

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT

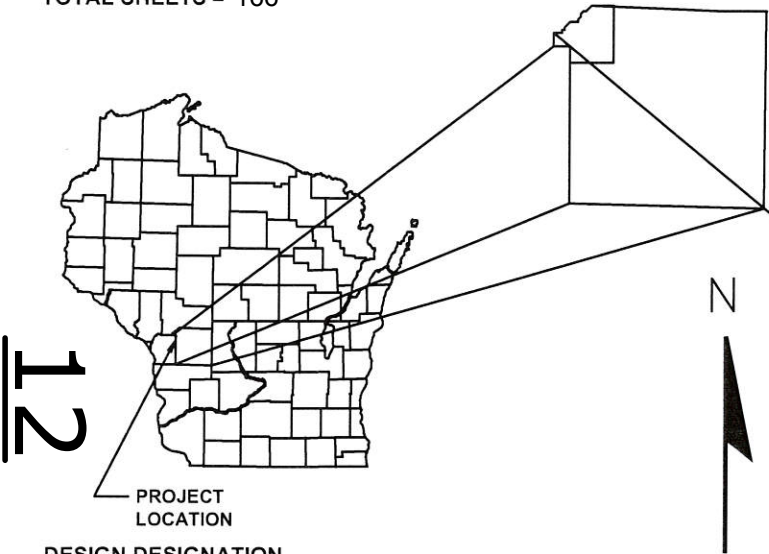
MELROSE - SPARTA
(STH 162 TO STH 27)
STH 71
MONROE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7712-02-72	WISC 2016054	1

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plan)
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 = 166



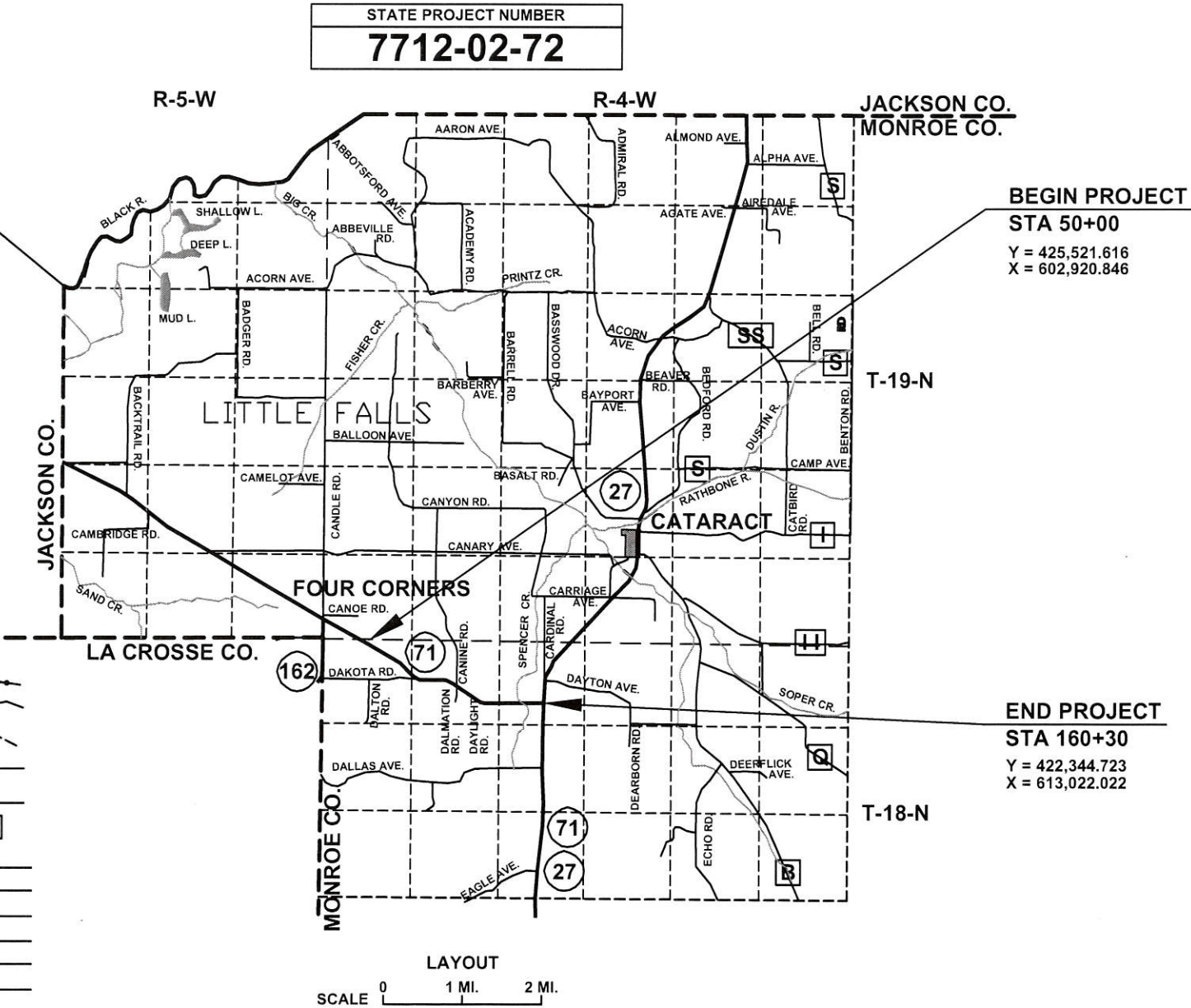
DESIGN DESIGNATION

A.D.T. (2016)	=	540
A.D.T. (2036)	=	700
D.H.V.	=	6.4
D.	=	62/38
T.	=	8.0%
DESIGN SPEED	=	60 MPH
ESALS	=	87,600

CONVENTIONAL SYMBOLS

PLAN	
CORPORATE LIMITS	
PROPERTY LINE	
LOT LINE	
LIMITED EASEMENT	
EXISTING RIGHT OF WAY	
PROPOSED OR NEW R/W LINE	
SLOPE INTERCEPT	
REFERENCE LINE	
COMBUSTIBLE FLUIDS	
EXISTING CULVERT	
PROPOSED CULVERT (Box or Pipe)	
MARSH AREA	
WOODED OR SHRUB AREA	

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
GAS	
ELECTRIC	
TELEPHONE	
FIBER OPTIC	
SANITARY SEWER	
STORM SEWER	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	



TOTAL NET LENGTH OF CENTERLINE = 2.089 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MONROE COUNTY.

ORIGINAL PLANS PREPARED BY
TEAM ENGINEERING
Transportation Environmental Agricultural Municipal
and Land Surveying

WISCONSIN
JAMIE L. BRANDT
E-37727
REEDSBURG WIS.
PROFESSIONAL ENGINEER
10/20/2015
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	TEAM ENGINEERING
Surveyor	TEAM ENGINEERING
Designer	TEAM ENGINEERING
Project Manager	ROB WINTERTON
Regional Examiner	ROB WINTERTON
Regional Supervisor	JAMES SAVOLDELLI
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
10/27/15
(Date) (Signature)

LIST OF STANDARD ABBREVIATIONS

ABUT.	Abutment	JT	Joint	SEC	Section
AC	Acre	JCT	Junction	SHLDR	Shoulder
AGG.	Aggregate	LHF	Left-Hand Forward	SHR	Shrinkage
AH	Ahead	L	Length of Curve	SW	Sidewalk
<	Angle	LIN FT OR LF	Linear Foot	S	South
ASPH	Asphaltic	LC	Long Chord of Curve	SQ	Square
AVG.	Average	MH	Manhole	SF OR SQ FT	Square feet
A.D.T.	Average Daily Traffic	MB	Mailbox	SY OR SQ YD	Square Yard
BAD	Base Aggregate Dense	ML OR M/L	Match Line	STD	Standard
BK.	Back	N	North	SDD	Standard Detail Drawings
BF	Back Face	Y	North Grid Coordinante	STH	State Trunk Highways
B.M	Bench Mark	OD	Outside Diameter	STA	Station
BR.	Bridge	PLE	Permanent Limited Easement	SS	Storm Sewer
C/L	Center Line	PT	Point	SG	Subgrade
CC	Center to Center	PC	Point of Curvature	SE	Superelevation
CTH	County Trunk Highway	PI	Point of Intersection	SL OR S/L	Survey Line
CR.	Creek	PRC	Point of Reverse Curvature	SV	Septic Vent
CY OR CU YD	Crushed	PT	Point of Tangency	T	Tangent
CP	Cubic Yard	POC	Point on curve	TEL	Telephone
C & G	Culvert Pipe	POT	Point on Tangent	TEMP	Temporary
D	Curb and Gutter	PVC	Polyvinyl Chloride	TI	Temporary Interest
DHV	Degree of Curve	PCC	Portland Cement Concrete	TLE	Temporary Limited Easement
DIA	Design Hour Volume	LB	Pound	t	Ton
E	Diameter	PSI	Pounds Per Square Inch	T OR TN	Town
X	East	PE	Private Entrance	TRANS	Transition
ELEC	East Grid Coordinate	R	Radius	TL OR T/L	Transit Line
EL OR ELEV	Electric	RR	Railroad	T	Trucks (percent of)
ESALS	Elevation	RL OR R/L	Reference Line	TYP	Typical
EBS	Equivalent Single Axle Loads	RP	Reference Point	UNCL	Unclassified
FF	Excavation Below Subgrade	RCCP	Reinforced Concrete Culvert Pipe	UG	Underground Cable
FE	Face to Face	REQD	Required	USH	United States Highway
F	Field Entrance	RES	Residence or Residential	VAR	Variable
FG	Fill	RW	Retaining Wall	V	Velocity or Design Speed
FL OR F/L	Finished Grade	RT	Right	VERT	Vertical
FT	Flow Line	RHF	Right-Hand Forward	VC	Vertical Curve
FTG	Foot	R/W	Right-of-Way	VOL	Volume
GN	Footing	R	River	WM	Water Main
HT	Grid North	RD	Road	WV	Water Valve
CWT	Height	RDWY	Roadway	W	West
HYD	Hundredweight	SALV	Salvaged	WB	Westbound
INL	Hydrant	SAN S	Sanitary Sewer	YD	Yard
ID	Inlet				
INV	Inside Diameter				
IP	Invert				
IRS	Iron Pipe or Pin				
	Iron Rod Set				

GENERAL NOTES

MULCH ALL SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

FINISHING ITEMS SHALL BE PLACED 5 FT. BEYOND THE SLOPE INTERCEPT WITH THE ORIGINAL GROUND AS SHOWN ON THE CROSS SECTIONS AND ON ALL DISTRUBED AREAS.

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS SECTIONS, BUT IS MEASURED AND PAID FOR AS EXCAVATION COMMON. THE LOCATION OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

FILL EXPANSION IS ESTIMATED AT 15%.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, ARE TO BE FERTILIZED (TYPE A), SEEDED (USE SEEDING MIXTURE #20 AND SEEDING TEMPORARY), AND MULCHED AS DIRECTED BY THE ENGINEER IN THE FIELD.

THE LOCATIONS OF SILT FENCE, SALVAGED TOPSOIL, SEEDING MIX #20, MULCH AND TEMPORARY DITCH CHECKS ARE APPROXIMATE. LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

ALL RADII ARE MEASURED TO EDGE OF PAVEMENT.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

COORDINATES SHOWN ON THE PLAN ARE IN COUNTY COORDINATES.

BEARINGS ON THE PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MONROE COUNTY.

CURVE DATA IS BASED ON THE ARC DEFINITION.

THE EXACT LOCATION AND WIDTH OF PRIVATE, COMMERCIAL AND FIELD ENTRANCES TO BE DETERMINED BY THE ENGINEER IN THE FIELD. EXISTING DRIVEWAYS WILL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD.

EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. EROSION CONTROL ITEMS ON THE PLAN ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS AND DIMENSIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER IN THE FIELD DEEMS THE DEVICES NO LONGER NECESSARY.

3.5-INCH HMA PAVEMENT TYPE E-0.3 SHALL BE PLACED WITH A 1 3/4-INCH LOWER LAYER AND A 1 3/4-INCH UPPER LAYER. THE NOMINAL SIZE OF AGGREGATE USED FOR THE LOWER & UPPER LAYER SHALL BE 12.5 MM.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

THE CONTRACTOR’S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES EXCEPT WHEN PIPE LAYING OPERATIONS REQUIRE THE DRIVEWAY TO BE CLOSED. ACCESS TO DRIVEWAY SHALL BE RE-ESTABLISED IMMEDIATELY AFTER PIPE IN DRIVEWAY AREA IS INSTALLED. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

THE RATE OF APPLICATION FOR TACK COAT IS COMPUTED AT 0.05 GAL/SY.

DESIGNER

TEAM ENGINEERING, INC.
240 MAIN STREET
LOGANVILLE, WI 53943
ATTN: JAMIE BRANDT, P.E.
PH: (608) 727-2146
jbrandt@teamenginc.com

DNR CONTACT

DEPARTMENT OF NATURAL RESOURCES
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: KAREN KALVELAGE
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
PH: (608) 785-9115
karen.kalvelage@wisconsin.gov

DOT CONTACT

DEPARTMENT OF TRANSPORTATION
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
ATTN: ROB WINTERTON
WisDOT PROJECT MANAGER
PH: (608) 789-7879
robert.winterton@dot.wi.gov

PAVEMENT DESIGN ENGINEER CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION – MADISON OFFICE
2101 WRIGHT ST.
MADISON, WI 53704
ATTN: TIM MCCARTHY
PH: (608) 245-5623
email: timothy.mccarthy@dot.wi.gov

UTILITIES

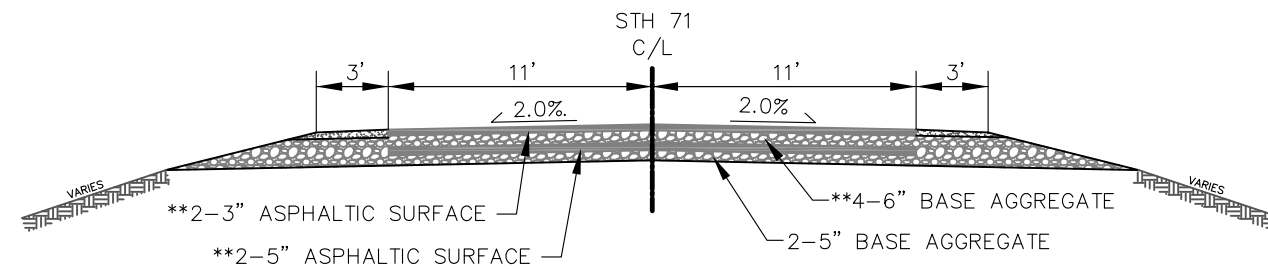
XCEL ENERGY
1414 W. HAMILTON AVE.
P.O. BOX 8
EAU CLAIRE, WI 54702
ATTN: DAWN SCHULTZ
PH: (715) 737-2482
email: dawn.schultz@xcelenergy.com

XCEL ENERGY
414 NICOLLET MALL, MP 8
MINNEAPOLIS, MN 55401
ATTN: BRUCE ZEMKE
PH: (612) 330-7815
email: bruce.m.zemke@xcelenergy.com

XCEL ENERGY
1003 S. BLACK RIVER STREET
SPARTA, WI 54656
ATTN: KAYE CROOK
PH: (608) 789-3677
email: kaye.m.crook@xcelenergy.com

CENTURYLINK
311 S. COURT ST.
P.O. BOX 256
SPARTA, WI 54656
ATTN: BRET CLARK
PH: (608) 269-0819
email: bret.clark@centurylink.com



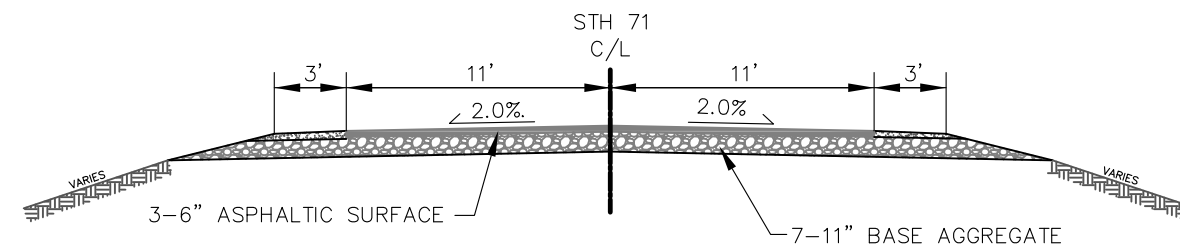
**TYPICAL EXISTING SECTION**

STH 71
STA. 50+00 - STA. 148+00

REMOVING ASPHALTIC SURFACE

STA. 55+00 - STA. 56+00
STA. 64+00 - STA. 72+00
STA. 76+00 - STA. 79+00
STA. 84+00 - STA. 92+00
STA. 97+00 - STA. 98+00
STA. 102+00 - STA. 105+00
STA. 107+00 - STA. 111+00
STA. 114+00 - STA. 115+00
STA. 123+00 - STA. 130+00

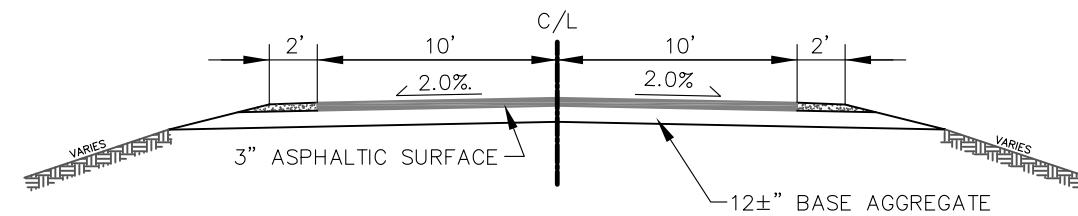
** REMOVING ASPHALTIC SURFACE INCLUDES
MULTIPLE LAYERS ONLY PAID AS ONE
LAYER. SEE STATIONS NOTED ABOVE
(SEE MISCELLANEOUS QUANTITIES FOR MORE
INFORMATION)

**TYPICAL EXISTING SECTION**

STH 71
STA. 148+00 - STA. 160+00

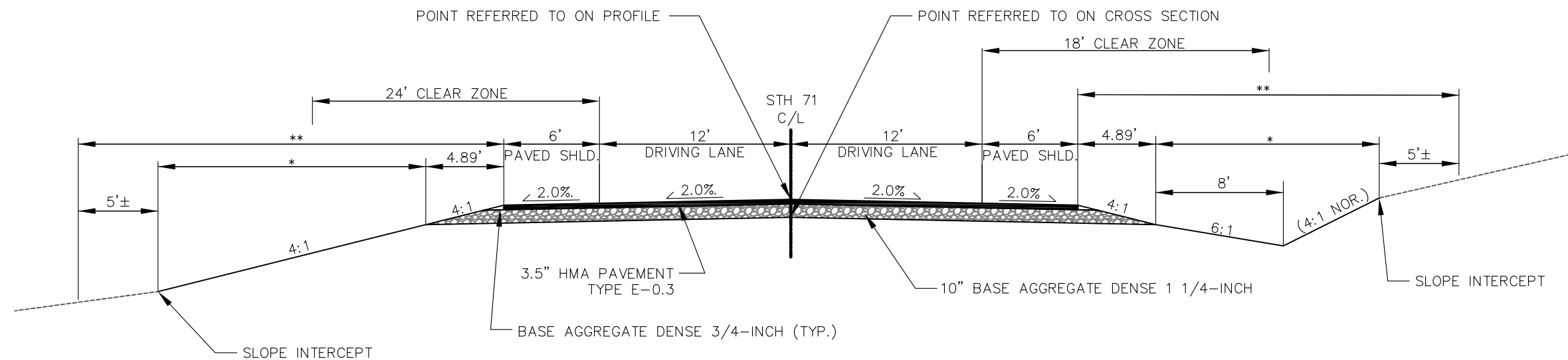
2

21



TYPICAL EXISTING SECTION

DAKOTA AVE
CANINE RD
DALMATION RD
DAYLIGHT RD



FILL

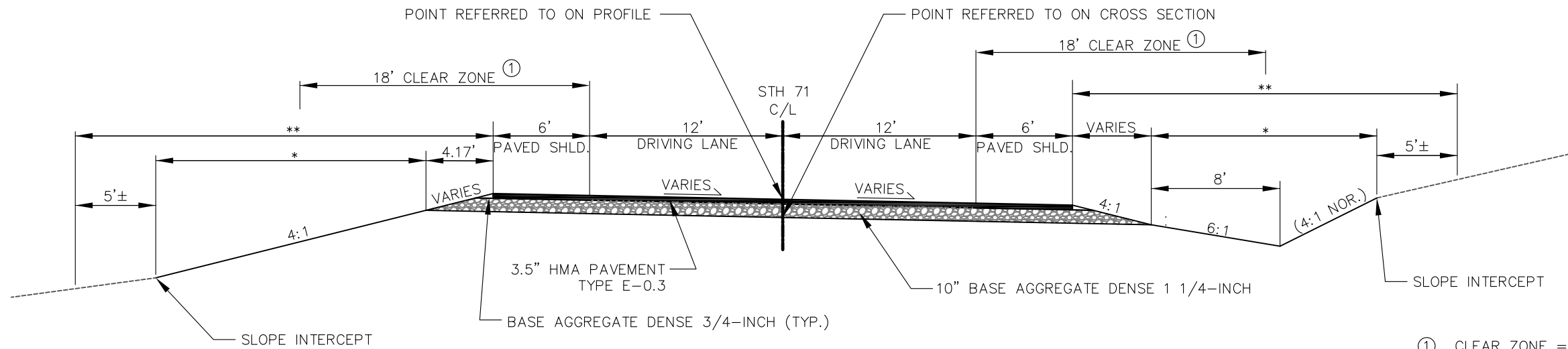
TYPICAL FINISHED TANGENT SECTION

STH 71

STA. 50+00.00	—	STA. 56+59.61
STA. 62+56.24	—	STA. 64+87.81
STA. 72+46.49	—	STA. 73+70.23
STA. 87+50.14	—	STA. 93+64.34
STA. 104+01.06	—	STA. 118+75.68
STA. 129+98.43	—	STA. 143+02.40
STA. 148+16.00	—	STA. 160+30.00

CUT

- ** LIMITS OF SEEDING, TEMPORARY SEEDING & FERTILIZER
- * LIMITS OF SALVAGED TOPSOIL, EROSION MAT AND MULCH

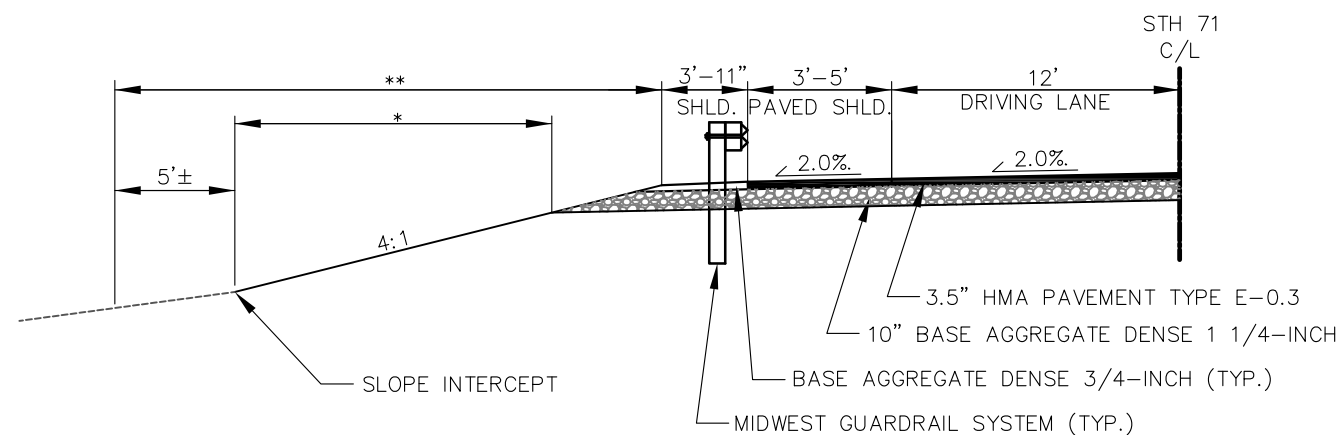


TYPICAL FINISHED SUPERELEVATED SECTION

STH 71
 STA. 56+59.51 – STA. 62+56.54
 STA. 64+87.81 – STA. 72+46.49
 STA. 73+70.23 – STA. 87+50.14
 STA. 93+64.34 – STA. 104+01.06
 STA. 118+75.68 – STA. 129+98.43
 STA. 143+02.40 – STA. 148+16.00

① CLEAR ZONE = 26' ON OUTSIDE OF CURVE FROM STA. 66+45.71, LT. TO STA. 70+88.60, LT., STA. 75+30.23, RT. TO STA. 85+90.13, RT., STA. 95+24.34, LT. TO STA. 102+41.05, LT. & STA. 120+35.68, RT. TO STA. 128+38.42, RT.

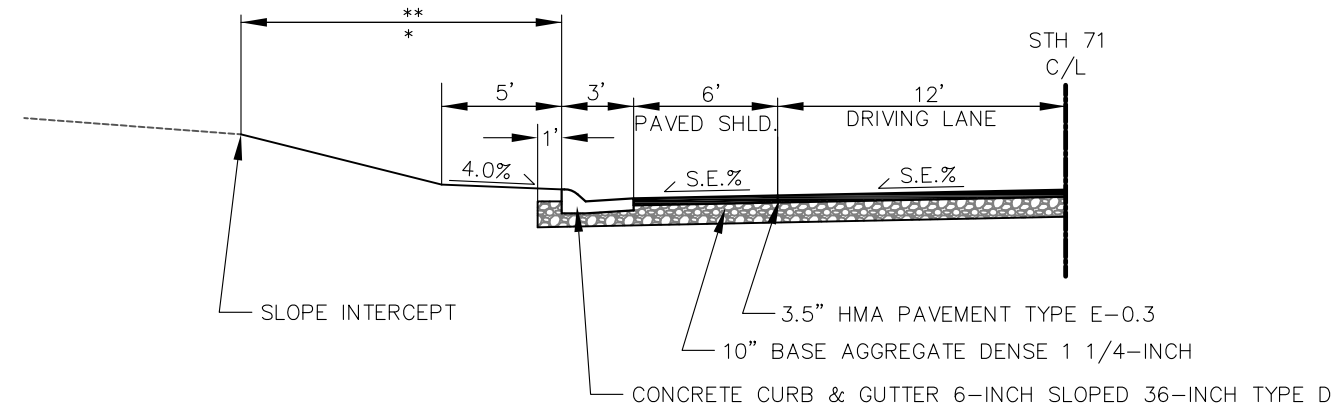
** LIMITS OF SEEDING, TEMPORARY SEEDING & FERTILIZER
 * LIMITS OF SALVAGED TOPSOIL, EROSION MAT AND MULCH



TYPICAL FINISHED BEAM GUARD HALF SECTION

STH 71
 STA. 148+18.84 – STA. 149+09.40
 STA. 149+57.62 – STA. 150+48.18

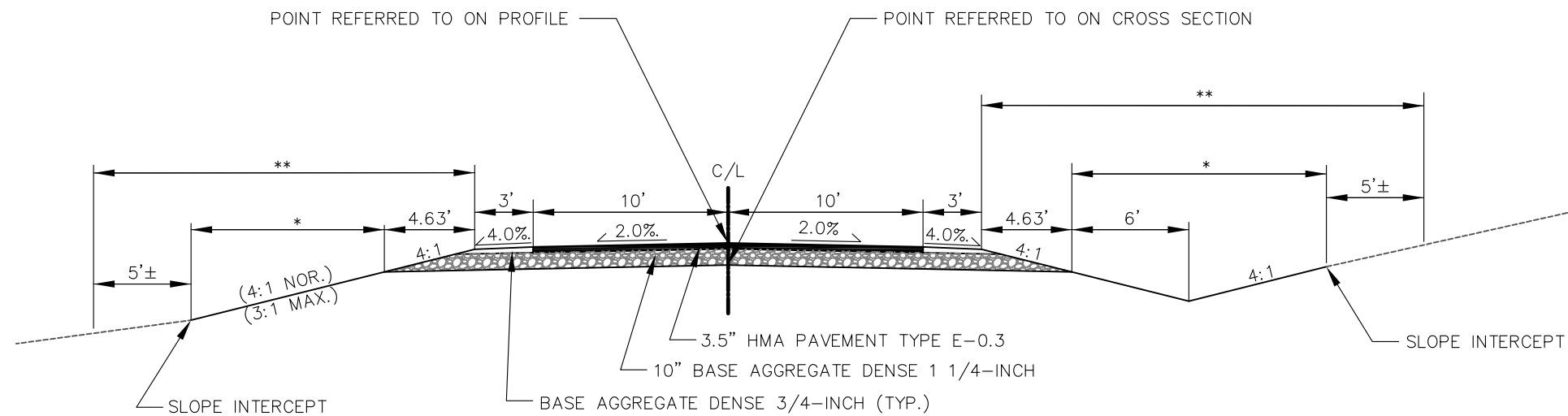
** LIMITS OF SEEDING, TEMPORARY SEEDING & FERTILIZER
 * LIMITS OF SALVAGED TOPSOIL, EROSION MAT AND MULCH



TYPICAL FINISHED CURB & GUTTER HALF SECTION

STH 71
STA. 79+00 – STA. 83+00, LT
STA. 119+00 – STA. 124+00, LT

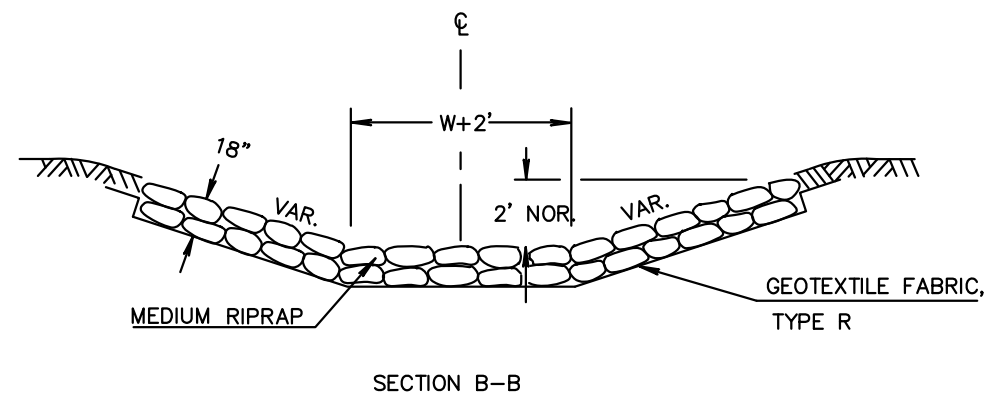
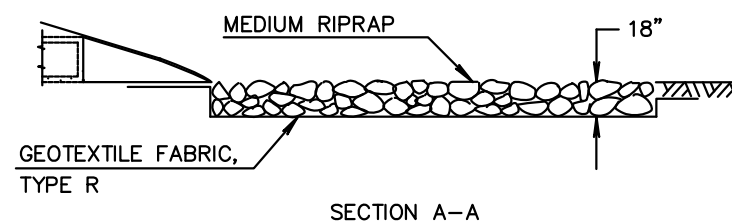
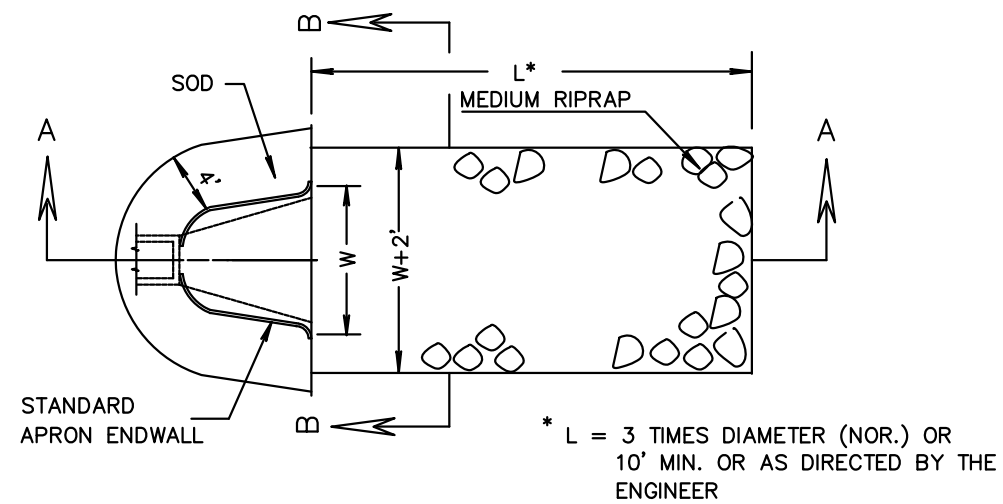
** LIMITS OF SEEDING, TEMPORARY SEEDING & FERTILIZER
* LIMITS OF SALVAGED TOPSOIL, EROSION MAT AND MULCH



TYPICAL FINISHED TANGENT SECTION

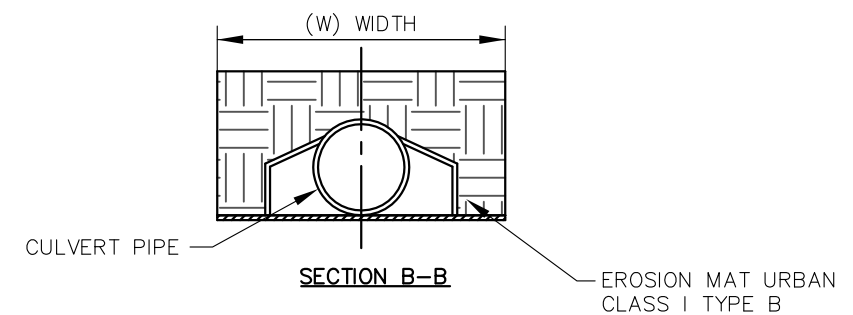
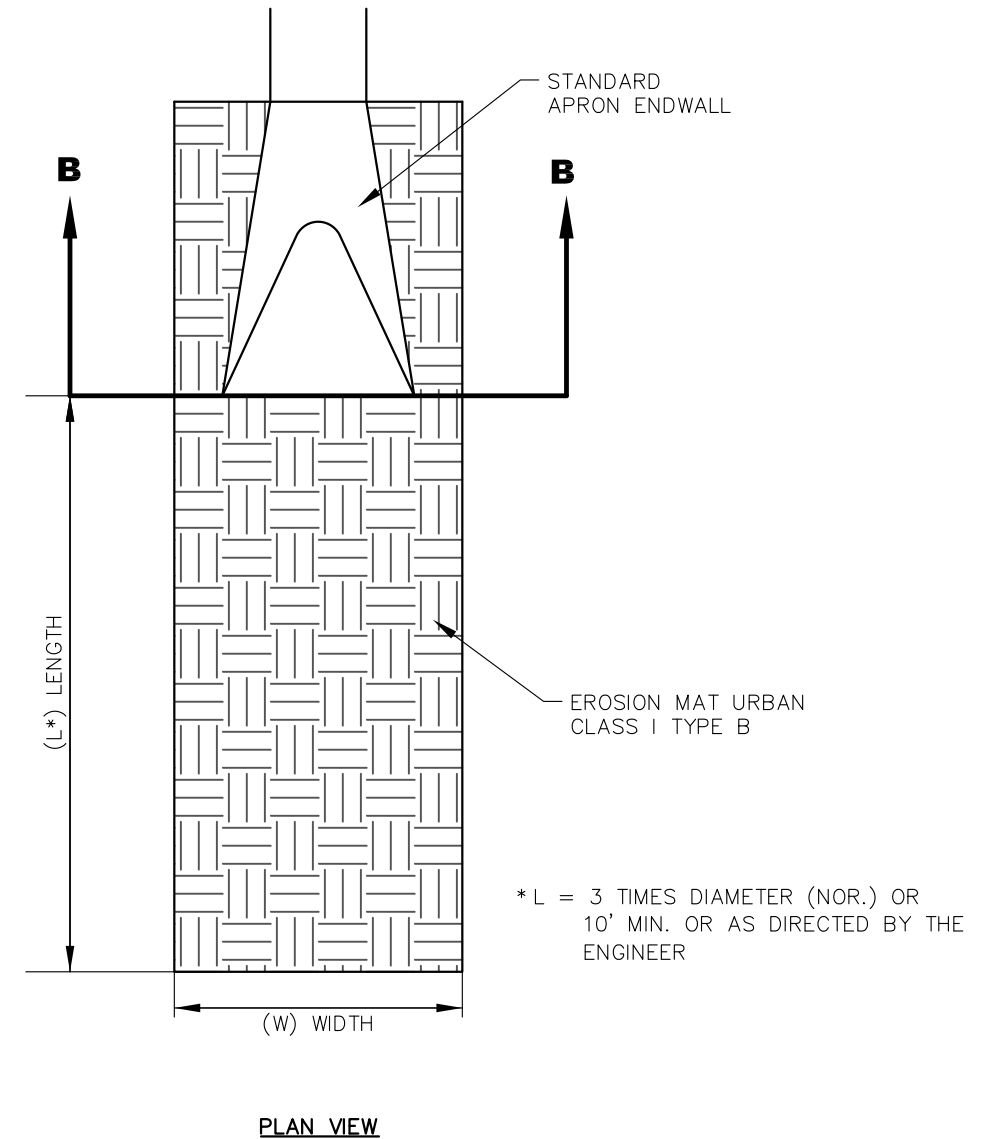
DAKOTA AVE
CANINE RD
DALMATION RD
DAYLIGHT RD

** LIMITS OF SEEDING, TEMPORARY SEEDING & FERTILIZER
* LIMITS OF SALVAGED TOPSOIL, EROSION MAT AND MULCH



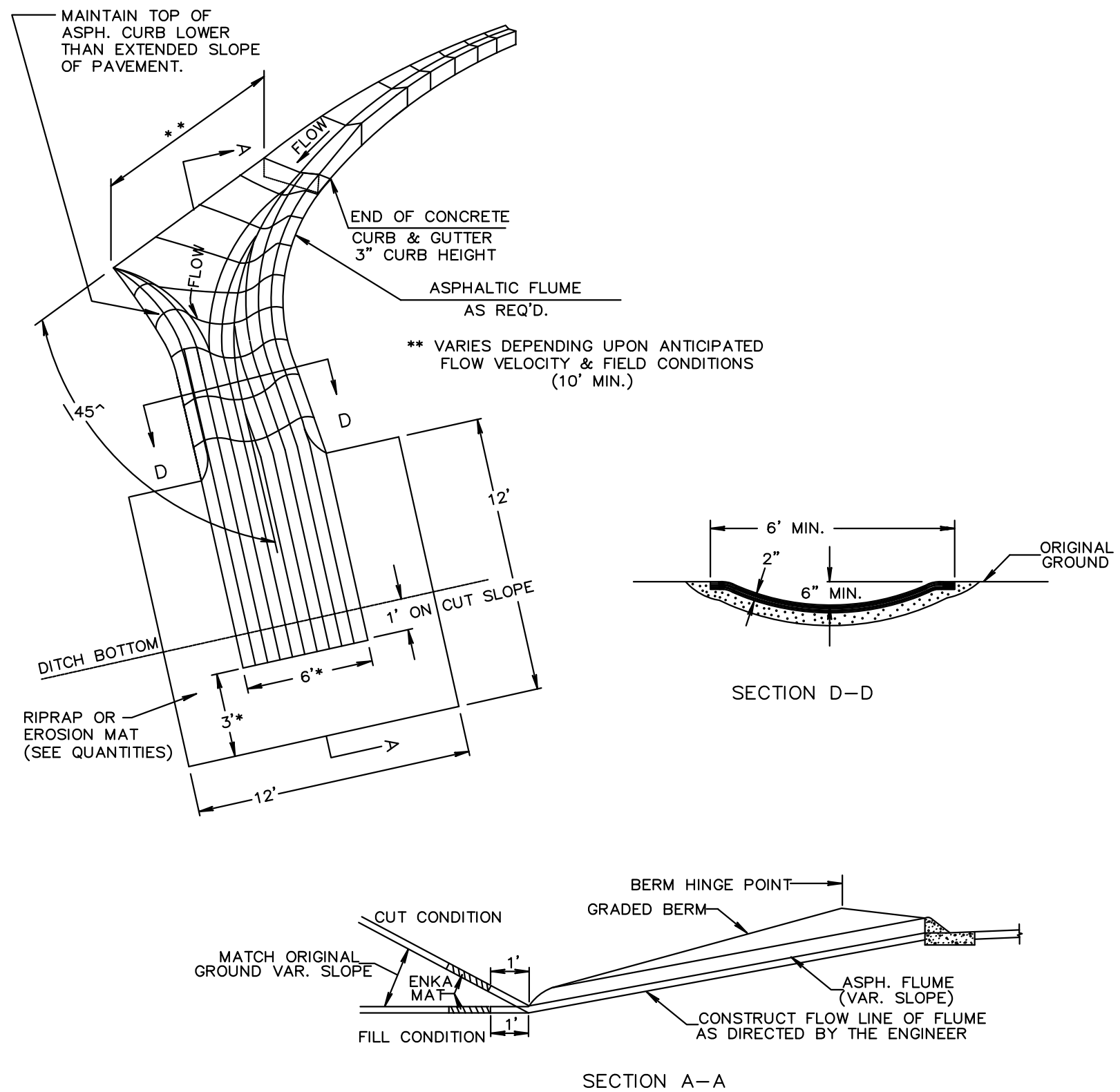
**MEDIUM RIPRAP AND
GEOTEXTILE FABRIC DETAIL
AT APRON ENDWALLS**

SEE MISCELLANEOUS QUANTITIES FOR
LOCATIONS AND DIMENSIONS

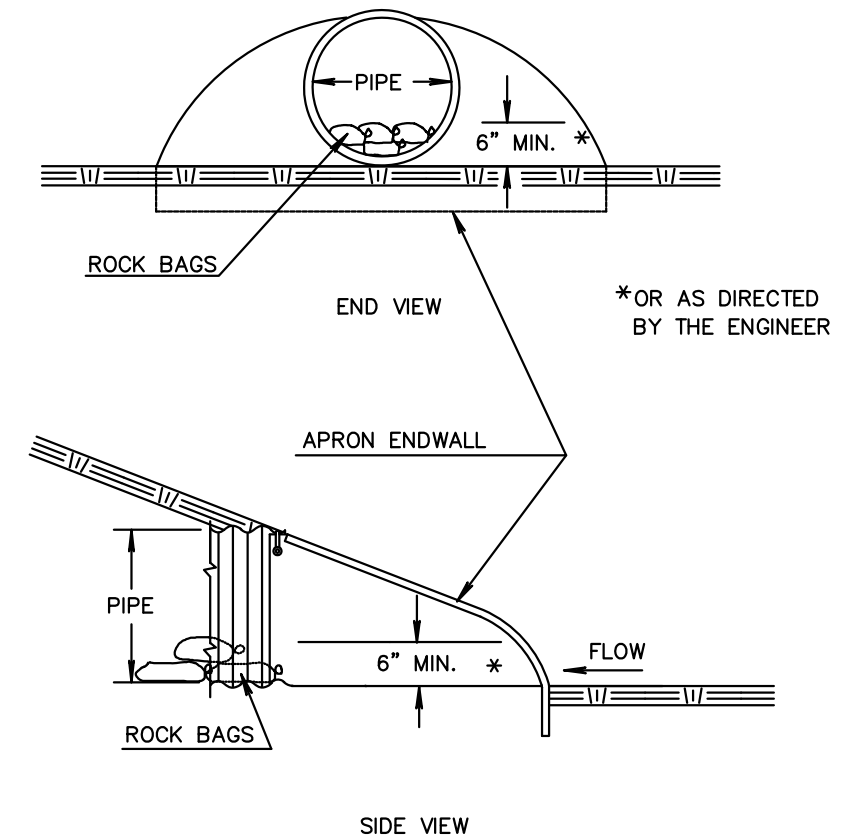


**EROSION MAT URBAN CLASS I
TYPE B DISCHARGE APRON**

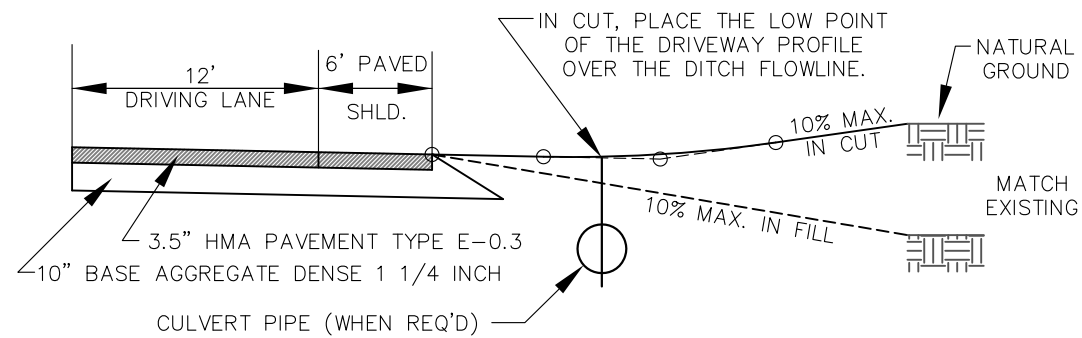
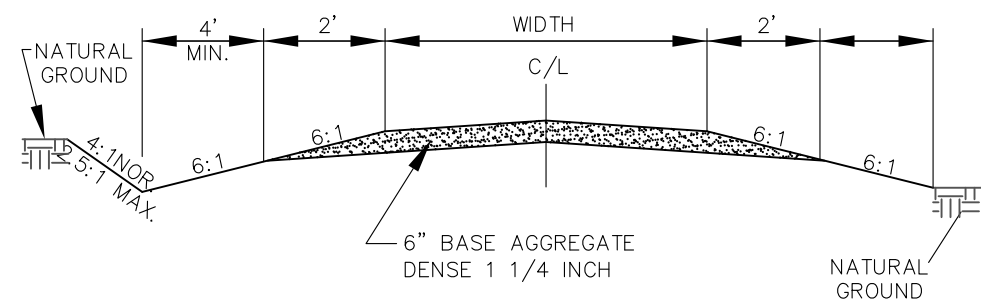
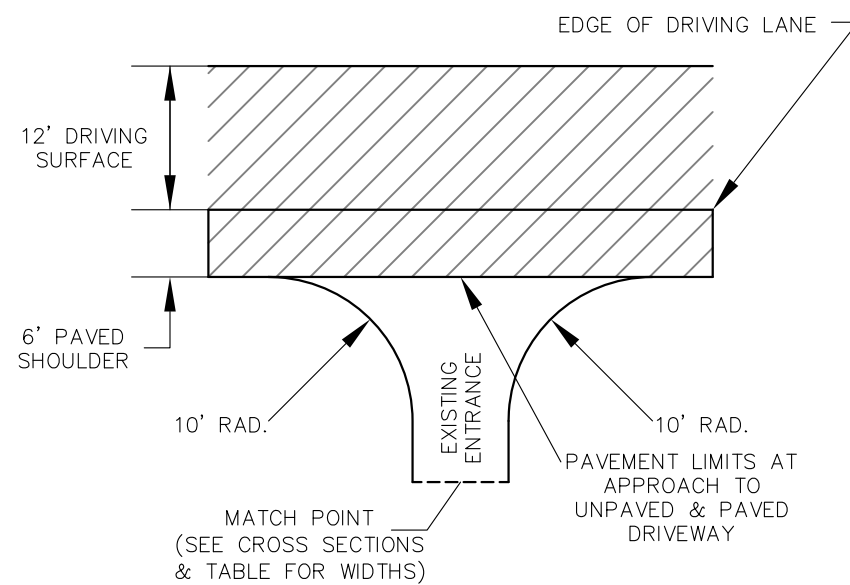
SEE MISCELLANEOUS QUANTITIES FOR
LOCATIONS AND DIMENSIONS



ASPHALTIC FLUME DETAIL

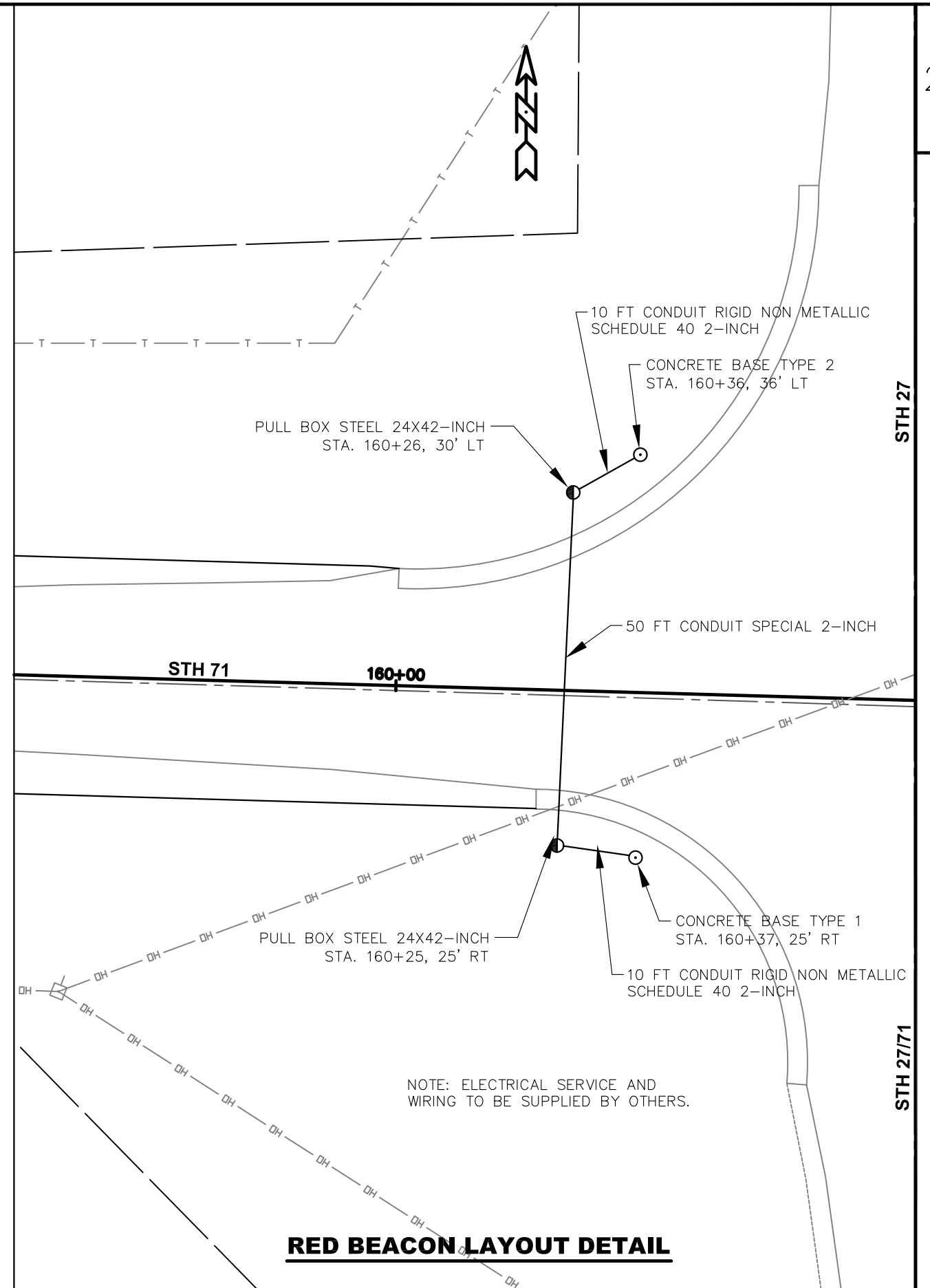


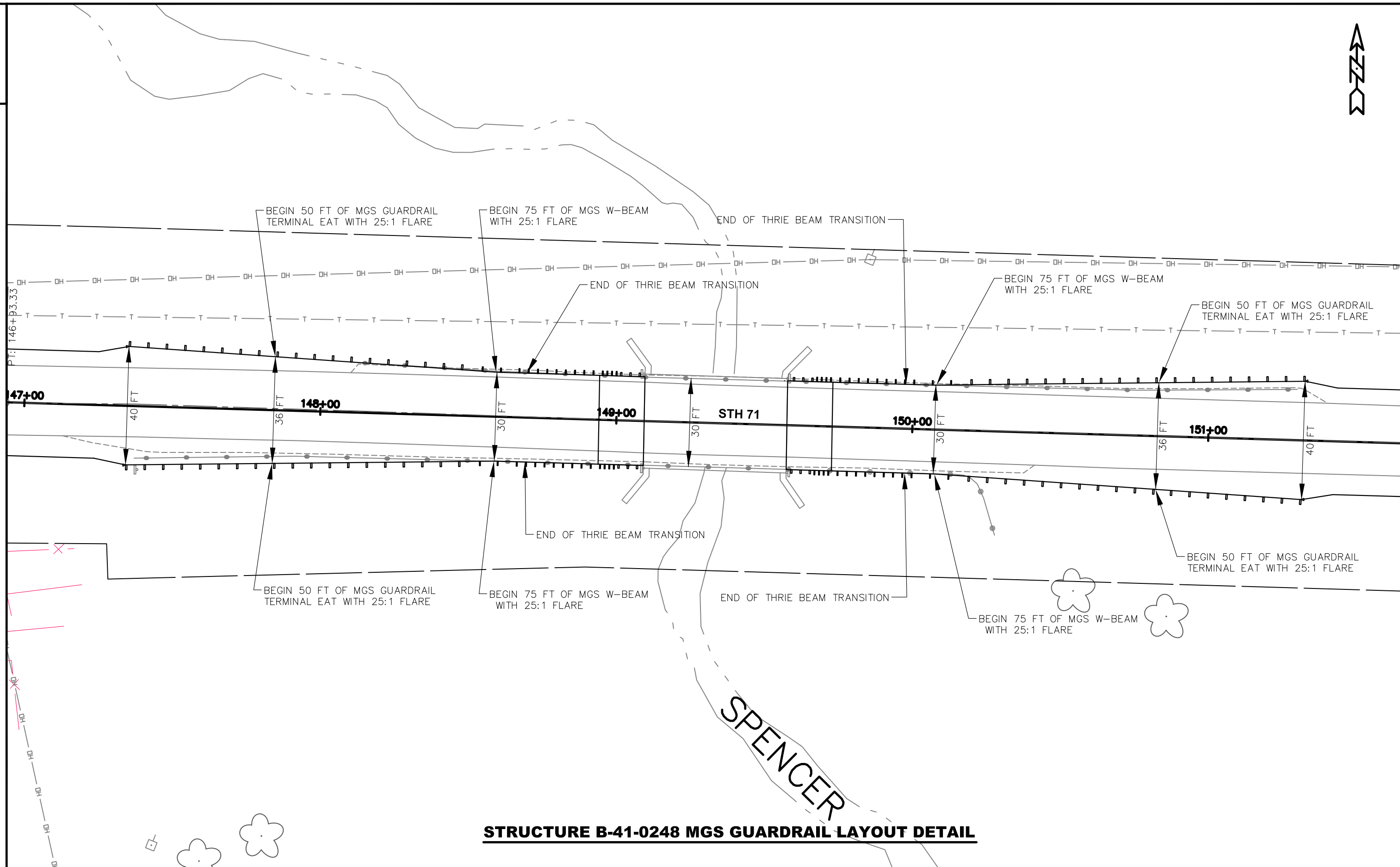
CULVERT PIPE CHECK

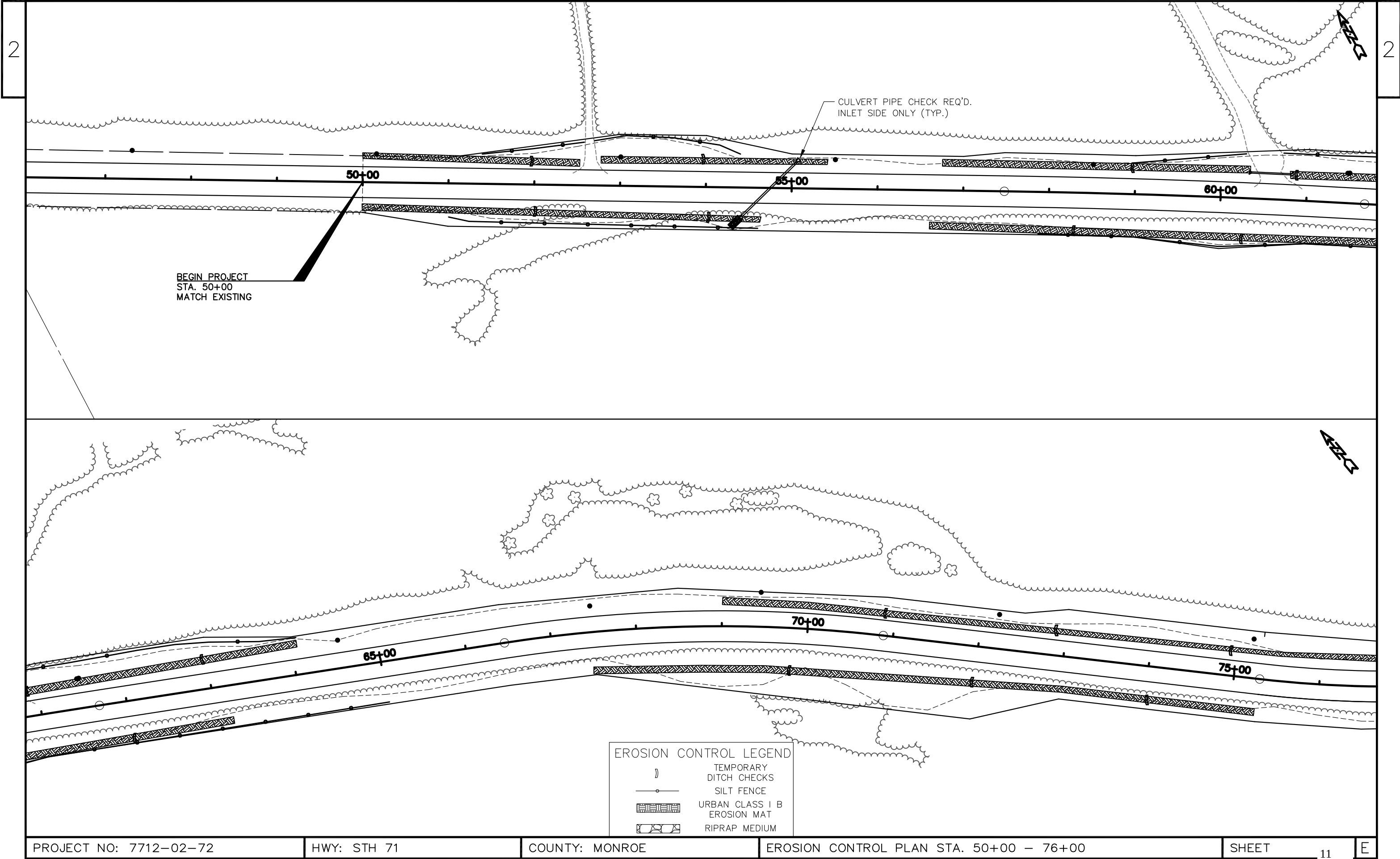
**TYPICAL RURAL ENTRANCE PROFILE****TYPICAL CROSS-SECTION FOR RURAL ENTRANCE****RURAL ENTRANCE DETAILS****DW & FE TABLE**

STATION	WIDTH	TYPE
52+70, LT	16'	B.A.D.
60+50, LT	28'	B.A.D.
81+50, LT	12'	B.A.D.
87+15, LT	20'	ASPH.
88+57, RT	12'	B.A.D.
89+25, LT	14'	B.A.D.
89+90, RT	14'	B.A.D.
108+80, RT	12'	B.A.D.
114+80, LT	16'	B.A.D.
118+70, LT	14'	ASPH.
126+50, LT	12'	B.A.D.
130+75, RT	32'	B.A.D.
139+15, LT	18'	B.A.D.
144+65, LT	16'	B.A.D.
156+00, RT	24'	B.A.D.
152+15, LT	12'	B.A.D.
155+15, LT	12'	B.A.D.
157+85, LT	28'	ASPH.

PAVED DRIVEWAY TO
REQUIRE 2-INCH
ASPHALTIC SURFACE

**RED BEACON LAYOUT DETAIL**

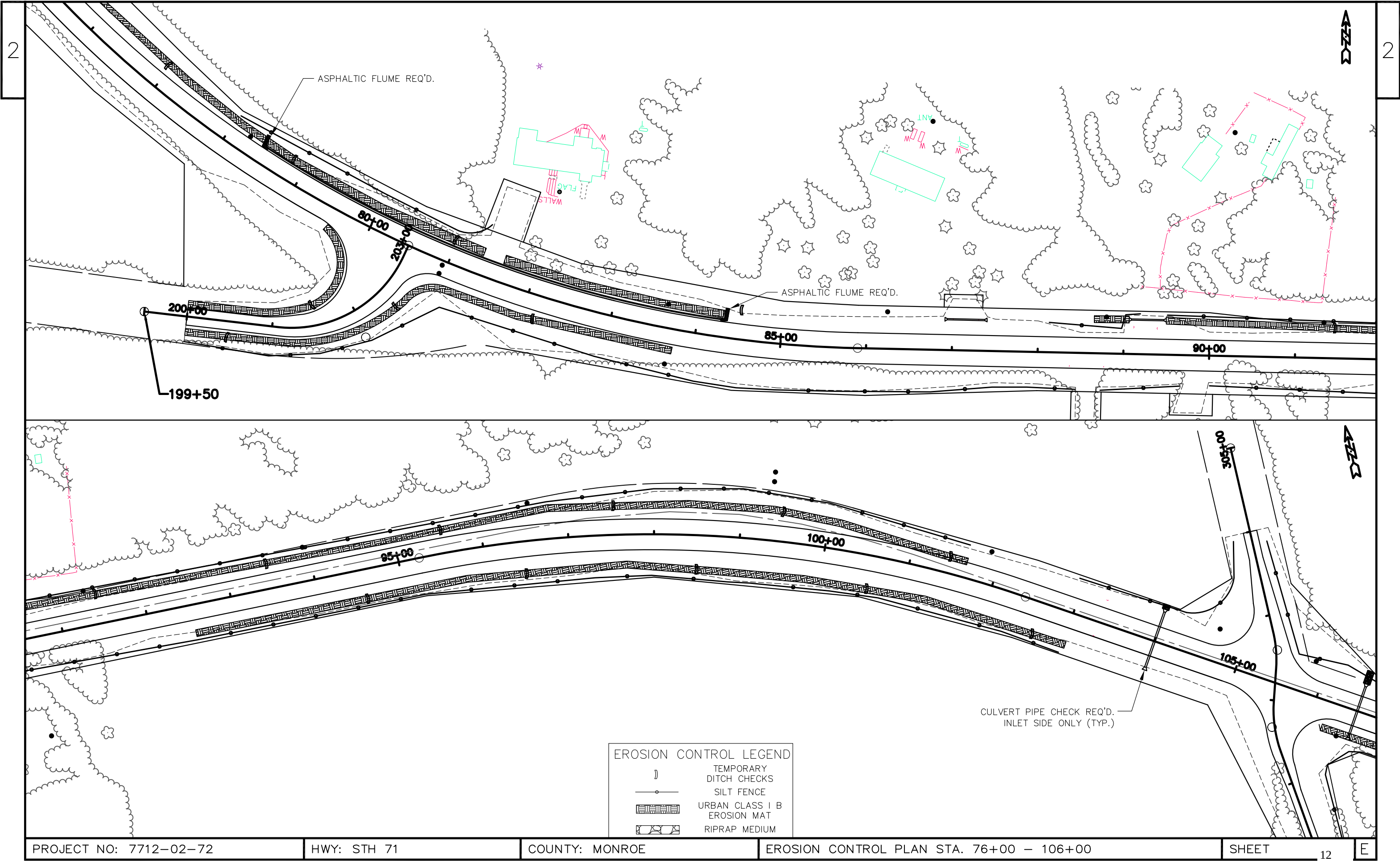


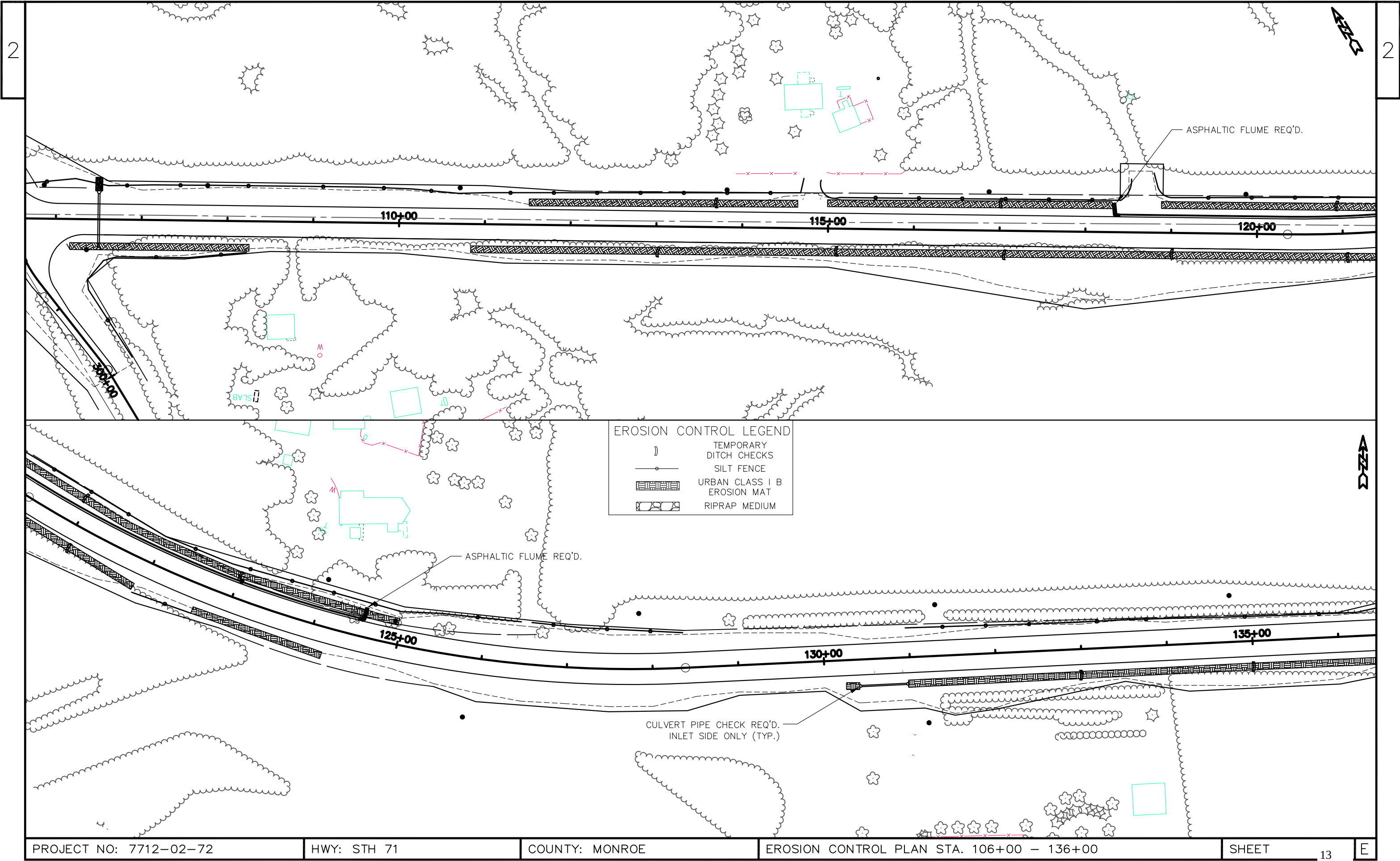


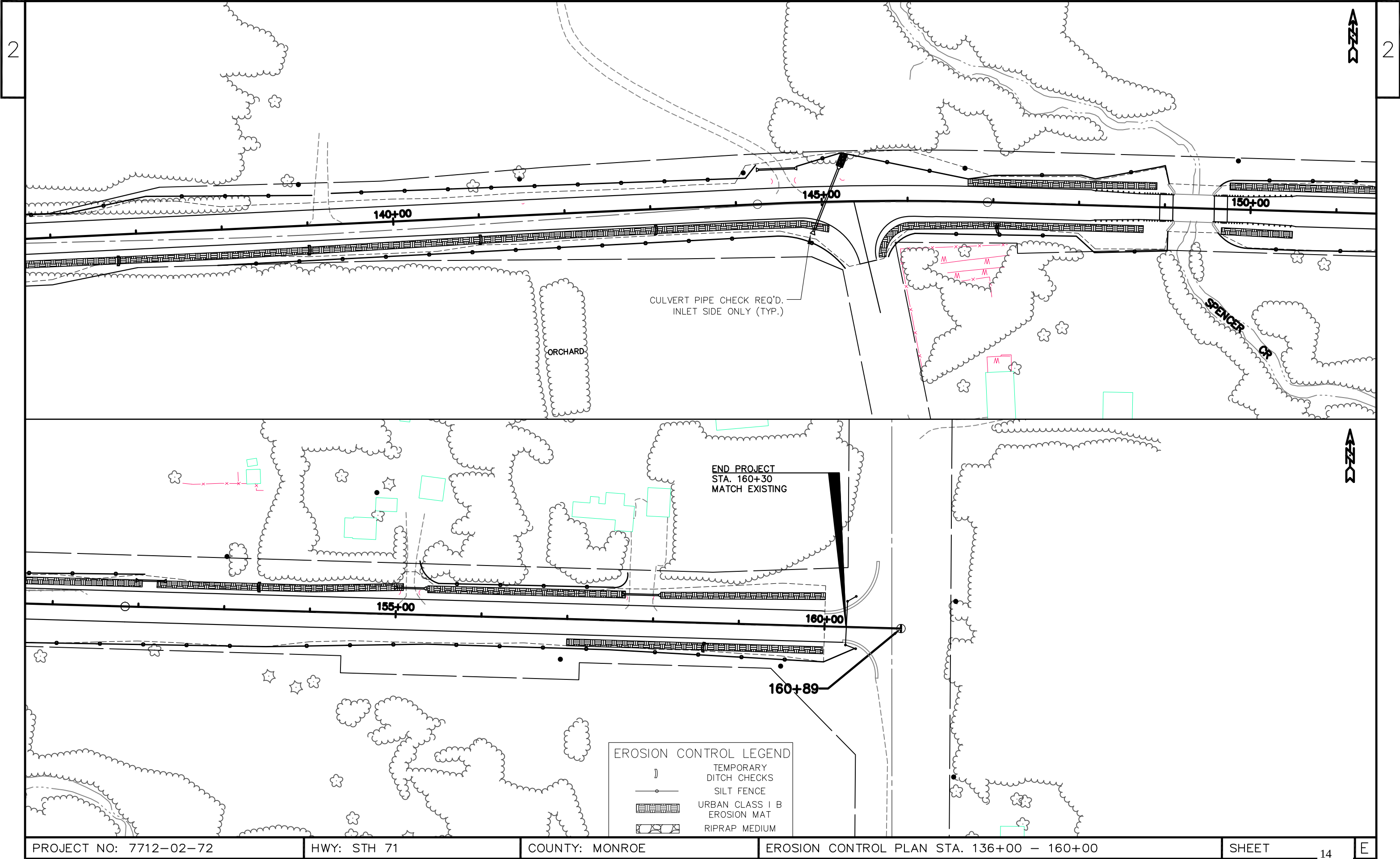
BEGIN PROJECT
STA. 50+00
MATCH EXISTING

CULVERT PIPE CHECK REQ'D.
INLET SIDE ONLY (TYP.)

EROSION CONTROL LEGEND	
	TEMPORARY DITCH CHECKS
	SILT FENCE
	URBAN CLASS I B EROSION MAT
	RIPRAP MEDIUM

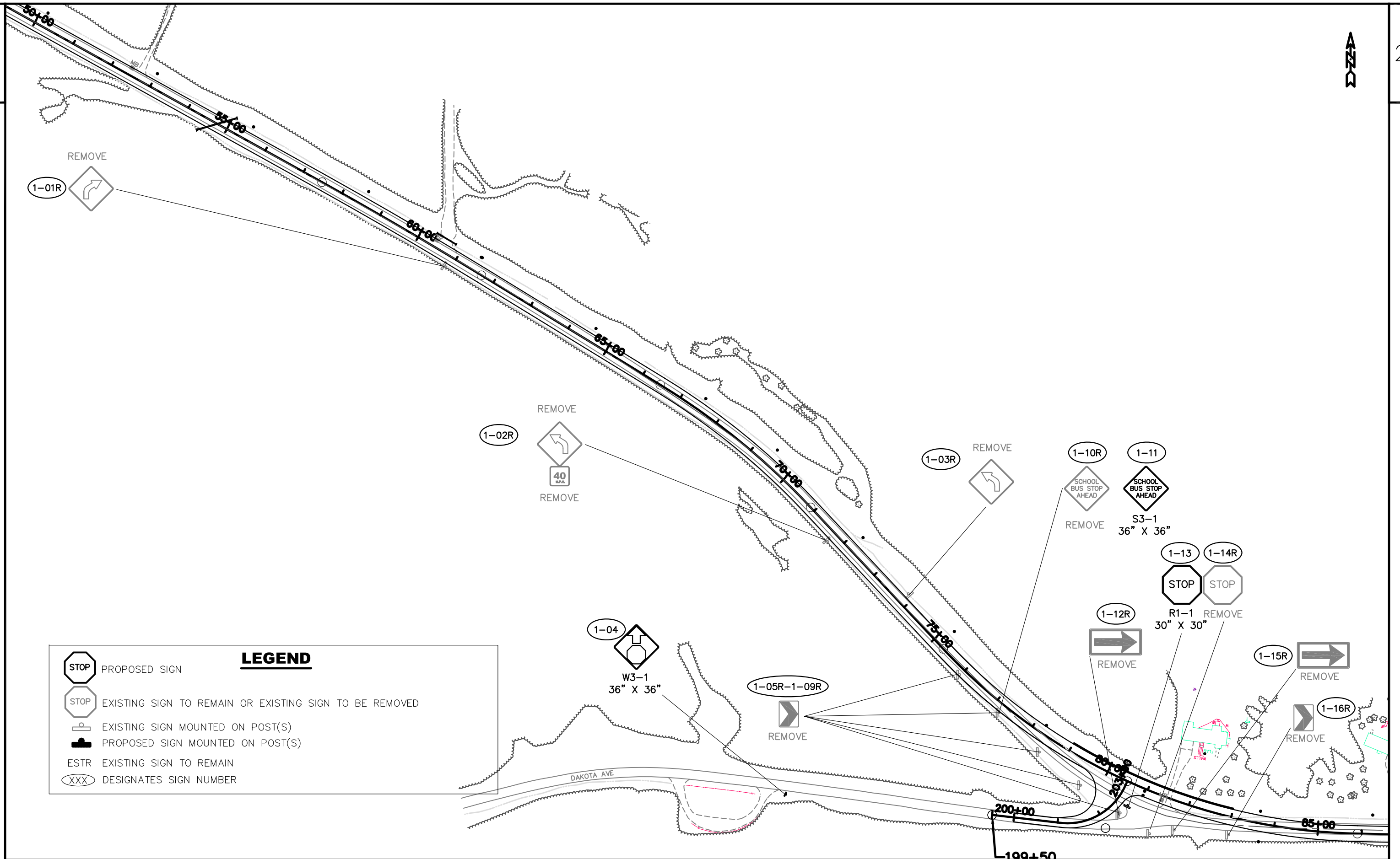






2

2



PROPOSED SIGN

EXISTING SIGN TO REMAIN OR EXISTING SIGN TO BE REMOVED

EXISTING SIGN MOUNTED ON POST(S)

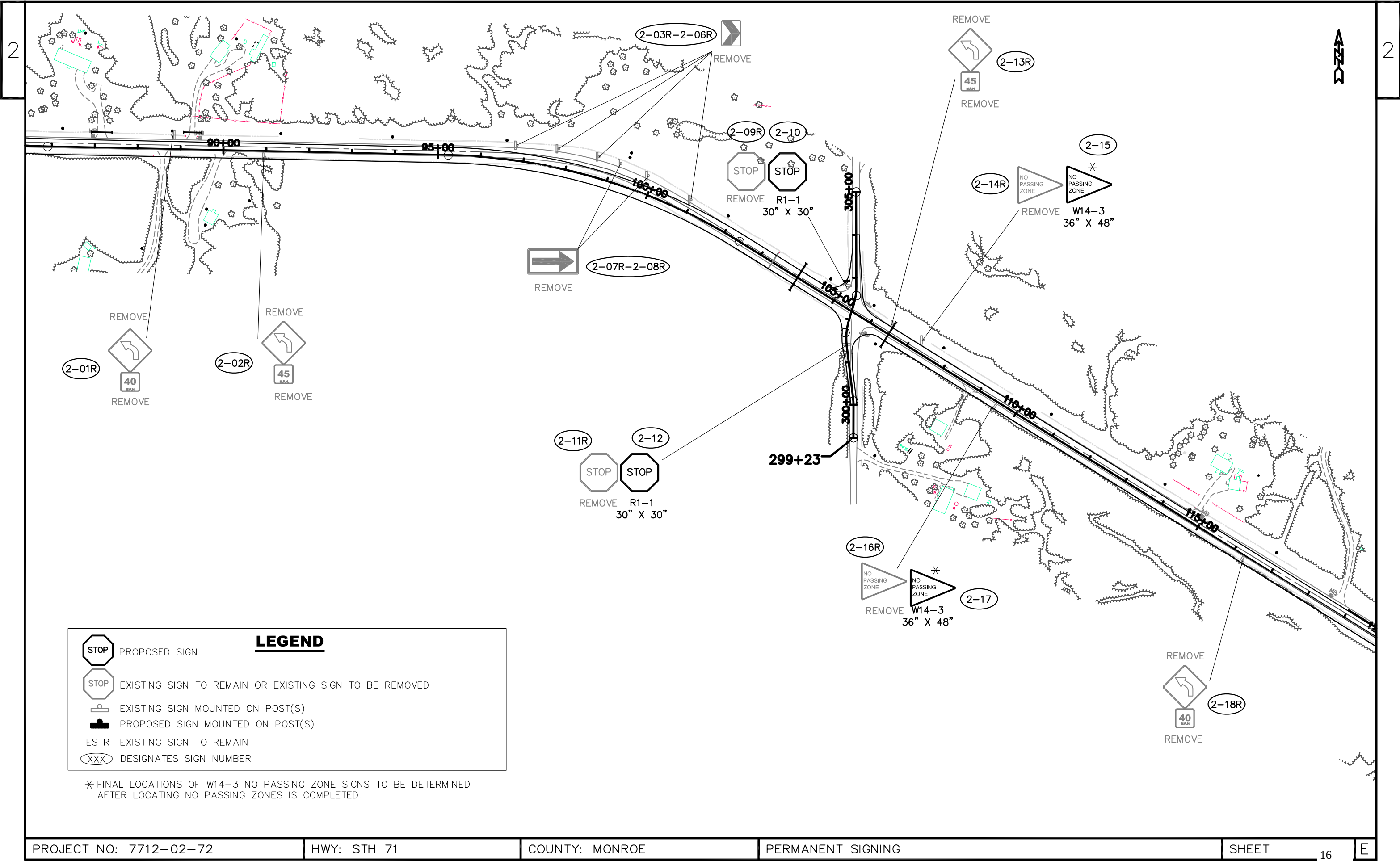
PROPOSED SIGN MOUNTED ON POST(S)

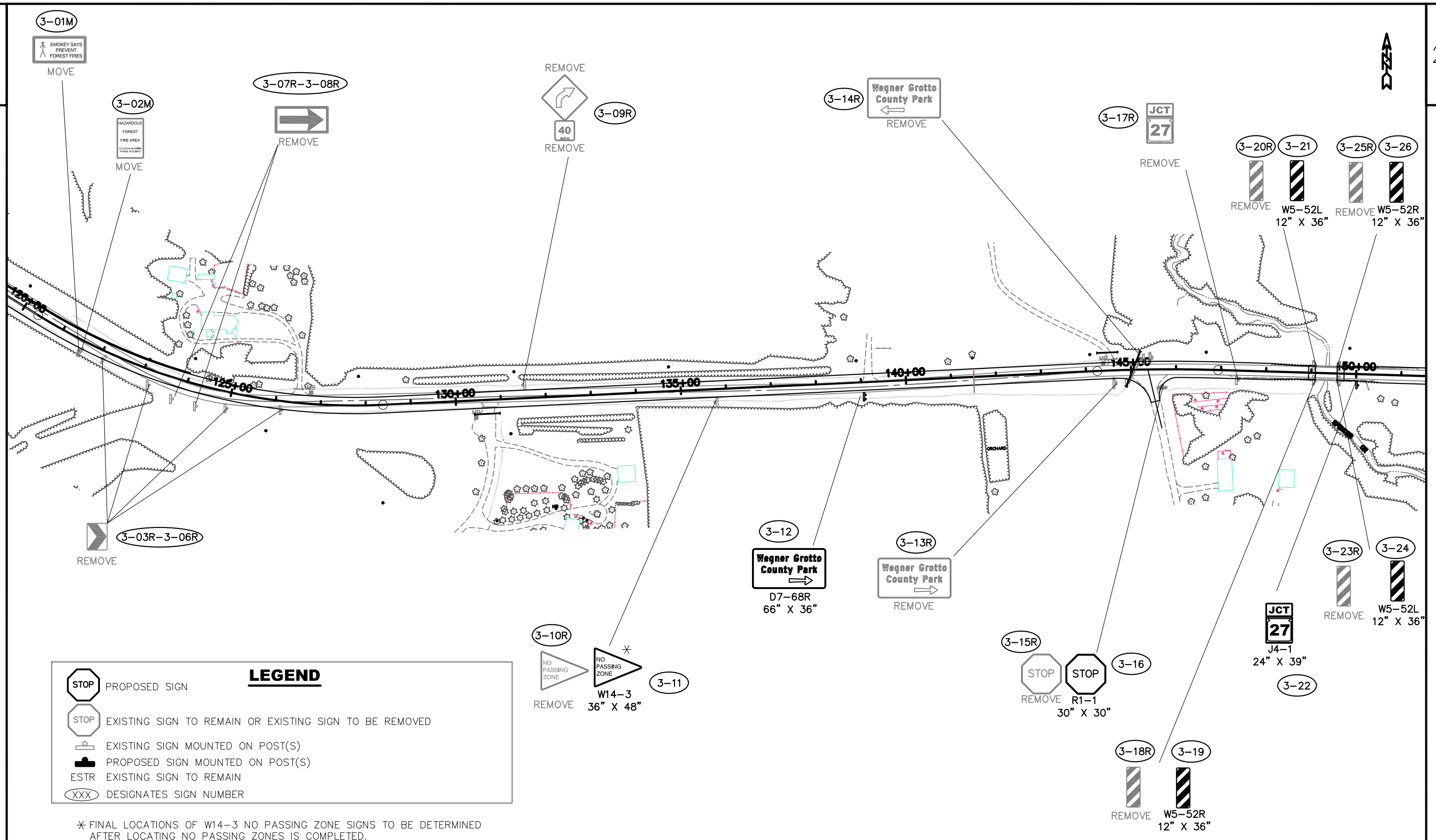
ESTR

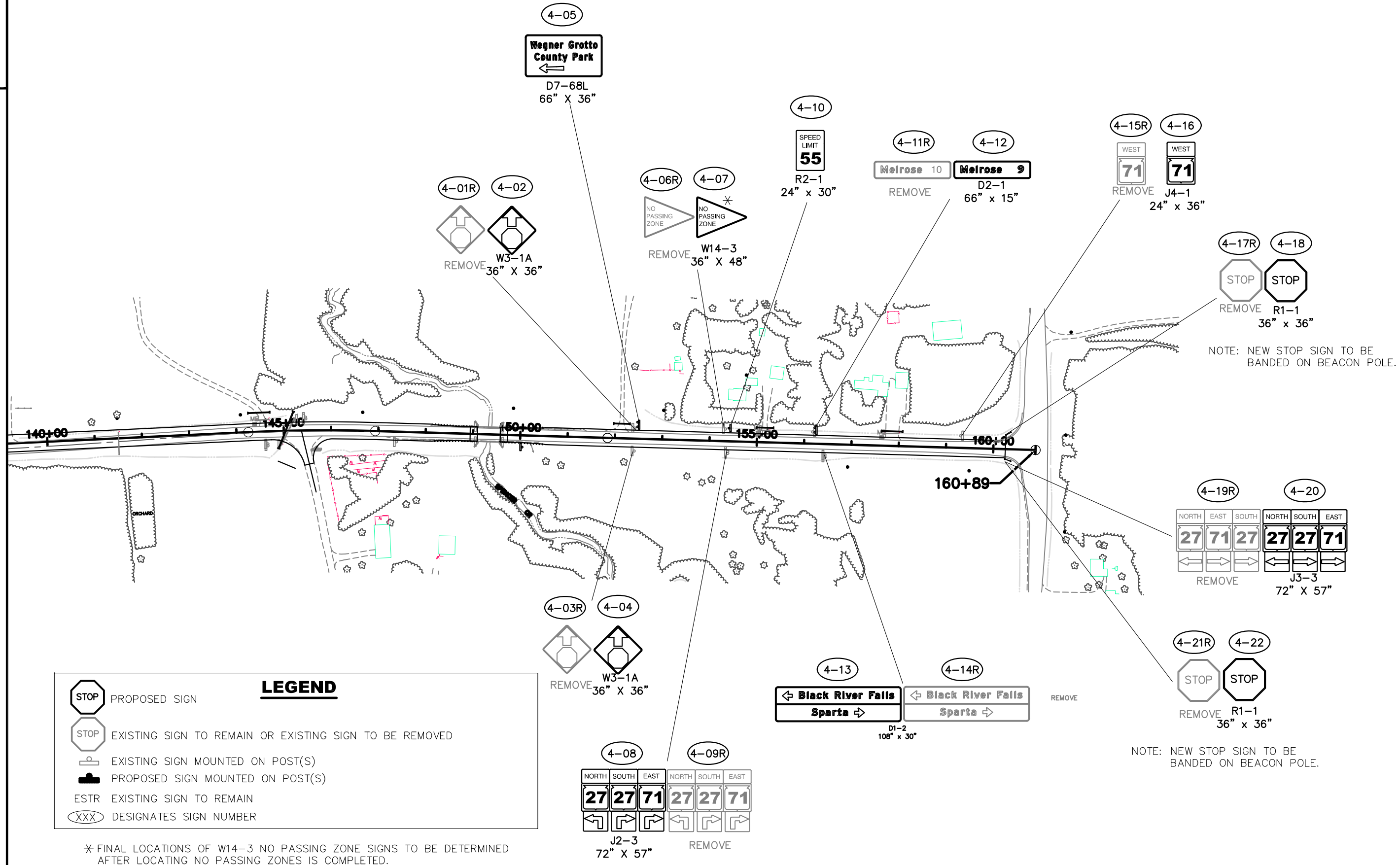
EXISTING SIGN TO REMAIN

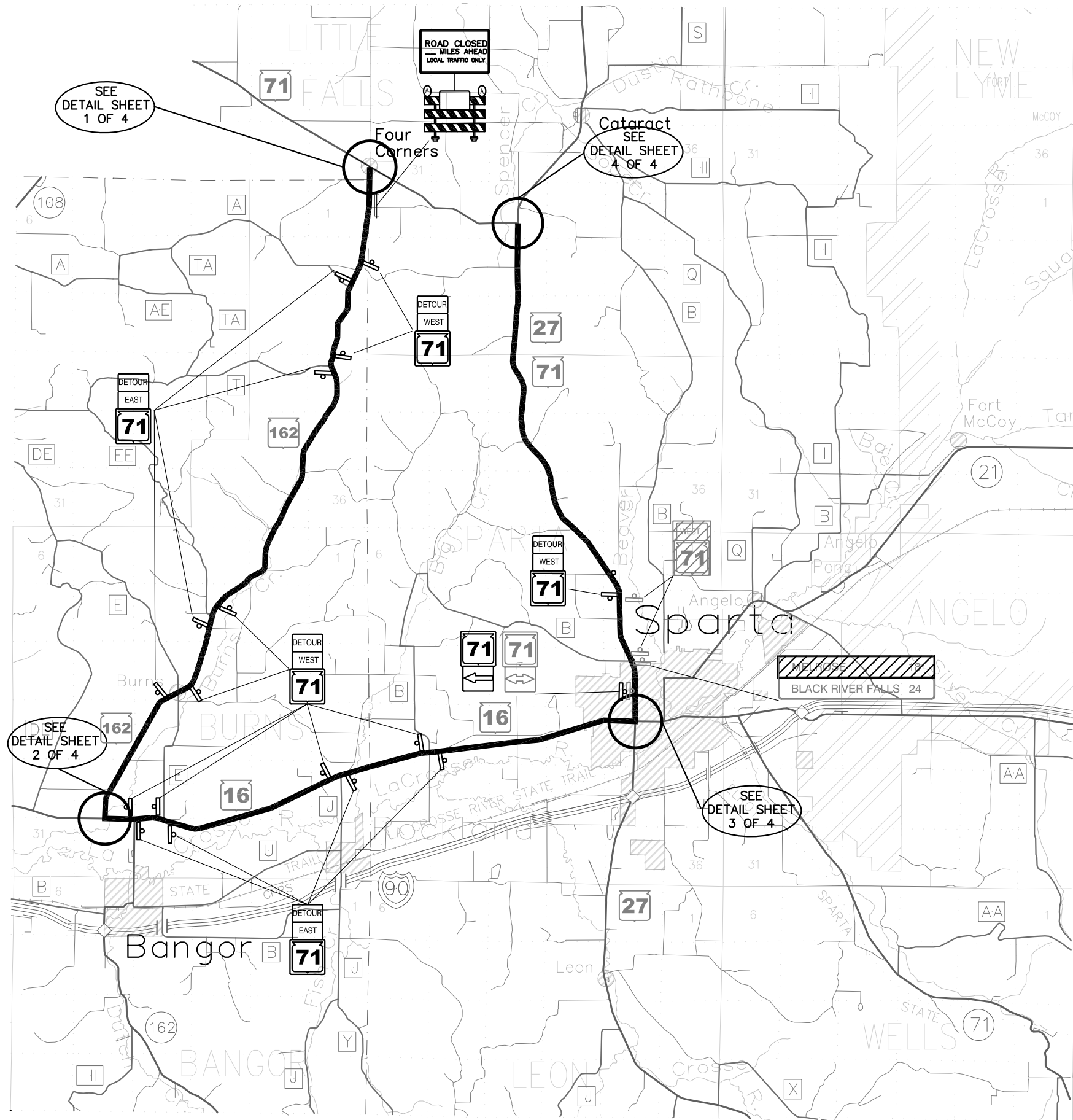
DESIGNATES SIGN NUMBER

LEGEND









LEGEND

- SIGNS COVERED
- DETOUR ROUTE
- EXISTING POST MOUNTED SIGN
- POST MOUNTED SIGN
- TYPE III BARRICADE WITH SIGN
- TYPE III BARRICADE
- TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- M4-8(2)
24" X 12"
- M4-8A(2)
24" X 18"
- M3-4(2)
24" X 12"
- M3-1(2)
24" X 12"
- M3-2(2)
24" X 12"
- MO5-1R(2)
21" X 21"
- MO6-1(2)
21" X 21"
- MO5-1L(2)
21" X 21"
- M1-6(2)
24" X 24"
- R11-3

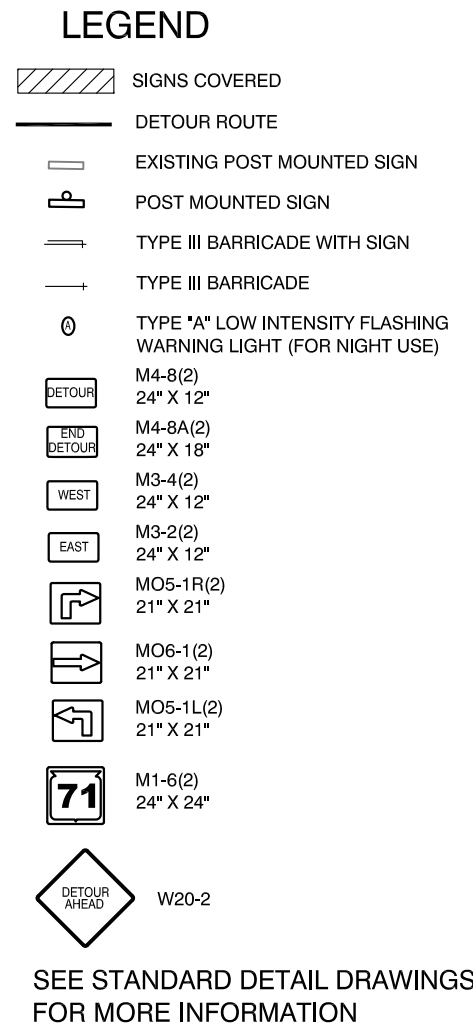
SEE STANDARD DETAIL DRAWINGS
FOR MORE INFORMATION

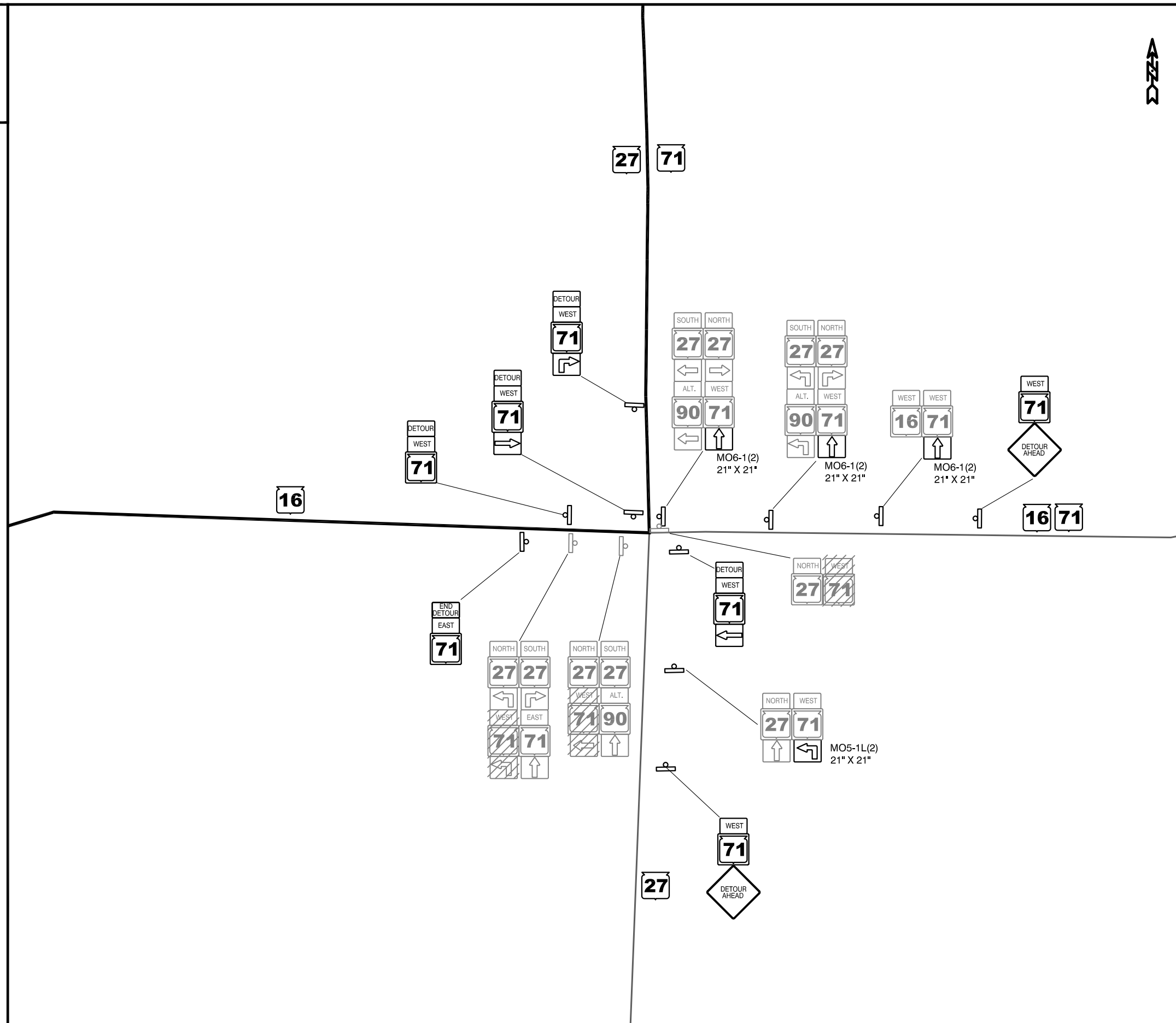
LEGEND

	SIGNS COVERED
	DETOUR ROUTE
	EXISTING POST MOUNTED SIGN
	POST MOUNTED SIGN
	TYPE III BARRICADE WITH SIGN
	TYPE III BARRICADE
	TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
	M4-8(2) 24" X 12"
	M4-8A(2) 24" X 18"
	M3-4(2) 24" X 12"
	M3-2(2) 24" X 12"
	MO5-1R(2) 21" X 21"
	MO6-1(2) 21" X 21"
	MO5-1L(2) 21" X 21"
	M1-6(2) 24" X 24"

	R11-2
	R11-3
	R11-4
	M4-9R
	W20-3
	W20-2
	W20-3

SEE STANDARD DETAIL DRAWINGS
FOR MORE INFORMATION

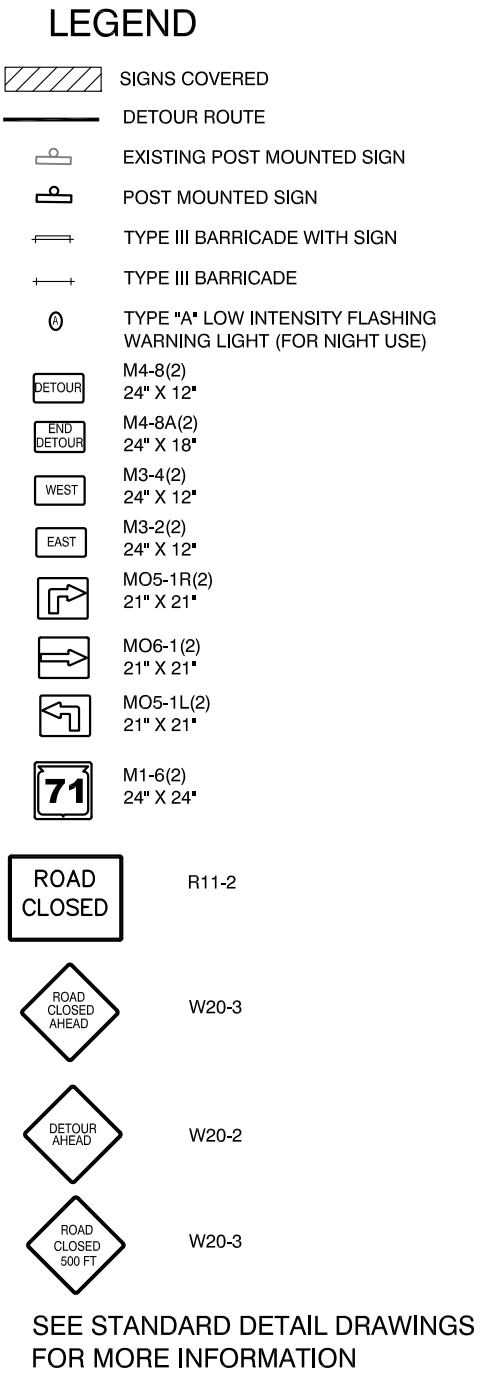


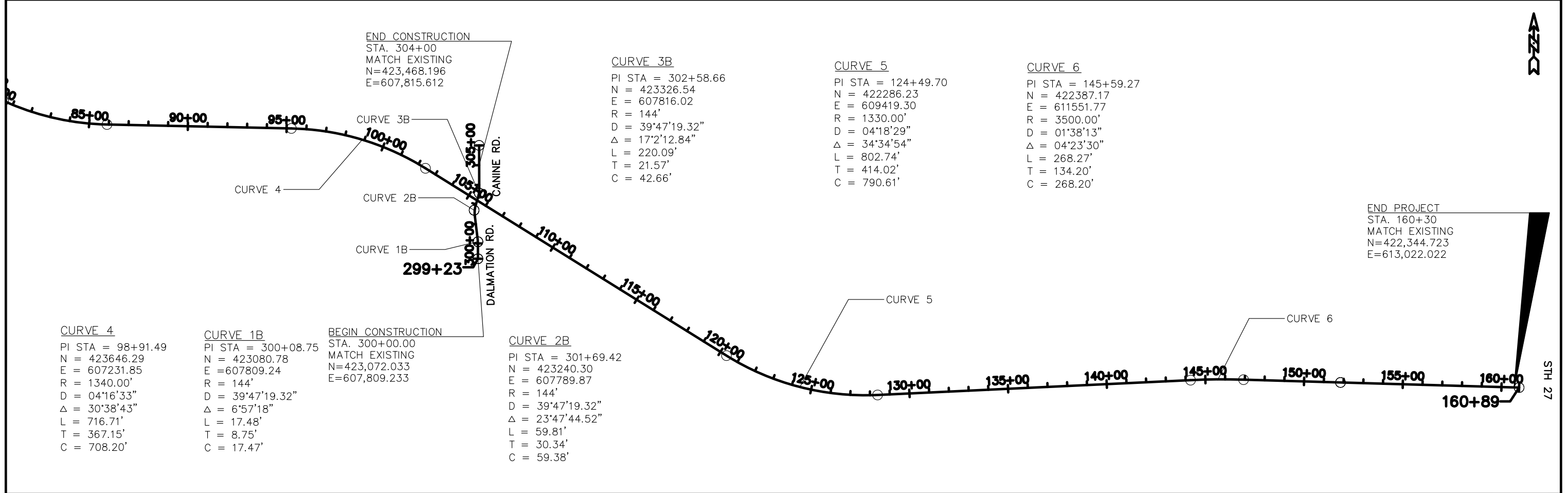
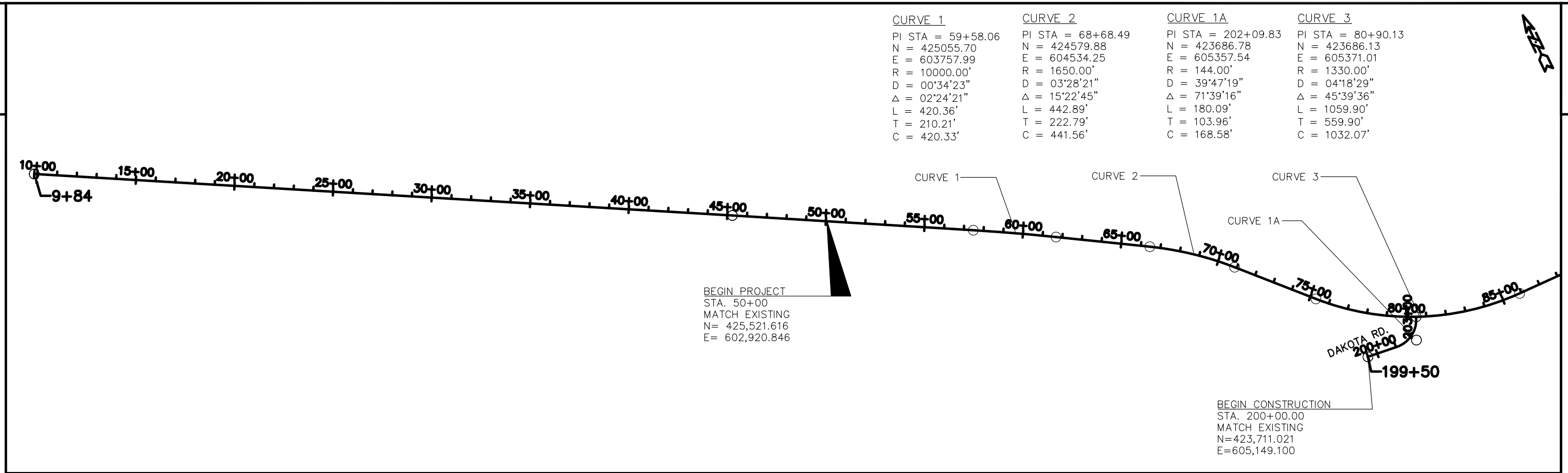


LEGEND

	SIGNS COVERED
	DETOUR ROUTE
	EXISTING POST MOUNTED SIGN
	POST MOUNTED SIGN
	TYPE III BARRICADE WITH SIGN
	TYPE III BARRICADE
	TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
	M4-8(2) 24" X 12"
	M4-8A(2) 24" X 18"
	M3-4(2) 24" X 12"
	M3-2(2) 24" X 12"
	M05-1R(2) 21" X 21"
	M06-1(2) 21" X 21"
	M05-1L(2) 21" X 21"
	M1-6(2) 24" X 24"
	W20-2

SEE STANDARD DETAIL DRAWINGS
FOR MORE INFORMATION





SUPERELEVATION DATA – CURVE 1

STATION	LEFT	RIGHT	COMMENT
56+59.51	2.00% ←	2.00% →	NORMAL
57+00	0.47% ←	2.00% →	
57.12.51	0.00%	2.00% →	L.C.
57+47.85			P.C. STA
57+65.51	2.00% →	2.00% →	FULL
58+00	2.00% →	2.00% →	FULL
59+00	2.00% →	2.00% →	FULL
60+00	2.00% →	2.00% →	FULL
61+00	2.00% →	2.00% →	FULL
61+50.54	2.00% →	2.00% →	FULL
61+68.21			P.T. STA
62+00	0.13% →	2.00% →	
62+03.54	0.00%	2.00% →	L.C.
62+56.54	2.00% ←	2.00% →	NORMAL

SUPERELEVATION DATA – CURVE 2

STATION	LEFT	RIGHT	COMMENT
64+87.81	2.00% ←	2.00% →	NORMAL
65+00	1.54% ←	2.00% →	
65+41.03	0.00%	2.00% →	L.C.
65+94.26	2.00% →	2.00% →	R.C.
66+00	2.22% →	2.22% →	
66+45.71			P.C. STA
66+98.03	5.90% →	5.90% →	FULL
67+00	5.90% →	5.90% →	FULL
68+00	5.90% →	5.90% →	FULL
69+00	5.90% →	5.90% →	FULL
70+00	5.90% →	5.90% →	FULL
70+36.27	5.90% →	5.90% →	FULL
70+88.60			P.T. STA
71+00	3.51% →	3.51% →	
71+40.05	2.00% →	2.00% →	R.C.
71+93.27	0.00%	2.00% →	L.C.
72+00	0.25% ←	2.00% →	
72+46.49	2.00% ←	2.00% →	NORMAL

SUPERELEVATION DATA – CURVE 3

STATION	LEFT	RIGHT	COMMENT
73+70.23	2.00% ←	2.00% →	NORMAL
74+00	2.00% ←	0.88% →	
74+23.56	2.00% ←	0.00%	L.C.
74+76.89	2.00% ←	2.00% ←	R.C.
75+00	2.87% ←	2.87% ←	
75+30.23			P.C. STA
75+83.56	6.00% ←	6.00% ←	FULL
76+00	6.00% ←	6.00% ←	FULL
77+00	6.00% ←	6.00% ←	FULL
78+00	6.00% ←	6.00% ←	FULL
79+00	6.00% ←	6.00% ←	FULL
80+00	6.00% ←	6.00% ←	FULL
81+00	6.00% ←	6.00% ←	FULL
82+00	6.00% ←	6.00% ←	FULL
83+00	6.00% ←	6.00% ←	FULL
84+00	6.00% ←	6.00% ←	FULL
85+00	6.00% ←	6.00% ←	FULL
85+36.80	6.00% ←	6.00% ←	FULL
85+90.13			P.T. STA
86+00	3.63% ←	3.63% ←	
86+43.47	2.00% ←	2.00% ←	R.C.
86+96.80	2.00% ←	0.00%	L.C.
87+00	2.00% ←	0.12% →	
87+50.14	2.00% ←	2.00% →	NORMAL

SUPERELEVATION DATA – CURVE 4

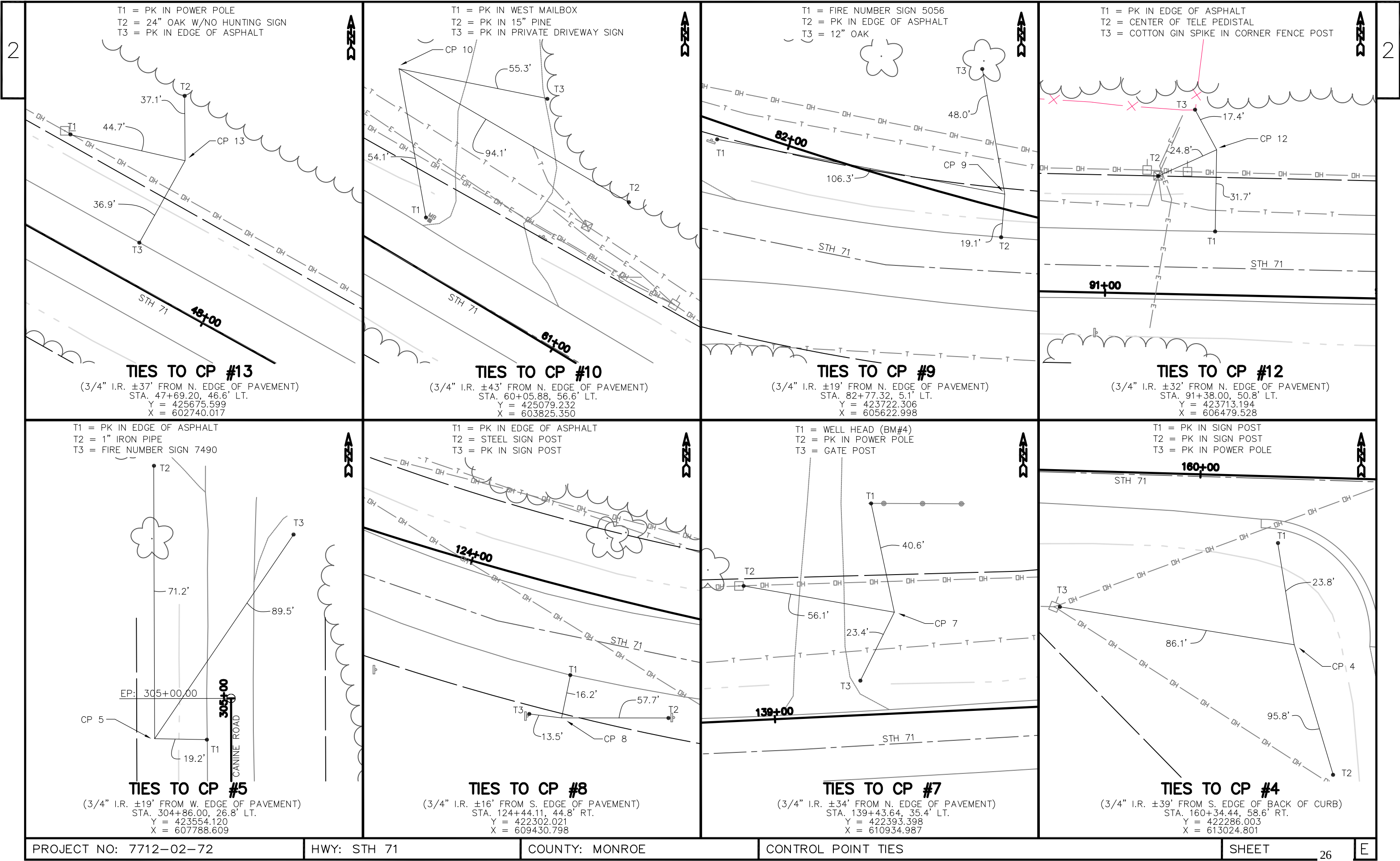
STATION	LEFT	RIGHT	COMMENT
93+64.34	2.00% ←	2.00% →	NORMAL
94+00	0.66% ←	2.00% →	
94+17.67	0.00%	2.00% →	L.C.
94+71.00	2.00% →	2.00% →	R.C.
95+00	3.09% →	3.09% →	
95+24.34			P.C. STA
95+77.67	6.00% →	6.00% →	FULL
96+00	6.00% →	6.00% →	FULL
97+00	6.00% →	6.00% →	FULL
98+00	6.00% →	6.00% →	FULL
99+00	6.00% →	6.00% →	FULL
100+00	6.00% →	6.00% →	FULL
101+00	6.00% →	6.00% →	FULL
101+87.73	6.00% →	6.00% →	FULL
102+00	5.54% →	5.54% →	
102+41.05			P.C. STA
102+94.39	2.00% →	2.00% →	R.C.
103+00	1.79% →	2.00% →	
103+47.73	0.00%	2.00% →	L.C.
104+00	1.96% ←	2.00% →	
104+01.06	2.00% ←	2.00% →	NORMAL

SUPERELEVATION DATA – CURVE 5

STATION	LEFT	RIGHT	COMMENT
118+75.68	2.00% ←	2.00% →	NORMAL
119+00	2.00% ←	1.09% →	
119+29.01	2.00% ←	0.00%	L.C.
119+82.34	2.00% ←	2.00% ←	R.C.
120+00	2.66% ←	2.66% ←	
120+35.68			P.C. STA
120+89.01	6.00% ←	6.00% ←	FULL
121+00	6.00% ←	6.00% ←	FULL
122+00	6.00% ←	6.00% ←	FULL
123+00	6.00% ←	6.00% ←	FULL
124+00	6.00% ←	6.00% ←	FULL
125+00	6.00% ←	6.00% ←	FULL
126+00	6.00% ←	6.00% ←	FULL
127+00	6.00% ←	6.00% ←	FULL
127+85.10	6.00% ←	6.00% ←	FULL
128+00	5.44% ←	5.44% ←	
128+38.42			P.T. STA
128+91.76	2.00% ←	2.00% ←	R.C.
129+00	2.00% ←	1.69% ←	
129+45.10	2.00% ←	0.00%	L.C.
129+98.43	2.00% ←	2.00% →	NORMAL

SUPERELEVATION DATA – CURVE 6

STATION	LEFT	RIGHT	COMMENT
143.02.40	2.00% ←	2.00% →	NORMAL
143+55.73	0.00%	2.00% →	L.C.
144+00	1.66% →	2.00% →	
144+09.06	2.00% →	2.00% →	R.C.
144+25.07			P.C. STA
144+59.73	3.90% →	3.90% →	FULL
145+00	3.90% →	3.90% →	FULL
146+00	3.90% →	3.90% →	FULL
146+58.67	3.90% →	3.90% →	FULL
146.93.33			P.T. STA
147+00	2.35% →	2.35% →	
147+09.34	2.00% →	2.00% →	R.C.
147+62.67	0.00%	2.00% →	L.C.
148+00	6.00% →	6.00% →	
148+16.00	2.00% ←	2.00% →	NORMAL



3

DATE 06JAN16		E S T I M A T E O F Q U A N T I T I E S			
LINE					7712-02-72
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	Clearing	STA	76.000	76.000
0020	201.0205	Grubbing	STA	76.000	76.000
0030	203.0100	Removing Small Pipe Culverts	EACH	12.000	12.000
0040	204.0110	Removing Asphaltic Surface	SY	8,802.000	8,802.000
0050	204.0180	Removing Delineators and Markers	EACH	9.000	9.000
0060	205.0100	Excavation Common	CY	29,981.000	29,981.000
0070	213.0100	Finishing Roadway (project) 01. 7712-02-72	EACH	1.000	1.000
0080	305.0110	Base Aggregate Dense 3/4-Inch	TON	755.000	755.000
0090	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	30,550.000	30,550.000
0100	415.0410	Concrete Pavement Approach Slab	SY	116.000	116.000
0110	440.4410	Incentive IRI Ride	DOL	8,320.000	8,320.000
0120	455.0105	Asphaltic Material PG58-28	TON	502.000	502.000
0130	455.0605	Tack Coat	GAL	2,327.000	2,327.000
0140	460.1100	HMA Pavement Type E-0.3	TON	9,075.000	9,075.000
0150	460.2000	Incentive Density HMA Pavement	DOL	5,809.000	5,809.000
0160	460.4000	HMA Cold Weather Paving	TON	2,270.000	2,270.000
0170	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	10,952.000	10,952.000
0180	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	15.000	15.000
0190	465.0315	Asphaltic Flumes	SY	28.000	28.000
0200	465.0400	Asphaltic Shoulder Rumble Strips	LF	19,188.000	19,188.000
0210	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	9,669.000	9,669.000
0220	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	26.000	26.000
0230	522.0312	Culvert Pipe Reinforced Concrete Class IV 12-Inch	LF	52.000	52.000
0240	522.0324	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	310.000	310.000
0250	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000
0260	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	8.000	8.000
0270	530.0118	Culvert Pipe Corrugated Polyethylene 18-Inch	LF	478.000	478.000
0280	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	1,175.000	1,175.000
0290	606.0200	Riprap Medium	CY	40.000	40.000
0300	614.0920	Salvaged Rail	LF	524.000	524.000
0310	614.2300	MGS Guardrail 3	LF	352.000	352.000
0320	614.2500	MGS Thrie Beam Transition	LF	160.000	160.000
0330	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0340	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7712-02-72	EACH	1.000	1.000
0350	619.1000	Mobilization	EACH	1.000	1.000
0360	624.0100	Water	MGAL	590.000	590.000
0370	625.0500	Salvaged Topsoil	SY	46,856.000	46,856.000
0380	627.0200	Mulching	SY	52,664.000	52,664.000
0390	628.1504	Silt Fence	LF	14,660.000	14,660.000
0400	628.1520	Silt Fence Maintenance	LF	29,320.000	29,320.000
0410	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0420	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0430	628.2008	Erosion Mat Urban Class I Type B	SY	14,879.000	14,879.000
0440	628.7504	Temporary Ditch Checks	LF	1,092.000	1,092.000
0450	628.7555	Culvert Pipe Checks	EACH	54.000	54.000

3

3

DATE 06JAN16		E S T I M A T E O F Q U A N T I T I E S			
LINE		7712-02-72			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0460	628.7560	Tracking Pads	EACH	2.000	2.000
0470	629.0205	Fertilizer Type A	CWT	42.100	42.100
0480	630.0120	Seeding Mixture No. 20	LB	1,582.000	1,582.000
0490	630.0170	Seeding Mixture No. 70	LB	11.000	11.000
0500	630.0200	Seeding Temporary	LB	945.000	945.000
0510	630.0300	Seeding Borrow Pit	LB	150.000	150.000
0520	630.0400	Seeding Nurse Crop	LB	22.000	22.000
0530	633.5100	Markers Row	EACH	121.000	121.000
0540	633.5200	Markers Culvert End	EACH	10.000	10.000
0550	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0560	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	5.000	5.000
0570	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	22.000	22.000
0580	637.2210	Signs Type II Reflective H	SF	173.900	173.900
0590	637.2230	Signs Type II Reflective F	SF	68.720	68.720
0600	638.2102	Moving Signs Type II	EACH	2.000	2.000
0610	638.2602	Removing Signs Type II	EACH	53.000	53.000
0620	638.3000	Removing Small Sign Supports	EACH	59.000	59.000
0630	642.5201	Field Office Type C	EACH	1.000	1.000
0640	643.0100	Traffic Control (project) 01. 7712-02-72	EACH	1.000	1.000
0650	643.0300	Traffic Control Drums	DAY	15,360.000	15,360.000
0660	643.0420	Traffic Control Barricades Type III	DAY	2,560.000	2,560.000
0670	643.0705	Traffic Control Warning Lights Type A	DAY	5,120.000	5,120.000
0680	643.0900	Traffic Control Signs	DAY	2,304.000	2,304.000
0690	643.0920	Traffic Control Covering Signs Type II	EACH	28.000	28.000
0700	643.2000	Traffic Control Detour (project) 01. 7712-02-72	EACH	1.000	1.000
0710	643.3000	Traffic Control Detour Signs	DAY	19,328.000	19,328.000
0720	645.0130	Geotextile Fabric Type R	SY	108.000	108.000
0730	646.0106	Pavement Marking Epoxy 4-Inch	LF	37,670.000	37,670.000
0740	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	20.000	20.000
0750	648.0100	Locating No-Passing Zones	MI	2.080	2.080
0760	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	61,544.000	61,544.000
0770	650.4500	Construction Staking Subgrade	LF	11,646.000	11,646.000
0780	650.5000	Construction Staking Base	LF	11,646.000	11,646.000
0790	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	1,175.000	1,175.000
0800	650.6000	Construction Staking Pipe Culverts	EACH	18.000	18.000
0810	650.8500	Construction Staking Electrical Installations (project) 01. 7712-02-72	LS	1.000	1.000
0820	650.9910	Construction Staking Supplemental Control (project) 01. 7712-02-72	LS	1.000	1.000
0830	650.9920	Construction Staking Slope Stakes	LF	11,646.000	11,646.000
0840	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	20.000	20.000
0850	652.0605	Conduit Special 2-Inch	LF	50.000	50.000
0860	653.0140	Pull Boxes Steel 24x42-Inch	EACH	2.000	2.000
0870	654.0101	Concrete Bases Type 1	EACH	1.000	1.000
0880	654.0102	Concrete Bases Type 2	EACH	1.000	1.000
0890	690.0150	Sawing Asphalt	LF	176.000	176.000
0900	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0910	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0920	SPV.0120	Special 01. Water For Seeded Areas	MGAL	1,380.000	1,380.000

3

3

CLEARING & GRUBBING

STATION—STATION	LOCATION	(201.0105)	(201.0205)
		CLEARING (STA)	GRUBBING (STA)
50+00—78+00	STH 71, LT & RT	28	28
79+00—92+00	STH 71, LT & RT	13	13
106+00—123+00	STH 71, RT	17	17
124+00—128+00	STH 71, LT	4	4
131+00—139+00	STH 71, LT & RT	8	8
145+00—146+00	STH 71, LT	1	1
155+00—156+00	STH 71, LT	1	1
200+00—202+00	DAKOTA, RT	2	2
300+00—302+00	DALMATIAN, LT	2	2
TOTALS		76	76

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	TYPE	LENGTH	(203.0100)
				(EACH)
87+15	STH 71, LT	15” CP	30’	1
89+25	STH 71, LT	15” CP	28’	1
103+32	STH 71	18” CP	46’	1
108+80	STH 71, RT	15” CP	24’	1
114+80	STH 71, LT	15” CP	22’	1
126+50	STH 71, LT	12” CP	22’	1
130+75	STH 71, RT	15” CP	30’	1
141+51	STH 71	10” CP	48’	1
144+65	STH 71, LT	15” CP	28’	1
145+04	STH 71	18” CP	60’	1
155+15	STH 71, LT	15” CP	26’	1
157+85	STH 71, LT	15” CP	32’	1
TOTALS				12

REMOVING DELINEATORS AND MARKERS

STATION	LOCATION	(204.0180)
		(EACH)
103+32	STH 71, RT	1
103+32	STH 71, LT	1
122+59	STH 71, RT	1
123+64	STH 71, RT	1
124+81	STH 71, RT	1
125+31	STH 71, RT	1
125+79	STH 71, RT	1
144+93	STH 71, RT	1
145+23	STH 71, LT	1
TOTALS		9

3

EARTHWORK SUMMARY

Category	From/To Station	Location	Common Excavation (1)	(Item # 205.0100)	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
			Cut (2)	EBS (3)			(Item #205.0500)	(Item #205.0200)	Factor	Factor	Factor	Factor	Factor		Factor		
									0.60	0.80	1.50	1.30	1.10		1.15		
0010	50+00-160+00	STH 71	29240	0	0	29240	0	0	0	0	0	0	0	20524	23603	5637	5637
	200+00-202+82	Dakota Ave	231	0	0	231	0	0	0	0	0	0	0	720	828	-597	-597
	300+00-302+02	Dalmation Rd	445	0	0	445	0	0	0	0	0	0	0	18	21	424	424
	302+28-304+00	Canine Rd	65	0	0	65	0	0	0	0	0	0	0	153	176	-111	-111
Total			29981	0	0	29981	0	0	0	0	0	0	0	21415	24627	5354	5354

- NOTES:
- 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/UNSALE 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 208.1100
- 11.) EXPANDED EBS BACKFILL–THIS IS TO BE FILLED WITH SELECT BORROW MATERIAL. EBS BACKFILL FACTOR = 1.3. ITEM NUMBER 208.1100
- 12.) EXPANDED ROCK – FACTOR = 1.1
- 13.) EXPANDED FILL FACTOR = 1.15
- 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.

