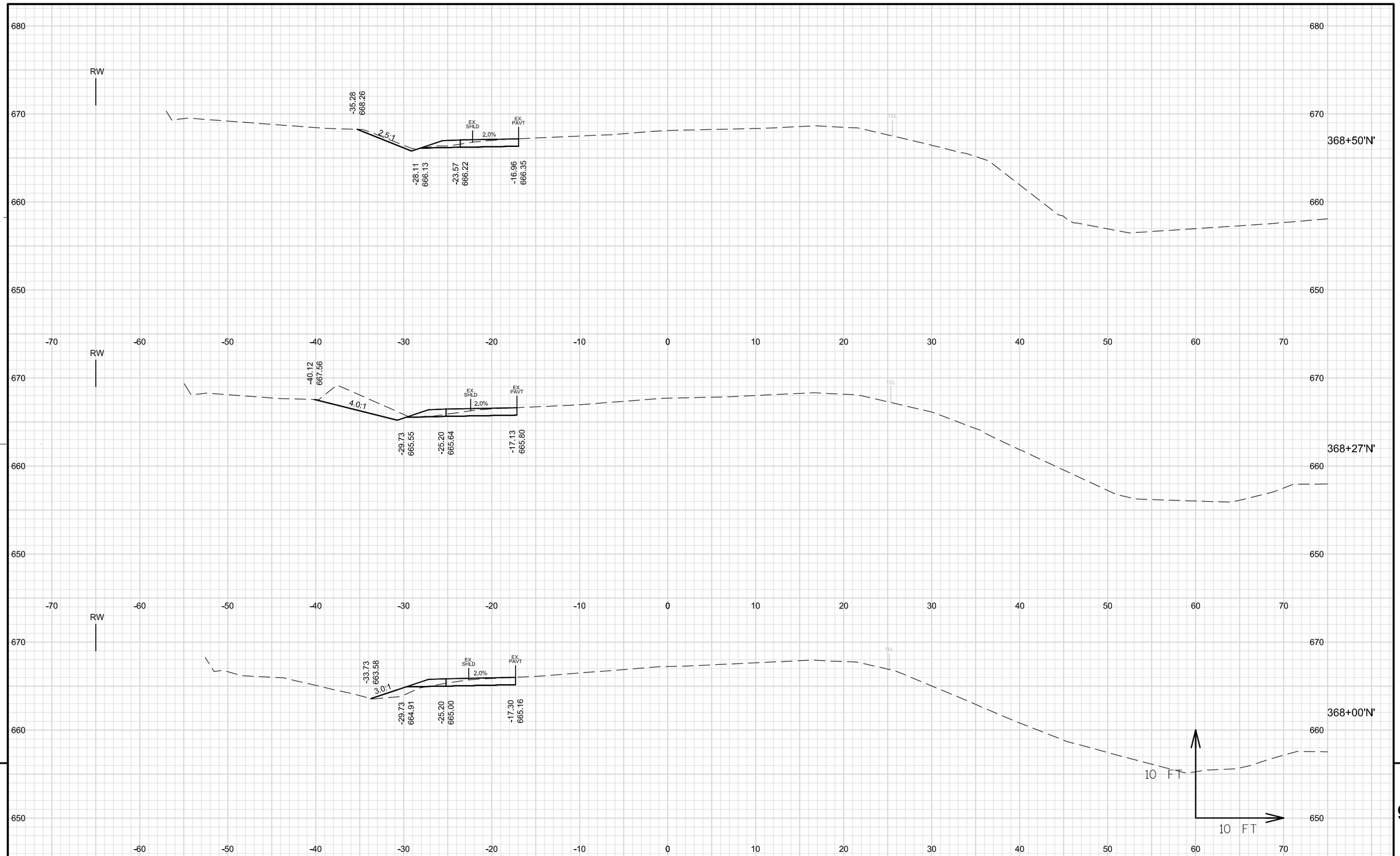
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:40 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 185	E

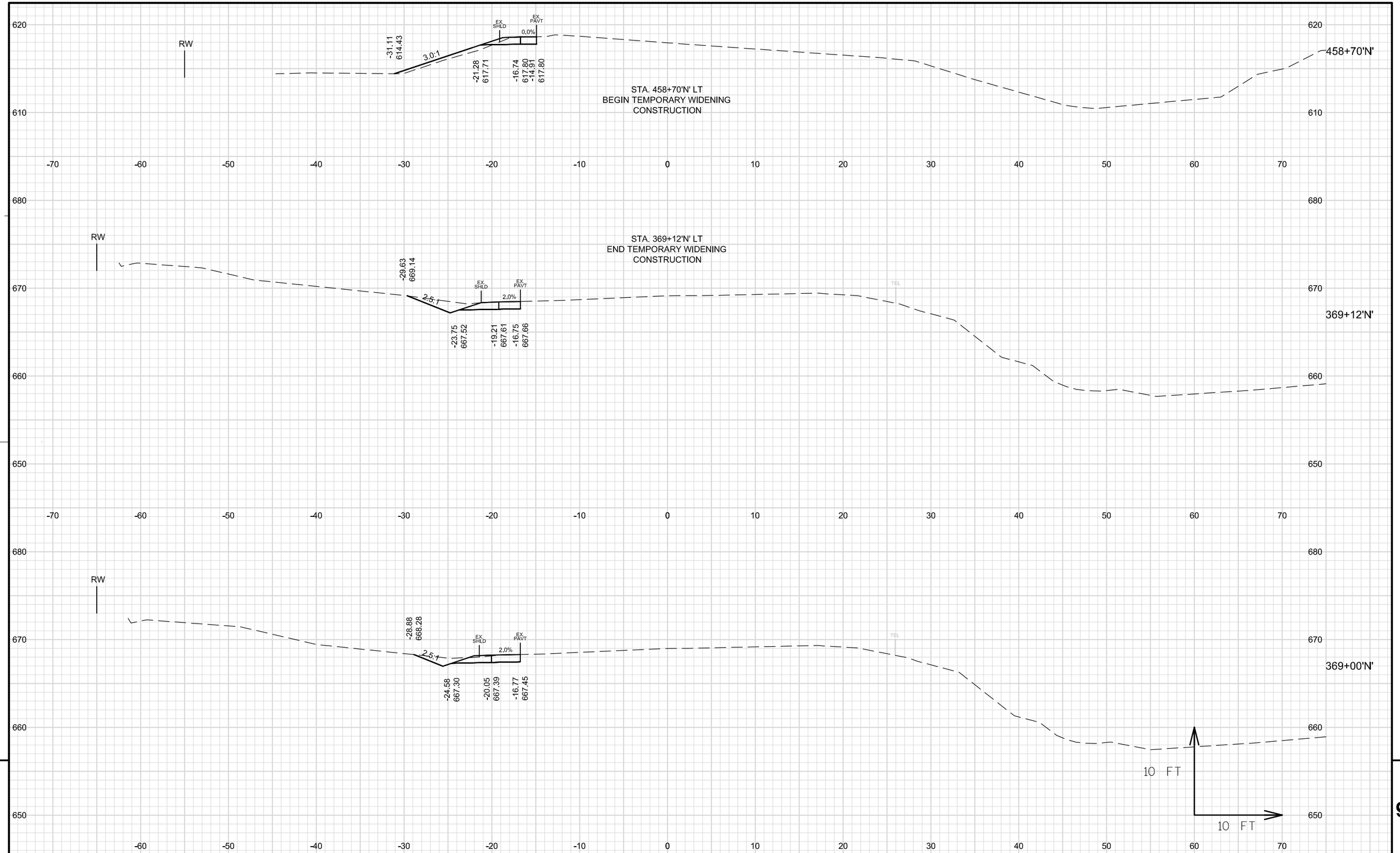


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 186	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:41 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF

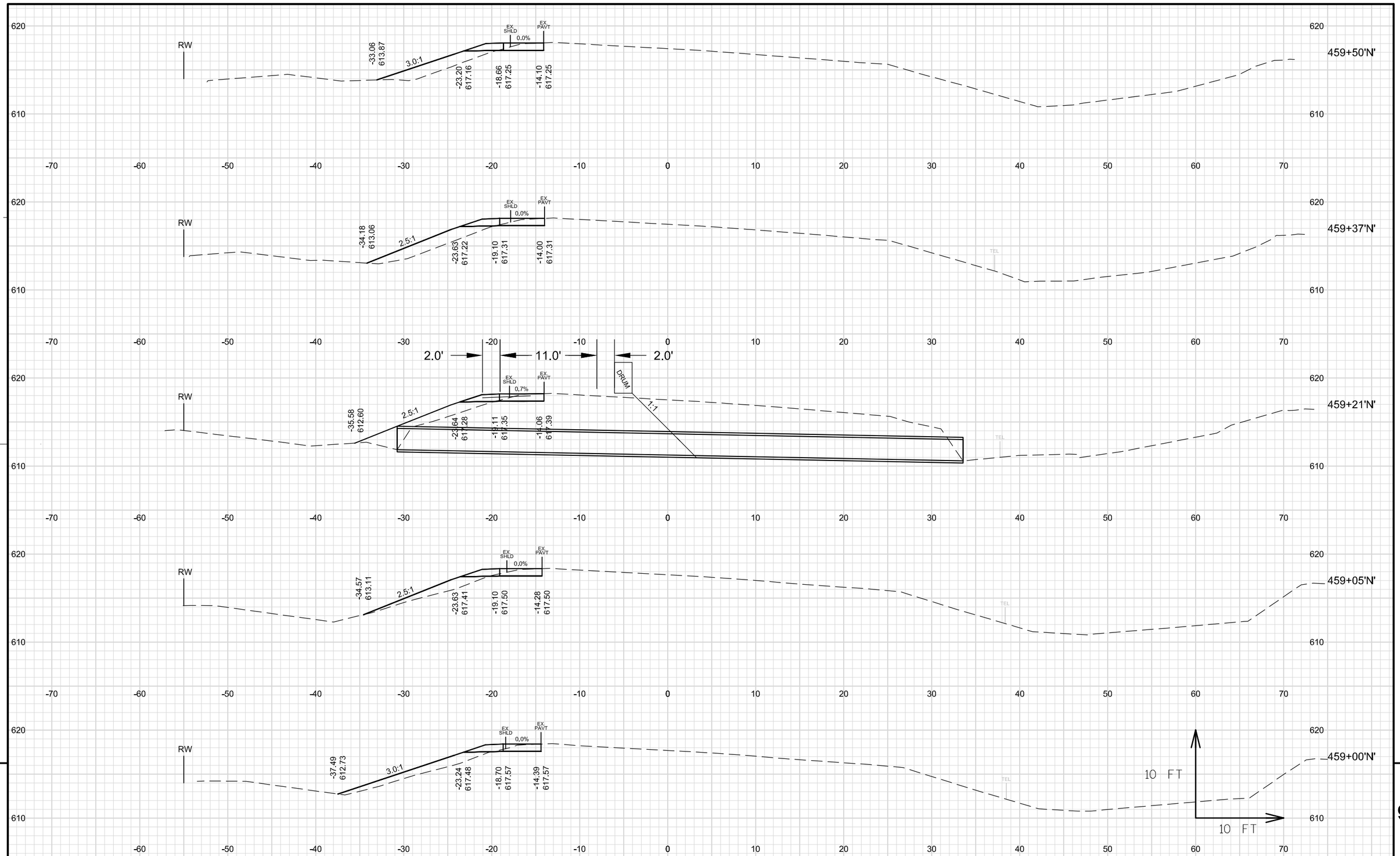


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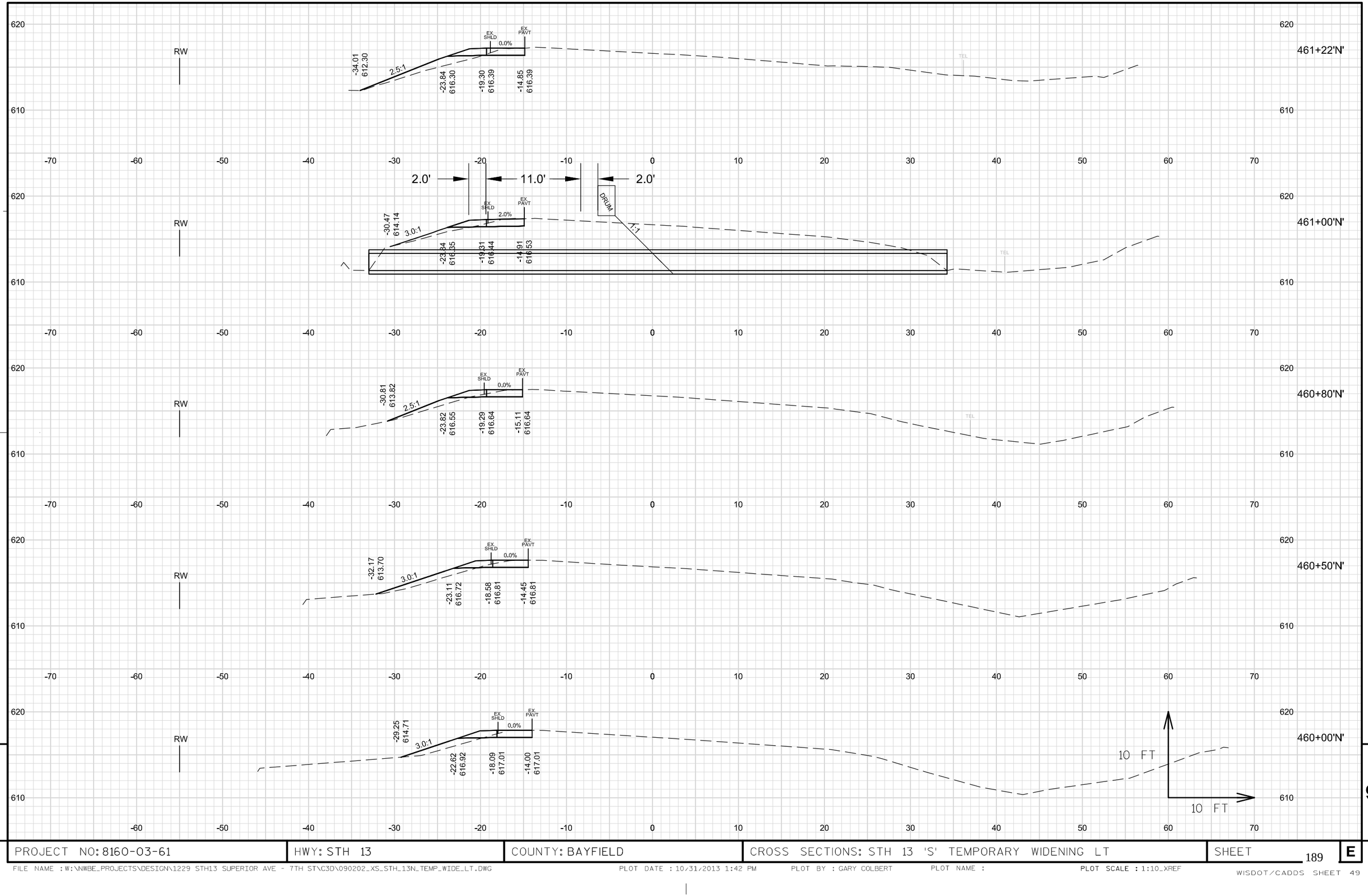
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 187 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:41 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



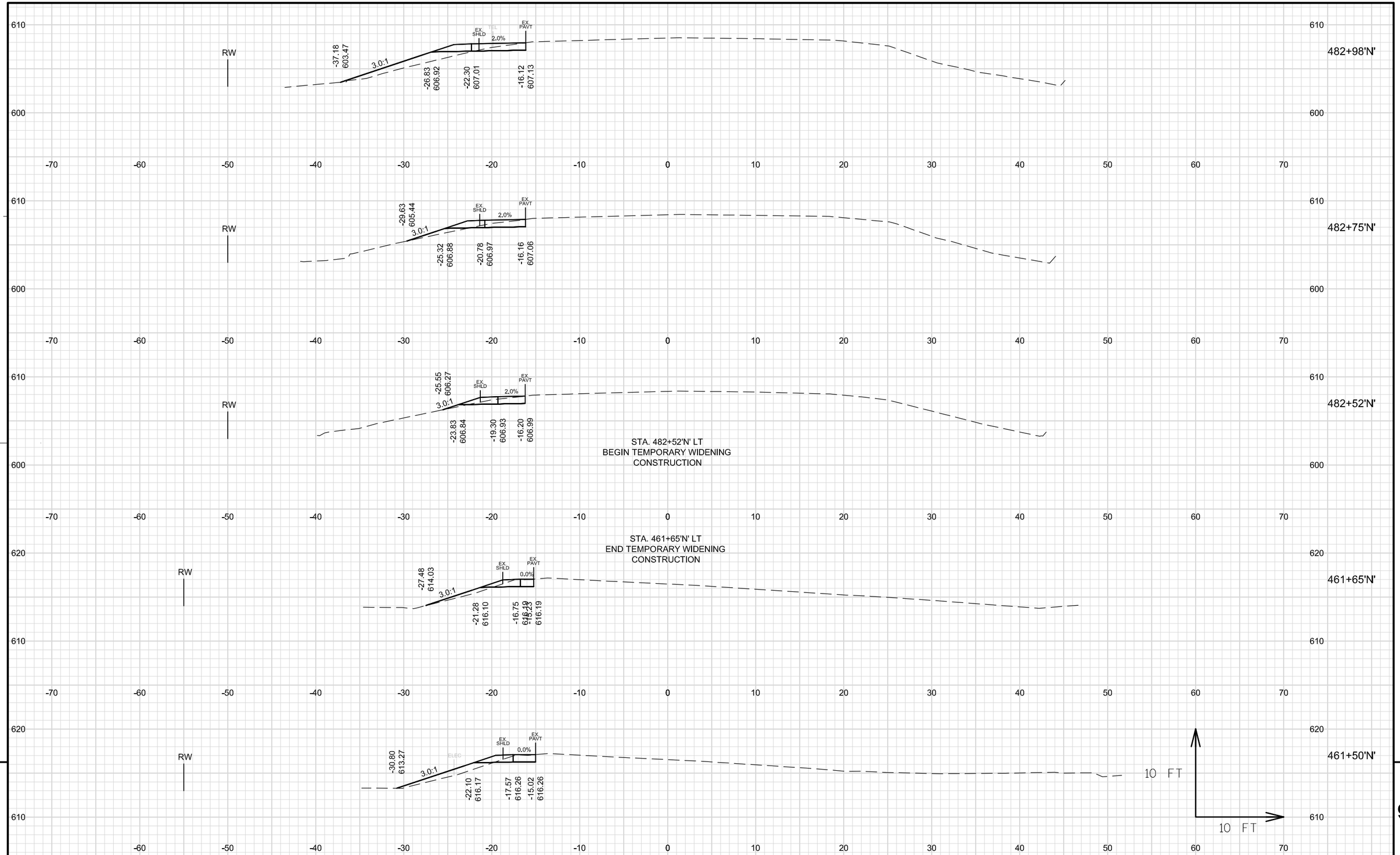
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FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:42 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



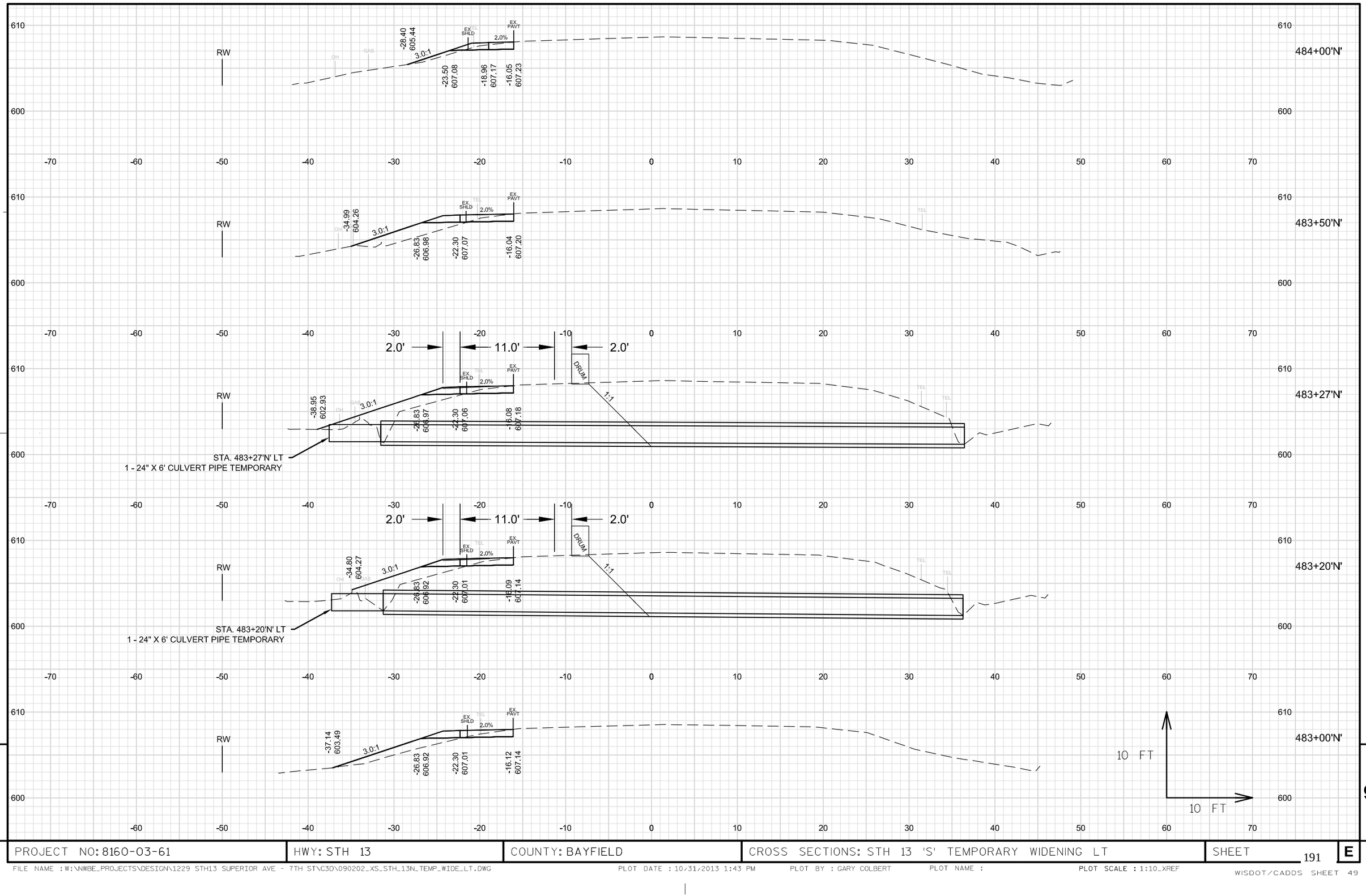
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 189 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:42 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