REMOVING ASPHALTIC SURFACE

STATION—STATION	LOCATION	(204.0110)
		(SY)
55+00—56+00	STH 71	245
64+00—72+00	STH 71	1956
76+00—79+00	STH 71	733
84+00—92+00	STH 71	1956
97+00—98+00	STH 71	245
102+00—105+00	STH 71	733
107+00—111+00	STH 71	978
114+00—115+00	STH 71	245
123+00—130+00	STH 71	1711
TOTALS		8802

NOTE: SEE EXISTING TYPICAL SECTIONS FOR DEPTH AND MULTIPLE LAYERS OF EXISTING ASPHALT ONLY PAID AS ONE LAYER.

BASE AGGREGATE DENSE

STATION—STATION	LOCATION	(305.0110)	(305.0120)
		3/4–INCH (TON)	1 1/4–INCH (TON)
50+00—160+00	STH 71	500	27170
200+00—202+82	DAKOTA AVE	80	825
300+00—302+02	DALMATIAN ROAD	60	455
302+38—304+00	CANINE ROAD	50	450
	DAYLIGHT ROAD	25	200
	UNDISTRIBUTED	40	1450
TOTALS		755	30550

CONCRETE PAVEMENT APPROACH SLAB

STATION—STATION	LOCATION	(415.0410)
		(SY)
148+94—149+09	STH 71	58
149+57—149+72	STH 71	58
TOTALS		116

NOTE: UNLESS NOTED, ALL ITEMS ARE IN CATEGORY 0010.

3

ASPHALTIC ITEMS

STATION—STATION	LOCATION	(455.0105) ASPHALTIC MATERIAL PG58—28	(455.0605) TACK COAT	(460.1100) HMA PAVEMENT TYPE E—0.3	(460.4000) HMA COLD WEATHER PAVING	(460.4110.S) REHEATING HMA PAVEMENT LONGITUDINAL JOINTS
		(TON)	(GAL)	(TON)	(TON)	(LF)
50+00—160+25	STH 71	472	2184	8558	2140	10952
200+00—202+82	DAKOTA AVE	13	58	225	56	—
300+00—302+02	DALMATIAN ROAD	7	31	120	30	—
302+38—304+00	CANINE ROAD	7	31	122	31	—
	DAYLIGHT ROAD	3	23	50	13	—
TOTALS		502	2327	9075	2270	10952

ASPHALTIC RUMBLE STRIPS

STATION—STATION	LOCATION	(465.0400) ASPHALTIC SHOULDER RUMBLE STRIPS (LF)	(465.0475) ASPHALT CENTER LINE RUMBLE STRIPS 2—LANE RURAL (LF)
50+00—78+50	STH 71	—	2850
50+00—60+15	STH 71, LT	218	—
50+00—79+90	STH 71, RT	2990	—
53+18—60+15	STH 71, LT	697	—
61+15—81+00	STH 71, LT	1985	—
80+50—88+05	STH 71, RT	755	—
82+00—86+60	STH 71, LT	460	—
82+50—103+50	STH 71	—	2100
89+75—104+10	STH 71, LT	1435	—
90+40—104+50	STH 71, RT	1410	—
106+50—114+30	STH 71, LT	780	—
106+90—108+20	STH 71, RT	130	—
107+50—143+40	STH 71	—	3590
109+20—130+20	STH 71, RT	2100	—
115+30—126+05	STH 71, LT	1075	—
127+05—148+69	STH 71, LT	2164	—
131+20—144+30	STH 71, RT	1310	—
146+50—148+69	STH 71, RT	219	—
147+40—148+69	STH 71	—	129
150+00—160+00	STH 71	—	1000
150+00—154+60	STH 71, LT	460	—
150+00—160+00	STH 71, RT	1000	—
TOTALS		19188	9669

3

ASPHALTIC FLUMES

STATION	LOCATION	(465.0315) (SY)
78+50	STH 71, LT	7
84+15	STH 71, LT	7
118+40	STH 71, LT	7
124+50	STH 71, LT	7
TOTALS		28

ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES

STATION	LOCATION	(465.0120) (TON)
87+15	STH 71, LT	6
118+70	STH 71, LT	5
157+85	STH 71, LT	4
TOTALS		15

CULVERT PIPE

STATION	LOCATION	(522.0312) REINFORCED CONCRETE CLASS IV 12—INCH (LF)	(530.0118) CORRUGATED POLYETHYLENE 18—INCH (LF)	(522.0324) REINFORCED CONCRETE CLASS IV 24—INCH (LF)	(522.1012) APRON ENDWALLS FOR REINFORCED CONCRETE 12—INCH (EACH)	(520.1018) APRON ENDWALLS 18—INCH (EACH)	(522.1024) APRON ENDWALLS FOR REINFORCED CONCRETE 24—INCH (EACH)	(628.7555) CULVERT PIPE CHECKS (EACH)	(633.5200) MARKERS CULVERT END (EACH)	(650.6000) CONSTRUCTION STAKING PIPE CULVERTS (EACH)
52+70	STH 71, LT	—	36	—	—	2	—	3	—	1
54+75	STH 71	—	—	90	—	—	2	3	2	1
60+50	STH 71, LT	—	46	—	—	2	—	3	—	1
87+15	STH 71, LT	—	38	—	—	2	—	3	—	1
89+25	STH 71, LT	—	38	—	—	2	—	3	—	1
104+00	STH 71	—	—	68	—	—	2	3	2	1
106+50	STH 71	—	—	62	—	—	2	3	2	1
108+80	STH 71, RT	—	20	—	—	2	—	3	—	1
114+80	STH 71, LT	—	28	—	—	2	—	3	—	1
126+50	STH 71, LT	—	36	—	—	2	—	3	—	1
130+75	STH 71, RT	—	52	—	—	2	—	3	—	1
142+00	STH 71	52	—	—	2	—	—	3	2	1
144+65	STH 71, LT	—	42	—	—	2	—	3	—	1
145+04	STH 71	—	—	90	—	—	2	3	2	1
152+15	STH 71, LT	—	30	—	—	2	—	3	—	1
155+15	STH 71, LT	—	32	—	—	2	—	3	—	1
156+00	STH 71, RT	—	40	—	—	2	—	3	—	1
157+85	STH 71, LT	—	40	—	—	2	—	3	—	1
TOTALS		52	478	310	2	26	8	54	10	18

NOTE: THE LAST THREE PIPE JOINTS
REQUIRE PIPE TIES & ARE INCIDENTAL TO
REINFORCED CONCRETE CLASS IV PIPE

REMOVING SIGNS TYPE II & REMOVING SMALL SIGN SUPPORTS

NO.	STATION	LOCATION	SIGN	(638.2602) (EACH)	(638.3000) (EACH)
1-01R	60+75	RT	CURVE	1	1
1-02R	71+60	RT	CURVE/40MPH	1	1
1-03R	73+90	LT	CURVE	1	1
1-05R	75+90	RT	CHEVRON	1	1
1-06R	77+15	RT	CHEVRON	1	1
1-07R	78+40	RT	CHEVRON	1	1
1-08R	79+60	RT	CHEVRON	1	1
1-09R	80+70	RT	CHEVRON	1	1
1-10R	77+15	RT	SCHOOL BUS STOP AH.	1	1
1-12R	80+72	RT	ARROW	1	1
1-14R	81+30	RT	STOP	1	1
1-15R	81+80	RT	ARROW	1	1
1-16R	82+95	RT	CHEVRON	1	1
2-01R	88+80	LT	CURVE/40MPH	1	1
2-02R	90+92	RT	CURVE/45MPH	1	1
2-03R	96+79	LT	CHEVRON	1	1
2-04R	97+70	LT	CHEVRON	1	1
2-05R	98+55	LT	CHEVRON	1	1
2-06R	100+96	LT	CHEVRON	1	1
2-07R	99+15	LT	ARROW	1	1
2-08R	99+88	LT	ARROW	1	1
2-09R	105+10	LT	STOP	1	1
2-11R	106+00	RT	STOP	1	1
2-13R	106+50	LT	CURVE/45MPH	1	1
2-14R	107+20	LT	NO PASSING	1	1
2-16R	109+30	RT	NO PASSING	1	1
2-18R	116+22	RT	CURVE/40MPH	1	1
3-03R	122+05	RT	CHEVRON	1	1
3-04R	123+10	RT	CHEVRON	1	1
3-05R	124+92	RT	CHEVRON	1	1
3-06R	126+07	RT	CHEVRON	1	1
3-07R	123+72	RT	ARROW	1	1
3-08R	124+26	RT	ARROW	1	1
3-09R	131+55	LT	CURVE/40MPH	1	1
3-10R	135+80	RT	NO PASSING	1	1
3-13R	144+65	RT	WEGNER GROTTO	1	2
3-14R	145+46	LT	WEGNER GROTTO	1	2
3-15R	145+70	RT	STOP	1	1
3-17R	147+30	RT	JCT 27	1	1
3-18R	149+09	RT	BRIDGE WIDTH	1	1
3-20R	149+09	LT	BRIDGE WIDTH	1	1
3-23R	149+57	RT	BRIDGE WIDTH	1	1
3-25R	149+57	LT	BRIDGE WIDTH	1	1
4-01R	152+35	LT	STOP AHEAD	1	1
4-03R	152+35	RT	STOP AHEAD	1	1
4-06R	154+28	LT	NO PASSING	1	1
4-09R	154+32	RT	J2-3	1	2
4-11R	156+16	LT	MELROSE 10	1	2
4-14R	156+38	RT	BRF, SPARTA	1	2
4-15R	159+37	LT	WEST 71	1	1
4-17R	160+15	LT	STOP	1	1
4-19R	160+45	RT	J2-3	1	2
4-21R	160+15	RT	STOP	1	1
TOTALS				53	59

FINISHING ITEMS

		(625.0500) SALVAGED TOPSOIL (SY)	(627.0200) MULCHING (SY)	(628.2008) EROSION MAT URBAN, CLASS I TYPE B (SY)	(628.7504) TEMPORARY DITCH CHECKS (LF)	(629.0205) FERTILIZER TYPE A (CWT)	(630.0120) SEEDING MIXTURE NO. 20 (LB)	(630.0170) SEEDING MIXTURE NO. 70 (LB)	(630.0200) SEEDING TEMPORARY (LB)	(630.0300) SEEDING BORROW PIT (LB)	(630.0400) SEEDING NURSE CROP (LB)
STATION-STATION	LOCATION										
50+00-79+70	STH 71, RT	6968	5654	1663	120	4.6	198	-	99	-	-
50+00-60+40	STH 71, LT	2201	1548	763	48	1.5	62	-	31	-	-
60+60-89+15	STH 71, LT	6175	4583	1901	204	4.1	175	-	88	-	-
80+80-88+50	STH 71, RT	3005	2655	500	36	2.0	85	-	43	-	-
88+70-89+80	STH 71, RT	397	417	-	-	0.3	11	-	6	-	-
89+35-104+90	STH 71, LT	2948	1996	1100	-	2.0	84	-	42	-	-
90+05-105+30	STH 71, RT	3205	2450	916	60	2.1	91	-	45	-	-
105+80-126+40	STH 71, LT	3346	2384	1130	60	2.2	95	-	48	-	-
106+00-108+70	STH 71, RT	577	426	180	12	0.4	16	-	8	-	-
108+95-130+65	STH 71, RT	5648	4811	1120	60	3.7	160	-	80	-	-
126+60-139+05	STH 71, LT	1674	1758	-	-	1.1	47	-	24	-	-
130+85-145+00	STH 71, RT	3017	1915	1253	24	2.0	86	-	43	-	-
139+25-144+55	STH 71, LT	551	579	-	-	0.4	16	-	8	-	-
144+75-149+10	STH 71, LT	1044	892	205	-	-	-	4	-	-	8
145+70-149+10	STH 71, RT	543	410	160	24	-	-	3	-	-	6
149+57-151+00	STH 71, RT	343	308	70	-	-	-	2	-	-	4
149+57-151+00	STH 71, LT	356	406	90	72	-	-	2	-	-	4
151+00-160+25	STH 71, RT	1429	1198	285	-	1.2	50	-	25	-	-
151+00-160+00	STH 71, LT	1289	689	543	72	1.1	47	-	24	-	-
200+00-202+50	DAKOTA AVE	783	783	-	-	0.5	21	-	11	-	-
300+00-302+02	DALMATION ROAD	890	935	-	-	0.6	25	-	13	-	-
302+38-304+00	CANINE ROAD	467	467	-	-	0.3	13	-	7	-	-
	UNDISTRIBUTED	-	9400	3000	200	8.0	300	-	150	-	-
	WASTE SITES	-	6000	-	100	4.0	-	-	150	150	-
TOTALS		46856	52664	14879	1092	42.1	1582	11	945	150	22

SILT FENCE & SILT FENCE MAINTENANCE

		(628.1504) (LF)	(628.1520) (LF)
STATION-STATION	LOCATION		
51+00-54+60	STH 71, RT	350	700
51+40-54+40	STH 71, LT	300	600
57+90-65+00	STH 71, RT	700	1400
59+00-64+00	STH 71, LT	470	940
78+00-81+30	STH 71, LT	330	660
200+00-89+65	STH 71, RT	1200	2400
88+20-101+60	STH 71, LT	1300	2600
90+00-103+00	STH 71, RT	1240	2480
304+00-128+30	STH 71, LT	2370	4740
131+00-149+00	STH 71, LT	1730	3460
144+80-149+00	STH 71, RT	320	640
149+60-152+00	STH 71, LT	240	480
149+60-160+00	STH 71, RT	1110	2220
	UNDISTRIBUTED	1000	2000
	WASTE SITES	2000	4000
TOTALS		14660	29320

SALVAGED RAIL

STATION-STATION	LOCATION	(614.0920) (LF)
147+38-149+09	STH 71, RT	171
148+12-149+09	STH 71, LT	97
149+58-150+29	STH 71, RT	172
149+58-151+30	STH 71, LT	84
TOTALS		524

MGS GUARDRAIL 3
MGS THRIE BEAM TRANSITION
MGS GUARDRAIL TERMINAL EAT

STATION-STATION	LOCATION	(614.2300) (LF)	(614.2500) (LF)	(614.2610) (EACH)
147+59-149+09	STH 71, LT	88	40	1
147+59-149+09	STH 71, RT	88	40	1
149+58-151+08	STH 71, LT	88	40	1
149+58-151+08	STH 71, RT	88	40	1
TOTALS		352	160	4

3

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D

STATION-STATION	LOCATION	(601.0557) (LF)
78+50-84+15	STH 71, LT	565
118+40-124+50	STH 71, LT	610
TOTALS		1175

RIPRAP MEDIUM & GEOTEXTILE FABRIC TYPE R

STATION	LOCATION	WIDTHX LENGTH (FT)	(606.0200) (CY)	(645.0130) (SY)
54+75	STH 71, RT	8X16	10	27
104+00	STH 71, LT	8X16	10	27
106+50	STH 71, LT	8X16	10	27
145+04	STH 71, LT	8X16	10	27
TOTALS			40	108

MOVING SIGNS TYPE II

NO.	STATION	LOCATION	(638.2102) (EACH)
3-01	121+45	RT	1
3-02	121+45	RT	1
TOTALS			2

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

STATION	LOCATION	(647.0566) (LF)
160+45	STH 71, RT	20
TOTALS		20

PERMANENT SIGNING

NO.	SIGN CODE	SIZE (IN)	DESCRIPTION	(634.0612)	(634.0614)	(634.0616)	(637.2210)	(637.2230)
				POSTS WOOD 4X6-INCH X 12-FT (EACH)	POSTS WOOD 4X6-INCH X 14-FT (EACH)	POSTS WOOD 4X6-INCH X 16-FT (EACH)	SIGNS TYPE II REFLECTIVE H (SF)	SIGNS TYPE II REFLECTIVE F (SF)
1-04	W3-1A	36"X36"	STOP AHEAD	—	—	1	—	9.00
1-11	W3-1A	36"X36"	SCHOOL BUS STOP AH.	—	—	1	—	9.00
1-13	R1-1	30"X30"	STOP	—	—	1	6.25	—
2-10	R1-1	30"X30"	STOP	—	1	—	6.25	—
2-12	R1-1	30"X30"	STOP	—	1	—	6.25	—
2-15	W14-3	48"X36"	NO PASSING	—	—	1	—	5.18
2-17	W14-3	48"X36"	NO PASSING	—	—	1	—	5.18
3-11	W14-3	48"X36"	NO PASSING	—	—	1	—	5.18
3-12	D7-68R	66"X36"	WEGNER GROTTTO	—	—	2	16.50	—
3-16	R1-1	30"X30"	STOP	—	—	1	6.25	—
3-19	W5-52R	12"X36"	BRIDGE MARKER	1	—	—	—	3.00
3-21	W5-52L	12"X36"	BRIDGE MARKER	1	—	—	—	3.00
3-22	J4-1	24"X39"	JCT 27	—	—	1	6.50	—
3-24	W5-52L	12"X36"	BRIDGE MARKER	1	—	—	—	3.00
3-26	W5-52R	12"X36"	BRIDGE MARKER	1	—	—	—	3.00
4-02	W3-1A	36"X36"	STOP AHEAD	—	—	1	—	9.00
4-04	W3-1A	36"X36"	STOP AHEAD	—	—	1	—	9.00
4-05	D7-68R	66"X36"	WEGNER GROTTTO	—	—	2	16.50	—
4-07	W14-3	48"X36"	NO PASSING	—	—	1	—	5.18
4-08	J2-3	72"X57"	27/27/71	—	—	2	28.50	—
4-10	R2-1	24"X30"	SPEED LIMIT 55	—	1	—	5.00	—
4-12	D2-1	66"X15"	MELROSE 9	—	2	—	6.90	—
4-13	D1-2	106"X30"	BRF,SPARTA	—	—	2	22.00	—
4-16	J4-1	24"X36"	WEST 71	—	—	1	6.00	—
4-18	R1-1	30"X30"	STOP	—	—	—	6.25	—
4-20	J2-3	72"X57"	27/27/71	—	—	2	28.50	—
4-22	R1-1	30"X30"	STOP	—	—	—	6.25	—
TOTALS				4	5	22	173.90	68.72

LOCATING NO PASSING ZONES

STATION-STATION	LOCATION	(648.0100) (MI)
50+00-160+00	STH 71	2.08
TOTALS		2.08

3

MARKERS ROW				MARKERS ROW (CONTINUED)				MARKERS ROW (CONTINUED)				MARKERS ROW (CONTINUED)			
NO.	STATION	LOCATION	(633.5100) (EACH)	NO.	STATION	LOCATION	(633.5100) (EACH)	NO.	STATION	LOCATION	(633.5100) (EACH)	NO.	STATION	LOCATION	(633.5100) (EACH)
100	50+00.00	30.71', LT	1	201	78+00.00	50.00', LT	1	301	105+17.94	133.61', LT	1	401	136+00.04	28.36', LT	1
101	51+00.00	30.26', LT	1	202	80+50.00	40.00', LT	1	302	105+29.75	114.85', LT	1	402	137+29.94	52.77', LT	1
102	53+00.00	60.00', LT	1	203	82+50.00	50.00', LT	1	303	106+60.83	45.00', LT	1	403	139+88.15	47.63', LT	1
103	54+00.00	60.00', LT	1	204	85+00.00	50.00', LT	1	304	111+00.00	45.00', LT	1	404	141+77.08	54.76', LT	1
104	55+00.00	40.00', LT	1	205	85+90.13	50.00', LT	1	305	111+99.79	39.85', LT	1	405	143+65.42	58.03', LT	1
105	57+00.00	40.00', LT	1	206	90+00.00	50.00', LT	1	306	120+35.68	44.29', LT	1	406	147+26.26	60.16', LT	1
106	57+47.85	45.00', LT	1	207	91+00.04	41.19', LT	1	307	121+95.02	35.84', LT	1	407	155+20.79	59.76', LT	1
107	59+00.00	45.00', LT	1	208	95+24.34	40.81', LT	1	308	125+00.00	45.00', LT	1	408	158+67.95	59.42', LT	1
108	61+00.00	60.00', LT	1	209	96+76.56	49.63', LT	1	309	127+00.00	50.00', LT	1	409	160+25.53	69.27', LT	1
109	61+68.21	59.85', LT	1	210	100+24.40	50.76', LT	1	310	128+38.42	43.54', LT	1	410	160+76.48	70.73', LT	1
110	63+00.00	60.00', LT	1	211	102+41.06	45.00', LT	1	311	134+28.45	31.78', LT	1	411	160+82.74	147.32', RT	1
111	64+00.00	45.00', LT	1	212	104+16.57	45.00', LT	1	312	134+24.07	55.00', RT	1	412	160+40.26	148.54', RT	1
112	66+45.71	45.00', LT	1	213	104+61.76	98.97', LT	1	313	131+50.00	70.00', RT	1	413	159+38.80	50.65', RT	1
113	68+50.00	45.00', LT	1	214	104+65.44	101.25', LT	1	314	131+15.00	60.00', RT	1	414	157+15.54	50.43', RT	1
114	70+88.60	45.00', LT	1	215	106+48.59	194.57', RT	1	315	130+40.00	60.00', RT	1	415	157+15.52	70.43', RT	1
115	72+50.00	45.00', LT	1	216	106+39.57	200.13', RT	1	316	130+00.00	35.00', RT	1	416	154+37.52	70.15', RT	1
116	73+00.00	55.00', LT	1	217	104+82.76	50.00', RT	1	317	129+00.00	35.00', RT	1	417	154+37.54	50.15', RT	1
117	75+30.23	55.00', LT	1	218	102+41.06	50.00', RT	1	318	128+38.42	50.00', RT	1	418	148+90.83	49.87', RT	1
118	77+03.80	50.00', LT	1	219	100+50.00	50.00', RT	1	319	127+50.00	50.00', RT	1	419	147+42.50	57.98', RT	1
119	77+80.50	50.00', RT	1	220	98+00.00	50.00', RT	1	320	126+00.00	50.00', RT	1	420	147+29.94	58.67', RT	1
120	76+50.00	50.00', RT	1	221	95+24.34	45.00', RT	1	321	125+50.00	39.97', RT	1	421	147+29.16	46.78', RT	1
121	75+30.23	50.00', RT	1	222	88+00.02	45.00', RT	1	322	123+00.00	39.43', RT	1	422	145+85.44	48.23', RT	1
122	73+00.00	50.00', RT	1	223	85+90.13	55.00', RT	1	323	122+00.00	50.00', RT	1	423	145+88.53	63.44', RT	1
123	72+00.00	85.00', RT	1	224	84+50.00	60.00', RT	1	324	120+35.68	45.00', RT	1	424	145+23.01	79.69', RT	1
124	70+88.60	84.64', RT	1	225	81+93.78	71.46', RT	1	327	111+23.00	45.00', RT	1	425	144+86.40	63.56', RT	1
125	67+50.00	50.00', RT	1	226	81+73.13	74.68', RT	1	328	110+00.00	35.00', RT	1	426	143+36.84	59.48', RT	1
126	66+45.71	50.00', RT	1	227	78+85.56	224.69', RT	1	329	108+50.00	35.00', RT	1	427	139+88.04	45.39', RT	1
127	61+68.21	50.00', RT	1	SUBTOTAL			27	330	107+50.00	45.00', RT	1	428	137+00.00	39.65', RT	1
128	61+00.00	50.00', RT	1					331	106+67.67	45.00', RT	1	429	136+00.00	55.00', RT	1
129	60+00.00	60.00', RT	1					332	106+37.64	70.55', RT	1	SUBTOTAL			29
130	59+00.00	50.00', RT	1					333	106+95.76	165.50', RT	1	TOTAL			121
131	57+47.85	50.00', RT	1					SUBTOTAL			31				
132	51+00.00	50.00', RT	1												
133	50+00.00	35.29', RT	1												
SUBTOTAL			34												

WATER			TRAFFIC CONTROL							
STATION—STATION	LOCATION	(624.0100) (MGAL)			(643.0300) DRUMS (DAYS)	(643.0420) BARRICADES TYPE III (DAYS)	(643.0705) WARNING LIGHTS TYPE A (DAYS)	(643.0900) SIGNS (DAYS)	(643.0920) COVERING SIGNS TYPE II (DAYS)	(643.3000) DETOUR SIGNS (DAYS)
50+00—160+00	STH 71	550		B—41—0248	5120	—	—	—	—	—
200+00—202+82	DAKOTA AVE	18		VARIOUS	10240	—	—	—	—	—
300+00—302+02	DALMATIAN ROAD	9		DETOUR PLAN SHEET 1	—	128	256	128	3	6784
302+38—304+00	CANINE ROAD	9		DETOUR PLAN SHEET 2 (DETAIL 1)	—	896	1792	384	2	2304
	DAYLIGHT ROAD	4		DETOUR PLAN SHEET 3 (DETAIL 2)	—	—	—	—	—	5120
				DETOUR PLAN SHEET 4 (DETAIL 3)	—	—	—	—	8	3584
				DETOUR PLAN SHEET 5 (DETAIL 4)	—	384	768	128	15	1536
				DAKOTA AVE	—	384	768	512	—	—
				CANINE ROAD	—	256	512	384	—	—
				DALMATIAN ROAD	—	256	512	384	—	—
				DAYLIGHT ROAD	—	256	512	384	—	—
TOTALS			590	TOTALS	15360	2560	5120	2304	28	19328

TRACKING PADS	
LOCATION	(628.7560) (EACH)
WASTE SITES	2
TOTALS	2

PROJECT NO: 7712—02—72	HWY: STH 71	COUNTY: MONROE	MISCELLANEOUS QUANTITIES	SHEET	33	E
------------------------	-------------	----------------	--------------------------	-------	----	---

PAVEMENT MARKING

STATION—STATION	LOCATION	EPOXY 4-INCH(646.0106)			(649.0402)	
		SOLID WHITE	SOLID YELLOW	SKIPS YELLOW	SOLID YELLOW	SKIPS YELLOW
		(LF)	(LF)	(LF)	(LF)	(LF)
50+00–98+90	STH 71, CL	—	9780	—	39120	—
98+90–107+35	STH 71, CL	—	845	225	3380	288
107+35–109+05	STH 71, CL	—	340	—	1360	—
109+05–118+70	STH 71, CL	—	965	250	3860	320
118+70–126+05	STH 71, CL	—	1470	—	5880	—
126+05–135+78	STH 71, CL	—	974	250	3896	320
135+78–154+65	STH 71, CL	—	—	475	—	608
154+65–160+45	STH 71, CL	—	580	150	2320	192
50+00–104+10	STH 71, LT	5410	—	—	—	—
50+00–79+90	STH 71, RT	3002	—	—	—	—
80+50–104+50	STH 71, RT	2372	—	—	—	—
106+50–160+00	STH 71, LT	5370	—	—	—	—
106+30–144+30	STH 71, RT	3812	—	—	—	—
146+00–160+00	STH 71, RT	1400	—	—	—	—
SUB—TOTALS		21366	14954	1350	59816	1728
PROJECT TOTALS			37670		61544	

CONSTRUCTION STAKING

STATION—STATION	LOCATION	(650.4500)	(650.5000)	(650.5500)	(650.8500)	(650.9920)
		SUBGRADE (LF)	BASE (LF)	CURB, GUTTER & GUTTER (LF)	ELECTRICAL INSTALLATIONS (LS)	SLOPE STAKING (LF)
50+00–160+00	STH 71	11000	11000	—	—	11000
78+50–84+15	STH 71, LT	—	—	565	—	—
118+40–124+50	STH 71, LT	—	—	610	—	—
160+25	STH 71	—	—	—	1	—
200+00–202+82	DAKOTA AVE	282	282	—	—	282
300+00–302+02	DALMATIAN ROAD	202	202	—	—	202
302+38–304+00	CANINE ROAD	162	162	—	—	162
TOTALS		11646	11646	1175	1	11646

ELECTRICAL ITEMS FOR BEACONS

STATION	LOCATION	(652.0225)	(652.0605)	(653.0140)	(654.0101)	(654.0101)
		CONDUIT RIGID NON METALLIC SCHEDULE 40 2-INCH (LF)	CONDUIT SPECIAL 2-INCH (LF)	PULL BOXES STEEL 24X42-INCH (EACH)	CONCRETE BASES TYPE 1 (EACH)	CONCRETE BASES TYPE 2 (EACH)
160+25	STH 71	20	50	2	1	1
TOTALS		20	50	2	1	1

NOTE: ELECTRICAL SERVICE, WIRING, POLES AND BEACONS TO BE PROVIDED BY OTHERS.

SAWING ASPHALT

STATION	LOCATION	(690.0150) (LF)
50+00	STH 71	24
87+15	STH 71, LT	20
118+70	STH 71, LT	14
157+85	STH 71, LT	28
160+00	STH 71	50
200+00	DAKOTA AVE	20
304+00	CANINE ROAD	20
TOTALS		176

WATER FOR SEEDED AREAS

STATION	LOCATION	(SPV.0120.01) (MGAL)
50+00–160+25	STH 71, RT	592
50+00–160+00	STH 71, LT	461
200+00–202+50	DAKOTA AVE	18
300+00–302+02	DALMATIAN ROAD	21
302+38–304+00	CANINE ROAD	10
	UNDISTRIBUTED	278
TOTALS		1380

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
PROJECT 7712-02-22
MELROSE - SPARTA
(STH 162 TO STH 27)
STH 71
MONROE COUNTY



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 7712-02-22

NOTES:

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY LINE BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 71 ESTABLISHED FROM PREVIOUS PROJECTS: PROJECT NO. 7712-02-21, PROJECT NO. T 086(1); CERTIFIED SURVEY MAP NUMBERS 447159, 454691, 465889, 351693, 550192, 322763, 345808, 486441, 574262, AND A PLAT OF SURVEY BY HEFNER DATED AUGUST 22, 2000.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY LINE IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT TO INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (T.L.E.s) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF THE EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MONROE COUNTY, NAD 83, 2007 IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL RIGHT-OF-WAY LINES DEPICTED IN NON ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER DOCUMENTS, OR FROM CENTERLINE OF PAVEMENTS.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN LACROSSE.

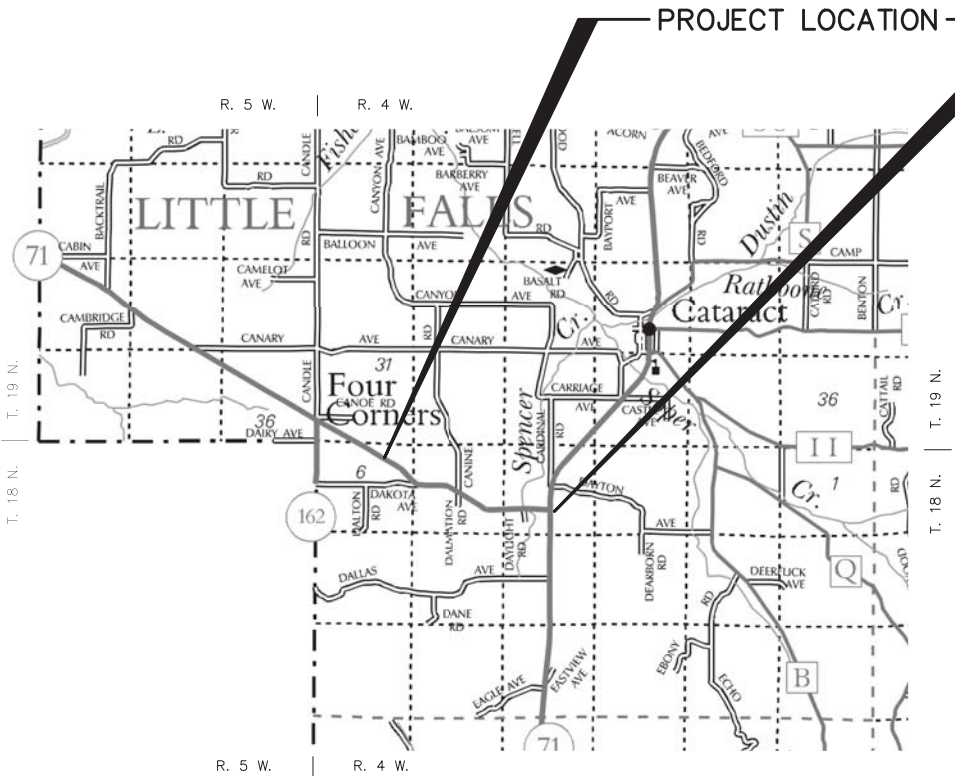
CONVENTIONAL SYMBOLS AND ABBREVIATIONS

SECTION LINE	--- --	SECTION CORNER		R/W POINT TO BE MONUMENT	●
QUARTER LINE	--- --	NOTATION FOR COMBUSTIBLE FLUIDS		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	--- --	NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES		FOUND IRON PIN	IP
NEW REFERENCE LINE	--- --			VALVE (GAS, WATER, ETC.)	○ (TYPE)
NEW R/W LINE	--- --			SIGN	♣ SIGN
EXISTING R/W LINE	--- --			OFF-PREMISE SIGN	♣ SIGN
PROPERTY LINE	--- --				
LOT, TIE & OTHER MINOR LINES	--- --				
CORPORATE LIMITS	--- --				
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)	--- --	ELECTRIC POLE		COMPENSABLE	
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)	--- --	TELEPHONE POLE		NON-COMPENSABLE	
TEMPORARY LIMITED EASEMENT AREA	--- --	PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)			
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)	--- --	ACCESS CONTROLLED BY ACQUISITION			
TRANSMISSION STRUCTURES	--- --	NO ACCESS (BY STATUTORY AUTHORITY)			
BUILDING	--- --	ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)			
NATIONAL GEODETIC SURVEY MONUMENT	--- --			R/W BOUNDARY POINT	
SIXTEENTH CORNER MONUMENT	--- --			PARCEL NUMBER	25
				UTILITY NUMBER	40

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	COUNTY	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TPL
EXISTING	EX	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	GV		
GRID NORTH	GN	TRANSPORTATION PROJECT PLAT	TPP
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY NUMBER	NGS		
OUTLOT	OL		
PAGE	PG		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATE

LONG CHORD	L.C.
LONG CHORD BEARING	L.C.B.
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB



CONVENTIONAL UTILITY SYMBOLS

WATER	--- W ---
GAS	--- G ---
TELEPHONE	--- T ---
OVERHEAD	--- OH ---
TRANSMISSION LINES	--- ---
ELECTRIC	--- E ---
CABLE TELEVISION	--- TV ---
FIBER OPTIC	--- FO ---
SANITARY SEWER	--- SAN ---
STORM SEWER	--- SS ---

TPP 7712-02-22 - 4.01 AMENDMENT 1
SHEET 2 OF 2

TRANSPORTATION PROJECT PLAT
NO: 7712-02-22-4.01 AMENDMENT 1

THE FOLLOWING ARE AMENDMENTS OR CORRECTIONS TO TRANSPORTATION PROJECT PLAT 7712-02-22-4.01, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MONROE COUNTY AS DOCUMENT 647307 AND FILED IN MAP FILE 292B.

THIS AMENDS PARCELS 1, 2, 3, 4; THIS ALSO AMENDS UTILITY NUMBERS 40 AND 41; THIS ALSO CORRECTS THE LOCATION DESCRIPTION; THIS ALSO CORRECTS THE COORDINATE INFORMATION FOR THE NORTHEAST CORNER OF SECTION 6.

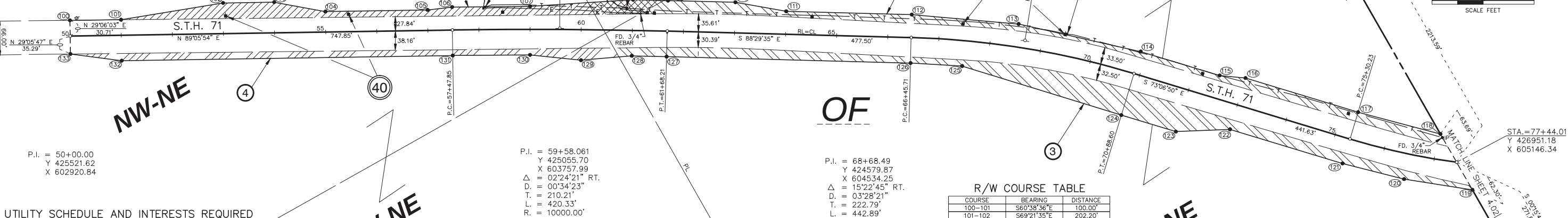
LOCATED IN LOT 1, CSM V. 18, P. 165, DOC. 550192, IN AND INCLUDING PART OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER; ALSO LOCATED IN THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER, THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER AND THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER ALL IN SECTION 6, TOWN 18 NORTH, RANGE 4 WEST, TOWN OF LITTLE FALLS, MONROE COUNTY, WISCONSIN.

RELOCATION ORDER STH 71 MELROSE - SPARTA (STH 162 TO STH 27)

TO PROPERLY ESTABLISHED, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEM IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTERESTS REQUIRED
40	XCEL ENERGY	RELEASE OF RIGHTS
41	CENTURY LINK	RELEASE OF RIGHTS
-	-	-

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W REQUIRED ACRES				T.L.E. ACRES TEMP.
			NEW	EXISTING	TOTAL		
1	ROBERT S. BETHE & LINDA L. BETHE	FEE	0.38	0.68	1.06	-	-
2	KIM T. BOBO	FEE	0.07	0.00	0.07	-	-
3	SCHOOL DISTRICT NO. 1	FEE	1.53	2.54	4.07	-	-
4	KIWANIS CLUB OF SPARTA, INCORPORATED	FEE	0.32	0.90	1.22	-	-

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.

ORIGINAL PLANS PREPARED BY
TEAM Engineering

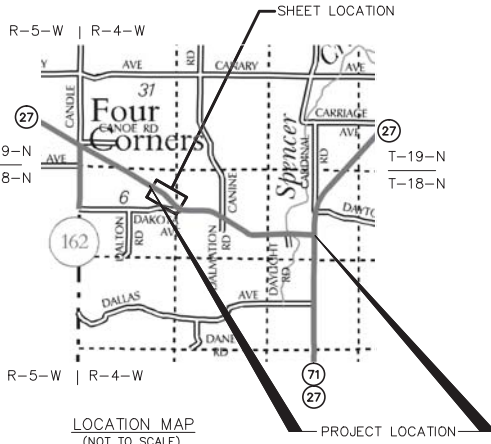
240 Main Street
P.O. Box 117
Loganville, WI 53943
Phone: (608) 727-2146

I, THEODORE J. GREENHECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISION OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 7712-02-22-4.01 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *Theodore J. Greenheck* DATE: 01-30-15
PRINT NAME: THEODORE J. GREENHECK
REGISTRATION NUMBER: S-2431

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE: *Cory Schlager* DATE: 4-1-2015
PRINT NAME: COREY SCHLAGEL



R/W POINT STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
100	50+00.00	30.71'
101	51+00.00	30.26'
102	53+00.00	60.00'
103	54+00.00	60.00'
104	55+00.00	40.00'
105	57+00.00	40.00'
106	57+47.85	45.00'
107	59+00.00	45.00'
108	61+00.00	60.00'
109	61+68.21	59.85'
110	63+00.00	60.00'
111	64+00.00	45.00'
112	66+45.71	45.00'
113	68+50.00	45.00'
114	70+88.60	45.00'
115	72+50.00	45.00'
116	73+00.00	55.00'
117	75+30.23	55.00'
118	77+03.80	50.00'
119	77+80.50	50.00'
120	76+50.00	50.00'
121	75+30.23	50.00'
122	73+00.00	50.00'
123	72+00.00	85.00'
124	70+88.60	84.64'
125	67+50.00	50.00'
126	66+45.71	50.00'
127	61+68.21	50.00'
128	61+00.00	50.00'
129	60+00.00	60.00'
130	59+00.00	50.00'
131	57+47.85	50.00'
132	51+00.00	50.00'
133	50+00.00	35.29'

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
100-101	S60°38'36"E	100.00'
101-102	S69°21'35"E	202.20'
102-103	S60°54'06"E	100.00'
103-104	S49°35'30"E	101.98'
104-105	S60°54'06"E	200.00'
105-106	S66°52'02"E	48.11'
106-107	S60°27'57"E	152.83'
107-108	S63°43'25"E	201.61'
108-109	S58°33'36"E	68.62'
109-110	S58°33'36"E	131.79'
110-111	S49°57'44"E	101.12'
111-112	S58°29'35"E	245.71'
112-113	S54°56'46"E	209.73'
113-114	S47°15'23"E	244.89'
114-115	S43°06'50"E	161.40'
115-116	S54°25'24"E	50.99'
116-117	S43°06'50"E	230.23'
117-118	S45°08'13"E	166.67'
118-119	S00°15'44"W	125.99'
119-120	N51°05'03"W	135.35'
120-121	N45°41'37"W	124.23'
121-122	N43°06'50"W	230.23'
122-123	N62°24'14"W	105.95'
123-124	N42°55'36"W	111.40'
124-125	N42°55'36"W	326.04'
125-126	N56°40'56"W	101.12'
126-127	N58°29'35"W	477.50'
127-128	N58°41'19"W	67.87'
128-129	N64°54'44"W	99.95'
129-130	N54°00'05"W	99.95'
130-131	N60°27'56"W	151.39'
131-132	N60°54'06"W	647.85'
132-133	N52°32'02"W	101.07'
133-100	N29°05'54"E	66.00'

EASEMENT TABLE

OWNER (S)	RECORDING INFORMATION	LOCATED IN R/W PARCEL #
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #208709 VOL.162, PG.504-505	1 & 4
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #209790 VOL.163, PG.182	3
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #208708 VOL.162, PG.504	2
CENTURY TELEPHONE COMPANY	DOC. #412784 VOL.133, PG.148	1
CENTURY TELEPHONE COMPANY	NO RECORD OF EASEMENT	2,3 & 4



240 Main Street
P.O. Box 117
Loganville, WI 53943
Phone: (608) 727-2146

I, THEODORE J. GREENHECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISION OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 7712-02-22-4.01 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *Theodore J. Greenheck* DATE: 02-18-2015

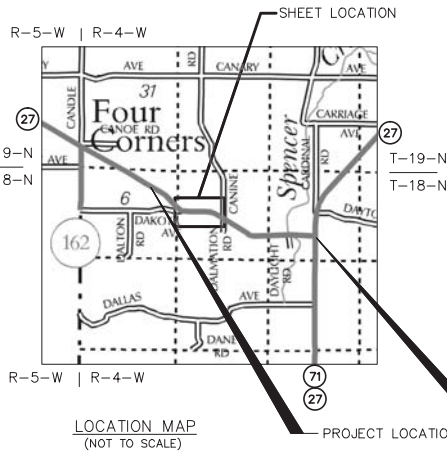
PRINT NAME: THEODORE J. GREENHECK
REGISTRATION NUMBER: S-2431

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

SIGNATURE: *Cory Schlager* DATE: 4/14/15
PRINT NAME: CORY SCHLAGER

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTERESTS REQUIRED
40	XCEL ENERGY	RELEASE OF RIGHTS
41	CENTURY LINK	RELEASE OF RIGHTS
-	-	-



TRANSPORTATION PROJECT PLAT NO: 7712-02-22-4.02

LOCATED IN THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER, SOUTHEAST QUARTER OF THE NORTHWEST QUARTER, NORTHWEST QUARTER OF THE SOUTHWEST QUARTER, NORTHEAST QUARTER OF THE SOUTHWEST QUARTER, SECTION 5, TOWN 18 NORTH, RANGE 4 WEST, TOWN OF LITTLE FALLS, MONROE COUNTY, WISCONSIN.

RELOCATION ORDER STH 71 MELROSE - SPARTA (STH 162 TO STH 27)

TO PROPERLY ESTABLISHED, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEM IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 WND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OF RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W REQUIRED ACRES			T.L.E. ACRES TEMP.
			NEW	EXISTING	TOTAL	
5	RICHARD A. BOYLE	FEE	0.36	0.30	0.66	-
6	RICHARD A. PETERSON	FEE/TLE	0.31	0.26	0.57	0.07
7	MARTI A. RHODES	FEE/TLE	0.07	0.25	0.32	0.02
8	JAMES P. SHURSON	FEE	0.05	0.26	0.05	-
9	COUNTY OF MONROE	FEE	0.38	0.86	1.24	-
10	KEITH R. SCHMIG II & KARL R. SCHMIG & KATHERINE R. HILBY	FEE/TLE	0.35	0.00	0.35	0.04
11	NORMAN B. SCHULTZ	FEE/TLE	0.10	0.00	0.10	0.03
12	WILMER H. CRAIG & GLORIA J. CRAIG LIFE TENANTS & PAUL A. CRAIG, REMAINDERMAN	FEE	1.13	2.14	3.27	-

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.

EASEMENT TABLE		
OWNER (S)	RECORDING INFORMATION	LOCATED IN R/W PARCEL #
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #208707 VOL.162, PG.503	5,6,7,8 & 9
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #201488 VOL.152, PG.108	12
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	NO RECORD OF EASEMENT	10 & 11
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #208706 VOL.162, PG.503	12
CENTURY TELEPHONE COMPANY	NO RECORD OF EASEMENT	5,6,7,8,9,10,11 & 12

R/W POINT STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
118	77+03.80	50.00'
201	78+00.00	40.00'
202	80+50.00	50.00'
203	82+50.00	50.00'
204	85+00.00	50.00'
205	85+90.13	50.00'
206	90+00.00	50.00'
207	91+00.04	41.19'
208	95+24.34	40.81'
209	96+76.56	49.63'
210	100+24.40	50.76'
211	102+41.06	45.00'
212	104+16.57	45.00'
213	104+61.76	98.97'
214	104+65.44	101.25'
215	106+48.59	194.57'
216	106+39.57	200.13'
217	104+82.76	50.00'
218	102+41.06	50.00'
219	100+50.00	50.00'
220	98+00.00	50.00'
221	95+24.34	45.00'
222	88+00.02	45.00'
223	85+90.13	55.00'
224	84+50.00	60.00'
225	81+93.78	71.46'
226	81+73.13	74.68'
227	78+85.56	224.69'

NE-SW LITTLE FALLS

FOR ADDITIONAL INFORMATION, REFER TO THE TITLE SHEET RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MONROE COUNTY AS SHEET 2 OF 2 OF DOCUMENT 648385 AND FILED IN MAP FILE 293A.

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
209-210	758.90'	363.32'	359.86'	S75°00'29"E	27°25'47"

DOCUMENT 648752

FILED IN 293B

IN MONROE COUNTY

ON MAY 1, 2015

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER:
7712-02-22-4.02

MONROE CO.
HARRISON
MONUMENT FOUND
Y= 426164.74
X= 605156.48

MONROE CO.
HARRISON
MONUMENT FOUND
Y= 423647.22
X= 610424.82

MONROE CO.
HARRISON
MONUMENT FOUND
Y= 421043.75
X= 607783.15

P.I. = 124+49.70
Y 422286.23
X 609419.29

MONROE CO.
HARRISON
MONUMENT FOUND
Y= 426137.04
X= 607792.82

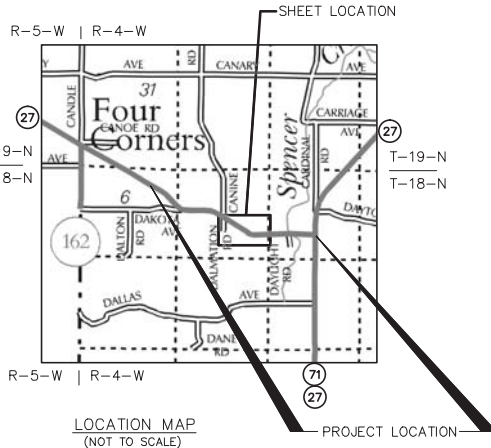


NOTES:

PREVIOUS ACCESS CONTROL:
DOC. No. 577120 - PARCEL 16; DOCUMENT No. 525471 - PARCELS 17, 18 & 19.

TOWN

NORTH



TRANSPORTATION PROJECT PLAT NO: 7712-02-22-4.03

LOCATED IN LOTS 1 AND 2 OF CSM V. 4, P. 260, DOC. 351693 IN AND INCLUDING PART OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER; ALSO LOCATED IN LOTS 1 AND 2 OF CSM V. 10, P. 182, DOC. 447159 IN AND INCLUDING PART OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER; ALSO LOCATED IN LOT 1 AND OUTLOT 1 OF CSM V. 11, P. 78, DOC. 454691 AND IN LOTS 1, 2, AND 3 OF CSM V. 11, P. 253, DOC. 465889 IN AND INCLUDING PART OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER, ALL IN SECTION 5, TOWN 18 NORTH, RANGE 4 WEST, IN THE TOWN OF LITTLE FALLS, MONROE COUNTY, WI.

RELOCATION ORDER STH 71 MELROSE - SPARTA (STH 162 TO STH 27)

TO PROPERLY ESTABLISHED, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEM IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 34.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OF RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W REQUIRED ACRES			T.L.E. ACRES TEMP.
			NEW	EXISTING	TOTAL	
13	ROCKY CRAIG & BARBARA A. CRAIG	FEE	1.12	0.00	1.12	-
14	JOHN T. McHUGH	TLE	-	-	-	0.04
15	CURTIS W. ERICKSON & SUSAN M. ERICKSON	FEE, TLE	0.29	0.58	0.87	0.03
16	DONALD A. WEGNER & ELEANOR C. WEGNER	FEE	0.03	0.00	0.03	-
17	JOAL LLC	FEE	0.23	0.00	0.23	-
18	JOHN J. BOLLIG & BRENDA S. BOLLIG	FEE	0.01	0.00	0.01	-
19	MILLO D. SEUBERT & CAROL J. SEUBERT	FEE	0.18	0.00	0.18	-

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTERESTS REQUIRED
40	XCEL ENERGY	RELEASE OF RIGHTS
41	CENTURY LINK	RELEASE OF RIGHTS
-	-	-

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
214-301	S89°46'38"E	61.67'
301-302	S00°18'57"E	22.16'
302-303	S30°04'32"E	148.54'
303-304	S58°07'42"E	439.17'
304-305	S55°10'27"E	99.92'
305-306	S58°25'58"E	835.91'
306-307	S58°25'58"E	154.68'
307-308	S73°19'43"E	295.20'
308-309	S83°55'16"E	192.74'
309-310	S86°57'44"E	133.65'
310-311	N88°25'55"W	590.15'
311-312	S00°11'00"W	86.89'
312-313	S84°09'28"W	274.48'
313-314	N76°45'53"W	36.40'
314-315	S87°17'24"W	75.00'
315-316	N60°42'17"W	47.17'
316-317	S87°17'24"W	100.00'
317-318	S73°35'57"W	63.38'
318-319	S89°11'40"W	91.73'
319-320	N85°40'11"W	155.56'
320-321	N70°23'09"W	52.65'
322-323	N73°11'47"W	103.87'
323-324	N65°13'33"W	171.37'
324-325	N65°13'33"W	237.50'
325-326	N49°35'52"W	303.36'
326-327	N58°07'42"W	377.00'
327-328	N53°28'50"W	123.41'
328-329	N58°07'42"W	150.00'
329-330	N63°50'21"W	100.50'
330-331	N58°07'42"W	82.33'
331-332	S81°28'51"W	39.42'
332-333	S00°24'10"W	111.32'
333-215	N89°46'38"E	55.41'
215-214	N00°06'31"E	347.92'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
321-322	857.88'	258.06'	257.08'	N74°46'47"W	171°4'06"

LITTLE FALLS

STH 71

SE-SE

SW-SE

TLE POINT STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
T30	118+40.00	43.25'
T31	118+40.00	80.00'
T32	118+90.00	80.00'
T33	118+90.00	43.52'
T34	126+30.00	51.55'
T35	126+30.00	90.00'
T36	126+60.00	90.00'
T37	126+60.00	51.32'

R/W POINT STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
214	104+65.44	101.25'
301	105+17.94	133.61'
302	105+29.75	114.85'
303	106+60.83	45.00'
304	111+00.00	45.00'
305	111+99.79	39.85'
306	120+35.68	44.29'
307	121+95.02	35.84'
308	125+00.00	45.00'
309	127+00.00	50.00'
310	128+38.42	43.54'
311	134+28.45	31.78'
312	134+24.07	55.00'
313	131+50.00	70.00'
314	131+15.00	60.00'
315	130+40.00	60.00'
316	130+00.00	35.00'
317	129+00.00	35.00'
318	128+38.42	50.00'
319	127+50.00	50.00'
320	126+00.00	50.00'
321	125+50.00	39.97'
322	123+00.00	39.43'
323	122+00.00	50.00'
324	120+35.68	60.66'
325	118+00.00	90.00'
326	115+00.00	45.00'
327	111+23.00	45.00'
328	110+00.00	35.00'
329	108+50.00	35.00'
330	107+50.00	45.00'
331	106+67.67	45.00'
332	106+37.64	70.55'
333	106+95.76	165.50'
215	106+48.59	194.57'

OWNER (S)	RECORDING INFORMATION	LOCATED IN R/W PARCEL #
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #208704 VOL.162, PG.501	13,14,15, & 16
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #201482 VOL.152, PG.104-105	12,14,15, & 16
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #528193	17 & 18
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #208705 VOL.162, PG.502	17,18, & 19
CENTURY TELEPHONE COMPANY	NO RECORD OF EASEMENT	13,14,15,16,17, 18 & 19

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MONROE COUNTY AS SHEET 2 OF 2 OF DOCUMENT 648385 AND FILED IN MAP FILE 2934.

P.I. = 124+49.70
Y = 422286.23
X = 609419.30
Δ = 34°34'54" LT.
D = 04°18'29"
T = 414.02'
L = 802.74'
R = 1330.00'

ORIGINAL PLANS PREPARED BY
TEAM Engineering

240 Main Street
P.O. Box 117
Loganville, WI 53943
Phone: (608) 727-2146

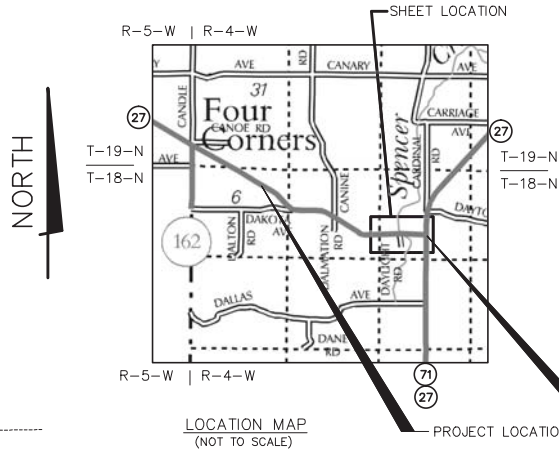
I, THEODORE J. GREENHECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISION OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 7712-02-22-4.01 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *Theodore J. Greenheck* DATE: 04-27-2015
PRINT NAME: THEODORE J. GREENHECK
REGISTRATION NUMBER: S-2431

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE: *Cory Schlager* DATE: 4/28/2015
PRINT NAME: CORY SCHLAGER

NOTES:
PREVIOUS ACCESS CONTROL:
DOC. No. 577120 - PARCELS 16 & 20



TRANSPORTATION PROJECT PLAT NO: 7712-02-22-4.04

LOCATED IN THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4, TOWN 18 NORTH, RANGE 4 WEST IN THE TOWN OF LITTLE FALLS, MONROE COUNTY, WISCONSIN.

RELOCATION ORDER STH 71 MELROSE - SPARTA (STH 162 TO STH 27)

TO PROPERLY ESTABLISHED, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEM IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OF RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

DOCUMENT 648754

FILED IN 294B

IN MONROE COUNTY

ON MAY 1, 2015

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER:
7712-02-22-4.04

TOWN

MONROE CO.
HARRISON
MONUMENT FOUND
Y= 423647.22
X= 610424.82

NW-SW

OWNER (S)	RECORDING INFORMATION	LOCATED IN R/W PARCEL #
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #208704 VOL. 162, PG. 501	16
NORTHERN STATES POWER COMPANY (XCEL ENERGY)	DOC. #201482 VOL. 152, PG. 104	20
CENTURY TELEPHONE COMPANY	NO RECORD OF EASEMENT	16 & 20

UTILITY SCHEDULE AND INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTERESTS REQUIRED
40	XCEL ENERGY	RELEASE OF RIGHTS
41	CENTURY LINK	RELEASE OF RIGHTS
-	-	-

SW-SW

MONROE CO.
HARRISON
MONUMENT FOUND
Y= 421219.70
X= 610456.60

OF

NE-SW

R/W POINT STATION & OFFSET TABLE

POINT NO.	STATION	OFFSET
311	134+28.45	31.78'
401	136+00.04	28.36'
402	137+29.94	52.77'
403	139+88.15	47.63'
404	141+77.08	54.76'
405	143+65.42	58.03'
406	147+26.26	60.16'
407	155+20.79	59.76'
408	158+67.95	59.42'
409	160+25.53	69.27'
410	160+76.48	70.73'
411	160+82.74	147.32'
412	160+40.26	148.54'
413	159+38.80	50.65'
414	157+15.54	50.43'
415	157+15.52	70.43'
416	154+37.52	70.15'
417	154+37.54	50.15'
418	148+90.83	49.87'
419	147+42.50	57.98'
420	147+29.94	58.67'
421	147+29.16	46.78'
422	145+85.44	48.23'
423	145+88.53	63.44'
424	145+23.01	79.69'
425	144+86.40	63.56'
426	143+36.84	59.48'
427	139+88.04	45.39'
428	137+00.00	39.65'
429	136+00.00	55.00'
312	134+24.07	55.00'

R/W COURSE TABLE

COURSE	BEARING	DISTANCE
311-401	N88°25'55"E	171.62'
401-402	N76°38'42"E	132.17'
402-403	N88°25'55"E	258.27'
403-404	N85°07'43"E	189.06'
404-405	N86°17'38"E	188.37'
406-407	S88°18'38"E	794.47'
407-408	S88°18'38"E	347.16'
408-409	N88°03'30"E	157.89'
409-410	N89°59'20"E	50.97'
410-411	S00°00'40"E	218.14'
411-412	S89°59'20"W	42.51'
412-413	N44°23'21"W	140.98'
413-414	N88°18'38"W	223.27'
414-415	S01°41'22"W	20.00'
415-416	N88°18'38"W	278.00'
416-417	N01°41'22"E	20.00'
417-418	N88°18'38"W	546.75'
418-419	S88°33'03"W	148.55'
419-420	S88°32'32"W	12.59'
420-421	N02°04'24"W	11.92'
421-422	N89°33'54"W	142.24'
422-423	S11°20'18"E	15.51'
423-424	S75°13'20"W	66.20'
424-425	N67°11'03"W	39.32'
425-426	S89°03'54"W	148.52'
426-427	S89°36'14"W	349.08'
427-428	S88°25'55"W	288.10'
428-429	S78°33'42"W	101.17'
429-312	S87°17'24"W	175.93'
312-400	N00°11'00"E	86.89'

CURVE TABLE

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
405-406	3880.00'	365.39'	365.25'	S88°59'30"W	05°23'44"

P.I. = 145+59.27
Y 422387.17
X 611551.77
Δ = 04°23'30" RT.
D = 01°38'13"
T = 134.20'
L = 268.269'
R = 3500.00'

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTERESTS REQUIRED	R/W REQUIRED ACRES	T.L.E. ACRES TEMP.
16	DONALD A. WEGNER & ELEANOR C. WEGNER	FEE	0.02 1.49 1.51	-
20	JOHN R. EMERY	FEE	0.04 1.48 1.52	-
-	-	-	-	-

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.

ORIGINAL PLANS PREPARED BY
TEAM Engineering

240 Main Street
P.O. Box 117
Loganville, WI 53943
Phone: (608) 727-2146

I, THEODORE J. GREENHECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISION OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 7712-02-22-4.01 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: *Theodore J. Greenheck* DATE: 01-30-2015
PRINT NAME: THEODORE J. GREENHECK
REGISTRATION NUMBER: S-2431

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE DEPARTMENT OF TRANSPORTATION
SIGNATURE: *Cory Schlapel* DATE: 4/14/15
PRINT NAME: CORY SCHLAPHEL

REVISION DATE	
---------------	--

RELOCATION ORDER STH 71 MELROSE – SPARTA (STH 162–STH 27)

4

No.	Name	Sex	Age	Date	Time	Place	Height	Weight	Chest	Arm	Forearm	Hand	Foot	Finger	Nail	Ear	Eye	Nose	Mouth	Throat	Lung	Heart	Liver	Spleen	Pancreas	Intestine	Stomach	Bladder	Uterus	Vagina	Rectum	Anus	Skin	Hair	Teeth	Tongue	Throat	Lung	Heart	Liver	Spleen	Pancreas	Intestine	Stomach	Bladder	Uterus	Vagina	Rectum	Anus	Skin	Hair	Teeth	Tongue	Throat	Lung	Heart	Liver	Spleen	Pancreas	Intestine	Stomach	Bladder	Uterus	Vagina	Rectum	Anus	Skin	Hair	Teeth	Tongue	Throat	Lung	Heart	Liver	Spleen	Pancreas	Intestine	Stomach	Bladder	Uterus	Vagina	Rectum	Anus	Skin	Hair	Teeth	Tongue	Throat	Lung	Heart	Liver	Spleen	Pancreas	Intestine	Stomach	Bladder	Uterus	Vagina	Rectum	Anus	Skin	Hair	Teeth	Tongue	Throat	Lung	Heart	Liver	Spleen	Pancreas	Intestine	Stomach	Bladder	Uterus	Vagina	Rectum	Anus	Skin	Hair	Teeth	Tongue	Throat	Lung	Heart	Liver	Spleen	Pancreas	Intestine	Stomach	Bladder	Uterus	Vagina	Rectum	Anus	Skin	Hair	Teeth	Tongue	Throat	Lung	Heart	Liver	Spleen	Pancreas	Intestine	Stomach	Bladder
-----	------	-----	-----	------	------	-------	--------	--------	-------	-----	---------	------	------	--------	------	-----	-----	------	-------	--------	------	-------	-------	--------	----------	-----------	---------	---------	--------	--------	--------	------	------	------	-------	--------	--------	------	-------	-------	--------	----------	-----------	---------	---------	--------	--------	--------	------	------	------	-------	--------	--------	------	-------	-------	--------	----------	-----------	---------	---------	--------	--------	--------	------	------	------	-------	--------	--------	------	-------	-------	--------	----------	-----------	---------	---------	--------	--------	--------	------	------	------	-------	--------	--------	------	-------	-------	--------	----------	-----------	---------	---------	--------	--------	--------	------	------	------	-------	--------	--------	------	-------	-------	--------	----------	-----------	---------	---------	--------	--------	--------	------	------	------	-------	--------	--------	------	-------	-------	--------	----------	-----------	---------	---------	--------	--------	--------	------	------	------	-------	--------	--------	------	-------	-------	--------	----------	-----------	---------	---------

[illegible]

No.	Name	Sex	Age	Occupation	Religion	Caste	Education	Marital	Status	Family	Income	Assets	Debt	Health	Mental	Physical	Social	Economic	Political	Cultural	Religious	Other	
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
27	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	...	...	...	...																			

R/W MONUMENT POINT NUMBER AND COORDINATE TABLE	

4

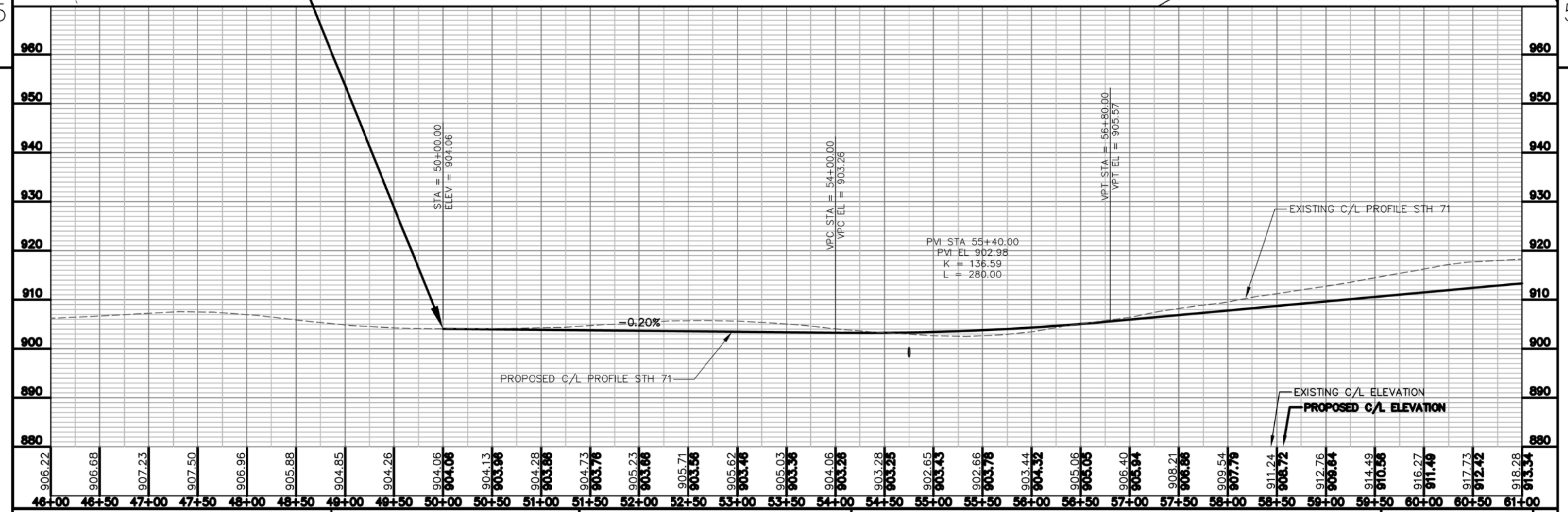
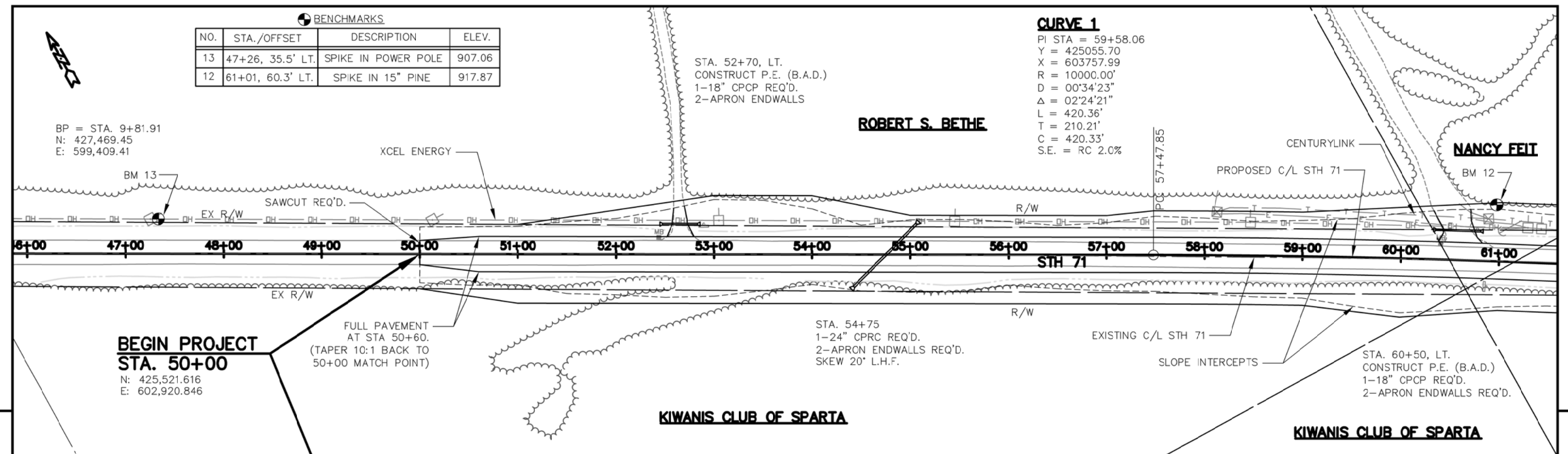
BENCHMARKS

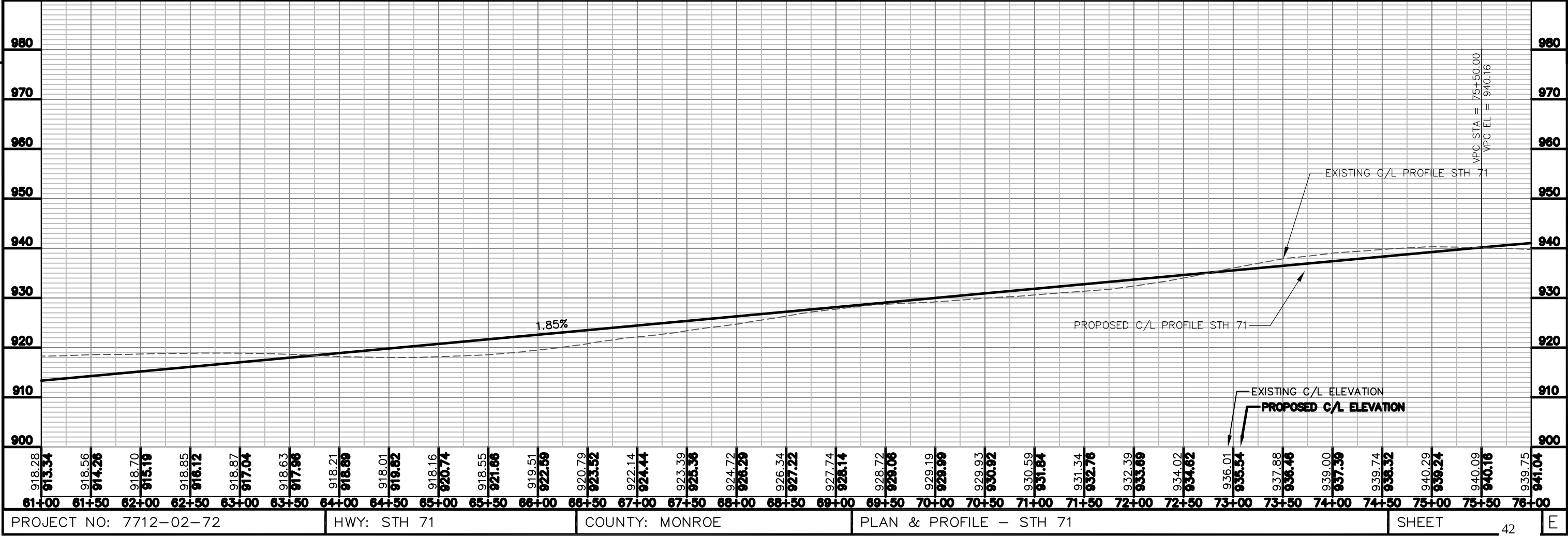
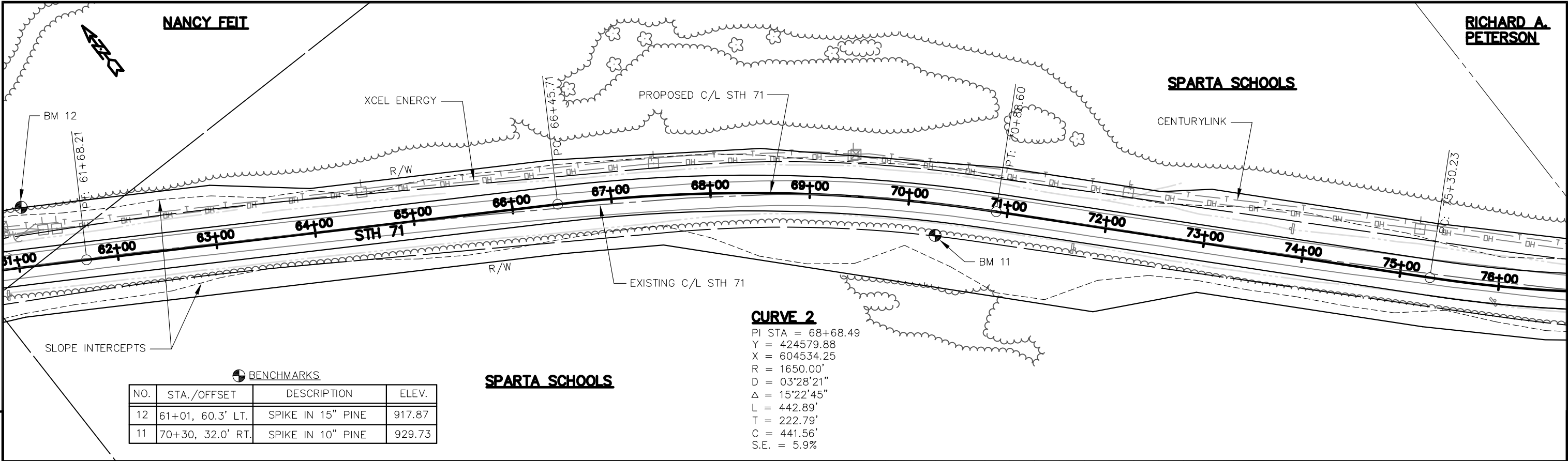
NO.	STA./OFFSET	DESCRIPTION	ELEV.
13	47+26, 35.5' LT.	SPIKE IN POWER POLE	907.06
12	61+01, 60.3' LT.	SPIKE IN 15" PINE	917.87

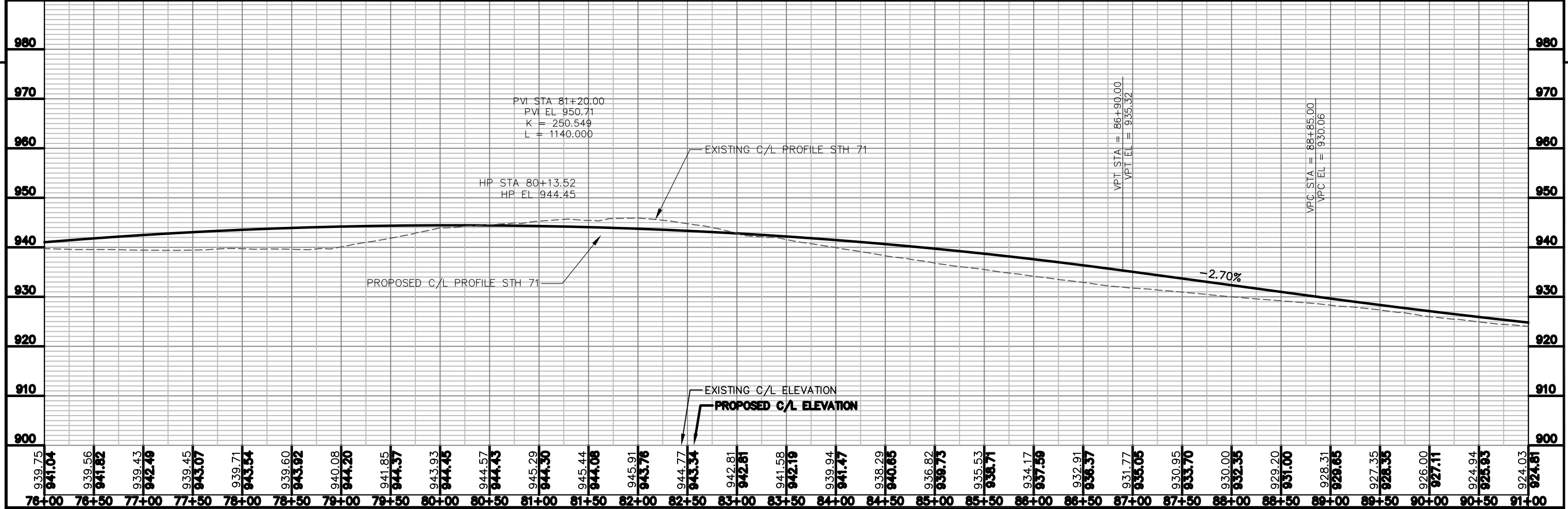
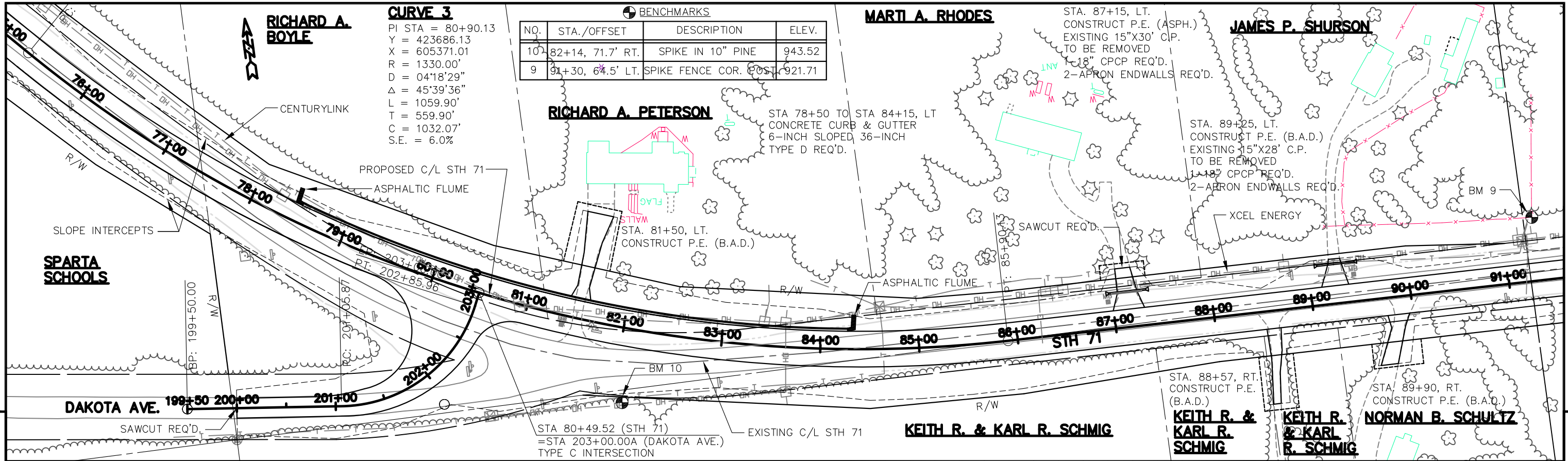
BP = STA. 9+81.91
N: 427,469.45
E: 599,409.41

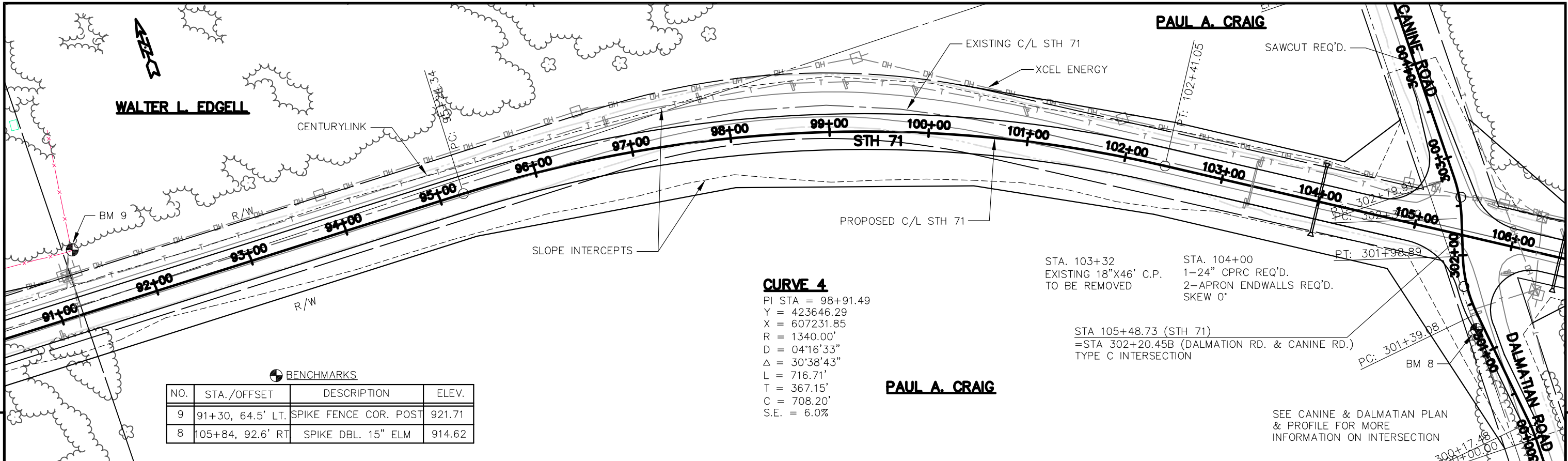
STA. 52+70, LT.
CONSTRUCT P.E. (B.A.D.)
1-18" CPCP REQ'D.
2-APRON ENDWALLS

CURVE 1
PI STA = 59+58.06
Y = 425055.70
X = 603757.99
R = 10000.00'
D = 00°34'23"
Δ = 02°24'21"
L = 420.36'
T = 210.21'
C = 420.33'
S.E. = RC 2.0%









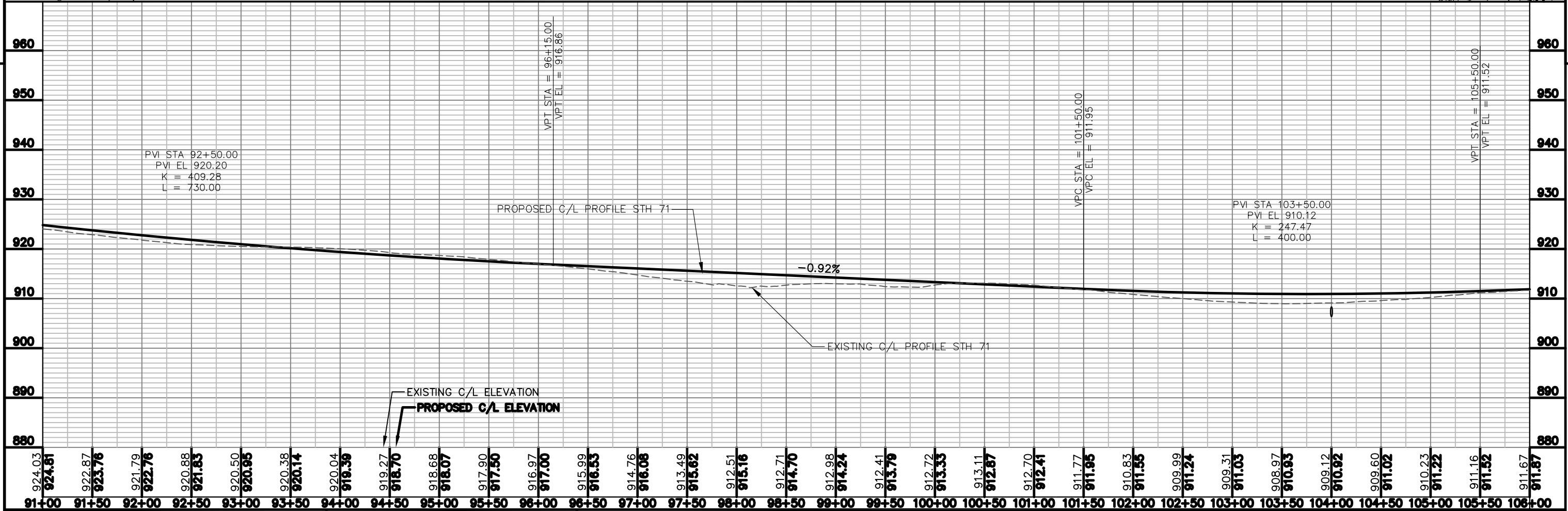
BENCHMARKS			
NO.	STA./OFFSET	DESCRIPTION	ELEV.
9	91+30, 64.5' LT.	SPIKE FENCE COR. POST	921.71
8	105+84, 92.6' RT	SPIKE DBL. 15" ELM	914.62

CURVE 4
PI STA = 98+91.49
Y = 423646.29
X = 607231.85
R = 1340.00'
D = 04°16'33"
Δ = 30°38'43"
L = 716.71'
T = 367.15'
C = 708.20'
S.E. = 6.0%

STA. 103+32
EXISTING 18"x46' C.P.
TO BE REMOVED

STA. 104+00
1-24" CPRC REQ'D.
2-APRON ENDWALLS REQ'D.
SKEW 0°

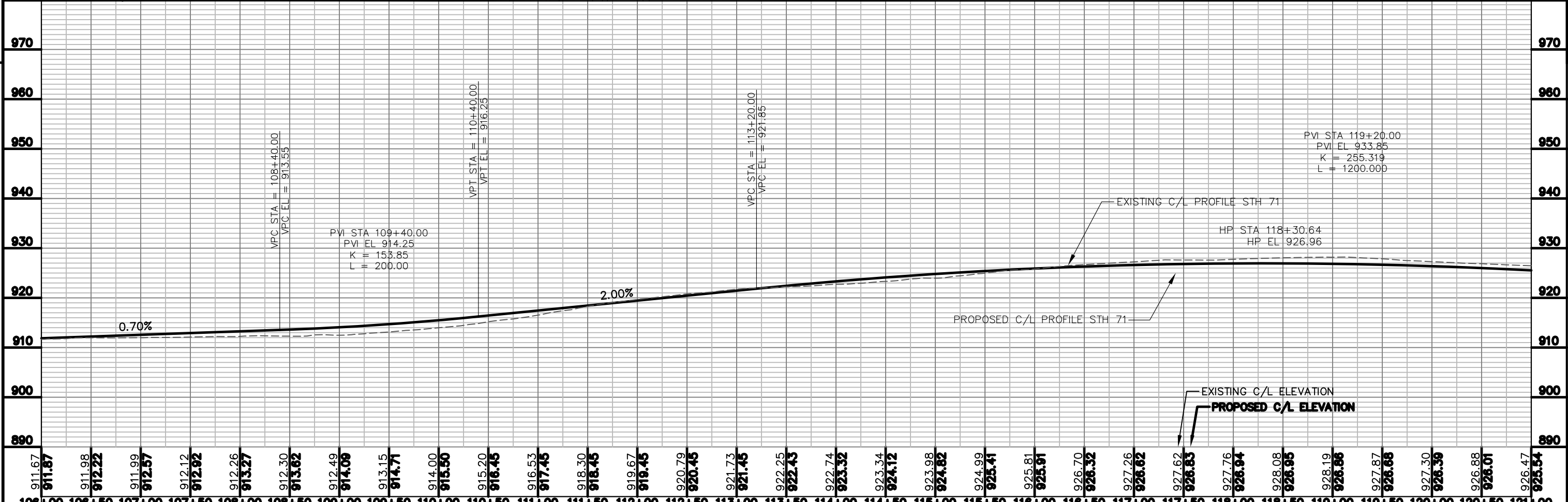
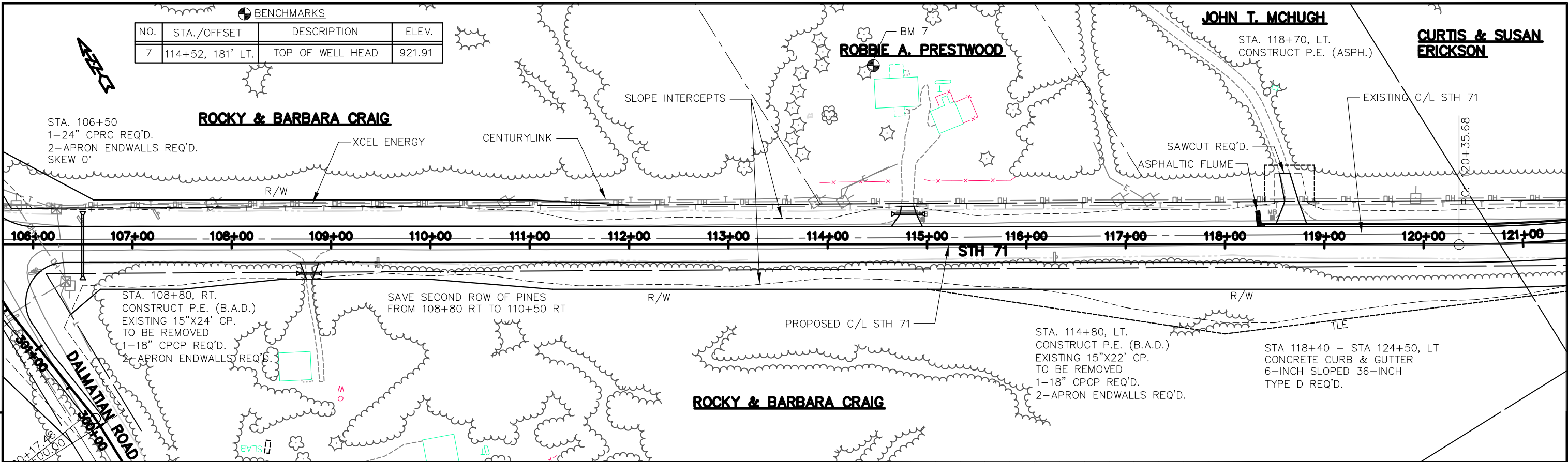
STA 105+48.73 (STH 71)
=STA 302+20.45B (DALMATION RD. & CANINE RD.)
TYPE C INTERSECTION

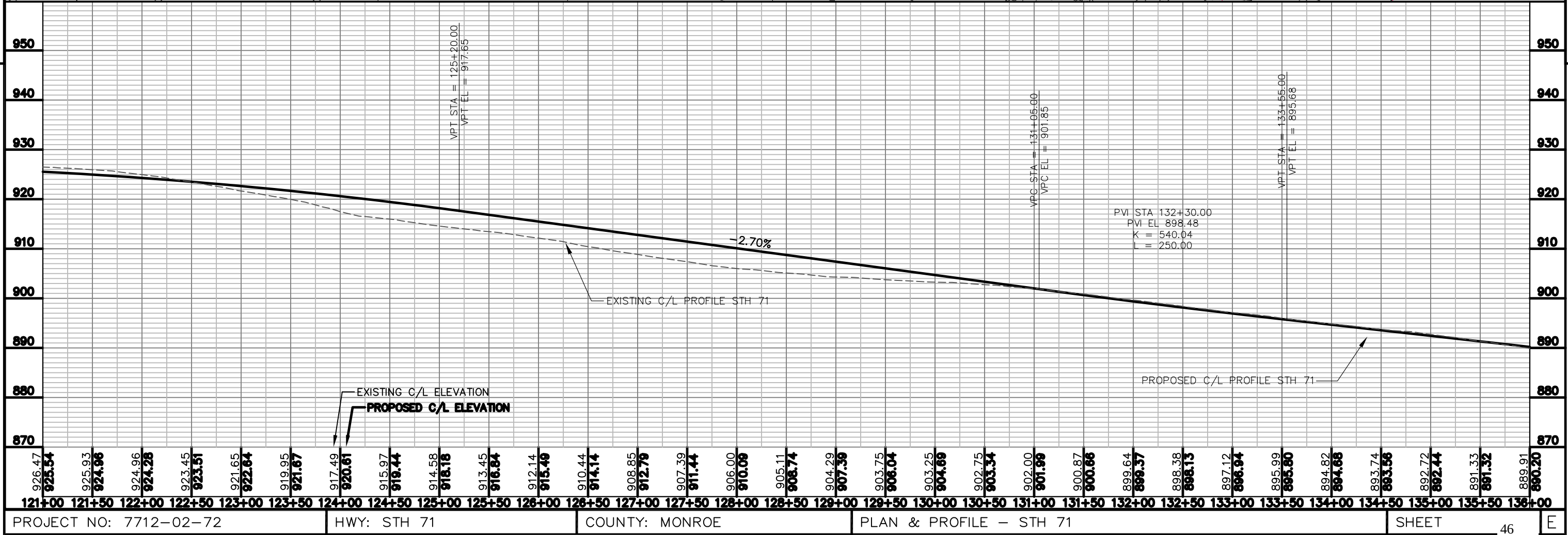
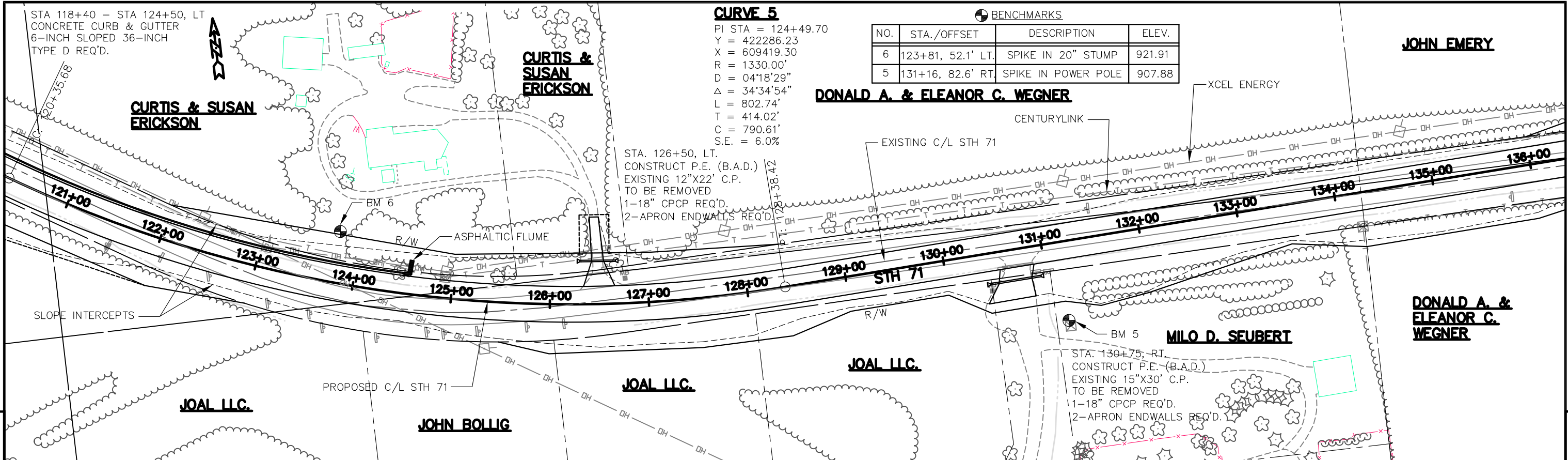


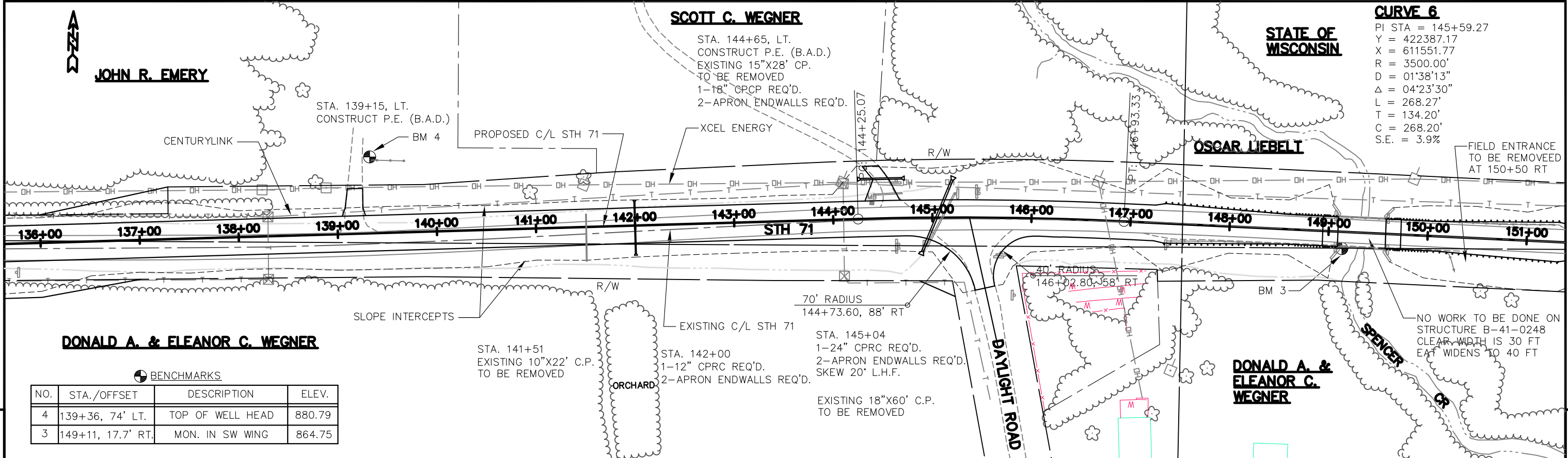
BENCHMARKS			
NO.	STA./OFFSET	DESCRIPTION	ELEV.
7	114+52, 181' LT.	TOP OF WELL HEAD	921.91

JOHN T. MCHUGH

CURTIS & SUSAN
ERICKSON





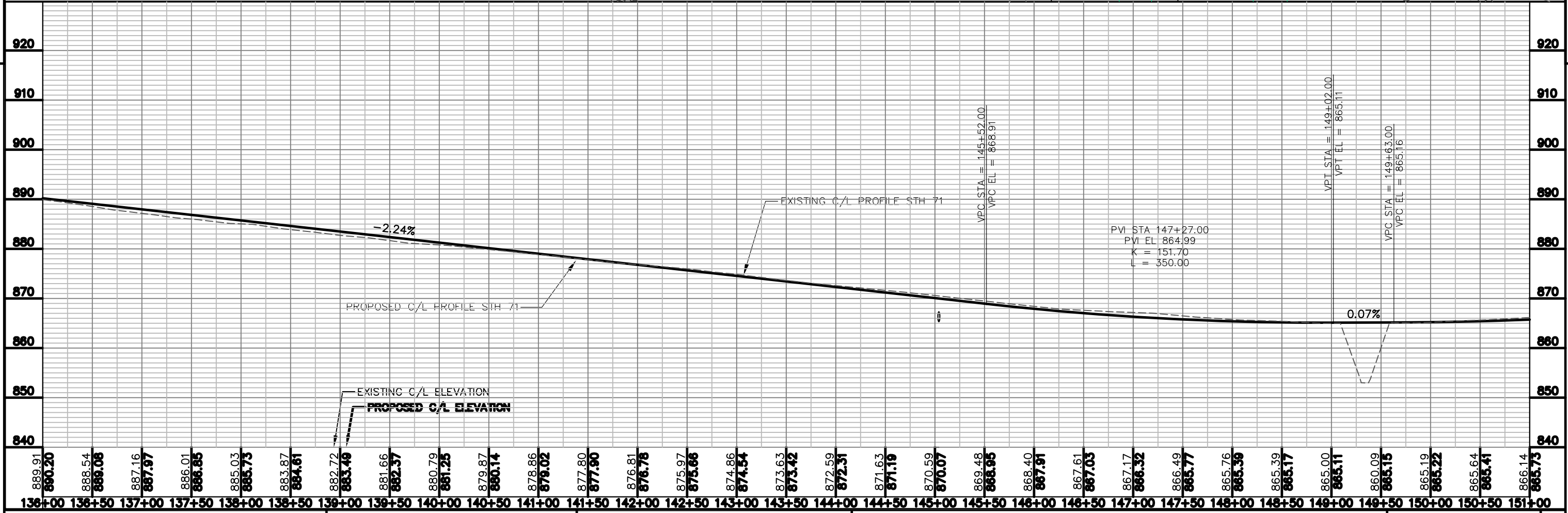


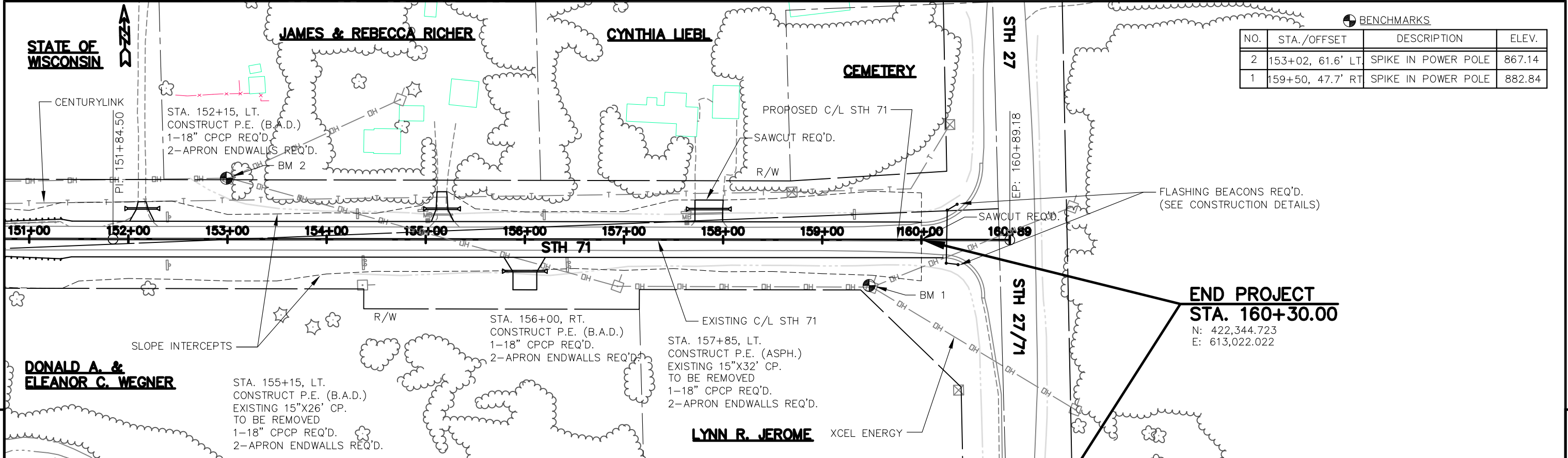
CURVE 6
PI STA = 145+59.27
Y = 422387.17
X = 611551.77
R = 3500.00'
D = 01°38'13"
Δ = 04°23'30"
L = 268.27'
T = 134.20'
C = 268.20'
S.E. = 3.9%

DONALD A. & ELEANOR C. WEGNER

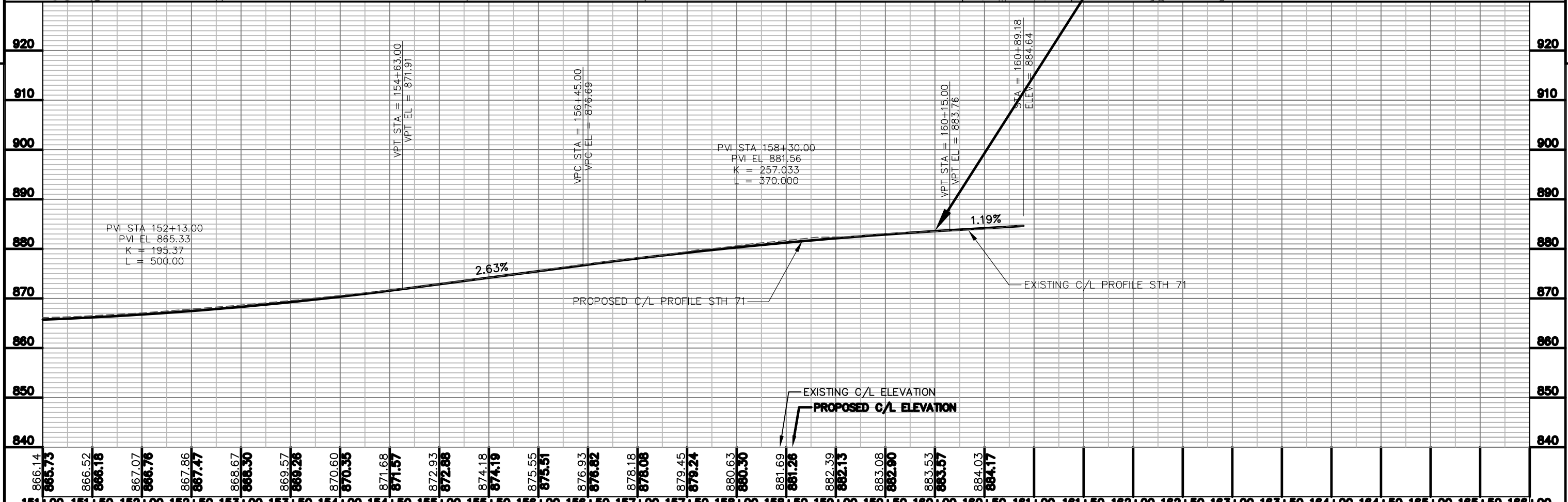
BENCHMARKS

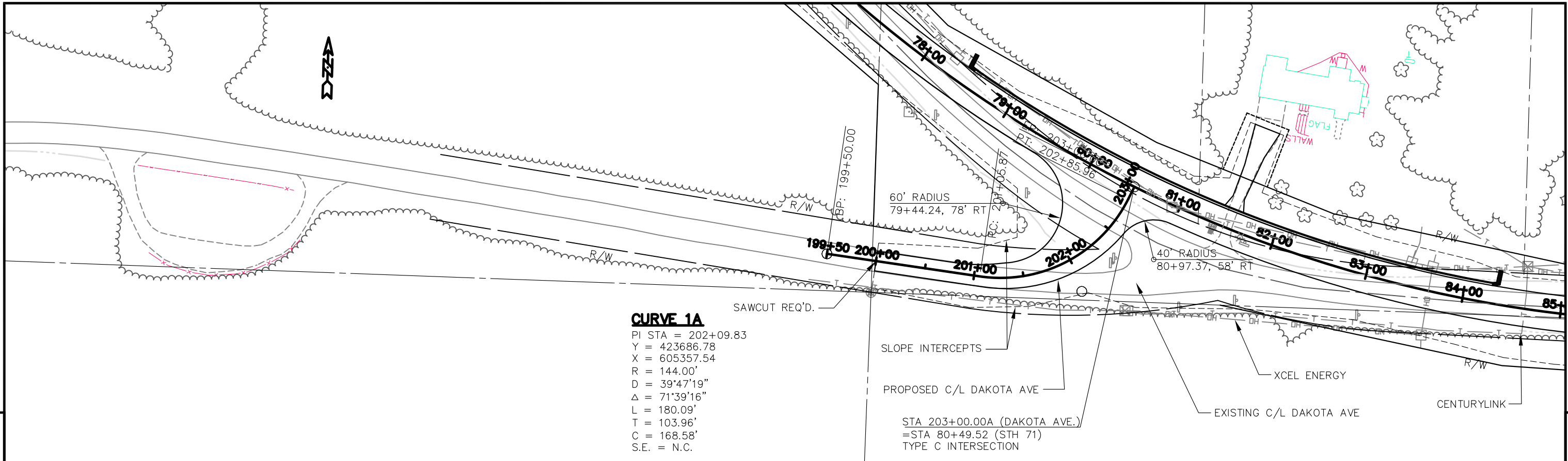
NO.	STA./OFFSET	DESCRIPTION	ELEV.
4	139+36, 74' LT.	TOP OF WELL HEAD	880.79
3	149+11, 17.7' RT.	MON. IN SW WING	864.75



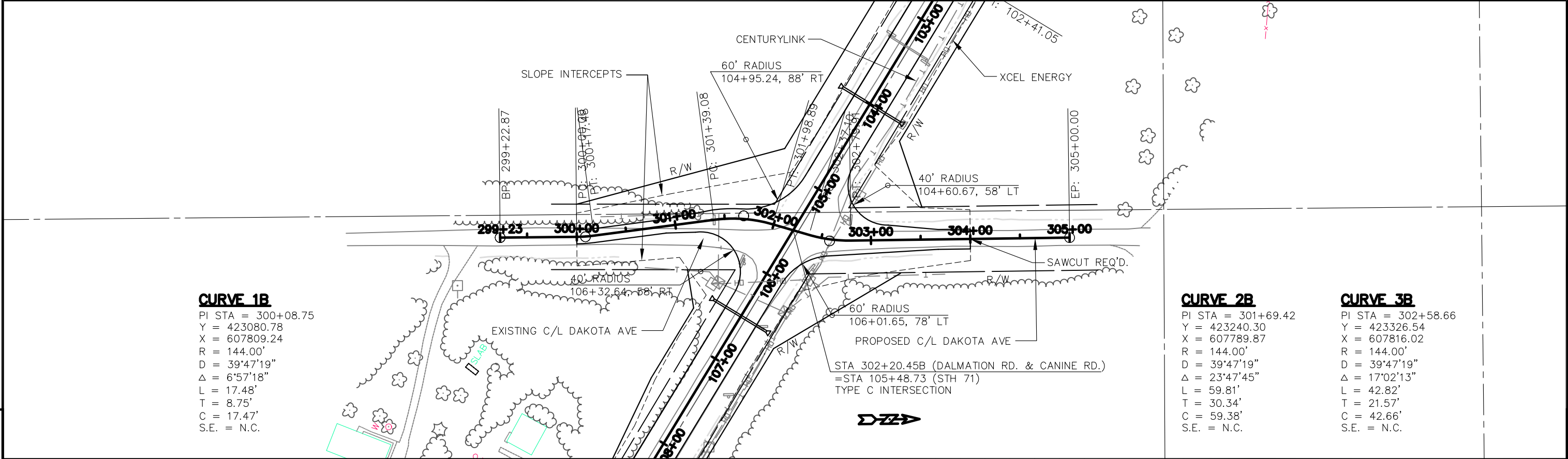


BENCHMARKS			
NO.	STA./OFFSET	DESCRIPTION	ELEV.
2	153+02, 61.6' LT.	SPIKE IN POWER POLE	867.14
1	159+50, 47.7' RT.	SPIKE IN POWER POLE	882.84

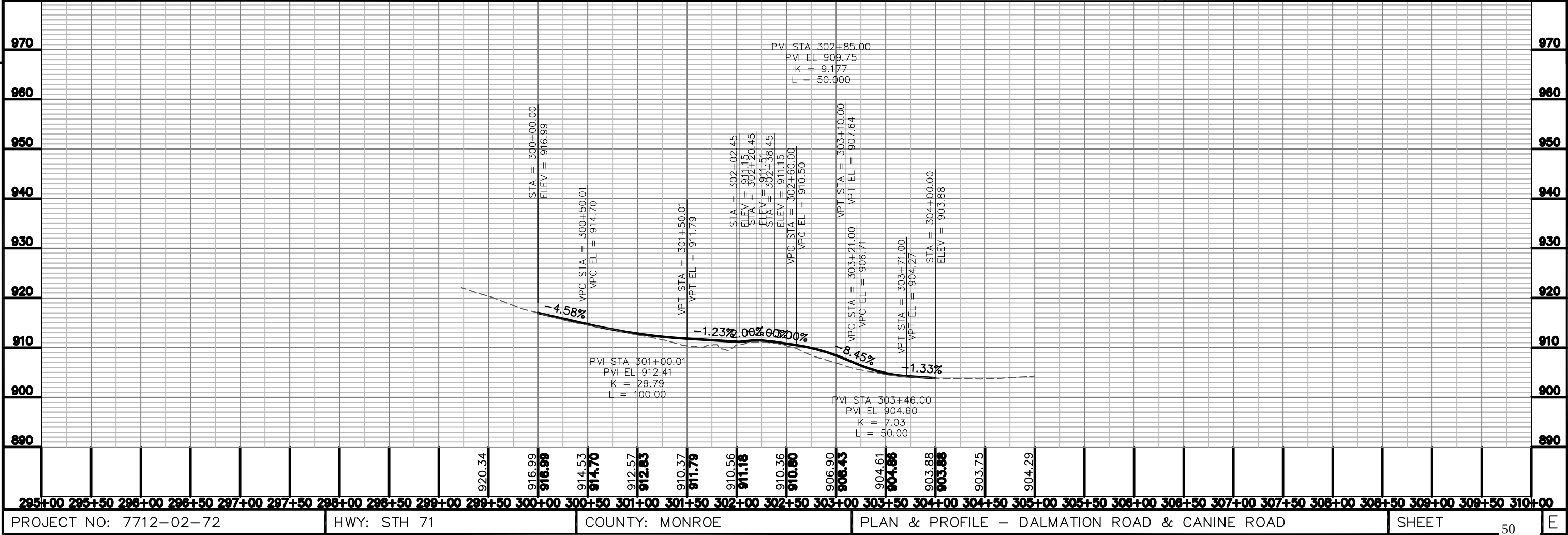




5

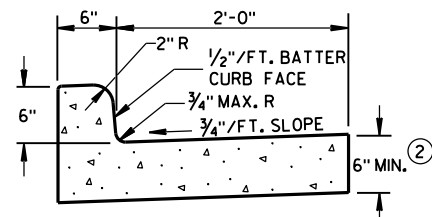


5

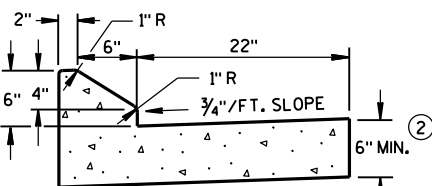


Standard Detail Drawing List

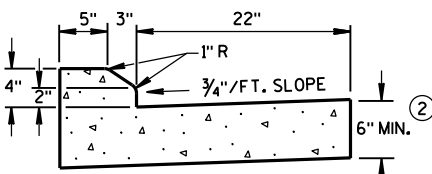
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A01-12A	MARKER POST FOR RIGHT-OF-WAY
15A01-12B	FLEXIBLE MARKER POST FOR RIGHT-OF-WAY
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
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-07	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING



TYPES A & D ①

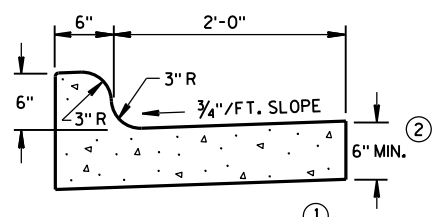


6" SLOPED CURB TYPES G & J ①



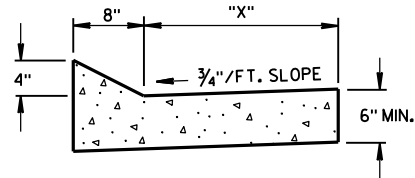
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



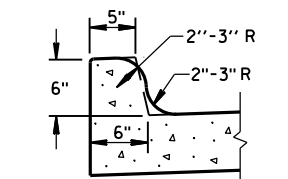
TYPES K & L ①

CONCRETE CURB & GUTTER 30"

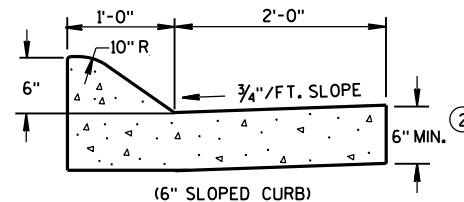


TYPES TBT & TBT ①
CONCRETE CURB & GUTTER

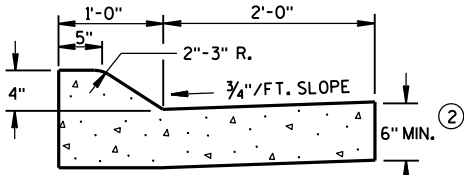
TBT & TBT	"X"
30"	22"
36"	28"



OPTIONAL CURB SHAPE
FOR TYPES K & L ①

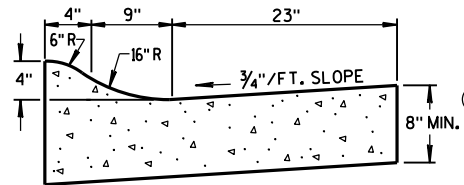


(6" SLOPED CURB)



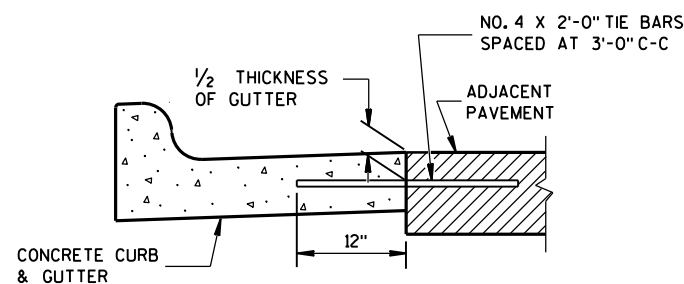
(4" SLOPED CURB)

TYPES A & D ①

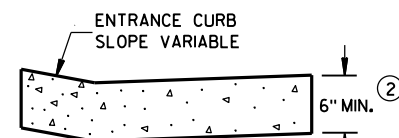


4" SLOPED CURB TYPES R & T ① ④

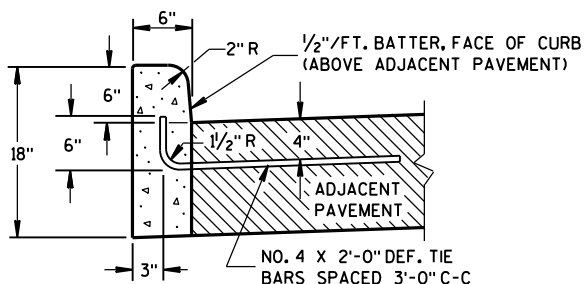
CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION ①

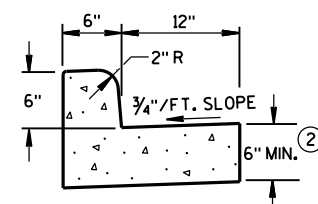


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

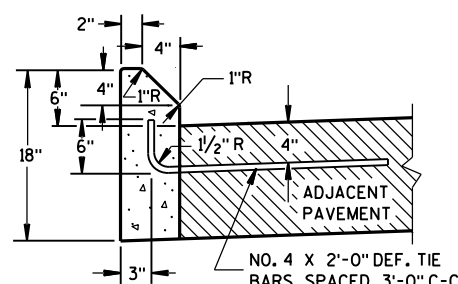


TYPES A & D ①

CONCRETE CURB



TYPES A & D
CONCRETE CURB & GUTTER 18"



TYPES G & J ①

GENERAL NOTES

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

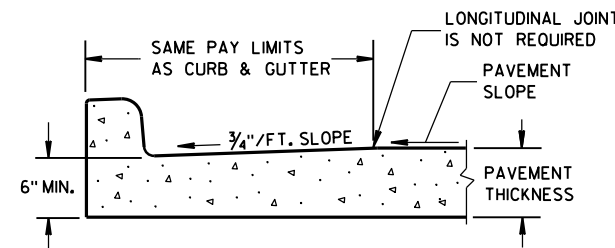
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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.

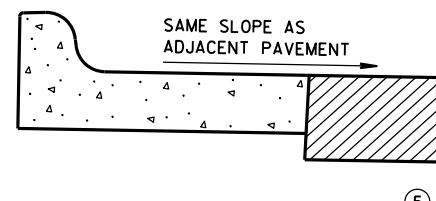
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

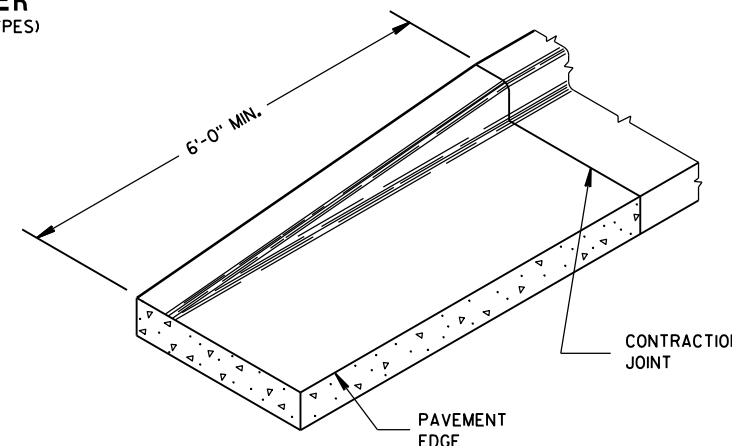
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED 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.



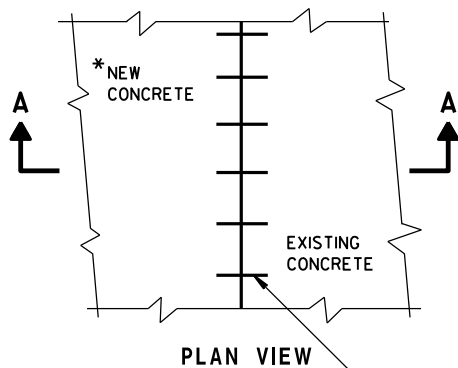
PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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



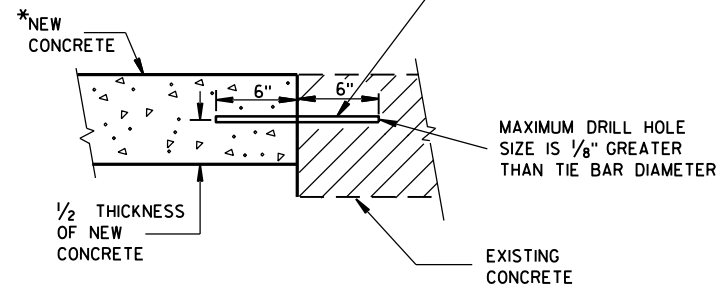
END SECTION CURB & GUTTER



PLAN VIEW

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

NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.



SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS ENGINEER
FHWA

6



PLAN VIEW
FLUME AT CURB END

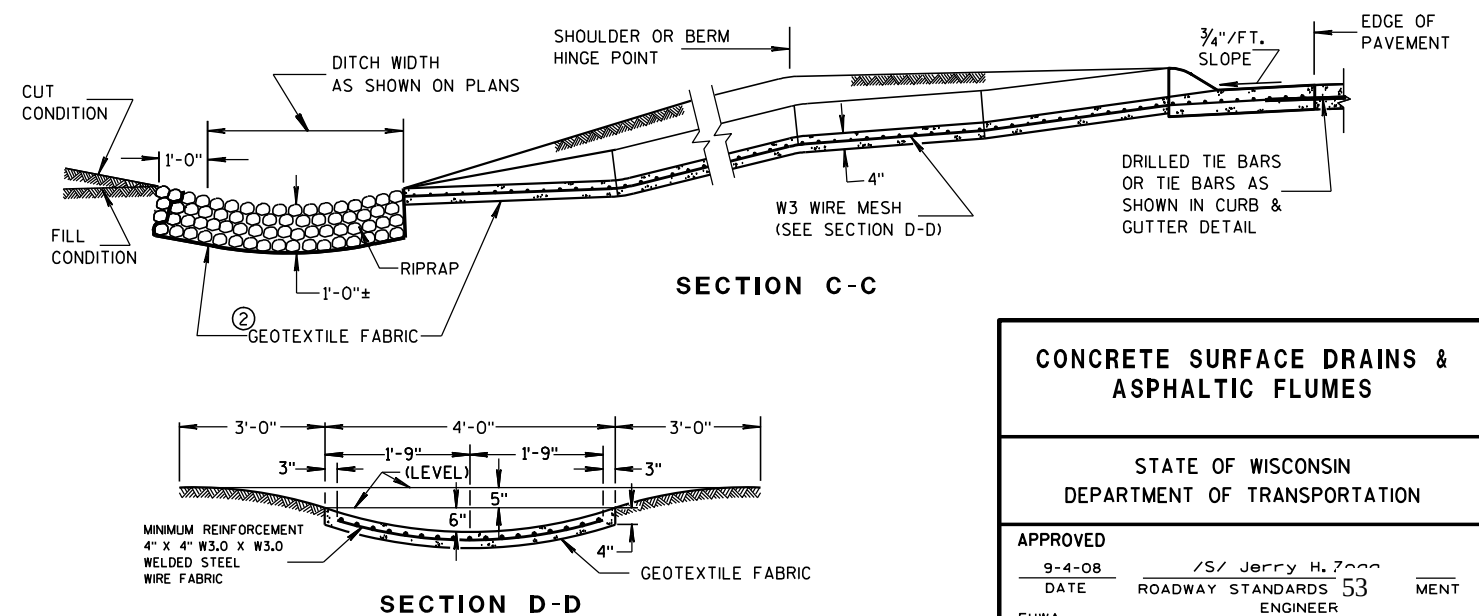


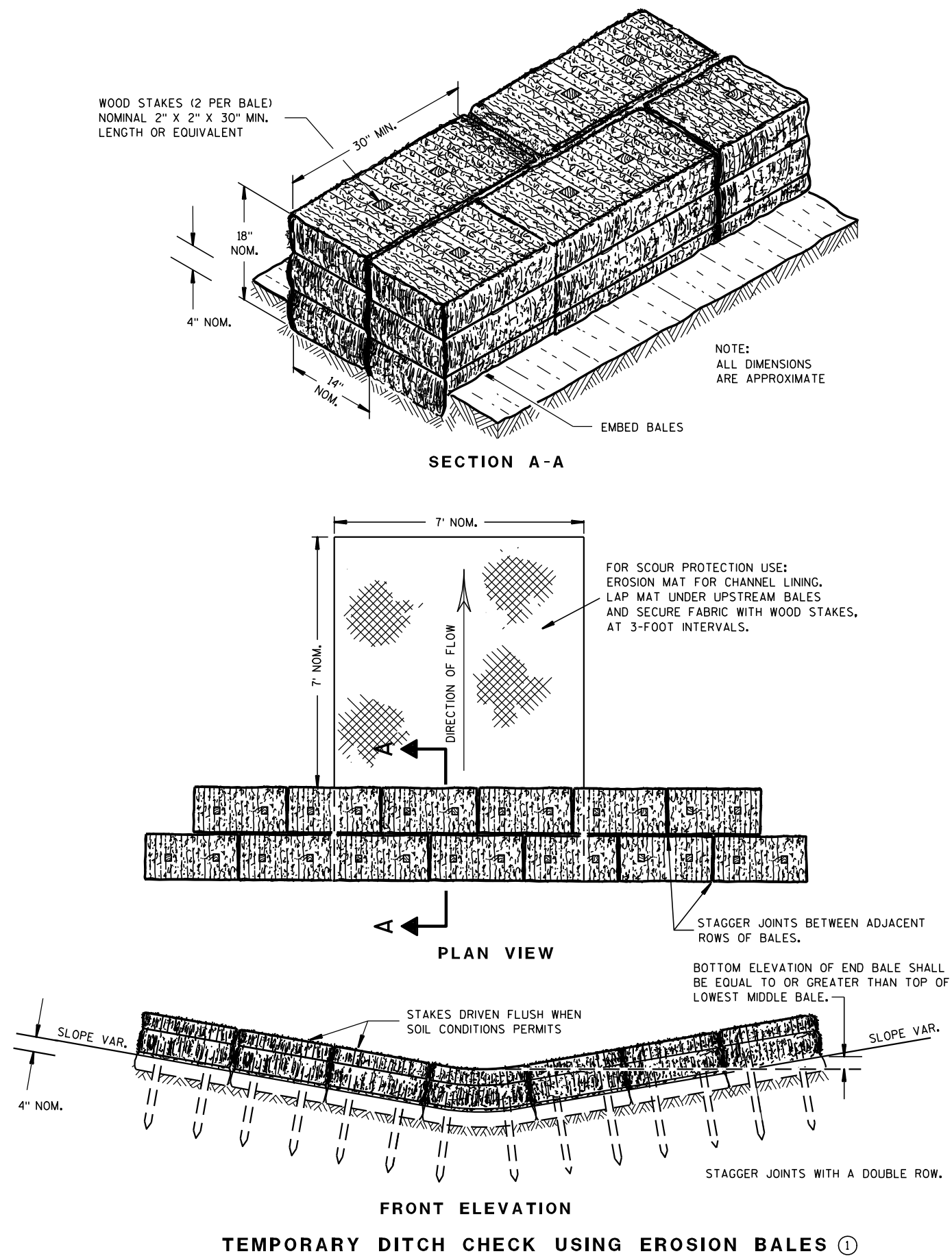
6

S.D.D. 8 D 4-5

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

SECTION C-C

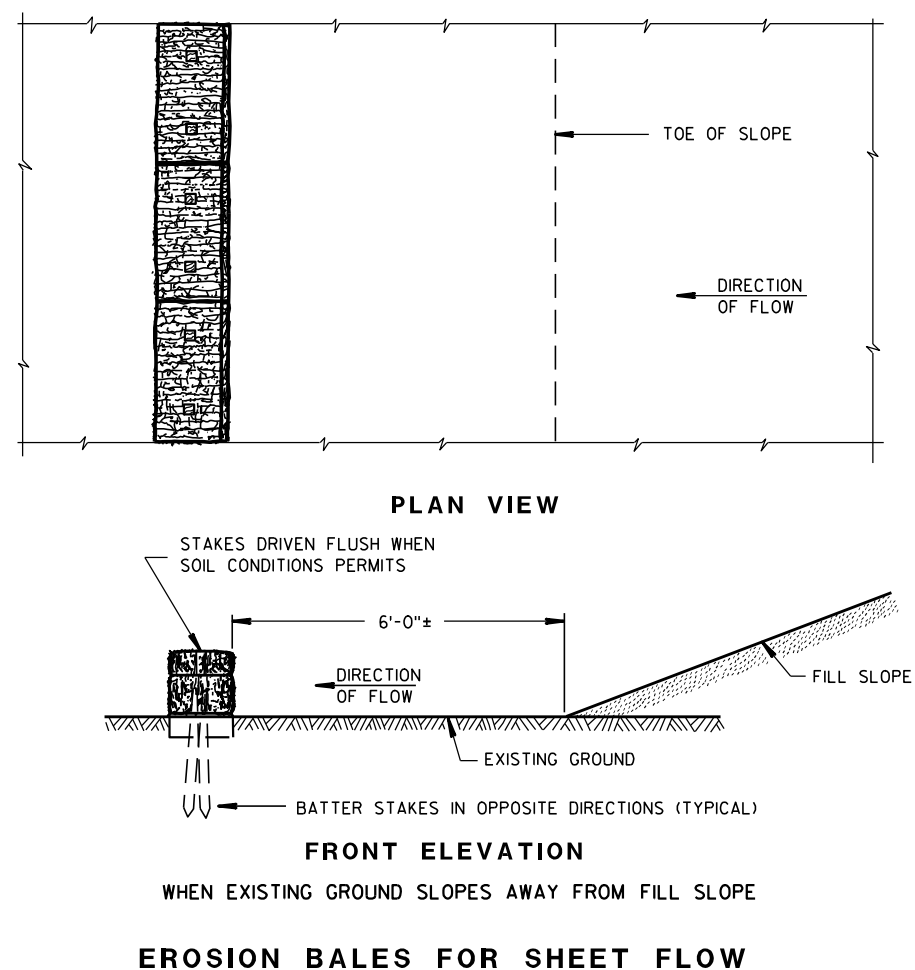
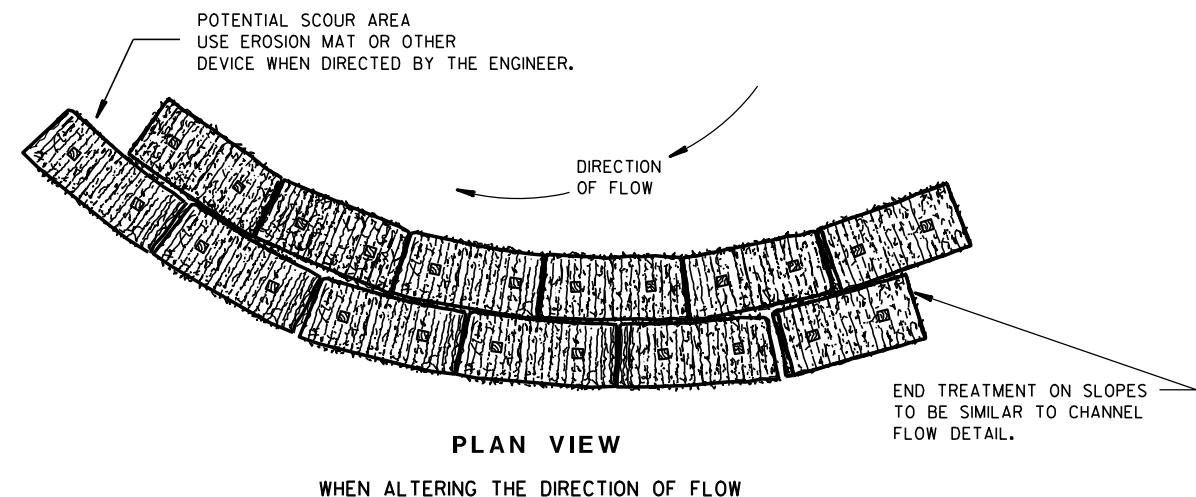




GENERAL NOTES

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.

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

/S/ Beth Conn
CHIEF ROADWAY DEVELOPER

ENGINEER

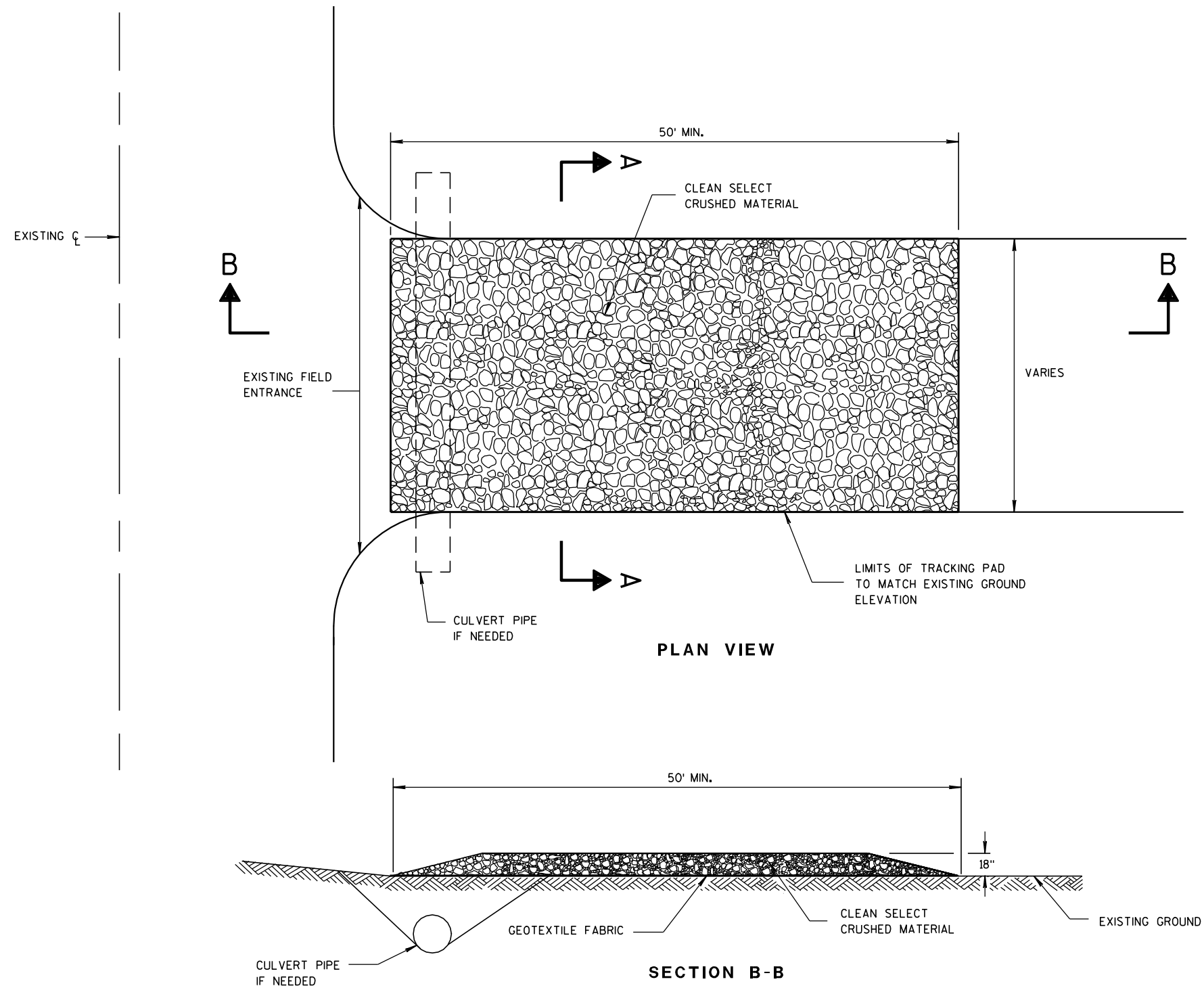
FHWA



- 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 1 1/8" X 1 1/8" 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.



SILT FENCE
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED <u>4-29-05</u> DATE <u>/s/ Beth Cannata</u> CHIEF ROADWAY DEVELOP <u>ENGINEER</u>



TRACKING PAD

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

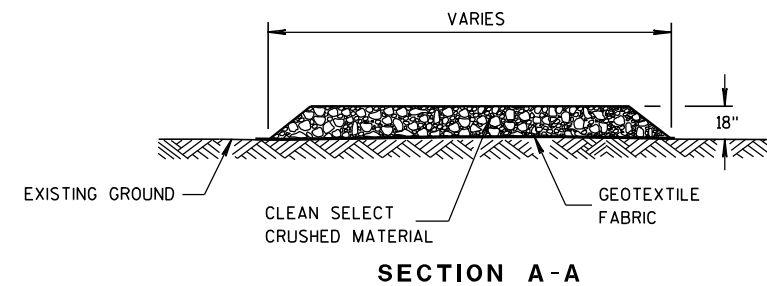
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.

**TRACKING PAD**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

FHWA

/S/ Jerry H. Zogg

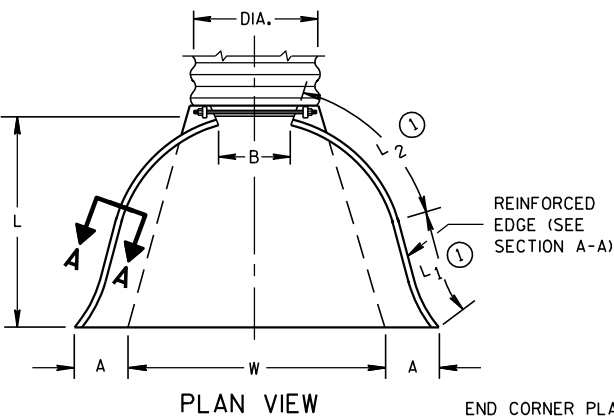
ROADWAY STANDARDS 56

ENGINEER

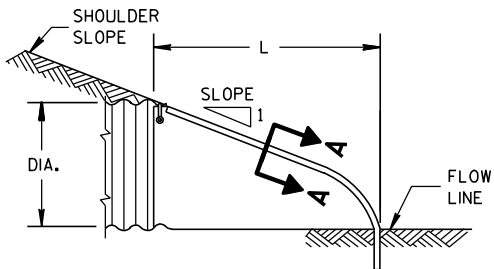
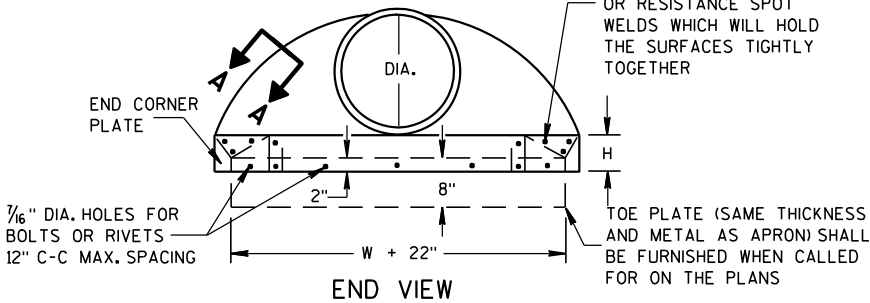
ENT

METAL APRON ENDWALLS												
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE		BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")			
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	.109x	.105x	18	33	12	87	—	—	114	2 to 1		3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1		3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1		3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1		3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1		3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1		3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1		3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



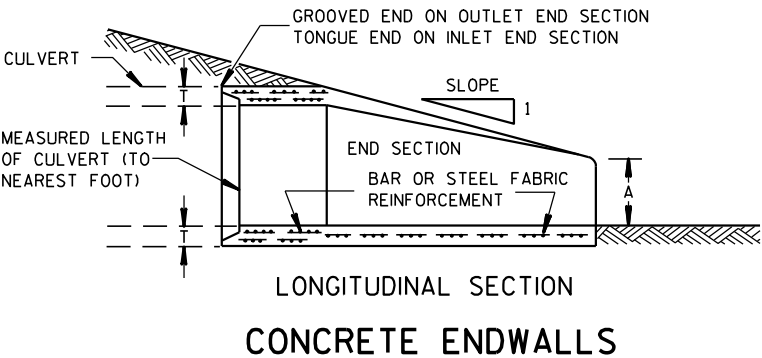
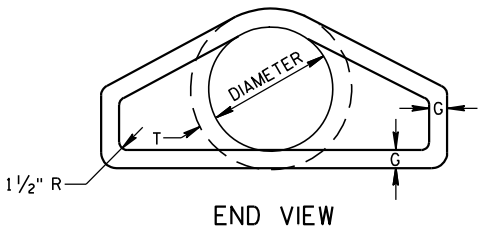
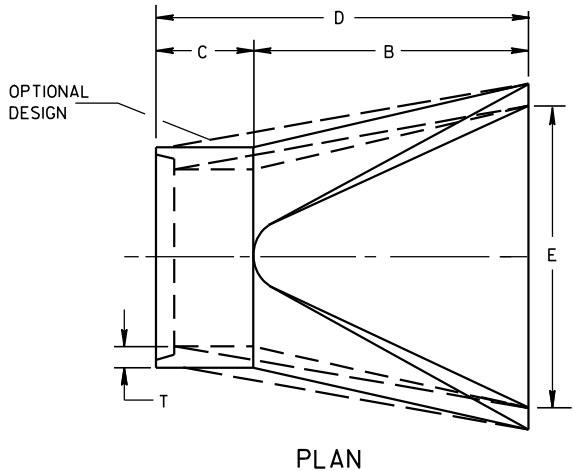
END CORNER PLATES MAY
BE FASTENED TO APRON
PROPER BY BOLTS, RIVETS,
OR RESISTANCE SPOT
WELDS WHICH WILL HOLD
THE SURFACES TIGHTLY
TOGETHER



SIDE ELEVATION
METAL ENDWALLS

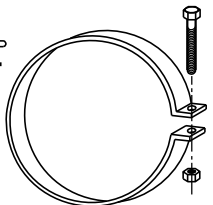
REINFORCED CONCRETE APRON ENDWALLS												
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE				
	T	A	B	C	D	E	G					
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1				
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1				
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1				
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1				
24	3	9 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 1/2 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

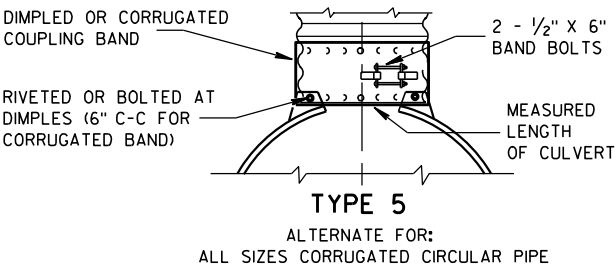
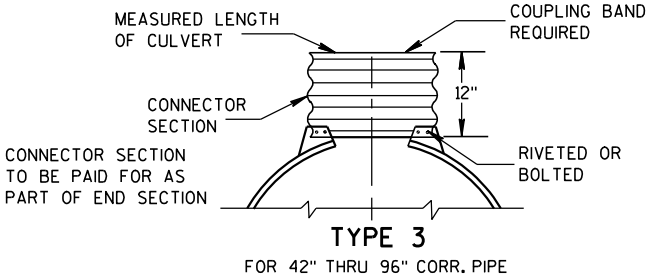
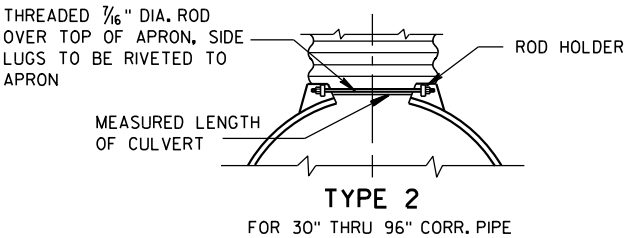
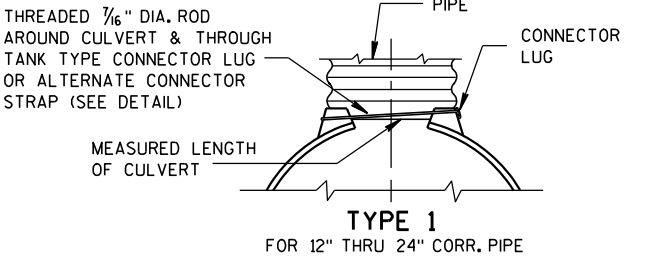


LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109"
THICK) GALVANIZED STRAP
WITH STANDARD 6" X 1/2"
BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



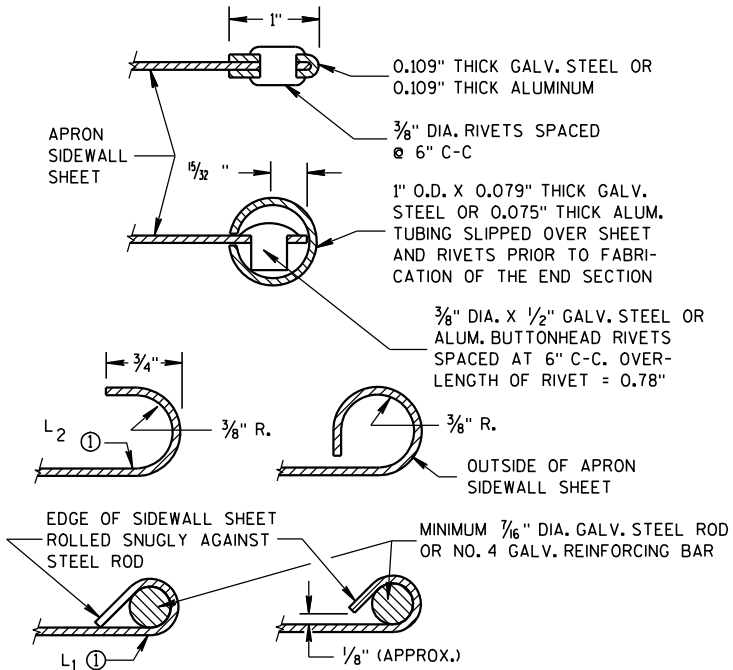
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.
DIMPLED BAND MAY BE USED WITH HELICALLY
CORRUGATED PIPE.

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.

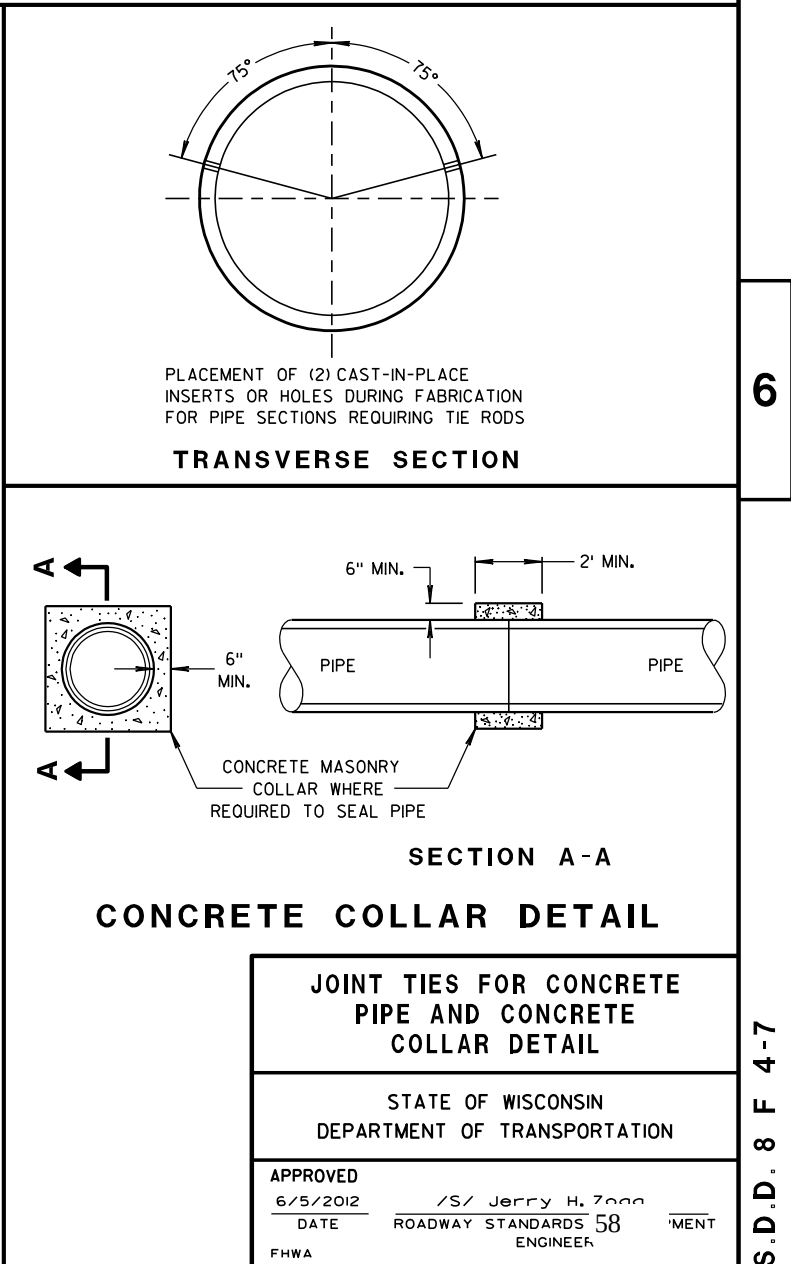
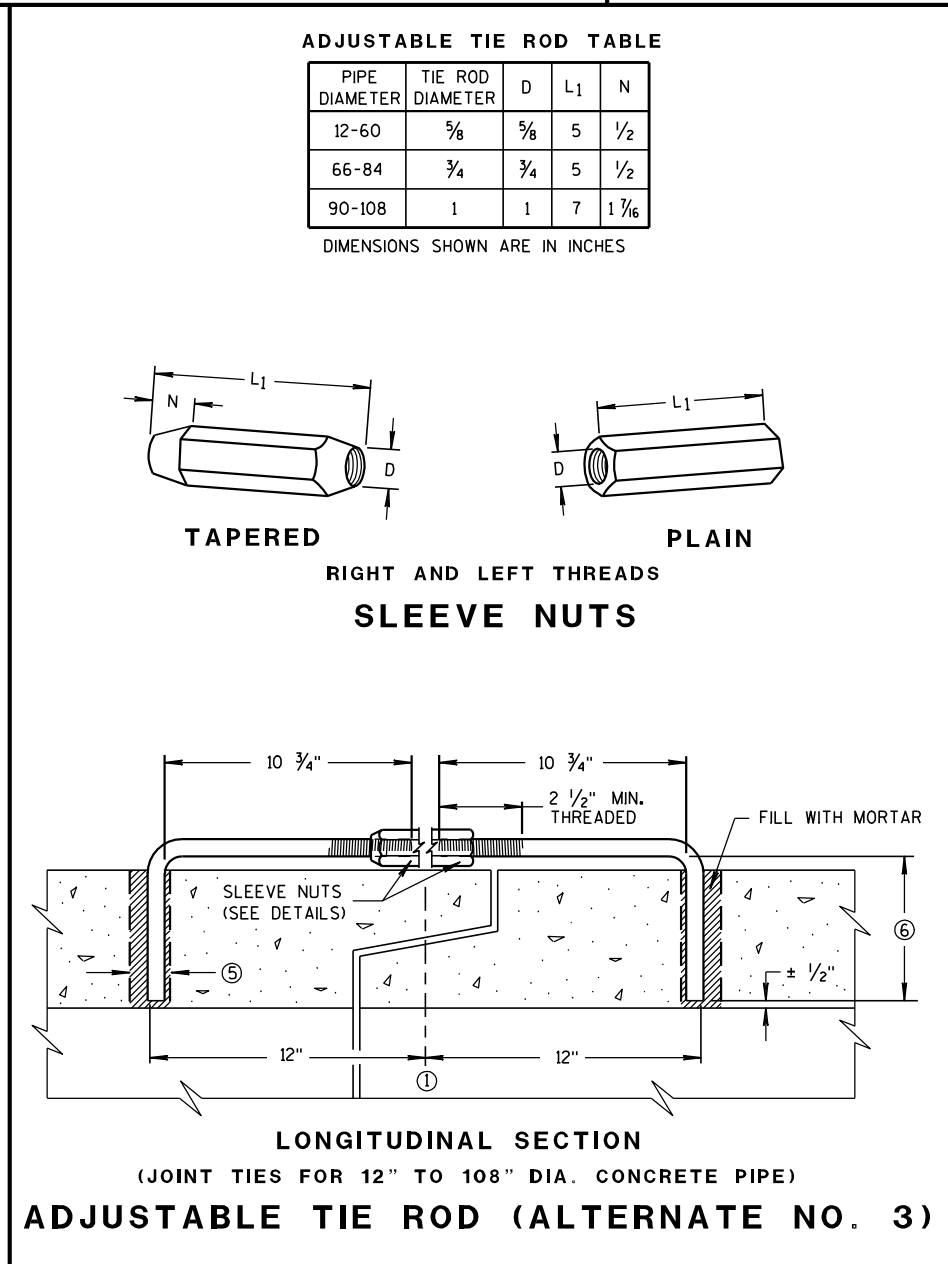
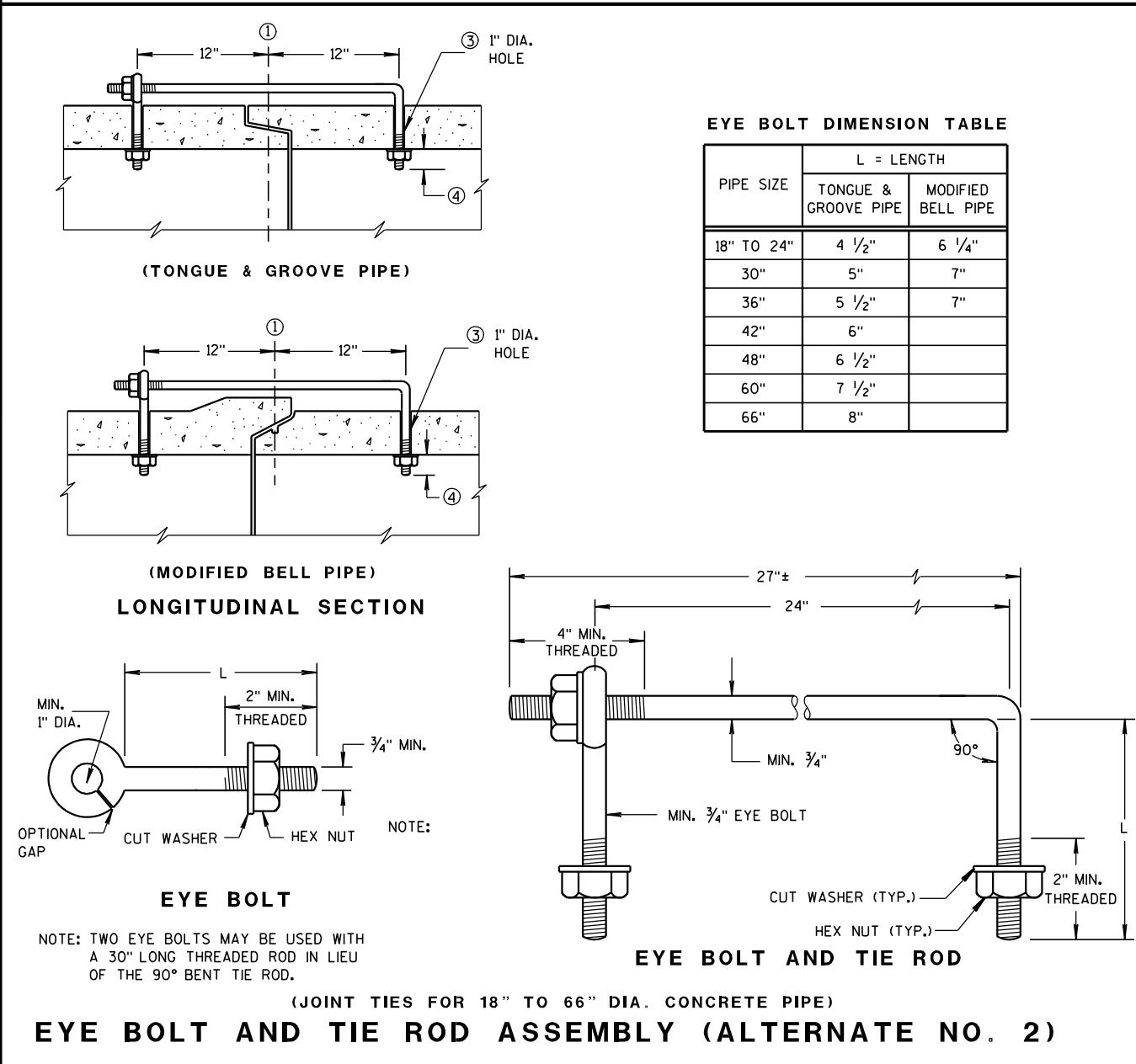
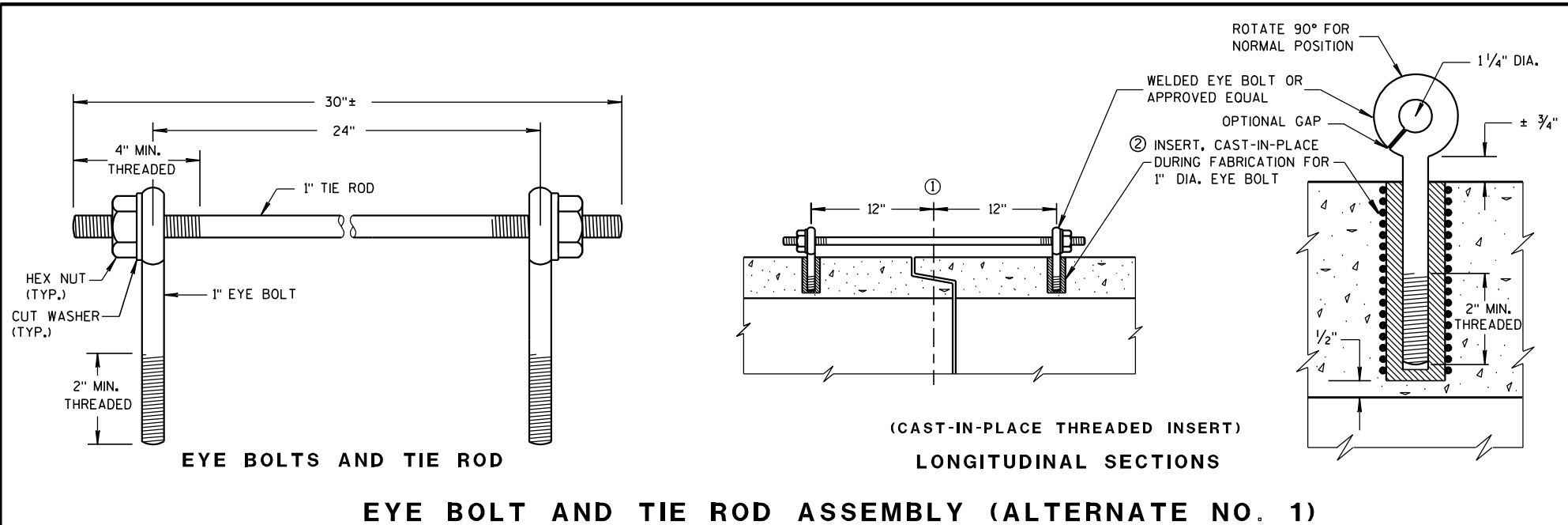
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL
THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND
LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH
OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

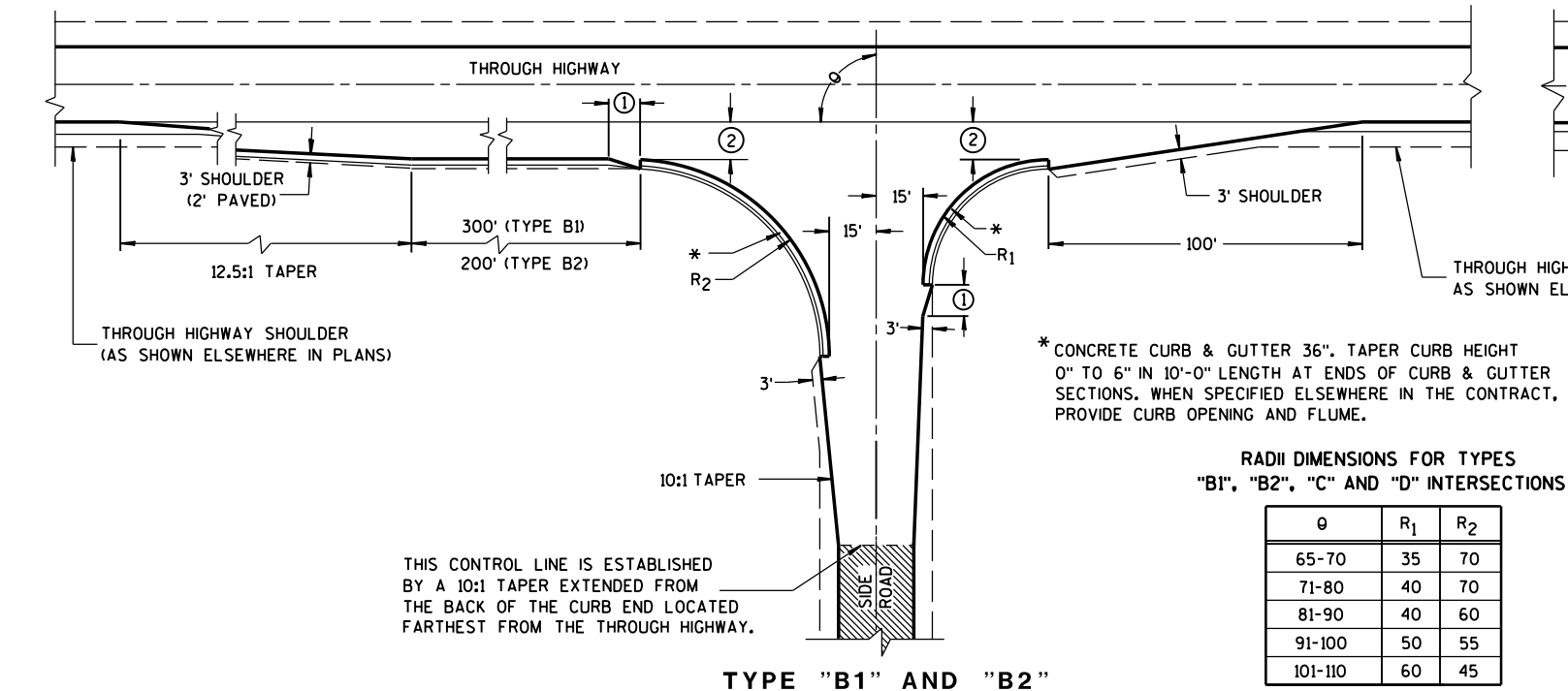
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS
FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS.
FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED
EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH
GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. 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	/S/ Rory L. Rhinehart	NEER
DATE		CHIEF ROADWAY DEVELOP	57
FHWA			





RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R ₁	R ₂
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

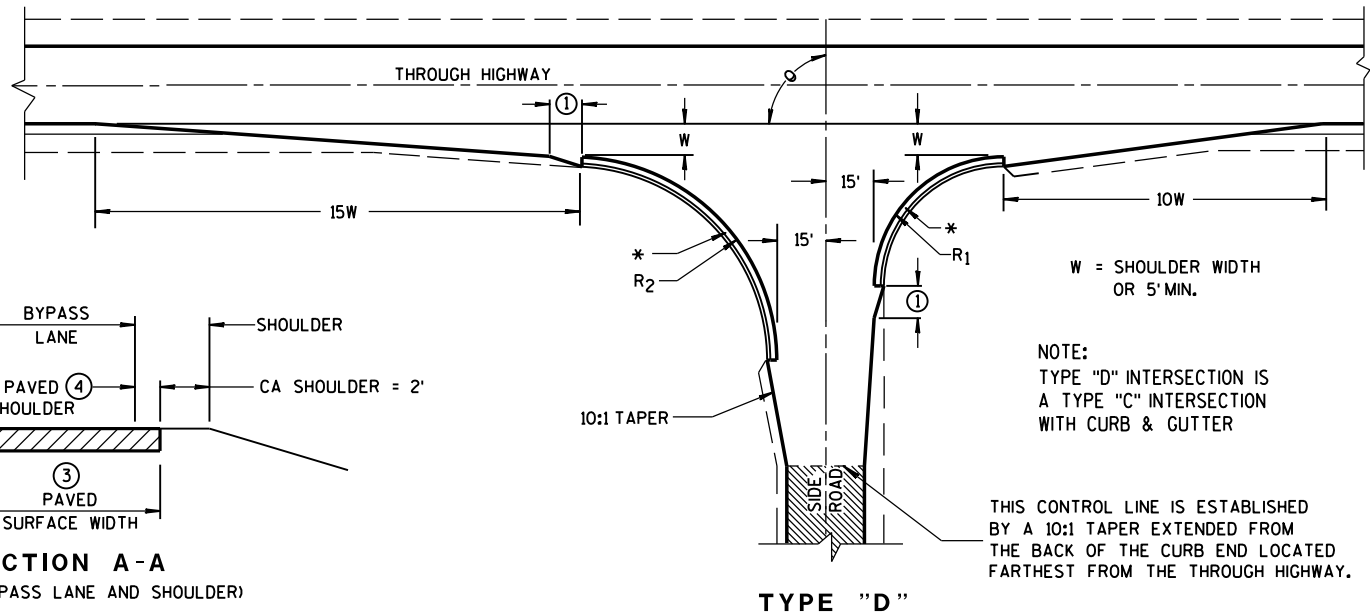
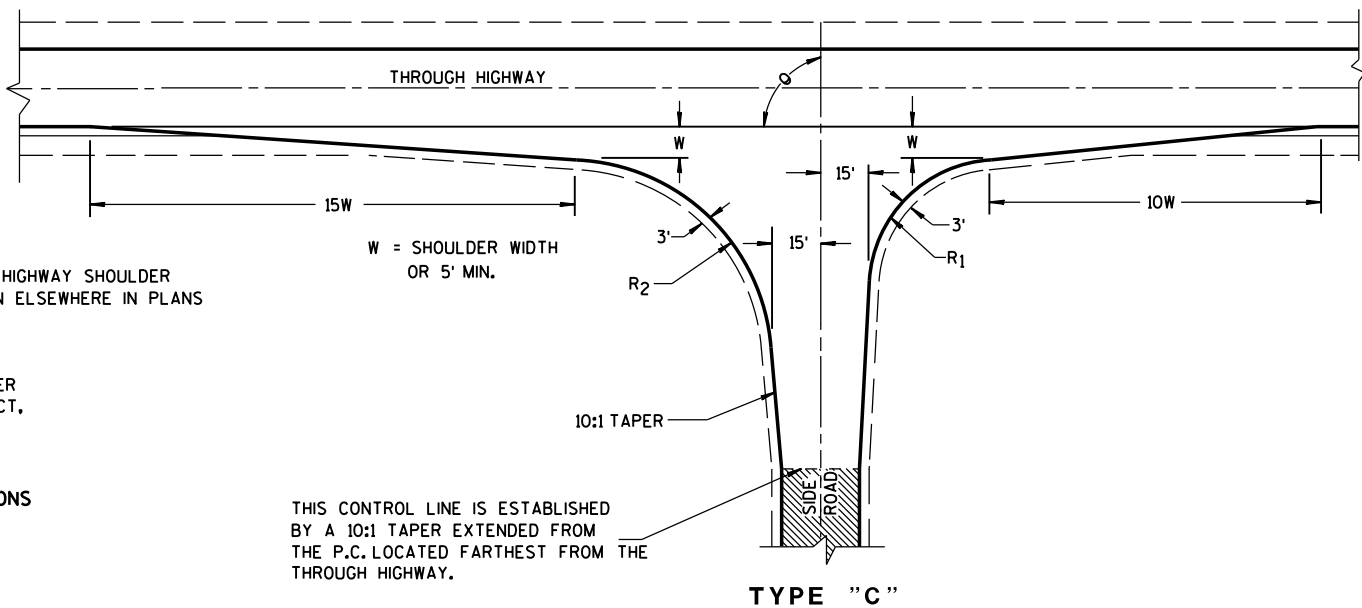
WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

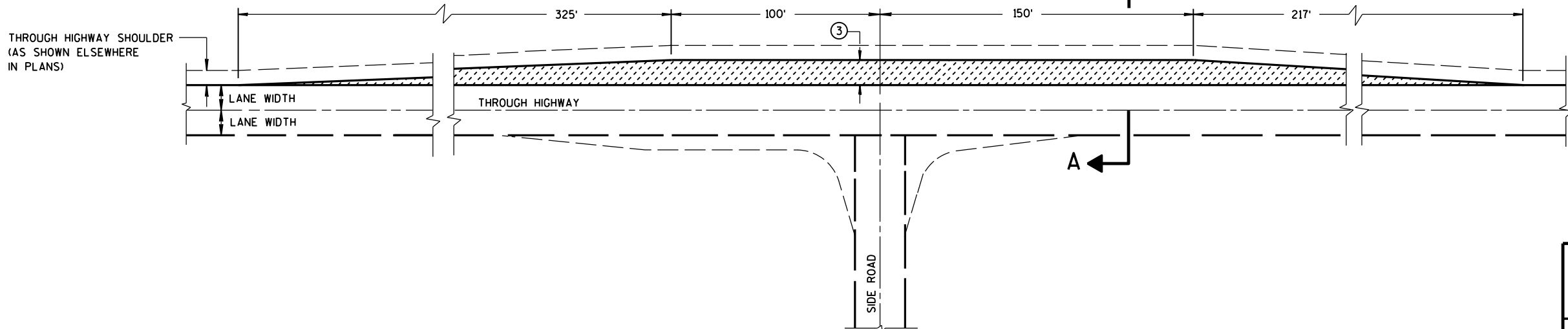
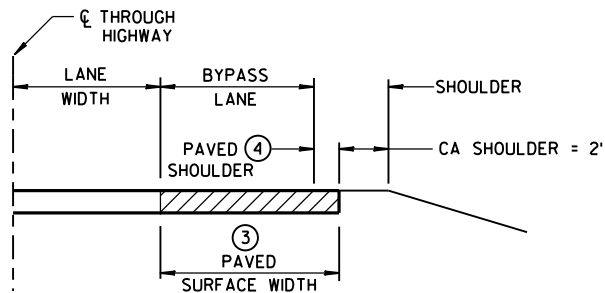
BYPASS LANE

- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



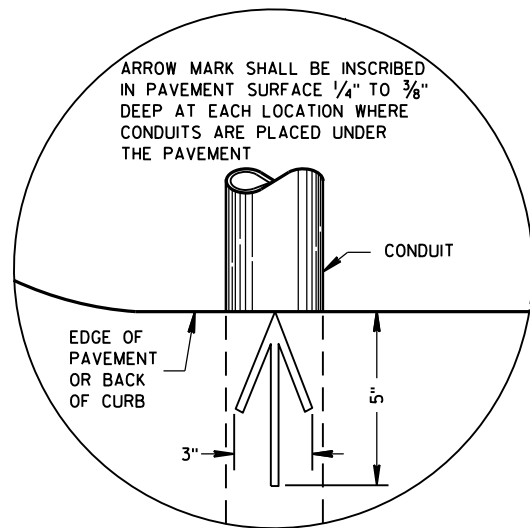
NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB & GUTTER



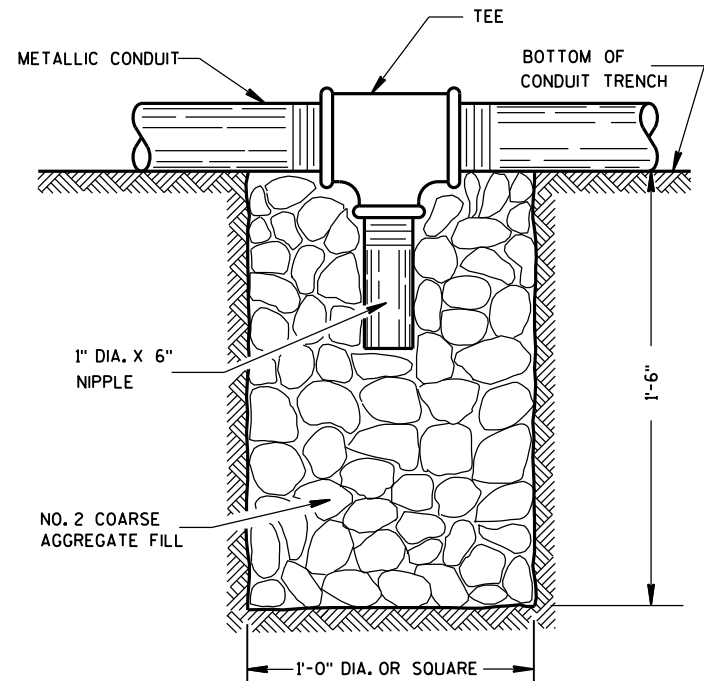
TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

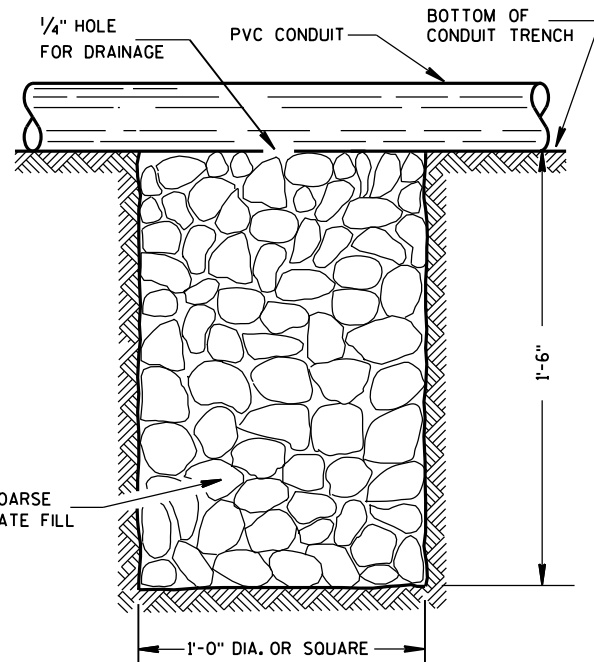


PLAN VIEW
ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

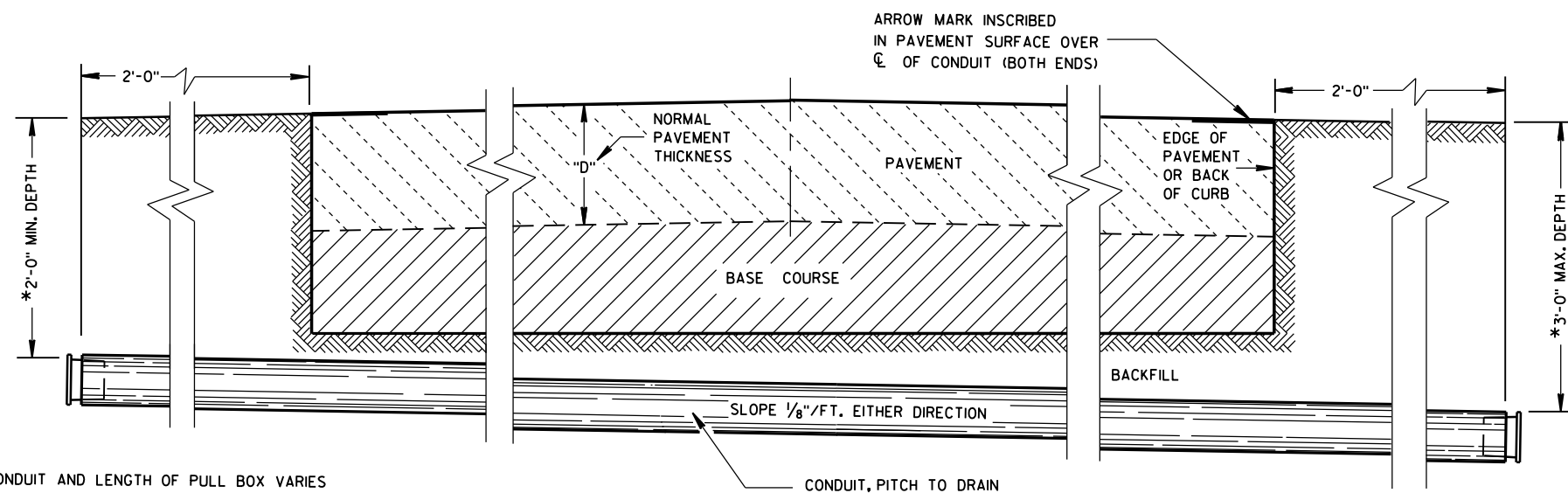
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL 60
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

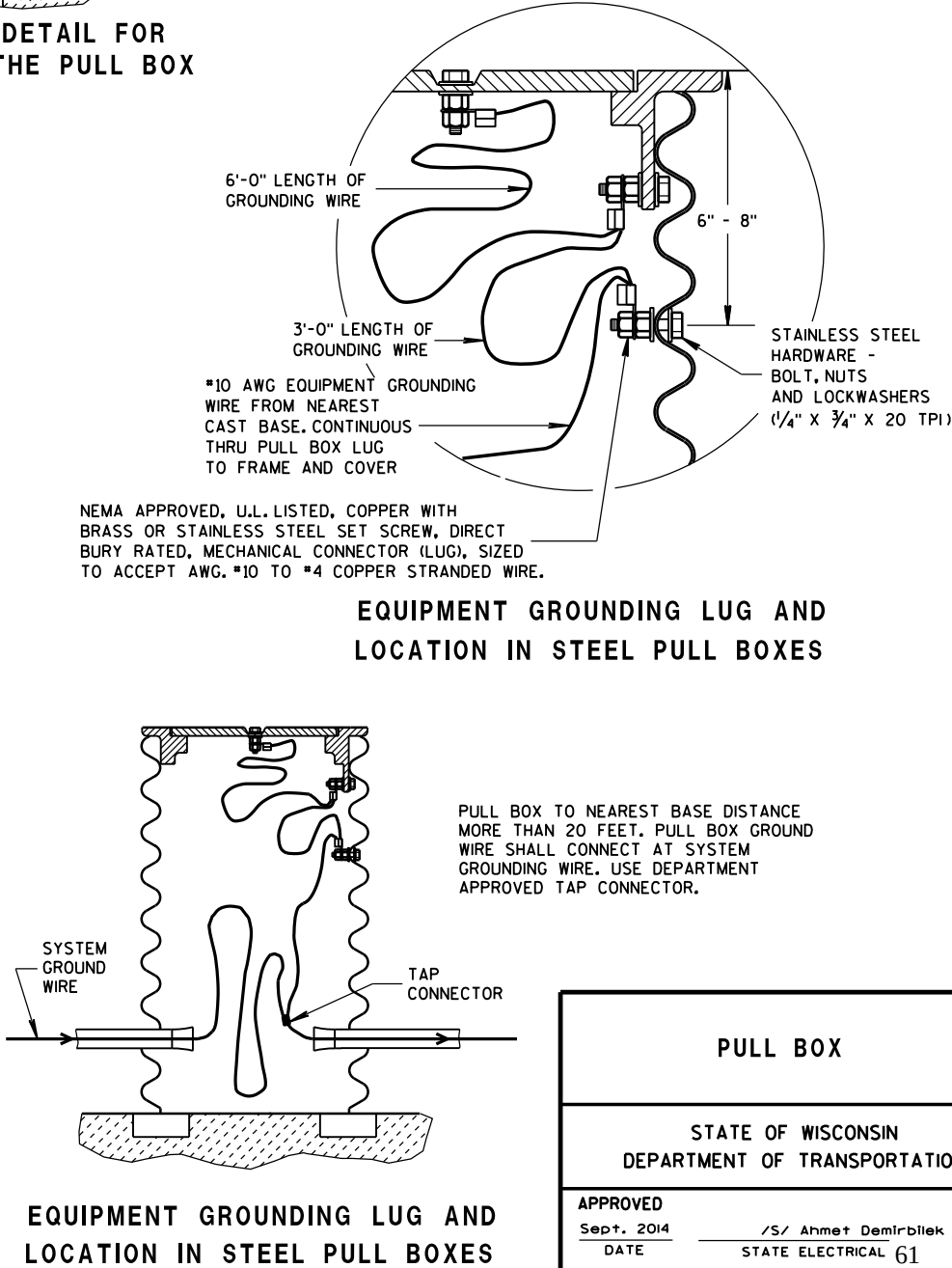
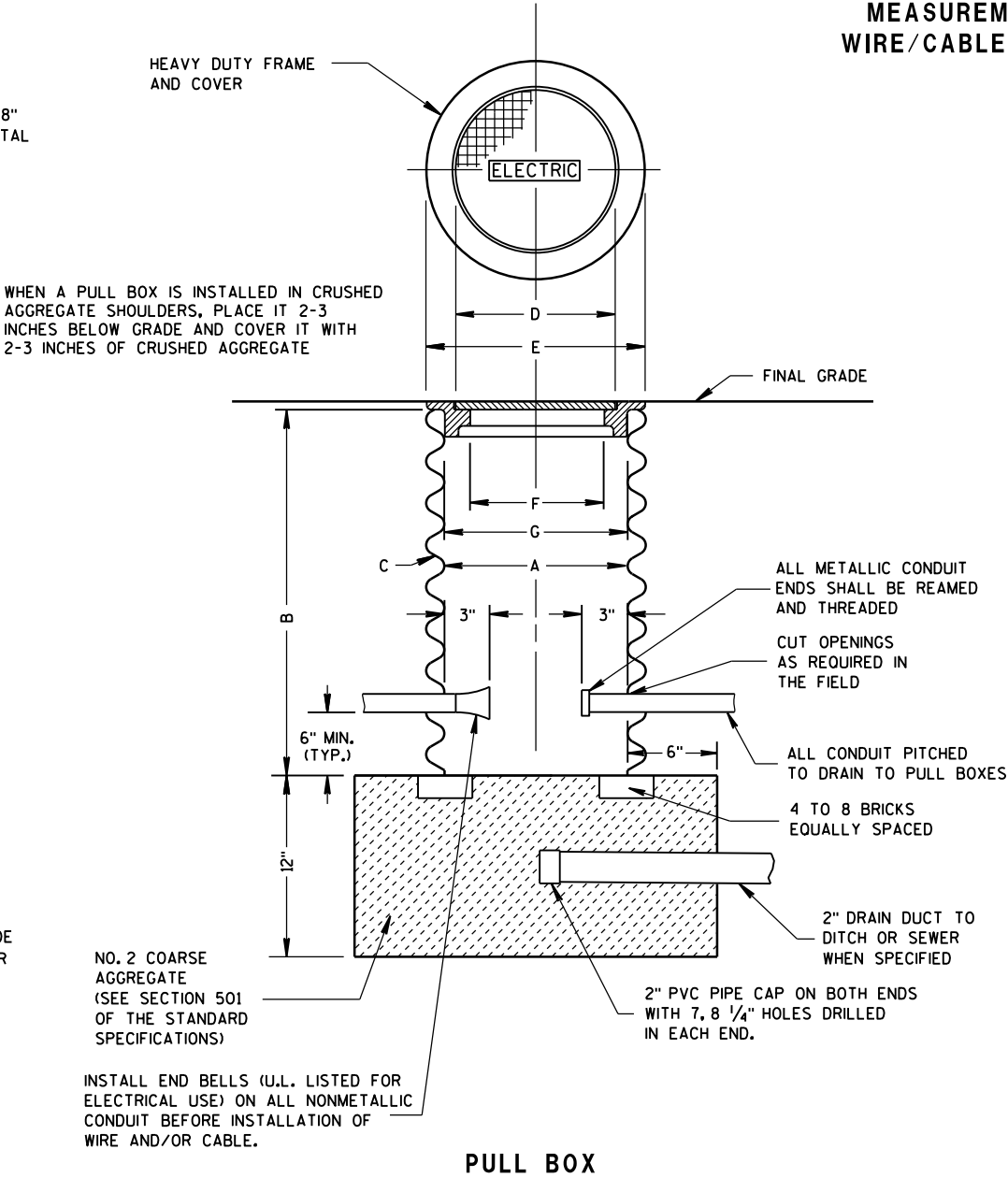
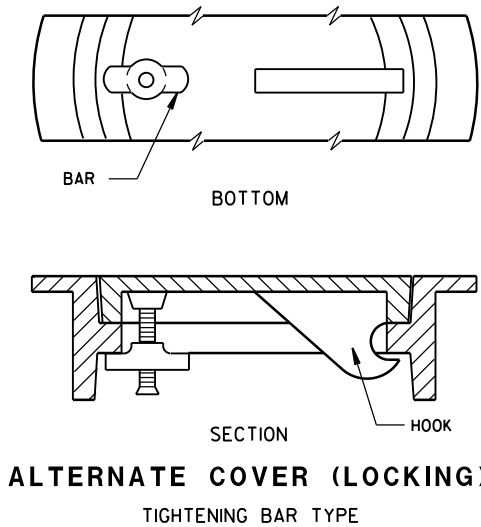
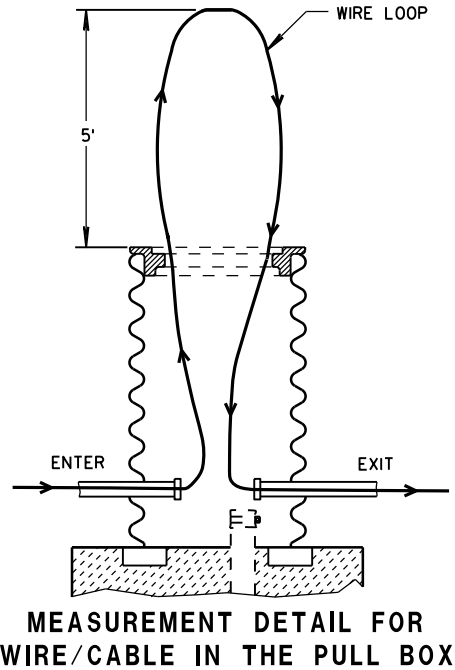
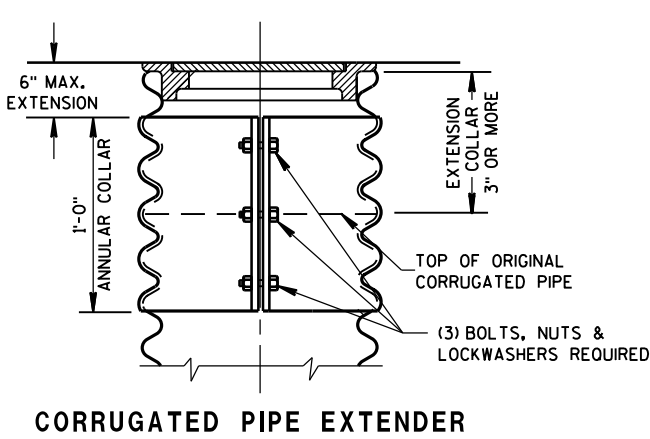
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

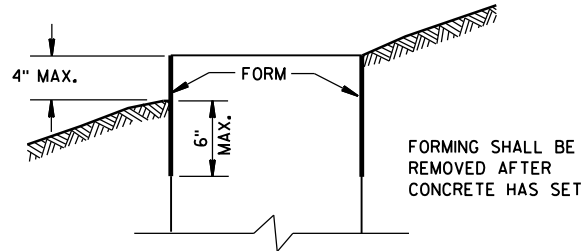
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

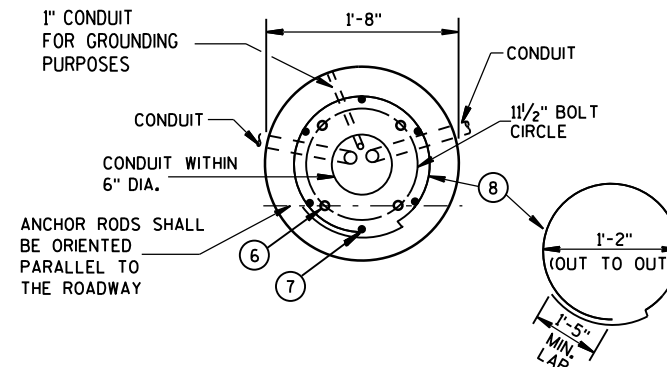
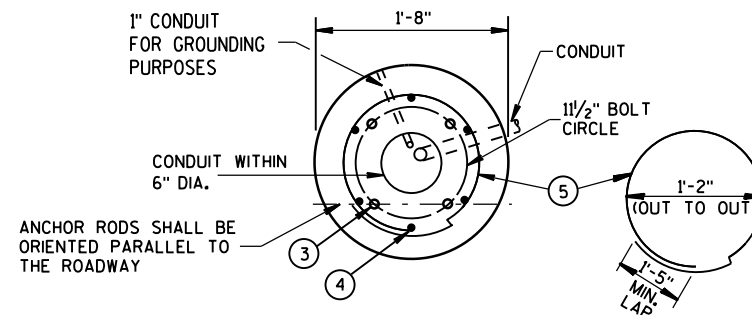
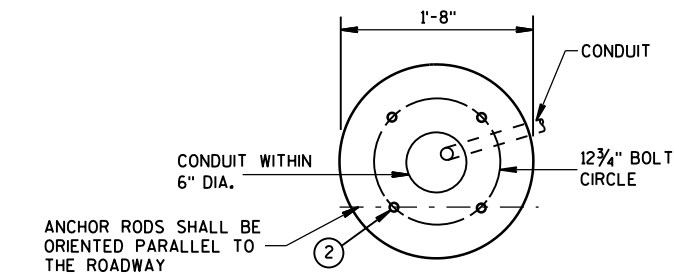
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

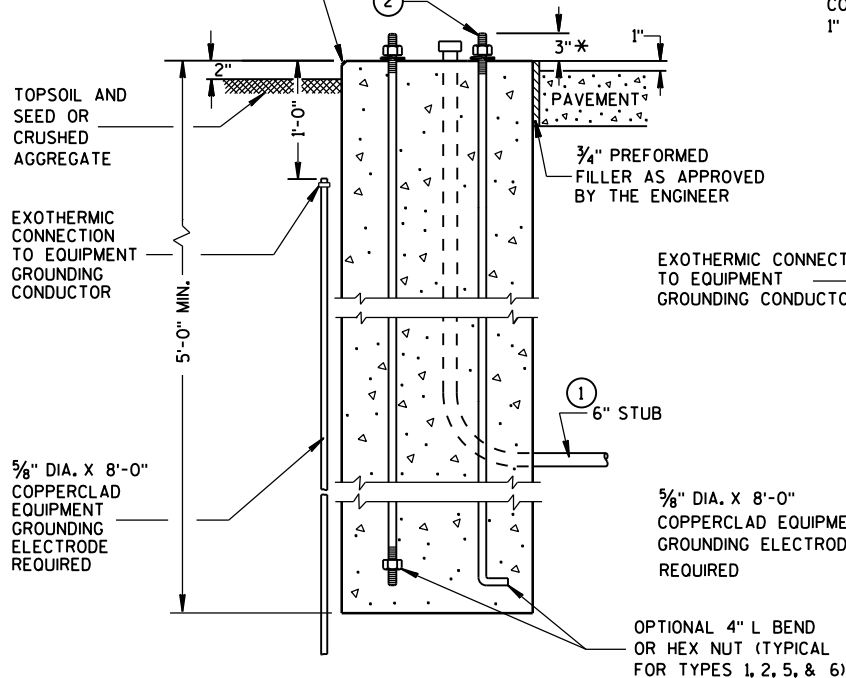
- 1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

- 2 (4) 1" DIA. X 3'-6" ANCHOR RODS.
3 (4) 1" DIA. X 5'-0" ANCHOR RODS.
4 (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.
5 (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.
6 (4) 1" DIA. X 3'-6" ANCHOR RODS.
7 (6) NO. 4 X 4'-8" BAR STEEL REINFORCEMENT.
8 (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

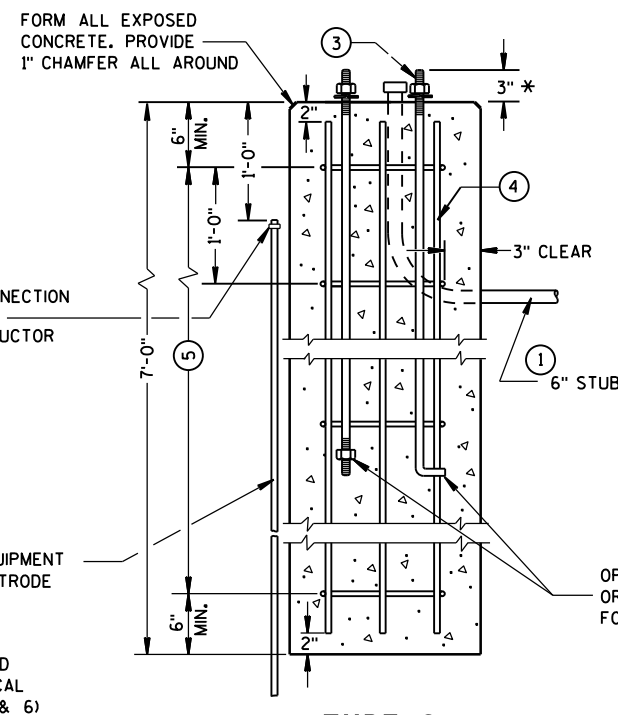


FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

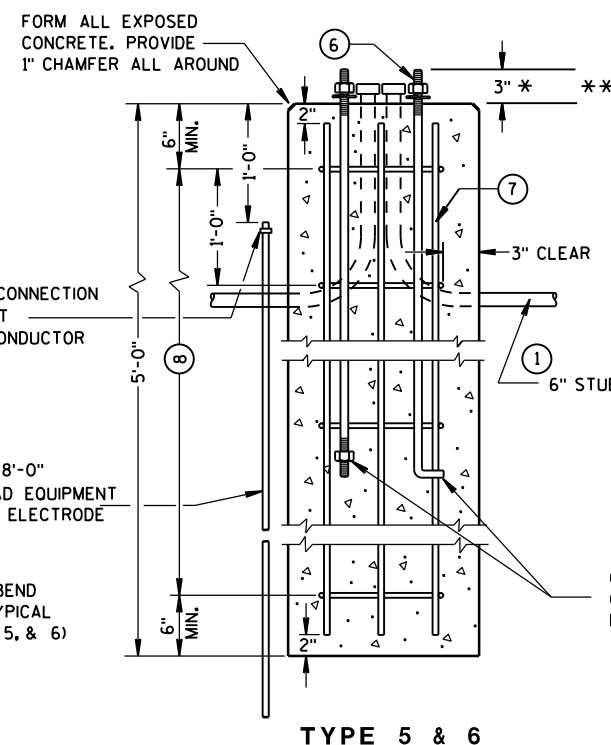
HALF SECTION IN UNPAVED AREA (TYPICAL FOR TYPES 1, 2, 5, & 6)



HALF SECTION IN PAVEMENT (TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2 CONCRETE BASES



TYPE 5 & 6

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 3/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

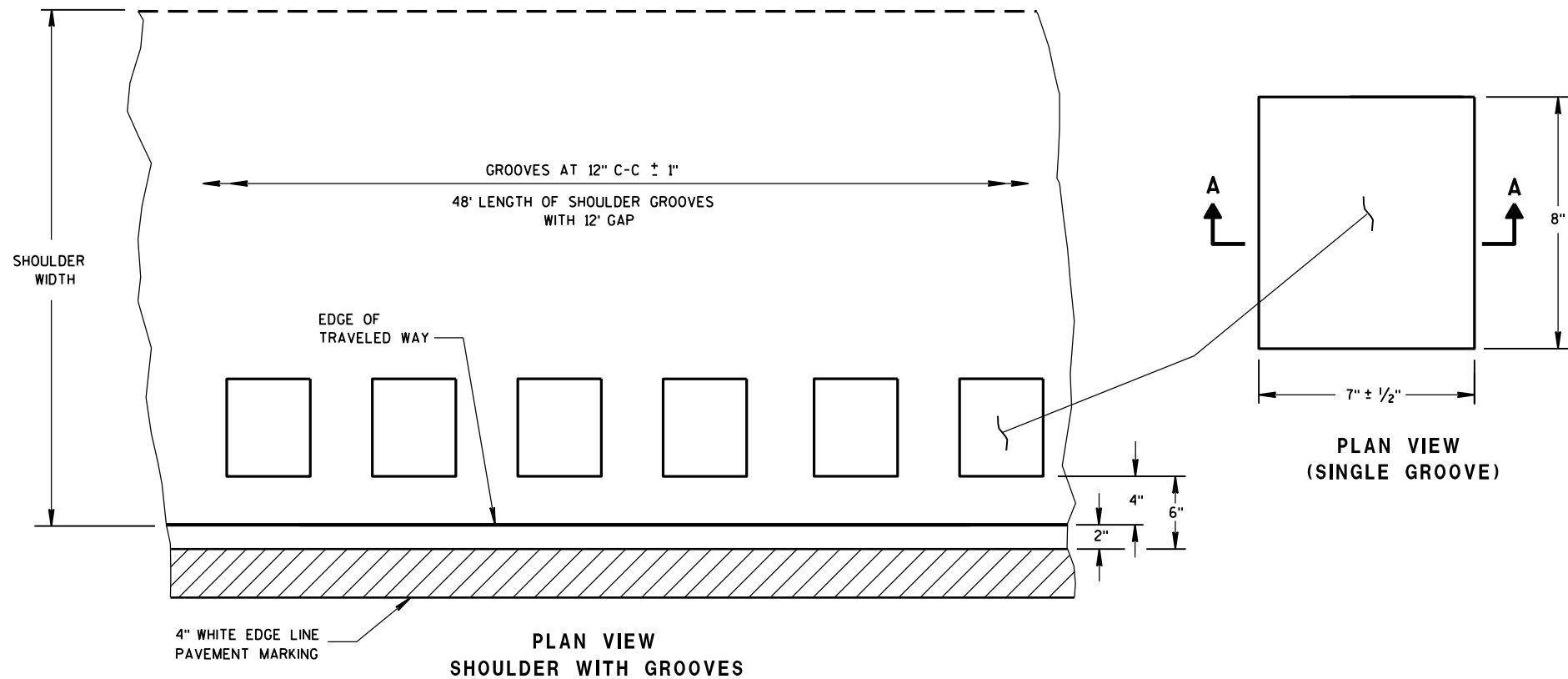
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 62

FHWA



6

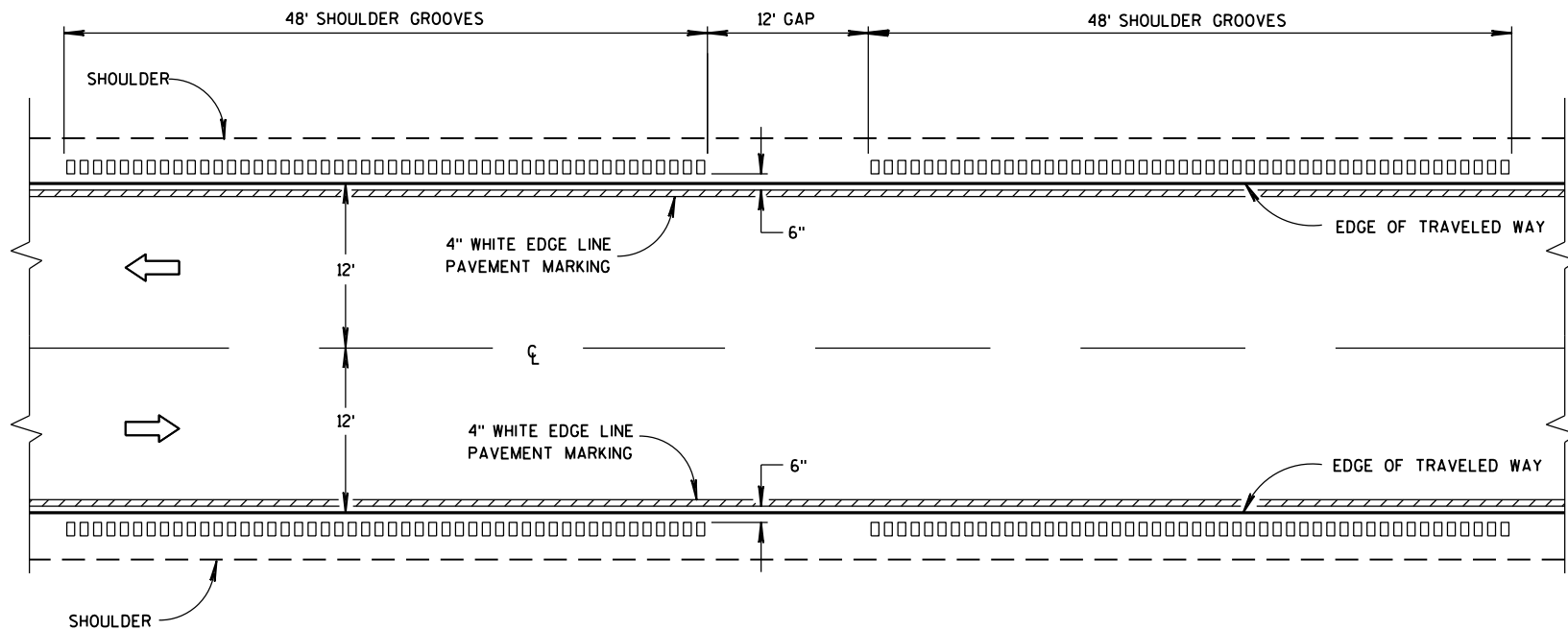
PLAN VIEW
(SINGLE GROOVE)

48' LENGTH OF SHOULDER GROOVES WITH 12' GAP

EDGE OF TRAVELED WAY

4" WHITE EDGE LINE PAVEMENT MARKING

PLAN VIEW SHOULDER WITH GROOVES



6

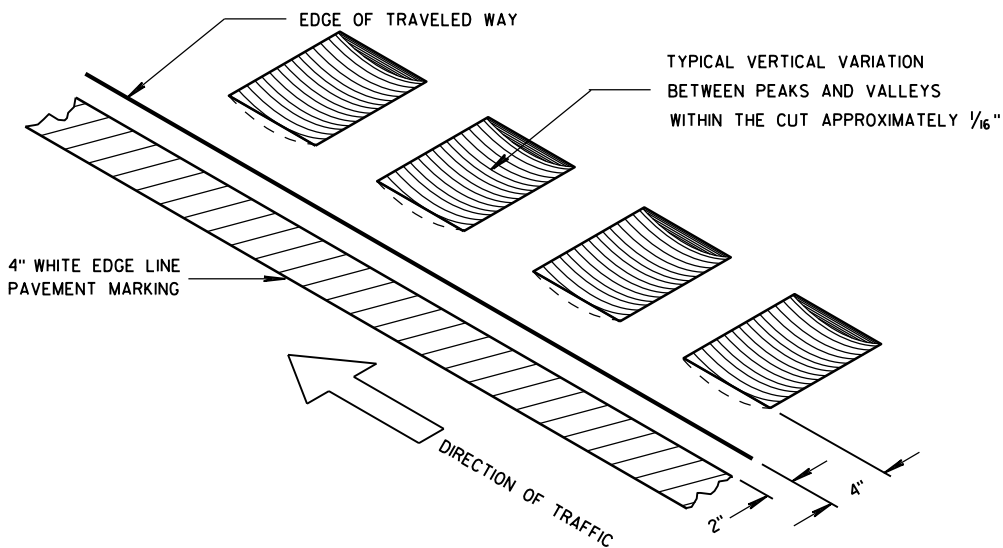
TYPE 1
2-LANE SHOULDER RUMBLE STRIP

GENERAL NOTES

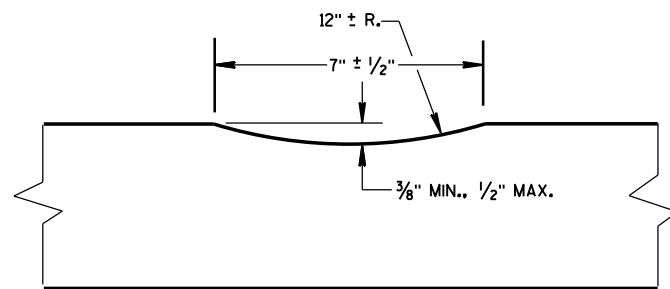
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