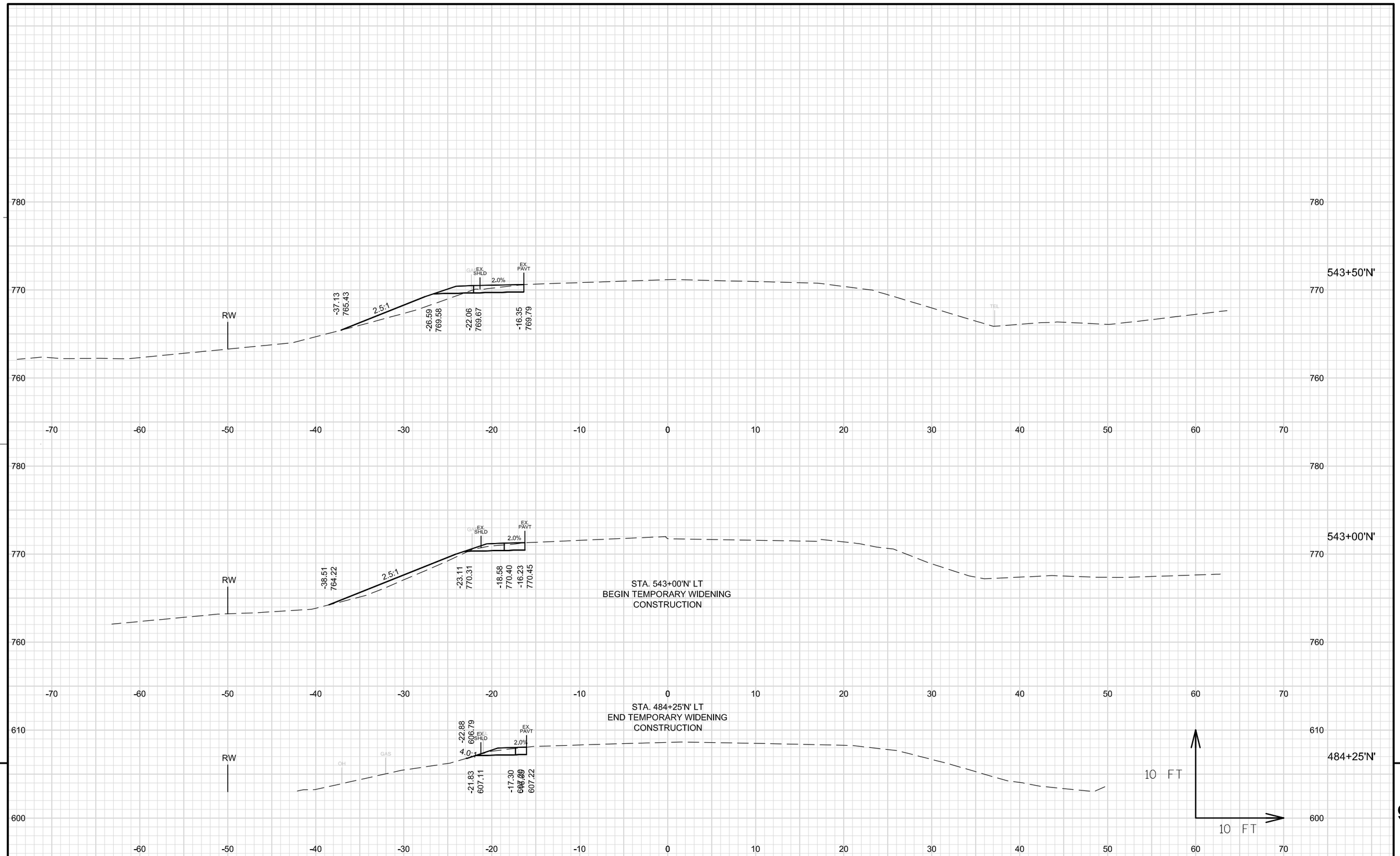
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 190 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:43 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 191 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:43 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



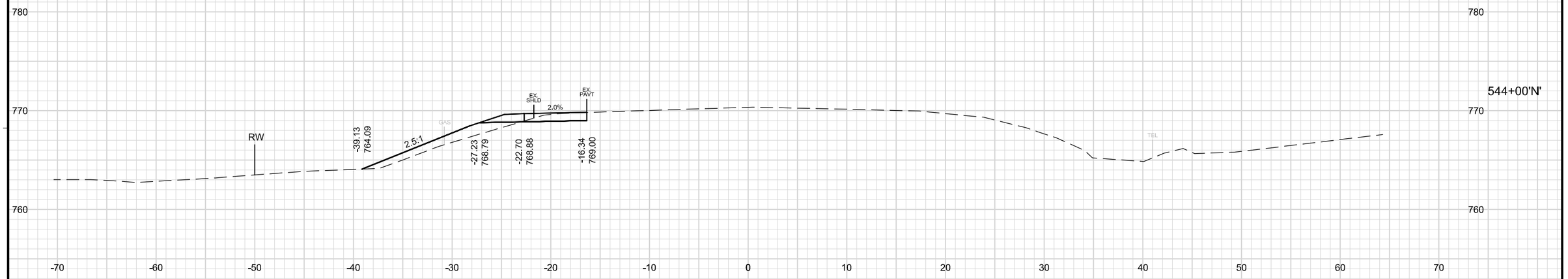
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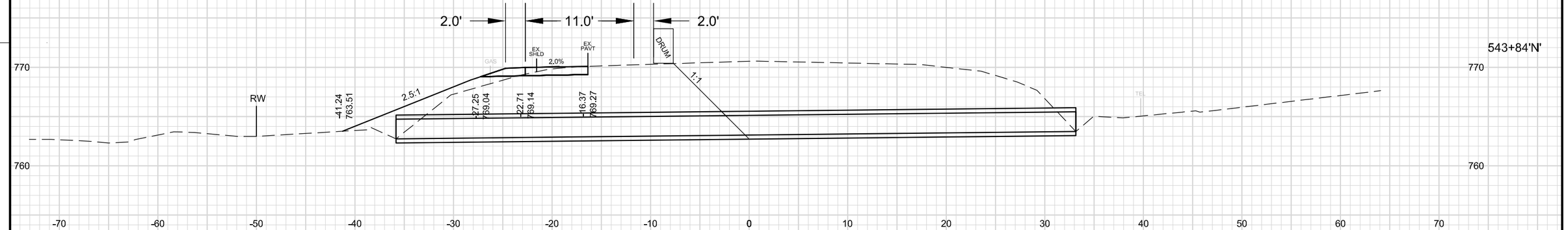
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 192	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:44 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF

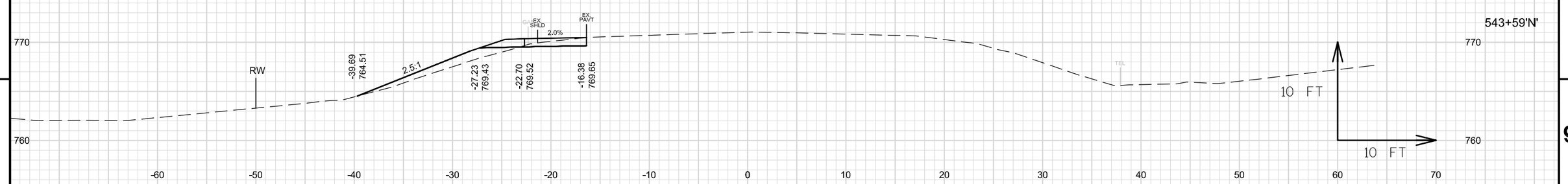
544+00'N'



543+84'N'



543+59'N'

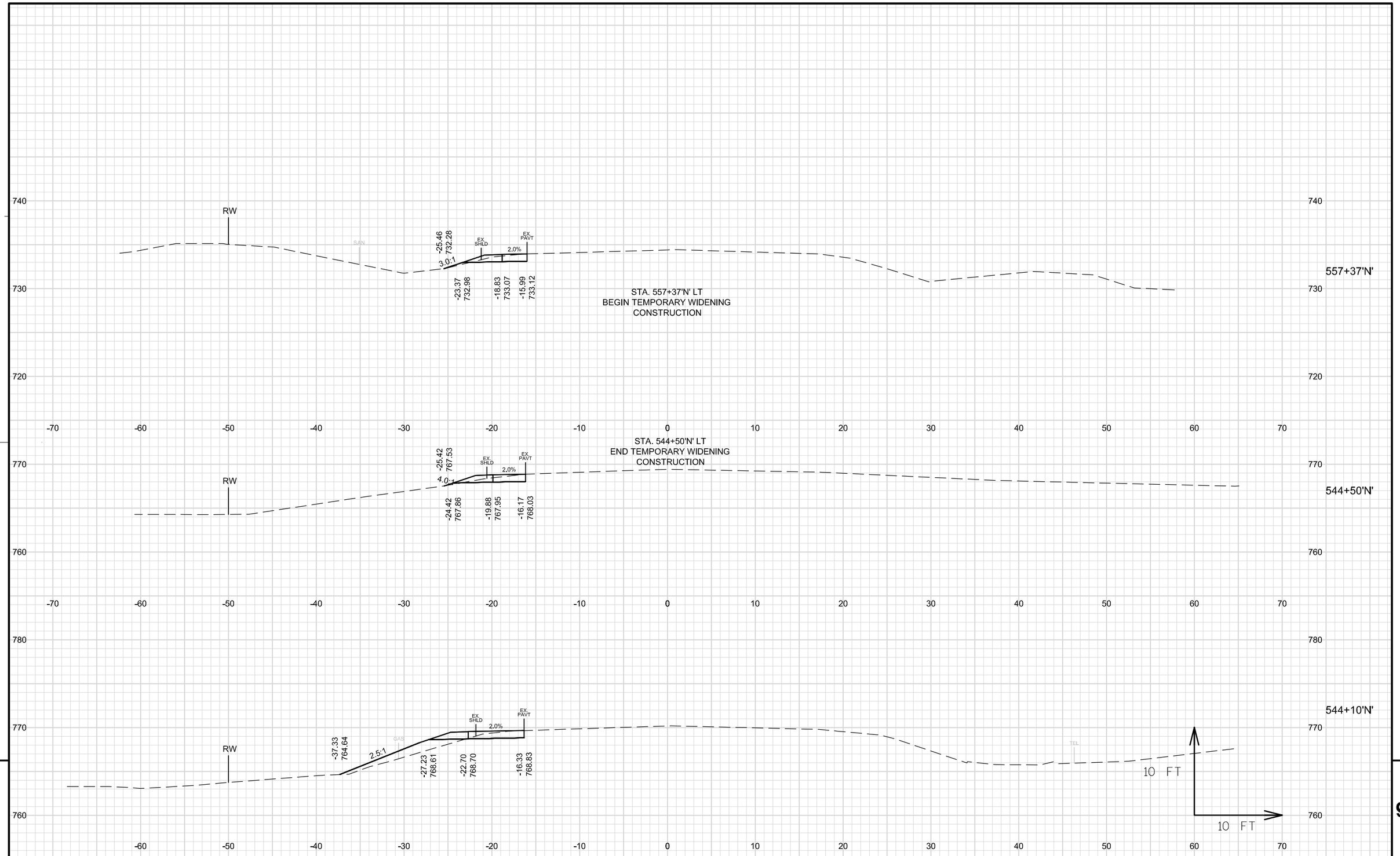


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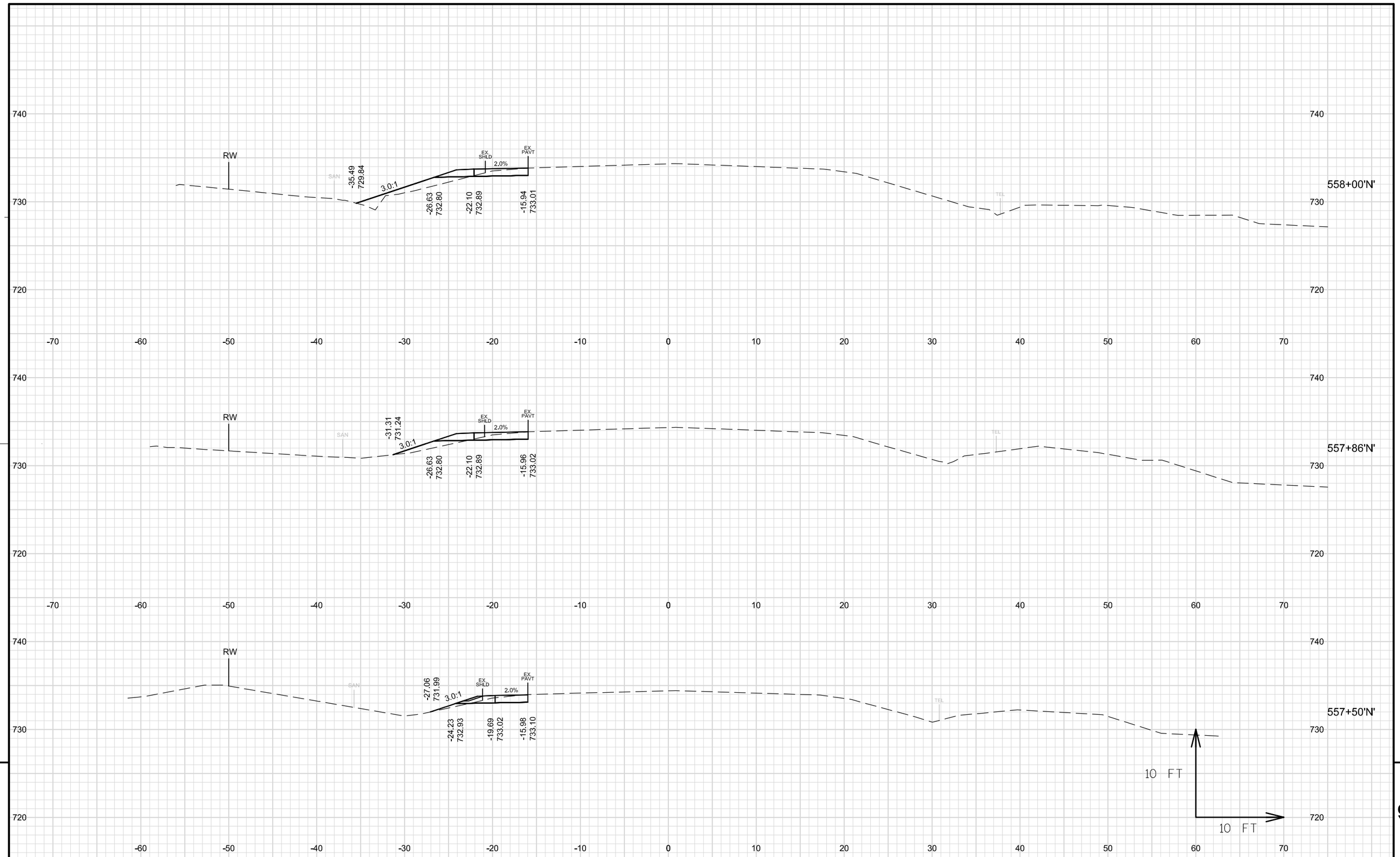
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 193	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:44 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 194	E

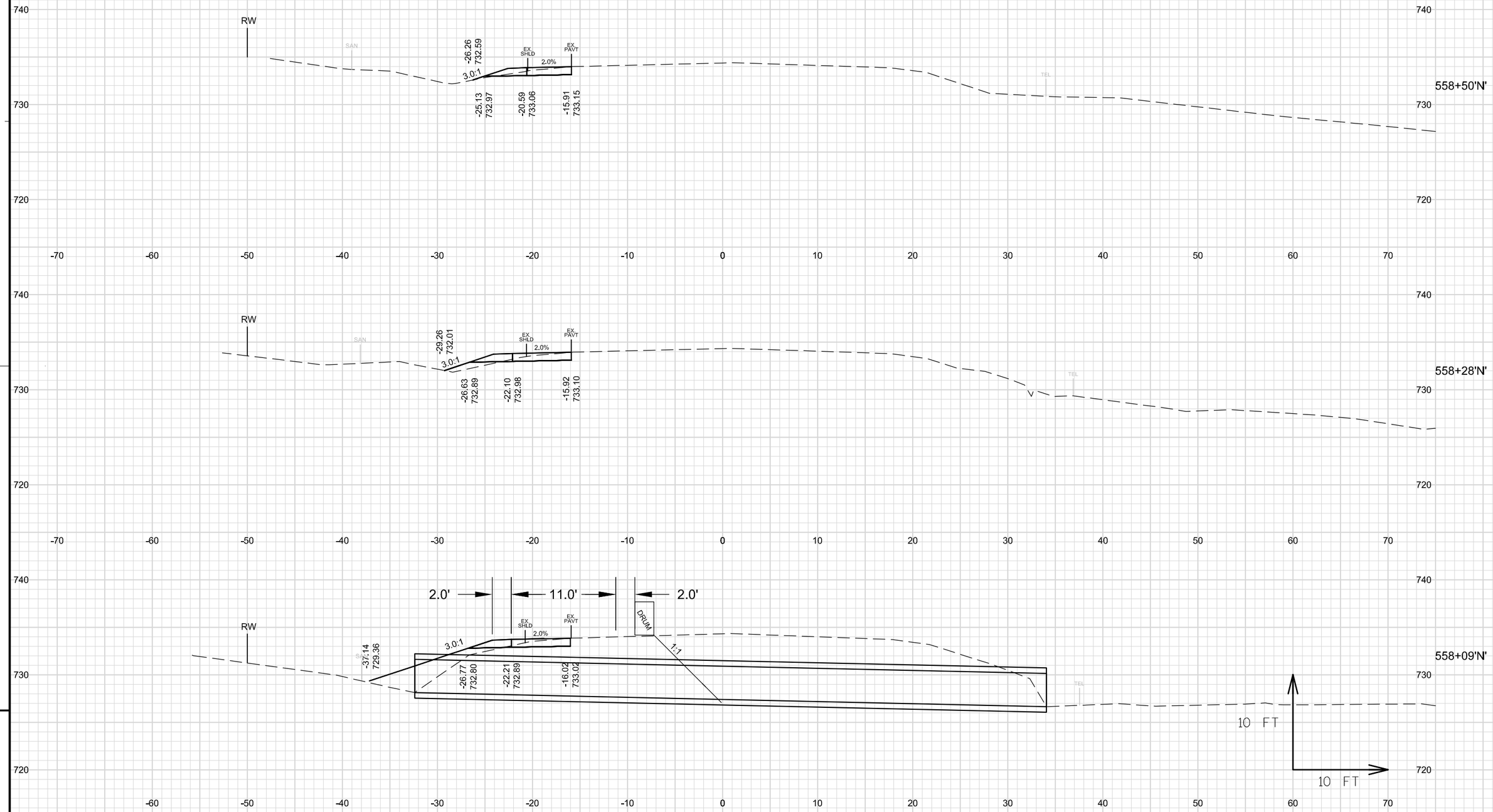
FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:44 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF



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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'S' TEMPORARY WIDENING LT	SHEET 195	E



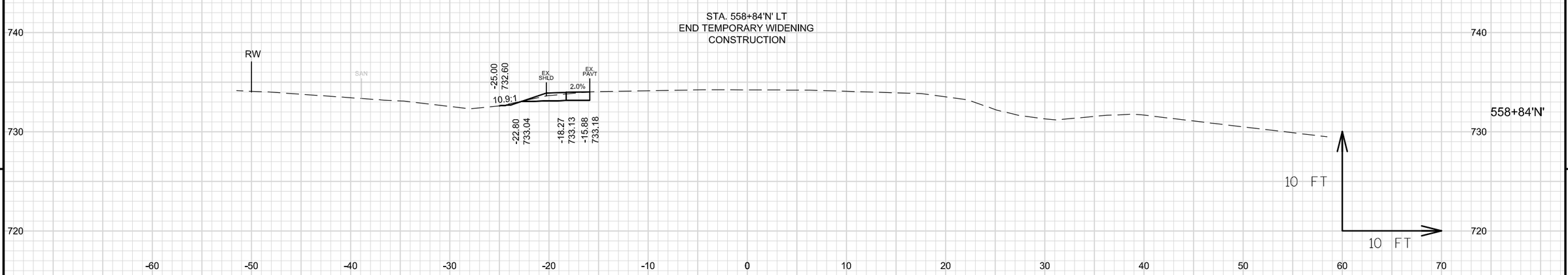
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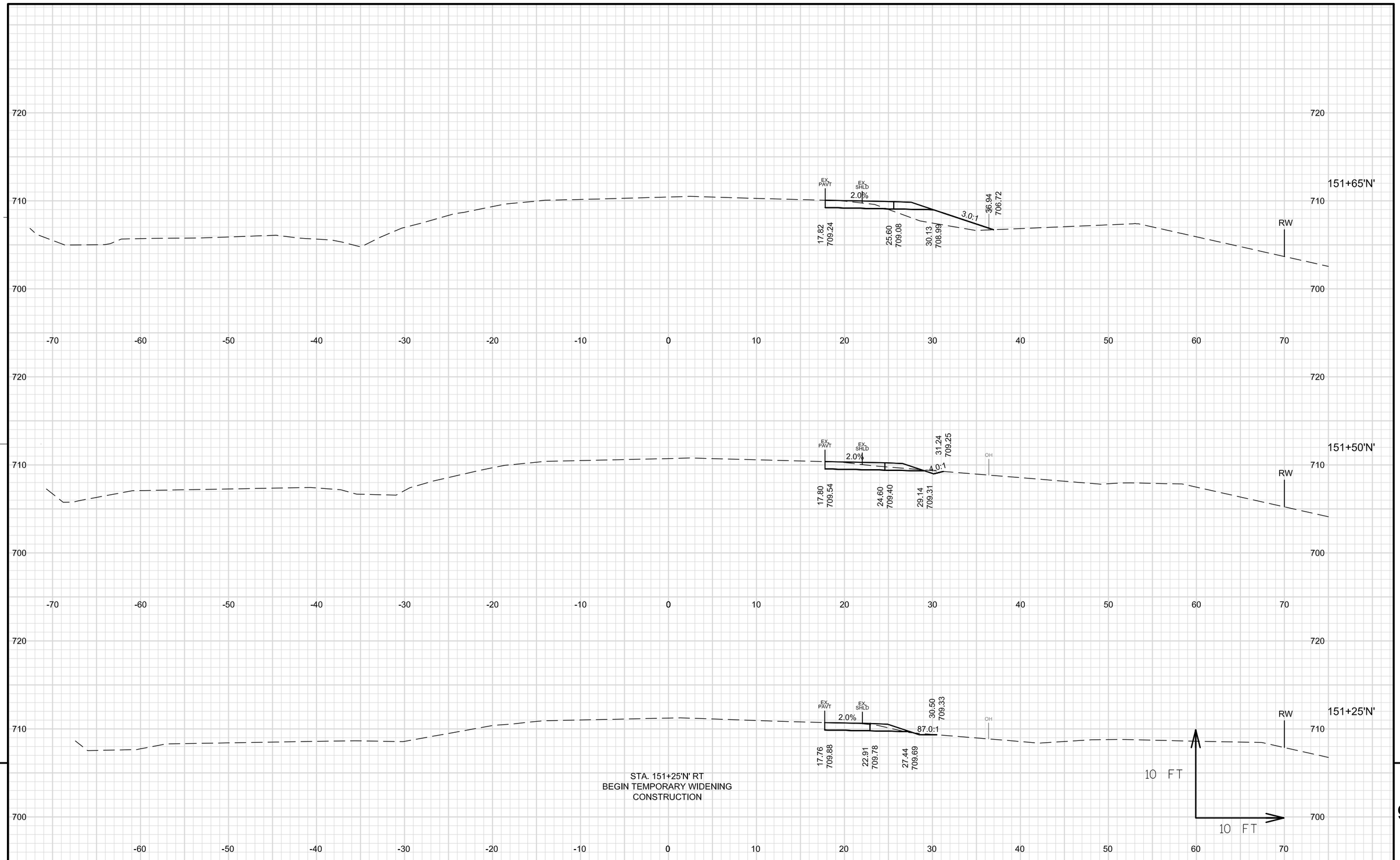
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FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090202_XS_STH_13N_TEMP_WIDE_LT.DWG PLOT DATE : 10/31/2013 1:45 PM PLOT BY : GARY COLBERT PLOT NAME : PLOT SCALE : 1:10_XREF