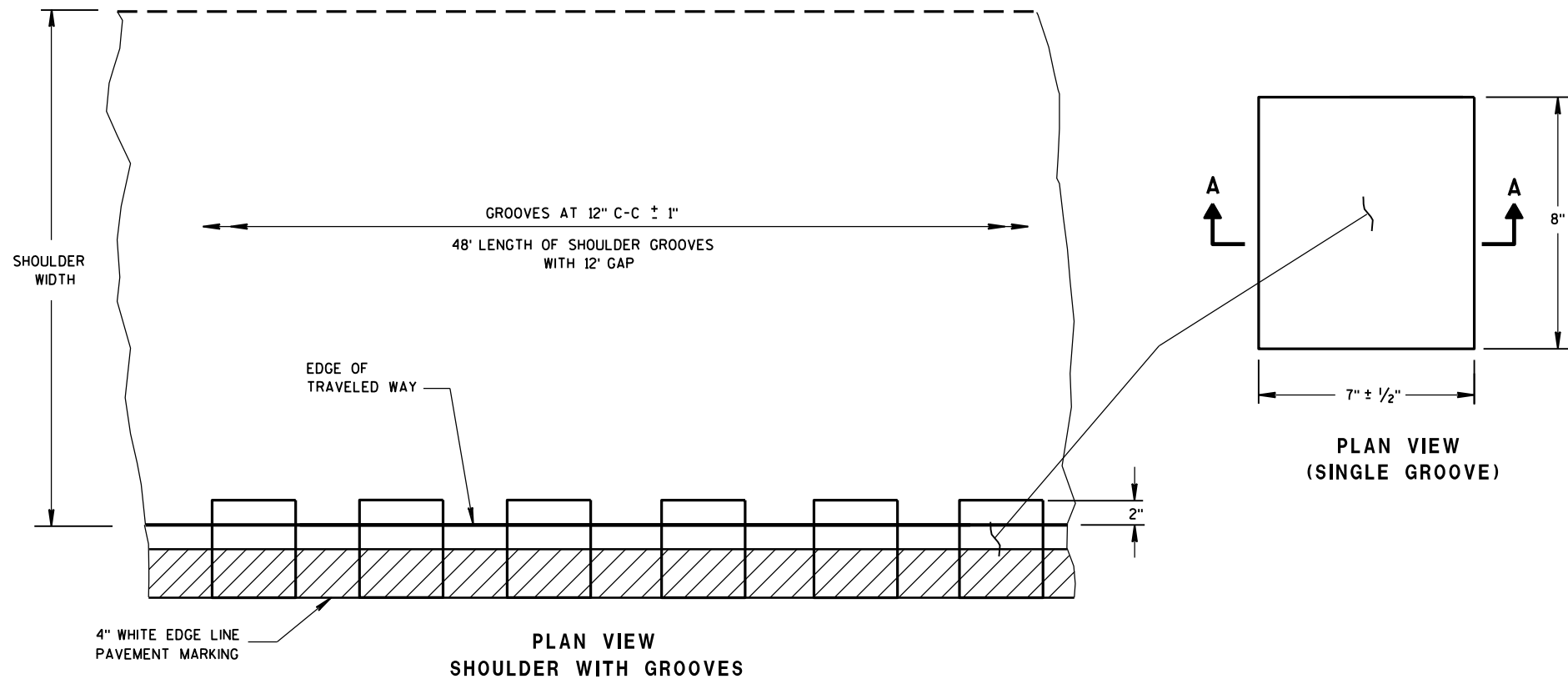
ISOMETRIC



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

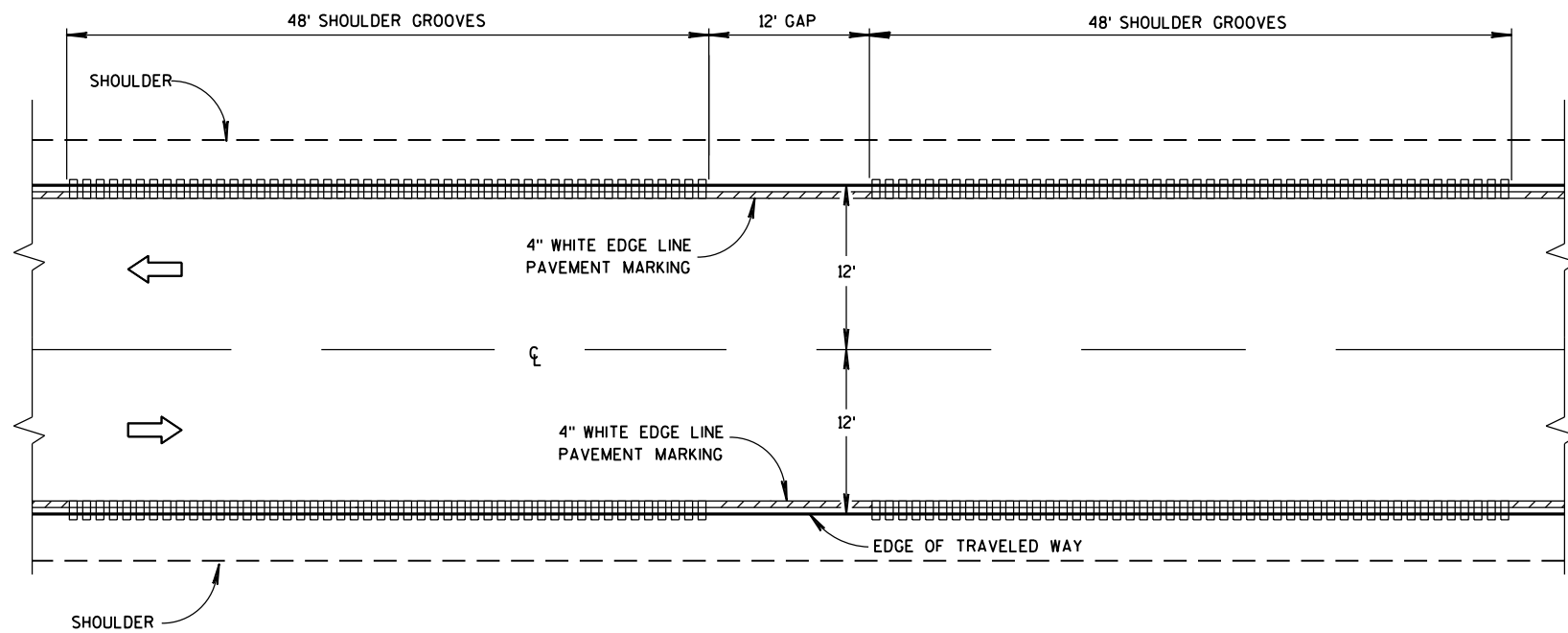
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

6
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

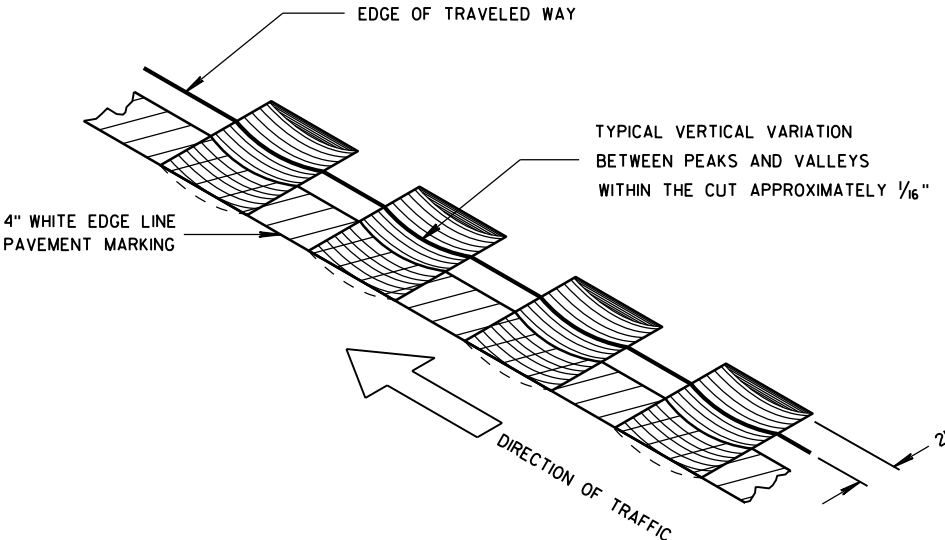


TYPE 2
2-LANE SHOULDER RUMBLE STRIP

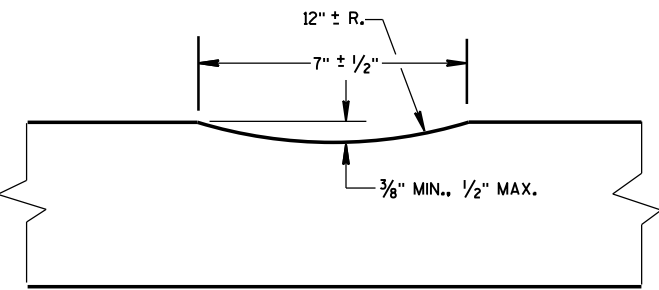
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



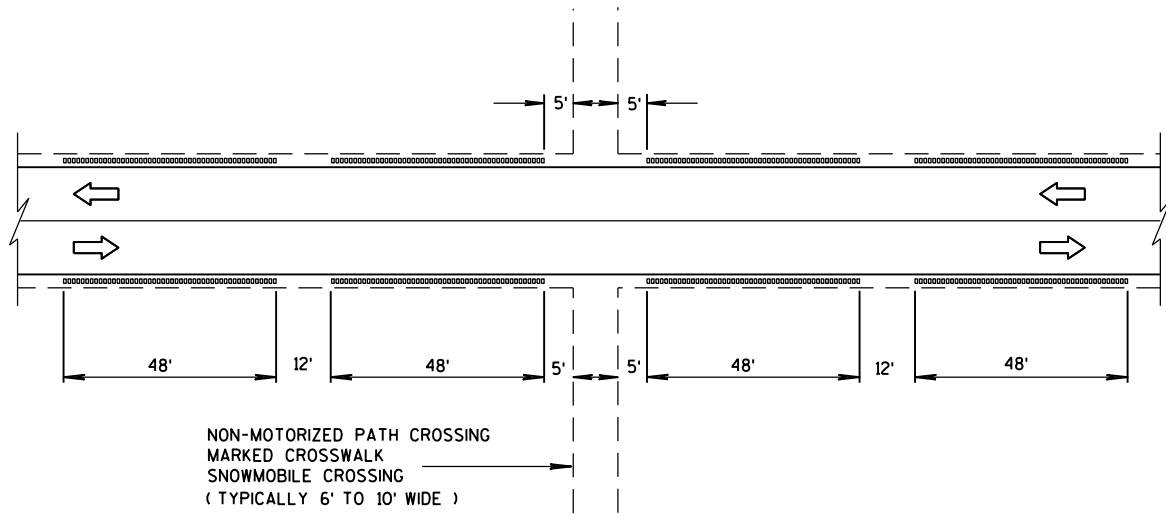
ISOMETRIC



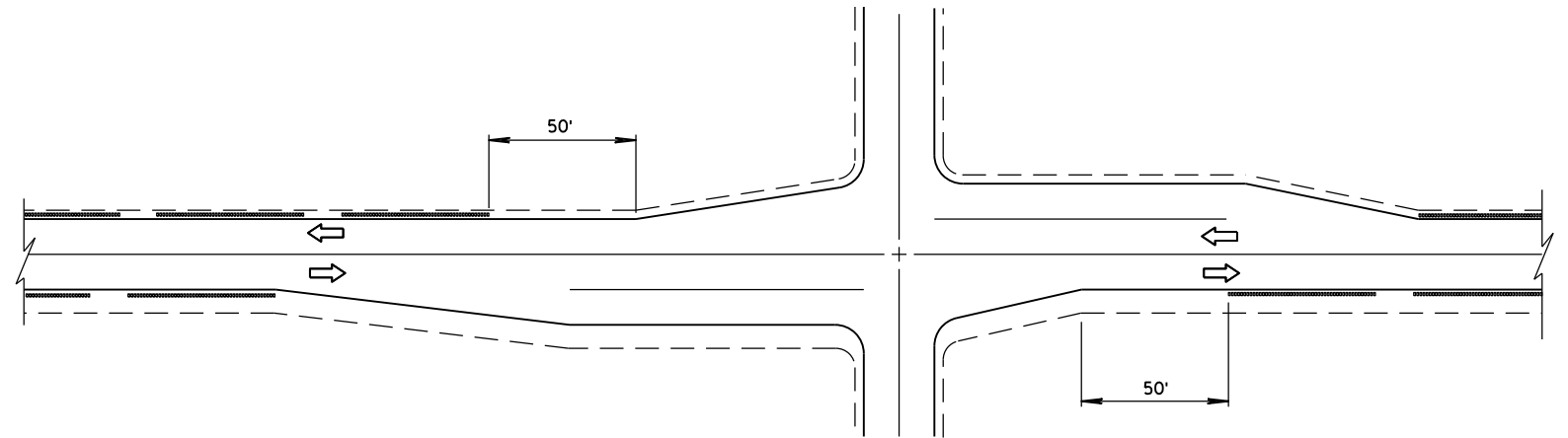
SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

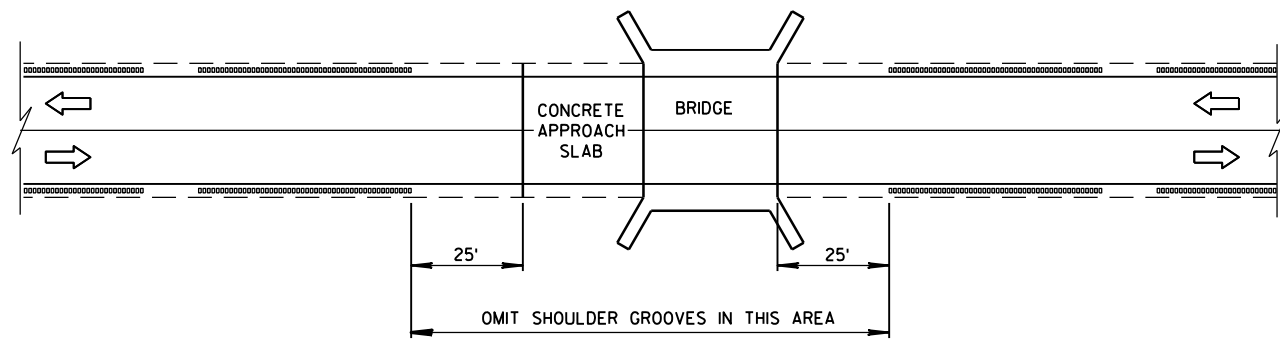
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



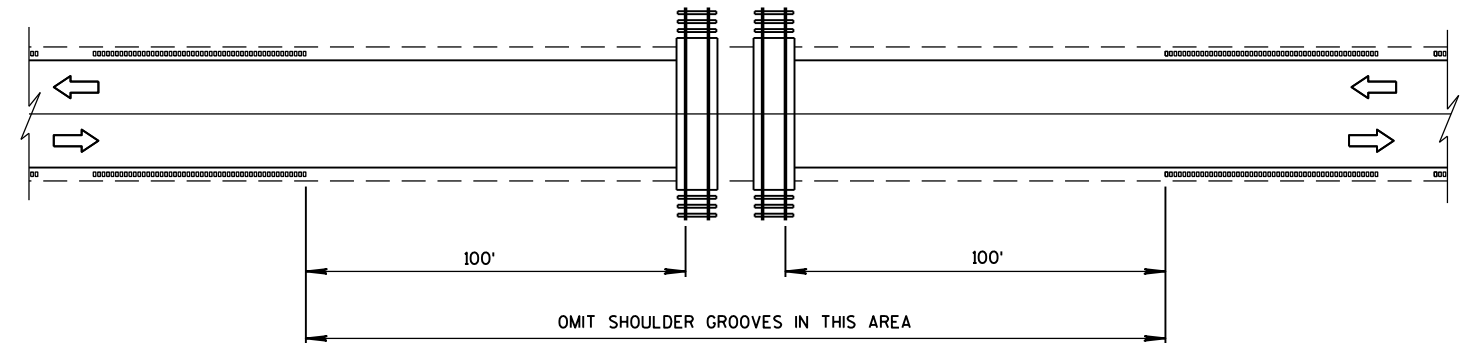
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



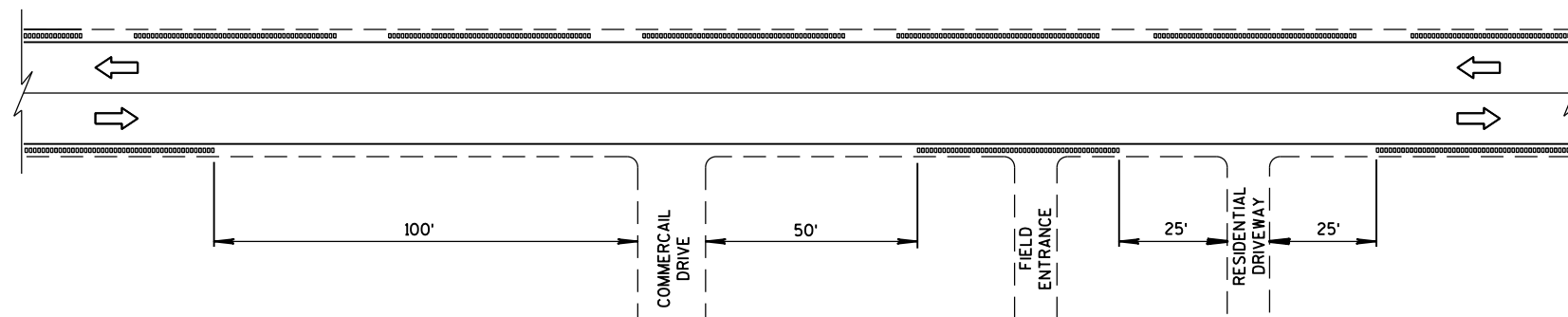
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



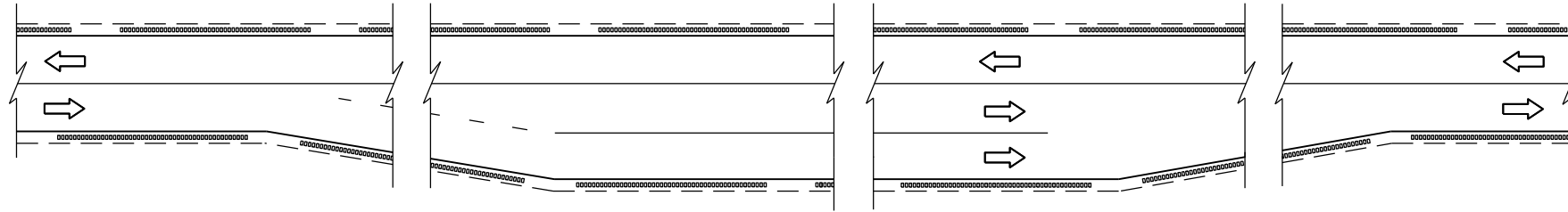
SHOULDER GROOVES AT RAILROADS



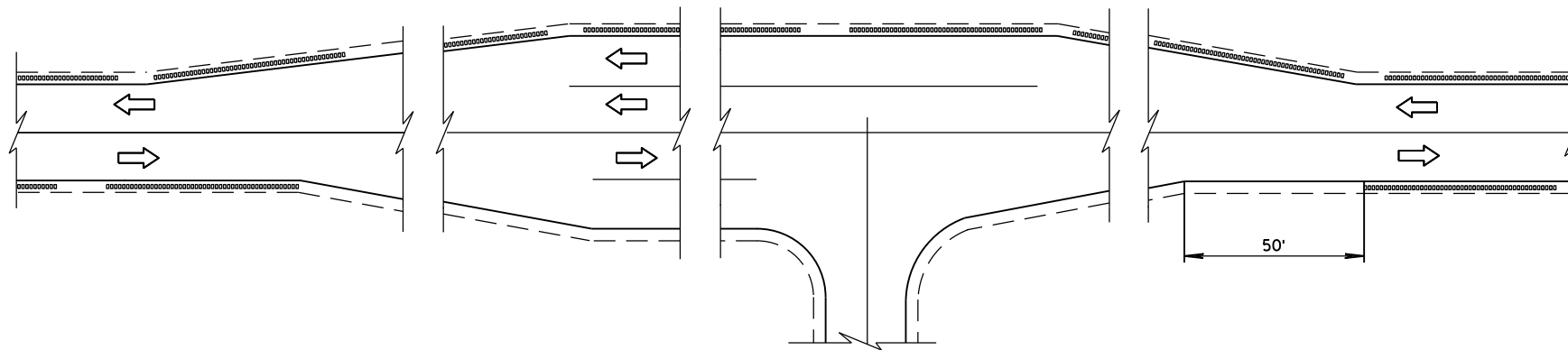
SHOULDER GROOVES AT DRIVEWAYS^①

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN¹
DEPARTMENT OF TRANSPORTATION⁶⁵



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 12/17/2012 DATE	/S/ Jerry H. Zoog ROADWAY STANDARDS ENGINEER	66 ENT
FHWA		

GENERAL NOTES

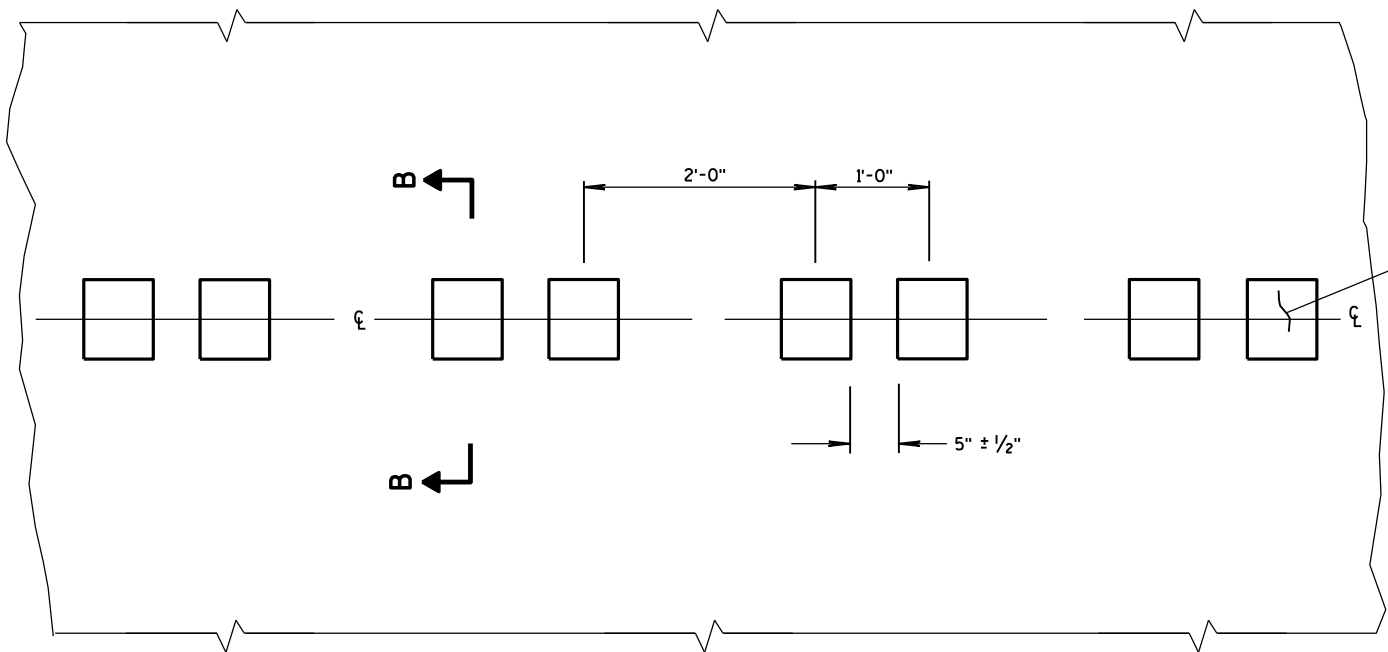
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

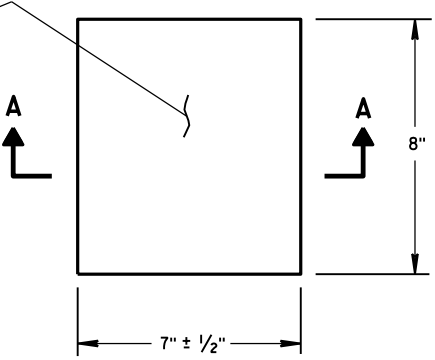
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

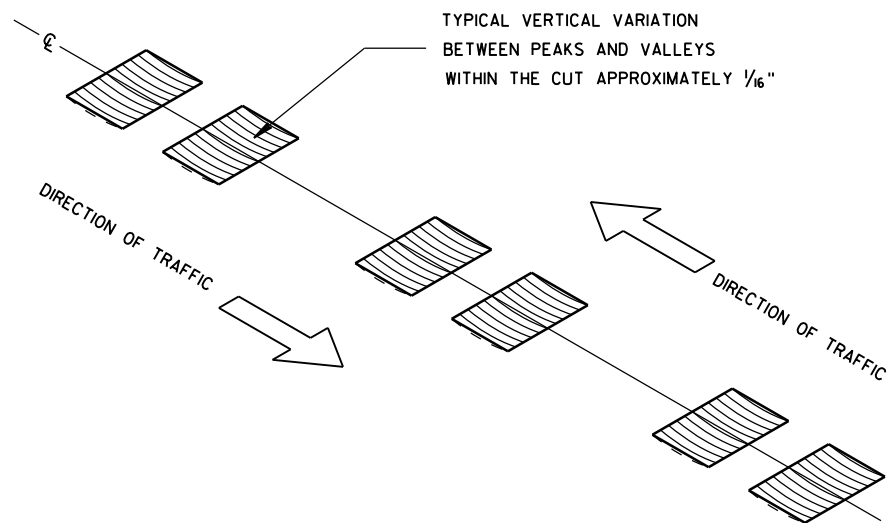
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



PLAN VIEW
CENTER LINE WITH GROOVES

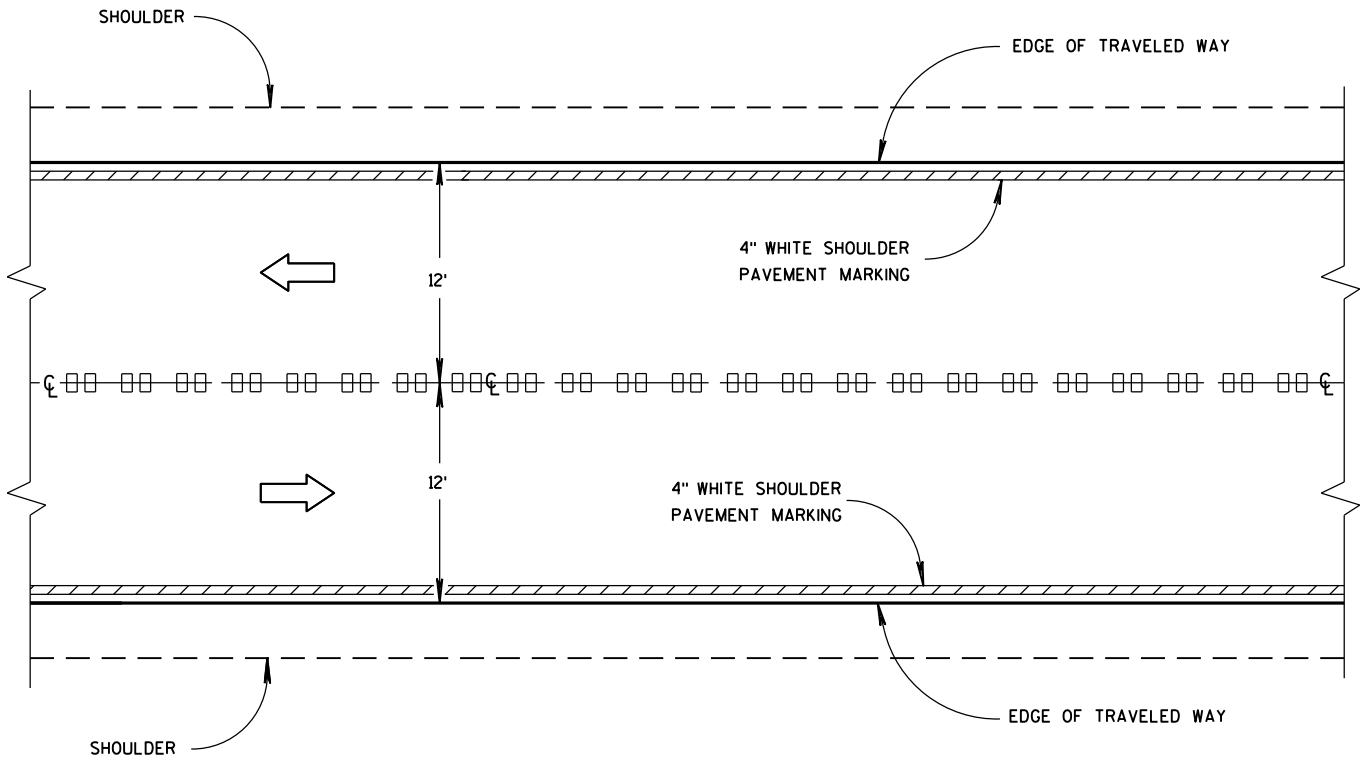


PLAN VIEW
(SINGLE GROOVE)

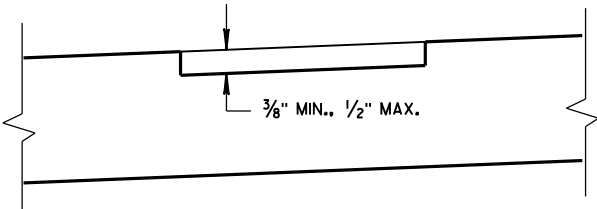


ISOMETRIC

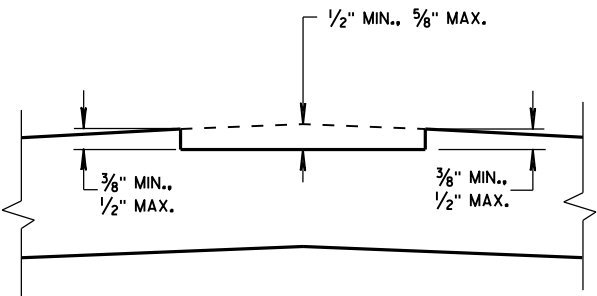
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



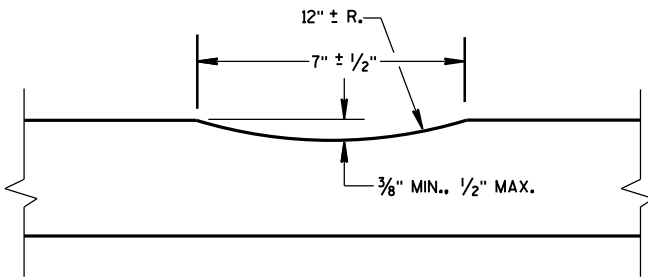
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



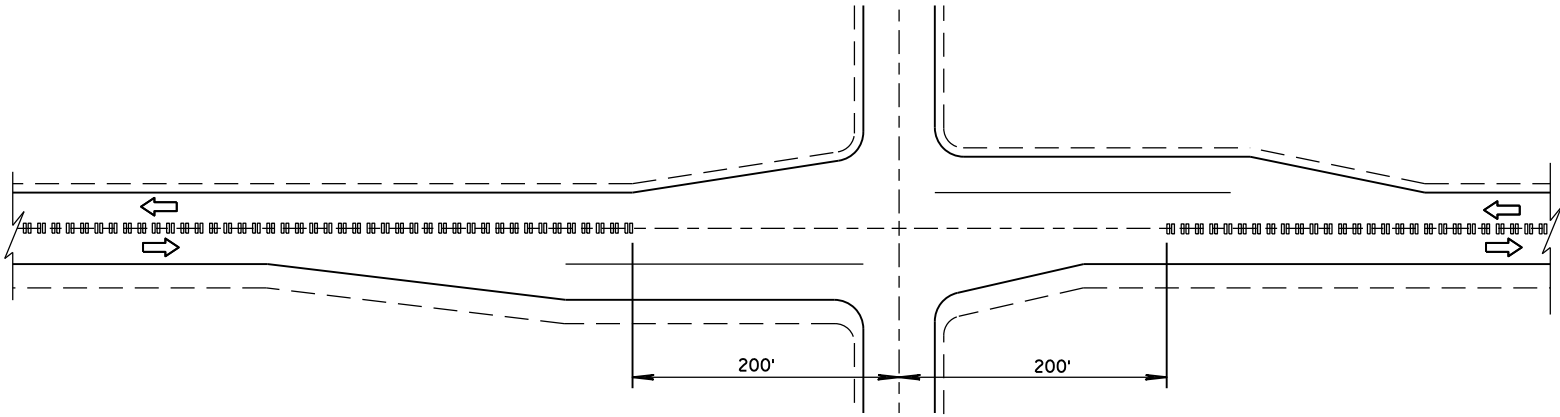
SECTION B-B
CROWNED ROADWAY



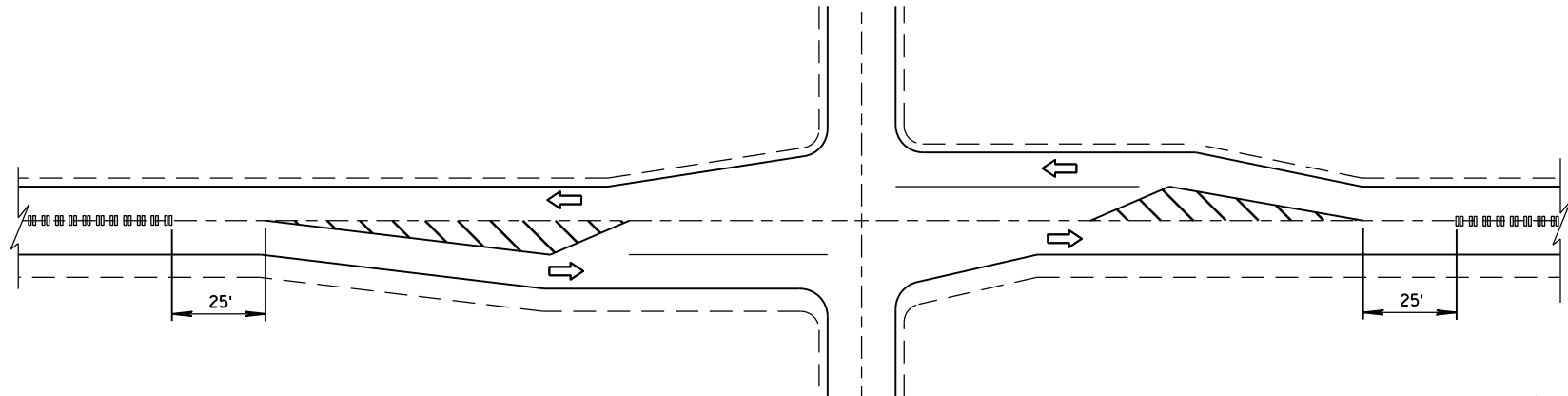
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

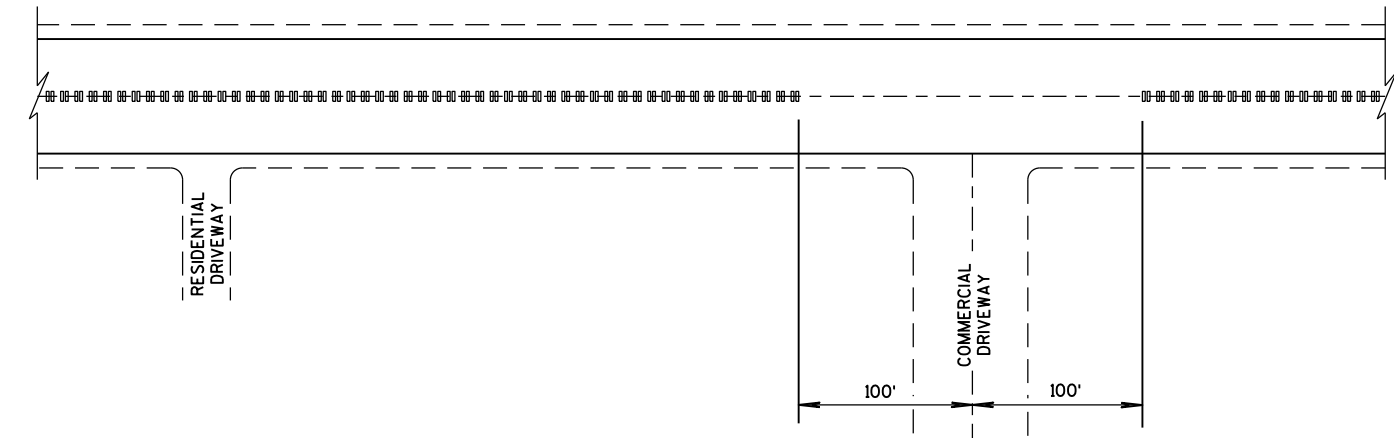
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

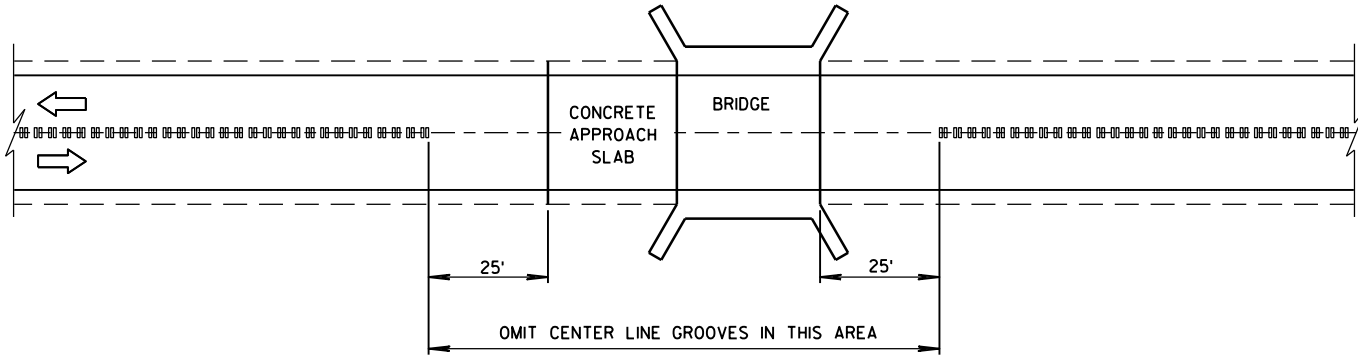


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

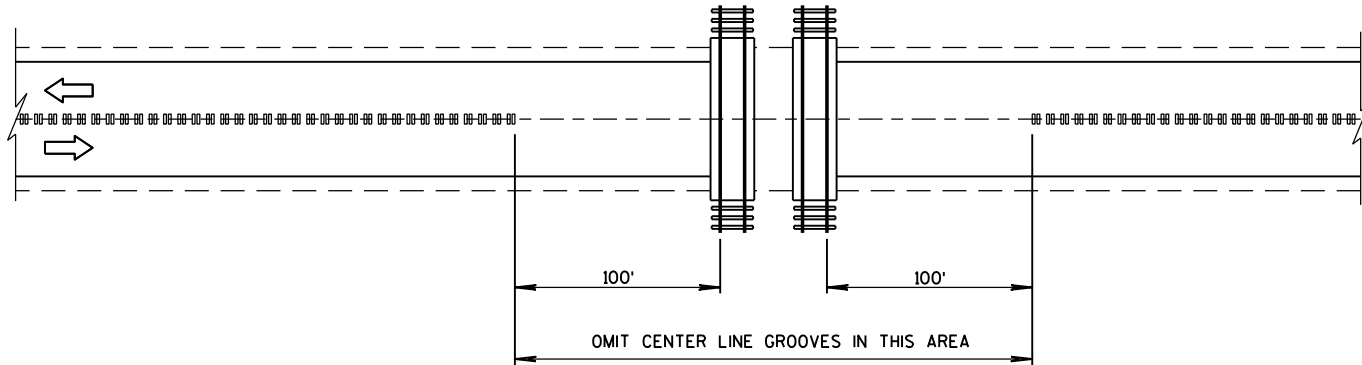


CENTER LINE GROOVES AT DRIVEWAYS^①

① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

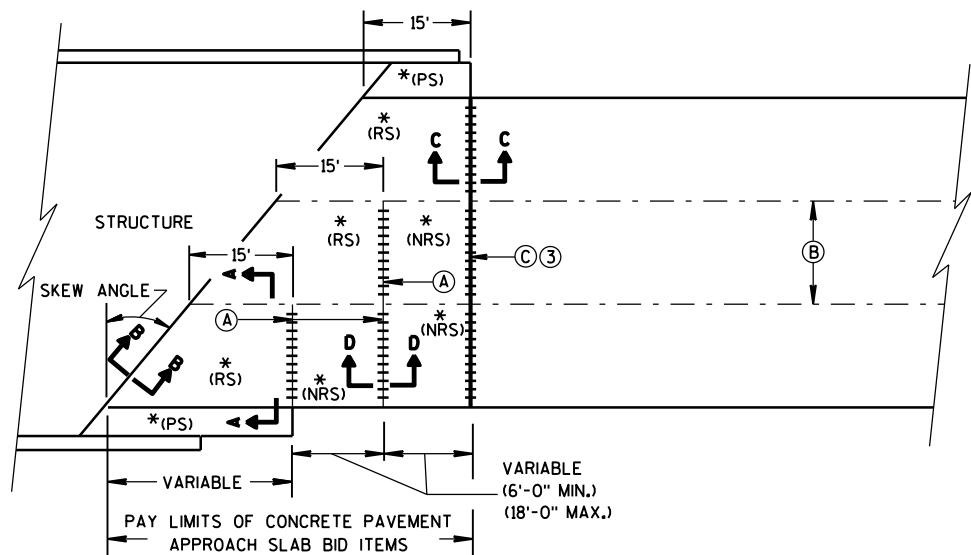


CENTER LINE GROOVES AT BRIDGES

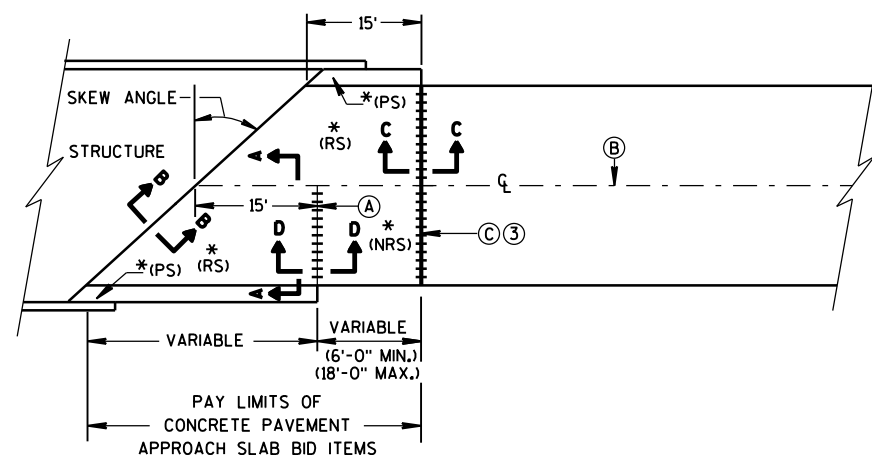


CENTER LINE GROOVES AT RAILROADS

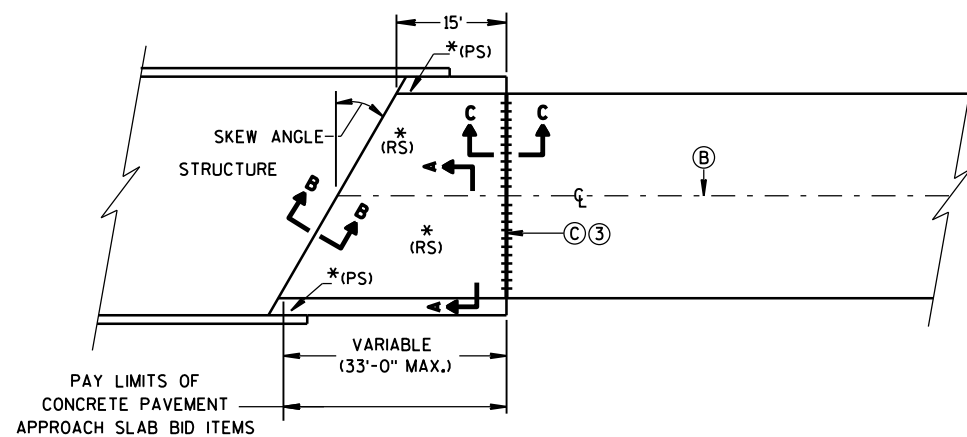
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 5/15/2013	/S/ Jerry H. Zoog ROADWAY STANDARDS ENGINEER 68 NT
FHWA	



**SKewed APPROACH
(PAVEMENT MORE THAN 2 LANES)**



**SKews > 20°
(PAVEMENT WIDTH ≤ 30')**

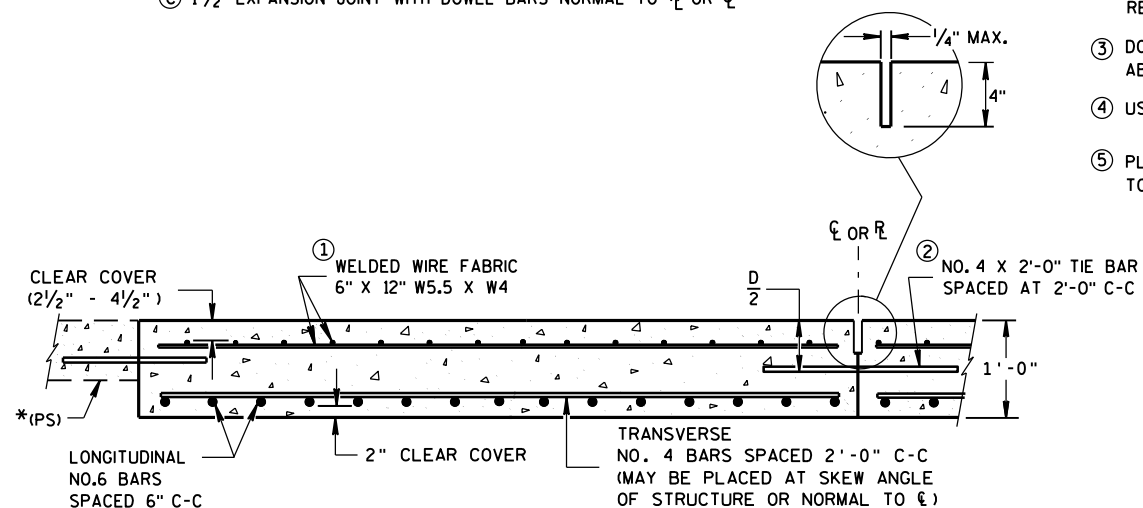


**SKews ≤ 20°
(PAVEMENT WIDTH ≤ 30')
APPROACH SLAB AND ADJACENT PAVEMENT**

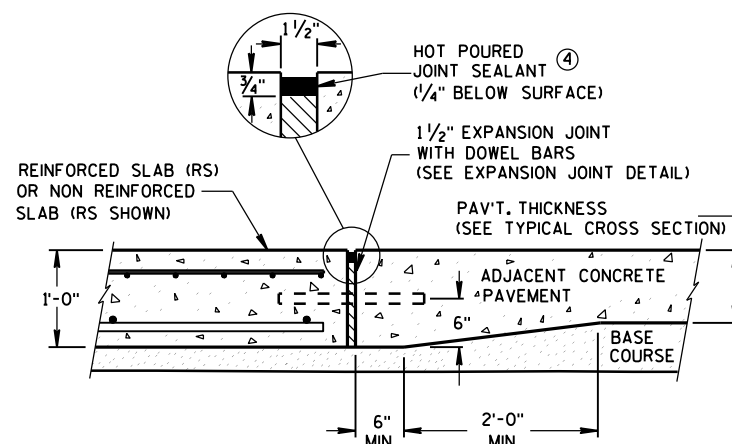
* (RS) = REINFORCED CONCRETE SLAB
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
* (NRS) = NON-REINFORCED CONCRETE SLAB

*** STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

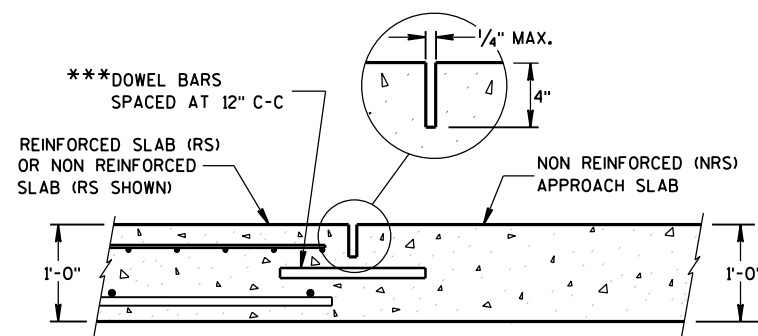
- (A) STANDARD CONTRACTION JOINT NORMAL TO ℓ OR ℓ_c
(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
(C) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℓ OR ℓ_c



**SECTION A-A
REINFORCEMENT POSITIONING DETAIL**



**SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**



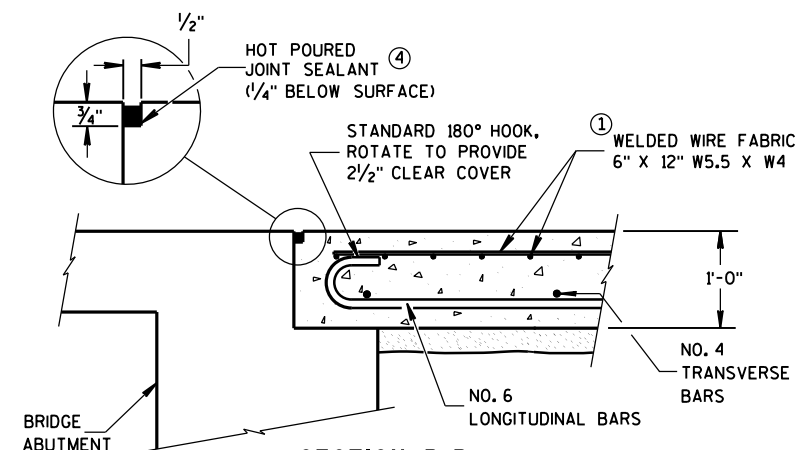
**SECTION D-D
CONTRACTION JOINT**

GENERAL NOTES

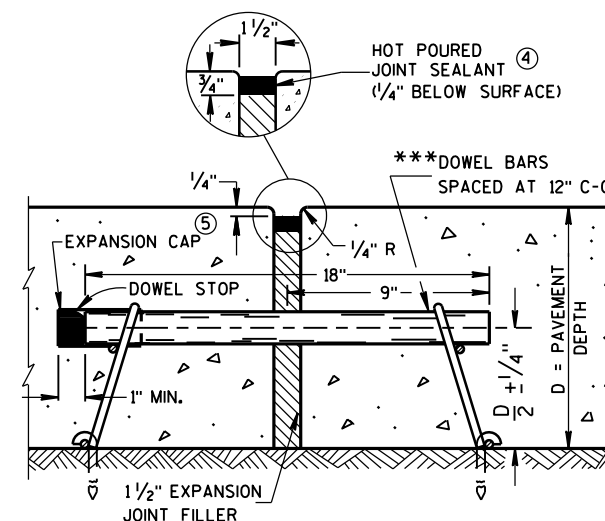
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.
- PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



**SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT**



EXPANSION JOINT DETAIL

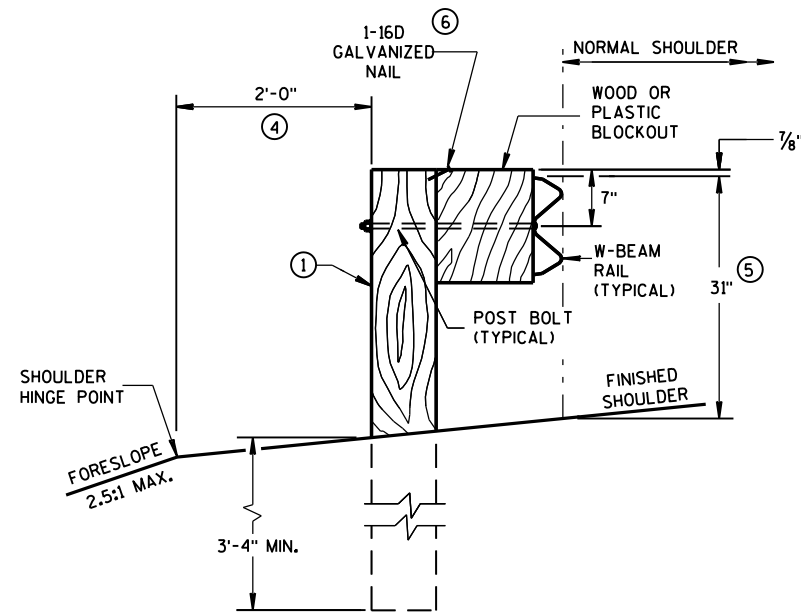
**CONCRETE PAVEMENT
APPROACH SLAB**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

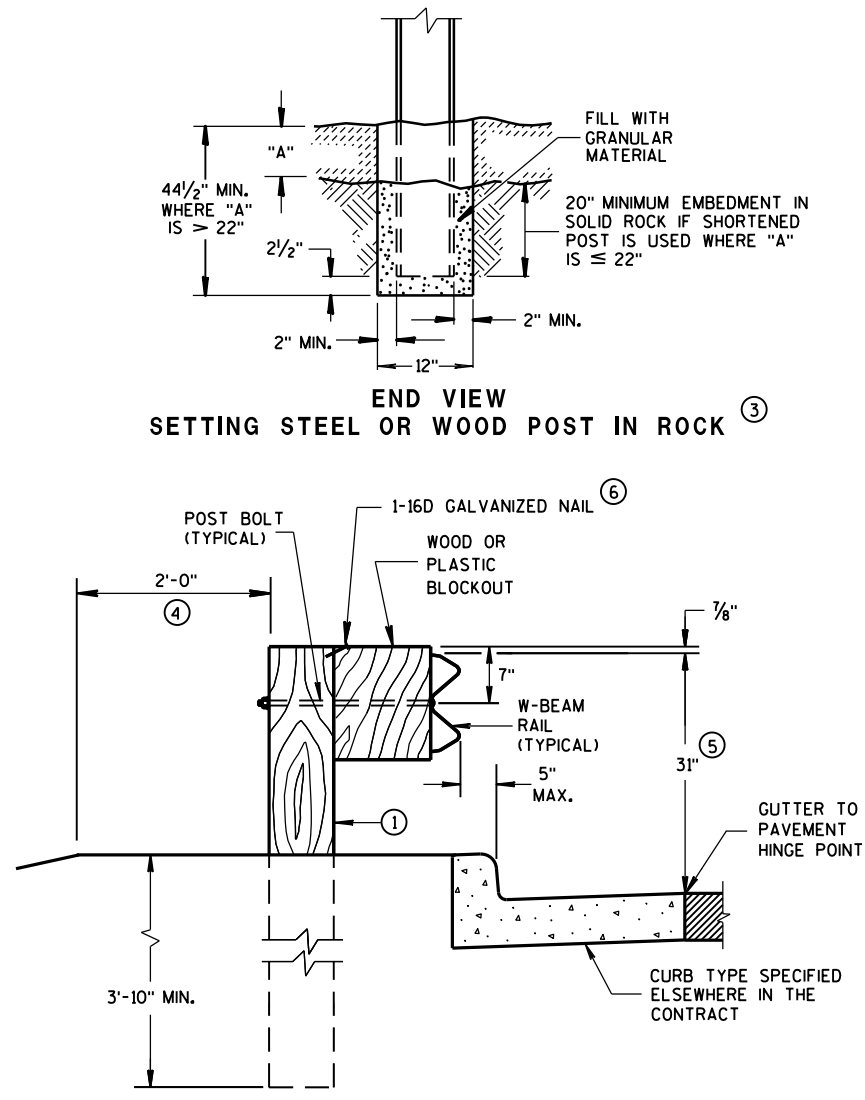
APPROVED
June, 2015 /S/ Peter Kemp, P.E.
DATE
PAVEMENT SUPER 69
FHWA

GENERAL NOTES

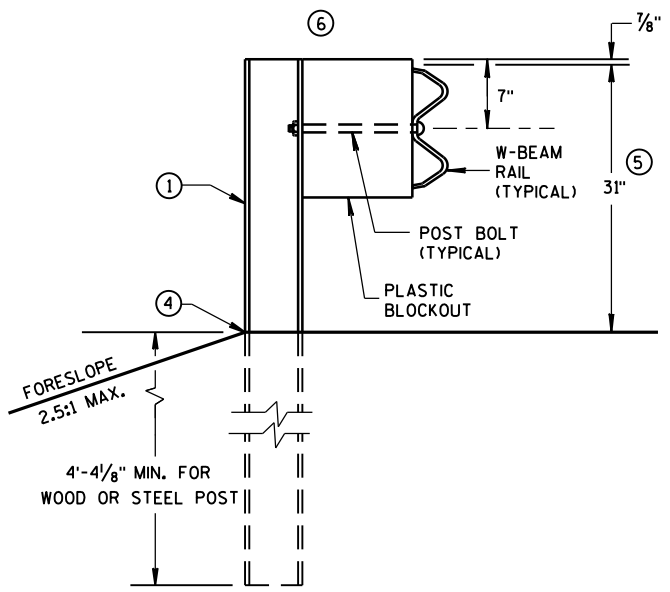
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2 INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



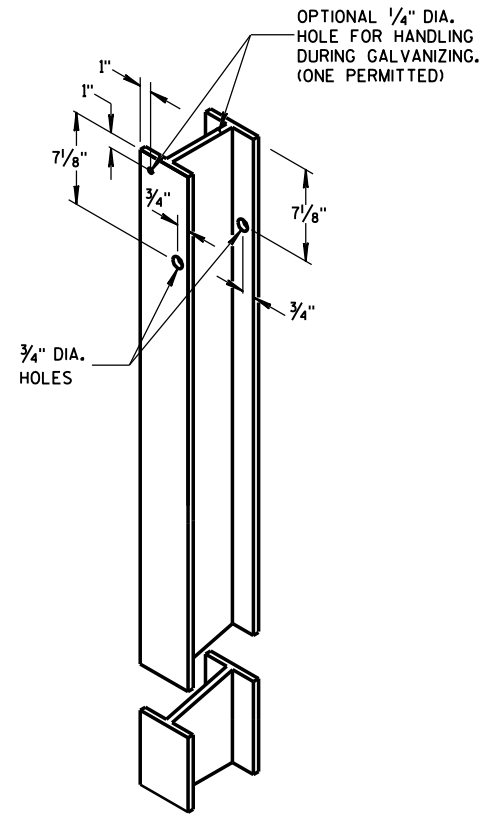
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



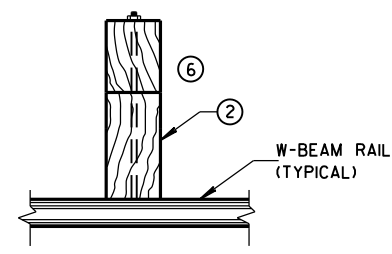
END VIEW
LOCATED ALONG A CURBED ROADWAY



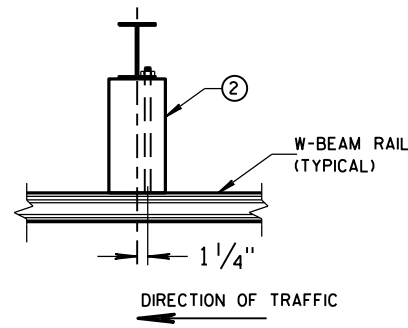
END VIEW
MGS LONGER POST AT HALFPST SPACING W BEAM (K)



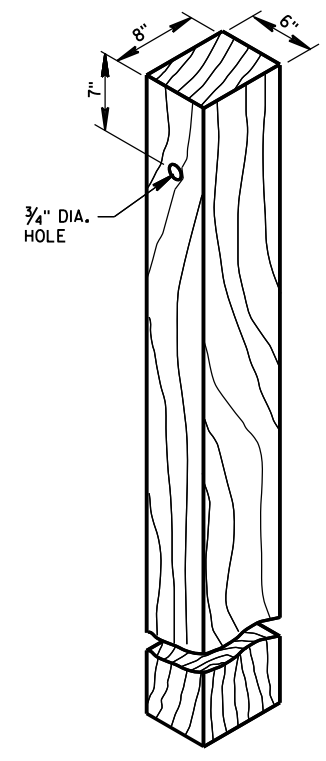
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



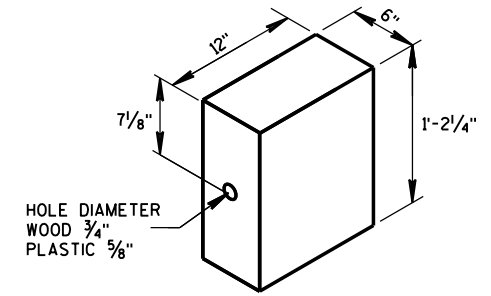
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM



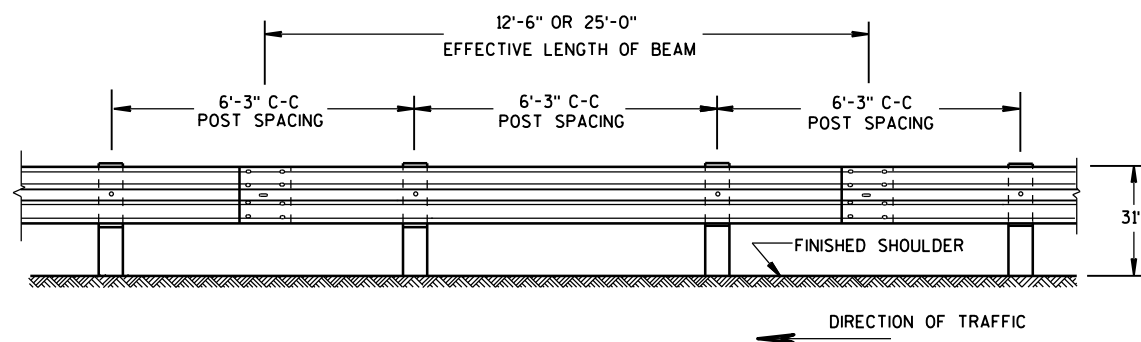
WOOD POST
(6" X 8") NOMINAL ①



WOOD OR
PLASTIC BLOCKOUT ②

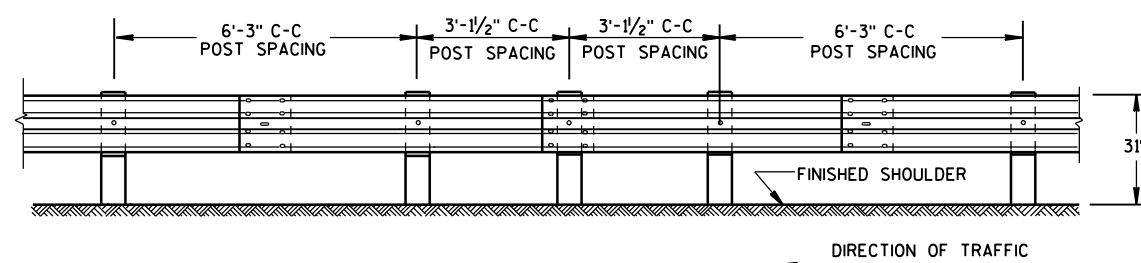
MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



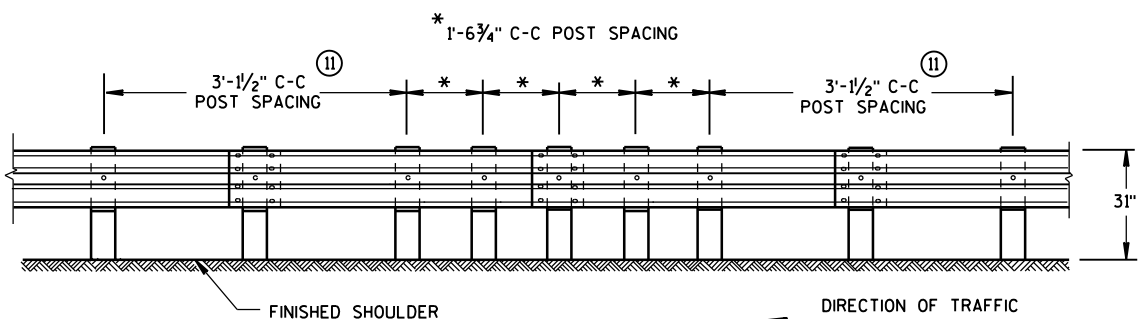
FRONT VIEW

POST SPACING STANDARD INSTALLATION



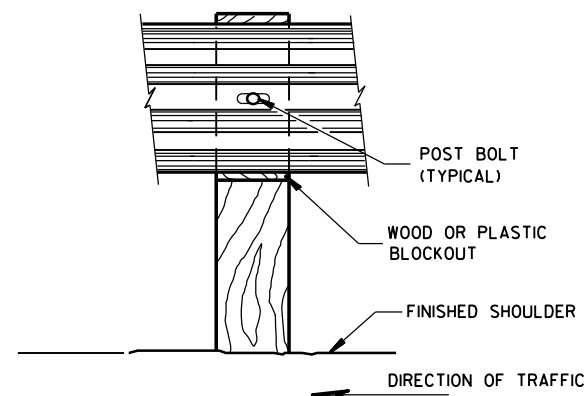
FRONT VIEW

HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)

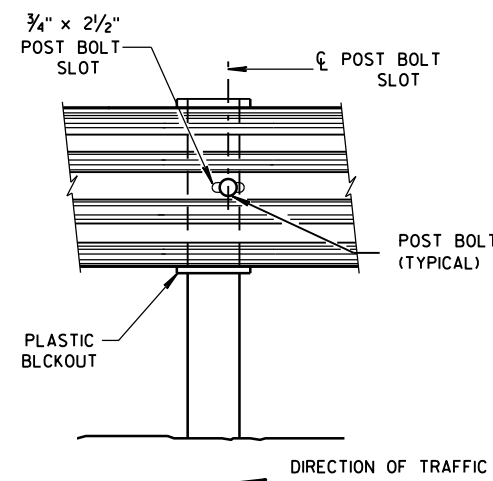


FRONT VIEW

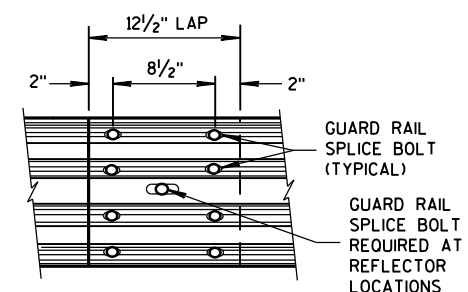
QUARTER POST SPACING (QS)



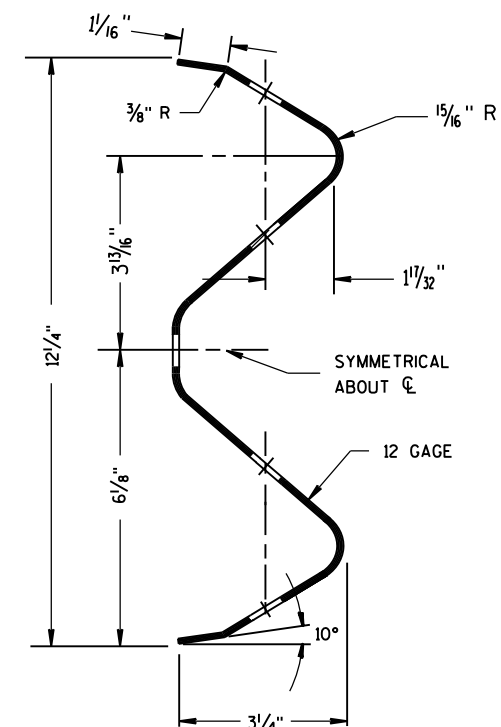
FRONT VIEW AT WOOD POST



FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE



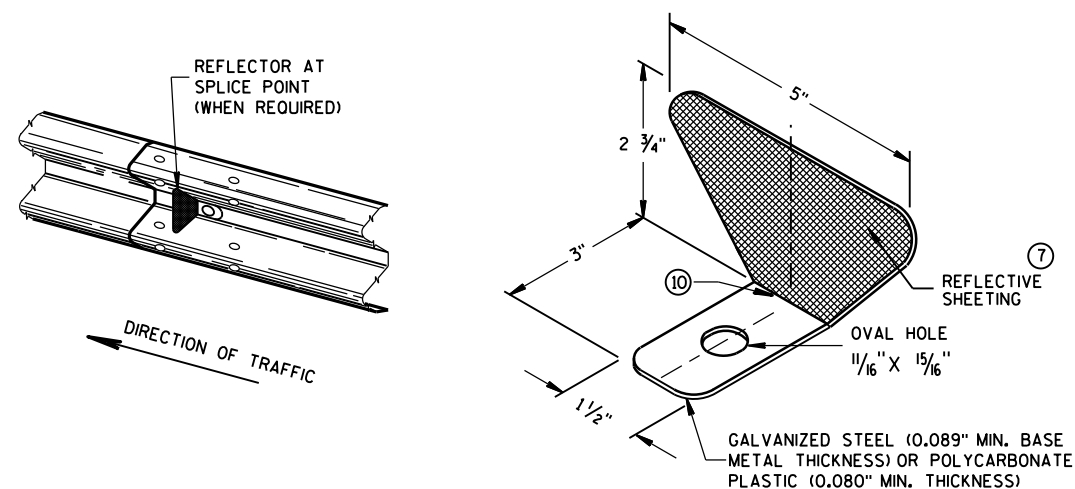
SECTION THRU W-BEAM RAIL

REFLECTOR SPACING^⑧

	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTOR
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 1 ⑨	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ⑩	3

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION⁷¹



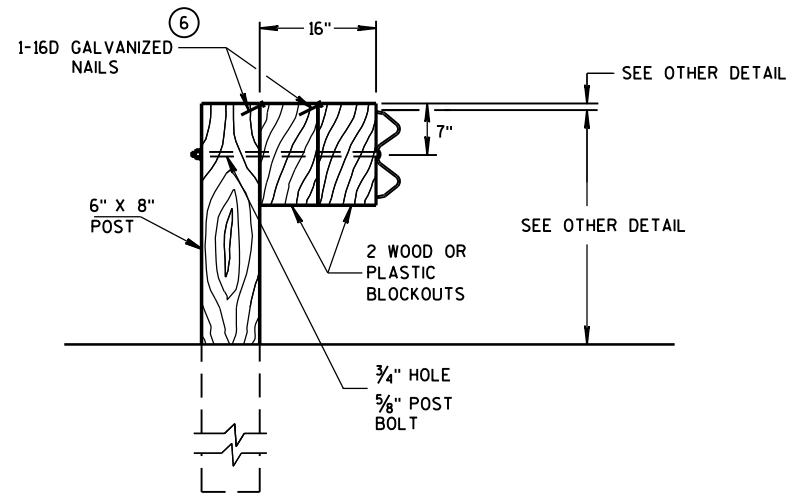
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

- ⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
- ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
- ⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ⑩ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

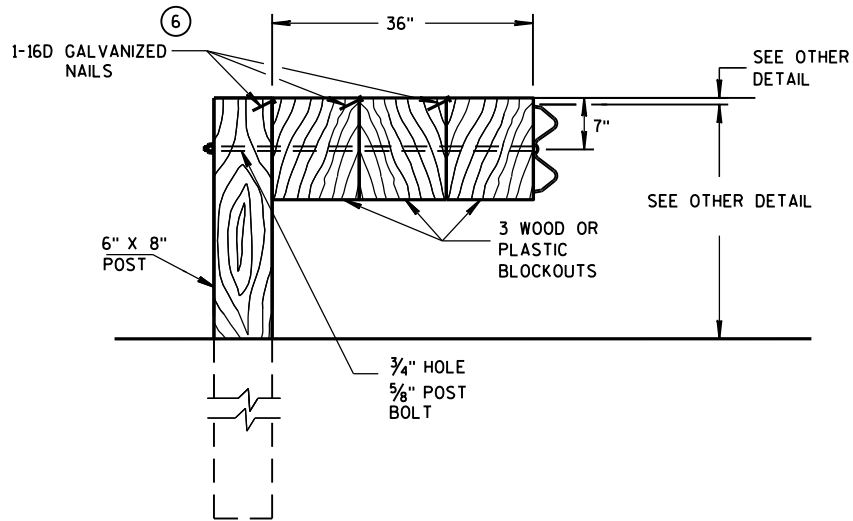
POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



DETAIL FOR 16" BLOCKOUT DEPTH

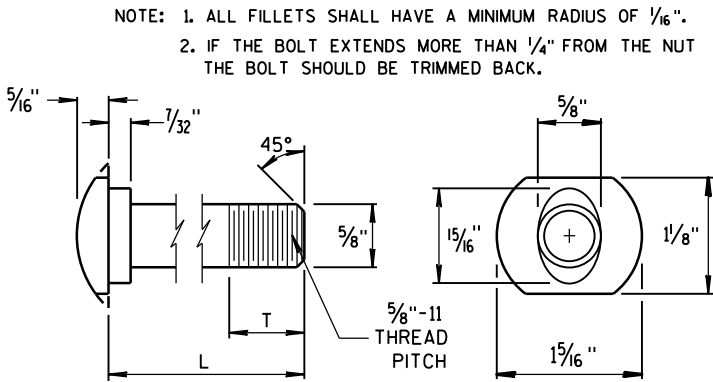
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



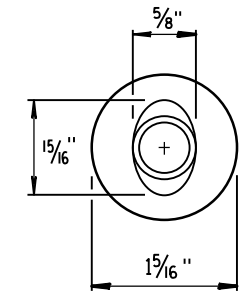
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

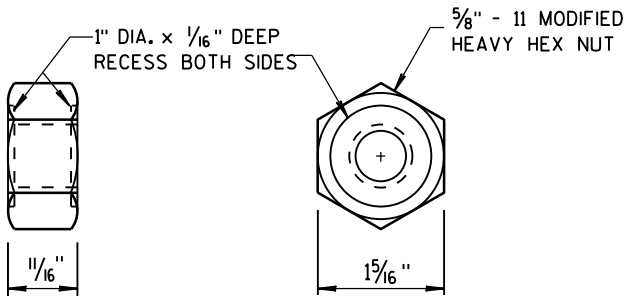
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



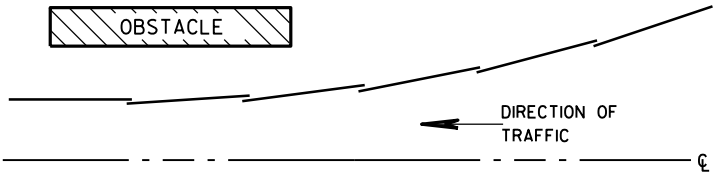
POST BOLT TABLE



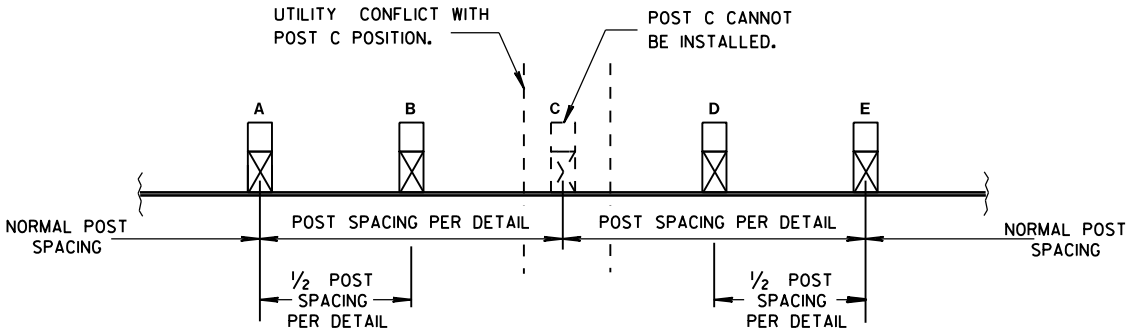
ALTERNATE BOLT HEAD



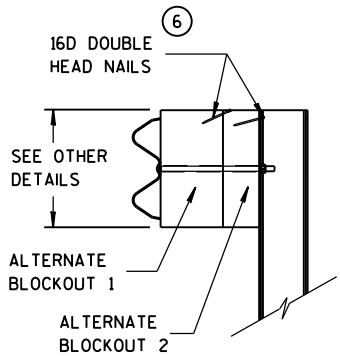
POST BOLT
AND RECESS NUT



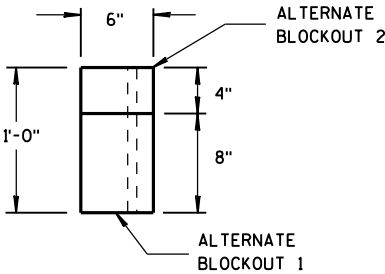
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS 72 INT
FHWA ENGINEER

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.
- (G) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

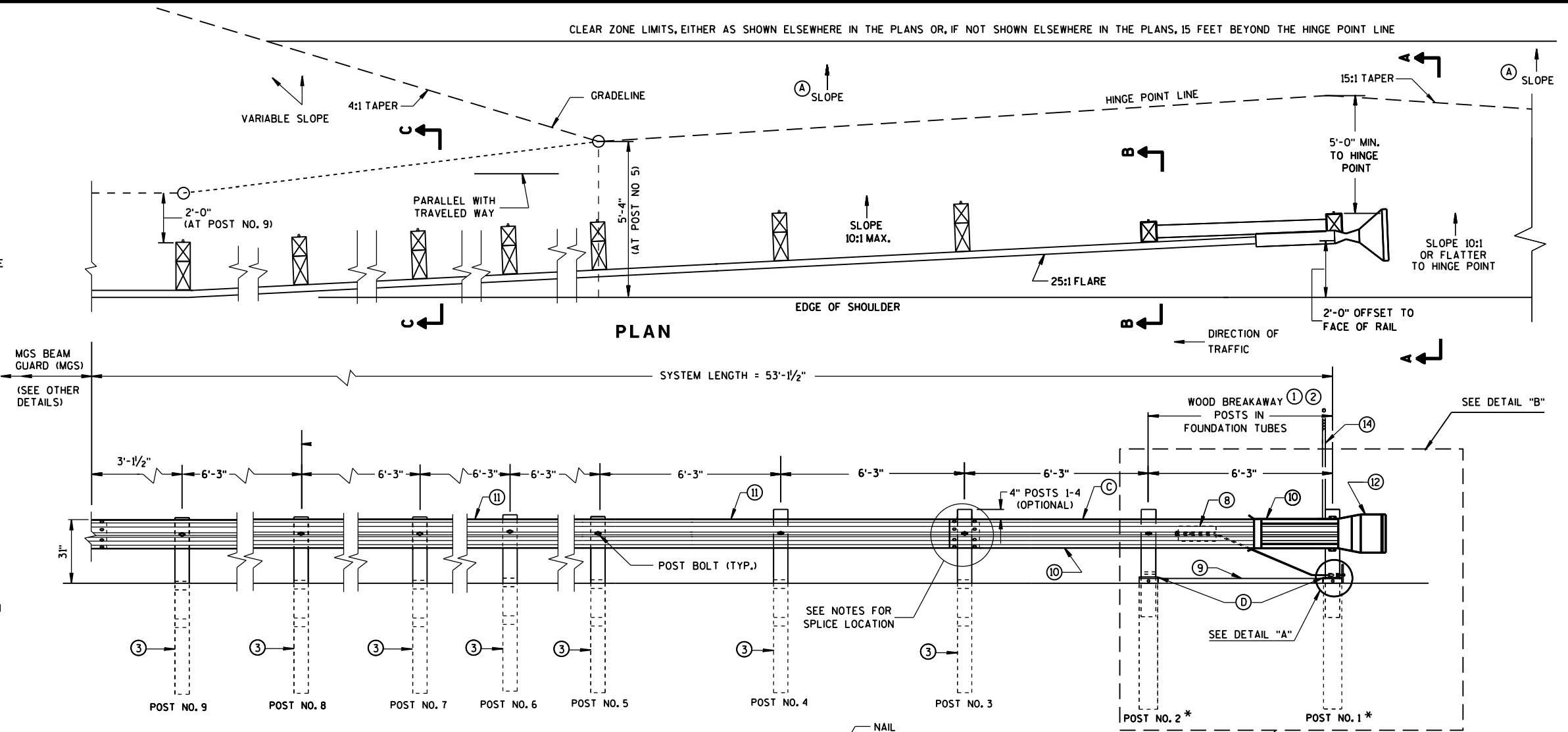
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

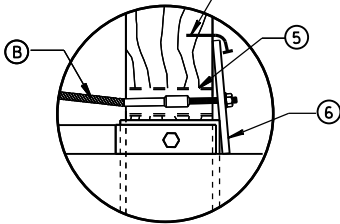
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

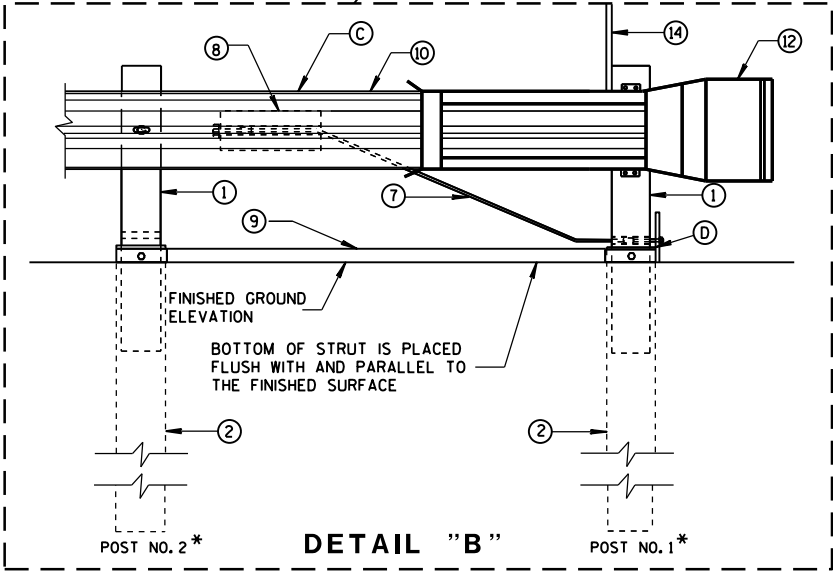
THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.



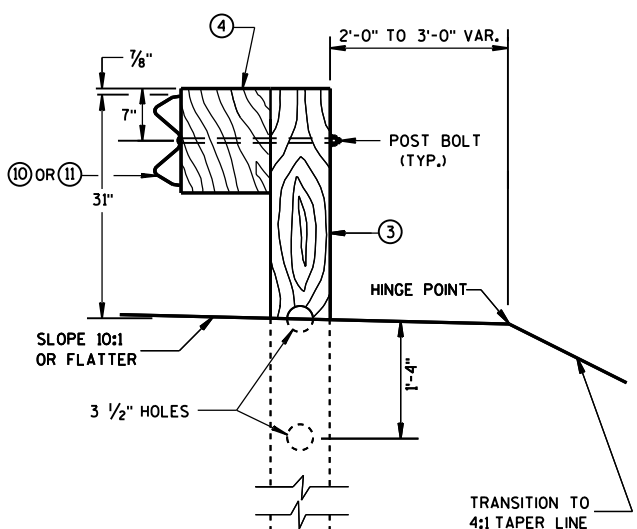
ELEVATION



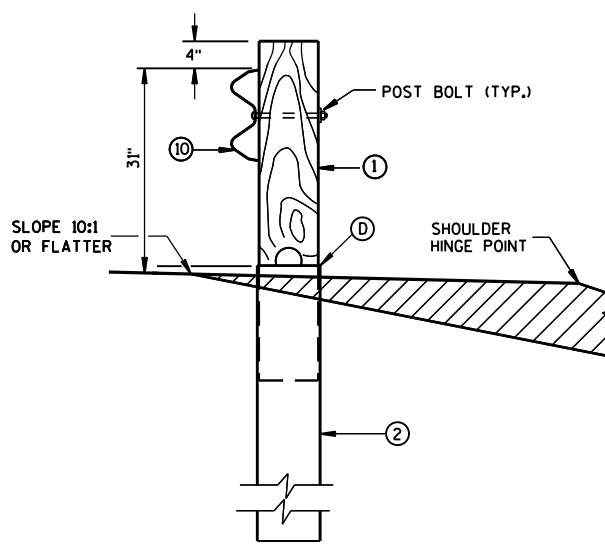
DETAIL "A"



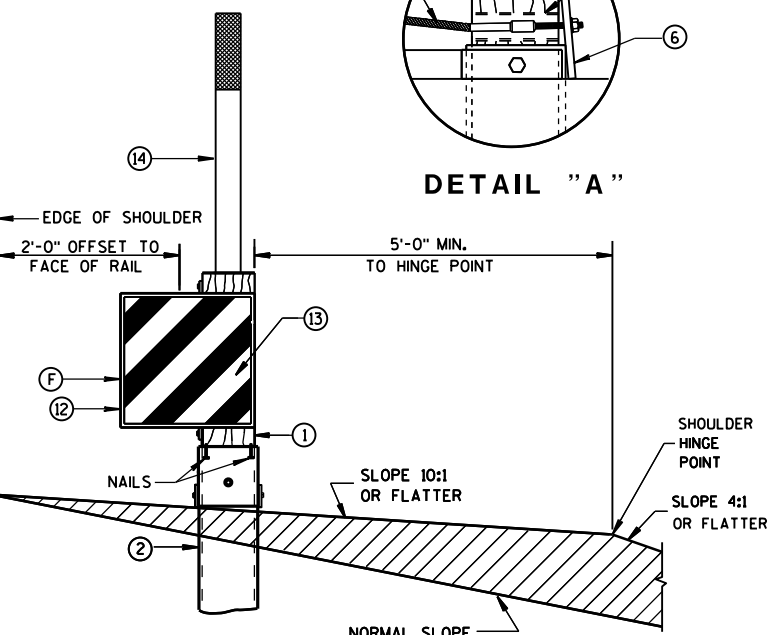
DETAIL "B"



SECTION C-C
TYPICAL AT POST NOS. 3-9



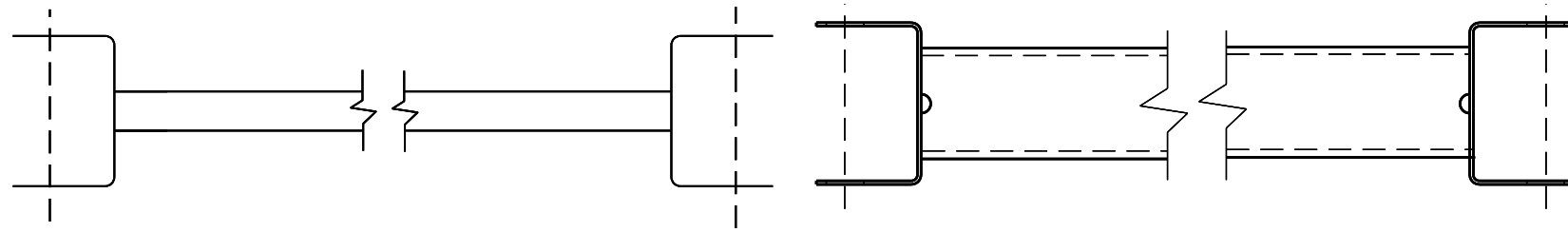
SECTION B-B
TYPICAL AT POST NO. 2*



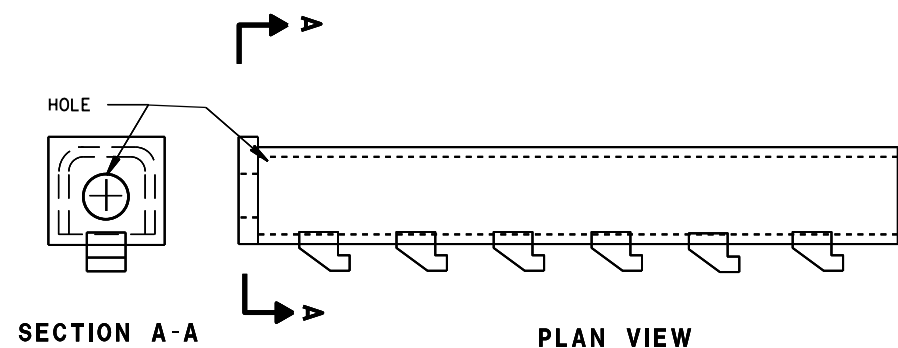
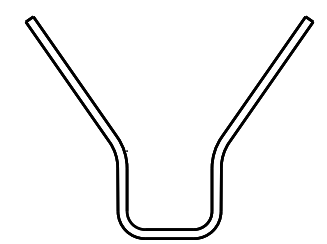
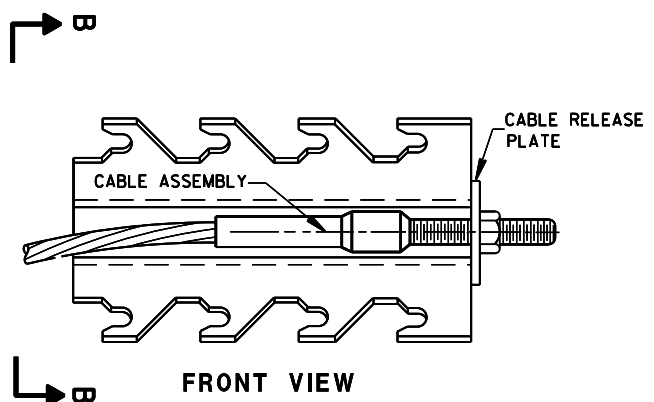
SECTION A-A
TYPICAL AT POST NO. 1*

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



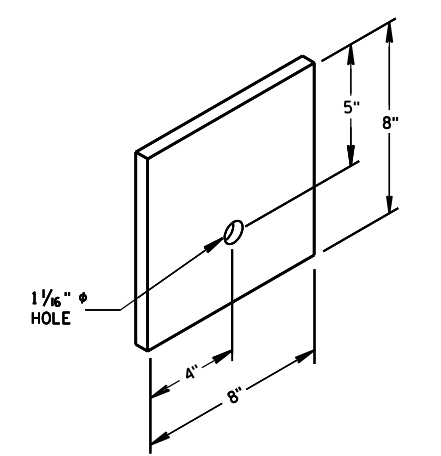
9 H
GENERIC GROUND STRUT



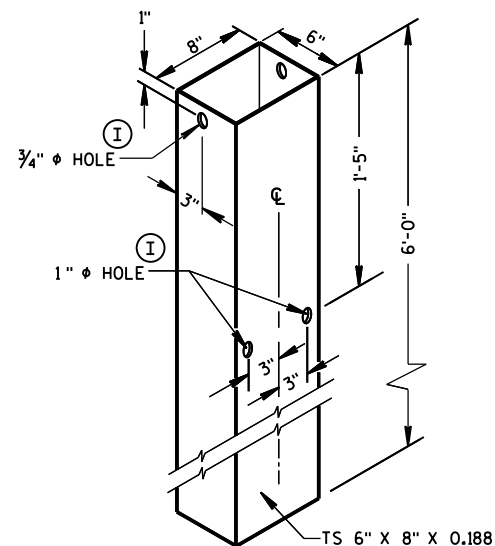
8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

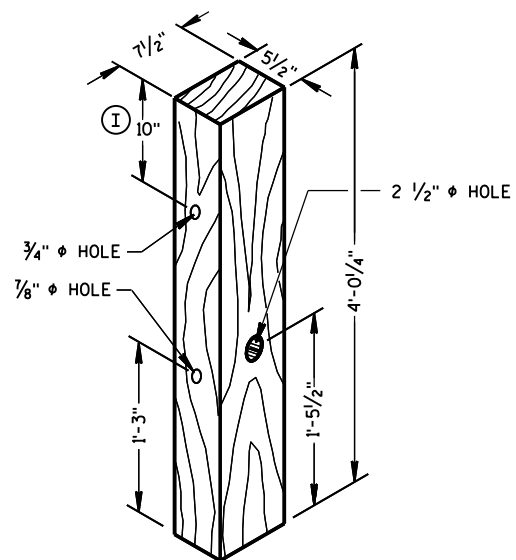
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



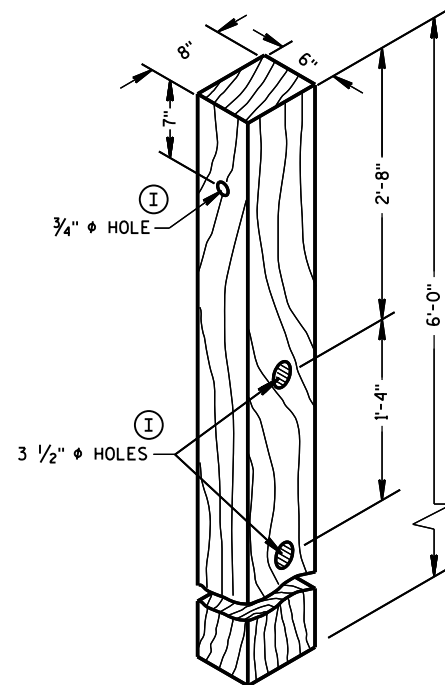
⑥
BEARING PLATE



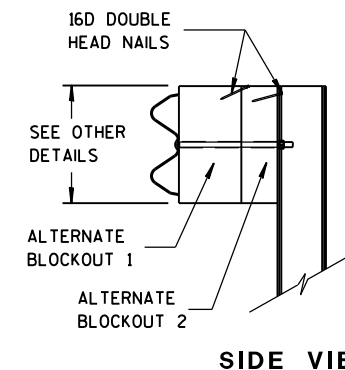
FOUNDATION TUBE ②



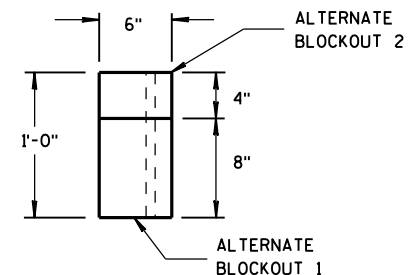
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

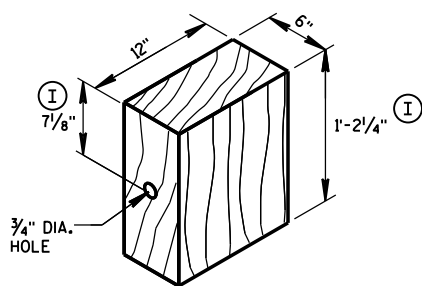


SIDE VIEW



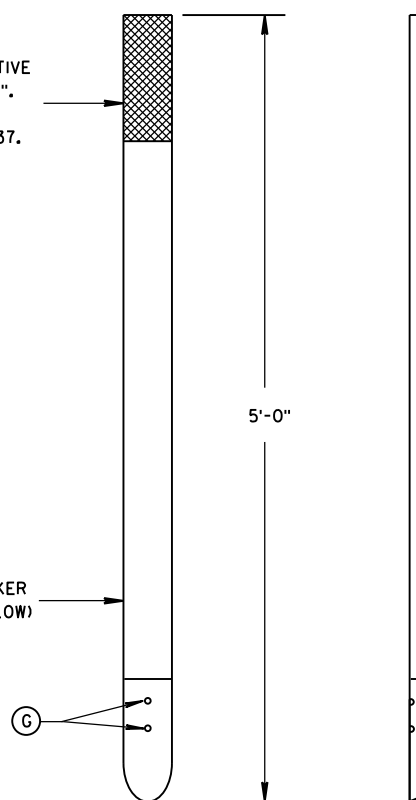
TOP VIEW

**ALTERNATE WOOD
BLOCKOUT DETAIL**



WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

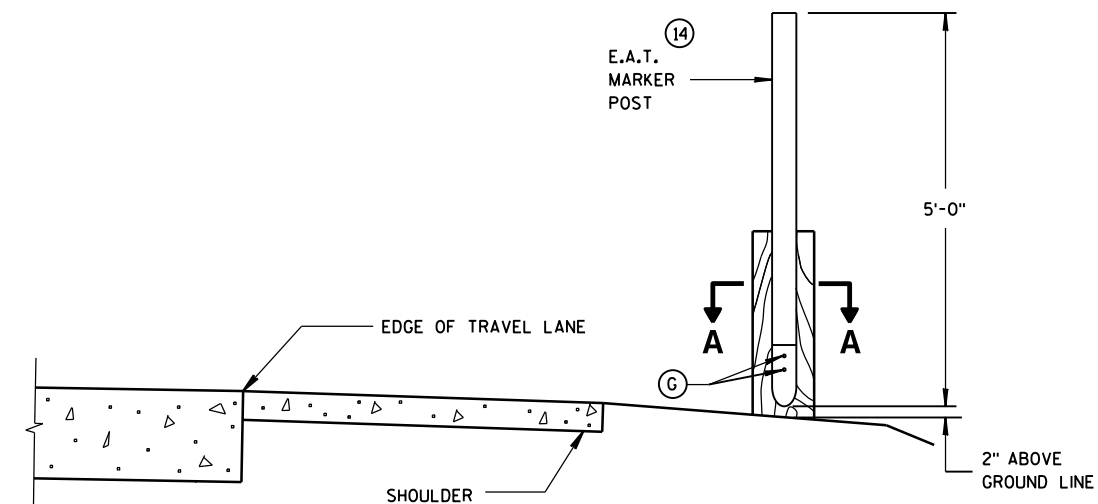
TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.



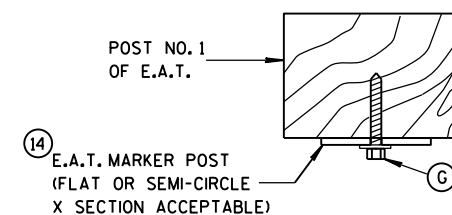
FRONT VIEW

SIDE VIEW

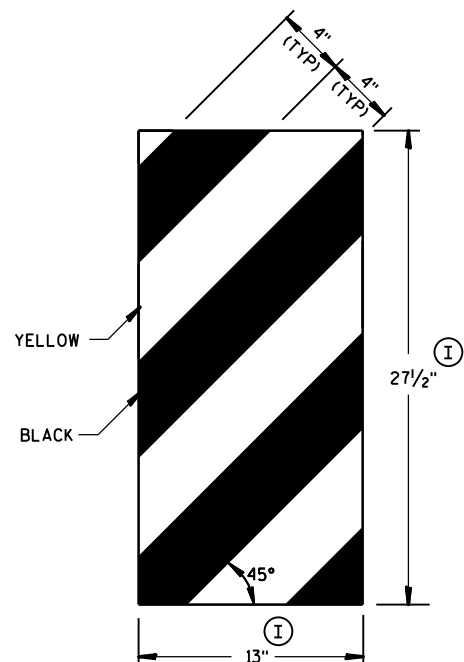
E.A.T. MARKER POST ⑭



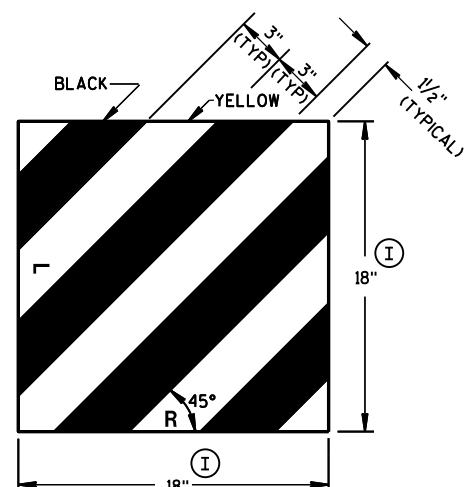
**TYPICAL INSTALLATION OF E.A.T.
MARKER POST BACKSIDE OF POST NO. 1**
(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A



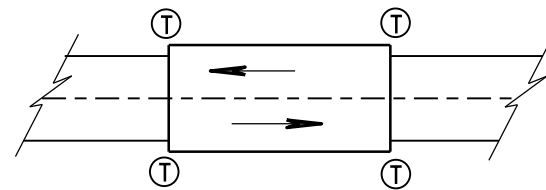
GENERIC REFLECTIVE SHEETING ⑬ ①



**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

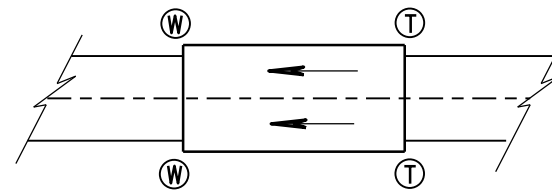
**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

APPROVED
June 2014 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS 75 ENT
FHWA ENGINEER



TWO WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION



ONE WAY TRAFFIC

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

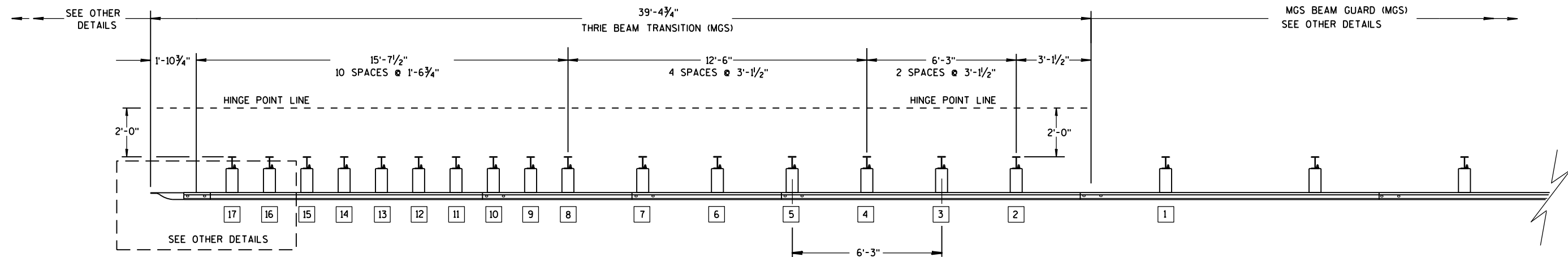
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

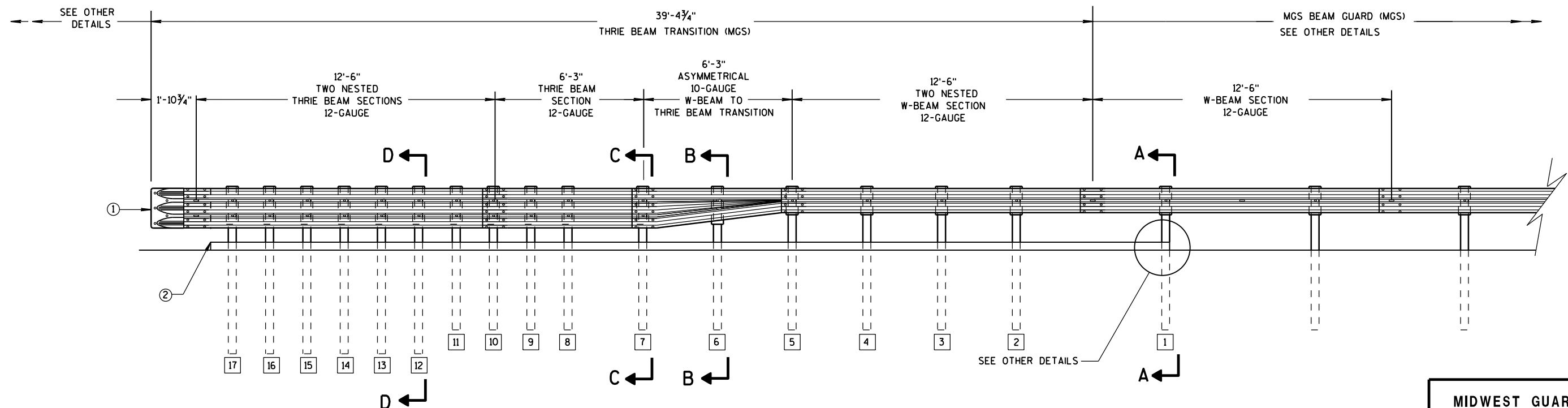
① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



PLAN VIEW



ELEVATION VIEW

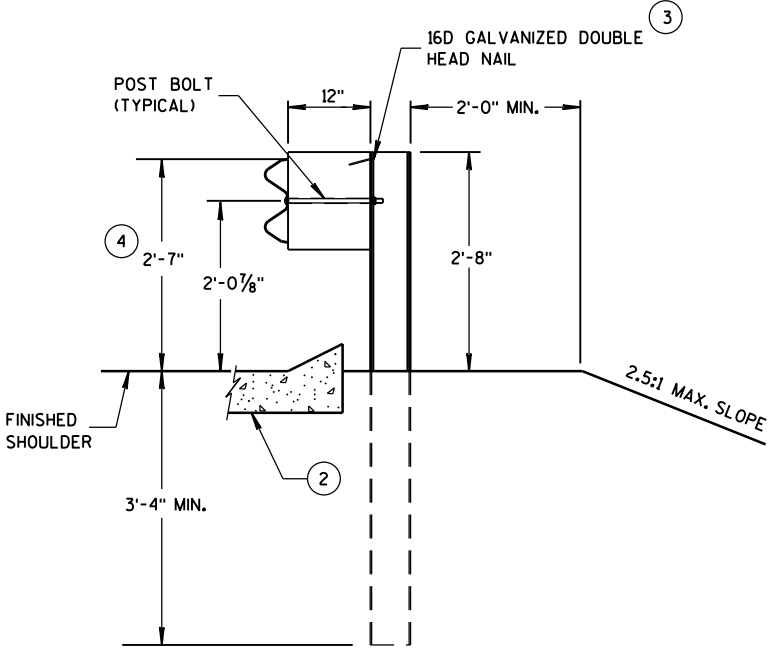
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

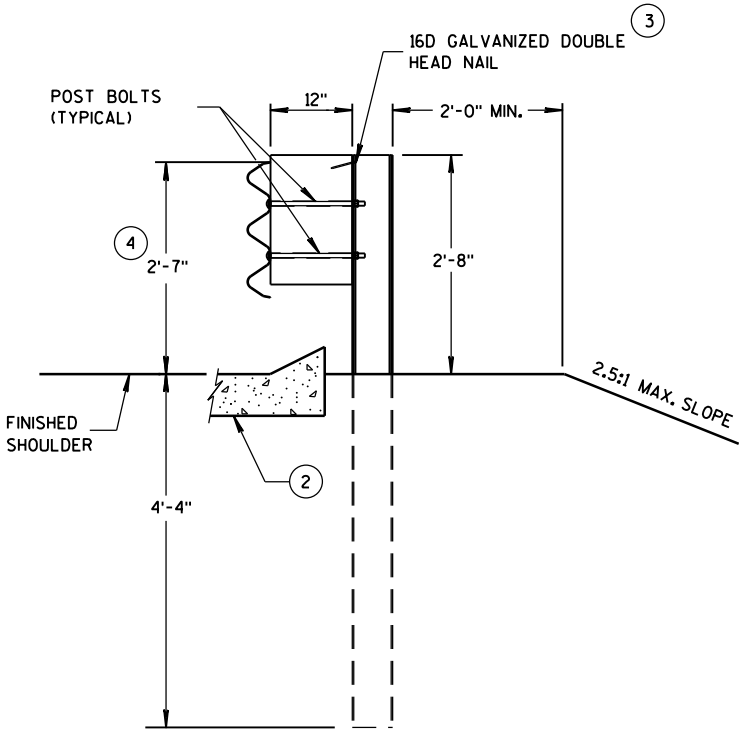
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 76

GENERAL NOTES

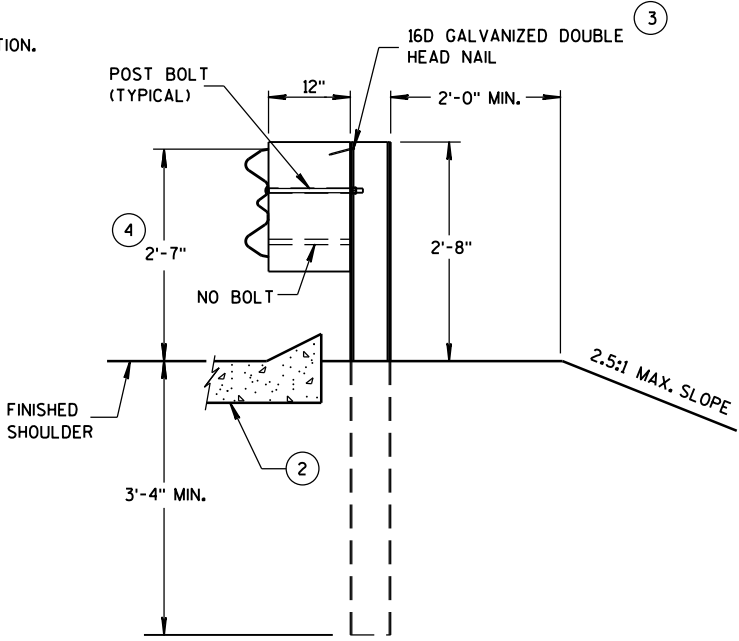
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



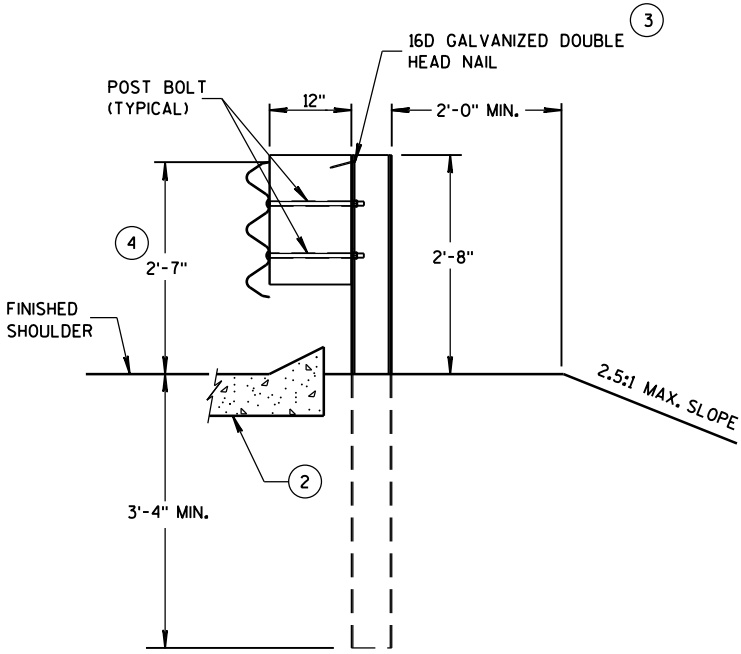
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

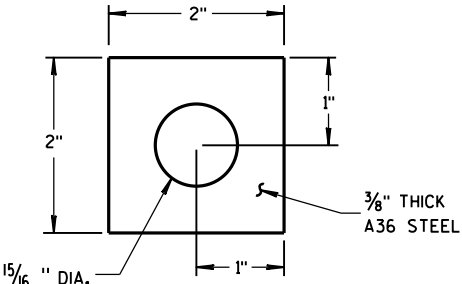
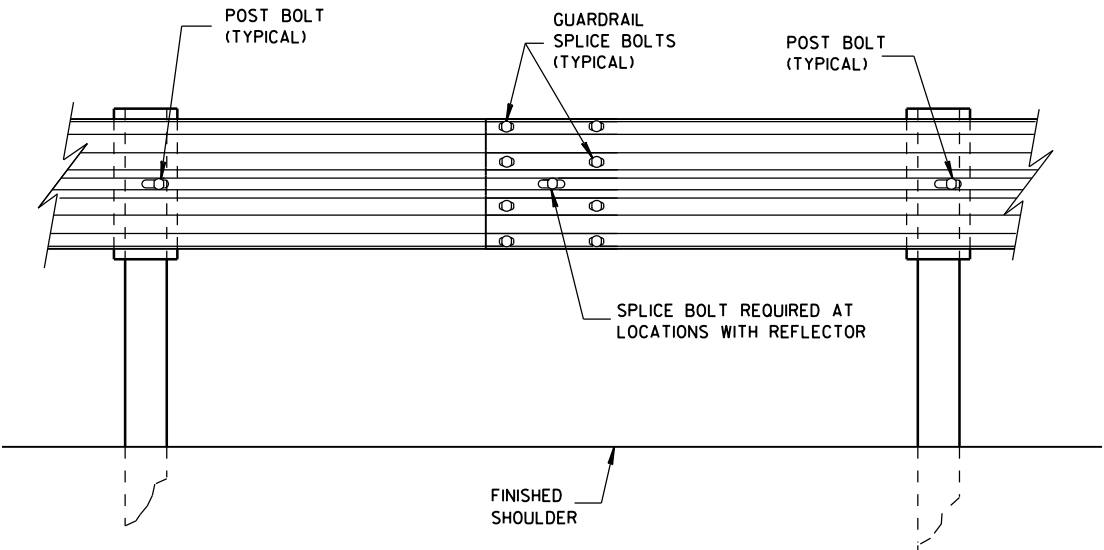
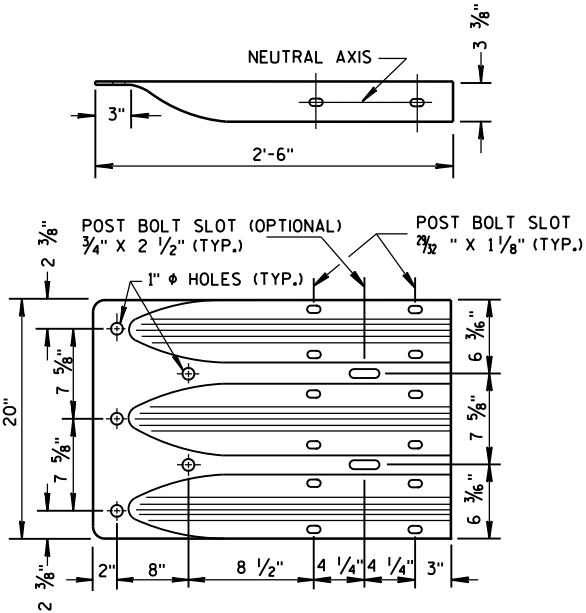


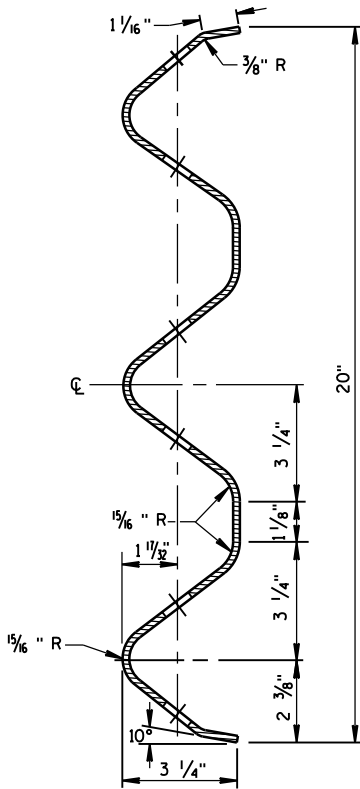
PLATE WASHER DETAIL



SPlice DETAIL



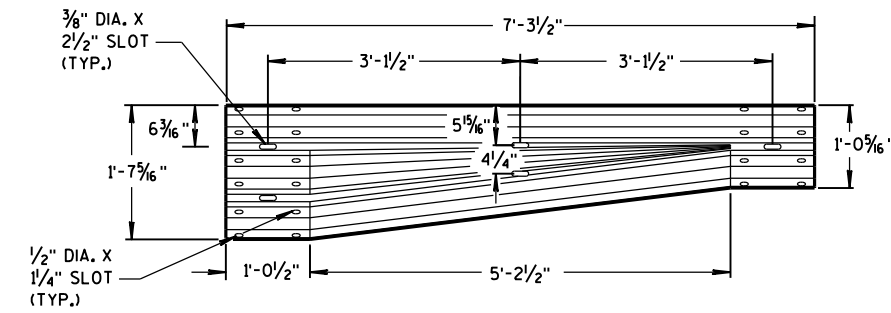
THRIE BEAM
TERMINAL CONNECTOR



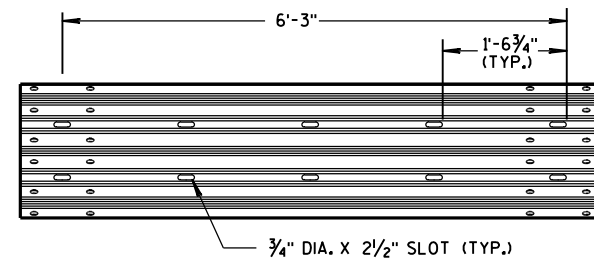
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

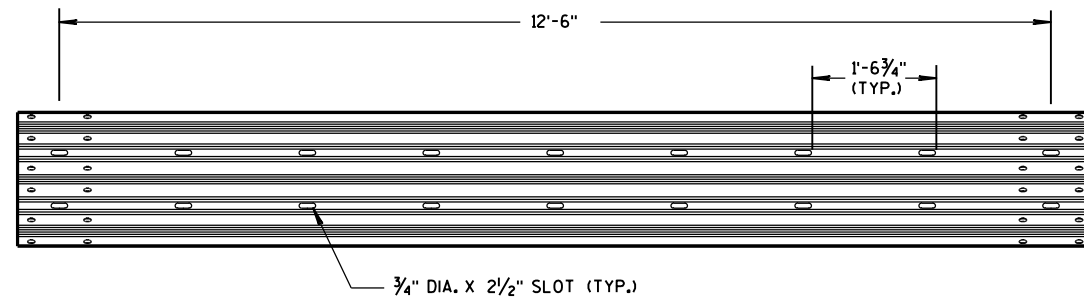
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



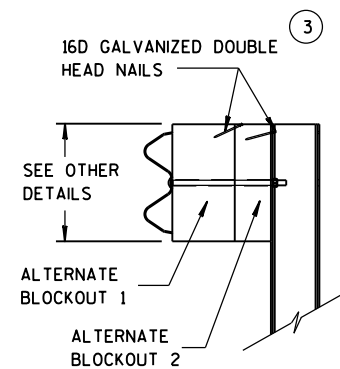
W-BEAM TO THRIE BEAM TRANSITION SECTION



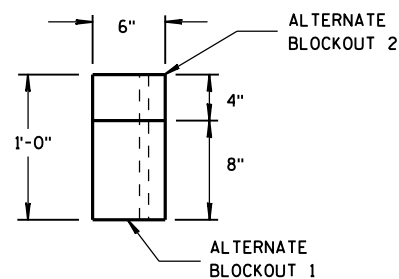
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

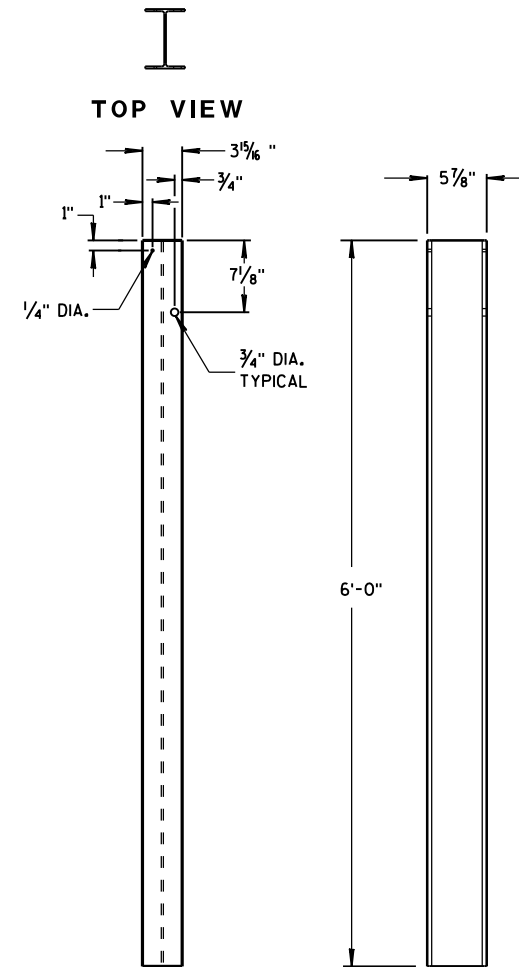


SIDE VIEW



TOP VIEW

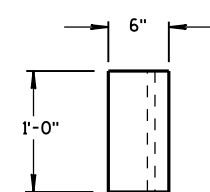
ALTERNATE WOOD BLOCKOUT DETAIL



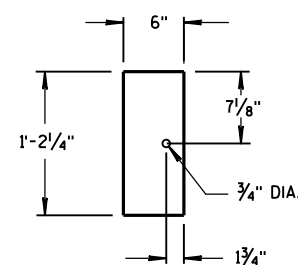
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

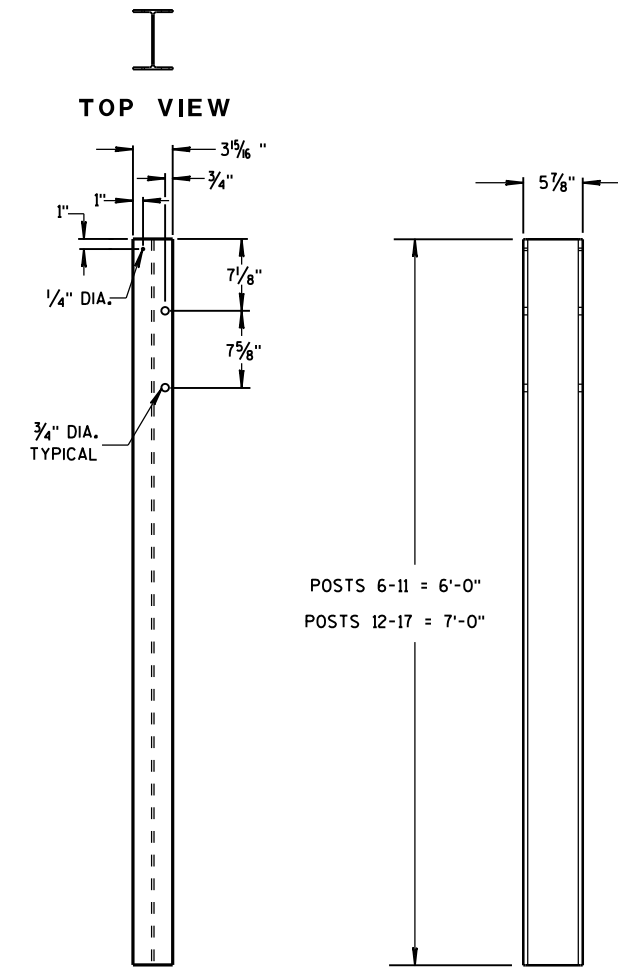


TOP VIEW



FRONT VIEW

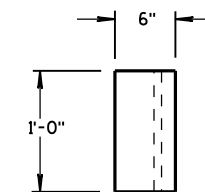
BLOCKOUT
POSTS 1-5



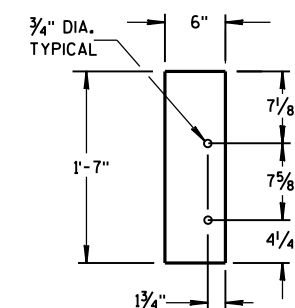
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



FRONT VIEW

BLOCKOUT
POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

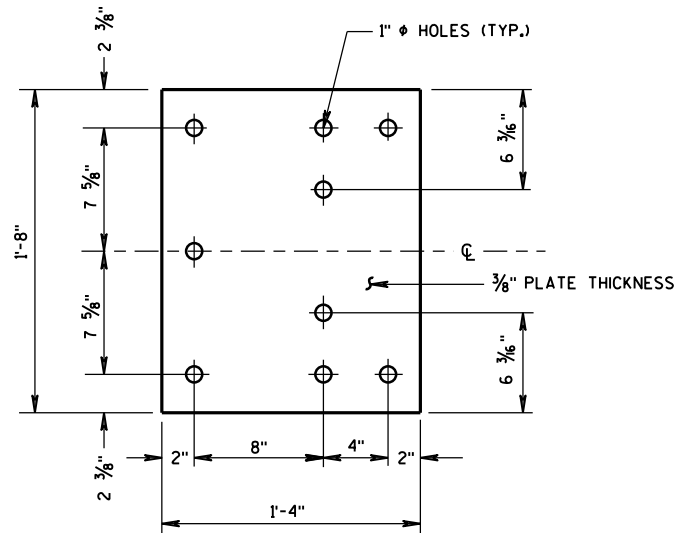
BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

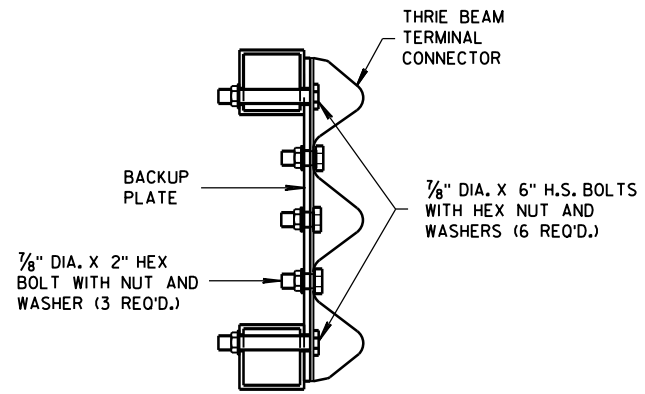
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

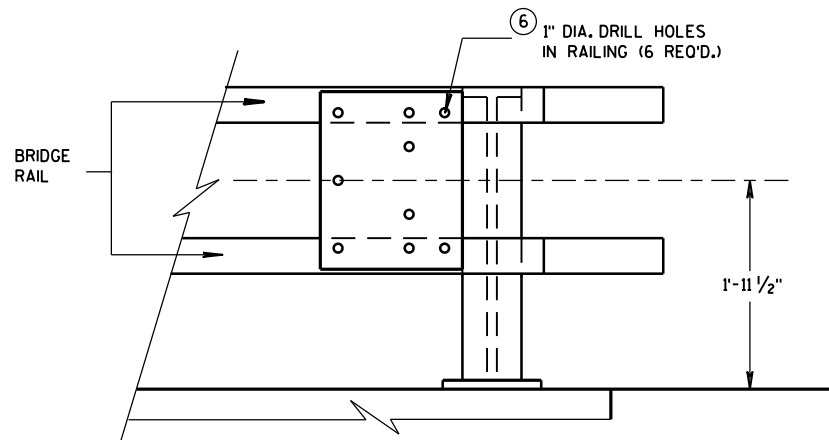
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



BACK-UP PLATE DETAIL



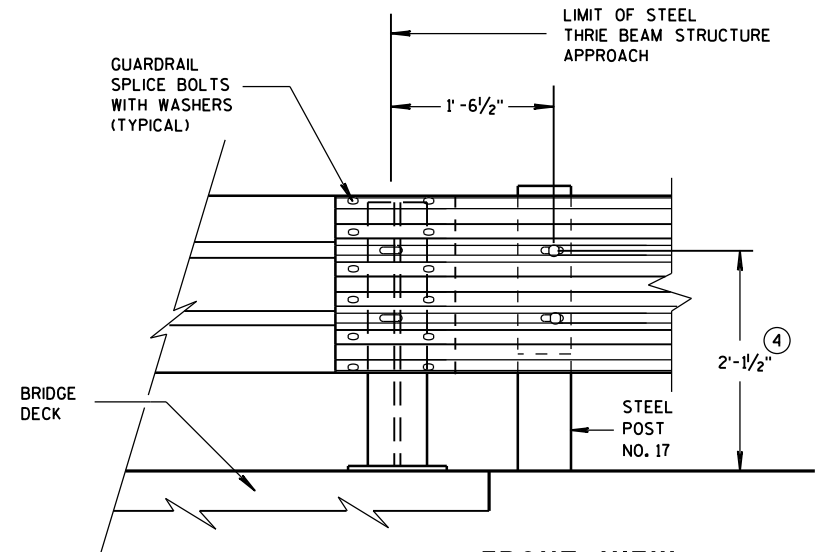
SECTION J-J



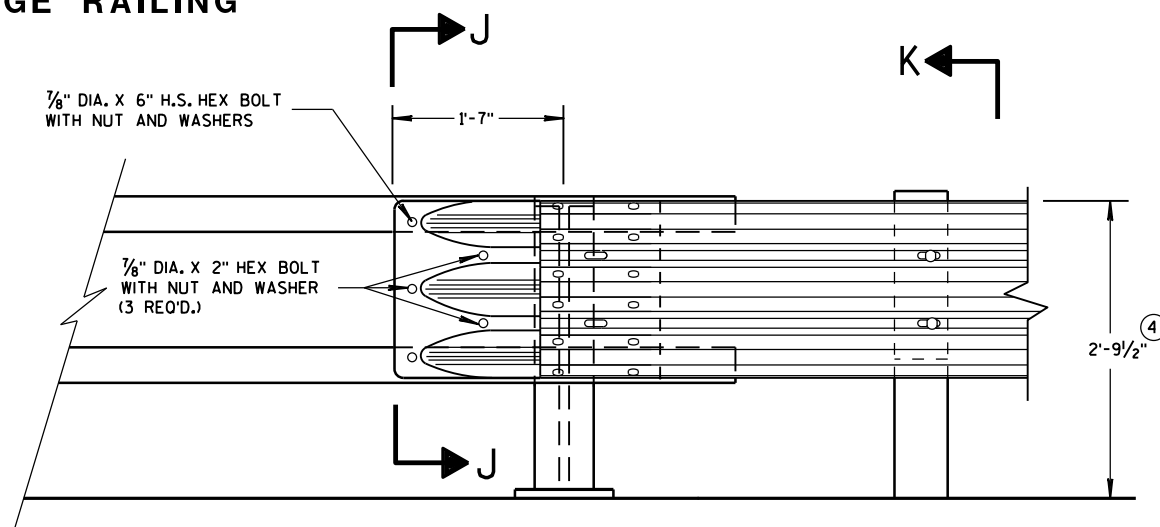
BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

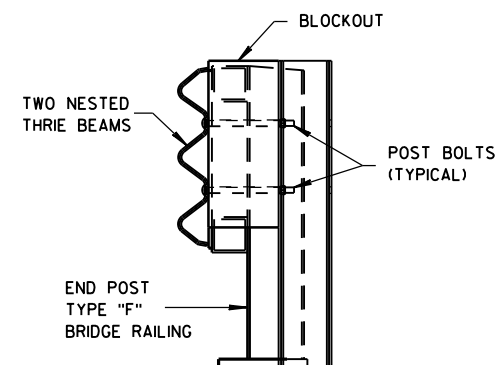


FRONT VIEW
THRIE BEAM CONNECTION TO
STEEL RAILING TYPE "W"



FRONT VIEW

THRIE BEAM CONNECTION TO
TUBULAR RAILING TYPE "F"

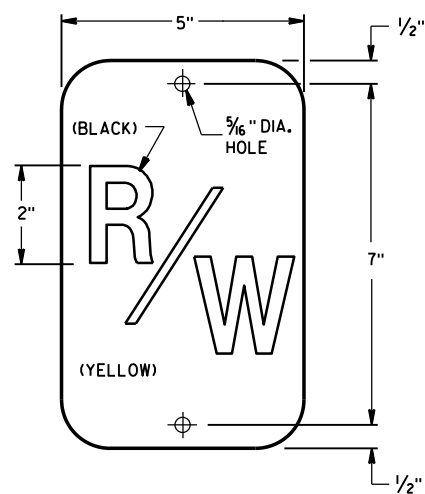
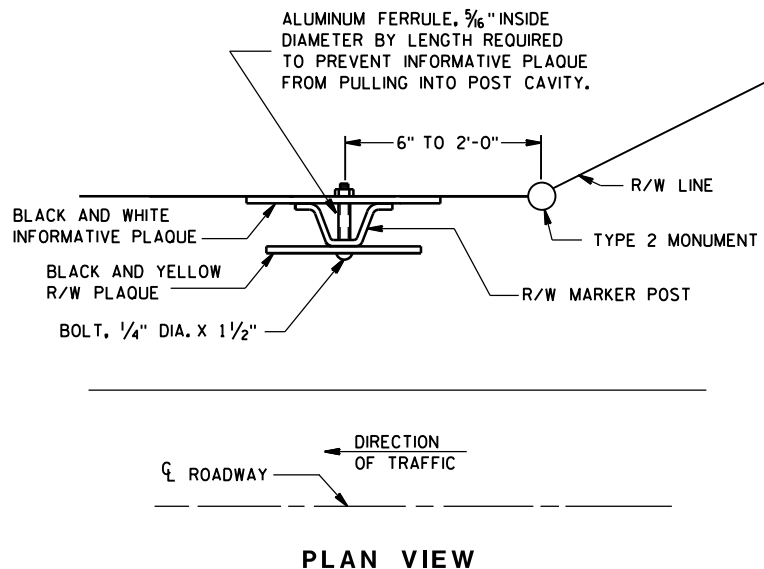


SECTION K-K

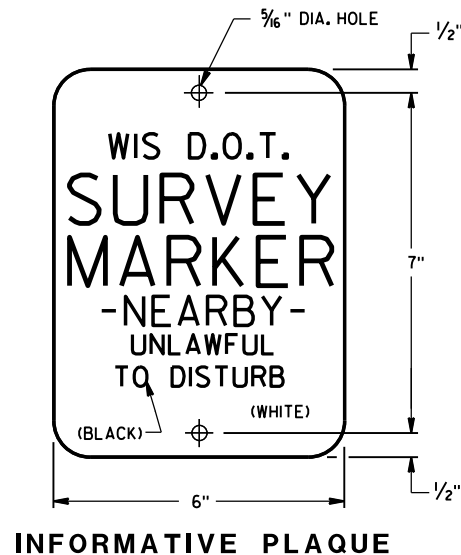
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS D 79 NT
FHWA ENGINEER



R/W PLAQUE
THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



GENERAL NOTES

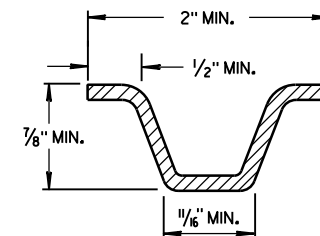
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

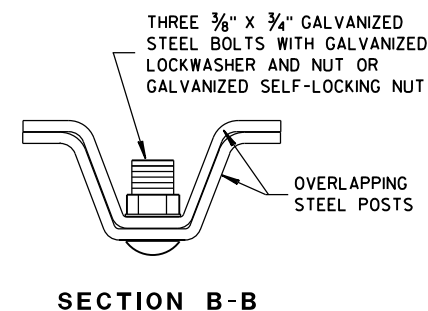
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. R/W AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

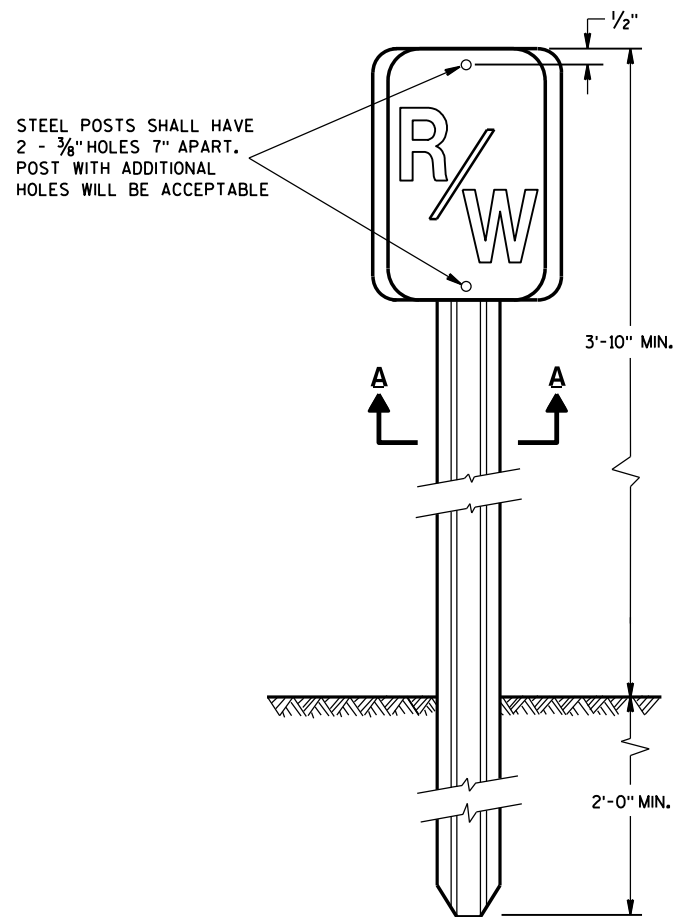
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



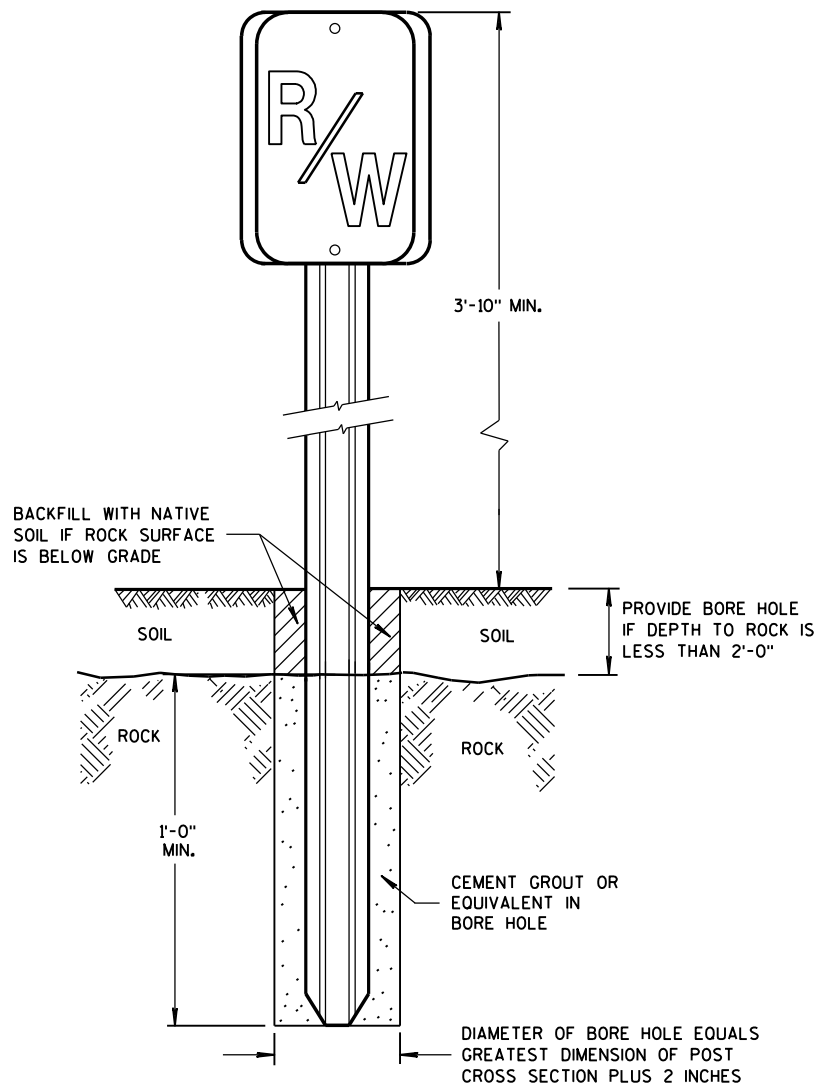
MIN. WEIGHT 1.12 LB./FT.
SECTION A-A



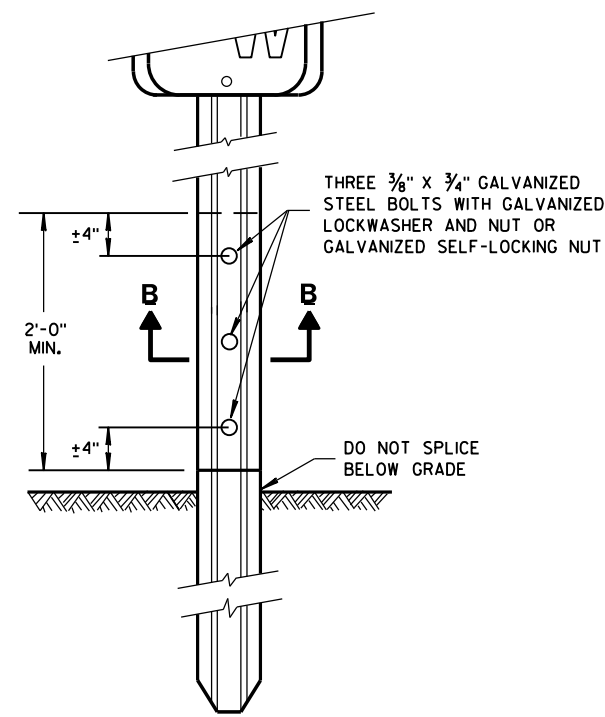
SECTION B-B



**FRONT VIEW
STEEL MARKER POST**



**FRONT VIEW
ROCK INSTALLATION** ①

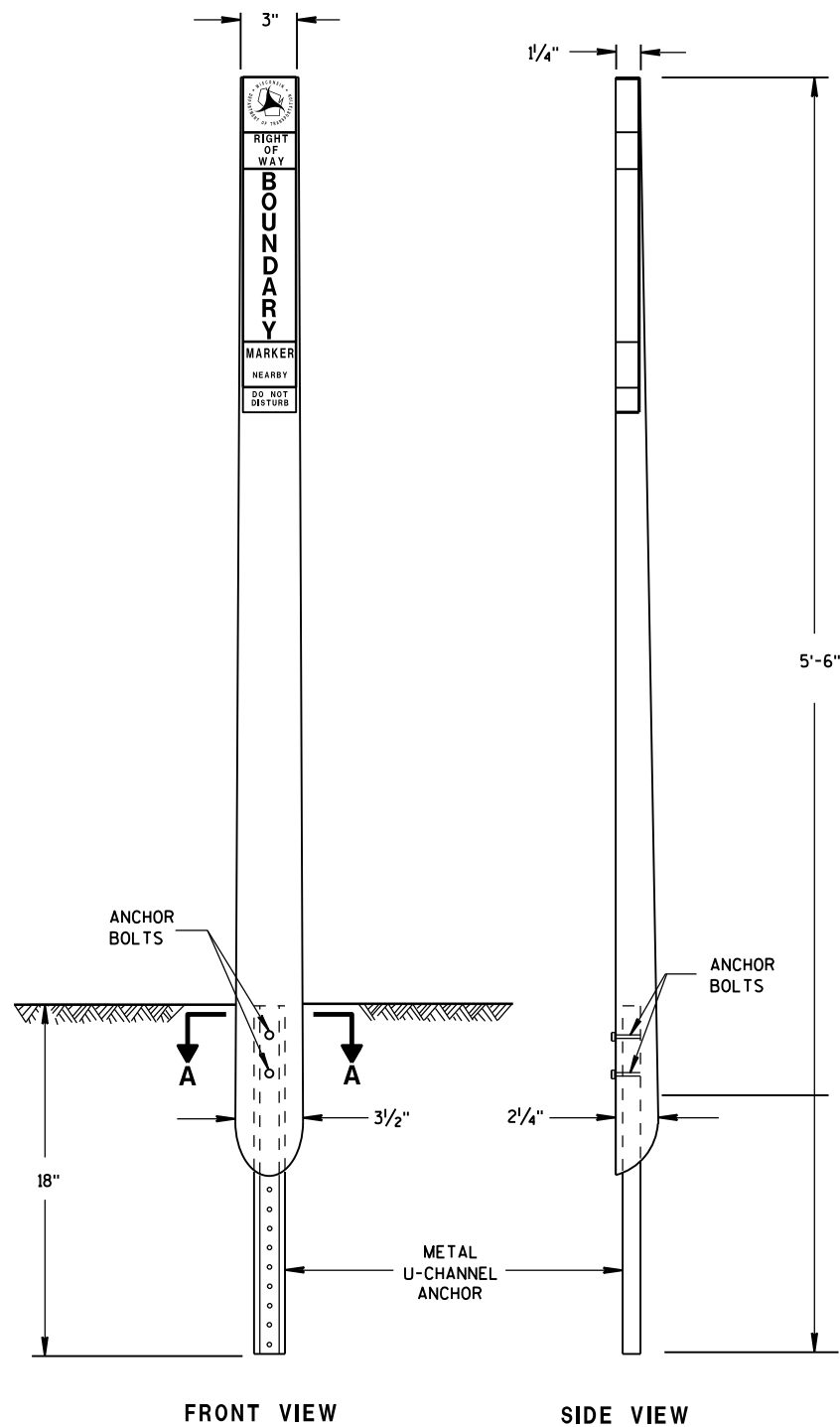


**FRONT VIEW
SPLICE DETAIL**

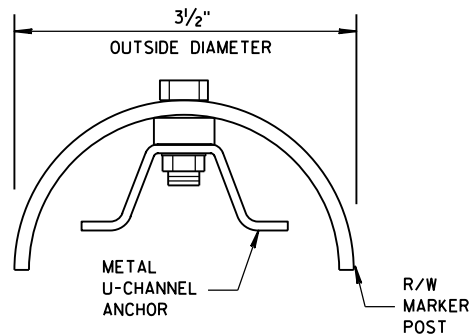
**MARKER POST
FOR RIGHT-OF-WAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

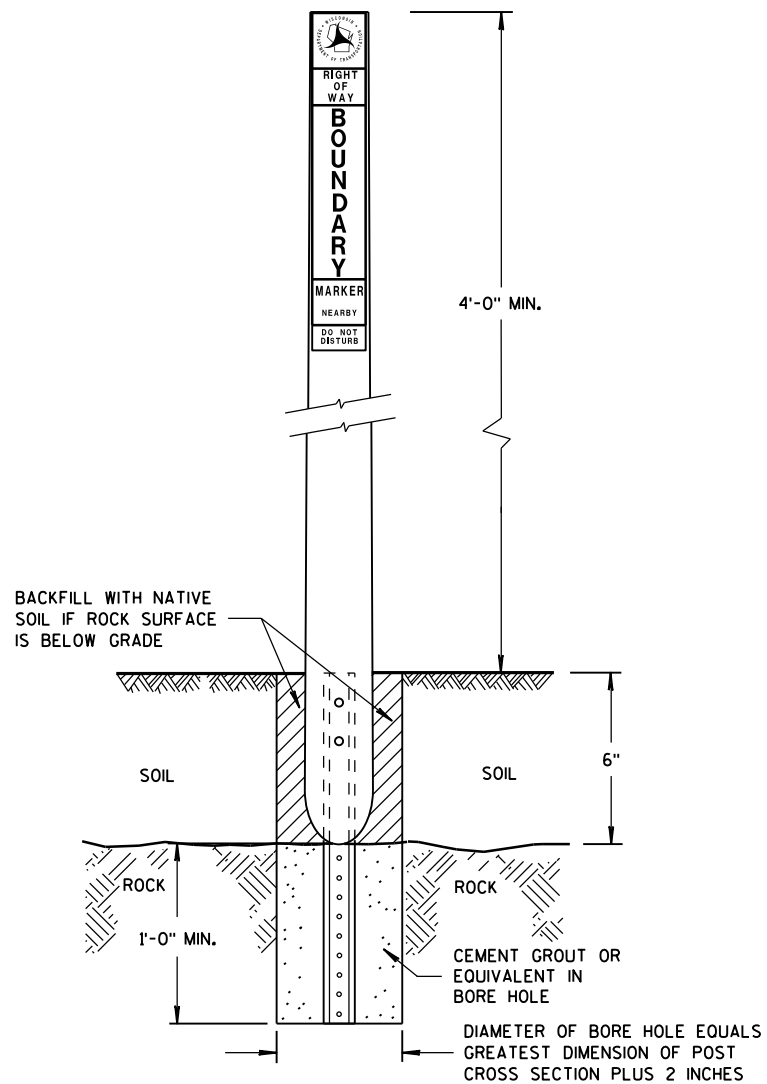
APPROVED
June, 2015 /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MA 80 INEER
FHWA



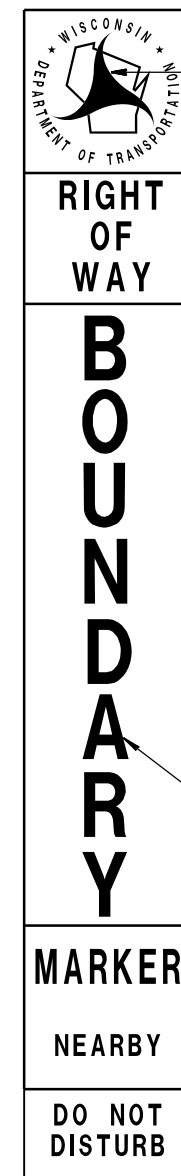
FLEXIBLE MARKER POST ①
FOR RIGHT-OF-WAY



SECTION A-A



FRONT VIEW
ROCK INSTALLATION ① ②



RIGHT-OF-WAY STICKER

THE RIGHT-OF-WAY STICKER WILL BE ATTACHED TO THE RIGHT-OF-WAY POST PRIOR TO DELIVERY.

GENERAL NOTES

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

A FLEXIBLE MARKER POST FOR RIGHT-OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY, WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE RIGHT-OF-WAY STICKER SHALL FACE THE ROADWAY.

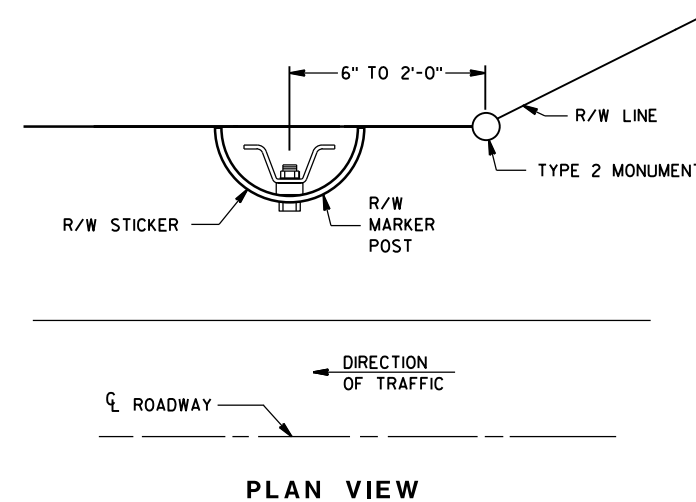
INSTALL PER DEPTH OF MANUFACTURER'S RECOMMENDATIONS BUT NOT LESS THAN 18 INCHES BELOW GRADE FROM THE BOTTOM OF THE METAL U-CHANNEL ANCHOR.

① FLEXIBLE MARKER POSTS SHALL BE INCLUDED IN THE APPROVED PRODUCTS LIST FOR MARKER POSTS AND SHALL BE FEDERAL YELLOW IN COLOR.

② IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK TO A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 4'-0" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

FILL THE BORE HOLE WITH CEMENT GROUT, OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.

RED TRISKELION

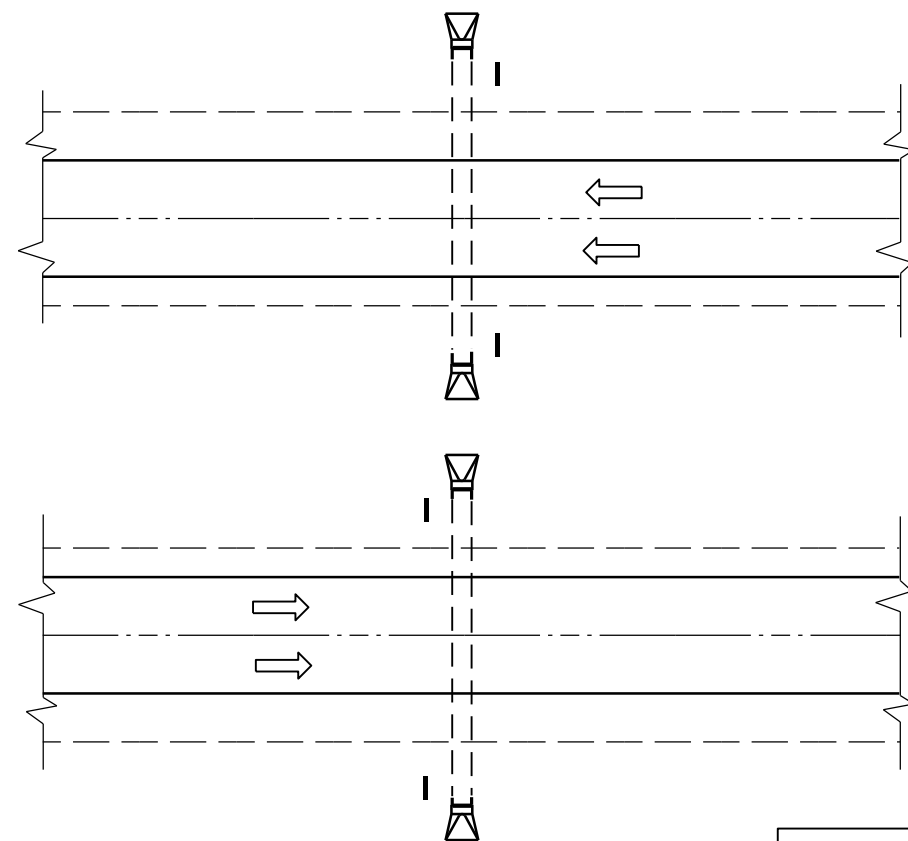


BLACK LETTERING AND LINE WORK ON WHITE BACKGROUND

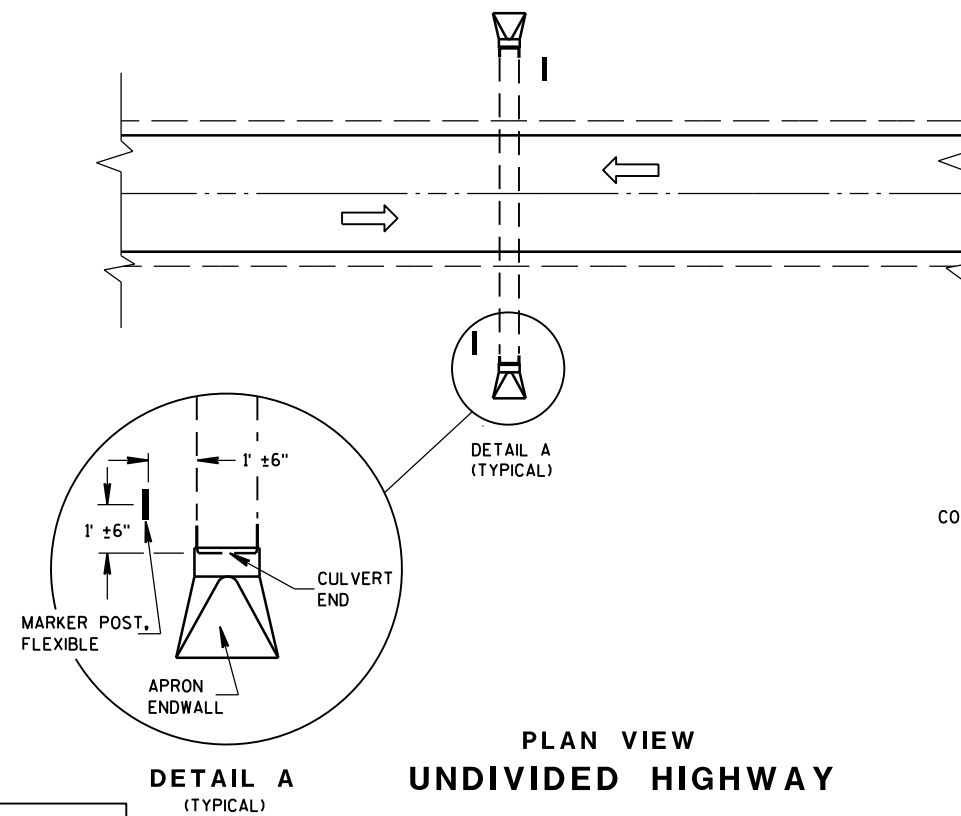
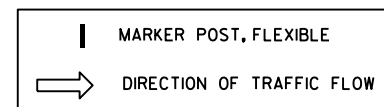
FLEXIBLE MARKER POST
FOR RIGHT-OF-WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 /S/ Ray Kumapayi
DATE CHIEF SURVEYING AND MA 81 INEER
FHWA



PLAN VIEW
DIVIDED HIGHWAY

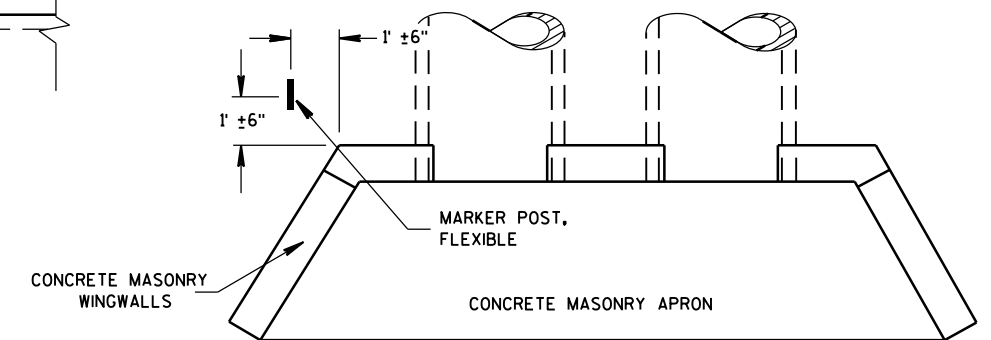


PLAN VIEW
UNDIVIDED HIGHWAY

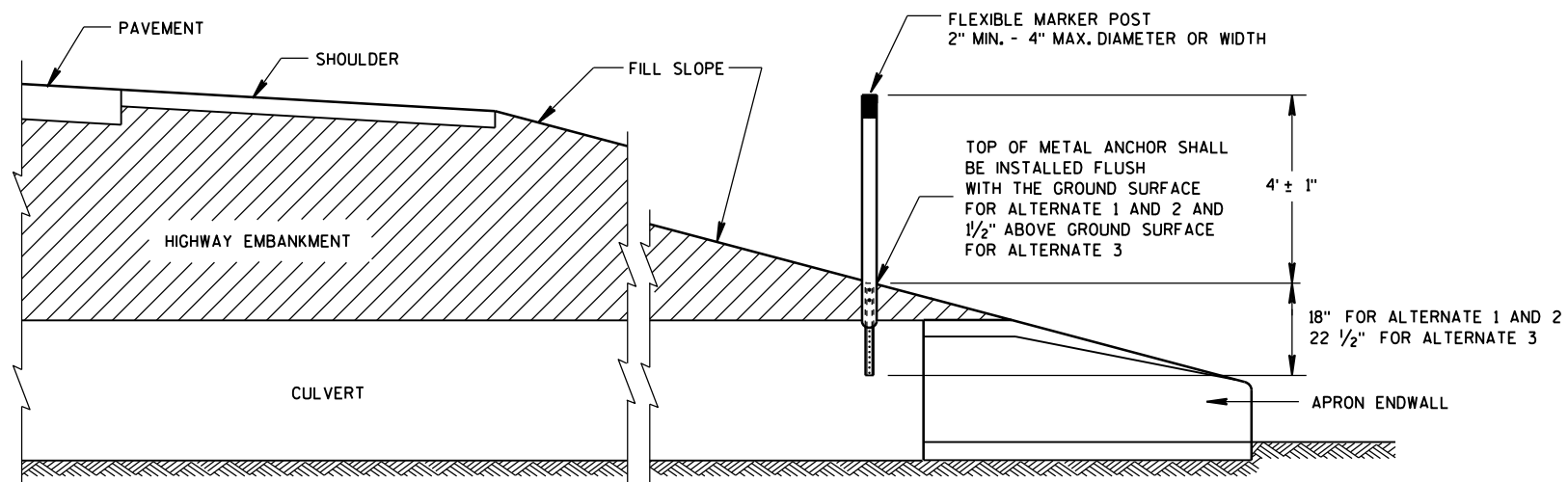
FLEXIBLE MARKER POST LOCATION

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.



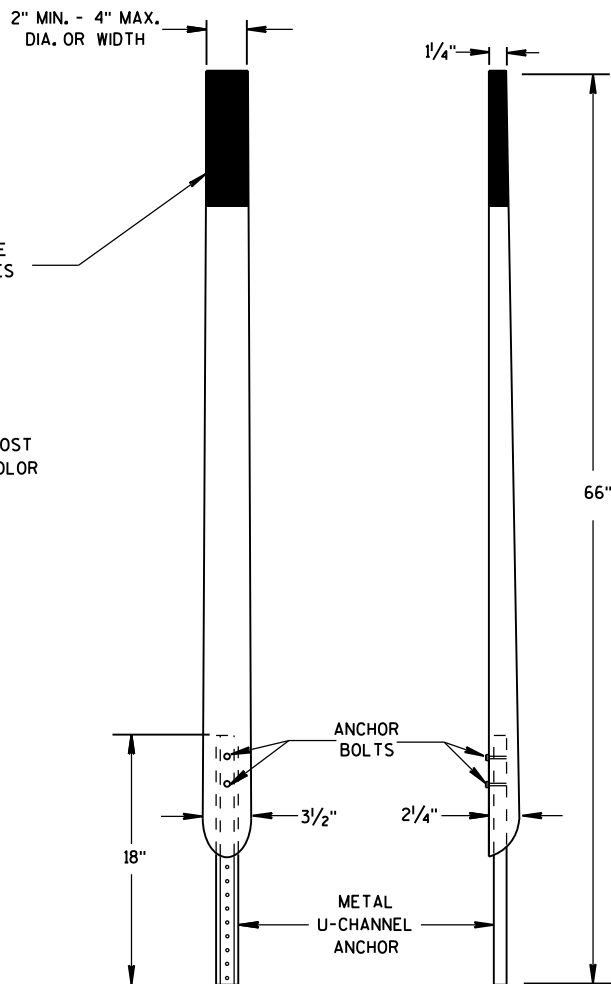
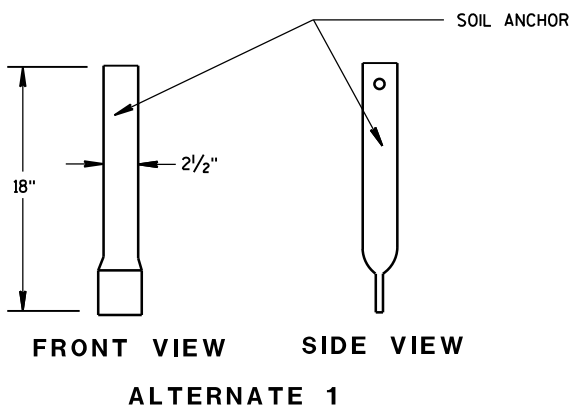
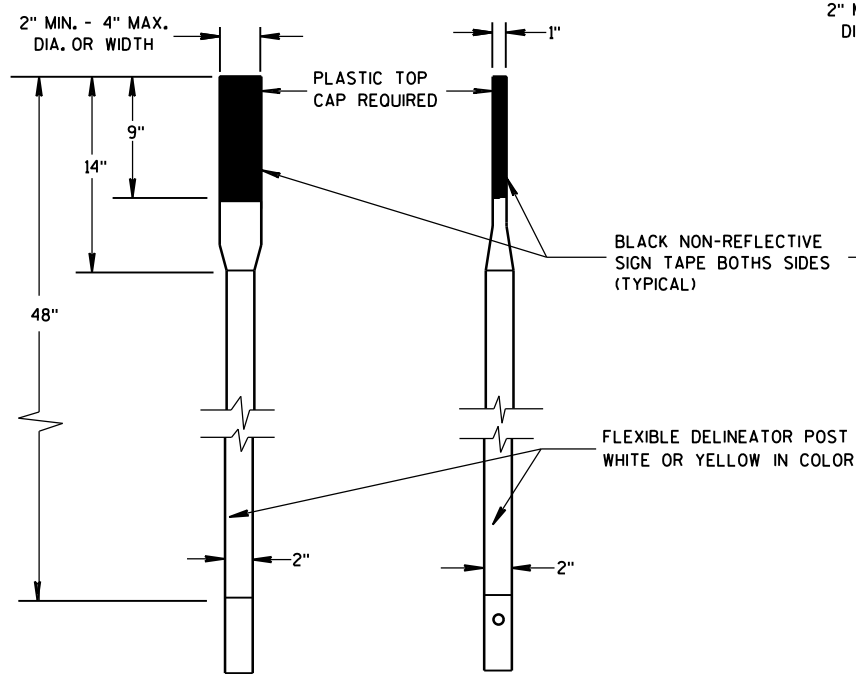
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

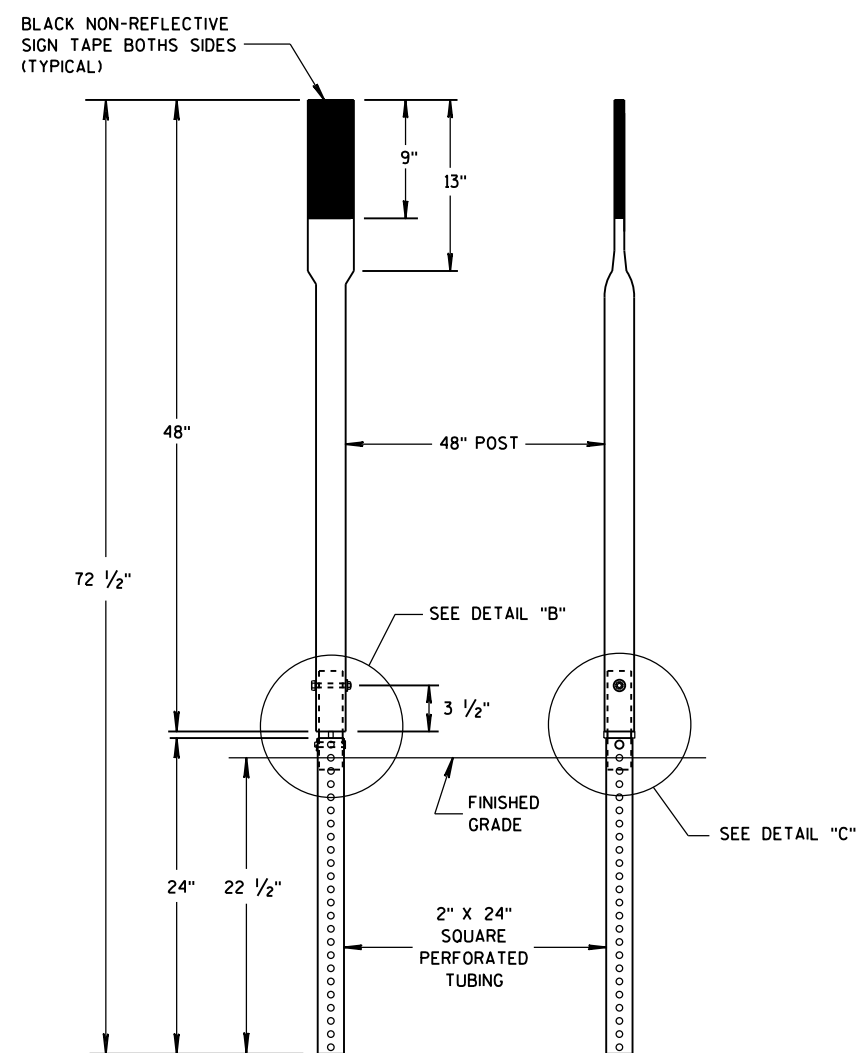
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

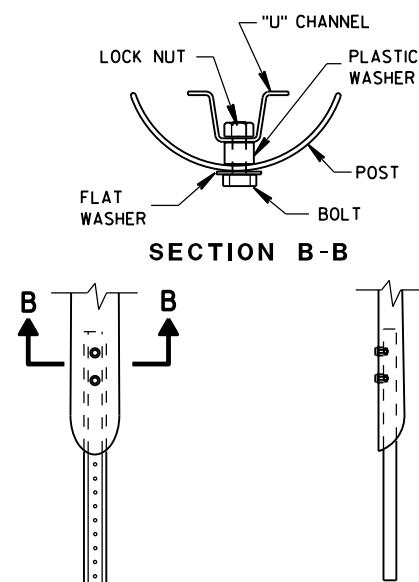
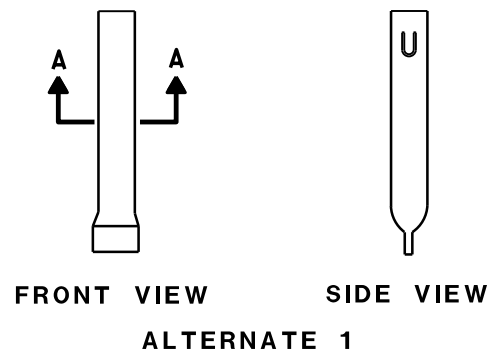
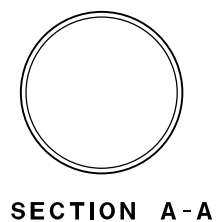
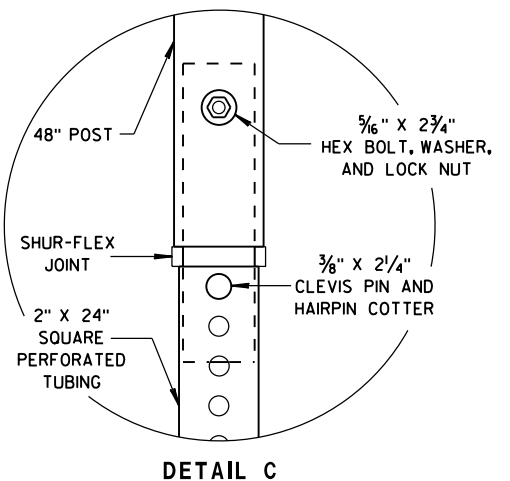
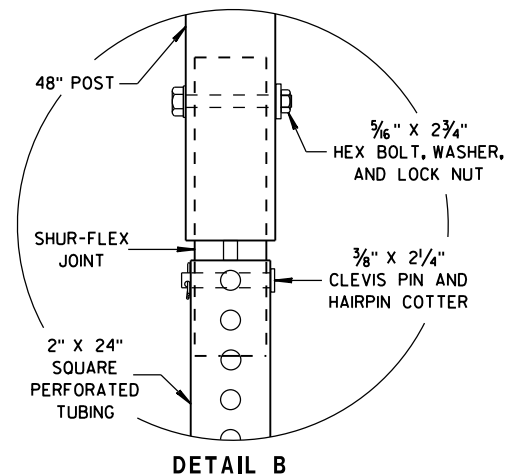
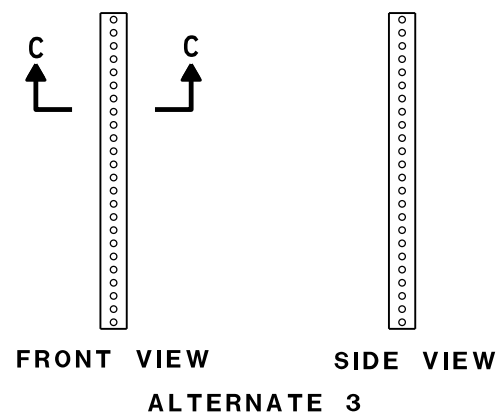
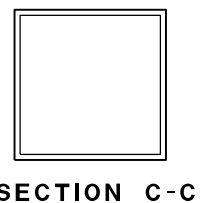


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

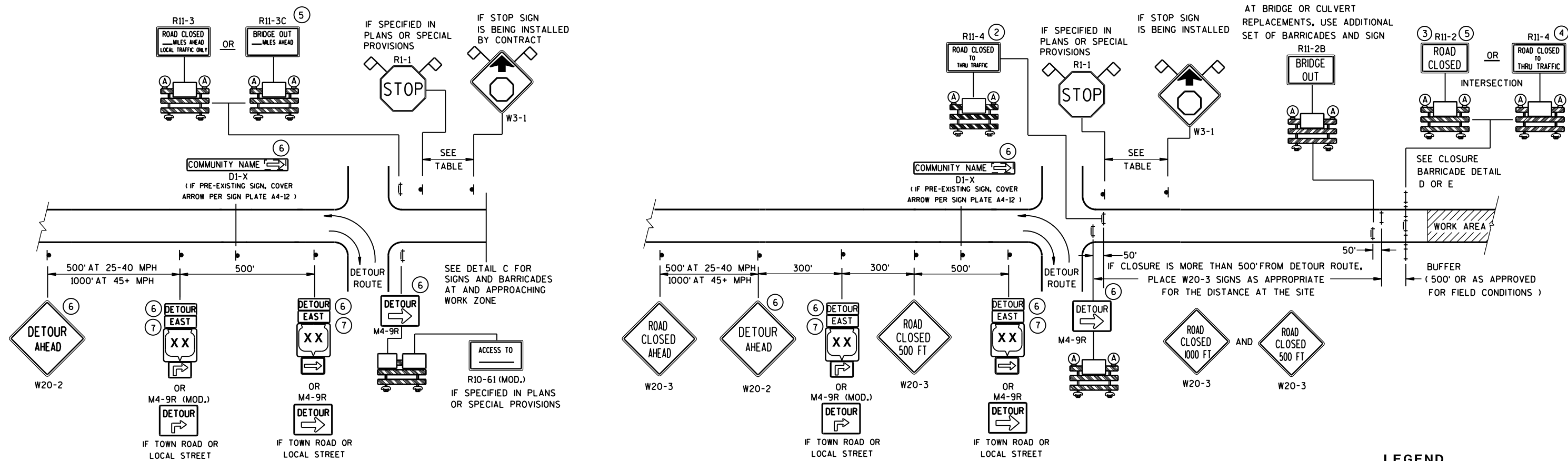


FRONT VIEW SIDE VIEW
ALTERNATE 3



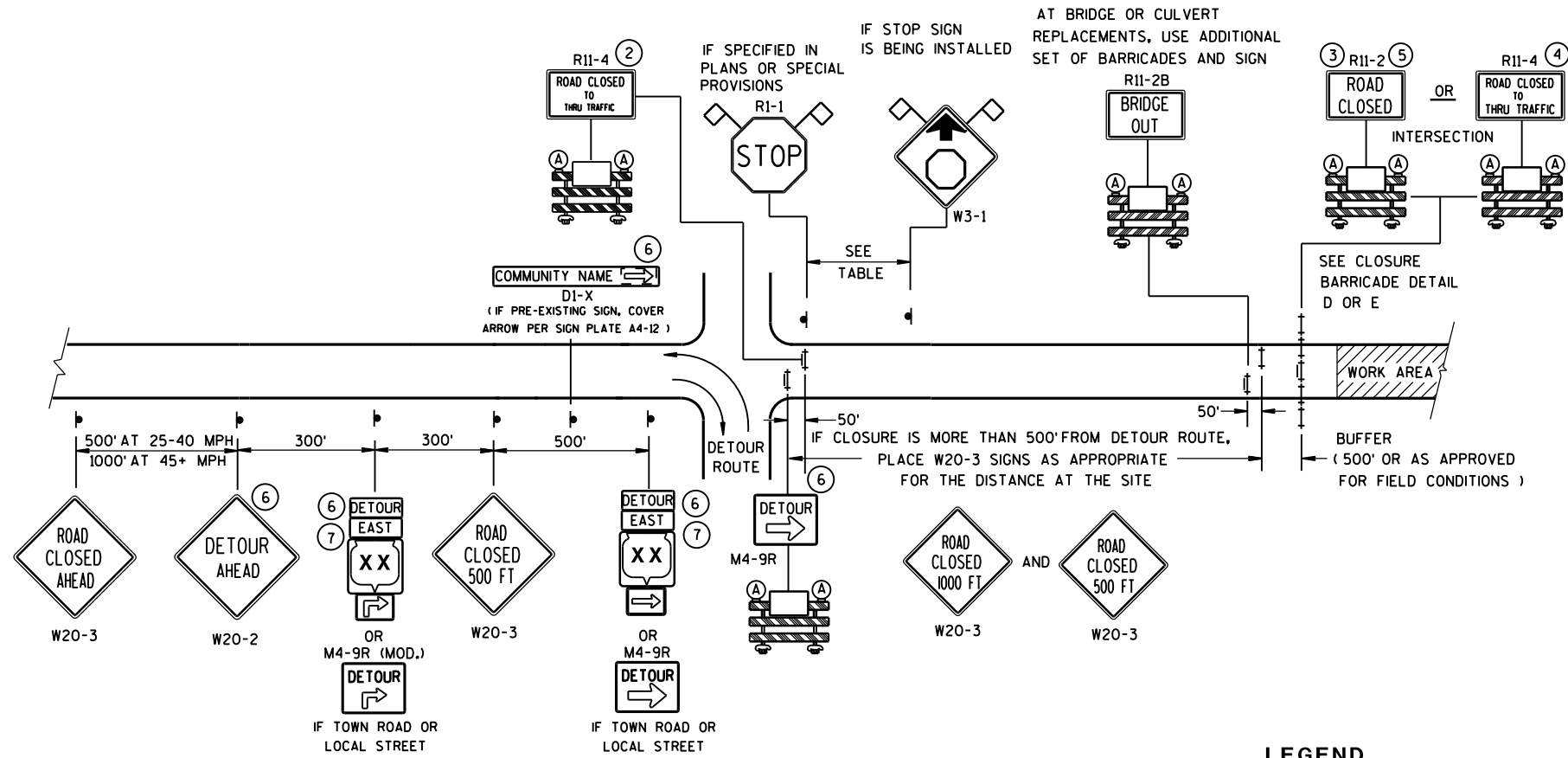
FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST FOR CULVERT END		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER 83	IGN
FHWA		



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

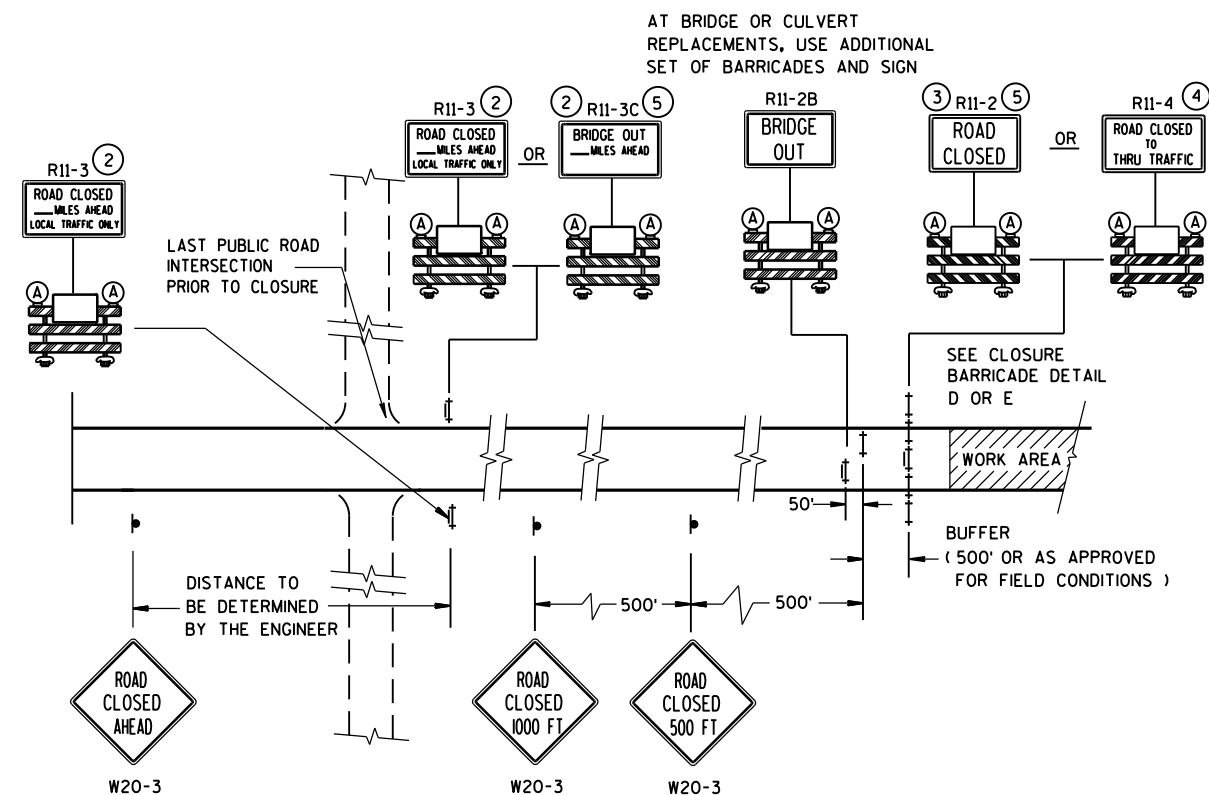
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

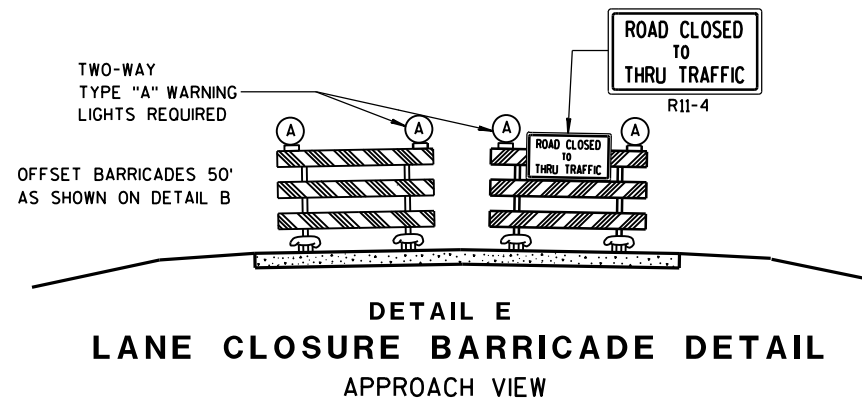
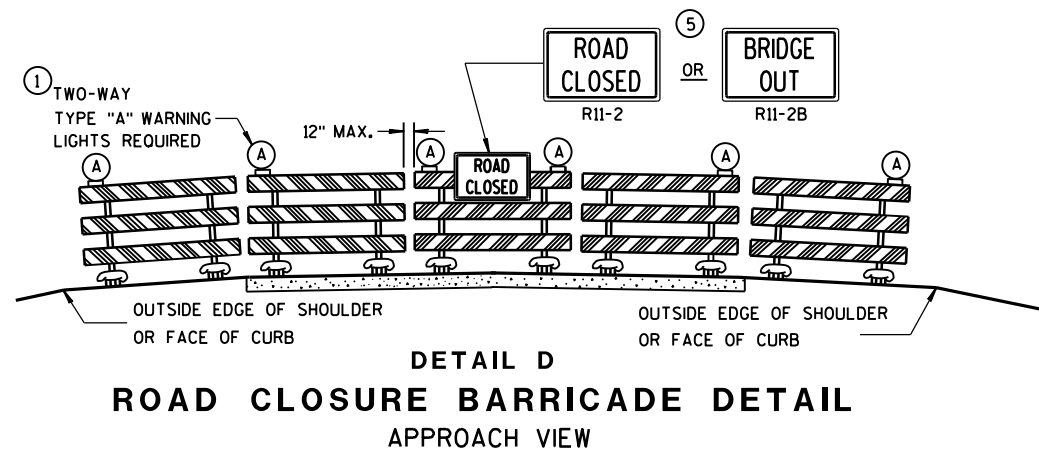
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- # LEGEND
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA
-  M4-8
M3-X
-  M1-4
-  OR M1-5A
-  OR M1-6
-  OR M06-1
-  FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 84 ESIGN
FHWA



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.

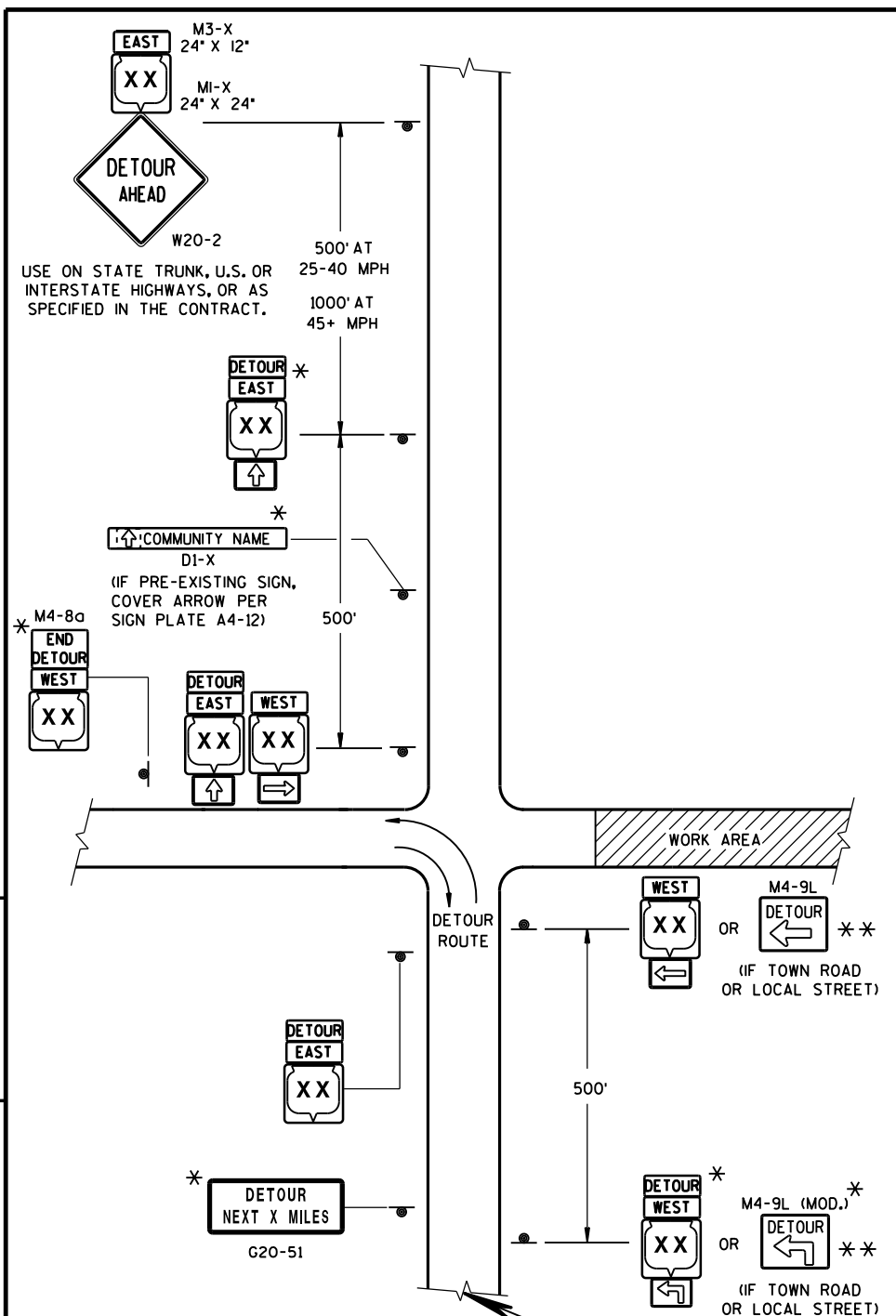
R1-1 SHALL BE 36" X 36".

- 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 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 85 ESIGN
FHWA



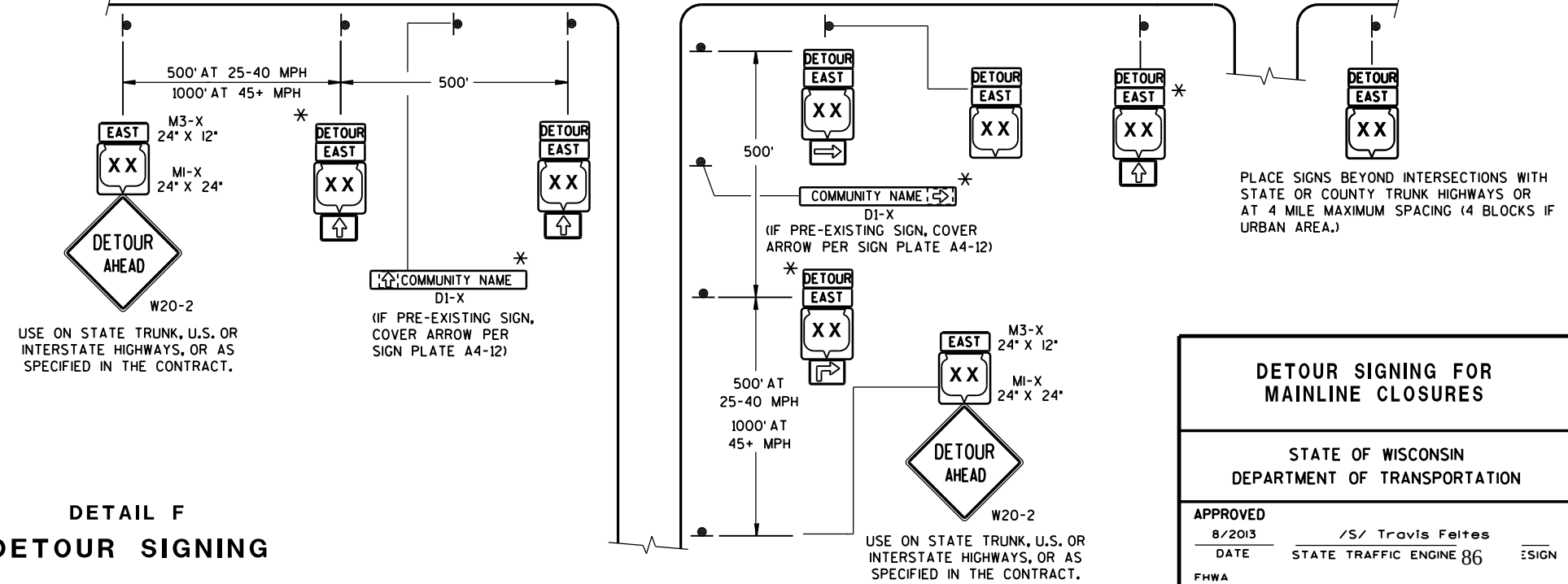
THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

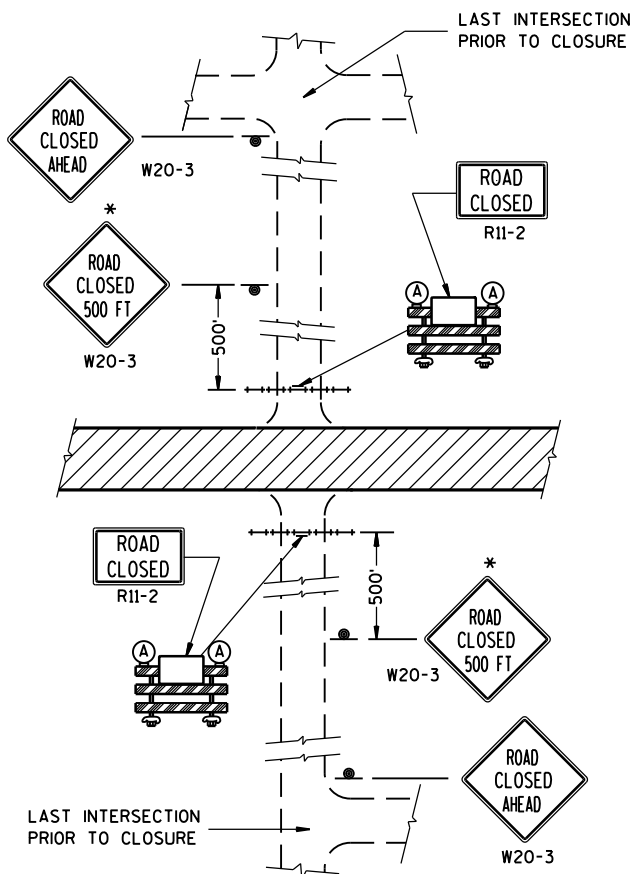
MATCH POINT

DETAIL F
DETOUR SIGNING

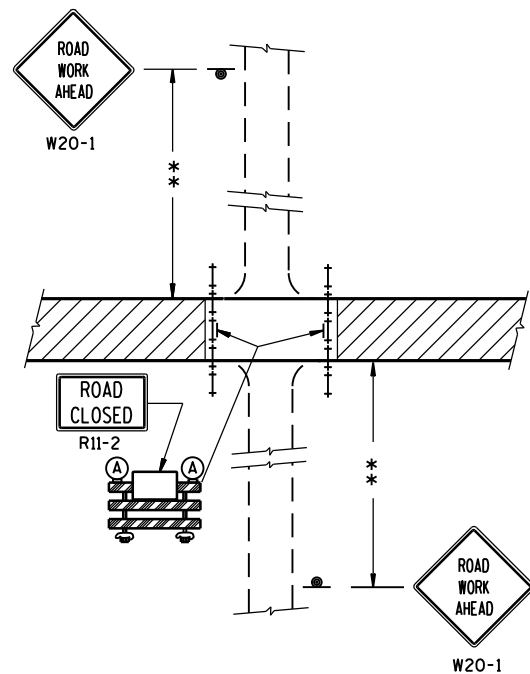
GENERAL NOTES

- 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.

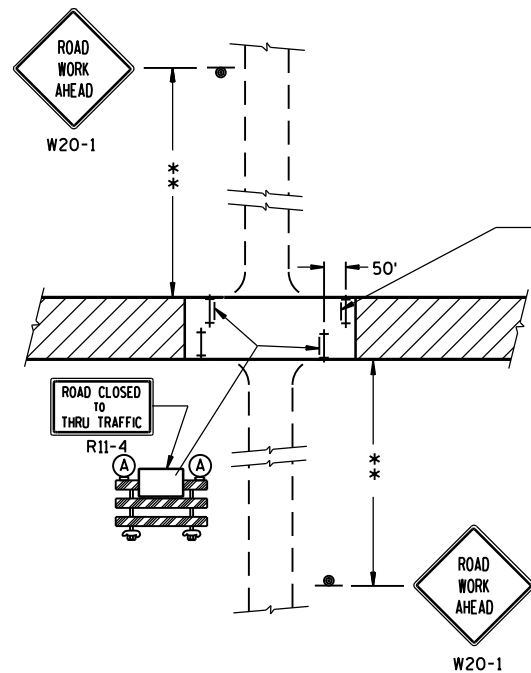




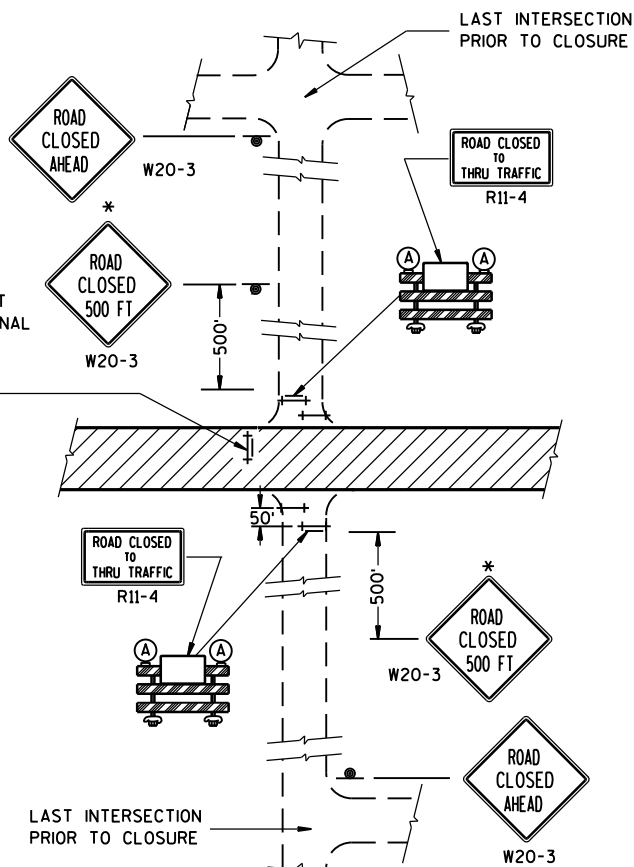
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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.

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.

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 AND R11-4 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.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

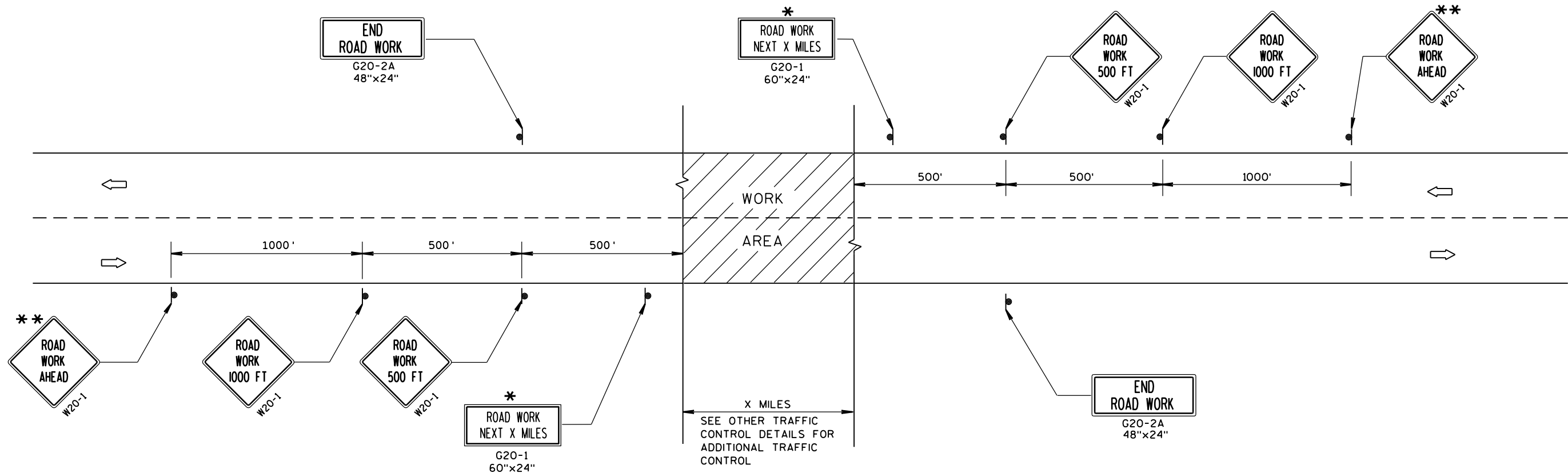
LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ⊢ TYPE III BARRICADE
- ⊢ TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- ▨ WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 87 SIGN
FHWA



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.

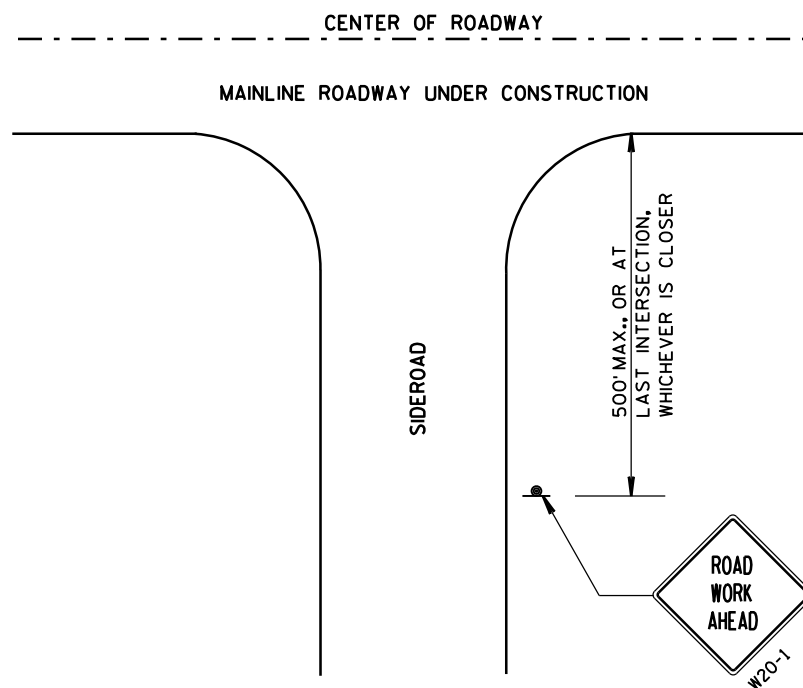
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.

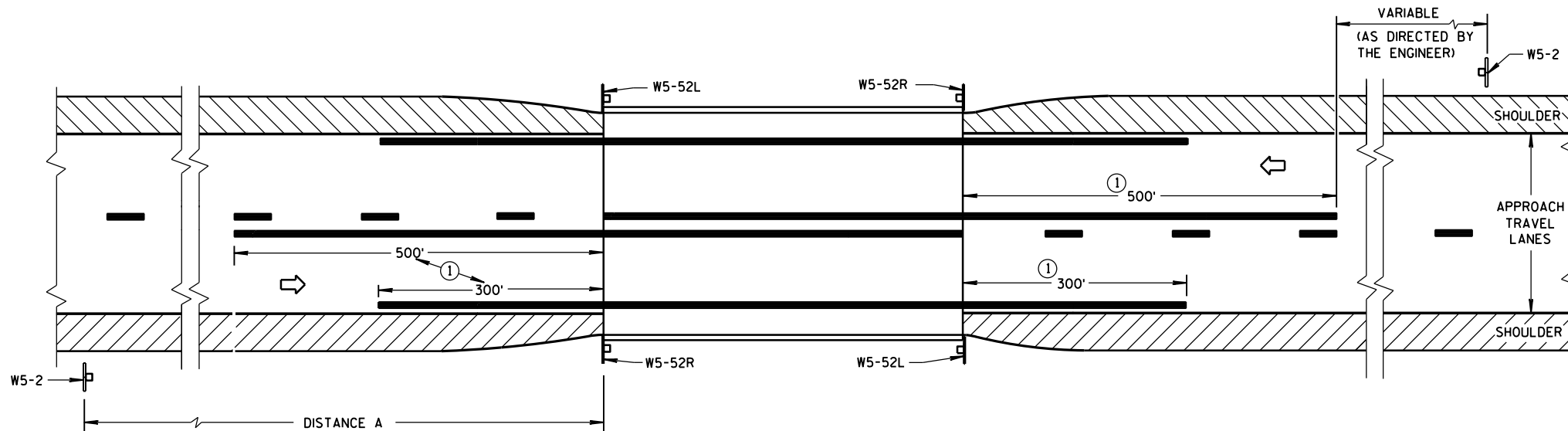
** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



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	SIGN
FHWA		



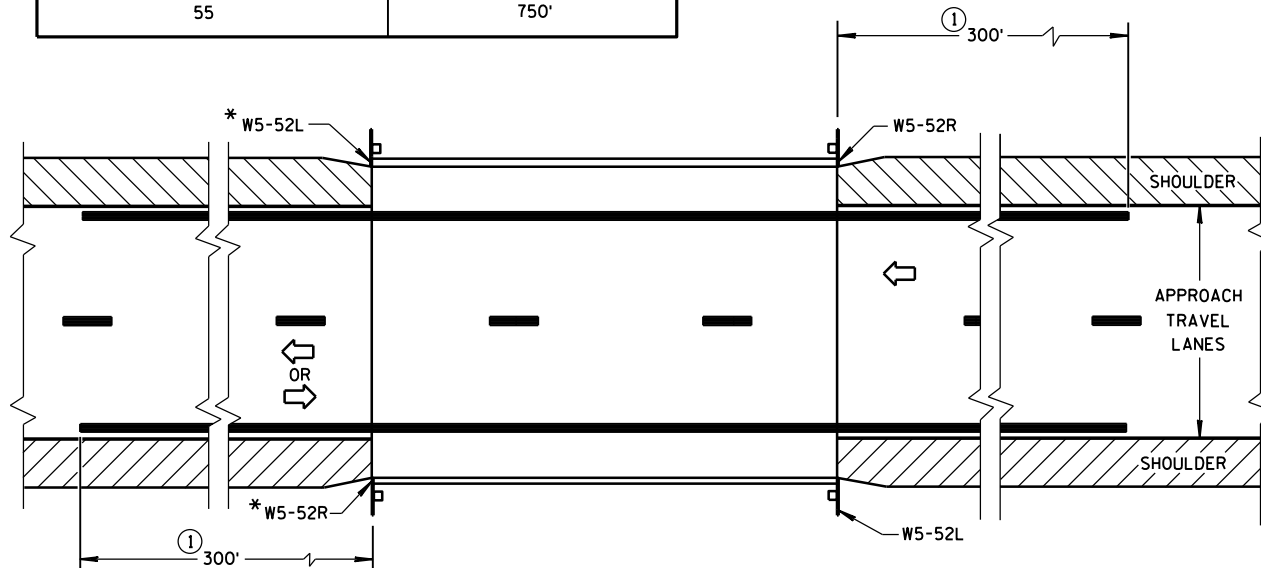
SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

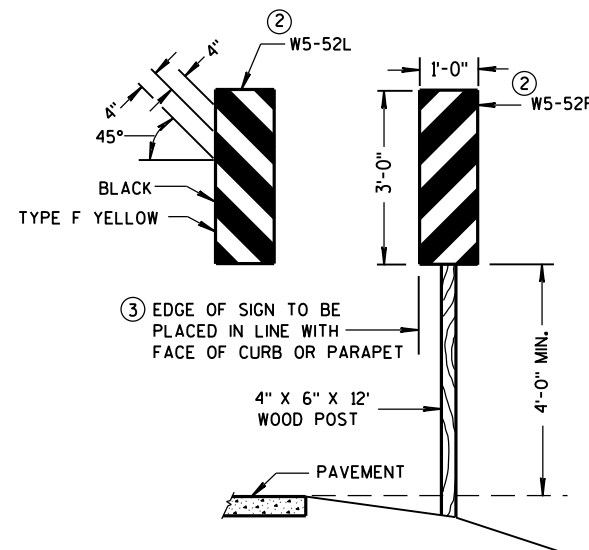


*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE IS LESS THAN 6 FEET WIDER (ON EACH SIDE) THAN APPROACH TRAVEL LANES.



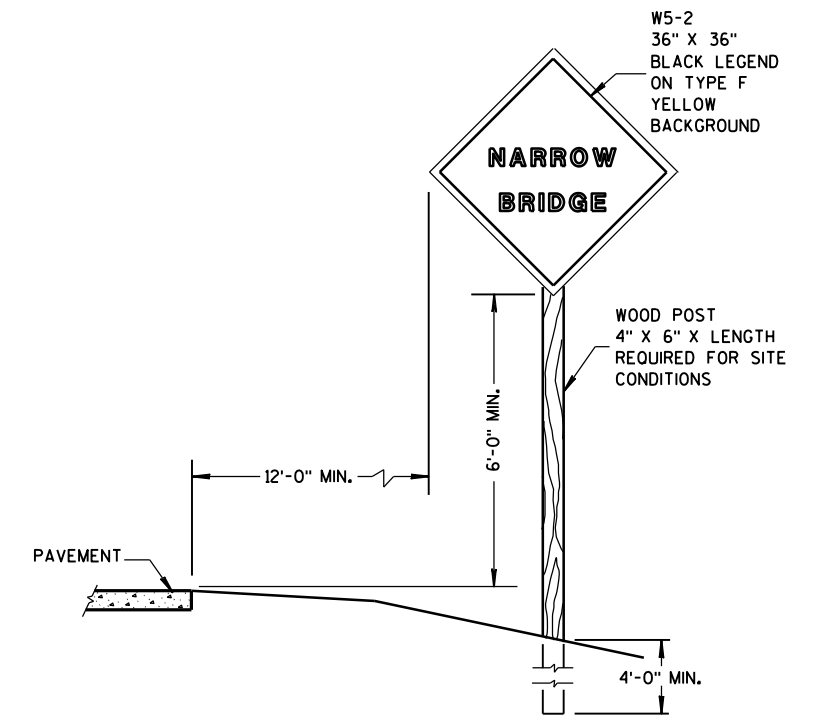
OBJECT MARKER PLACEMENT

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.

PAVEMENT MARKING SHOWN ON THIS DRAWING IS NOT REQUIRED UNLESS OTHERWISE SPECIFIED IN THE CONTRACT. WHEN SPECIFIED, PAVEMENT MARKING SHALL CONFORM TO THIS DRAWING AND OTHER CONTRACT REQUIREMENTS.

- ① MINIMUM DISTANCE UNLESS OTHERWISE SHOWN ON THE PLAN.
- ② FACE OF OBJECT MARKERS W5-52R, AND W5-52L SHALL BE COVERED WITH TYPE F REFLECTIVE SHEETING.
- ③ LOCATE OBJECT MARKER POST(S) BEHIND GUARDRAIL WHEN PRESENT.