STA. 558+84'N' LT
END TEMPORARY WIDENING
CONSTRUCTION



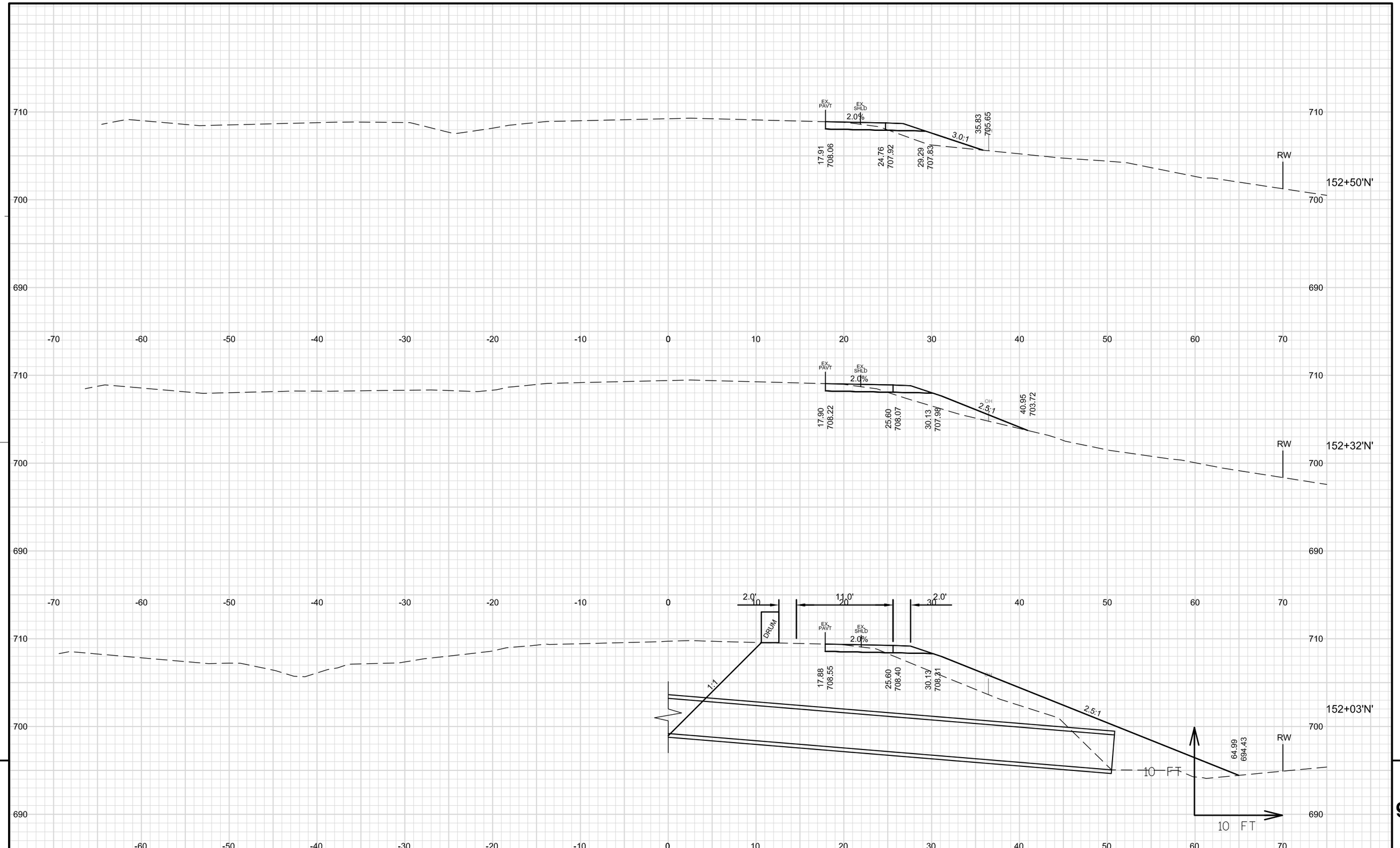
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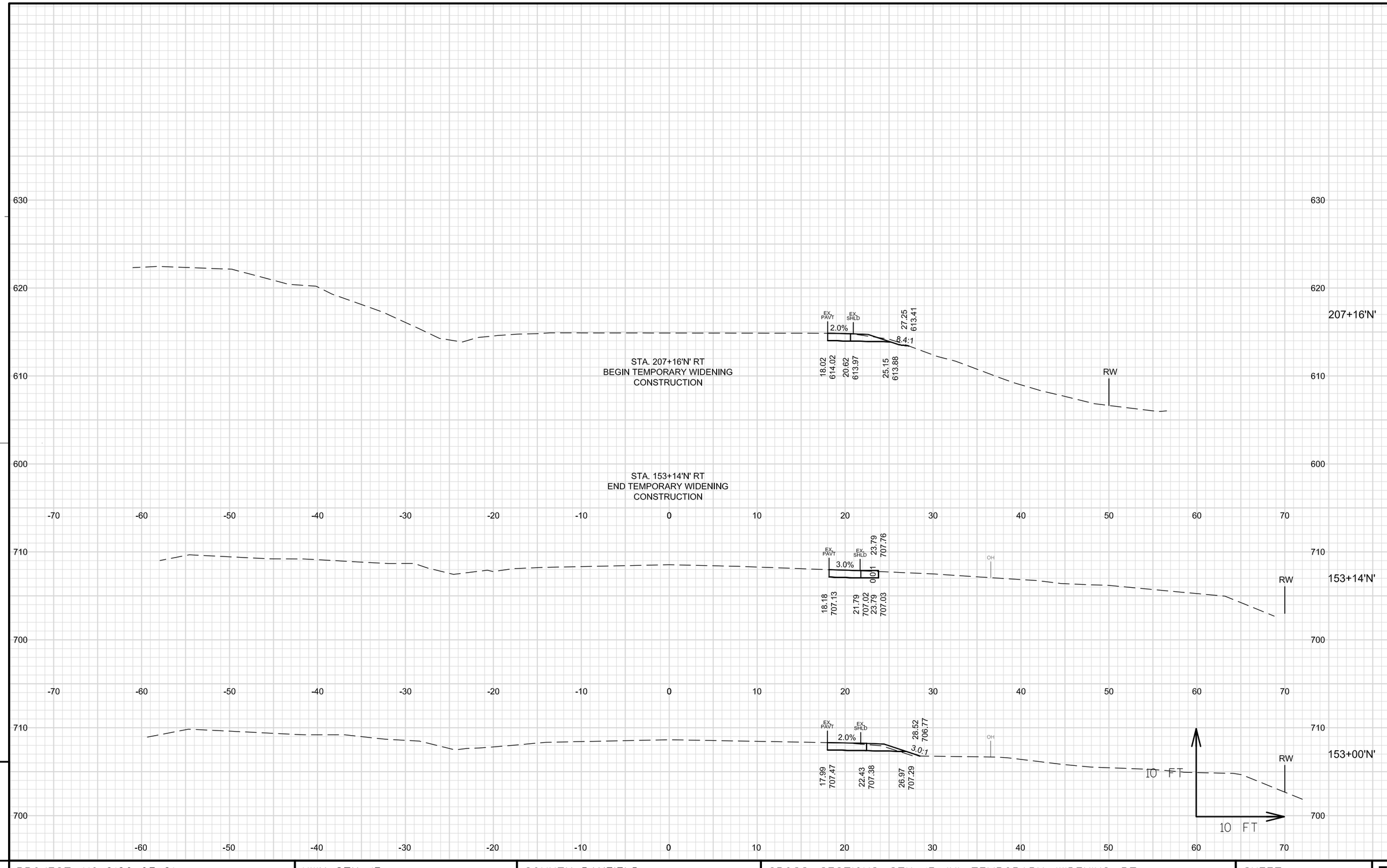
STA. 151+25'N' RT
BEGIN TEMPORARY WIDENING
CONSTRUCTION

PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 198 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:08 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

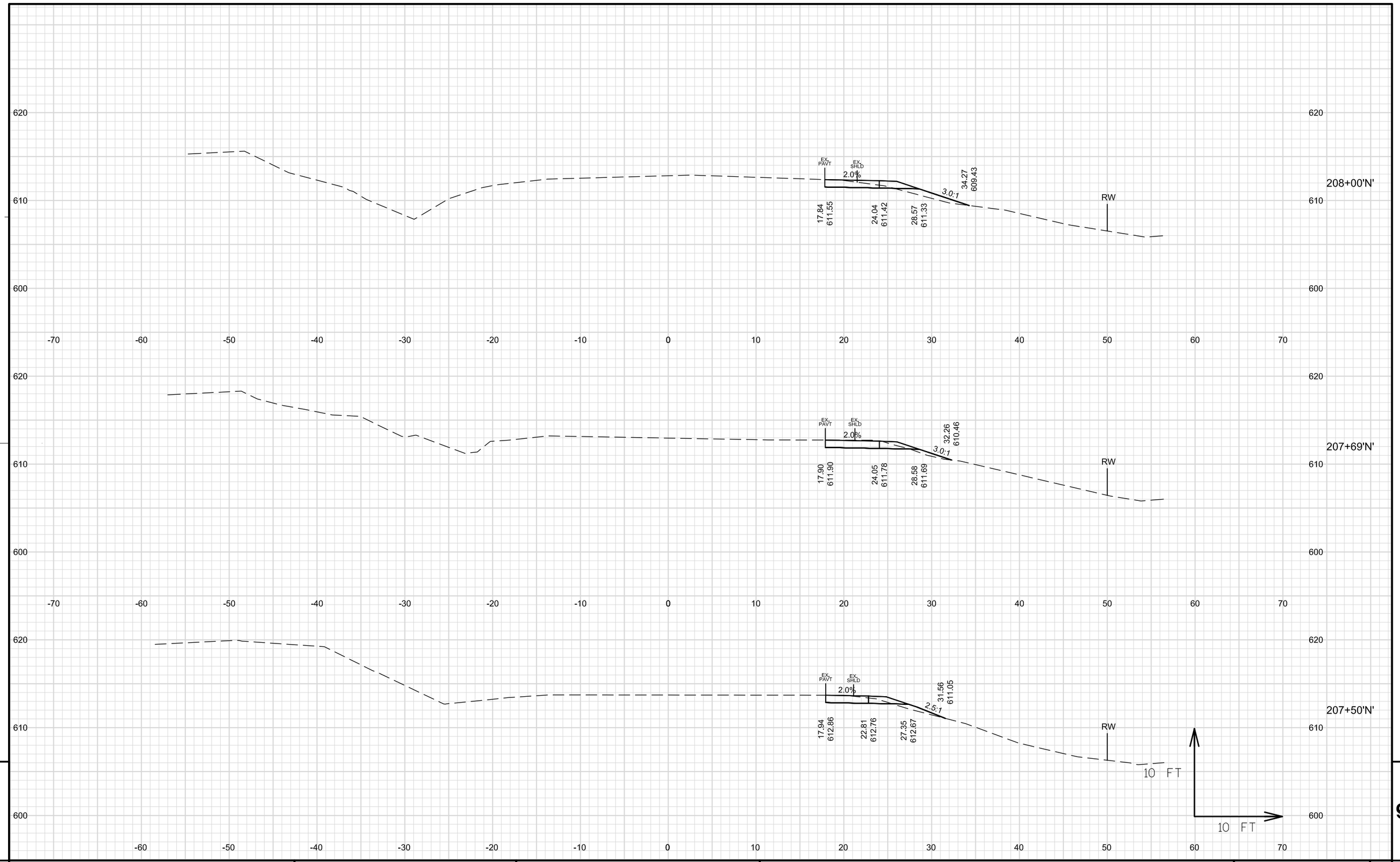


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 199 E

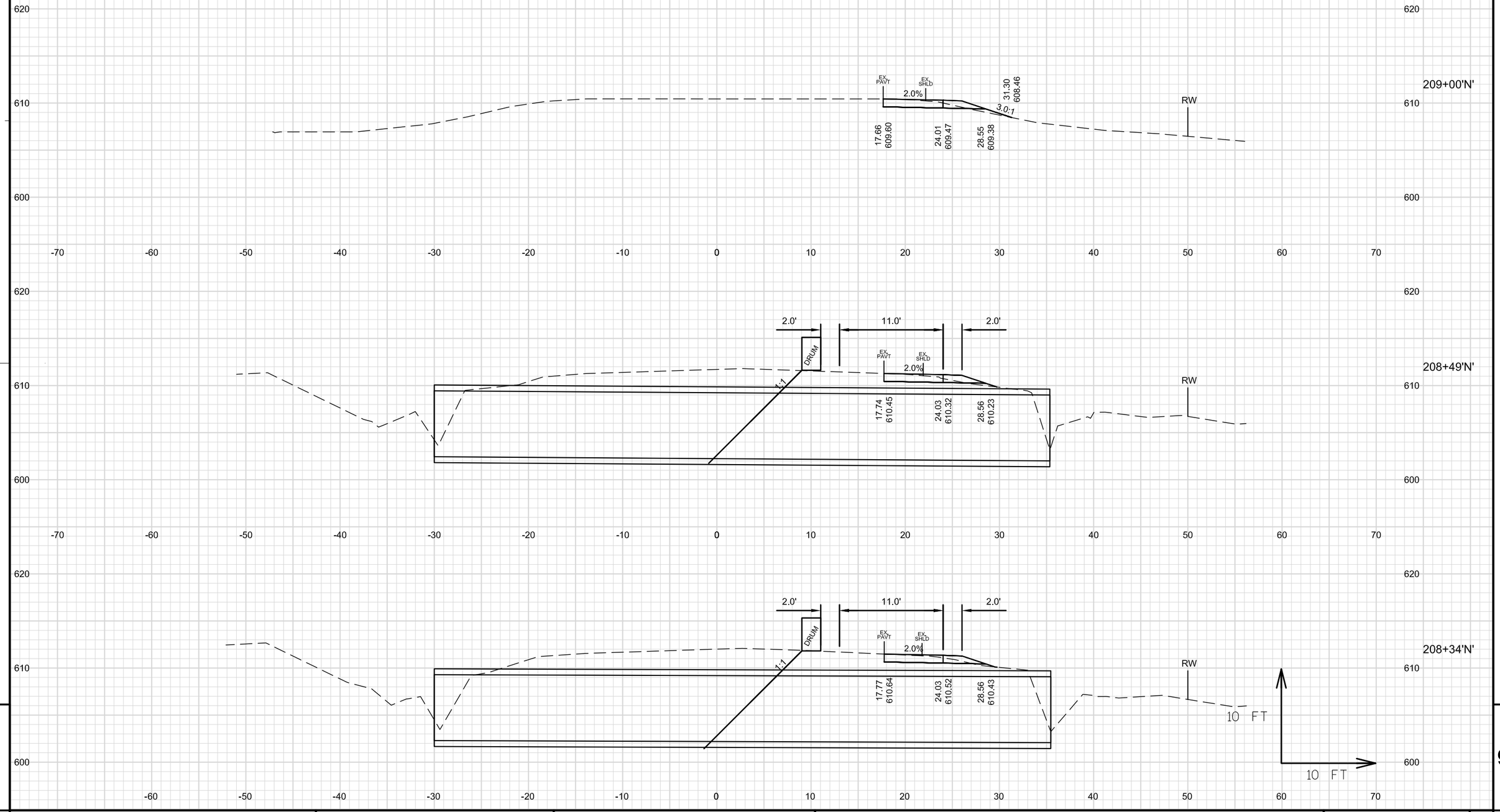


PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 200 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:08 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF



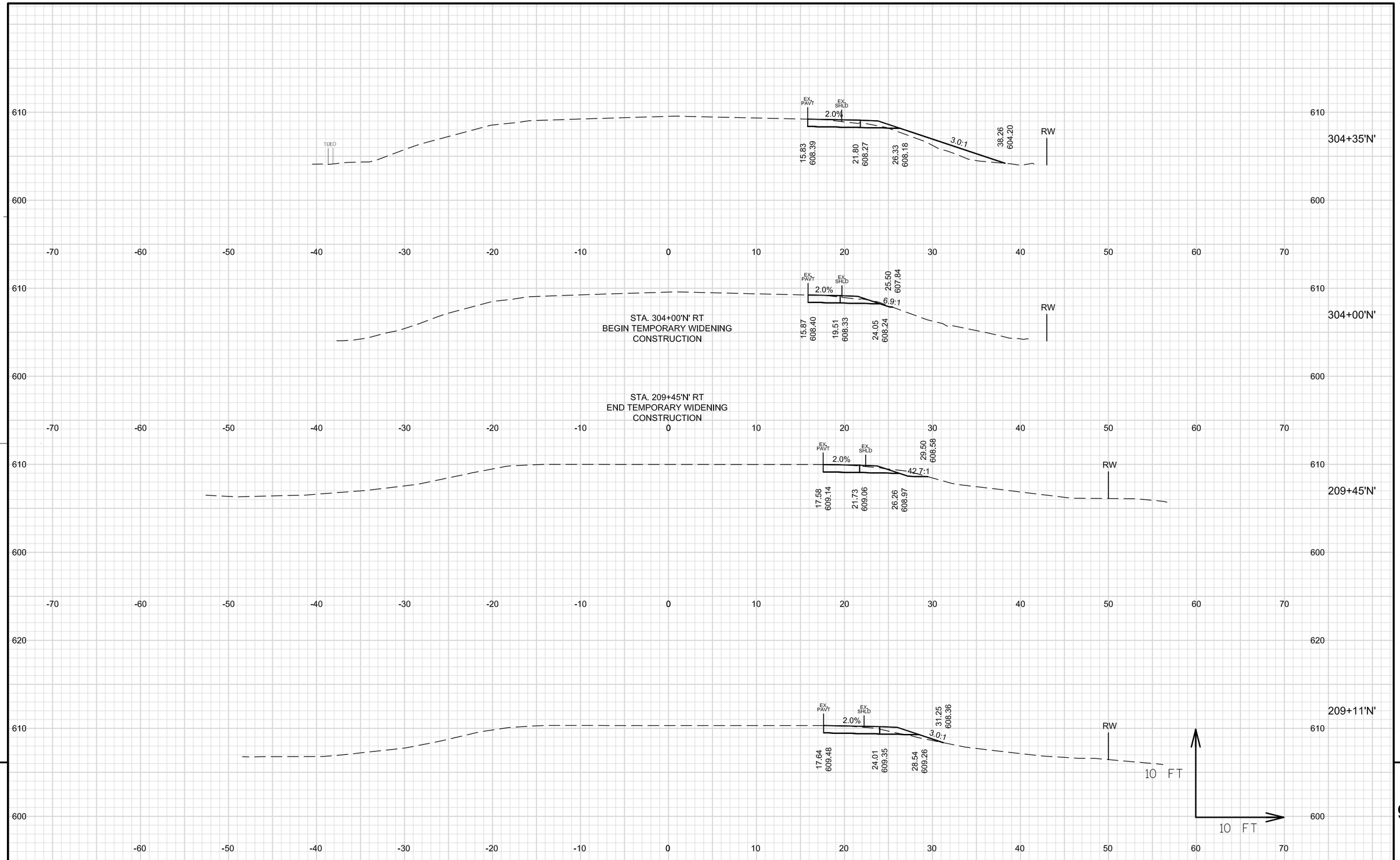
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 201 E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 202	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:09 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

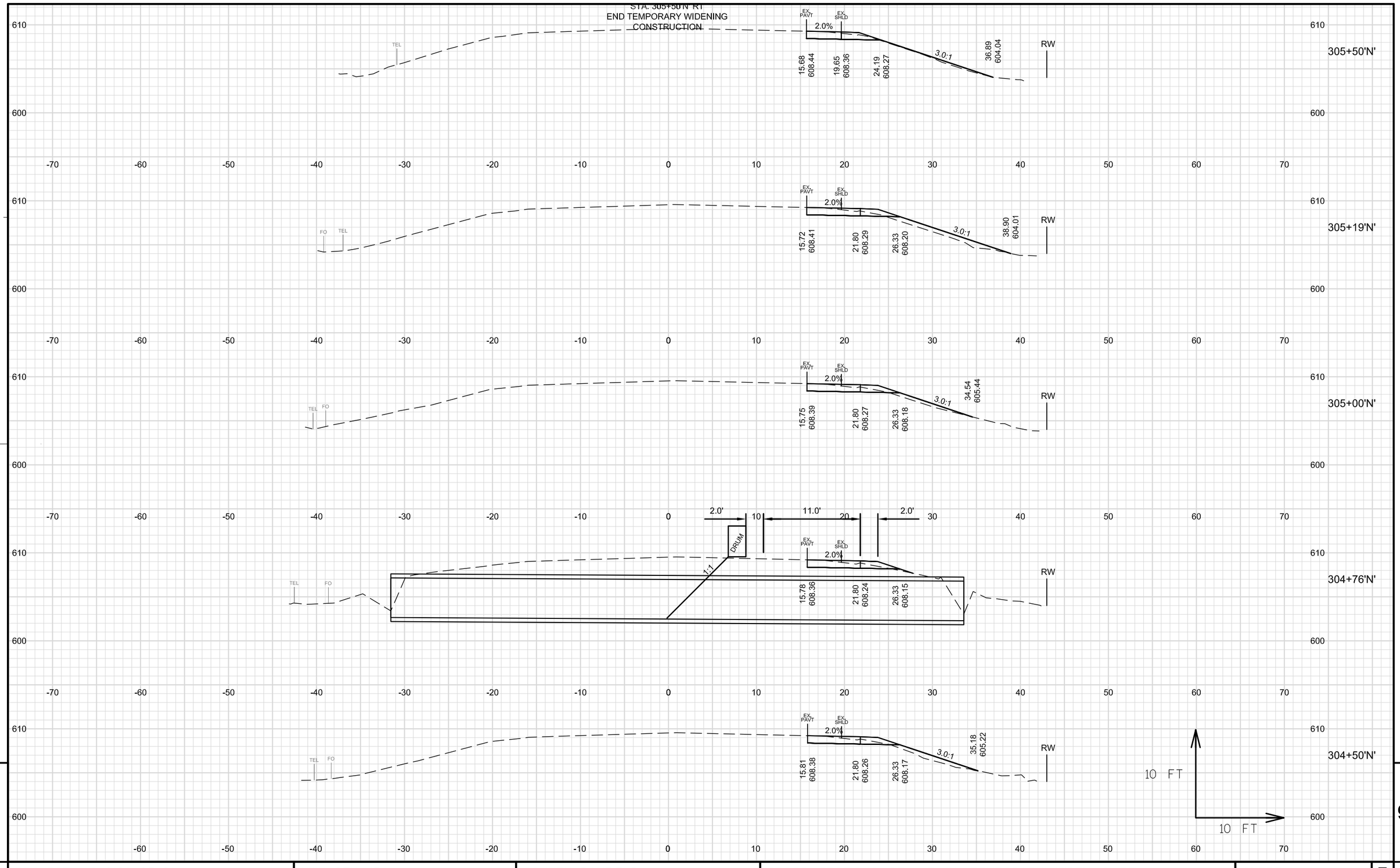


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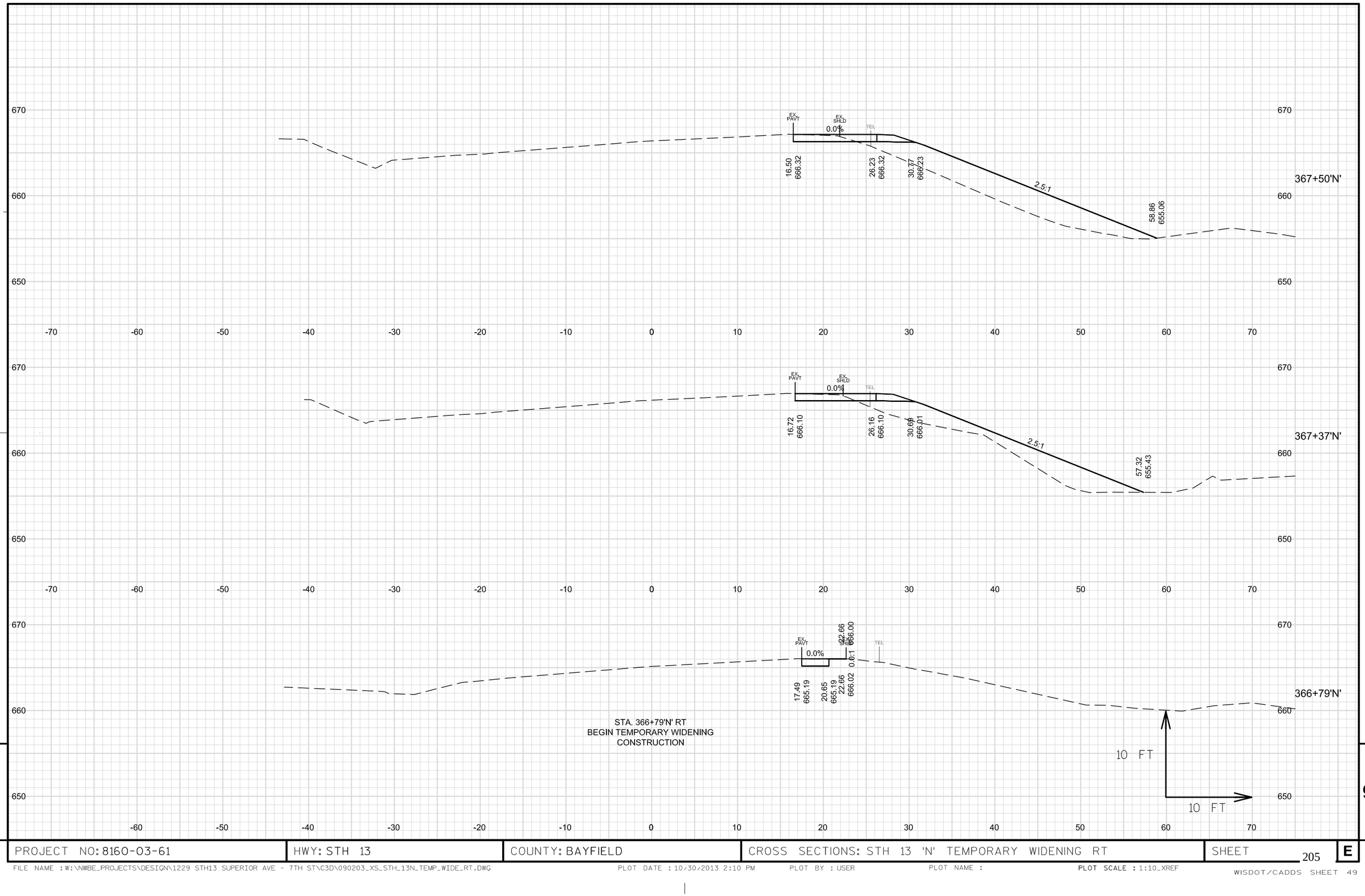
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 203	E

STA. 305+50 N' RT
END TEMPORARY WIDENING
CONSTRUCTION



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 204	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:09 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

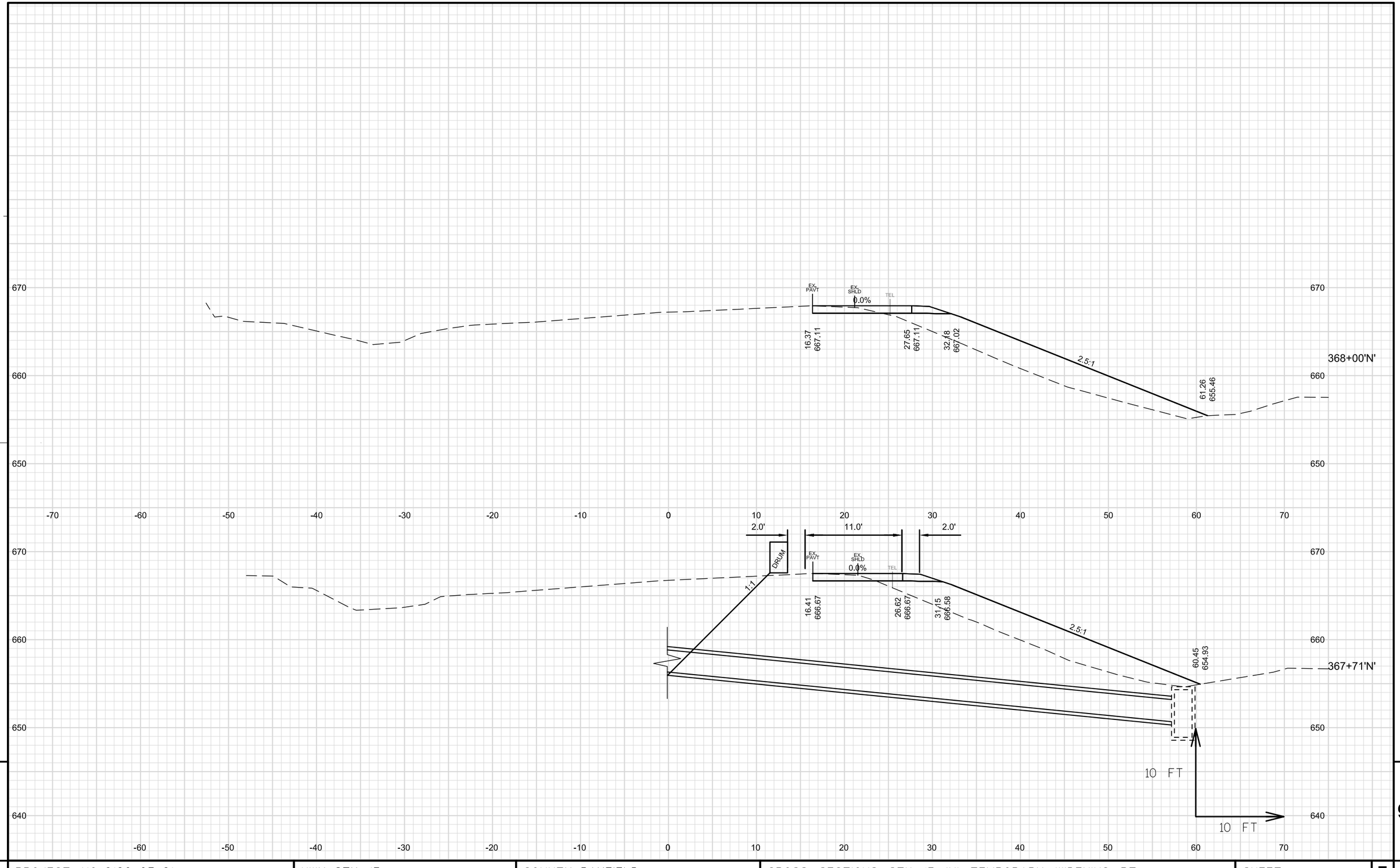


STA. 366+79'N' RT
BEGIN TEMPORARY WIDENING
CONSTRUCTION

9

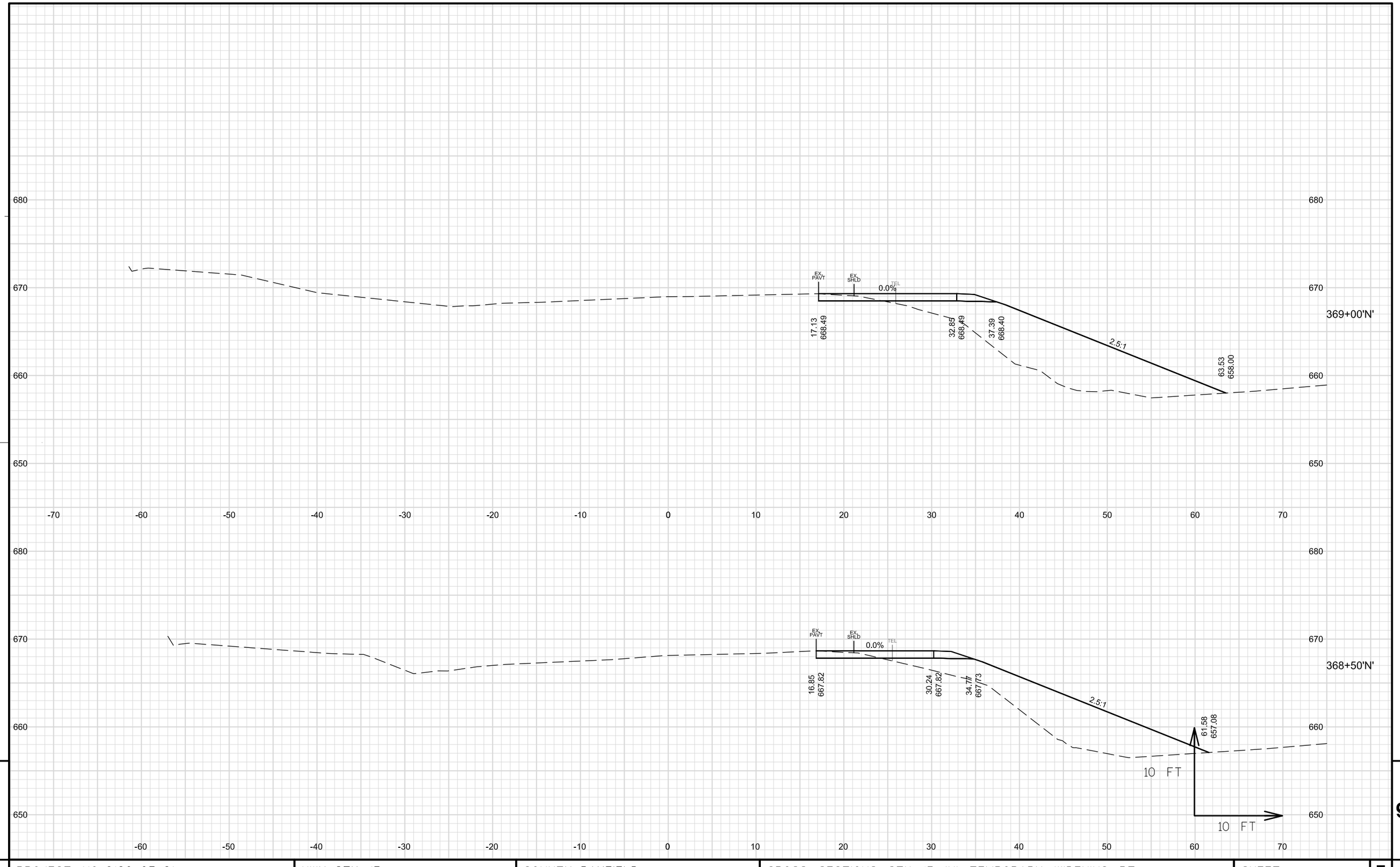
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 205	E



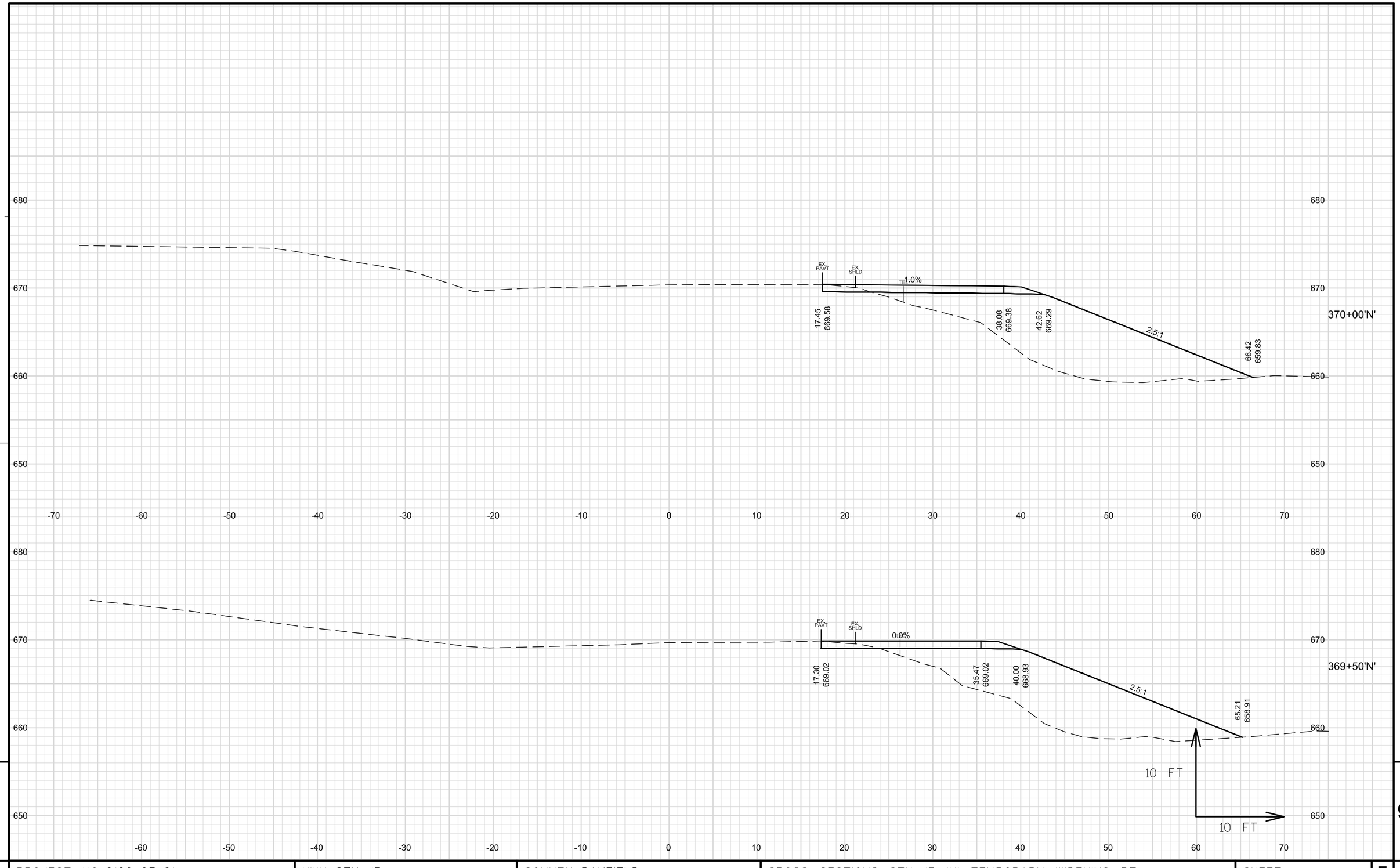
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 206	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:10 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 207	E

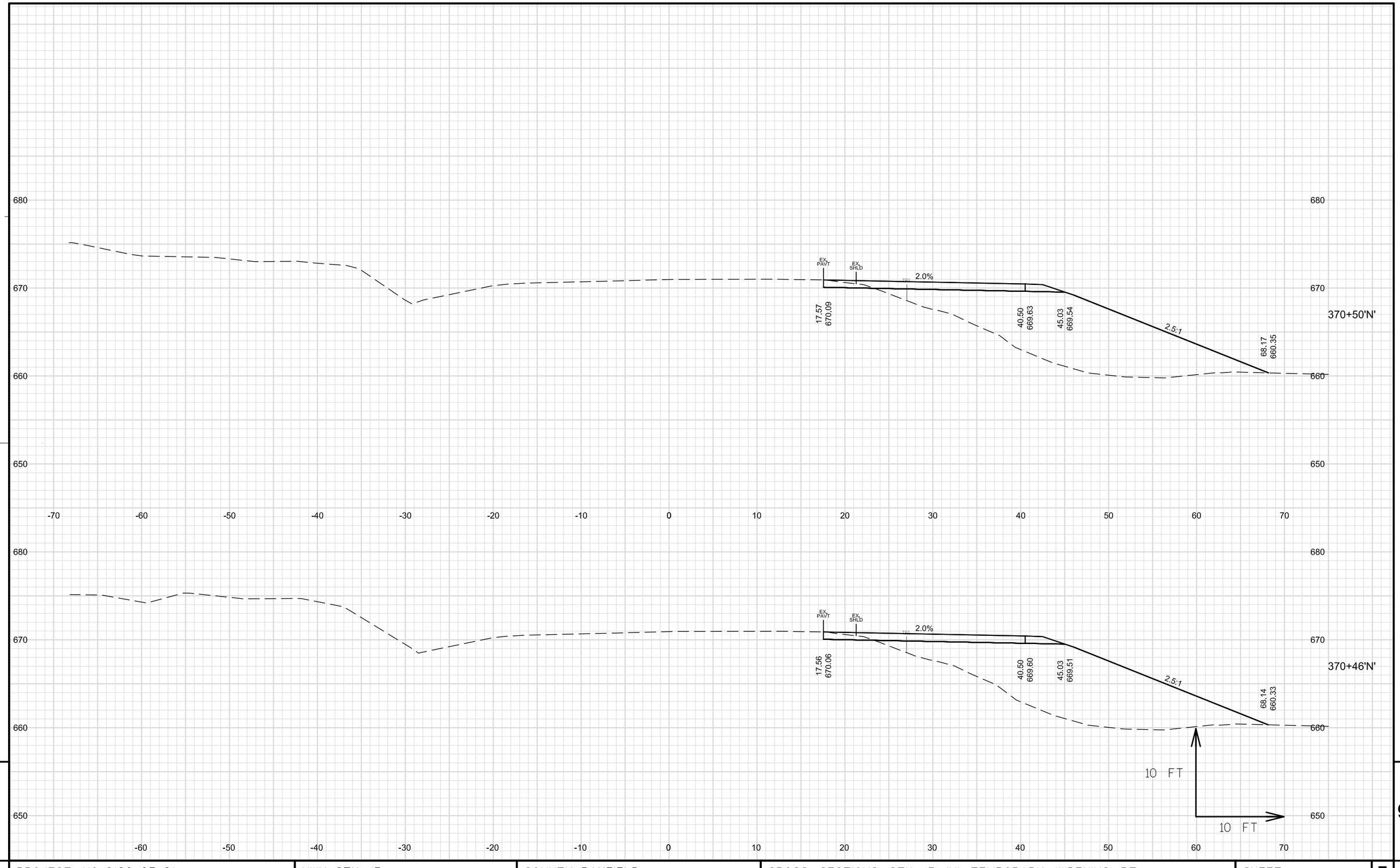
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 208	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:10 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