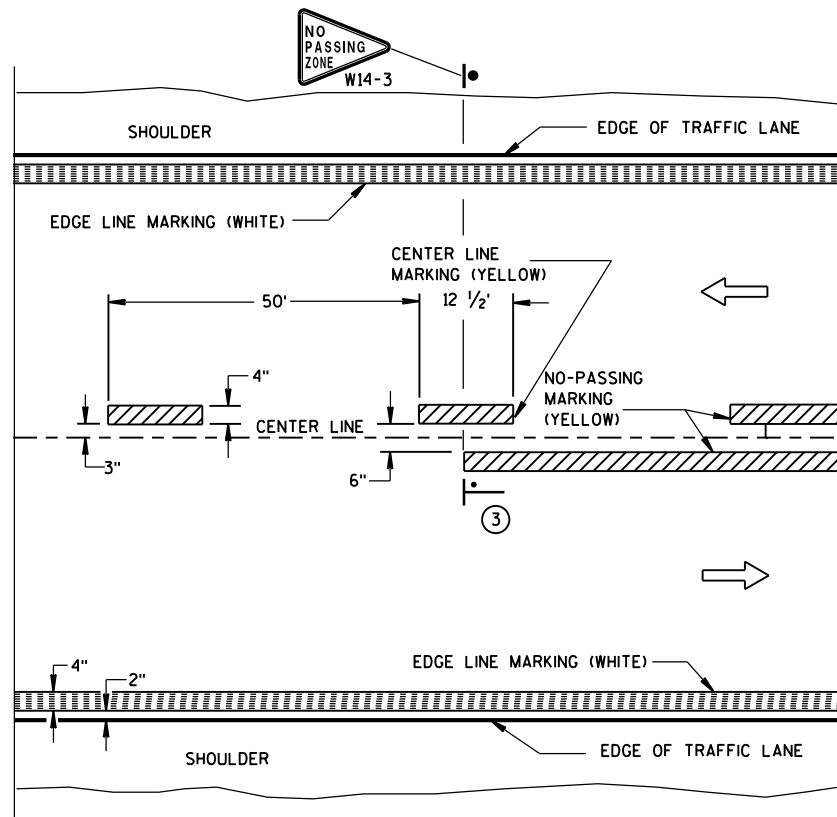


SIGN PLACEMENT

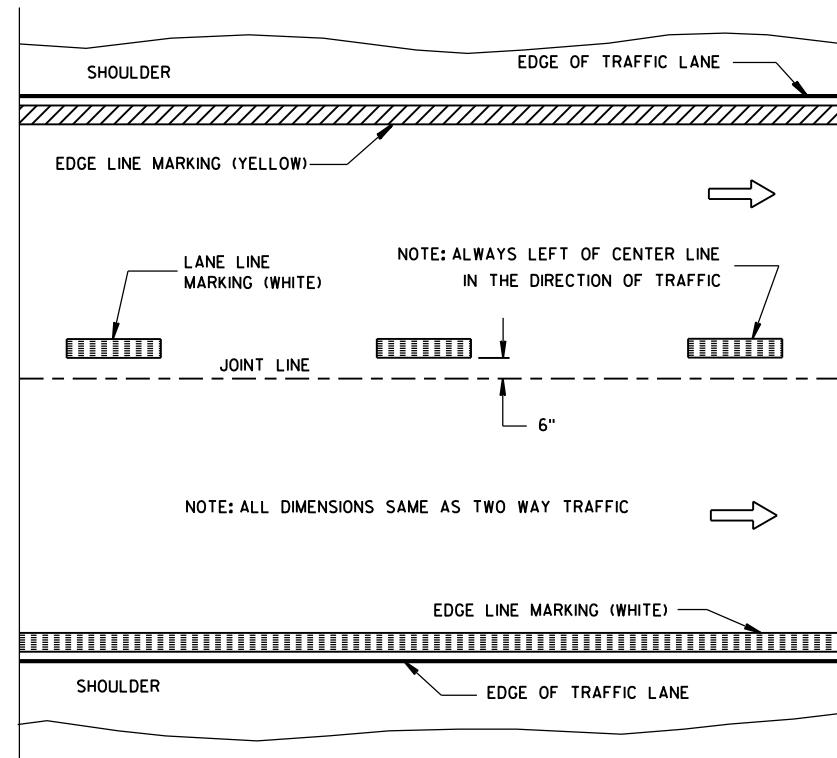
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 3-2014 /S/ Travis Fettes
STATE TRAFFIC ENGINEER JGN
FHWA

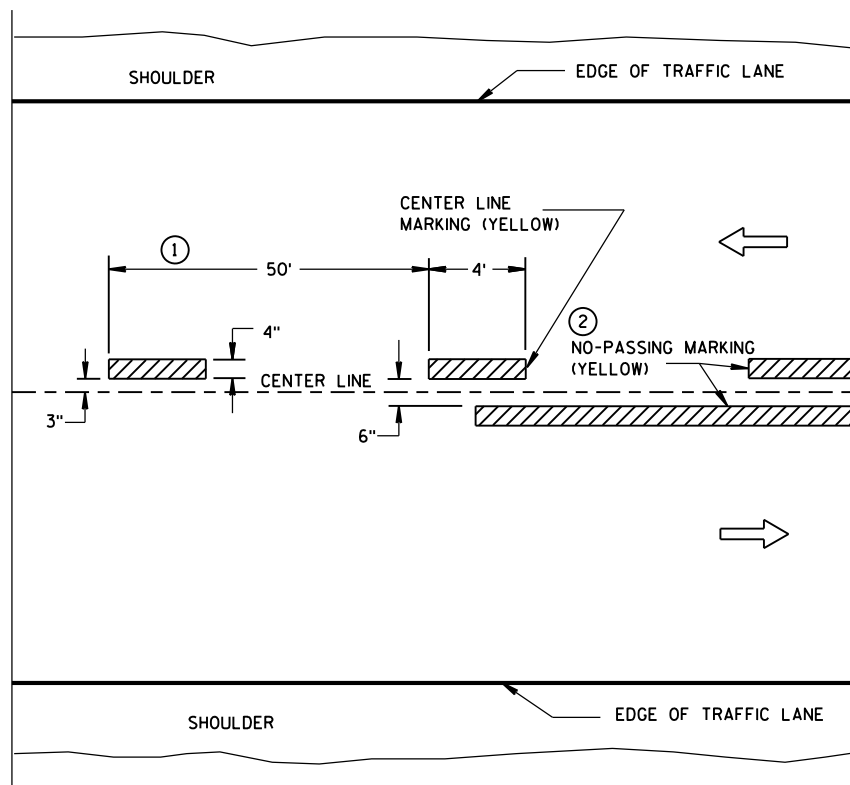


TWO WAY TRAFFIC

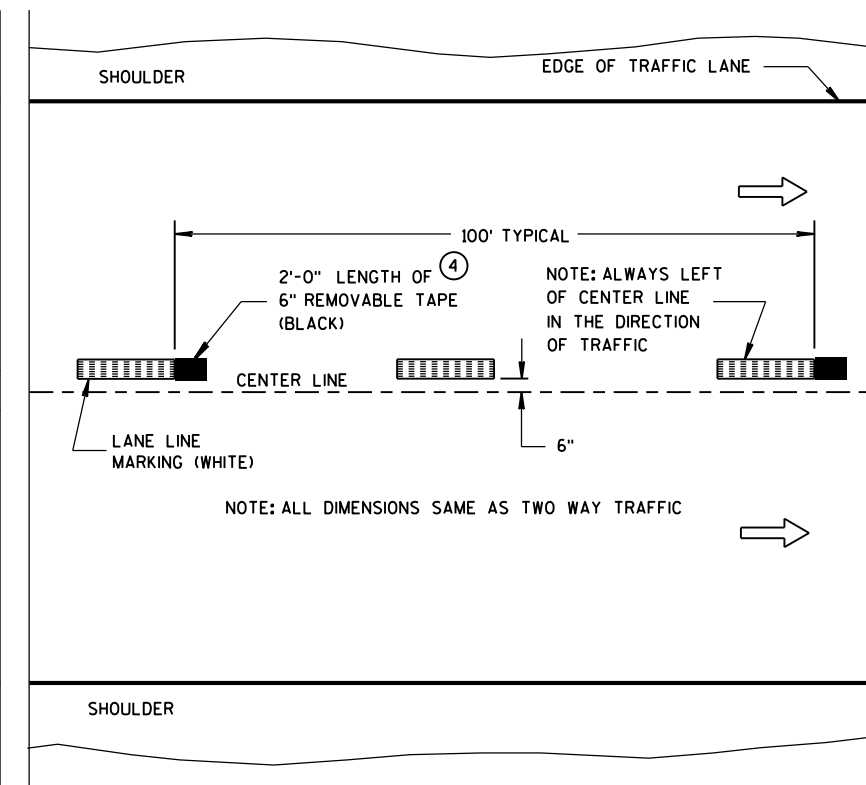


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

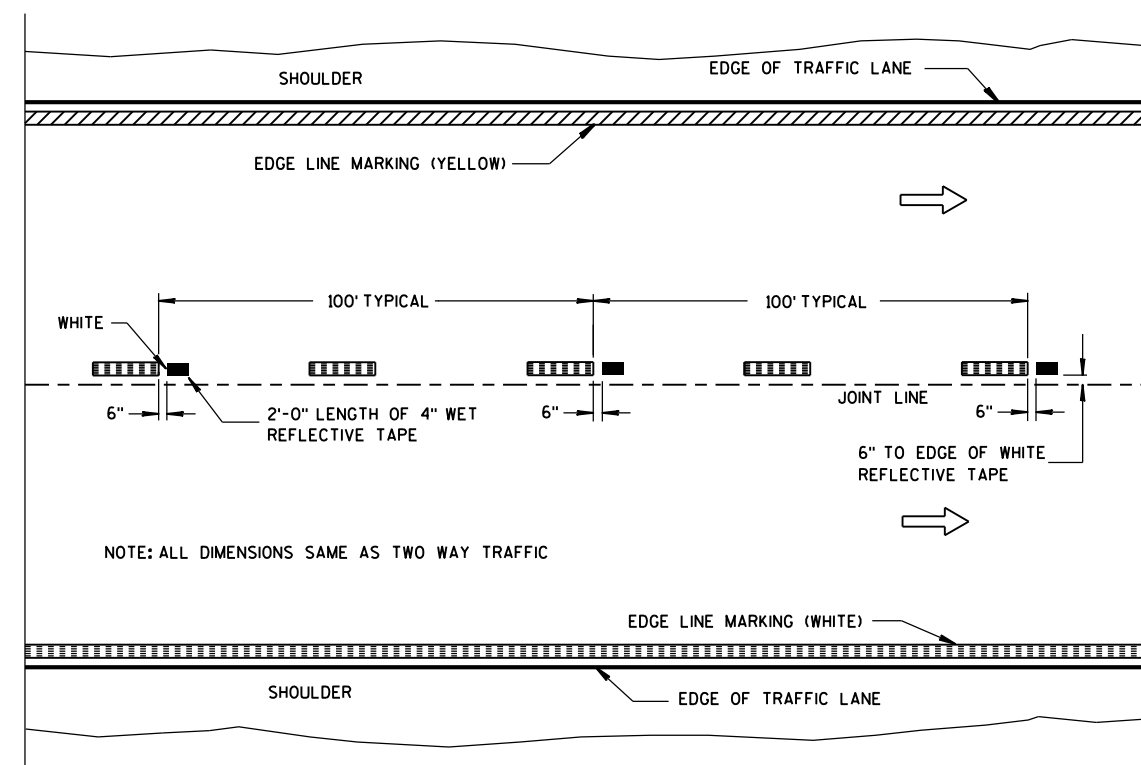
GENERAL NOTES

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



**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

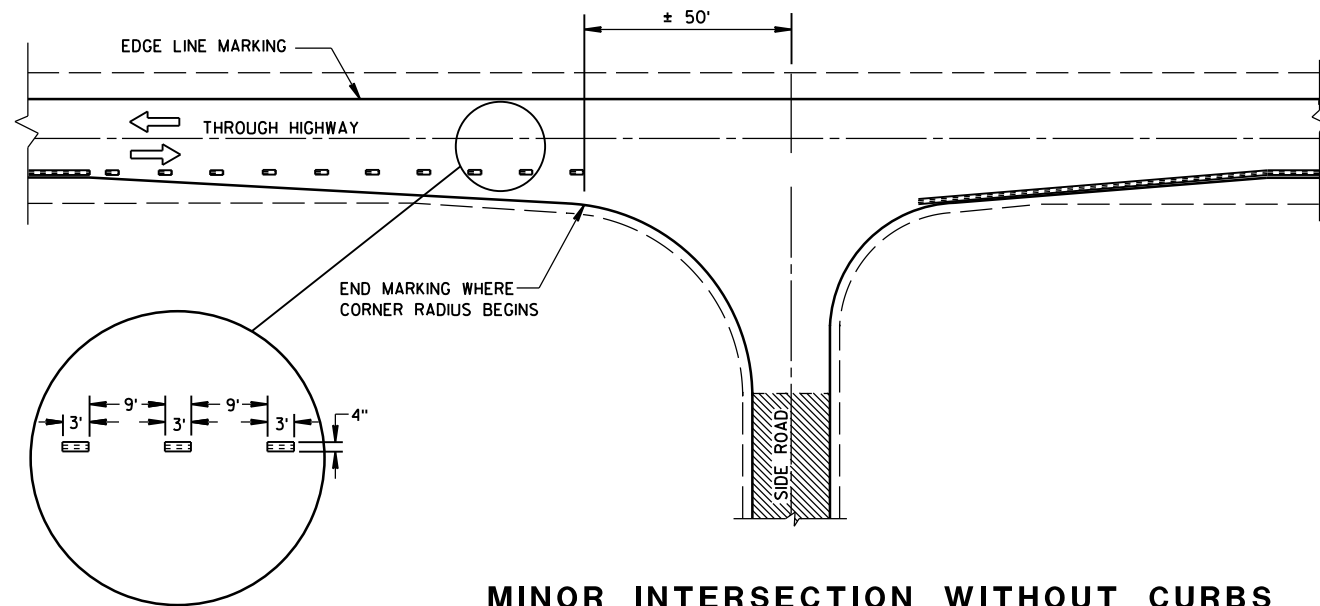
APPROVED

5-13-2013

DATE

FHWA

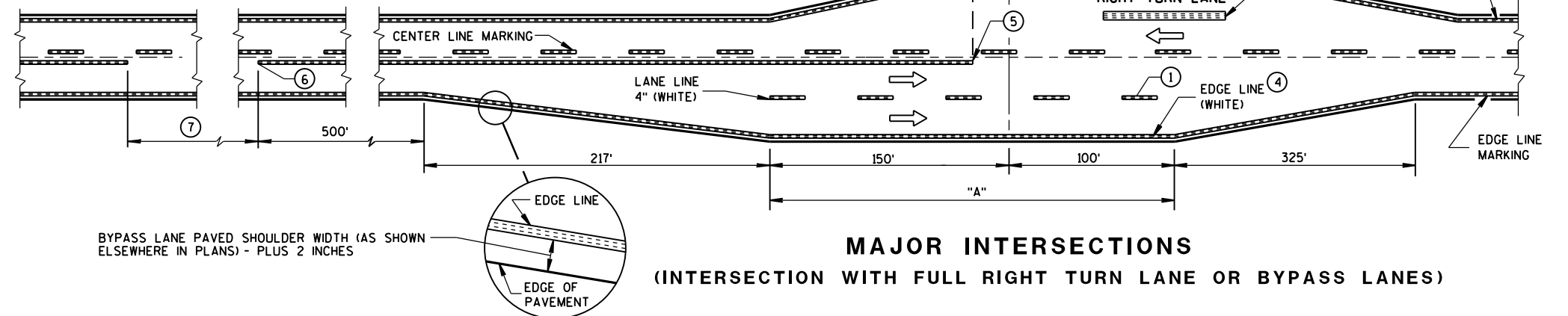
/S/ Travis Feltes
STATE TRAFFIC E 90



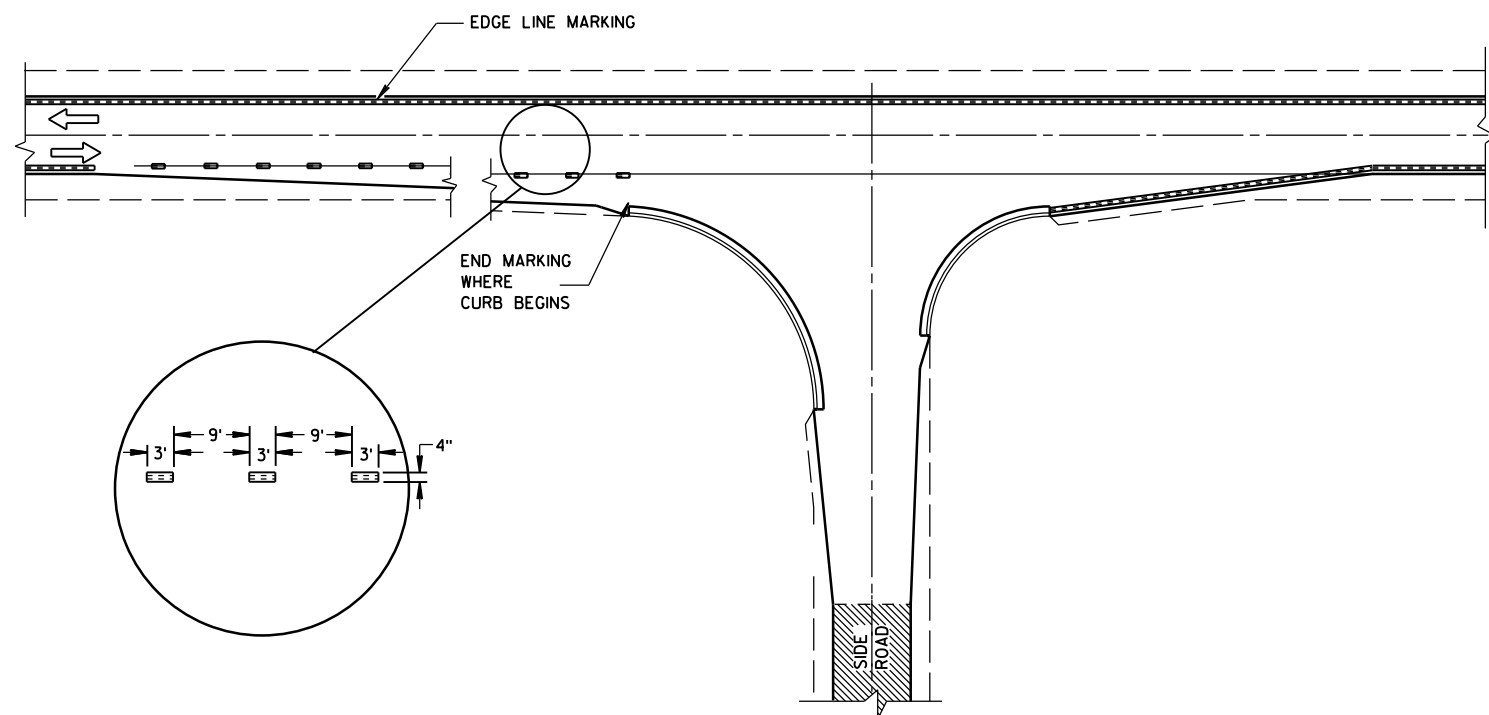
MINOR INTERSECTION WITHOUT CURBS

⑦

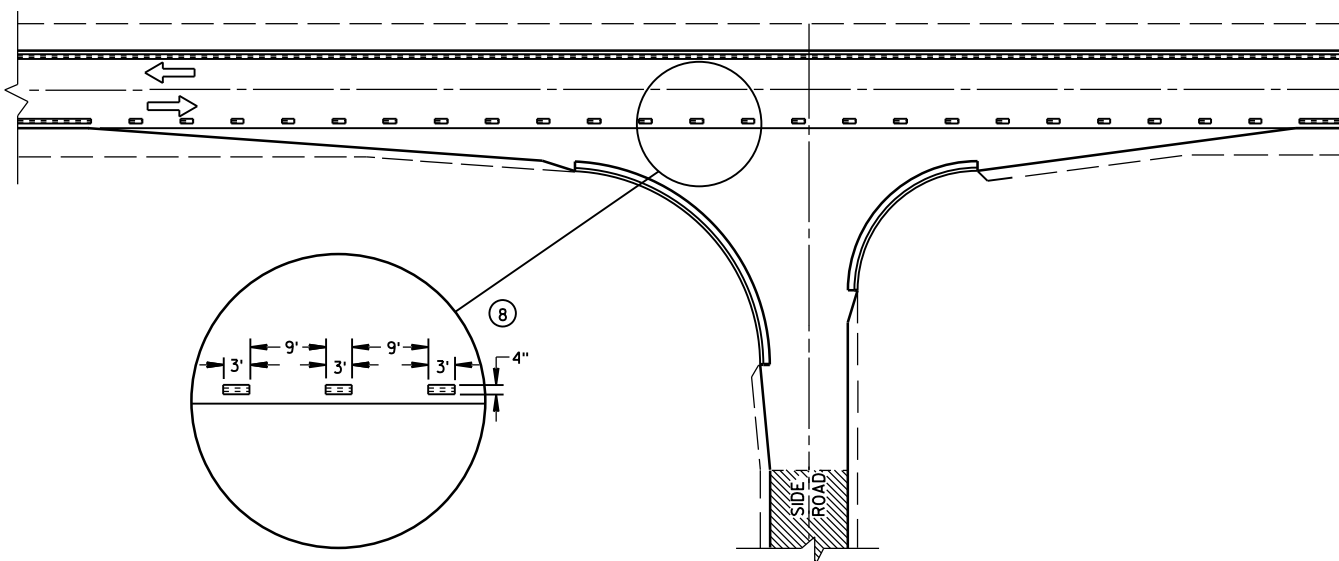
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



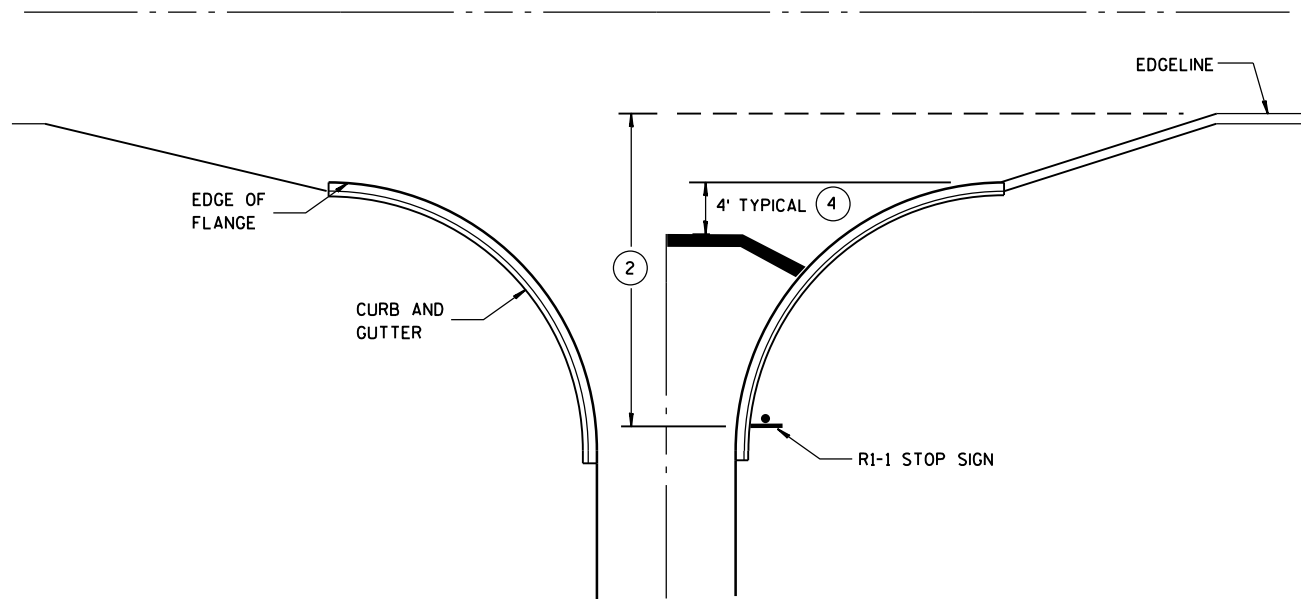
MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

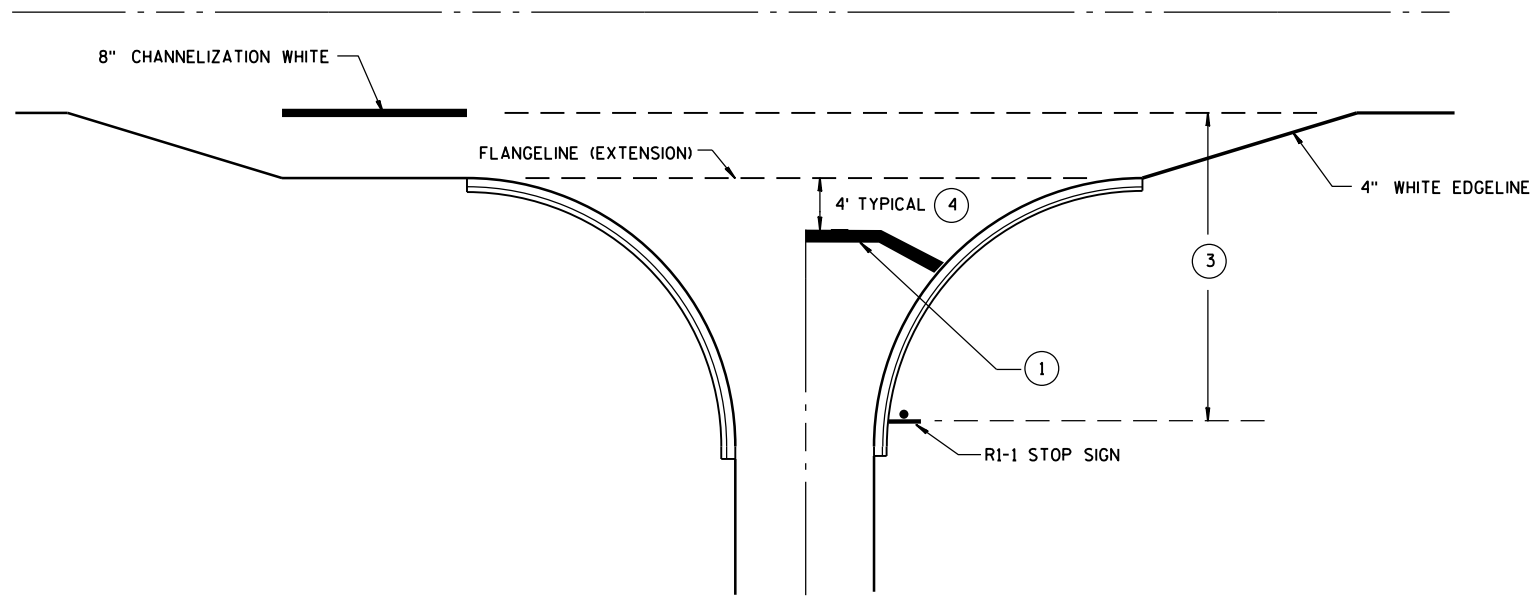
- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.
 - ④ THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.
 - ⑤ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
 - ⑥ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
 - ⑦ IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.
 - ⑧ 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

PAVEMENT MARKING
(INTERSECTIONS)

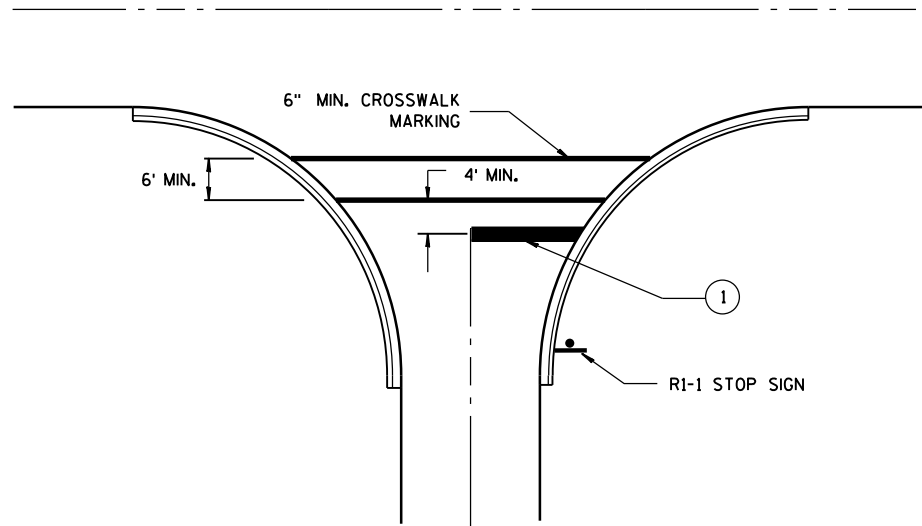
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



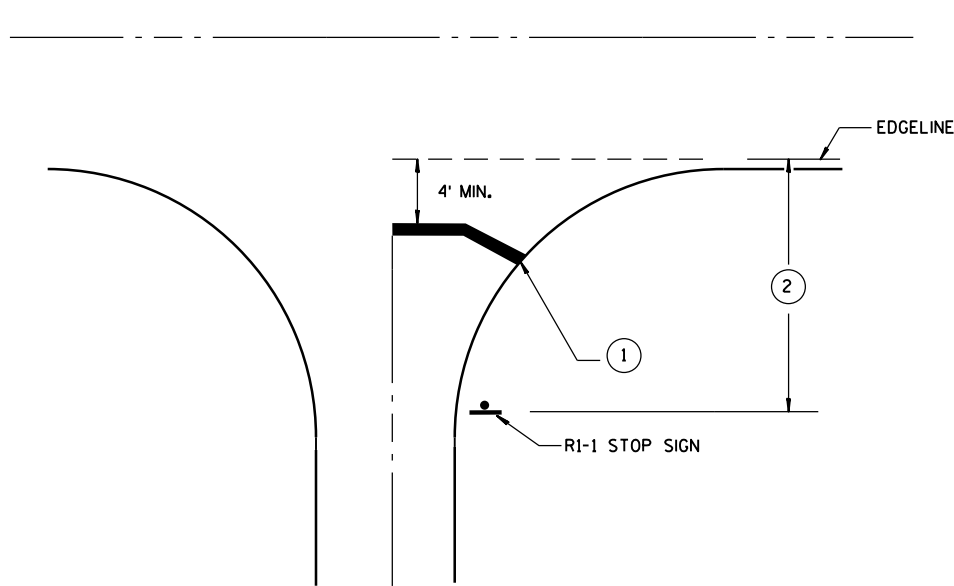
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING

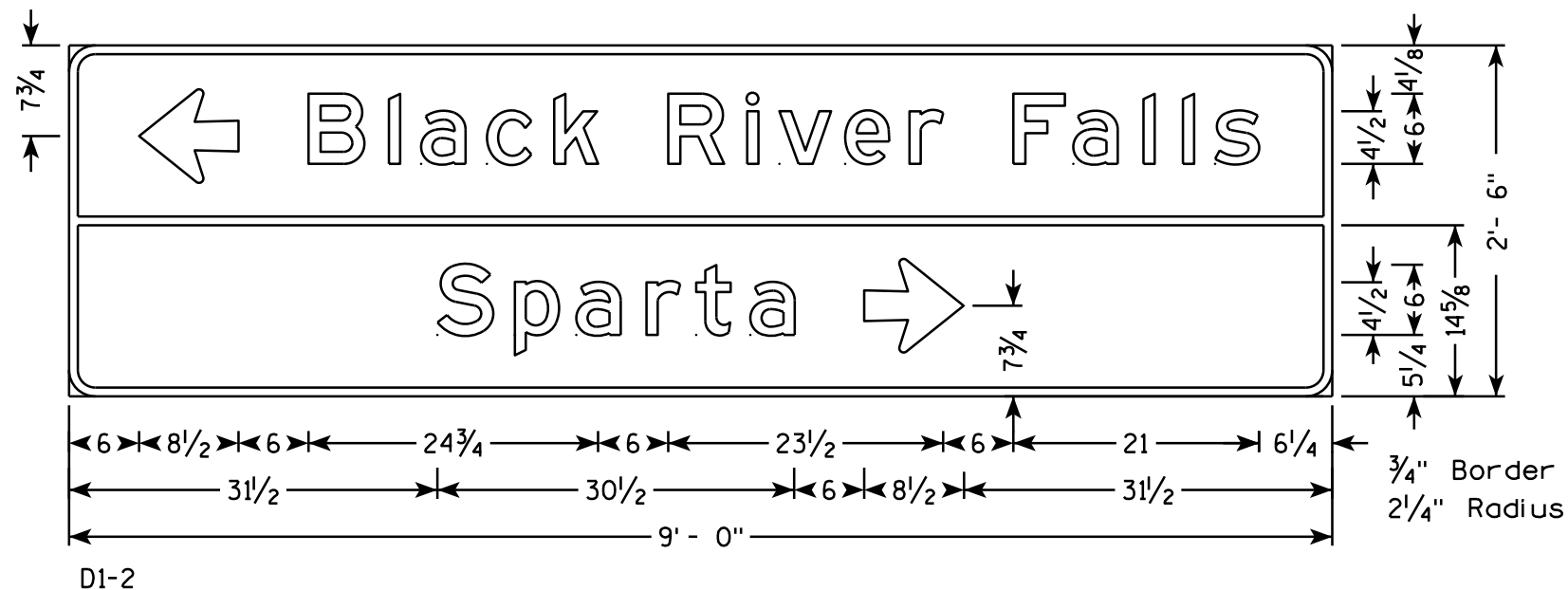


TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

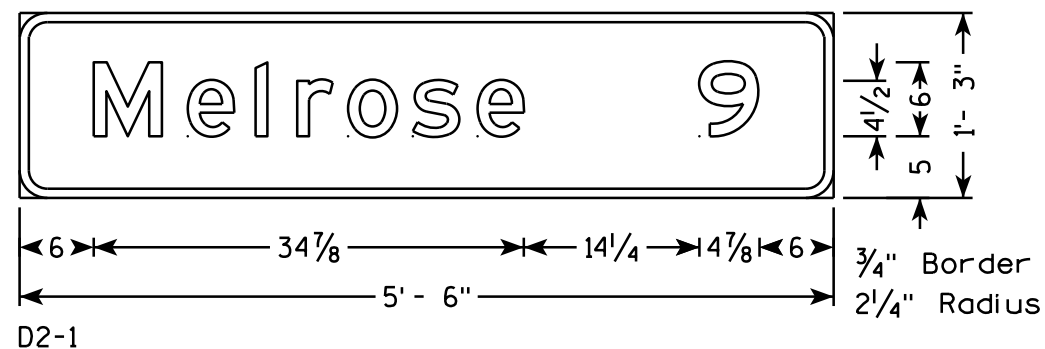
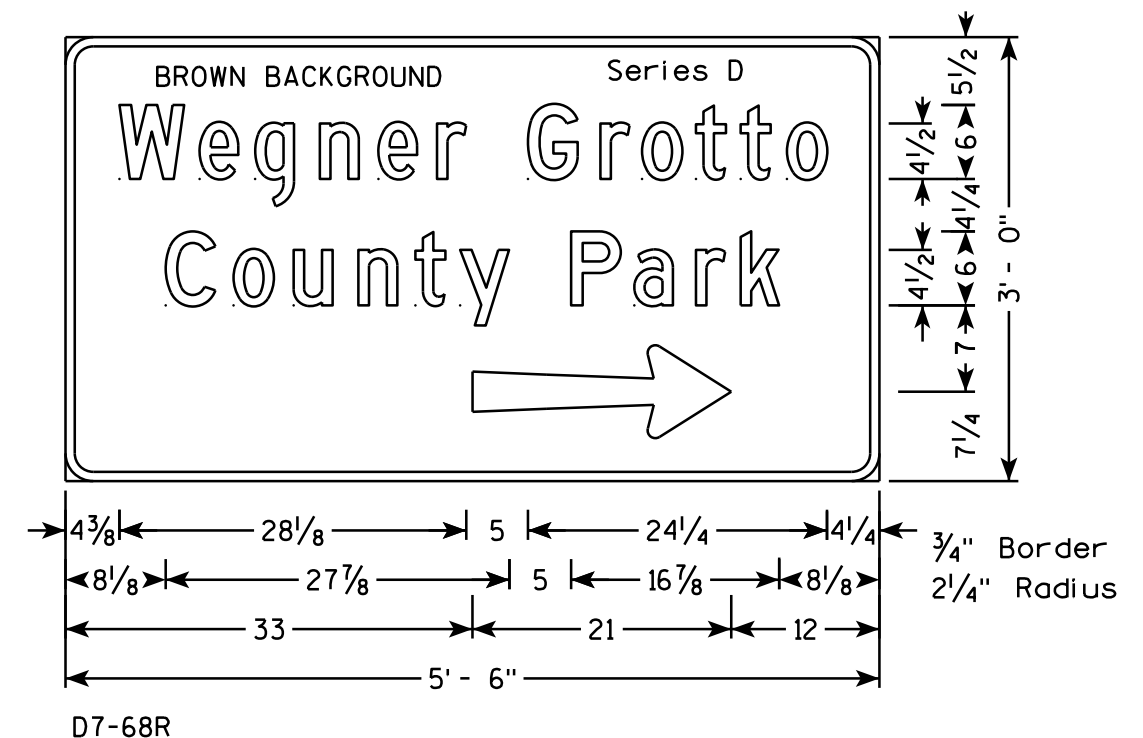
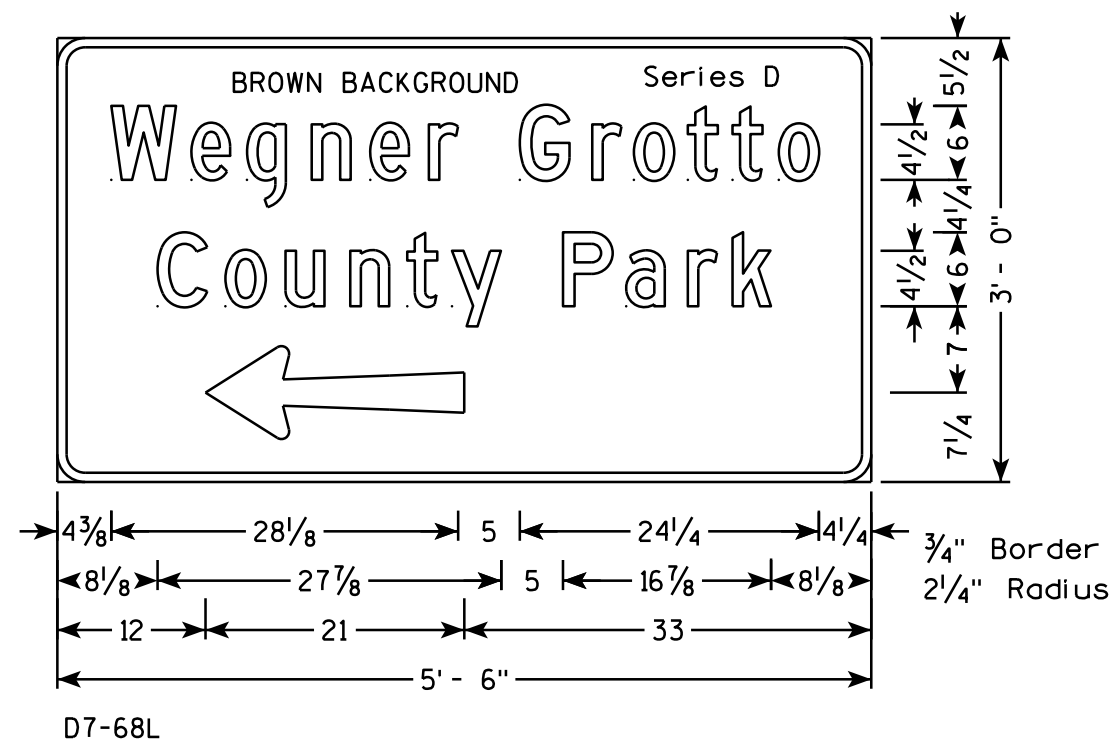
GENERAL NOTES

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

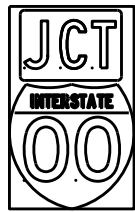
STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 4/30/2013	/S/ Travis Feltes STATE TRAFFIC ENGINEER
FHWA	



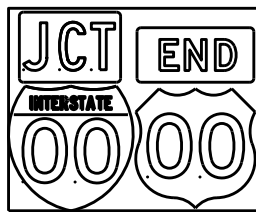
- NOTES
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - GREEN except as Shown
Message - WHITE
 3. Message Series - E except as Shown



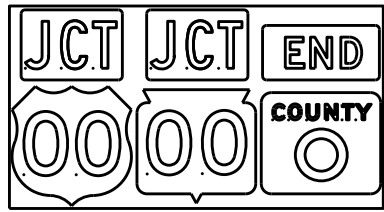
TYPICAL ASSEMBLIES



J1-1



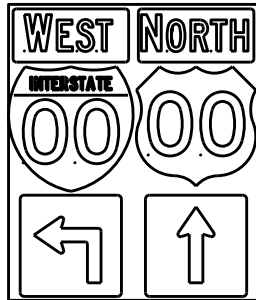
J1-2



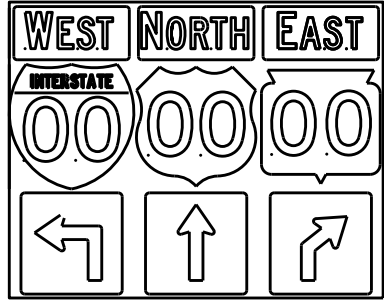
J1-3



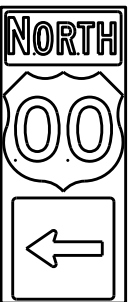
J2-1



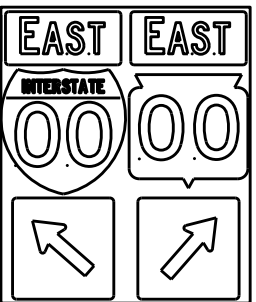
J2-2



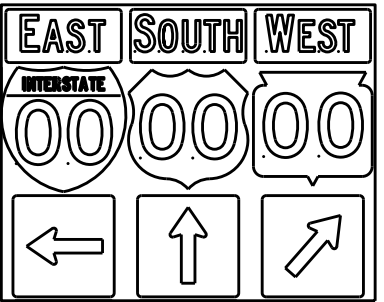
J2-3



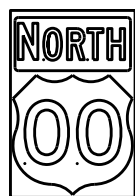
J3-1



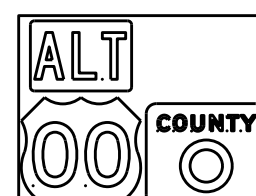
J3-2



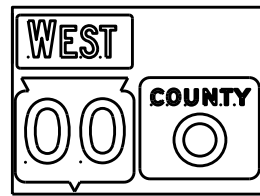
J3-3



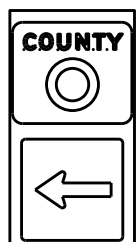
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

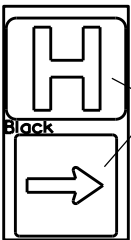


J22-1



JV

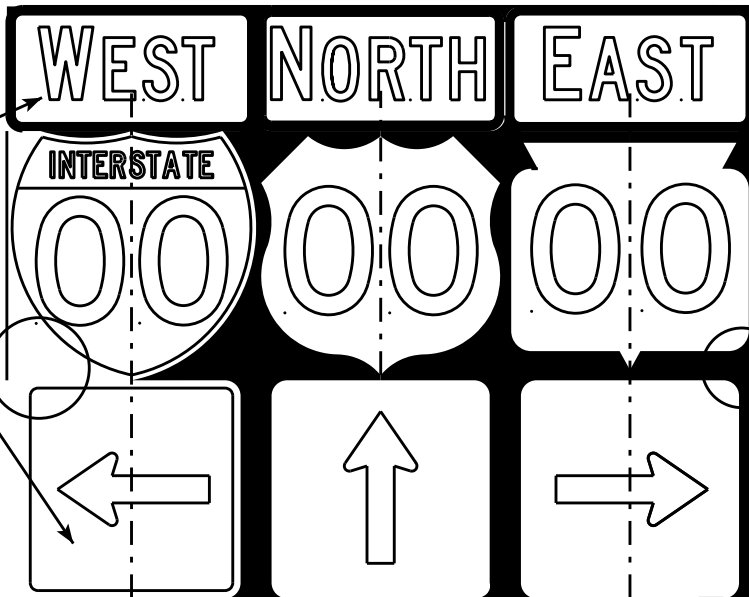
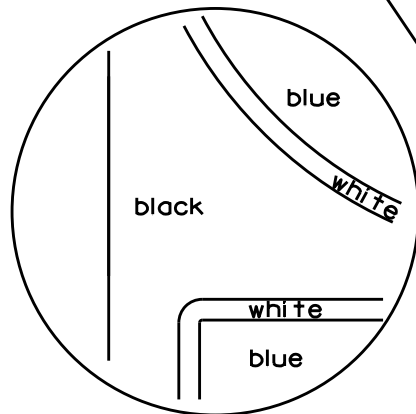
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

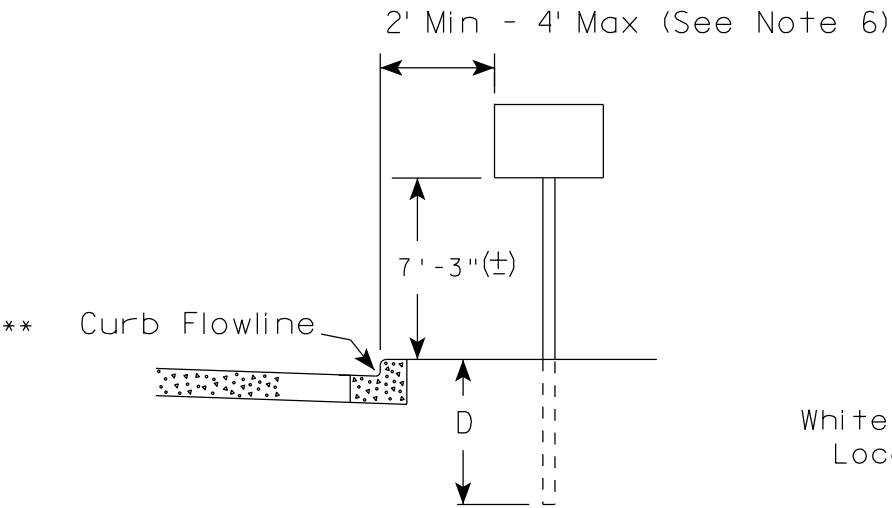
DATE 2/06/14 PL 94 A2-1S.8

SHEET NO: E

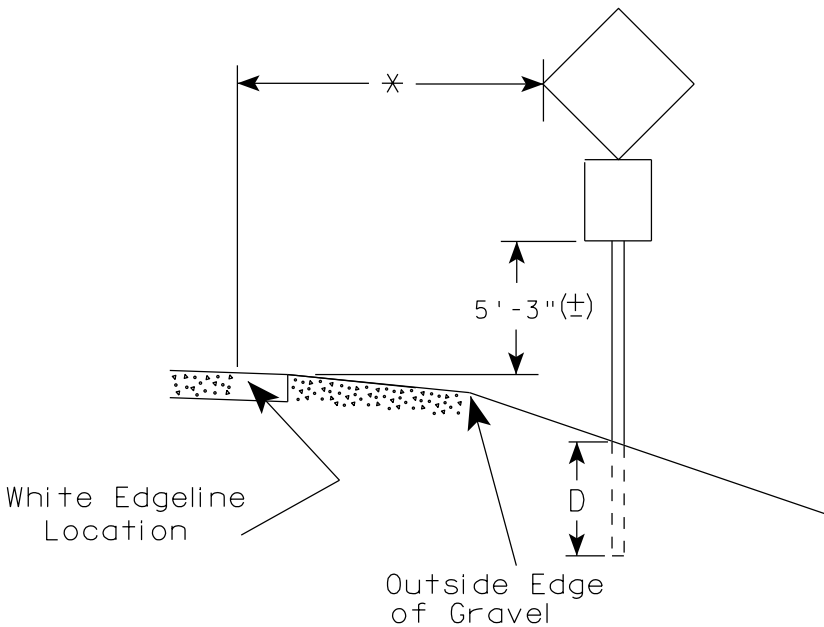
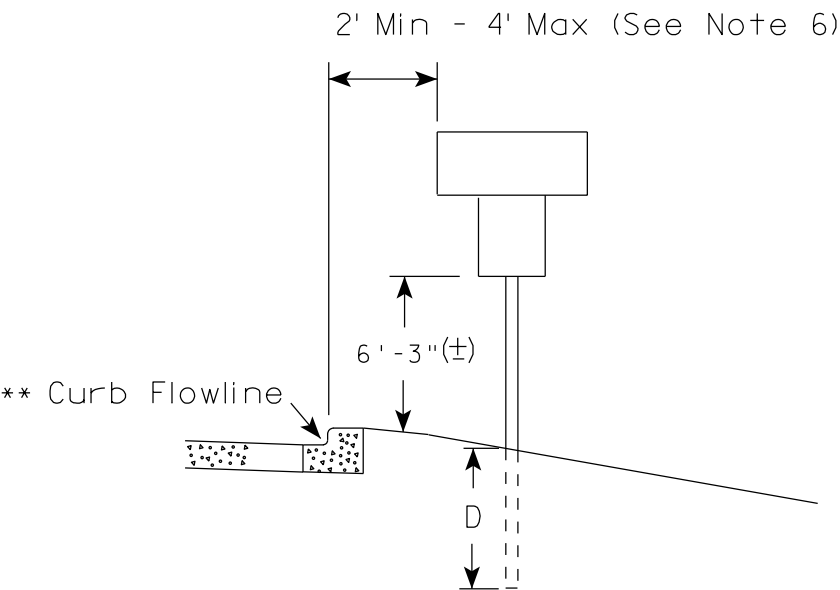
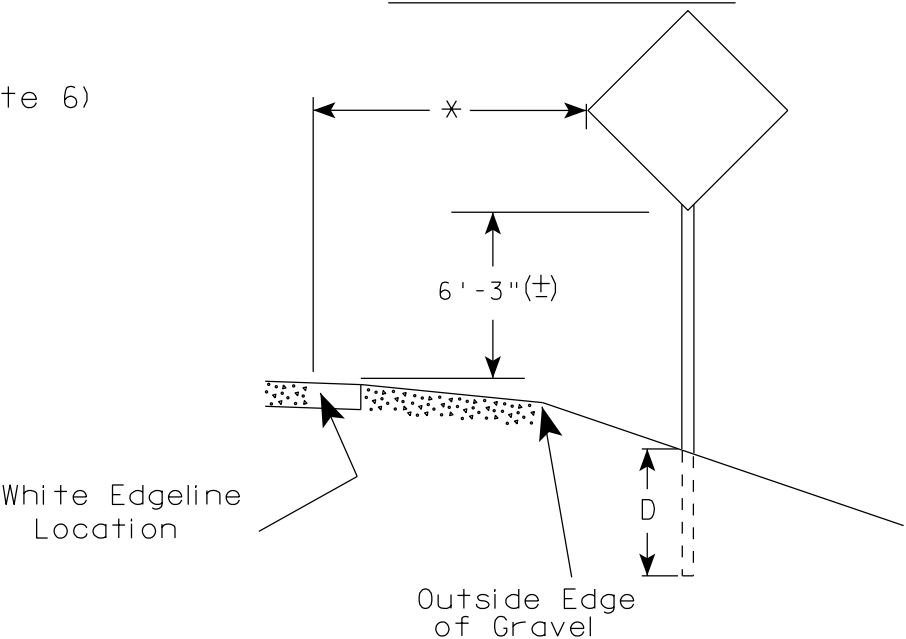
NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

URBAN AREA



RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

×× 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 or 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 (A2-1S) 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 signs 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 7/23/15

PLATE NO. A4-3.20

95

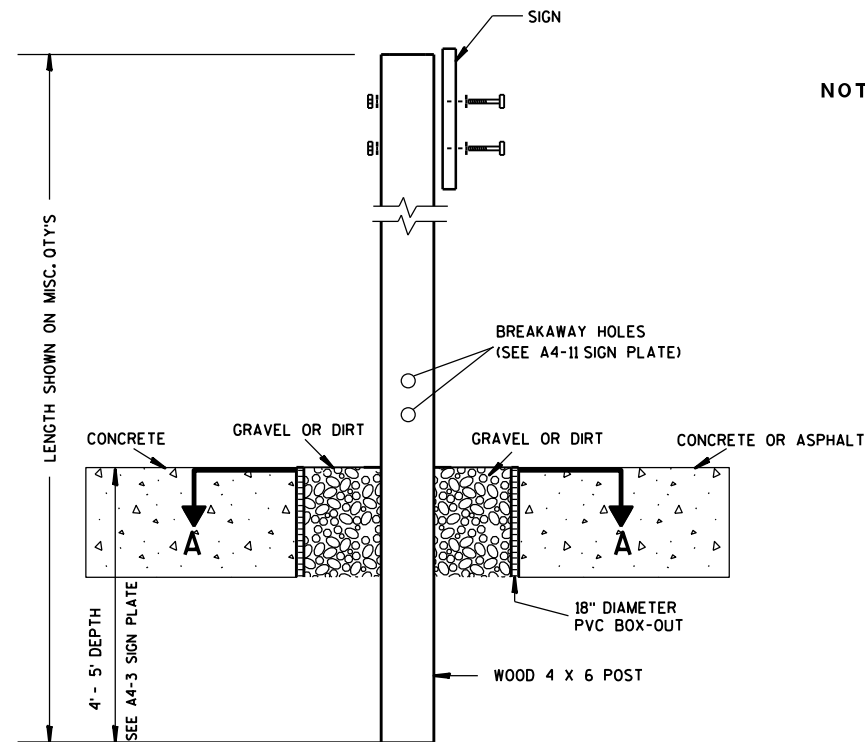
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

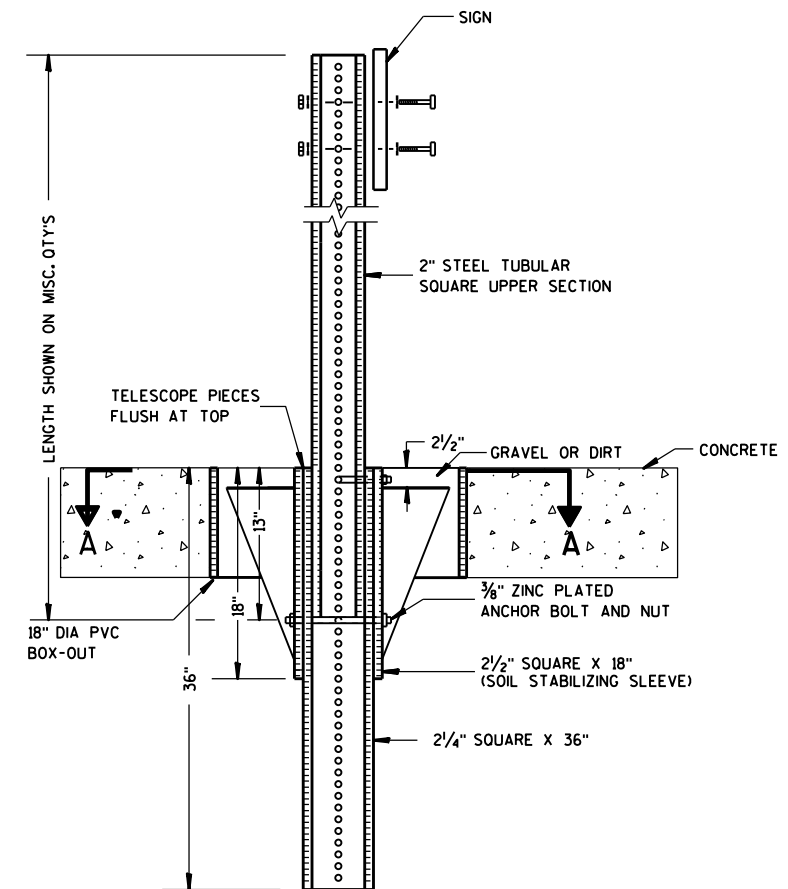
E



ELEVATION VIEW

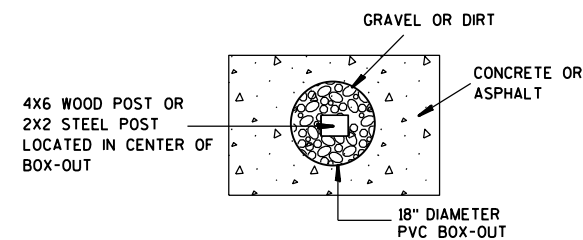
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 96 A4-3B.1

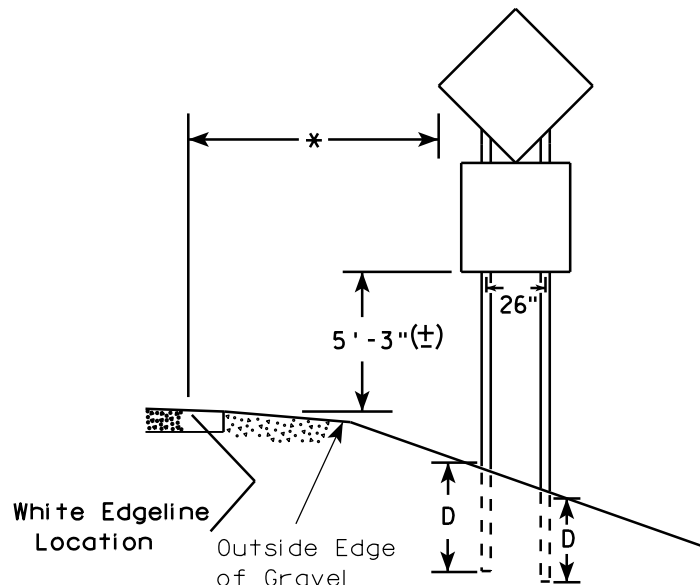
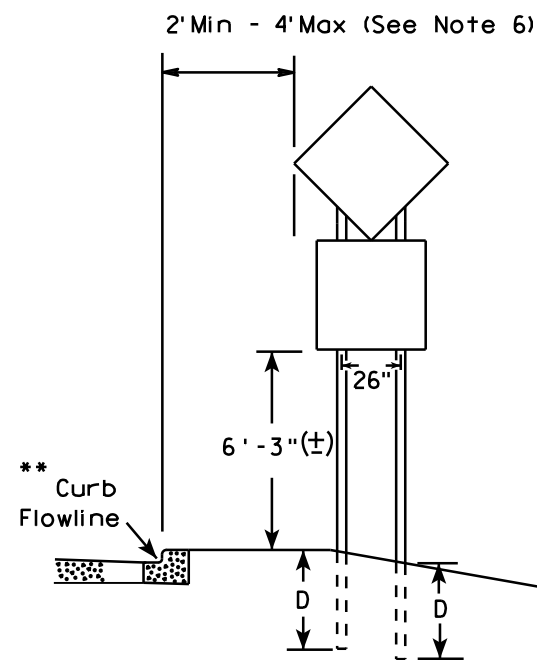
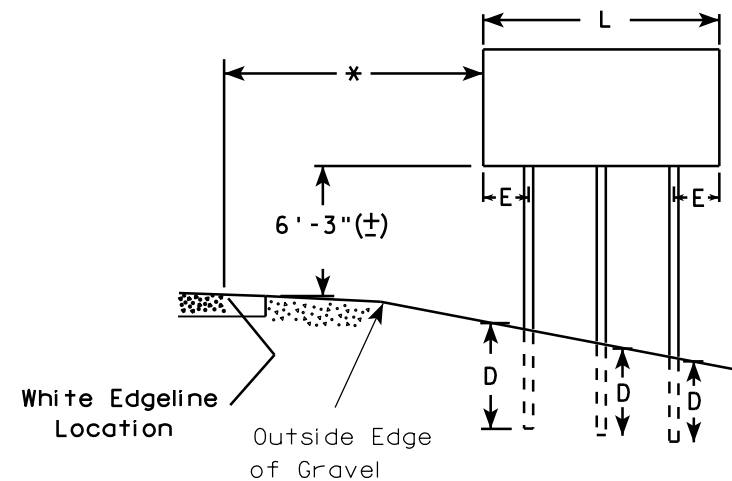
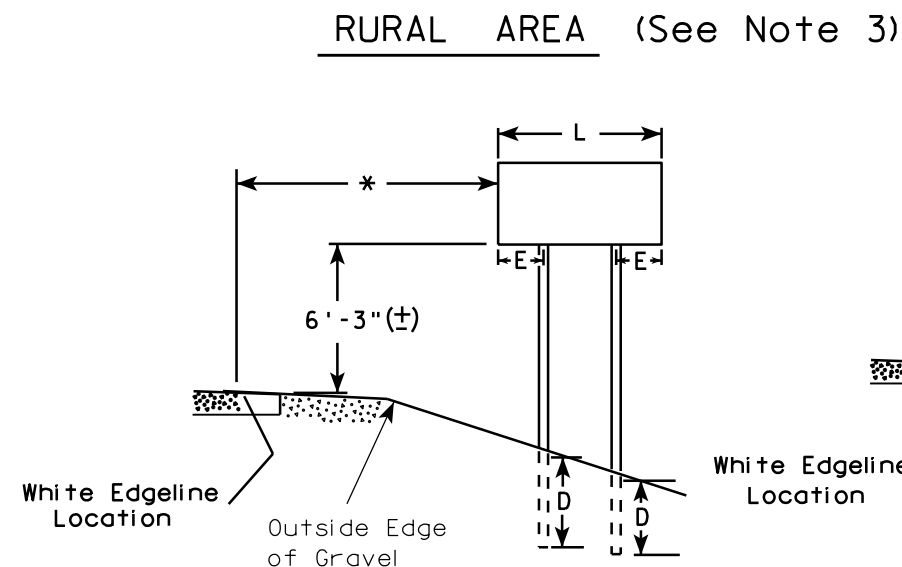
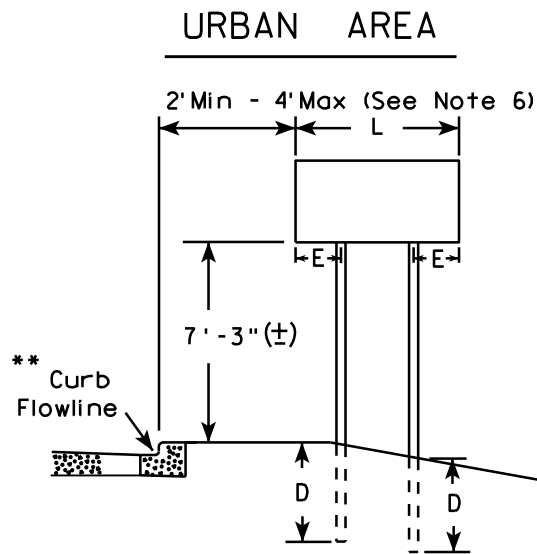
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- 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 (A2-1S) 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 signs 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) 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 and less than 20 S.F. 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

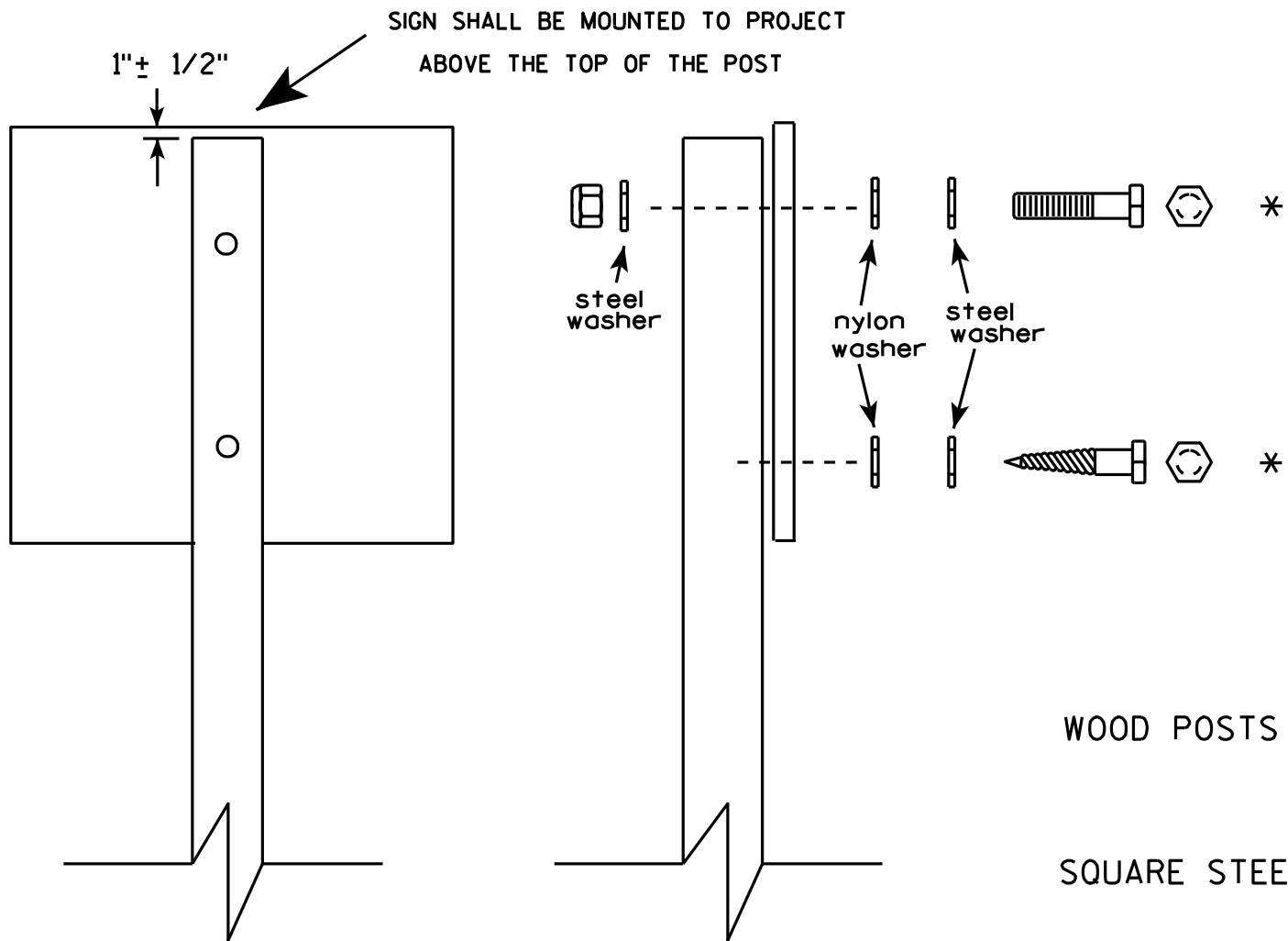
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. 14

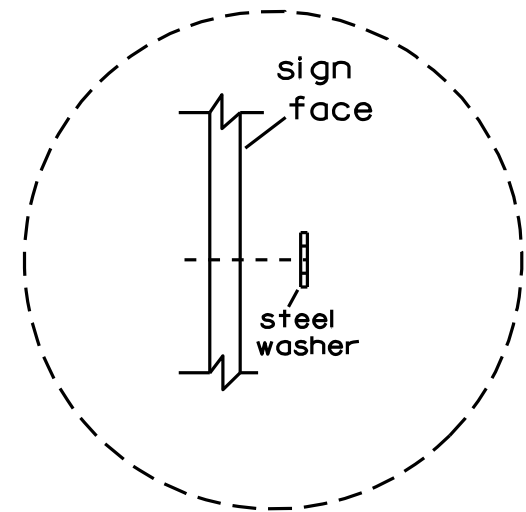


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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.

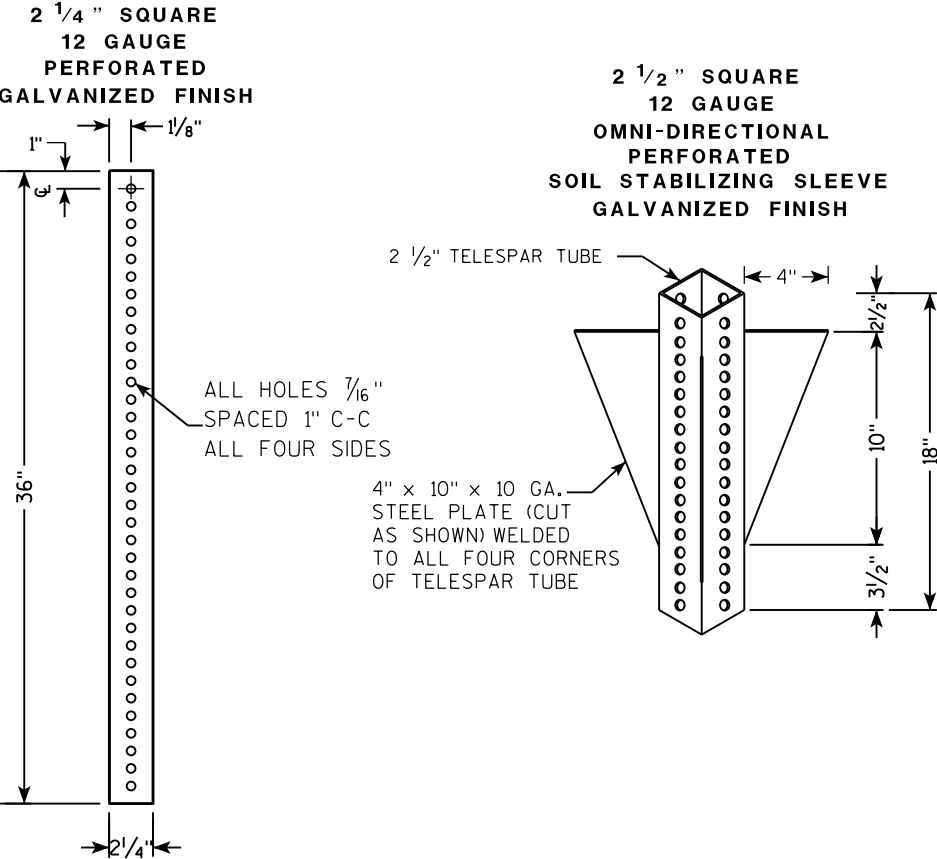


Washer Placement when Sign Has Other Than Type H or Type F Face

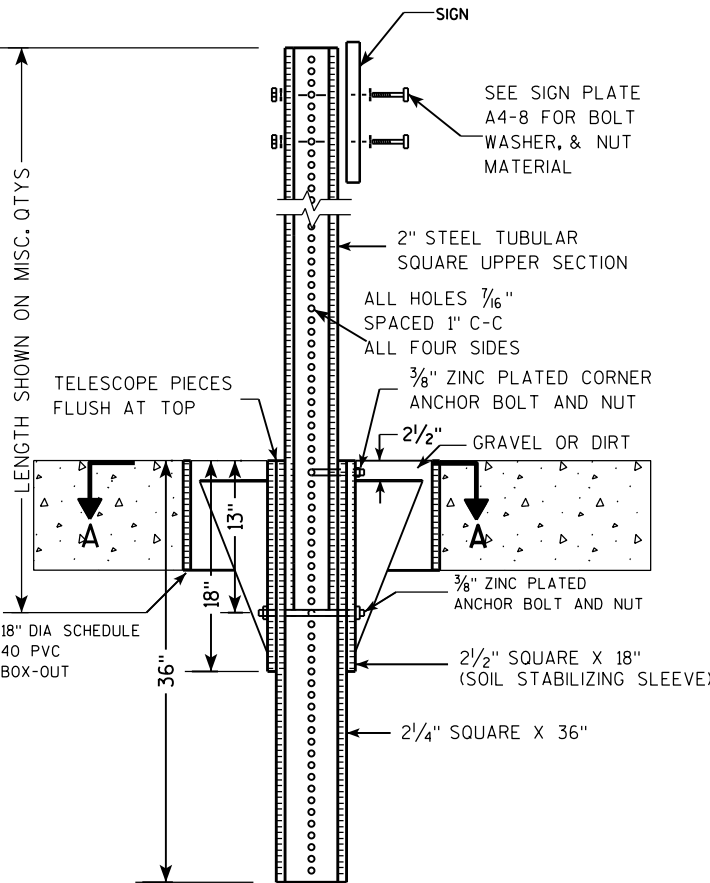
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

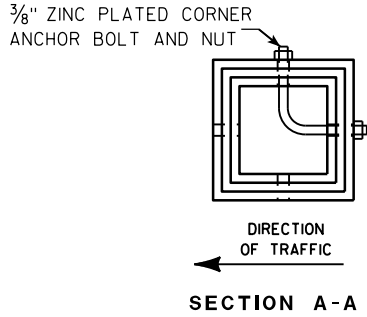
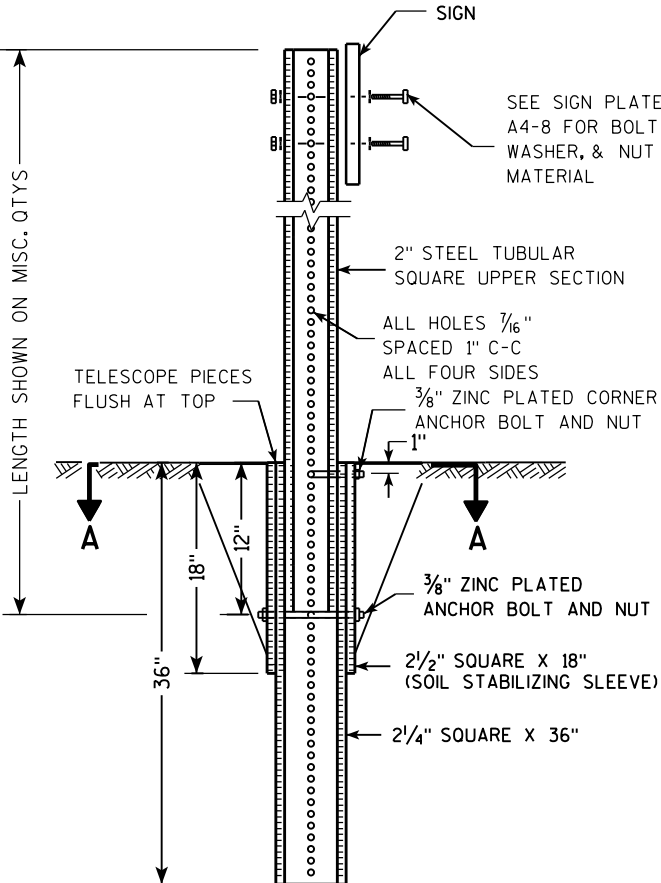
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

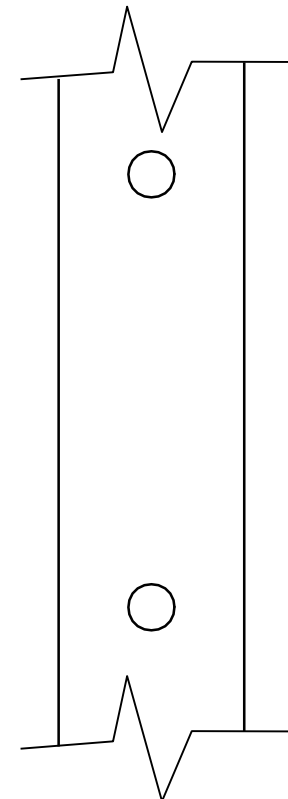
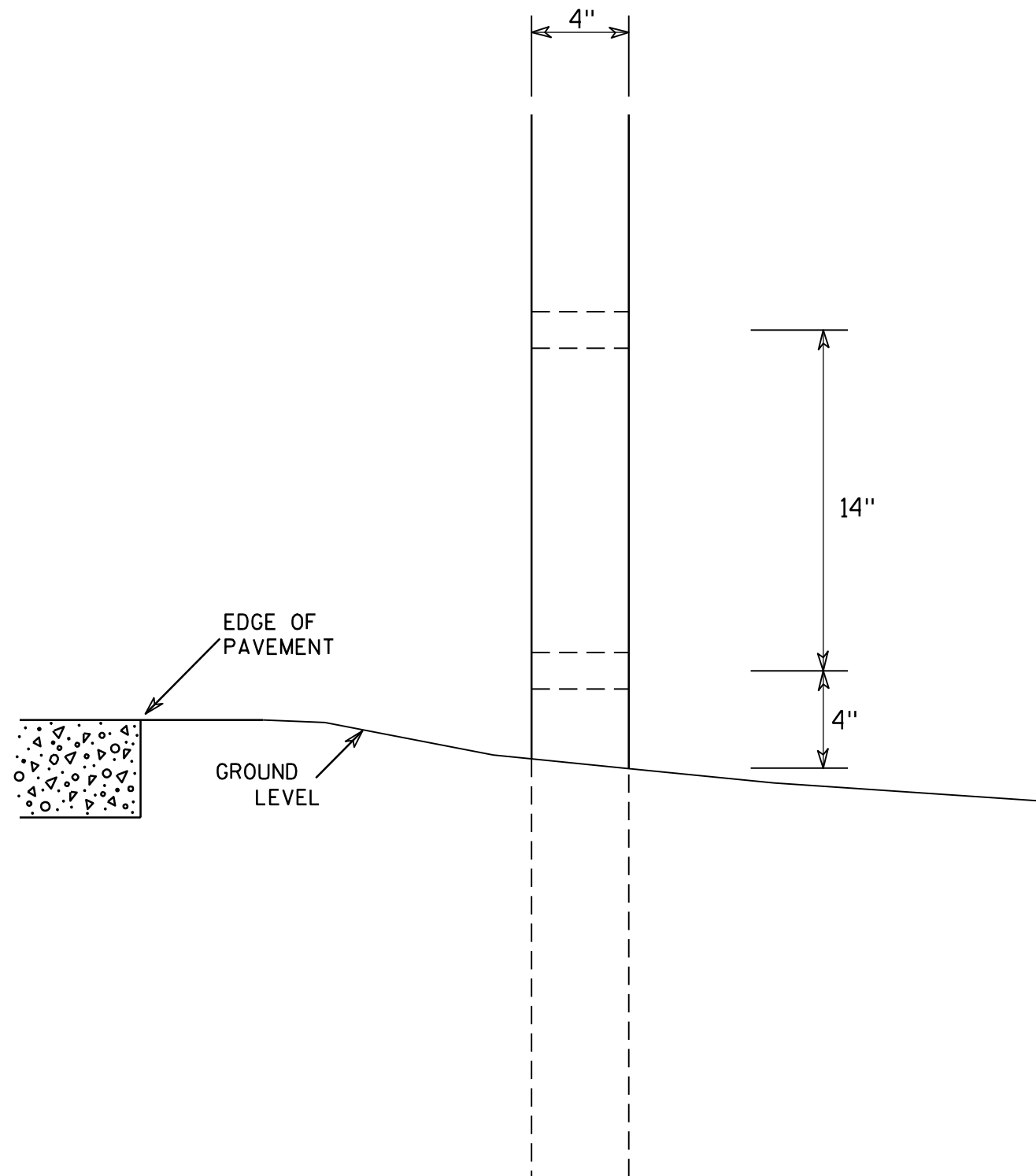
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 99 14-9.9



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

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:

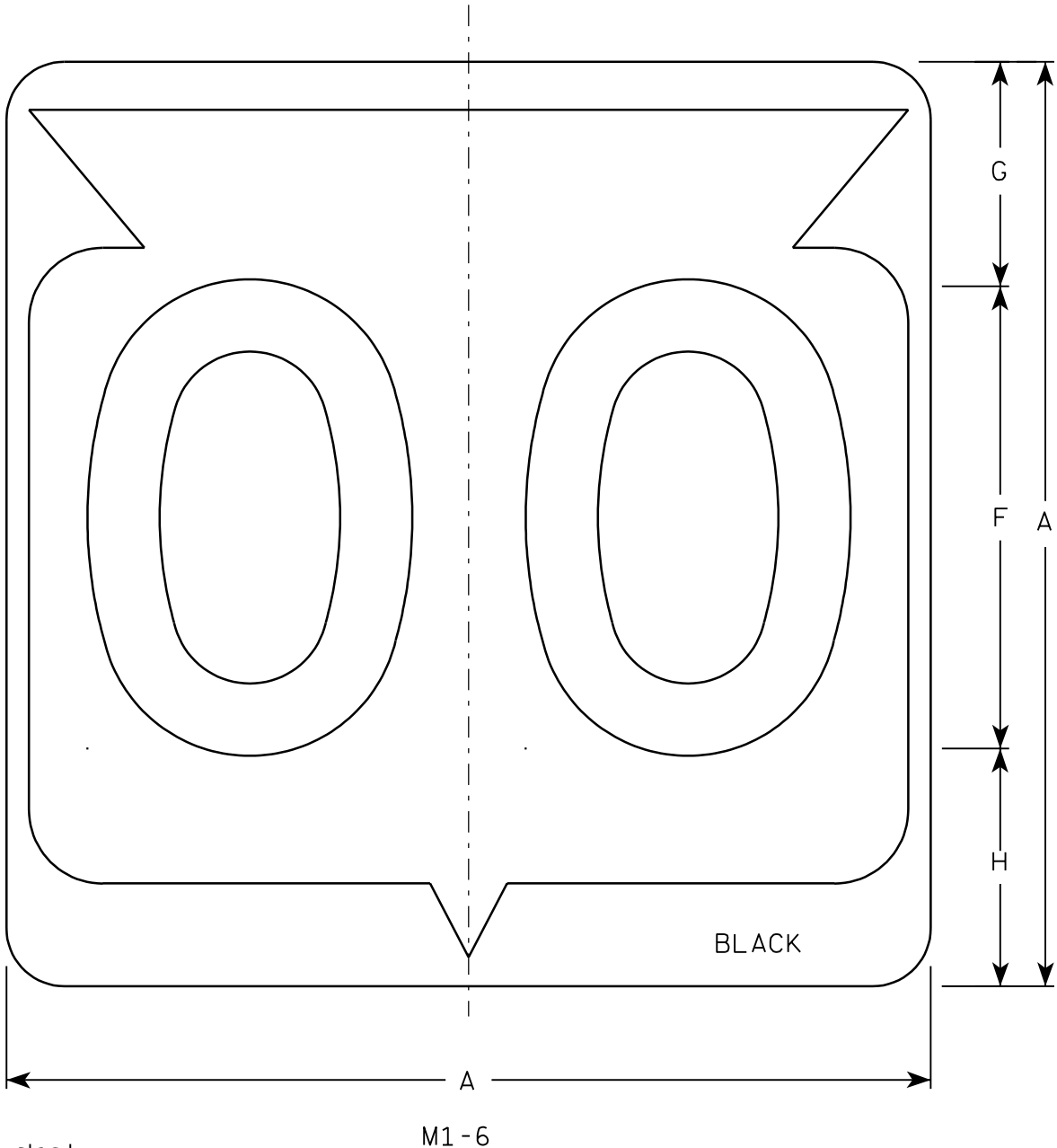
HWY:

COUNTY:

SHEET NO: 100

E

7



Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

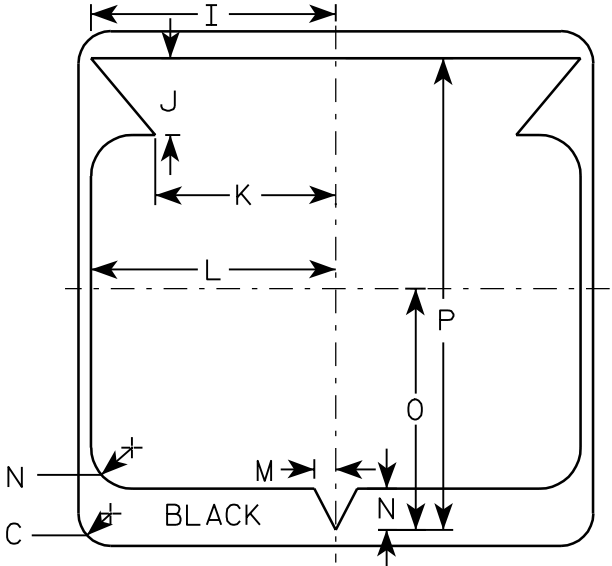
COUNTY:

SHEET NO: 101

E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
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 Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

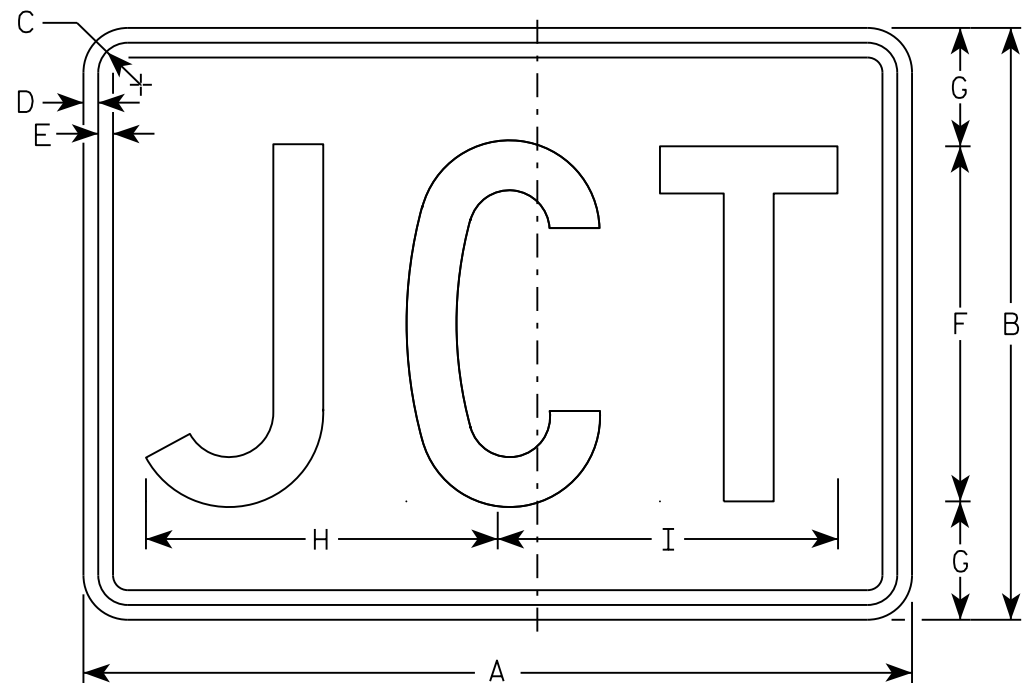
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

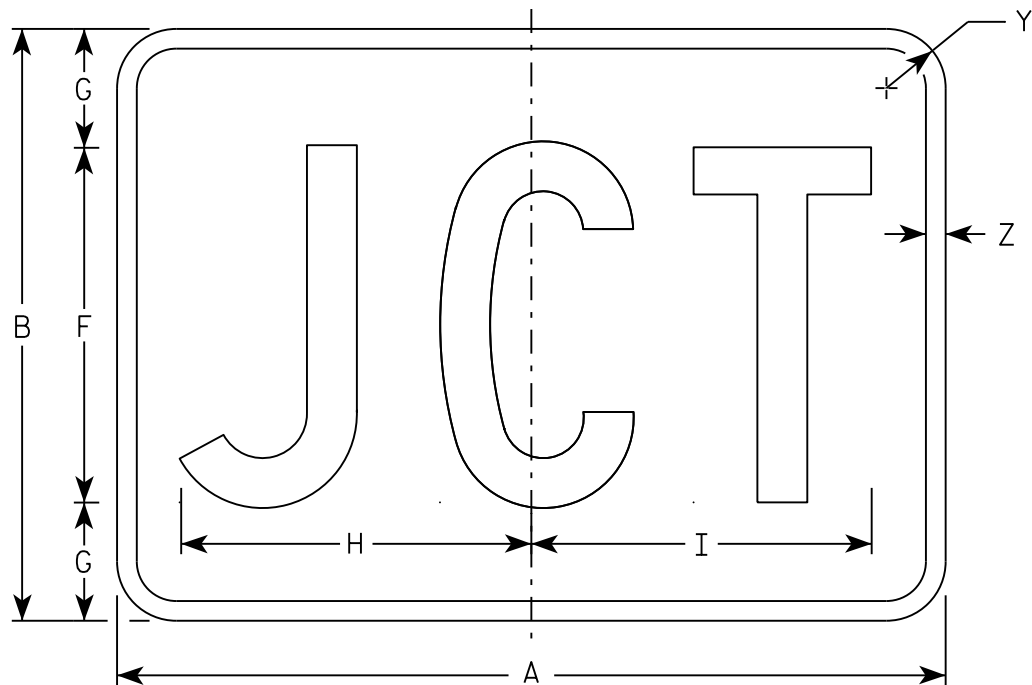
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

PLATE NO. M1-6.9



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 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.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow

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																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

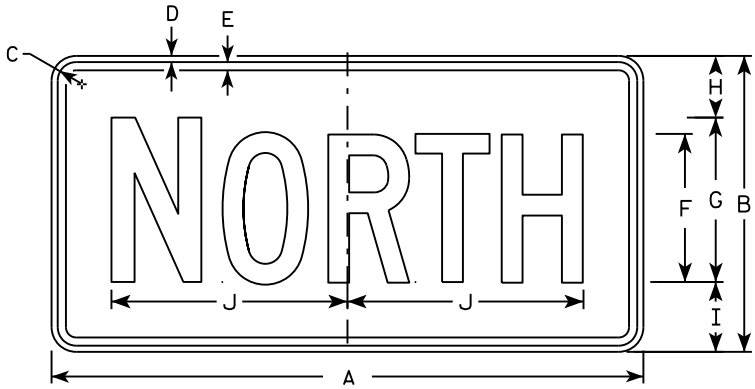
Matthew R. Rauch

For State Traffic Engineer

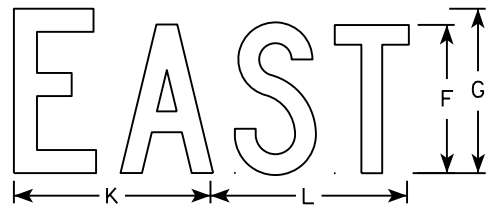
DATE 10/15/15

PLATE 102

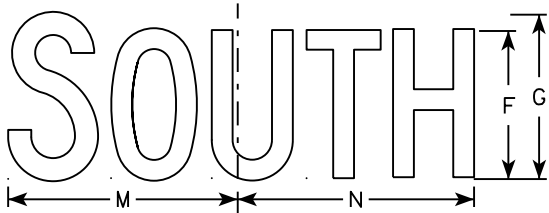
'2-1.12



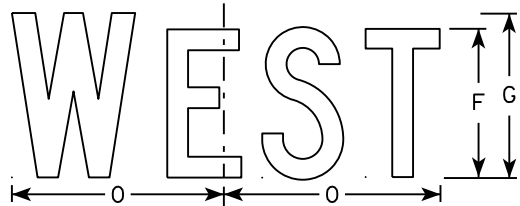
M3-1
MM3-1
MP3-1



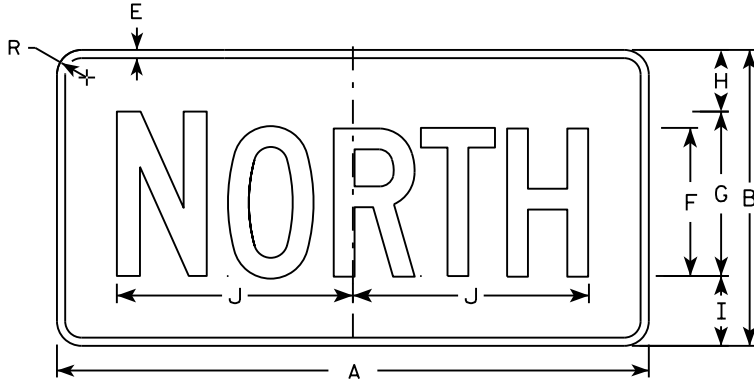
M3-2
MM3-2
MP3-2



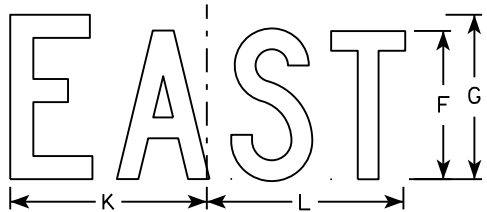
M3-3
MM3-3
MP3-3



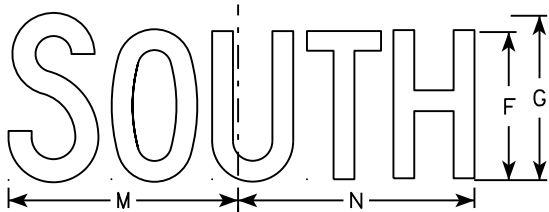
M3-4
MM3-4
MP3-4



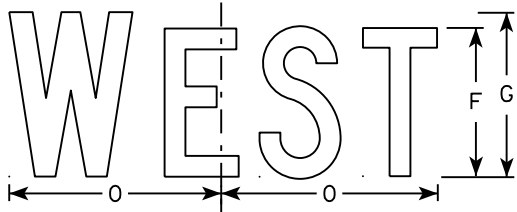
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
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.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

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																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thru M3-4
SERIES

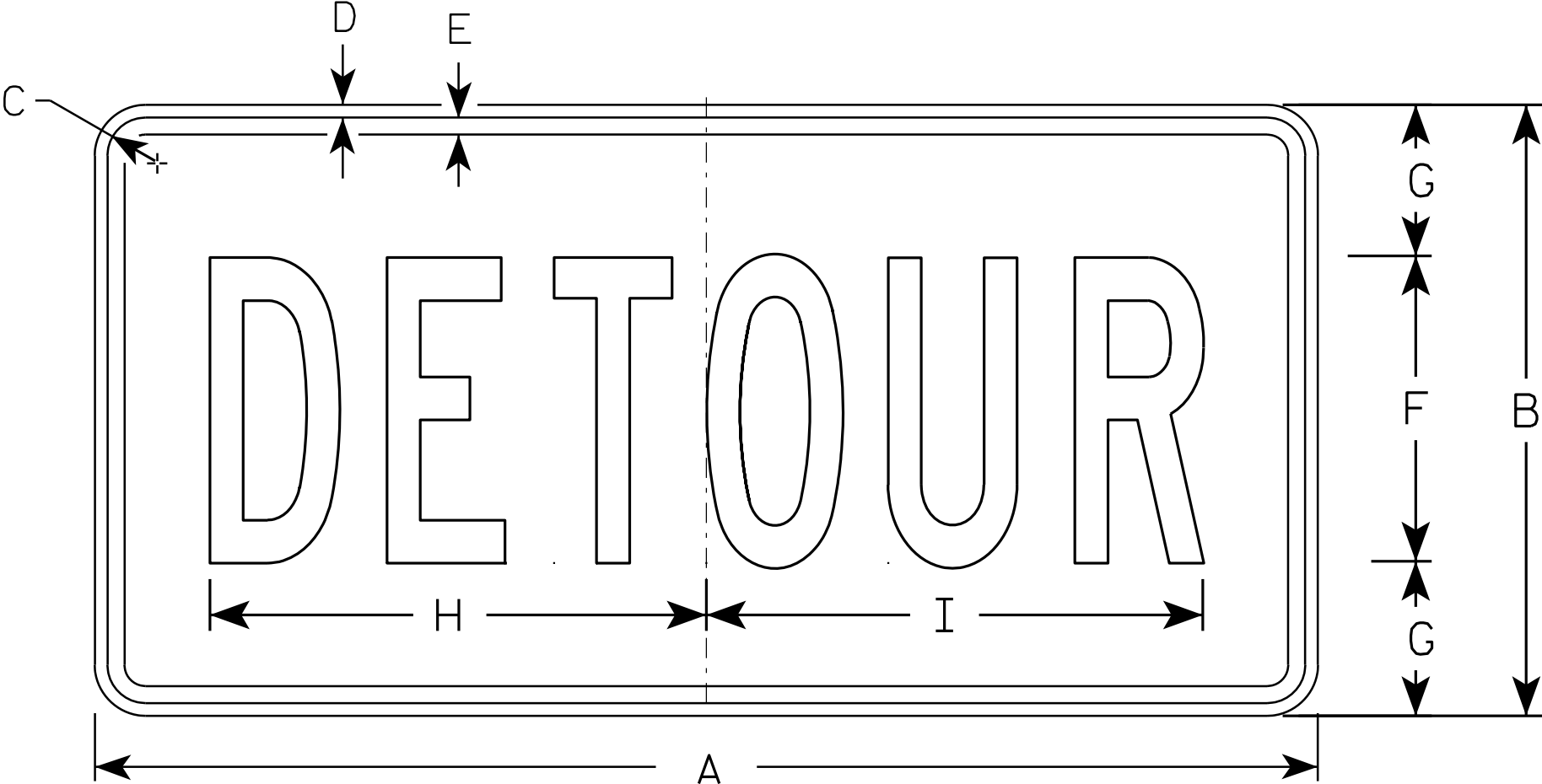
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. 103 M3-1.14

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - B
- 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.



M4 - 8

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																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

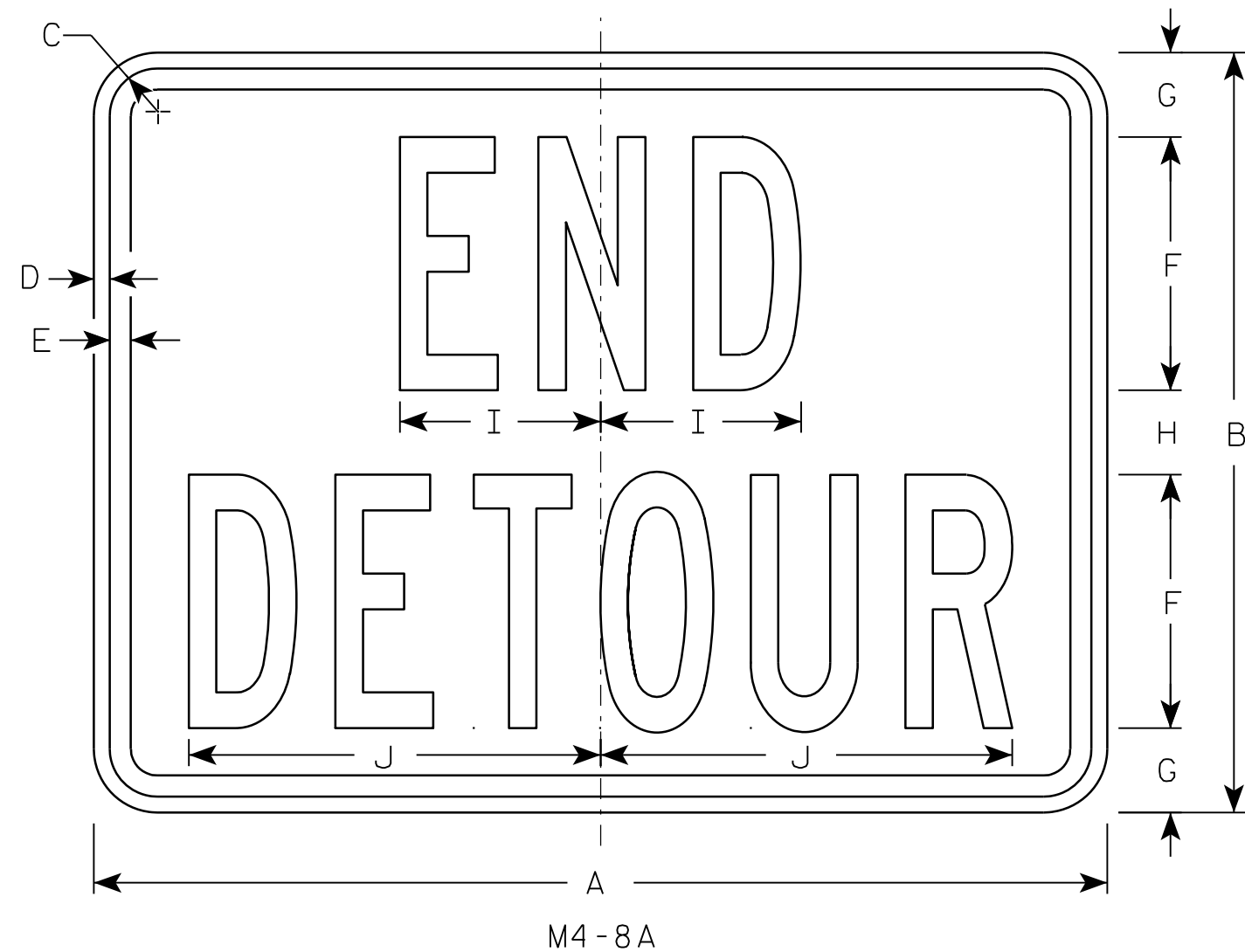
STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

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 - Orange
Message - Black
3. Message Series - B
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.

7

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																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

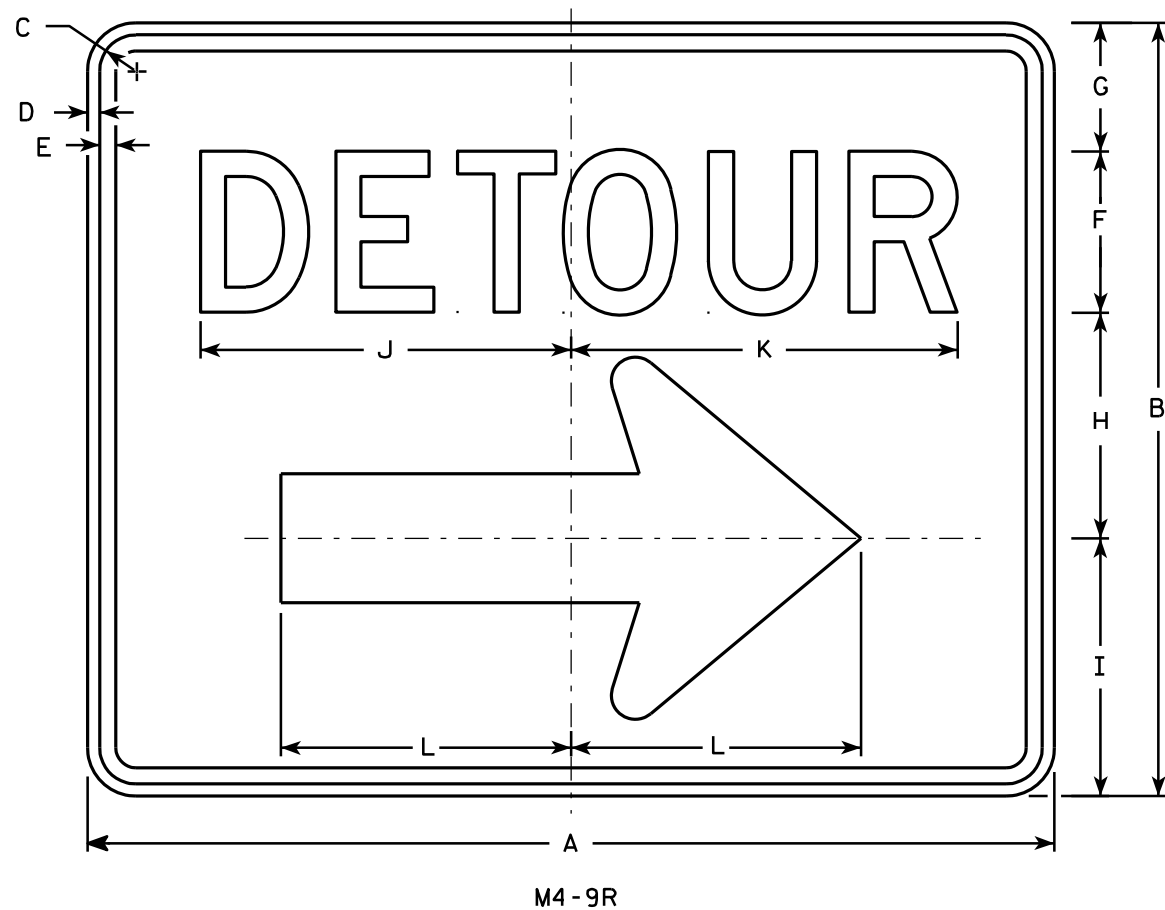
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 105	E
-------------	------	---------	---------------	---

STANDARD SIGN
M4-8A

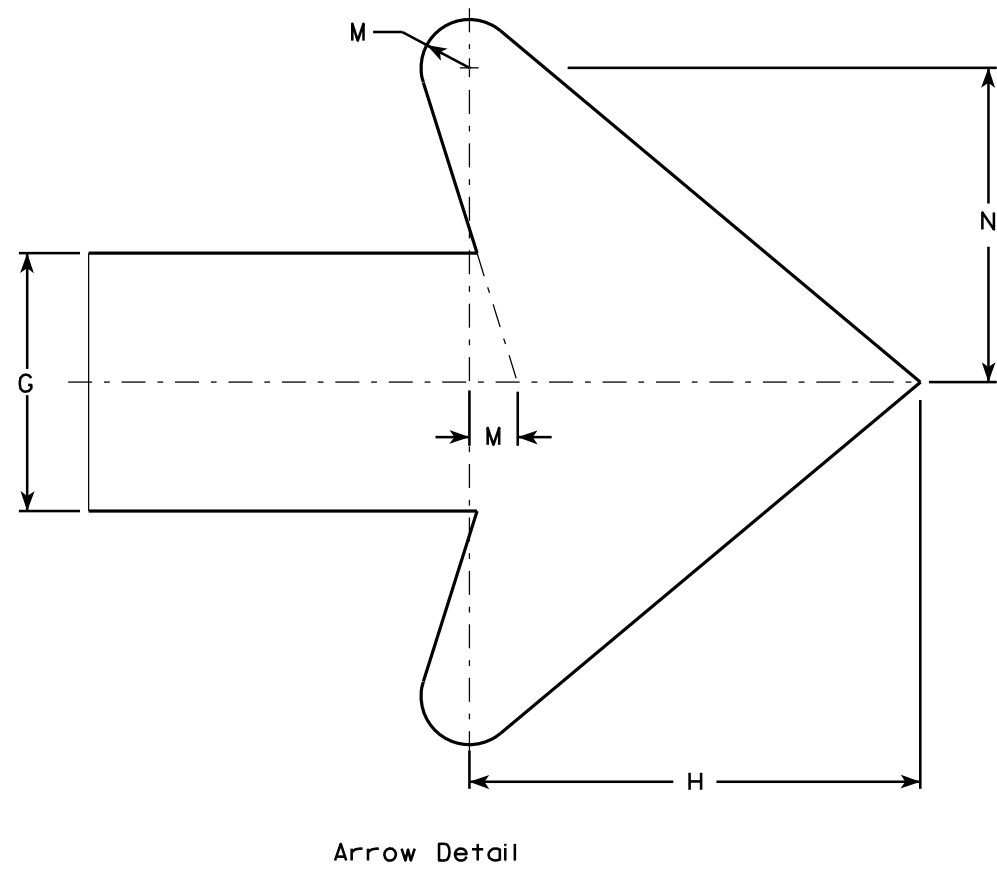
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
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.
 5. M4-9L is the same as M4-9R except the arrow is reversed.