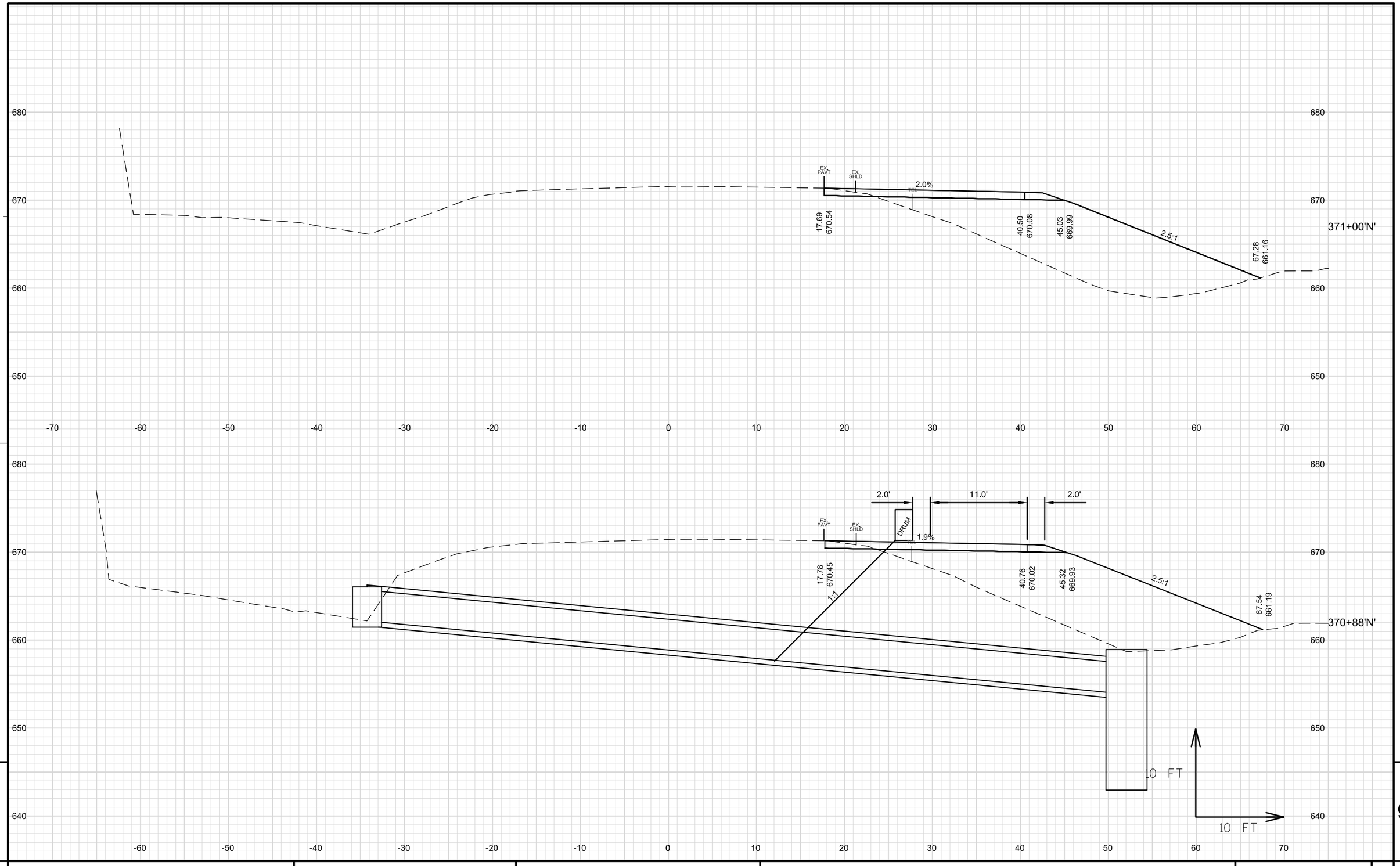


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 209	E

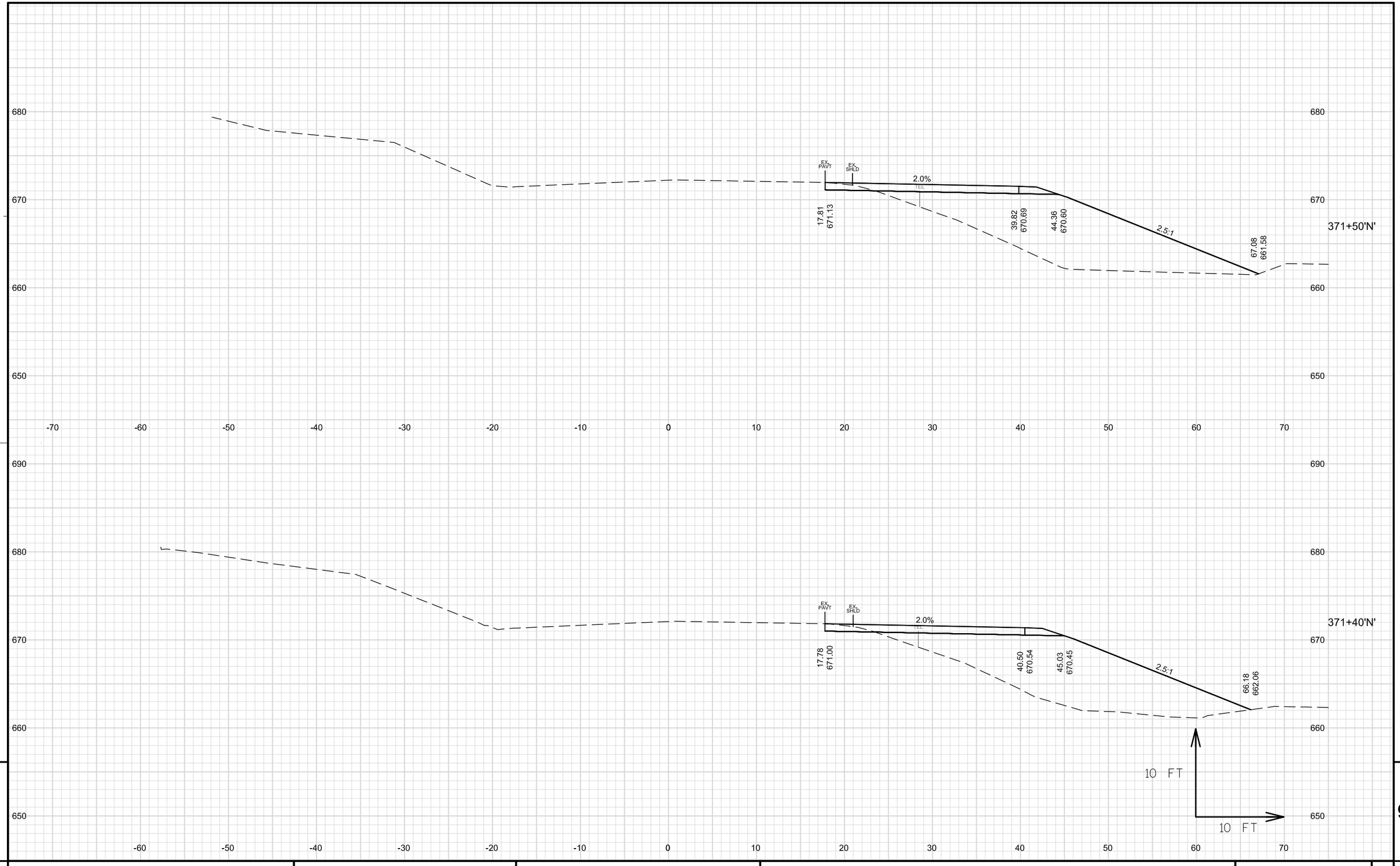
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WISDOT/CADDS SHEET 49



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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 210	E

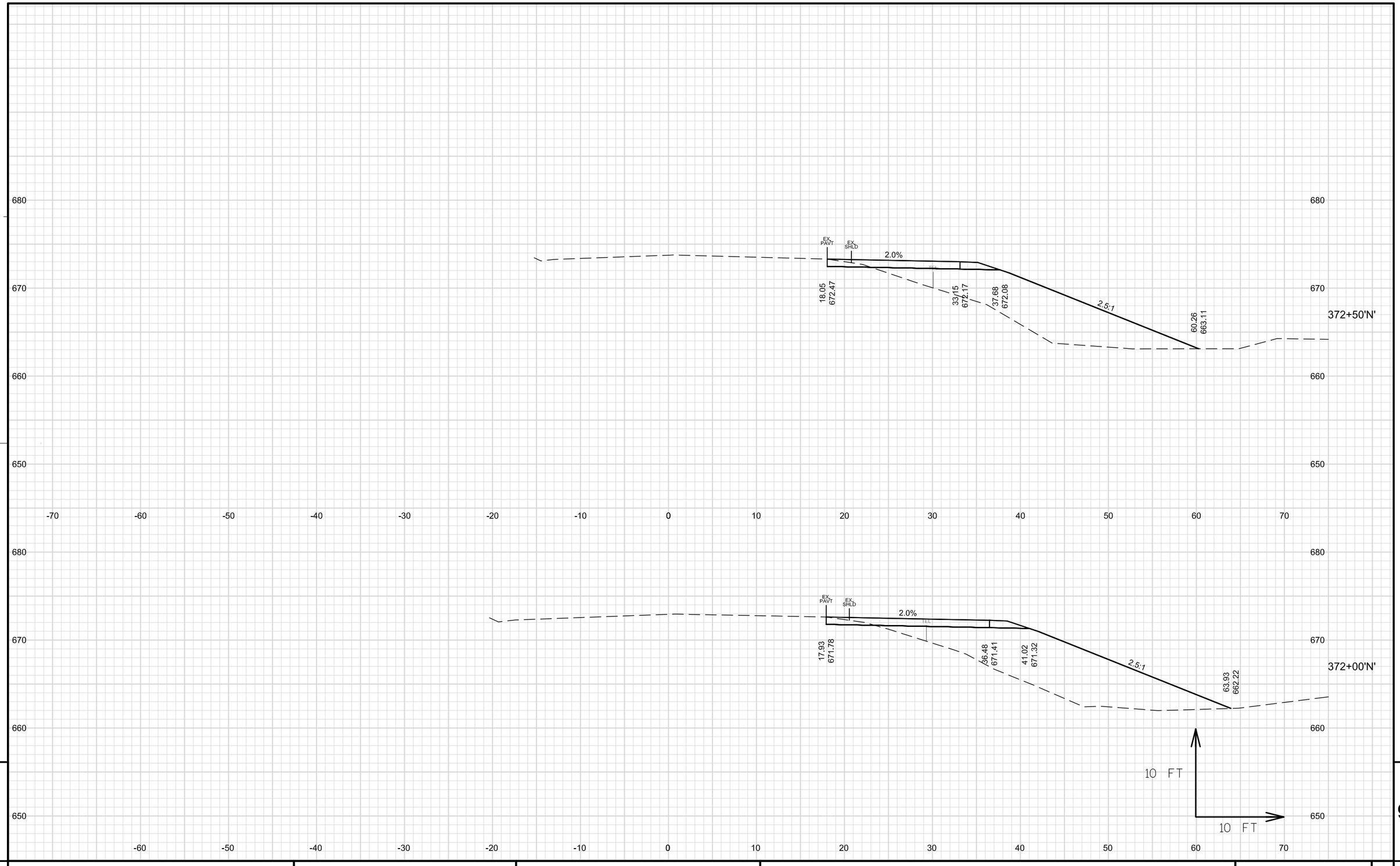


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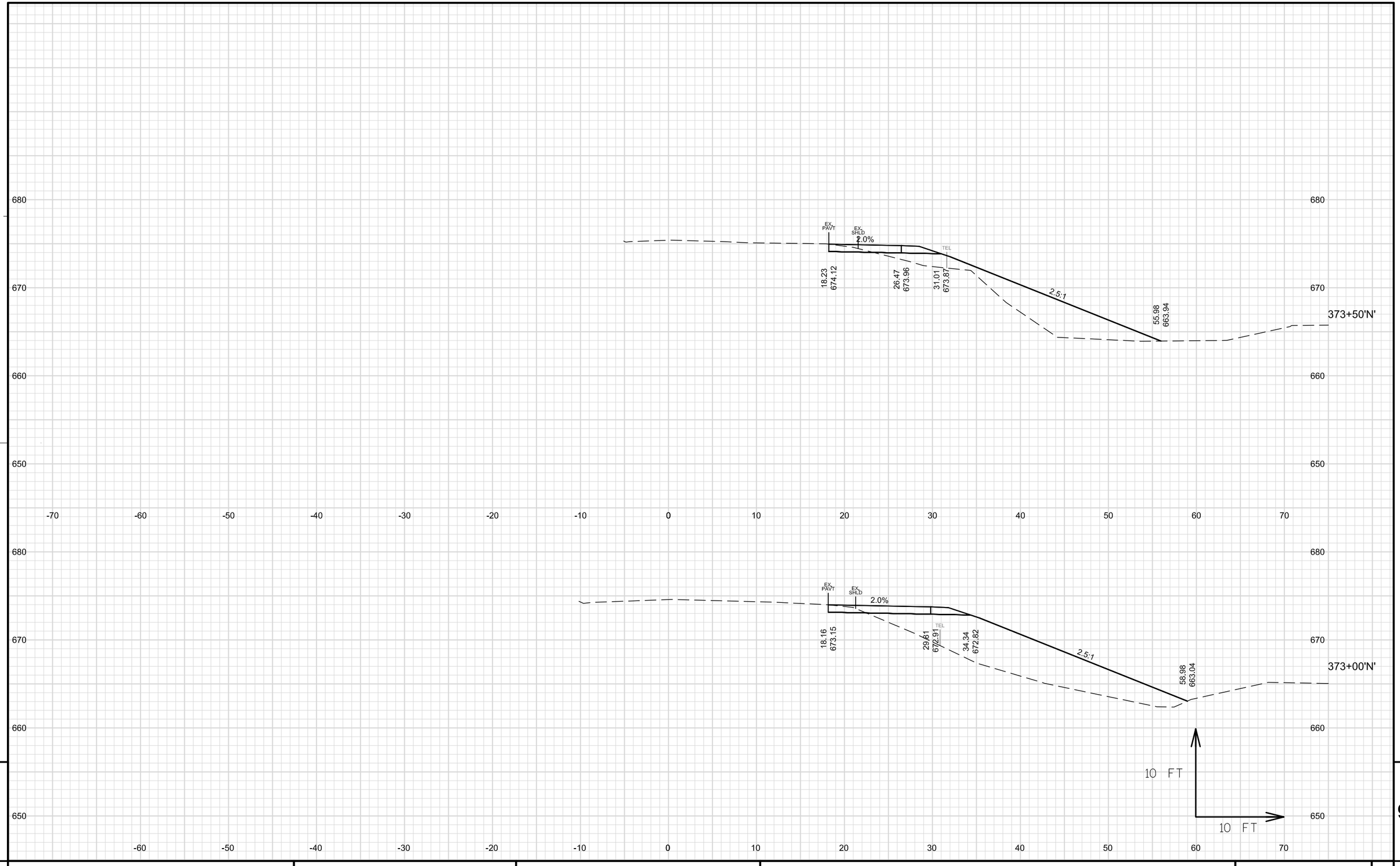
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FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:11 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 212	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:11 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

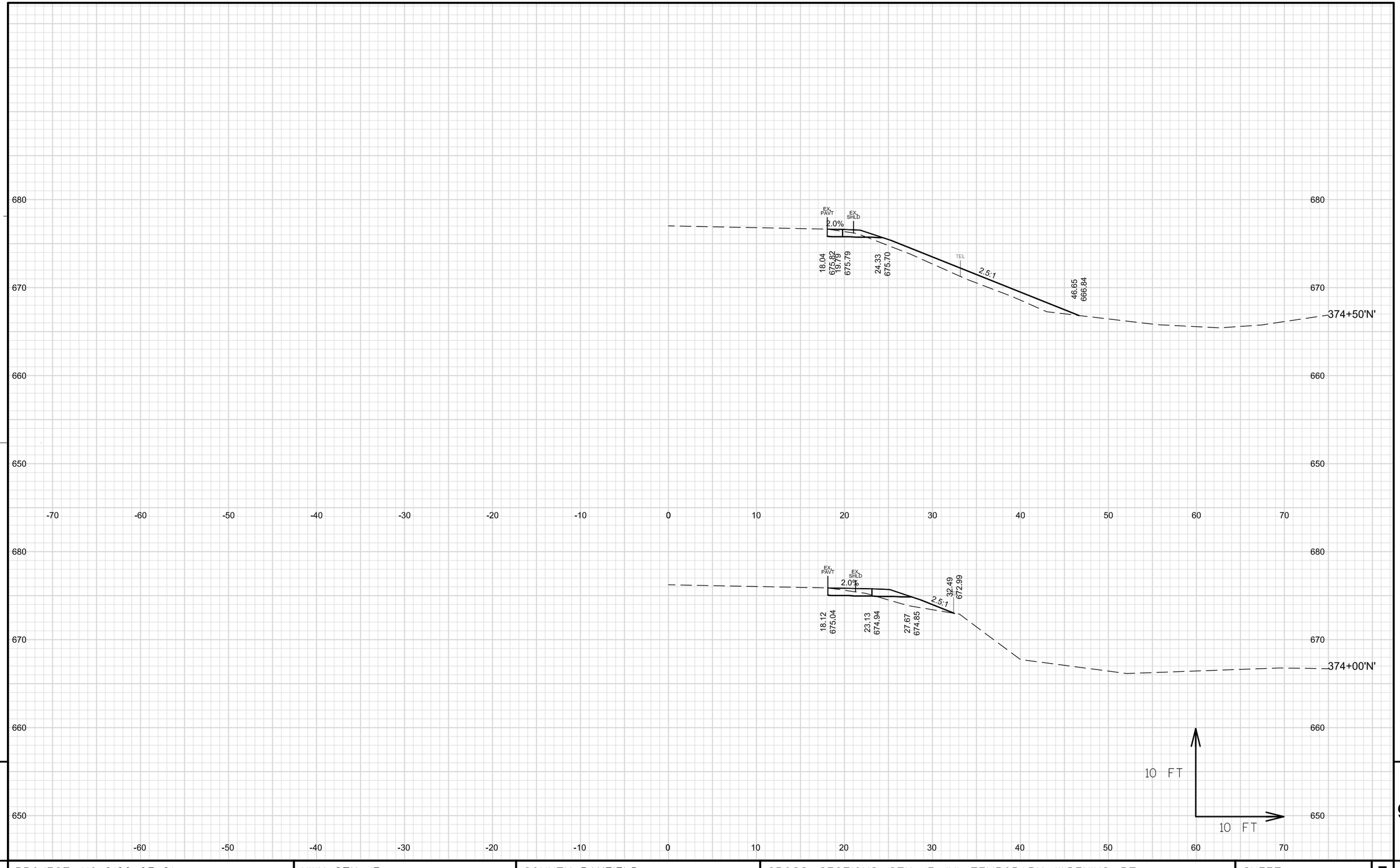


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 213	E

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WISDOT/CADDS SHEET 49

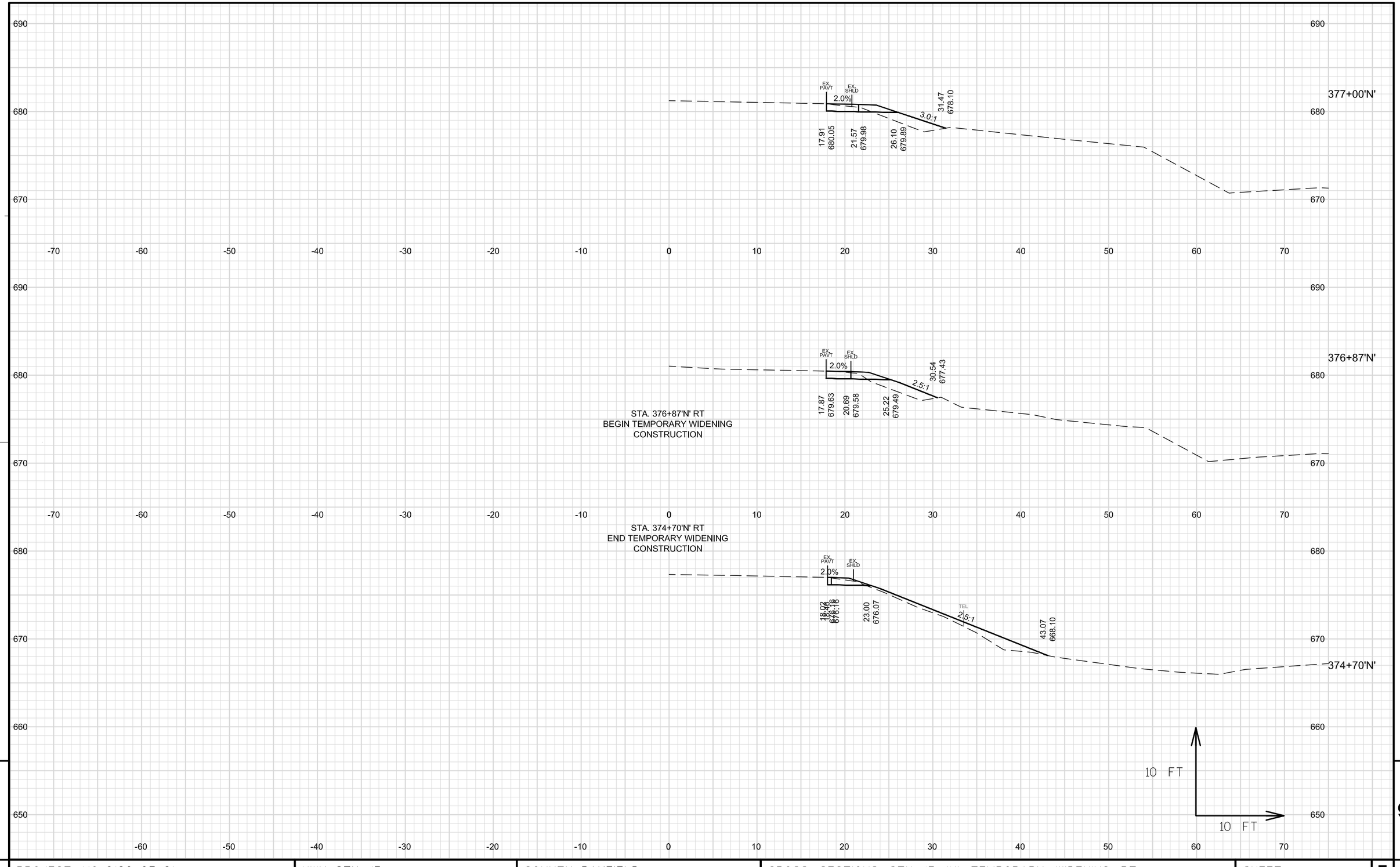


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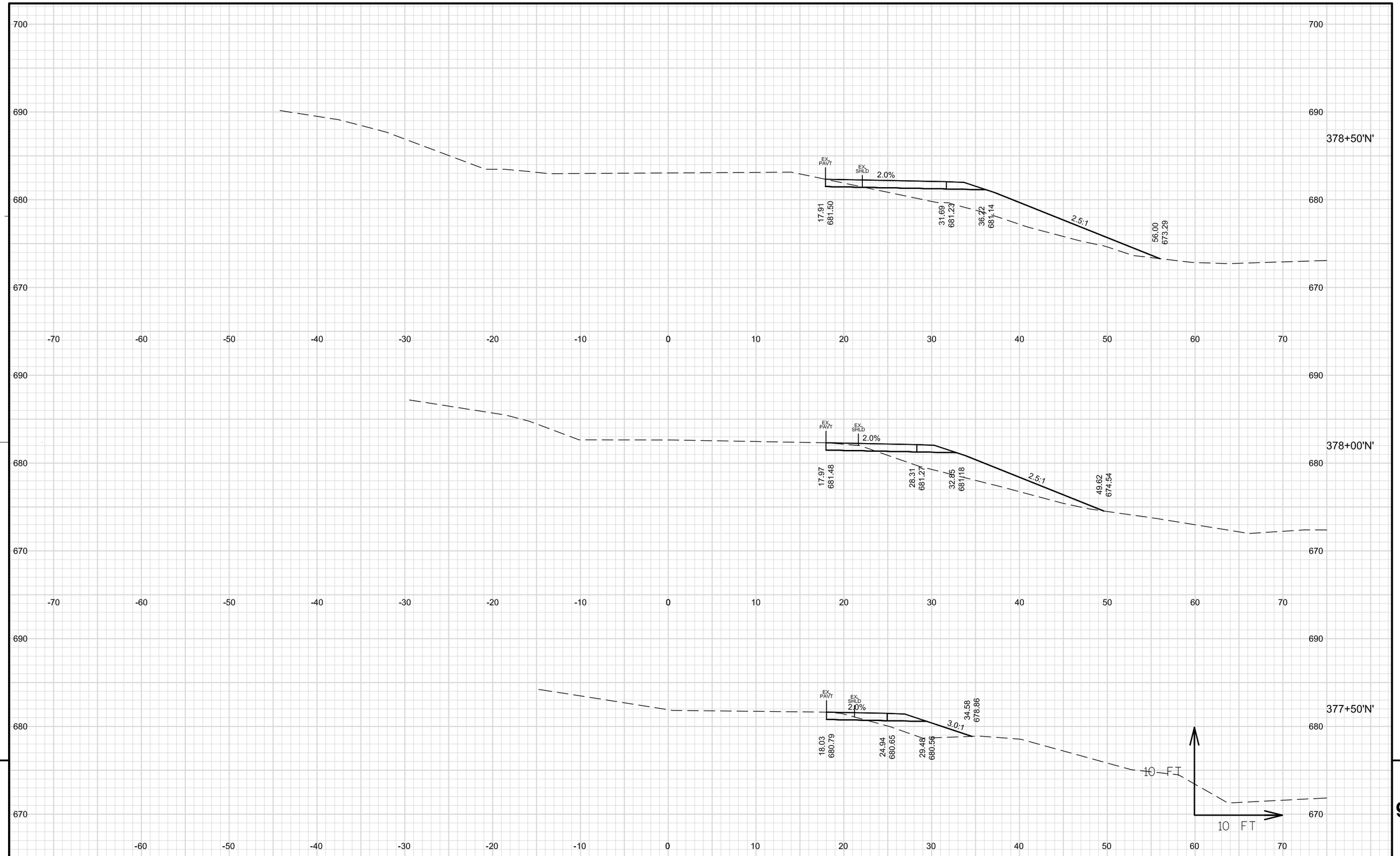
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WISDOT/CADDS SHEET 49