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																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

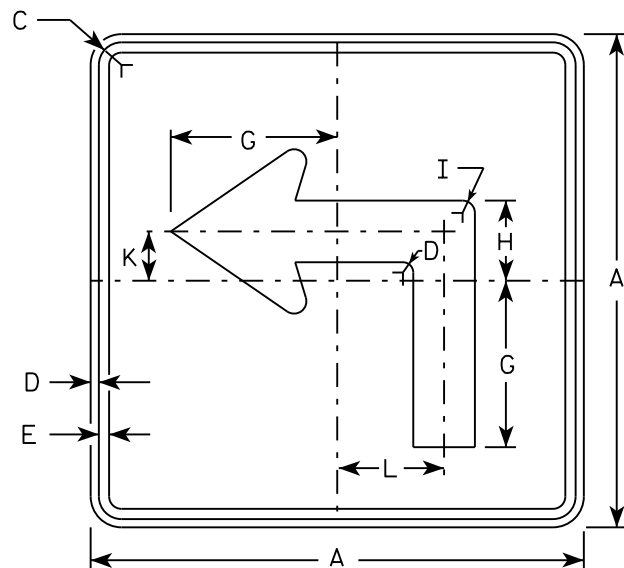
PROJECT NO:

HWY:

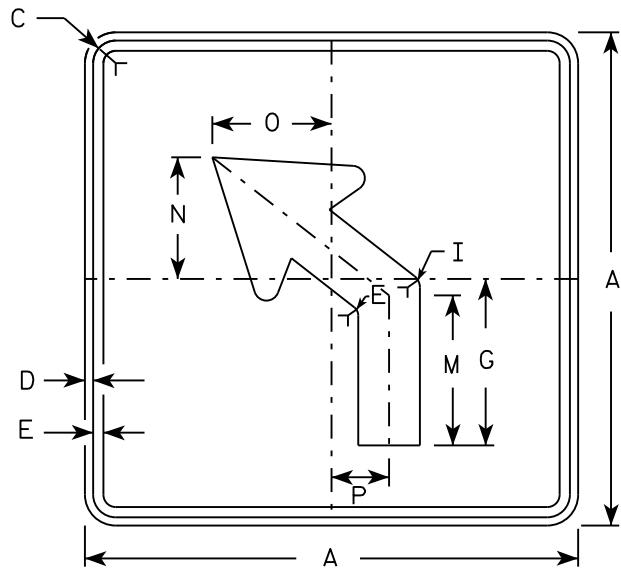
COUNTY:

SHEET NO: 106

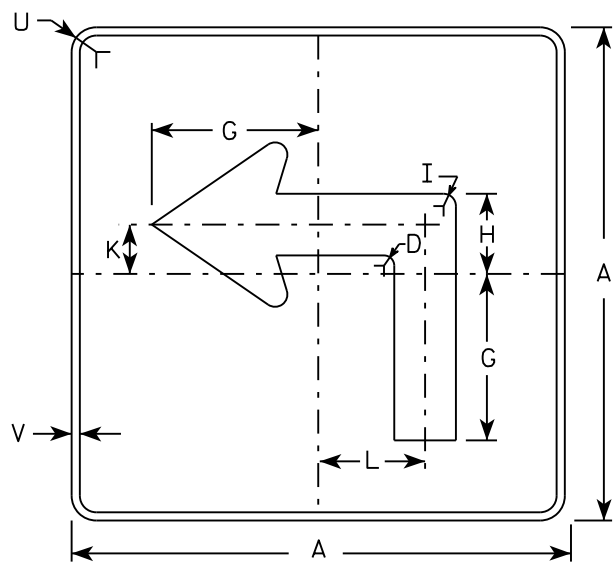
E



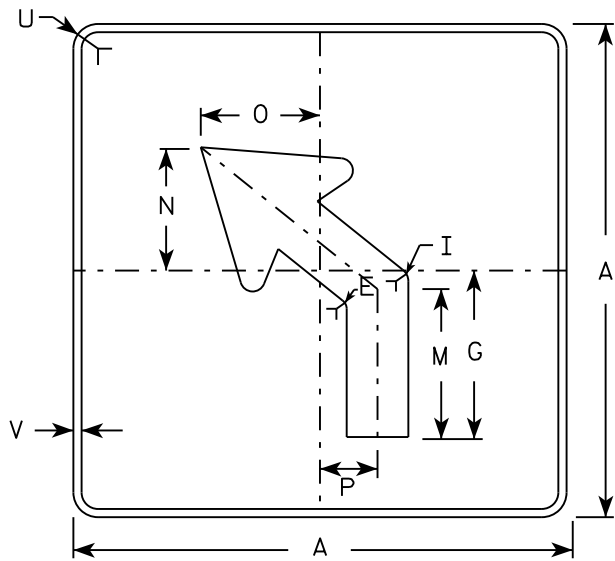
M5-1L
MM5-1L
M05-1L
MP5-1L



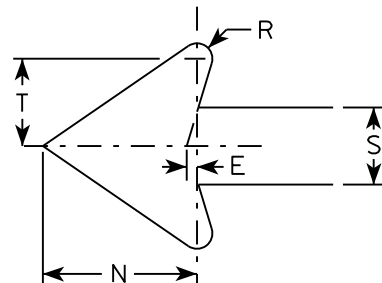
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 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.
- M5-1 and M5-2 Background - White
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White
MK5-1 and MK5-2 Background - Green
Message - White
MM5-1 and MM5-2 Background - White
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White
M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black
MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue
MR5-1 and MR5-2 Background - Brown
Message - Yellow
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

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																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

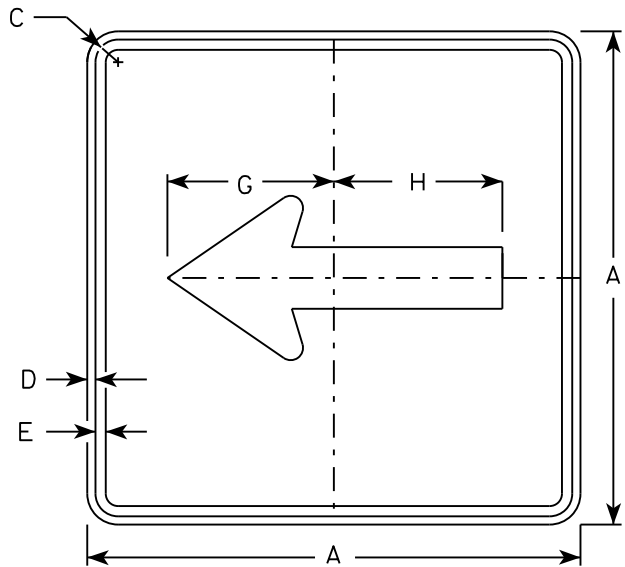
E

STANDARD SIGN
M5-1 & M5-2

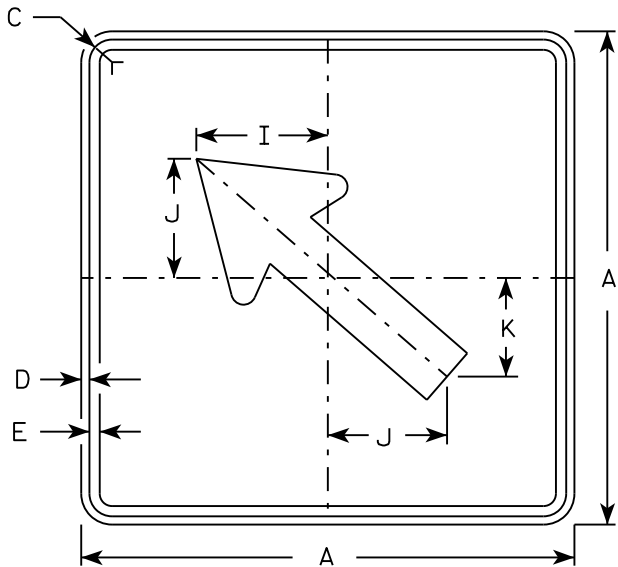
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

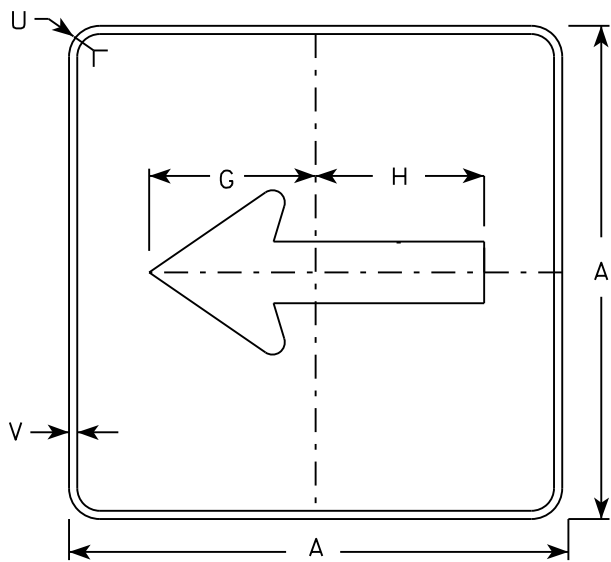
DATE 10/15/15 PLATE 107 M5-1.13



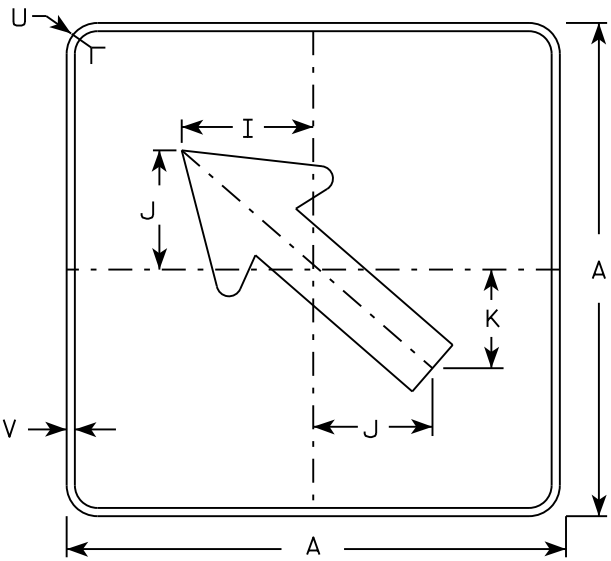
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



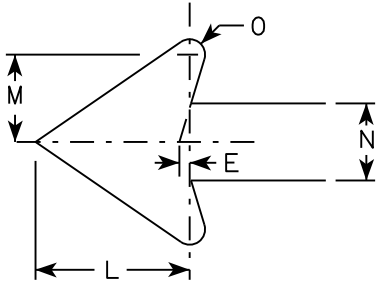
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
 - Background - See note 4
 - Message - See note 4
- 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. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

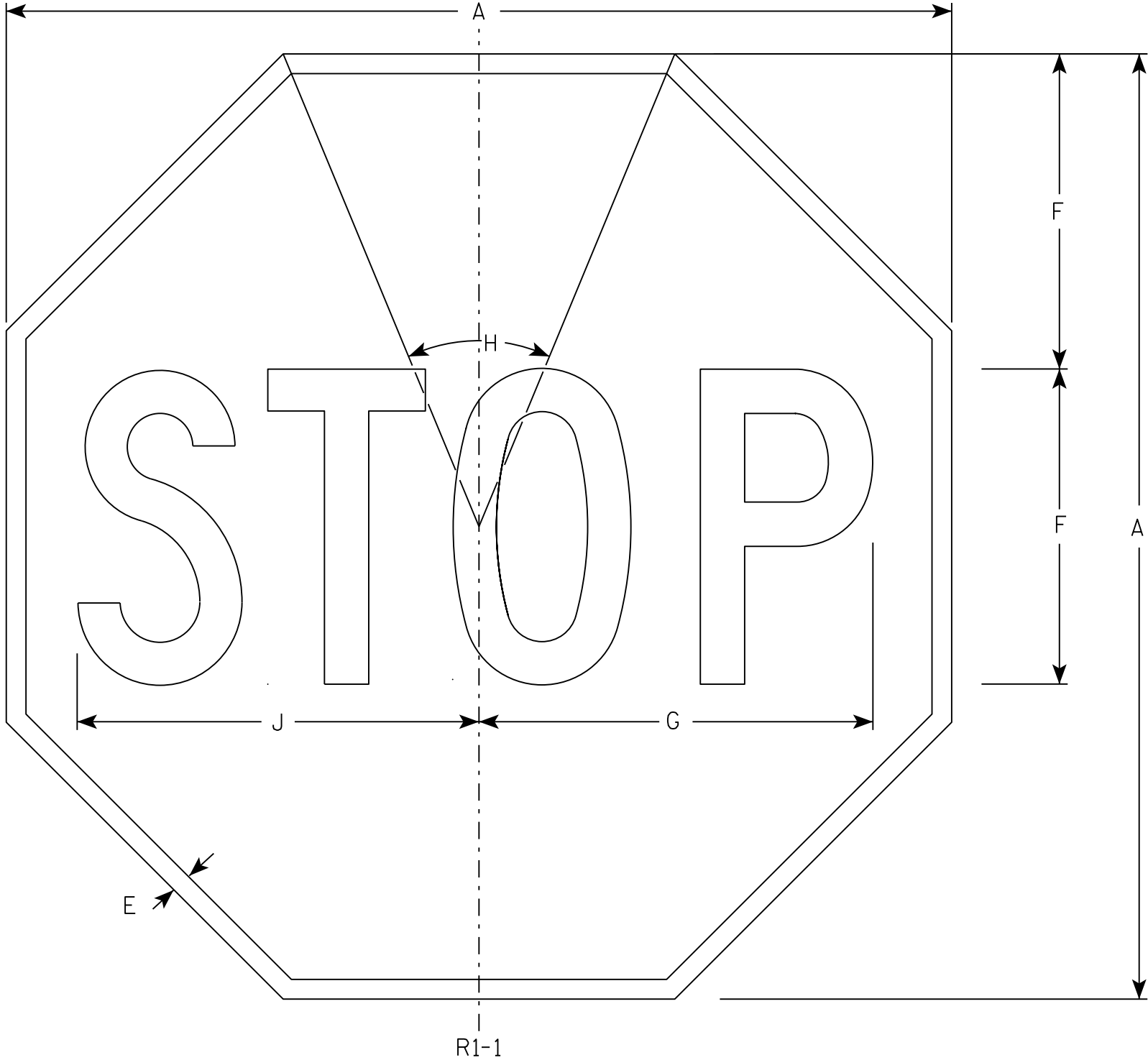
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLAT 108 M6-1.15



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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
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

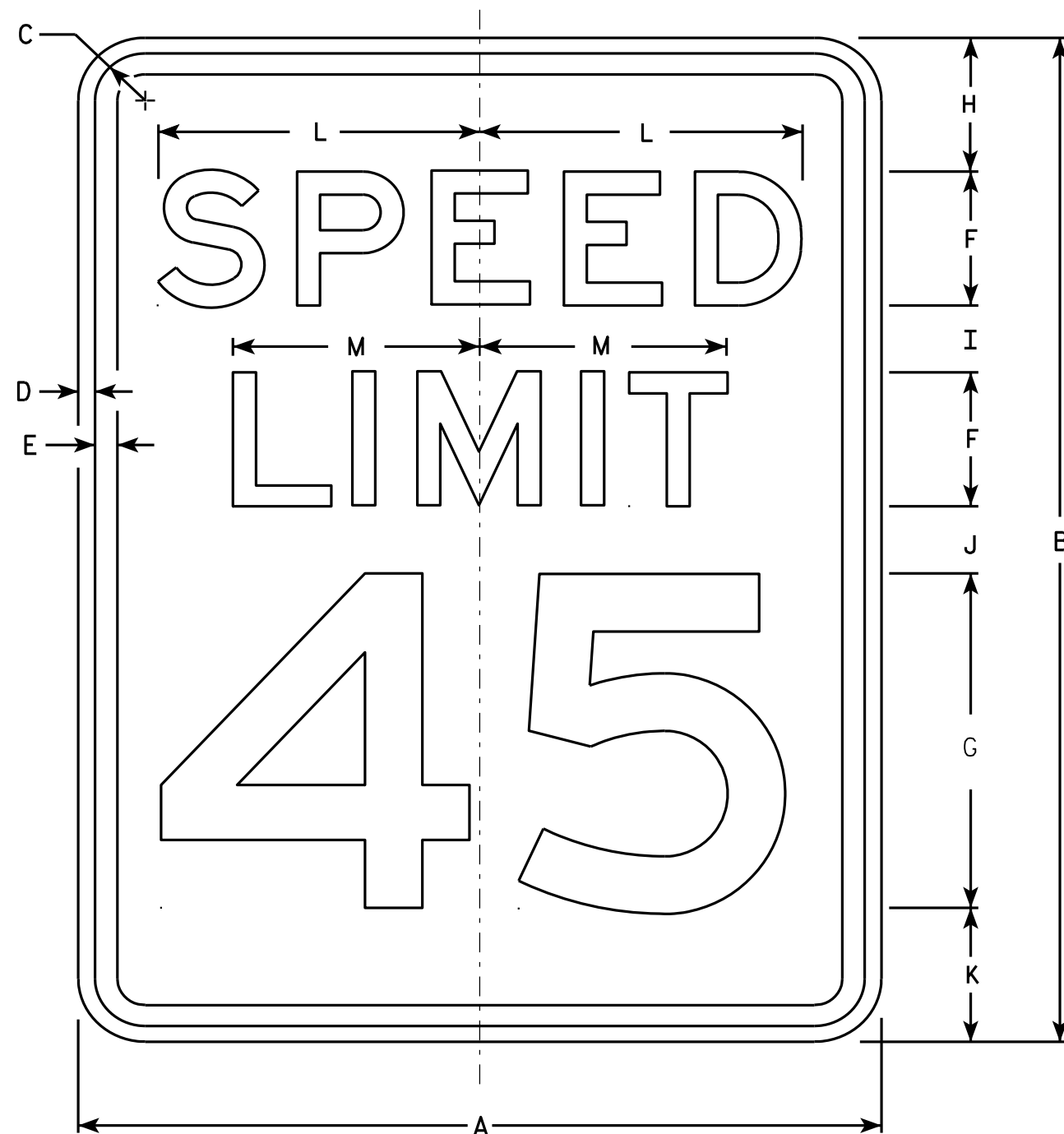
STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE 109 R1-1.13



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

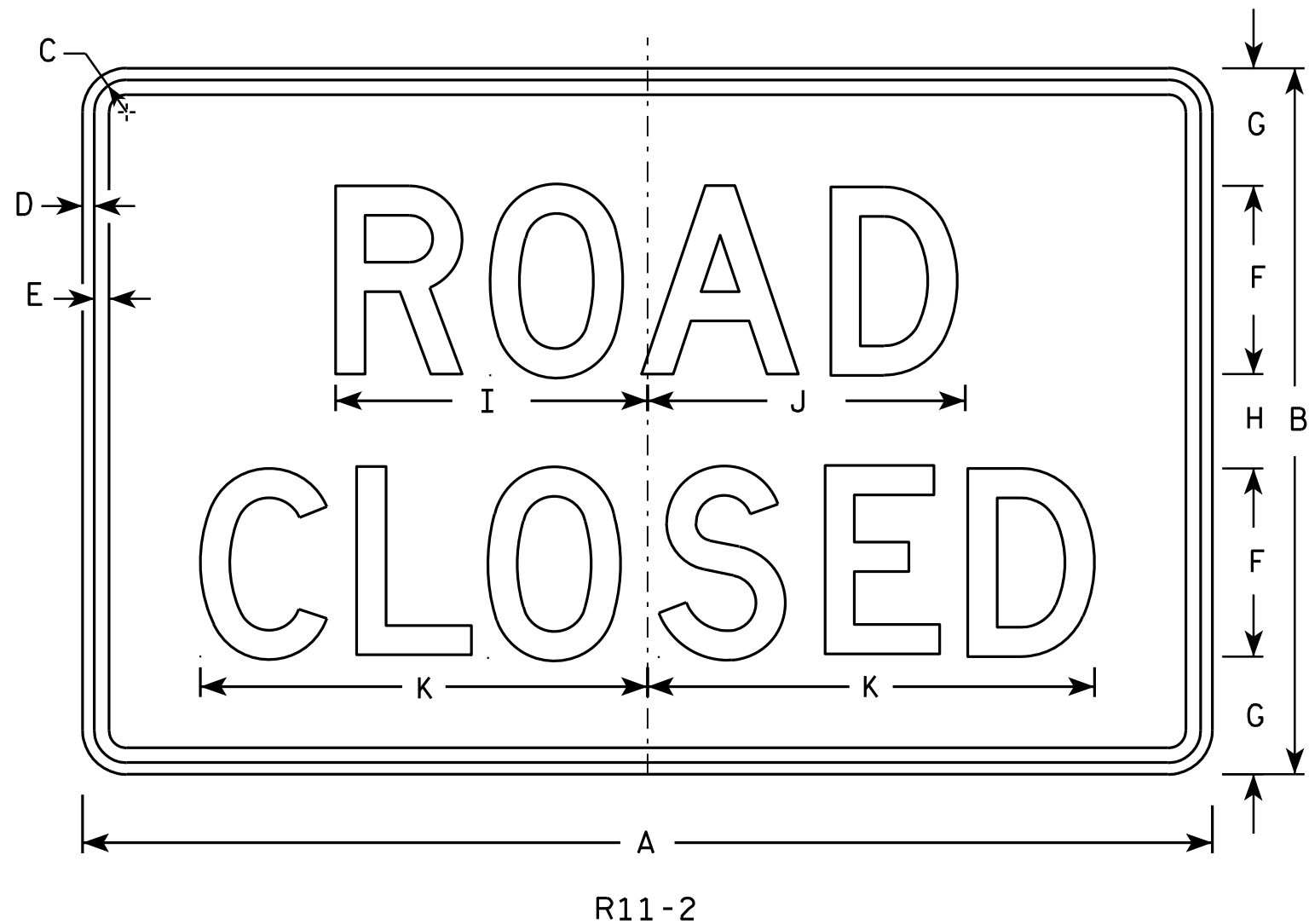
STANDARD SIGN R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

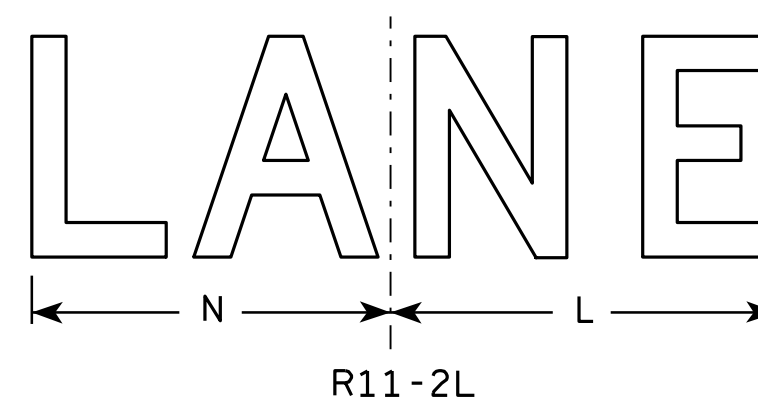
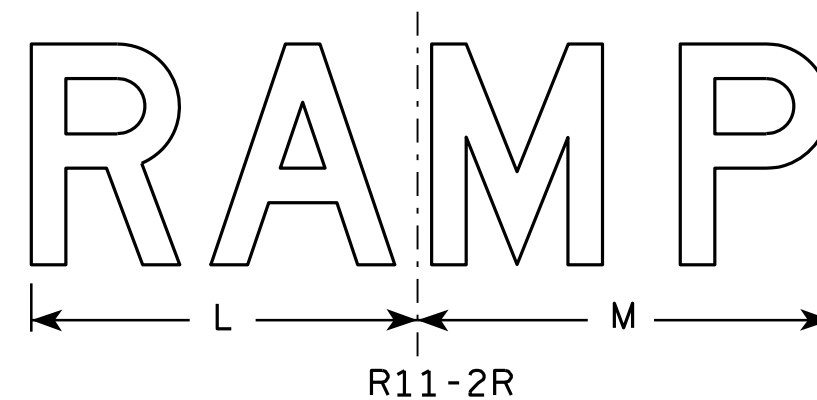
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 110 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 - White
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.
5. Modify the message as required.

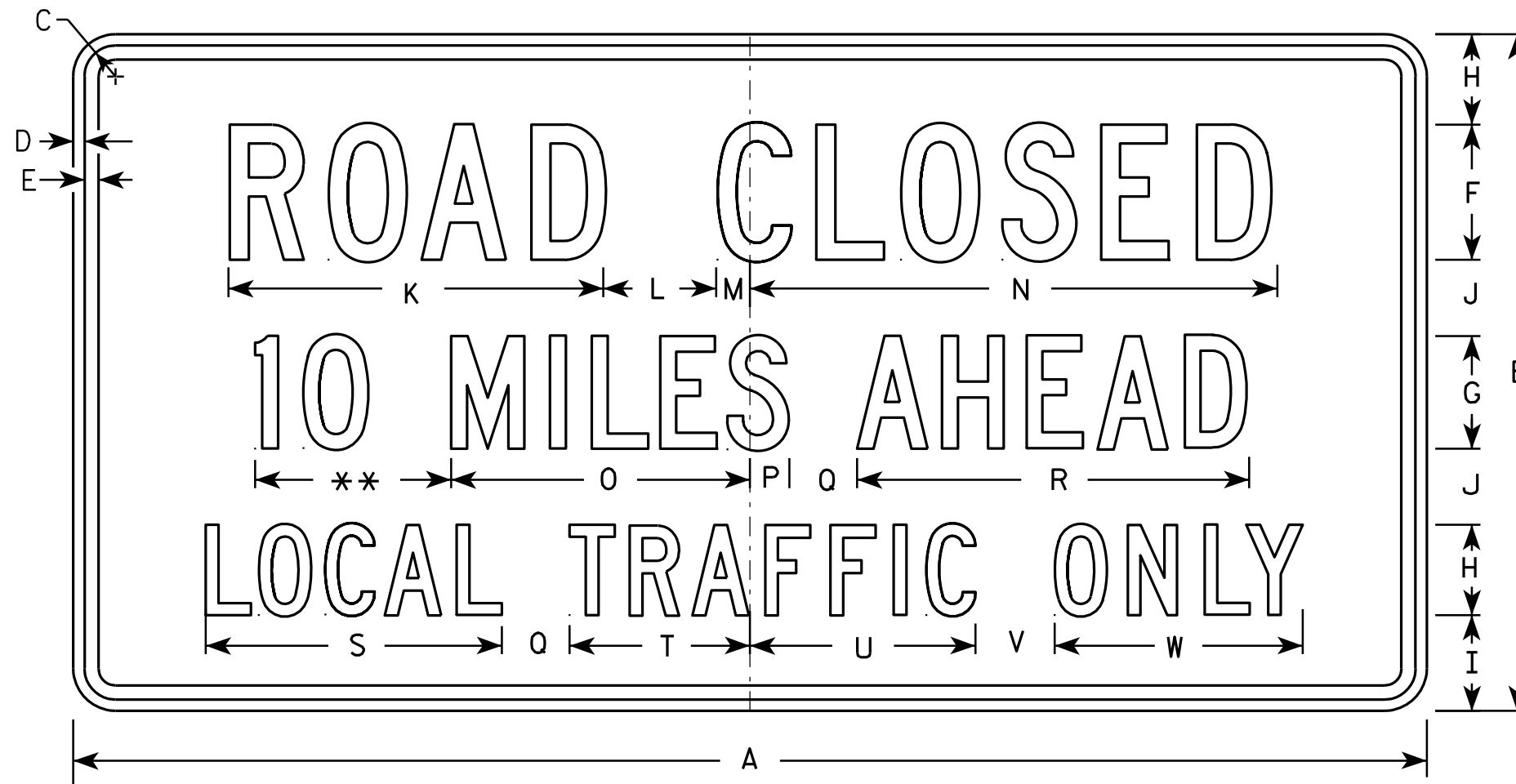


SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
2M	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
3	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
4	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0
5	48	30	1 3⁄8	1⁄2	5⁄8	8	5	4	13 1⁄4	13 1⁄2	19	14	15	13													10.0

STANDARD SIGN R11-2

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 111 **E**



R11-3

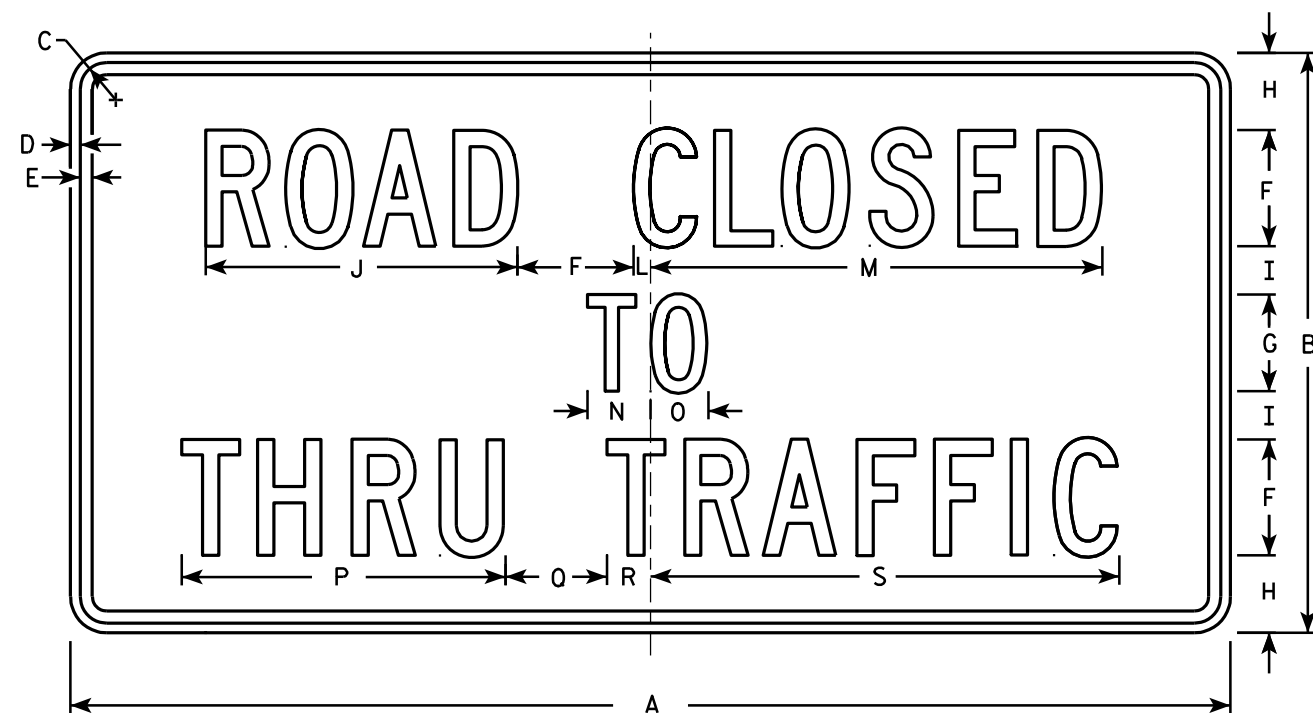
NOTES

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 - 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.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

** See Note 5

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 ³ / ₈	¹ / ₂	⁵ / ₈	4	3	2 ¹ / ₂	2	2	11 ¹ / ₈	3	1 ¹ / ₈	15 ¹ / ₄	8	1 ¹ / ₂	2	10 ³ / ₄	8 ³ / ₈	4 ³ / ₄	6 ¹ / ₂	2	6 ³ / ₄				4.5
2S	60	30	1 ³ / ₈	¹ / ₂	⁵ / ₈	6	5	4	4 ¹ / ₄	3 ³ / ₈	16 ⁵ / ₈	5	1 ¹ / ₂	23	13 ¹ / ₄	1 ³ / ₄	3	17 ³ / ₈	13 ¹ / ₈	8	10	3 ¹ / ₂	11				12.5
2M	60	30	1 ³ / ₈	¹ / ₂	⁵ / ₈	6	5	4	4 ¹ / ₄	3 ³ / ₈	16 ⁵ / ₈	5	1 ¹ / ₂	23	13 ¹ / ₄	1 ³ / ₄	3	17 ³ / ₈	13 ¹ / ₈	8	10	3 ¹ / ₂	11				12.5
3																											
4																											
5																											

STANDARD SIGN R11-3	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/11	PLATE NO. R11-3.6



R11-4

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 - 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																											
2S	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
2M	60	30	1 3⁄8	½	5⁄8	6	5	4	2 ½	16 ⅛		7⁄8	23 3⁄8	3 ¼	3	16 ¾	5 ¼	2 ¼	24 ¼								12.5
3																											
4																											
5																											

STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

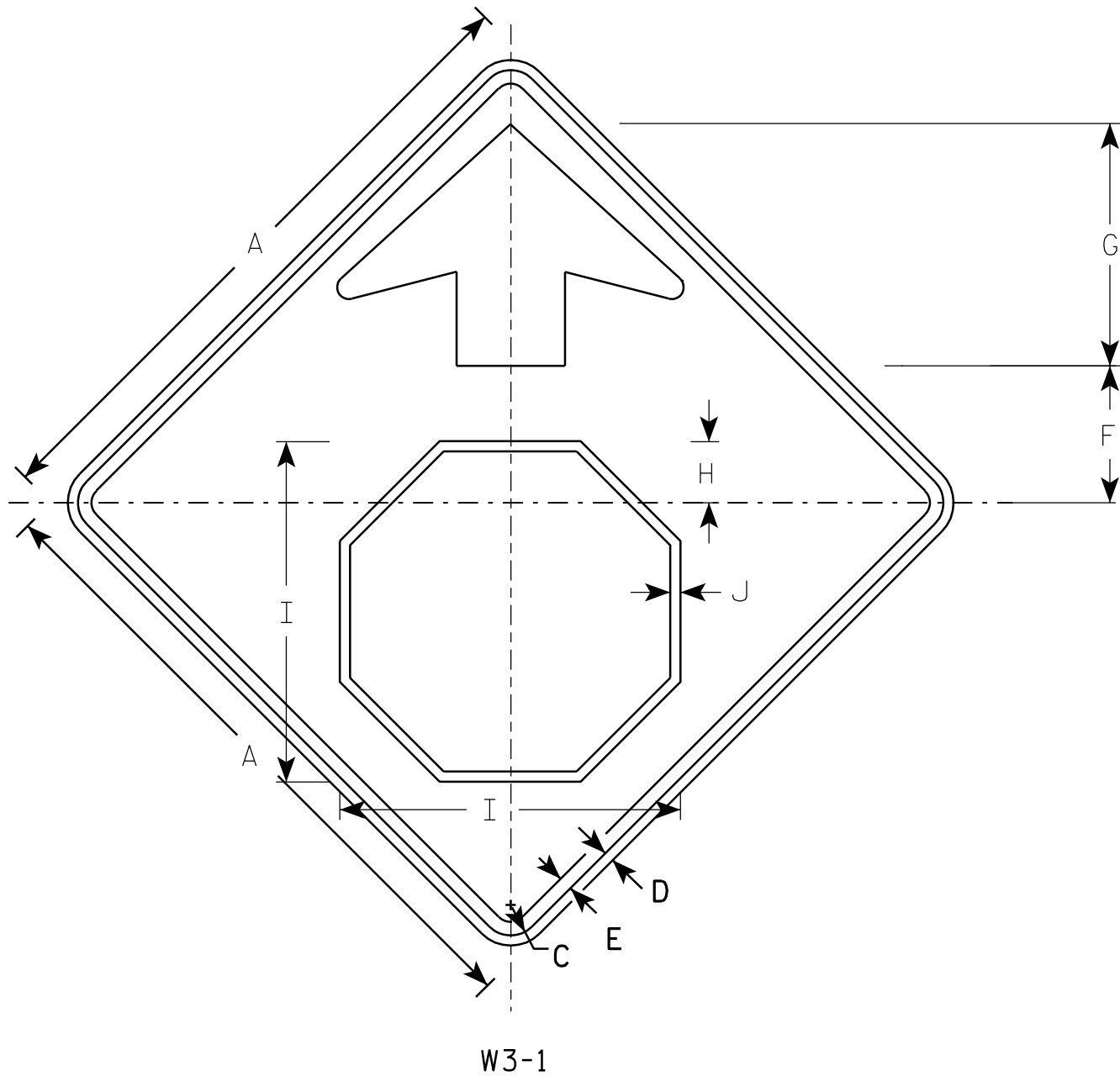
PROJECT NO:

HWY:

COUNTY:

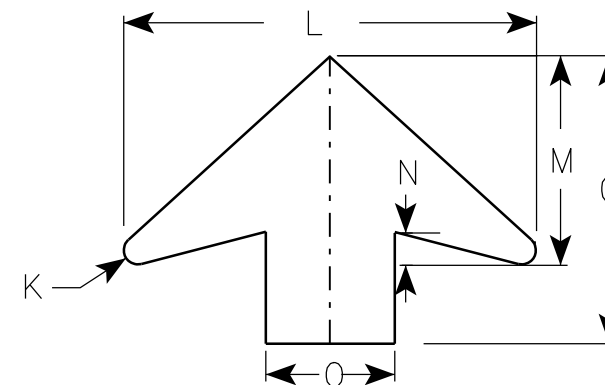
SHEET NO: 113

E



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

PROJECT NO:

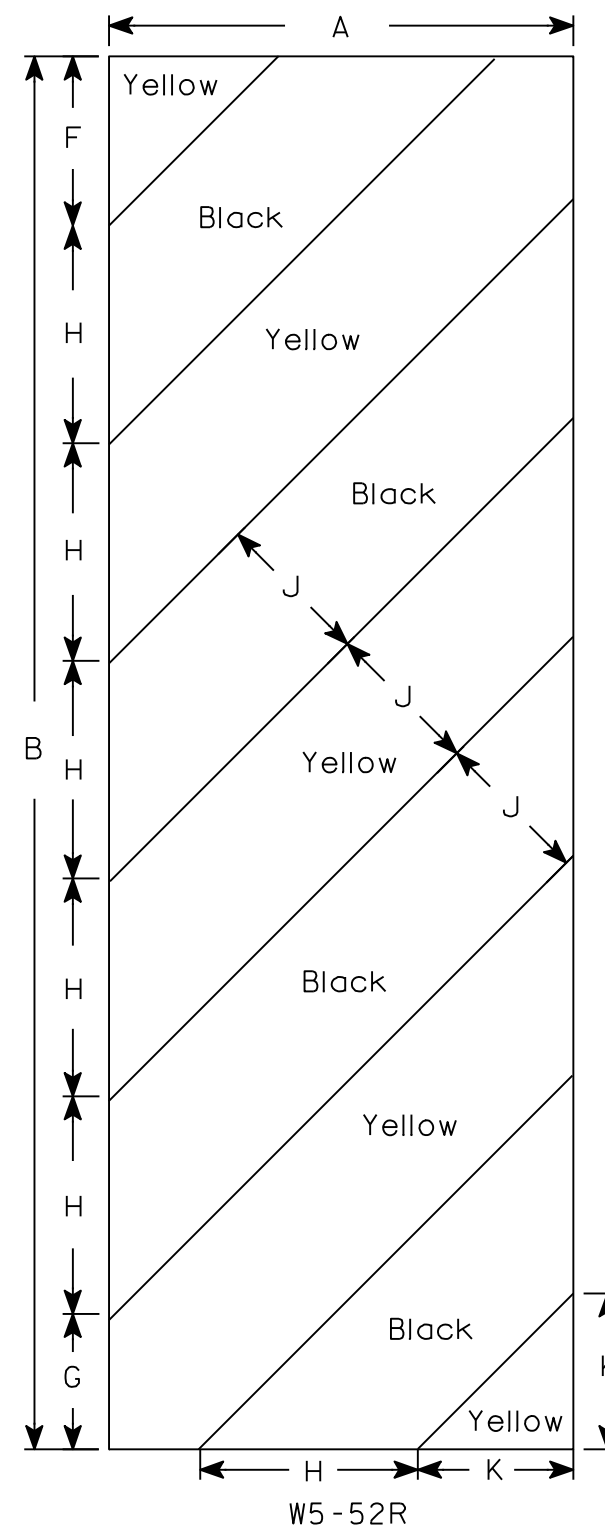
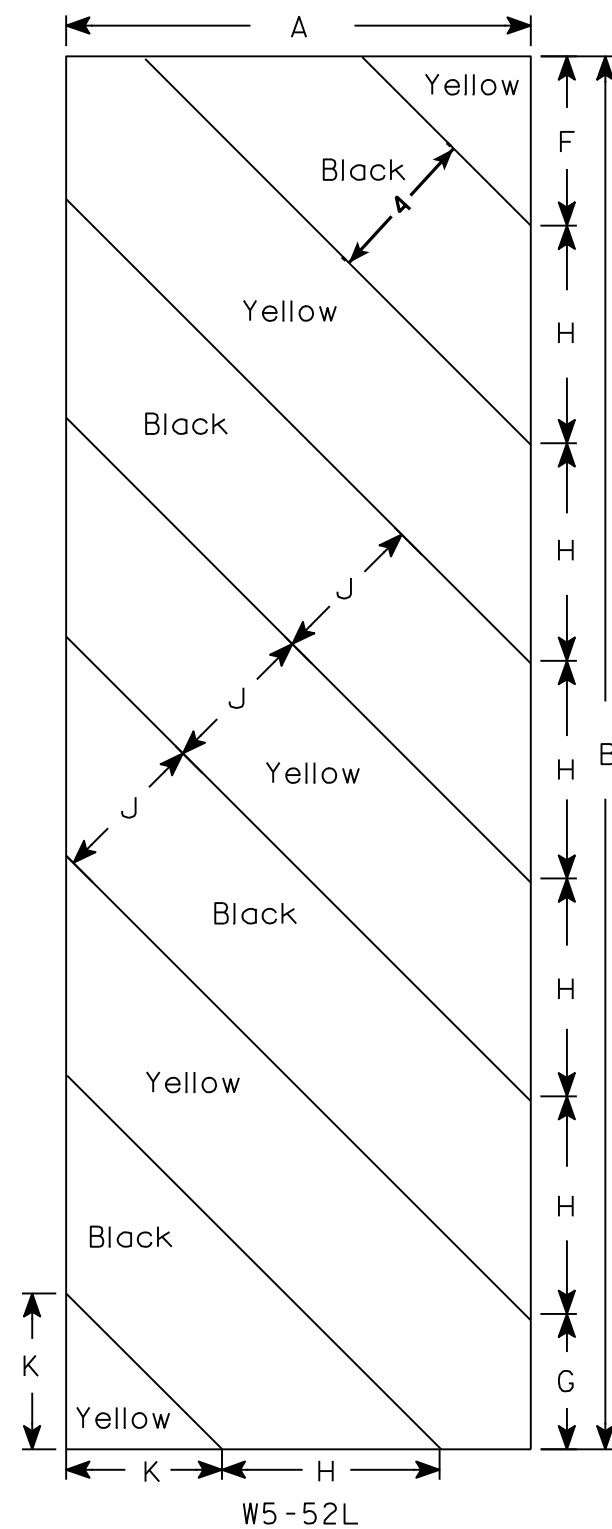
STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W3-1.12

SHEET NO: 114

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. Alternate colors of stripes as shown.

[illegible]

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:

HWY:

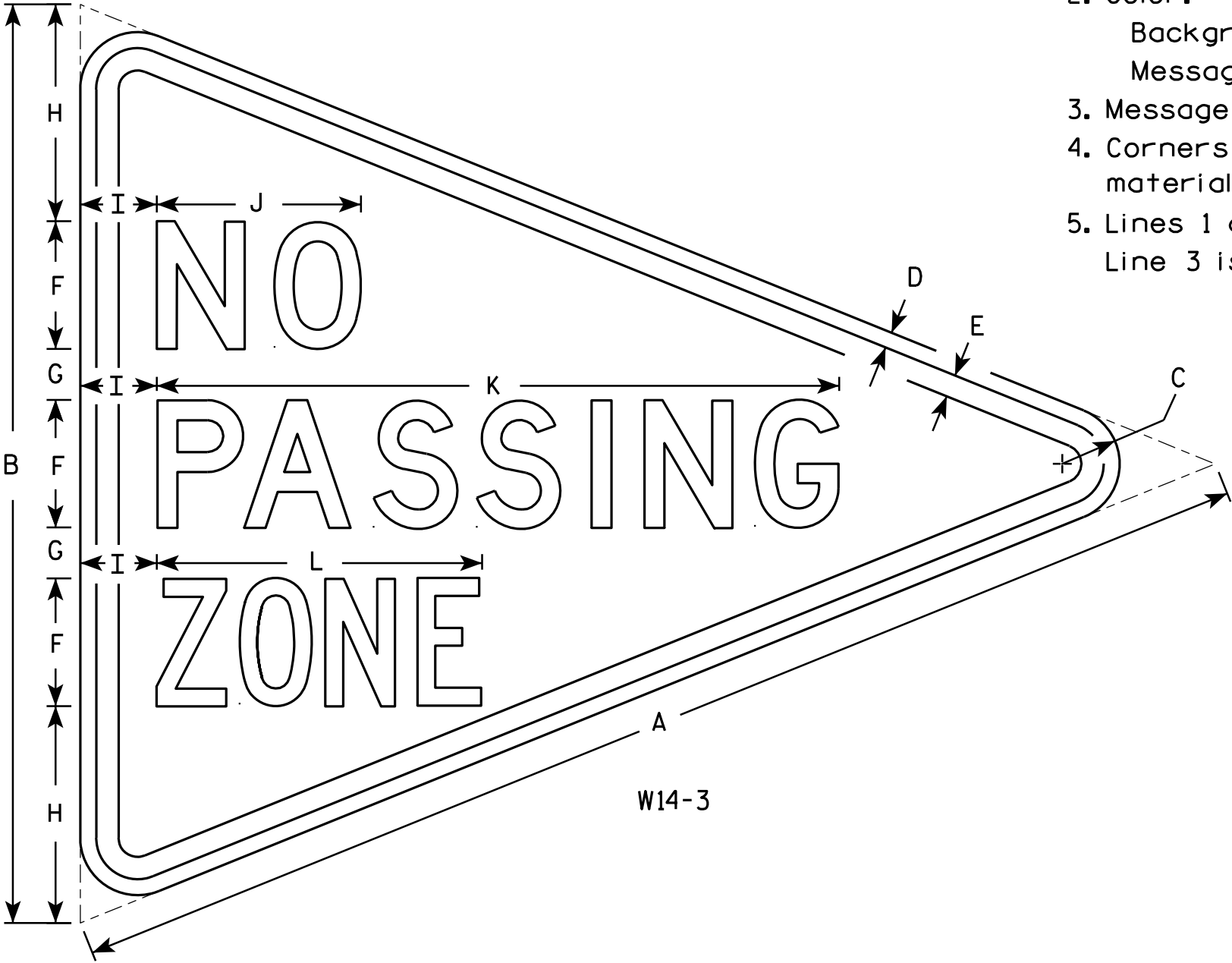
COUNTY:

SHEET NO: 115

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.



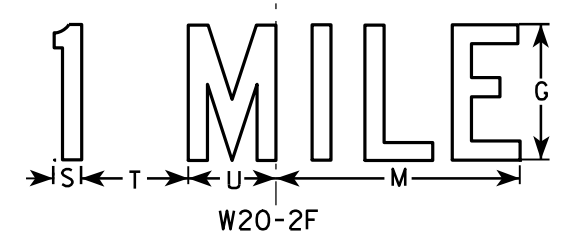
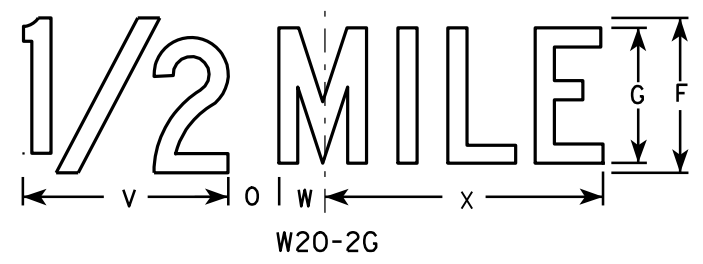
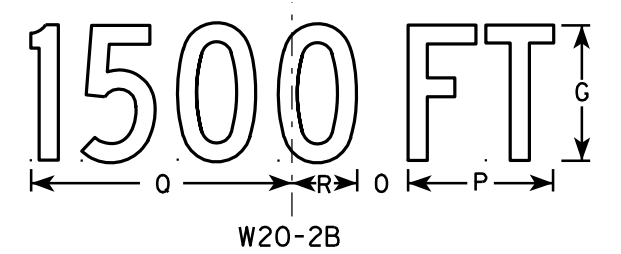
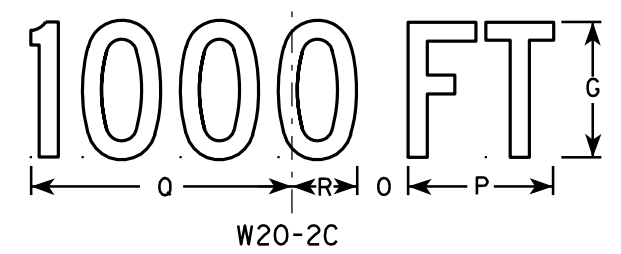
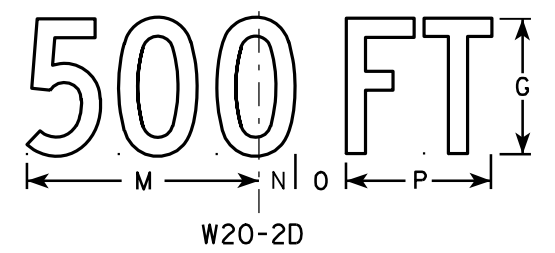
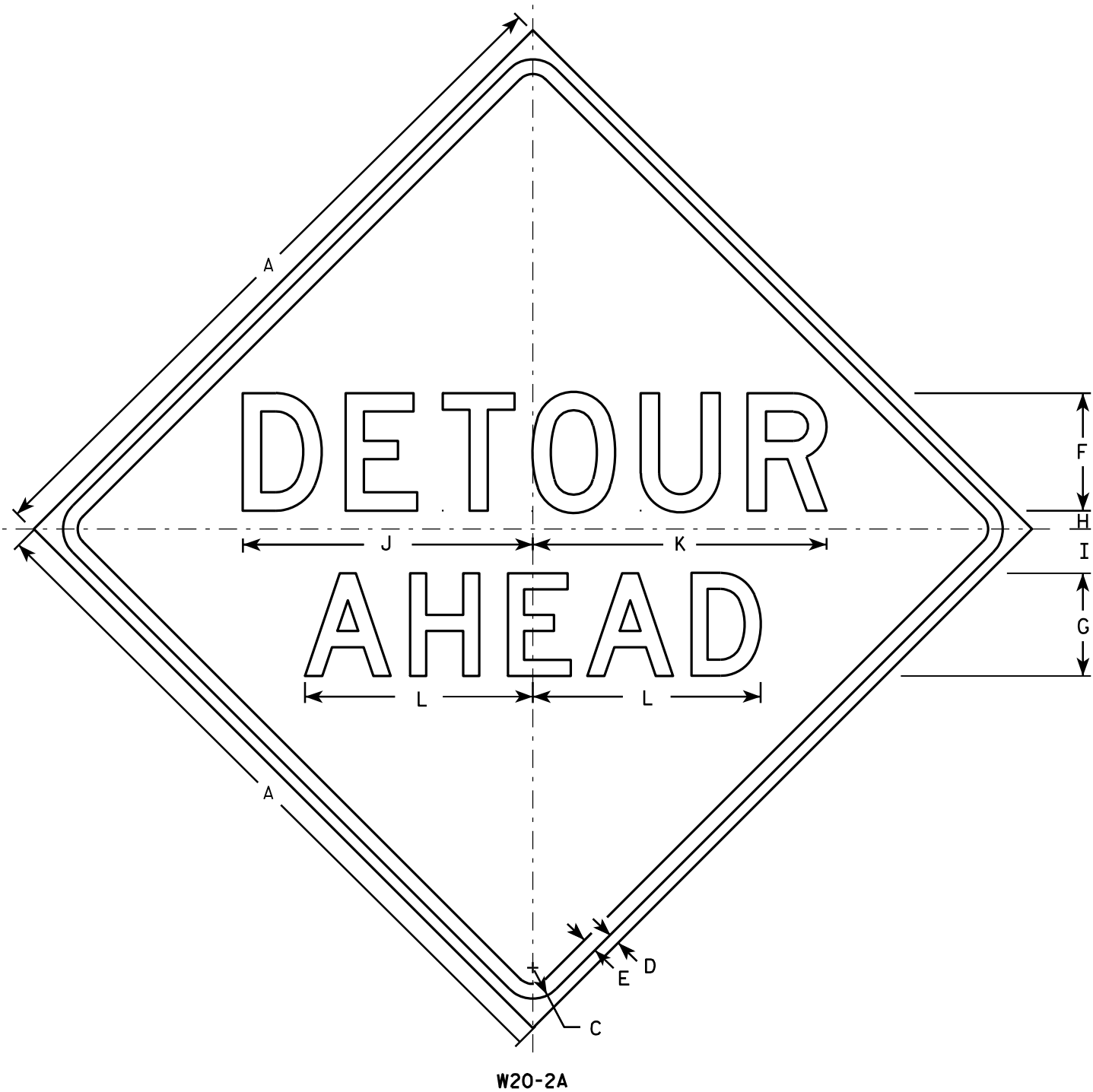
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2														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



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
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. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

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		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

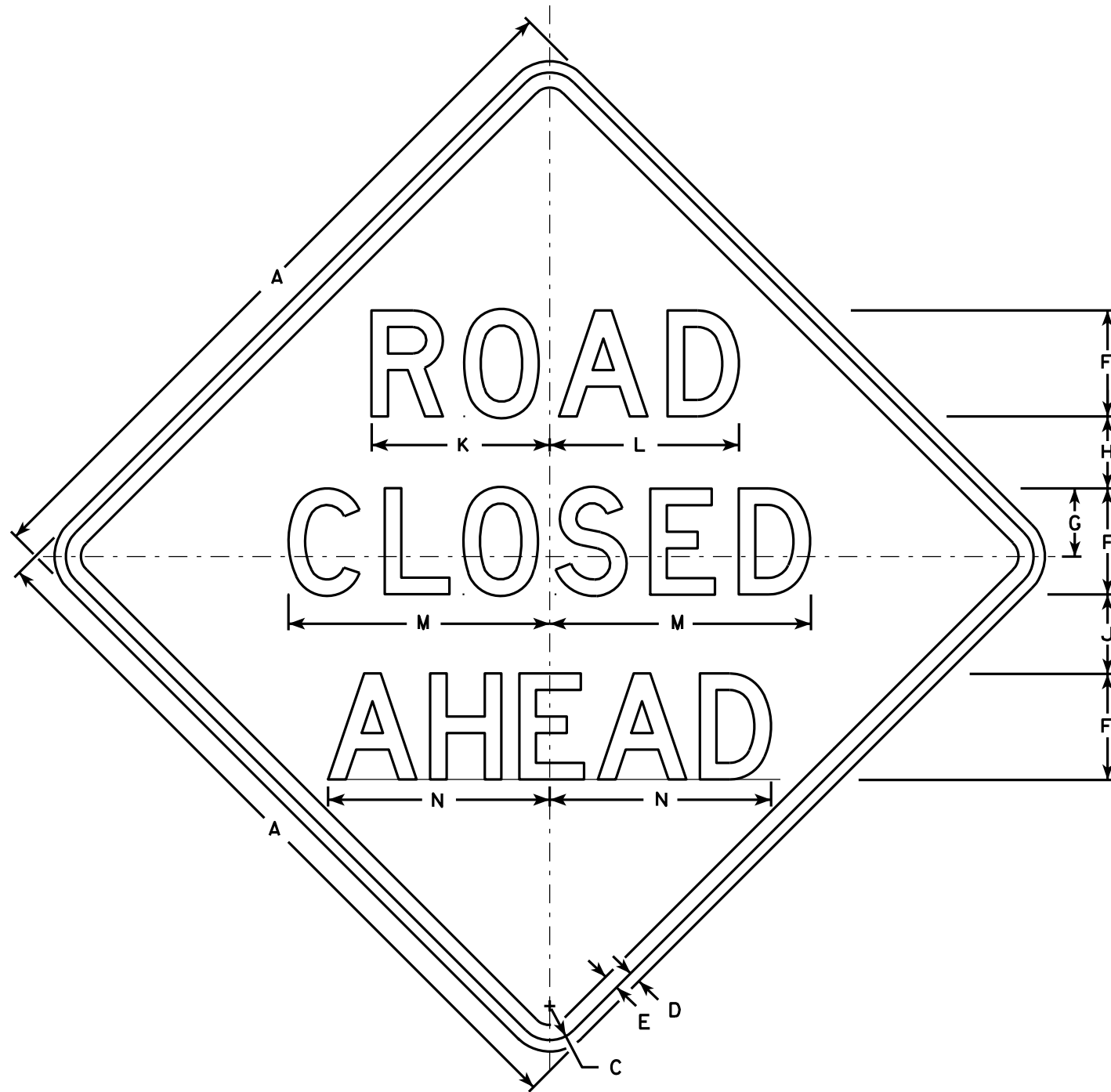
PROJECT NO:

HWY:

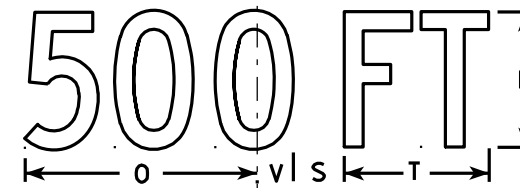
COUNTY:

SHEET NO: 117

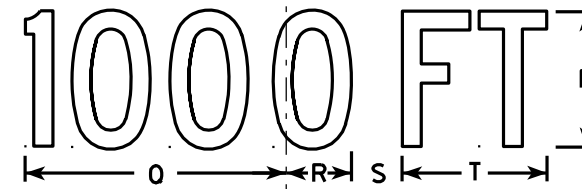
E



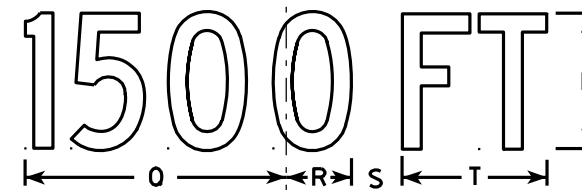
W20-3A



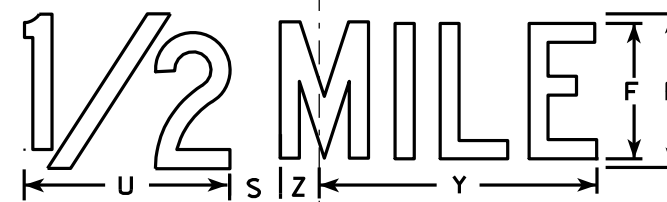
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - see note 5
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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 118

E

STH 71

			AREA (SF)		Cumulative Vol (CY)		
	Real Station		Cut	Fill	Cut	Expanded Fill	Mass Ordinate
STATION		Distance			1.00	1.15	
50+00	5000		0	0	0	0	0
51+00	5100	100	50	19	92	40	52
52+00	5200	100	155	0	472	81	391
53+00	5300	100	286	0	1289	81	1209
54+00	5400	100	104	3	2012	88	1924
55+00	5500	100	2	97	2210	302	1908
56+00	5600	100	3	55	2220	626	1594
57+00	5700	100	68	5	2351	755	1596
58+00	5800	100	137	2	2731	770	1961
59+00	5900	100	211	0	3376	774	2602
60+00	6000	100	404	0	4516	774	3742
61+00	6100	100	394	0	5994	774	5220
62+00	6200	100	273	0	7228	774	6454
63+00	6300	100	163	0	8036	774	7262
64+00	6400	100	4	58	8347	896	7450
65+00	6500	100	0	185	8355	1413	6942
66+00	6600	100	0	217	8355	2270	6085
67+00	6700	100	0	164	8355	3083	5272
68+00	6800	100	18	124	8388	3697	4691
69+00	6900	100	101	52	8608	4073	4535
70+00	7000	100	13	61	8817	4314	4503
71+00	7100	100	124	78	9070	4610	4461
72+00	7200	100	24	82	9345	4949	4395
73+00	7300	100	75	4	9528	5130	4398
74+00	7400	100	136	1	9918	5141	4777
75+00	7500	100	117	1	10386	5146	5240
76+00	7600	100	3	90	10609	5340	5268
77+00	7700	100	0	199	10614	5956	4659
78+00	7800	100	0	187	10614	6778	3836
79+00	7900	100	25	123	10661	7439	3222
80+00	8000	100	89	35	10873	7775	3098
81+00	8100	100	259	4	11518	7858	3660
82+00	8200	100	299	0	12551	7865	4686
83+00	8300	100	177	0	13433	7865	5568
84+00	8400	100	0	125	13761	8131	5629
85+00	8500	100	0	239	13761	8907	4853
86+00	8600	100	0	256	13761	9963	3797
87+00	8700	100	0	201	13761	10937	2824
88+00	8800	100	0	131	13761	11643	2118
89+00	8900	100	4	87	13767	12108	1660
90+00	9000	100	13	43	13797	12385	1412

EXPANDED FILL FACTOR = 1.15

STH 71 (CONTINUED)

91+00	9100	100	13	43	13844	12567	1277
92+00	9200	100	4	57	13875	12778	1098
93+00	9300	100	30	17	13939	12934	1005
94+00	9400	100	101	0	14182	12971	1212
95+00	9500	100	88	0	14532	12971	1562
96+00	9600	100	69	0	14822	12971	1852
97+00	9700	100	86	22	15109	13018	2092
98+00	9800	100	53	58	15366	13187	2179
99+00	9900	100	213	3	15858	13317	2541
100+00	10000	100	208	0	16637	13323	3313
101+00	10100	100	96	0	17199	13323	3875
102+00	10200	100	38	31	17447	13389	4058
103+00	10300	100	18	106	17550	13680	3871
104+00	10400	100	5	128	17593	14176	3417
105+00	10500	100	9	43	17620	14539	3081
106+00	10600	100	64	0	17754	14631	3124
107+00	10700	100	27	30	17923	14694	3230
108+00	10800	100	1	43	17976	14849	3127
109+00	10900	100	0	74	17978	15099	2878
110+00	11000	100	0	79	17978	15425	2553
111+00	11100	100	10	43	17997	15684	2313
112+00	11200	100	70	4	18146	15782	2364
113+00	11300	100	79	0	18421	15789	2632
114+00	11400	100	10	42	18585	15879	2705
115+00	11500	100	15	40	18631	16055	2576
116+00	11600	100	74	6	18796	16152	2644
117+00	11700	100	171	0	19249	16164	3085
118+00	11800	100	249	0	20026	16164	3862
119+00	11900	100	267	0	20981	16164	4818
120+00	12000	100	150	14	21754	16193	5560
121+00	12100	100	128	19	22267	16263	6004
122+00	12200	100	69	7	22632	16319	6314
123+00	12300	100	1	45	22762	16430	6332
124+00	12400	100	0	147	22763	16839	5924
125+00	12500	100	7	158	22776	17489	5287
126+00	12600	100	4	228	22796	18310	4486
127+00	12700	100	0	225	22804	19275	3529
128+00	12800	100	0	262	22804	20312	2492
129+00	12900	100	0	167	22804	21226	1578
130+00	13000	100	1	67	22806	21725	1081
131+00	13100	100	101	4	22994	21876	1117
132+00	13200	100	147	7	23453	21899	1554
133+00	13300	100	56	8	23828	21931	1897
134+00	13400	100	69	6	24058	21961	2097
135+00	13500	100	92	10	24356	21995	2361
136+00	13600	100	60	15	24638	22046	2592

STH 71 (CONTINUED)

137+00	13700	100	22	43	24790	22169	2621
138+00	13800	100	37	20	24899	22305	2594
139+00	13900	100	45	12	25052	22374	2678
140+00	14000	100	57	15	25241	22431	2810
141+00	14100	100	47	18	25432	22500	2931
142+00	14200	100	48	12	25606	22563	3043
143+00	14300	100	50	2	25788	22593	3195
144+00	14400	100	46	6	25966	22611	3354
145+00	14500	100	97	27	26229	22681	3548
146+00	14600	100	53	59	26507	22864	3643
147+00	14700	100	74	0	26742	22990	3752
148+00	14800	100	77	0	27020	22990	4030
149+00	14900	100	38	10	27231	23011	4220
150+00	15000	100	41	6	27377	23045	4332
151+00	15100	100	61	22	27566	23104	4462
152+00	15200	100	84	15	27835	23183	4653
153+00	15300	100	50	14	28083	23245	4838
154+00	15400	100	45	14	28259	23305	4953
155+00	15500	100	43	19	28422	23376	5047
156+00	15600	100	41	16	28578	23450	5128
157+00	15700	100	40	18	28728	23524	5204
158+00	15800	100	52	7	28899	23578	5320
159+00	15900	100	66	2	29117	23598	5519
160+00	16000	100	0	0	29240	23603	5637

DAKOTA AVE.

			AREA (SF)		Cumulative Vol (CY)		
	Real Station		Cut	Fill	Cut	Expanded Fill	Mass Ordinate
STATION		Distance			1.00	1.15	
200+00	20000		0	0	0	0	0
200+50	20050	50	27	2	25	2	23
201+00	20100	50	11	15	60	20	40
201+50	20150	50	6	87	76	129	-53
202+00	20200	50	24	285	104	525	-421
202+50	20250	50	114	0	231	828	-597

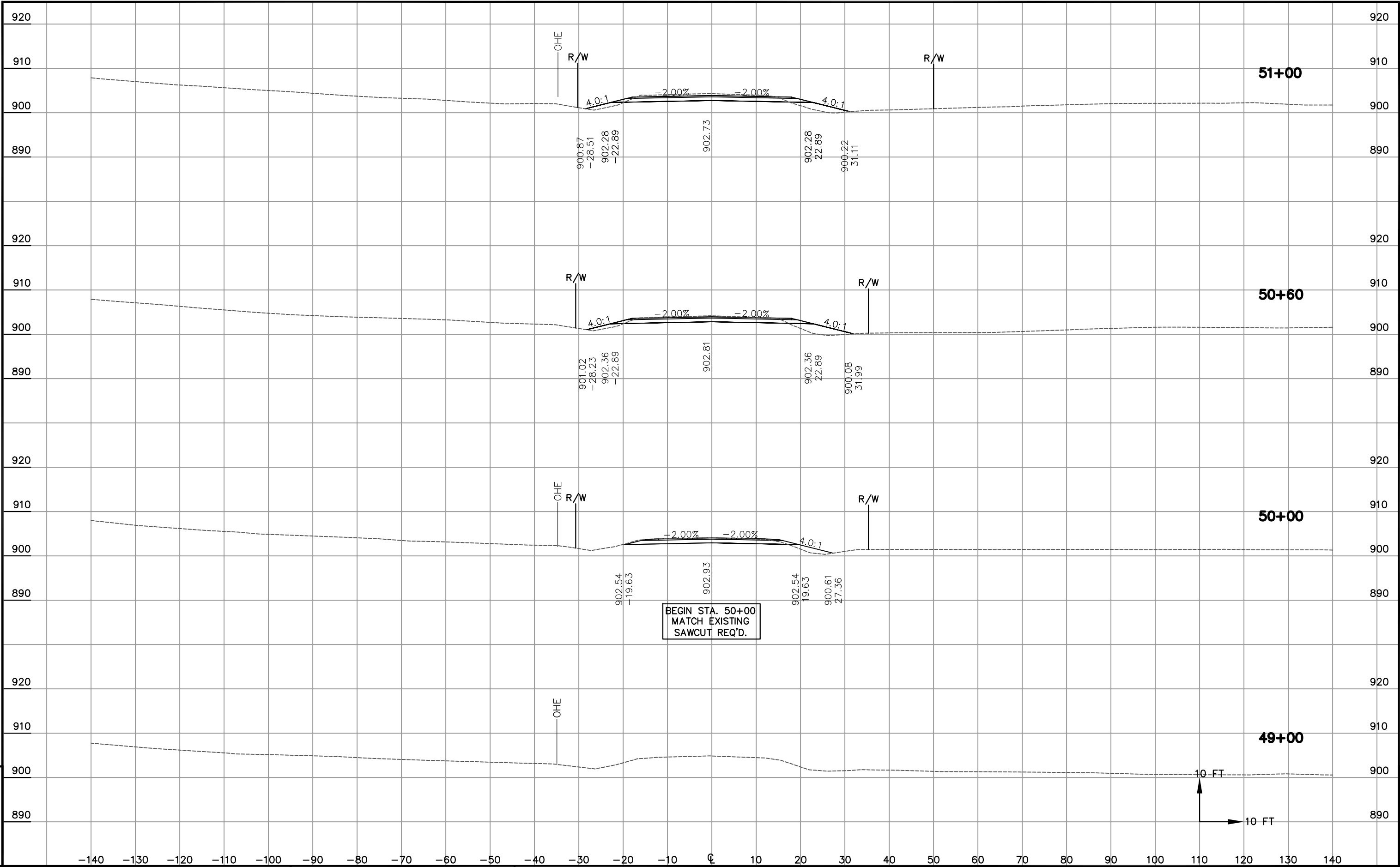
DALMATIAN ROAD

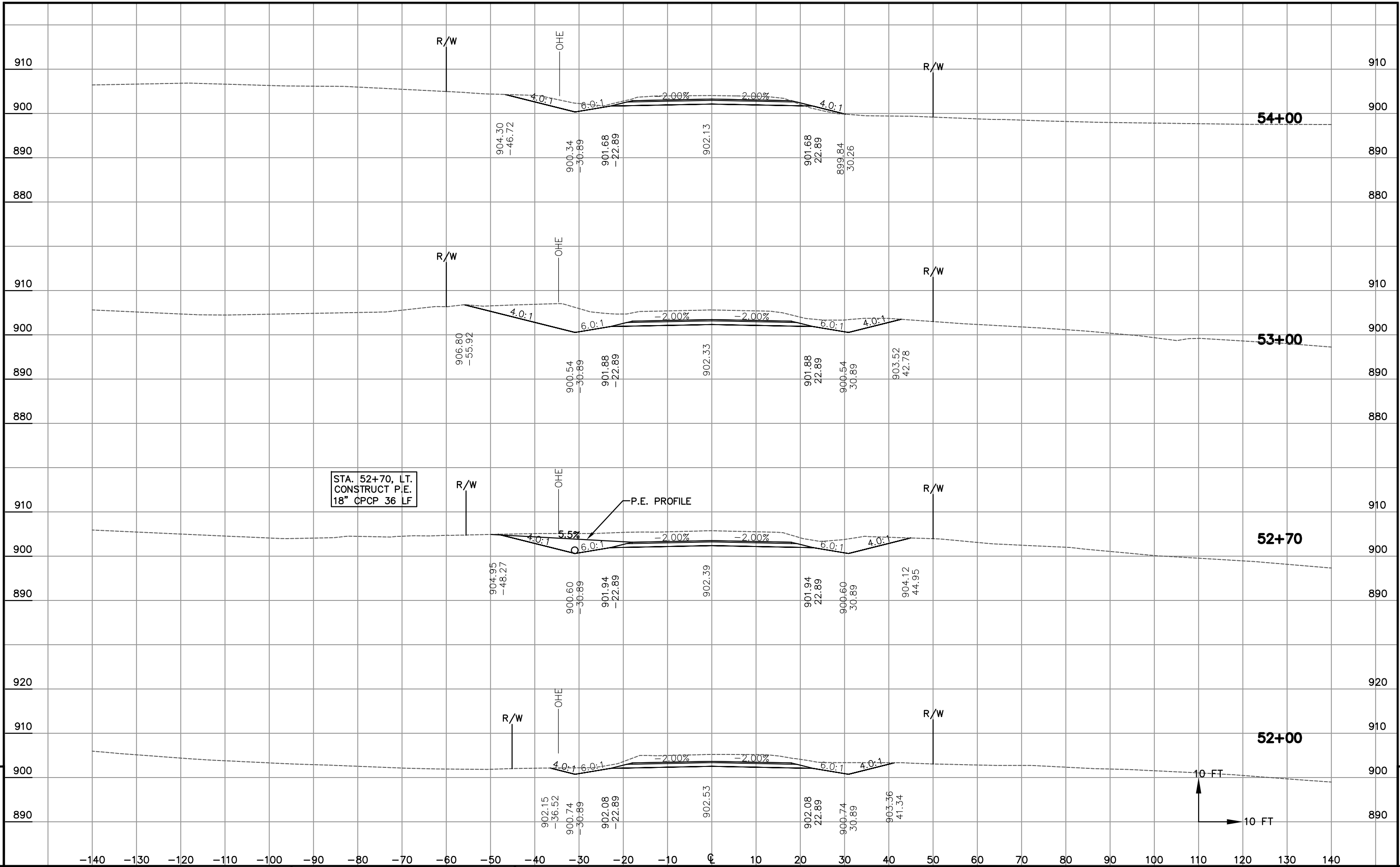
			AREA (SF)		Cumulative Vol (CY)		
	Real Station		Cut	Fill	Cut	Expanded Fill	Mass Ordinate
STATION		Distance			1.00	1.15	
300+00	30000		0	0	0	0	0
300+50	30050	50	73	0	68	0	68
301+00	30100	50	79	1	208	1	207
301+50	30150	50	85	1	360	2	358
302+00	30200	50	7	18	445	21	424

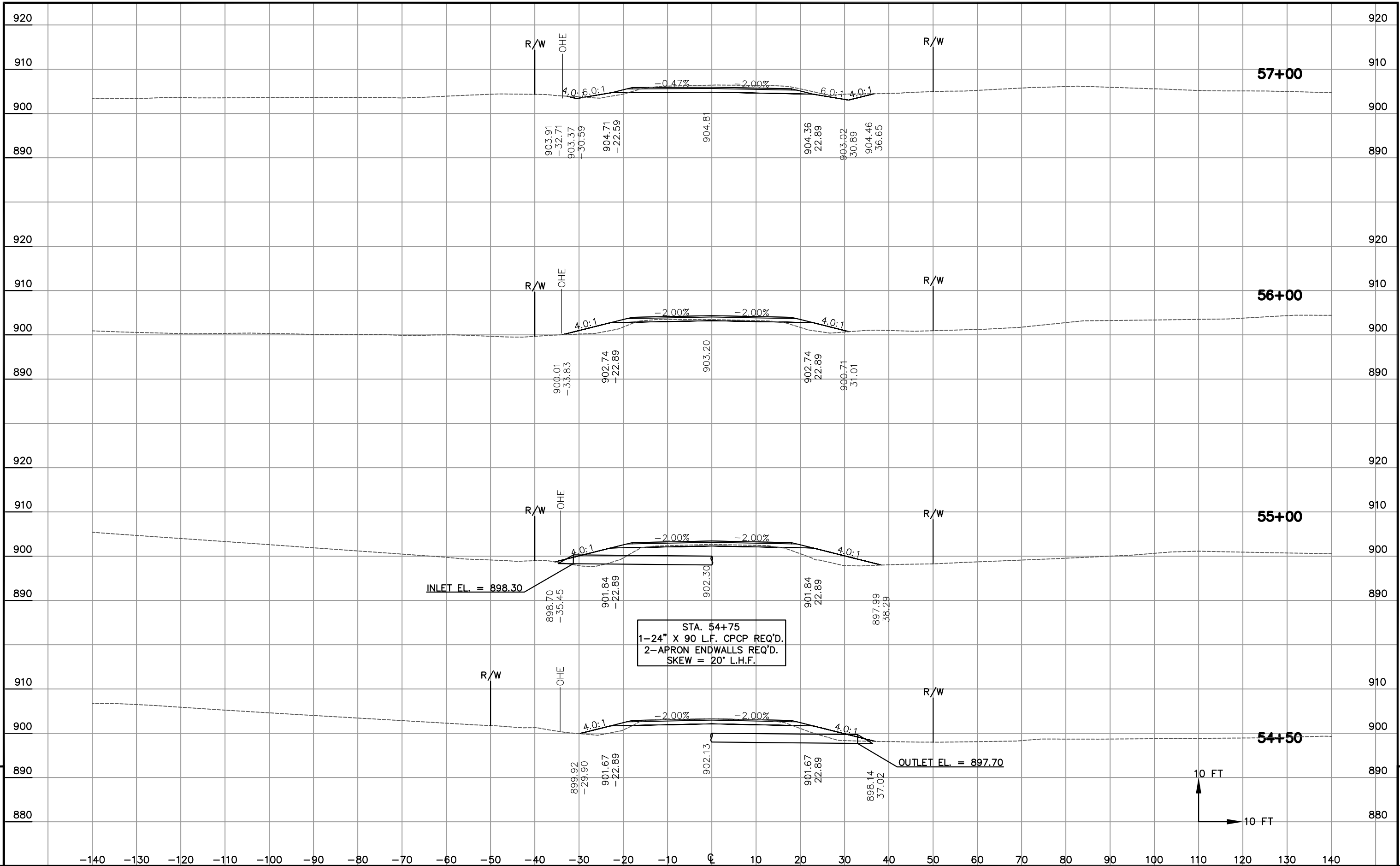
CANINE ROAD

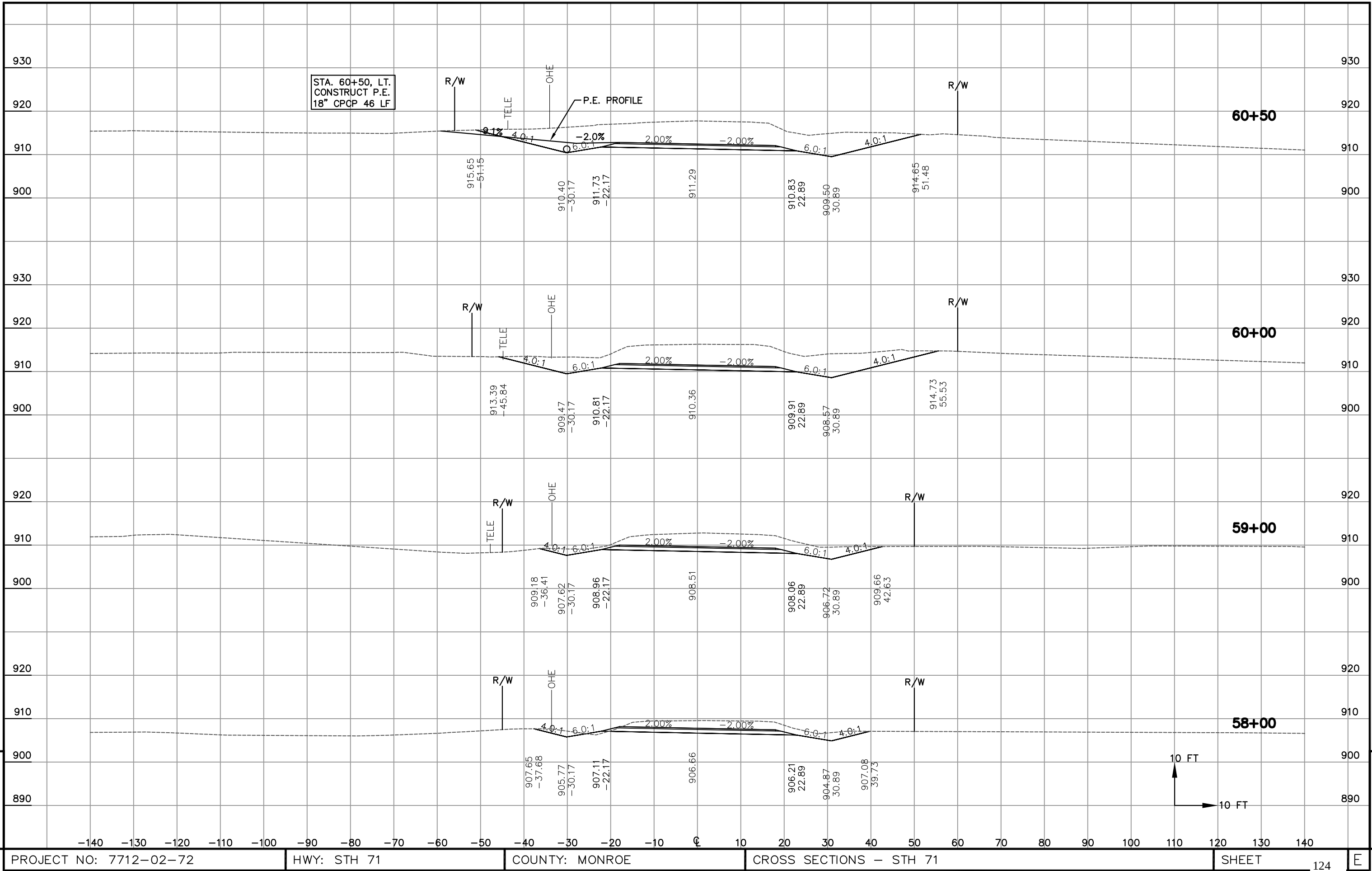
			AREA (SF)		Cumulative Vol (CY)		
	Real Station		Cut	Fill	Cut	Expanded Fill	Mass Ordinate
STATION		Distance			1.00	1.15	
302+50	30250		16	9	16	0	16
303+00	30300	50	0	76	15	90	-75
303+50	30350	50	27	3	40	173	-133
304+00	30400	50	0	0	65	176	-111

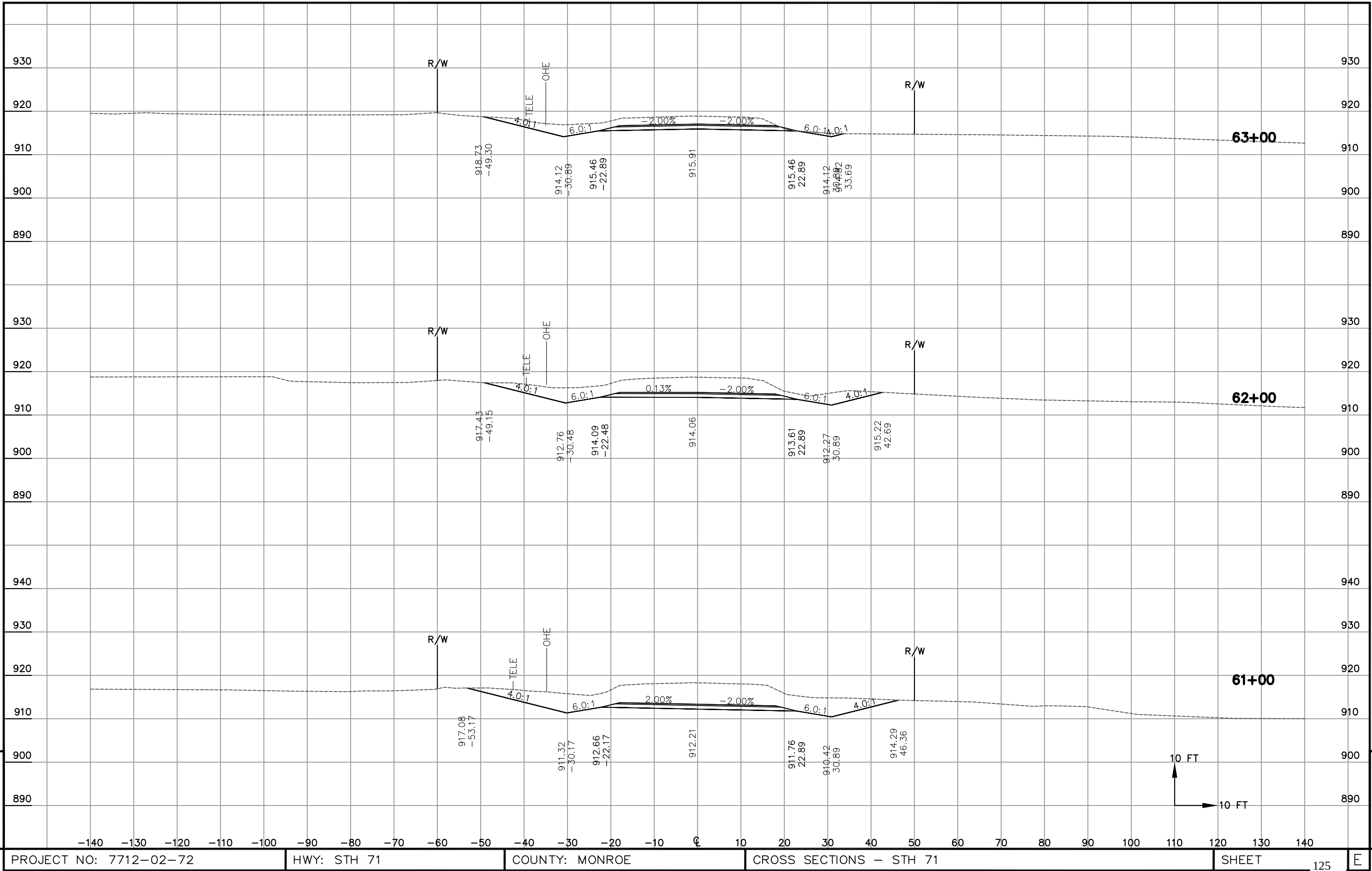
EXPANDED FILL FACTOR = 1.15

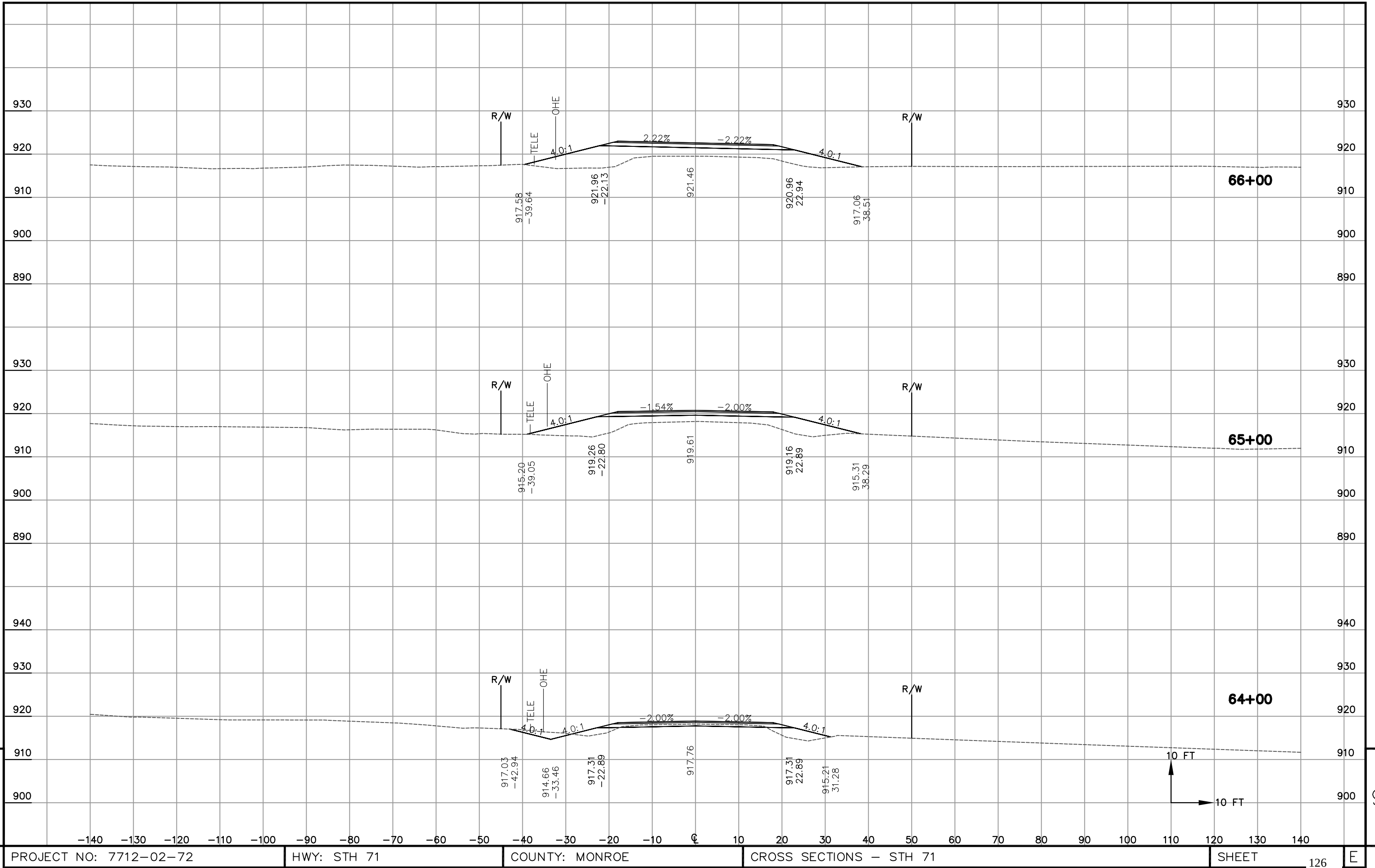


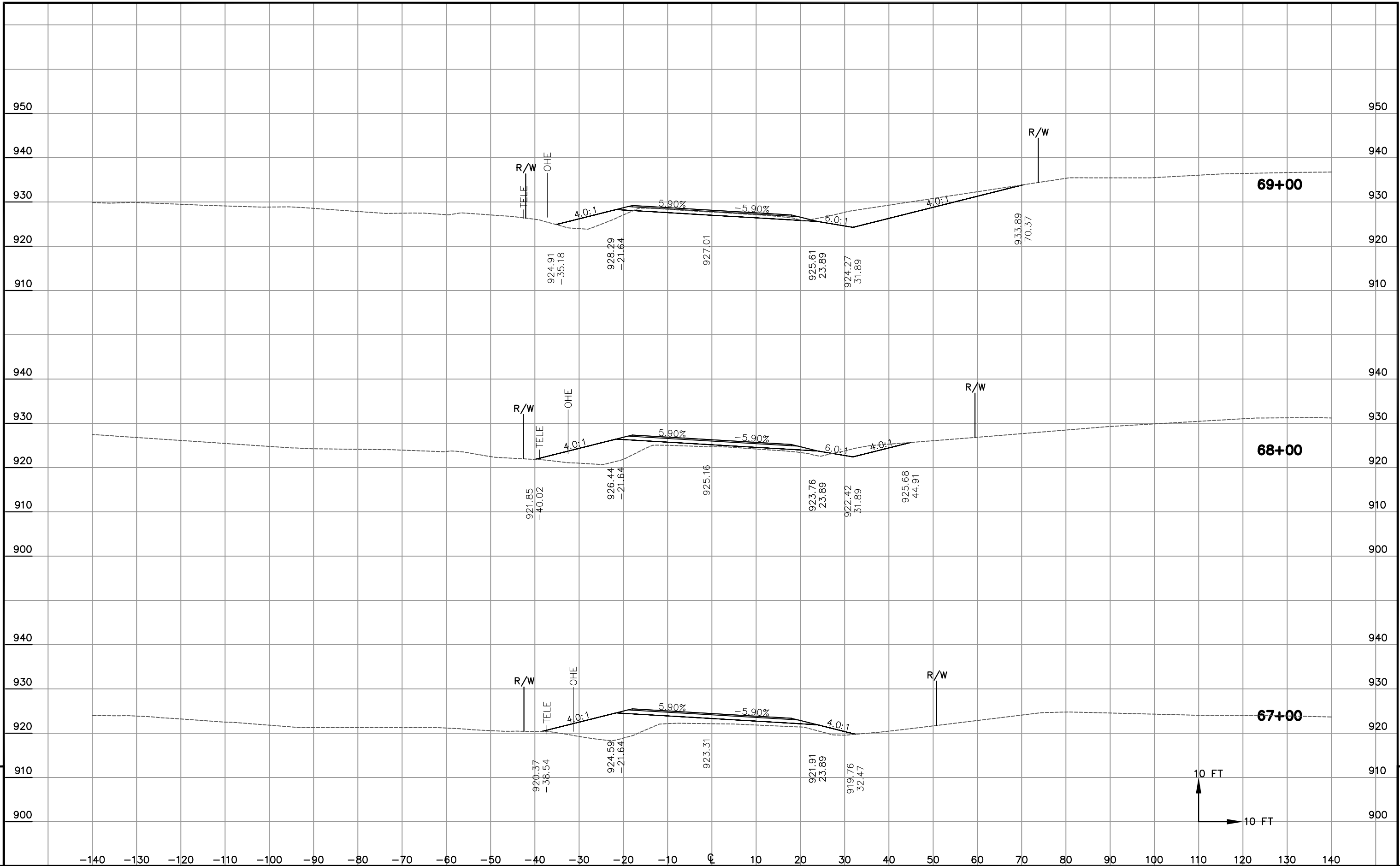


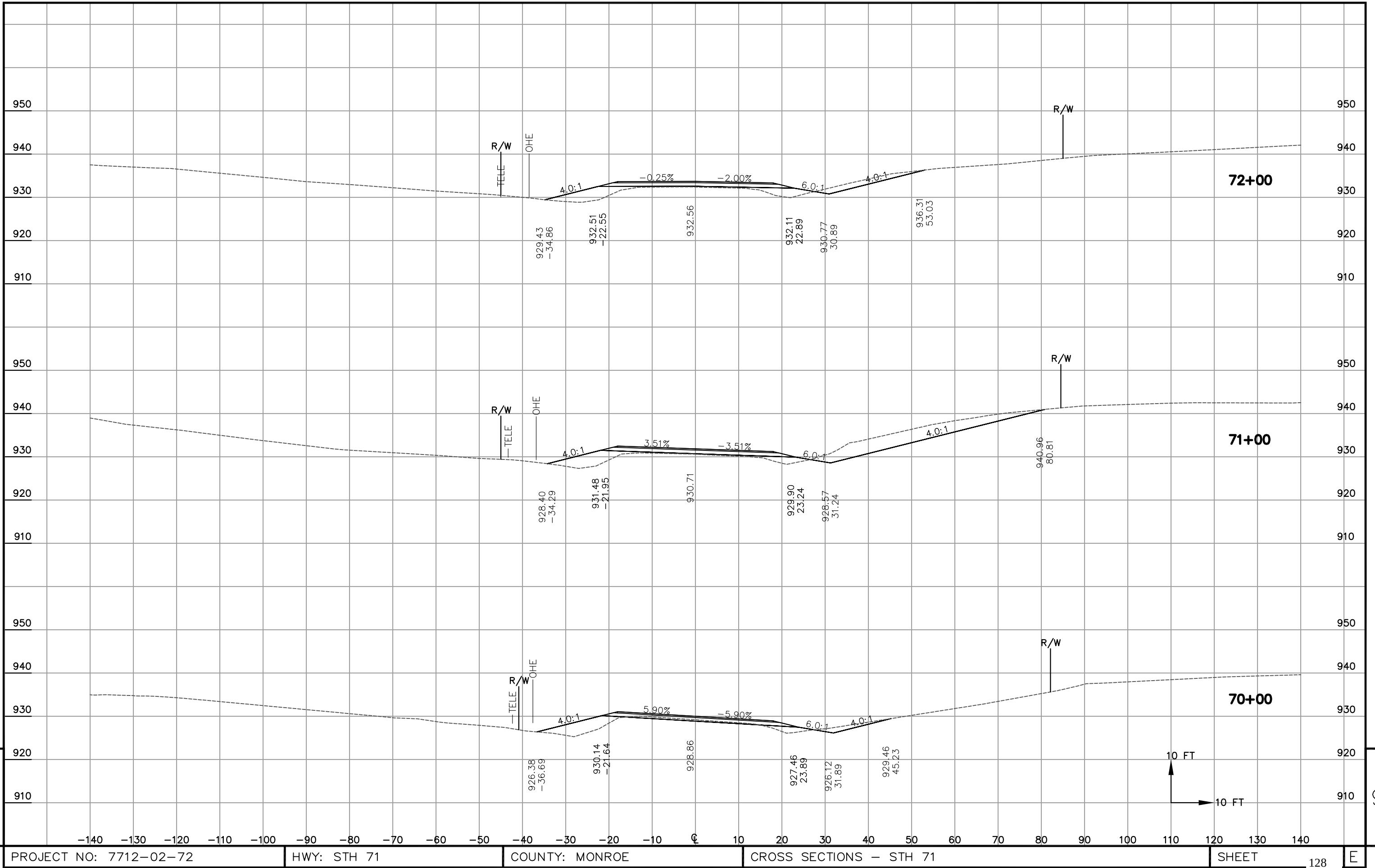


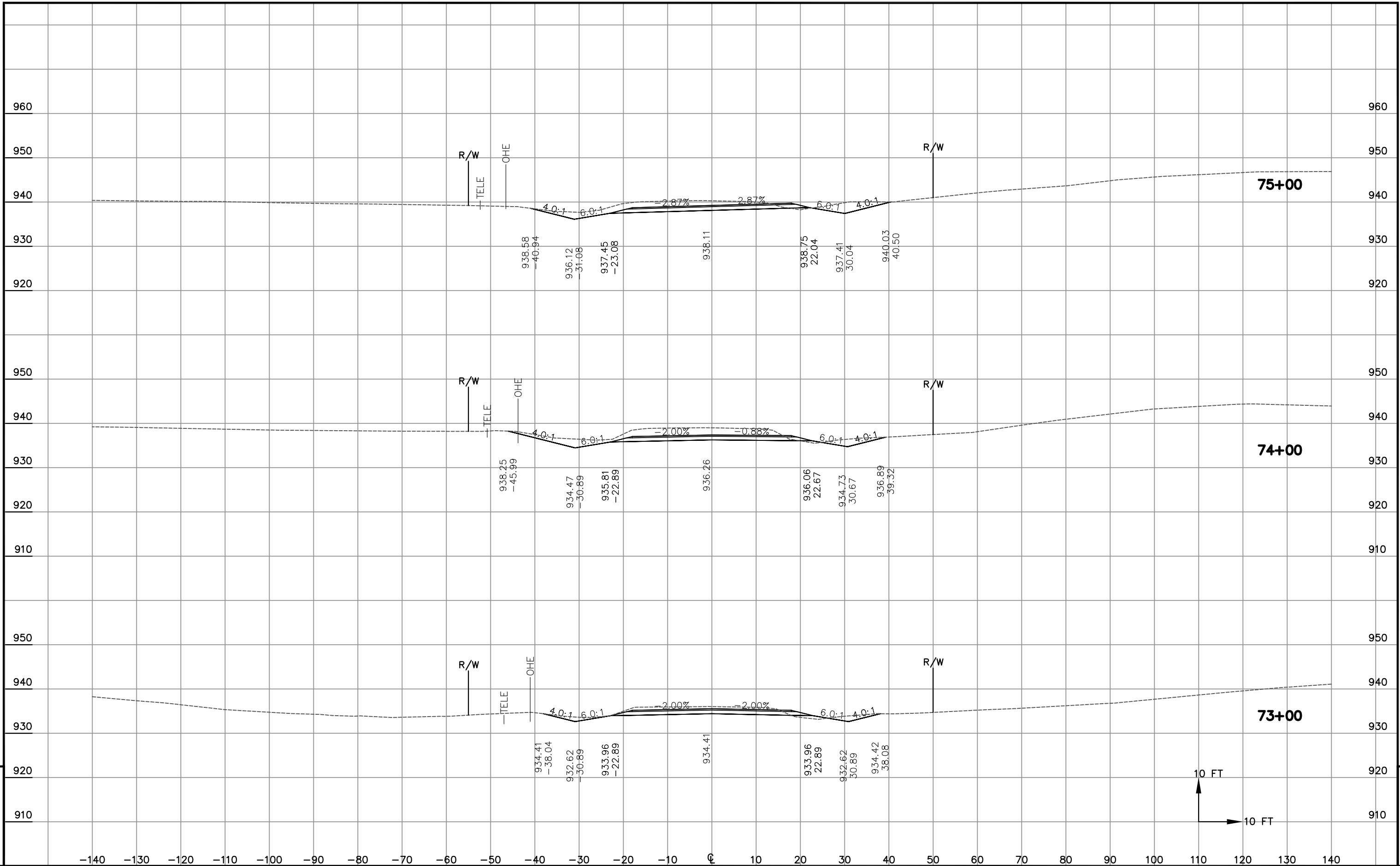


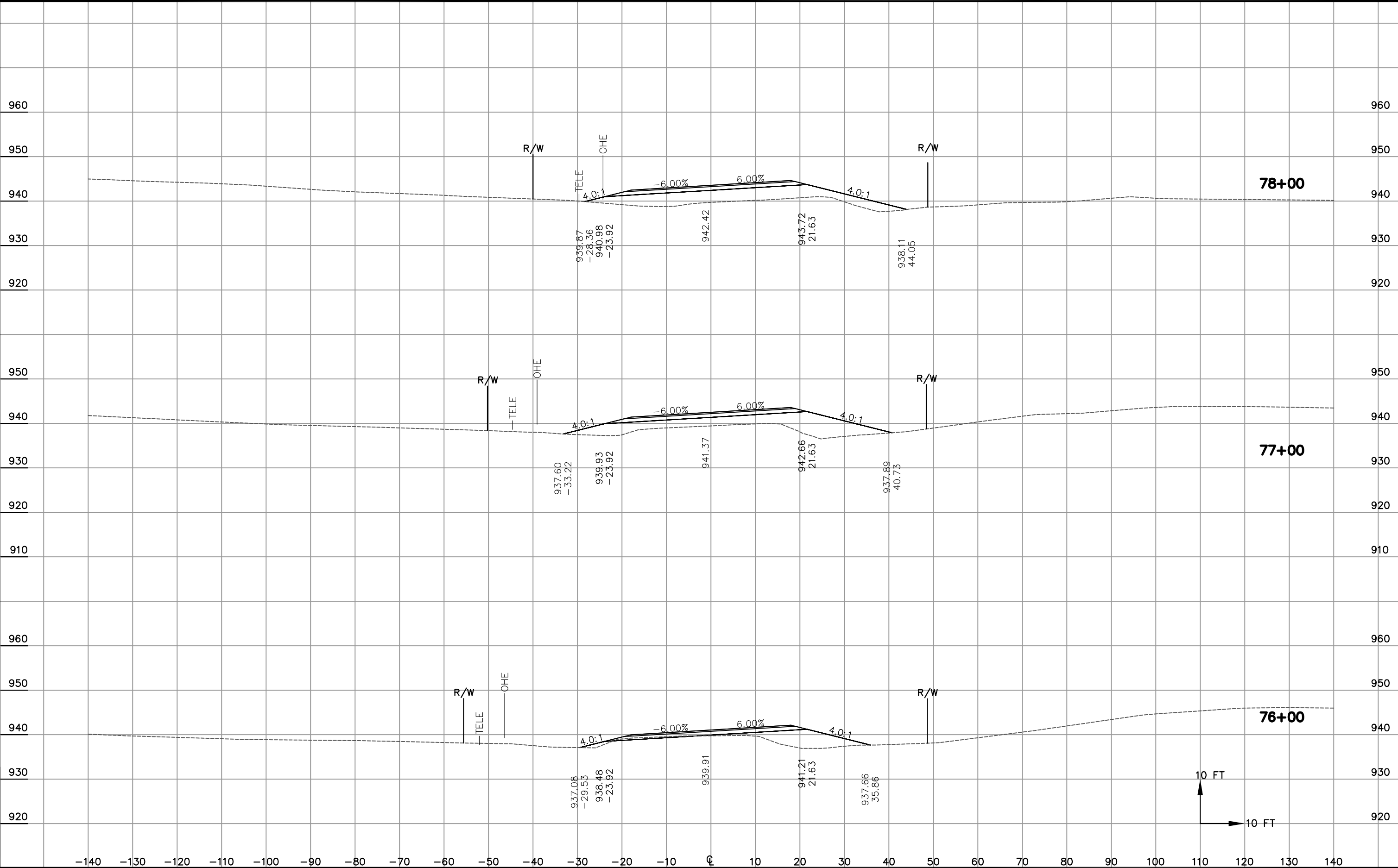


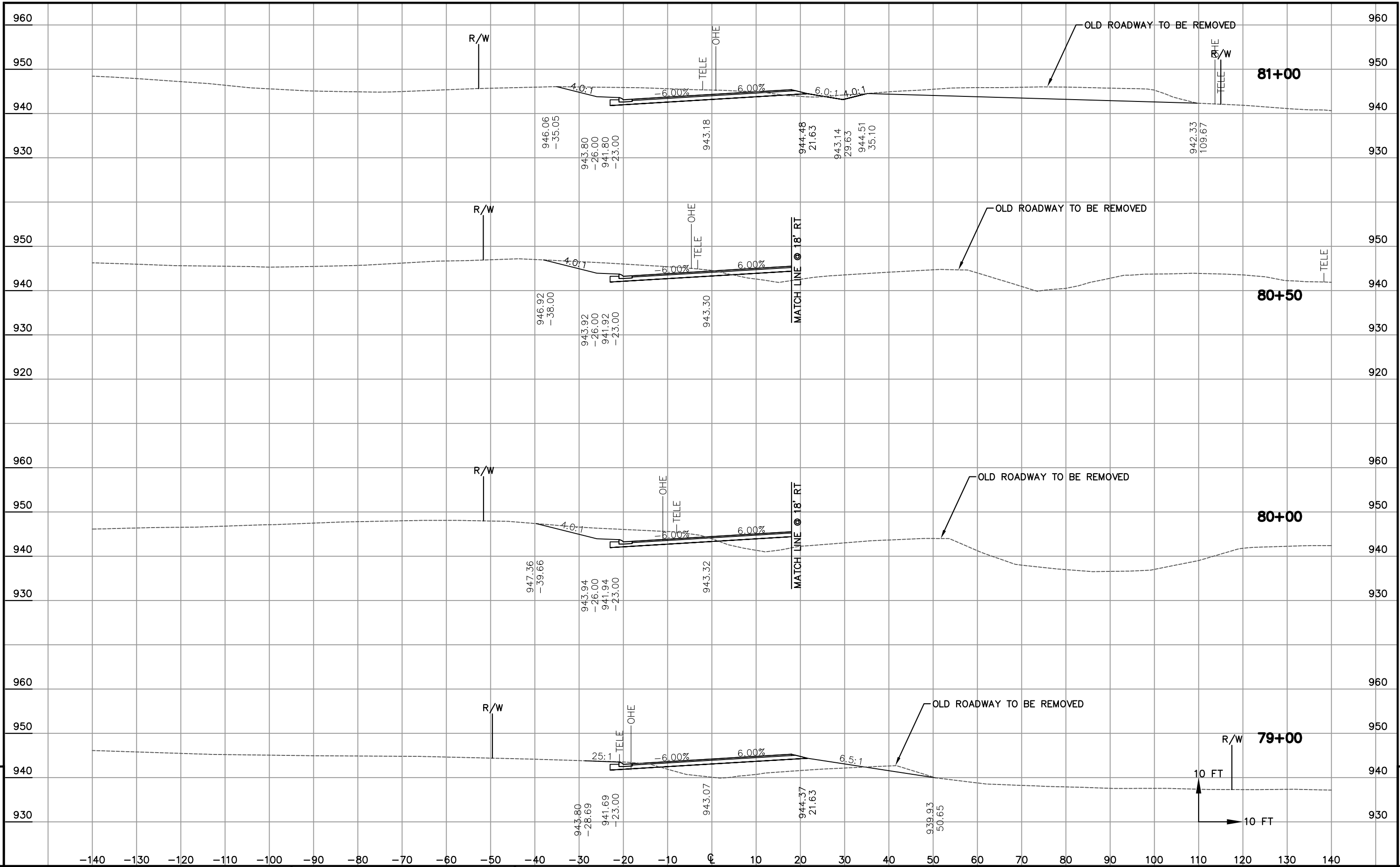


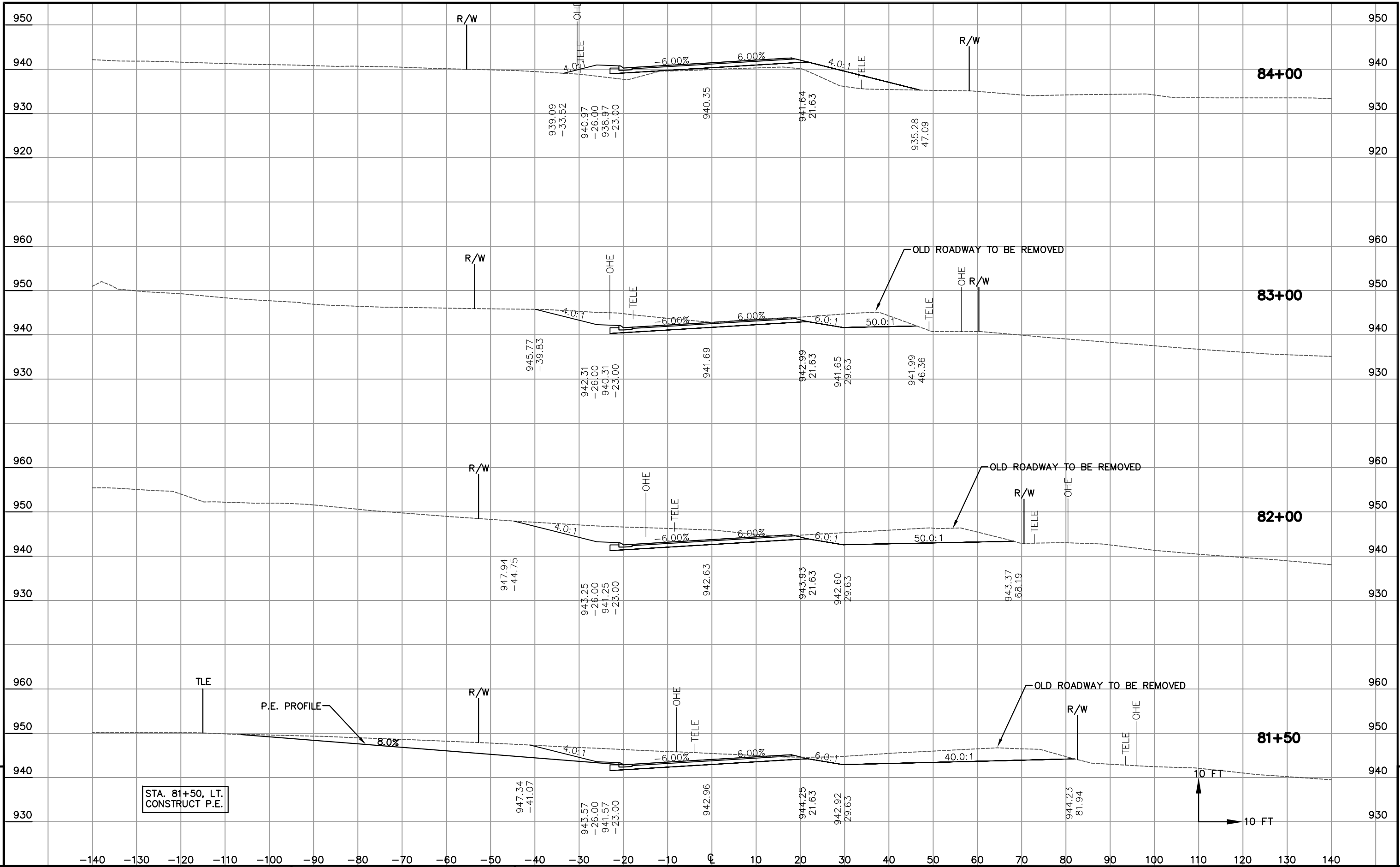


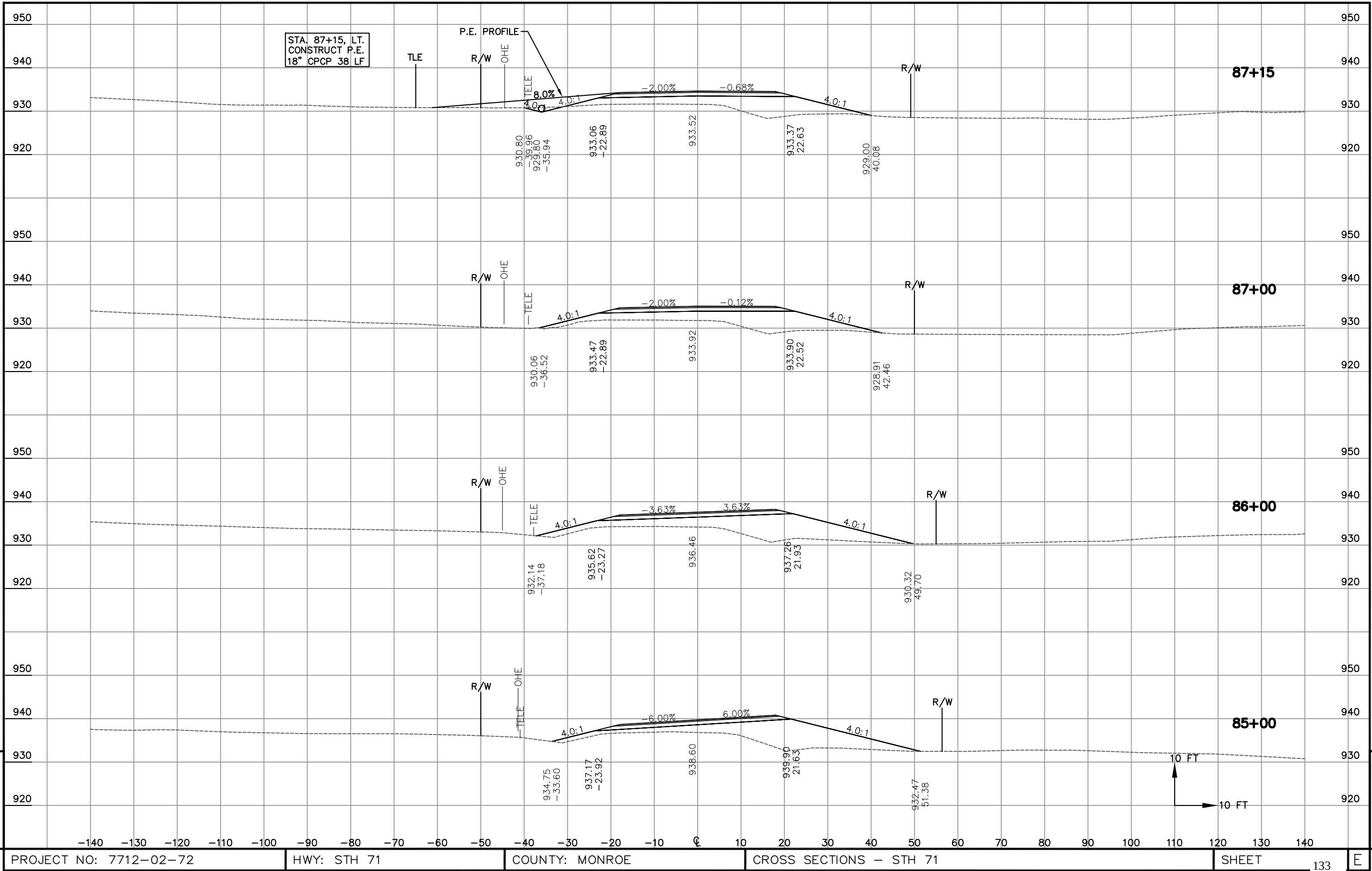


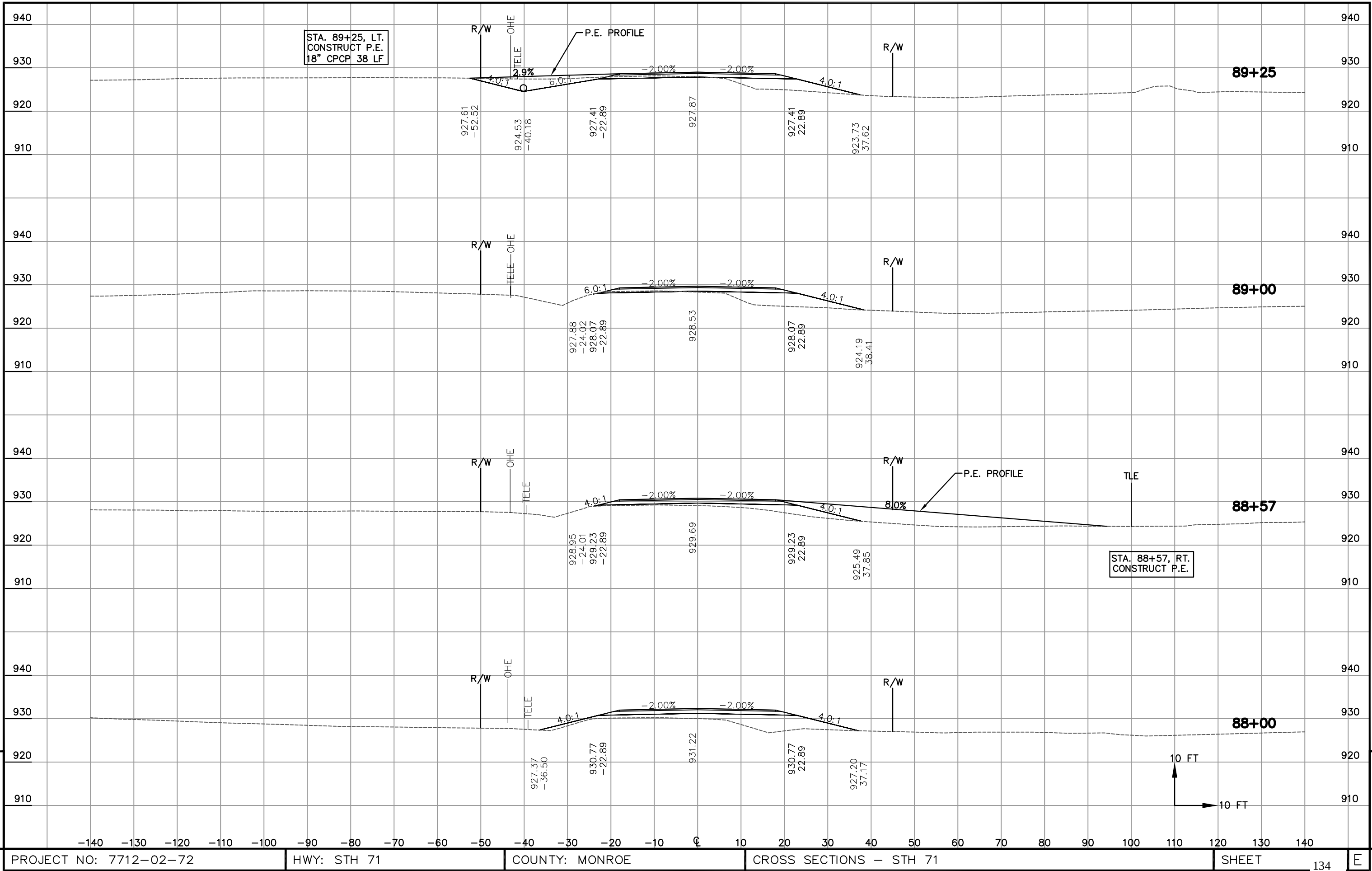


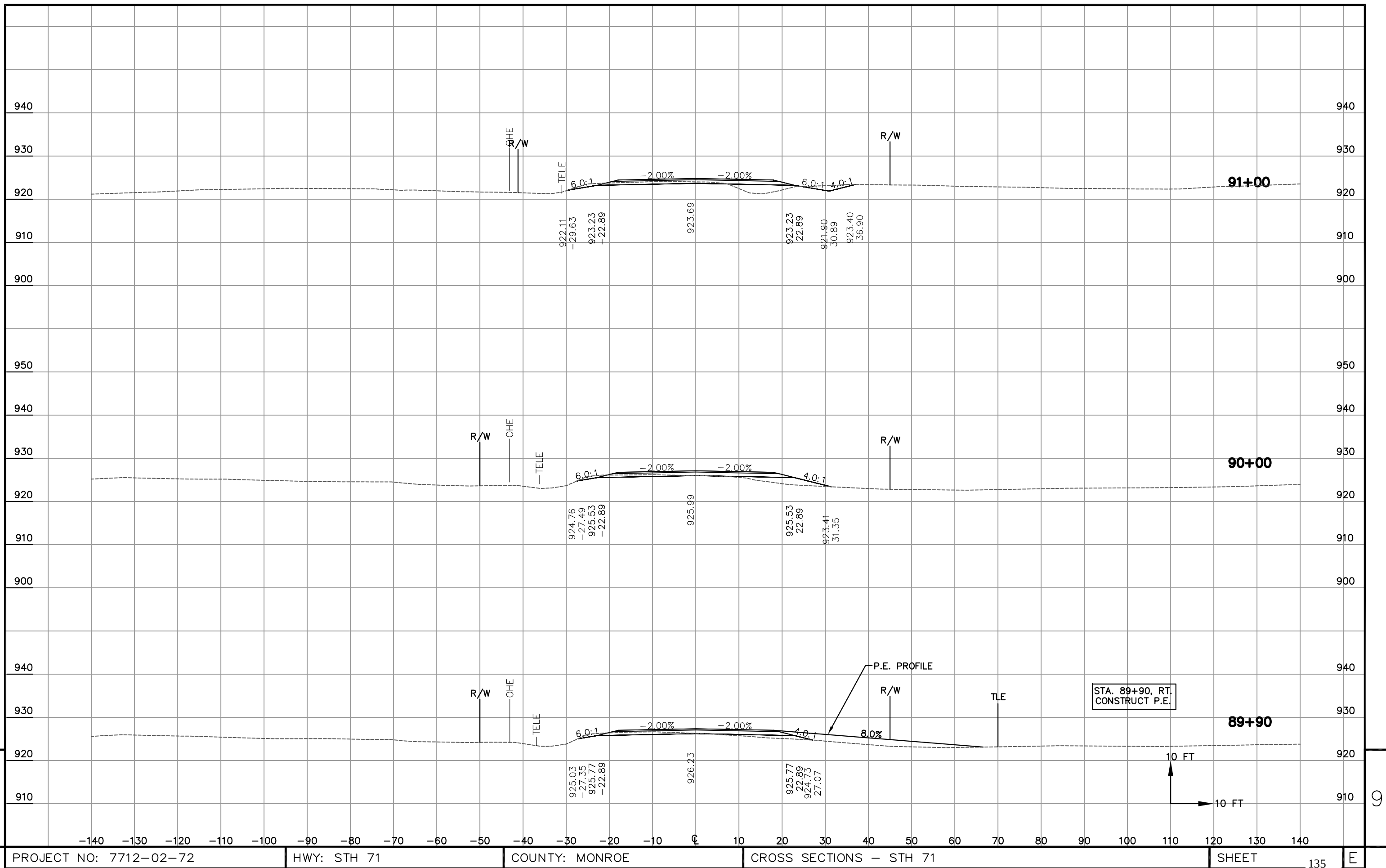


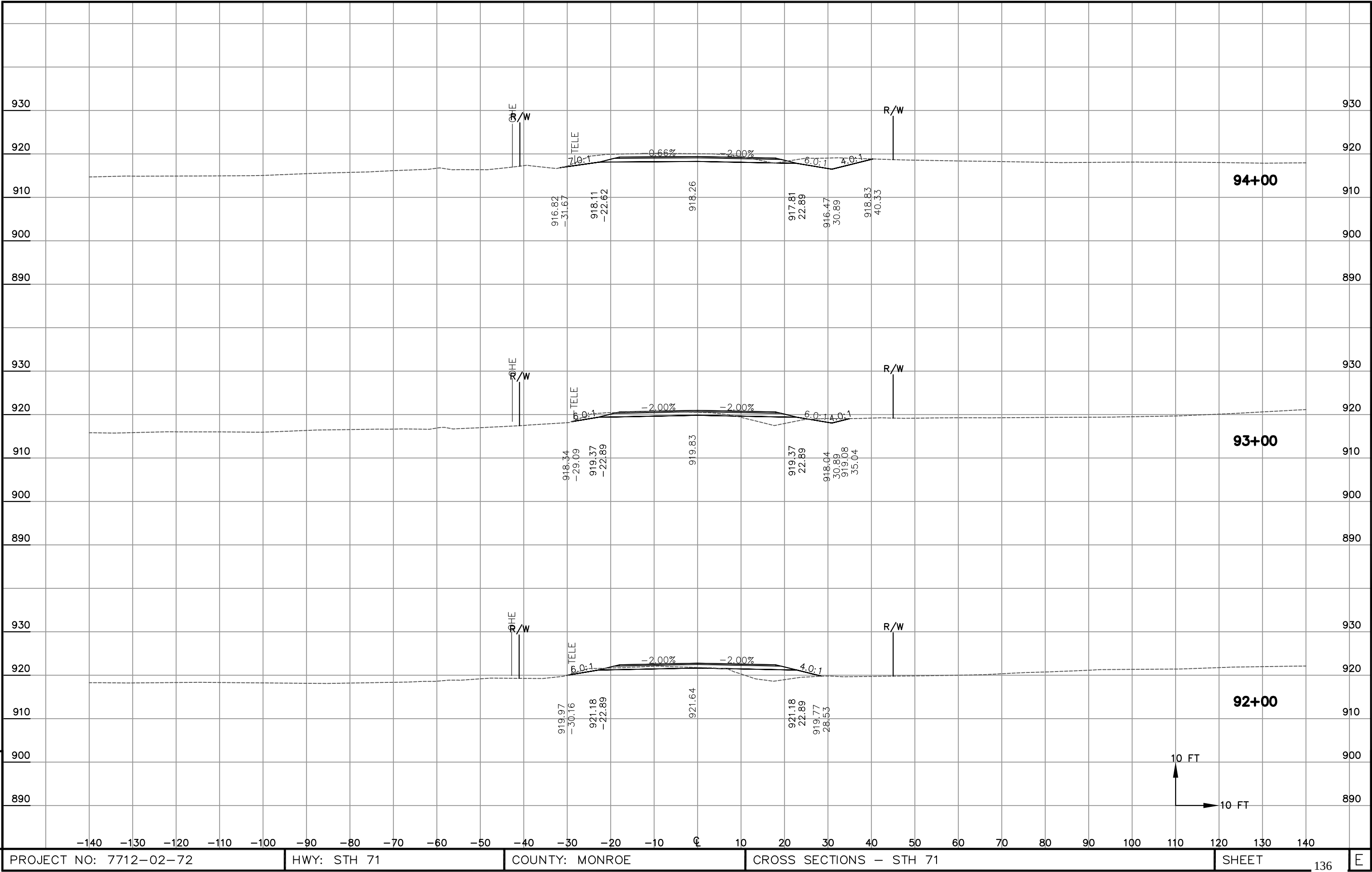


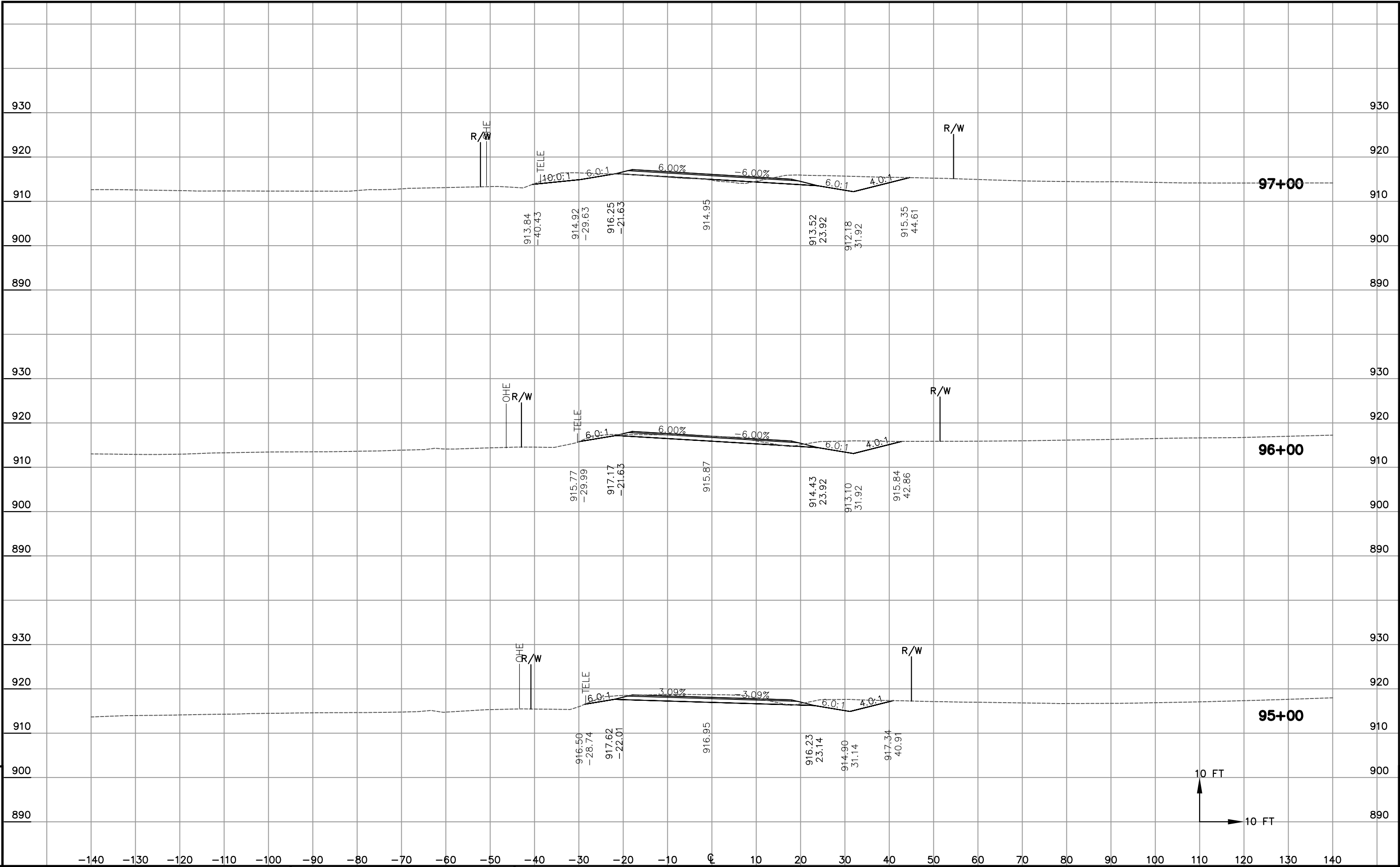


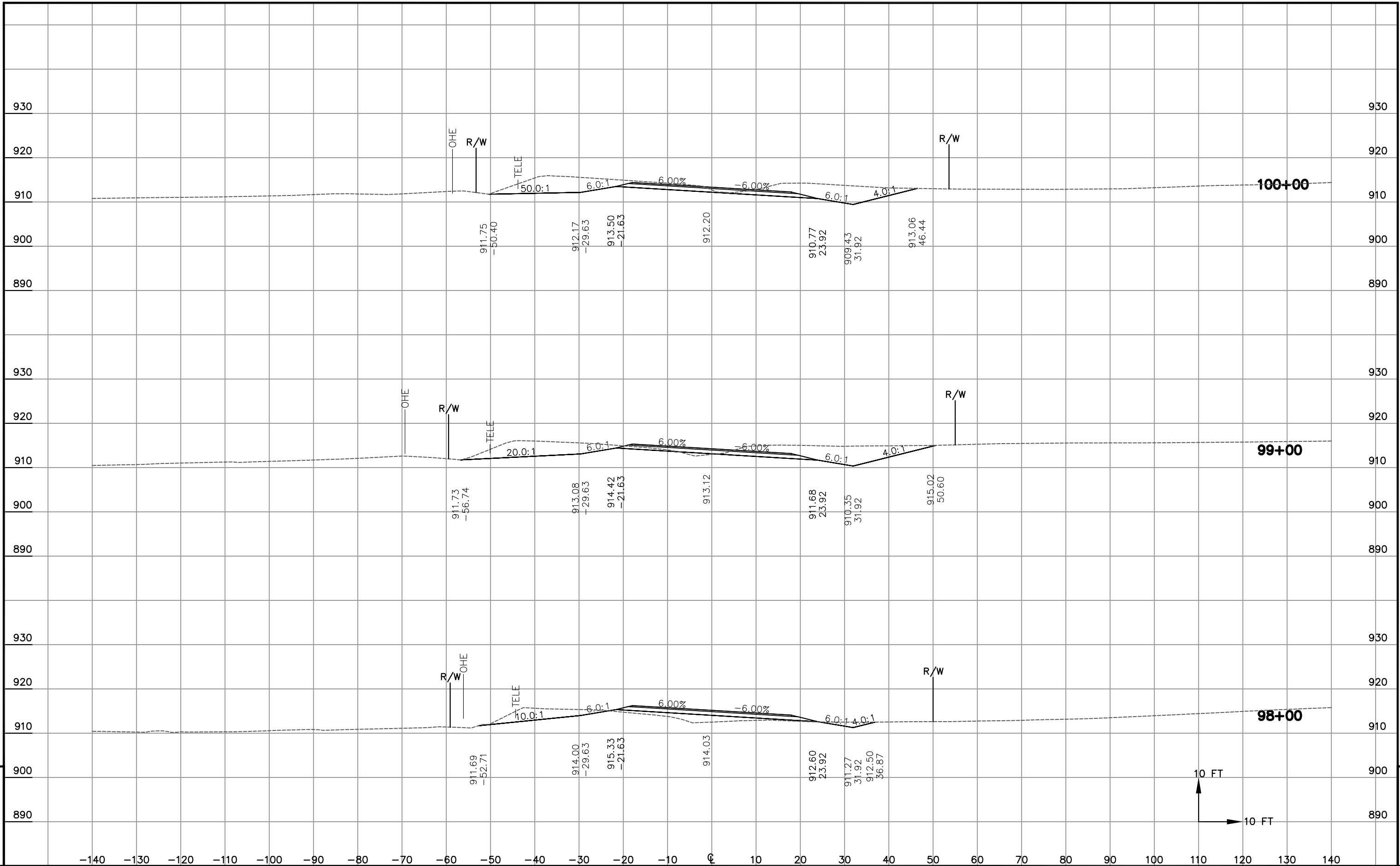


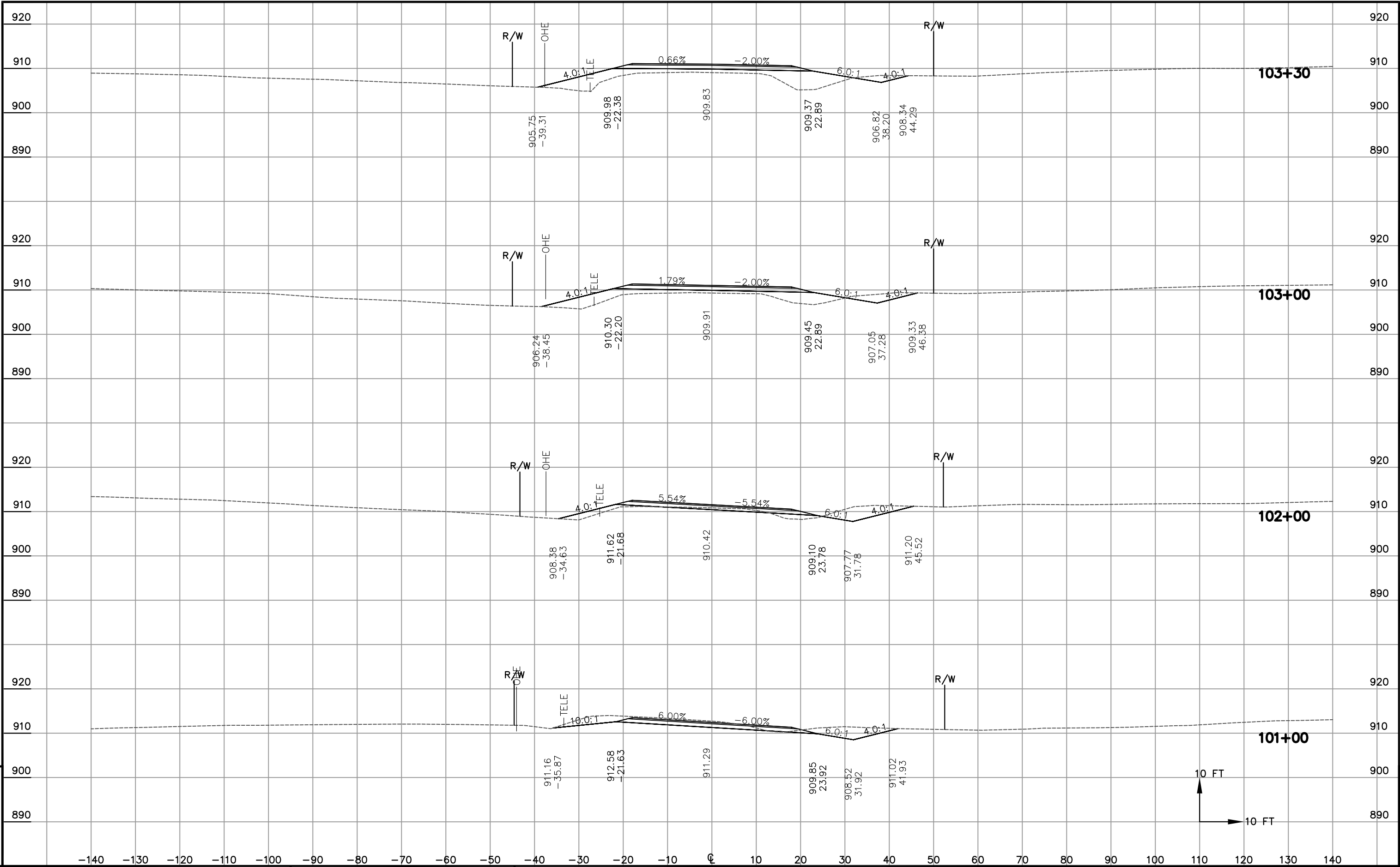


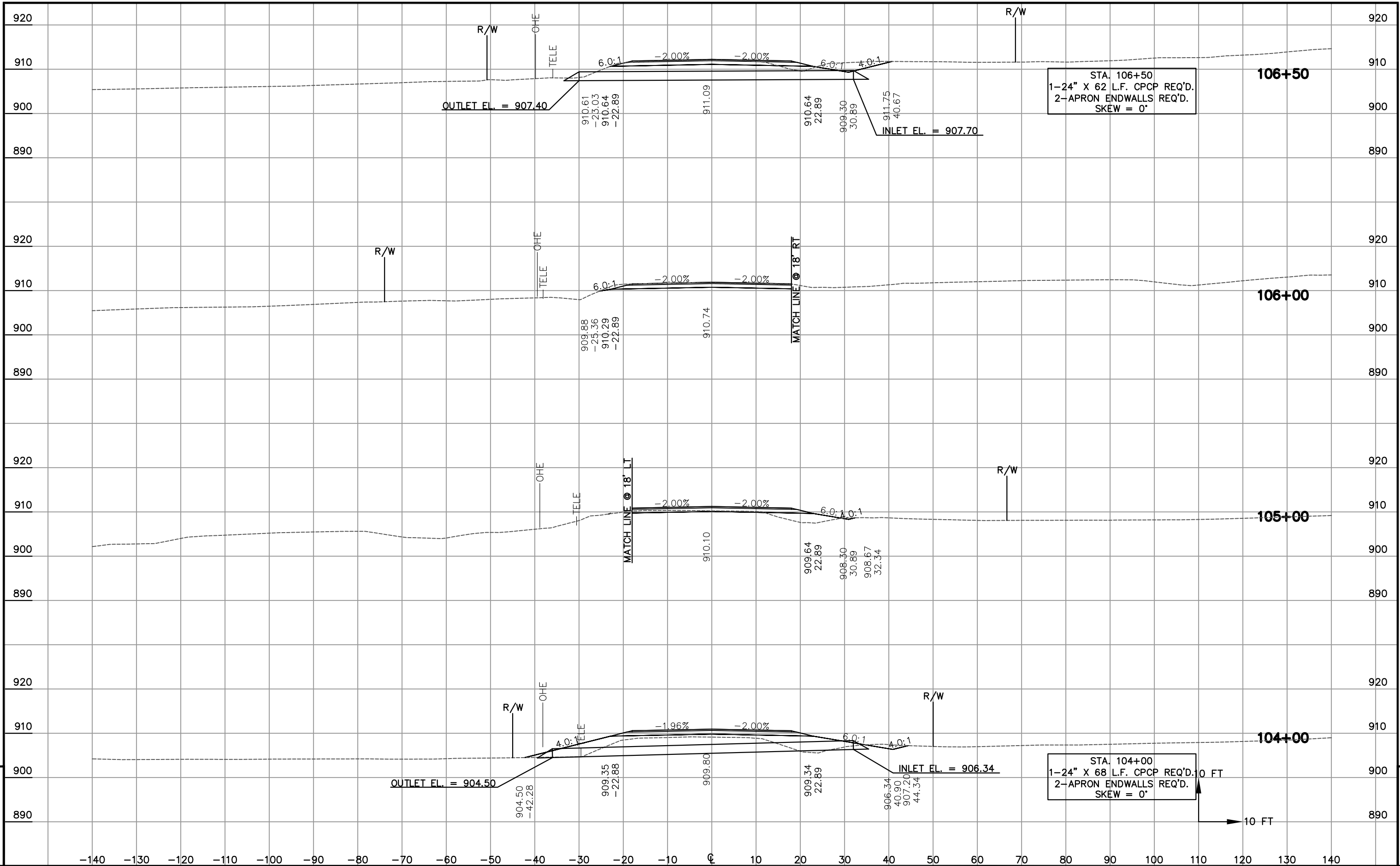


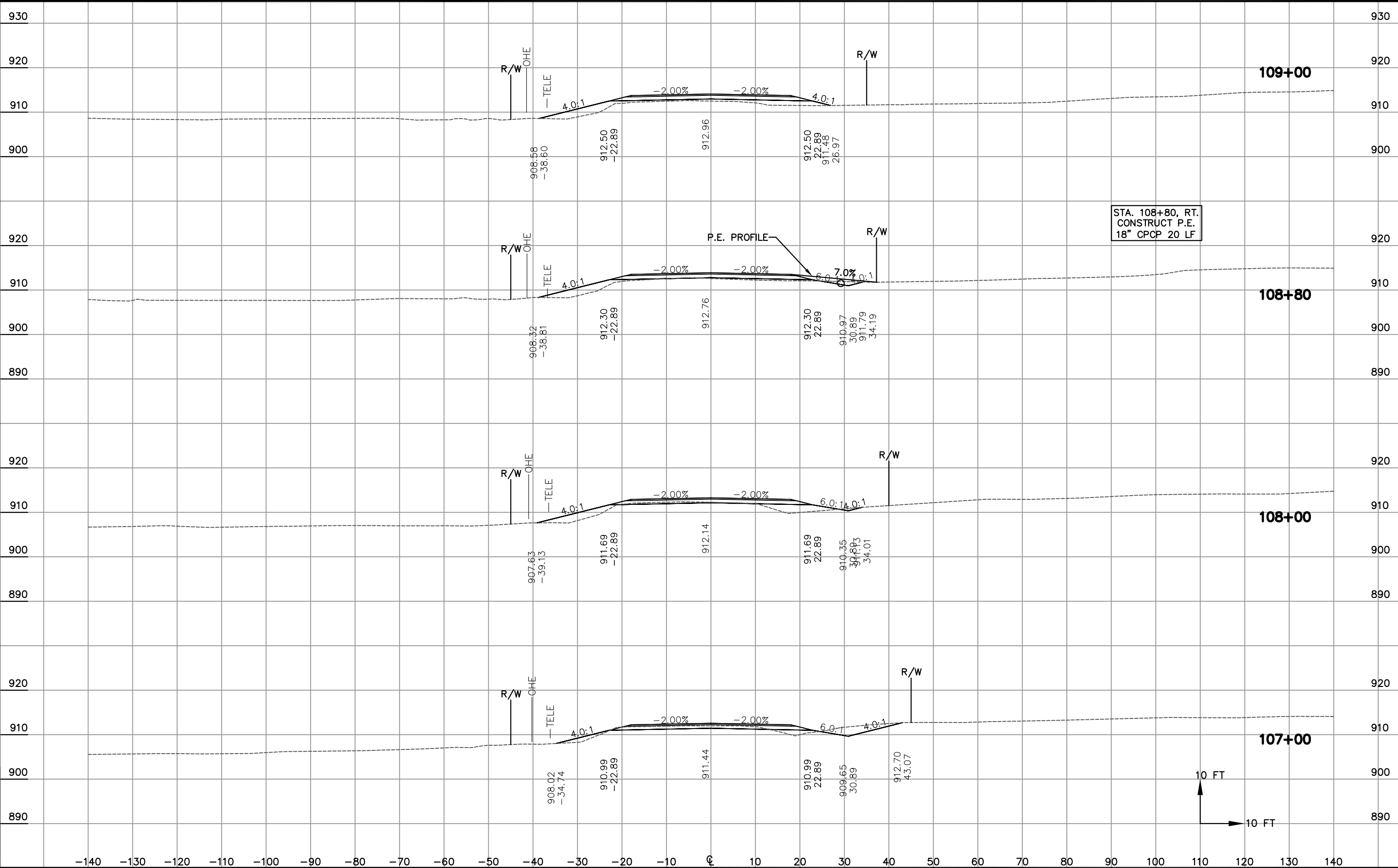


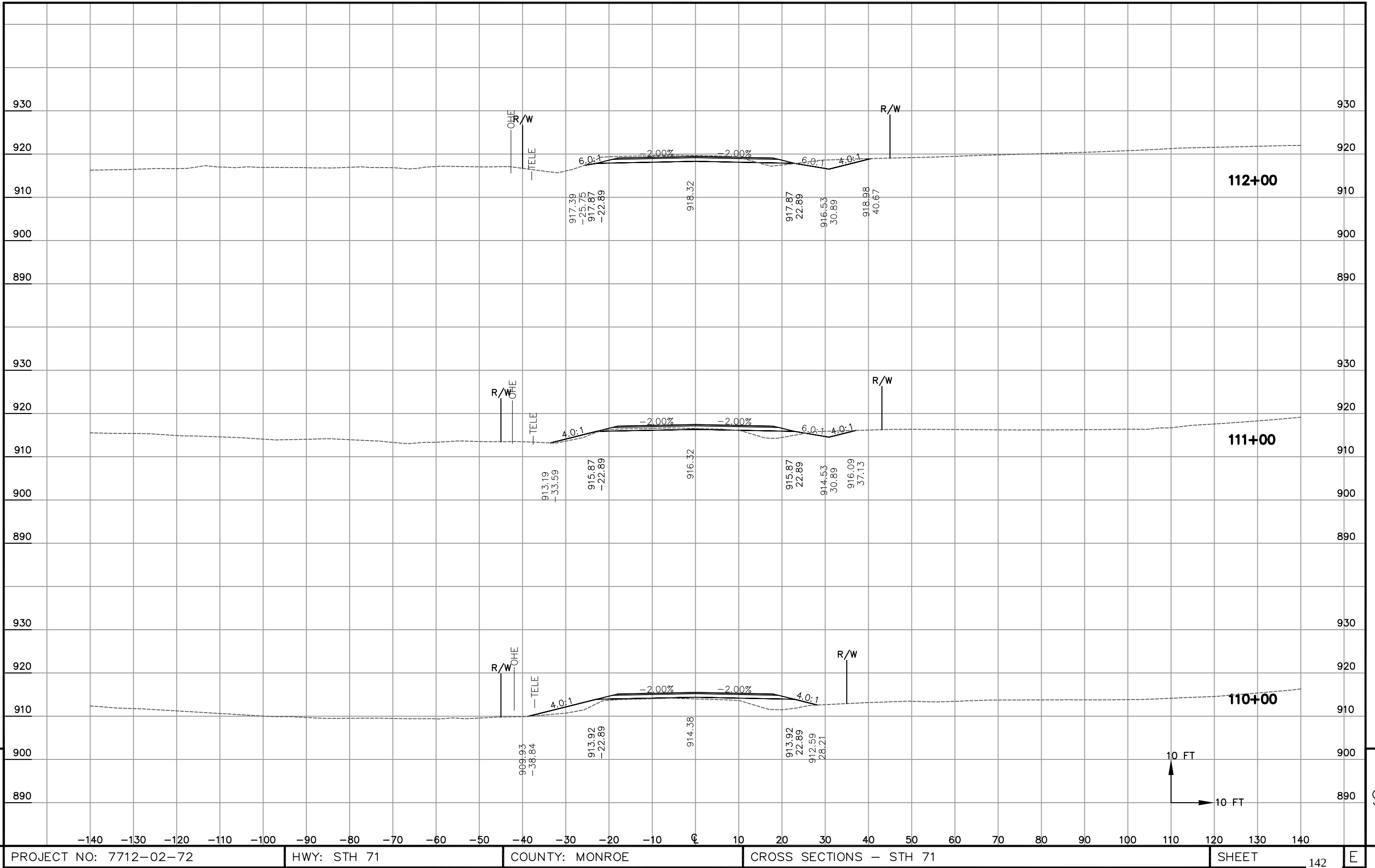


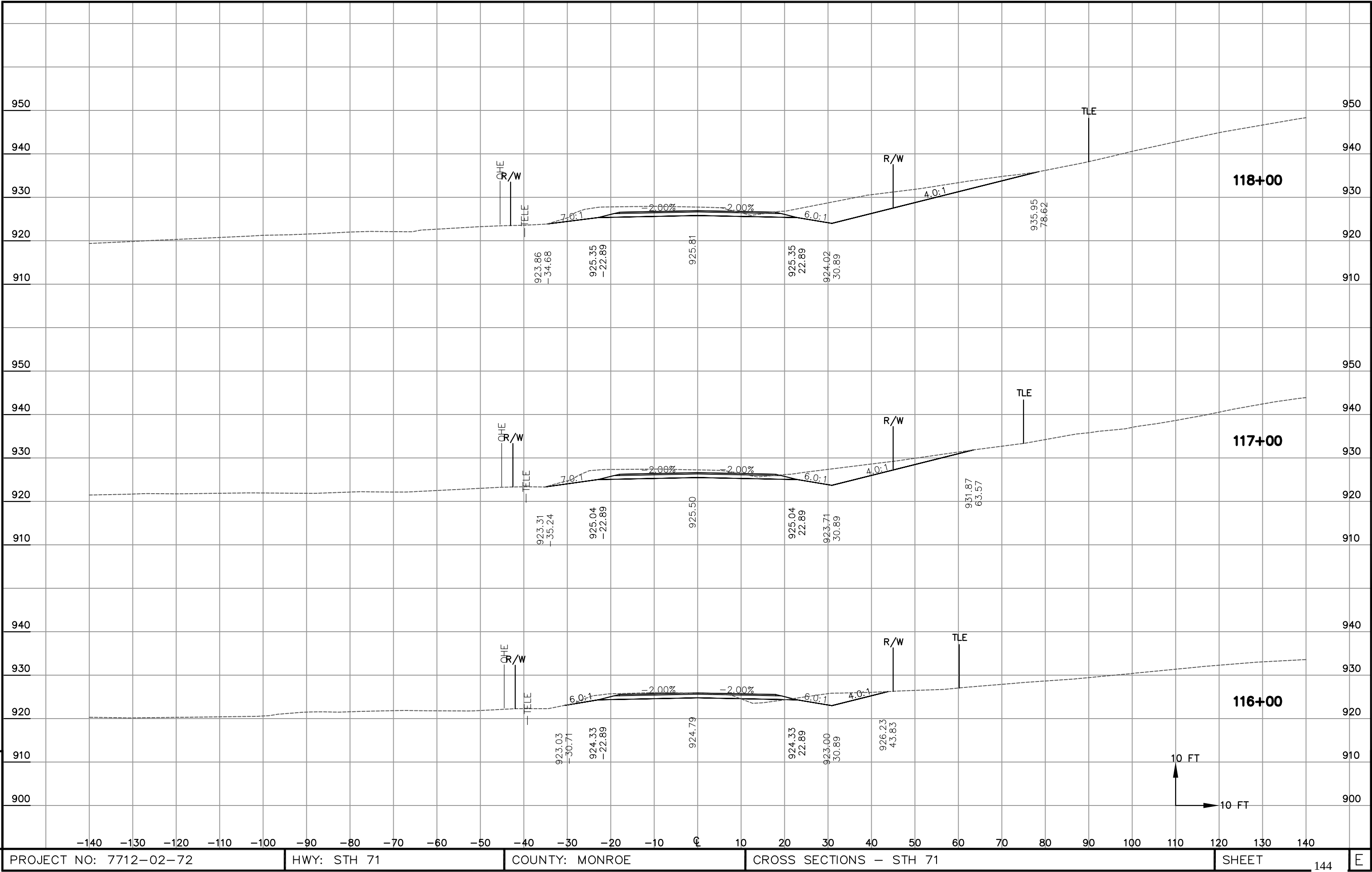


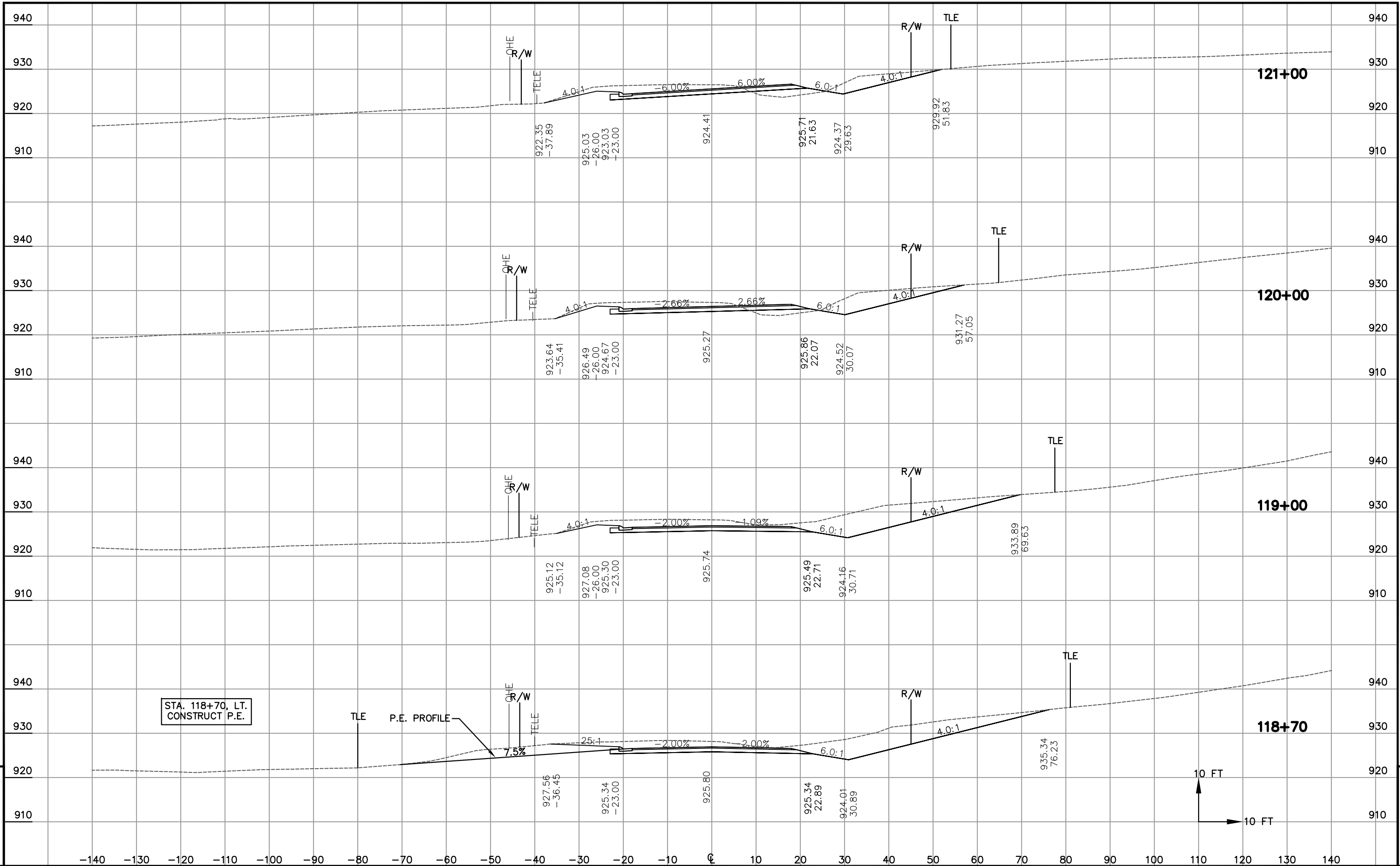


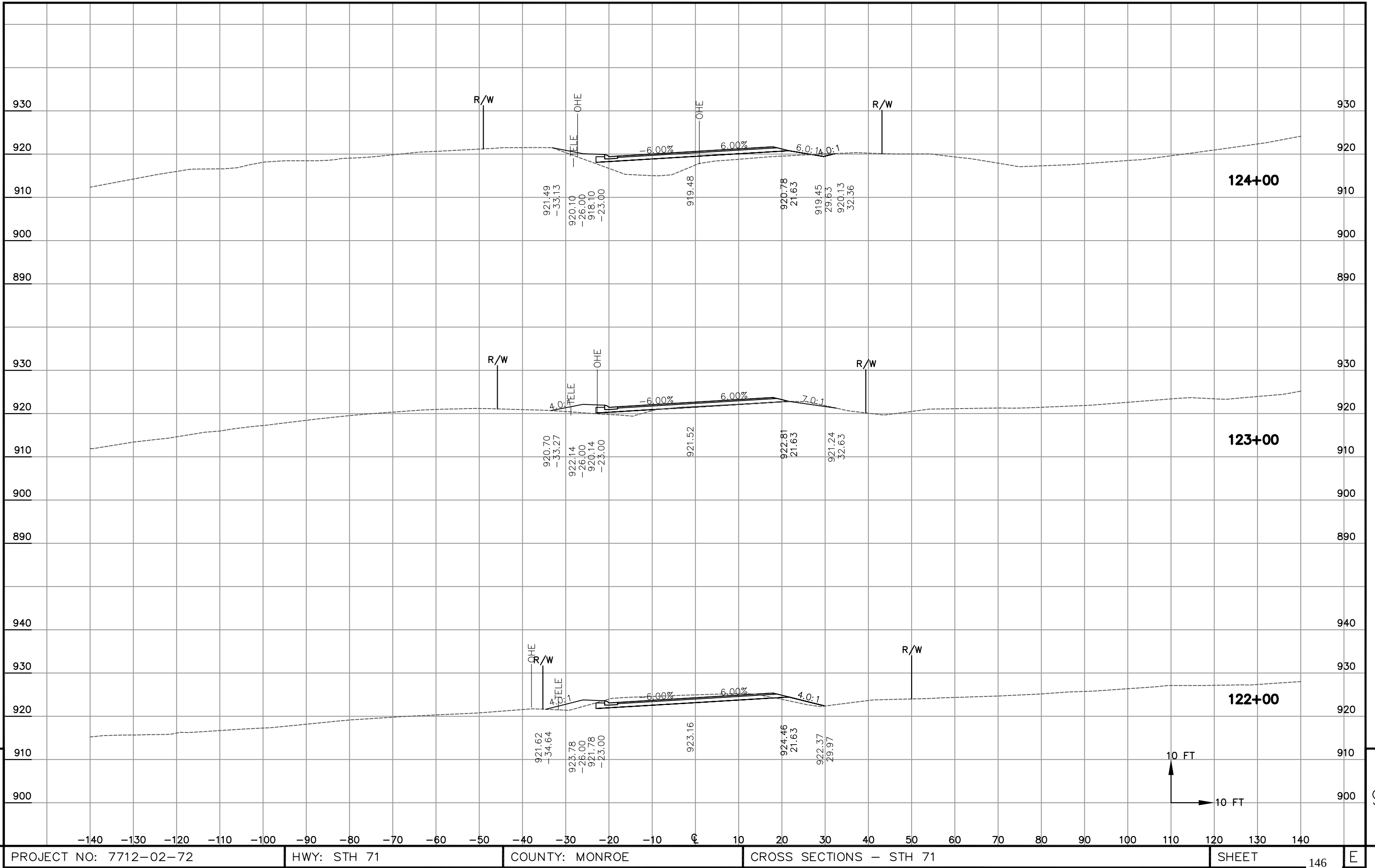


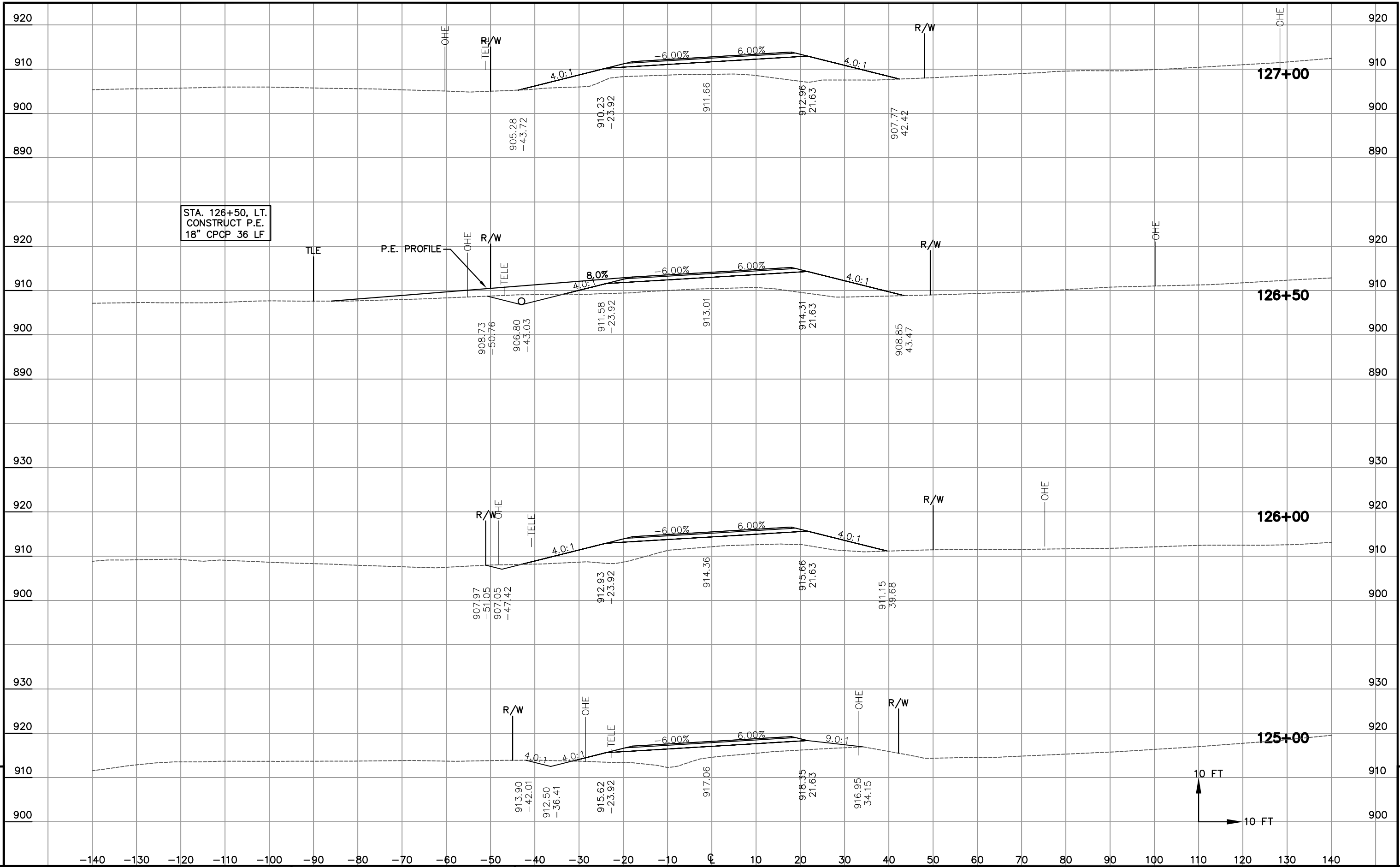


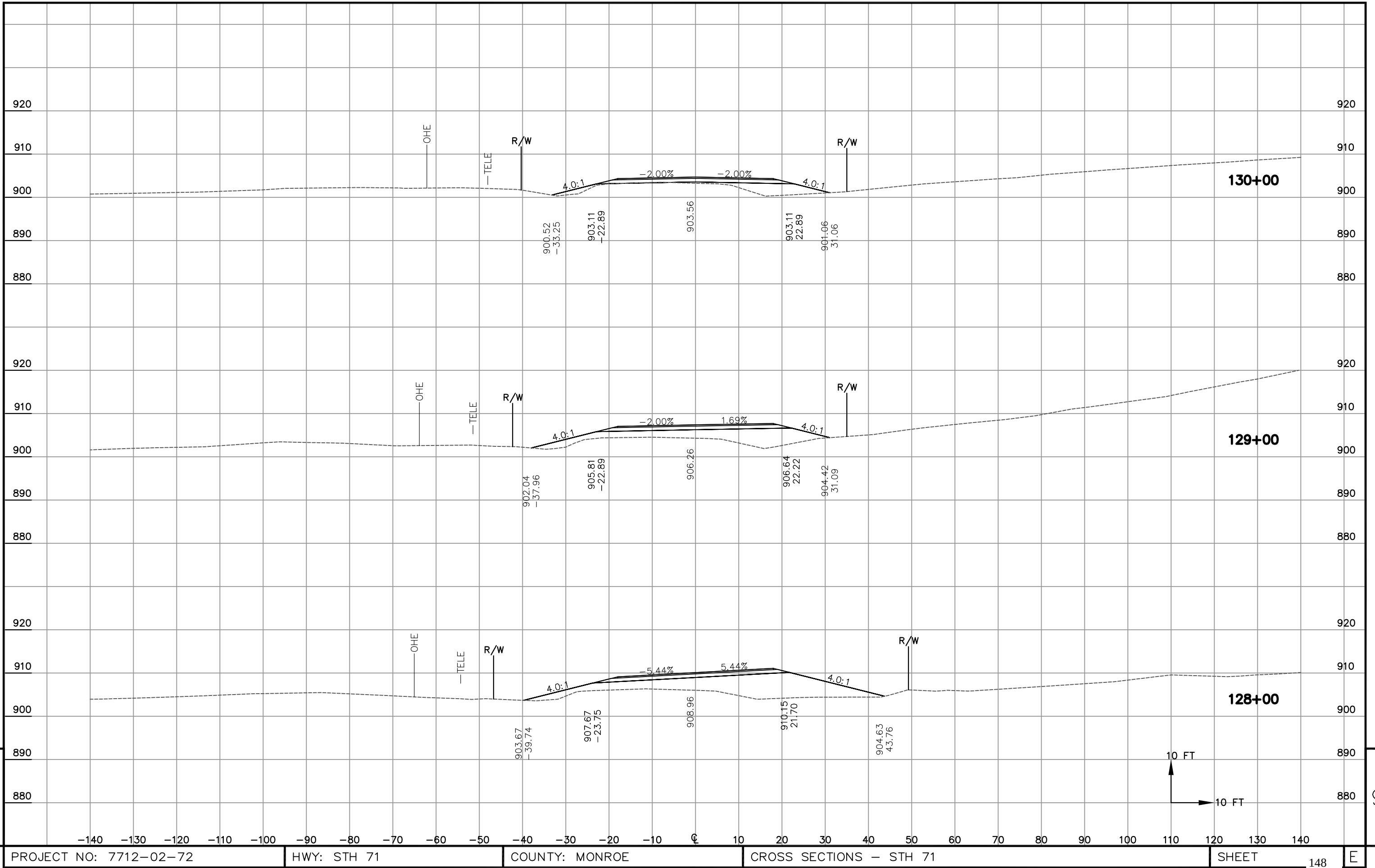


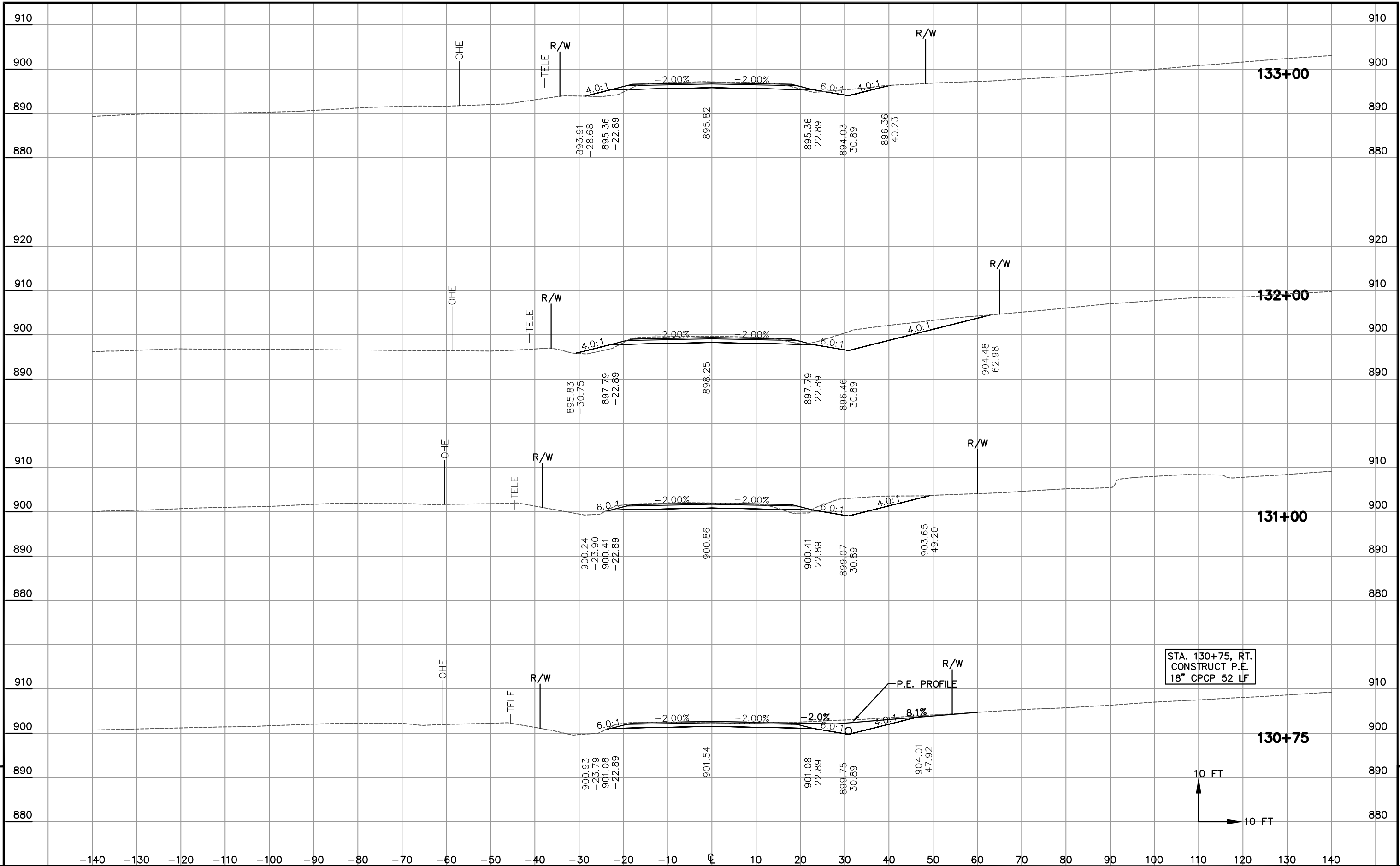


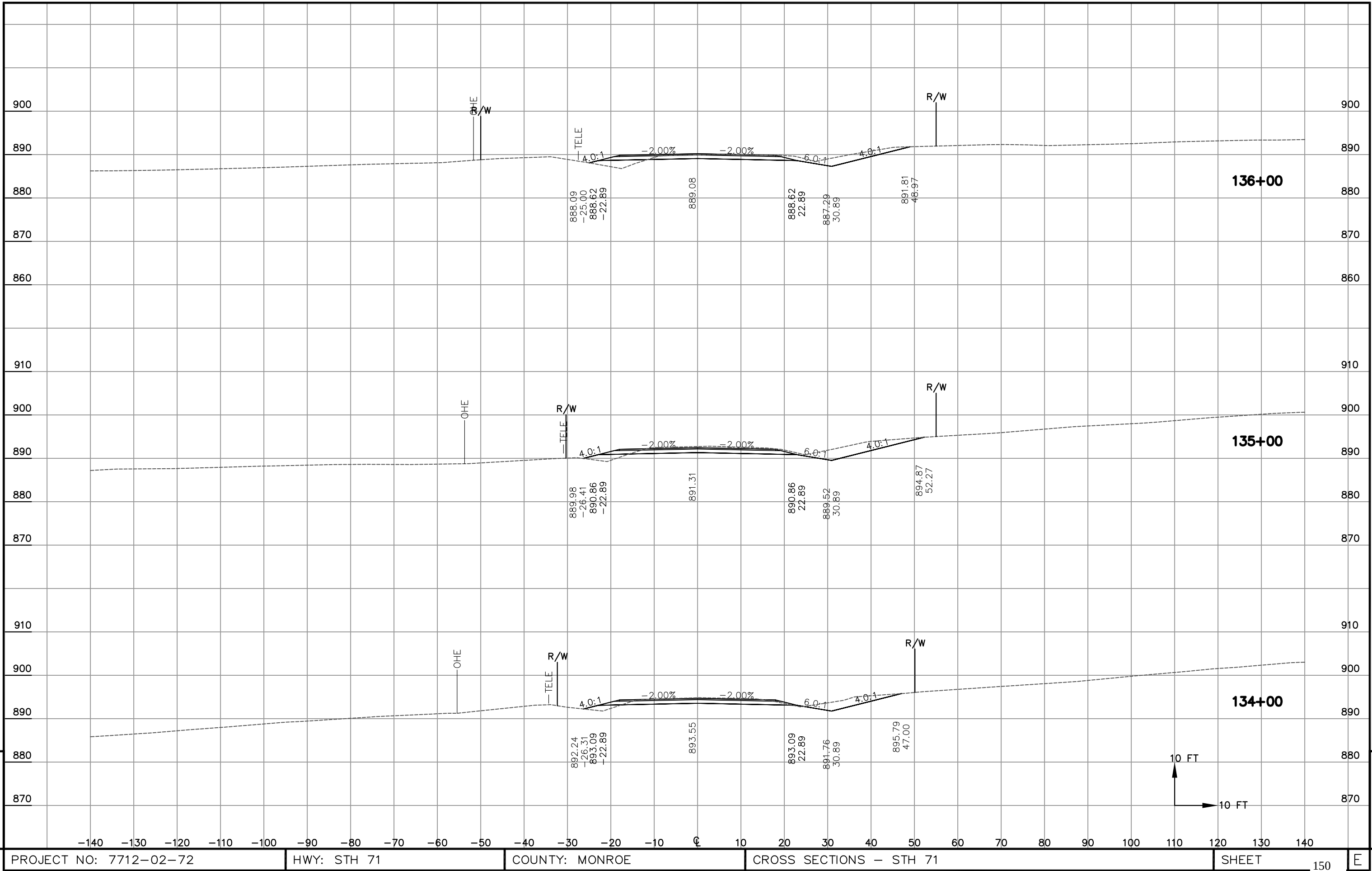


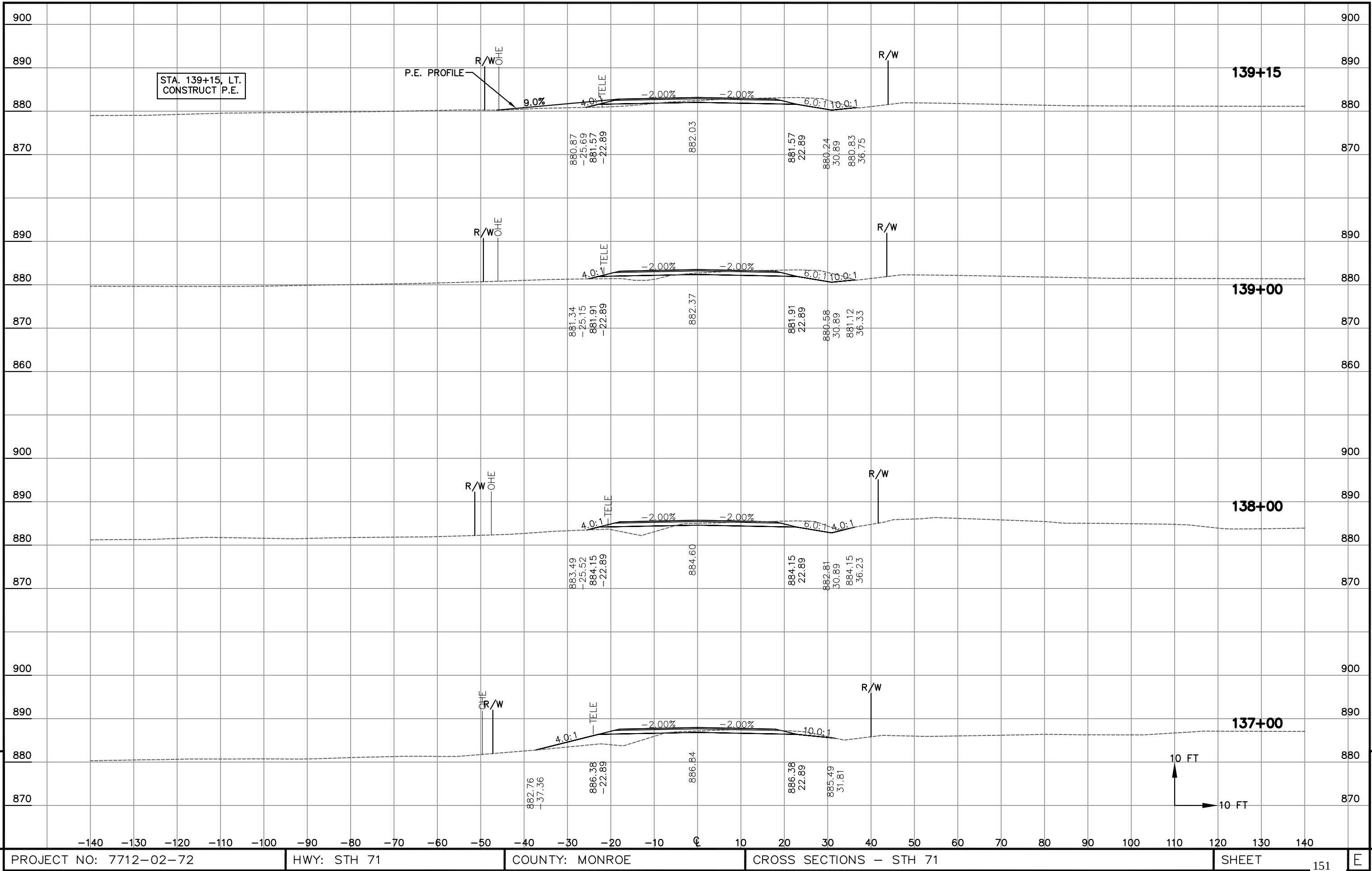


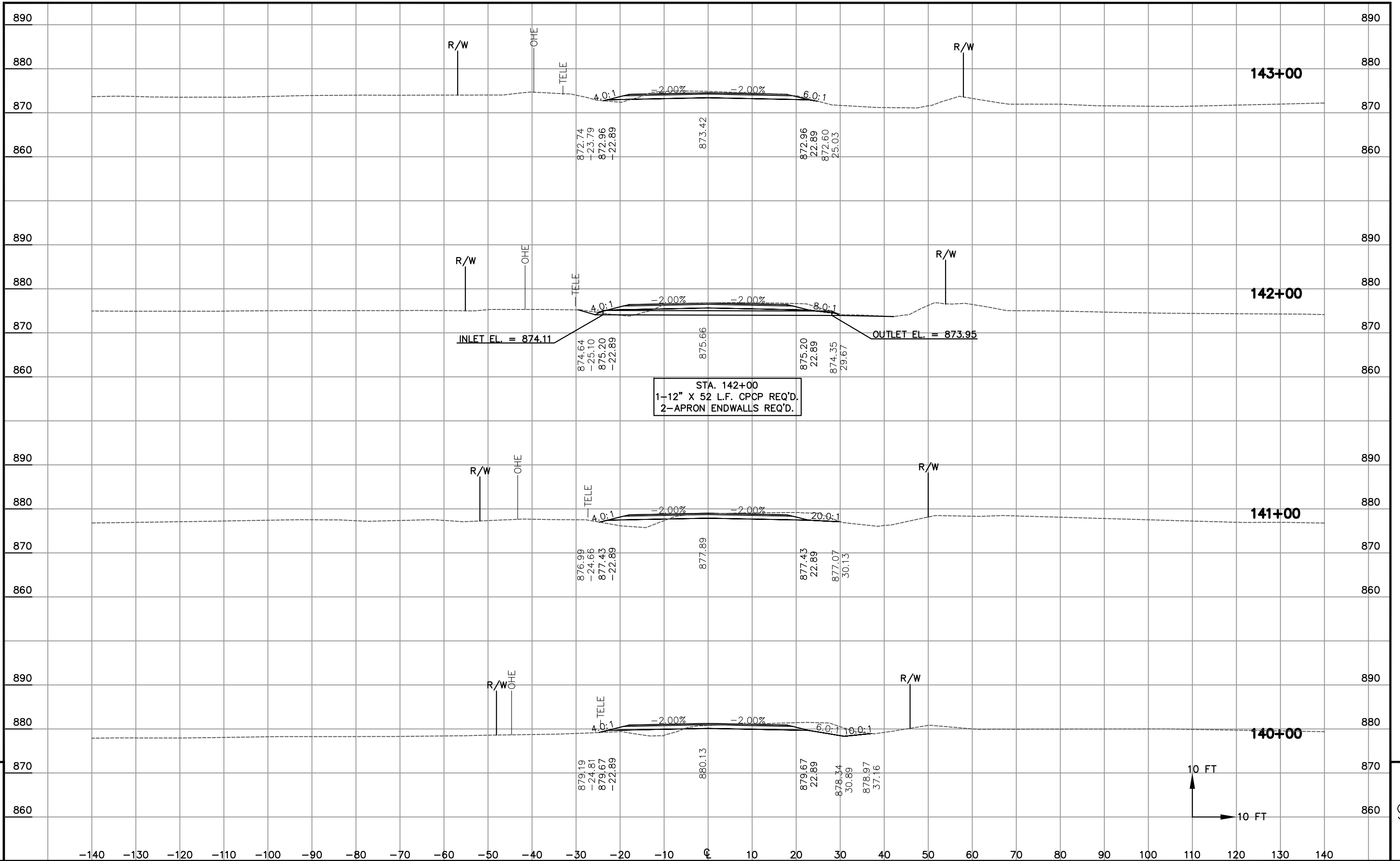


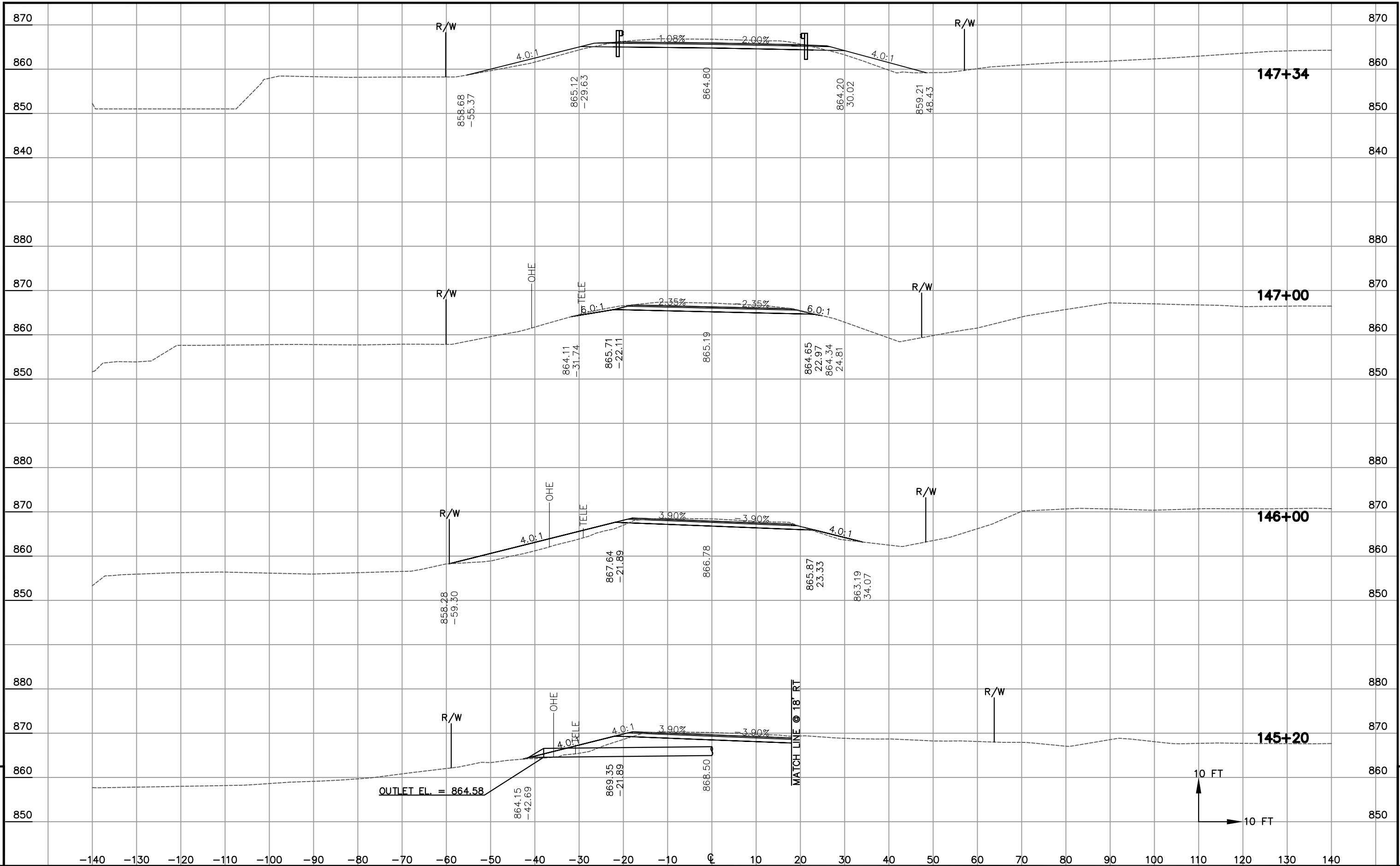


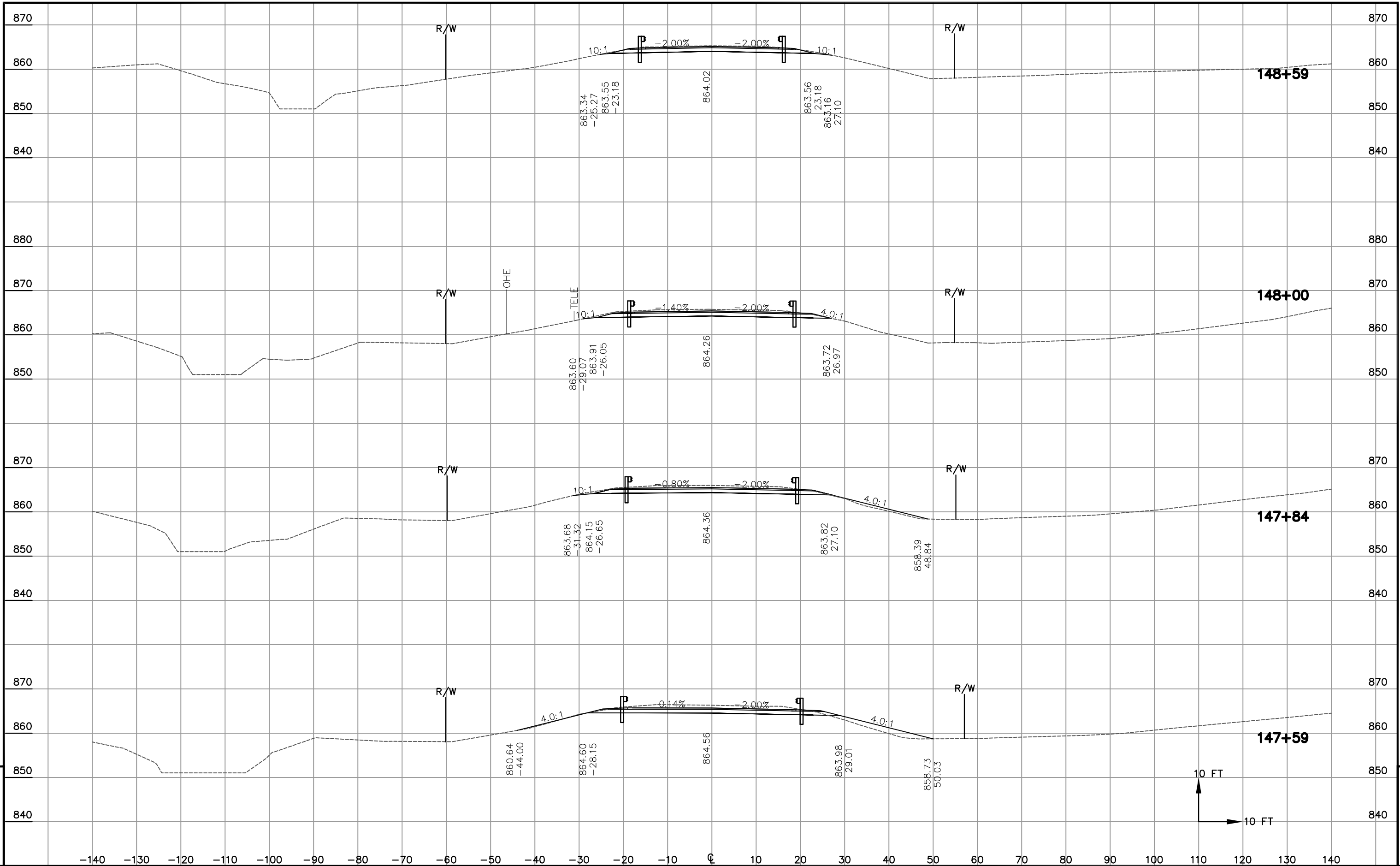


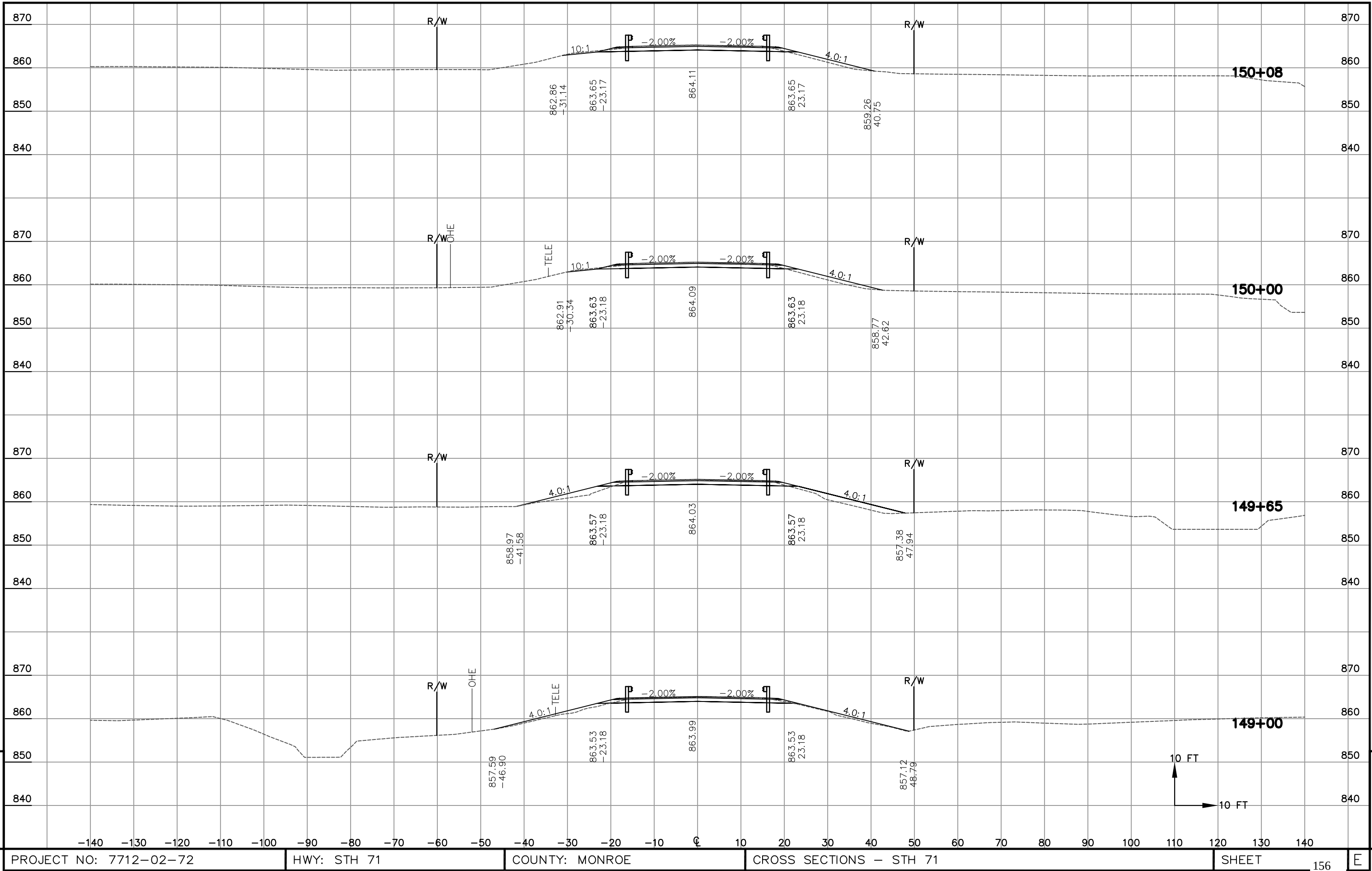


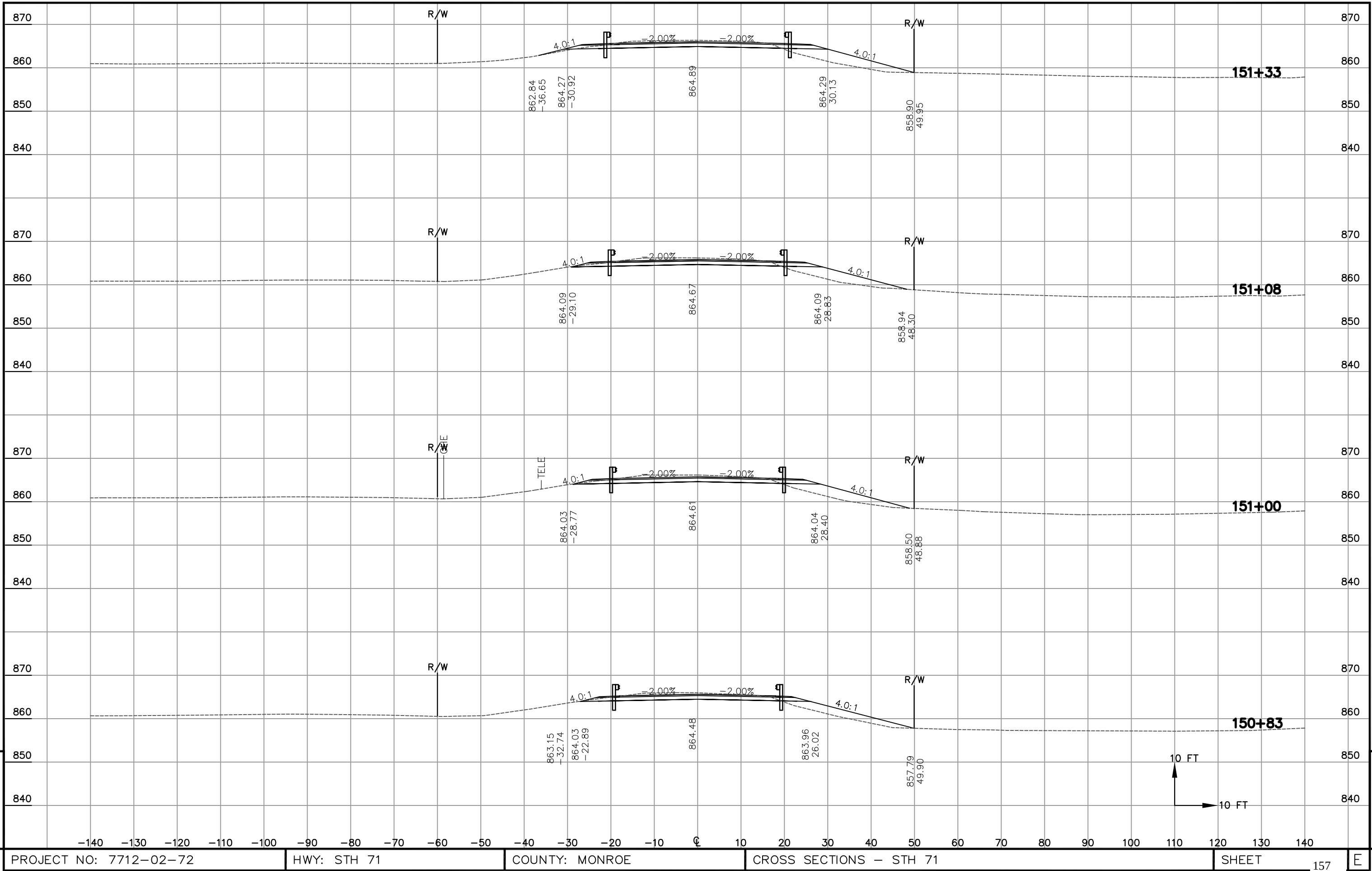












R/W

R/W

151+33

R/W

R/W

151+08

R/W

R/W

151+00

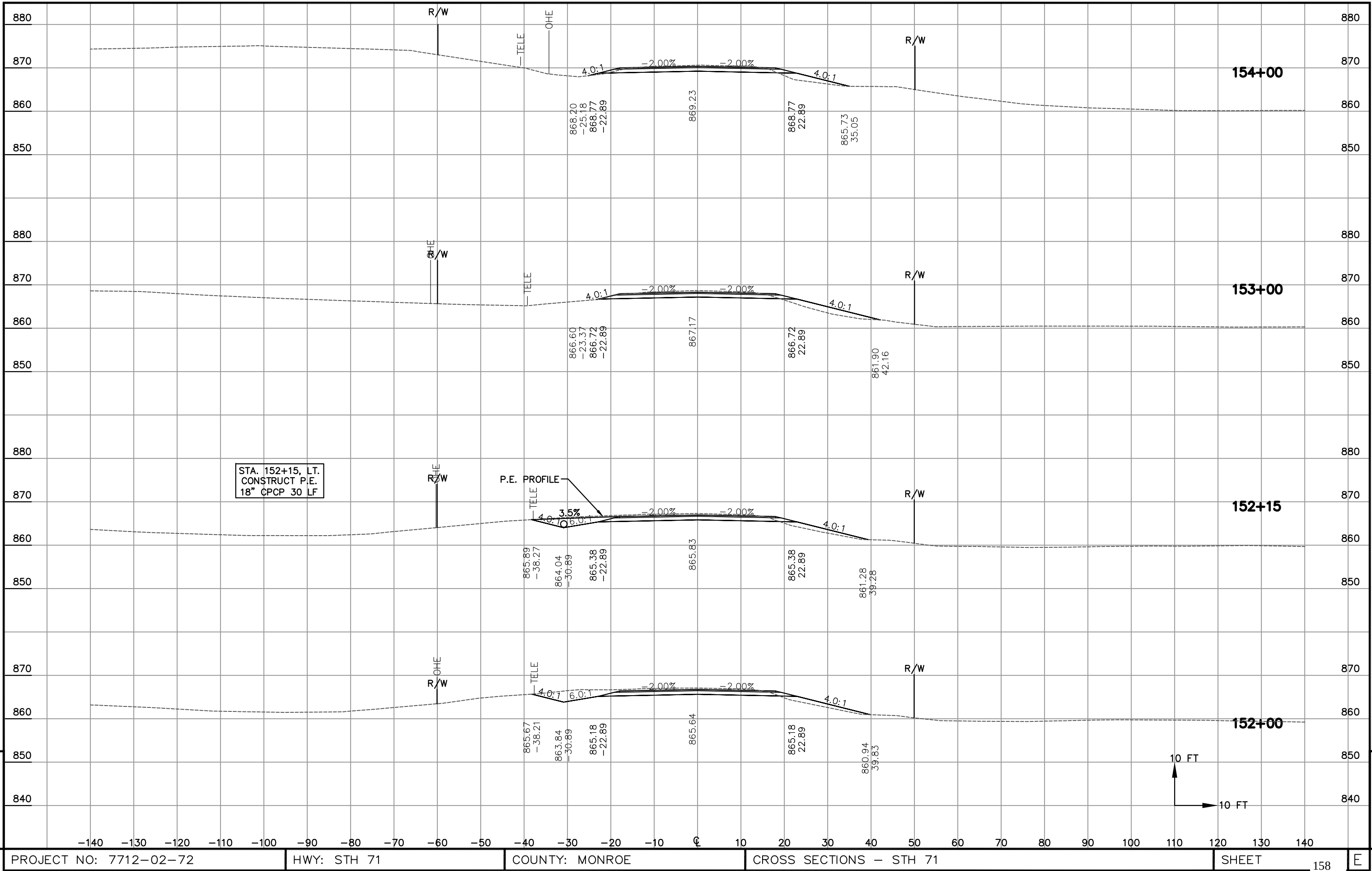
R/W

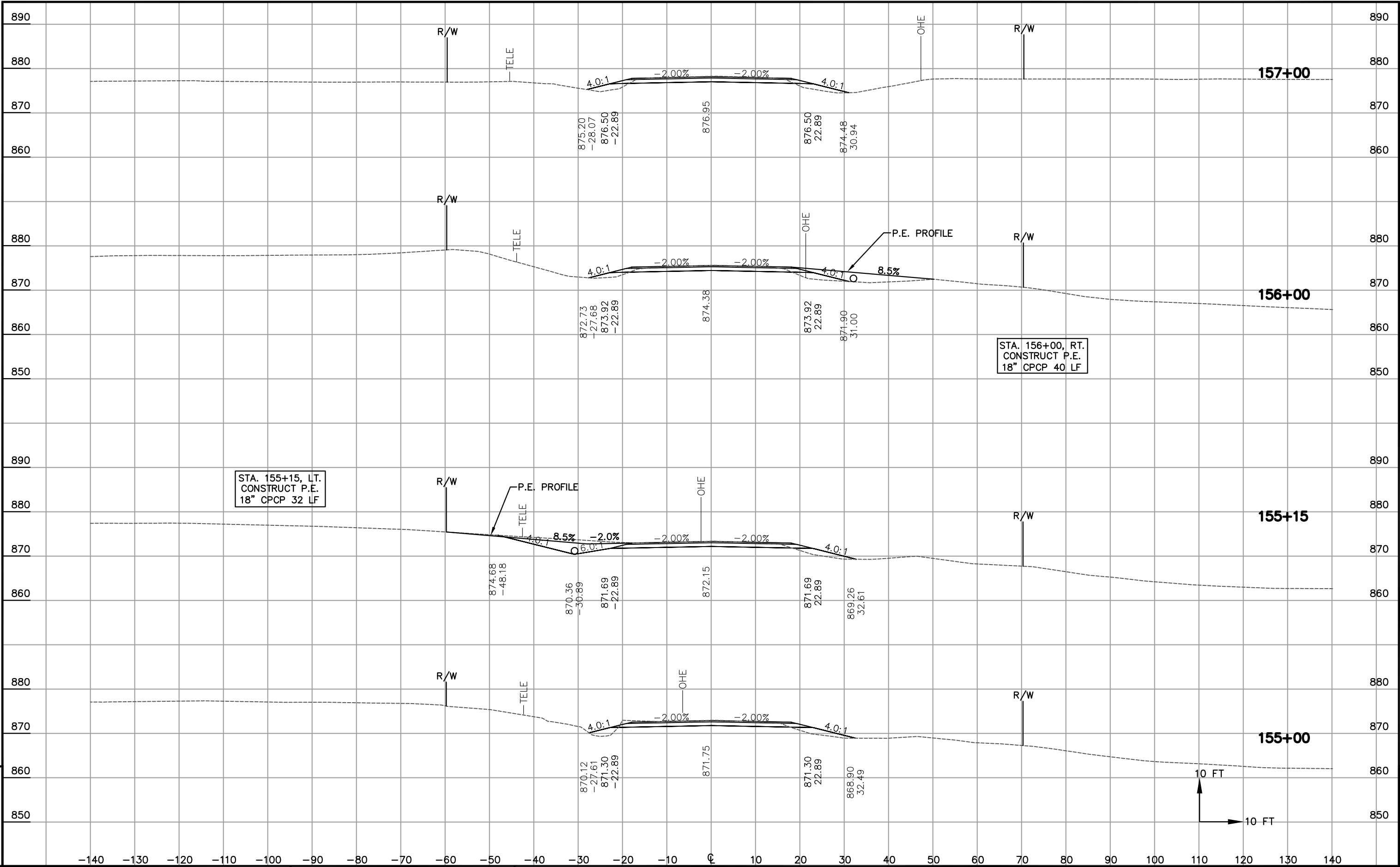
R/W

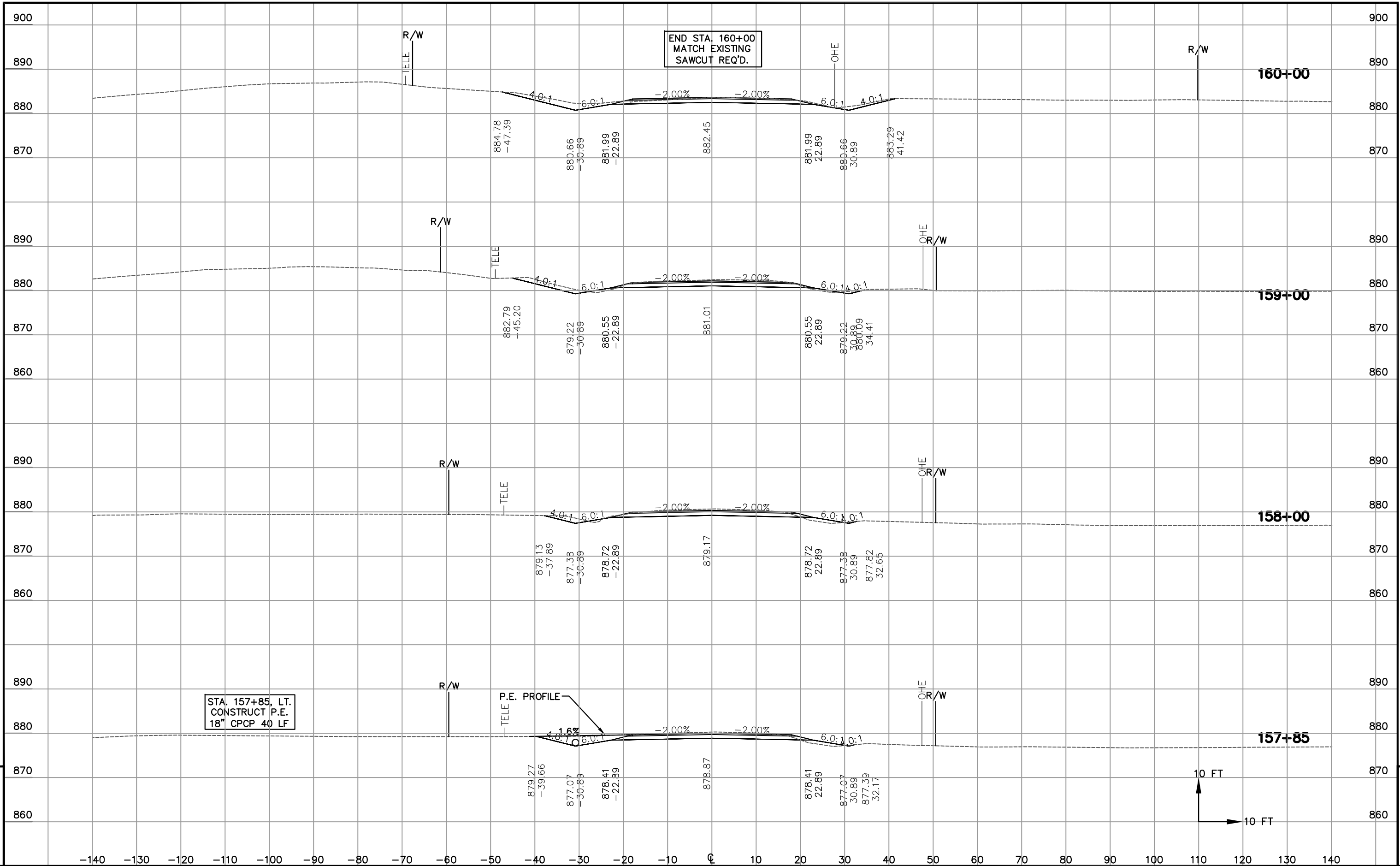
150+83

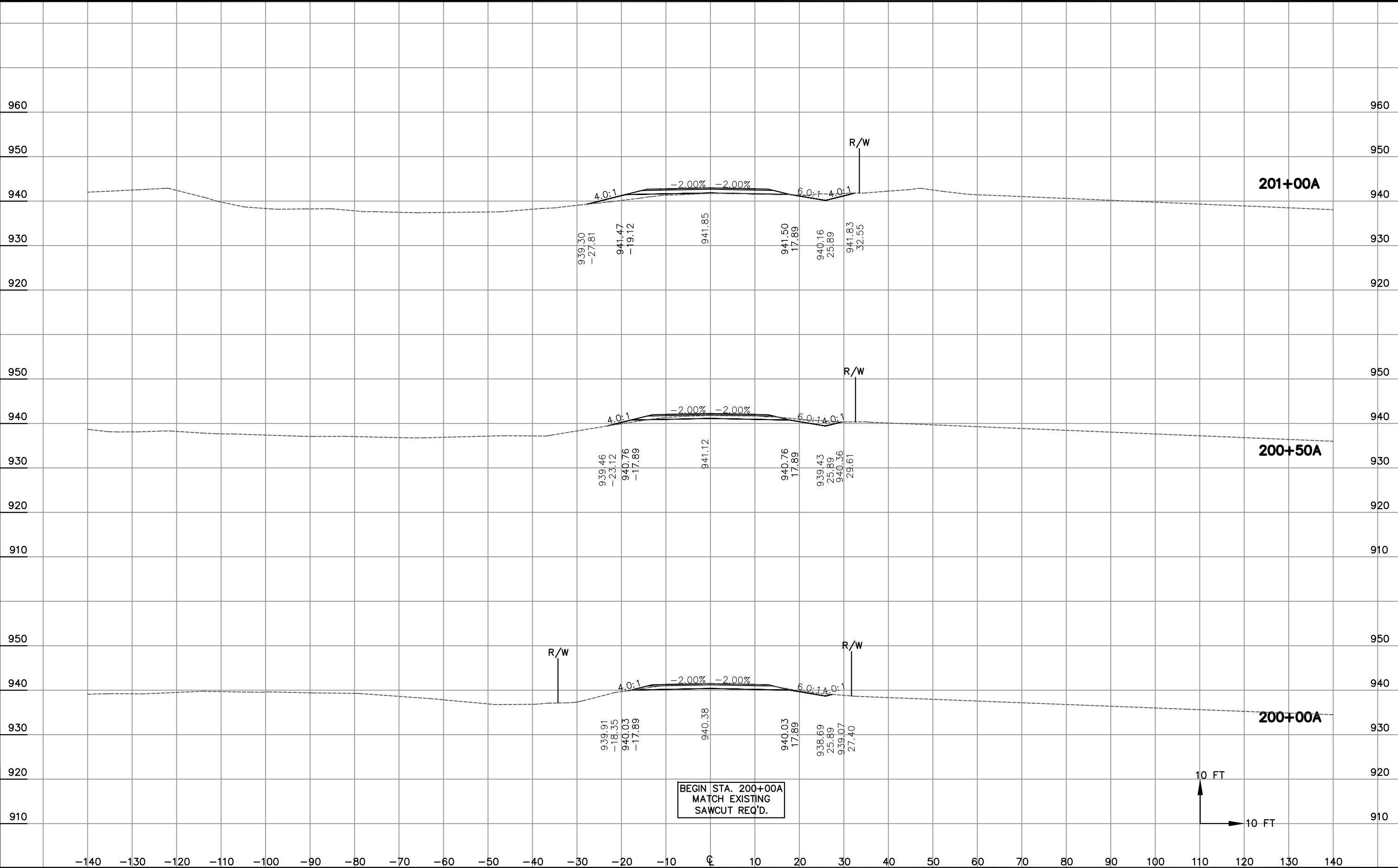
10 FT

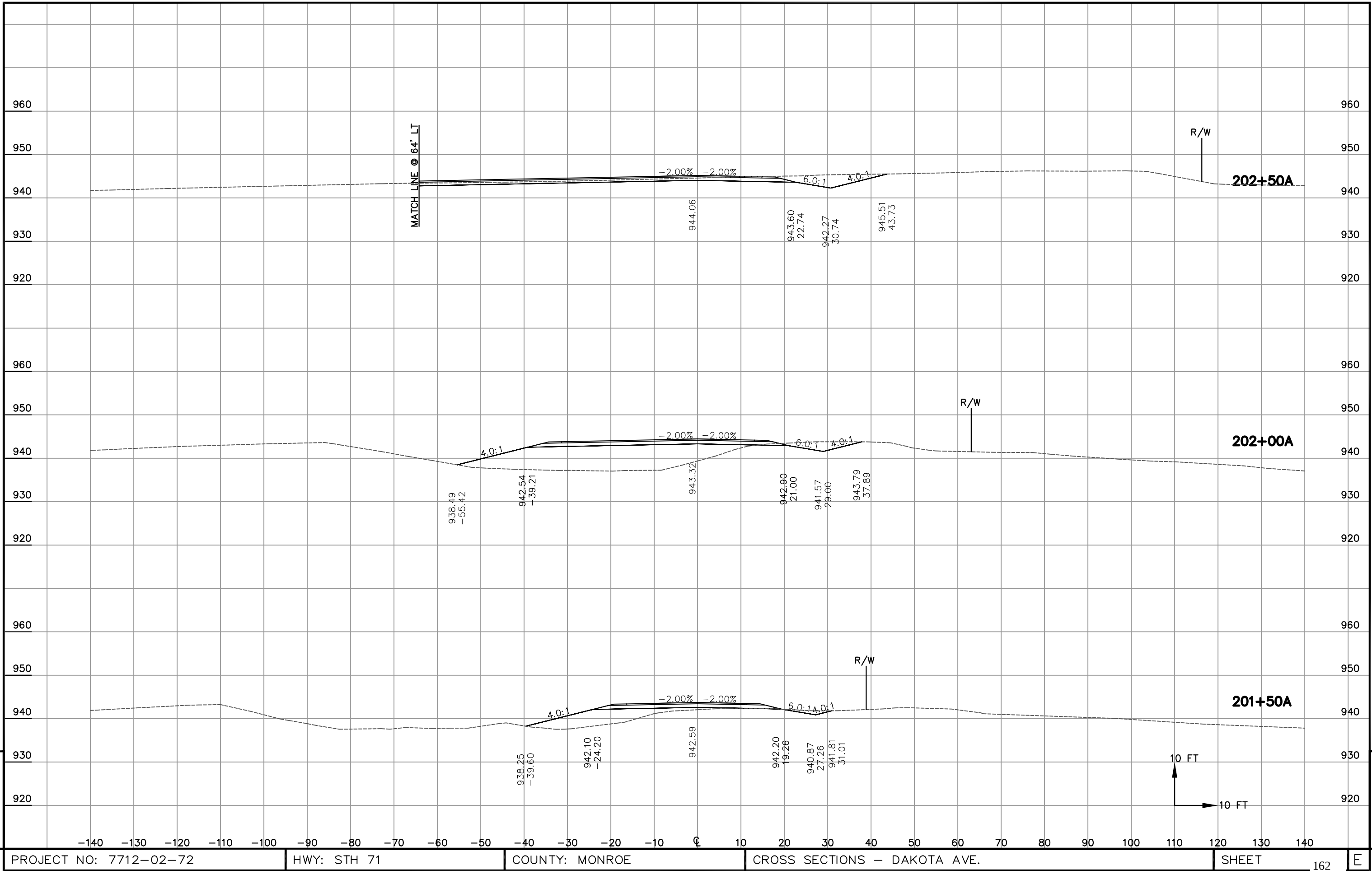
10 FT

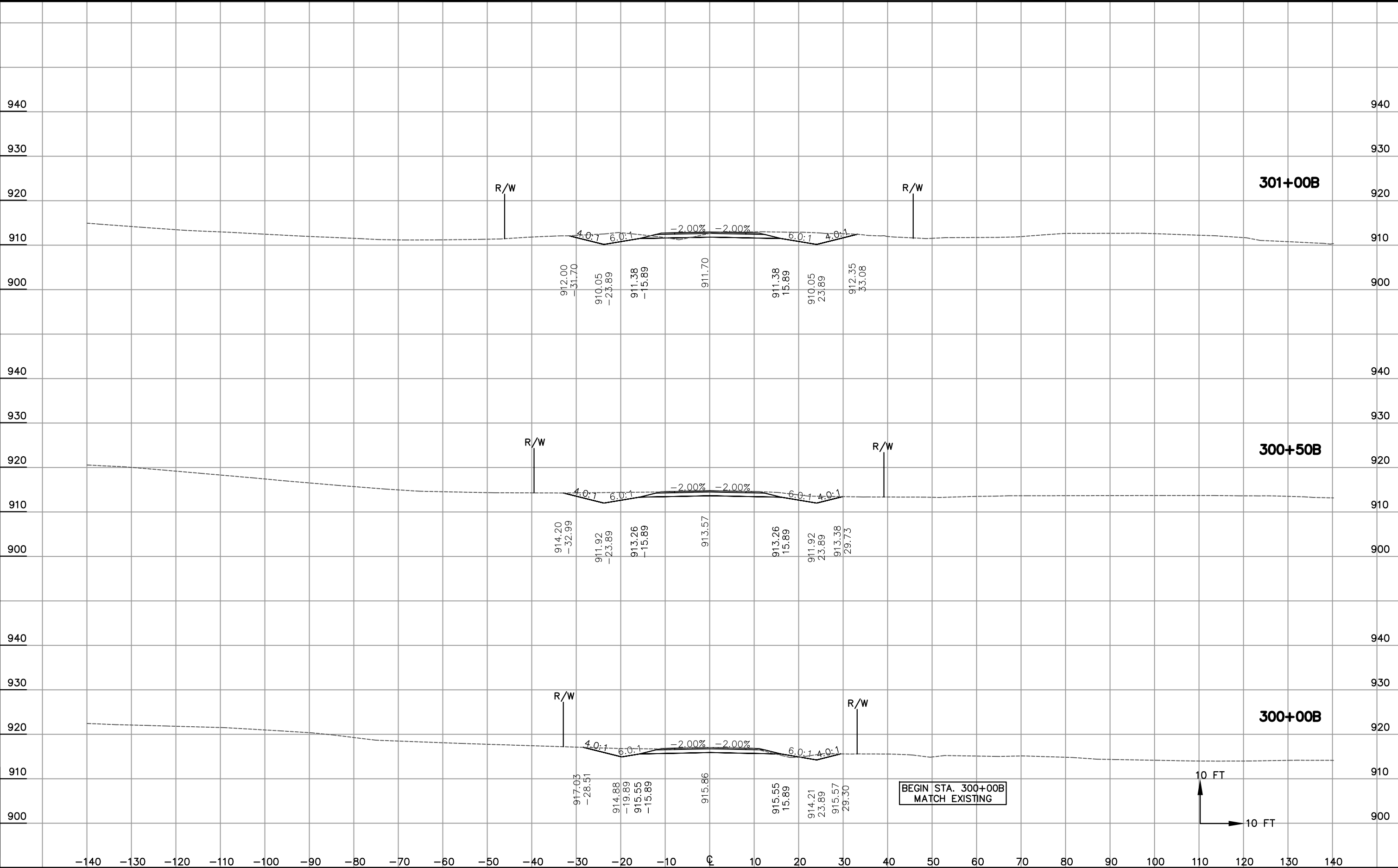


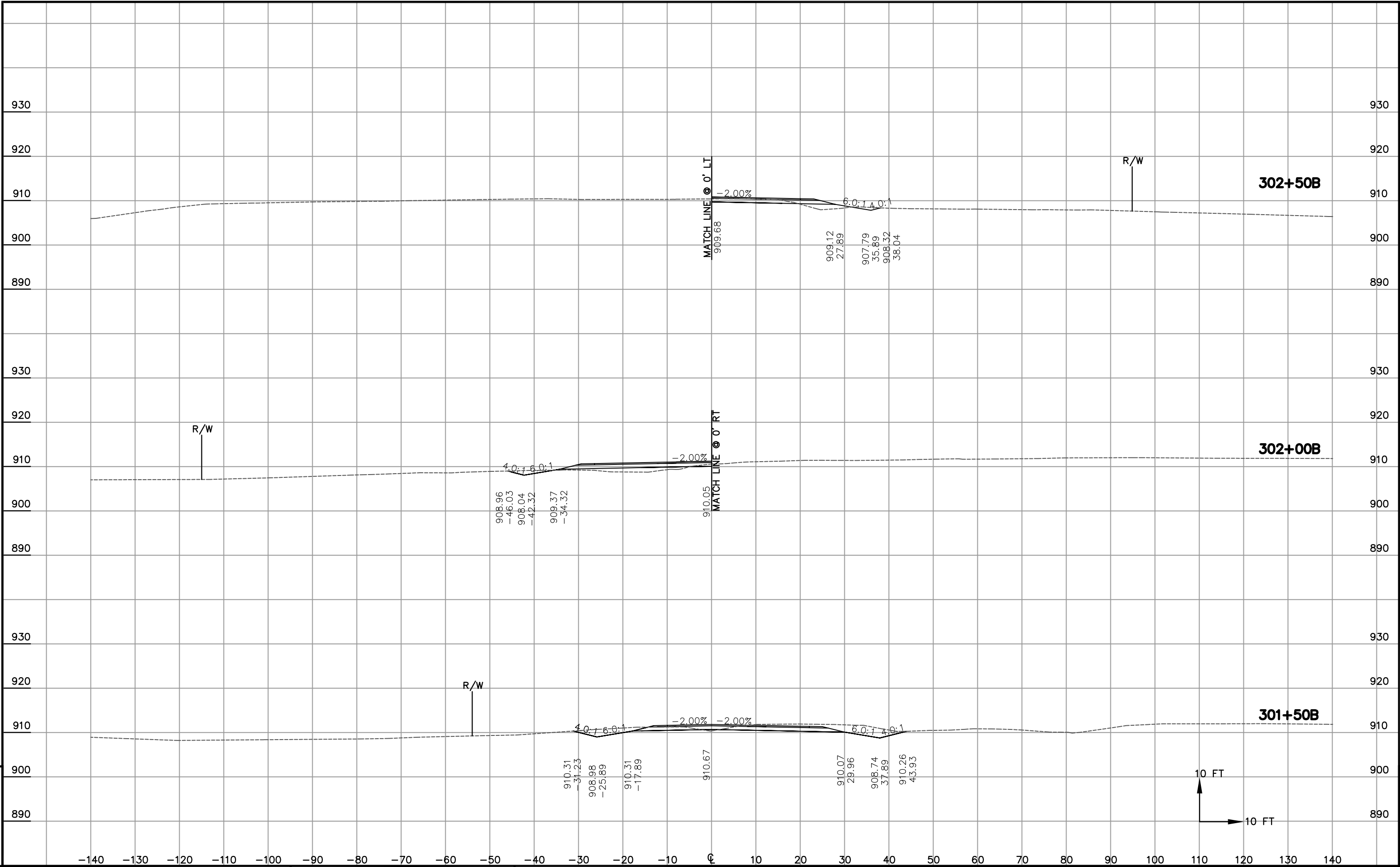


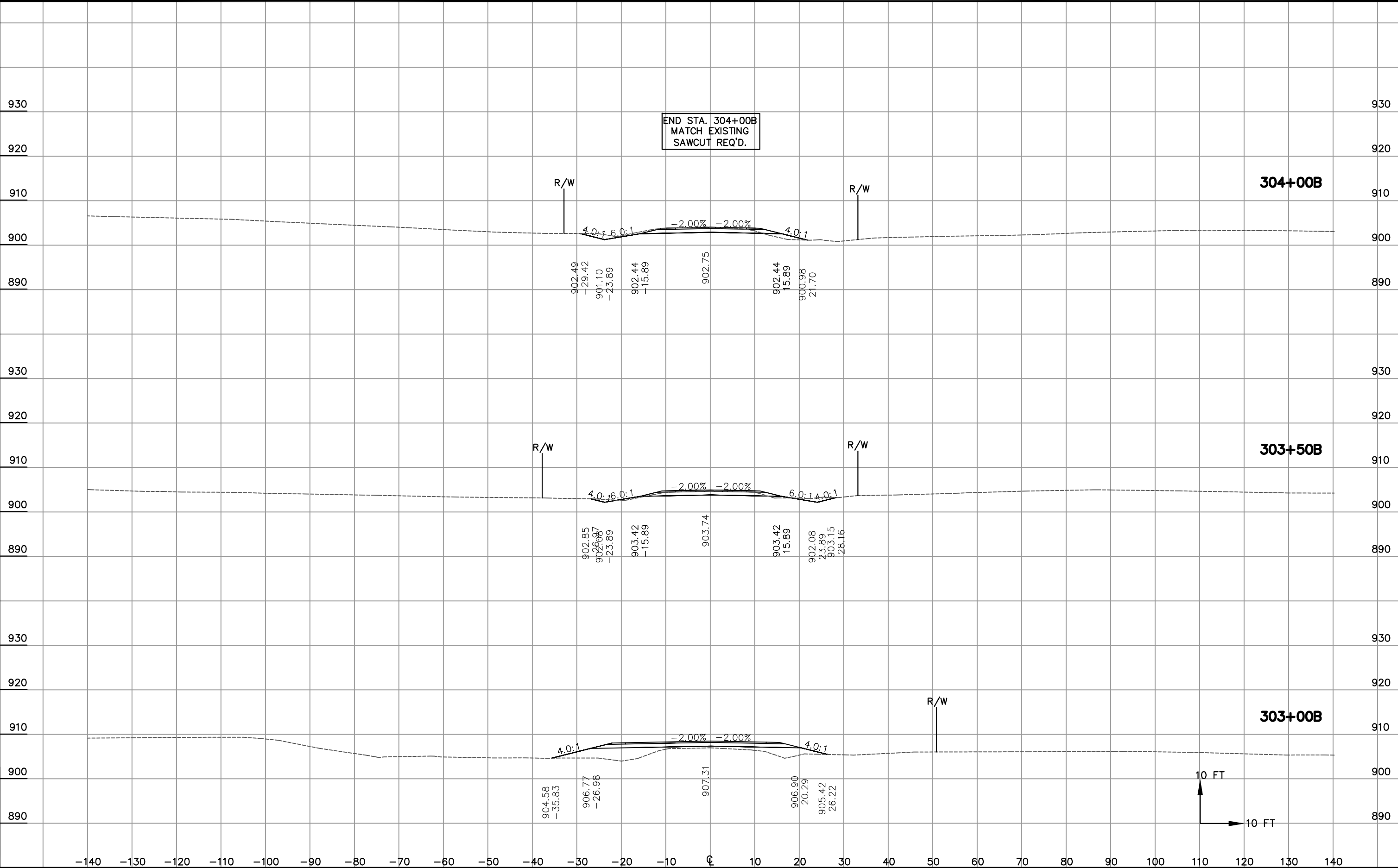


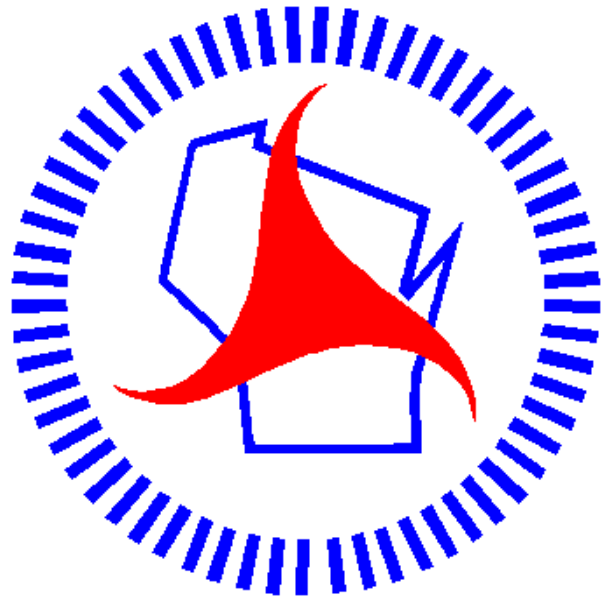












Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>