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 215	E

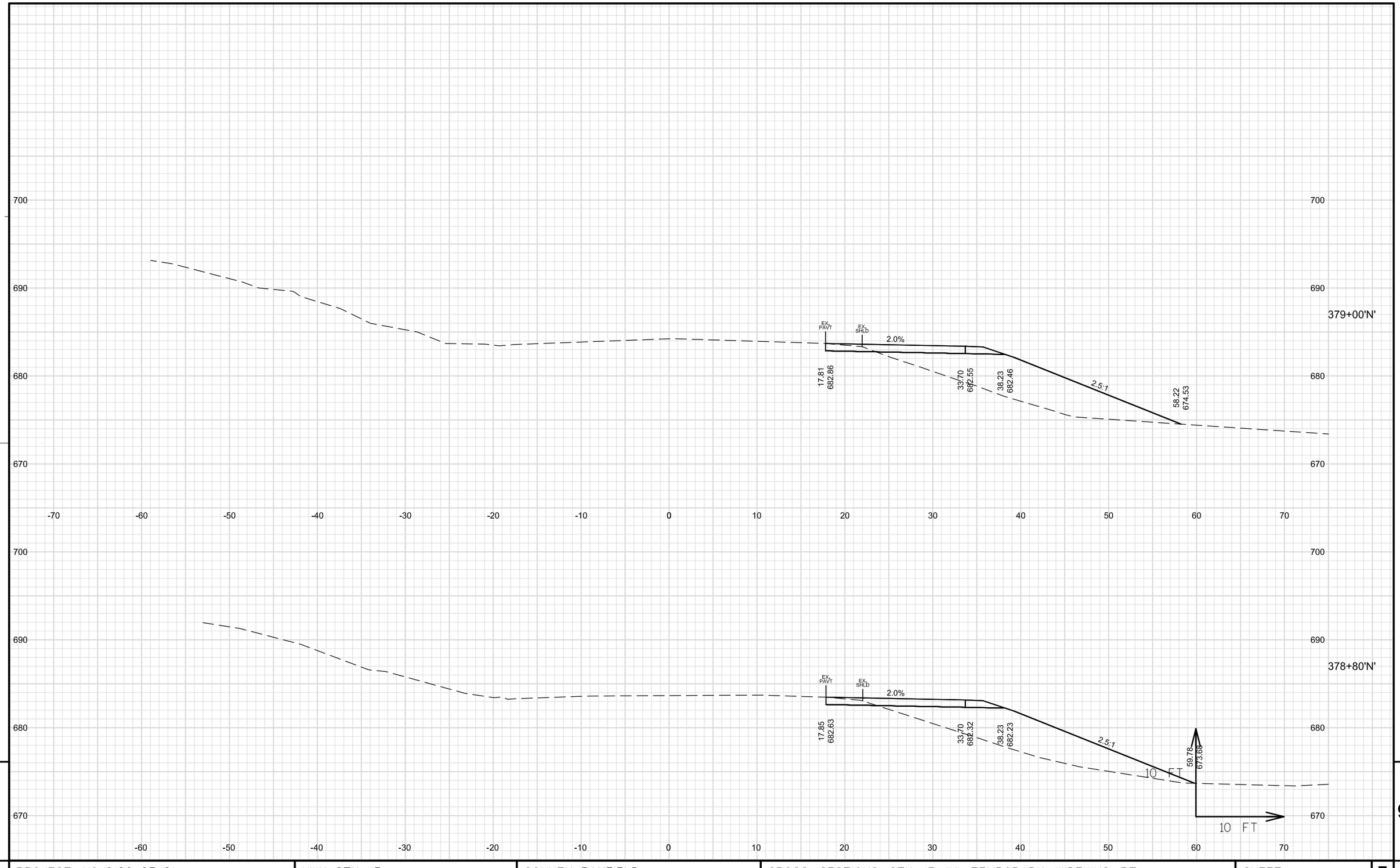
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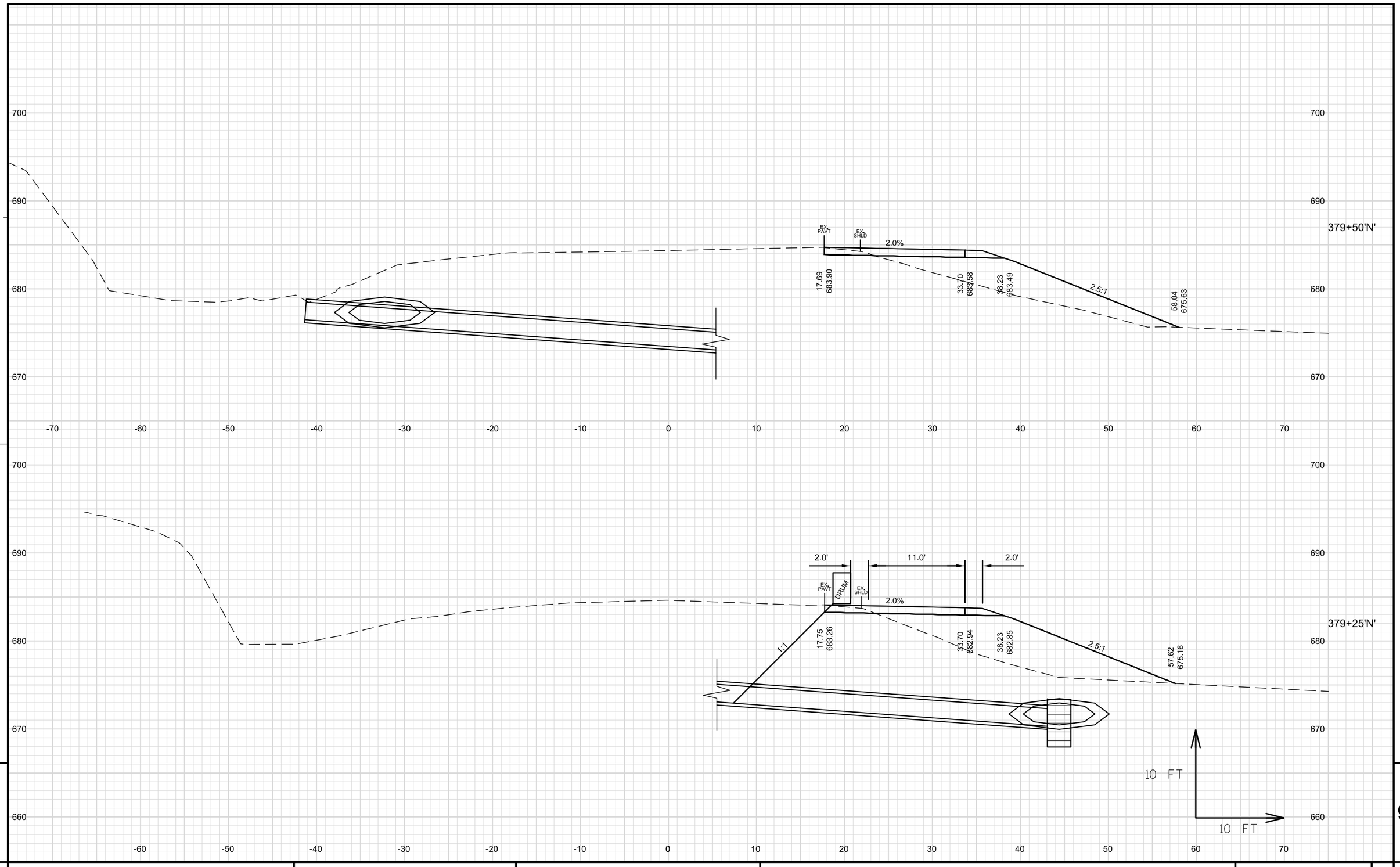
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 216	E



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 217	E

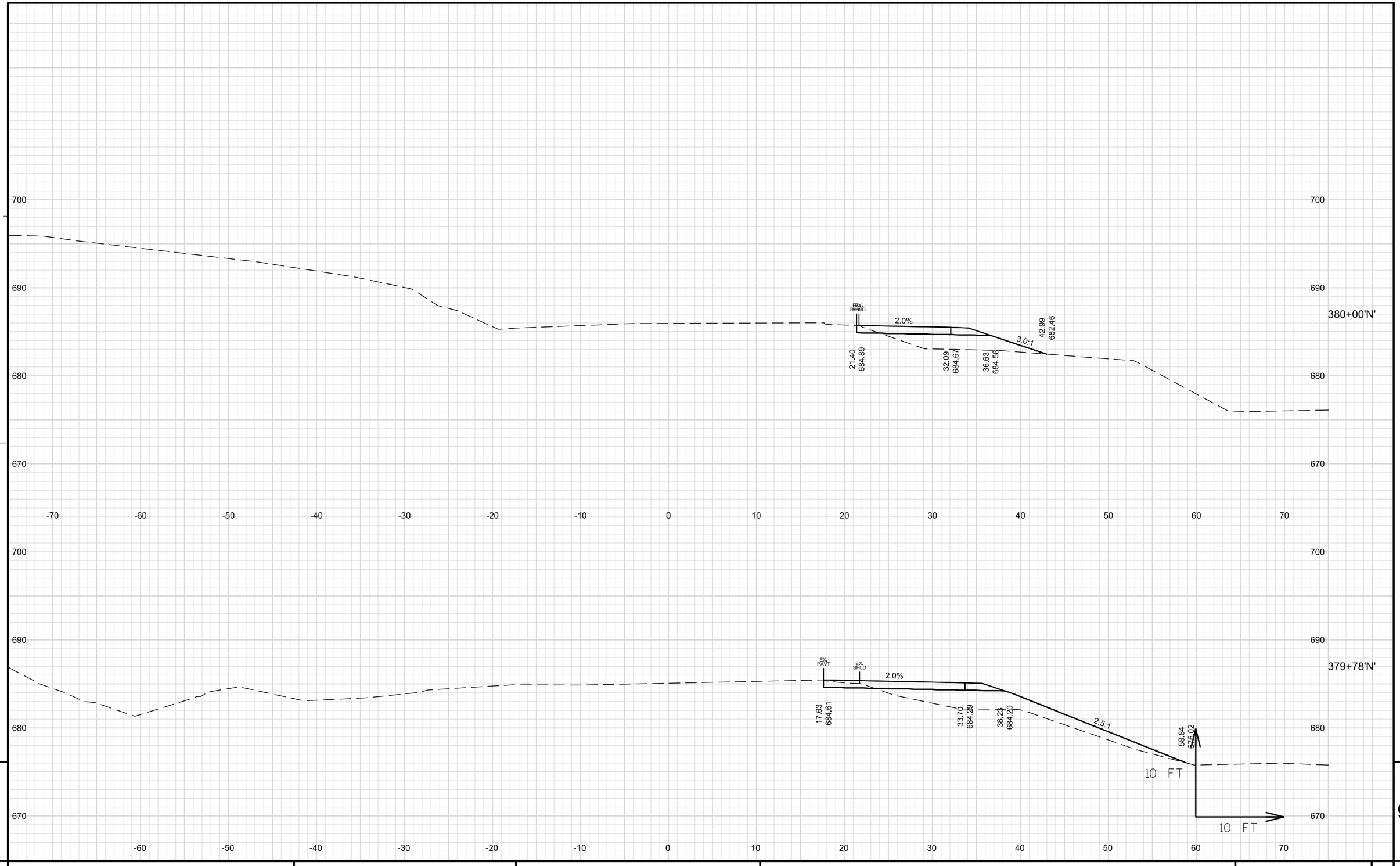
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WISDOT/CADDS SHEET 49



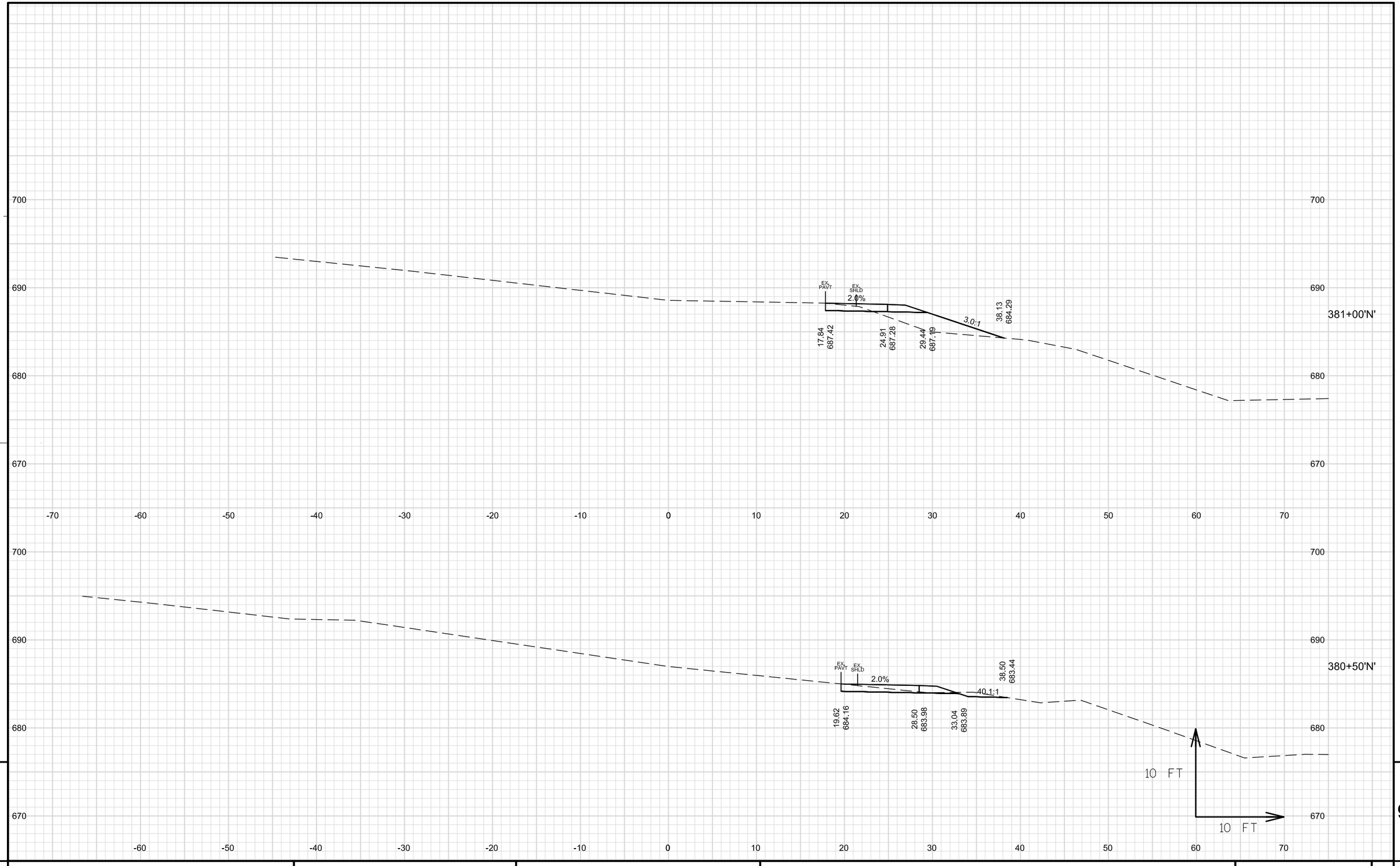
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 218	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:13 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 219	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:13 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF



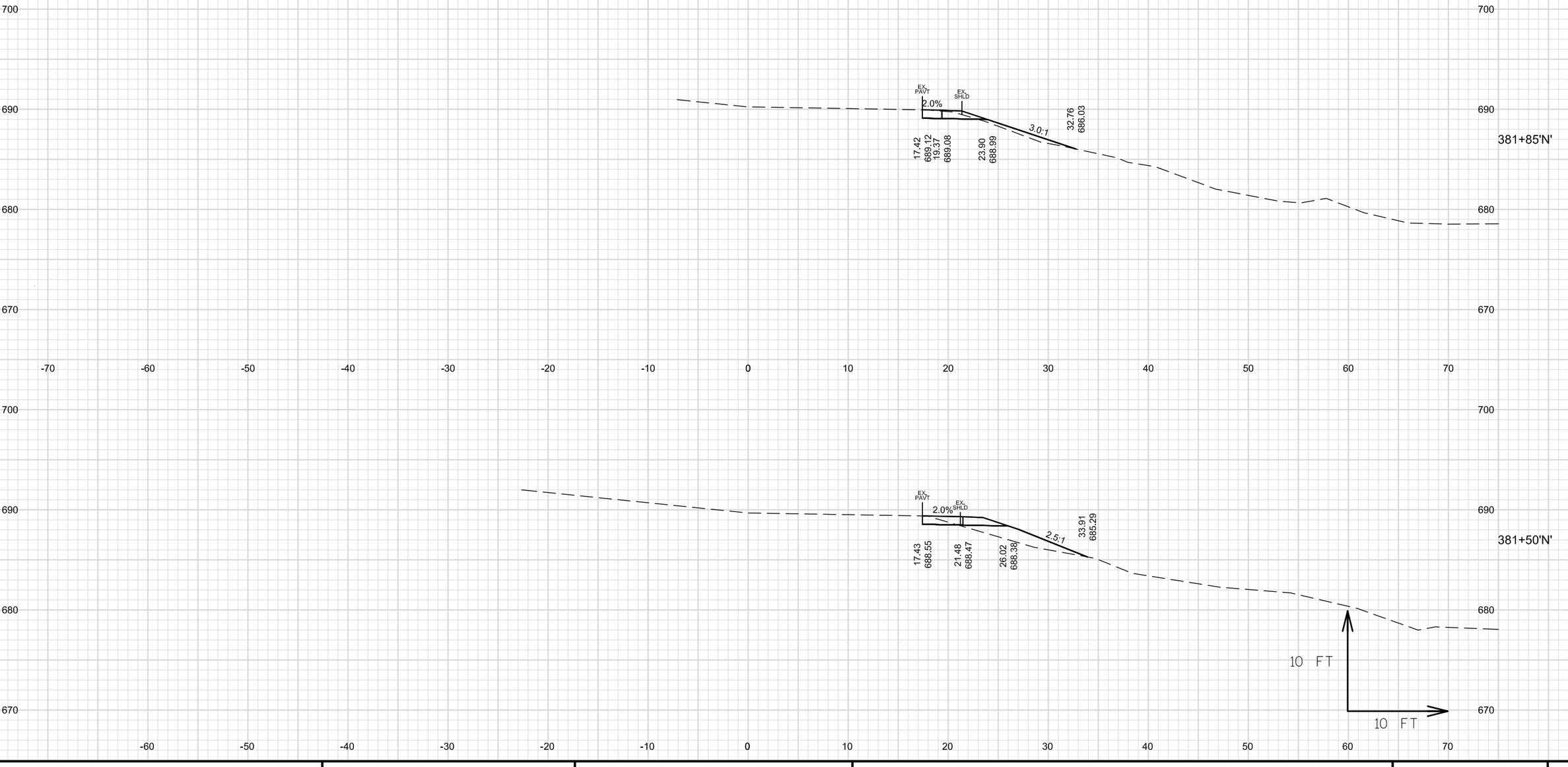
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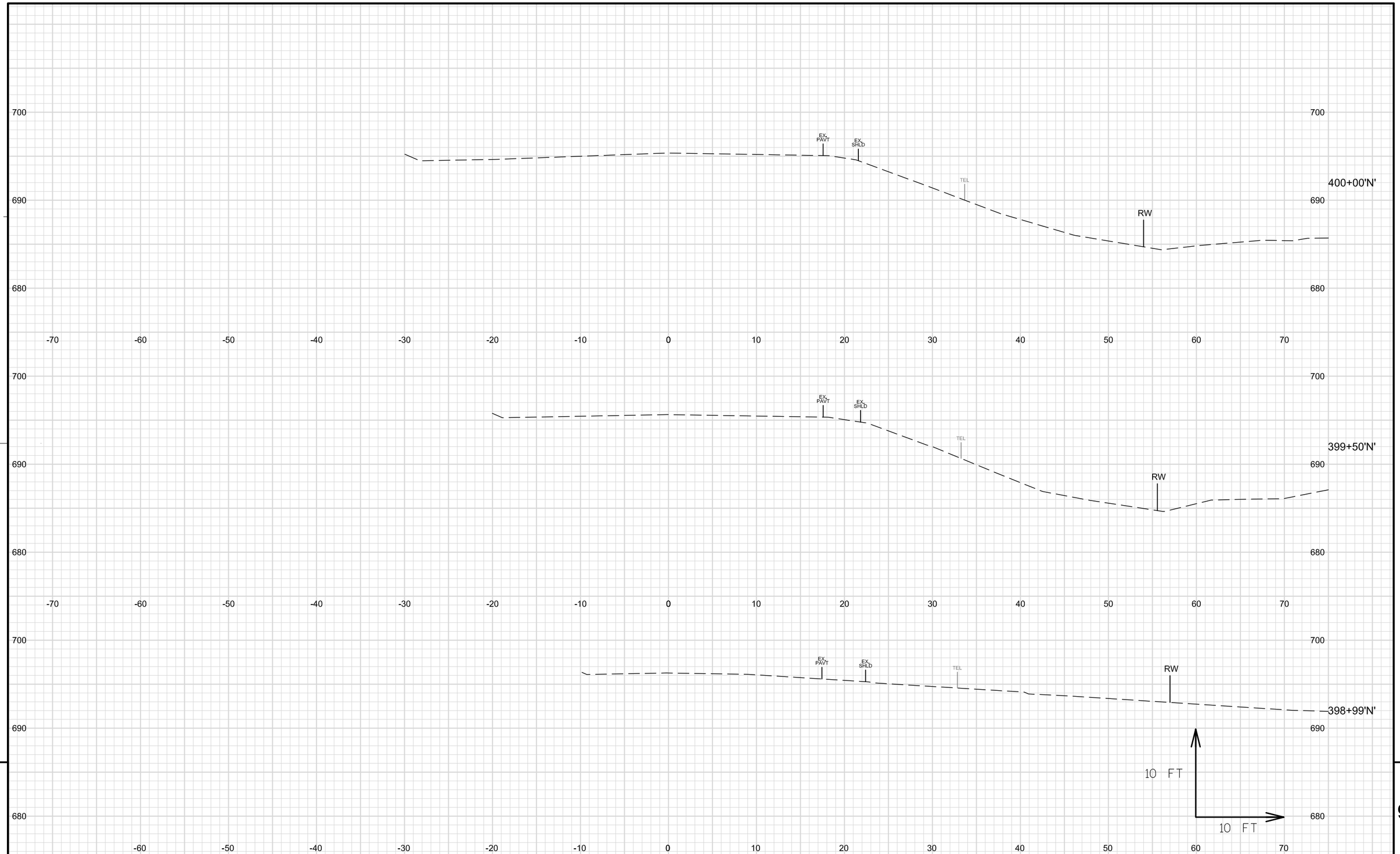
PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 220	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:13 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

STA. 382+08'N' RT
END TEMPORARY WIDENING



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 221	E

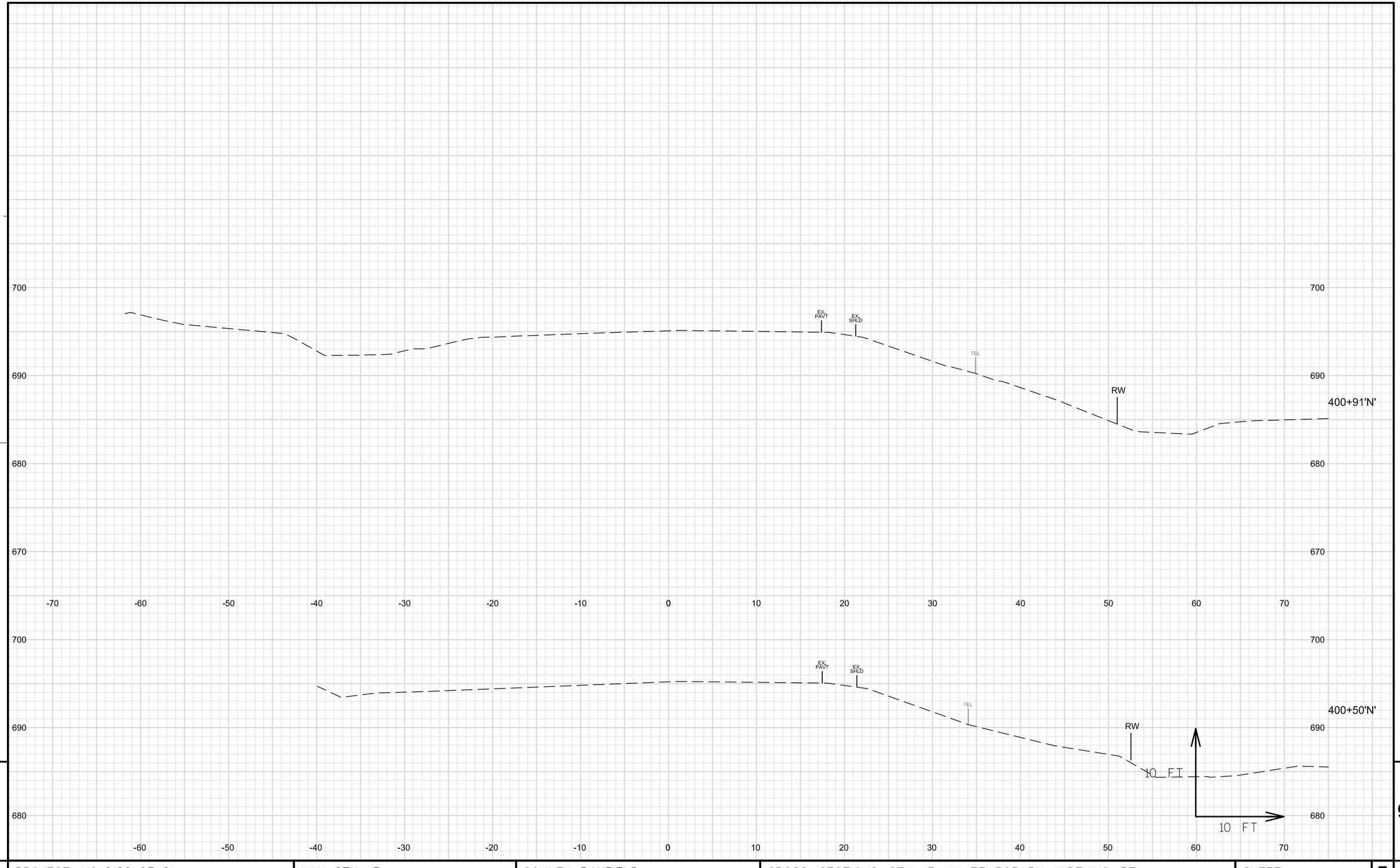


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 222	E

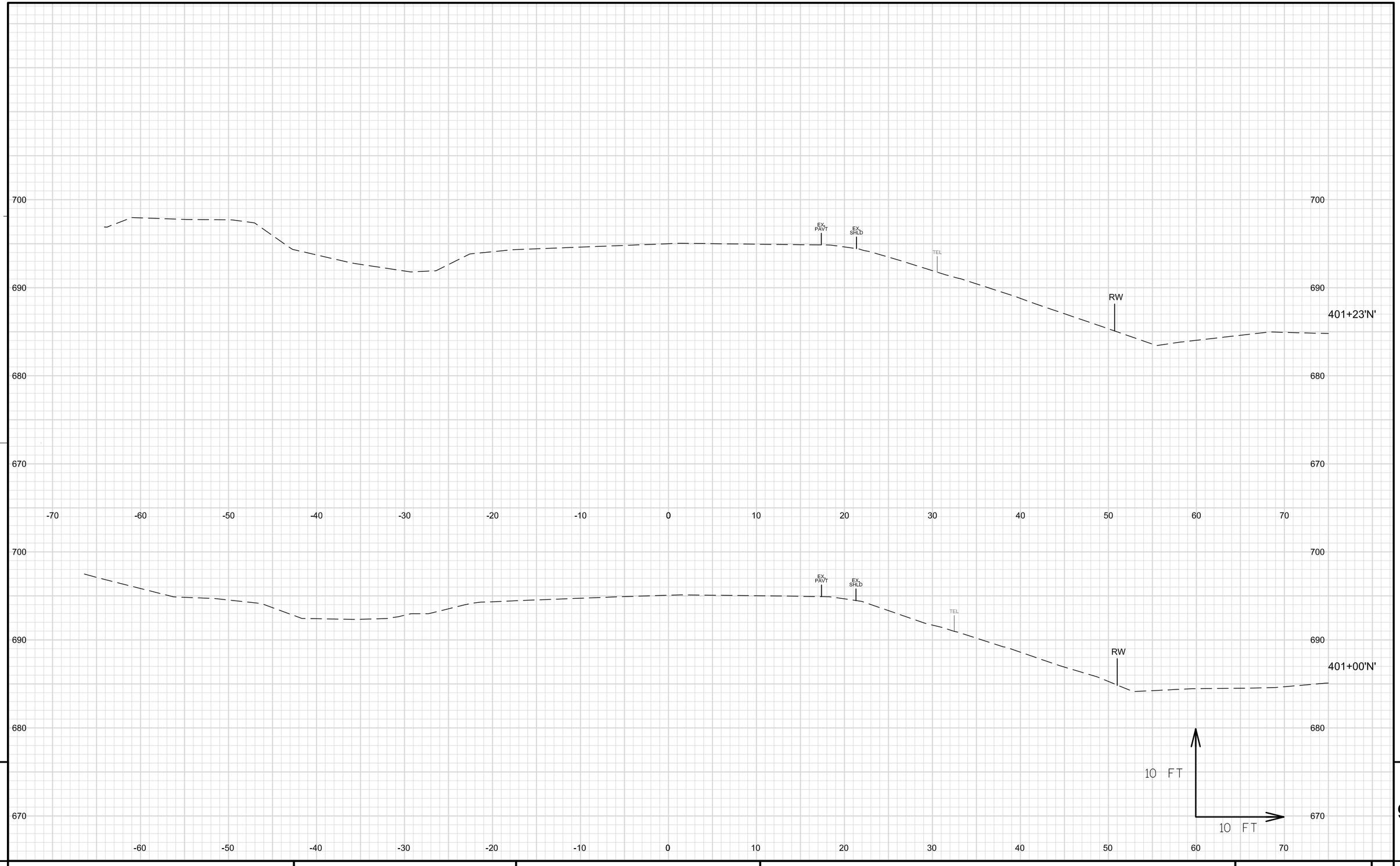
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WISDOT/CADDS SHEET 49



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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 223	E

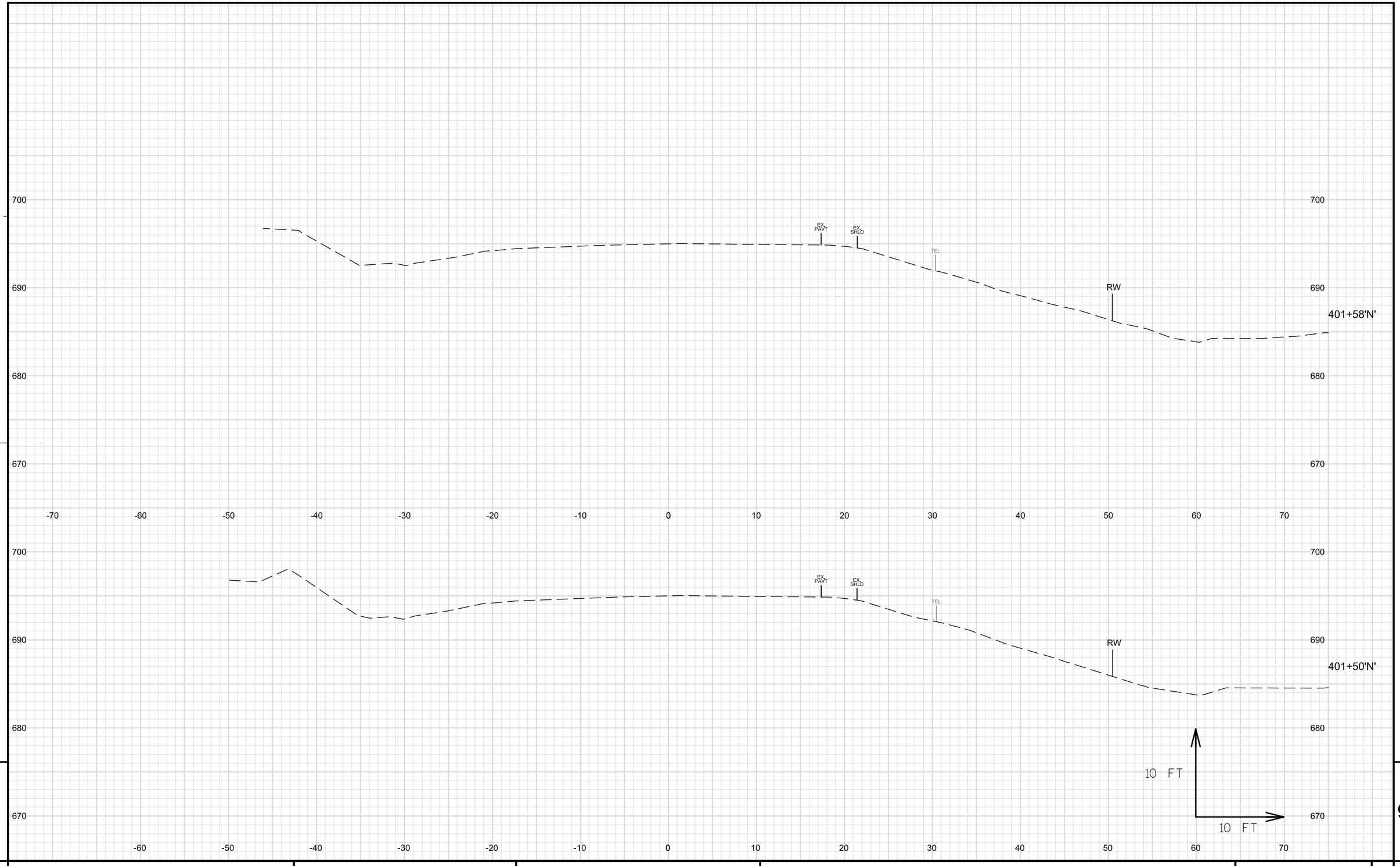


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 224	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:14 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

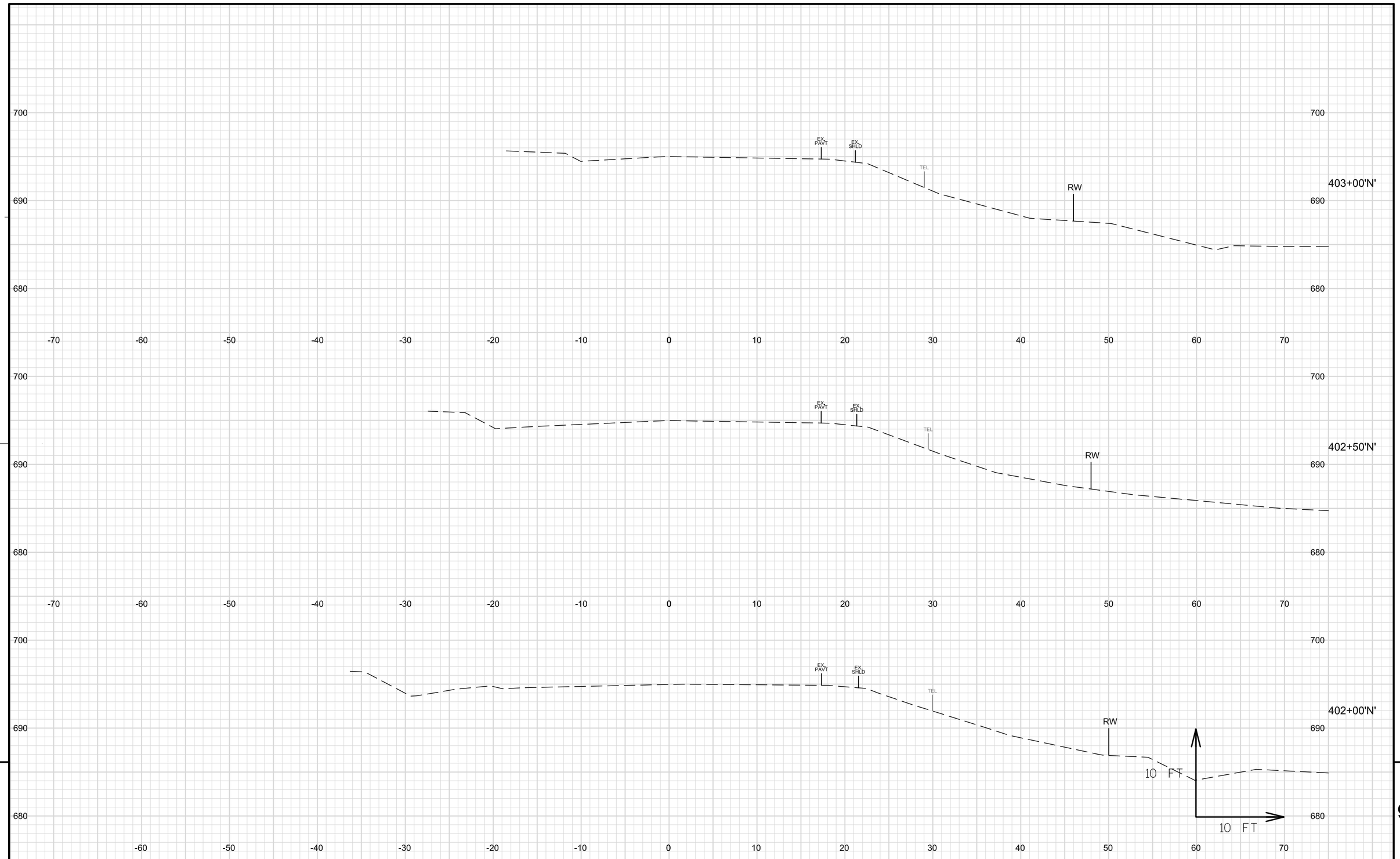


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 225	E

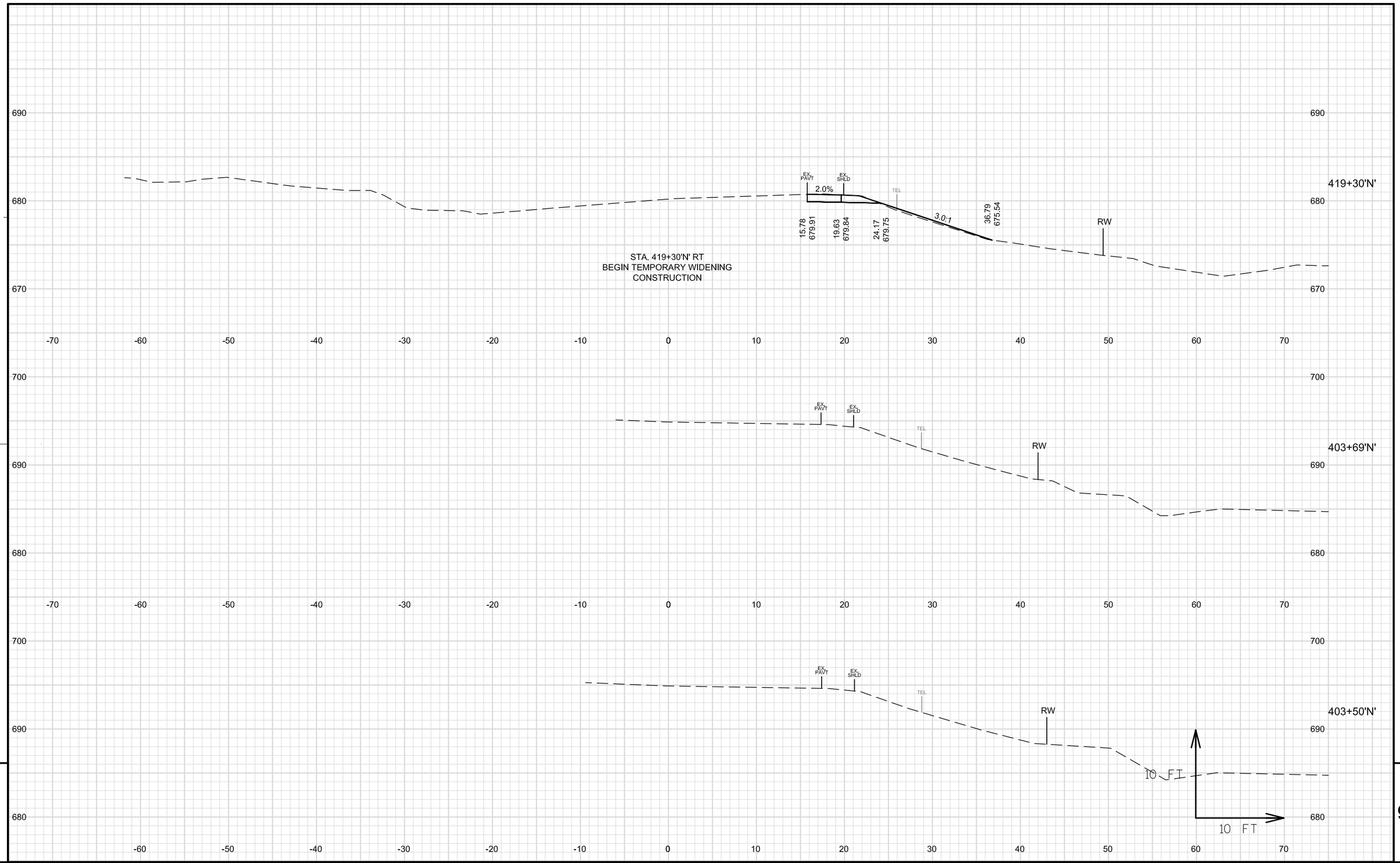
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WISDOT/CADDS SHEET 49



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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 226	E

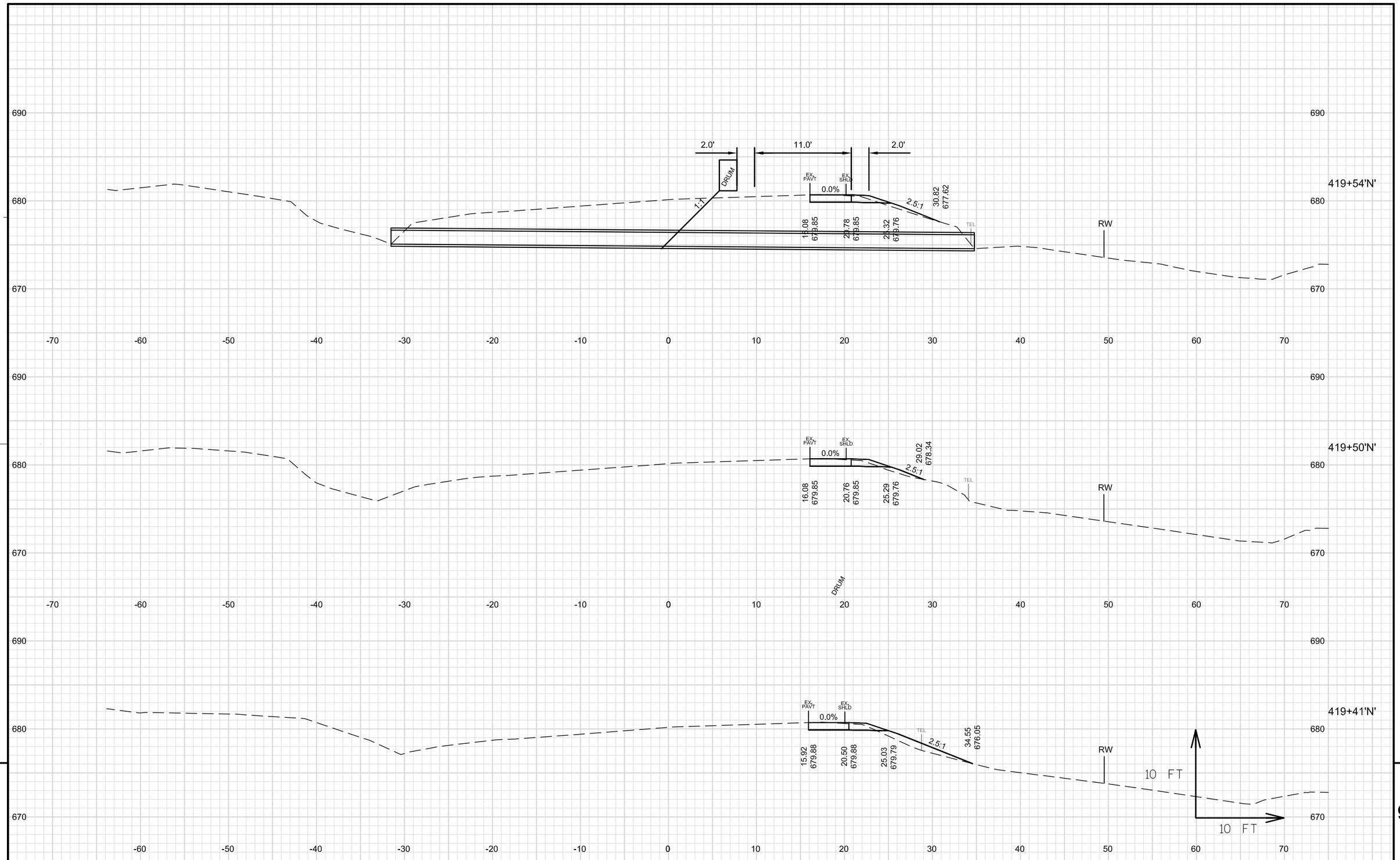


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 227	E

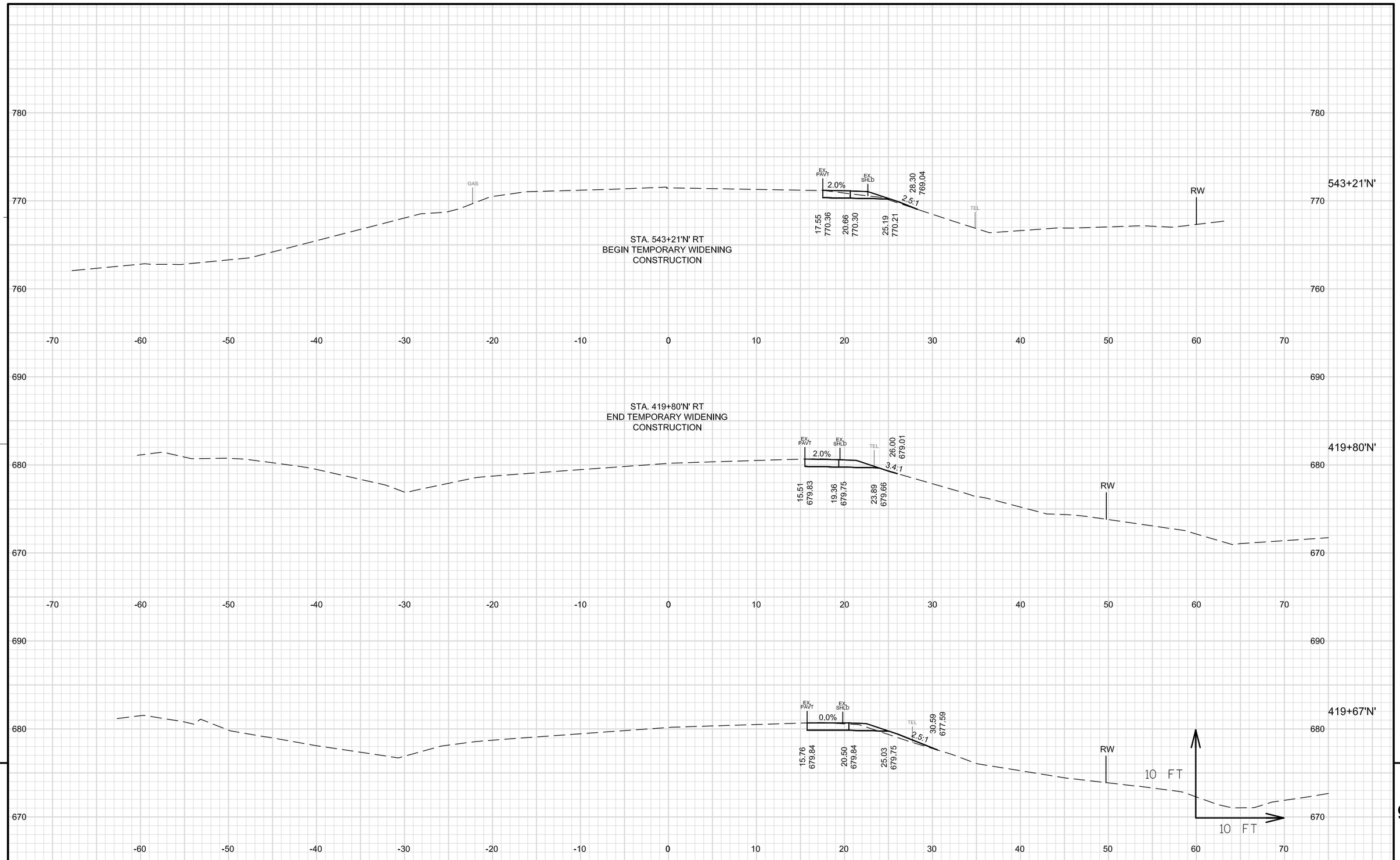
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WISDOT/CADDS SHEET 49



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 228	E

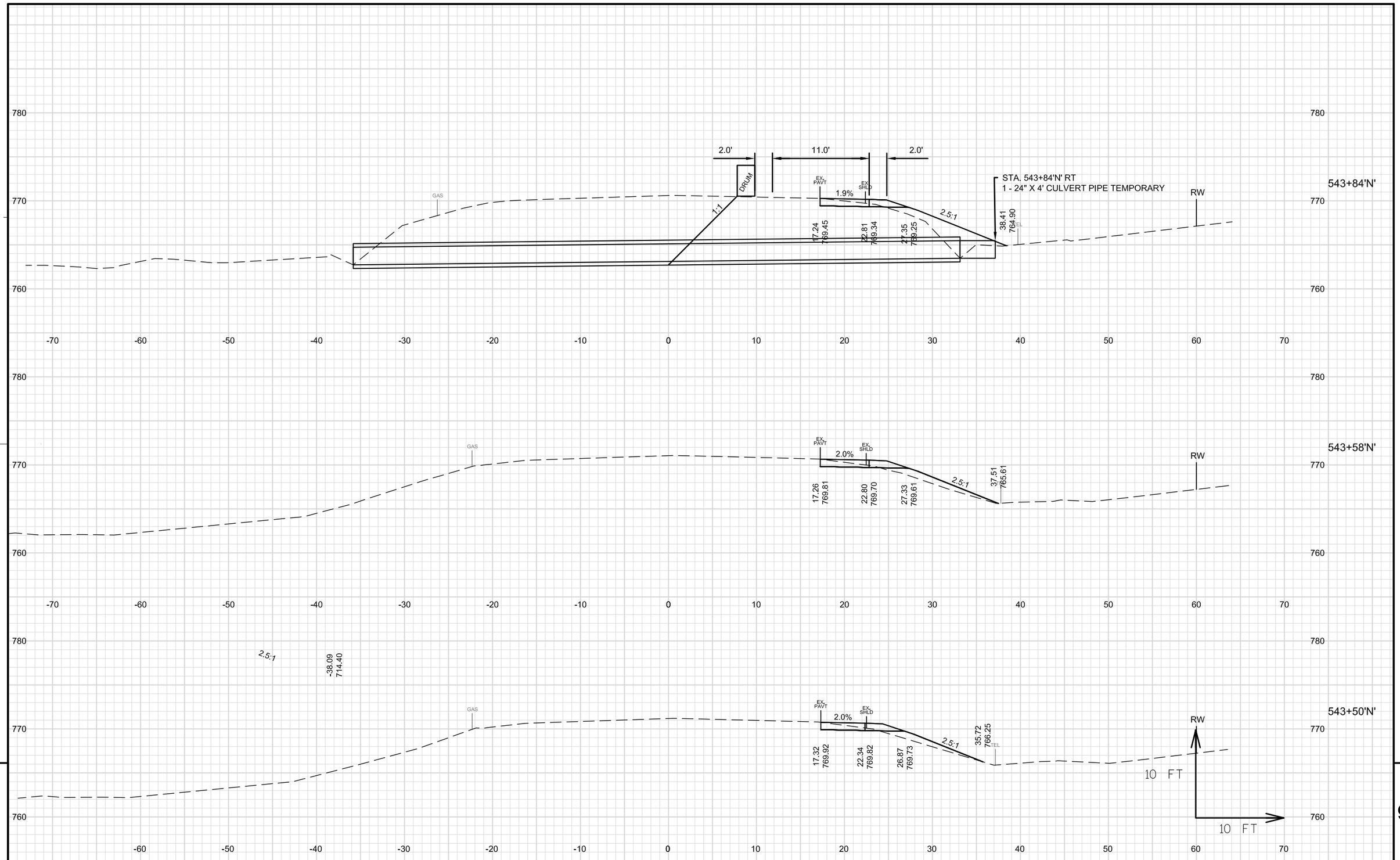
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WISDOT/CADDS SHEET 49



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 229 E

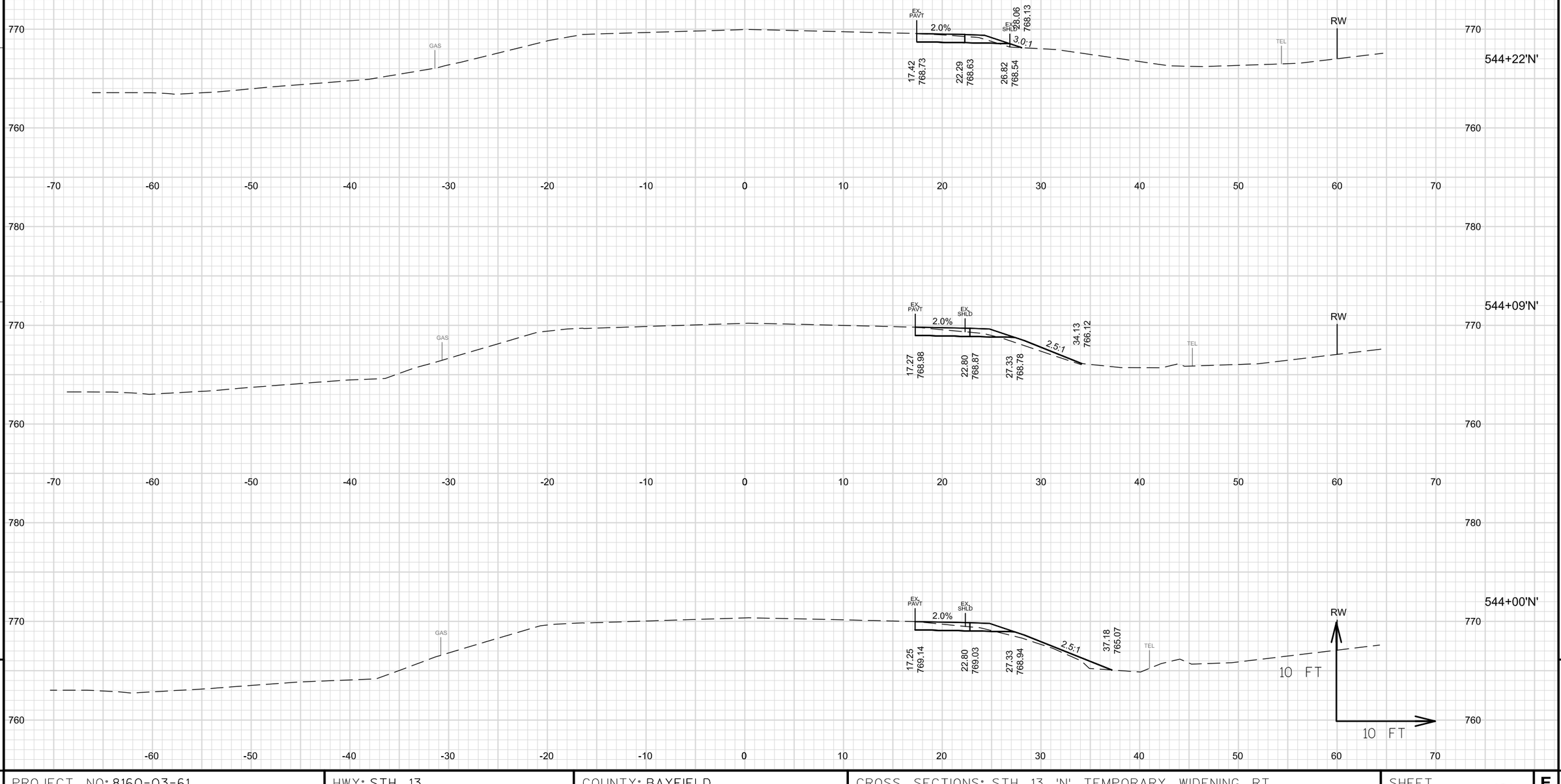
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 230 E

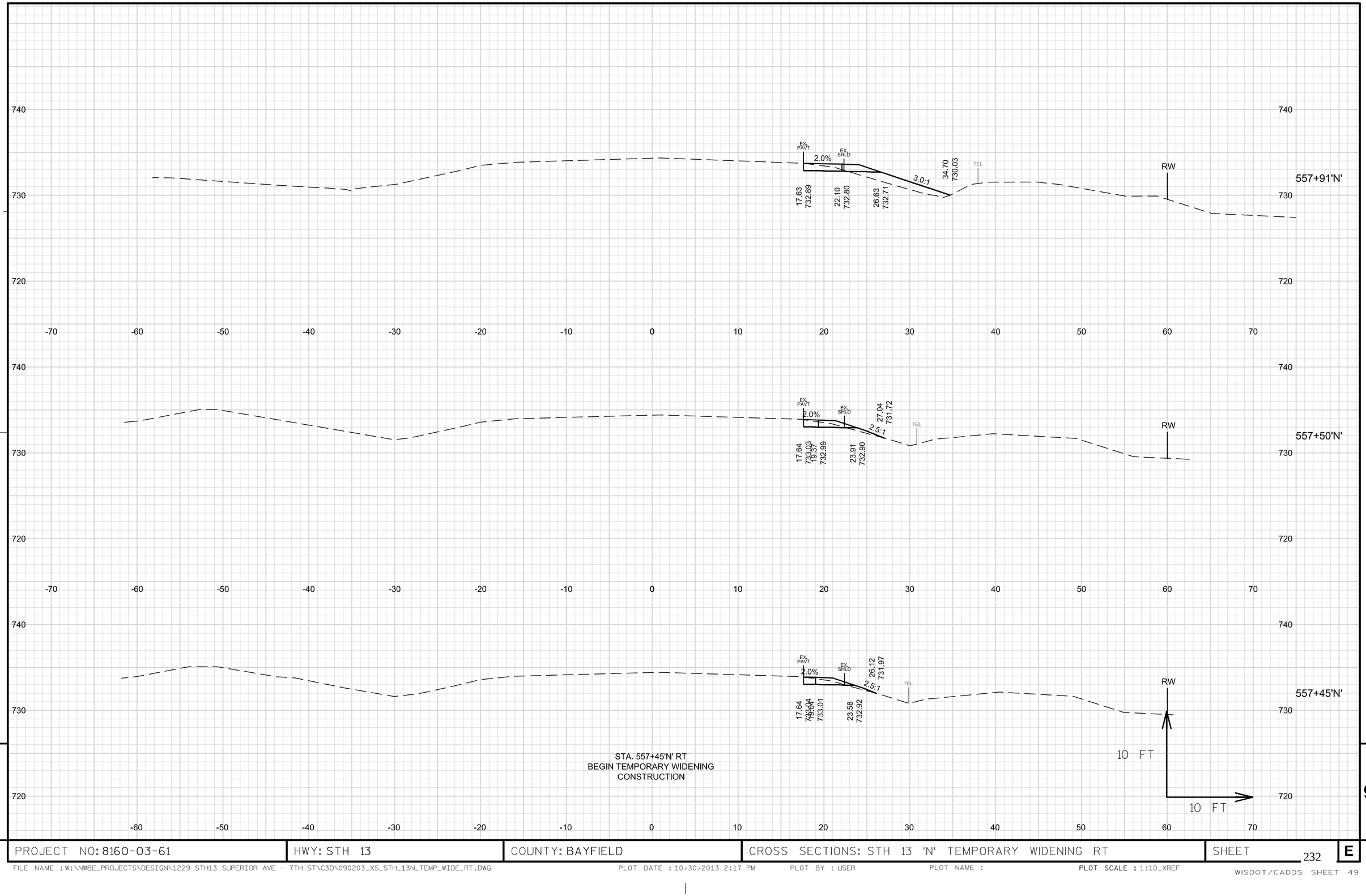
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STA. 544+22'N' RT
END TEMPORARY WIDENING
CONSTRUCTION



PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 231 E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:16 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

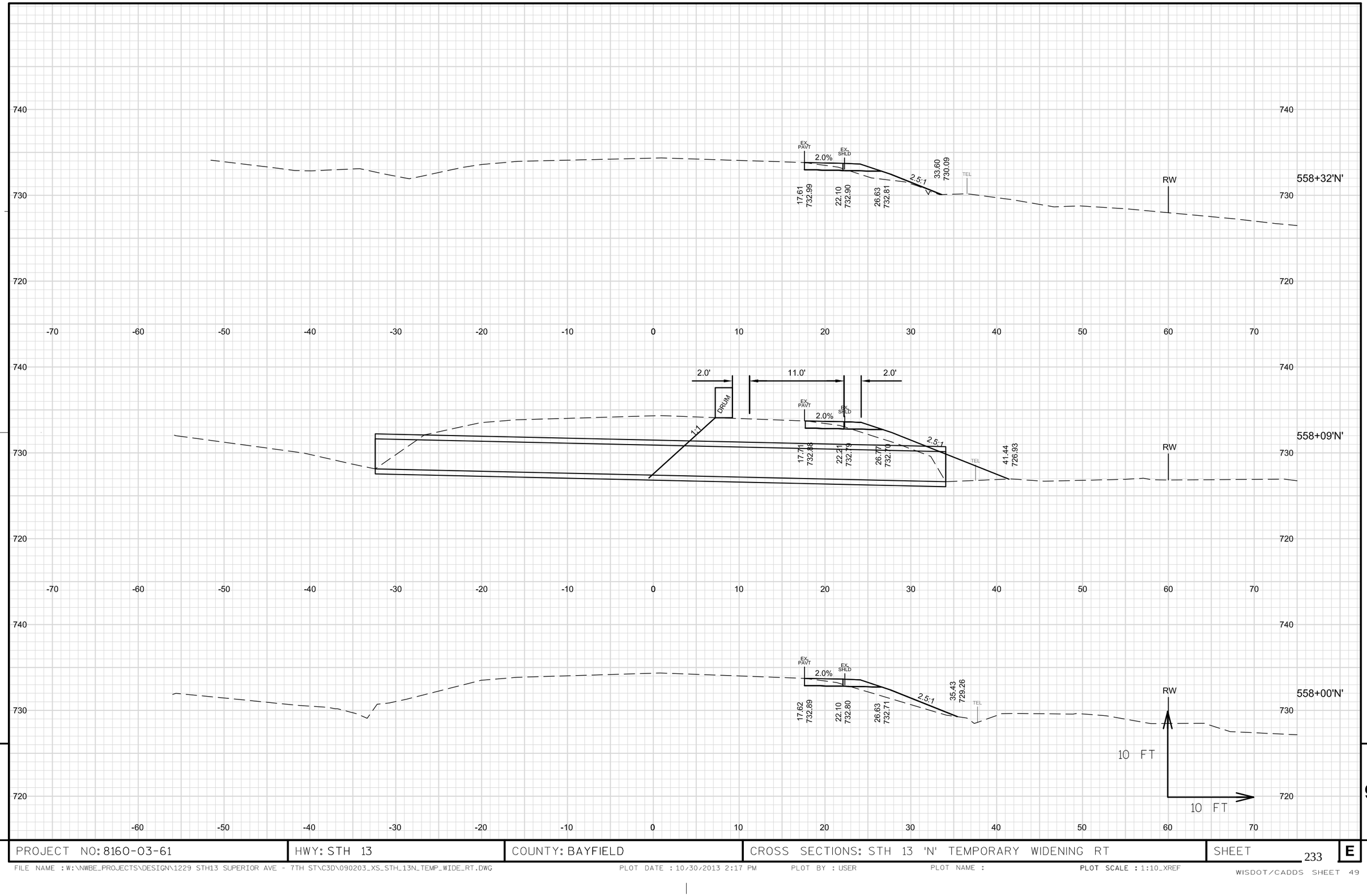


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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 232	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:17 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



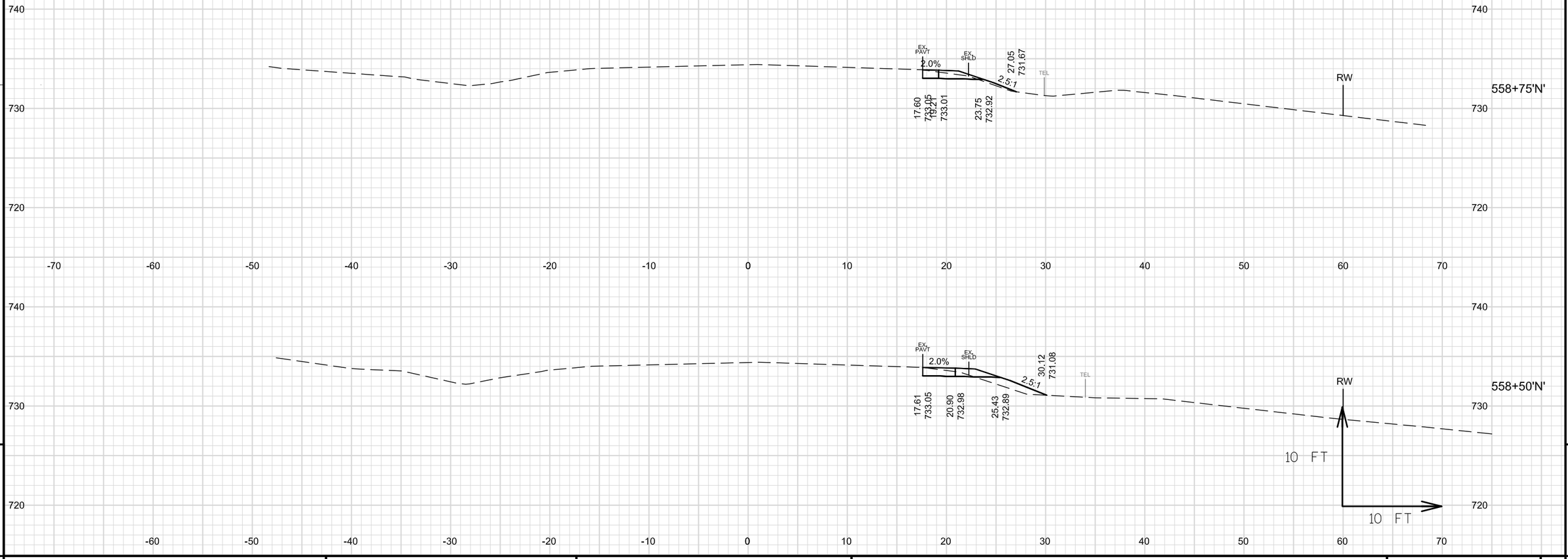
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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 233	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:17 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF

STA. 558+75'N' RT
END TEMPORARY WIDENING
CONSTRUCTION



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PROJECT NO: 8160-03-61	HWY: STH 13	COUNTY: BAYFIELD	CROSS SECTIONS: STH 13 'N' TEMPORARY WIDENING RT	SHEET 234	E

FILE NAME : W:\NWBE_PROJECTS\DESIGN\1229 STH13 SUPERIOR AVE - 7TH ST\C3D\090203_XS_STH_13N_TEMP_WIDE_RT.DWG PLOT DATE : 10/30/2013 2:17 PM PLOT BY : USER PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov