

COUNTY: **DUNN**

MENOMONIE - RIDGELAND

STH 25

DUNN COUNTY

AS-BUILT PLAN

PROJECT LEADER: Cristina Holzer
Stevens Engineers Inc.

PRIME CONTRACTOR: Monarch Paving Co.

BEGIN CONSTRUCTION: May 1, 2014

END CONSTRUCTION: November 13, 2014

FINAL CONSTRUCTION COSTS: \$2,860,112.53

CONTRACT MOD #'S: 4 - \$29,024.88

CONTRACT ID: 20140211021

TOTAL SHEETS = 226

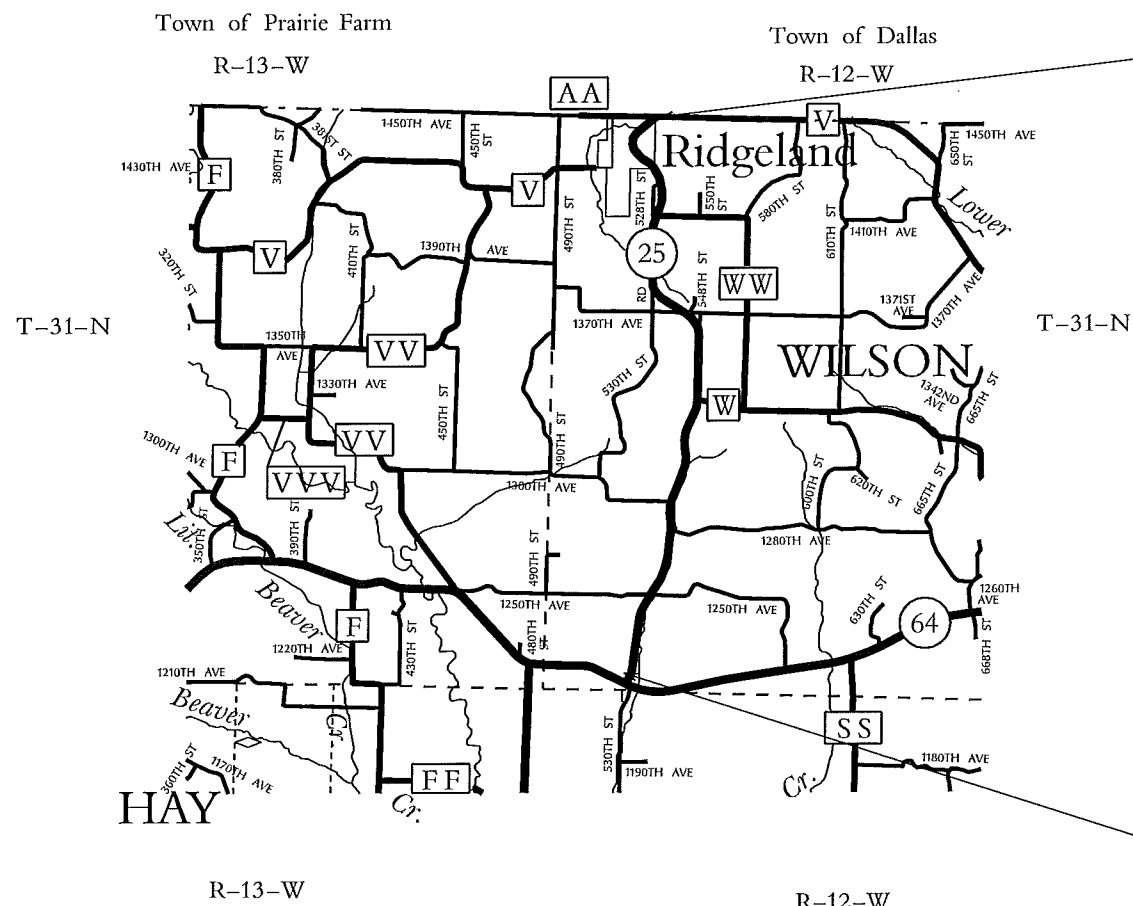
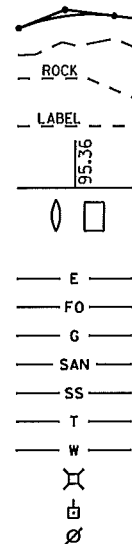


A.A.D.T. 2010	=	2100
A.A.D.T. 2024	=	2475
D.H.V.	=	330
D.D.	=	60/40
T.	=	12.4%
DESIGN SPEED	=	60 MPH
ESALS	=	722,700

PLAN

WOODED OR SHRUB AREA

TELEPHONE POLE


$$Y = 260415.84$$

LAYOUT

SCALE 0  MI.

TOTAL NET LENGTH OF CENTERLINE = 6.56 MI.

POSITIONS SHOWN ARE WISCONSIN COUNTY COORDINATES, DUNN COUNTY, IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	FFA
Designer	AARON CHRIST
Project Manager	TARA WEISS
Regional Examiner	DANIEL OJIBWAY
Regional Supervisor	DAVID SOLBERG
C.O. Examiner	
APPROVED FOR THE DEPARTMENT	
DATE: 7/18/2013	 (Signature)

GENERAL NOTES

CURVE DATA IS BASED ON ARC DEFINITION.

PAVEMENT REMOVAL SHALL BE TO THE NEAREST JOINT OR A SAWED EDGE AS DIRECTED BY THE ENGINEER.

WHEN PORTIONS OF EXISTING ASPHALTIC SURFACES ARE TO BE REMOVED TO ACCOMMODATE NEW CONSTRUCTION. THE LINE OF SUCH REMOVAL SHALL BE NEATLY DELINEATED WITH A SAW CUTJOINT THROUGH THE ASPHALTIC SURFACE SO THAT REMOVAL OF THE ASPHALT SHALL BE ACCOMPLISHED WITHOUT DAMAGE TO REMAINING PORTIONS. THE LOCATION OF SAW CUTS AND THE AMOUNT REMOVED WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

RESHAPE AND SEED ANY PREVIOUSLY GRASSED AREAS THAT ARE DISTURBED BY OPERATIONS OUTSIDE THE NORMAL CONSTRUCTION LIMITS.

UTILITY LOCATIONS AS LISTED IN THE SPECIAL PROVISIONS ARE APPROXIMATE. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH DIGGERS HOTLINE OR THE UTILITIES WITH FACILITIES IN THE PROJECT AREA. THERE ARE UTILITIES IN THE PROJECT THAT ARE NOT LISTED.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS

PLACE HMA PAVEMENT LAYERS WITH THE FOLLOWING THICKNESSES AND NOMINAL SIZES:

STH 25 - RURAL

HMA LEVELING LAYER E-3 = 1.5-INCH

HMA UPPER LAYER E-10 = 2-INCH

STH 25 - URBAN, CURB AND GUTTER AREAS

HMA LEVELING LAYER E-3 = 1.0-INCH

HMA UPPER LAYER E-10 = 1.75-INCH

LEVELING LAYER AND UPPER LAYER WILL BE CONSTRUCTERD WITH 12.5 mm MIX.



Dial 811 or (800)242-8511

www.DiggersHotline.com

LOCAL - UTILITY

CENTURYLINK - COM. LINE
MONTY PARKER
20 S. WILSON AVE.
RICE LAKE, WI 54868
(715)234-5528
monty.parker@centurytel.com

DAIRYLAND POWER COOP
KURT CHILDS
3200 EAST AVE. S
P.O. BOX 817
LA CROSSE, WI 54602-0817
(608)788-4000
kdc@dairynet.com

XCEL ENERGY - ELECTRICITY
NANCY DOTSON
1414 W HAMILTON AVE
P.O. BOX 8
EAU CLAIRE, WI 54702-0008
(715) 737-2574
nancy.j.dotson@xcelenergy.com

CHIBARDUN TELEPHONE COOPERATIVE, INC. - COMMUNICATION
DAVE THOMPSON
401 S 1ST ST.
PO BOX 220
MENOMONIE, WI 54751

FEDERAL - ARMY COE

MARIE KOPKA
C.O.E., ST PAUL
ST PAUL, MN 55805
(651) 290-5268

STATE - DOT/STORM WATER

DAVID LARSON
718 WEST CLAIREMONT
EAU CLAIRE, WI 54701
(715) 836-2067

We ENERGIES - GAS/PETROLEUM
DAN SANDE
333 W. EVERETT ST, A299
MILWAUKEE, WI 53203
(414) 221-4578
Dan.Sande@we-energies.com

DUNN COUNTY ELETRIC COOPERATIVE
JERRY BUSS
PO BOX 220
P.O. BOX 817
MENOMONIE, WI 54751
(715) 232-6240

STATE - DOT/REC

AMY ADRIHAN
1701 N. 4TH ST.
SUPERIOR, WI 54880
(715) 392-7972

STATE - DNR

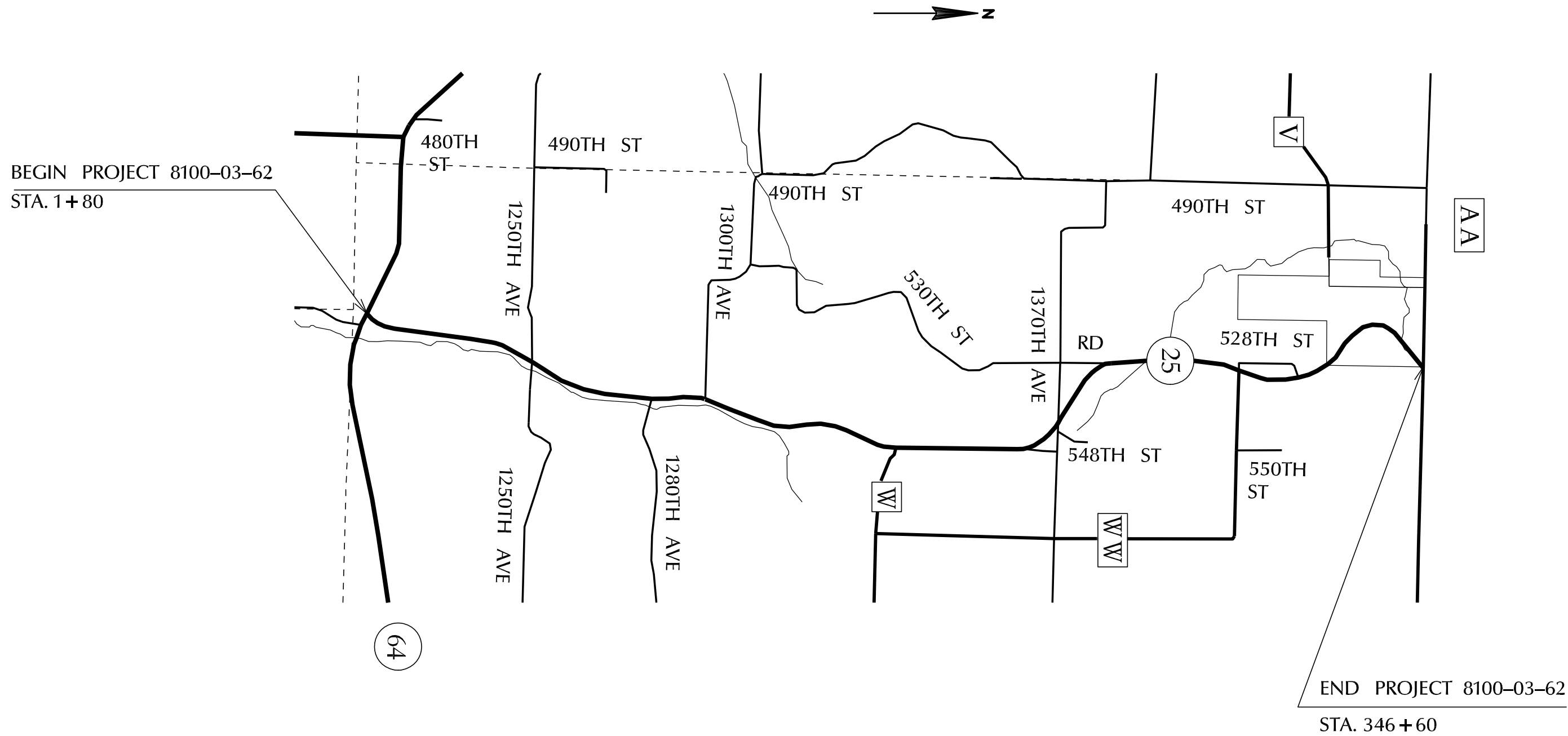
NICK SCHAFF
WISCONSIN DNR
1300 WEST CLAIREMONT
EAU CLAIRE, WI 54701
(715) 839-1609

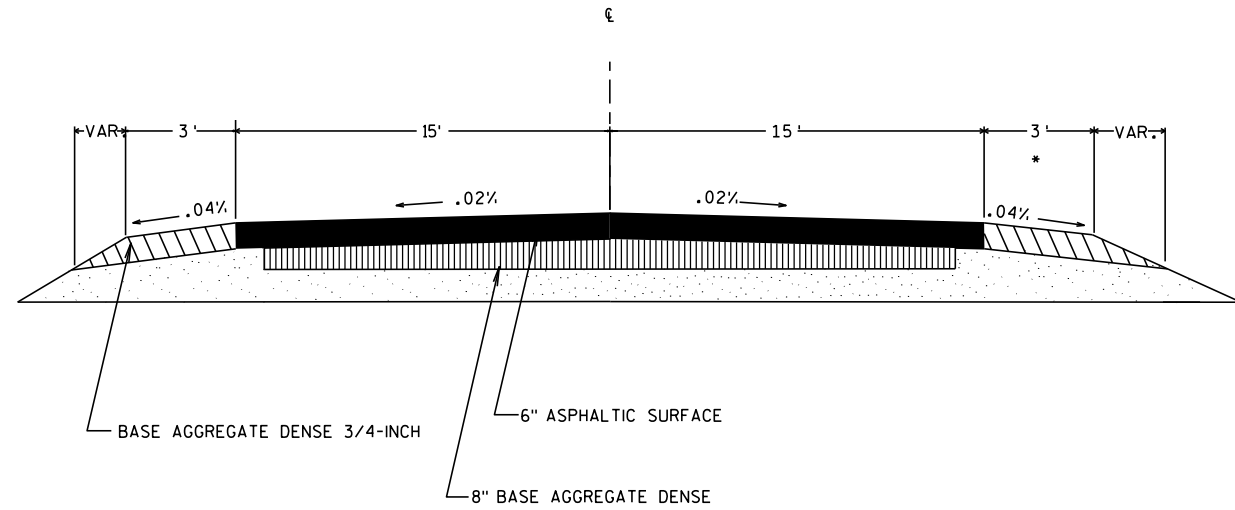
LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
ASPH.	ASPHALTIC
AVG	AVERAGE
A.D.T.	AVERAGE DAILY TRAFFIC
BK.	BACK
BL OR B/L	BASE LINE
B.M.	BENCH MARK
BR	BRIDGE
C/L	CENTER LINE
CC	CENTER TO CENTER
CONC.	CONCRETE
CR.	CRUSHED
C.Y. OR CU. YD.	CUBIC YARD
C&G	CURB & GUTTER
D	DEGREE OF CURVE
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DIST.	DISTRICT
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
EW	ENDWALL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EXIST.	EXISTING
EXP	EXPANSION
FF	FACE TO FACE
FERT.	FERTILIZE
FG	FINISHED GRADE
FT.	FOOT
GN	GRID NORTH
HT	HEIGHT
HES	HIGH EARLY STRENGTH
CWT.	HUNDREDWEIGHT
IN DIA	INCH DIAMETER
ID	INSIDE DIAMETER
L.H.F.	LEFT-HAND FORWARD
LIN. FT. OR LF	LINEAR FOOT
L.S.	LUMP SUM
MAINT	MAINTENANCE
ML OR M/L	MATCH LINE
MATL	MATERIAL
N	NORTH
Y	NORTH GRID COORDINATE
NB	NORTHBOUND
OBLIT	OBLITERATE
OD	OUTSIDE DIAMETER
LB.	POUND
PROJ.	PROJECT
R.	RANGE, RADIUS
RR	RAILROAD
RL OR R/L	REFERENCE LINE
REBAR	REINFORCEMENT BAR
REQ'D	REQUIRED
RW	RETAINING WALL
R/W	RIGHT OF WAY
RD.	ROAD
RDWY	ROADWAY
SALV	SALVAGED
SEC	SECTION
SHLDR	SHOULDER
SHR.	SHRINKAGE
S	SOUTH
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SF OR SQ FT	SQUARE FEET
SY OR SQ YD	SQUARE YARD
STD	STANDARD
STH	STATE TRUNK HIGHWAY
STA.	STATION
SURF.	SURFACE
TEMP	TEMPORARY
TYP	TYPICAL
UNCL.	UNCLASSIFIED
VOL	VOLUME
WB	WESTBOUND
YD	YARD

ORDER OF SECTION 2 SHEETS

- Project Overview
- Typical Sections
- Construction Details
- Intersection Details
- Storm Sewer
- Erosion Control
- Pavement Markings
- Permanenet Signing
- Traffic Control
- Alignment



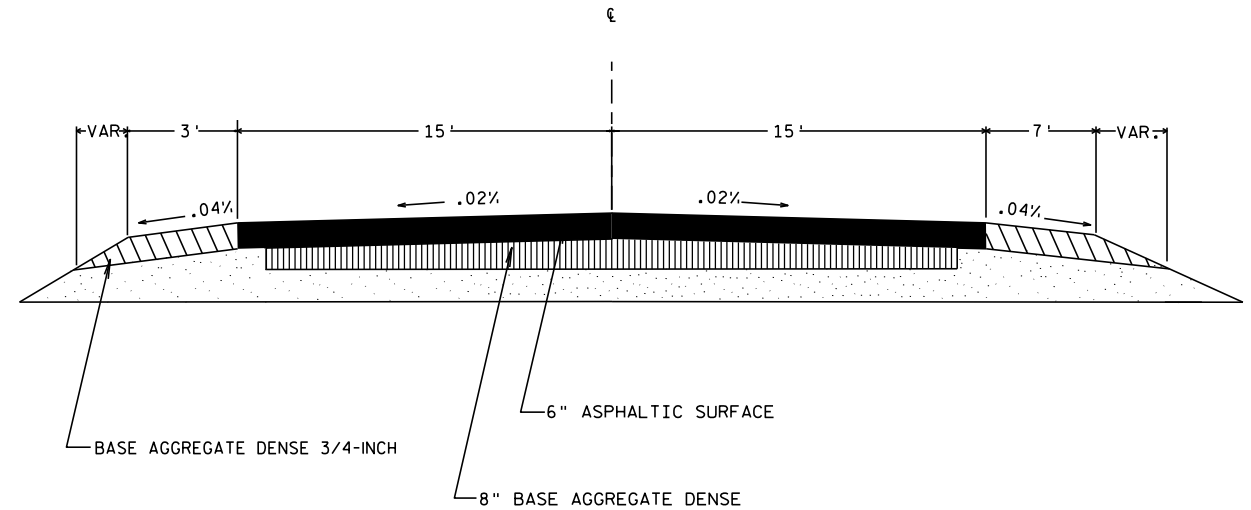
EXISTING TYPICAL SECTION

S.T.H. 25

STA. 1+80 TO 108+00
116+00 TO 143+00
176+00 TO 247+00
248+00 TO 251+00
251+00 TO 323+60
341+30 TO 346+60

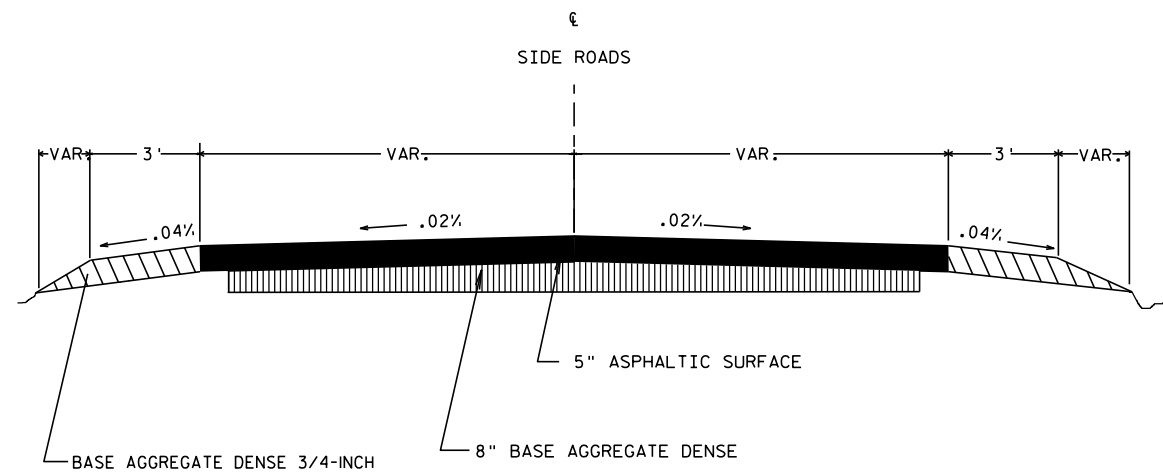
FIELD CORE LOG

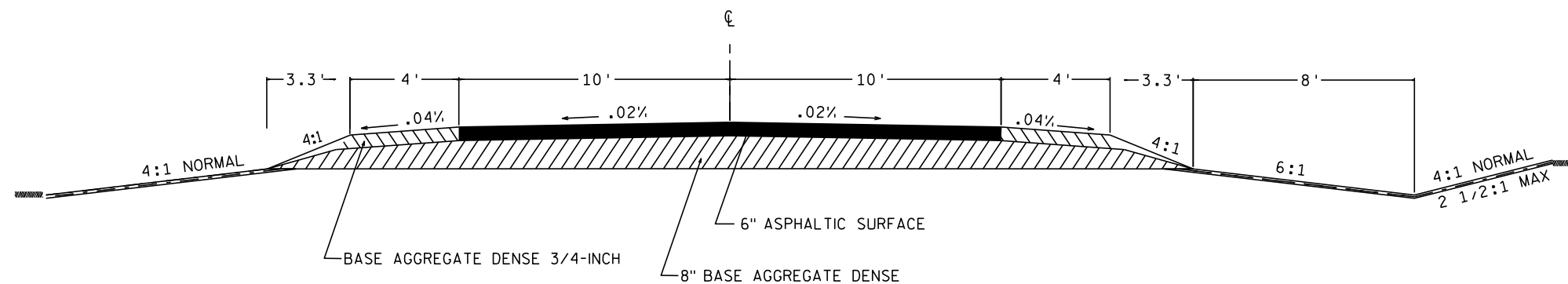
MILE	STA.	OFFSET (FEET)	PAVEMENT THICKNESS (INCHES)	COMMENTS
0.0	1+80	0.0	0.0	START OF SEALCOAT
0.5	28+20	6.0 RT	6.5	
1.0	54+60	6.0 RT	5.5	
1.5	81+00	8.0 RT	5.0	
2.0	107+40	7.5 RT	6.25	
2.5	133+80	-	6.0	
3.13	164+00	-	-	CTH W
3.5	186+60	7.0 RT	8.25	
4.0	213+00	8.0 RT	6.0	
4.5	239+40	7.0 RT	9.25	
4.70	245+00	-	-	B-17-115
5.00	265+80	7.0 RT	6.0	
5.34	278+00	-	-	CTH WW
5.50	286+45	7.0 RT	7.75	
6.0	312+85	7.0 RT	7.0	VILLAGE OF RIDGELAND
6.19	322+50	-	-	CTH V
6.50	338+87	7.0 RT	4.75	
6.61	343+88	-	-	VILLAGE OF RIDGELAND
6.65	346+00	-	-	CTH AA/CTH V

EXISTING TYPICAL SECTION

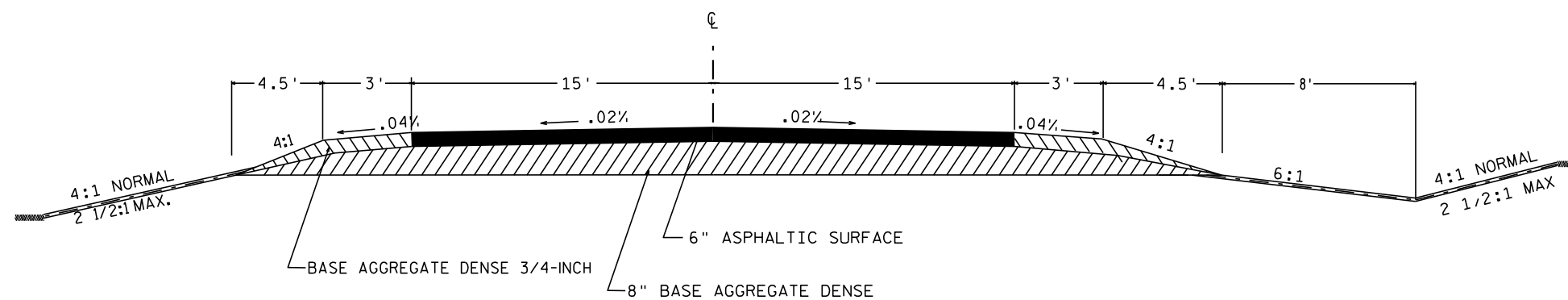
S.T.H. 25

STA. 143+00 TO 157+00

EXISTING TYPICAL INTERSECTION

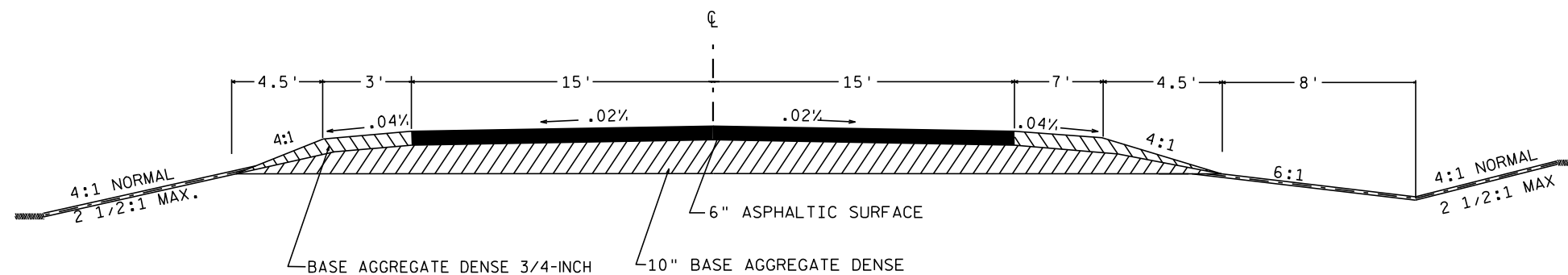


EXISTING TYPICAL TANGENT SECTION
C.T.H. "W"



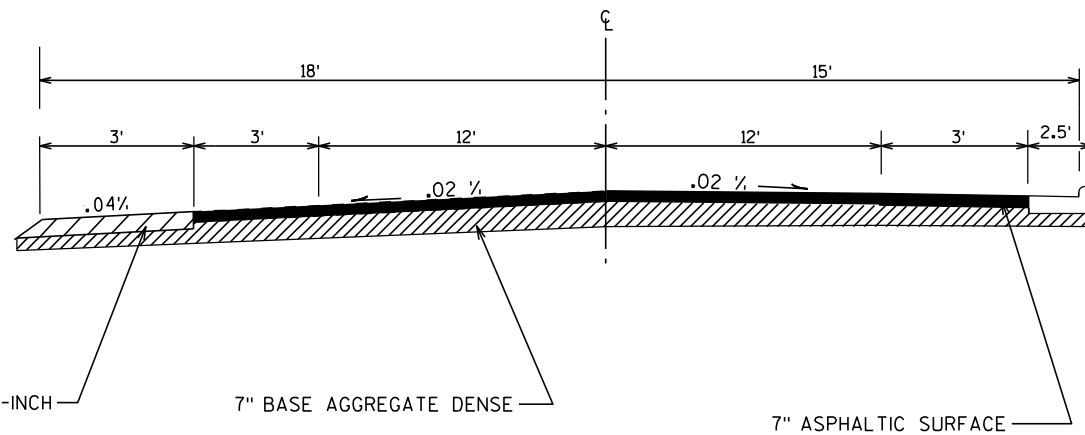
EXISTING TYPICAL TANGENT SECTION
S.T.H. 25

STA. 108+00 to 116+00
170+00 to 176+00
247+00 to 248+00



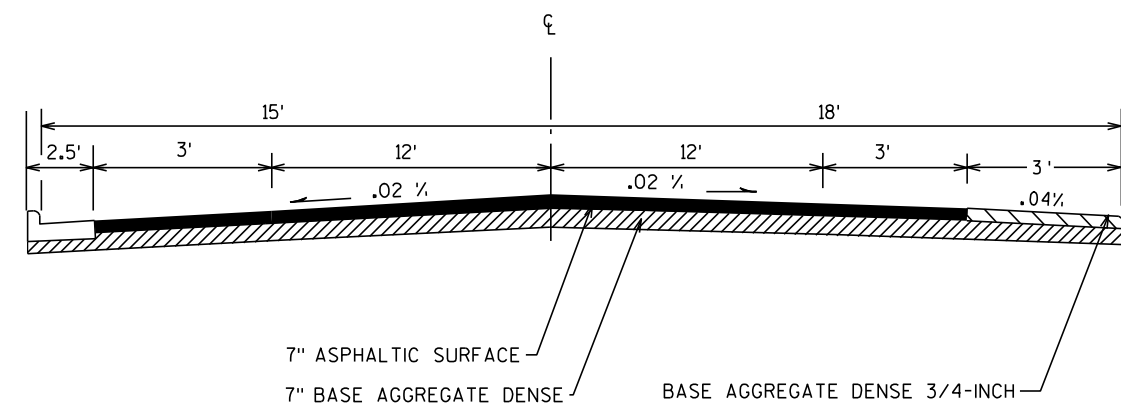
EXISTING TYPICAL TANGENT SECTION
S.T.H. 25

STA. 157+00 TO 170+00



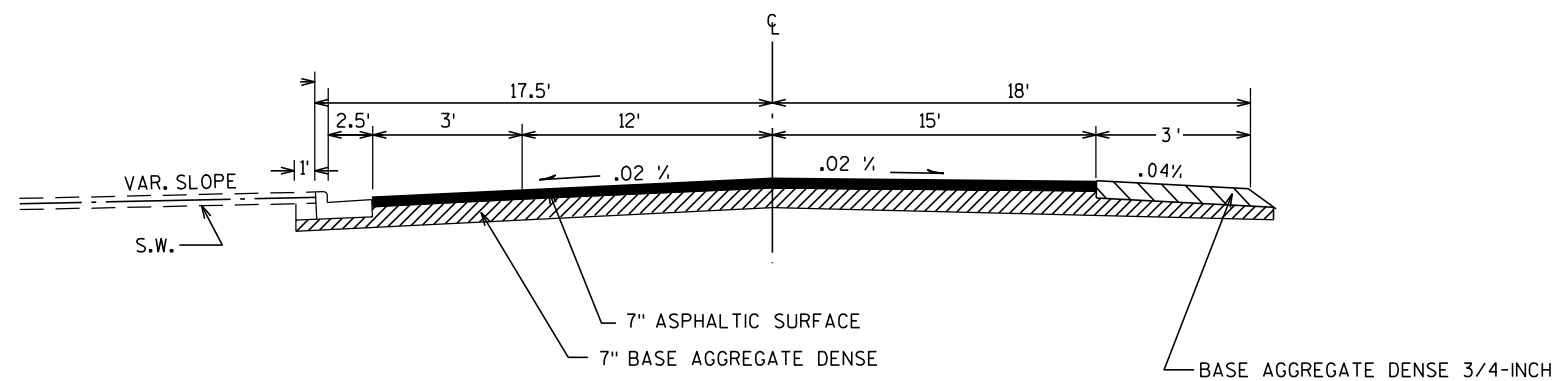
EXISTING TYPICAL SECTION

STA. 304+08 - 305+11



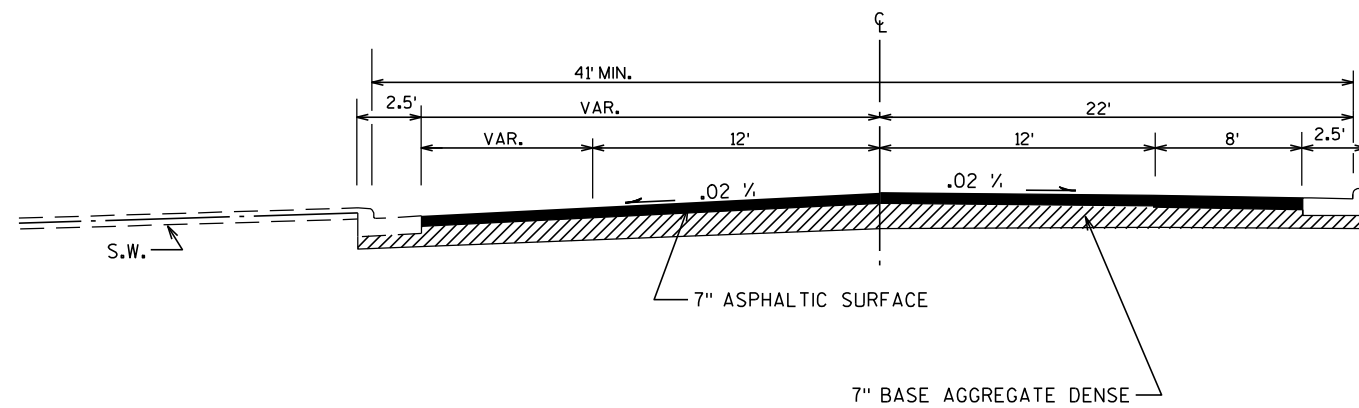
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STA. 305+11 - 308+00



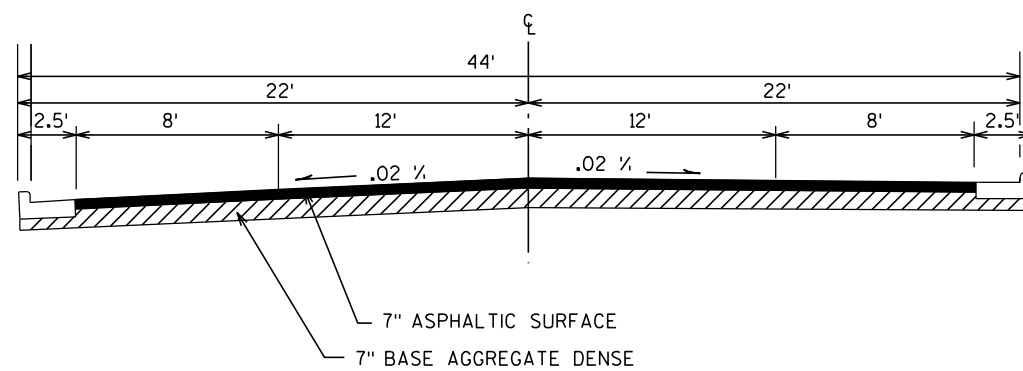
EXISTING TYPICAL SECTION

STA. 308+00 - 318+98



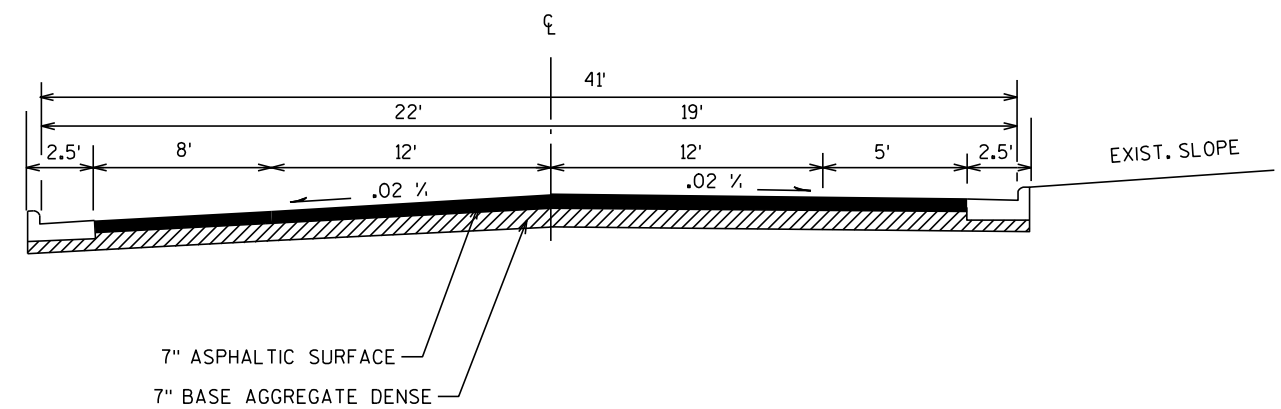
EXISTING TYPICAL SECTION

STA. 321+60 - 322+01



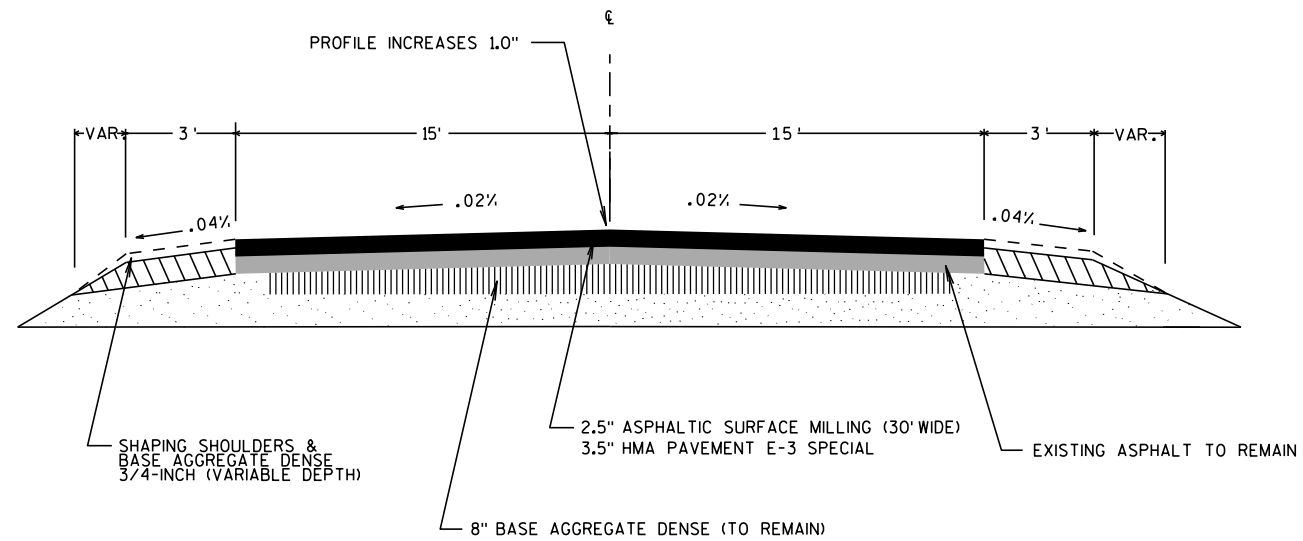
EXISTING TYPICAL SECTION

STA. 327+46 - 339+68



EXISTING TYPICAL SECTION

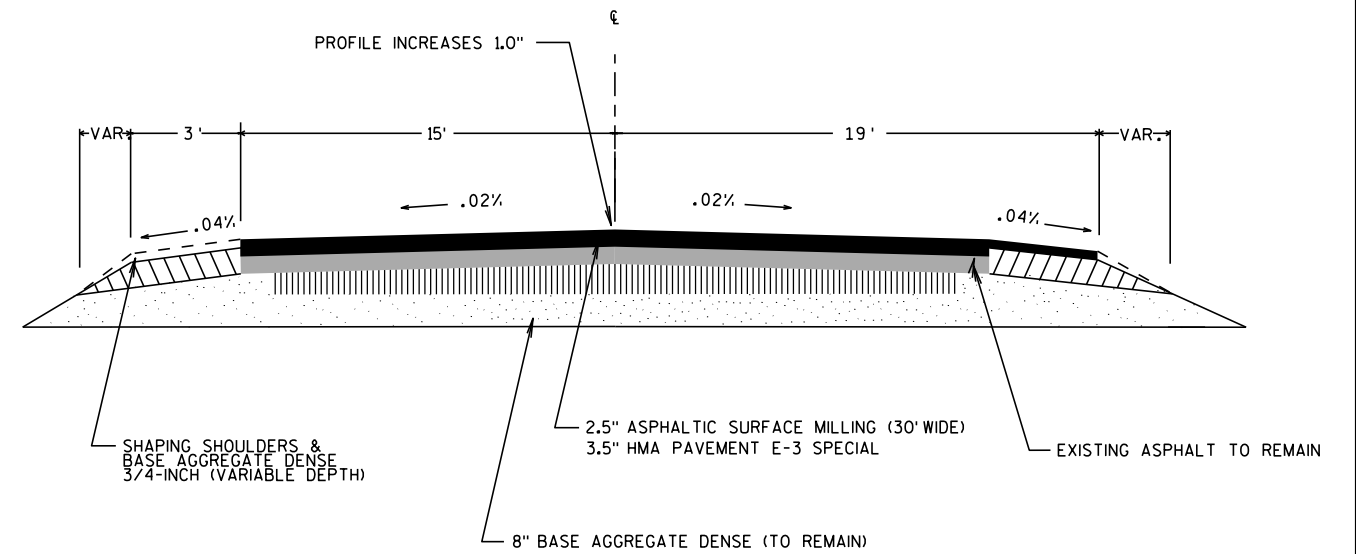
STA. 322+01 - 327+46



FINISHED TYPICAL SECTION

S.T.H. 25

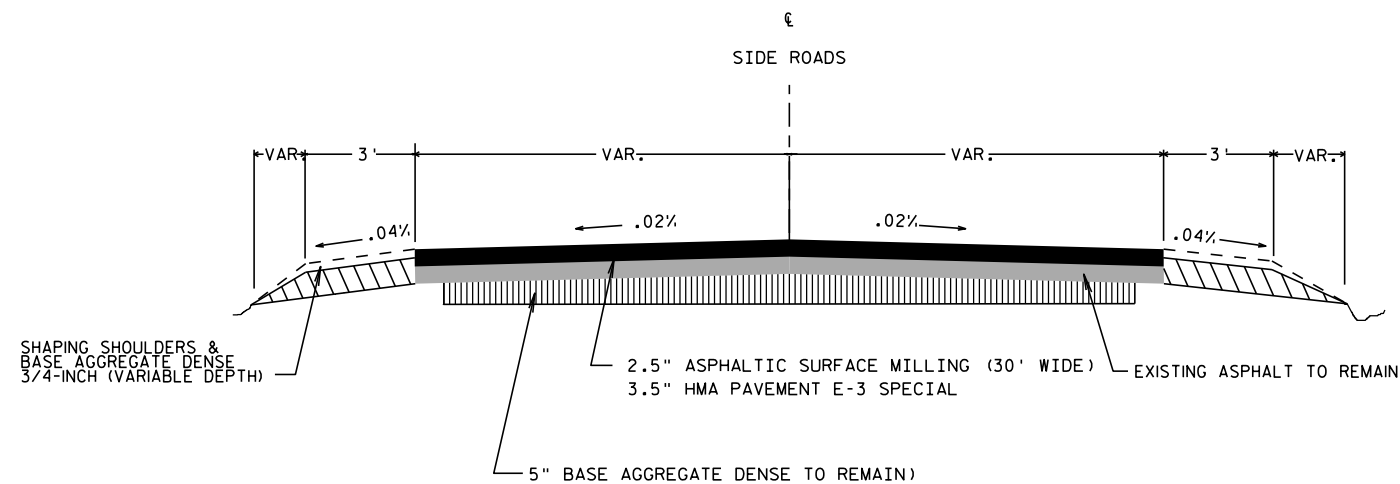
STA. 1+80 TO 108+00
 116+00 TO 143+00
 176+00 TO 247+00
 248+00 TO 251+00
 251+00 TO 323+60
 341+30 TO 348+80



FINISHED TYPICAL SECTION

S.T.H. 25

STA. 143+00 TO 157+00

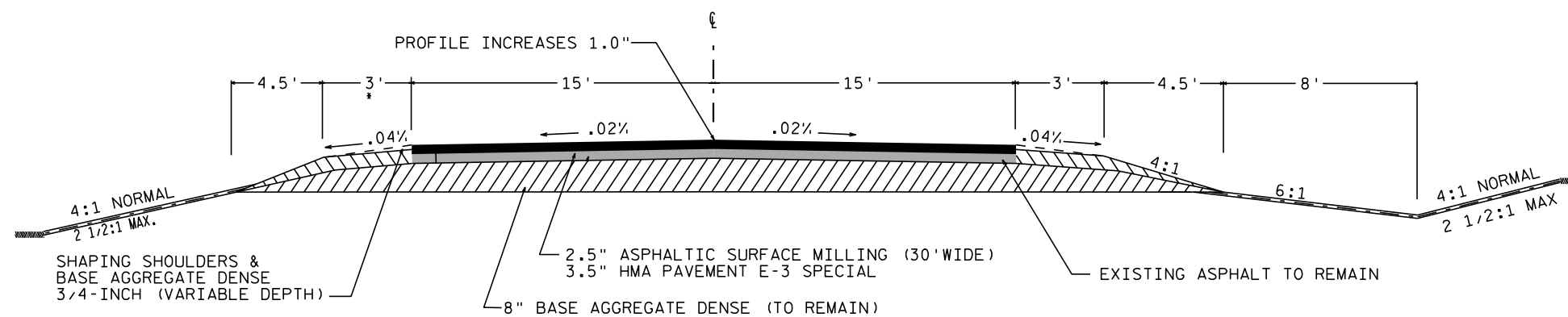
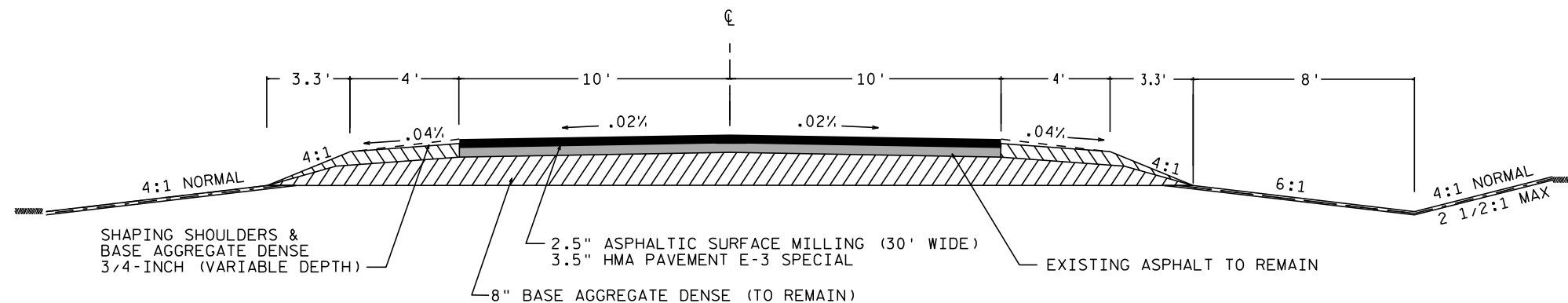


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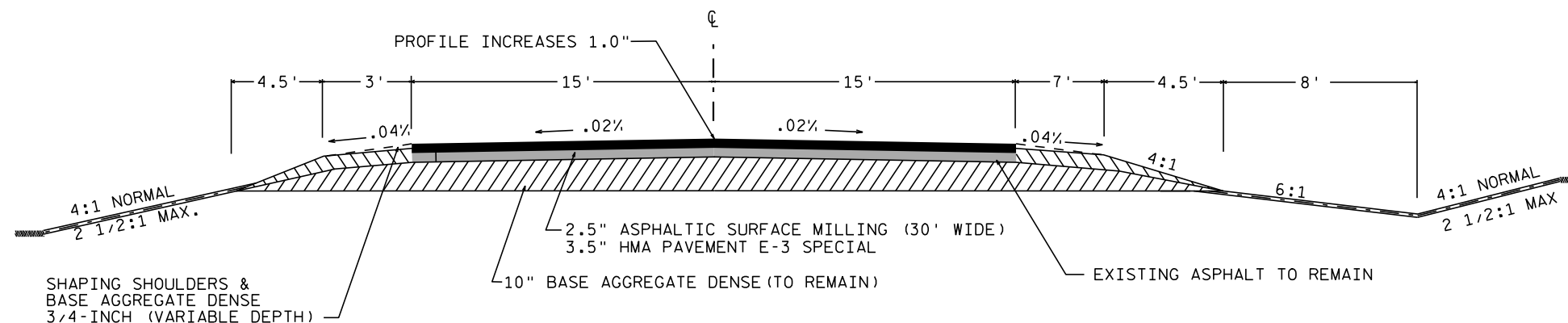
PAVEMENT LAYERS

3.5" HMA PAVEMENT (STH 25)
 UPPER LAYER HMA PAVEMENT E-3 SPECIAL = 2.50"
 LEVELING LAYER HMA PAVEMENT E-3 SPECIAL = 1.0"

PG 64-34P MATERIAL BOTH LAYERS



STA. 108+00 to 116+00
170+00 to 176+00
247+00 to 248+00

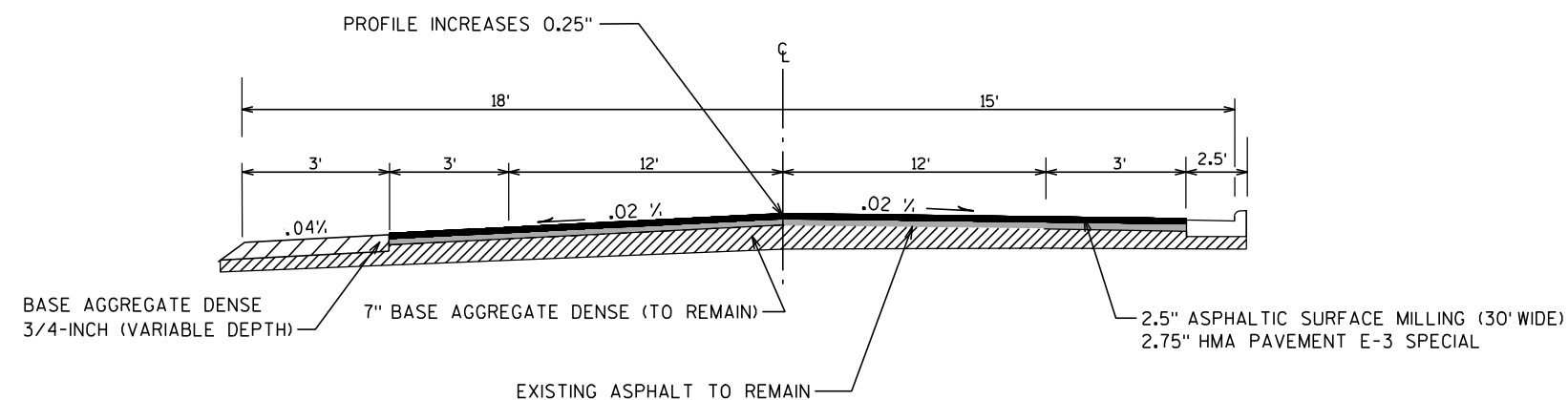


STA. 157+00 TO 170+00

PAVEMENT LAYERS

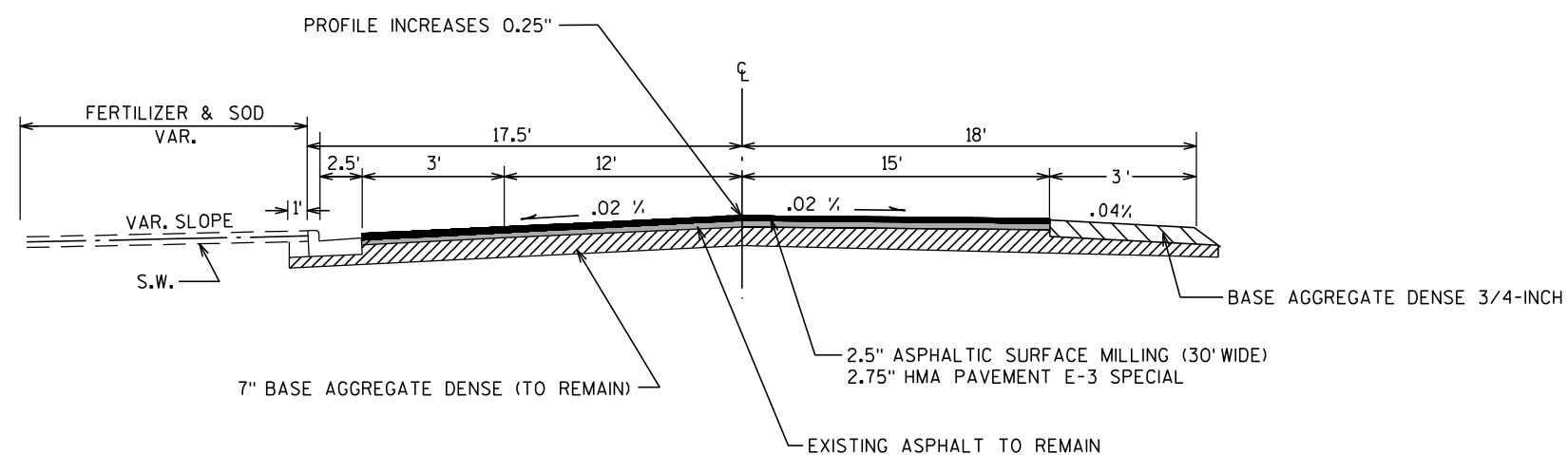
3.5" HMA PAVEMENT (STH 25)
UPPER LAYER HMA PAVEMENT E-3 SPECIAL = 2.50"
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PG 64-34P MATERIAL BOTH LAYERS



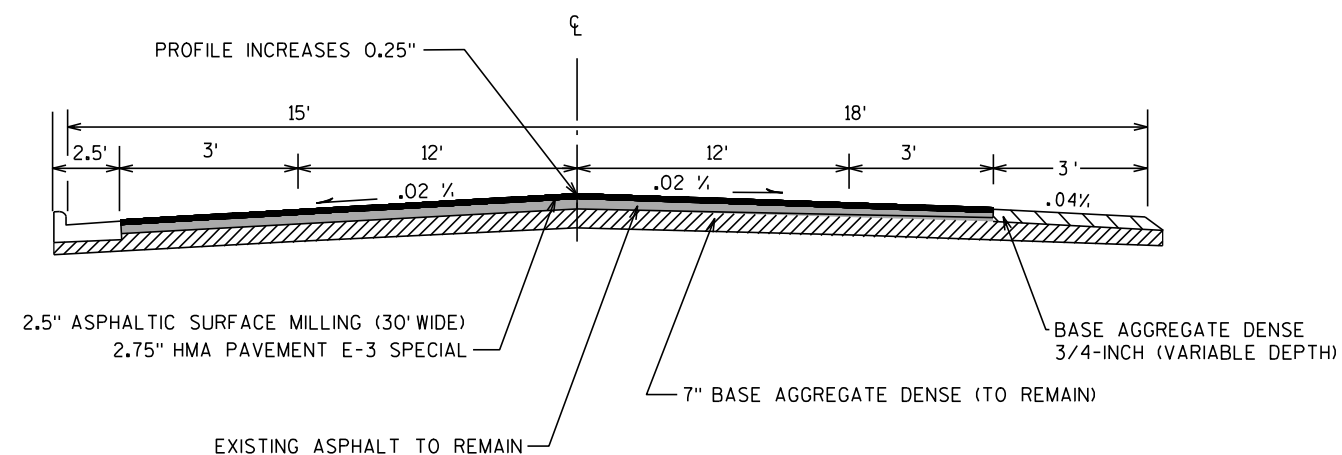
FINISHED TYPICAL SECTION

STA. 304+08 - 305+11



FINISHED TYPICAL SECTION

STA. 308+00 - 318+98



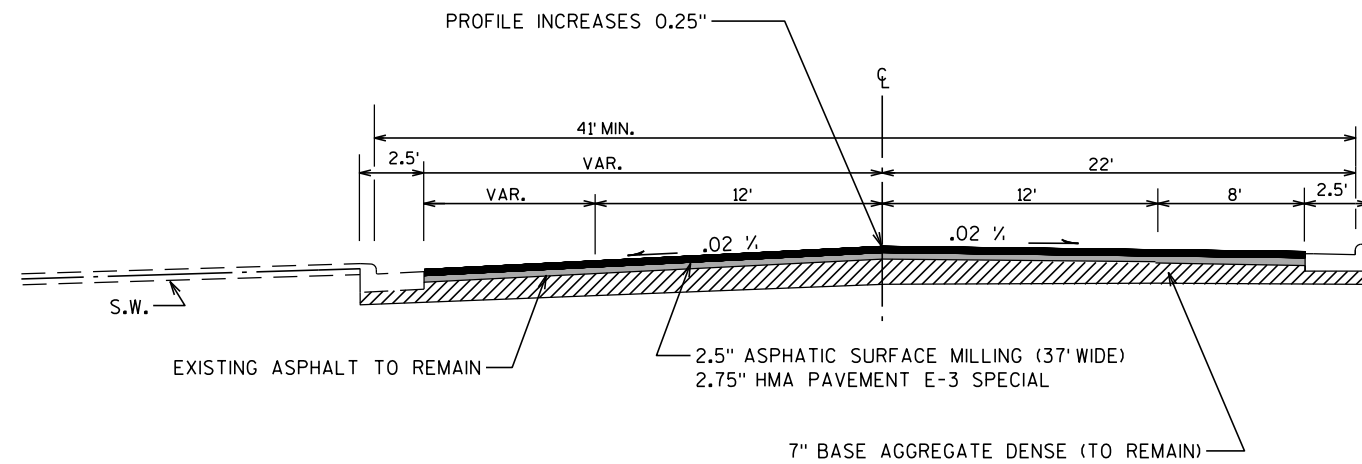
FINISHED TYPICAL SECTION

STA. 305+11 - 308+00

PAVEMENT LAYERS

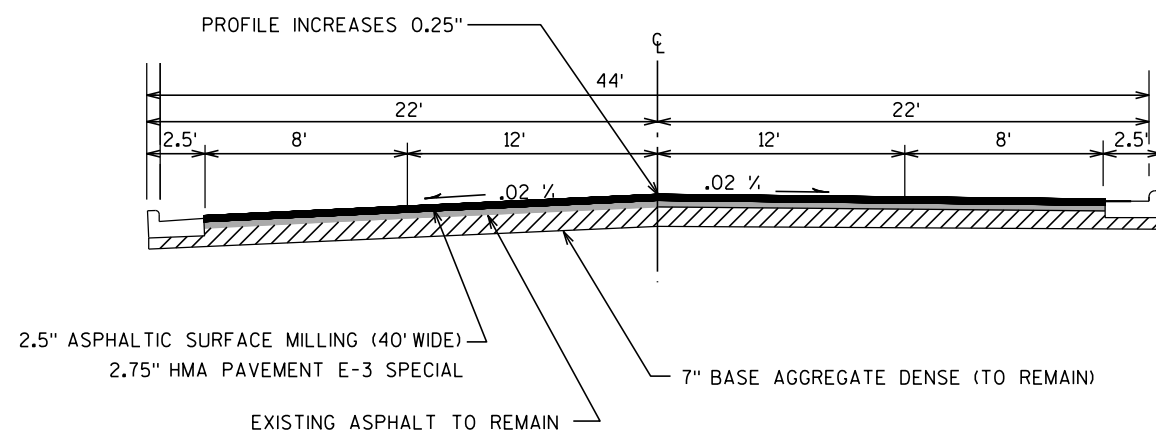
2.75" HMA PAVEMENT (STH 25)
UPPER LAYER HMA PAVEMENT E-3 SPECIAL = 1.75"
LEVELING LAYER HMA PAVEMENT E-3 SPECIAL = 1.0"

PG 64-34P MATERIAL BOTH LAYERS



FINISHED TYPICAL SECTION

STA. 321+60 - 322+01

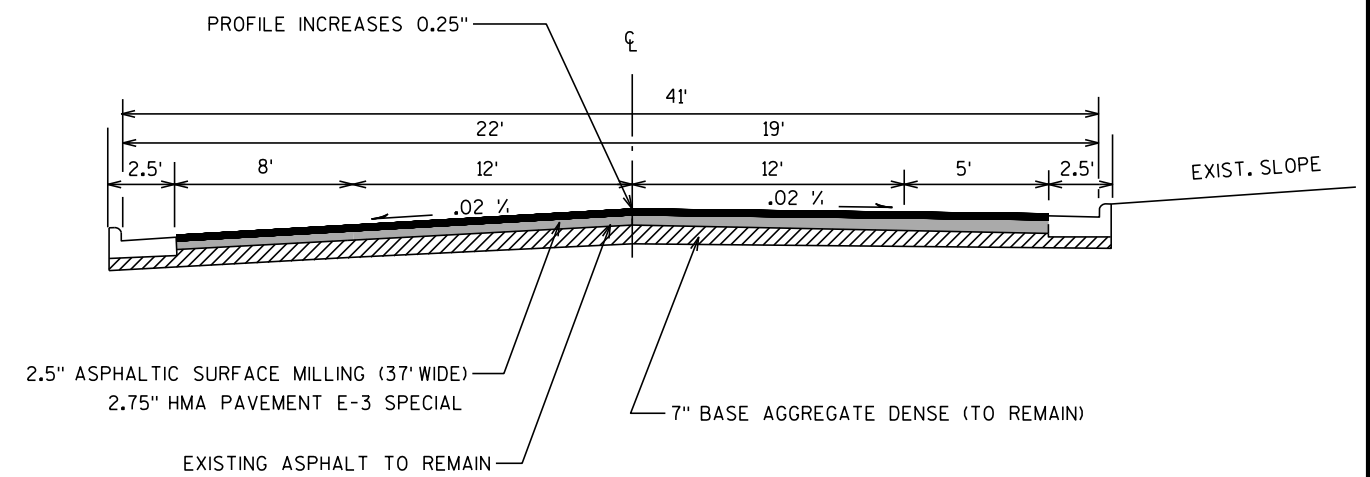


FINISHED TYPICAL SECTION

STA. 327+46 - 339+68

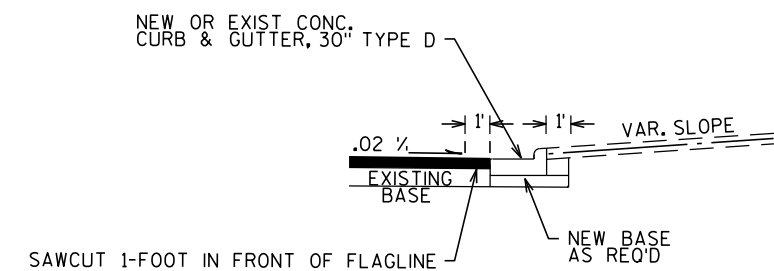
PAVEMENT LAYERS

2.75" HMA PAVEMENT (STH 25)
 UPPER LAYER HMA PAVEMENT E-3 SPECIAL = 1.75"
 LEVELING LAYER HMA PAVEMENT E-3 SPECIAL = 1.0"
 PG 64-34P MATERIAL BOTH LAYERS



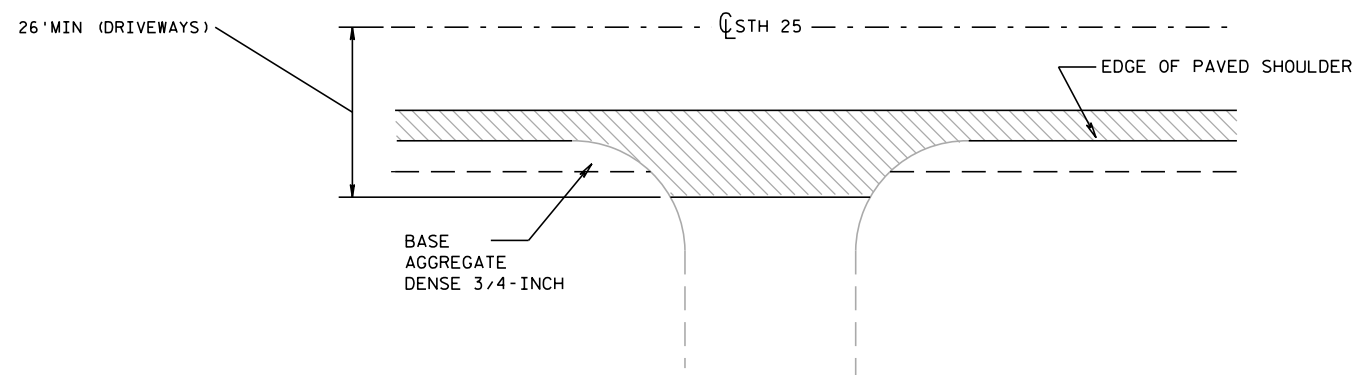
FINISHED TYPICAL SECTION

STA. 322+01 - 327+46

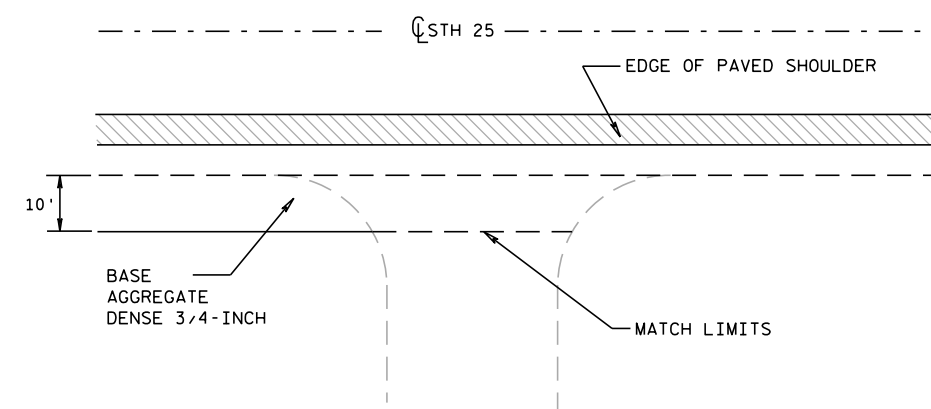


CURB & GUTTER REPLACEMENT

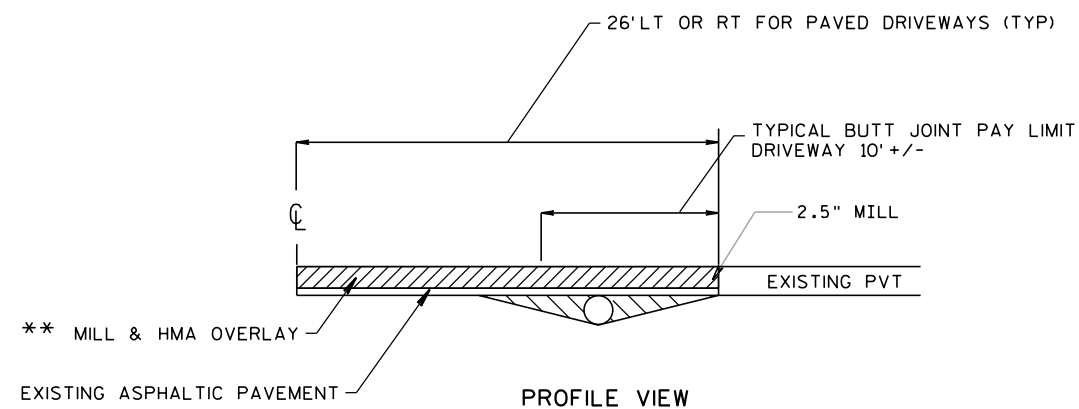
STA. 337+70 - 337+78



BUTT JOINT DETAIL AT PAVED DRIVEWAYS

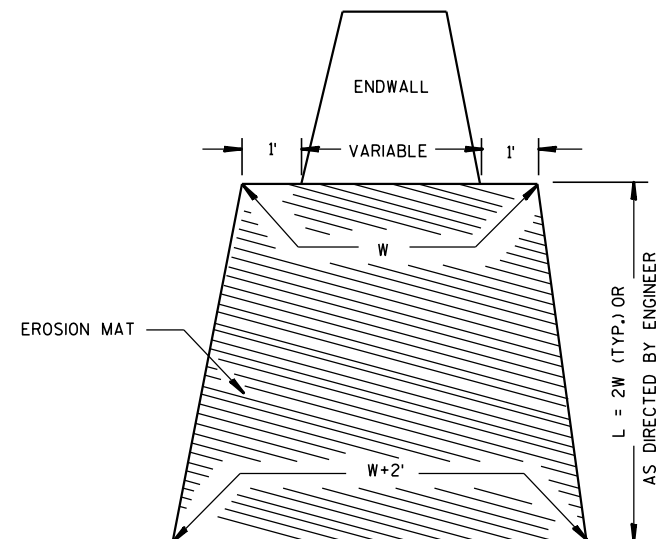


MATCH LIMITS AT UNPAVED DRIVEWAYS

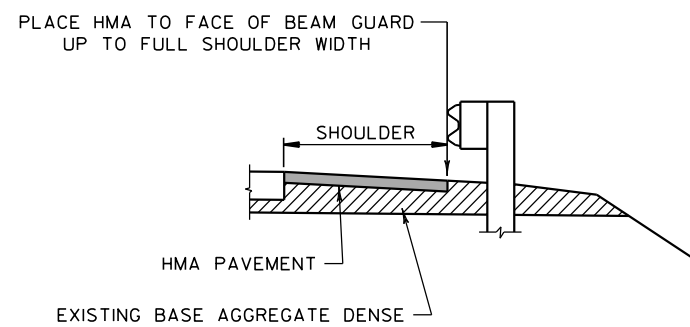


DETAIL OF BUTT JOINT AT DRIVEWAY MATCH POINTS

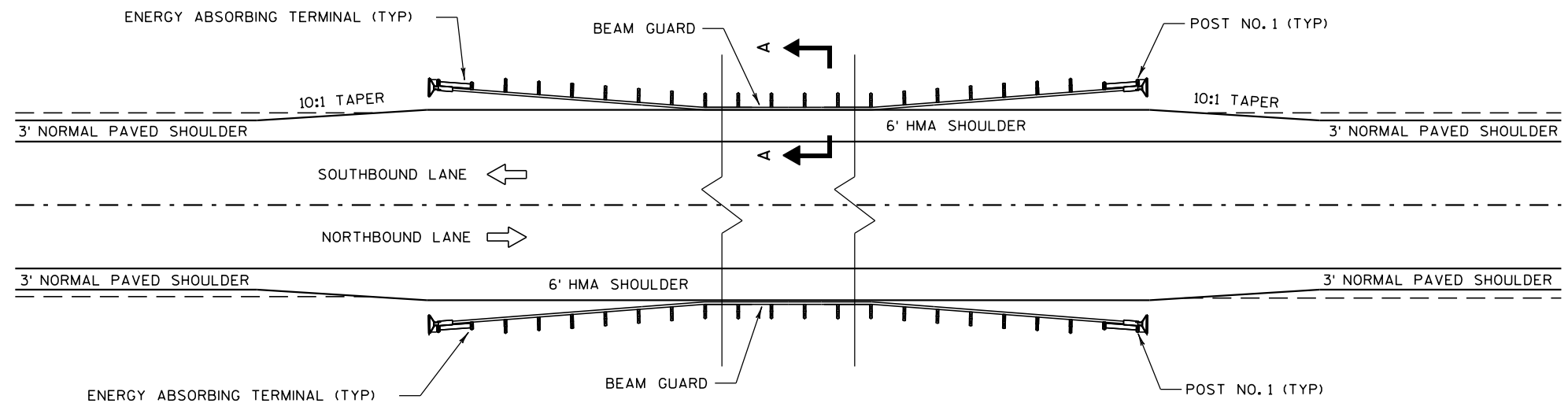
NOTES:
 ** PAVEMENT MATERIAL WITH DRIVEWAYS IS PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES



EROSION MAT TREATMENT AT CULVERTS

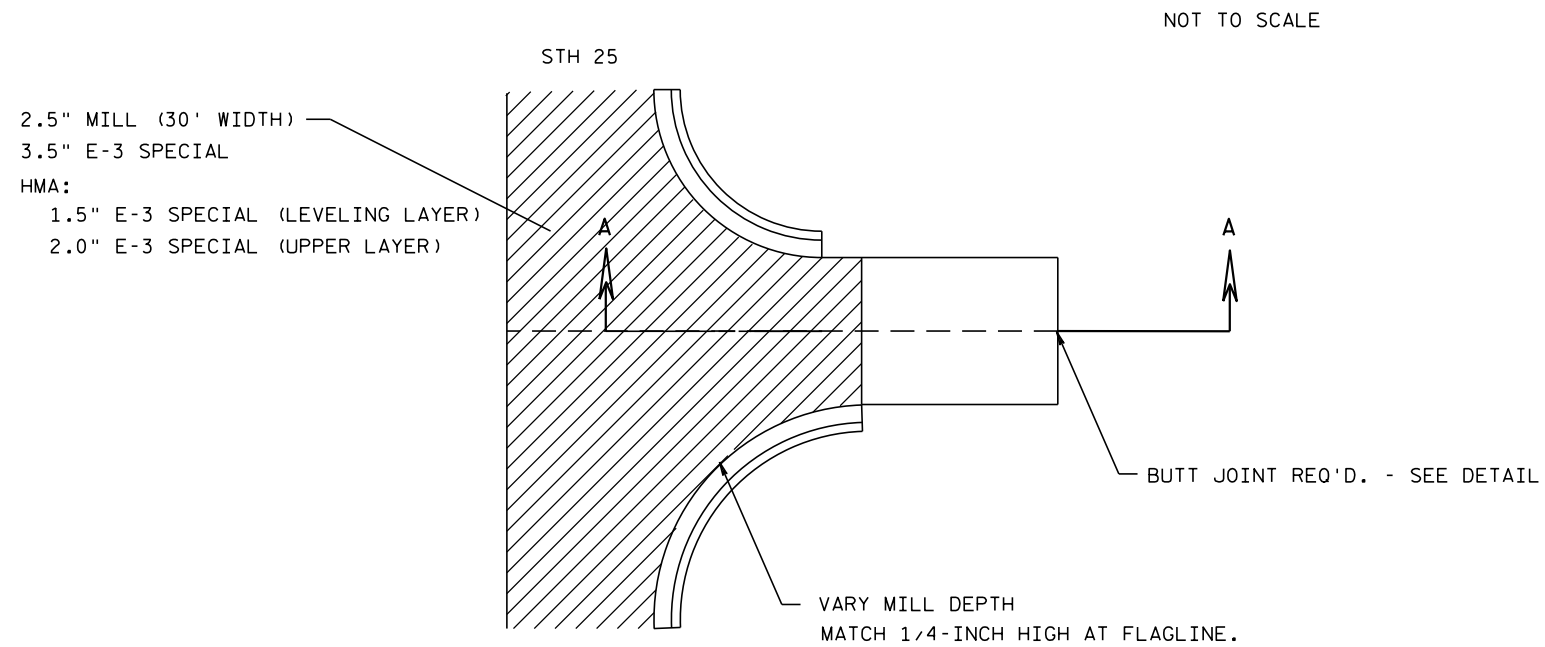


SECTION A-A



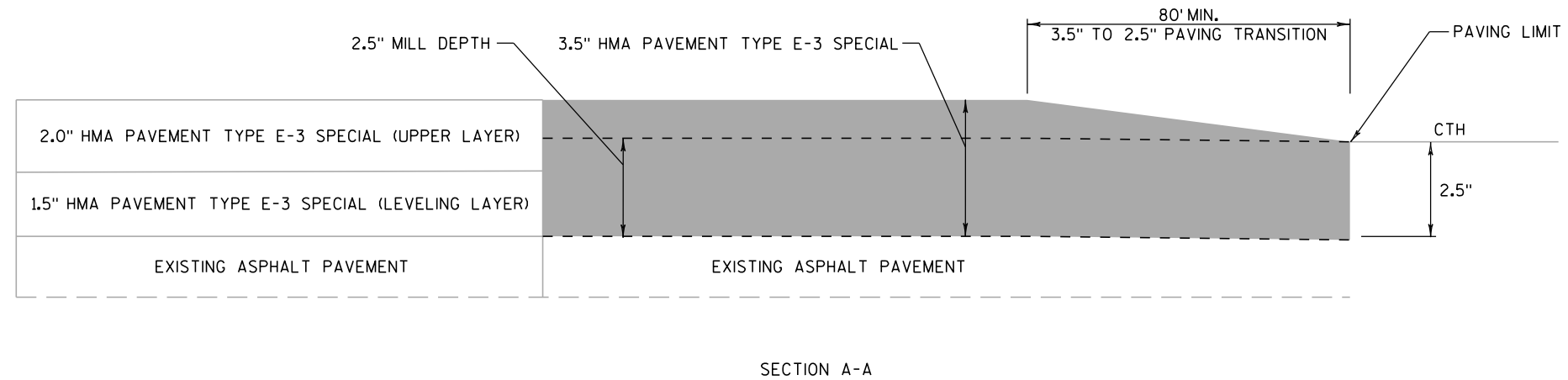
PLAN VIEW

HMA SHOULDER AT BEAM GUARD DETAIL



BUTT JOINT LOCATIONS		WIDTH (FT)
STREET NAME	STA.	
CTH W	18+45	21
CTH WW	11+60	21

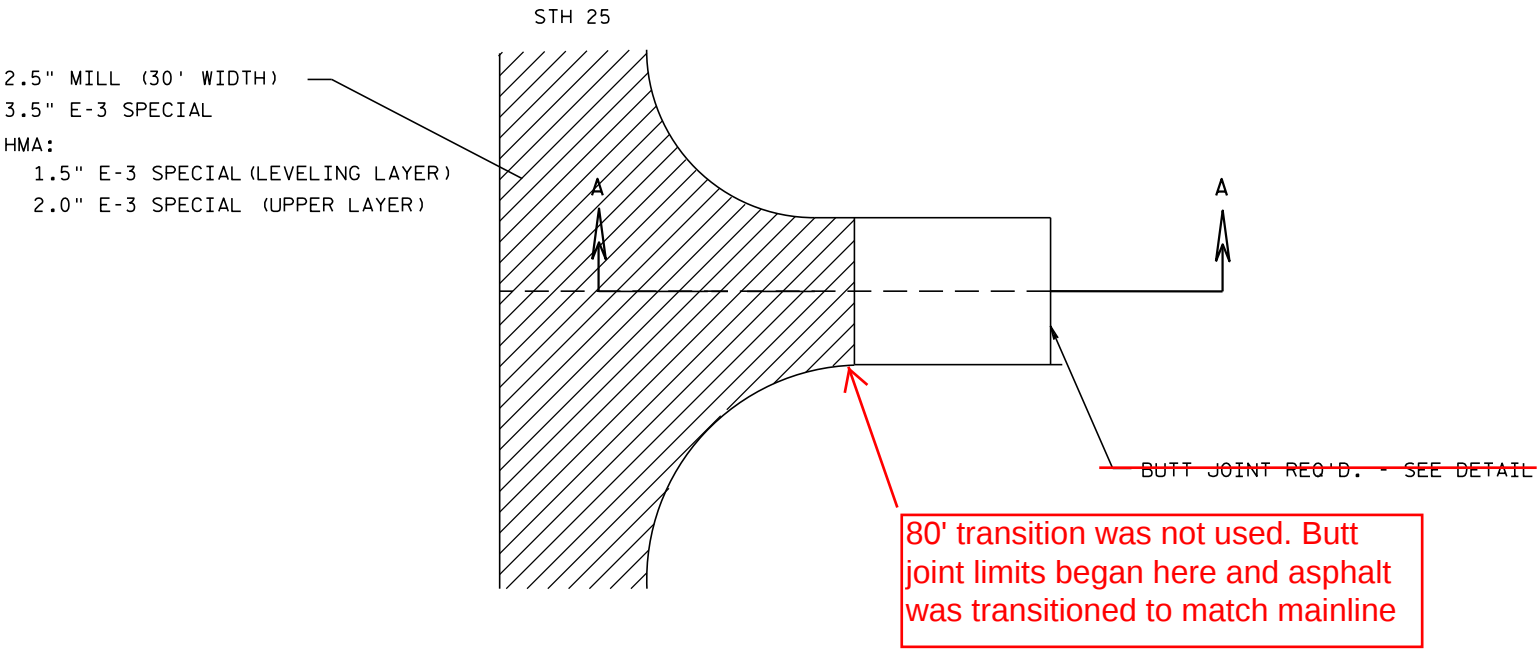
SIDEROAD DETAIL (CTH W & CTH WW)



BUTT JOINT TRANSITION DETAIL: CTH W & CTH WW

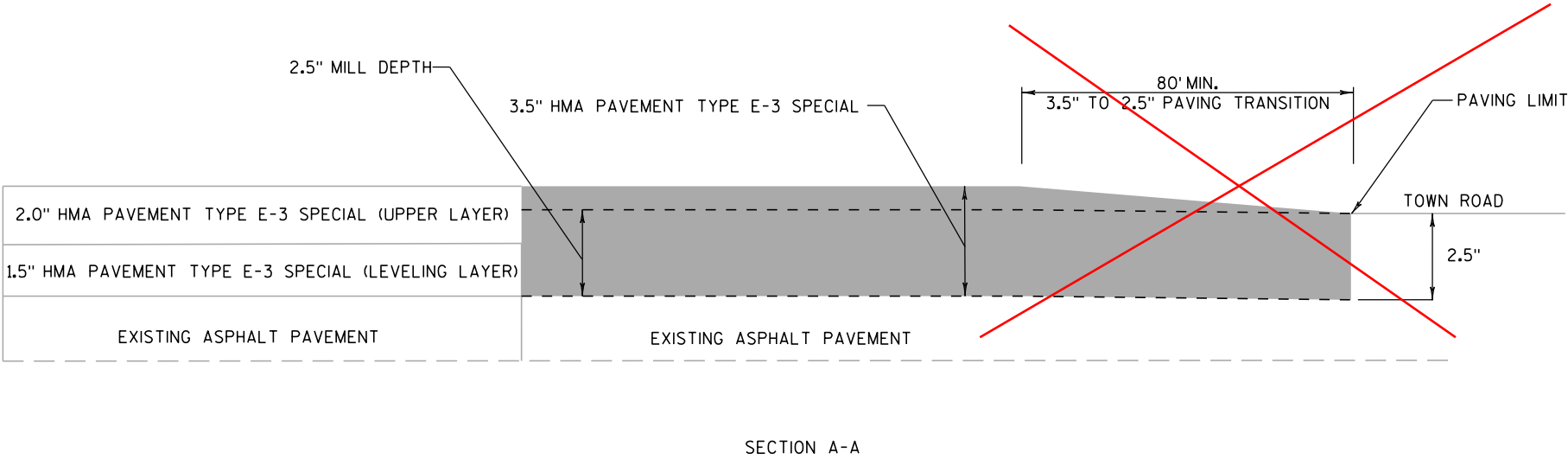
SEE LOCATIONS LISTED IN TABLE

NOT TO SCALE



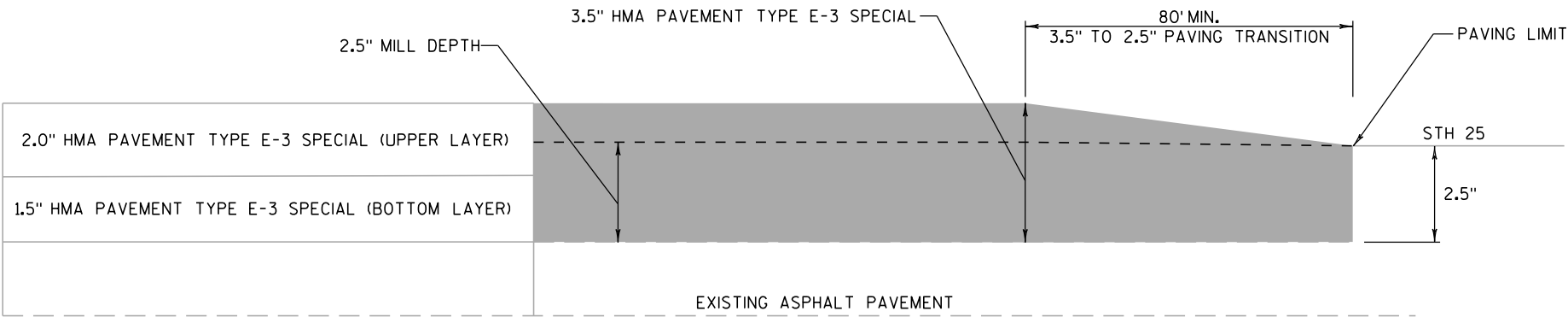
BUTT JOINT LOCATIONS		WIDTH (FT)
STREET NAME	STA.	
1250TH WEST	18+35	22
1250TH EAST	11+60	20
1280TH	12+29	20
1300TH	11+60	20
548TH	18+40	22
1370TH WEST	11+60	20
1370TH EAST	11+60	20
530TH	18+35	22
1300TH	11+60	20
528TH	12+29	20
528TH	11+60	20

SIDEROAD DETAIL (TOWNROAD)



BUTT JOINT TRANSITION DETAIL: TOWN ROAD

SEE LOCATIONS LISTED IN TABLE

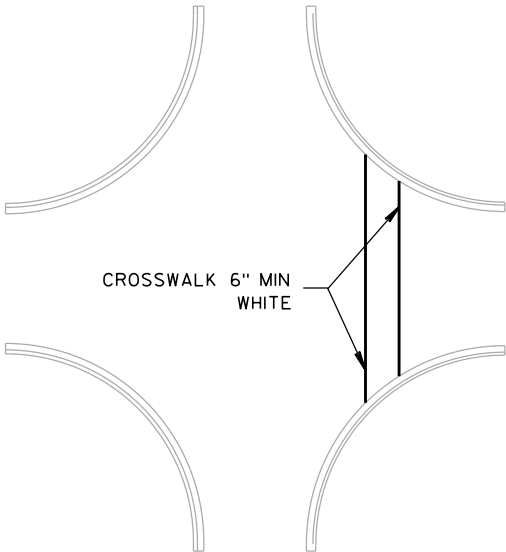


NOTE:
2.5" MILL (30' WIDTH)
3.5" E-3 SPECIAL
HMA:
1.5" E-3 SPECIAL (LEVELING LAYER)
2.0" E-3 SPECIAL (UPPER LAYER)

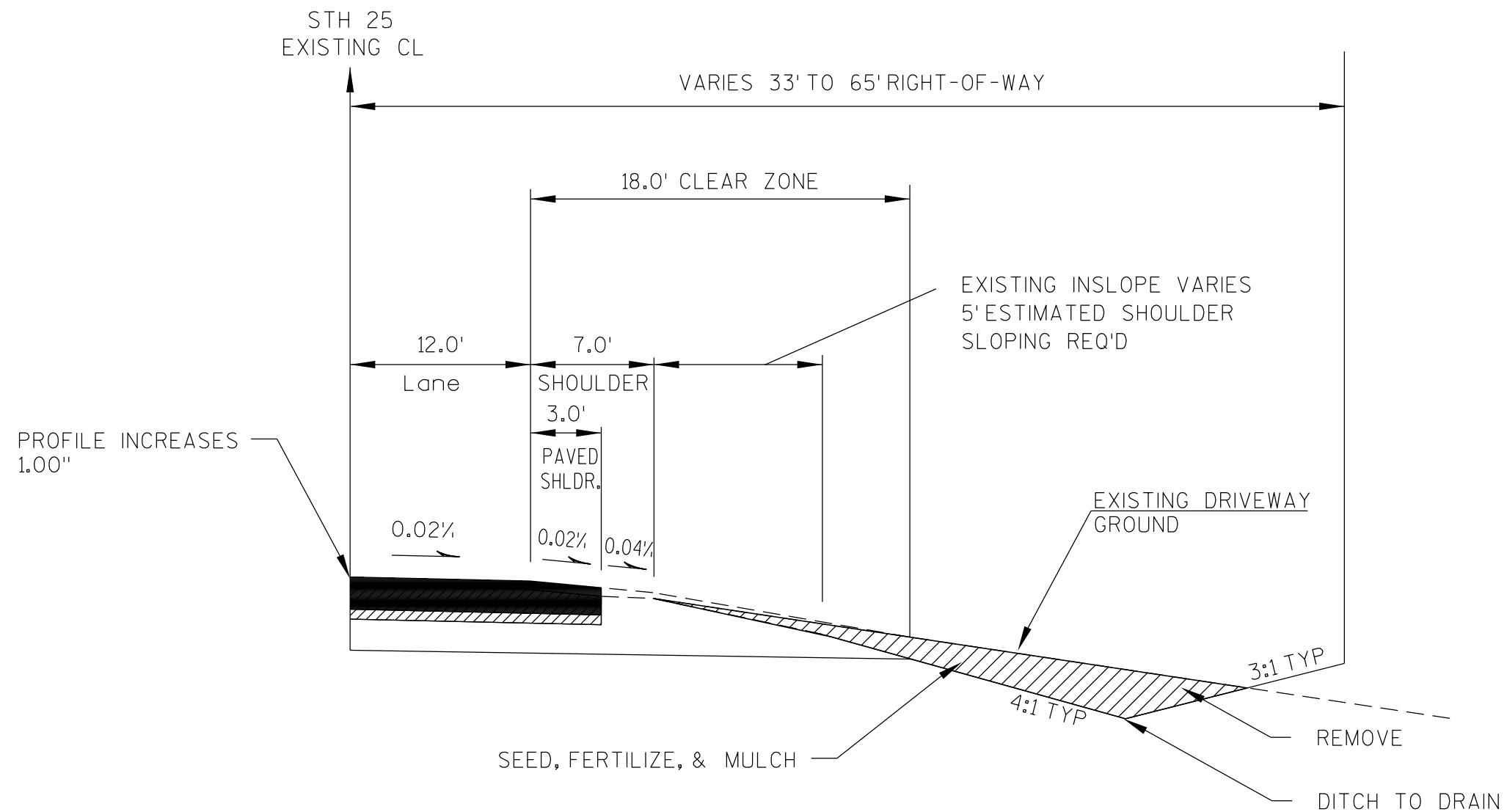
BUTT JOINT LOCATIONS	
STA.	WIDTH (FT)
1+80	30
346+60	30

BUTT JOINT TRANSITION DETAIL: STH 25

SEE LOCATIONS LISTED IN TABLE



PAVEMENT MARKING CROSSWALK DETAIL

FIELD ENTRANCE REMOVAL

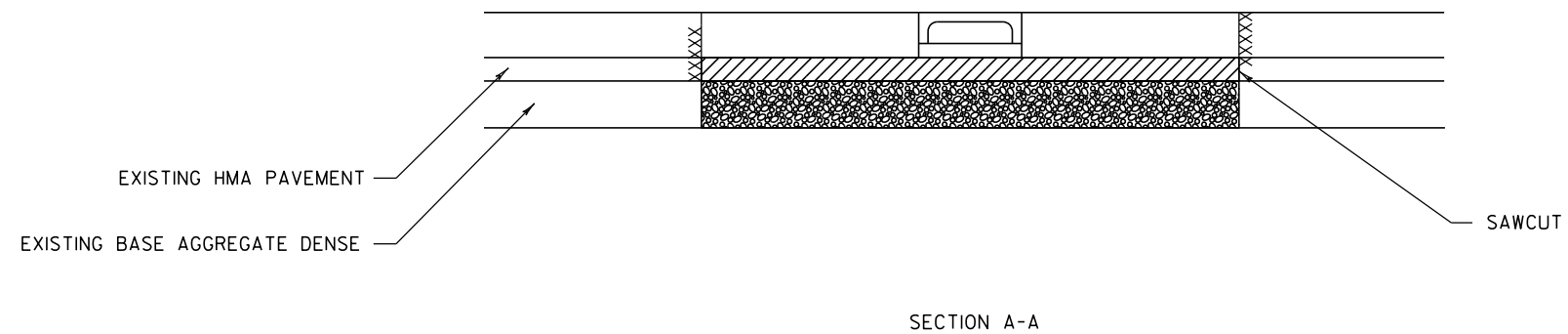
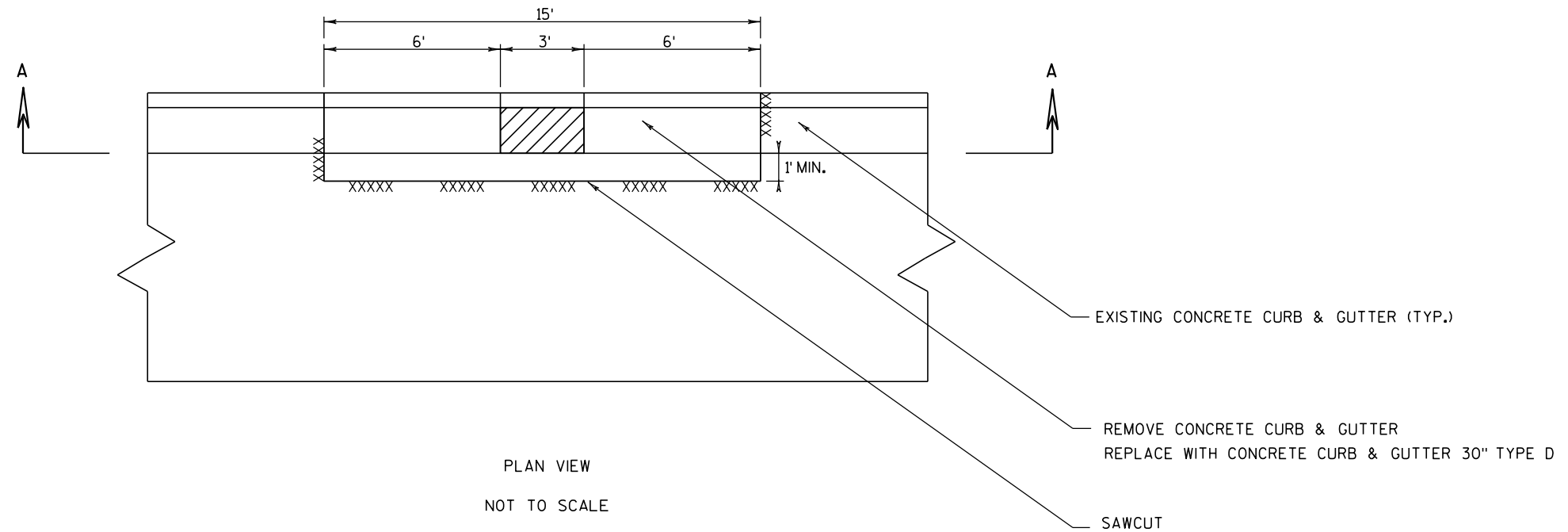
STH 25

STA 49+50 LT

STA 78+30 LT

STA 232+75 RT

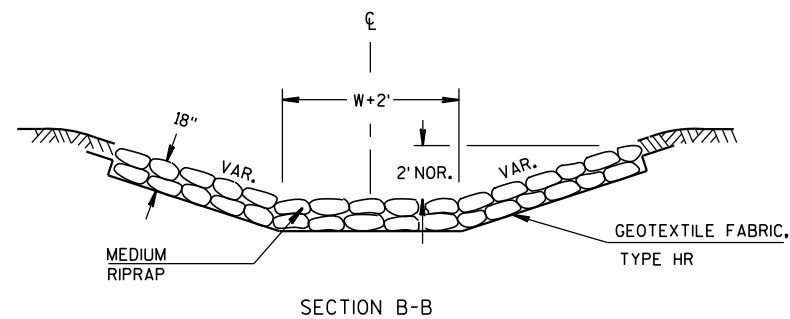
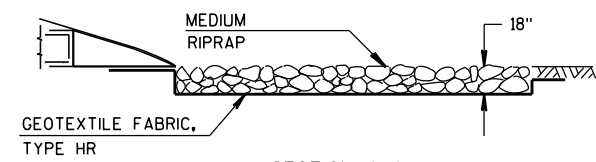
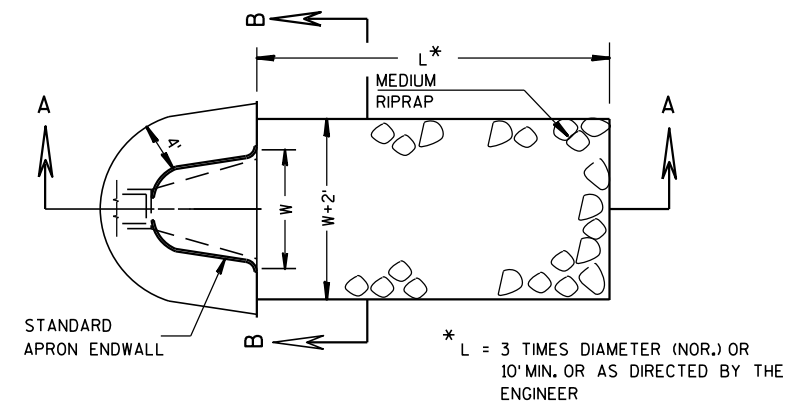
STA 341+50 RT



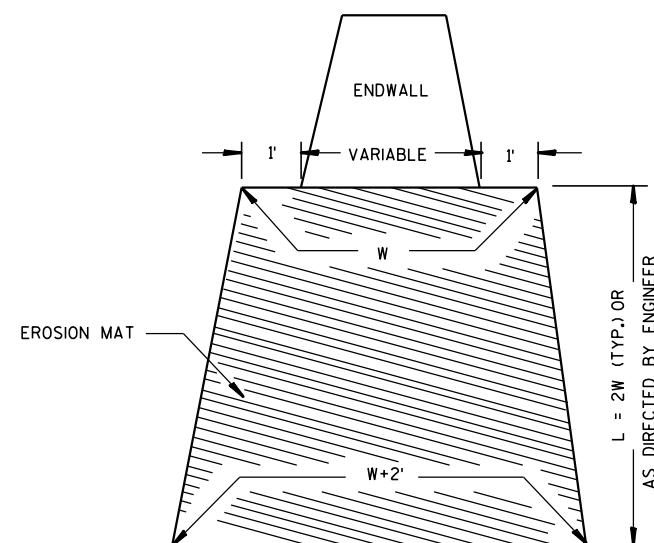
CURB & GUTTER AT INLET REPLACEMENTS

SEE LOCATIONS LISTED IN TABLE

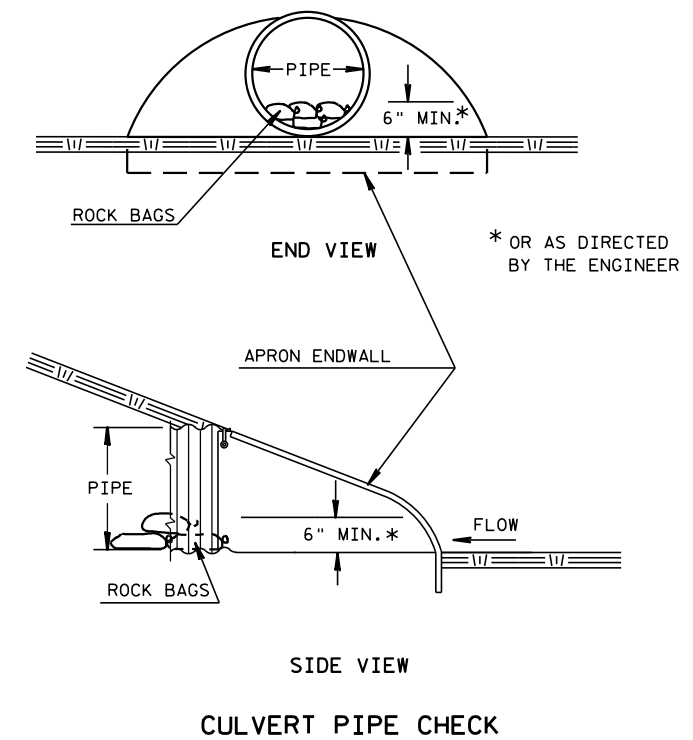
INLET REPLACEMENTS	
STA.	OFFSET
307+38.02	16.39' LT.
313+92.85	16.98' LT.
317+80.85	16.98' LT.
322+03.49	20.75' RT.
322+03.97	16.68' LT.
324+01.70	20.53' LT.
325+94.55	20.87' LT.
325+98.72	19.83' RT.
328+32.45	21.28' LT.
329+32.10	21.80' RT.
334+81.04	22.33' LT.
334+81.35	21.46' RT.
338+50.53	28.32' RT.

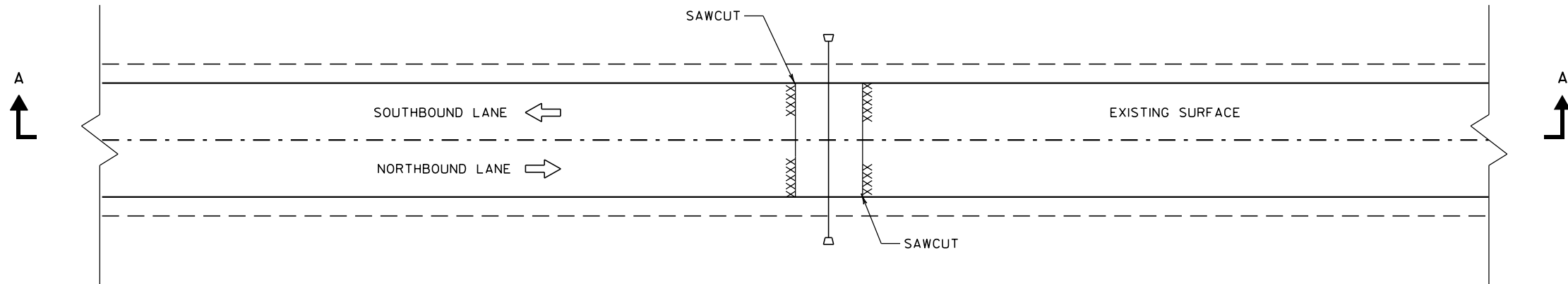


MEDIUM RIPRAP AND GEOTEXTILE FABRIC
DETAIL AT APRON ENDWALLS



EROSION MAT TREATMENT AT CULVERTS



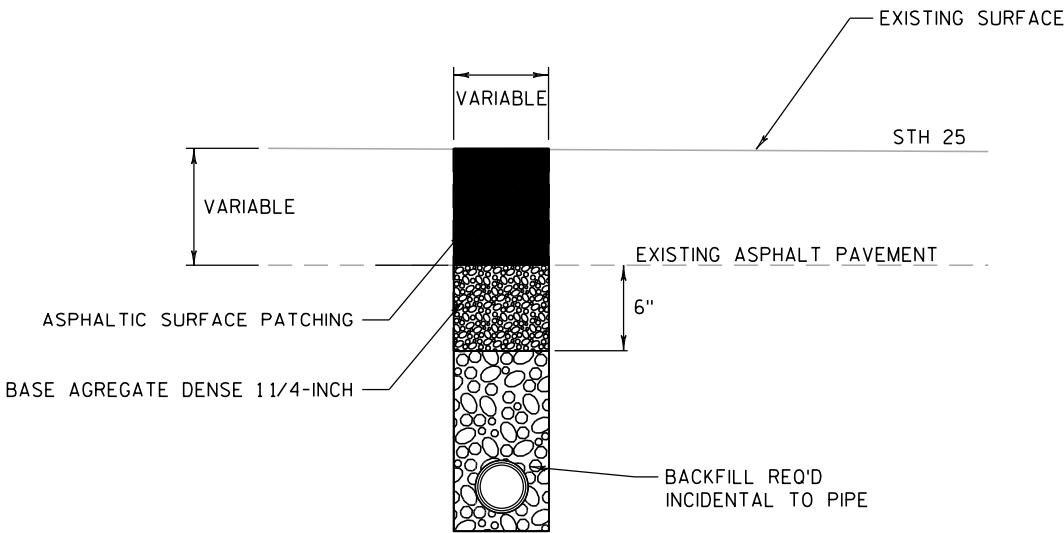


PLAN VIEW

CULVERT PIPE REPLACEMENT DETAIL

SEE LOCATIONS LISTED IN TABLE
PIPE REPLACEMENT SHALL BE COMPLETED PRIOR TO REMOVING ASPHALTIC SURFACE MILLING

PIPE REPLACEMENT LOCATIONS
STATION
73+52
78+41
86+51
91+62
100+58
110+71.59
128+18.83
187+15
204+31
222+86
239+53
274+80
303+67
313+97
317+81
344+32



SECTION A-A

ADJUSTING MANHOLE COVER REQ'D
STA. 308+33.07, 7.24 LT.

1 - INLET 2X3-FT, INLET COVERS TYPE H
STA. 307+38.02, 16.39 LT.

308+00

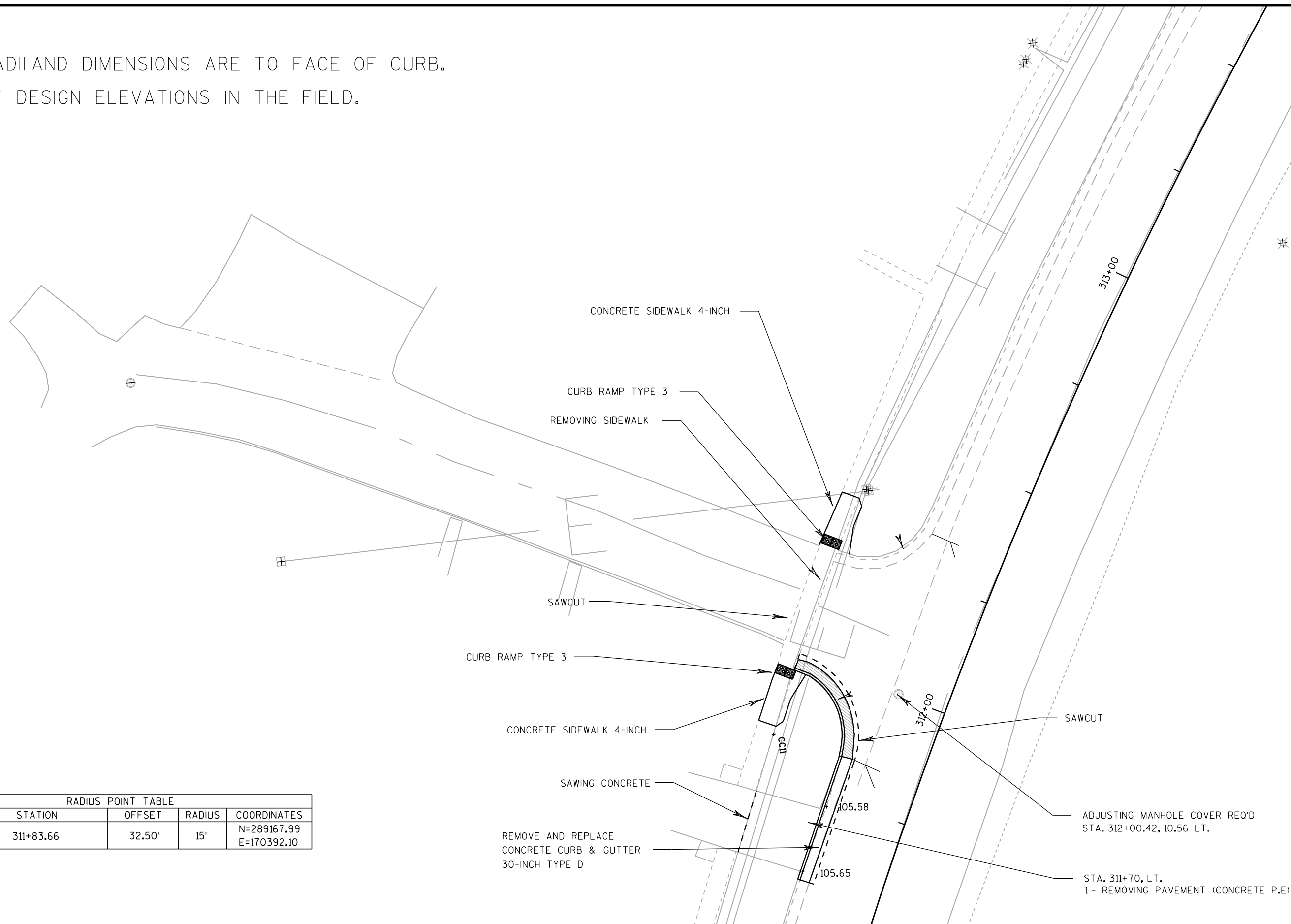
PL 307+65.61

307+00

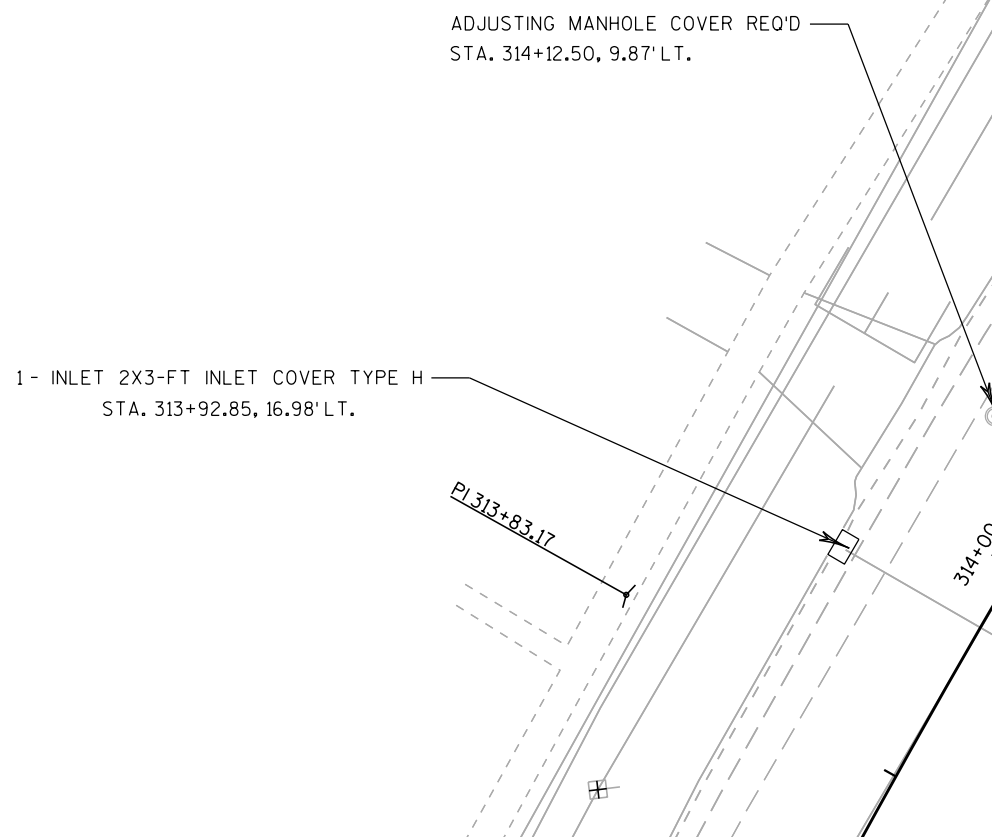
PC 306+48.56

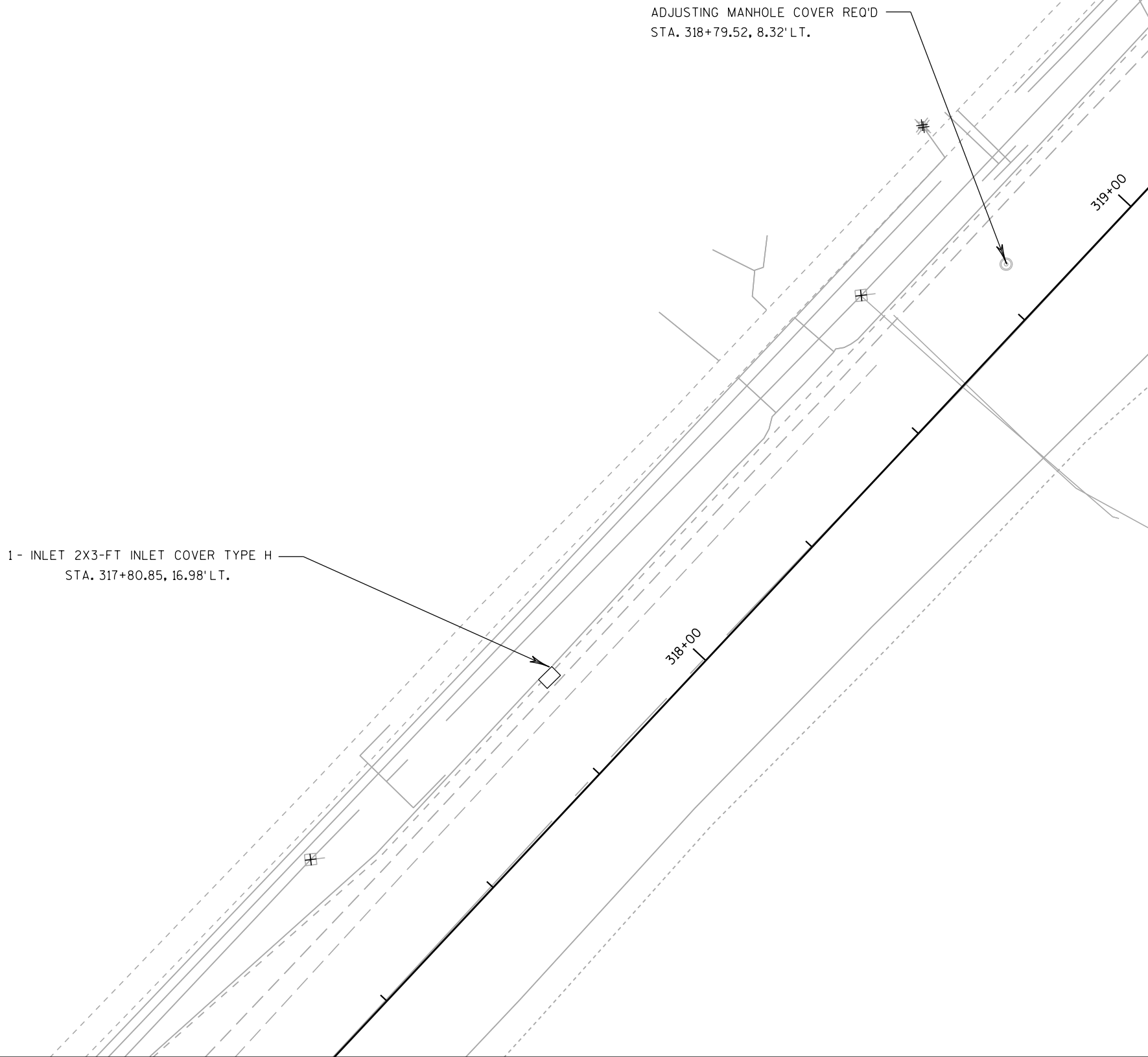
ADJUSTING MANHOLE COVER REQ'D
STA. 307+31.05, 3.36 LT.

NOTE:
1) ALL RADII AND DIMENSIONS ARE TO FACE OF CURB.
2) VERIFY DESIGN ELEVATIONS IN THE FIELD.



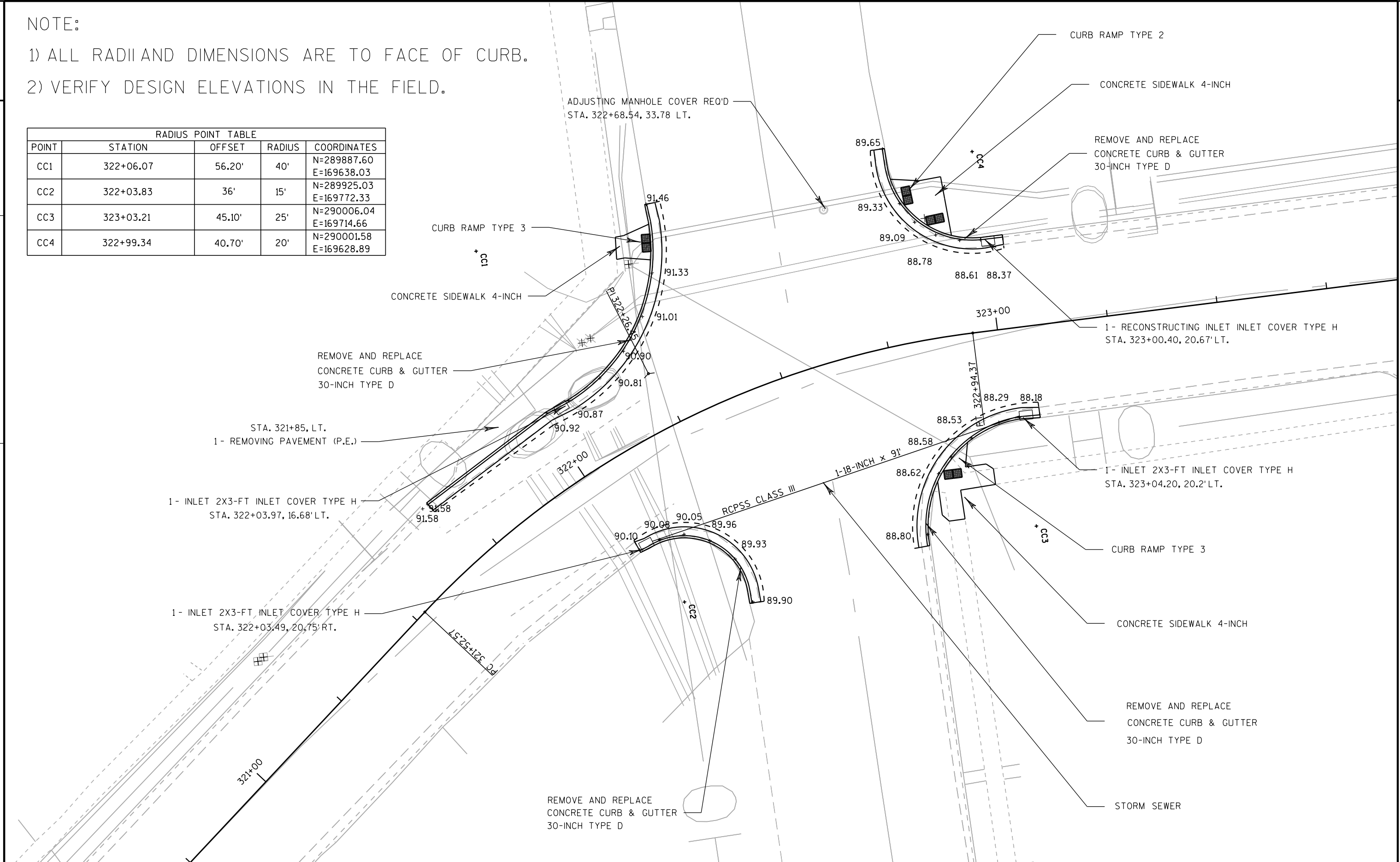
RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC11	311+83.66	32.50'	15'	N=289167.99 E=170392.10





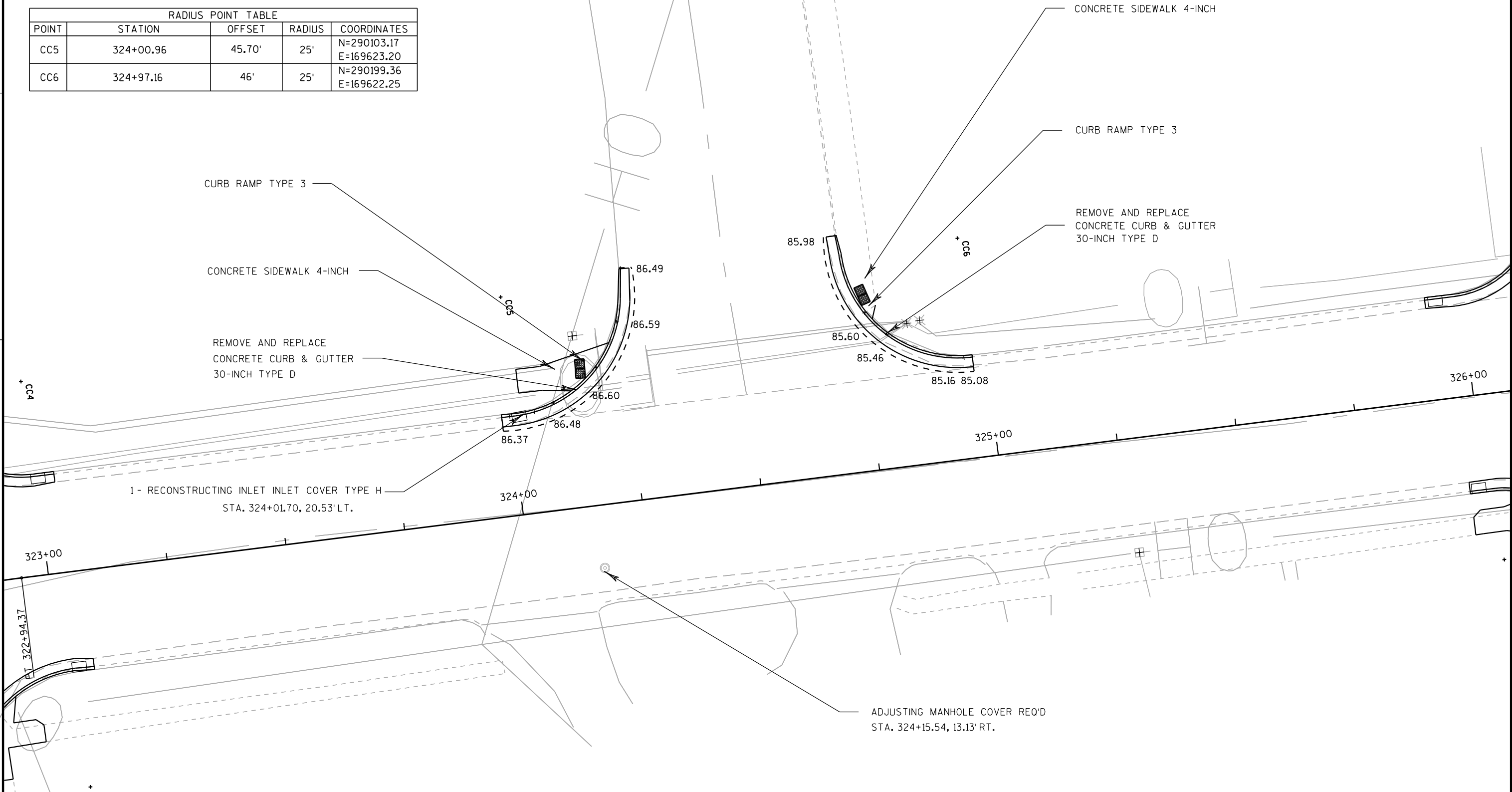
NOTE:
1) ALL RADII AND DIMENSIONS ARE TO FACE OF CURB.
2) VERIFY DESIGN ELEVATIONS IN THE FIELD.

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	322+06.07	56.20'	40'	N=289887.60 E=169638.03
CC2	322+03.83	36'	15'	N=289925.03 E=169772.33
CC3	323+03.21	45.10'	25'	N=290006.04 E=169714.66
CC4	322+99.34	40.70'	20'	N=290001.58 E=169628.89



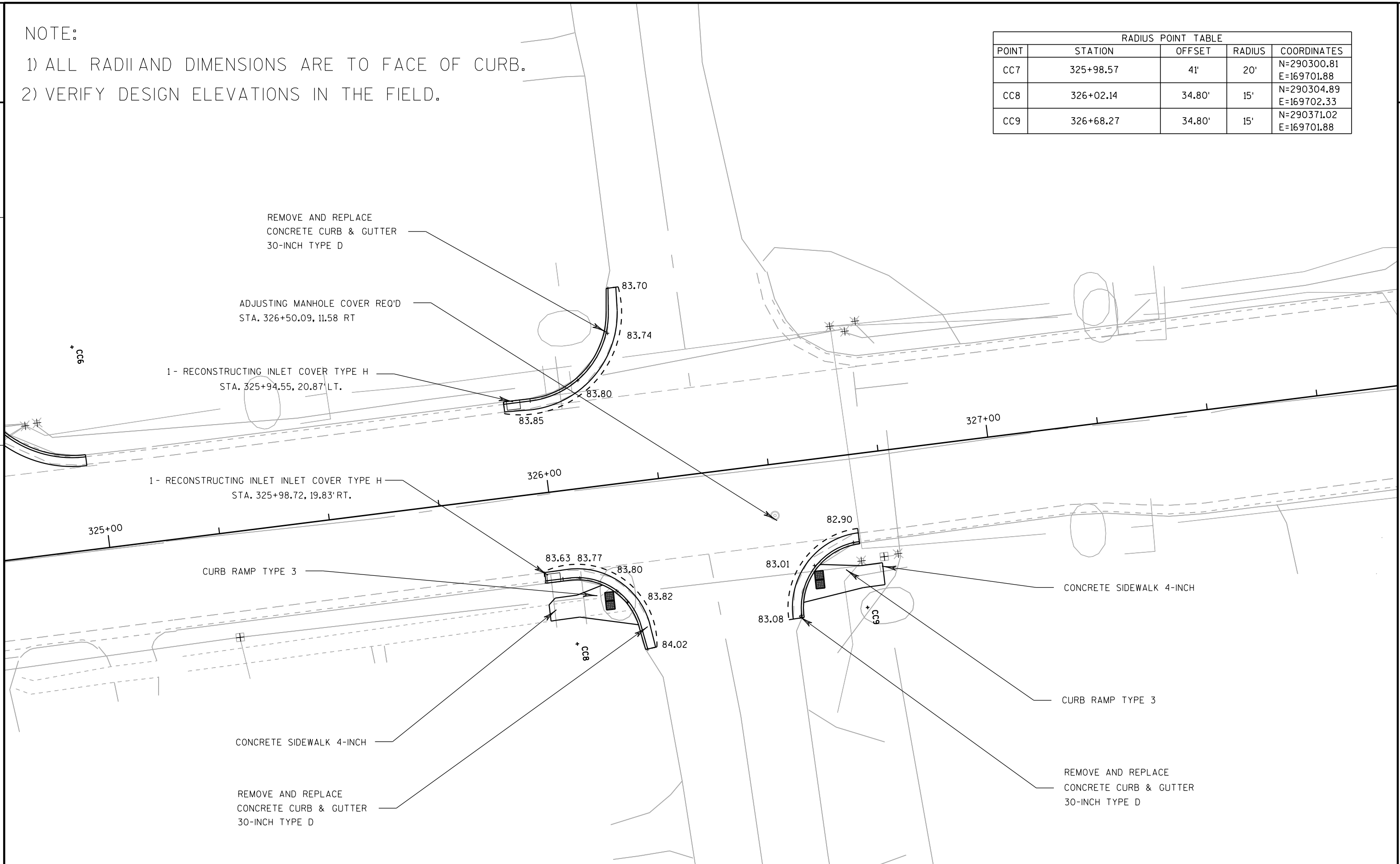
NOTE:
1) ALL RADII AND DIMENSIONS ARE TO FACE OF CURB.
2) VERIFY DESIGN ELEVATIONS IN THE FIELD.

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC5	324+00.96	45.70'	25'	N=290103.17 E=169623.20
CC6	324+97.16	46'	25'	N=290199.36 E=169622.25



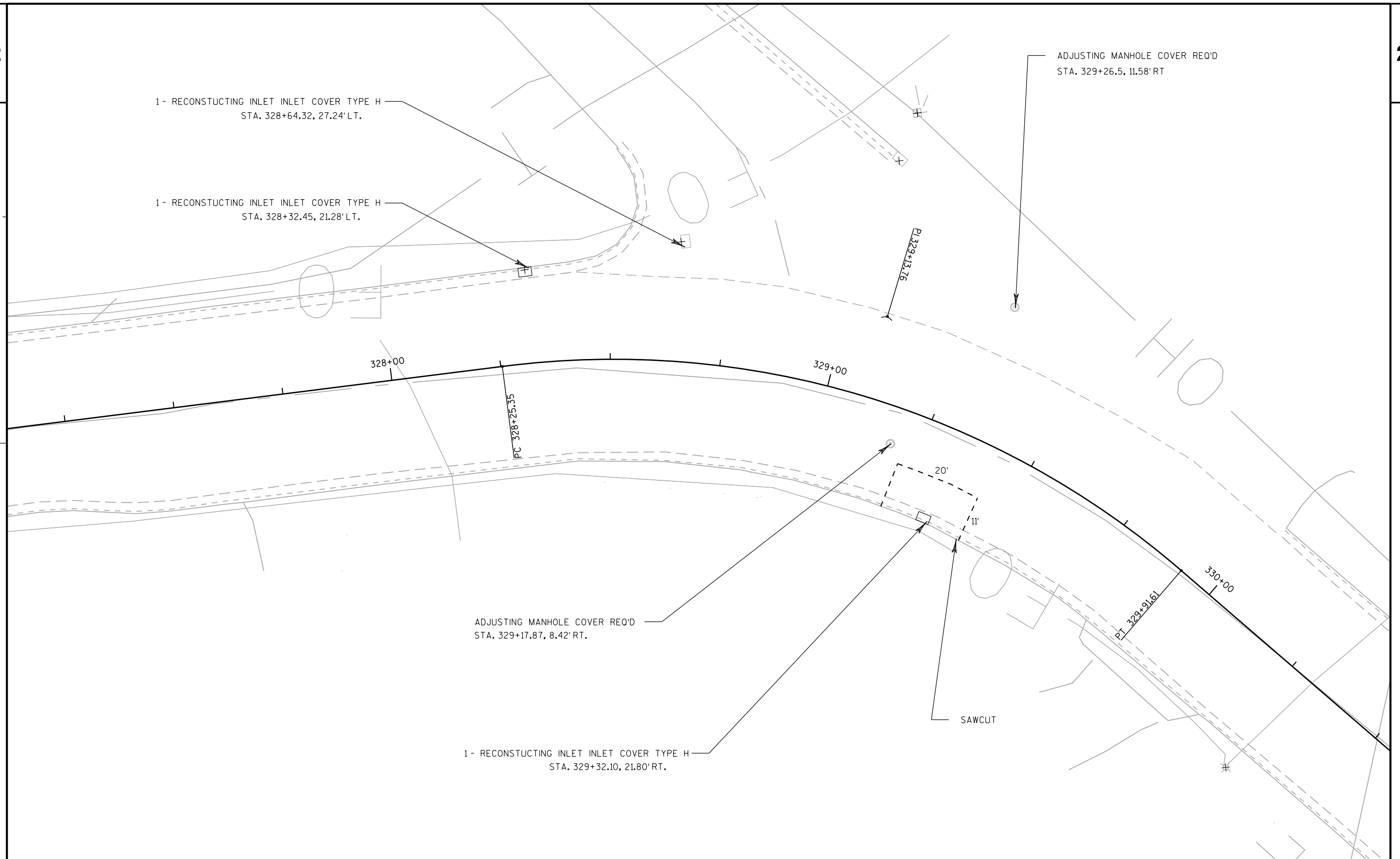
NOTE:
1) ALL RADII AND DIMENSIONS ARE TO FACE OF CURB.
2) VERIFY DESIGN ELEVATIONS IN THE FIELD.

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC7	325+98.57	41'	20'	N=290300.81 E=169701.88
CC8	326+02.14	34.80'	15'	N=290304.89 E=169702.33
CC9	326+68.27	34.80'	15'	N=290371.02 E=169701.88



2

2 |



PROJECT NO: 8100-03-62

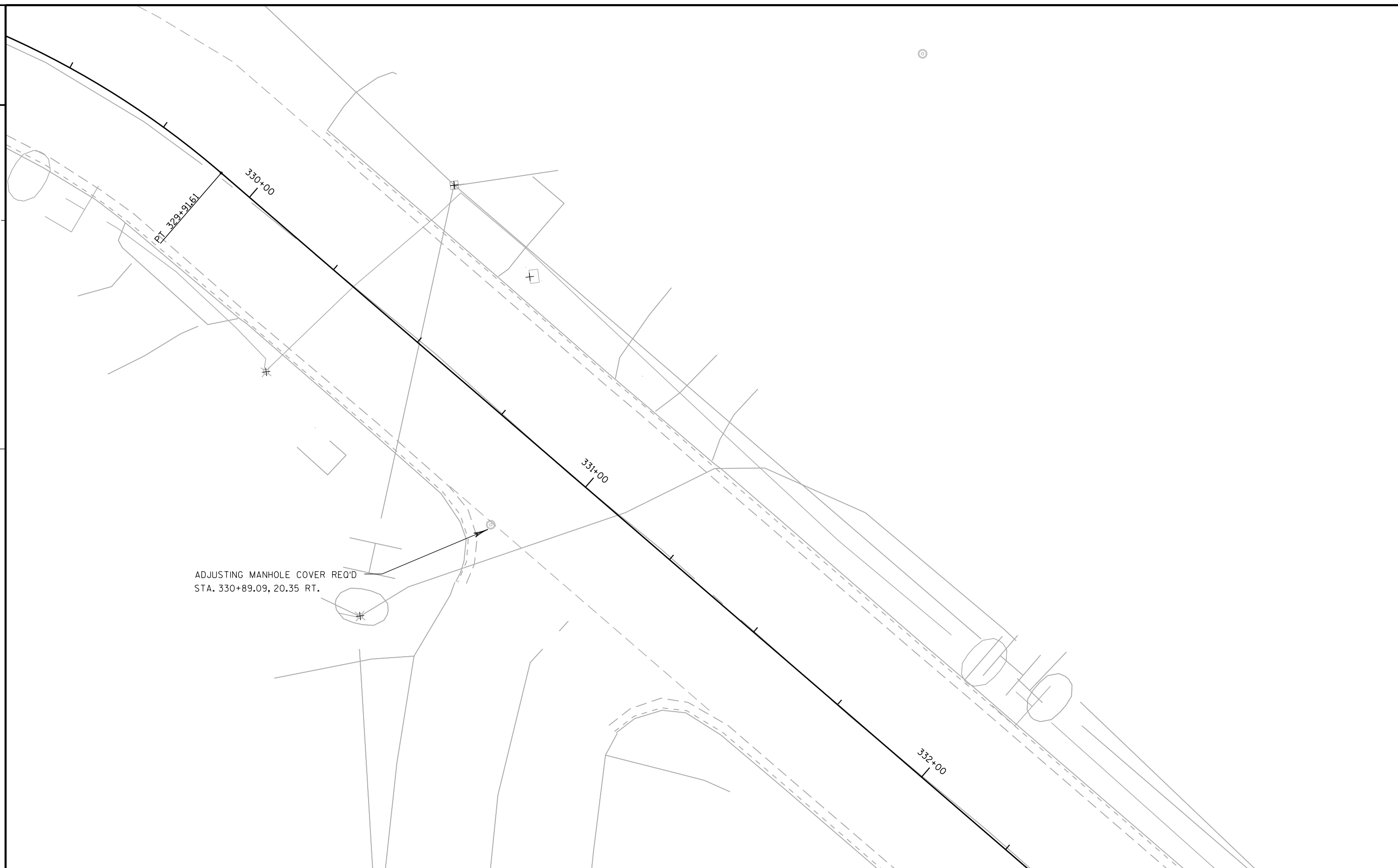
HWY: STH 25

COUNTY: DUNN

INTERSECTION DETAIL - RAILROAD STREET

SHEET

1



PROJECT NO: 8100-03-62

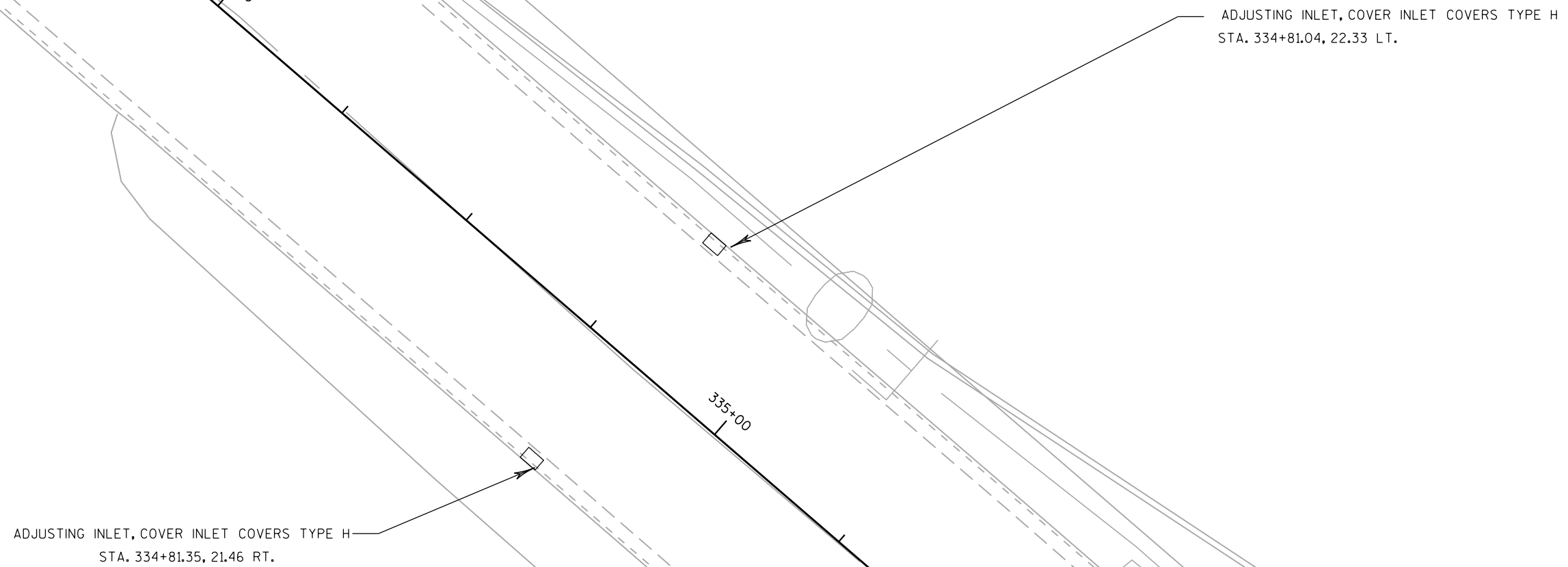
HWY: STH 25

COUNTY: DUNN

INTERSECTION DETAIL - CAROLINE STREET

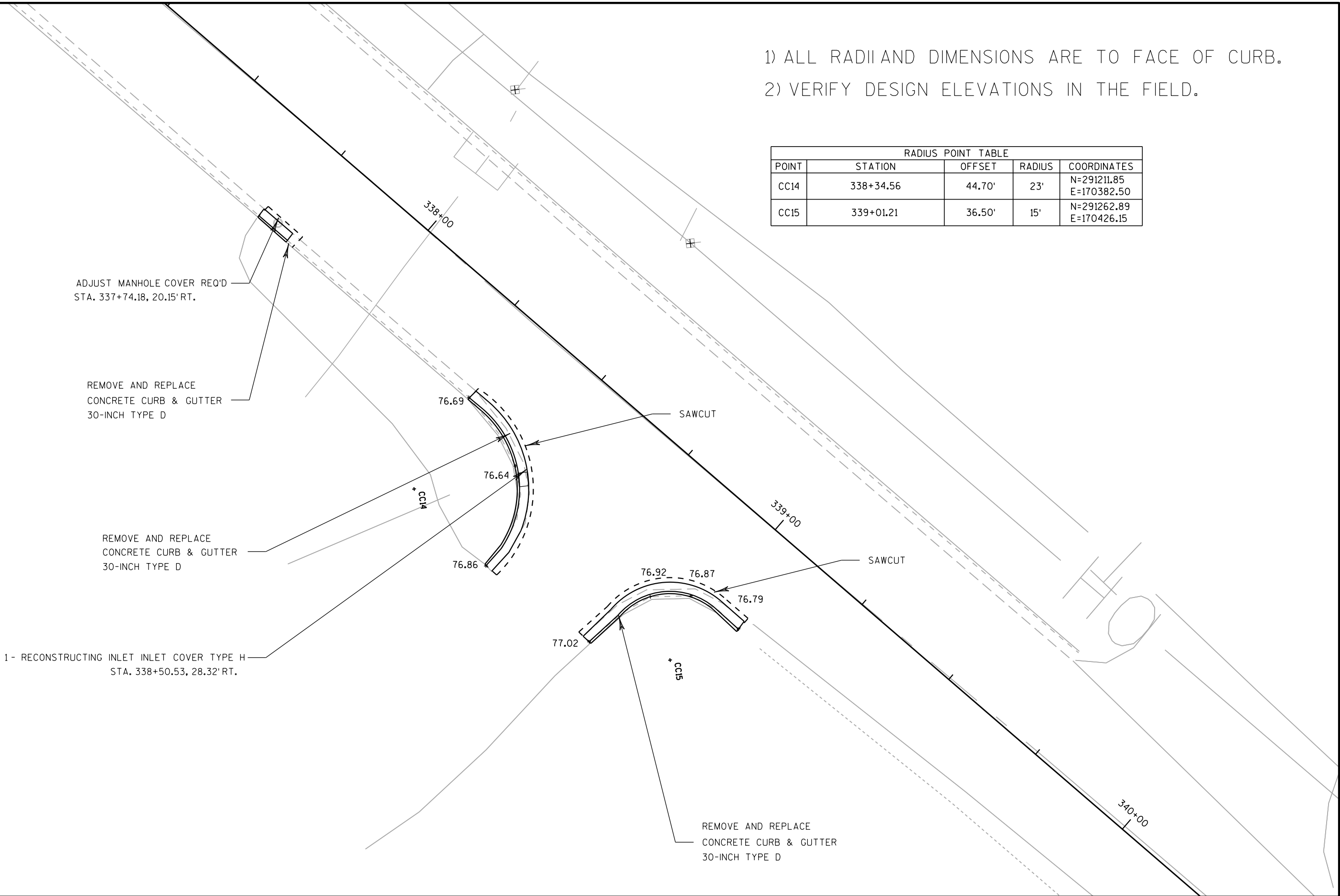
SHEET

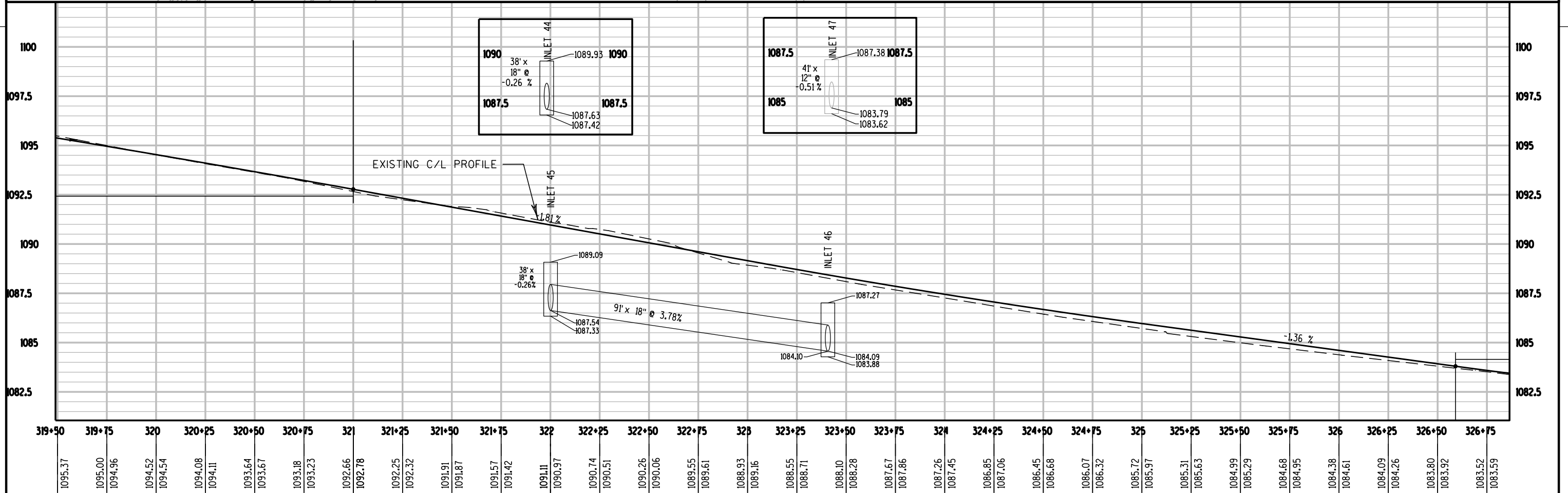
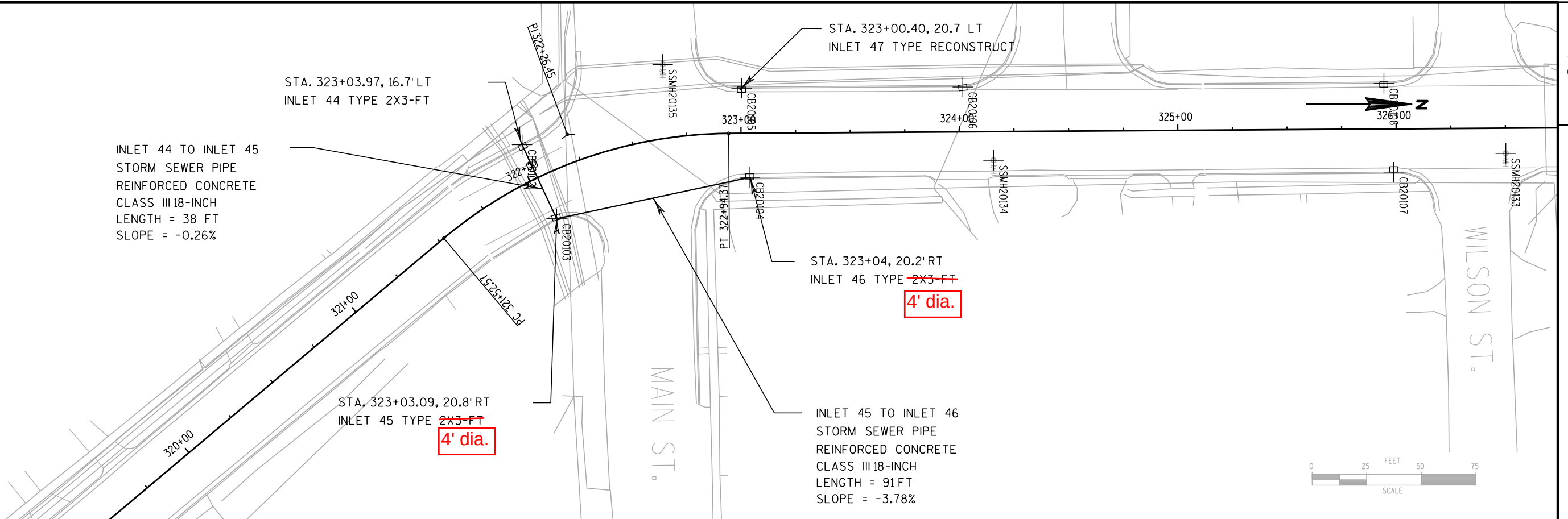
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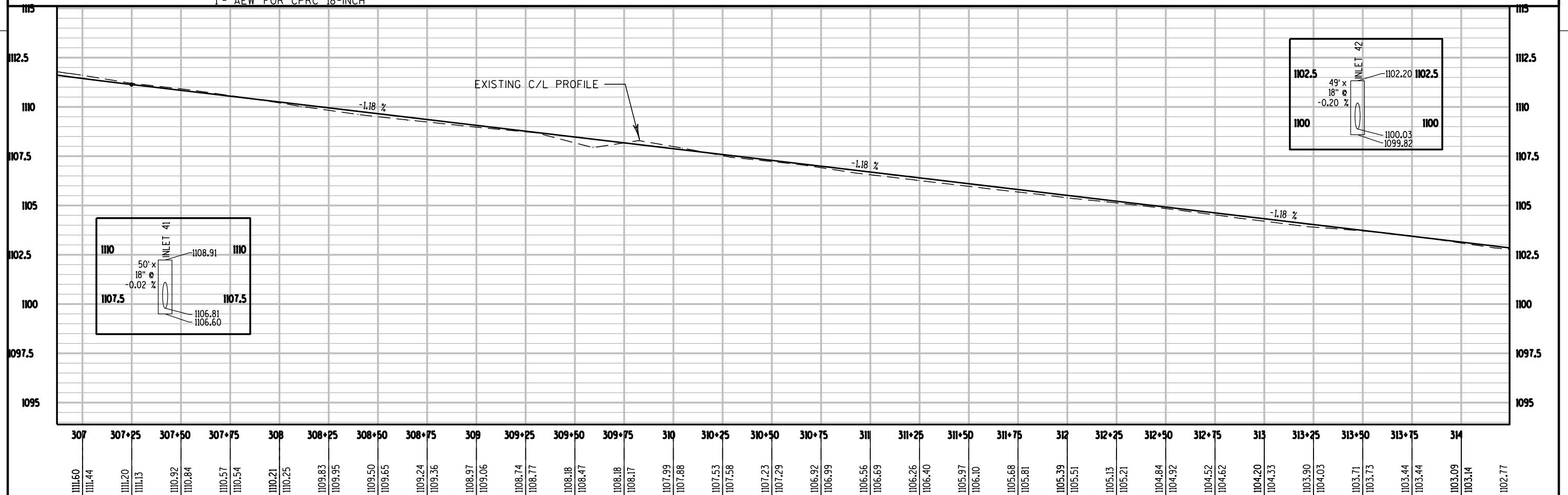
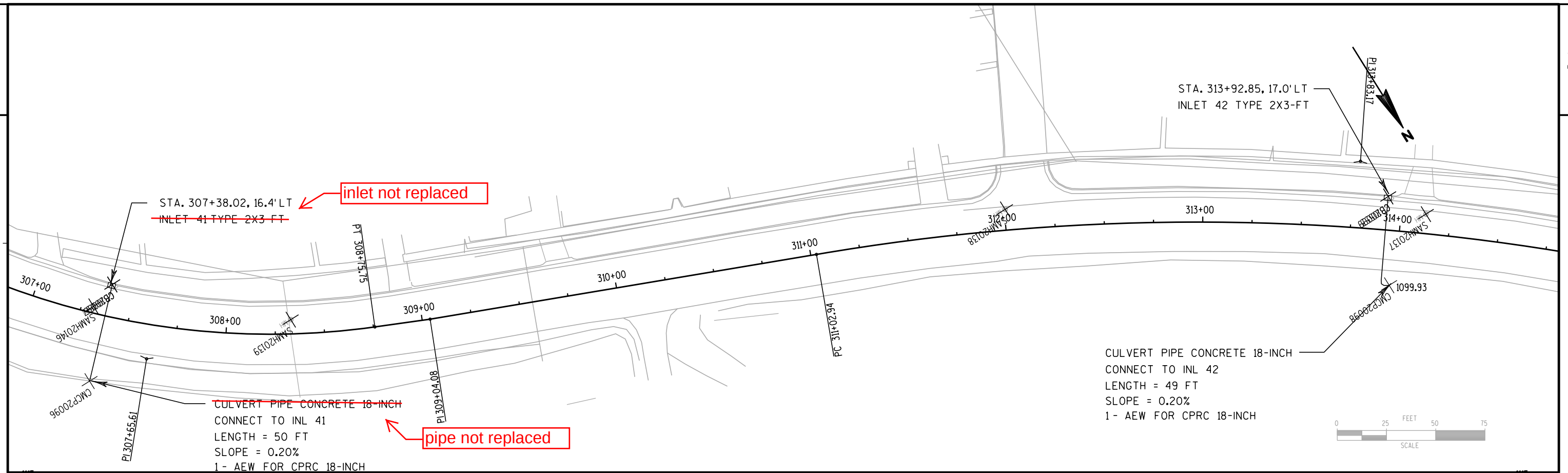


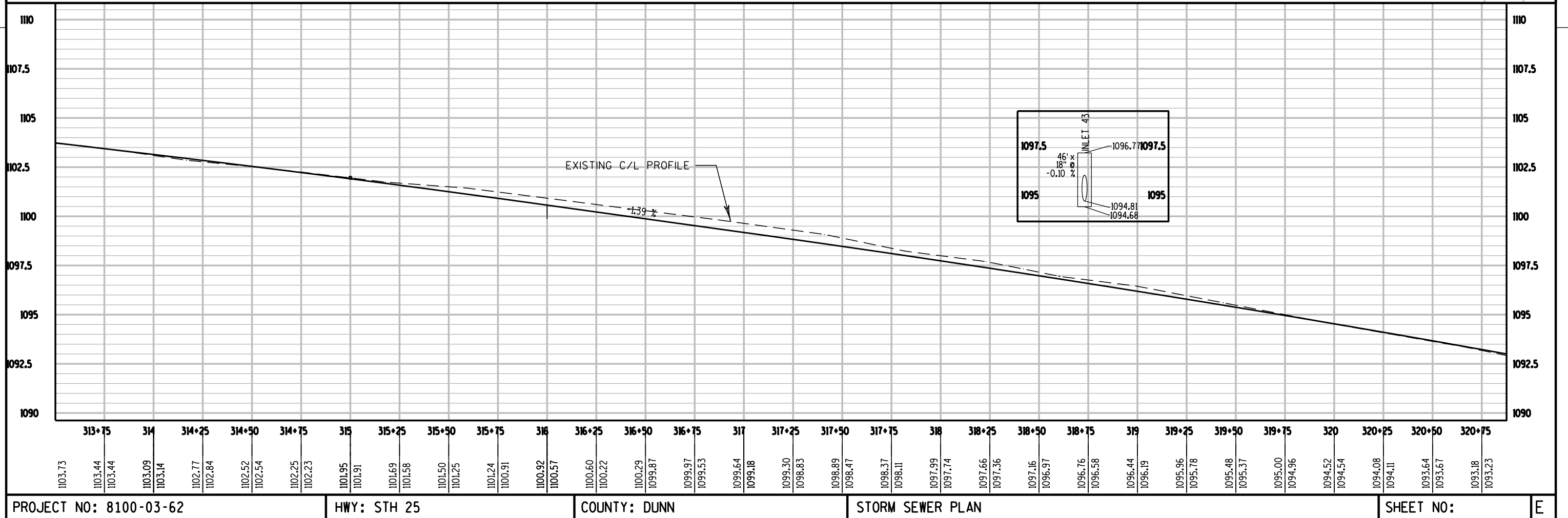
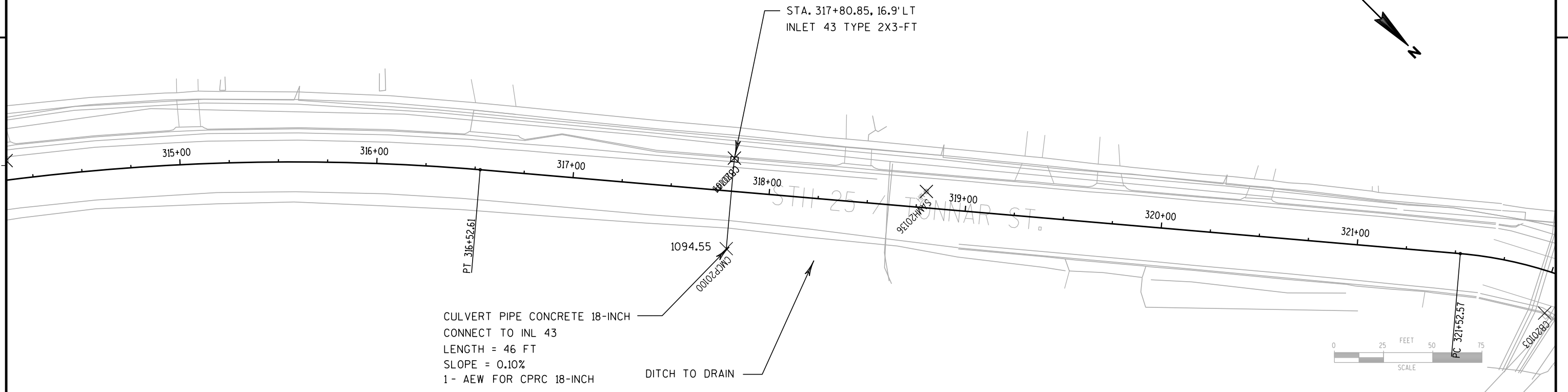
- 1) ALL RADII AND DIMENSIONS ARE TO FACE OF CURB.
- 2) VERIFY DESIGN ELEVATIONS IN THE FIELD.

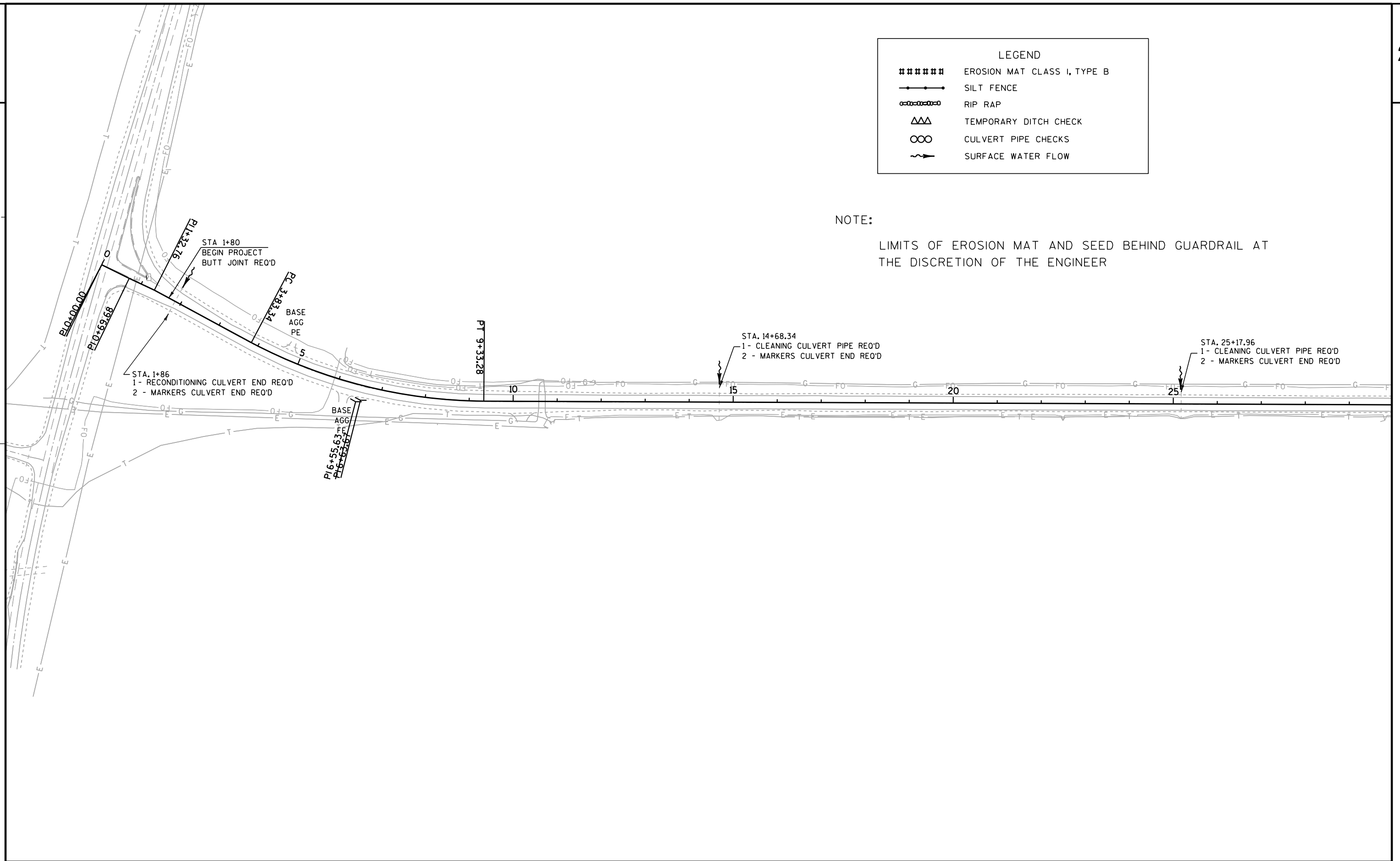
RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC14	338+34.56	44.70'	23'	N=291211.85 E=170382.50
CC15	339+01.21	36.50'	15'	N=291262.89 E=170426.15











PROJECT NO: 8100-03-62	HWY: STH 25	COUNTY: DUNN	EROSION CONTROL	SHEET	E
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LEGEND

#####

EROSION MAT CLASS I, TYPE B

—●—●—●—

SILT FENCE

—○—○—○—○—

RIP RAP

△△△

TEMPORARY DITCH CHECK

○○○

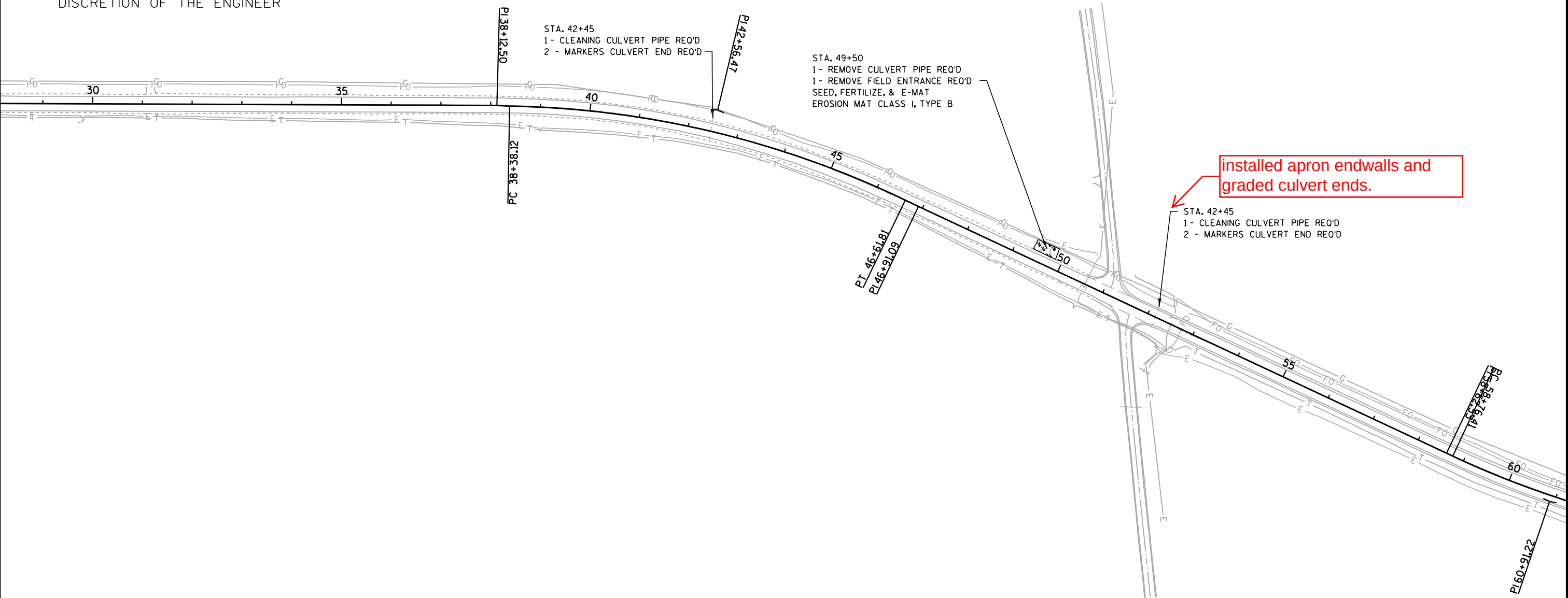
CULVERT PIPE CHECKS

~>

SURFACE WATER FLOW

NOTE:

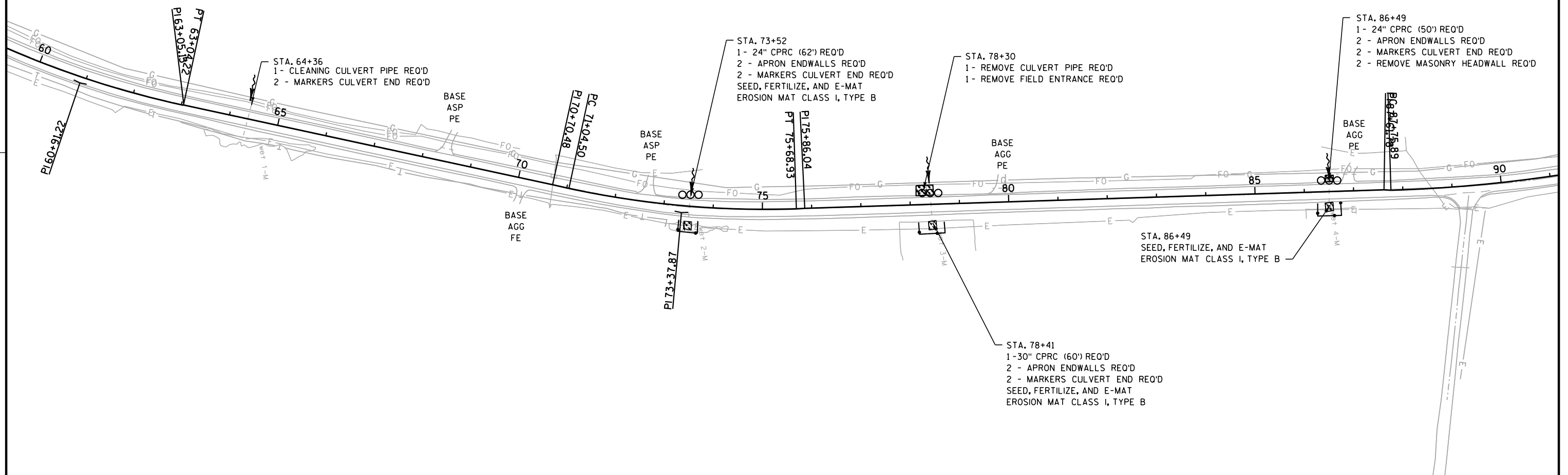
LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE DISCRETION OF THE ENGINEER

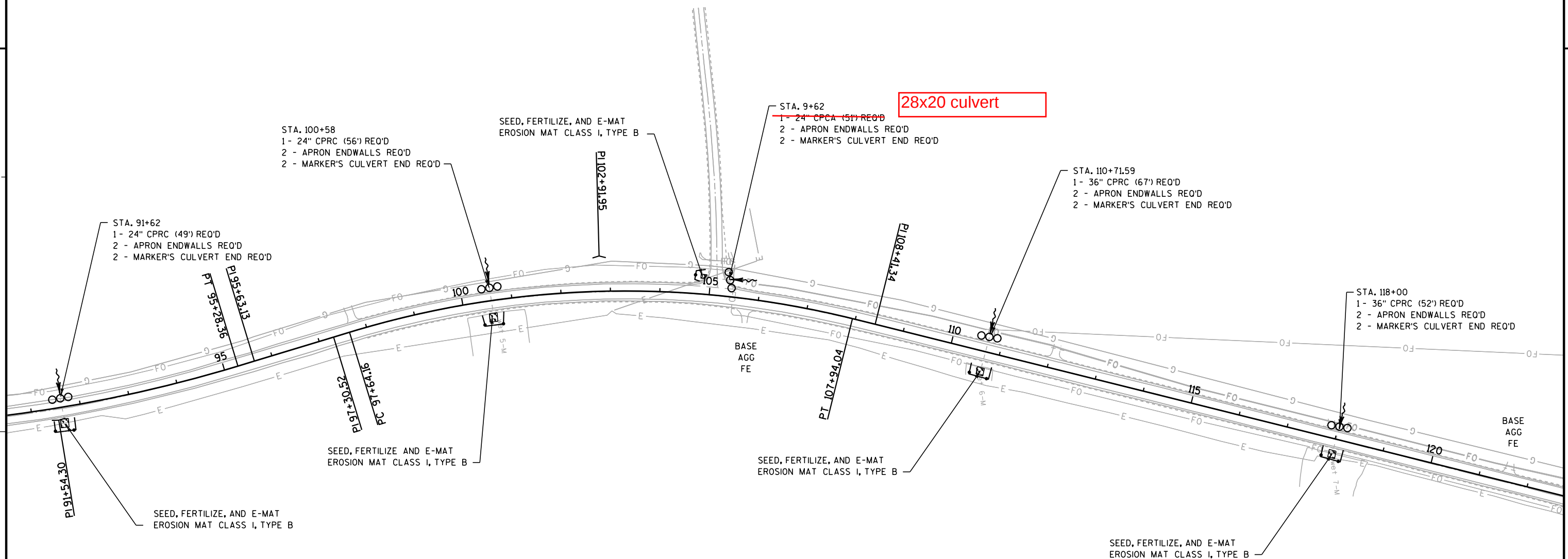


LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—●—●—●—	SILT FENCE
—○—○—○—○—○—○—	RIP RAP
△△△	TEMPORARY DITCH CHECK
○○○	CULVERT PIPE CHECKS
~>	SURFACE WATER FLOW

NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE DISCRETION OF THE ENGINEER

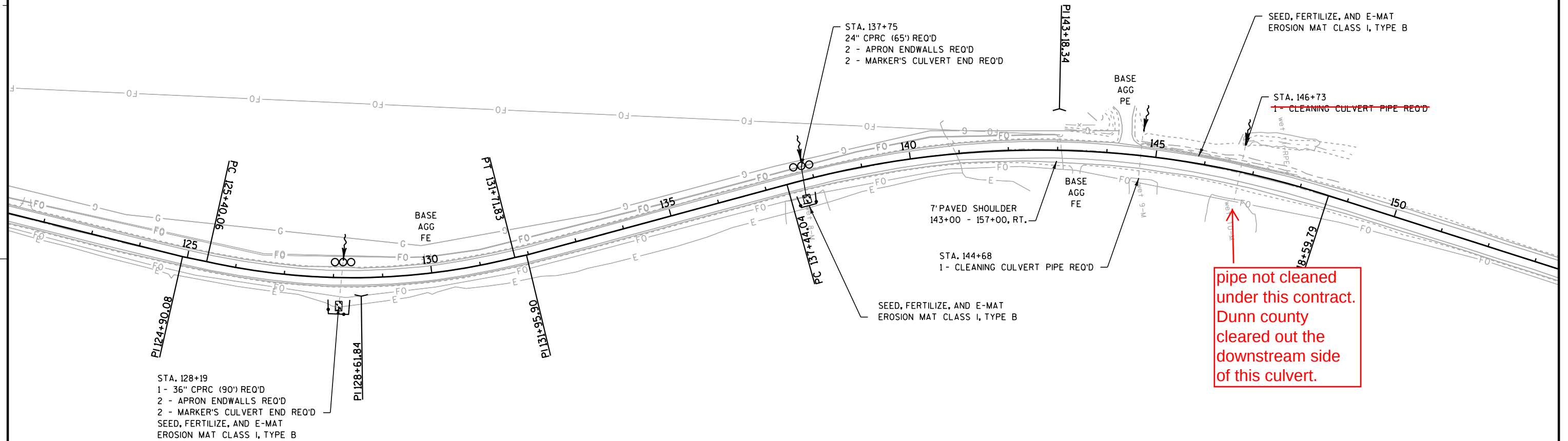




LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
○-○-○-○-○	RIP RAP
△△△	TEMPORARY DITCH CHECK
○○	CULVERT PIPE CHECKS
~→	SURFACE WATER FLOW

NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE DISCRETION OF THE ENGINEER

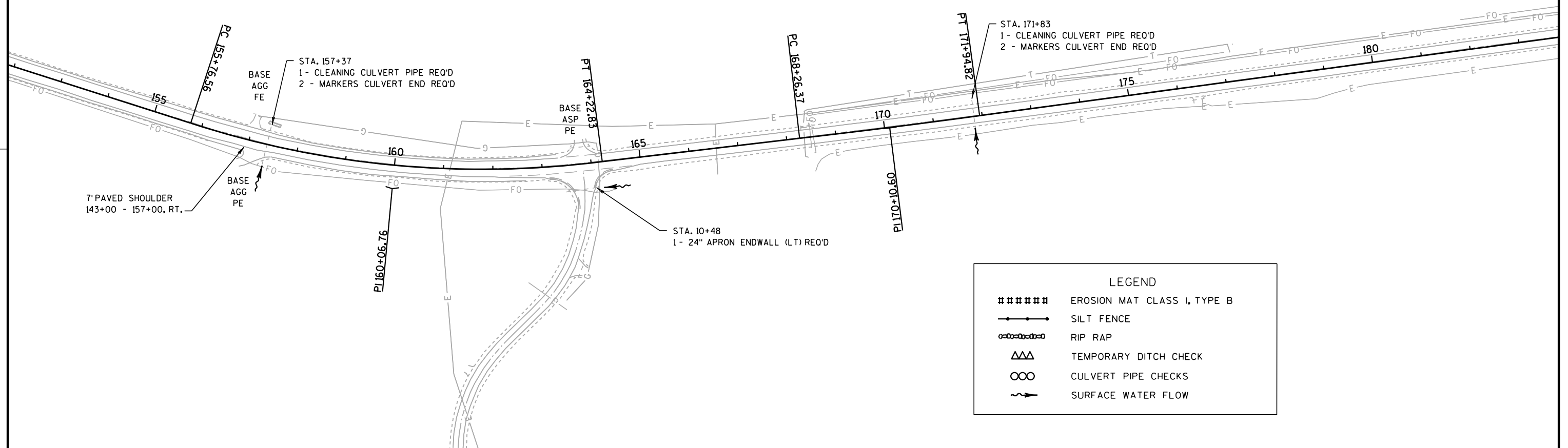


LEGEND

#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
—○—○—○—○—	RIP RAP
△△△	TEMPORARY DITCH CHECK
○○○	CULVERT PIPE CHECKS
~>	SURFACE WATER FLOW

NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE
DISCRETION OF THE ENGINEER



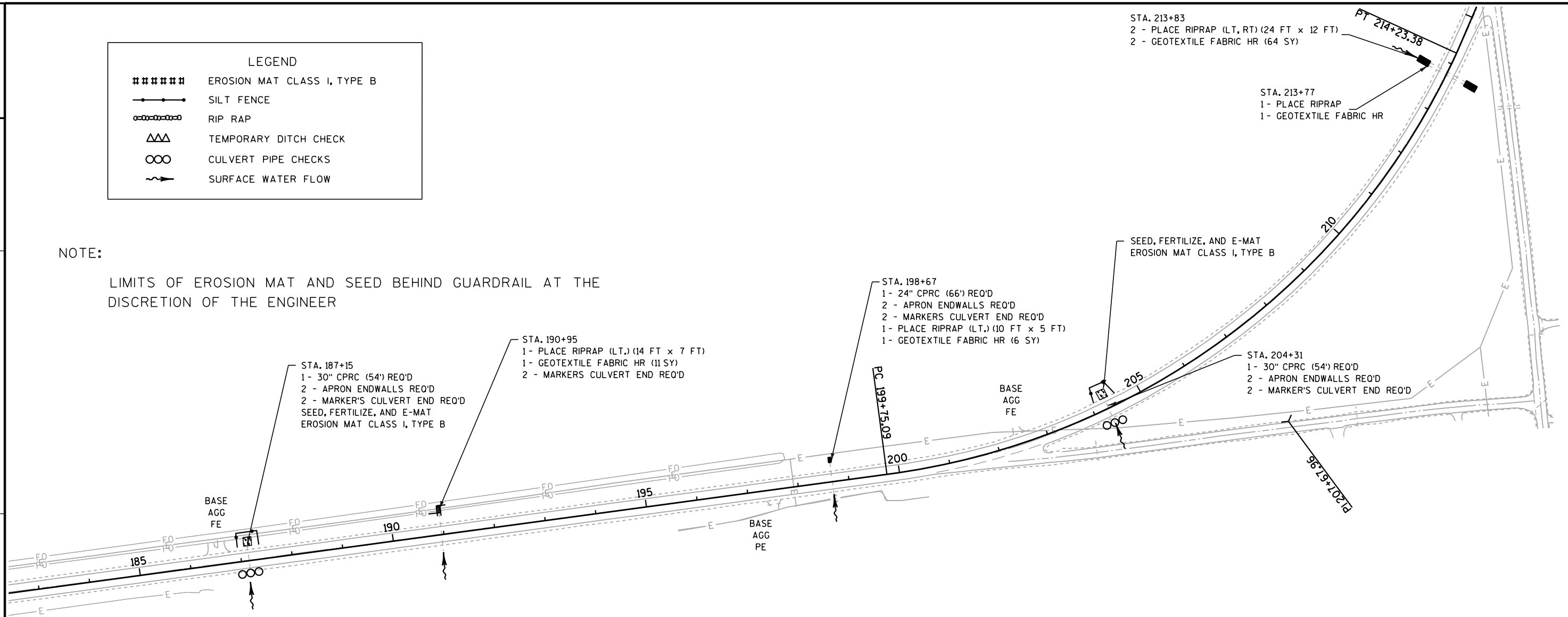
NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE DISCRETION OF THE ENGINEER

LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
—○—○—○—○—	RIP RAP
△△	TEMPORARY DITCH CHECK
○○	CULVERT PIPE CHECKS
~>	SURFACE WATER FLOW

NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE DISCRETION OF THE ENGINEER



LEGEND	
#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
—○—○—○—○—	RIP RAP
△△△	TEMPORARY DITCH CHECK
○○○	CULVERT PIPE CHECKS
~>	SURFACE WATER FLOW

NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE DISCRETION OF THE ENGINEER

STA. 9+74
1 - 24" CPCA (59') REQ'D
2 - APRON ENDWALLS REQ'D
2 - MARKER'S CULVERT END REQ'D
SEED, FERTILIZE, AND E-MAT
EROSION MAT CLASS I, TYPE B

STA. 222+86 REMOVING OLD STRUCTURE
1 - 24" CPCR (94') REQ'D
2 - APRON ENDWALLS REQ'D
2 - MARKER'S CULVERT END REQ'D
SEED, FERTILIZE, AND E-MAT
EROSION MAT CLASS I, TYPE B

STA. 232+75, RT.
1 - REMOVE CULVERT PIPE REQ'D
1 - REMOVE FIELD ENTRANCE REQ'D
SEED, FERTILIZE, AND E-MAT
E-MAT CLASS I, TYPE B

LEGEND

#####	EROSION MAT CLASS I, TYPE B
—●—●—●—	SILT FENCE
○-○-○-○-○	RIP RAP
△△△	TEMPORARY DITCH CHECK
○○○	CULVERT PIPE CHECKS
~>	SURFACE WATER FLOW

NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE DISCRETION OF THE ENGINEER

STA. 7+87
1 - 24" CPCA (49') REQ'D
2 - APRON ENDWALLS REQ'D
2 - MARKER'S CULVERT END REQ'D
SEED, FERTILIZE, AND E-MAT
EROSION MAT CLASS I, TYPE B

PI 236+13.01

ASP
PE

235

STA. 232+75, RT.
1 - REMOVE CULVERT PIPE REQ'D
1 - REMOVE FIELD ENTRANCE REQ'D
SEED, FERTILIZE, AND E-MAT
EROSION MAT CLASS I, TYPE B

PC 228+74.33

PI 243+87.67

PT 243+29.41

STA. 241+50, RT.
1 - FIELD ENTRANCE (24' WIDE) REQ'D
1 - 18" CPMP (30') REQ'D
2 - APRON ENDWALLS REQ'D

245

SEED, FERTILIZE, AND E-MAT
EROSION MAT CLASS I, TYPE B

SEED, FERTILIZE, AND E-MAT
EROSION MAT CLASS I, TYPE B

BASE
AGG
PE

250

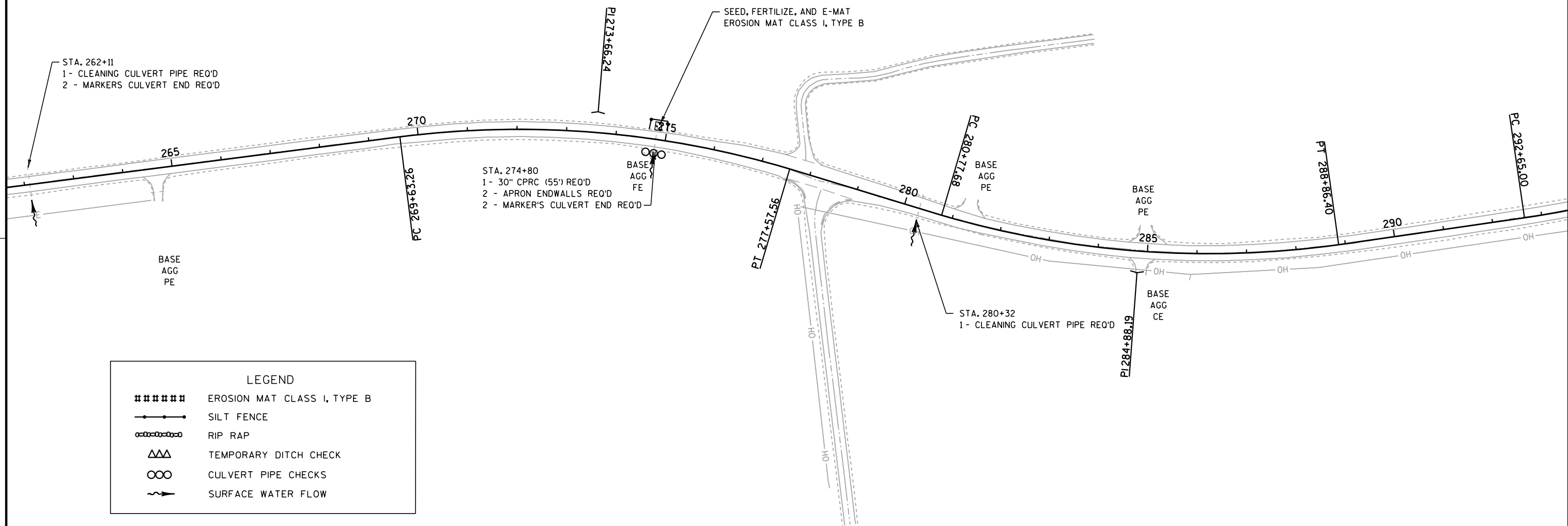
BASE
AGG
PE

255

STA. 253+75, RT.
1 - 18" CPCA (40') REQ'D
2 - APRON ENDWALLS REQ'D
SEED, FERTILIZE, AND E-MAT
EROSION MAT CLASS I, TYPE B

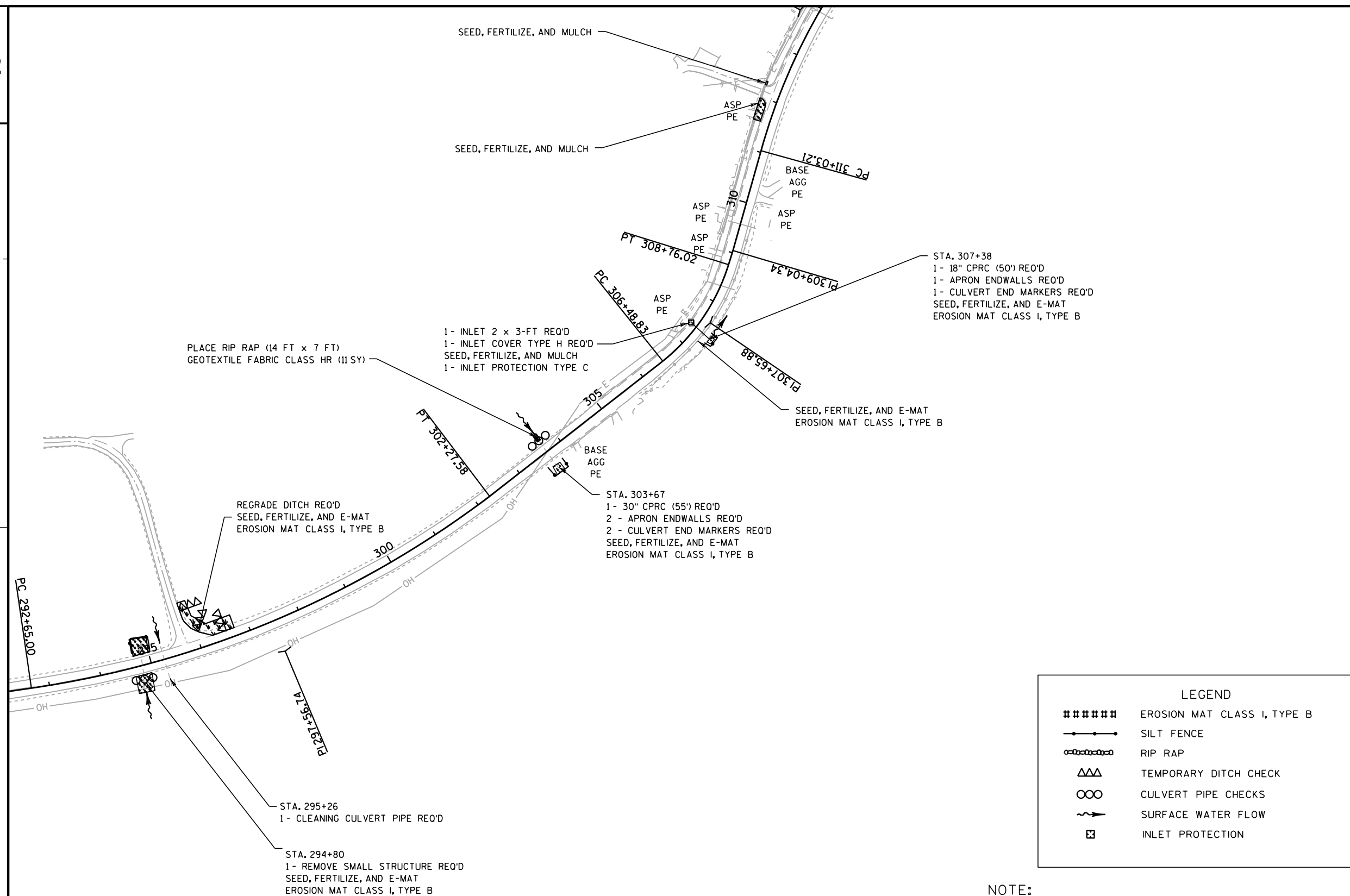
STA. 262+11
1 - CLEAN OUT PIPE REQ'D
2 - MARKER'S CULVERT END REQ'D
PLACE RIPRAP (LT) (18 FT x 9 FT)
GEOTEXTILE FABRIC HR (18 SY)

260



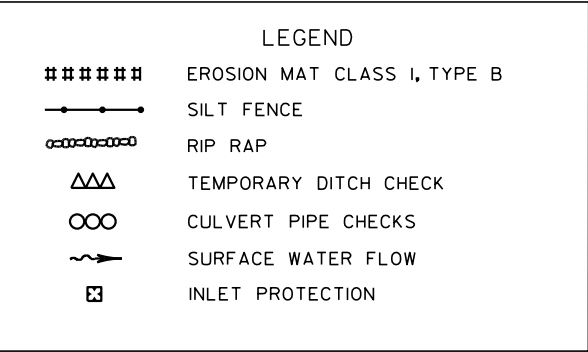
NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE DISCRETION OF THE ENGINEER.

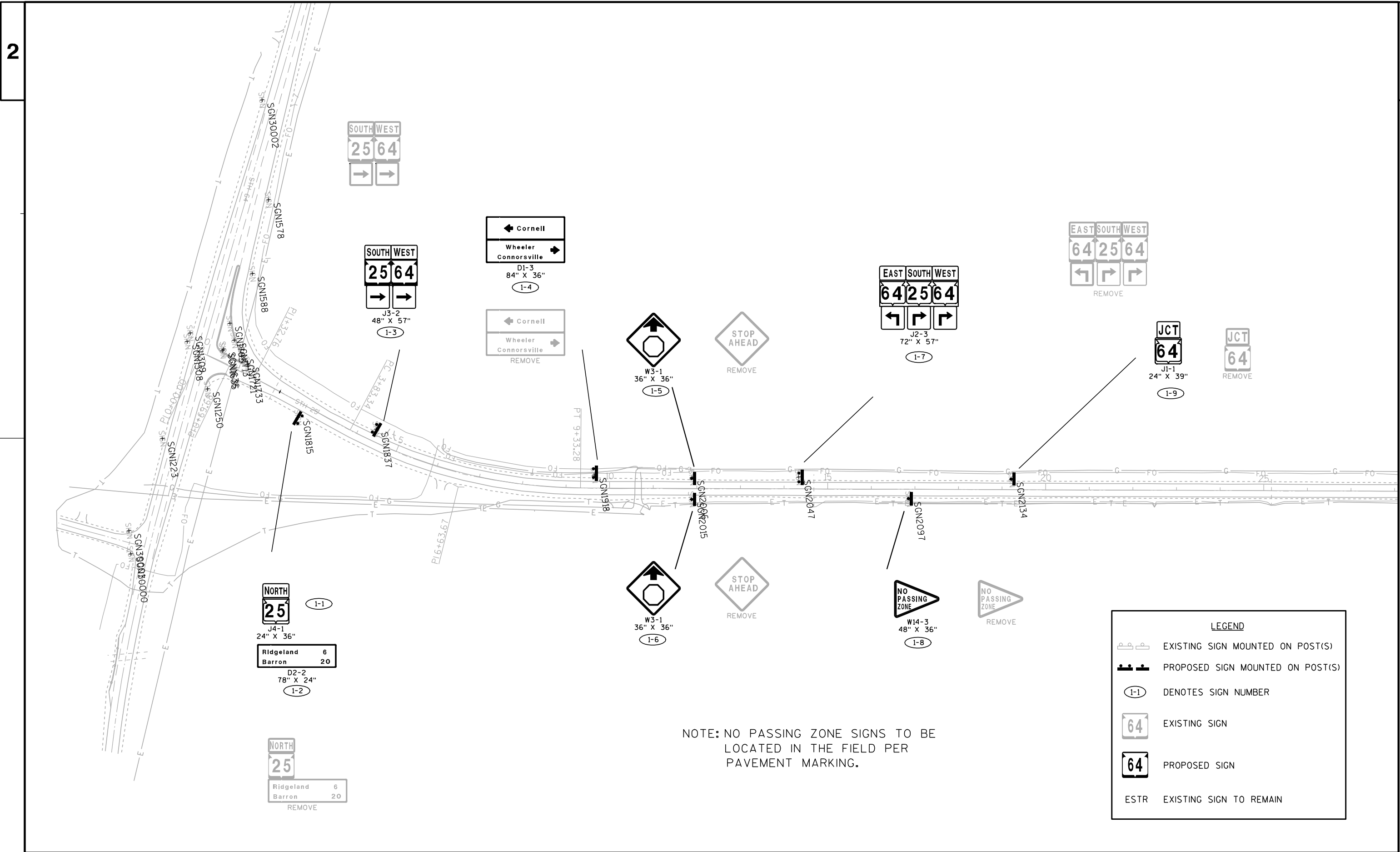


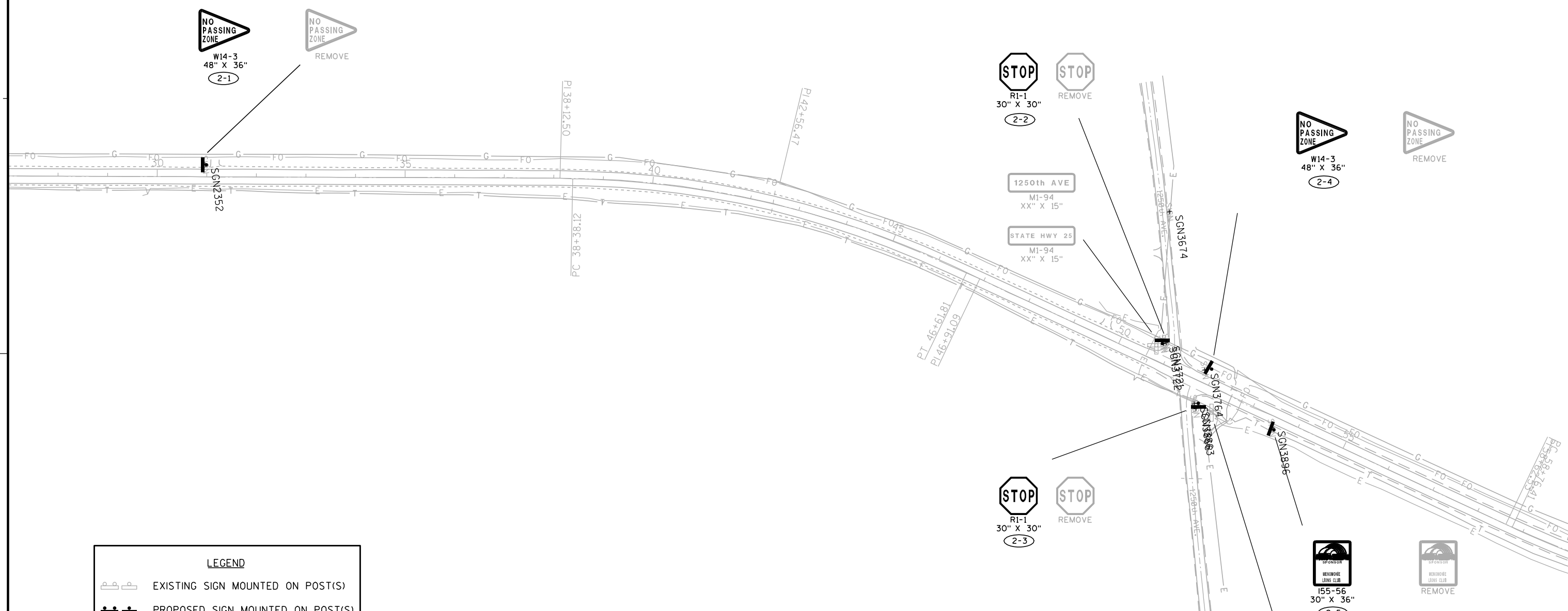
NOTE:

LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE
DISCRETION OF THE ENGINEER



LIMITS OF EROSION MAT AND SEED BEHIND GUARDRAIL AT THE
DISCRETION OF THE ENGINEER





LEGEND

	EXISTING SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON POST(S)
	DENOTES SIGN NUMBER
	EXISTING SIGN
	PROPOSED SIGN
ESTR	EXISTING SIGN TO REMAIN

NOTE: NO PASSING ZONE SIGNS TO BE LOCATED IN THE FIELD PER PAVEMENT MARKING.



LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

DENOTES SIGN NUMBER

EXISTING SIGN

PROPOSED SIGN

ESTR EXISTING SIGN TO REMAIN

NOTE: NO PASSING ZONE SIGNS TO BE
LOCATED IN THE FIELD PER
PAVEMENT MARKING.

LEGEND

 EXISTING SIGN MOUNTED ON POST(S)

 PROPOSED SIGN MOUNTED ON POST(S)

(1-1)

 DENOTES SIGN NUMBER

64

 EXISTING SIGN

64

 PROPOSED SIGN

ESTR EXISTING SIGN TO REMAIN

NOTE: NO PASSING ZONE SIGNS TO BE
LOCATED IN THE FIELD PER
PAVEMENT MARKING.

STOP

R1-1

30" X 30"

4-1

STOP

REMOVE

1300th AVE

M1-94

XX" X 15"

STATE HWY 25

M1-94

XX" X 15"

PT 102+91.95

SGN1224

PT 108+41.34

PT 107+94.04

NO PASSING ZONE

W14-3

48" X 36"

4-2

REMOVE

NO PASSING ZONE

REMOVE

NO PASSING ZONE

W14-3

48" X 36"

4-3

NO PASSING ZONE

REMOVE

STOP

R1-1

30" X 30"

STOP

REMOVE

1280th AVE

M1-94

XX" X 15"

STATE HWY 25

M1-94

XX" X 15"

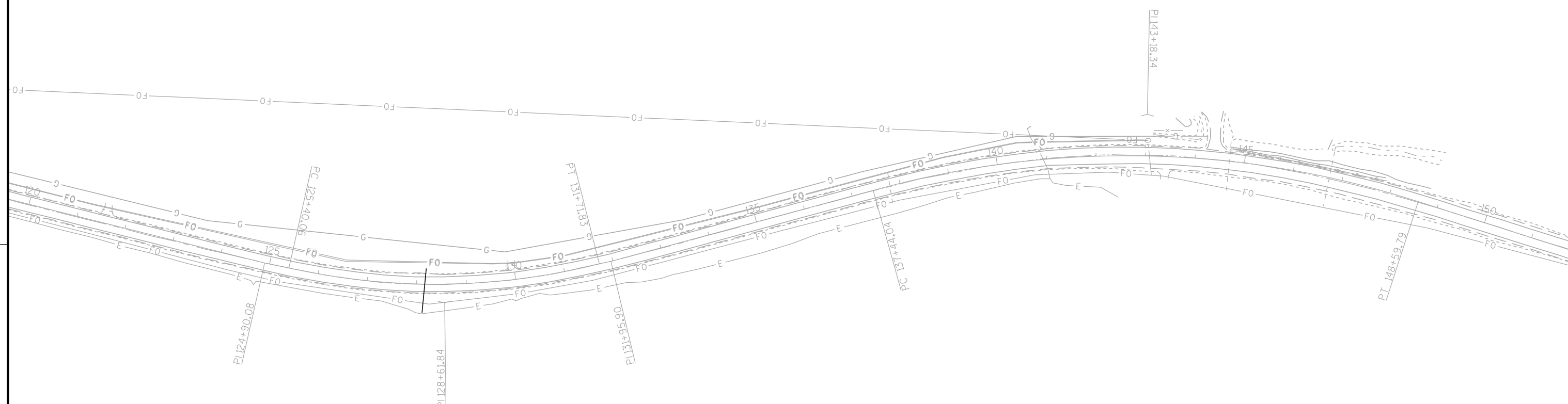
PT 91+54.30

PT 97+30.52

PC 97+64.16

PT 95+28.36

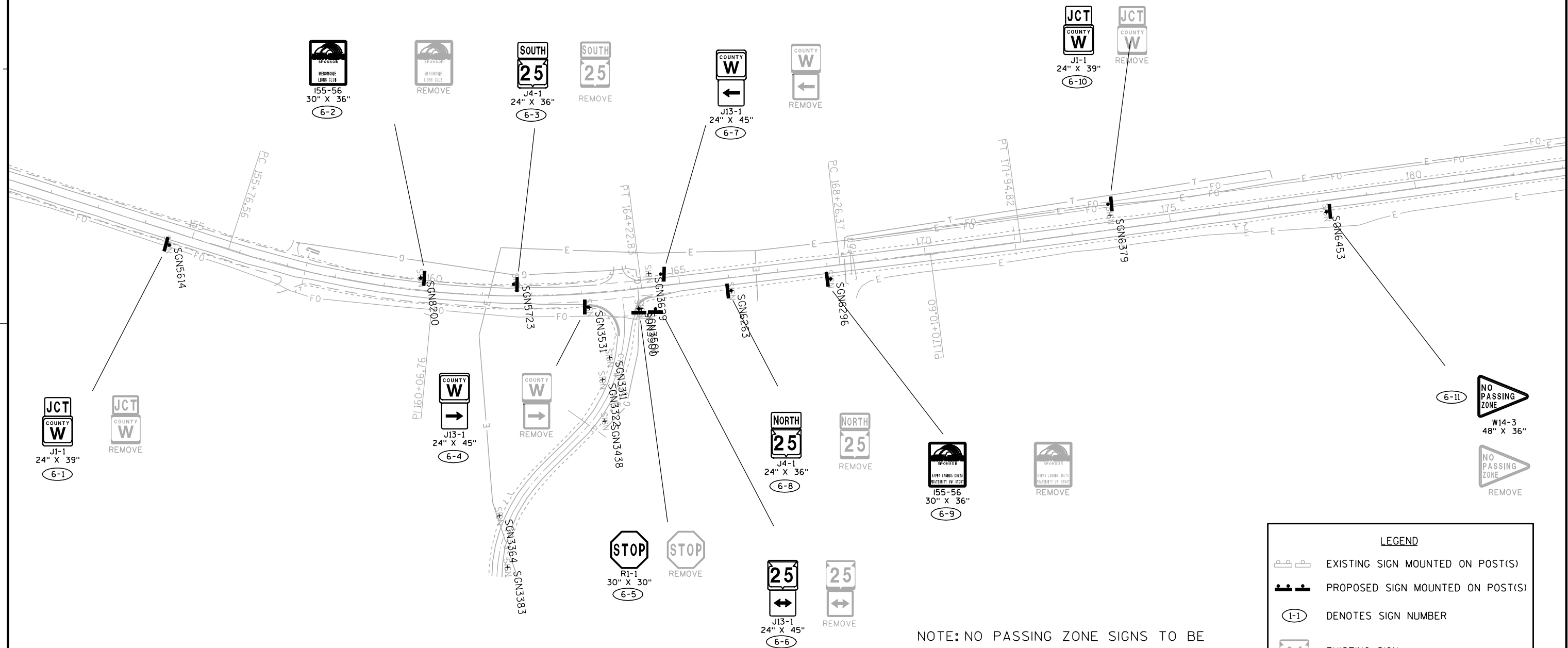
PT 93+63.13



LEGEND

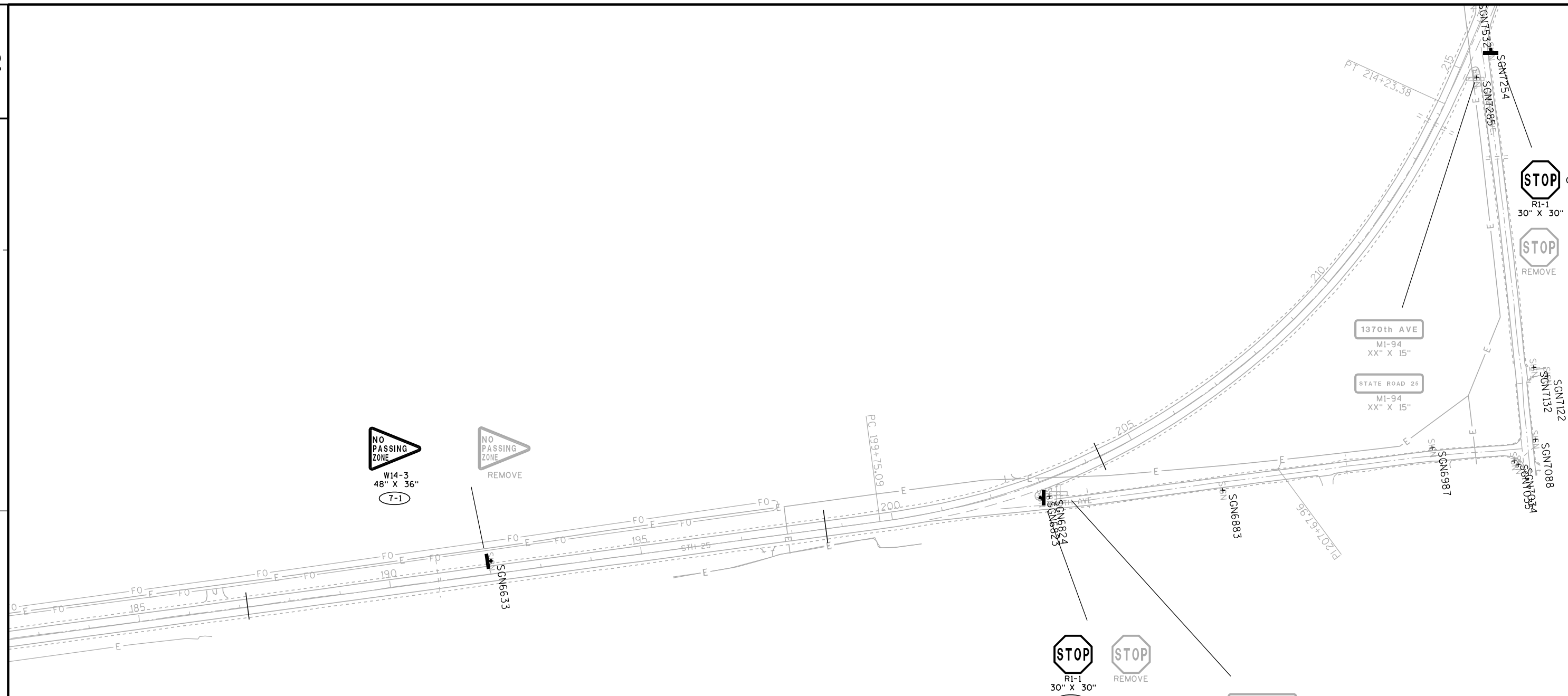
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- PROPOSED SIGN MOUNTED ON POST(S)
- DENOTES SIGN NUMBER
- EXISTING SIGN
- PROPOSED SIGN
- ESTR EXISTING SIGN TO REMAIN

NOTE: NO PASSING ZONE SIGNS TO BE
LOCATED IN THE FIELD PER
PAVEMENT MARKING.



LEGEND

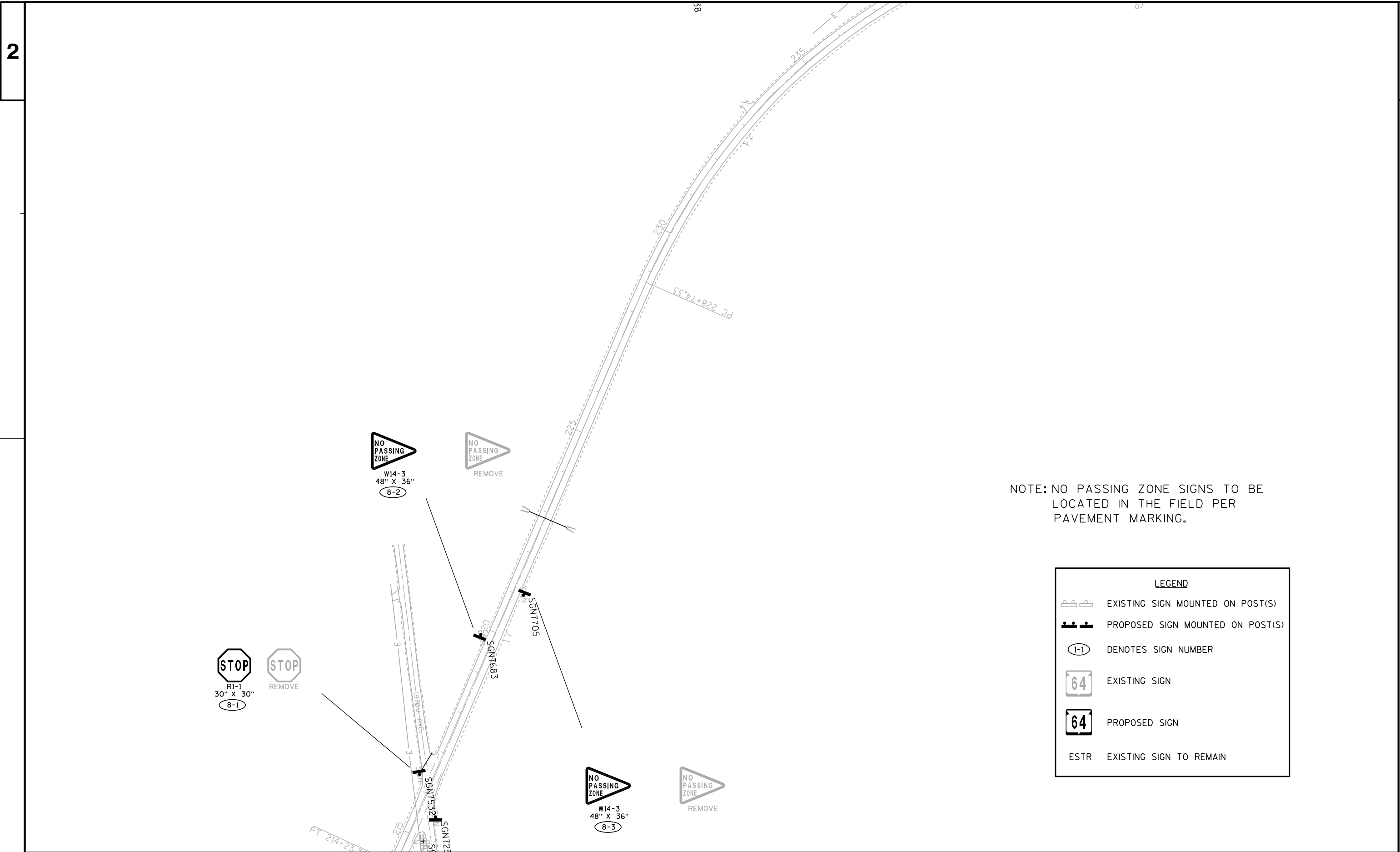
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- DENOTES SIGN NUMBER
- EXISTING SIGN
- PROPOSED SIGN
- EXISTING SIGN TO REMAIN



LEGEND

	EXISTING SIGN MOUNTED ON POST(S)
	PROPOSED SIGN MOUNTED ON POST(S)
	DENOTES SIGN NUMBER
	EXISTING SIGN
	PROPOSED SIGN
ESTR	EXISTING SIGN TO REMAIN

NOTE: NO PASSING ZONE SIGNS TO BE
LOCATED IN THE FIELD PER
PAVEMENT MARKING.



NOTE: NO PASSING ZONE SIGNS TO BE
LOCATED IN THE FIELD PER
PAVEMENT MARKING.

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

DENOTES SIGN NUMBER

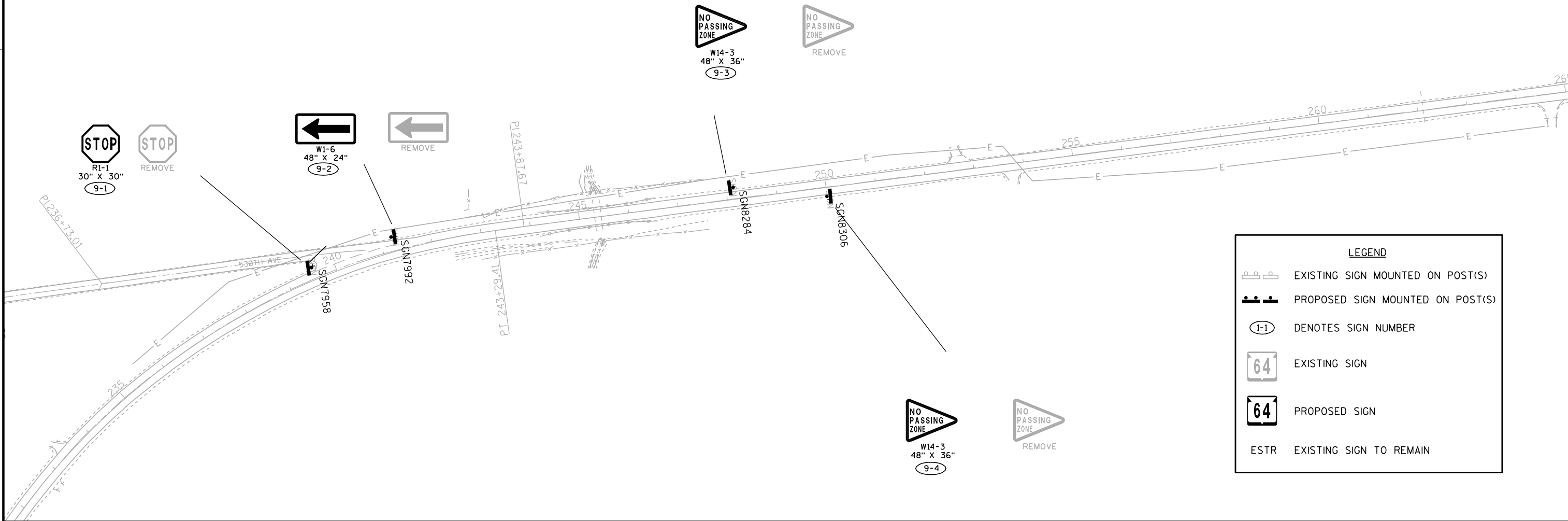
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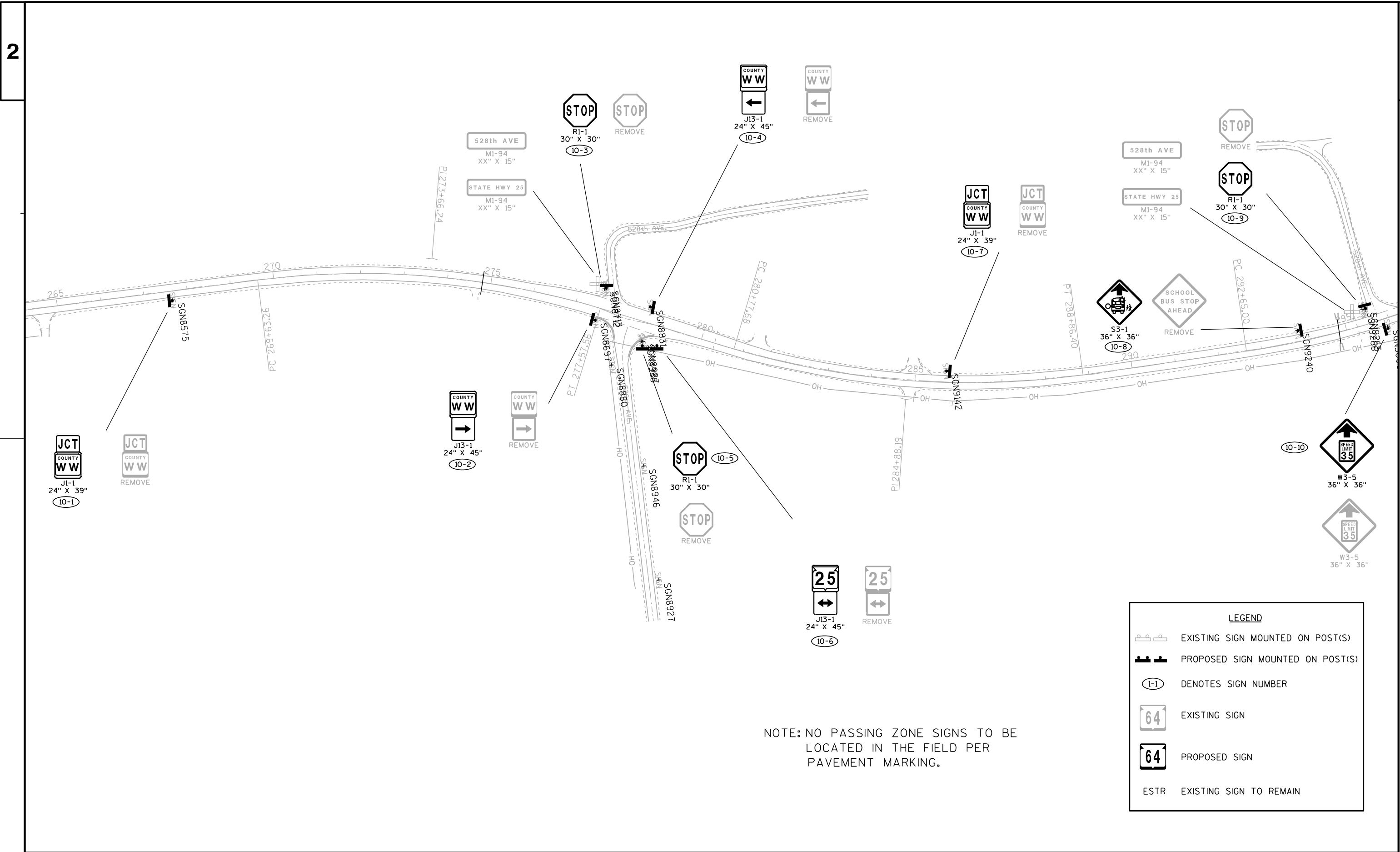
PROPOSED SIGN

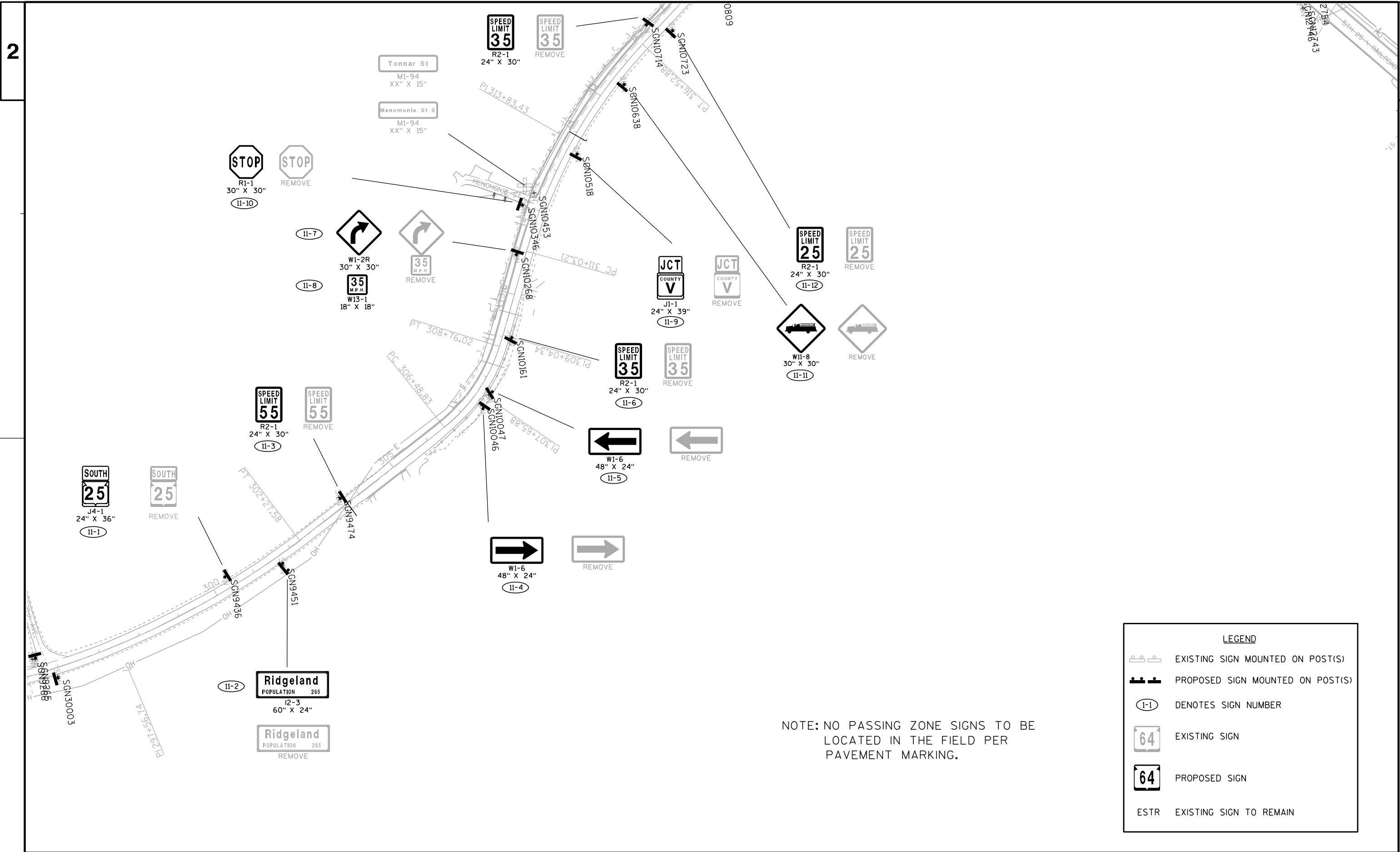
ESTR

EXISTING SIGN TO REMAIN

NOTE: NO PASSING ZONE SIGNS TO BE
LOCATED IN THE FIELD PER
PAVEMENT MARKING.







LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON POST(S)

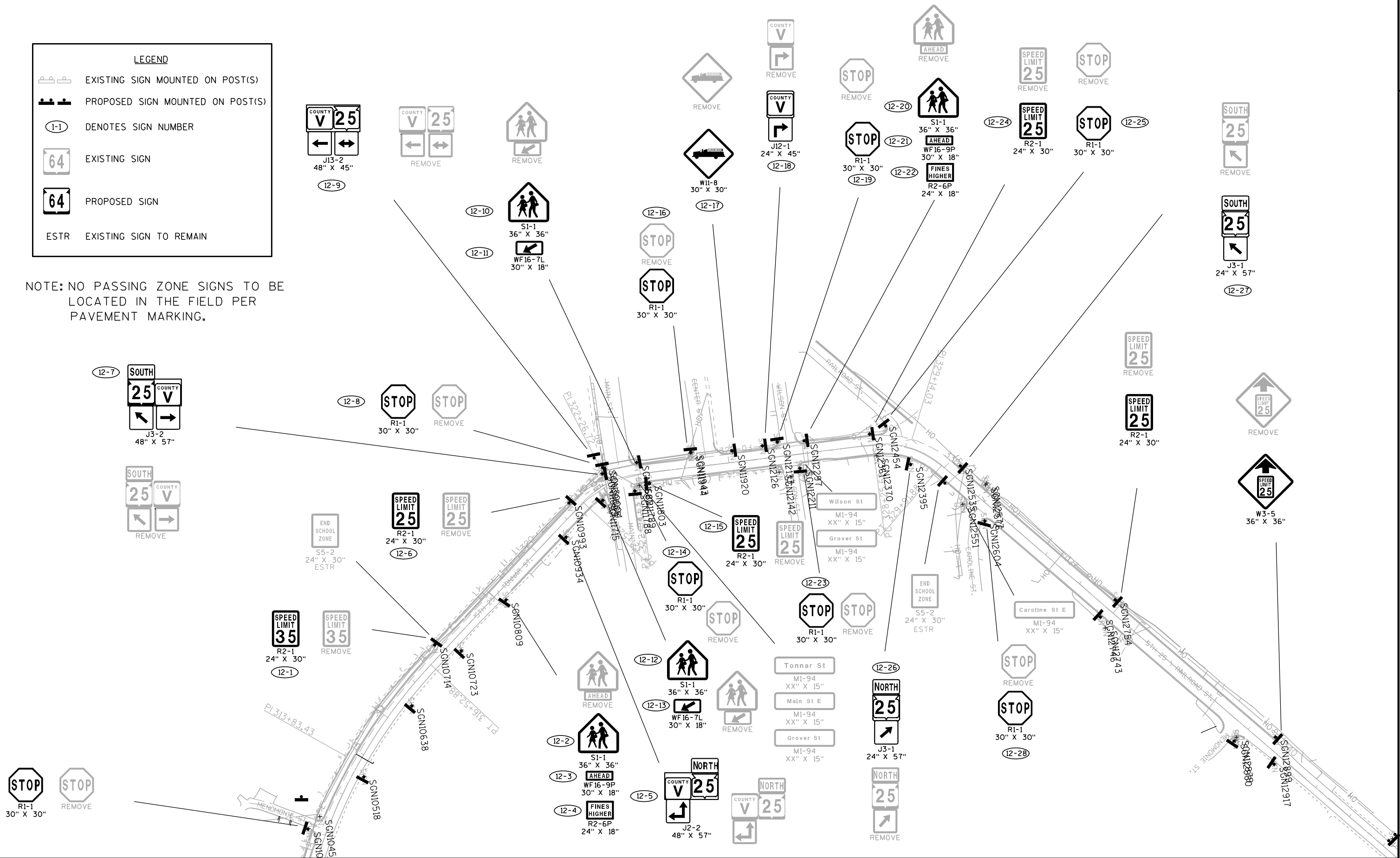
DENOTES SIGN NUMBER

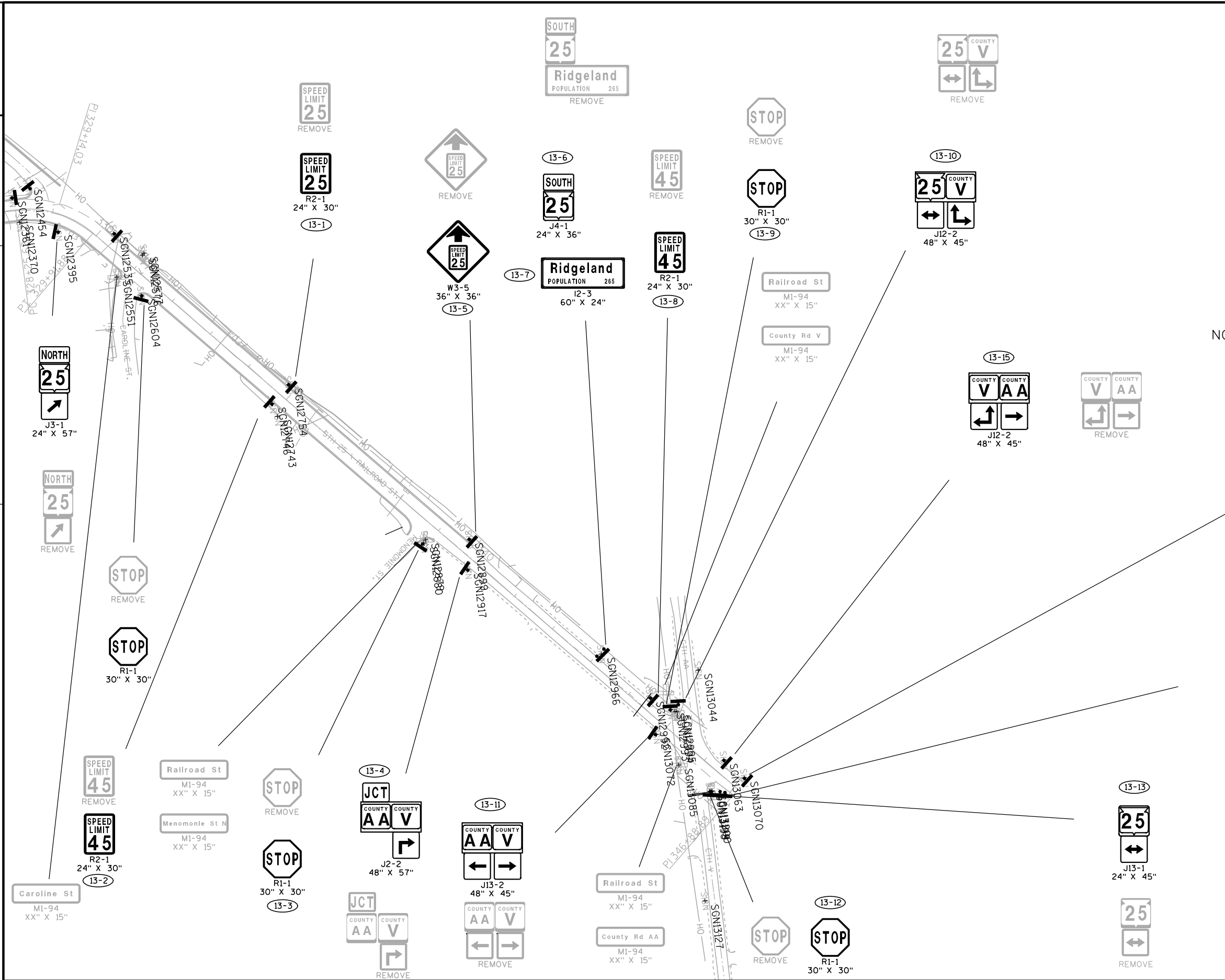
EXISTING SIGN

PROPOSED SIGN

ESTR EXISTING SIGN TO REMAIN

NOTE: NO PASSING ZONE SIGNS TO BE LOCATED IN THE FIELD PER PAVEMENT MARKING.





LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- DENOTES SIGN NUMBER
- EXISTING SIGN
- PROPOSED SIGN
- ESTR EXISTING SIGN TO REMAIN

NOTE: NO PASSING ZONE SIGNS TO BE LOCATED IN THE FIELD PER PAVEMENT MARKING.

13-16

Dunn Co

J2-2
48" X 15"

Dunn Co

REMOVE

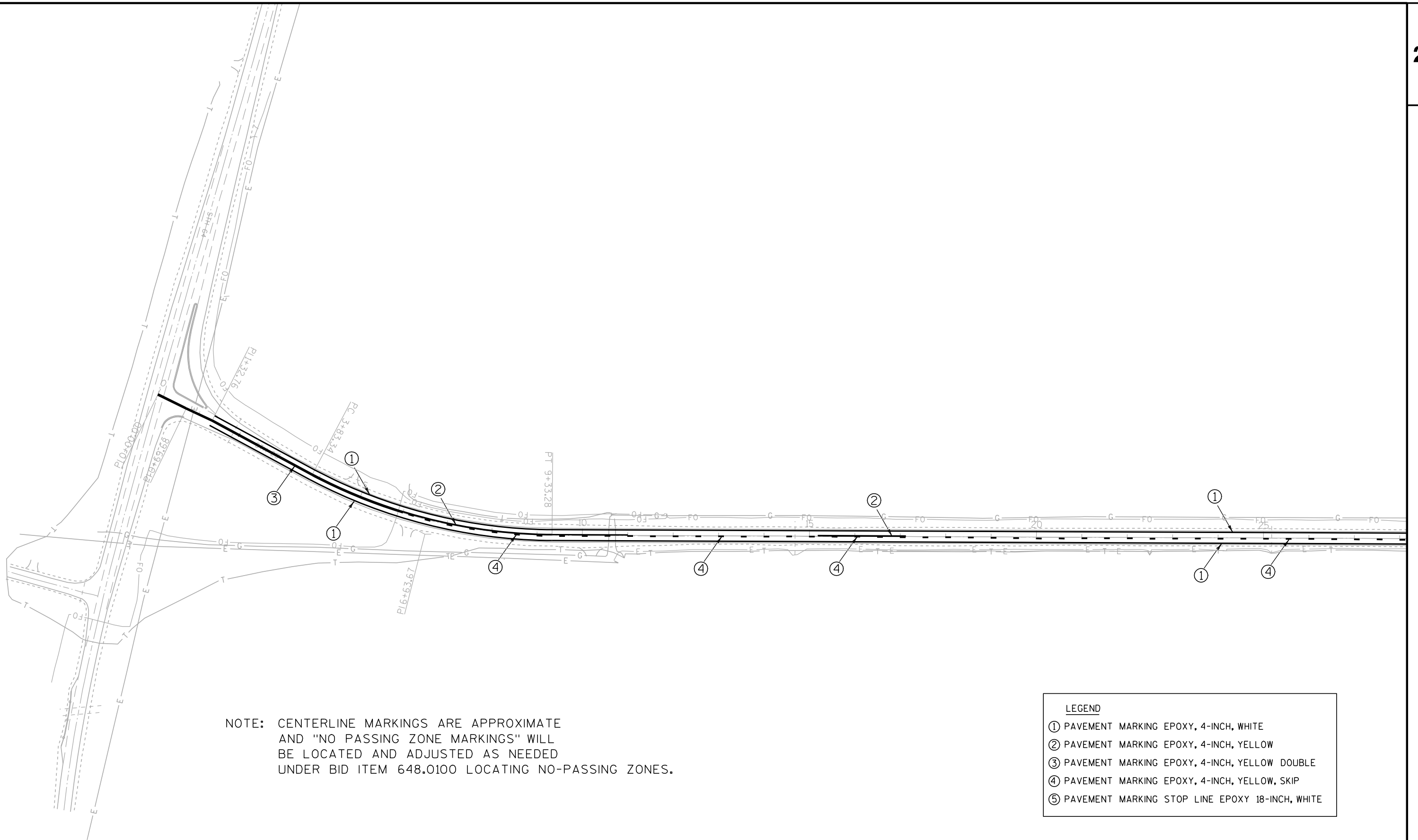
13-14

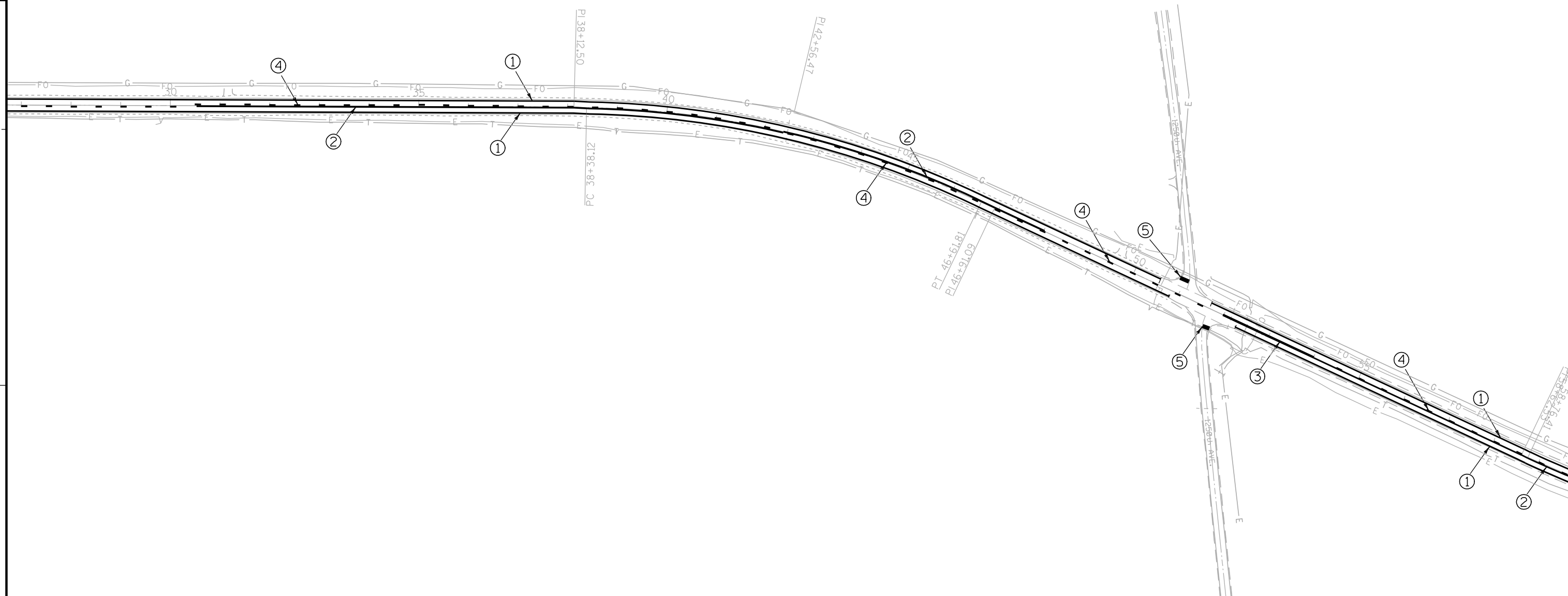
COUNTY COUNTY
V AA

J13-2
48" X 45"

COUNTY COUNTY
V AA

REMOVE

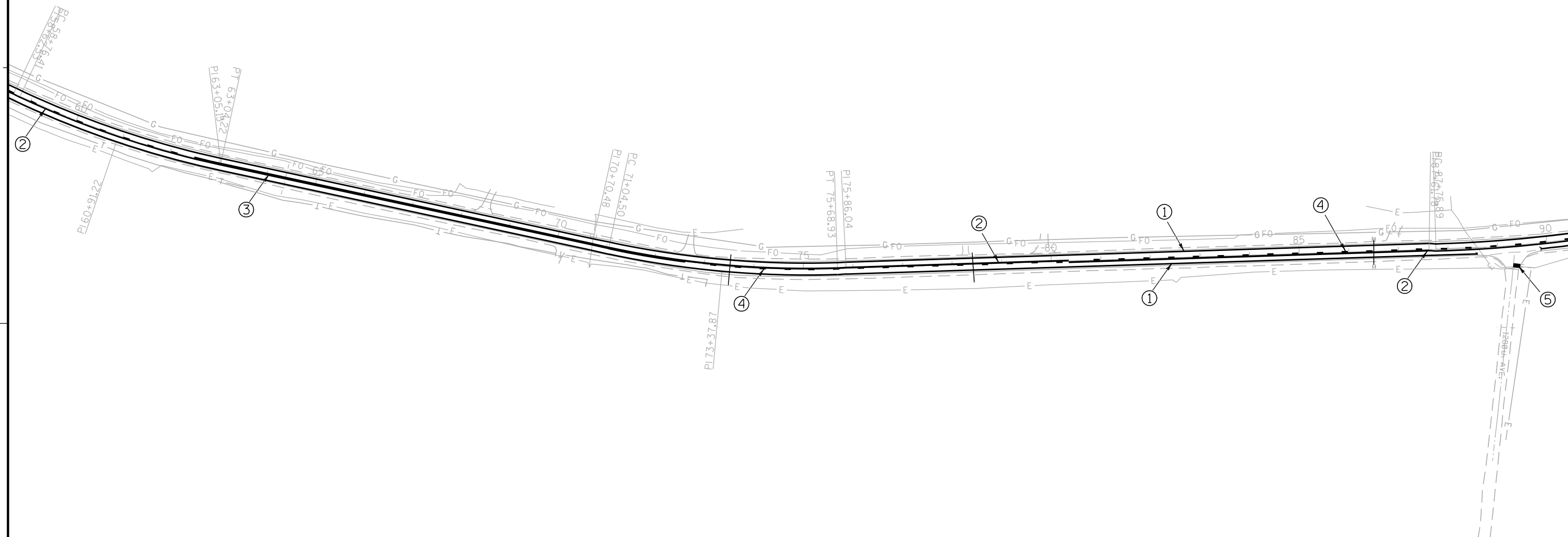




NOTE: CENTERLINE MARKINGS ARE APPROXIMATE
AND "NO PASSING ZONE MARKINGS" WILL
BE LOCATED AND ADJUSTED AS NEEDED
UNDER BID ITEM 648.0100 LOCATING NO-PASSING ZONES.

LEGEND

- ① PAVEMENT MARKING EPOXY, 4-INCH, WHITE
- ② PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
- ③ PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE
- ④ PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP
- ⑤ PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE



NOTE: CENTERLINE MARKINGS ARE APPROXIMATE
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LEGEND	
①	PAVEMENT MARKING EPOXY, 4-INCH, WHITE
②	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
③	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE
④	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP
⑤	PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE



NOTE: CENTERLINE MARKINGS ARE APPROXIMATE
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UNDER BID ITEM 648.0100 LOCATING NO-PASSING ZONES.

LEGEND

①

PAVEMENT MARKING EPOXY, 4-INCH, WHITE

②

PAVEMENT MARKING EPOXY, 4-INCH, YELLOW

③

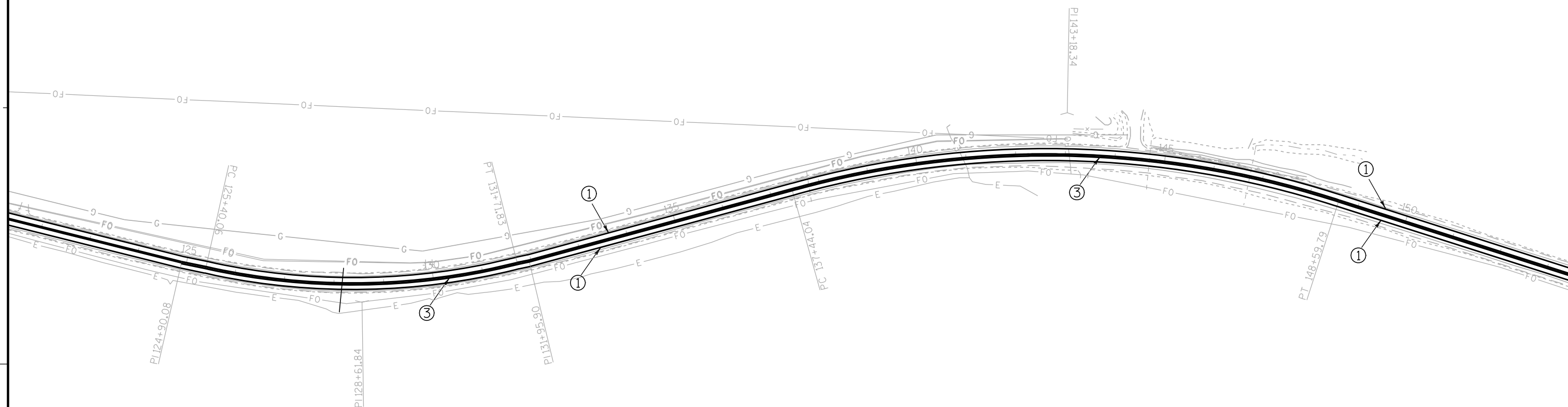
PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE

④

PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP

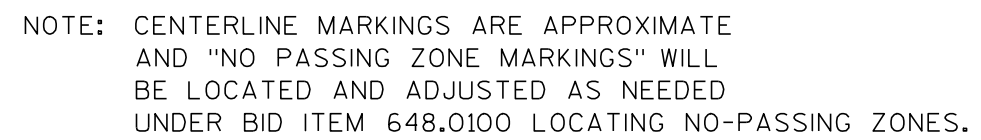
⑤

PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE



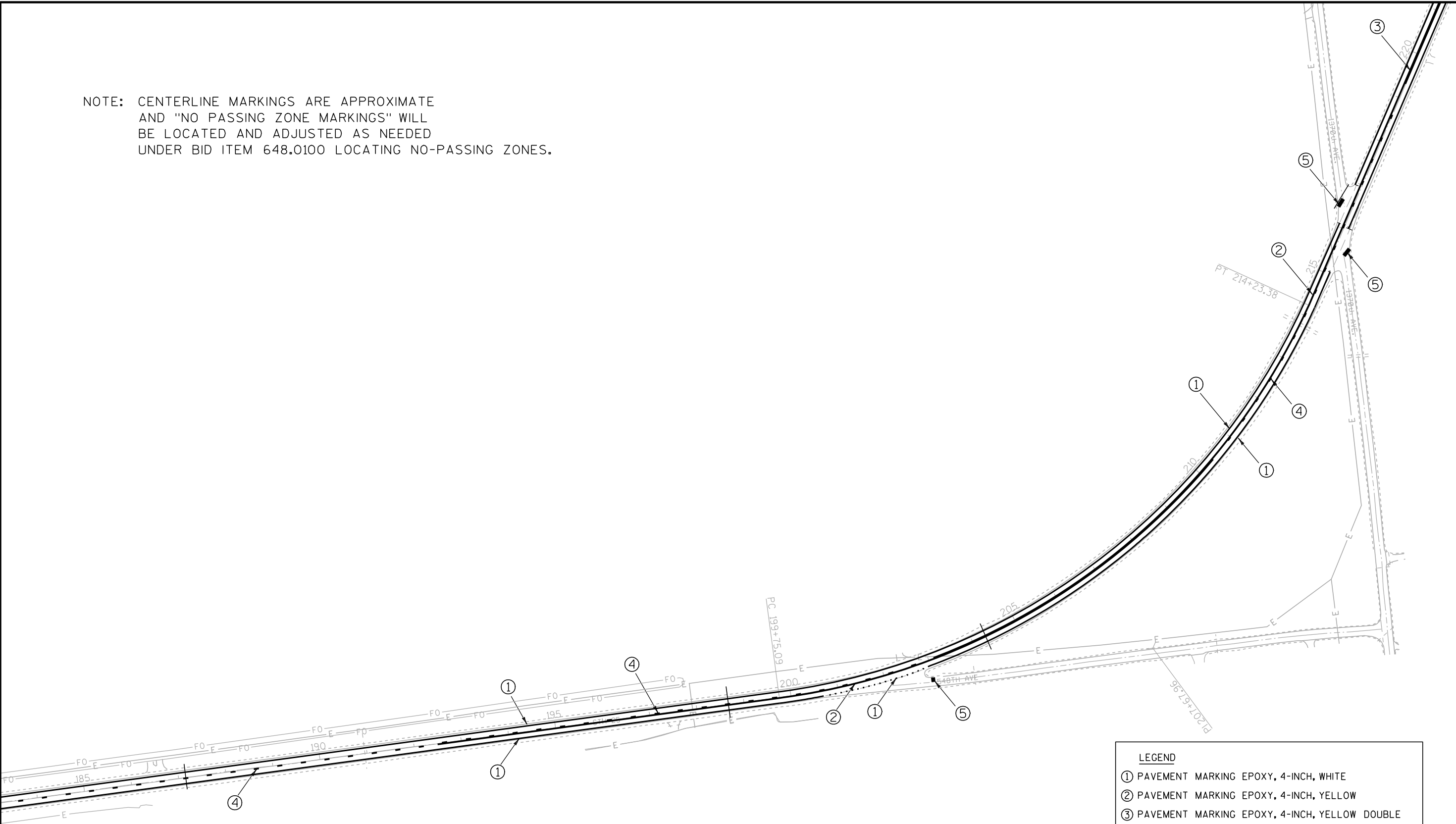
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UNDER BID ITEM 648.0100 LOCATING NO-PASSING ZONES.

LEGEND	
①	PAVEMENT MARKING EPOXY, 4-INCH, WHITE
②	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
③	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE
④	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP
⑤	PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE



- | | | | | | |
|------------------------|-------------|--------------|-------------------|-------|----------|
| PROJECT NO: 8100-03-62 | HWY: STH 25 | COUNTY: DUNN | PAVEMENT MARKINGS | SHEET | E |
|------------------------|-------------|--------------|-------------------|-------|----------|

NOTE: CENTERLINE MARKINGS ARE APPROXIMATE
AND "NO PASSING ZONE MARKINGS" WILL
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UNDER BID ITEM 648.0100 LOCATING NO-PASSING ZONES.



LEGEND

①

PAVEMENT MARKING EPOXY, 4-INCH, WHITE

②

PAVEMENT MARKING EPOXY, 4-INCH, YELLOW

③

PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE

④

PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP

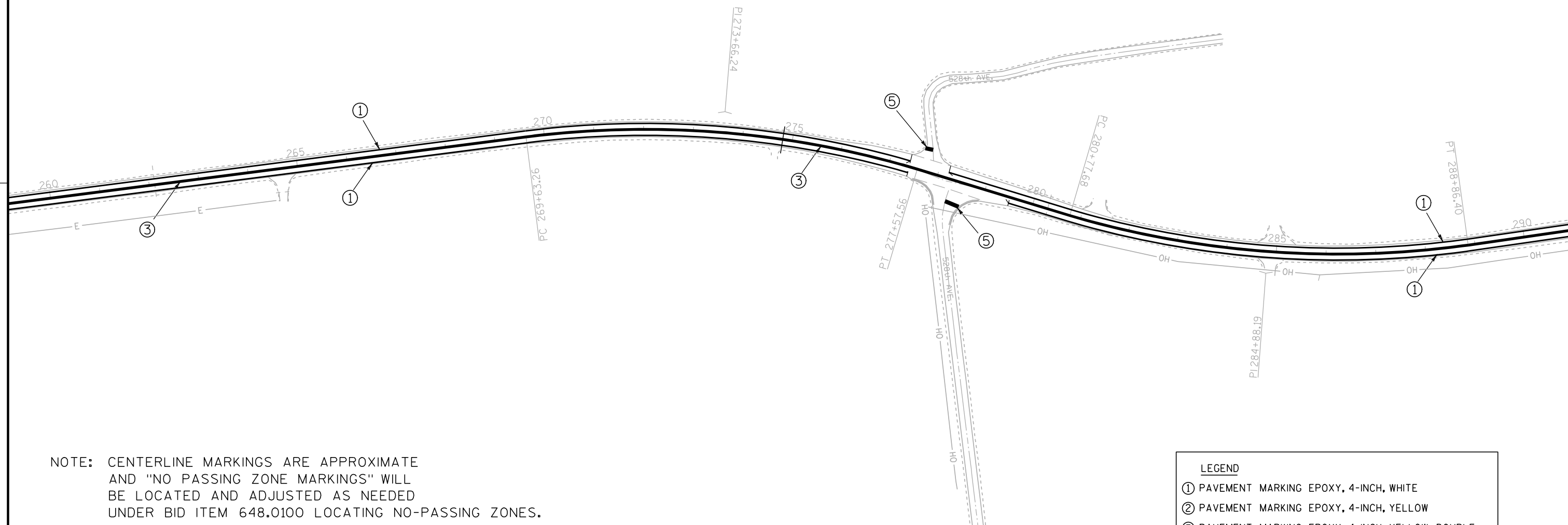
⑤

PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE



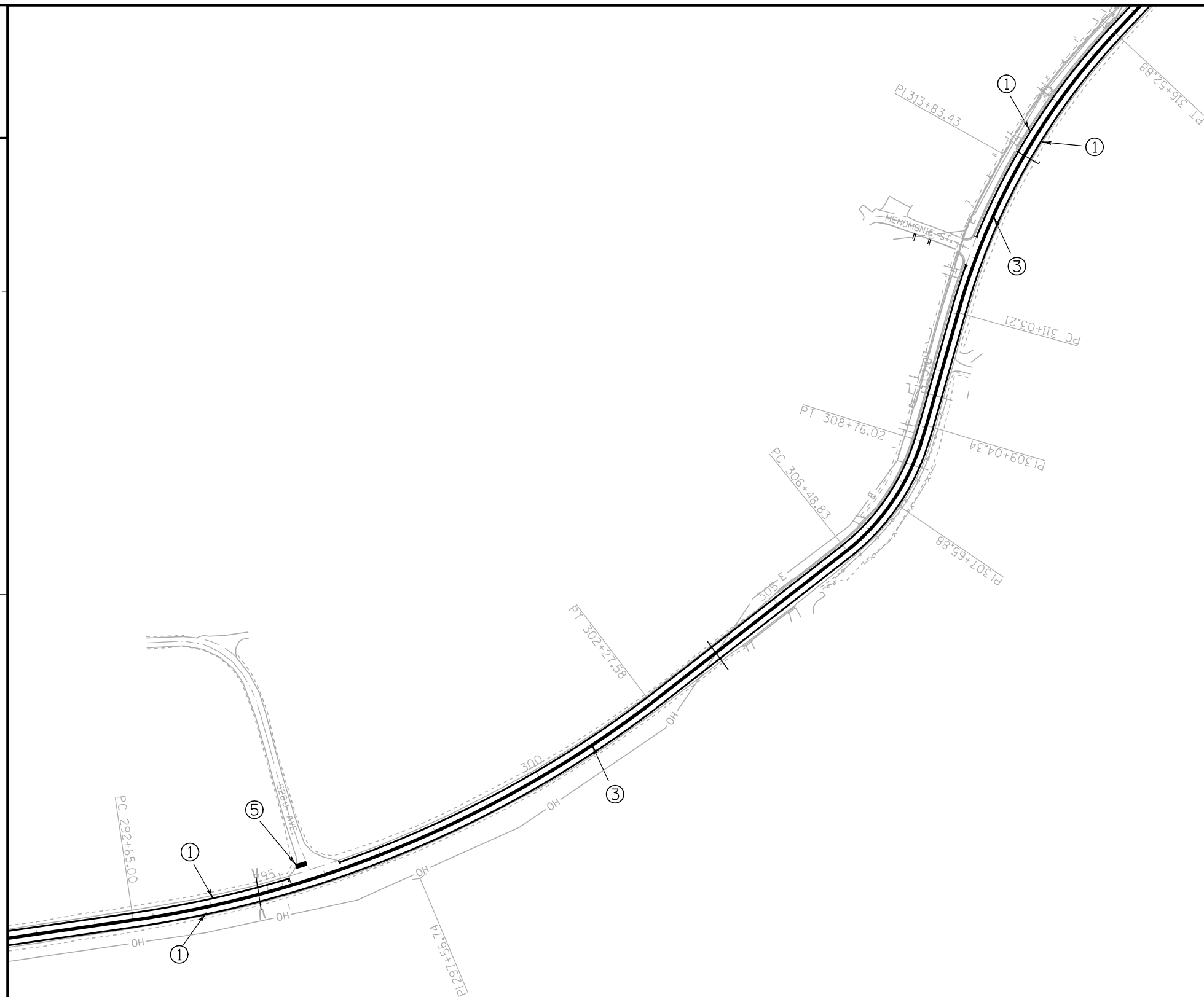
NOTE: CENTERLINE MARKINGS ARE APPROXIMATE
AND "NO PASSING ZONE MARKINGS" WILL
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UNDER BID ITEM 648.0100 LOCATING NO-PASSING ZONES.

LEGEND	
①	PAVEMENT MARKING EPOXY, 4-INCH, WHITE
②	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
③	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE
④	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP
⑤	PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE



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③	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE
④	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP
⑤	PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE

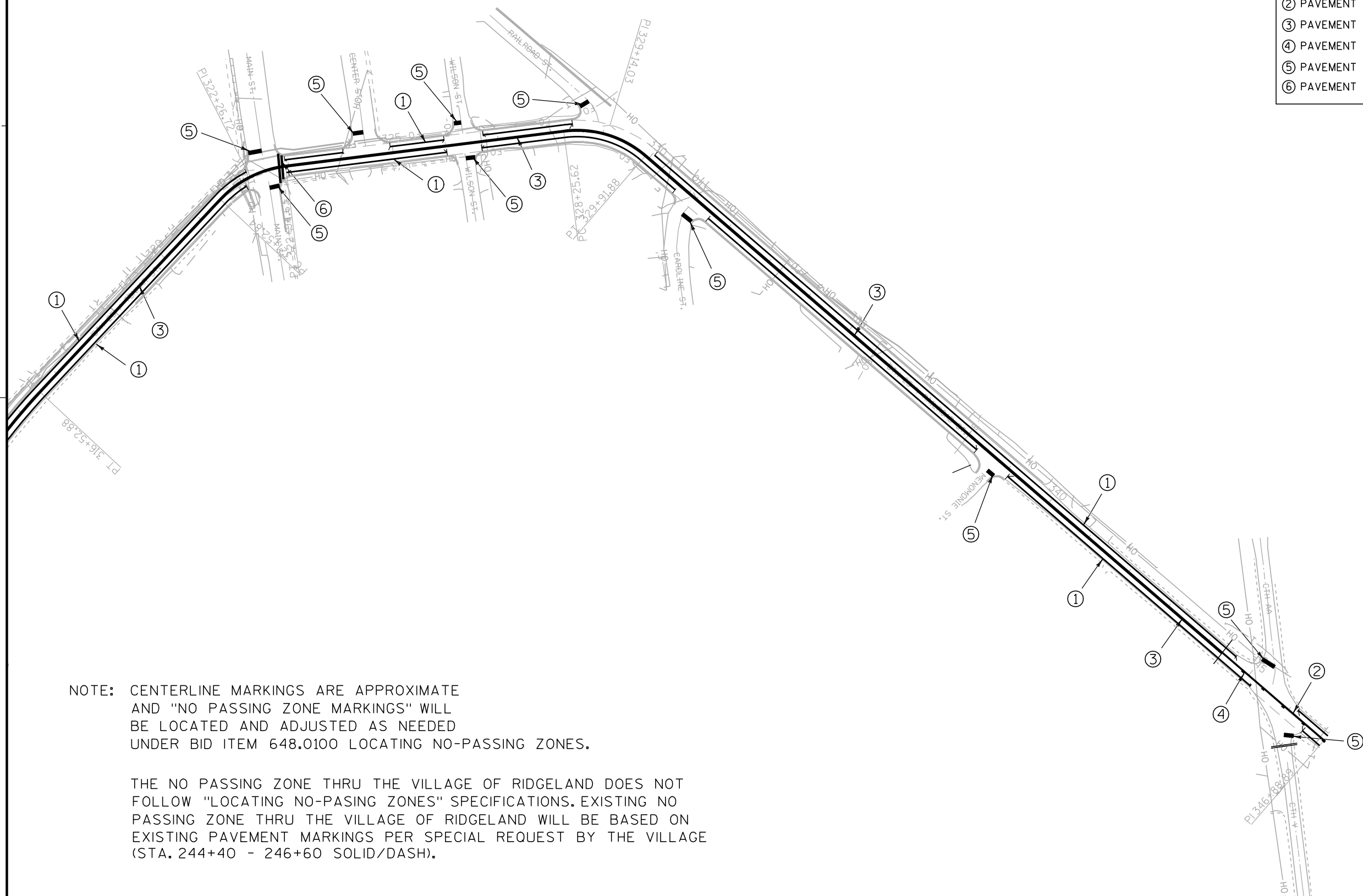


NOTE: CENTERLINE MARKINGS ARE APPROXIMATE
AND "NO PASSING ZONE MARKINGS" WILL
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UNDER BID ITEM 648.0100 LOCATING NO-PASSING ZONES.

LEGEND	
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②	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
③	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE
④	PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP
⑤	PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE

LEGEND

- ① PAVEMENT MARKING EPOXY, 4-INCH, WHITE
- ② PAVEMENT MARKING EPOXY, 4-INCH, YELLOW
- ③ PAVEMENT MARKING EPOXY, 4-INCH, YELLOW DOUBLE
- ④ PAVEMENT MARKING EPOXY, 4-INCH, YELLOW, SKIP
- ⑤ PAVEMENT MARKING STOP LINE EPOXY 18-INCH, WHITE
- ⑥ PAVEMENT MARKING EPOXY, 6-INCH, WHITE



NOTE: CENTERLINE MARKINGS ARE APPROXIMATE
AND "NO PASSING ZONE MARKINGS" WILL
BE LOCATED AND ADJUSTED AS NEEDED
UNDER BID ITEM 648.0100 LOCATING NO-PASSING ZONES.

THE NO PASSING ZONE THRU THE VILLAGE OF RIDGELAND DOES NOT
FOLLOW "LOCATING NO-PASING ZONES" SPECIFICATIONS. EXISTING NO
PASSING ZONE THRU THE VILLAGE OF RIDGELAND WILL BE BASED ON
EXISTING PAVEMENT MARKINGS PER SPECIAL REQUEST BY THE VILLAGE
(STA. 244+40 - 246+60 SOLID/DASH).

PROJECT NO: 8100-03-62

HWY: STH 25

COUNTY: DUNN

PAVEMENT MARKINGS

SHEET

E

GENERAL NOTES FOR TRAFFIC CONTROL

SIGNS FOR ADVANCED WARNING OF CONSTRUCTION SHALL BE PLACED PRIOR TO THE INITIAL PHASE OF CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL THE PROJECT IS COMPLETED.

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

ROAD MACHINERY, TRUCK ENTRANCE, FLAGMEN AHEAD, ETC. SIGNS SHALL BE USED AS NEEDED AND SHALL BE REMOVED OR COVERED WHEN THE ACTIVITY OR CONDITION DOES NOT EXIST.

TRAFFIC CONTROL PLANS ARE NOT DRAWN TO SCALE.

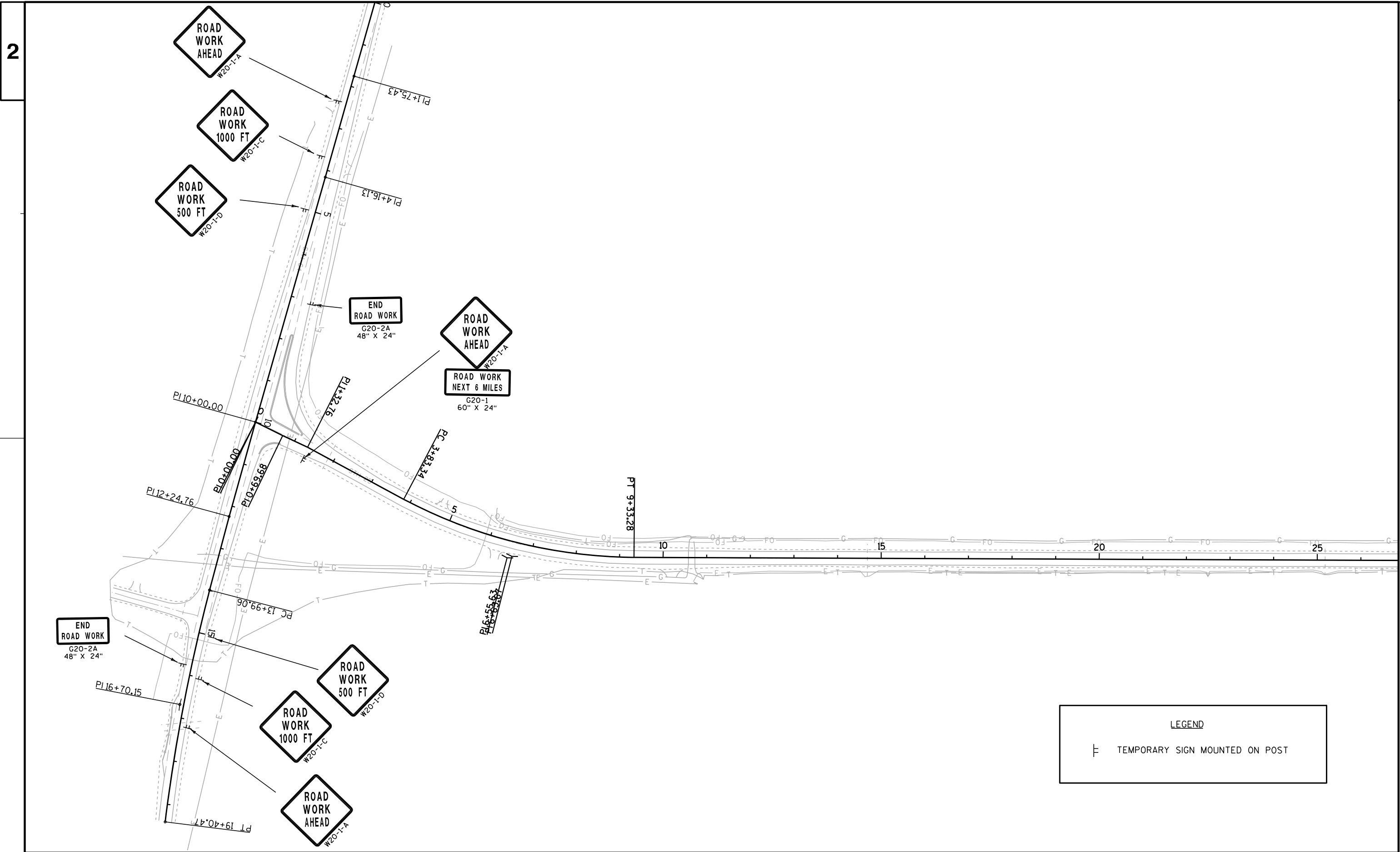
ALL SIGNS ARE 48" X 48" UNLESS DIMENSIONED OTHERWISE.

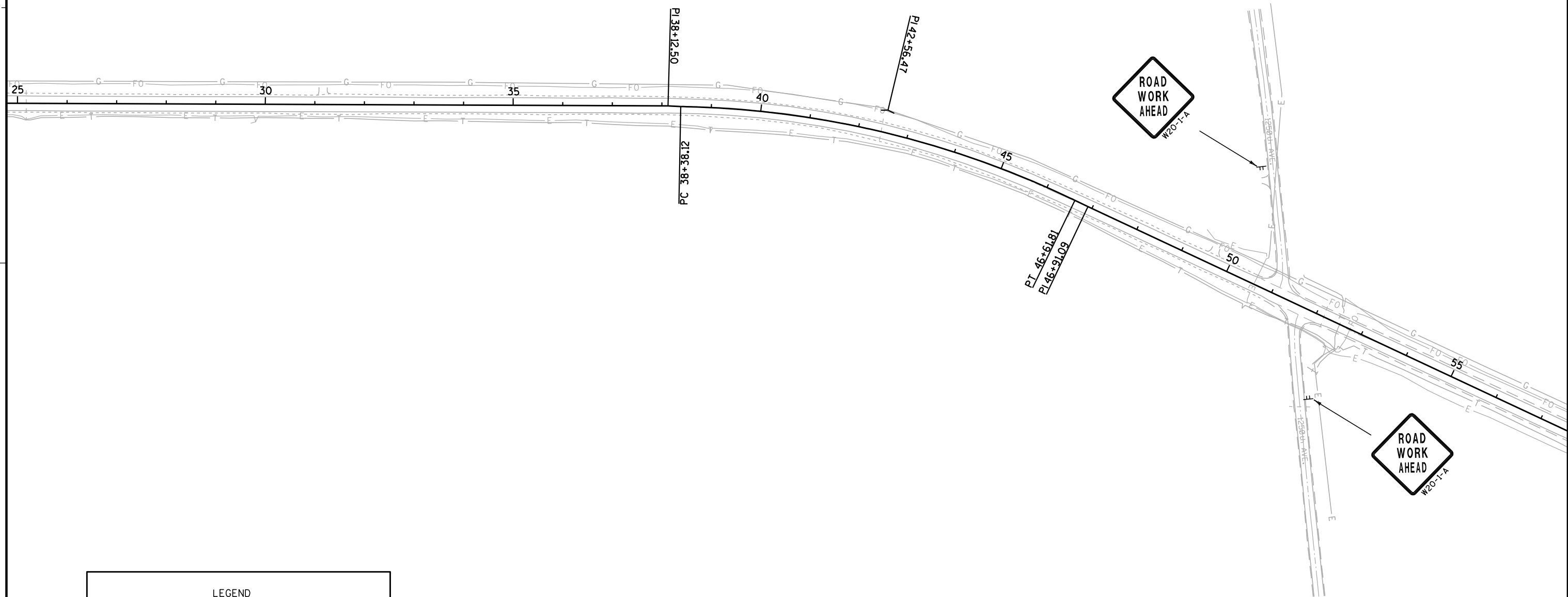
ADDITIONAL SIGNS AND DEVICES ARE SHOWN ELSEWHERE IN THE PLAN.

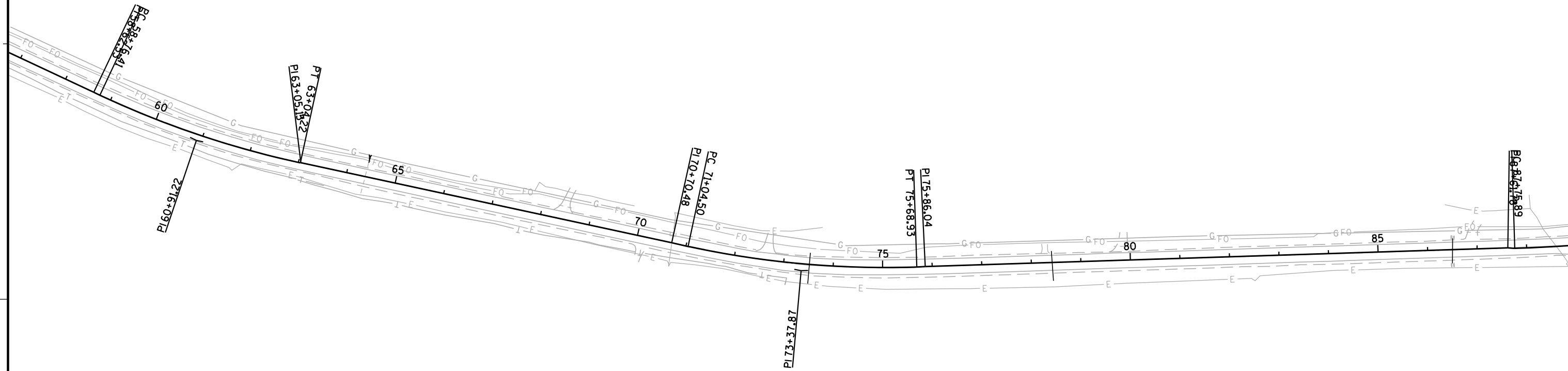
"WO" SIGNS ARE THE SAME AS W SIGNS EXCEPT THE BACKGROUND IS ORANGE.

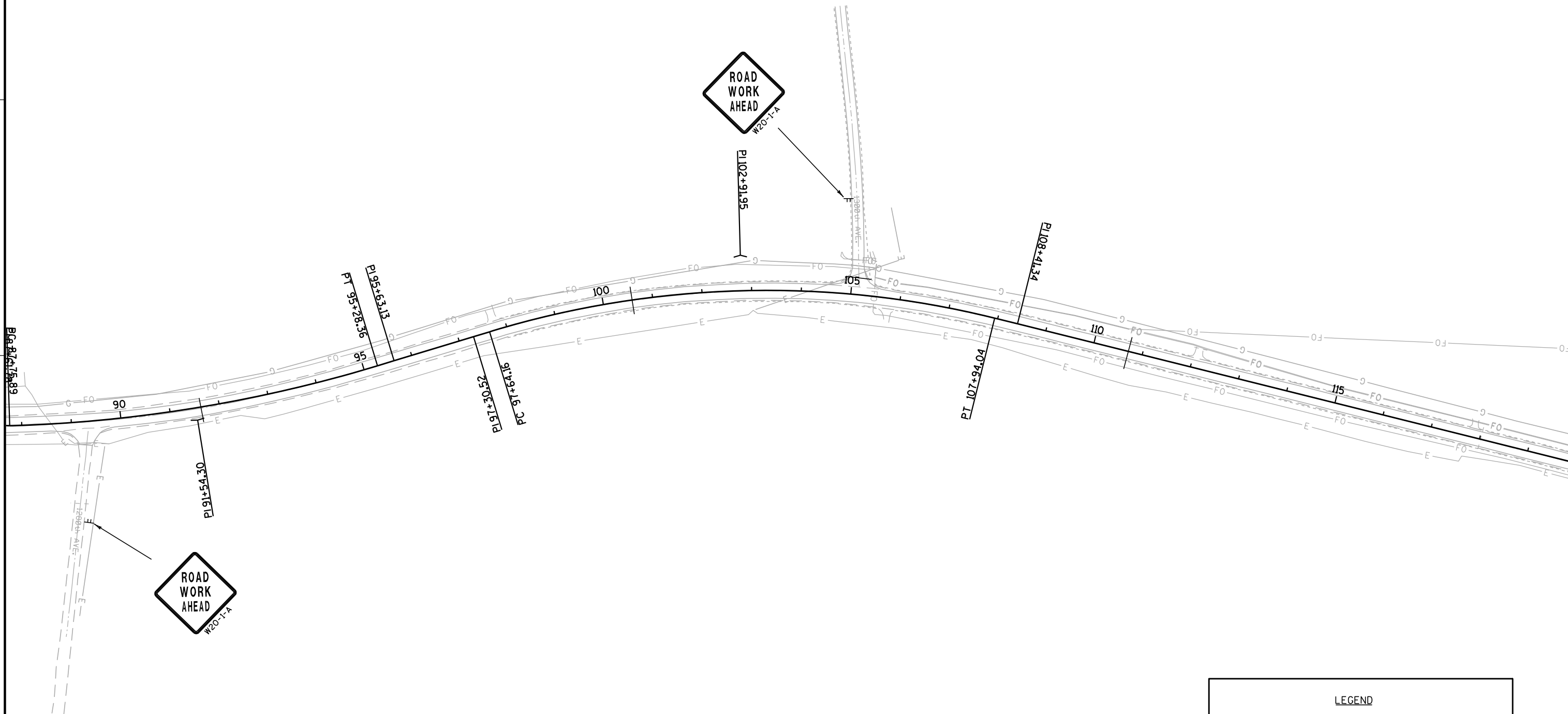
USE AS REQUIRED:

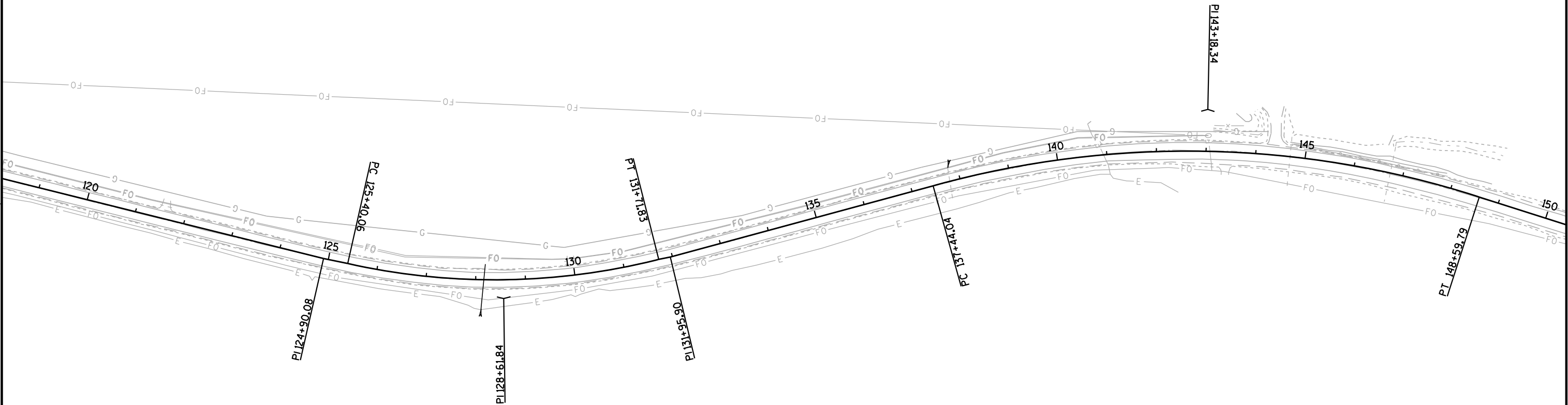


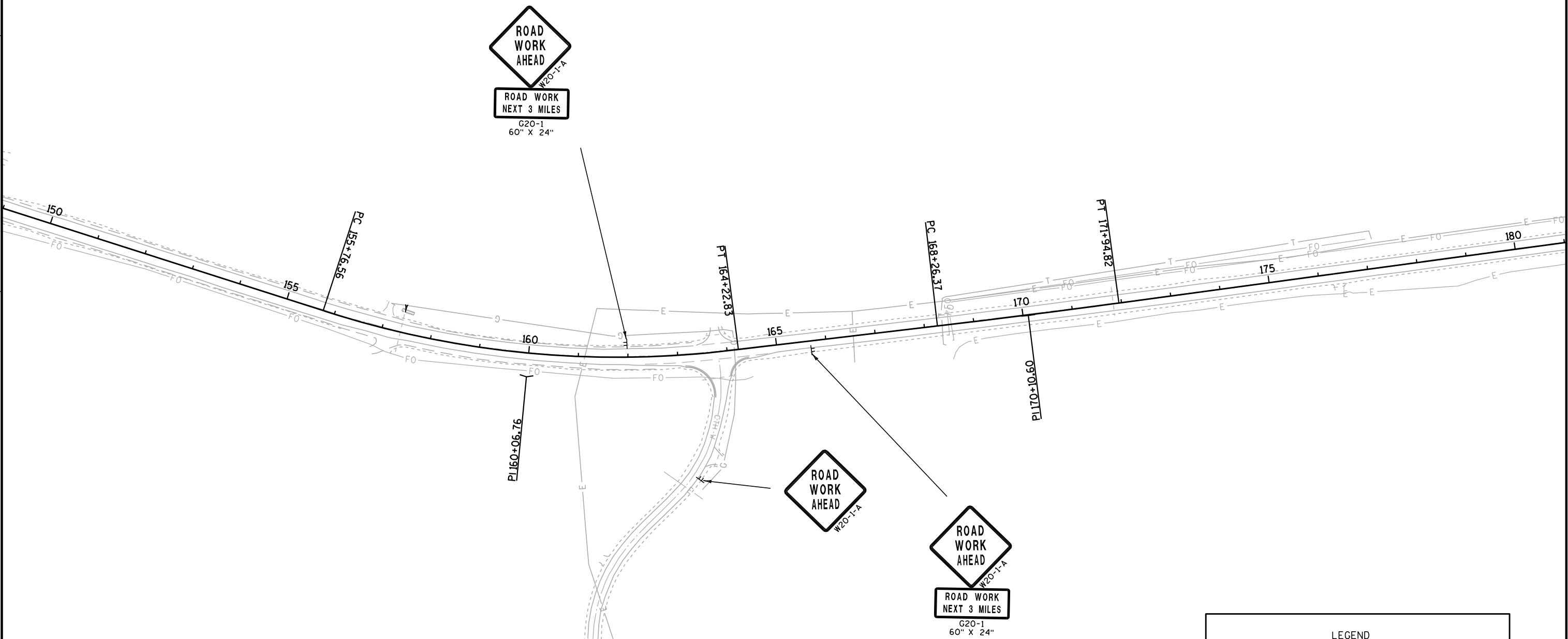


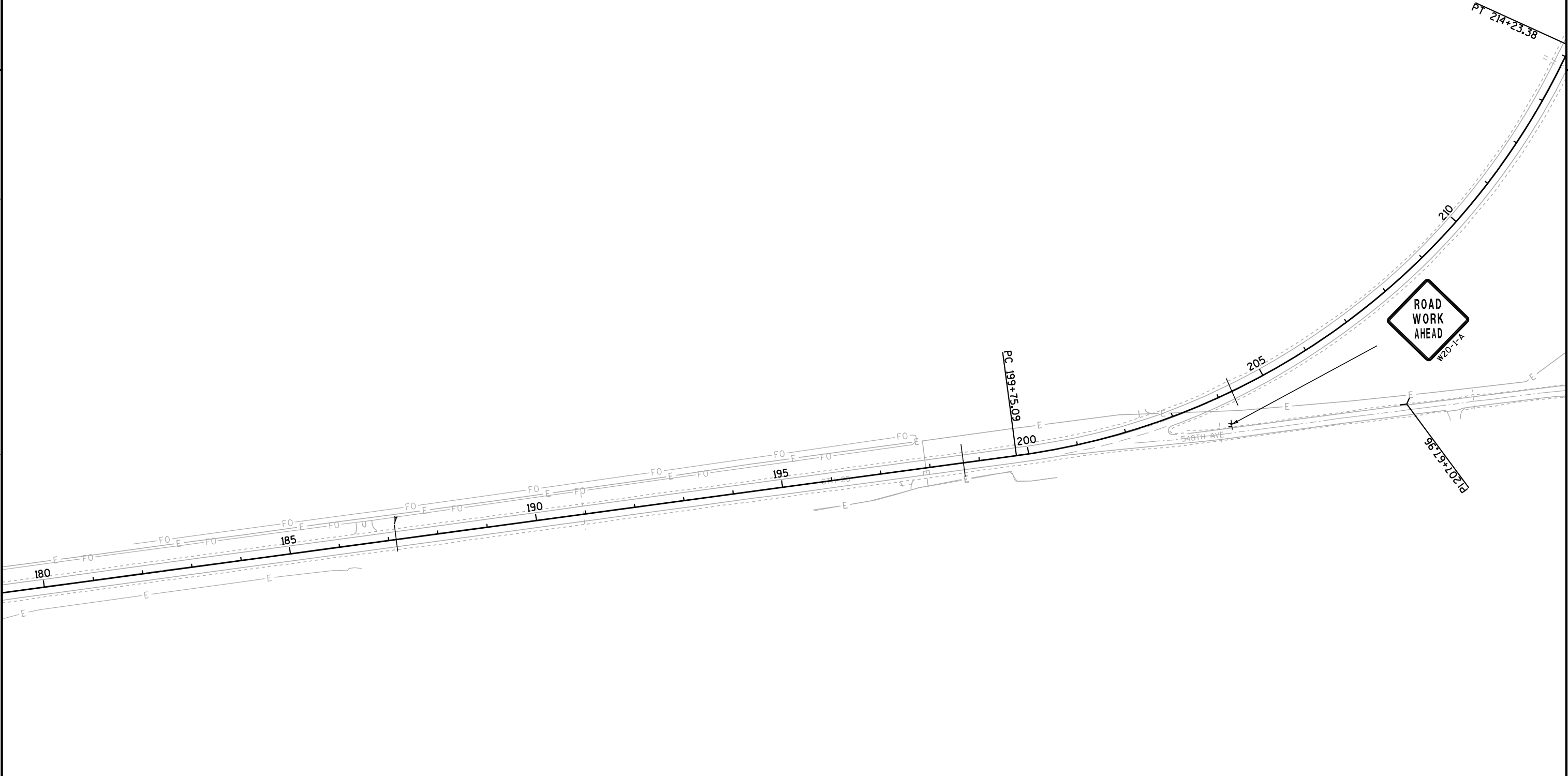












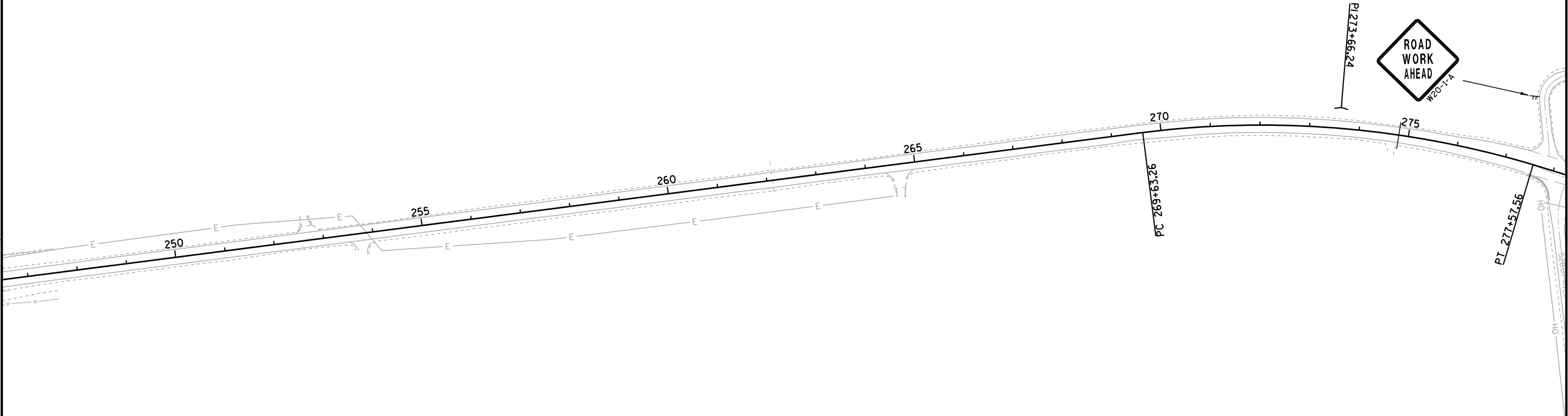
LEGEND

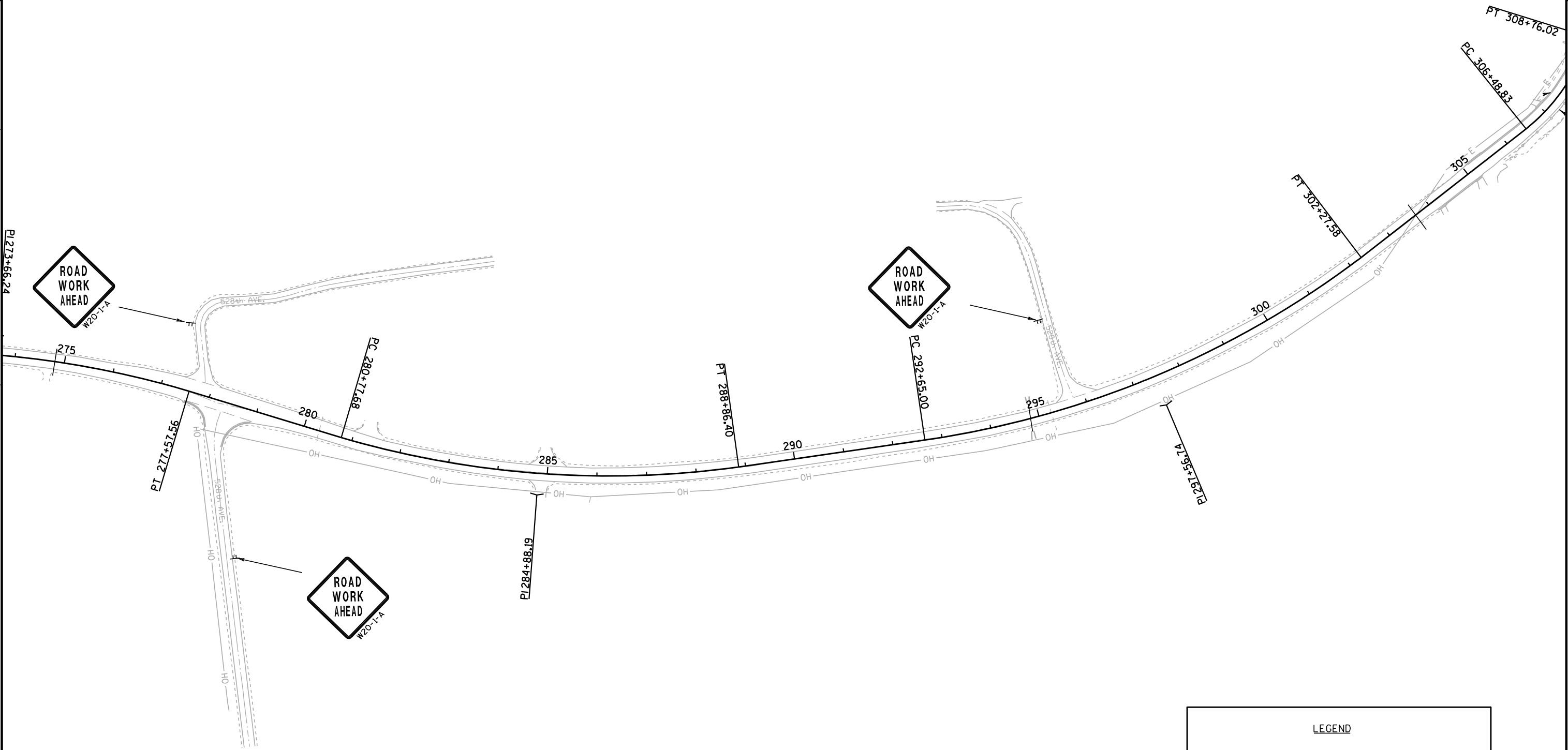
 TEMPORARY SIGN MOUNTED ON POST

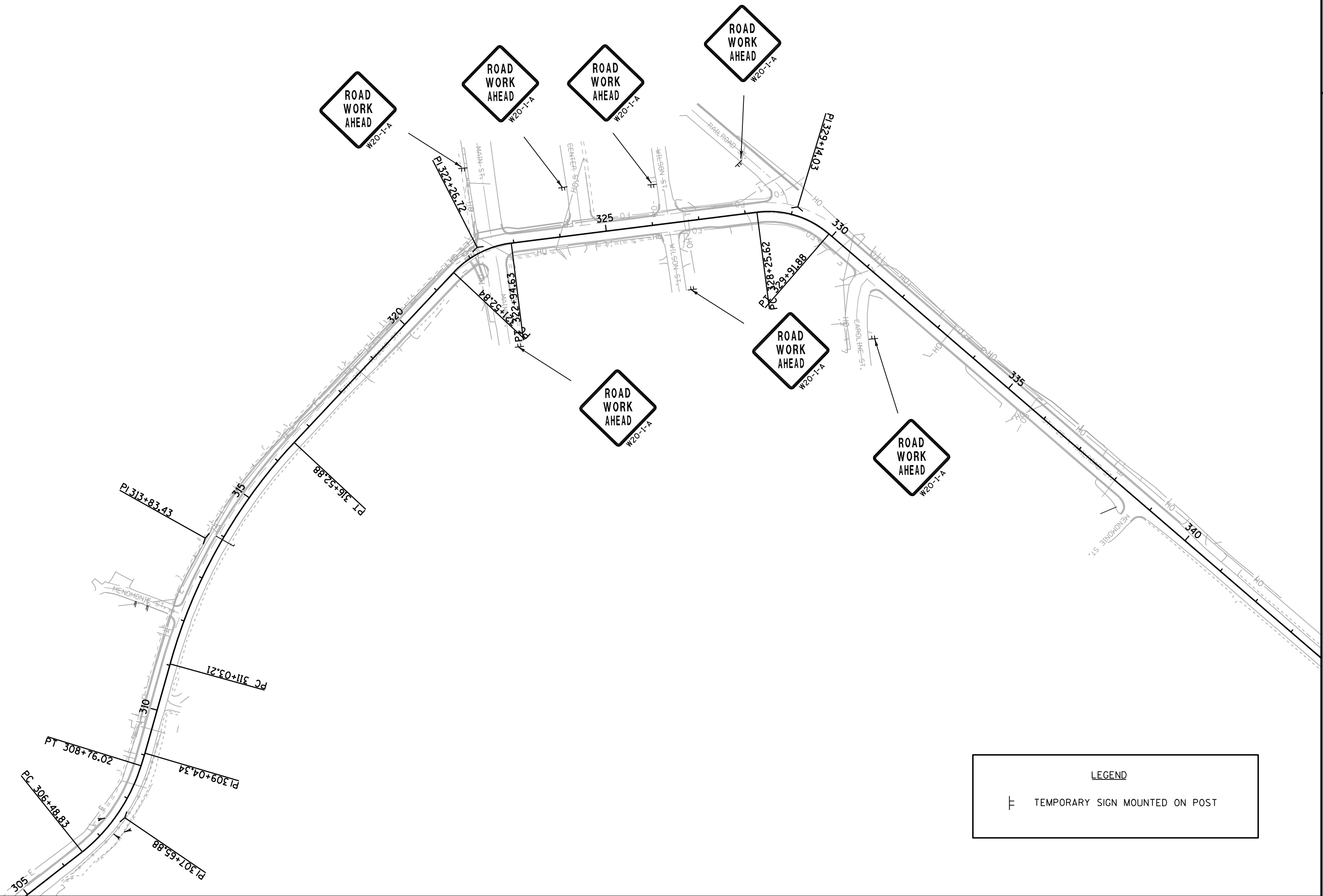


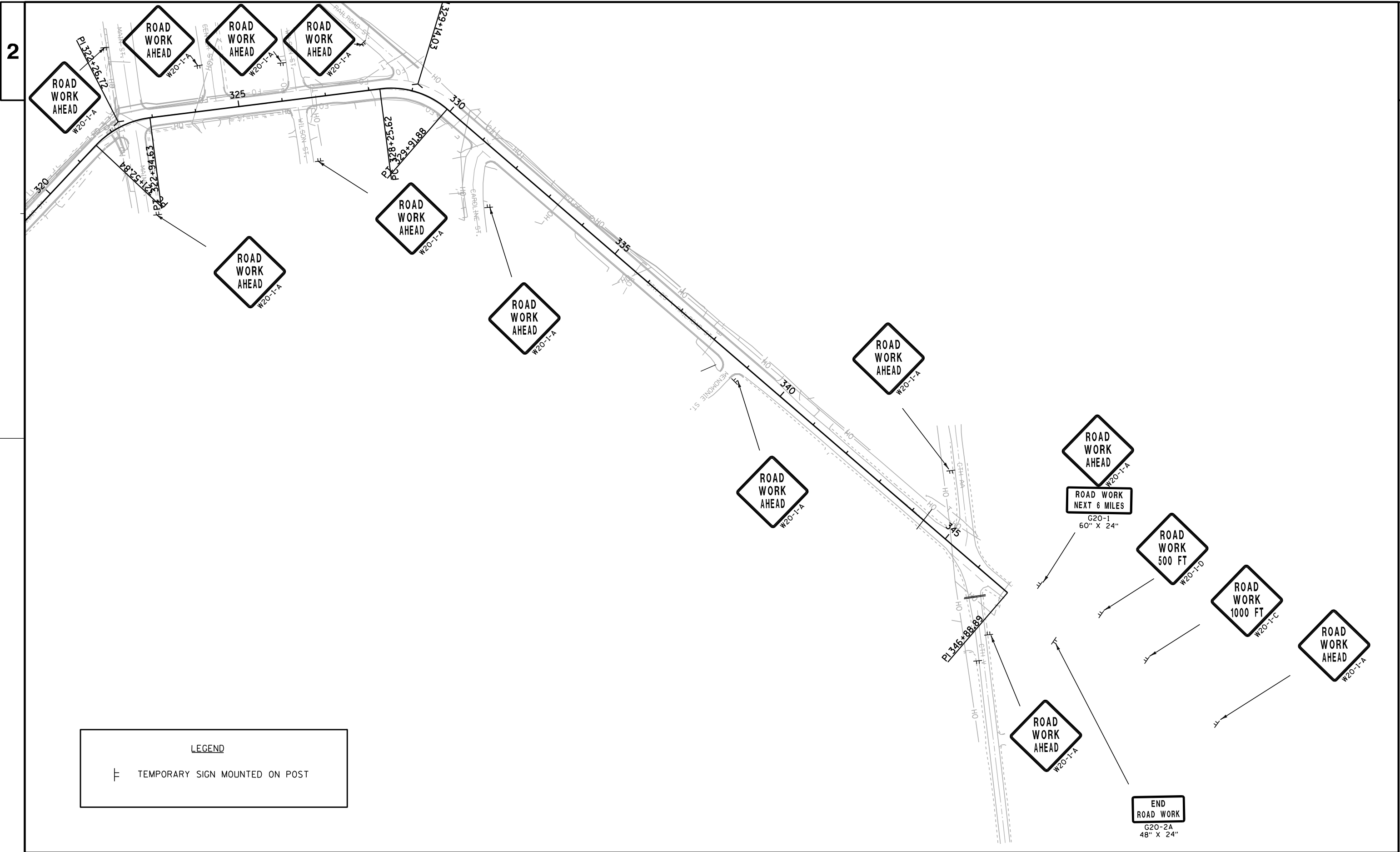
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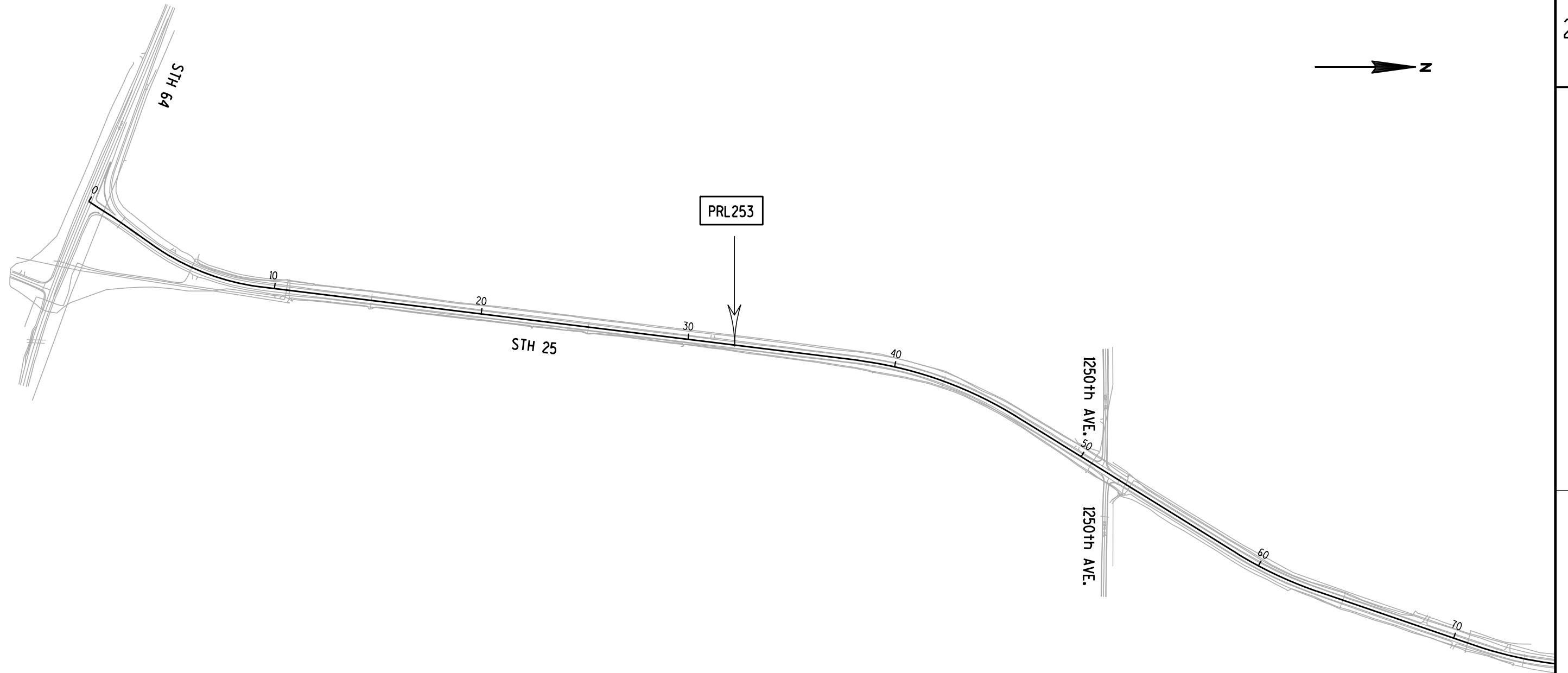
 TEMPORARY SIGN MOUNTED ON POST



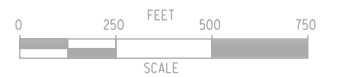


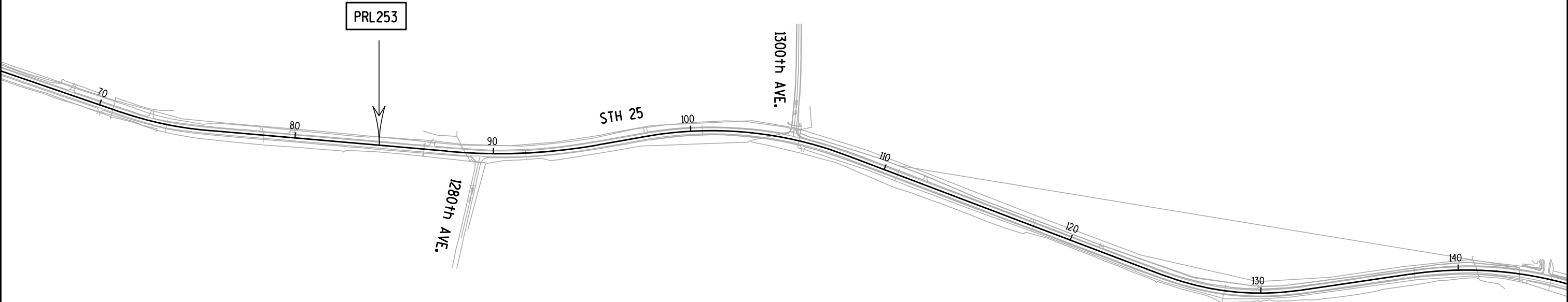






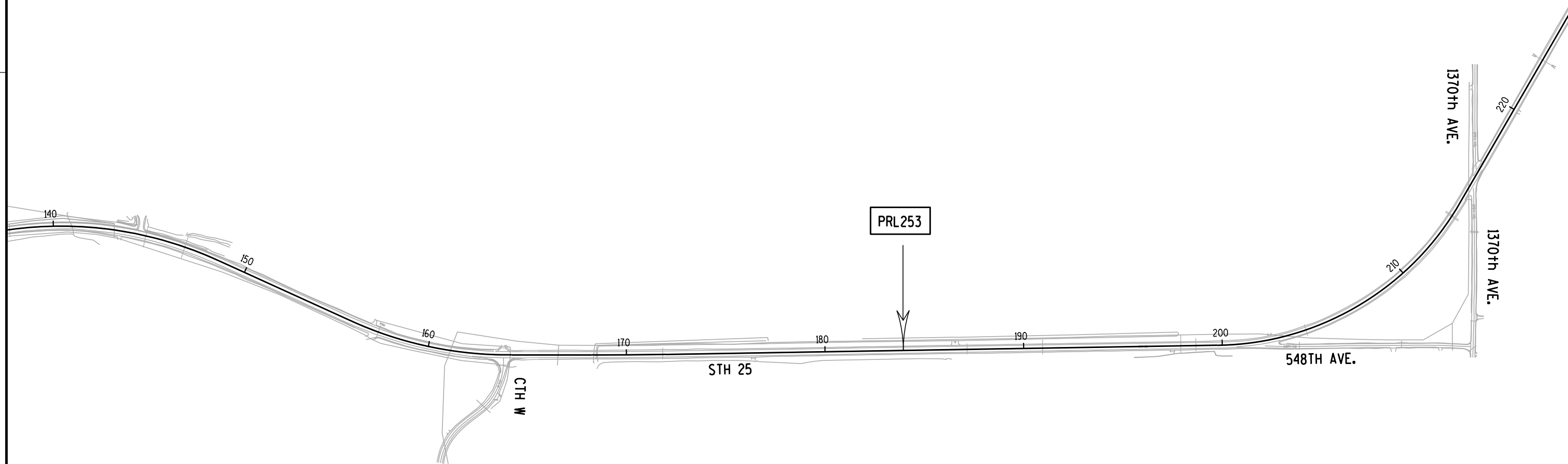
NOTE: REFER TO FOLLOWING SHEET FOR ALIGNMENT DATA.





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PROJECT NO: 8100-03-62

HWY: STH 25

COUNTY: DUNN

ALIGNMENT PLAN

SHEET NO:

E

FILE NAME : n:\PDS\Projects-LET\8100-03-02\Design\Alignment Plan\027203.ad.DGN

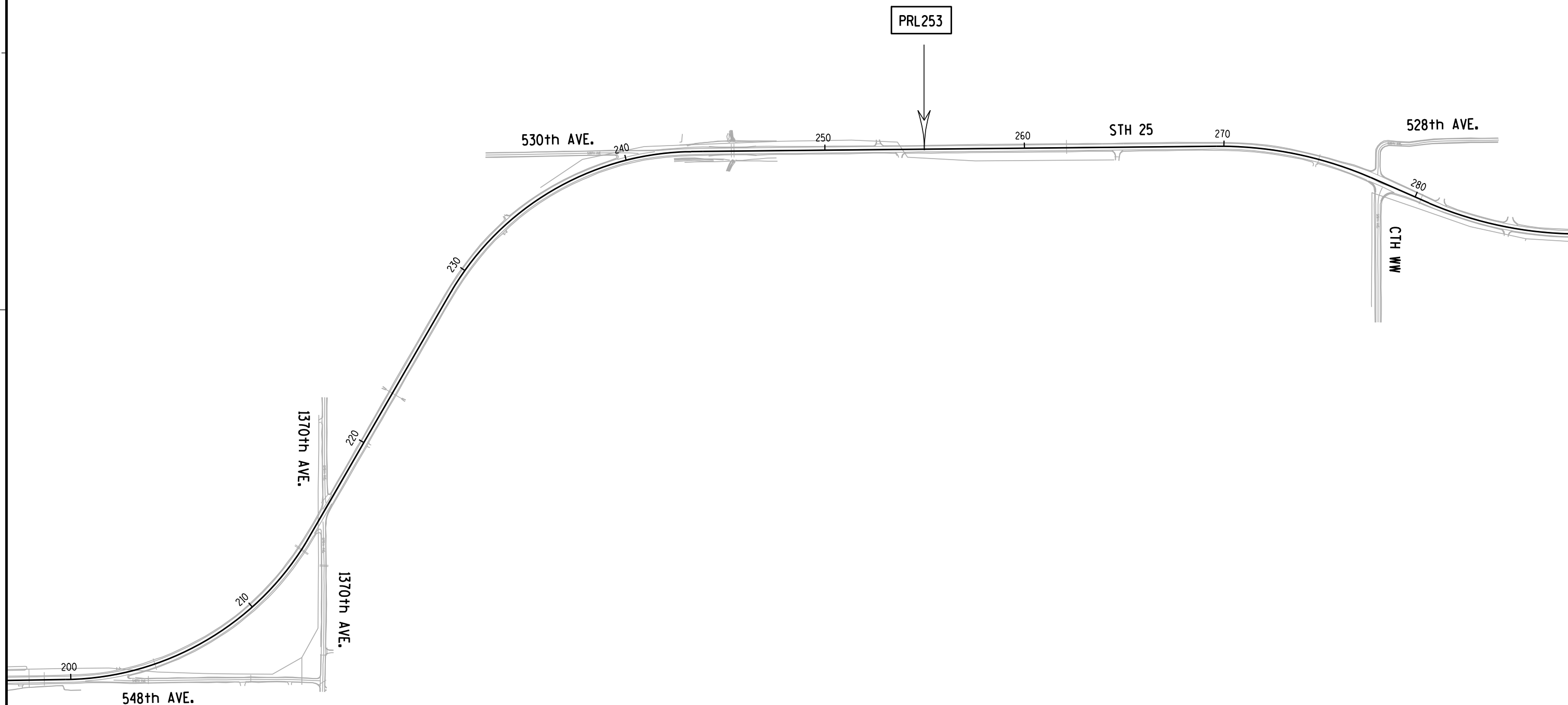
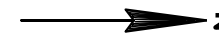
PLOT DATE : 11-JUN-2013 11:03

PLOT BY : dota2c

PLOT NAME :

PLOT SCALE : 2:1

NOTE: REFER TO FOLLOWING SHEET FOR ALIGNMENT DATA.



PROJECT NO: 8100-03-62

HWY: STH 25

COUNTY: DUNN

ALIGNMENT PLAN

SHEET NO:

E

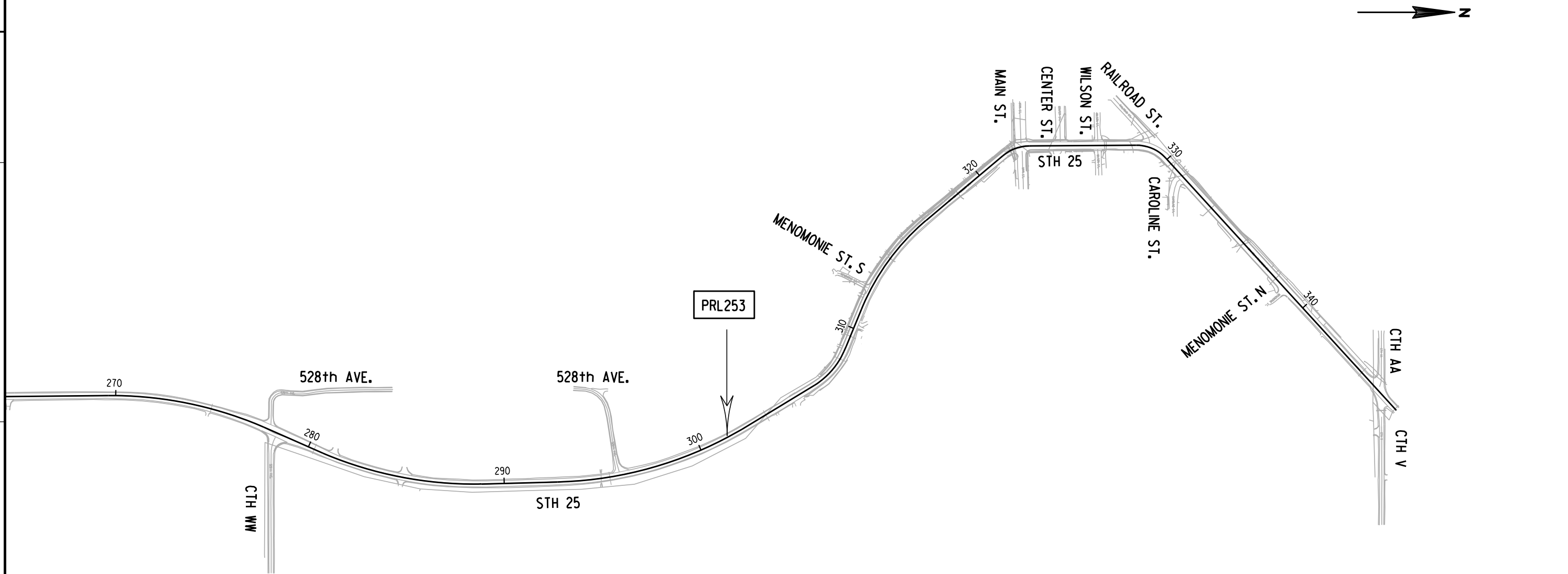
FILE NAME : n:\PDS\Projects-LET\8100-03-02\Design\Alignment Plan\027204_.ad.DGN

PLOT DATE : 11-JUN-2013 11:04

PLOT BY : dota2c

PLOT NAME :

PLOT SCALE : 2:1



NOTE: REFER TO FOLLOWING SHEET FOR ALIGNMENT DATA.

CHAIN PRL 253

List CL13866-13868,C ,CL19,13869,C ,CL20,13870-13871,C ,CL21,13872
List ,C ,CL22,13873,C ,CL23,13874-13875,C ,CL24,13876-13877,C ,CL25
List ,13878,C ,CL26,C ,CL27,C ,CL28,C ,CL29,C ,CL30,13879,C ,CL31,C
List ,CL32,C ,CL33,C ,CL34,13880,C ,CL35,C ,CL36,C ,CL37,13881
Description STH 25 Best Fit 9-24-12 updated 9-27-12
Layer 1
Feature PRL

CL13866 N 260415.84 E 170054.93 Z 0.000 STA 0+00.00
Distance 69.68' Bearing N 33°04'02.04" E
CL13867 N 260474.23 E 170092.95 Z 0.000 STA 0+69.68
Distance 63.08' Bearing N 31°52'24.54" E
CL13868 N 260527.80 E 170126.26 Z 0.000 STA 1+32.76
Distance 250.58' Bearing N 35°11'34.38" E

CURVE CL19
PC N 260732.58 E 170270.68 STA 3+83.34
CC N 261385.72 E 169324.16
PIN 260963.31 E 170429.89 STA 6+63.67
TAN 280.33'
DB N 34°36'27.70" E
DA N 7°12'30.75" E
LChord Distance 544.71' Bearing N 20°54'29.23" E
External Distance 33.67'
Middle Ordinate 32.72'
Radius 1150.00'
DEG 4°58'56.09"
DELTA -27°23'56.95"
LENGTH 549.94'

PT N 261241.42 E 170465.07 STA 9+33.28

CURVE CL19
Distance 2879.22' Bearing N 6°59'54.50" E
CL13869 N 264099.19 E 170815.88 Z 0.000 STA 38+12.50
Distance 25.62' Bearing N 9°36'44.85" E

CURVE CL20
PC N 264124.45 E 170820.16 STA 38+38.12
CC N 263865.47 E 172712.38
PIN 264538.94 E 170876.89 STA 42+56.47
TAN 418.35'
DB N 7°47'36.62" E
DA N 32°30'15.79" E
LChord Distance 817.33' Bearing N 20°08'56.21" E
External Distance 45.28'
Middle Ordinate 44.23'
Radius 1909.86'
DEG 2°59'59.98"
DELTA 24°42'39.17"
LENGTH 823.70'

PT N 264891.76 E 171101.70 STA 46+61.81

CURVE CL20
Distance 29.28' Bearing N 32°30'16.62" E
CL13870 N 264916.45 E 171117.43 Z 0.000 STA 46+91.09
Distance 1171.44' Bearing N 31°49'13.07" E
CL13871 N 265911.83 E 171735.08 Z 0.000 STA 58+62.53
Distance 13.88' Bearing N 32°41'05.98" E

CHAIN PRL 253 (CONTINUED)

CURVE CL21
PC N 265923.51 E 171742.58 STA 58+76.41
CC N 266930.76 E 170119.64
PIN 266106.02 E 171855.85 STA 60+91.22
TAN 214.80'
DB N 31°49'30.21" E
DA N 18°59'32.97" E
LChord Distance 426.91' Bearing N 25°24'31.59" E
External Distance 12.04'
Middle Ordinate 11.96'
Radius 1910.10'
DEG 2°59'58.65"
DELTA -12°49'57.24"
LENGTH 427.81'

PT N 266309.13 E 171925.75 STA 63+04.22

CURVE CL21
Distance 766.06' Bearing N 18°54'22.09" E
CL13872 N 267033.86 E 172173.97 Z 0.000 STA 70+70.28
Distance 34.02' Bearing N 19°35'10.03" E

CURVE CL22
PC N 267065.91 E 172185.37 STA 71+04.30
CC N 267683.66 E 170377.91
PIN 267286.73 E 172260.85 STA 73+37.66
TAN 233.37'
DB N 18°52'09.60" E
DA N 4°56'17.92" E
LChord Distance 463.29' Bearing N 11°54'13.76" E
External Distance 14.20'
Middle Ordinate 14.10'
Radius 1910.11'
DEG 2°59'58.56"
DELTA -13°55'51.68"
LENGTH 464.43'

PT N 267519.23 E 172280.94 STA 75+68.73

CURVE CL22
Distance 17.11' Bearing N 3°01'47.77" E
CL13873 N 267536.32 E 172281.84 Z 0.000 STA 75+85.84
Distance 1189.78' Bearing N 5°00'10.05" E

CURVE CL23
PC N 268721.57 E 172385.59 STA 87+75.62
CC N 268972.13 E 169531.64
PIN 269098.53 E 172418.69 STA 91+54.03
TAN 378.41'
DB N 5°01'02.53" E
DA N 10°01'52.50" W
LChord Distance 750.31' Bearing N 2°30'24.98" W
External Distance 24.88'
Middle Ordinate 24.67'
Radius 2864.94'
DEG 1°59'59.63"
DELTA -15°02'55.03"
LENGTH 752.47'

PT N 269471.16 E 172352.78 STA 95+28.09

CURVE CL23
Distance 34.77' Bearing N 10°12'50.18" W
CL13874 N 269505.38 E 172346.61 Z 0.000 STA 95+62.86
Distance 167.39' Bearing N 10°03'23.61" W

CHAIN PRL 253 (CONTINUED)

CL13875 N 269670.20 E 172317.38 Z 0.000 STA 97+30.25
Distance 33.64' Bearing N 10°13'48.48" W
CURVE CL24
PC N 269703.31 E 172311.41 STA 97+63.89
CC N 270042.57 E 174191.11
PIN 270222.70 E 172217.66 STA 102+91.68
TAN 527.79'
DB N 10°13'51.95" W
DA N 20°39'42.59" E
LChord Distance 1017.45' Bearing N 5°12'55.32" E
External Distance 71.58'
Middle Ordinate 68.99'
Radius 1910.08'
DEG 2°59'58.76"
DELTA 30°53'34.54"
LENGTH 1029.88'
PT N 270716.55 E 172403.89 STA 107+93.77
CURVE CL24
Distance 47.30' Bearing N 20°39'40.89" E
CL13876 N 270760.80 E 172420.58 Z 0.000 STA 108+41.07
Distance 1648.74' Bearing N 20°46'26.45" E
CL13877 N 272302.35 E 173005.36 Z 0.000 STA 124+89.81
Distance 49.98' Bearing N 18°21'54.08" E
CURVE CL25
PC N 272349.79 E 173021.11 STA 125+39.79
CC N 272798.52 E 171747.87
PIN 272653.27 E 173128.07 STA 128+61.58
TAN 321.78'
DB N 19°24'51.81" E
DA N 7°23'56.34" W
LChord Distance 626.03' Bearing N 6°00'27.74" E
External Distance 37.82'
Middle Ordinate 36.79'
Radius 1350.00'
DEG 4°14'38.87"
DELTA -26°48'48.15"
LENGTH 631.78'
PT N 272972.37 E 173086.63 STA 131+71.57
CURVE CL25
Distance 24.07' Bearing N 5°01'38.63" W
CL13878 N 272996.35 E 173084.52 Z 0.000 STA 131+95.64
Distance 548.13' Bearing N 8°23'10.33" W
CURVE CL26
PC N 273538.62 E 173004.58 STA 137+43.77
CC N 273830.48 E 174892.00
PIN 274106.18 E 172916.82 STA 143+18.07
TAN 574.30'
DB N 8°47'24.38" W
DA N 24°40'56.79" E
LChord Distance 1099.95' Bearing N 7°56'46.21" E
External Distance 84.48'
Middle Ordinate 80.90'
Radius 1909.86'
DEG 3°00'00.01"
DELTA 33°28'21.17"
LENGTH 1115.75'
PT N 274628.01 E 173156.64 STA 148+59.52
CURVE CL26
Distance 716.78' Bearing N 24°28'42.63" E

CHAIN PRL 253 (CONTINUED)

CURVE CL27
PC N 275280.36 E 173453.64 STA 155+76.30
CC N 276081.71 E 171720.03
PIN 275670.86 E 173634.14 STA 160+06.49
TAN 430.20'
DB N 24°48'30.12" E
DA N 0°34'47.12" W
LChord Distance 839.36' Bearing N 12°06'51.50" E
External Distance 47.85'
Middle Ordinate 46.68'
Radius 1909.86'
DEG 3°00'00.01"
DELTA -25°23'17.24"
LENGTH 846.27'
PT N 276101.03 E 173629.79 STA 164+22.57
CURVE CL27
Distance 403.54' Bearing N 0°01'25.23" E
CURVE CL28
PC N 276504.57 E 173629.95 STA 168+26.10
CC N 276567.46 E 156440.70
PIN 276688.80 E 173630.63 STA 170+10.33
TAN 184.23'
DB N 0°12'34.62" E
DA N 1°01'06.65" W
LChord Distance 368.45' Bearing N 0°24'16.02" W
External Distance 0.99'
Middle Ordinate 0.99'
Radius 17189.37'
DEG 0°19'59.96"
DELTA -1°13'41.27"
LENGTH 368.45'
PT N 276873.01 E 173627.35 STA 171+94.55
CURVE CL28
Distance 2780.27' Bearing N 0°56'44.90" W
CURVE CL29
PC N 279652.90 E 173581.46 STA 199+74.82
CC N 279633.91 E 172149.20
PIN 280445.70 E 173570.95 STA 207+67.70
TAN 792.87'
DB N 0°45'33.71" W
DA N 58°41'28.02" W
LChord Distance 1387.38' Bearing N 29°43'30.87" W
External Distance 204.80'
Middle Ordinate 179.18'
Radius 1432.39'
DEG 4°00'00.06"
DELTA -57°55'54.31"
LENGTH 1448.29'
PT N 280857.72 E 172893.54 STA 214+23.11
CURVE CL29
Distance 1450.95' Bearing N 59°56'30.72" W

CHAIN PRL 253 (CONTINUED)

CURVE CL30
PC N 281584.46 E 171637.72 STA 228+74.06
CC N 282809.23 E 172356.28
PIN 281988.63 E 170948.84 STA 236+72.74
TAN 798.68'
DB N 59°35'59.76" W
DA N 0°53'18.42" W
LChord Distance 1392.25' Bearing N 30°14'39.09" W
External Distance 209.20'
Middle Ordinate 182.34'
Radius 1419.99'
DEG 4°02'05.74"
DELTA 58°42'41.34"
LENGTH 1455.08'
PT N 282787.21 E 170936.46 STA 243+29.14
CURVE CL30
Distance 58.26' Bearing N 1°23'08.34" W
CL13879 N 282845.45 E 170935.05 Z 0.000 STA 243+87.40
Distance 2575.60' Bearing N 0°34'20.59" W
CURVE CL31
PC N 285420.92 E 170909.32 STA 269+62.99
CC N 285435.43 E 172819.13
PIN 285823.88 E 170906.26 STA 273+65.97
TAN 402.98'
DB N 0°26'07.86" W
DA N 23°23'36.98" E
LChord Distance 788.59' Bearing N 11°28'44.56" E
External Distance 42.05'
Middle Ordinate 41.14'
Radius 1909.86'
DEG 2°59'60.00"
DELTA 23°49'44.84"
LENGTH 794.30'
PT N 286193.73 E 171066.26 STA 277+57.30
CURVE CL31
Distance 320.12' Bearing N 23°42'12.89" E
CURVE CL32
PC N 286486.85 E 171194.95 STA 280+77.42
CC N 287237.42 E 169438.75
PIN 286864.33 E 171356.28 STA 284+87.93
TAN 410.51'
DB N 23°08'28.43" E
DA N 1°07'12.94" W
LChord Distance 802.69' Bearing N 11°00'37.75" E
External Distance 43.62'
Middle Ordinate 42.65'
Radius 1909.86'
DEG 2°59'59.98"
DELTA -24°15'41.37"
LENGTH 808.72'
PT N 287274.76 E 171348.25 STA 288+86.13
CURVE CL32
Distance 378.60' Bearing N 1°28'15.20" W

CHAIN PRL 253 (CONTINUED)

CURVE CL33
PC N 287653.23 E 171338.53 STA 292+64.73
CC N 287602.64 E 169429.12
PIN 288144.80 E 171325.51 STA 297+56.48
TAN 491.74'
DB N 1°31'04.70" W
DA N 30°23'31.42" W
LChord Distance 952.43' Bearing N 15°57'18.06" W
External Distance 62.28'
Middle Ordinate 60.32'
Radius 1910.09'
DEG 2°59'58.72"
DELTA -28°52'26.72"
LENGTH 962.58'
PT N 288568.97 E 171076.73 STA 302+27.32
CURVE CL33
Distance 421.24' Bearing N 31°11'40.04" W
CURVE CL34
PC N 288929.31 E 170858.55 STA 306+48.56
CC N 288726.50 E 170533.65
PIN 289028.60 E 170796.56 STA 307+65.61
TAN 117.05'
DB N 31°58'29.19" W
DA N 65°57'42.02" W
LChord Distance 223.87' Bearing N 48°58'05.61" W
External Distance 17.49'
Middle Ordinate 16.72'
Radius 383.00'
DEG 14°57'34.62"
DELTA -33°59'12.83"
LENGTH 227.19'
PT N 289076.28 E 170689.67 STA 308+75.75
CURVE CL34
Distance 28.32' Bearing N 65°57'32.42" W
CL13880 N 289087.82 E 170663.80 Z 0.000 STA 309+04.08
Distance 198.87' Bearing N 67°30'24.43" W
CURVE CL35
PC N 289163.90 E 170480.06 STA 311+02.94
CC N 290224.53 E 170914.85
PIN 289270.19 E 170220.78 STA 313+83.17
TAN 280.23'
DB N 67°42'34.64" W
DA N 40°14'05.14" W
LChord Distance 544.42' Bearing N 53°58'19.89" W
External Distance 33.76'
Middle Ordinate 32.79'
Radius 1146.28'
DEG 4°59'54.25"
DELTA 27°28'29.50"
LENGTH 549.67'
PT N 289484.12 E 170039.77 STA 316+52.61
CURVE CL35
Distance 499.96' Bearing N 40°06'43.56" W

CHAIN PRL 253 (CONTINUED)

CURVE CL36
PC N 289866.48 E 169717.66 STA 321+52.57
CC N 289998.21 E 169874.25
PIN 289923.01 E 169670.10 STA 322+26.45
TAN 73.88'
DB N 40°04'14.56" W
DA N 0°22'07.28" W
LChord Distance 138.98' Bearing N 20°13'10.92" W
External Distance 12.93'
Middle Ordinate 12.16'
Radius 204.63'
DEG 27°59'57.43"
DELTA 39°42'07.28"
LENGTH 141.80'
PT N 289996.89 E 169669.63 STA 322+94.37
CURVE CL36
Distance 530.99' Bearing N 0°23'21.10" W
CURVE CL37
PC N 290527.86 E 169666.02 STA 328+25.35
CC N 290529.99 E 169863.58
PIN 290616.27 E 169665.07 STA 329+13.76
TAN 88.41'
DB N 0°36'59.46" W
DA N 47°35'58.61" E
LChord Distance 161.40' Bearing N 23°29'29.57" E
External Distance 18.88'
Middle Ordinate 17.23'
Radius 197.57'
DEG 28°59'59.82"
DELTA 48°12'58.07"
LENGTH 166.26'
PT N 290675.88 E 169730.35 STA 329+91.61
CURVE CL37
Distance 1697.01' Bearing N 47°32'57.80" E
CL13881N 291821.29 E 170982.51 Z 0.000 STA 346+88.62

CHAIN LENGTH 34688.62'

>>>> End of Describe Chains

DATE 05DEC13		E S T I M A T E O F Q U A N T I T I E S			
LINE				8100-03-62	
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	25.000	25.000
0020	203.0200	REMOVING OLD STRUCTURE (STATION) 01. 222+86	LS	1.000	1.000
0030	203.0200	REMOVING OLD STRUCTURE (STATION) 02. 294+80	LS	1.000	1.000
0040	204.0100	REMOVING PAVEMENT	SY	34.000	34.000
0050	204.0110	REMOVING ASPHALTIC SURFACE	SY	2,665.000	2,665.000
0060	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	4,413.000	4,413.000
0070	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	124,286.000	124,286.000
0080	204.0150	REMOVING CURB & GUTTER	LF	532.000	532.000
0090	204.0155	REMOVING CONCRETE SIDEWALK	SY	40.000	40.000
0100	204.0245	REMOVING STORM SEWER (SIZE) 01. 18-INCH	LF	38.000	38.000
0110	204.0245	REMOVING STORM SEWER (SIZE) 02. 24-INCH	LF	145.000	145.000
0120	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 01. MENOMONIE STREET SOUTH	LS	1.000	1.000
0130	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 02. MAIN STREET	LS	1.000	1.000
0140	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 03. CENTER STREET	LS	1.000	1.000
0150	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 04. WILSON STREET	LS	1.000	1.000
0160	205.9015.S	GRADING SHAPING & FINISHING INTERSECTION (LOCATION) 05. MENOMONIE STREET NORTH	LS	1.000	1.000
0170	213.0100	FINISHING ROADWAY (PROJECT) 01. 8100-03-62	EACH	1.000	1.000
0180	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	4,313.000	4,313.000
0190	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	864.000	864.000
0200	305.0500	SHAPING SHOULDERS	STA	628.000	628.000
0210	440.4410.S	INCENTIVE IRI RIDE	DOL	13,120.000	13,120.000
0220	455.0605	TACK COAT	GAL	5,808.000	5,808.000
0230	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	14,860.000	14,860.000
0240	465.0110	ASPHALTIC SURFACE PATCHING	TON	410.000	410.000
0250	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	8.000	8.000
0260	465.0475	ASPHALT CENTER LINE RUMBLE STRIP 2-LANE RURAL	LF	26,764.000	26,764.000
0270	520.7000	CLEANING CULVERT PIPES	EACH	12.000	12.000
0280	521.0721	PIPE ARCH CORRUGATED STEEL 21X15-INCH	LF	100.000	100.000
0290	521.1221	APRON ENDWALLS FOR PIPE ARCH STEEL 21X15-INCH	EACH	4.000	4.000
0300	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	500.000	500.000
0310	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	278.000	278.000
0320	522.0136	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	209.000	209.000
0330	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	3.000	3.000
0340	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	16.000	16.000
0350	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	10.000	10.000

DATE 05DEC13		E S T I M A T E O F Q U A N T I T I E S			
LINE					8100-03-62
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0360	522.1036	APRON ENDWALLS FOR CULVERT PIPE	EACH	6.000	6.000
		REINFORCED CONCRETE 36-INCH			
0370	525.0118	CULVERT PIPE CORRUGATED ALUMINUM 18-INCH	LF	70.000	70.000
0380	525.0124	CULVERT PIPE CORRUGATED ALUMINUM 24-INCH	LF	159.000	159.000
0390	525.0318	ALUMINUM APRON ENDWALLS FOR ALUMINUM	EACH	4.000	4.000
		CULVERT PIPE 18-INCH			
0400	525.0324	ALUMINUM APRON ENDWALLS FOR ALUMINUM	EACH	7.000	7.000
		CULVERT PIPE 24-INCH			
0410	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	531.000	531.000
0420	602.0405	CONCRETE SIDEWALK 4-INCH	SF	642.000	642.000
0430	602.0505	CURB RAMP DETECTABLE WARNING FIELD	SF	72.000	72.000
		YELLOW			
0440	606.0200	RIPRAP MEDIUM	CY	50.000	50.000
0450	608.0318	STORM SEWER PIPE REINFORCED CONCRETE	LF	274.000	274.000
		CLASS III 18-INCH			
0460	611.0430	RECONSTRUCTING INLETS	EACH	8.000	8.000
0470	611.0624	INLET COVERS TYPE H	EACH	15.000	15.000
0480	611.3230	INLETS 2X3-FT	EACH	6.000	6.000
0490	611.8110	ADJUSTING MANHOLE COVERS	EACH	11.000	11.000
0500	611.8115	ADJUSTING INLET COVERS	EACH	2.000	2.000
0510	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	8.000	8.000
0520	614.0305	STEEL PLATE BEAM GUARD CLASS A	LF	413.000	413.000
0530	614.0345	STEEL PLATE BEAM GUARD SHORT RADIUS	LF	13.000	13.000
0540	614.0370	STEEL PLATE BEAM GUARD ENERGY ABSORBING	EACH	1.000	1.000
		TERMINAL			
0550	614.0390	STEEL PLATE BEAM GUARD SHORT RADIUS	EACH	1.000	1.000
		TERMINAL			
0560	614.0920	SALVAGED RAIL	LF	1,173.000	1,173.000
0570	614.2330	MGS GUARDRAIL 3 K	LF	1,749.000	1,749.000
0580	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	8.000	8.000
0590	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS	EACH	1.000	1.000
		(PROJECT) 01. 8100-03-62			
0600	619.1000	MOBILIZATION	EACH	1.000	1.000
0610	625.0500	SALVAGED TOPSOIL	SY	178.000	178.000
0620	628.1104	EROSION BALES	EACH	11.000	11.000
0630	628.1504	SILT FENCE	LF	1,888.000	1,888.000
0640	628.1520	SILT FENCE MAINTENANCE	LF	1,888.000	1,888.000
0650	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	10.000	10.000
0660	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	5.000
0670	628.2004	EROSION MAT CLASS I TYPE B	SY	790.000	790.000
0680	628.7015	INLET PROTECTION TYPE C	EACH	6.000	6.000
0690	628.7504	TEMPORARY DITCH CHECKS	LF	50.000	50.000
0700	628.7555	CULVERT PIPE CHECKS	EACH	134.000	134.000
0710	629.0210	FERTILIZER TYPE B	CWT	1.200	1.200
0720	630.0120	SEEDING MIXTURE NO. 20	LB	40.000	40.000
0730	630.0200	SEEDING TEMPORARY	LB	60.000	60.000
0740	633.5200	MARKERS CULVERT END	EACH	55.000	55.000
0750	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	104.000	104.000
0760	637.2210	SIGNS TYPE II REFLECTIVE H	SF	583.520	583.520
0770	637.2230	SIGNS TYPE II REFLECTIVE F	SF	207.250	207.250
0780	638.2602	REMOVING SIGNS TYPE II	EACH	161.000	161.000
0790	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	106.000	106.000
0800	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0810	643.0100	TRAFFIC CONTROL (PROJECT) 01. 8100-03-62	EACH	1.000	1.000
0820	643.0300	TRAFFIC CONTROL DRUMS	DAY	4,664.000	4,664.000

DATE 05DEC13			E S T I M A T E O F Q U A N T I T I E S			
LINE						8100-03-62
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	
0830	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	4,664.000	4,664.000	
0840	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,584.000	1,584.000	
0850	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	109.000	109.000	
0860	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	68,454.000	68,454.000	
0870	646.0116	PAVEMENT MARKING EPOXY 6-INCH	LF	105.000	105.000	
0880	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	41,773.000	41,773.000	
0890	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	345.000	345.000	
0900	648.0100	LOCATING NO-PASSING ZONES	MI	13.200	13.200	
0910	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	12,037.000	12,037.000	
0920	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	6.000	6.000	
0930	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	531.000	531.000	
0940	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	24.000	24.000	
0950	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	34,848.000	34,848.000	
0960	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 8100-03-62	LS	1.000	1.000	
0970	690.0150	SAWING ASPHALT	LF	2,113.000	2,113.000	
0980	690.0250	SAWING CONCRETE	LF	14.000	14.000	
0990	SPV.0060	SPECIAL 01. PRIVATE AND FIELD ENTRANCE REMOVAL	EACH	6.000	6.000	
1000	SPV.0060	SPECIAL 02. RECONDITIONING CULVERT ENDS	EACH	1.000	1.000	
1010	SPV.0090	SPECIAL 01. REGRADE DITCH	LF	100.000	100.000	
1020	SPV.0090	SPECIAL 02. CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT	LF	531.000	531.000	
1030	SPV.0105	SPECIAL 01. SPECIAL PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING	LS	1.000	1.000	
1040	SPV.0105	SPECIAL 03. MILLING AND REMOVING TEMPORARY JOINT	LS	1.000	1.000	
1050	SPV.0165	SPECIAL 01.CONCRETE SIDEWALK CURE AND SEAL TREATMENT	SF	642.000	642.000	
1060	SPV.0170	SPECIAL 01. REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL	STA	345.000	345.000	
1070	SPV.0195	SPECIAL 01. HMA PAVEMENT E-3 SPECIAL	TON	23,219.000	23,219.000	

REMOVING SMALL PIPE CULVERTS

203.0100				
CAT.	STATION	LOCATION	EACH	REMARKS
0010	49+50	LT	1	FE, 18-INCH ALUMINUM
0010	73+52	STH 25	1	24-INCH, STEEL
0010	78+30	LT	1	FE, 18-INCH ALUMINUM
0010	78+41	STH 25	1	30-INCH STEEL
0010	86+49	STH 25	1	24-INCH STEL
0010	91+62	STH 25	1	24-INCH STEEL
0010	100+58	STH 25	1	24-INCH STEEL
0010	9+62	1300TH AVE.	1	24-INCH ALUMINUM
0010	110+71	STH 25	1	36-INCH STEEL
0010	118+00	STH 25	1	36-INCH STEEL
0010	128+19	STH 25	1	36-INCH STEEL
0010	137+75	STH 25	1	24-INCH STEEL
0010	187+15	STH 25	1	30-INCH STEEL
0010	198+67	STH 25	1	24-INCH STEEL
0010	204+31	STH 25	1	30-INCH STEEL
0010	9+74	1370TH AVE.	1	24-INCH ALUMINUM
0010	232+75	RT	1	FE, 18-INCH ALUMINUM
0010	7+87	530TH AVE.	1	24-INCH ALUMINUM
0010	253+75	RT	1	PE, 18-INCH ALUMINUM
0010	274+80	STH 25	1	30-INCH STEEL
0010	303+67	STH 25	1	30-INCH STEEL
0010	341+50	RT	1	FE, 18-INCH ALUMINUM
0010	344+36	STH 25	1	24-INCH ALUMINUM
0010	10+77	CTH V	1	21X15 ALUMINUM
0010	10+77	CTH V	1	21X15 ALUMINUM
TOTAL 0010			25	

REMOVING OLD STRUCTURE (01.STA 222+86)

203.0200				
CATEGORY	STATION	LOCATION	LS	REMARKS
0010	222+86	UNDER STH 25	1	OLD CATTLE PASS
TOTAL 0010			1	

REMOVING OLD STRUCTURE (02.STA.294+80)

203.0200				
CATEGORY	STATION	LOCATION	LS	REMARKS
0010	294+80	UNDER STH 25	1	OLD CATTLE PASS
TOTAL 0010			1	

REMOVING PAVEMENT

204.0100				
CATEGORY	STATION	LOCATION	SY	REMARKS
0010	311+70	LT	22	DRIVEWAY
0010	321+85	LT	12	DRIVEWAY
TOTAL 0010			34	

REMOVING ASPHALTIC SURFACE

CATEGORY	STATION	TO	STATION	LOCATION	204.0110 SY	REMARKS
0010	73+52	-		STH 25	103	pipe
0010	78+41	-		STH 25	103	pipe
0010	86+49	-		STH 25	103	pipe
0010	91+62	-		STH 25	103	pipe
0010	100+58	-		STH 25	123	pipe
0010	9+62	-		1300TH AVE.	100	pipe
0010	110+71	-		STH 25	130	pipe
0010	118+00	-		STH 25	133	pipe
0010	128+19	-		STH 25	133	pipe
0010	137+75	-		STH 25	133	pipe
0010	187+15	-		STH 25	103	pipe
0010	198+67	-		STH 25	100	pipe
0010	204+31	-		STH 25	103	pipe
0010	9+74	-		1370TH AVE. WEST	100	pipe
0010	222+86	-		STH 25	103	pipe
0010	7+87	-		530TH AVE.	100	pipe
0010	294+80	-		STH 25	103	pipe
0010	274+80	-		STH 25	103	pipe
0010	303+67	-		STH 25	103	pipe
0010	310+08	-	312+00	MENOMONIE STREET SOUTH S/W QUADRANT	6	C & G
0010	313+97	-		STH 25	103	pipe
0010	317+81	-		STH 25	100	pipe
0010	320+93	-	322+38	MAIN STREET S/W QUADRANT	9	C & G
0010	322+00	-	322+23	MAIN STREET S/E QUADRANT	5	C & G
0010	322+78	-	322+99	MAIN STREET N/W QUADRANT	5	C & G
0010	322+71	-	323+03	MAIN STREET N/E QUADRANT	6	C & G
0010	324+01	-	324+28	CENTER STREET S/W QUADRANT	6	C & G
0010	324+70	-	324+97	CENTER STREET S/E QUADRANT	6	C & G
0010	325+99	-	326+21	WILSON STREET S/W QUADRANT	5	C & G
0010	326+02	-	326+19	WILSON STREET S/E QUADRANT	4	C & G
0010	326+51	-	326+68	WILSON STREET N/E QUADRANT	4	C & G
0010	329+20	-	329+41	STH 25/RAILROAD STREET	1	C & G
0010	337+75	-		STH 25/RAILROAD STREET	1	C & G
0010	338+35	-	338+60	MENOMONIE STREET NORTH S/E QUADRANT	6	C & G
0010	338+83	-	339+08	MENOMONIE STREET NORTH N/E QUADRANT	4	C & G
0010	344+32	-		STH 25	103	pipe
0010	10+77.44	-		CTH V	100	pipe
0010	10+77.44	-		CTH V	100	pipe
TOTAL 0010					2665	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	STATION	LOCATION	204.0115 SY
0010	51+13	1250TH WEST	196
0010	51+66	1250TH EAST	196
0010	68+50	LT	4
0010	72+65	LT	4
0010	89+36	1280TH	196
0010	105+17	1300TH	196
0010	163+82	LT	4
0010	163+82	CTH W	213
0010	200+57	548TH	196
0010	215+86	1370TH EAST	196
0010	216+22	1370TH WEST	196
0010	233+40	LT	4
0010	241+60	530TH	196
0010	277+93	528TH, LT	196
0010	278+31	CTH WW	213
0010	295+79	528TH, LT	196
0010	312+54	MENOMONIE ST. S	196
0010	322+57	MAIN ST.	196
0010	324+49	CENTER ST.	196
0010	326+35	WILSON ST. WEST	196
0010	326+35	WILSON ST. EAST	196
0010	328+97	RAILROAD ST.	213
0010	331+18	CAROLINE ST.	196
0010	338+71	MENOMONIE ST. N	196
0010	345+56	CTH V	213
0010	345+81	CTH AA	213
TOTAL 0010			4413

REMOVING CONCRETE SIDEWALK

CATEGORY	LOCATION	204.0155 SY	REMARKS
0010	MENOMONIEE STREET SOUTH	19	SOUTH/WEST QUADRANT
0010	MAIN STREET	5	SOUTH/WEST QUADRANT
0010	MAIN STREET	9	NORTH/WEST QUADRANT
0010	WILSON STREET	8	SOUTH/EAST QUADRANT
TOTAL 0010		40	

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION	TO	STATION	LOCATION	204.0120 SY
0010	1+80	-	307+00	STH 25 (RURAL)	101733
0010	307+00	-	348+80	STH 25 (URBAN)	17300
0010				SIDEROADS	5253
TOTAL 0010					124286

REMOVING CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	204.0150 LF	REMARKS
0010	311+59	-	312+00	MENOMONIEE STREET SOUTH	51	SOUTH/WEST QUADRANT
0010	321+75	-	322+39	MAIN STREET	87	SOUTH/WEST QUADRANT
0010	322+81	-	322+99	MAIN STREET	39	NORTH/WEST QUADRANT
0010	322+01	-	322+20	MAIN STREET	35	SOUTH/EAST QUADRANT
0010	322+74	-	323+02	MAIN STREET	45	NORTH/EAST QUADRANT
0010	324+00	-	324+28	CENTER STREET	45	SOUTH/WEST QUADRANT
0010	324+70	-	324+95	CENTER STREET	43	NORTH/WEST QUADRANT
0010	325+95	-	326+19	WILSON STREET	41	SOUTH/WEST QUADRANT
0010	326+01	-	326+20	WILSON STREET	32	SOUTH/EAST QUADRANT
0010	326+54	-	326+67	WILSON STREET	24	NORTH/EAST QUADRANT
0010	337+70		337+78	STH 25/RAILROAD STREET	8	RIGHT
0010	338+31	-	338+57	MENOMONIEE STREET NORTH	42	SOUTH/EAST QUADRANT
0010	338+83	-	339+08	MENOMONIE STREET NORTH	39	NORTH/EAST QUADRANT
TOTAL 0010					532	

REMOVING STOM SEWER (SIZE)

CATEGORY	STATION	LOCATION	204.0245.01 (18") LF	204.0245.02 (24") LF
0010	307+38	STH 25	-	51
0010	313+97	STH 25	-	47
0010	317+81	STH 25	-	47
0010	322+04	STH 25	38	-
TOTAL 0010			38	145

GRADING SHAPING & FINISHING INTERSECTION (LOCATION)

CATEGORY	STATION	LOCATION	205.9015.S LS	205.9105.S.02 LS	205.9105.03 LS	205.9105.04 LS	205.9105.05 LS	* FILL CY	* SALVAGED TOPSOIL SY	* FERTILIZER TYPE B CWT	* SEEDING MIX NO. 30 LB	* TEMPORARY SEEDING LB	* MULCHING SY
0010	312+11	MENOMONIE ST. S	1						63	0.04	1.13	1.70	63
0010	322+57	MAIN ST.		1					139	0.09	2.51	3.76	139
0010	324+49	CENTER ST.			1				18	0.01	0.33	0.49	18
0010	326+35	WILSON ST.				1			58	0.04	1.04	1.56	58
0010	338+71	MENOMONIE ST. N					1		35	0.02	0.64	0.96	35
TOTAL 0010			1	1	1	1	1		313.67	0.20	5.65	8.47	313.67

* ITEMS AND QUANTITIES FOR INFORMATION ONLY.

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	213.0100 EACH	305.0110 TON
0010	1+80	-	346+60	STH 25	1	97
TOTAL 0010						4313

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 TON
0010		-		DRIVEWAYS	97
0010	1+80	-	50+91	LT	92
0010	1+80	-	51+54	RT	94
0010	51+15	-	104+98	LT	101
0010	51+85	-	89+12	RT	70
0010	89+38	-	163+13	RT	139
0010	105+22	-	163+71	LT	110
0010	163+88	-	216+71	LT	99
0010	164+42	-	202+87	RT	72
0010	202+87	-	215+09	RT	23
0010	215+33	-	278+34	RT	119
0010	216+91	-	239+54	LT	43
0010	239+66	-	277+59	LT	71
0010	277+76	-	295+93	LT	34
0010	278+53	-	304+08	RT	48
0010	305+75	-	310+08	RT	8
0010	295+93	-	305+11	LT	17
0010	310+40	-	318+98	RT	16
0010	339+10	-	346+23	RT	13
0010	341+38	-	344+95	LT	7
0010	345+46	-	346+60	LT	2
0010	346+43	-	346+60	RT	1
0010		-		UNDISTRIBUTED	3035
TOTAL 0010					4313

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STATION	LOCATION	305.0120 TON	REMARKS
0010	73+52	STH 25	34	pipe
0010	78+41	STH 25	34	pipe
0010	86+49	STH 25	34	pipe
0010	91+62	STH 25	34	pipe
0010	100+58	STH 25	41	pipe
0010	9+62	1300TH AVE.	33	pipe
0010	110+71	STH 25	43	pipe
0010	118+00	STH 25	44	pipe
0010	128+19	STH 25	44	pipe
0010	137+75	STH 25	44	pipe
0010	187+15	STH 25	34	pipe
0010	198+67	STH 25	33	pipe
0010	204+31	STH 25	34	pipe
0010	9+74	1370TH AVE. WEST	33	pipe
0010	222+86	STH 25	34	pipe
0010	7+87	530TH AVE.	33	pipe
0010	294+80	STH 25	34	pipe
0010	274+80	STH 25	34	pipe
0010	303+67	STH 25	34	pipe
0010	313+97	STH 25	34	pipe
0010	317+81	STH 25	33	pipe
0010	344+32	STH 25	34	pipe
0010	10+77.44	CTH V	33	pipe
0010	10+77.44	CTH V	33	pipe
TOTAL 0010			864	

* BASE AGGREGATE DENSE 1 1/4-INCH, MATERIAL TO BE USED IN AREAS OF CULVERT
** TRENCH WIDTH DETERMINED BY THE ENGINEER.

SHAPING SHOULDERS

CATEGORY	STATION	TO	STATION	LOCATION	305.0500 STA
0010	1+80	-	50+91	LT	49
0010	1+80	-	51+54	RT	50
0010	51+15	-	104+98	LT	54
0010	51+85	-	89+12	RT	37
0010	89+38	-	163+13	RT	74
0010	105+22	-	163+71	LT	58
0010	163+88	-	216+71	LT	53
0010	164+42	-	202+87	RT	38
0010	202+87	-	215+09	RT	12
0010	215+33	-	278+34	RT	63
0010	216+91	-	239+54	LT	23
0010	239+66	-	277+59	LT	38
0010	277+76	-	295+93	LT	18
0010	278+53	-	304+08	RT	26
0010	305+75	-	310+08	RT	4
0010	295+93	-	305+11	LT	9
0010	310+40	-	318+98	RT	9
0010	339+10	-	346+23	RT	7
0010	341+38	-	344+95	LT	4
0010	345+46	-	346+60	LT	1
0010	346+43	-	346+60	RT	1
TOTAL 0010					628

ASPHALTIC SURFACE PATCHING

CATEGORY	STATION	TO	STATION	LOCATION	465.0110 TON	REMARKS
0010	1+80	-	346+60	STH 25	50	
0010	73+52			STH 25	15	pipe
0010	78+41			STH 25	15	pipe
0010	86+49			STH 25	15	pipe
0010	91+62			STH 25	15	pipe
0010	100+58			STH 25	18	pipe
0010	9+62			1300TH AVE.	19	pipe
0010	110+71			STH 25	19	pipe
0010	118+00			STH 25	19	pipe
0010	128+19			STH 25	19	pipe
0010	137+75			STH 25	19	pipe
0010	187+15			STH 25	15	pipe
0010	198+67			STH 25	15	pipe
0010	204+31			STH 25	15	pipe
0010	9+74			1370TH AVE. WEST	10	pipe
0010	222+86			STH 25	15	pipe
0010	7+87			530TH AVE.	16	pipe
0010	274+80			STH 25	15	pipe
0010	294+80			STH 25	15	pipe
0010	303+67			STH 25	15	pipe
0010	313+97			STH 25	15	pipe
0010	317+81			STH 25	14	pipe
0010	344+32			STH 25	15	pipe
0010	10+77			CTH V	7	pipe
0010	10+77			CTH V	7	pipe
TOTAL 0010					410	

TACK COAT

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 GAL	REMARKS
0010	1+80	-	307+00	STH 25 (RURAL)	5143	2 lifts
0010	307+00	-	346+60	STH 25 (URBAN)	533	2 lifts
0010		-		SIDEROADS/DRIVEWAYS	131	1 lift
TOTAL 0010					5808	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	465.0120 TON
0010	68+50	LT	2
0010	72+65	LT	2
0010	163+82	LT	2
0010	233+40	LT	2
TOTAL 0010			8

ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL

CATEGORY	STATION	TO	STATION	LOCATION	465.0475.S LF	REMARKS
0010	1+80	-	49+11	STH 25	4731	
0010	53+68	-	87+32	STH 25	3365	
0010	91+32	-	103+15	STH 25	1183	
0010	107+15	-	161+82	STH 25	5467	
0010	165+82	-	200+11	STH 25	3429	
0010	204+10	-	213+54	STH 25	944	
0010	217+54	-	238+67	STH 25	2113	
0010	242+67	-	275+84	STH 25	3317	
0010	279+84	-	293+77	STH 25	1393	
0010	297+77	-	306+00	STH 25	823	
TOTAL 0010					26764	

CLEANING CULVERT PIPES

CATEGORY	STATION	LOCATION	520.7000 EACH
0010	14+68	Under STH 25	1
0010	25+18	Under STH 25	1
0010	42+45	Under STH 25	1
0010	52+14	Under STH 25	1
0010	64+36	Under STH 25	1
0010	144+68	Under STH 25	1
0010	146+73	Under STH 25	1
0010	157+37	Under STH 25	1
0010	171+83	Under STH 25	1
0010	262+11	Under STH 25	1
0010	280+32	Under STH 25	1
0010	295+26	Under STH 25	1
TOTAL 0010			12

PIPE ARCH CORRUGATED STEEL 21X15-INCH

CATEGORY	STATION	LOCATION	521.0721 LF	THICKNESS INCHES
0010	10+77	CTH V	50	0.064
0010	10+77	CTH V	50	0.064
TOTAL 0010			100	

CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH

CATEGORY	STATION	LOCATION	522.0124 LF	* JOINT TIES EACH
0010	73+52	STH 25	62	12
0010	86+49	STH 25	50	12
0010	91+62	STH 25	49	12
0010	100+58	STH 25	56	12
0010	137+75	STH 25	65	12
0010	198+67	STH 25	66	12
0010	222+86	STH 25	94	12
0010	344+36	STH 25	58	12
TOTAL 0010			500	96

* ITEMS AND QUANTITIES FOR INFORMATION ONLY.

CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH

CATEGORY	STATION	LOCATION	522.0136 LF	* JOINT TIES EACH
0010	110+72	STH 25	67	12
0010	118+00	STH 25	52	12
0010	128+19	STH 25	90	12
TOTAL 0010			209	36

* ITEMS AND QUANTITIES FOR INFORMATION ONLY.

CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH

CATEGORY	STATION	LOCATION	522.0130 LF	* JOINT TIES EACH
0010	78+41	STH 25	60	12
0010	187+15	STH 25	54	12
0010	204+31	STH 25	54	12
0010	274+80	STH 25	55	12
0010	303+67	STH 25	55	12
TOTAL 0010			278	60

* ITEMS AND QUANTITIES FOR INFORMATION ONLY.

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH

CAT.	STATION	LOCATION	522.1018 EACH	REMARKS
0010	307+35	RT	1	
0010	313+92	RT	1	
0010	317+80	RT	1	
TOTAL 0010			3	

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH

CATEGORY	STATION	LOCATION	522.1024 EACH
0010	73+52	STH 25, LT, RT	2
0010	86+49	STH 25, LT, RT	2
0010	91+62	STH 25, LT, RT	2
0010	100+58	STH 25, LT, RT	2
0010	137+75	STH 25, LT, RT	2
0010	198+67	STH 25, LT, RT	2
0010	222+86	STH 25, LT, RT	2
0010	344+36	STH 25, LT, RT	2
TOTAL 0010			16

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH

CATEGORY	STATION	LOCATION	522.1030 EACH
0010	78+41	STH 25, LT, RT	2
0010	187+15	STH 25, LT, RT	2
0010	204+31	STH 25, LT, RT	2
0010	274+80	STH 25, LT, RT	2
0010	303+67	STH 25, LT, RT	2
TOTAL 0010			10

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH

CATEGORY	STATION	LOCATION	522.1036 EACH
0010	110+72	STH 25	2
0010	118+00	STH 25	2
0010	128+19	STH 25	2
TOTAL 0010			6

APRON ENDWALLS FOR PIPE ARCH STEEL 21X15-INCH

CATEGORY	STATION	LOCATION	521.1221 EACH	REMARKS
0010	10+77	CTH V	2	
0010	10+77	CTH V	2	
TOTAL 0010			4	

CULVERT PIPE CORRUGATED ALUMINUM 18-INCH

CATEGORY	STATION	LOCATION	525.0118 LF	THICKNESS INCHES	REMARKS
0010	241+50	RT	30	0.060	New Field Entrance
0010	253+75	RT	40	0.060	Existing Driveway
TOTAL 0010			70		

CULVERT PIPE CORRUGATED ALUMINUM 24-INCH

CATEGORY	STATION	LOCATION	525.0124 LF	THICKNESS INCHES
0010	9+62	1300TH AVE.	51	0.075
0010	9+74	1370TH AVE.	59	0.075
0010	7+87	530TH AVE.	49	0.075
TOTAL 0010			159	

ALUMINUM APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 18-INCH

CATEGORY	STATION	LOCATION	525.0318 EACH	REMARKS
0010	241+50	RT	2	New Field Entrance
0010	253+75	RT	2	Existing Driveway
TOTAL 0010			4	

ALUMINUM APRON ENDWALLS FOR ALUMINUM CULVERT PIPE 24-INCH

CATEGORY	STATION	LOCATION	525.0324 EACH
0010	9+62	1300TH AVE.	2
0010	10+48	CTH W, LT.	1
0010	9+74	1370TH AVE.	2
0010	7+87	530TH AVE	2
TOTAL 0010			7

CONCRETE CURB & GUTTER 30-INCH TYPE D

CATEGORY	STATION	TO	STATION	LOCATION	601.0411 LF	REMARKS
				MENOMONIE STREET		
0010	311+59	-	312+00	SOUTH	51	SOUTH/WEST QUADRANT
0010	321+75	-	322+39	MAIN STREET	87	SOUTH/WEST QUADRANT
0010	322+81	-	322+99	MAIN STREET	39	NORTH/WEST QUADRANT
0010	322+01	-	322+20	MAIN STREET	35	SOUTH/EAST QUADRANT
0010	322+74	-	323+02	MAIN STREET	45	NORTH/EAST QUADRANT
0010	324+00	-	324+28	CENTER STREET	45	SOUTH/WEST QUADRANT
0010	324+70	-	324+95	CENTER STREET	42	NORTH/WEST QUADRANT
0010	325+95	-	326+19	WILSON STREET	41	SOUTH/WEST QUADRANT
0010	326+01	-	326+20	WILSON STREET	32	SOUTH/EAST QUADRANT
0010	326+54	-	326+67	WILSON STREET	24	NORTH/EAST QUADRANT
0010	337+70	-	337+78	STH 25/RAILROAD STREET	8	RIGHT
0010	338+31	-	338+57	MENOMONIEE STREET NORTH	42	SOUTH/EAST QUADRANT
0010	338+83	-	339+08	MENOMONIE STREET NORTH	39	NORTH/EAST QUADRANT
TOTAL 0010					531	

CONCRETE SIDEWALK 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	602.0405 SF	REMARKS
				MENOMONIE STREET		
0010	311+59	-	312+00	SOUTH	33	SOUTH/WEST QUADRANT
				MENOMONIE STREET		
0010	312+25	-	312+66	SOUTH	33	NORTH/WEST QUADRANT
0010	321+75	-	322+39	MAIN STREET	49	SOUTH/WEST QUADRANT
0010	322+81	-	322+99	MAIN STREET	102	NORTH/WEST QUADRANT
0010	322+01	-	322+20	MAIN STREET	108	SOUTH/EAST QUADRANT
0010	324+00	-	324+28	CENTER STREET	100	SOUTH/WEST QUADRANT
0010	324+70	-	324+95	CENTER STREET	2	NORTH/WEST QUADRANT
0010	326+01	-	326+20	WILSON STREET	110	SOUTH/EAST QUADRANT
0010	326+54	-	326+67	WILSON STREET	104	NORTH/EAST QUADRANT
TOTAL 0010					642	

CURB RAMP DETECTABLE WARNING FIELD YELLOW

602.0505				
CATEGORY	STATION	LOCATION	SF	REMARKS
0010	312+00	MENOMONIE STREET SOUTH	4	SOUTH/WEST QUADRANT
0010	312+25	MENOMONIE STREET SOUTH	4	NORTH/WEST QUADRANT
0010	322+39	MAIN STREET	8	SOUTH/WEST QUADRANT
0010	322+99	MAIN STREET	16	NORTH/WEST QUADRANT
0010	322+76	MAIN STREET	8	SOUTH/EAST QUADRANT
0010	324+18	CENTER STREET	8	SOUTH/WEST QUADRANT
0010	324+75	CENTER STREET	8	NORTH/WEST QUADRANT
0010	326+20	WILSON STREET	8	SOUTH/EAST QUADRANT
0010	326+67	WILSON STREET	8	NORTH/EAST QUADRANT
TOTAL 0010			72	

RIPRAP MEDIUM

606.0200				
CATEGORY	STATION	LOCATION	CY	REMARKS
0010	190+95	LT	5	PIPE
0010	198+67	LT	3	PIPE
0010	213+77	LT	16	DOUBLE PIPES
0010	213+77	RT	16	DOUBLE PIPES
0010	262+11	LT	9	PIPE
0010	303+67	RT	1	PIPE
TOTAL 0010			50	

STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH

CATEGORY	STATION	TO	STATION	LOCATION	608.0318 LF	REMARKS
0010	307+38			STH 25	50	INLET 41 - ENDWALL
0010	313+93			STH 25	49	INLET 42 - ENDWALL
0010	317+81			STH 25	46	INLET 43 - ENDWALL
0010	322+04			STH 25	38	INLET 44 - INLET 45
0010	322+03	-	323+04	RT	91	INLET 45 - INLET 46
				TOTAL 0010	274	

RECONSTRUCTING INLETS

CATEGORY	STATION	LOCATION	611.0430 EACH	INLET COVER SIZE	SIZE OF BOX	REMARKS
0010	323+00.4	LT	1	2 x 3	2 x 3	Replace Rings
0010	324+01.7	LT	1	2 x 3	2 x 3	Block Falling Apart
0010	325+94.55	LT	1	2 x 3	2 x 3	
0010	325+98.72	RT	1	2 x 3	2 x 3	
0010	328+32.45	LT	1	2 x 3	2 x 3	
0010	328+64.32	LT	1	2 x 3	2 x 3	
0010	329+32.1	RT	1	2 x 3	2 x 3	Blocking Fall Apart, Pipe
0010	338+51	RT	1	2 x 3	2 x 3	Seperation
TOTAL 0010			8			

INLET COVERS TYPE H

CATEGORY	STATION	LOCATION	611.0624 EACH	SIZE OF COVER
0010	307+38.02	LT	1	2 x 3
0010	313+92.85	LT	1	2 x 3
0010	317+80.85	LT	1	2 x 3
0010	322+03.97	LT	1	2 x 3
0010	322+03.49	RT	1	2 x 3
0010	323+00.4	LT	1	2 x 3
0010	323+04.2	RT	1	2 x 3
0010	324+01.7	LT	1	2 x 3
0010	325+94.55	LT	1	2 x 3
0010	325+98.72	RT	1	2 x 3
0010	328+32.45	LT	1	2 x 3
0010	328+64.32	LT	1	2 x 3
0010	329+32.1	RT	1	2 x 3
0010	334+81.04	LT	1	2 x 3
0010	334+81.35	RT	1	2 x 3
0010	338+50.53	RT	1	2 x 3
TOTAL 0010			16	

INLETS 2X3-FT

CATEGORY	NO.	STATION	LOCATION	611.3230 EACH	GRATE ELEV.	DISCHARGE ELEV.	TO	DEPTH FEET	INLET ELEV.	FROM	REMARKS
0010	*41	307+38.02	STH 25, 16.4' LT	1	1109.74	1107.68	DAY LIGHT	2.31		-	INLET 41 - ENDWALL
0010	42	313+92.85	STH 25, 17.0' LT	1	1103.03	1100.03	DAY LIGHT	2.38		-	INLET 42 - ENDWALL
0010	43	317+80.85	STH 25, 16.9' LT	1	1097.60	1094.60	DAY LIGHT	2.38		-	INLET 43 - ENDWALL
0010	44	322+03.97	STH 25, 16.7' LT	1	1090.76	1087.63	45	2.50	1087.53	-	INLET 44 - INLET 45
0010	45	322+03.49	STH 25, 20.8' RT	1	1089.92	1087.54	46	1.75	1087.44	44	INLET 45 - INLET 46
0010	46	323+04.2	STH 25, 20.2' RT	1	1088.10	1084.09	47	3.38	1083.99	45	INLET 46 - INLET 47
TOTAL 0010				6							

* Verify Information In The Field

ADJUSTING MANHOLE COVERS

CATEGORY	STATION	LOCATION	611.8110 EACH	REMARKS
0010	307+31.05	LT	1	STORM
0010	308+33.07	LT	1	STORM
0010	312+00.42	LT	1	STORM
0010	314+12.5	LT	1	STORM
0010	318+79.52	LT	1	
0010	324+15.54	RT	1	
0010	326+50.09	RT	1	
0010	329+17.87	RT	1	
0010	329+26.50	LT	1	
0010	330+89.09	LT	1	
0010	337+74.18	RT	1	
TOTAL 0010			11	

ADJUSTING INLET COVERS

CATEGORY	STATION	LOCATION	611.8115 EACH	INLET COVER SIZE	SIZE OF BOX	REMARKS
0010	334+81	LT	1	2 x 3	2 x 3	REPLACE RINGS
0010	334+81	RT	1	2 x 3	2 x 3	
TOTAL 0010			2			

BARRIER SYSTEM GRADING SHAPING FINISHING										
CATEGORY	STATION	LOCATION	614.0010	*	*	*	*	*	**	REMARKS
			EACH	FILL CY	COMMON CY	TOPSOIL SY	TYPE B CWT	SEEDING MIX NO.30 LB	628.2004 EROSION MAT CLASS I, TYPE B SY	
0010	146+18	STH 25, LT	1	-	4.17	-	-	-	-	
0010	149+18	STH 25, LT	1	-	-	-	-	-	-	
0010	243+12	STH 25, LT	1	63.94	-	69.78	0.04	1.26	69.78	
0010	249+98	STH 25, LT	1	43.34	-	50.06	0.05	1.37	76.06	
0010	243+12	STH 25, RT	1	63.94	-	76.06	0.03	0.90	50.06	
0010	249+98	STH 25, RT	1	43.34	-	93.35	0.06	1.68	93.35	
0010	308+00	STH 25, RT	1	-	1.38	-	-	-	-	
0010	311+67	STH 25, RT	1	3.98	-	-	-	-	-	
TOTAL 0010			8	219	6	289	1	5	289	
* INFORMATIONAL ONLY										
** EROSION MAT IS ALSO INCLUDED IN EROSION MAT TABLE										

STEEL PLATE BEAM GUARD CLASS A					
CATEGORY	STATION	TO	STATION	LOCATION	614.0305 LF
0010	144+70	-	148+83	STH 25, LT	413
TOTAL 0010					413

STEEL PLATE BEAM GUARD SHORT RADIUS					
CATEGORY	STATION	TO	STATION	LOCATION	614.0345 LF
0010	146+18	-	STH 25, LT		13
TOTAL 0010					13

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL

CATEGORY	STATION	LOCATION	614.0370 EACH
0010	149+18	STH 25, LT	1
TOTAL 0010			1

STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

CATEGORY	STATION	TO	STATION	LOCATION	614.0390 EACH
0010	146+18			STH 25, LT	1
TOTAL 0010					1

SALVAGED RAIL

CATEGORY	STATION	TO	STATION	LOCATION	614.0920 LF
0010	144+70	-	148+17	STH 25, LT	322
0010	244+18	-	246+60	STH 25, LT	242
0010	244+18	-	246+60	STH 25, RT	242
0010	306+00	-	309+67	STH 25, RT	367
TOTAL 0010					1173

MGS GUARDRAIL 3 K

CATEGORY	STATION	TO	STATION	LOCATION	614.2330 LF
0010	144+70	-	149+26	STH 25, LT	456
0010	243+12	-	247+68	STH 25, LT	456
0010	243+12	-	247+68	STH 25, RT	456
0010	305+97	-	309+78	STH 25, RT	381
TOTAL 0010					1749

MGS GUARDRAIL TERMINAL EAT

CATEGORY	STATION	LOCATION	614.2610 EACH
0010	146+18	STH 25, LT	1
0010	149+18	STH 25, LT	1
0010	247+56	STH 25, LT	1
0010	249+98	STH 25, LT	1
0010	247+56	STH 25, RT	1
0010	249+98	STH 25, RT	1
0010	308+00	STH 25,RT	1
0010	311+67	STH 25, RT	1
TOTAL 0010			8

MAINTENANCE AND REPAIR OF HAUL ROADS (8100-03-62)

CATEGORY	STATION	TO	STATION	LOCATION	618.0100 EACH
0010	1+80	-	360+60	PROJECT 8100-03-62	1
TOTAL 0010					1

SALVAGED TOPSOIL

CATEGORY	STATION	LOCATION	625.0500 SY	REMARKS
0010	222+86	STH 25	178	OLD CATTLE PASS
TOTAL 0010			178	

SILT FENCE

CATEGORY	STATION	LOCATION	628.1504 LF	REMARKS
0010	73+52		88	pipe
0010	78+41		99	pipe
0010	86+49		101	pipe
0010	91+62		89	pipe
0010	100+58		85	pipe
0010	9+62	1300TH ST	48	pipe
0010	110+71		89	pipe
0010	128+19		100	pipe
0010	137+70		80	pipe
0010	187+15		97	pipe
0010	204+31		93	pipe
0010	9+74	1370TH ST	87	pipe
0010	222+86		140	pipe
0010	7+87	530TH ST	89	pipe
0010	253+75 RT.	FIELD ENTRANCE	44	pipe
0010	274+80		74	pipe
0010	294+80		87	pipe
0010	303+67		74	pipe
0010	307+38		50	pipe
0010	313.97.20		55	pipe
0010	317+80		88	pipe
0010	344+35.62		67	pipe
0010	10+77.44	CTH AA	63	pipe
TOTAL 0010			1888	

EROSION BALES

CATEGORY	STATION	TO	STATION	LOCATION	628.1104 EACH
0010	296+00	-		LT	9
0010	317+80	-		RT	2
TOTAL 0010					11

SILT FENCE MAINTENANCE

CATEGORY	STATION	LOCATION	628.1520 LF	REMARKS
0010	73+52		88	pipe
0010	78+41		99	pipe
0010	86+49		101	pipe
0010	91+62		89	pipe
0010	100+58		85	pipe
0010	9+62	1300TH ST	48	pipe
0010	110+71		89	pipe
0010	128+19		100	pipe
0010	137+70		80	pipe
0010	187+15		97	pipe
0010	204+31		93	pipe
0010	9+74	1370TH ST	87	pipe
0010	222+86		140	pipe
0010	7+87	530TH ST	89	pipe
0010	253+75 RT.	FIELD ENTRANCE	44	pipe
0010	274+80		74	pipe
0010	294+80		87	pipe
0010	303+67		74	pipe
0010	307+38		50	pipe
0010	313.97.20		55	pipe
0010	317+80		88	pipe
0010	344+35.62		67	pipe
0010	10+77.44	CTH AA	63	pipe
TOTAL 0010			1888	

MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	628.1905 EACH
0010		10
TOTAL 0010		10

MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	LOCATION	628.1910 EACH
0010		5
TOTAL 0010		5

EROSION MAT CLASS I TYPE B

CATEGORY	STATION	LOCATION	628.2004 SY	REMARKS
0010	49+50	LT	39	FE Removal
0010	78+30	LT	26	FE Removal
0010	222+86		28	Old Cattle Pass
0010	232+75	RT	33	FE Removal
0010	243+12	LT	69	Behind Guardrail
0010	243+12	RT	50	Behind Guardrail
0010	249+98	LT	93	Behind Guardrail
0010	249+98	RT	76	Behind Guardrail
0010	294+80		76	Old Cattle Pass
0010	296+00	LT	300	Sideroad
TOTAL 0010			790	

TEMPORARY DITCH CHECKS

CATEGORY	STATION	LOCATION	628.7504 LF
0010	296+00	520TH AVE., LT	30
0010	318+00	STH 25, RT	20
TOTAL 0010			50

INLET PROTECTION TYPE C

CATEGORY	STATION	LOCATION	628.7015 EACH	REMARKS
0010	308+38.02	STH 25, 16.4' LT	1	
0010	313+92.85	STH 25, 17.0' LT	1	
0010	317+80.85	STH 25, 16.9' LT	1	
0010	322+03.97	STH 25, 16.7' LT	1	
0010	322+03.49	STH 25, 20.8' RT	1	
0010	323+04.2	STH 25, 20.2' RT	1	
TOTAL 0010			6	

CULVERT PIPE CHECKS

CATEGORY	STATION	LOCATION	628.7555 EACH
0010	73+52	STH 25	4
0010	78+30	STH 25	8
0010	86+49	STH 25	4
0010	91+62	STH 25	4
0010	100+58	STH 25	4
0010	9+62	1300TH ST	4
0010	110+71.6	STH 25	10
0010	118+00	STH 25	10
0010	128+19	STH 25	10
0010	137+75	STH 25	4
0010	187+15	STH 25	5
0010	204+31	STH 25	8
0010	9+74	1370TH ST	4
0010	222+86	STH 25	10
0010	7+87	530TH ST	4
0010	253+75	RT	3
0010	274+80	STH 25	8
0010	294+80	STH 25	10
0010	303+67	STH 25	8
0010	344+35.62	STH 25	4
0010	10+77	CTH AA	8
TOTAL 0010			134

FERTILIZER TYPE B

CATEGORY	STATION	LOCATION	629.0210 CWT	REMARKS
0010	86+49	LT	0.02	Pipe Removal
0010	86+49	RT	0.02	Pipe Removal
0010	222+86	LT	0.63	Pipe Removal
0010	222+86	RT	0.11	Pipe Removal
0010	295+26	LT	0.07	Removing Cattle Pass
0010	295+26	RT	0.07	Removing Cattle Pass
0010	296+00	LT	0.19	Ditching
0010	307+50	RT	0.00	Inlet Reconstruction
0010	317+81	RT	0.05	Ditching
0010	329+20	RT	0.01	Inlet Reconstruction
0010	337+80	RT	0.01	Manhole Reconstruction
TOTAL 0010			1.2	

SEEDING MIXTURE NO. 20

CATEGORY	STATION	LOCATION	630.0120 LB	REMARKS
0010	49+50	LT	2.11	PIPE REMOVAL
0010	73+52	RT	1.02	PIPE REMOVAL
0010	78+41	LT	1.41	PIPE REMOVAL
0010	78+41	RT	0.54	PIPE REMOVAL
0010	86+49	LT	0.43	PIPE REMOVAL
0010	86+49	RT	0.54	PIPE REMOVAL
0010	91+62	RT	1.09	PIPE REMOVAL
0010	100+58	RT	1.09	PIPE REMOVAL
0010	9+62	1300TH	0.32	
0010	110+72	RT	0.86	PIPE REMOVAL
0010	118+00	RT	0.86	PIPE REMOVAL
0010	128+19	RT	1.06	PIPE REMOVAL
0010	137+75	RT	1.02	PIPE REMOVAL
0010	187+17	LT	1.09	PIPE REMOVAL
0010	204+31	LT	1.15	PIPE REMOVAL
0010	9+74	1370TH	0.78	PIPE REMOVAL
0010	222+86	LT	1.60	PIPE REMOVAL
0010	222+86	RT	1.60	PIPE REMOVAL
0010	232+75	RT	4.53	PIPE REMOVAL
0010	7+87	530TH	0.76	PIPE REMOVAL
0010	253+75	RT	0.40	PIPE REMOVAL
0010	274+80	LT	0.84	PIPE REMOVAL
0010	294+80	LT	1.97	REMOVING CATTLE PASS
0010	294+80	RT	2.11	REMOVING CATTLE PASS
0010	296+00	LT	5.40	DITCHING
0010	307+50	RT	0.20	INLET RECONSTRUCTION
0010	317+81	RT	1.39	DITCHING
0010	329+20	RT	0.19	INLET RECONSTRUCTION
0010	337+80	RT	0.25	MANHOLE RECONSTRUCTION
0010	341+50	RT	1.22	PIPE REMOVAL
0010	344+36	RT	1.22	PIPE REMOVAL
0010	10+77	CTH V	1.09	PIPE REMOVAL
TOTAL 0010			40	

SEEDING TEMPORARY

CATEGORY	STATION	LOCATION	630.0200 LB	REMARKS
0010	49+50	LT	3.16	PIPE REMOVAL
0010	73+52	RT	1.53	PIPE REMOVAL
0010	78+41	LT	2.12	PIPE REMOVAL
0010	78+41	RT	0.82	PIPE REMOVAL
0010	86+49	LT	0.65	PIPE REMOVAL
0010	86+49	RT	0.82	PIPE REMOVAL
0010	91+62	RT	1.63	PIPE REMOVAL
0010	100+58	RT	1.63	PIPE REMOVAL
0010	9+62	1300TH	0.49	
0010	110+72	RT	1.30	PIPE REMOVAL
0010	118+00	RT	1.30	PIPE REMOVAL
0010	128+19	RT	1.59	PIPE REMOVAL
0010	137+75	RT	1.54	PIPE REMOVAL
0010	187+17	LT	1.63	PIPE REMOVAL
0010	204+31	LT	1.72	PIPE REMOVAL
0010	9+74	1370TH	1.18	PIPE REMOVAL
0010	222+86	LT	2.40	PIPE REMOVAL
0010	222+86	RT	2.40	PIPE REMOVAL
0010	232+75	RT	6.80	PIPE REMOVAL
0010	7+87	530TH	1.14	PIPE REMOVAL
0010	253+75	RT	0.60	PIPE REMOVAL
0010	274+80	LT	1.26	PIPE REMOVAL
0010	294+80	LT	2.95	REMOVING CATTLE PASS
0010	294+80	RT	3.16	REMOVING CATTLE PASS
0010	296+00	LT	8.10	DITCHING
0010	307+50	RT	0.30	INLET RECONSTRUCTION
0010	317+81	RT	2.09	DITCHING
0010	329+20	RT	0.29	INLET RECONSTRUCTION
0010	337+80	RT	0.38	MANHOLE RECONSTRUCTION
0010	341+50	RT	1.83	PIPE REMOVAL
0010	344+36	RT	1.83	PIPE REMOVAL
0010	10+77	CTH V	1.63	PIPE REMOVAL
TOTAL 0010			60	

MARKERS CULVERT END

CATEGORY	STATION	LOCATION	633.5200 EACH
0010	1+86	STH 25	2
0010	14+68	STH 25	2
0010	25+18	STH 25	2
0010	42+45	STH 25	2
0010	52+14	STH 25	2
0010	64+36	STH 25	2
0010	73+52	STH 25	2
0010	78+41	STH 25	2
0010	86+49	STH 25	2
0010	91+62	STH 25	2
0010	100+58	STH 25	2
0010	110+72	STH 25	2
0010	118+00	STH 25	2
0010	128+19	STH 25	2
0010	137+75	STH 25	2
0010	157+37	STH 25	2
0010	171+83	STH 25	2
0010	187+15	STH 25	2
0010	190+95	STH 25	2
0010	198+67	STH 25	2
0010	204+31	STH 25	2
0010	222+86	STH 25	2
0010	262+11	STH 25	2
0010	274+80	STH 25	2
0010	303+67	STH 25	2
0010	307+38	STH 25	1
0010	313+97	STH 25	1
0010	317+81	STH 25	1
0010	344+36	STH 25	2
TOTAL 0010			55

SIGNING ITEMS

CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	634.0614 EACH	637.2210 SIGNS REFLECTIVE H	637.2230 SIGNS REFLECTIVE F	REMARKS
									TYPE II SF	TYPE II SF	
0010	1-1	NORTH Cardinal Route Marker		2+64	RT	J4-1	24 x 36	2	6		
0010	1-1	STH 25									
0010	1-2	RIDGELAND 6, BARRON 20		2+64	RT	D2-2	78 x 24		13		
0010	1-3	SOUTH Cardinal Route Marker		4+36	LT	J3-2	48 x 57	2	19		
0010	1-3	WEST Cardinal Route Marker									
0010	1-3	Route Marker Panel - (2 Faces)									
0010	1-3	RIGHT ARROW									
0010	1-3	RIGHT ARROW									
		CORNELL (LEFT ARROW), WHEELER (RIGHT ARROW), CONNORSVILLE									
0010	1-4	(RIGHT ARROW)		9+70	LT	D1-3	84 x 36	2	21		
0010	1-5	Stop Ahead		11+93	LT	W3-1	36 x 36	1		9	
0010	1-6	Stop Ahead		11+93	RT	W3-1	36 x 36	1		9	
0010	1-7	EAST		14+43	LT	J2-3	72 x 57	2	28.5		
0010	1-7	SOUTH									
0010	1-7	WEST									
0010	1-7	Route Marker Panel - (3 Faces)									
0010	1-7	Advance Arrow Left Turn									
0010	1-7	Advance Arrow Right Turn									
0010	1-7	Advance Arrow Right Turn									
0010	1-8	No Passing Zone		16+84	RT	W14-3	48 x 36	1		6	
0010	1-9	Junction Marker		19+26	LT	J1-1	24 x 39	1	6.5		
0010	1-9	State Route Marker									
0010	2-1	No Passing Zone		30+93	LT	W14-3	48 x 36	1		6	
0010	2-2	Stop	1250TH WEST	50+56	LT	R1-1	30 x 30	1	5.18		
0010	2-3	Stop	1250TH EAST	51+90	RT	R1-1	30 x 30	1	5.18		
0010	2-4	No Passing Zone		51+84	LT	W14-3	48 x 36	1		6	
0010	2-5	Adopt-A-Highway [MENOMONIE LIONS CLUB]		53+53	RT	I-55-56	30 x 36	1	7.5		
0010	3-1	No Passing Zone		81+78	LT	W14-3	48 x 36	1		6	
0010	3-2	No Passing Zone		83+18	RT	W14-3	48 x 36	1		6	
0010	3-3	Stop	1280TH EAST	89+37	RT	R1-1	30 x 30	1	5.18		
0010	4-1	Stop	1300TH WEST	104+94	LT	R1-1	30 x 30	1	5.18		
0010	4-3	No Passing Zone		115+79	RT	W14-3	48 x 36	1		6	
0010	4-2	No Passing Zone		117+90	LT	W14-3	48 x 36	1		6	
0010	6-1	Junction Marker		154+56	RT	J1-1	24 x 39	1	6.5		
0010	6-1	County Marker									
0010	6-2	Adopt-A-Highway [MENOMONIE LIONS CLUB]		159+77	LT	I-55-56	30 x 36	1	7.5		
SUBTOTAL 0010								25	136	60	

SIGNING ITEMS -
CONT'D

										637.2210	637.2230
										SIGNS	SIGNS
										REFLECTIVE H	REFLECTIVE F
										TYPE II	TYPE II
CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	634.0614 EACH	SF	SF	REMARKS
0010	6-3	SOUTH		161+67	LT	J4-1	24 x 36	1	6		
0010	6-3	STH 25									
0010	6-4	CTH W		163+09	RT	J13-1	24 x 45	1	7.5		
0010	6-4	RIGHT ARROW									
0010	6-5	Stop	CTH W	164+35	RT	R1-1	30 x 30	1	5.18		
0010	6-6	STH 25	CTH W	164+35	RT	J13-1	24 x 45	1	7.5		
0010	6-6	Directional Arrows Left - Right									
0010	6-7	CTH W		164+37	LT	J13-1	24 x 45	1	7.5		
0010	6-7	LEFT ARROW									
0010	6-8	NORTH Cardinal Route Marker		165+97	RT	J4-1	24 x 36	1	6		
0010	6-8	STH 25									
0010	6-9	Adopt-A-Highway [KAPPA LAMBDA DELTA FRATERNITY UW STOUT]		168+03	RT	I-55-56	30 x 36	1	7.5		
0010	6-10	Junction Marker		173+86	LT	J1-1	24 x 39	1	6.5		
0010	6-10	CTH W									
0010	6-11	No Passing Zone		178+23	RT	W14-3	48 x 36	1		6	
0010	7-1	No Passing Zone		191+97	LT	W14-3	48 x 36	1		6	
0010	7-2	Stop	548TH	202+95	RT	R1-1	30 x 30	1	5.18		
0010	7-3	Stop	1370TH WEST	215+52	RT	R1-1	30 x 30	1	5.18		
0010	8-1	Stop	1370TH EAST	216+39	LT	R1-1	30 x 30	1	5.18		
0010	8-2	No Passing Zone		219+76	LT	W14-3	48 x 36	1		6	
0010	8-3	No Passing Zone		221+11	RT	W14-3	48 x 36	1		6	
0010	9-1	Stop	530TH AVENUE	239+55	LT	R1-1	30 x 30	1	5.18		
0010	9-2	Night Arrow (Single)		241+27	LT	W1-6	48 x 24	1		8	
0010	9-3	No Passing Zone		248+10	LT	W14-3	48 x 36	1		6	
0010	9-4	No Passing Zone		250+06	RT	W14-3	48 x 36	1		6	
SUBTOTAL 0010								19	74.4	44	

3

SIGNING ITEMS - CONT'D

CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	634.0614 EACH	637.2210 SIGNS	637.2230 SIGNS	REMARKS
									REFLECTIVE H TYPE II SF	REFLECTIVE F TYPE II SF	
0010	12-5	CTH V		320+65	RT	J2-2	48 x 57	1	19		
0010	12-5	Directional Arrows LA/UA COMBO OR UA/RA									
0010	12-5	NORTH Cardinal Route Marker									
0010	12-5	STH 25									
0010	12-6	Speed Limit 25 MPH		321+36	LT	R2-1	24 x 30	1	5		
0010	12-7	SOUTH		322+26	LT	J3-2	48 x 57	1	19		
0010	12-7	CTH V									
0010	12-7	RIGHT ARROW									
0010	12-7	STH 25									
0010	12-7	Arrow Tilt Left									
0010	12-8	Stop	Main Street West	322+32	LT	R1-1	30 x 30	1	5.18		
0010	12-9	CTH V	Main Street West	322+32	LT	J13-2	48 x 45	1	15		ON POWER POLE
0010	12-9	LEFT ARROW									ON POWER POLE
0010	12-9	STH 25									ON POWER POLE
0010	12-9	Directional Arrows Left - Right									ON POWER POLE
0010	12-10	School Advance		322+99	LT	S1-1	36 x 36	1		6.25	
0010	12-11	Arrow Tilt Left		322+99	LT	WF16-7L	30 x 18			2	
0010	12-12	School Advance		321+80	RT	S1-1	36 x 36	1		6.25	
0010	12-13	Arrow Tilt Left		321+80	RT	WF16-9P	30 x 18			2	
0010	12-14	Stop	Main Street East	322+81	RT	R1-1	30 x 30	1	5.18		
0010		Tonnar St	Main Street East								SAME POST AS ABOVE
0010		Main St E	Main Street East								SAME POST AS ABOVE
0010		Grover St	Main Street East								SAME POST AS ABOVE
0010	12-15	Speed Limit 25 MPH		323+12	RT	R2-1	24 x 30	1	5		
0010	12-16	Stop	CENTER STREET		LT	R1-1	30 x 30	1	5.18		
0010		Tonnar St	CENTER STREET								SAME POST AS BELOW
0010		Grover St	CENTER STREET								SAME POST AS ABOVE
0010	12-17	Fire Station Truck Crossing Symbol		325+18	LT	W11-8	30 x 30	1		9	
0010	12-18	CTH V		325+84	LT	J12-1	24 x 45	1	7.5		
0010	12-18	Advance Arrow Right Turn									
0010	12-19	Stop	WILSON STREET WEST	324+25	LT	R1-1	30 x 30	1	5.18		
0010	12-20	School Advance		326+81	LT	S1-1	36 x 36	1		6.25	
0010	12-21	AHEAD Plaque (Yellow)		326+81	LT	WF16-9P	30 x 18			3.75	
0010	12-22	FINES HIGHER		326+81	LT	R2-6P	24 x 18		3		
0010	12-23	Stop	WILSON STREET EAST	326+15	RT	R1-1	30 x 30	1	5.18		SAME POST AS BELOW
0010		Wilson St	WILSON STREET EAST								SAME POST AS ABOVE
0010		Grover St	WILSON STREET EAST								SAME POST AS ABOVE
0010	12-24	Speed Limit 25 MPH		328+29	LT	R2-1	24 x 30	1	5		
0010	12-25	Stop	RAILROAD STREET	328+35	LT	R1-1	30 x 30	1	5.18		
0010	12-26	NORTH Cardinal Route Marker		329+18	RT	J3-1	24 x 57	1	9.5		
0010	12-26	State Route Marker									
SUBTOTAL 0010								18	119.08	35.50	

SIGNING ITEMS - CONT'D

CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	634.0614 EACH	637.2210	637.2230	REMARKS
									SIGNS REFLECTIVE H TYPE II SF	SIGNS REFLECTIVE F TYPE II SF	
0010	12-26	Arrow Tilt Right									
0010	12-27	SOUTH Cardinal Route Marker		330+30	LT	J3-1	24 x 57	1	9.5		
0010	12-27	STH 25									
0010	12-27	Arrow Tilt Left									
0010	12-28	Stop	Caroline Street	331+57	RT	R1-1	30 x 30	1	5.18		
0010		Caroline St	Caroline Street	331+27	RT						
0010	13-1	Speed Limit 25 MPH		334+89	LT	R2-1	24 x 30	1	5		
0010	13-2	Speed Limit 45 MPH		334+80	RT	R2-1	24 x 30	1	5		
0010	13-3	Stop	Menomonie North	338+85	RT	R1-1	30 x 30	1	5.18		
0010		Railroad St	Menomonie North		RT						SAME POST AS BELOW
0010		Menomonie St N	Menomonie North		RT						SAME POST AS ABOVE
0010	13-4	Junction Marker		339+90	RT	J2-2	48 x 57	1	19		
0010	13-4	CTH AA									
0010	13-4	CTH V									
0010	13-4	Advance Arrow Right Turn									
0010	13-5	Speed Limit 25 Ahead [Arrow]		339+63	LT	W3-5	36 x 36	1		9	
0010	13-6	SOUTH Cardinal Route Marker		343+09	LT	J4-1	24 x 36	2	6		
0010	13-6	STH 25									
0010	13-7	Ridgeland Population 265		343+09	LT	I-2-3	60 x 24		10		
0010	13-8	Speed Limit 45 MPH		344+43	LT	R2-1	24 x 30	1	5		
0010	13-9	Stop	CTH V		LT	R1-1	30 x 30	1	5.18		
0010	13-10	Route Marker Panel - (2 Faces)	CTH V		LT	J12-2	48 x 45	1	15		
0010	13-10	Directional Arrows Left - Right	CTH V								
0010	13-10	Directional Arrows LA/UA COMBO OR UA/RA	CTH V								
0010	13-11	Route Marker Panel - (2 Faces)		344+88	RT	J13-2	48 x 45	1	15		
0010	13-11	LEFT ARROW									
0010	13-11	RIGHT ARROW									
0010	13-12	STOP	CTH AA		RT	R1-1	30 x 30	1	5.18		
0010	13-13	STH 25	CTH AA		RT	J13-1	24 x 45	1	7.5		
0010	13-13	Directional Arrows Left - Right	CTH AA								
0010	13-14	Route Marker Panel - (2 Faces)	CTH AA		RT	J13-2	48 x 45	1	15		
0010	13-14	LEFT ARROW	CTH AA								
0010	13-14	AHEAD ARROW	CTH AA								
0010	13-15	Route Marker Panel - (2 Faces)			LT	J12-2	48 x 45	1	15		
0010	13-15	RIGHT ARROW									
0010	13-15	Directional Arrows LA/UA COMBO OR UA/RA									
0010	13-16	Dunn Co		346+88	LT	I-2-2	48 x 15	1	5		
SUBTOTAL 0010								18	152.72	9.00	
TOTAL 0010								104.00	583.52	207.25	

REMOVING SIGNS TYPE II

638.3000 REMOVING SMALL SIGN SUPPORTS									
CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	638.2602 EACH	REMARKS
0010	1-2	NORTH Cardinal Route Marker		2+64	RT	M3-1	24 x 12	1	2
0010	1-1	STH 25		2+64	RT	M1-6	24 x 24	1	
0010	1-1	RIDGELAND 6, BARRON 20		2+64	RT	D2-2	72 x 30	1	
0010	1-3	SOUTH Cardinal Route Marker		4+36	LT	M3-3	24 x 12	1	2
0010	1-3	WEST Cardinal Route Marker		4+36	LT	M3-4	24 x 12		
0010	1-3	STH 25		4+36	LT	M50-2	48 x 24	1	
	1-3	STH 64						1	
0010	1-3	RIGHT ARROW		4+36	LT	M6-1	21 x 21	1	
0010	1-3	RIGHT ARROW		4+36	LT	M6-1	21 x 21	1	
		CORNELL (LEFT ARROW), WHEELER (RIGHT ARROW), CONNORSVILLE (RIGHT ARROW)		9+70	LT	D1-3		1	2
0010	1-5	Stop Ahead		11+93	LT	W3-1	36 x 36	1	1
0010	1-6	Stop Ahead		11+93	RT	W3-1	36 x 36	1	1
0010	1-7	EAST		14+43	LT	M3-2	24 x 12	1	2
0010	1-7	SOUTH		14+43	LT	M3-3	24 x 12	1	
0010	1-7	WEST		14+43	LT	M3-4	24 x 12	1	
0010	1-7	STH 64		14+43	LT	M50-3	72 x 24	1	
0010	1-7	STH 25		14+43				1	
0010	1-7	STH 64		14+43				1	
0010	1-7	Advance Arrow Left Turn		14+43	LT	M5-1-L	21 x 21	1	
0010	1-7	Advance Arrow Right Turn		14+43	LT	M5-1-R	21 x 21	1	
0010	1-7	Advance Arrow Right Turn		14+43	LT	M5-1-R	21 x 21	1	
0010	1-8	No Passing Zone		16+84	RT	W14-3	48 x 36	1	1
0010	1-9	Junction Marker		19+26	LT	M2-1	21 x 15	1	1
0010	1-9	STH 64		19+26	LT	M1-6	24 x 24	1	
0010	2-1	No Passing Zone		30+93	LT	W14-3	48 x 36	1	1
0010	2-2	Stop	1250TH WEST	50+56	LT	R1-1	30 x 30	1	1
0010	2-3	Stop	1250TH EAST	51+90	RT	R1-1	30 x 30	1	1
0010	2-4	No Passing Zone		51+84	LT	W14-3	48 x 36	1	1
0010	2-5	Adopt-A-Highway [Sponsor]		53+53	RT	I-55-56	30 x 36	1	1
0010	3-1	No Passing Zone		81+78	LT	W14-3	48 x 36	1	1
0010	3-2	No Passing Zone		83+18	RT	W14-3	48 x 36	1	1
0010	3-3	Stop	1280TH EAST	89+37	RT	R1-1	30 x 30	1	1
0010	4-1	Stop	1300TH WEST	104+94	LT	R1-1	30 x 30	1	1
0010	4-3	No Passing Zone		115+79	RT	W14-3	48 x 36	1	1
0010	4-2	No Passing Zone		117+90	LT	W14-3	48 x36	1	1
0010	6-1	Junction Marker		154+56	RT	M2-1	21 x 15	1	1
0010	6-1	CTH W		154+56	RT	M1-5-A	24 x 24	1	1
0010	6-2	Adopt-A-Highway [Sponsor]		159+77	LT	I-55-56	30 x 36	1	1
0010	6-3	SOUTH		161+67	LT	M3-3	24 x 12	1	1
0010	6-3	STH 25		161+67	LT	M1-6	24 x 24	1	
0010	6-4	CTH W		163+09	RT	M1-5-A	24 x 24	1	1
0010	6-4	RIGHT ARROW		163+09	RT	M6-1	21 x 21	1	
0010	6-5	Stop	CTH W	164+35	RT	R1-1	30 x 30	1	1
SUBTOTAL								42	29

REMOVING SIGNS
TYPE II CONT'D

638.3000
REMOVING
SMALL

CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	638.2602 EACH	SIGN SUPPORTS EACH	REMARKS
0010	6-6	STH 25	CTH W	164+35	RT	M1-6	24 x 24	1	1	
0010	6-6	Directional Arrows Left - Right	CTH W	164+35	RT	M6-4	21 x 21	1		
0010	6-7	CTH W		164+37	LT	M1-5-A	24 x 24	1	1	
0010	6-7	LEFT ARROW		164+37	LT	M6-1	24 x 12	1		
0010	6-8	NORTH Cardinal Route Marker		165+97	RT	M3-1	24 x 12	1	1	
0010	6-8	STH 25		165+97	RT	M1-6	24 x 24	1		
0010	6-9	Adopt-A-Highway [Sponsor]		168+03	RT	I-55-56	30 x 36	1	1	
0010	6-10	Junction Marker		173+86	LT	M2-1	21 x 15	1		
0010	6-10	CTH W		173+86	LT	M1-5-A	24 x 24	1	1	
0010	6-11	No Passing Zone		178+23	RT	W14-3	48 x 36	1	1	
0010	7-1	No Passing Zone		191+97	LT	W14-3	48 x 36	1	1	
0010	7-2	Stop	548TH	202+95	RT	R1-1	30 x 30	1	1	
0010	7-3	Stop	1370TH WEST	215+52	RT	R1-1	30 x 30	1	1	
0010	8-1	Stop	1370TH EAST	216+39	LT	R1-1	30 x 30	1	1	
0010	8-2	No Passing Zone		219+76	LT	W14-3	48 x 36	1	1	
0010	8-3	No Passing Zone		221+11	RT	W14-3	48 x 36	1	1	
0010	9-1	Stop	530TH AVENUE	239+55	LT	R1-1	30 x 30	1	1	
0010	9-2	Night Arrow (Single)		241+27	RT	W1-6	48 x 24	1	1	
0010	9-3	No Passing Zone		248+10	LT	W14-3	48 x 36	1	1	
0010	9-4	No Passing Zone		250+06	RT	W14-3	48 x 36	1	1	
0010	10-1	Junction Marker		267+60	RT	M2-1	21 x 15	1	1	
0010	10-1	CTH WW		267+60	RT	M1-5-A	24 x 24	1		
0010	10-2	CTH WW		277+49	RT	M1-5-A	24 x 24	1	1	
0010	10-2	RIGHT ARROW		277+49	RT	M6-1	24 x 12	1		
0010	10-3	Stop	528TH AVENUE	277+58	LT	R1-1	30 x 30	1	1	
0010	10-4	CTH WW		278+74	RT	M1-5-A	24 x 24	1	1	
0010	10-4	LEFT ARROW		278+74	LT	M6-1	24 x 12	1		
0010	10-5	Stop	CTH WW	278+65	RT	R1-1	30 x 30	1	1	
0010	10-6	STH 25	CTH WW	278+65	RT	M1-6	24 x 24	1	1	
0010	10-6	Directional Arrows Left - Right	CTH WW	278+65	RT	M6-4	21 x 21	1		
0010	10-7	Junction Marker		285+76	LT	M2-1	21 x 15	1	1	
0010	10-7	CTH WW		285+76	LT	M1-5-A	24 x 24	1		
0010	10-8	School Bus Stop Ahead		293+94	LT	S3-1	30 x 30	1	1	
0010	10-9	Stop	528TH	295+54	LT	R1-1	30 x 30	1	1	
0010	10-10	Speed Limit 35 Ahead [Arrow]		295+88	RT	W3-5	24 x 30	1	1	
0010	11-1	SOUTH		300+42	LT	M3-3	24 x 12	1	1	
0010	11-1	STH 25		300+42	LT	M1-6	24 x 24	1		
0010	11-2	Ridgeland Population 265		301+57	RT	I-2-3	60 x 24	1	2	
0010	11-3	Speed Limit 55 MPH		303+66	LT	R2-1	24 x 30	1	1	
0010	11-4	Night Arrow (Single)		307+43	RT	W1-6	48 x 24	1	1	
0010	11-5	Night Arrow (Single)		307+76	RT	W1-6	48 x 24	1	1	
0010	11-6	Speed Limit 35 MPH		309+04	RT	R2-1	24 x 30	1	1	
0010	11-7	Right Curve		310+95	LT	W1-2-R	30 x 30	1	1	
0010	11-7	Speed Limit 35 MPH		310+95	LT	W13-1	18 x 18	1	1	
0010		Menomonie St S		312+02	LT					SAME POST AS BELOW
SUBTOTAL								44	35	

REMOVING SIGNS TYPE II CONT'D									
								638.3000 REMOVING SMALL	
CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	638.2602 EACH	SIGN SUPPORTS EACH
0010		Tonnar St.		312+02	LT				
0010	11-9	Junction Marker		312+53	RT	M2-1	21 x 15		1
0010	11-9	CTH V		312+53	RT	M1-5-A	24 x 24	1	
			Menomonie Street						
0010	11-10	Stop	North	312+02	LT	R1-1	30 x 30	1	1
0010	11-11	Fire Station Truck Crossing Symbol		315+50	RT	W11-8	36 x 36	1	1
0010	11-12	Speed Limit 35 MPH		317+18	RT	R2-1	24 x 30	1	1
0010	12-1	Speed Limit 25 MPH		317+18	LT	R2-1	24 x 30	1	1
0010	12-2	School Advance		318+71	RT	S1-1	30 x 30	1	1
0010	12-3	AHEAD Plaque (Yellow)		318+71	RT	W16-9P	24 x 12	1	
0010	12-4	CTH V		320+65	RT	M50-2	48 x 24	1	1
0010	12-4	Directional Arrows LA/UA COMBO OR UA/RA		320+65	RT	M6-6	21 x 21	1	
0010	12-5	NORTH		320+65	RT	M3-1	24 x 12	1	
0010	12-5	STH 25		320+65	RT		24 x 24	1	
0010	12-6	Speed Limit 25 MPH		321+36	LT	R2-1	24 x 30	1	1
0010	12-7	SOUTH		322+26	RT	M3-3	24 x 12	1	1
0010	12-7	STH 25		322+26	RT	M50-2	24 x 24	1	
0010	12-7	Arrow Tilt Left		322+26	RT	M6-2	21 x 21	1	
0010	12-8	Stop	Main Street West	322+32	LT	R1-1	30 x 30	1	1
0010	12-9	COUNTY V	Main Street West	322+32	LT	M50-2	48 x 24	1	
0010	12-9	LEFT ARROW	Main Street West	322+32	LT	M6-1	21 x 21	1	
0010	12-9	STH 25	Main Street West	322+32		M50-2	24 x 24	1	
0010	12-9	Directional Arrows Left - Right	Main Street West	322+32	LT	M6-4	21 x 21	1	
0010	12-10	School Advance				S1-1	30 x 30	1	1
0010	12-11	AHEAD Plaque (Yellow)				W16-9P	24 x 12	1	
0010	12-12	School Advance		322+99	LT	S1-1	30 x 30	1	1
0010	12-13	AHEAD Plaque (Yellow)		322+99	LT	W16-9P	24 x 12	1	
0010	12-14	Stop	Main Street East	322+81	RT	R1-1	30 x 30	1	1
0010		Tonnar St	Main Street East						
0010		Main St E	Main Street East						
0010		Grover St	Main Street East						
0010	12-15	Speed Limit 25 MPH		323+12	RT	R2-1	24 x 30	1	1
0010	12-16	Stop	CENTER STREET		LT	R1-1	30 x 30	1	1
0010		Tonnar St	CENTER STREET						
0010		Grover St	CENTER STREET						
0010	12-17	Fire Station Truck Crossing Symbol		325+18	LT	W11-8	36 x 36	1	1
0010	12-18	CTH V		325+84	LT	M1-5-A	24 x 24	1	1
0010	12-18	Advance Arrow Right Turn		325+84	LT	M5-1-R	21 x 21	1	
0010	12-19	Stop	WILSON STREET WEST	324+25	LT	R1-1	30 x 30	1	1
0010	12-20	School Advance		326+81	LT	S1-1	30 x 30	1	1
0010	12-21	AHEAD Plaque (Yellow)		326+81	LT	W16-9P	24 x 12	1	
SUBTOTAL								33	19

PROJECT: 8100-03-62

HWY: STH 25

COUNTY: DUNN

MISCELLANEOUS QUANTITIES

SHEET:

E

REMOVING SIGNS
TYPE II CONT'D

638.3000 REMOVING SMALL SIGN SUPPORTS									
CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	638.2602 EACH	REMARKS
0010	12-22	Stop	WILSON STREET EAST	326+15	RT	R1-1	30 x 30	1	SAME POST AS BELOW SAME POST AS ABOVE SAME POST AS ABOVE
0010		Wilson St	WILSON STREET EAST						
0010		Grover St	WILSON STREET EAST						
0010	12-23	Speed Limit 25 MPH		328+29	LT	R2-1	24 x 30	1	1
0010	12-24	Stop	RAILROAD STREET	328+35	LT	R1-1	30 x 30	1	1
0010	12-25	NORTH		329+18	RT	M3-1	24 x 12	1	1
0010	12-25	STH 25		329+18	RT	M1-6	24 x 24	1	
0010	12-25	Arrow Tilt Right		329+18	RT	M6-2	21 x 21	1	
0010	12-26	SOUTH Cardinal Route Marker		330+30	LT	M3-3	24 x 12	1	1
0010	12-26	STH 25		330+30	LT	M1-6	24 x 24	1	
0010	12-26	Arrow Tilt Left		330+30	LT	M6-2	21 x 21	1	
0010	12-27	Stop	Caroline Street	331+57	RT	R1-1	30 x 30	1	1
0010		Caroline St	Caroline Street	331+27	RT				
0010	13-1	Speed Limit 25 MPH		334+89	LT	R2-1	24 x 30	1	1
0010	13-2	Speed Limit 45 MPH		334+80	RT	R2-1	24 x 30	1	1
0010	13-3	Stop	Menomonie South	338+85	RT	R1-1	30 x 30	1	1
0010		Railroad St	Menomonie South		RT				SAME POST AS BELOW SAME POST AS ABOVE
0010		Menomonie St N	Menomonie South		RT				
0010	13-4	Junction Marker		339+90	RT	M2-1	21 x 15	1	1
0010	13-4	CTH AA		339+90	RT	M50-2	48 x 24	1	
0010	13-5	CTH V		339+90	RT			1	
0010	13-5	Advance Arrow Right Turn		339+90	RT	M5-1-R	21 x 21	1	
0010	13-6	Speed Limit 25 Ahead [Arrow]		339+63	LT	W3-5	36 x 36	1	1
0010	13-7	SOUTH Cardinal Route Marker		343+09	LT	M3-3	24 x 12	1	1
0010	13-7	STH 25		343+09	LT	M1-6	24 x 24	1	
0010	13-8	Ridgeland Population 265		343+09	LT	I-2-3	60 x 24	1	2
0010	13-9	Speed Limit 45 MPH		344+43	RT	R2-1	24 x 30	1	1
0010	13-10	Stop	CTH V		LT	R1-1	30 x 30	1	1
0010	13-11	STH 25	CTH V		LT	M50-2	48 x 24	1	1
0010	13-11	Directional Arrows Left - Right	CTH V		LT	M6-4	21 x 21	1	
0010	13-11	CTH V	CTH V		LT			1	
0010	13-11	Directional Arrows LA/UA COMBO OR UA/RA	CTH V		LT	M6-6	21 x 21	1	
0010	13-12	CTH AA		344+88	RT	M50-2	48 x 24	1	1
0010	13-12	LEFT ARROW		344+88	RT	M6-1	21 x 21	1	
0010	13-12	CTH V		344+88	RT			1	
0010	13-12	RIGHT ARROW		344+88	RT	M6-1	21 x 21	1	
0010	13-13	STOP	CTH AA		RT	R1-1	30 x 30	1	1
0010	13-14	STH 25	CTH AA		RT	M1-6	24 x 24	1	1
0010	13-14	Directional Arrows Left - Right	CTH AA		RT	M6-4	21 x 21	1	
0010	13-15	CTH V	CTH AA		RT	M50-2	48 x 24	1	1
SUBTOTAL								35	21

REMOVING SIGNS TYPE II CONT'D										
CATEGORY	SIGN NO.	SIGN MESSAGE	ROADWAY	STATION	LOCATION	SIGN CODE	SIZE INCH	638.2602	638.3000	REMARKS
								EACH	REMOVING SMALL SIGN SUPPORTS EACH	
0010	13-15	LEFT ARROW	CTH AA		RT	M6-1	21 x 21	1		
0010	13-15	CTH AA	CTH AA		RT			1		
0010	13-15	AHEAD ARROW	CTH AA		RT	M6-1	21 x 21	1		
0010	13-16	CTH V			LT	M50-2	48 x 24	1	1	
0010	13-16	Directional Arrows LA/UA COMBO OR UA/RA			LT	M6-6	21 x 21	1		
0010	13-16	CTH AA						1		
0010	13-16	RIGHT ARROW			LT	M6-1	21 x 21	1		
0010	13-17	Dunn Co		346+88	LT	I-2-2	54 x 15		1	
							SUBTOTAL	7	2	
							TOTAL 0010	161	106	

PROJECT: 8100-03-62

HWY: STH 25

COUNTY: DUNN

MISCELLANEOUS QUANTITIES

SHEET:

E

FIELD OFFICE TYPE B (8100-03-62)

CATEGORY	LOCATION	642.5001 EACH
0010	PROJECT	1
TOTAL 0010		1

TRAFFIC CONTROL WARNING LIGHTS TYPE C

CATEGORY	STATION TO	STATION	LOCATION	643.0715 DAYS
0010	1+80	346+60	STH 25	4664
TOTAL 0010				4664

TRAFFIC CONTROL (8100-03-62)

CATEGORY	STATION	TO	STATION	LOCATION	643.0100 EACH
0010	1+80	-	346+60	STH 25	1
TOTAL 0010					1

TRAFFIC CONTROL SIGNS

CATEGORY	LOCATION	643.0900 DAYS	REMARKS
0010	STH 25	1584	ADVANCED WARNING
TOTAL 0010		1584	

TRAFFIC CONTROL DRUMS

CATEGORY	STATION TO	STATION	LOCATION	643.0300 DAYS	REMARKS
0010	1+80	346+60	STH 25	4664	INTERSECTIONS, GUARDRAIL
TOTAL 0010				4664	

GEOTEXTILE FABRIC TYPE HR

CATEGORY	STATION	LOCATION	645.0120 SY	REMARKS
0010	190+95	LT	11	PIPE
0010	198+67	LT	6	PIPE
0010	213+77	LT	32	DOUBLE PIPES
0010	213+77	RT	32	
0010	262+11	LT	18	PIPE
0010	303+67	LT	11	PIPE
TOTAL 0010			109	

PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	646.0106 LF	REMARKS
0010	1+80	-	346+60	STH 25	68454	EDGE LINE (WHITE)
TOTAL 0010					68454	

PAVEMENT MARKING STOP LINE EPOXY 18-INCH

PAVEMENT MARKING EPOXY 6-INCH

CATEGORY	STATION	LOCATION	646.0116 LF	REMARKS
0010	322+88	STH 25	105	CROSSWALK
TOTAL 0010			105	

PAVEMENT MARKING SAME DAY EPOXY 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	646.0406 LF	REMARKS
0010	1+80	-	346+60	STH 25	41773	CENTERLINE (YELLOW)
TOTAL 0010					41773	

TEMPORARY PAVEMENT MARKING 4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	649.0100 LF	REMARKS
0010	1+80	-	346+60	CENTERLINE	12037	YELLOW - 1ST LIFT
TOTAL 0010					12037	

CATEGORY	STATION	LOCATION	647.0566 LF
0010		1250TH	15
0010		1250TH	15
0010		1280TH	15
0010		1300TH	15
0010		CTH W	15
0010		548TH	15
0010		1370TH	15
0010		1370TH	15
0010		530TH	15
0010		528TH, LT	15
0010		CTH WW	15
0010		528TH, LT	15
0010		MENOMONIE ST. S	15
0010		MAIN ST.	15
0010		MAIN ST.	15
0010		CENTER ST.	15
0010		WILSON ST.	15
0010		WILSON ST.	15
0010		RAILROAD ST.	15
0010		CAROLINE ST.	15
0010		MENOMONIE ST. N	15
0010		CTH V	15
0010		CTH AA	15
TOTAL 0010			345

LOCATING NO-PASSING ZONES

CATEGORY	STATION	TO	STATION	LOCATION	648.0100 MI	REMARKS
0010	1+80	-	346+60	STH 25	6.60	SURFACE
0010	1+80	-	346+60	STH 25	6.60	1ST LIFT
TOTAL 0010					13.20	

CONSTRUCTION STAKING STORM SEWER

CATEGORY	STATION	LOCATION	650.4000 EACH
0010	307+38	STH 25, 16.4' LT	1
0010	313+93	STH 25, 17.0' LT	1
0010	317+81	STH 25, 16.9' LT	1
0010	322+04	STH 25, 16.7' LT	1
0010	322+03	STH 25, 20.8' RT	1
0010	323+04	STH 25, 20.2' RT	1
TOTAL 0010			6

CONSTRUCTION STAKING PIPE CULVERTS

CATEGORY	STATION	LOCATION	650.6000 EACH	REMARKS
0010	73+52	STH 25	1	
0010	78+41	STH 25	1	
0010	86+49	STH 25	1	
0010	91+62	STH 25	1	
0010	100+58	STH 25	1	
0010	9+62	1300TH AVE.	1	
0010	110+72	STH 25	1	
0010	118+00	STH 25	1	
0010	128+19	STH 25	1	
0010	137+75	STH 25	1	
0010	187+15	STH 25	1	
0010	198+67	STH 25	1	
0010	204+31		1	
0010	9+74	1370TH AVE.	1	
0010	222+86	STH 25	1	
0010	7+87	530TH AVE.	1	
0010	241+50	RT	1	FIELD ENTRANCE DRIVEWAY (PE)
0010	253+75	RT	1	
0010	274+80	STH 25	1	
0010	294+80	STH 25	1	
0010	303+67	STH 25	1	
0010	344+36	STH 25	1	
0010	10+77	CTH AA	1	
0010	10+77	CTH AA	1	
TOTAL 0010			24	

CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	650.5500 LF	REMARKS
0010	311+59	-	312+00	MENOMONIEE STREET SOUTH	51	SOUTH/WEST QUADRANT
0010	321+75	-	322+39	MAIN STREET	87	SOUTH/WEST QUADRANT
0010	322+81	-	322+99	MAIN STREET	39	NORTH/WEST QUADRANT
0010	322+01	-	322+20	MAIN STREET	35	SOUTH/EAST QUADRANT
0010	322+74	-	323+02	MAIN STREET	45	NORTH/EAST QUADRANT
0010	324+00	-	324+28	CENTER STREET	45	SOUTH/WEST QUADRANT
0010	324+70	-	324+95	CENTER STREET	43	NORTH/WEST QUADRANT
0010	325+95	-	326+19	WILSON STREET	41	SOUTH/WEST QUADRANT
0010	326+01	-	326+20	WILSON STREET	32	SOUTH/EAST QUADRANT
0010	326+54	-	326+67	WILSON STREET	24	NORTH/EAST QUADRANT
0010	337+70	-	337+78	STH 25/RAILROAD STREET	8	RIGHT
0010	338+31	-	338+57	MENOMONIEE STREET NORTH	42	SOUTH/EAST QUADRANT
0010	338+83	-	339+08	MENOMONIE STREET NORTH	39	NORTH/EAST QUADRANT
TOTAL 0010					531	

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	STATION	TO	STATION	LOCATION	650.8000 LF
0010	1+80		346+60		34848
				TOTAL 0010	34848

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (8100-03-62)

CATEGORY	LOCATION	650.9910 LS
0010	PROJECT 8100-03-62	1
		TOTAL 0010 1

SAWING ASPHALT

690.0150

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	73+52	-		STH 25	62	pipe
0010	78+41	-		STH 25	62	pipe
0010	86+51	-		STH 25	62	pipe
0010	91+61.98	-		STH 25	62	pipe
0010	100+58	-		STH 25	74	pipe
0010	9+62			1300TH AVE.	44	pipe
0010	110+71.59	-		STH 25	78	pipe
0010	118+00	-		STH 25	80	pipe
0010	128+18.83	-		STH 25	80	pipe
0010	137+75			STH 25	80	pipe
0010	187+15	-		STH 25	62	pipe
0010	204+31	-		STH 25	62	pipe
0010	9+74			1370TH AVE. WEST	44	pipe
0010	222+86	-		STH 25	62	pipe
0010	7+87			530TH AVE.	44	pipe
0010	239+53	-		STH 25	68	pipe
0010	274+80	-		STH 25	62	pipe
0010	303+67	-		STH 25	62	pipe
0010	310+08	-	312+00	MENOMONIE STREET SOUTH S/W QUADRANT	58	C & G
0010	312+00		312+25	MENOMONIE STREET SOUTH/WALK REMOVAL	25	
0010	313+97	-		STH 25	62	pipe
0010	317+81	-		STH 25	60	pipe
0010	320+93	-	322+38	MAIN STREET S/W QUADRANT	79	C & G
0010	322+00	-	322+23	MAIN STREET S/E QUADRANT	44	C & G
0010	322+78	-	322+99	MAIN STREET N/W QUADRANT	48	C & G
0010	322+71	-	323+03	MAIN STREET N/E QUADRANT	58	C & G
0010	324+01	-	324+28	CENTER STREET S/W QUADRANT	58	C & G
0010	324+70	-	324+97	CENTER STREET S/E QUADRANT	58	C & G
0010	325+99	-	326+21	WILSON STREET S/W QUADRANT	48	C & G
0010	326+02	-	326+19	WILSON STREET S/E QUADRANT	38	C & G
0010	326+51	-	326+68	WILSON STREET N/E QUADRANT	38	C & G
0010	329+20		329+41	STH 25/RAILROAD STREET	35	C & G
0010	337+75	-		STH 25/RAILROAD STREET	12	C & G
0010	338+35	-	338+60	MENOMONIE STREET NORTH S/E QUADRANT	54	C & G
0010	338+83	-	339+08	MENOMONIE STREET NORTH N/E QUADRANT	38	C & G
0010	344+32	-		STH 25	62	pipe
0010	10+77			CTH V	44	pipe
0010	10+77			CTH V	44	pipe
					TOTAL 0010	2113

SAWING CONCRETE

CATEGORY	STATION	TO	STATION	LOCATION	690.0250 LF	REMARKS
0010	310+86	-	311+00	LT	14	
TOTAL 0010					14	

PRIVATE AND FIELD ENTRANCE REMOVAL

* 628.2004 EROSION								
**								
* SEEDING								
* FERTILIZER								
* SALVAGED								
* COMMON								
CATEGORY	STATION	LOCATION	SPV.0060(01) EACH	COMMON CY	TOPSOIL SY	TYPE B CWT	MIX NO.30 LB	CLASS I, TYPE B SY
0010	49+50	LT	1	15.64	29.33	0.02	0.53	29.33
0010	78+30	LT	1	2.92	25.78	0.02	0.46	25.78
0010	232+75	RT	1	15.04	27.56	0.02	0.50	27.56
0010	311+70	LT	1	3.59	21.56	0.01	0.39	21.56
0010	321+85	LT	1	1.87	11.22	0.01	0.20	11.22
0010	341+50	RT	1	3.70	11.11	0.01	0.20	11.11
TOTAL 0010			6	42.77	126.56	0.08	2.28	126.56

* ITEMS AND QUANTITIES FOR INFORMATION ONLY.
** QUANTITIES LOCATED ELSEWHERE IN
PLAN.

RECONDITIONING CULVERT ENDS

CATEGORY	STATION	LOCATION	SPV.0060(02) EACH
0010	1+86	RT	1
TOTAL 0010			1

REGRADE DITCH

CATEGORY	STATION	LOCATION	SPV.0090(01) LF	REMARKS
0010	296+00	528TH (296+00, LT.)	100	MAKE DITCH DRAIN
TOTAL 0010			100	

CONCRETE CURB AND GUTTER CURE AND SEAL TREATMENT

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0090(02) LF	REMARKS
0010	311+59	-	312+00	MENOMONIE STREET SOUTH	51	SOUTH/WEST QUADRANT
0010	321+75	-	322+39	MAIN STREET	87	SOUTH/WEST QUADRANT
0010	322+81	-	322+99	MAIN STREET	39	NORTH/WEST QUADRANT
0010	322+01	-	322+20	MAIN STREET	35	SOUTH/EAST QUADRANT
0010	322+74	-	323+02	MAIN STREET	45	NORTH/EAST QUADRANT
0010	324+00	-	324+28	CENTER STREET	45	SOUTH/WEST QUADRANT
0010	324+70	-	324+95	CENTER STREET	43	NORTH/WEST QUADRANT
0010	325+95	-	326+19	WILSON STREET	41	SOUTH/WEST QUADRANT
0010	326+01	-	326+20	WILSON STREET	32	SOUTH/EAST QUADRANT
0010	326+54	-	326+67	WILSON STREET	24	NORTH/EAST QUADRANT
0010	337+70	-	337+78	STH 25/RAILROAD STREET	8	RIGHT
0010	338+31	-	338+57	MENOMONIEE STREET NORTH	42	SOUTH/EAST QUADRANT
0010	338+83	-	339+08	MENOMONIE STREET NORTH	39	NORTH/EAST QUADRANT
TOTAL 0010					531	

SPECIAL PREPARATION OF FOUNDATION FOR ASPHALTIC PAVING

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0105(01) LS
0010	1+80	-	346+60	STH 25	1
TOTAL 0010					1

SPECIAL(03. MILLING AND REMOVING TEMPORARY JOINT)

CAT.	STATION	TO	STATION	LOCATION	SPV.0105(03) LS	REMARKS
0010	1+80	-	346+60	STH 25	1	
TOTAL 0010					1	

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS SPECIAL

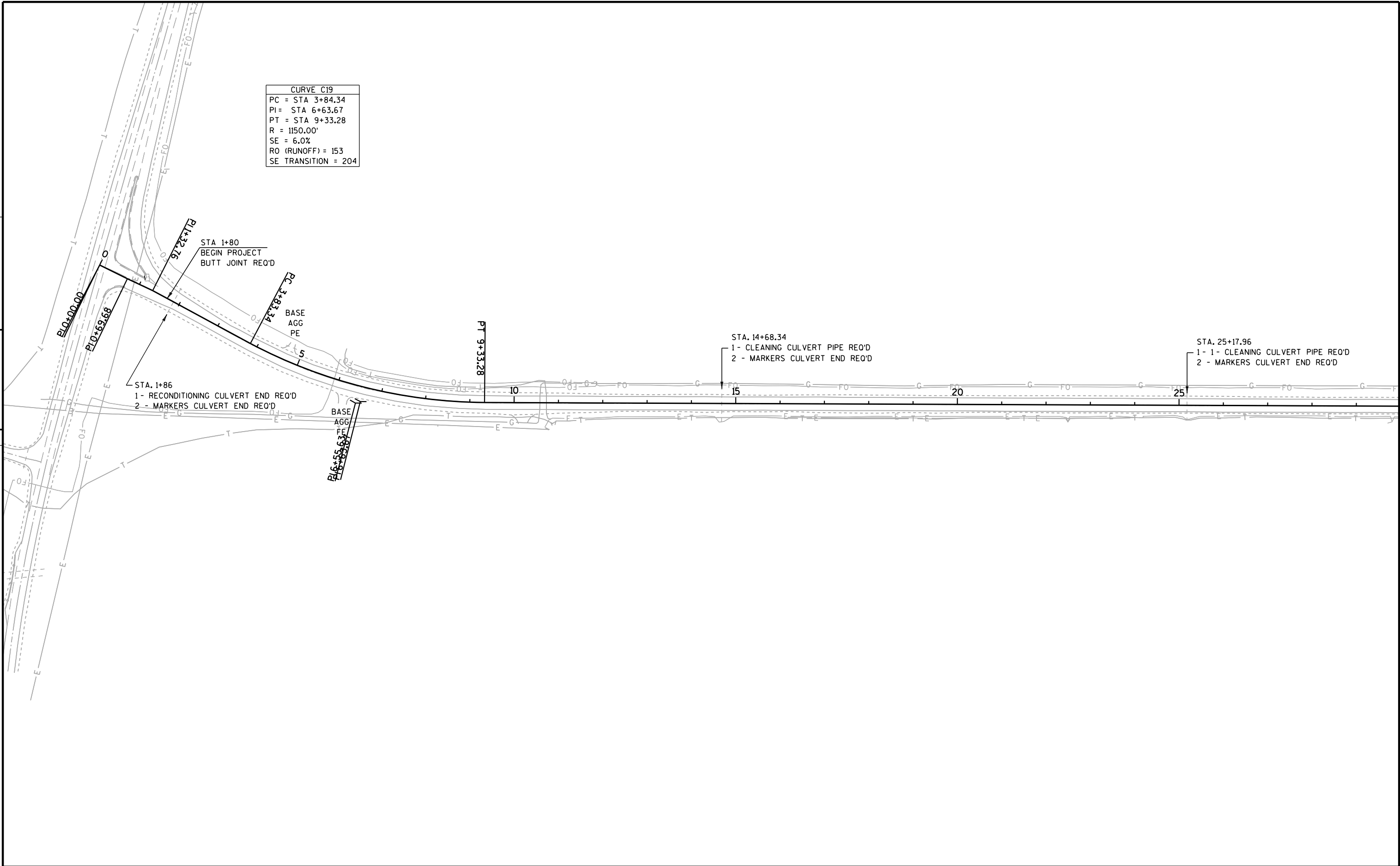
CATEGORY	STATION	TO	STATION	LOCATION	SPV.0170(01) STA
0010	1+80	-	346+60		345
TOTAL 0010					345

HMA PAVEMENT E-3 SPECIAL

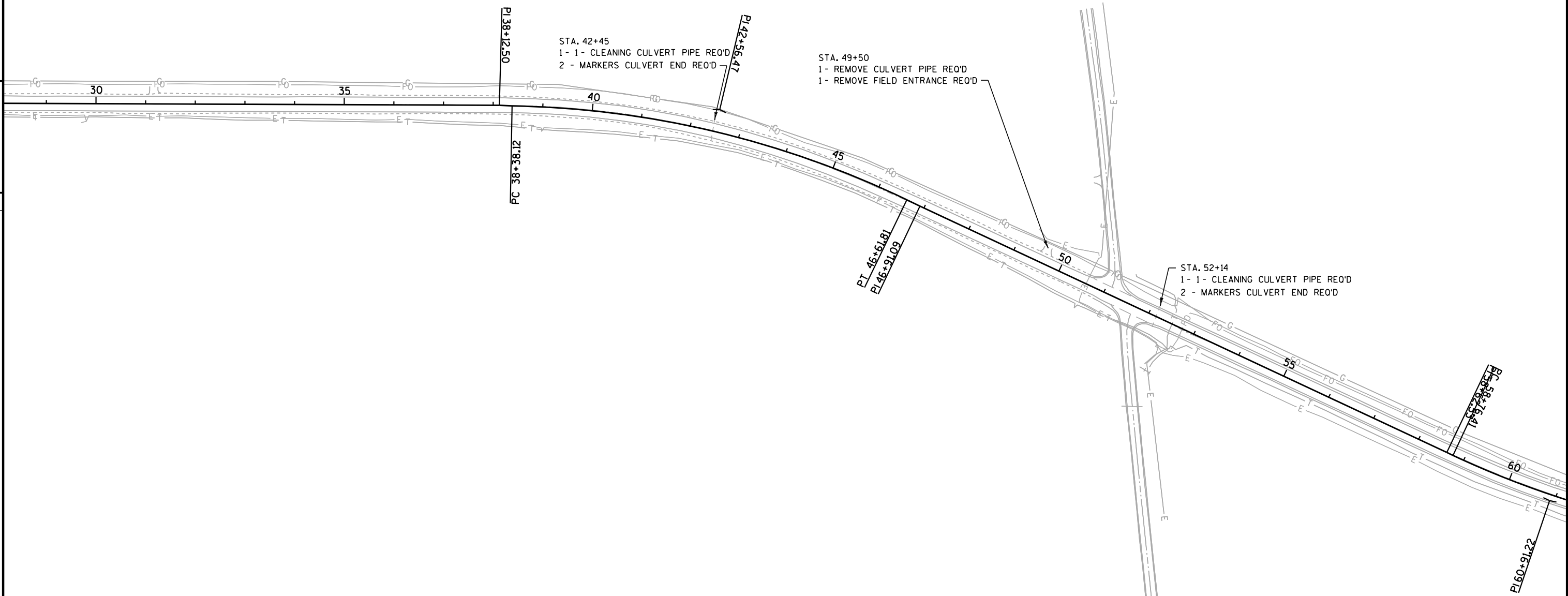
CATEGORY	STATION	TO	STATION	LOCATION	SPV.0195(01) TON
0010	1+80	-	307+00	STH 25 (RURAL)	20702
0010	307+00	-	346+60	STH 25 (URBAN)	1686
0010		-		SIDEROADS	831
TOTAL 0010					23219

SPECIAL(01.CONCRETE SIDEWALK CURE AND SEAL TREATMENT)

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0165(01) SF	REMARKS
0010	311+59	-	312+00	MENOMONIE STREET SOUTH	33	SOUTH/WEST QUADRANT
0010	312+25	-	312+66	MENOMONIE STREET SOUTH	33	NORTH/WEST QUADRANT
0010	322+22	-	322+39	MAIN STREET	49	SOUTH/WEST QUADRANT
0010	322+81	-	322+99	MAIN STREET	102	NORTH/WEST QUADRANT
0010	322+76	-	322+91	MAIN STREET	108	SOUTH/EAST QUADRANT
0010	324+00	-	324+28	CENTER STREET	100	SOUTH/WEST QUADRANT
0010	324+70	-	324+95	CENTER STREET	2	NORTH/WEST QUADRANT
0010	326+01	-	326+20	WILSON STREET	110	SOUTH/EAST QUADRANT
0010	326+54	-	326+67	WILSON STREET	104	NORTH/EAST QUADRANT
TOTAL 0010					642	



CURVE C20
PC = STA 38+38.12
PI = STA 42+56.47
PT = STA 46+61.81
R = 1150.00'
SE = 5.0%
RO (RUNOFF) = 128
SE TRANSITION = 179

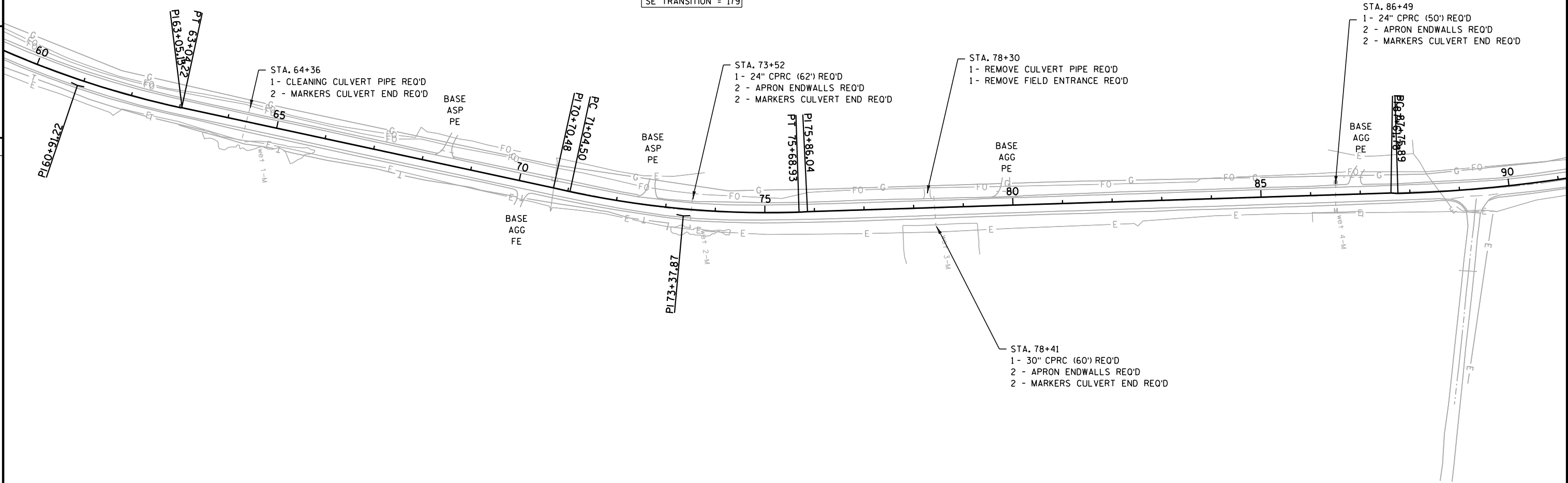


CURVE C21	
PC = STA 58+76.41	
PI = STA 60+91.22	
PT = STA 63+04.22	
R = 1910.10'	
SE = 5.0%	
RO (RUNOFF) = 128	
SE TRANSITION = 179	

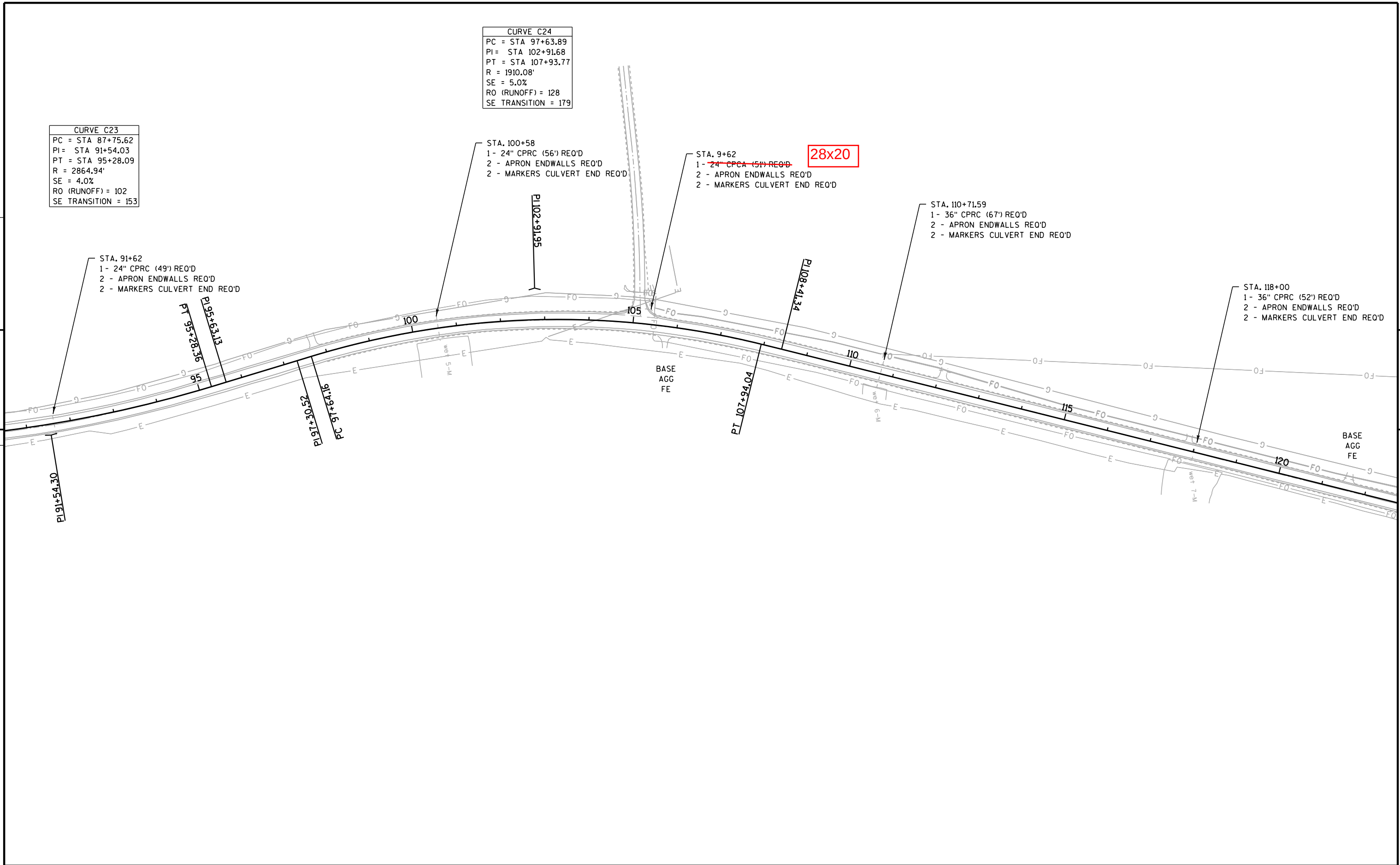
CURVE C22	
PC = STA 71+04.30	
PI = STA 73+37.67	
PT = STA 75+68.73	
R = 1910.11'	
SE = 5.0%	
RO (RUNOFF) = 128	
SE TRANSITION = 179	

CURVE C23	
PC = STA 87+75.62	
PI = STA 91+54.03	
PT = STA 95+28.09	
R = 2864.94'	
SE = 4.0%	
RO (RUNOFF) = 102	
SE TRANSITION = 153	

5



5

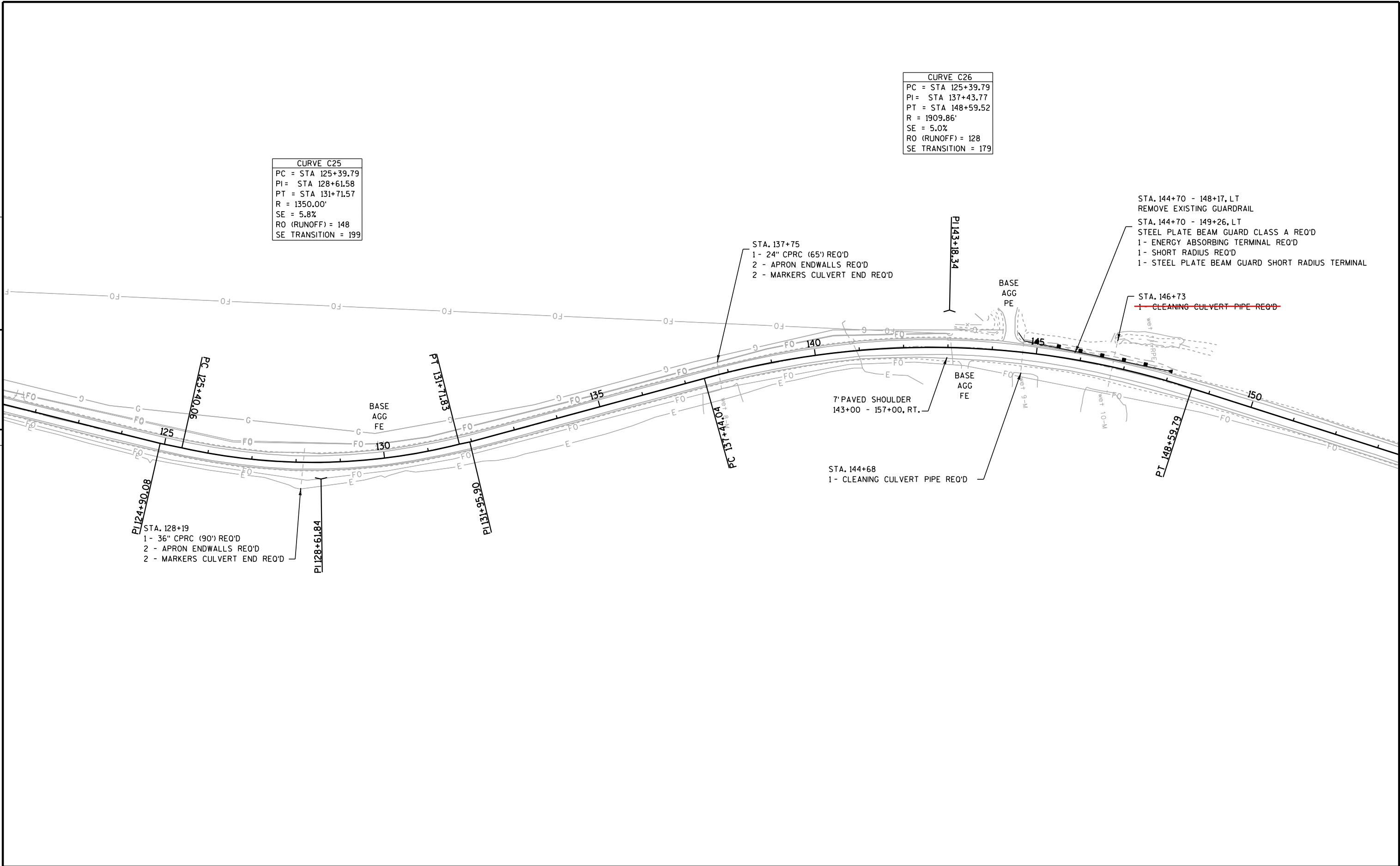


CURVE C23	
PC = STA 87+75.62	
PI= STA 91+54.03	
PT = STA 95+28.09	
R = 2864.94'	
SE = 4.0%	
RO (RUNOFF) = 102	
SE TRANSITION = 153	

CURVE C24	
PC = STA 97+63.89	
PI= STA 102+91.68	
PT = STA 107+93.77	
R = 1910.08'	
SE = 5.0%	
RO (RUNOFF) = 128	
SE TRANSITION = 179	

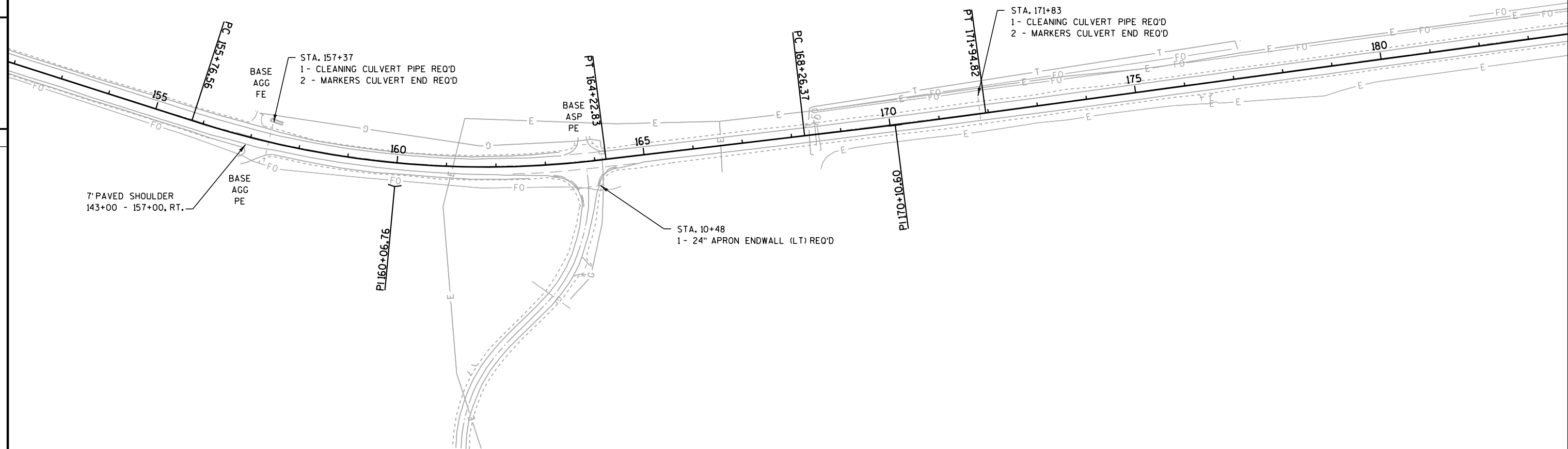
28x20

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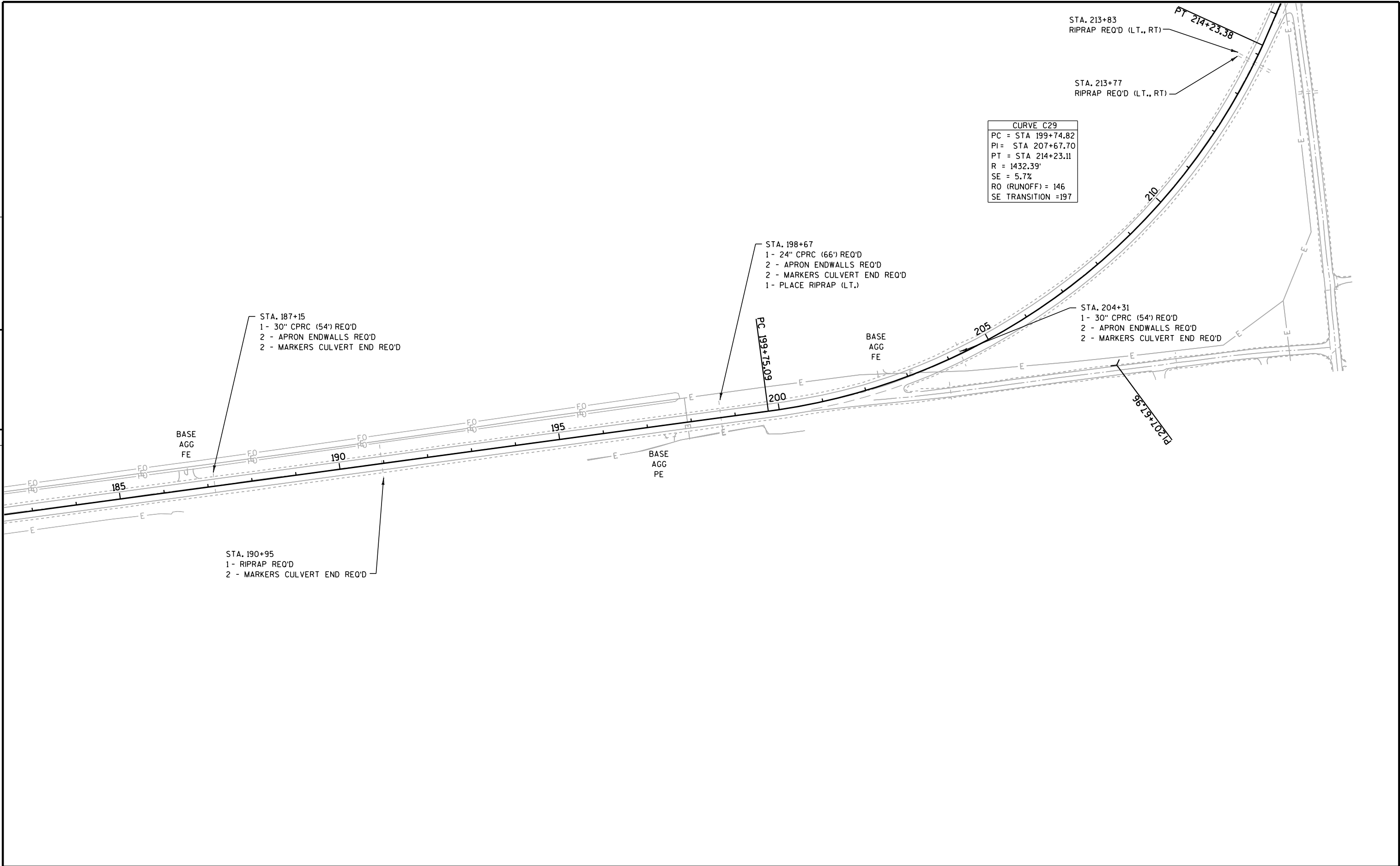


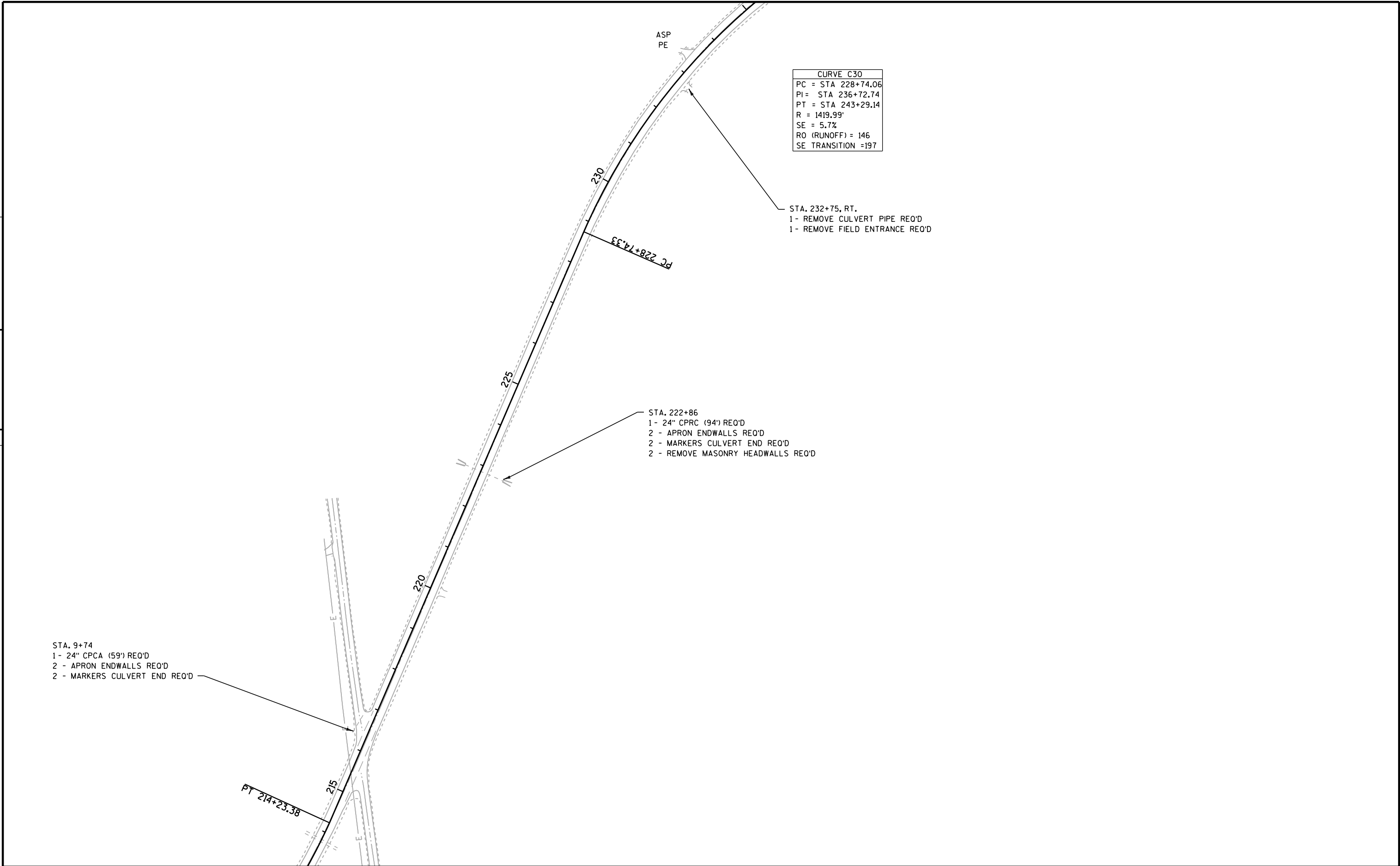
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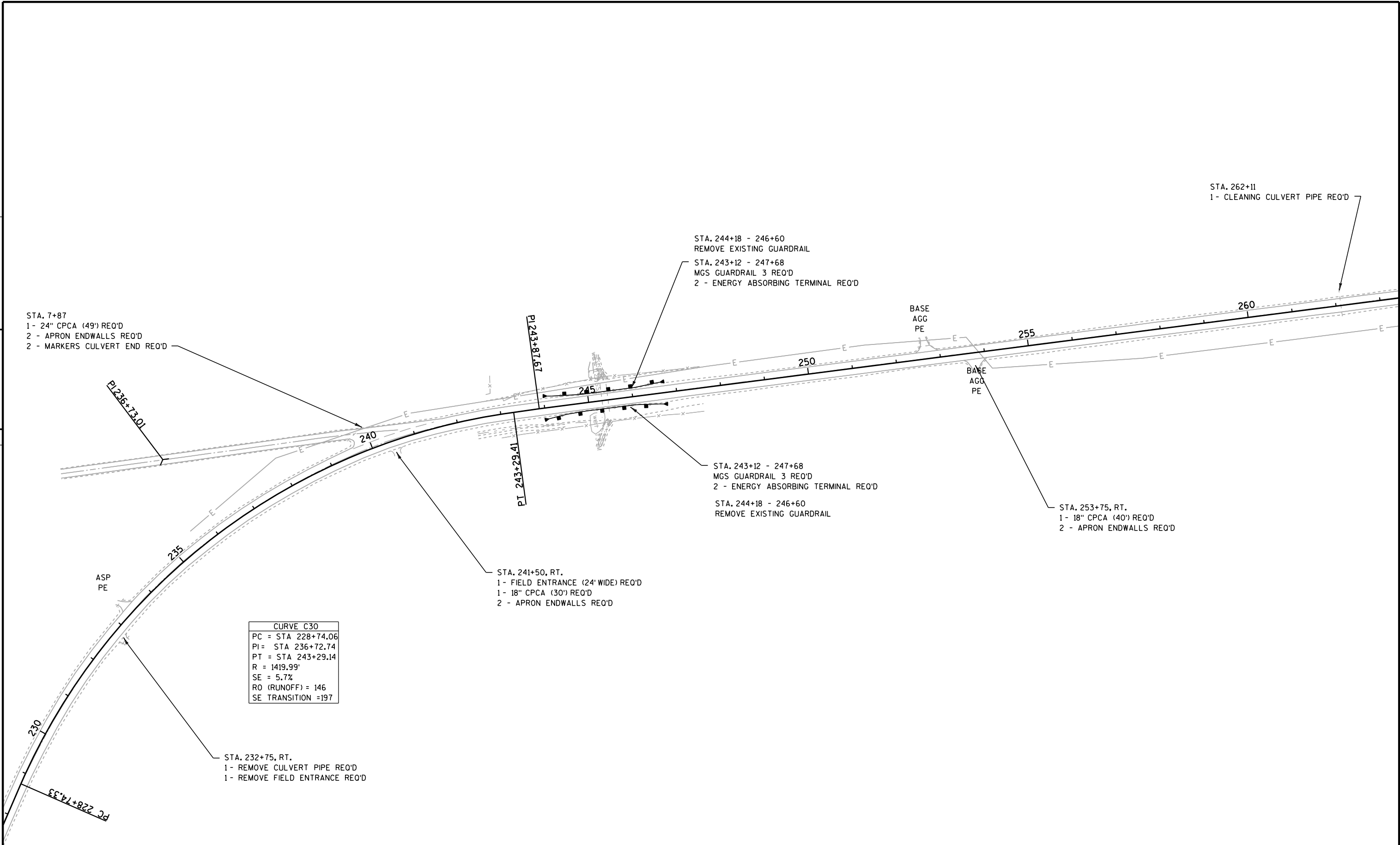
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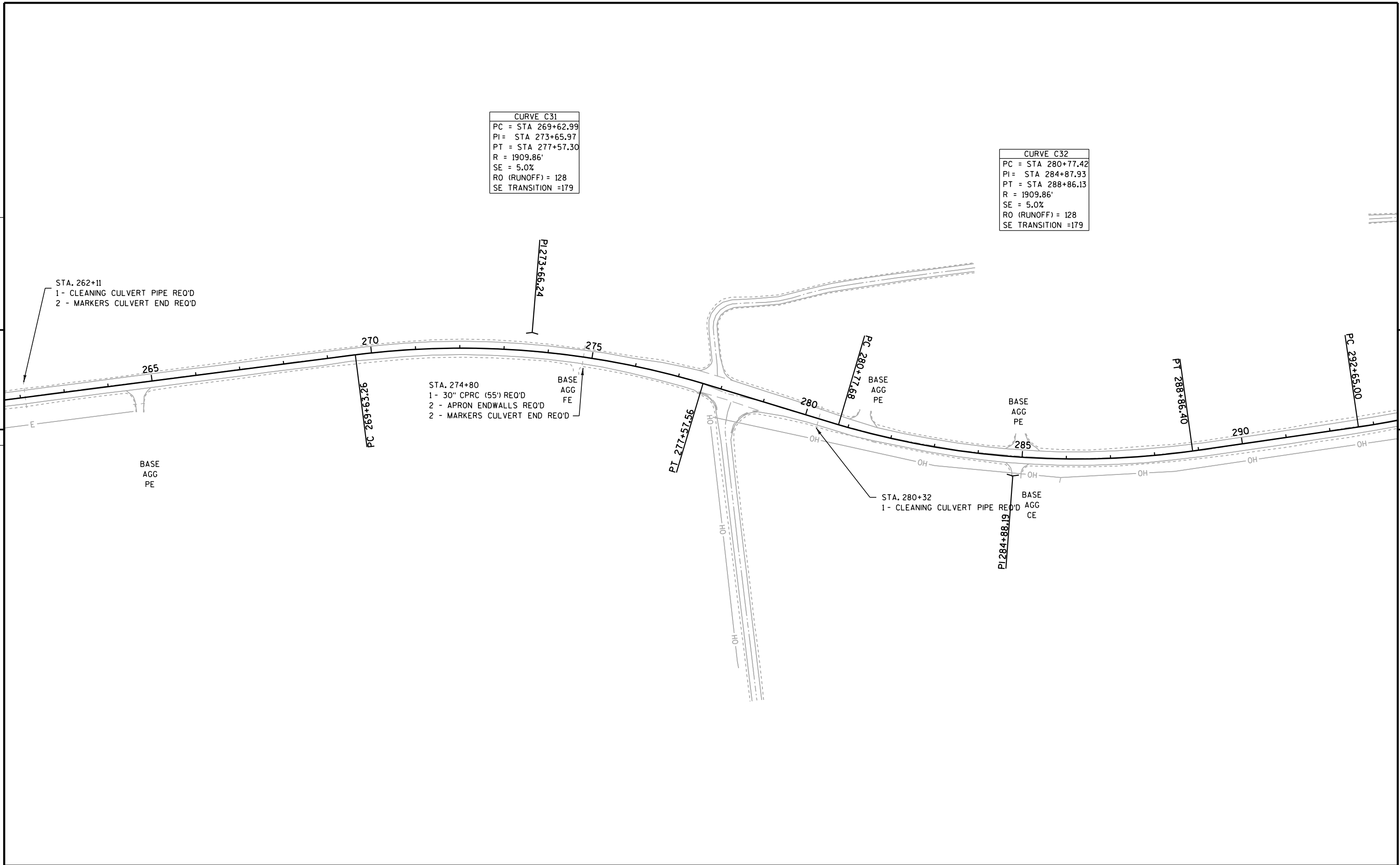


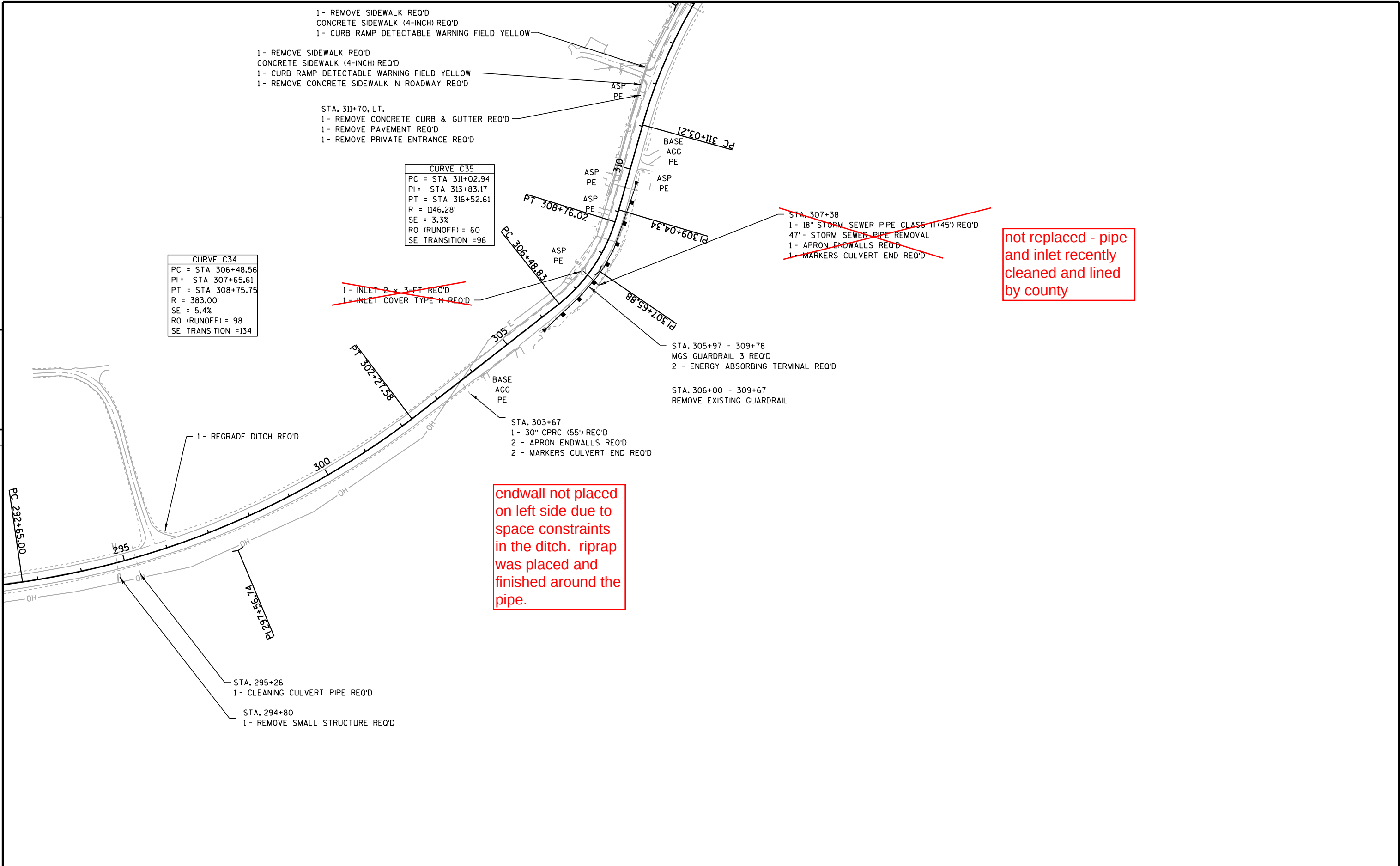
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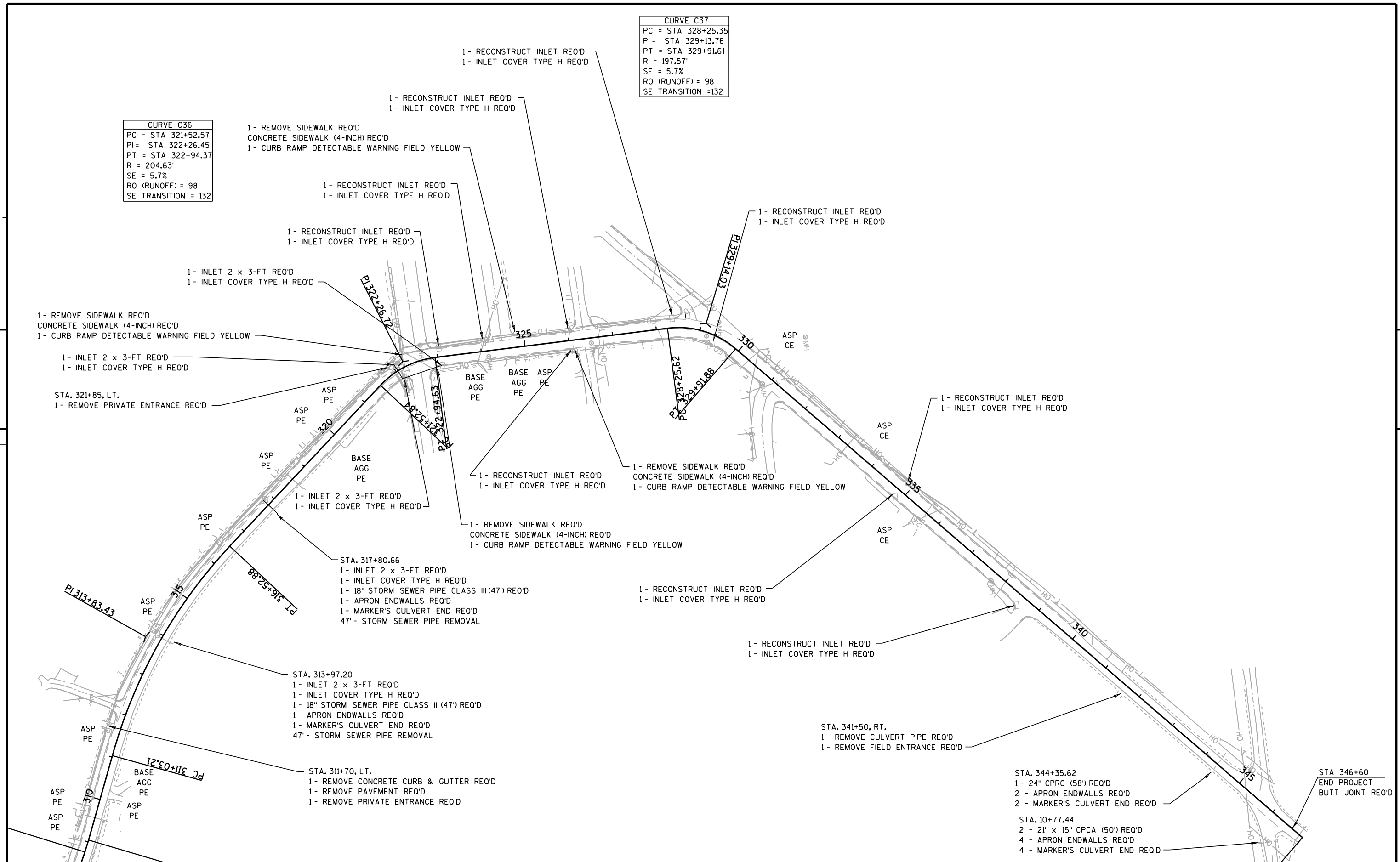






CURVE C36	
PC =	STA 321+52.57
PI =	STA 322+26.45
PT =	STA 322+94.37
R =	204.63'
SE =	5.7%
RO (RUNOFF) =	98
SE TRANSITION =	132

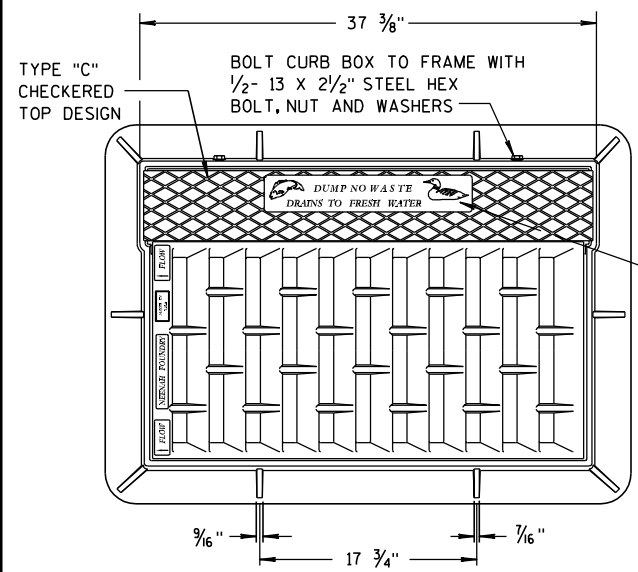
CURVE C37	
PC =	STA 328+25.35
PI =	STA 329+13.76
PT =	STA 329+91.61
R =	197.57'
SE =	5.7%
RO (RUNOFF) =	98
SE TRANSITION =	132



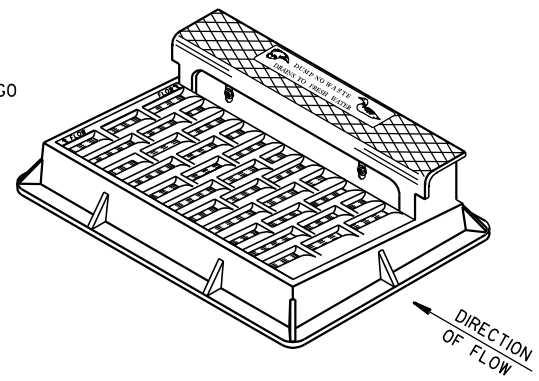
PROJECT NO: 8100-03-62	HWY: STH 25	COUNTY: DUNN	PLAN	SHEET	E
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Standard Detail Drawing List

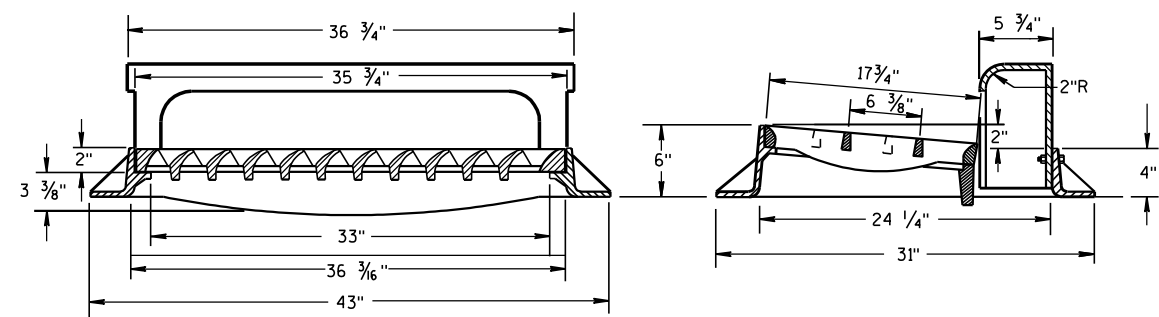
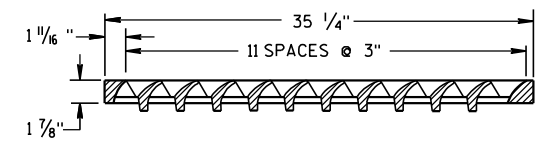
08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B15-07A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-07C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B24-07A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-07C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B27-01A	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01B	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B27-01C	STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C29-03F	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15D06-02	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE



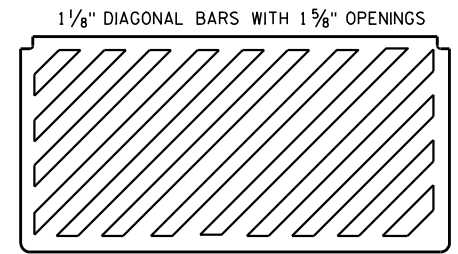
NOTE:
GRATE IS REVERSIBLE.



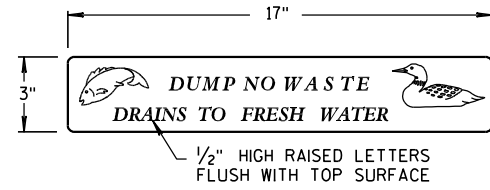
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



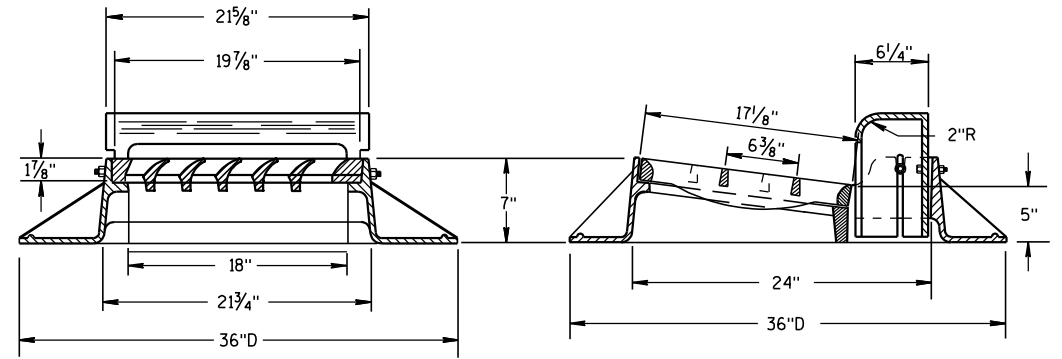
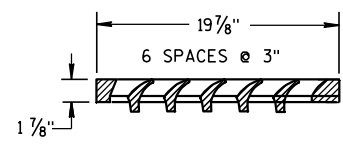
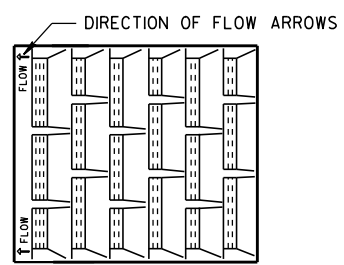
TYPE "H"
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER
(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



TYPE "A"
(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.

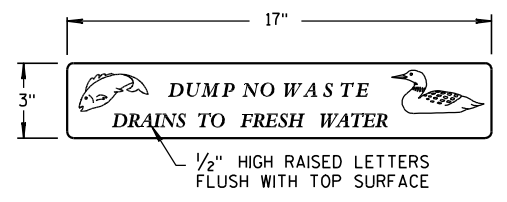
GENERAL NOTES

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

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

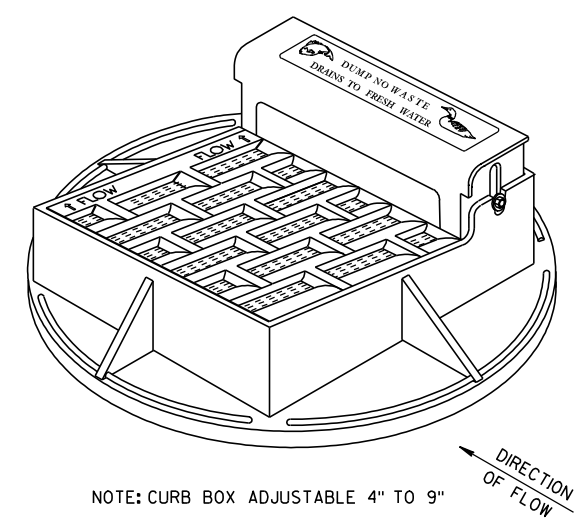
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

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

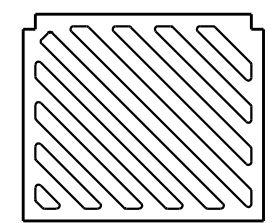


LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



1" DIAGONAL BARS WITH 1 1/2" OPENINGS

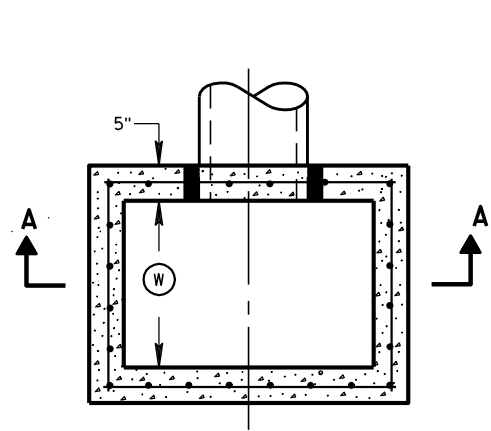


SPECIAL GRATE FOR TYPE "A" COVER
(MEASURES 19 3/4" X 17" X 1 7/8")
GRATE..... 84 LBS.
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

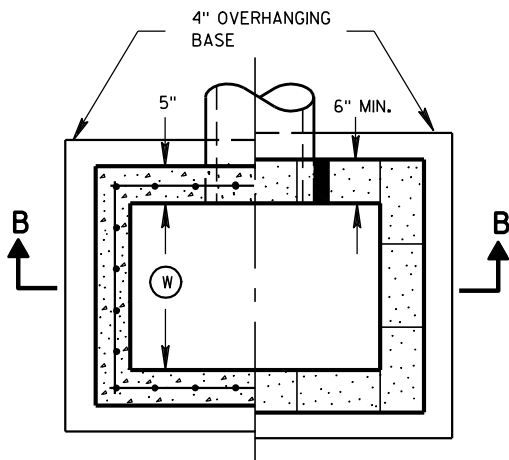
**INLET COVERS
TYPE A, H, A-S, & H-S**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

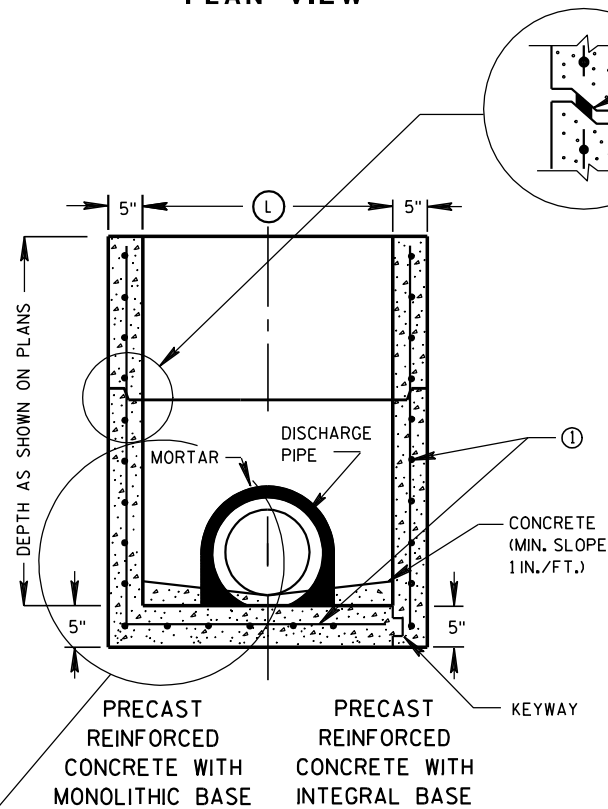


PLAN VIEW

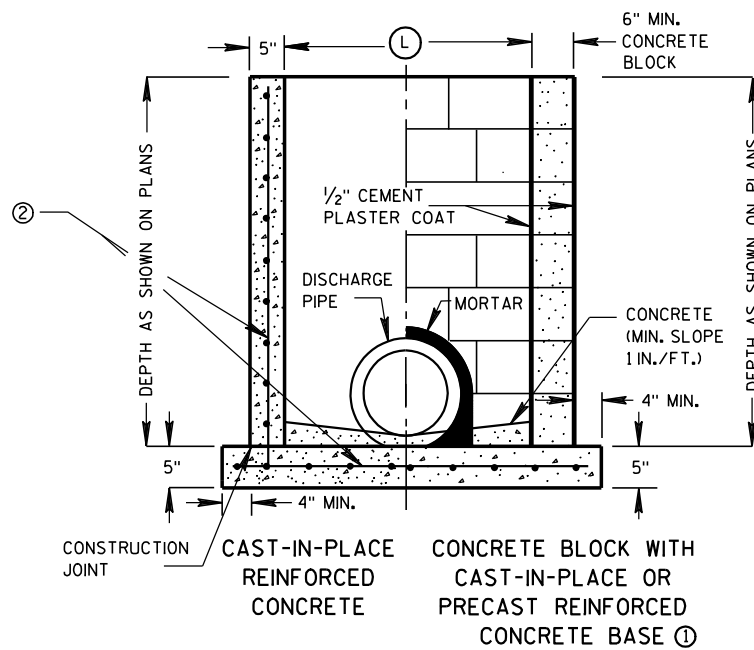


PLAN VIEW

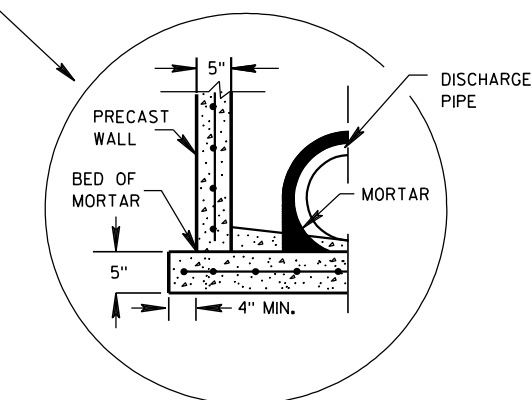
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

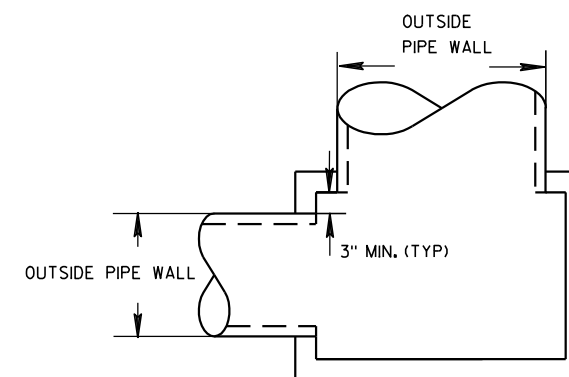
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (FT)	LENGTH (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24

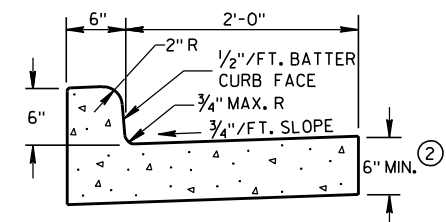


DETAIL "A"

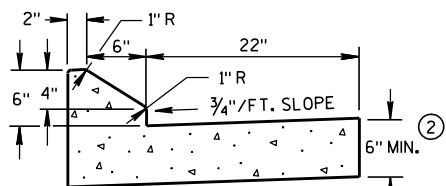
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

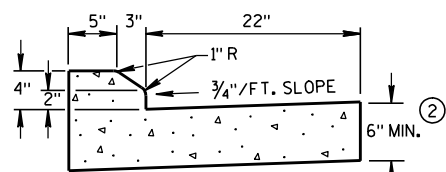
APPROVED
DATE 6/5/2012
FHW
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



TYPES A & D ①



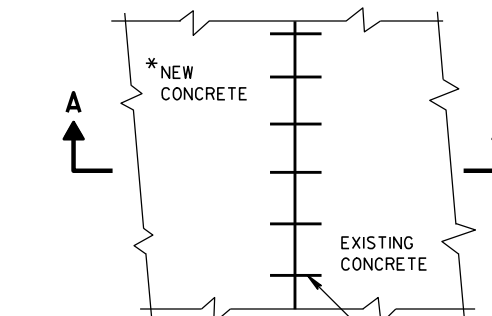
6" SLOPED CURB TYPES G & J ①



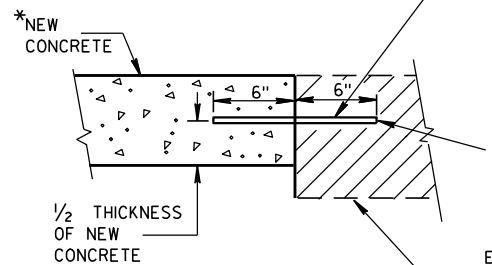
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

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



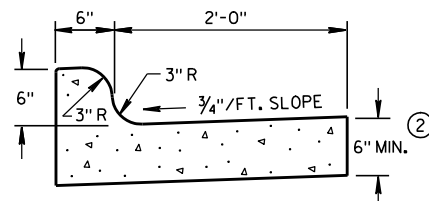
PLAN VIEW

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

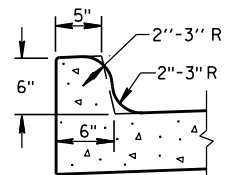
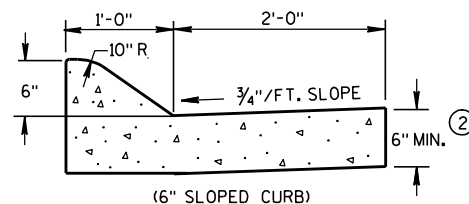
NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

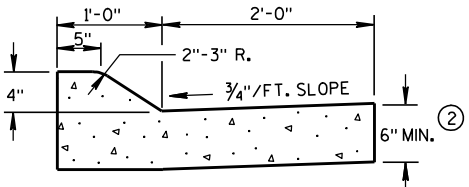
EXISTING
CONCRETE



TYPES K & L ①

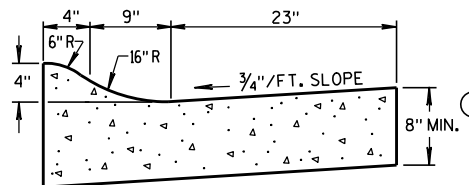
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

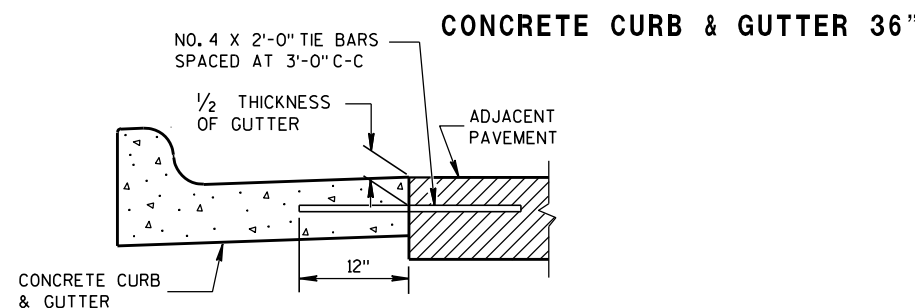


(4" SLOPED CURB)

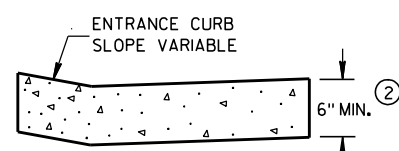
TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

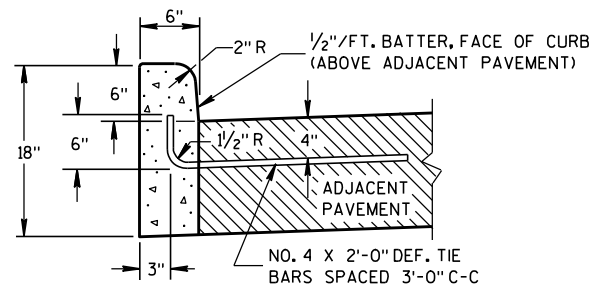


TYPICAL TIE BAR LOCATION ①



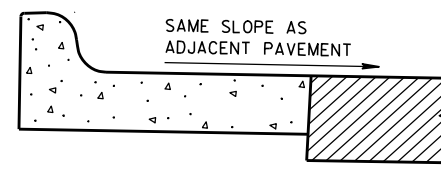
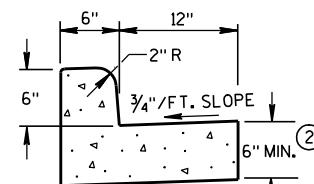
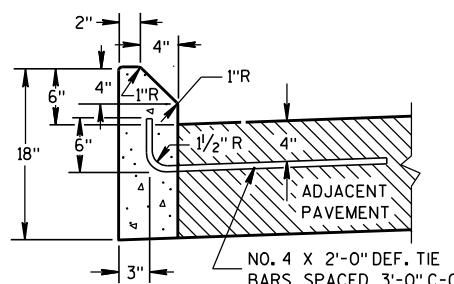
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



TYPES A & D ①

CONCRETE CURB

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

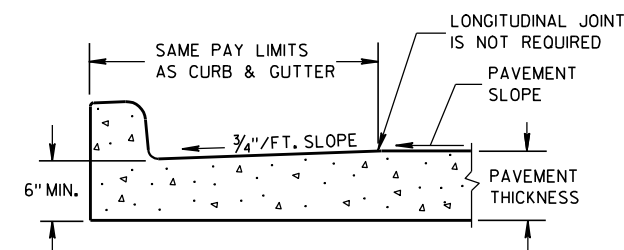
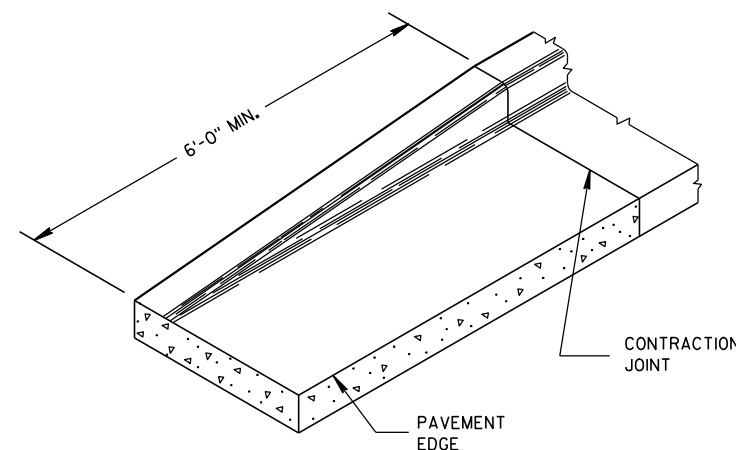
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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 AND R.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

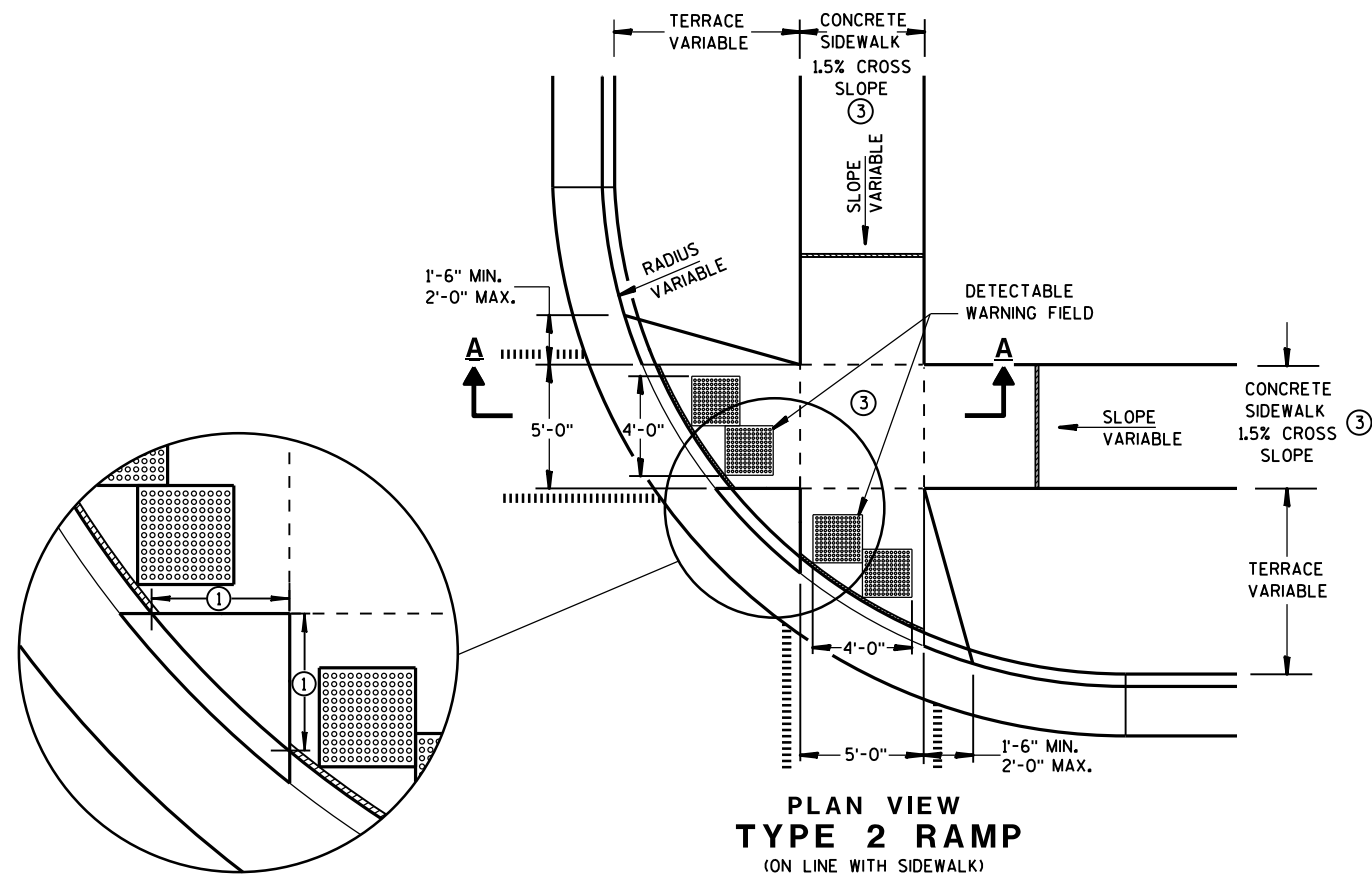
APPROVED

9/4/08

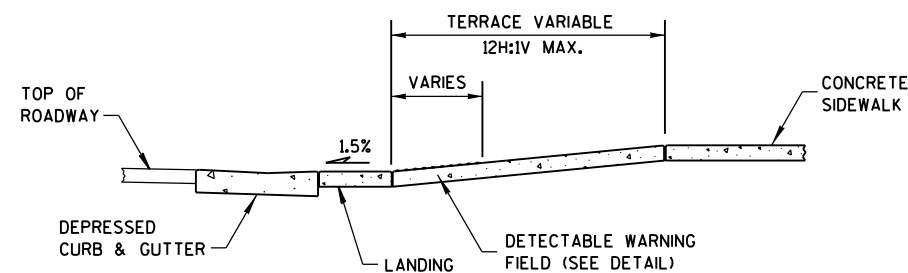
DATE

FHWA

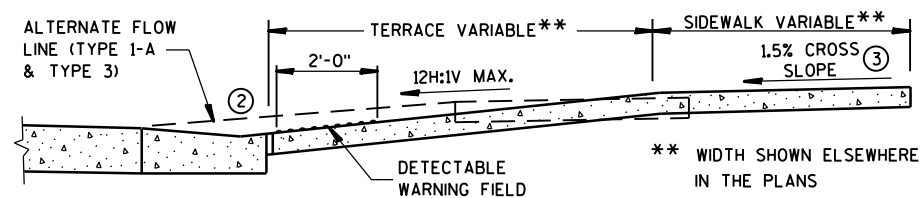
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

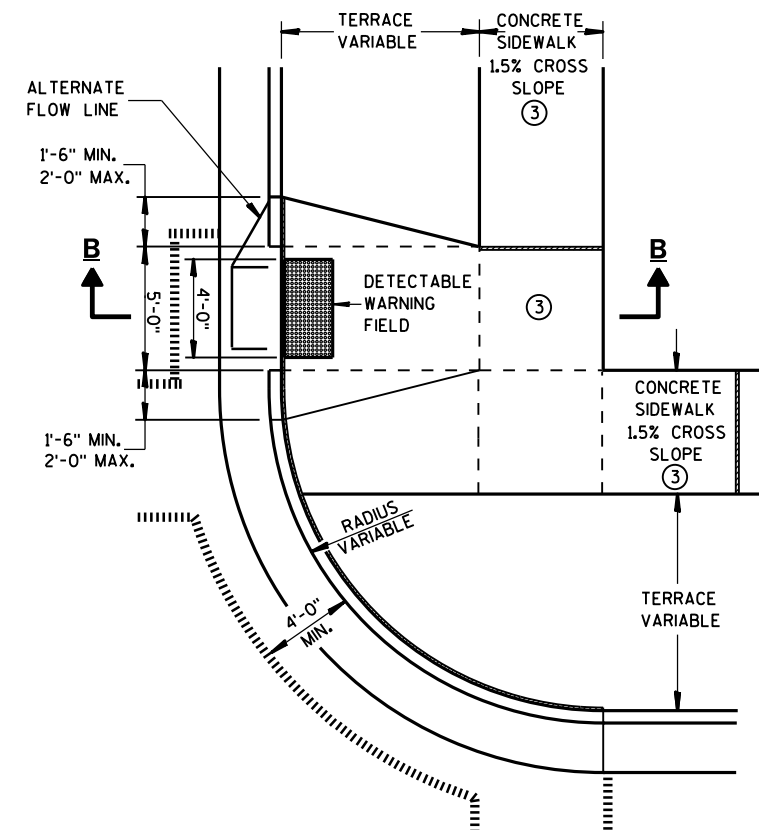
USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



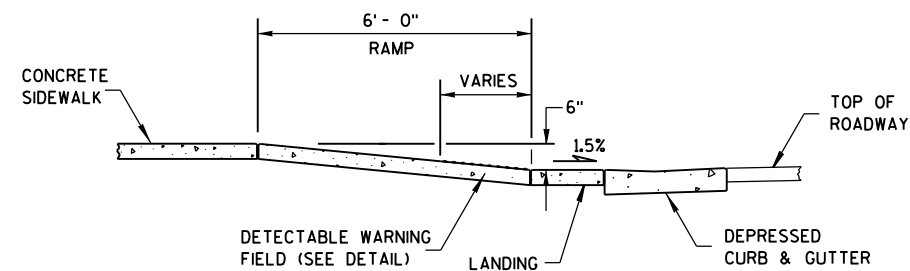
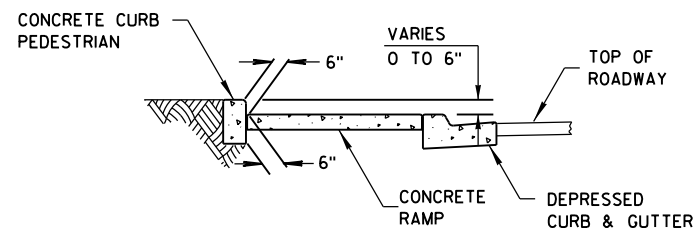
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

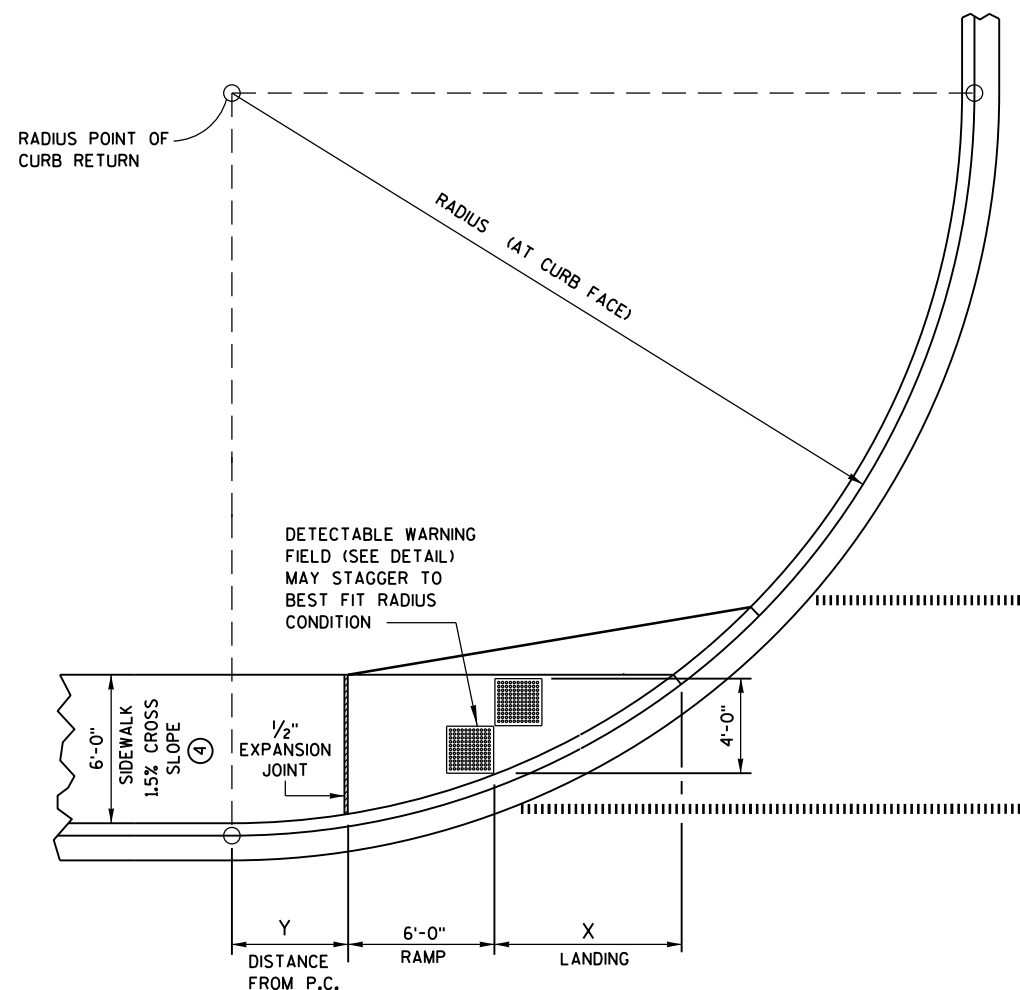
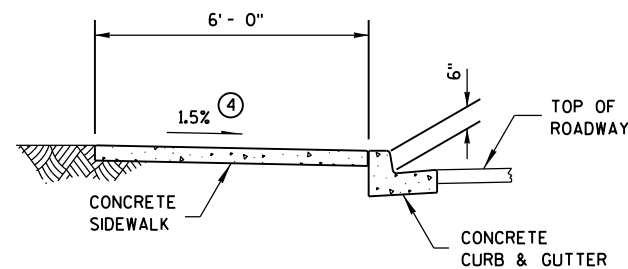


CURB RAMP TYPE 4A
PLAN VIEW



RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1 $\frac{3}{4}$ "	2'-7 $\frac{1}{4}$ "
30 FEET	7'-11 $\frac{3}{4}$ "	4'-8 $\frac{1}{4}$ "
40 FEET	9'-5 $\frac{1}{4}$ "	6'-5"
50 FEET	10'-8 $\frac{3}{4}$ "	7'-11 $\frac{1}{4}$ "
60 FEET	11'-10 $\frac{1}{4}$ "	9'-3 $\frac{1}{2}$ "

INTERMEDIATE RADII CAN BE INTERPOLATED



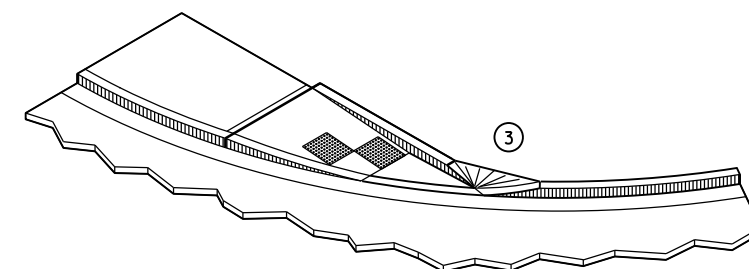
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

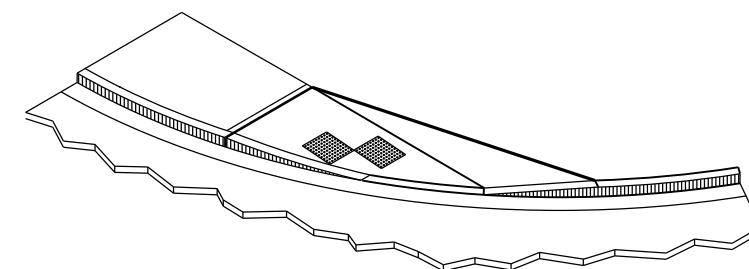
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



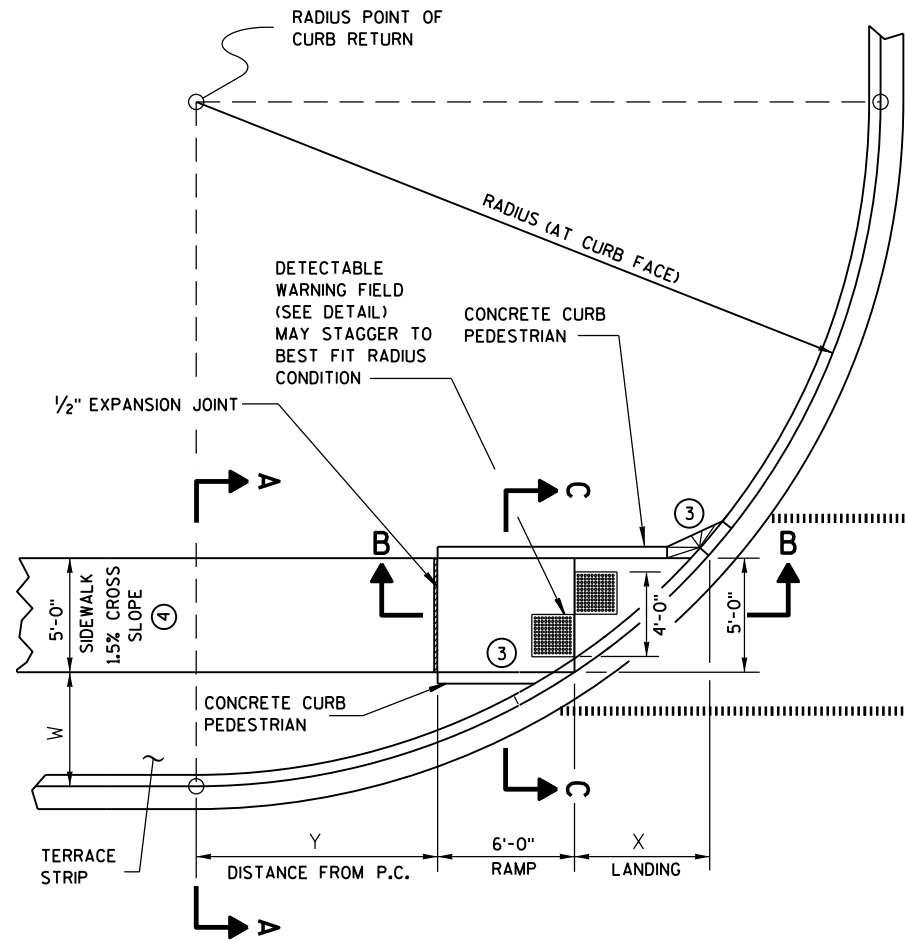
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

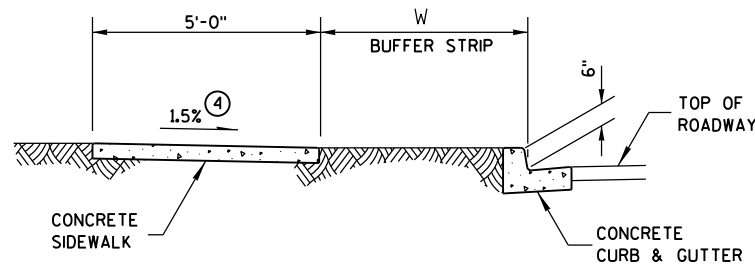
- | | |
|---------|------------------------------------|
| ===== | 1/2" EXPANSION JOINT-SIDEWALK |
| - - - - | CONTRACTION JOINT FIELD LOCATED |
| | PAVEMENT MARKING CROSSWALK (WHITE) |

CURB RAMPS TYPES 4A AND 4A1

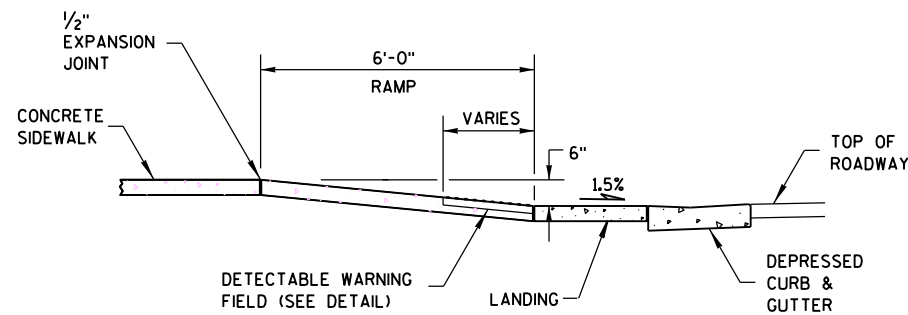
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B

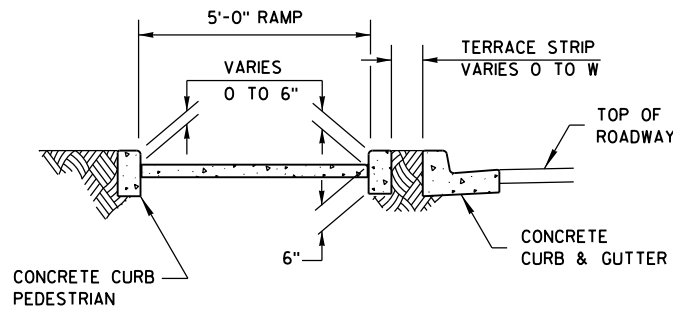


SECTION B-B FOR TYPE 4B

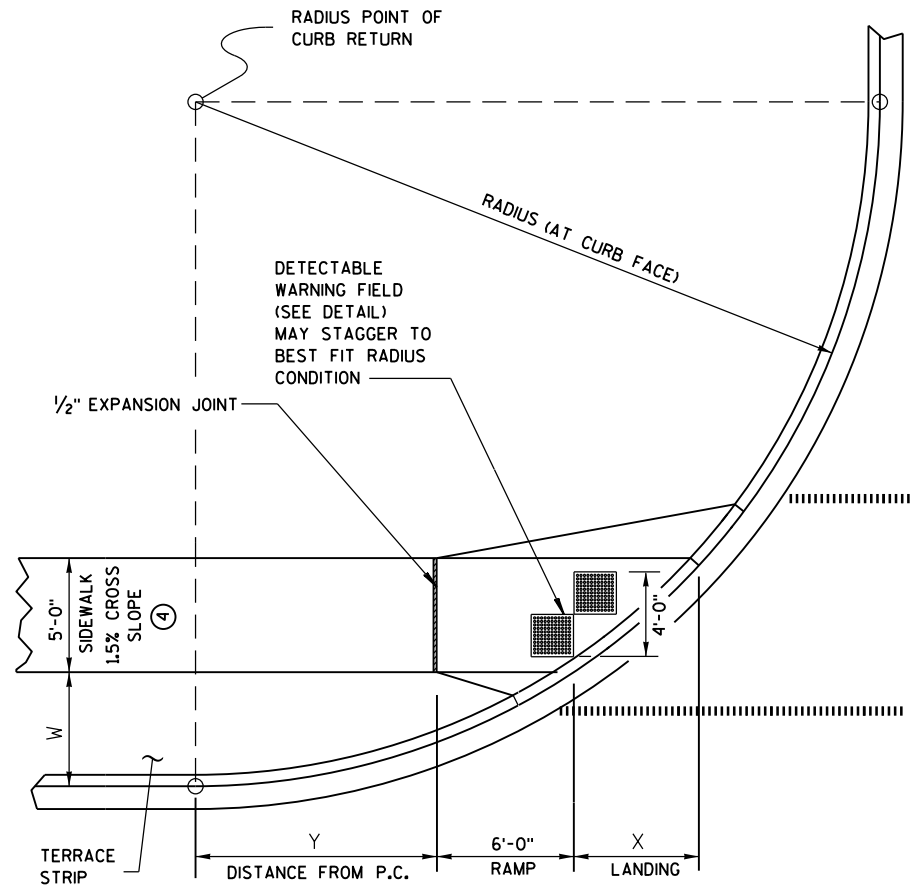
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3/4"	11'-3/4"	9'-1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**

GENERAL NOTES

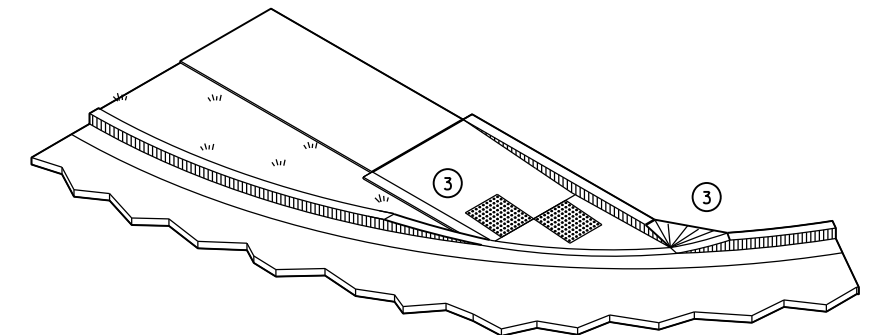
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

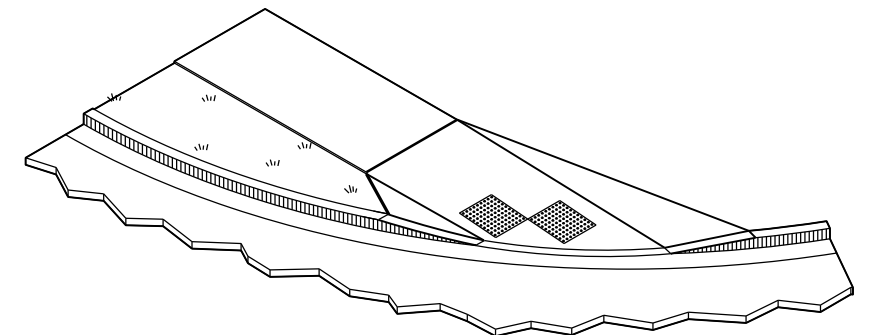
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



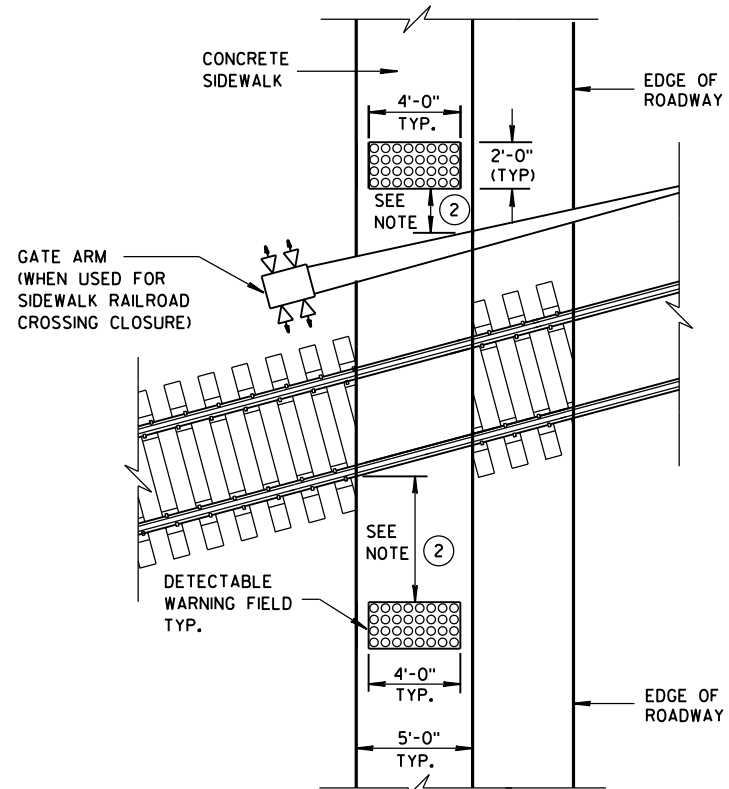
ISOMETRIC VIEW FOR TYPE 4B



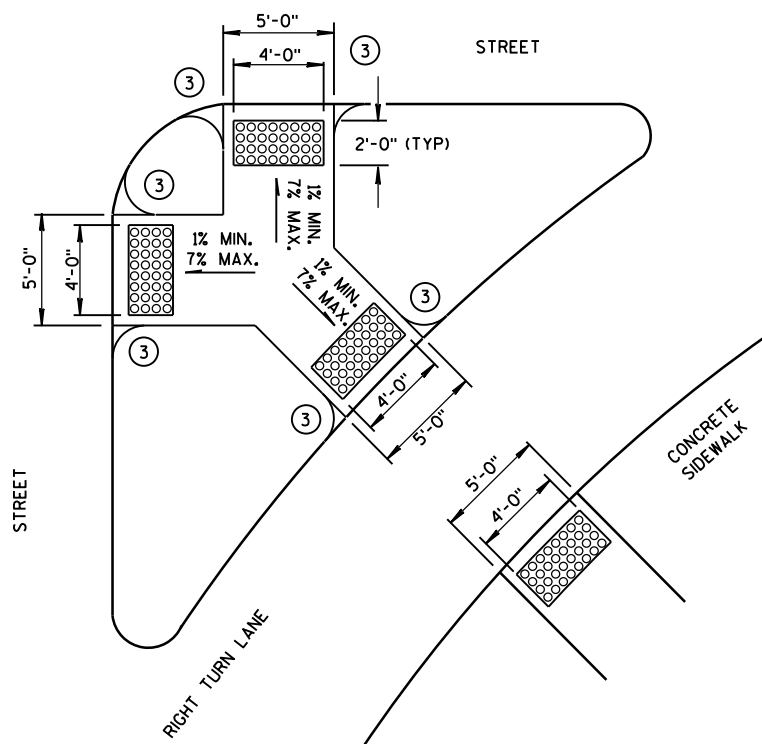
ISOMETRIC VIEW FOR TYPE 4B1

**CURB RAMPS
TYPE 4B AND 4B1**

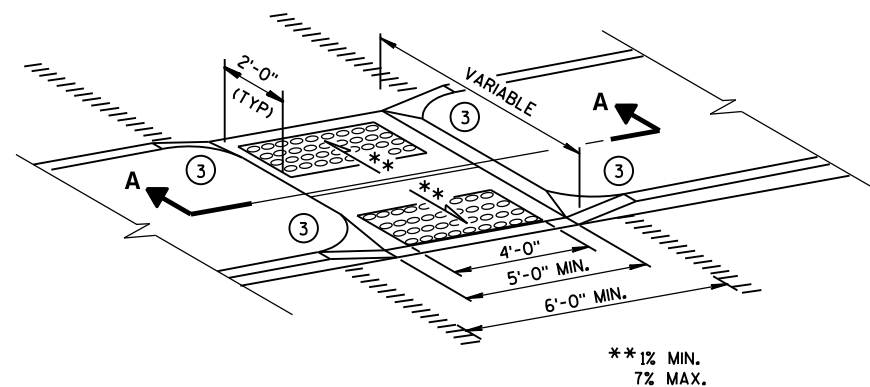
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



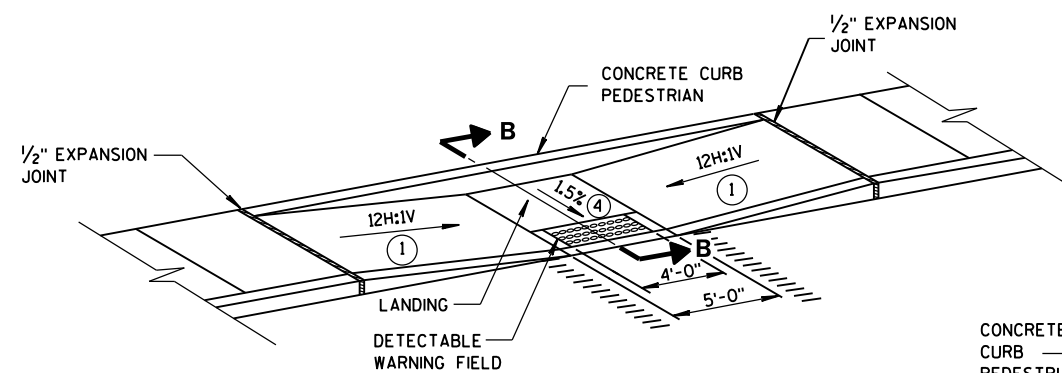
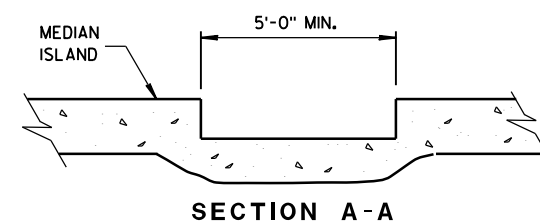
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



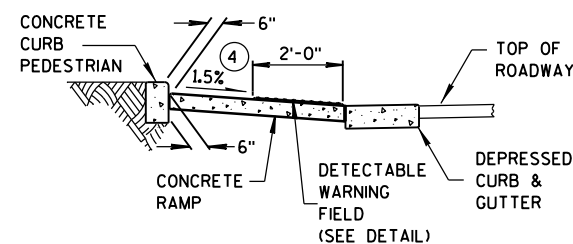
TYPE 6
DETECTABLE WARNING AT ISLANDS



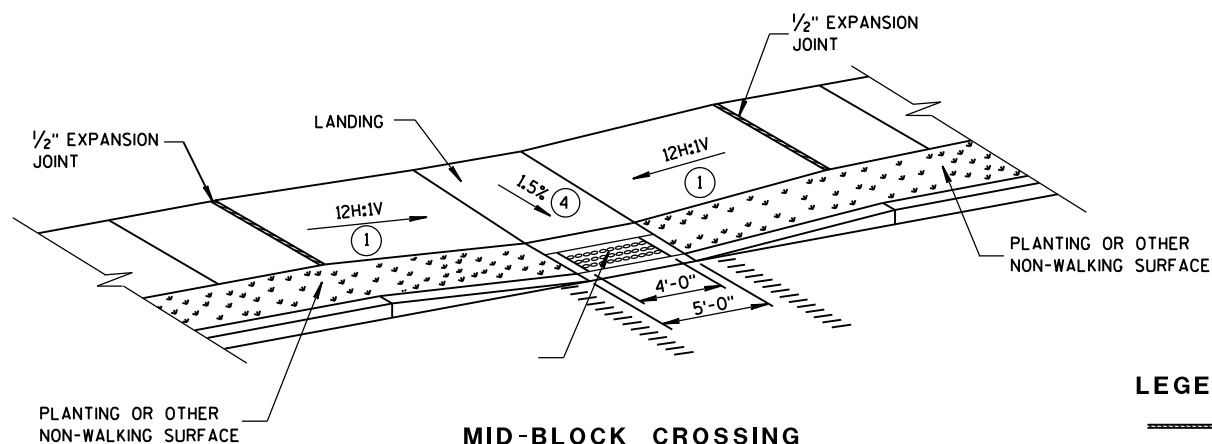
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

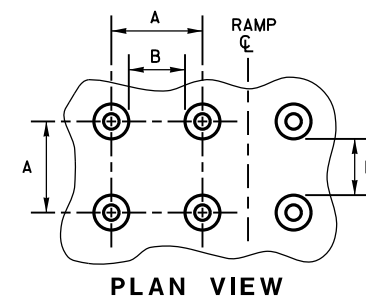
NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

GENERAL NOTES

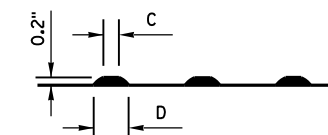
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- 1 SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- 2 THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET $\pm$ 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- 3 INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
- 4 $\pm$ 0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



PLAN VIEW



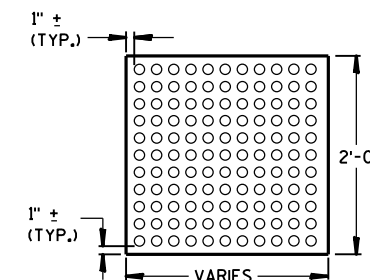
ELEVATION VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

TRUNCATED DOMES

DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

LEGEND

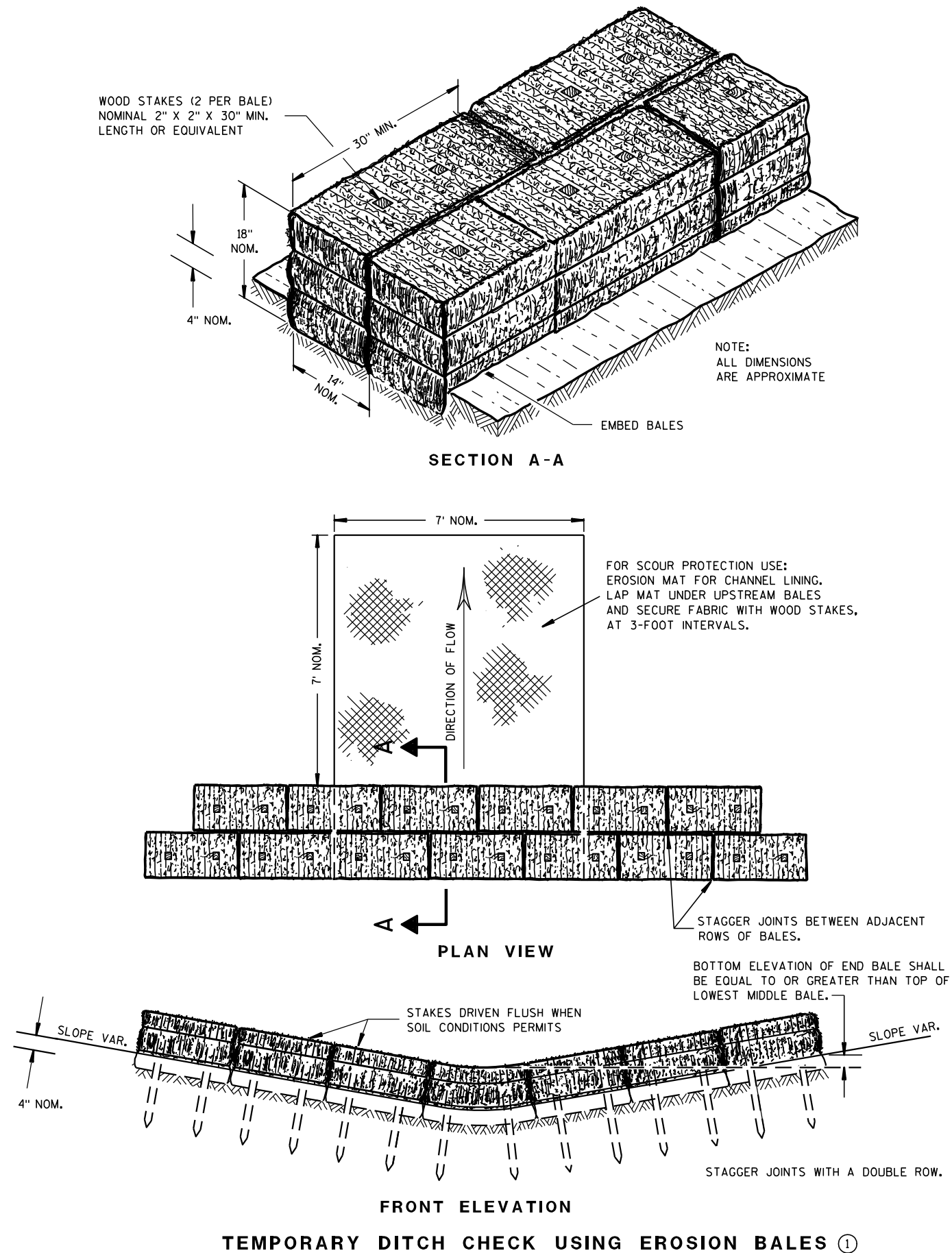
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-6-2013
DATE
FHWA

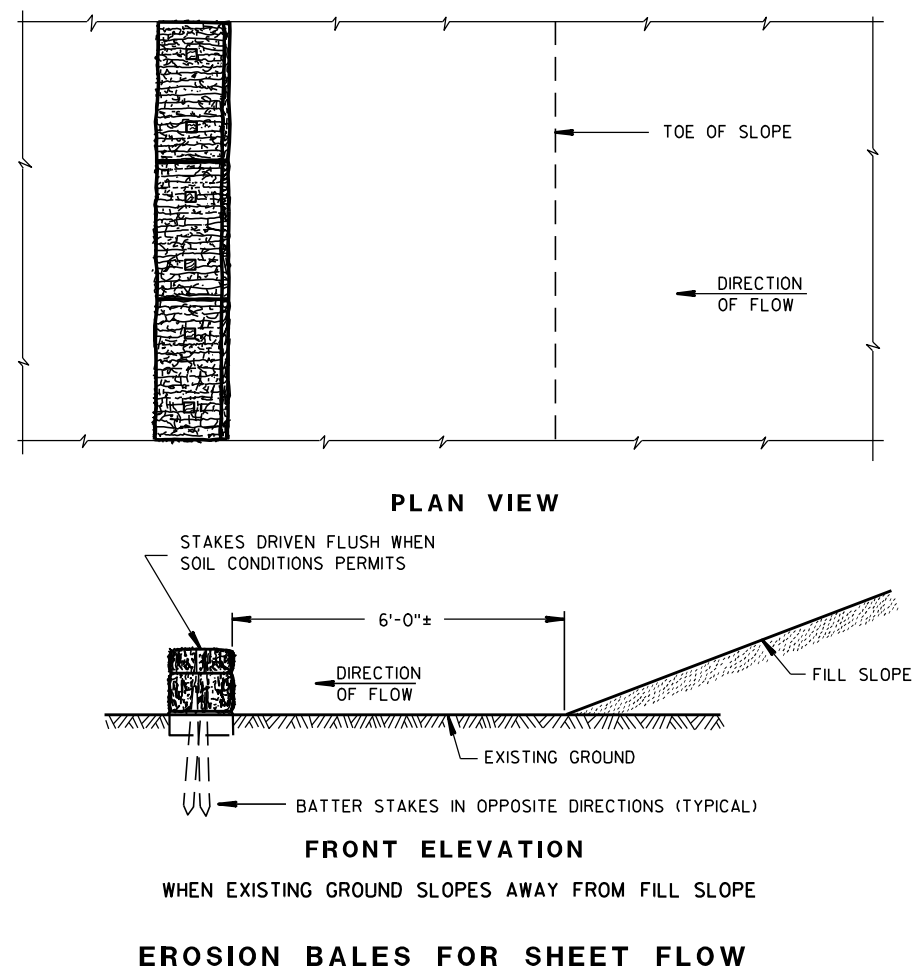
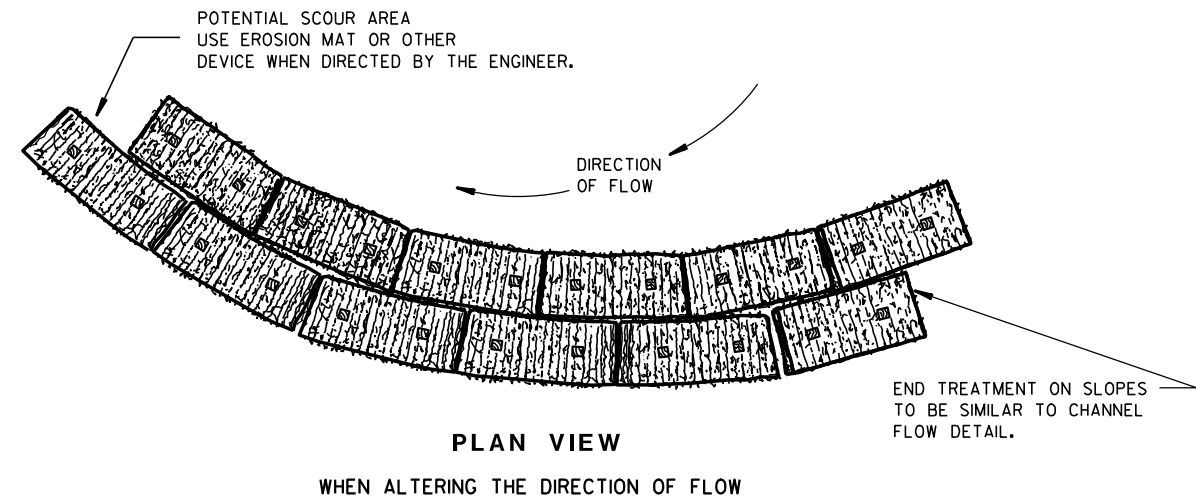
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



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.

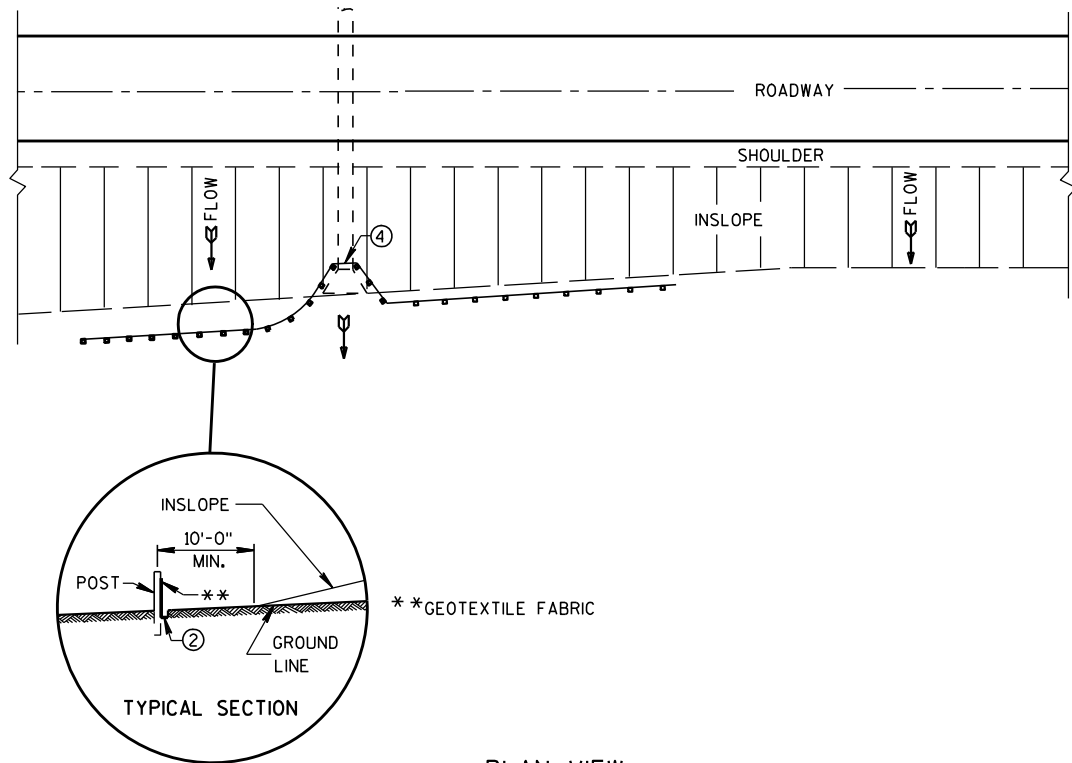
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

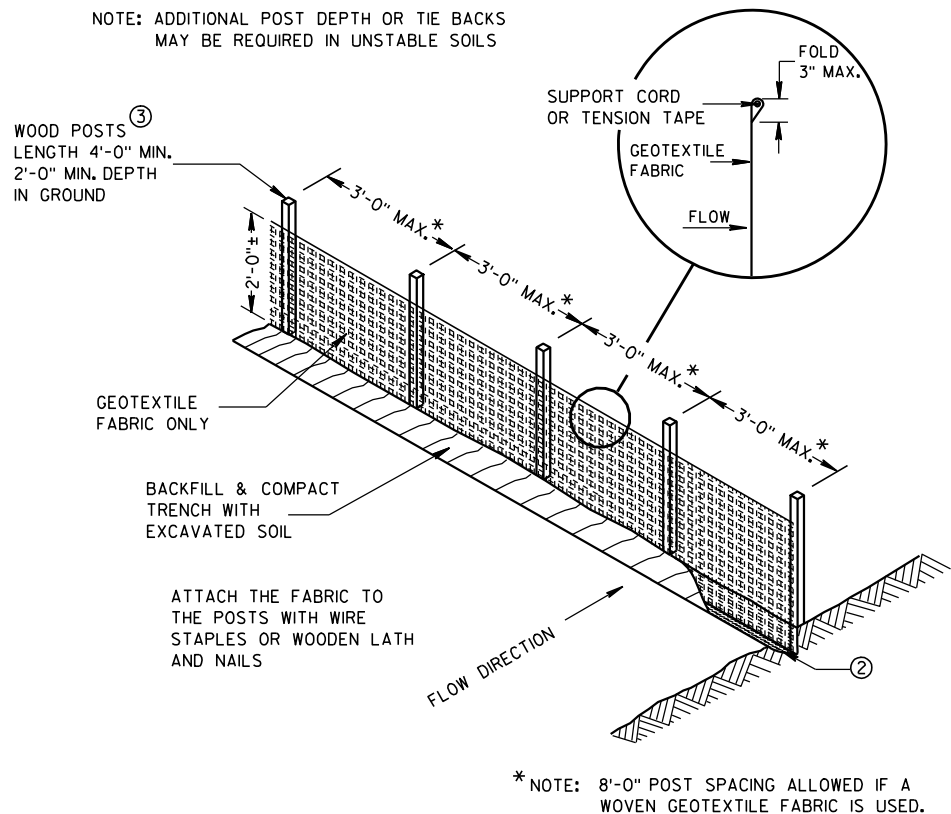
APPROVED

6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

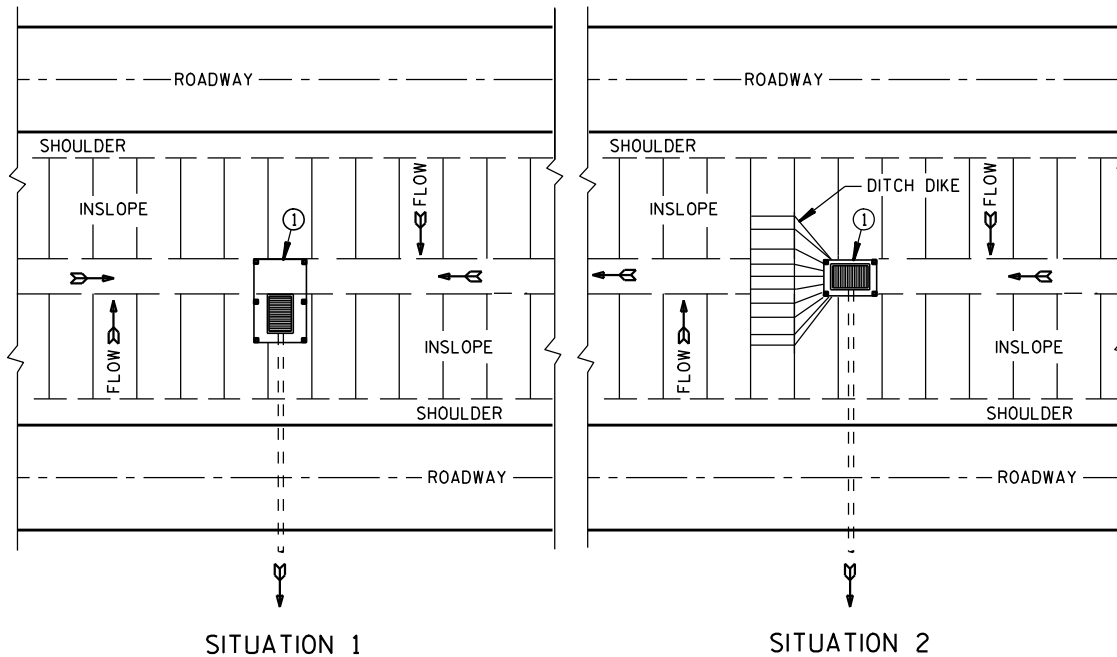
FHWA



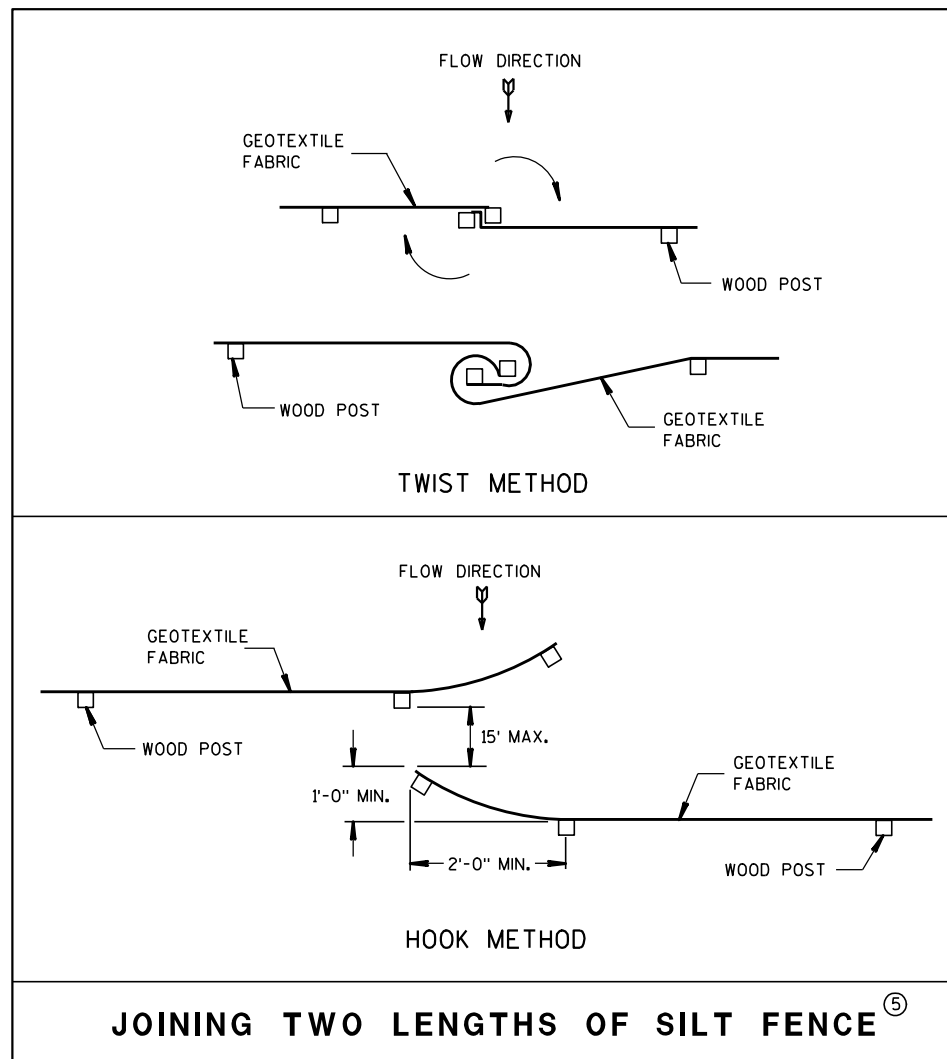
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

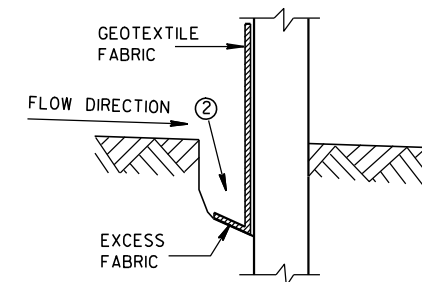


JOINING TWO LENGTHS OF SILT FENCE^⑤

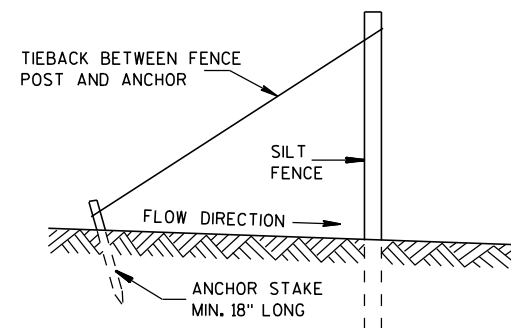
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 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.

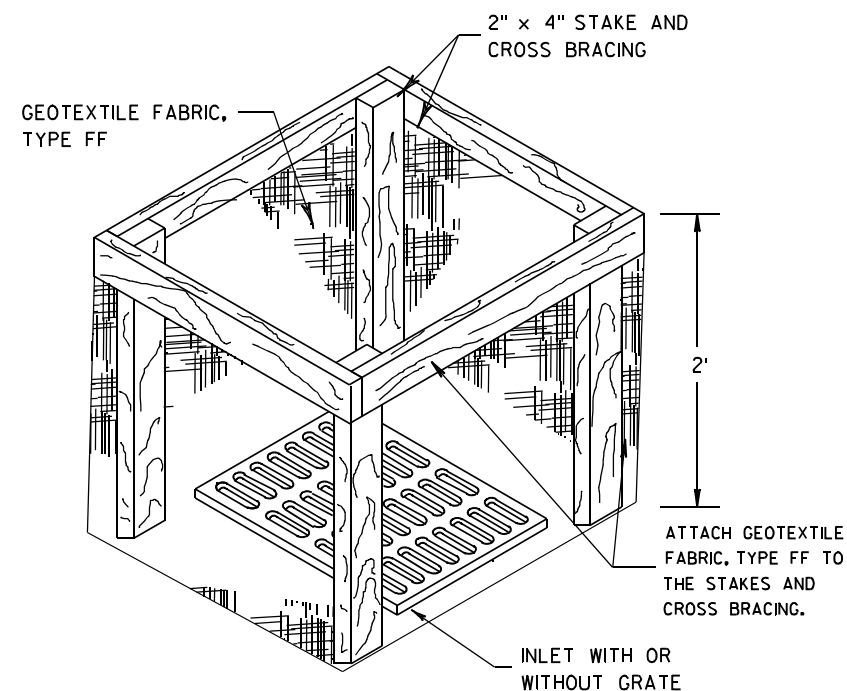
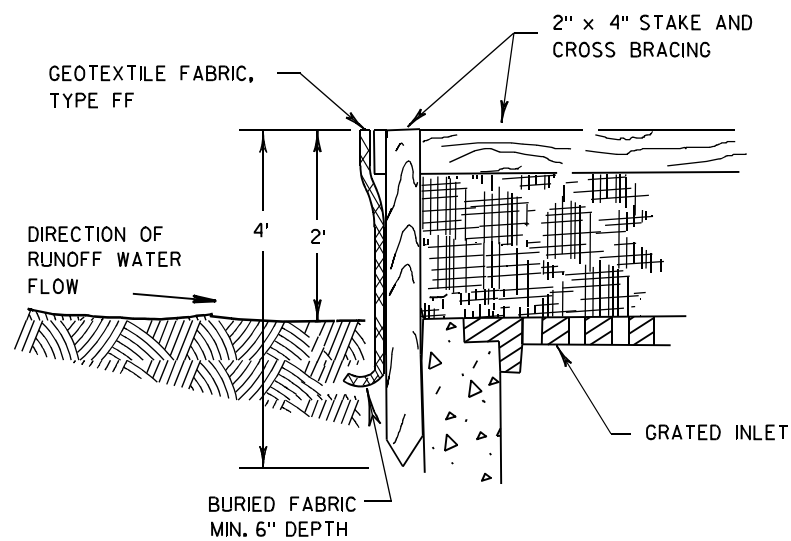


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



INLET PROTECTION, TYPE A

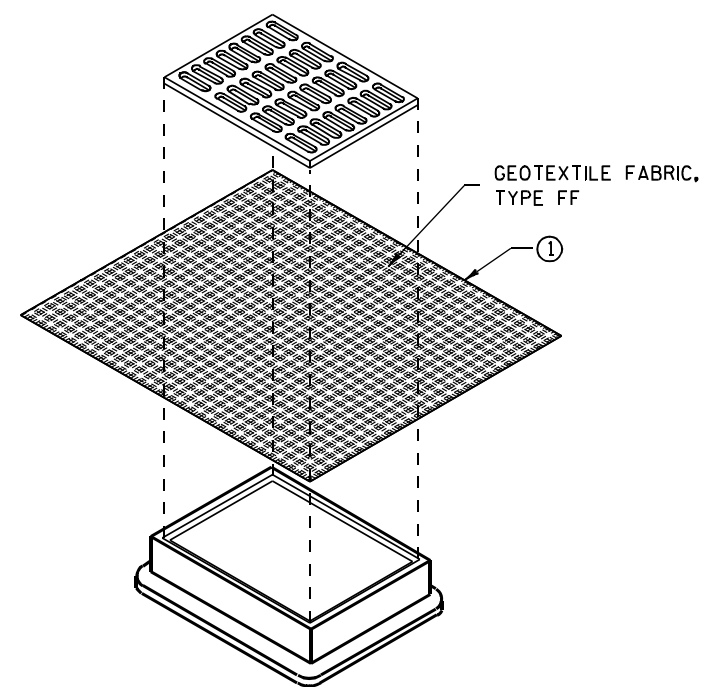
GENERAL NOTES

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

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

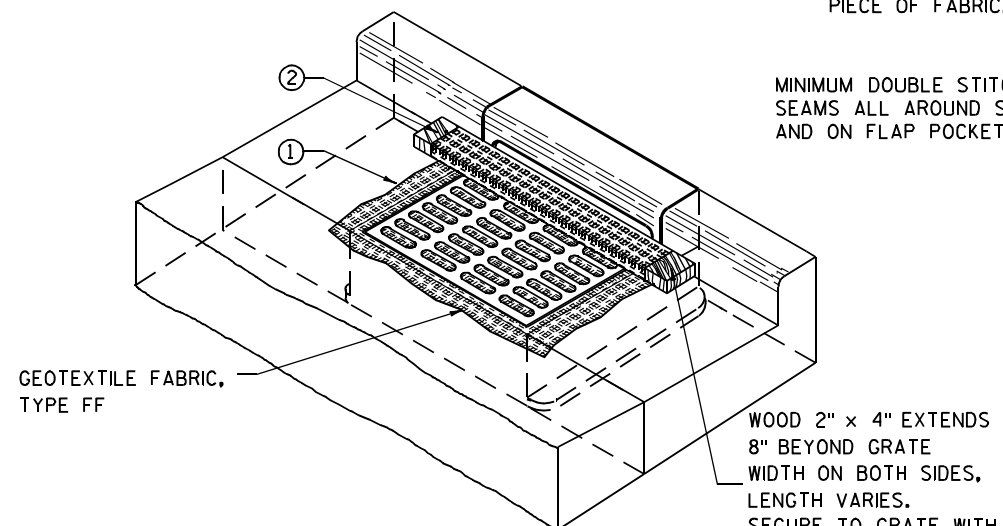
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

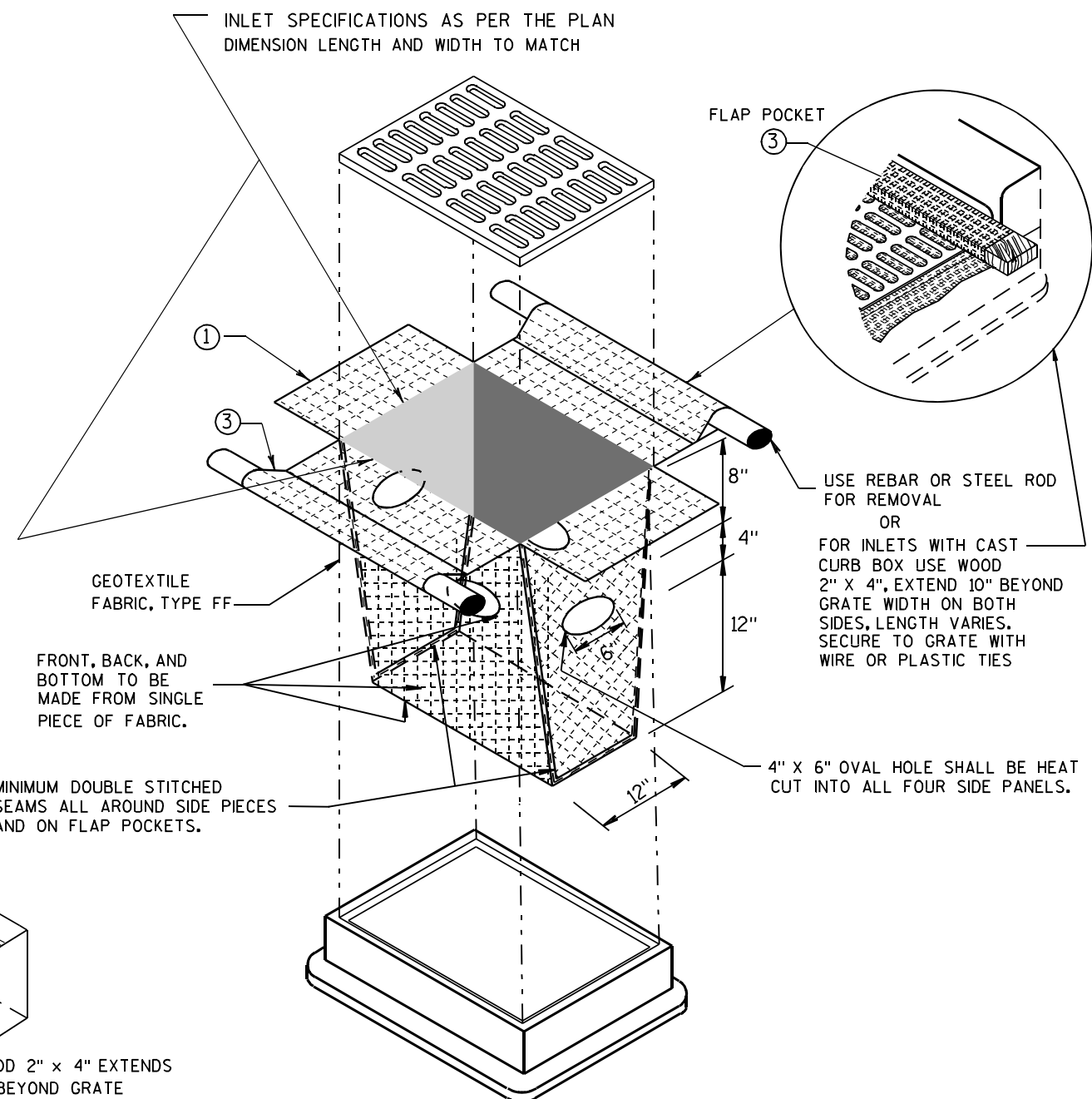
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



INLET PROTECTION, TYPE D

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

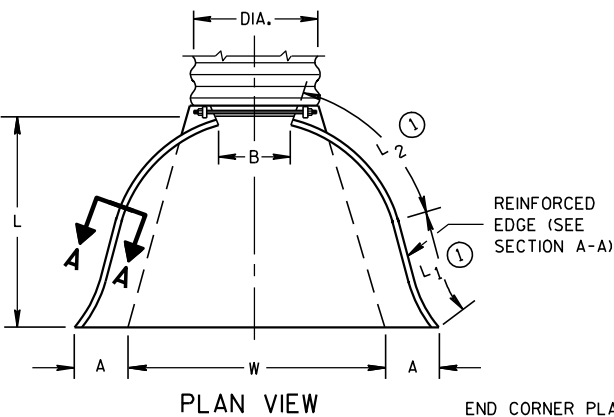
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	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.

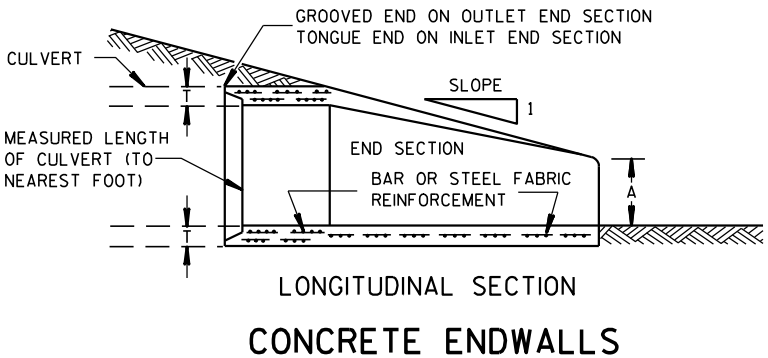
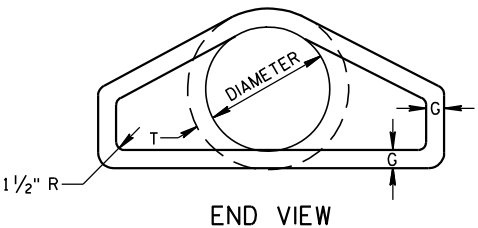
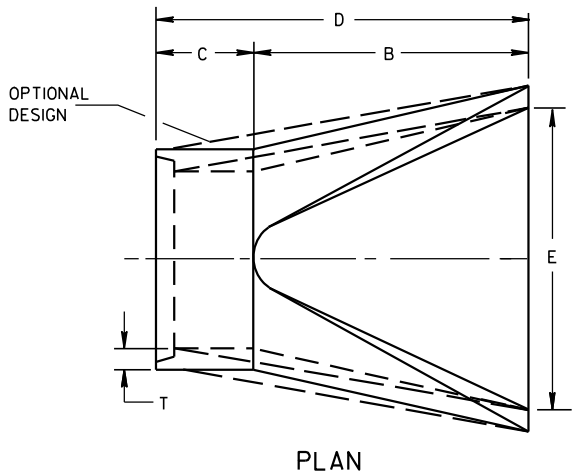
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



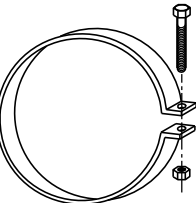
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

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				

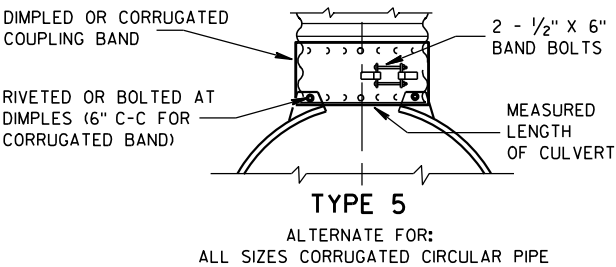
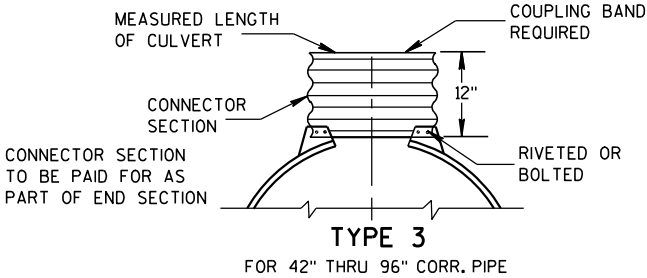
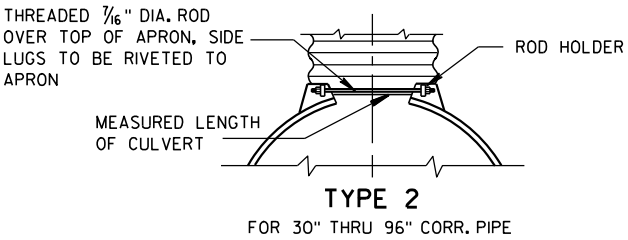
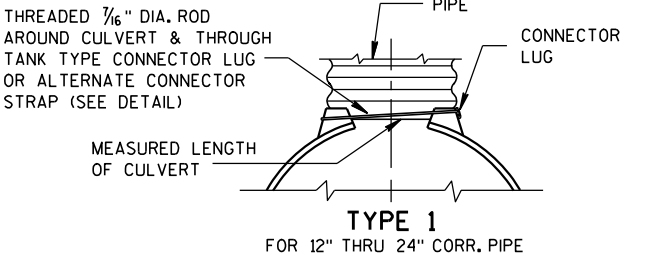
* MINIMUM
** MAXIMUM



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



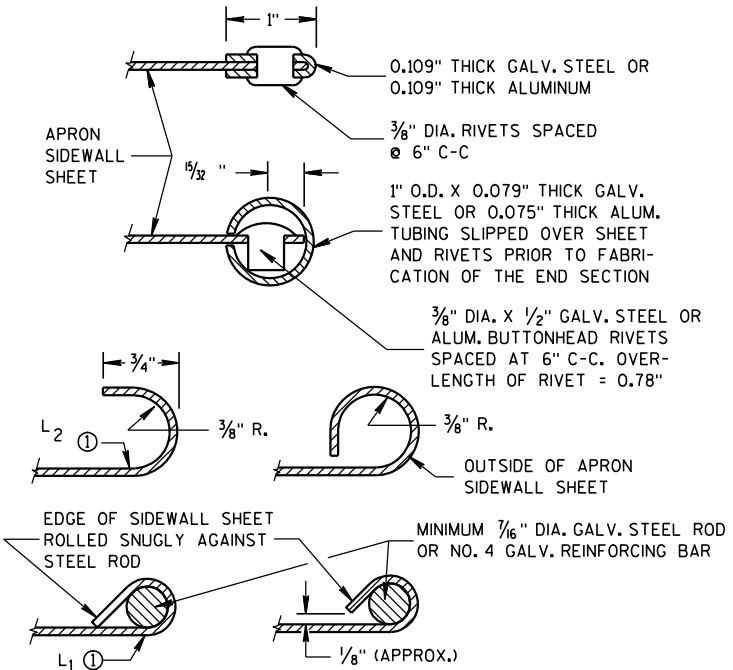
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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



GENERAL NOTES

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

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

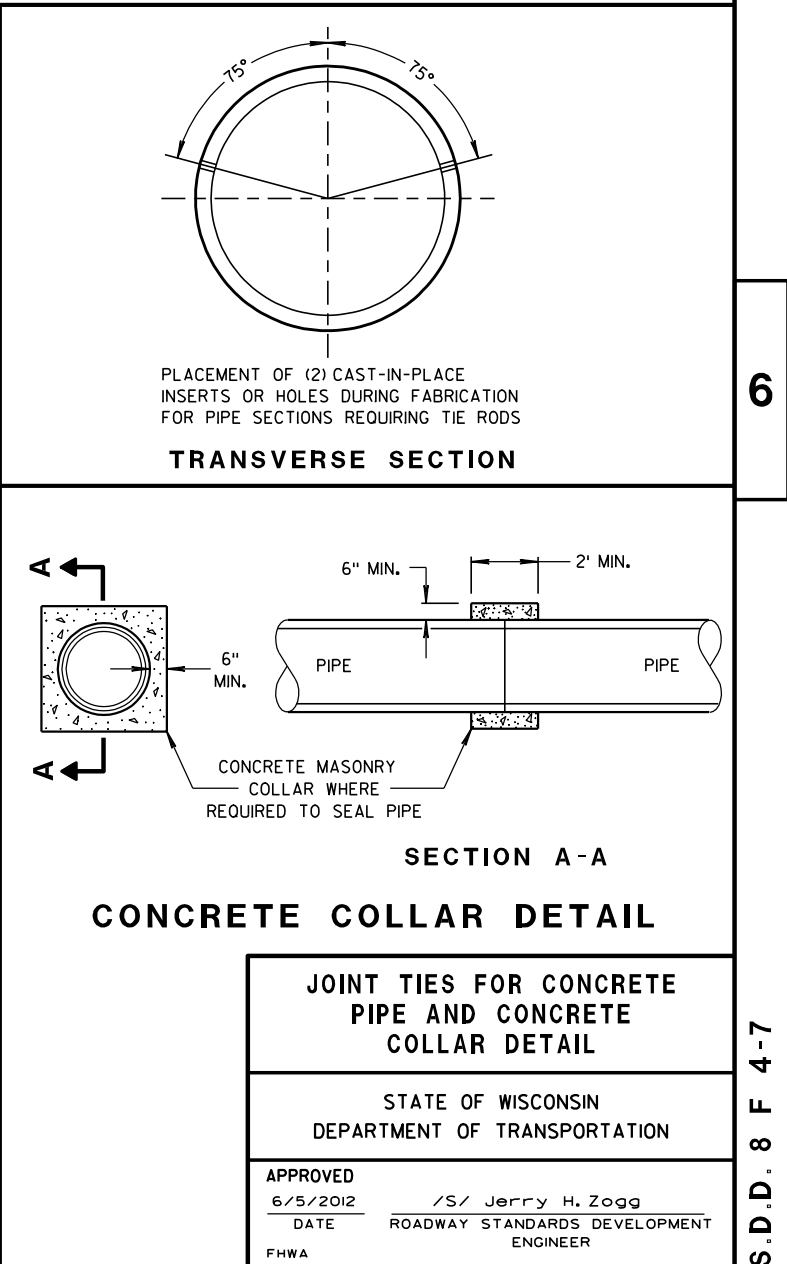
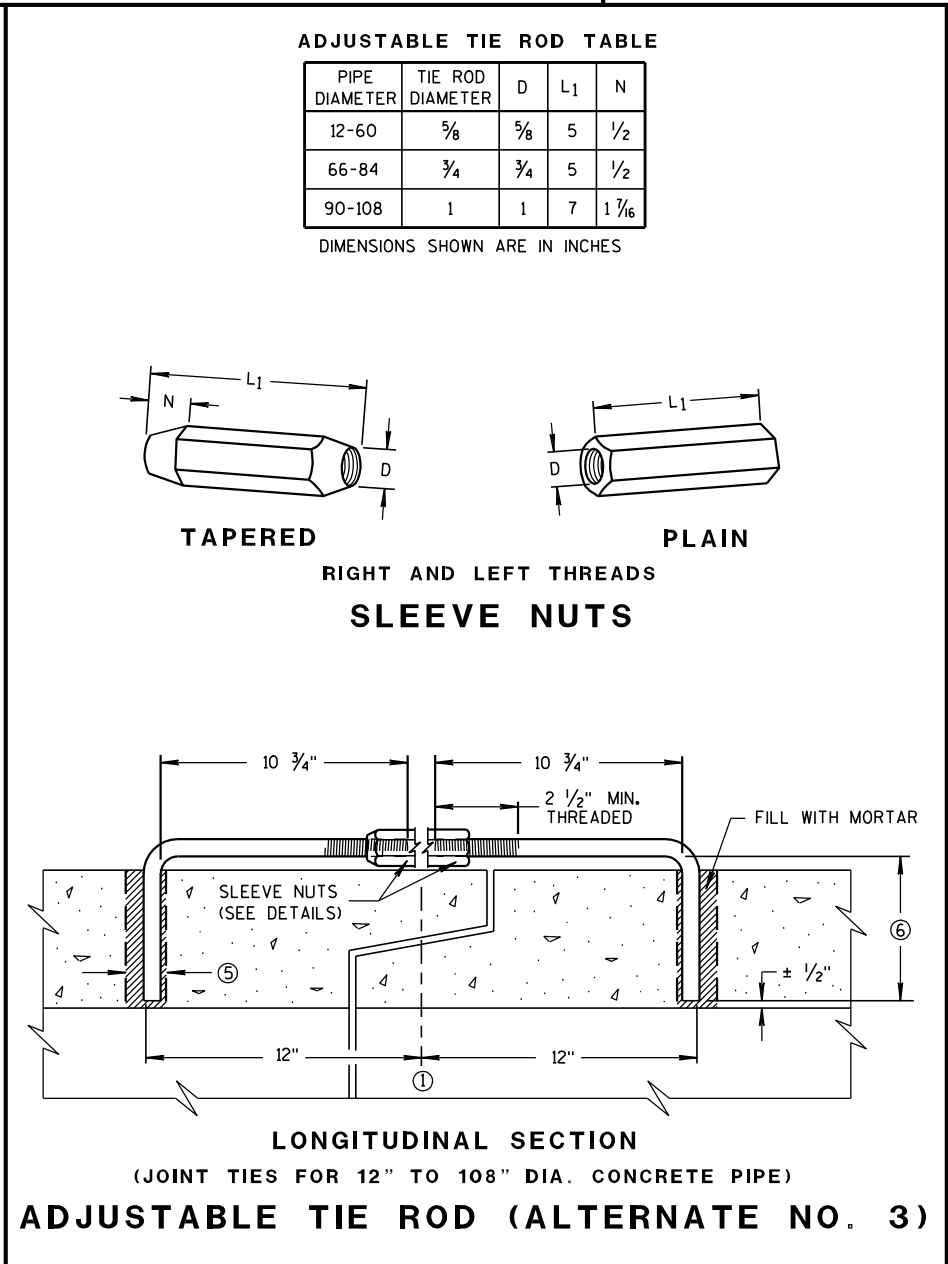
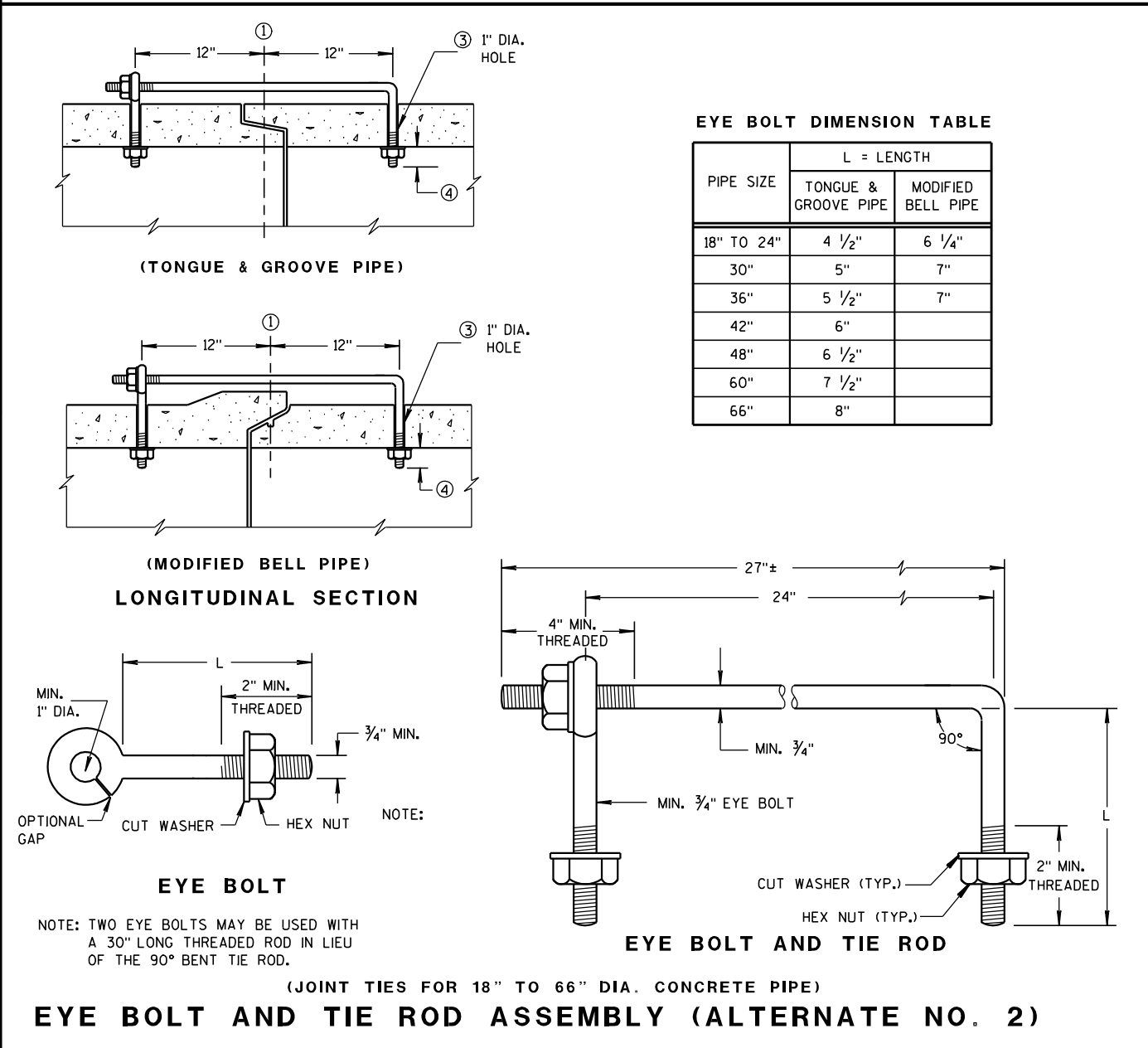
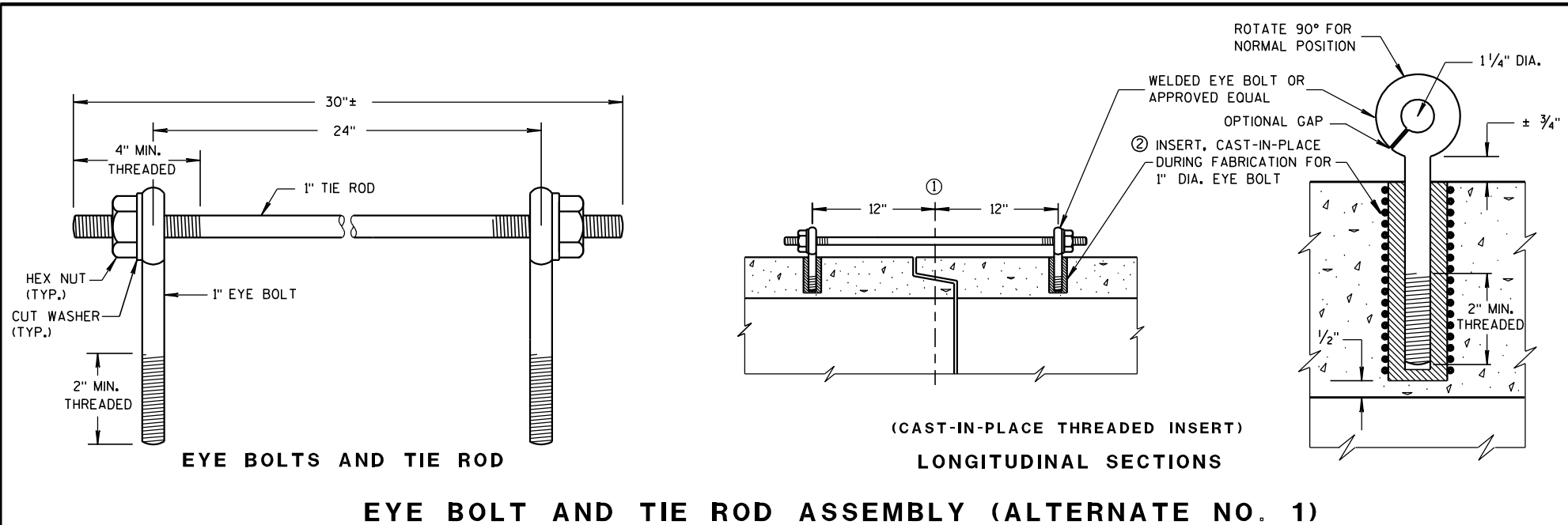
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

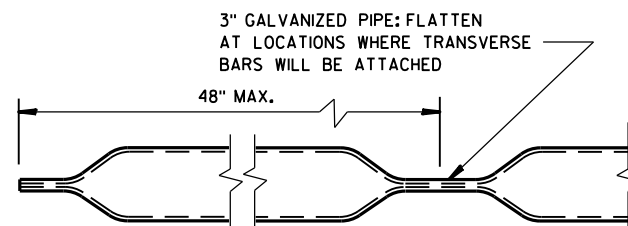
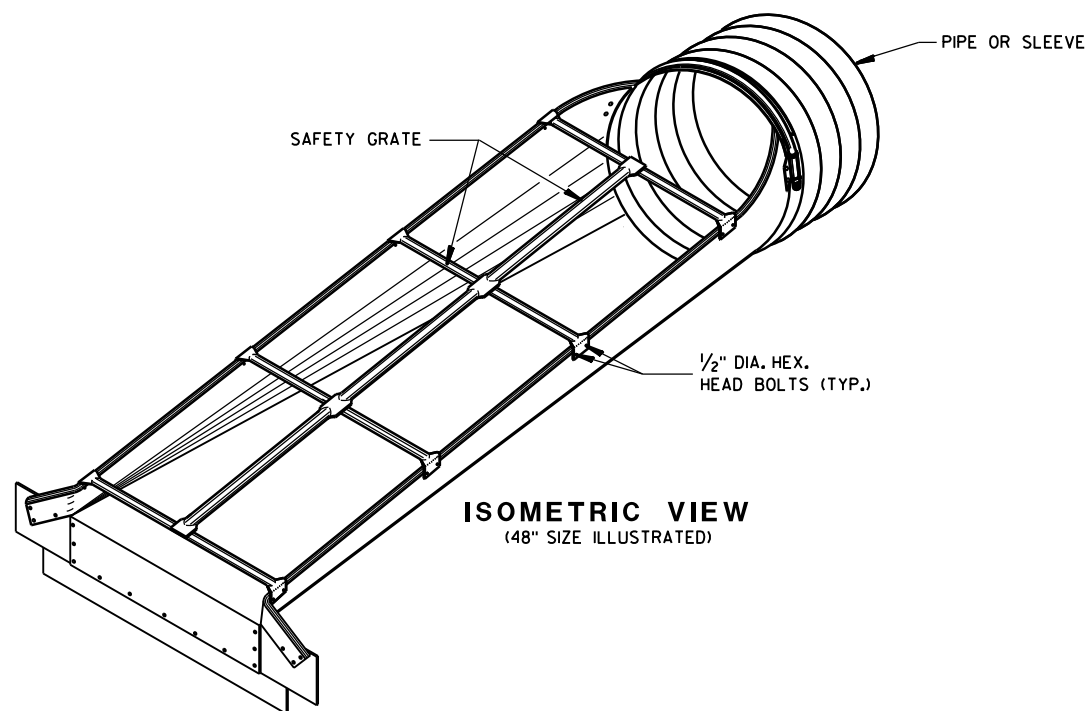
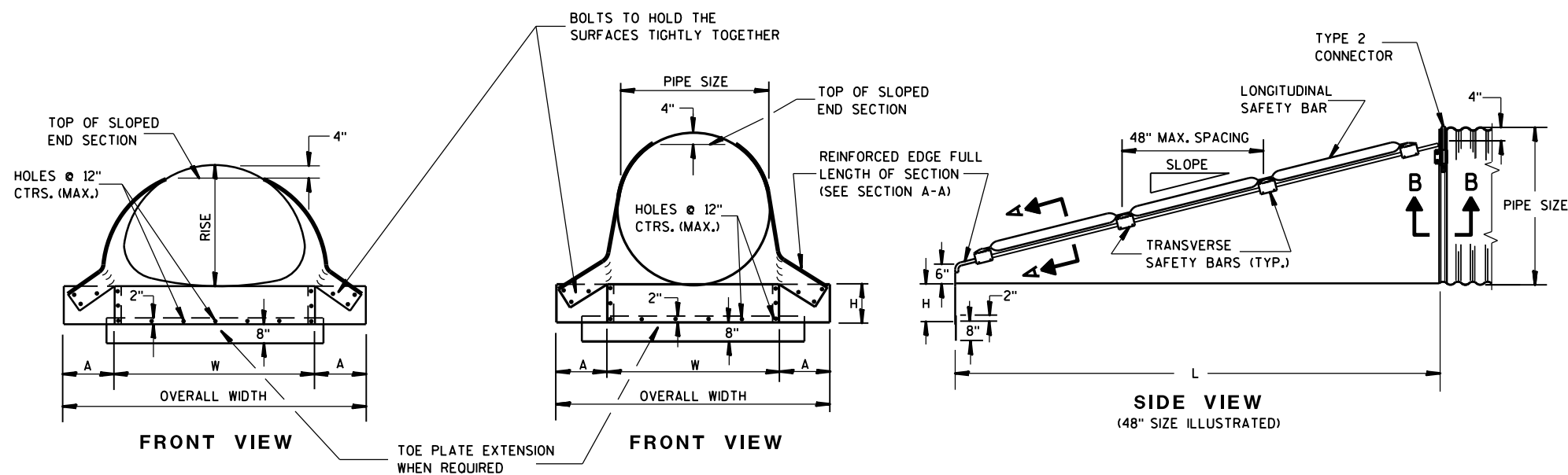
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES.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

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

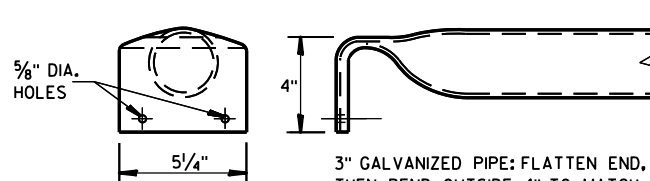
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	





LONGITUDINAL SAFETY BAR



TRANSVERSE SAFETY BAR

GENERAL NOTES

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

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

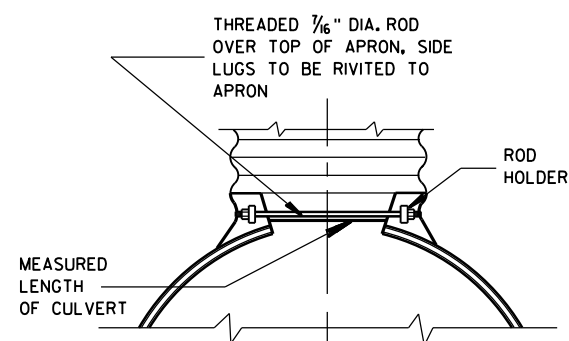
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT
PIPE CROSS DRAINS

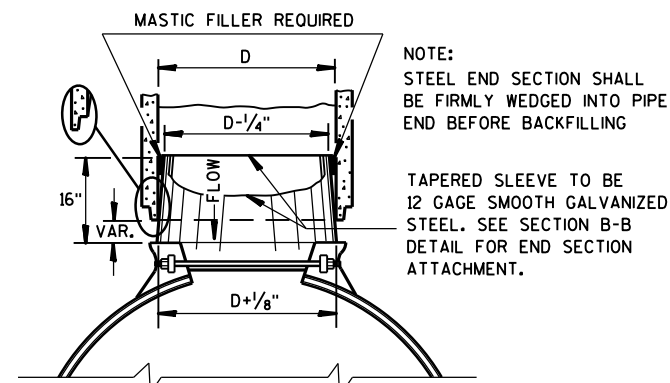
PIPE DIA. (IN.)	MIN. THICK. IN.	GAGE	DIMENSIONS (inches)				L DIMENSIONS			
			A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109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

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS

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

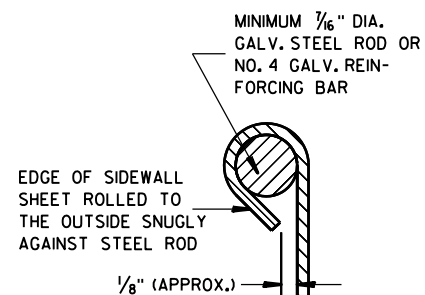


TYPE 2 CONNECTOR DETAIL

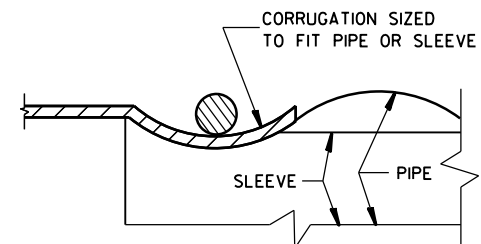
STEEL ADAPTER SLEEVE FOR
CONCRETE PIPE

NOTE:
STEEL END SECTION SHALL
BE FIRMLY WEDGED INTO PIPE
END BEFORE BACKFILLING

TAPERED SLEEVE TO BE
12 GAGE SMOOTH GALVANIZED
STEEL. SEE SECTION B-B
DETAIL FOR END SECTION
ATTACHMENT.



SECTION A-A



SECTION B-B

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

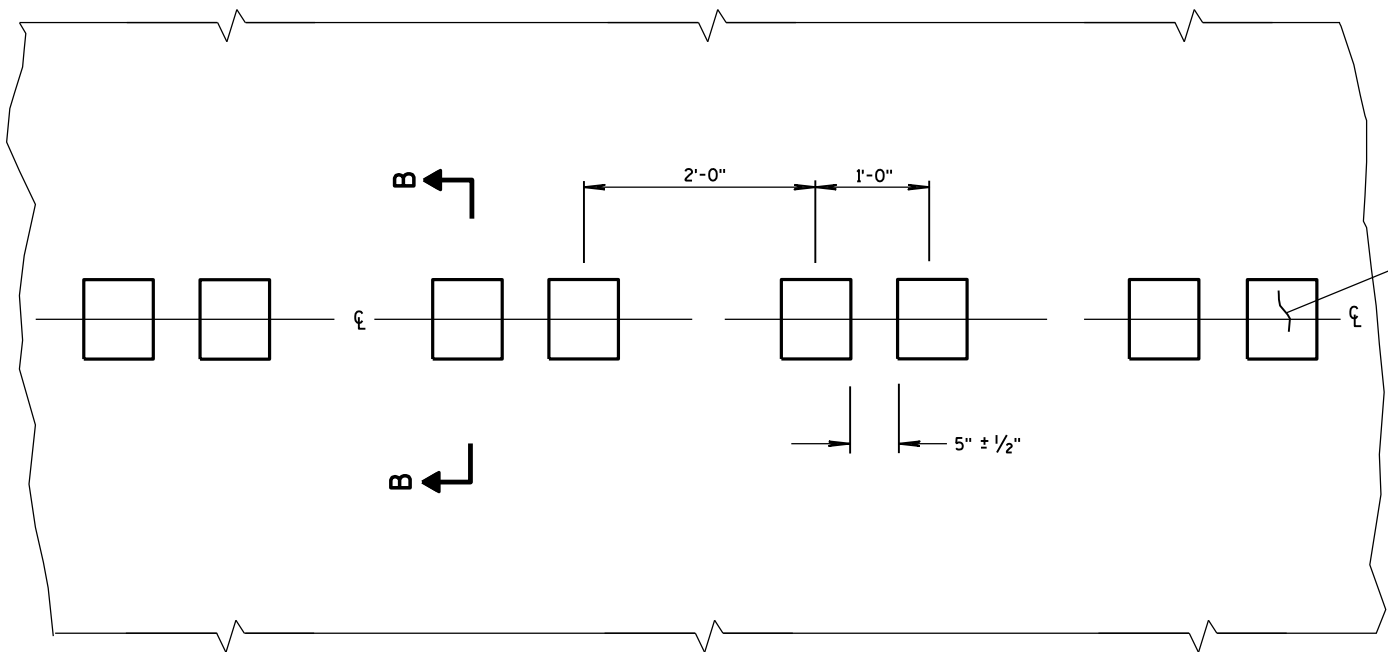
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

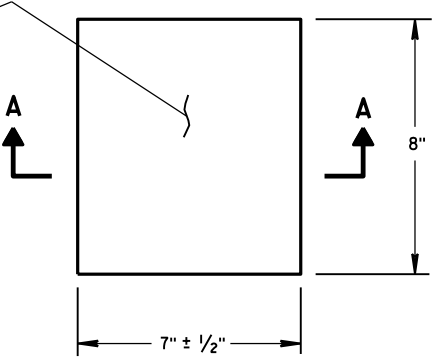
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

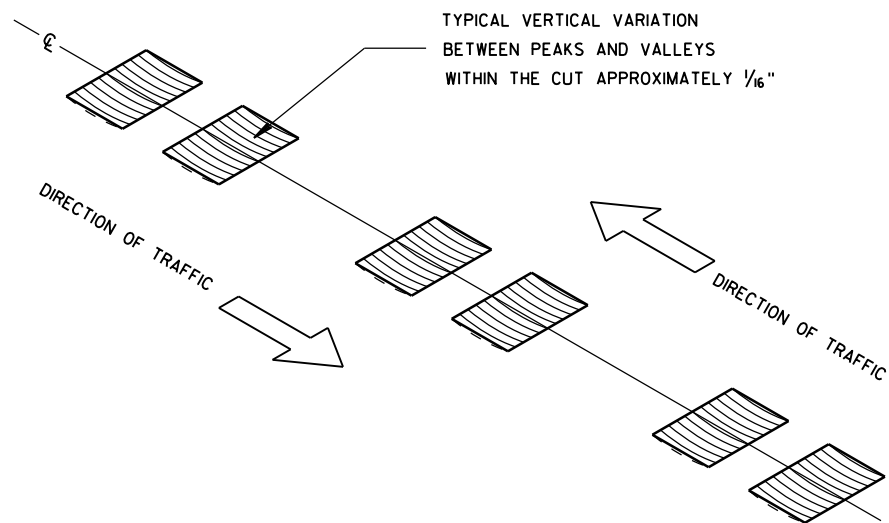
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



PLAN VIEW
CENTER LINE WITH GROOVES

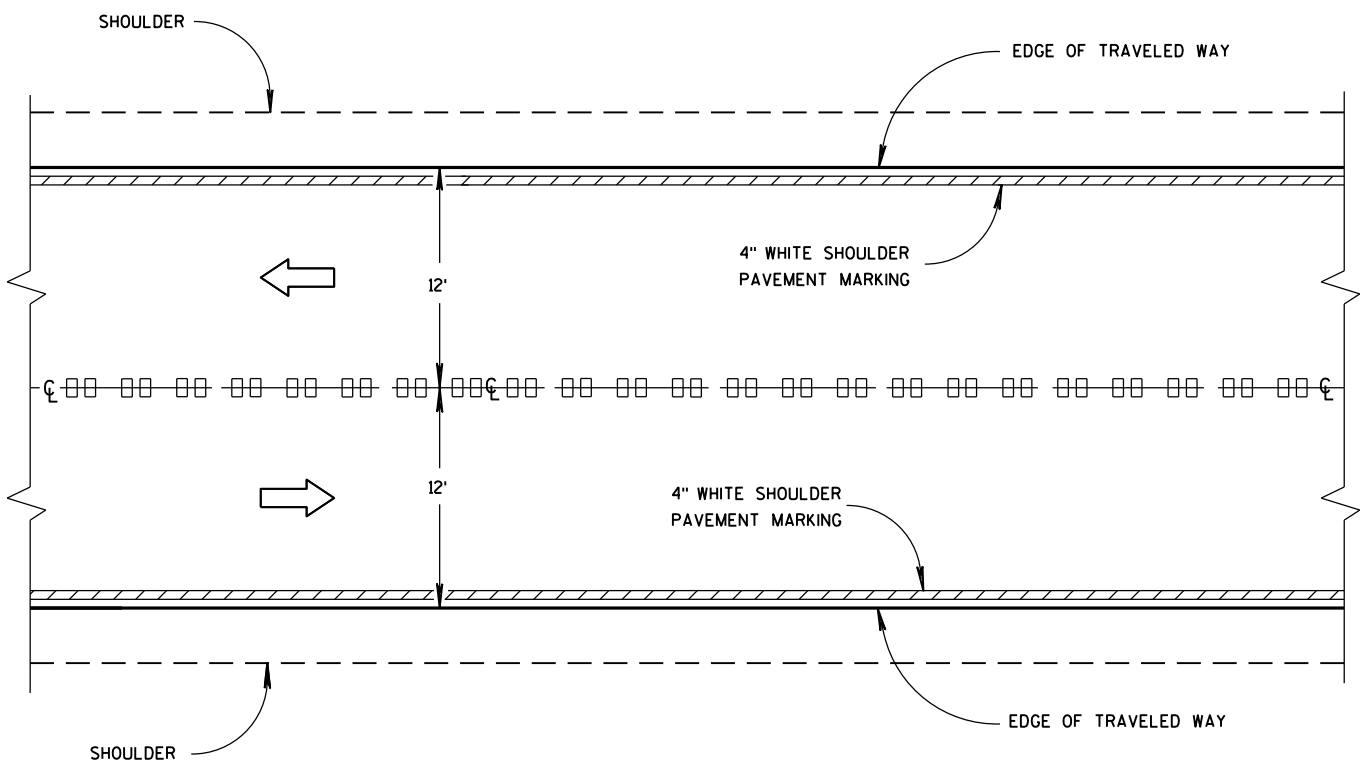


PLAN VIEW
(SINGLE GROOVE)

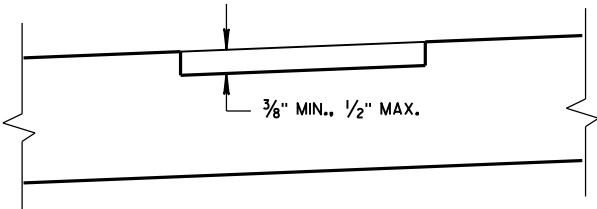


ISOMETRIC

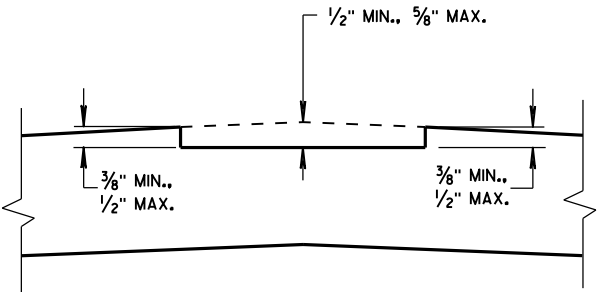
PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



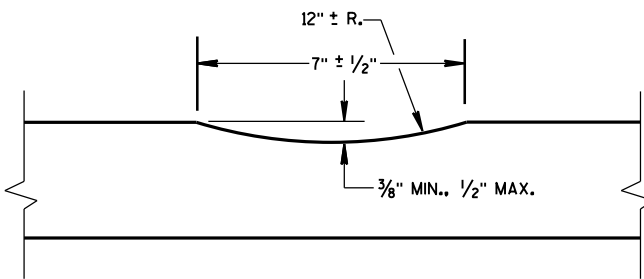
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



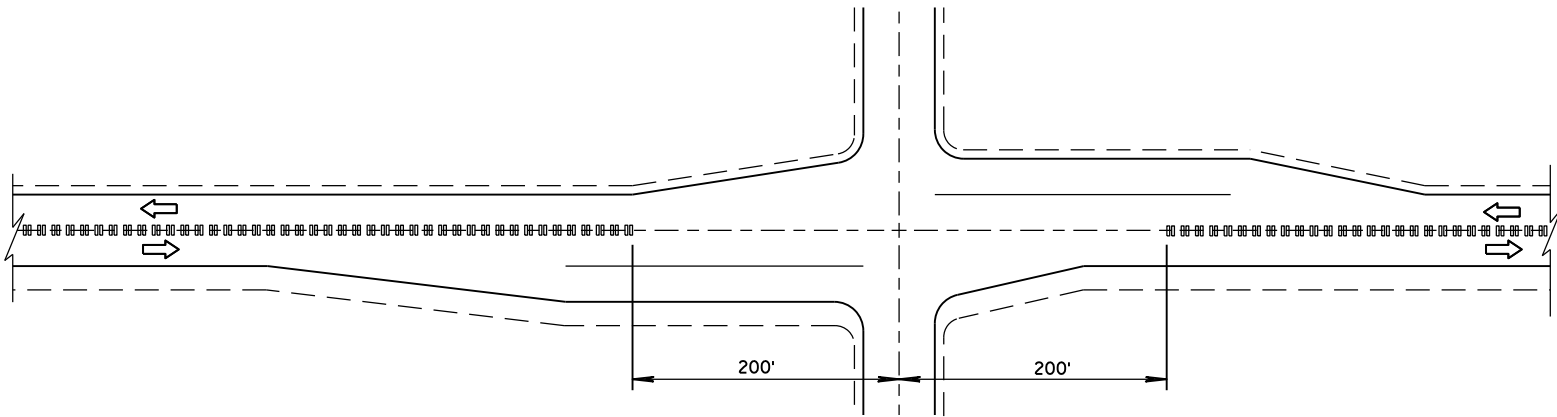
SECTION B-B
CROWNED ROADWAY



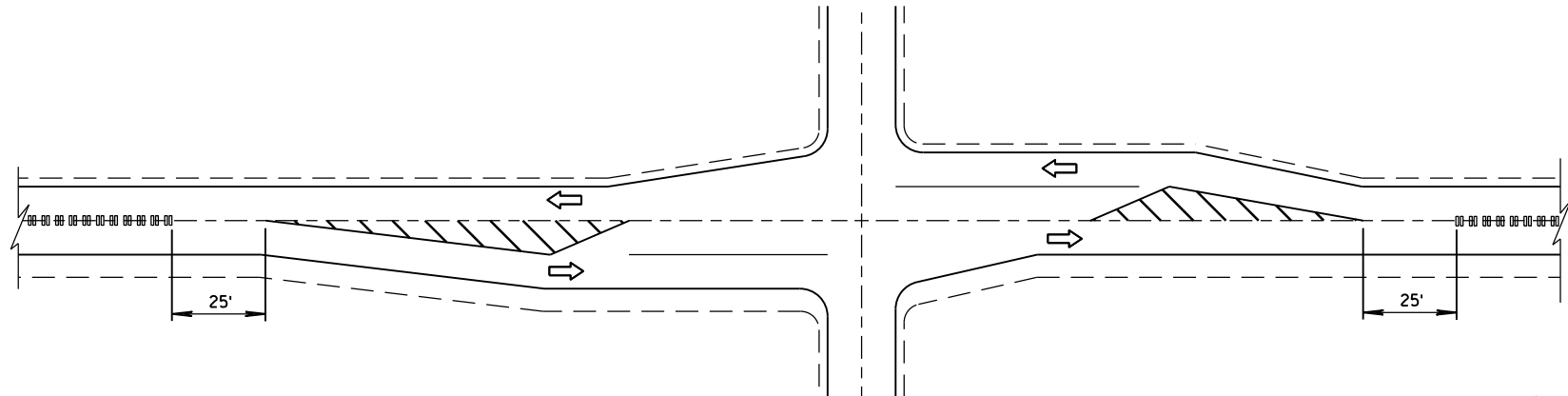
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

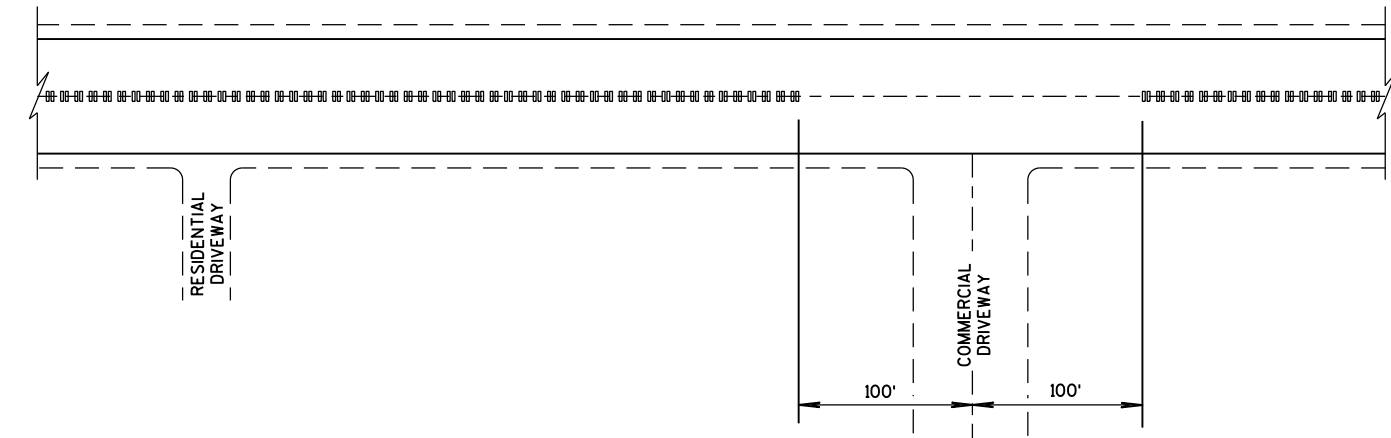
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

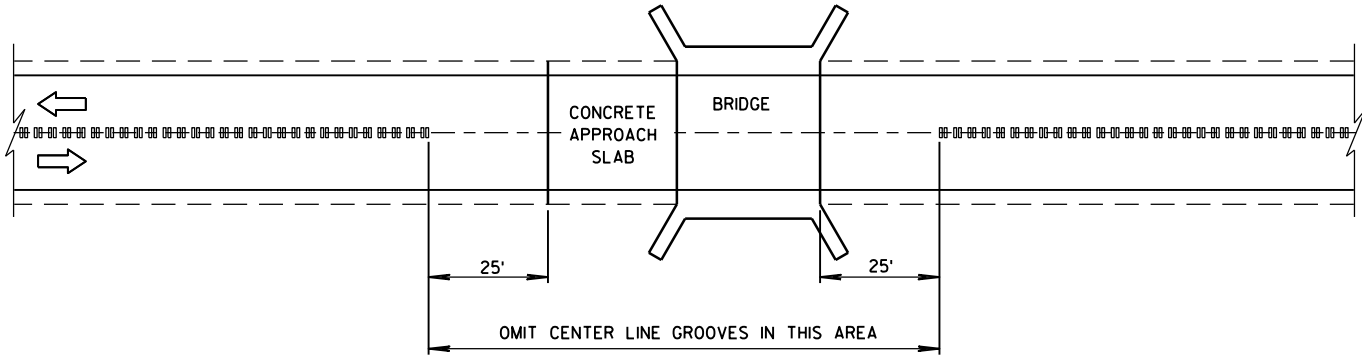


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

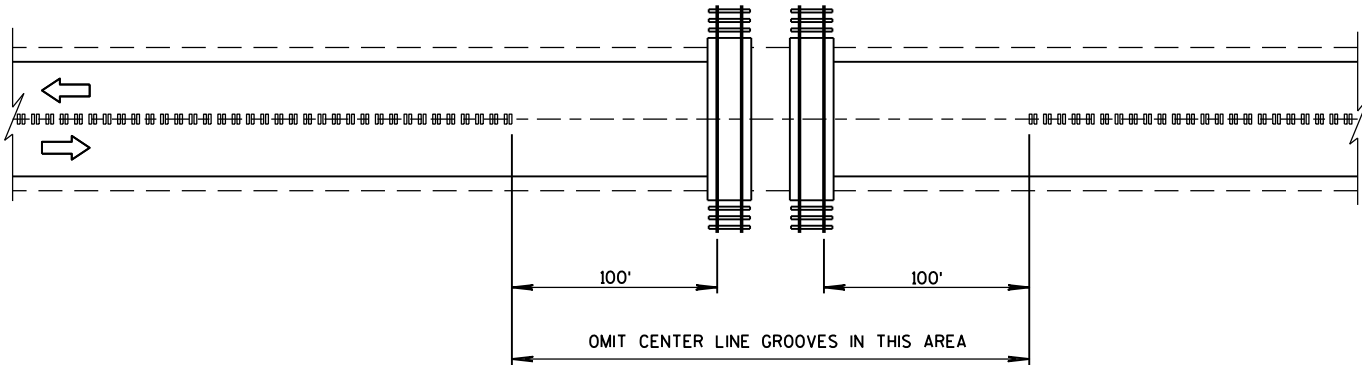


CENTER LINE GROOVES AT DRIVEWAYS^①

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

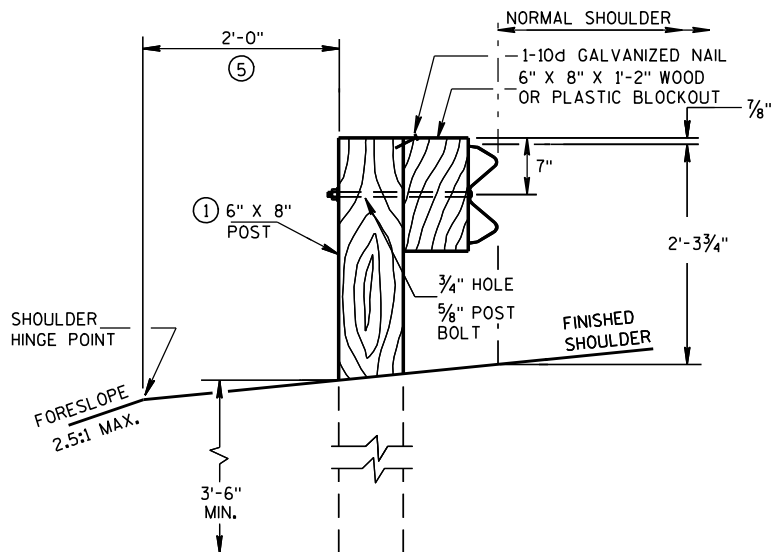
2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/15/2013 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

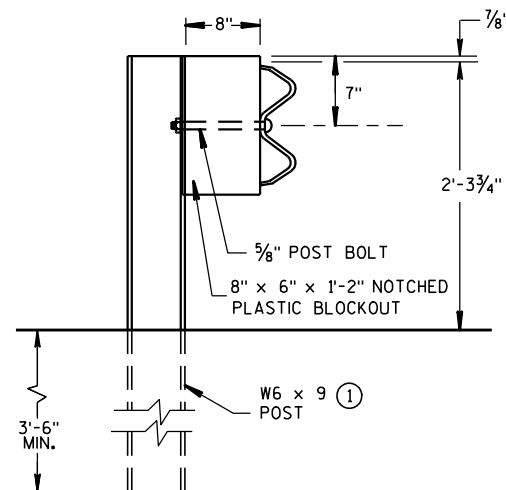
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, AND THE APPLICABLE SPECIAL PROVISIONS.

- ① W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.
DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111 EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPALTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2 INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN THE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATELY.

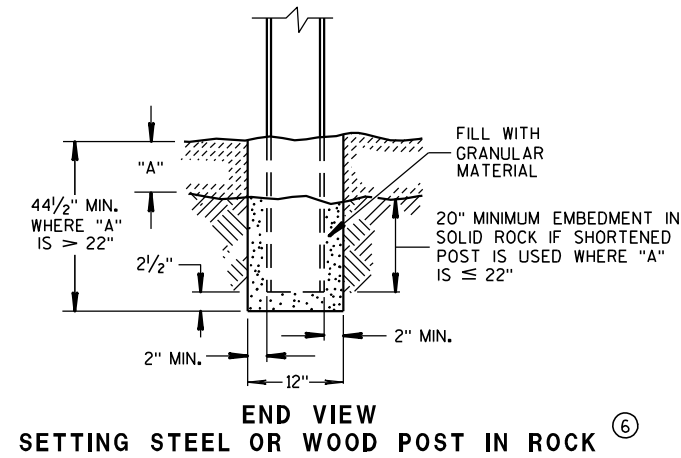
INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



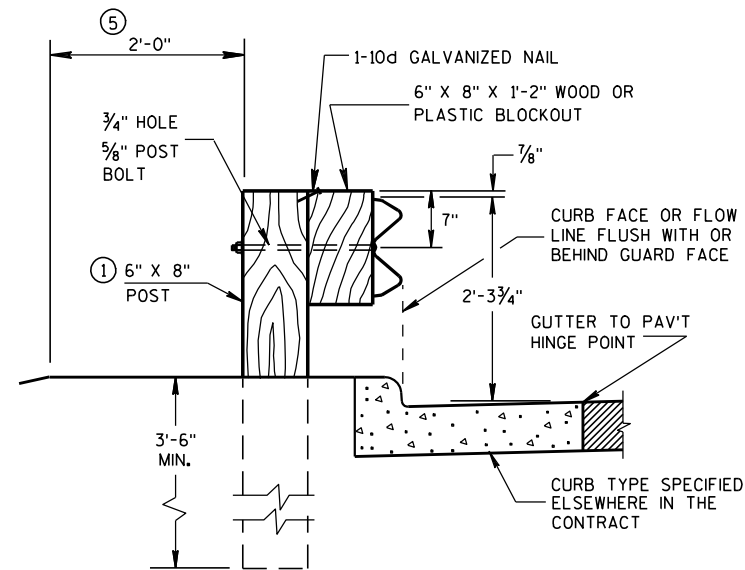
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



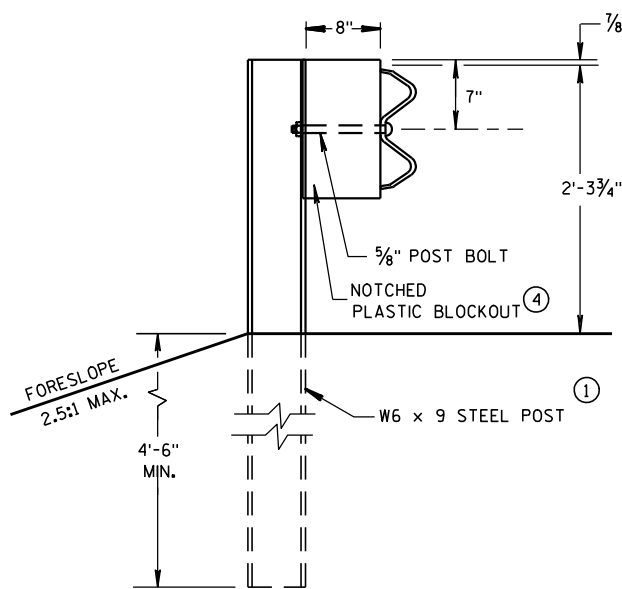
END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



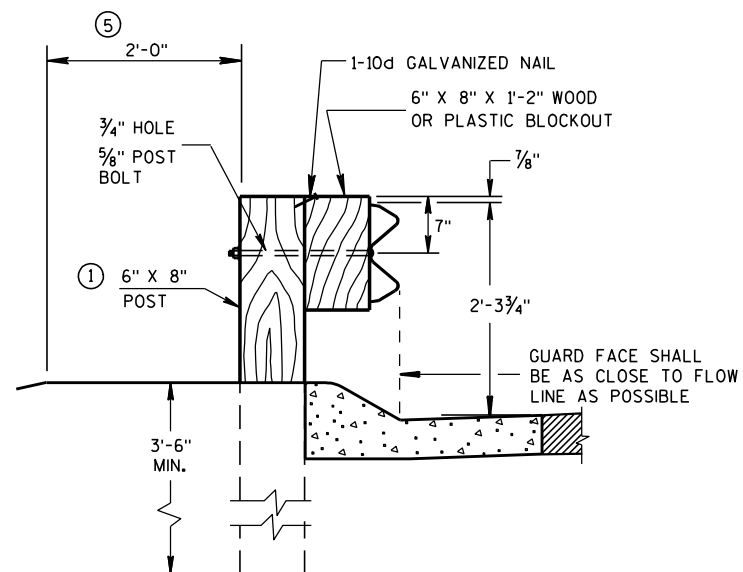
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ⑥



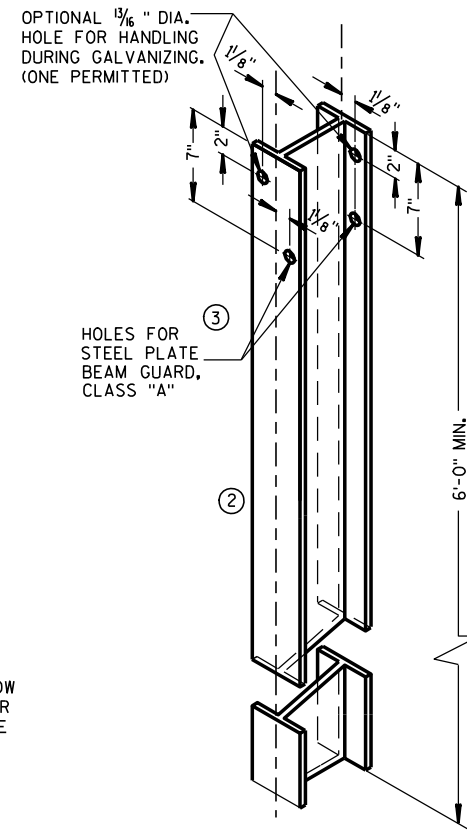
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

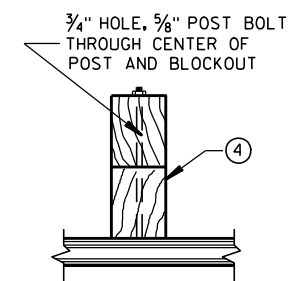


END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

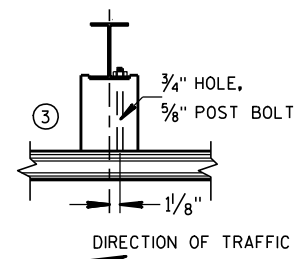


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) ①

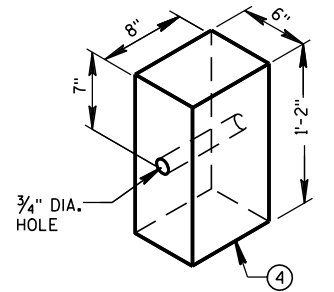
ALL HOLES 1 3/8" DIAMETER EXCEPT AS NOTED



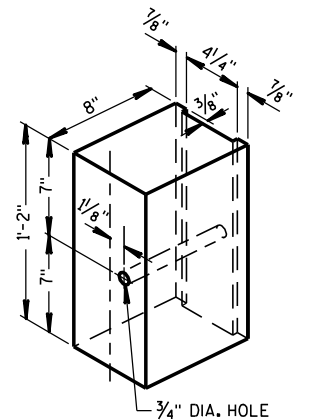
PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



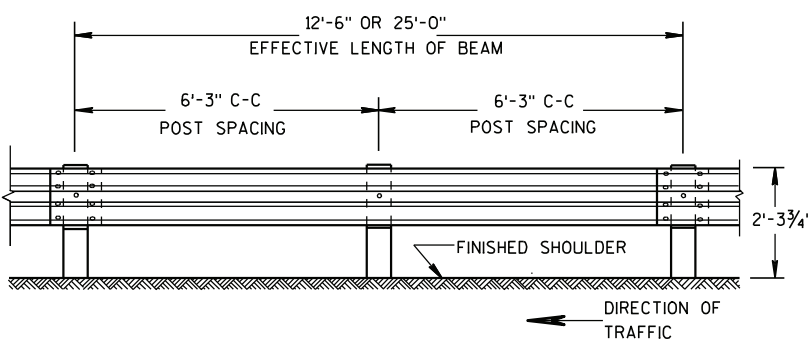
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS ①

STEEL PLATE BEAM GUARD,
CLASS "A"
INSTALLATION & ELEMENTS

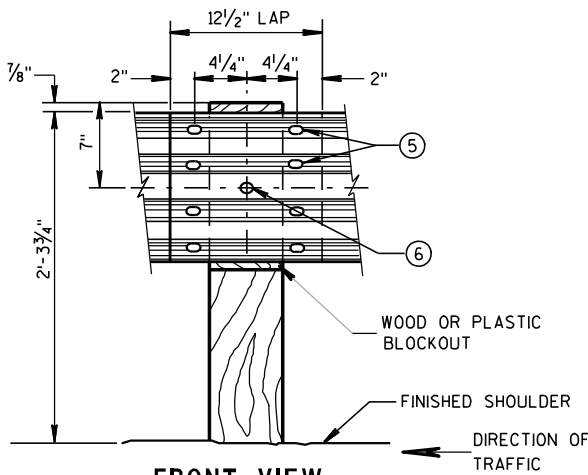
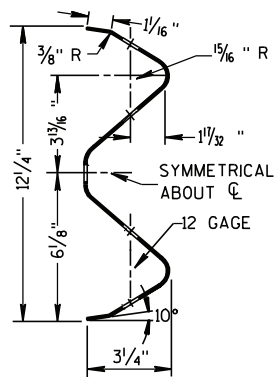
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



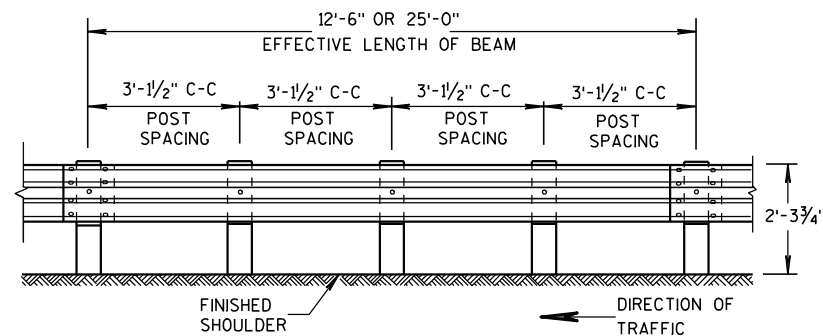
FRONT VIEW

POST SPACING STANDARD INSTALLATION

SECTION THRU W BEAM

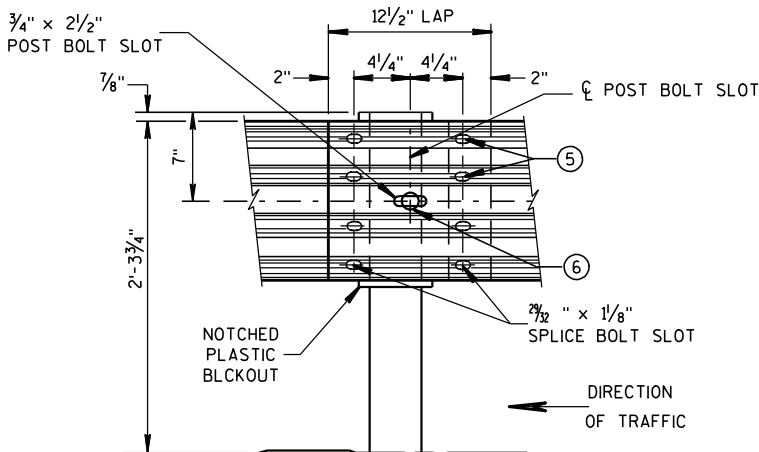


FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL



FRONT VIEW

POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)

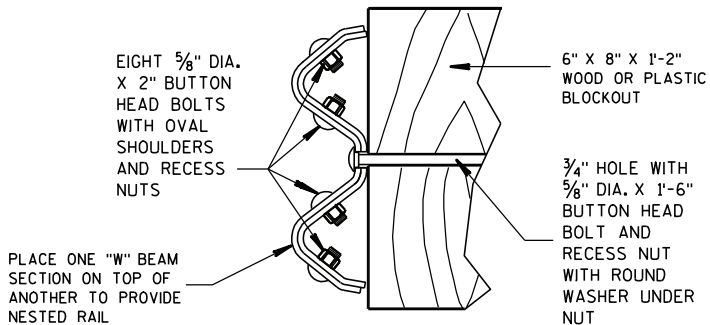


FRONT VIEW
BEAM SPLICE AT STEEL POST

TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD

GENERAL NOTES

- ① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- ② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- ③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- ④ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
- ⑤ 8 - $\frac{5}{8}$ " ϕ X 2 " BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑥ $\frac{5}{8}$ " ϕ X 1'-6" BUTTON HEAD BOLT AND AND RECESS NUT WITH ROUND WASHER UNDER NUT.

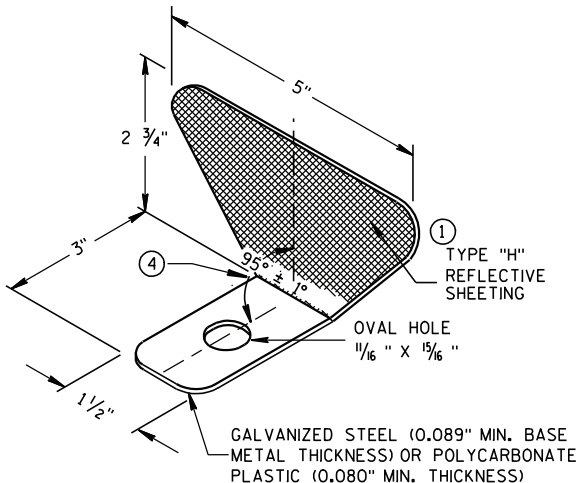
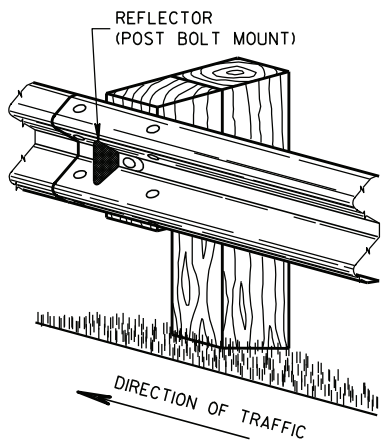


NESTED W BEAM (NW)

USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

REFLECTOR SPACING^②

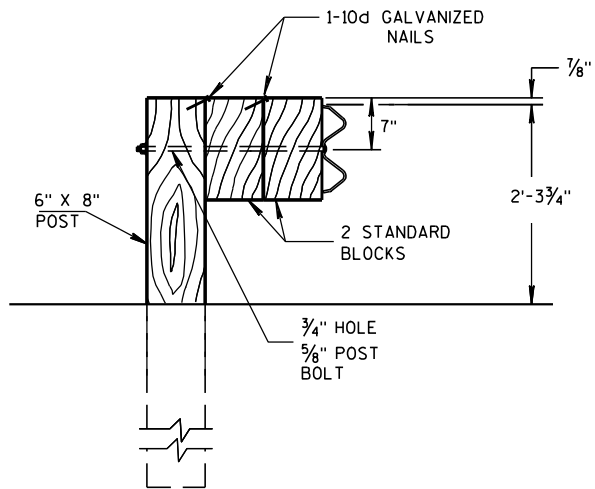
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	3
TWO WAY TRAFFIC	< 200'	25' C-C	1 ③	6
	> 200'	50' C-C	1 ③	6
TWO WAY TRAFFIC	< 200'	50' C-C	2 ④	3
	> 200'	100' C-C	2 ④	3



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

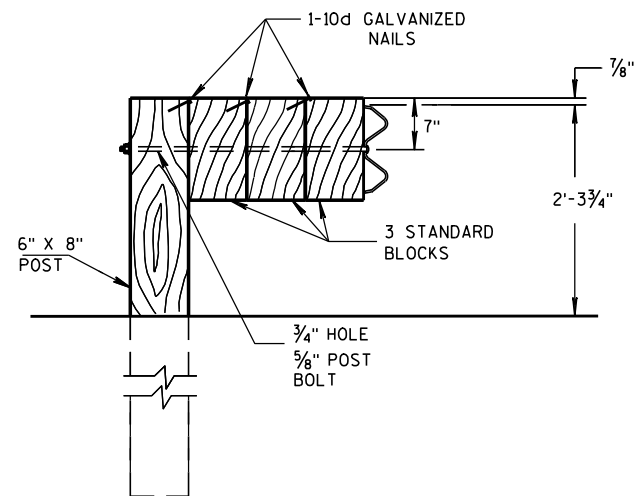
STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS
WITHIN A BARRIER RUN IS UNLIMITED

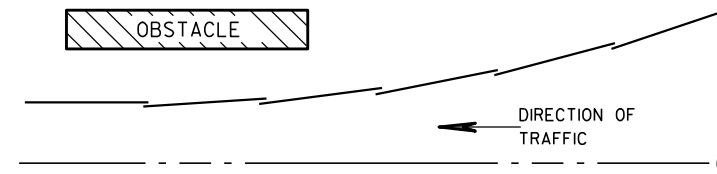


DETAIL FOR TRIPLE BLOCKS

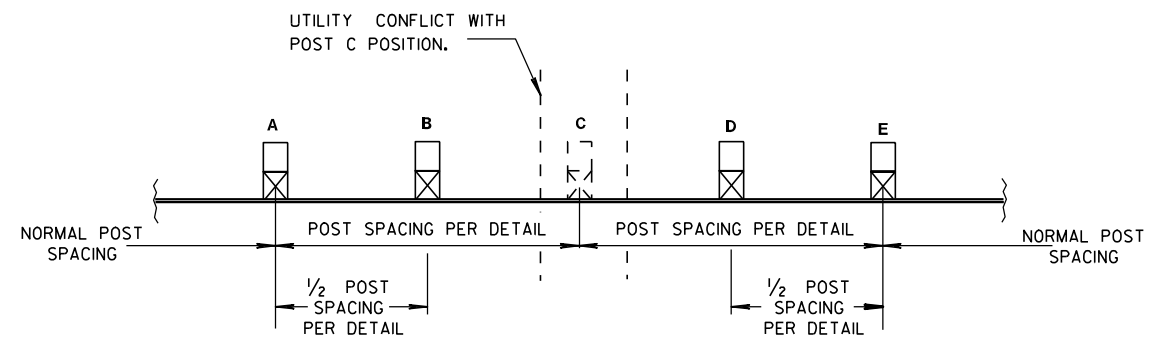
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES
PREVENT THE POST FROM BEING INSTALLED.

DO NOT USE EXTRA 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.



PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

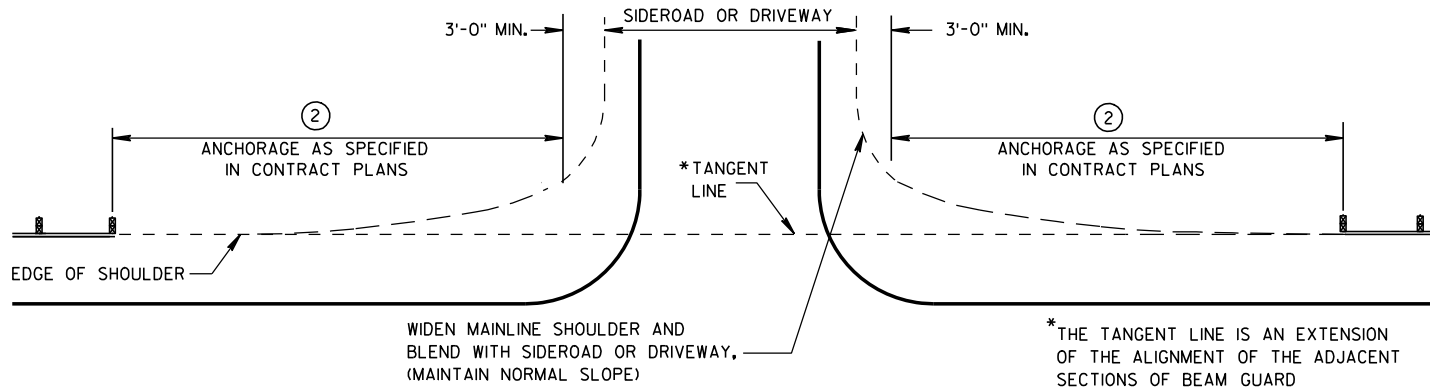
APPROVED

5/23/11

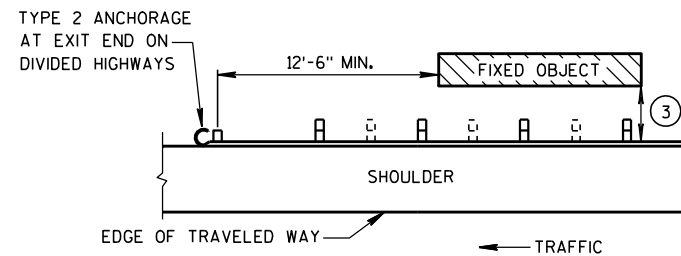
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

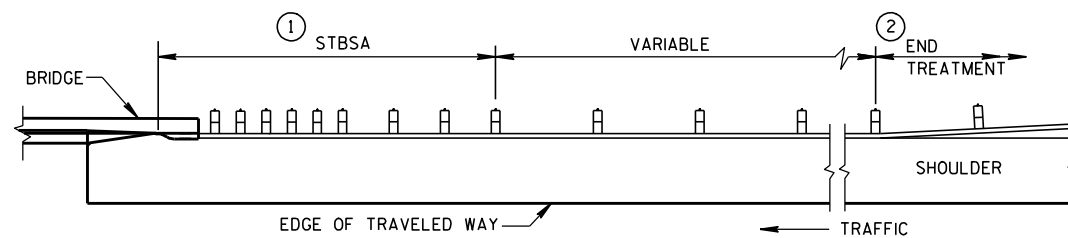
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

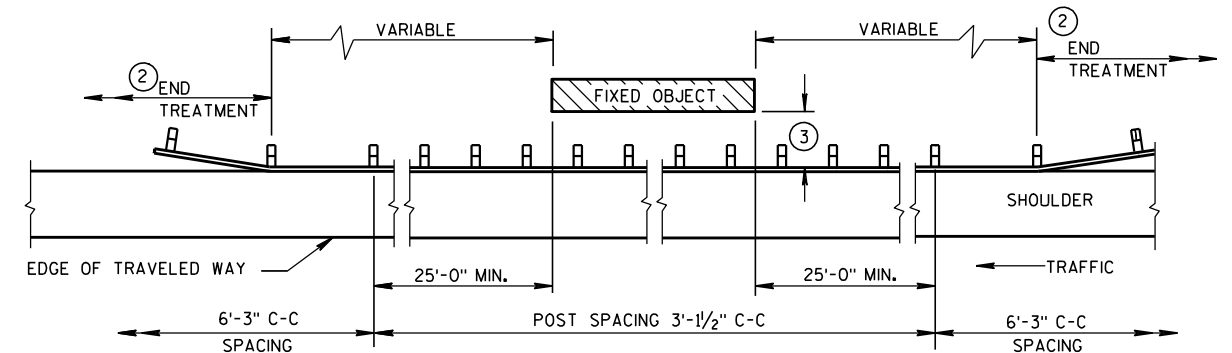
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

- ① STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.
- ② USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"



BEAM GUARD AT FULL WIDTH BRIDGES

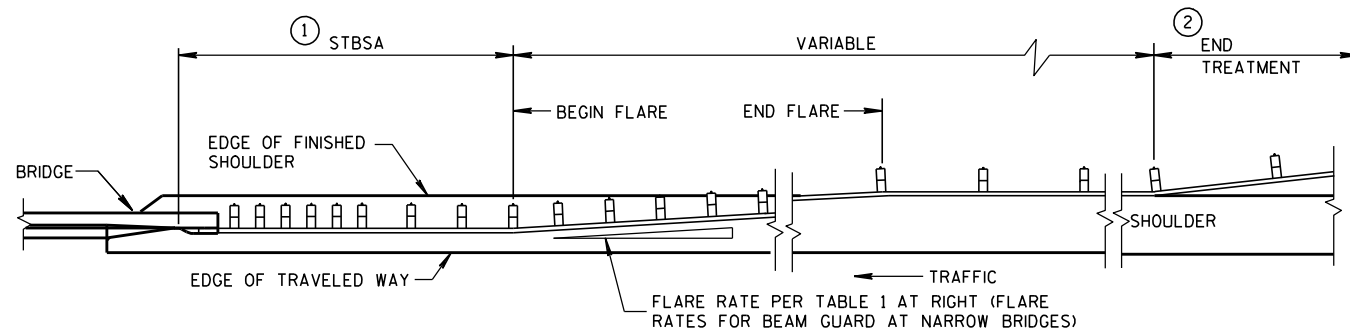


BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")

TABLE 1
FLARE RATES FOR BEAM
GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1



BEAM GUARD AT NARROW BRIDGES (FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

STEEL PLATE BEAM GUARD
CLASS "A"
AT BRIDGES, OBSTACLES
AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-21-07
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

BILL OF MATERIALS

NOTE NO.	QTY.	DESCRIPTION
①	4	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" X 3'-9"
②	**	STEEL TUBE: OPTION 1 - QUANTITY OF 4 TS 8" X 6" X 0.188", 4'-6" LONG OR OPTION 2 - QUANTITY OF 2 TS 8" X 6" X 0.188", 6'-0" AND 2 TS 8" X 6" X 0.188", 4'-6" LONG
③	2	SOIL PLATE: 2'-0" X 1'-6" X 1/4" **
④	4	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	6	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	1	PIPE SLEEVE: 2" X 5 1/2" STANDARD PIPE
⑦	1	BEARING PLATE
⑧	1	BCT CABLE ASSEMBLY
⑨	1	CABLE ANCHOR BOX
⑩	1	STRUT & YOKE
⑪	1	STEEL PLATE BEAM, END PANEL 12 GA, 13'-6 1/2" LONG FOR SKT-350, ET-2000 AND ET-2000 PLUS
⑫	3	STEEL PLATE BEAM: 12 GA, 13'-6 1/2"
⑬	1	ET-2000/ET-2000 PLUS GUARDRAIL EXTRUDER OR SKT-350 IMPACT HEAD: AS FURNISHED BY MANUFACTURER
⑭	1	REFLECTIVE SHEETING TYPE H: 18" X 18"
⑮	1	E.A.T. MARKER POST

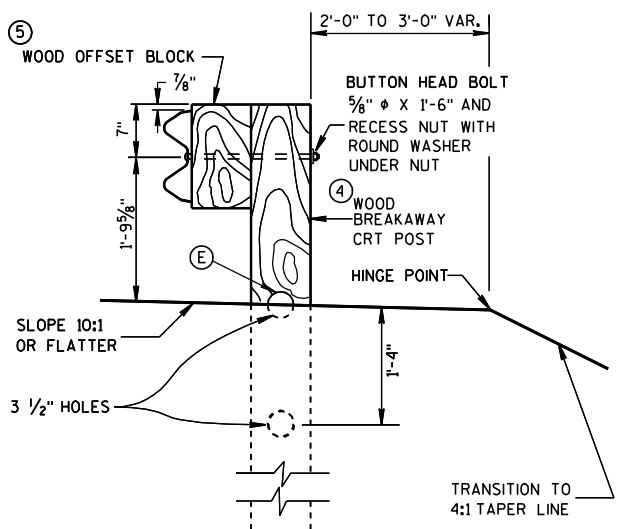
GENERAL NOTES

FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS. IF NONE ARE AVAILABLE, INSTALL 5/8" ϕ X 1'-6" BUTTON HEAD BOLTS AT ALL POSTS EXCEPT FOR POST 1.

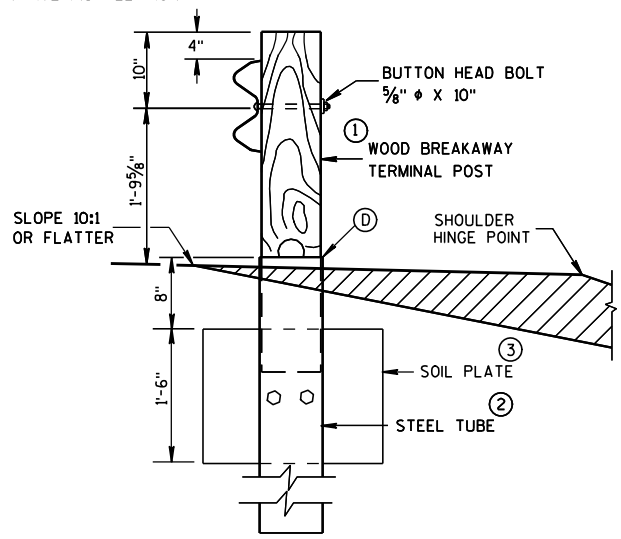
- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) THE 13 SLOT FIRST RAIL PANEL MAY BE USED IN LIEU OF THE 3 SLOT RAIL PANEL ON SKT-350 ONLY.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 THROUGH 4 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST 5 THROUGH 8 SHALL BE 3/4" ABOVE THE FINISHED GROUND LINE.
- (F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER OF E.A.T. STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
- DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

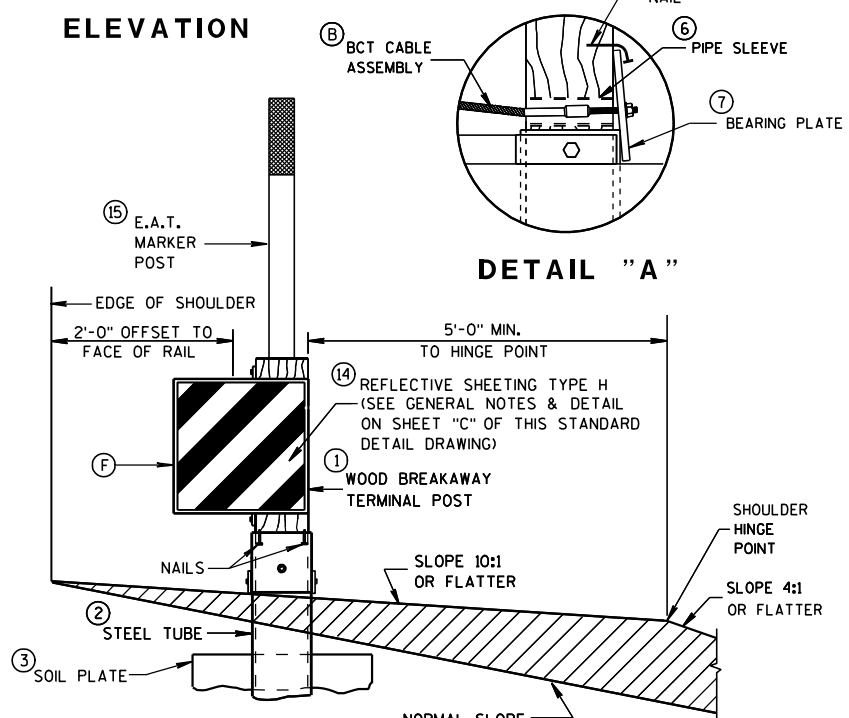
** SDD SHOWS 4 - 54 INCH STEEL TUBES WITH SOIL PLATES INSTALLED ON POST 1 AND POST 2. POST 3 AND 4 DO NOT NEED SOIL PLATES. AN ALTERNATIVE INSTALLATION WOULD CONSIST OF 2 - 72 INCH STEEL TUBES ON POST 1 AND POST 2 AND 54 INCH TUBES ON POSTS 3 AND 4. THE ALTERNATIVE INSTALLATION DOES NOT REQUIRE SOIL PLATES.



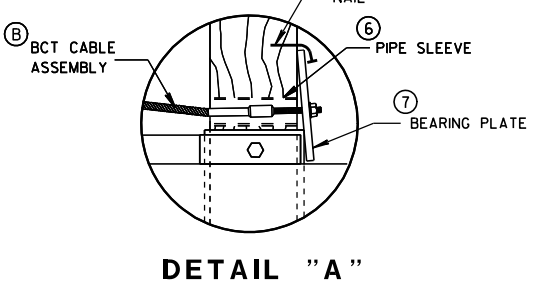
SECTION C-C
TYPICAL AT POST NOS. 6, 8



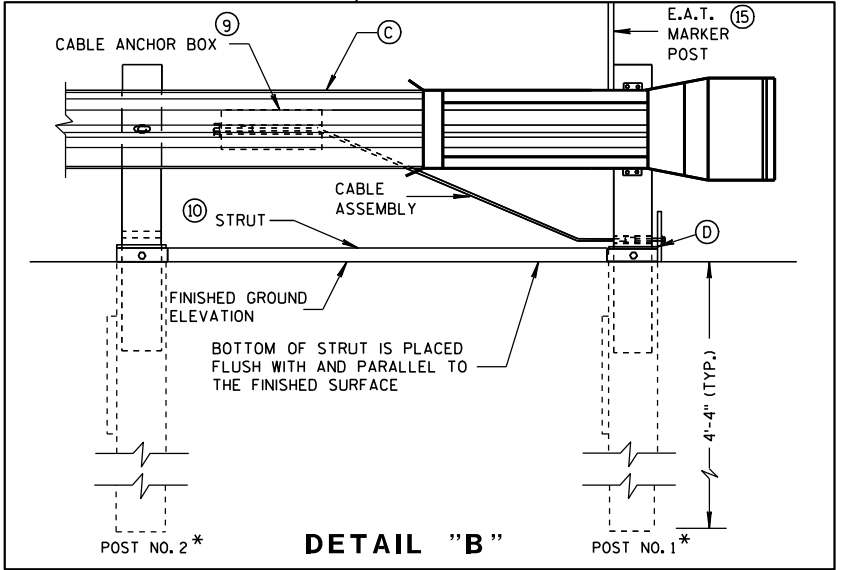
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



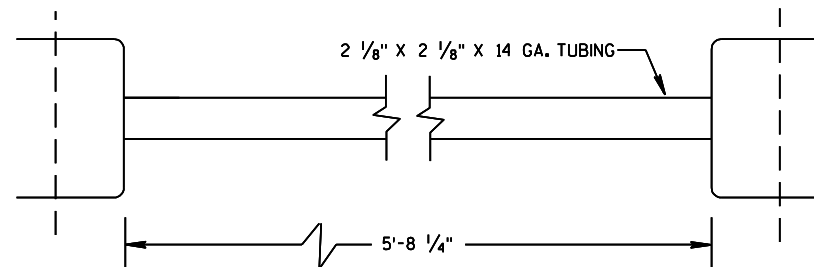
DETAIL "A"



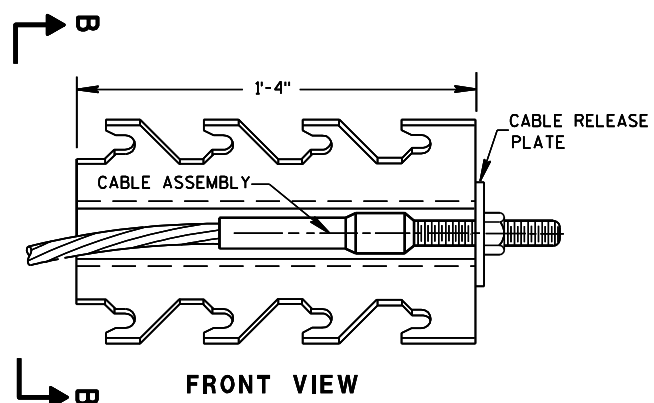
DETAIL "B"

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

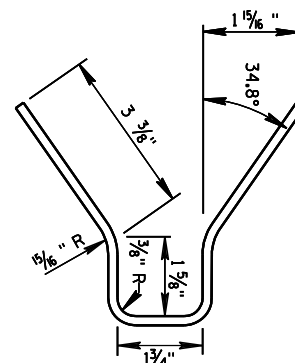


⑩ STRUT DETAIL (SKT-350)

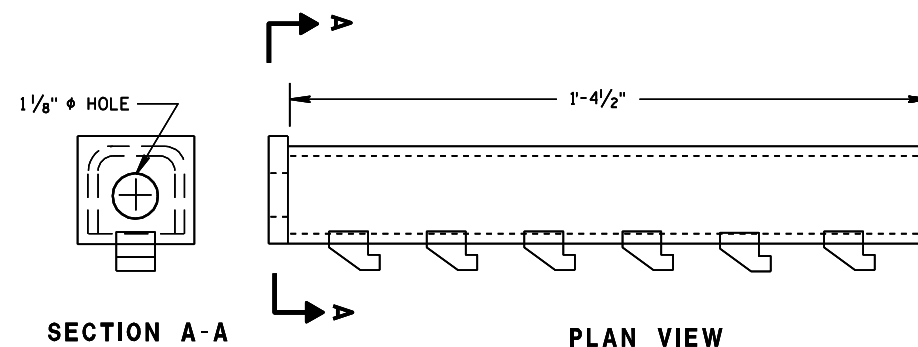


⑨ CABLE ANCHOR BOX (SKT-350)

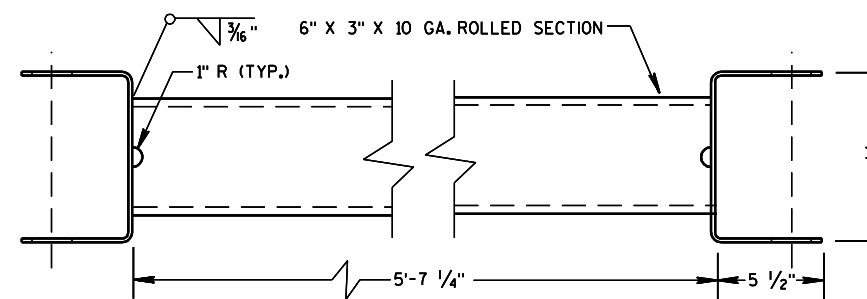
(SKT-350)



SECTION B-B

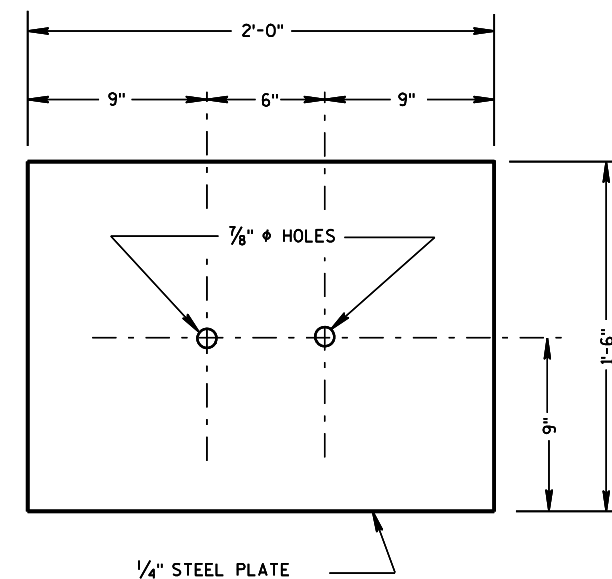


⑨ CABLE ANCHOR BOX (ET-2000/ET-2000 PLUS)

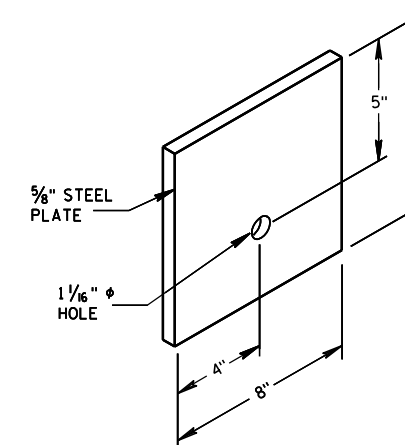


⑩ STRUT DETAIL (ET-2000/ET-2000 PLUS)

(ET-2000/ET-2000 PLUS)



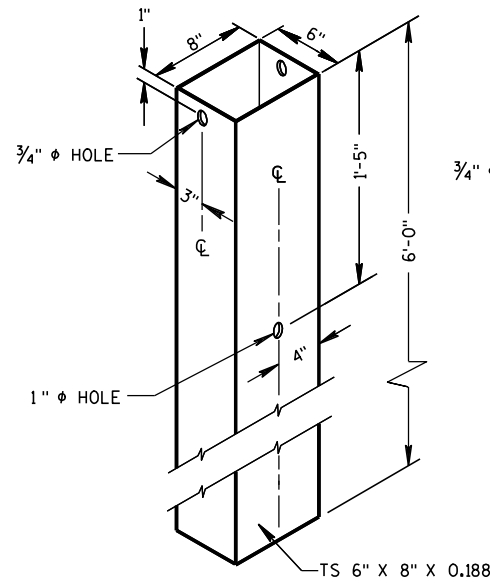
③ SOIL PLATE
(SKT-350, ET-2000/ET-2000 PLUS)



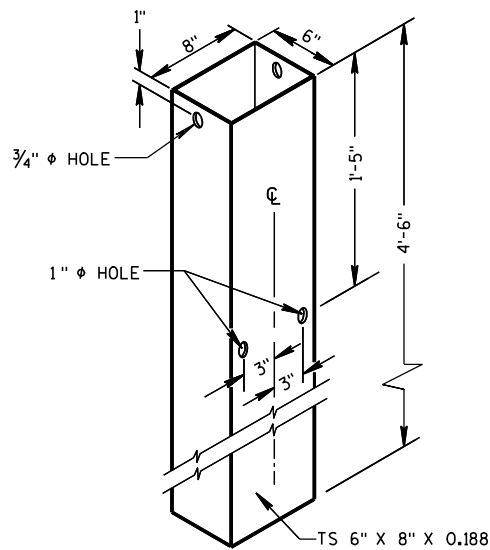
⑦ STEEL BEARING PLATE
(SKT-350, ET-2000/ET-2000 PLUS)

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

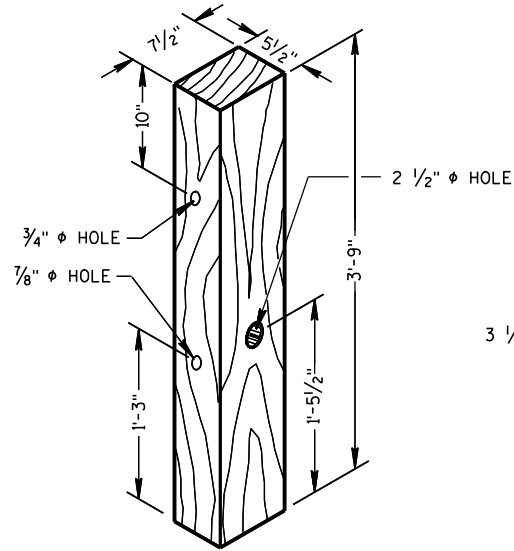
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



② 72" STEEL TUBE
(POSTS NO. 1-4)

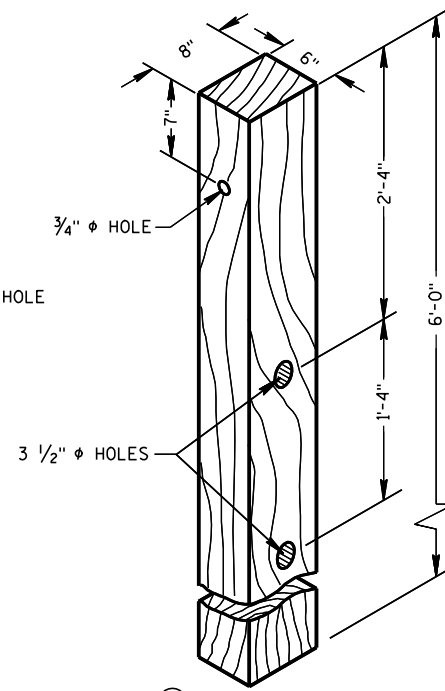


② 54" STEEL TUBE
(POSTS NO. 1-4)

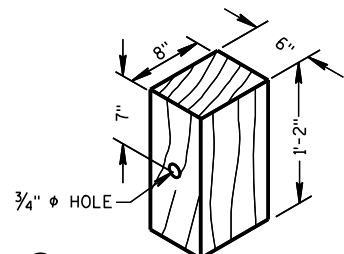


① TERMINAL POST
(POSTS NO. 1-4)

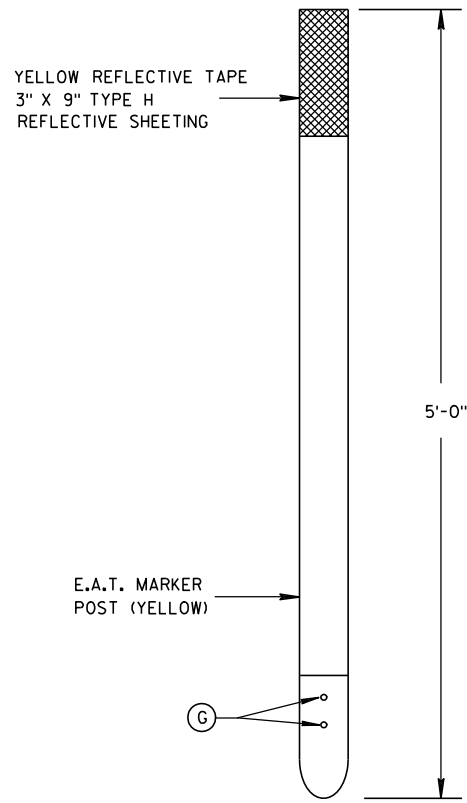
WOOD BREAKAWAY POSTS



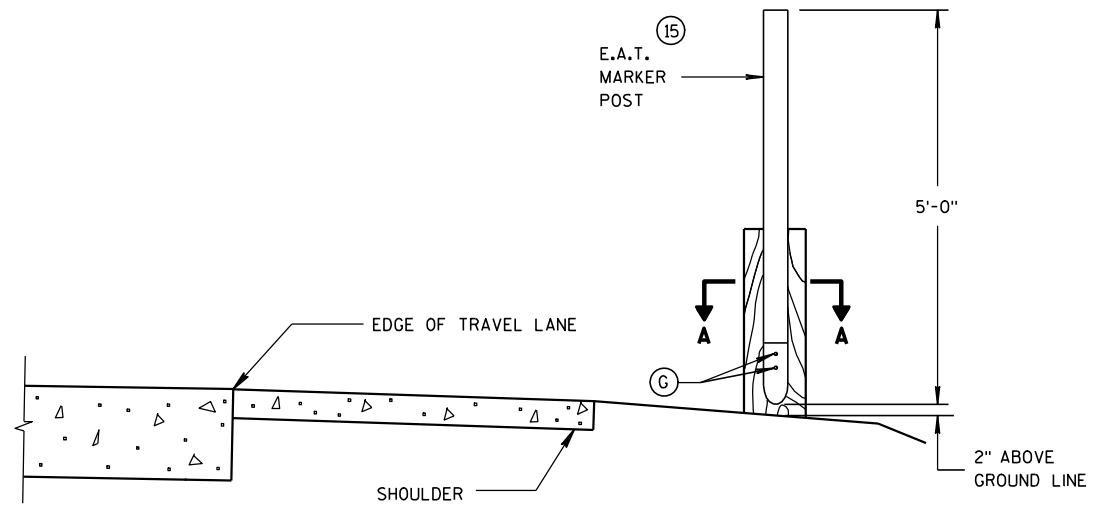
④ CRT POST
(POSTS NO'S 5-8)



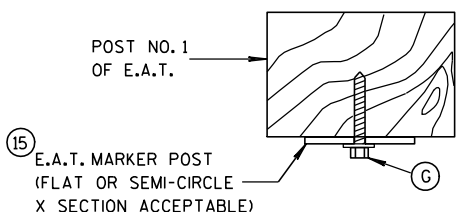
⑤ WOOD OFFSET BLOCK
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



FRONT VIEW SIDE VIEW
⑮ E.A.T. MARKER POST



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



SECTION A-A

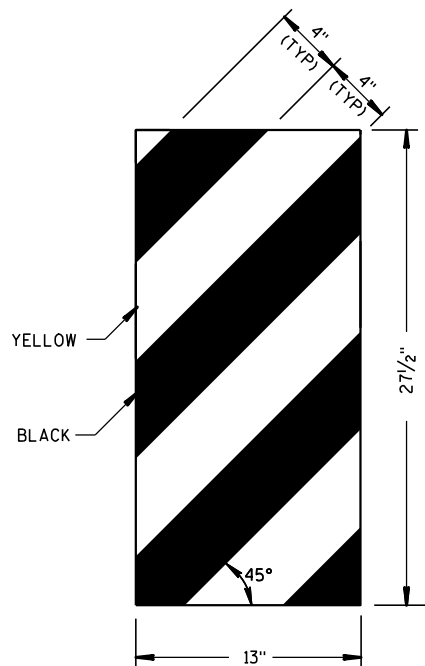
GENERAL NOTES

STEEL PLATE BEAM GUARD, ENERGY ABSORBING TERMINAL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH, WHICH SHALL INCLUDE HARDWARE, STEEL PLATE BEAM GUARD, POSTS, REFLECTIVE SHEETING AND INSTALLATION AS SHOWN.

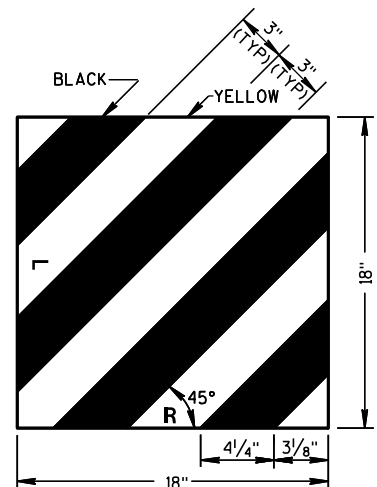
WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.

SEE APPROVED PRODUCTS LIST FOR ACCEPTABLE E. A. T. MARKER POST.

⑮ 1/2" DIA. X 3" LAG BOLT WITH WASHER.



ET-2000 PLUS ONLY



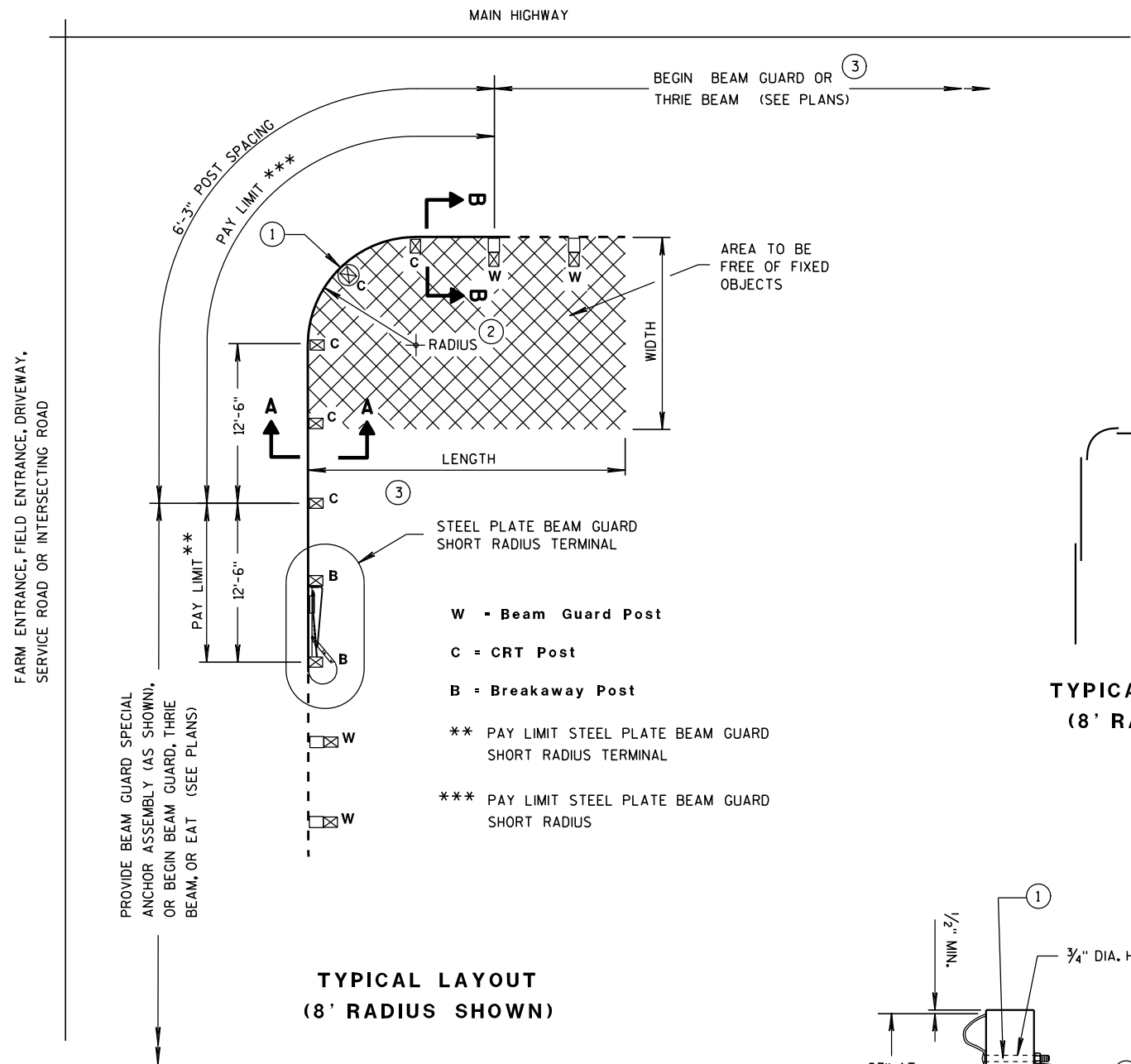
ET-2000 AND SKT-350

⑭ REFLECTIVE SHEETING DETAILS

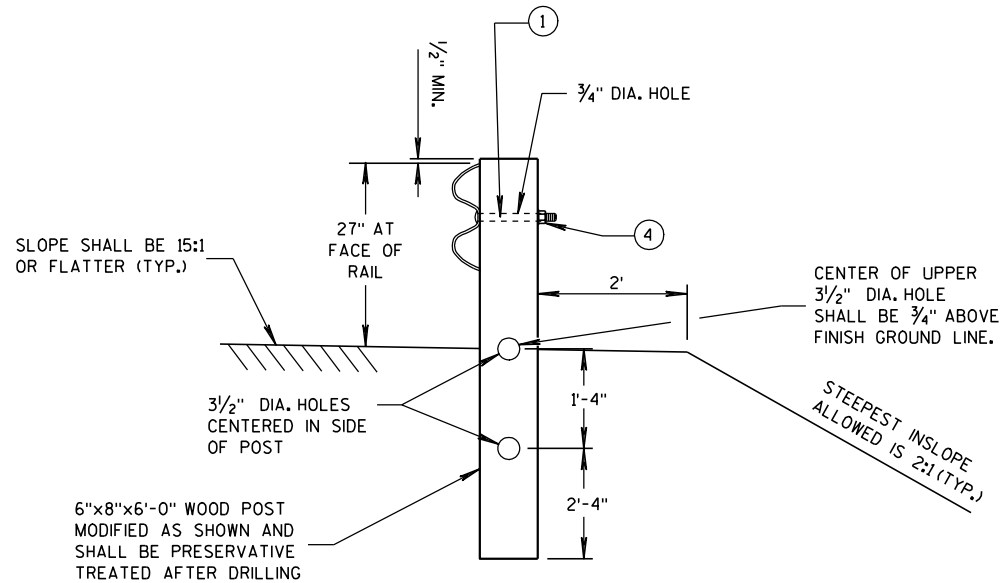
STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-12-10 DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



TYPICAL LAYOUT
(8' RADIUS SHOWN)



SECTION A-A
(CRT POST)

TYPICAL LAP SPLICES
(8' RADIUS SHOWN)

GENERAL NOTES

ALL ANGLES, CHANNELS, AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36 AND THE STRUCTURAL TUBING SHALL CONFORM TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. PUNCHING, DRILLING, CUTTING, OR WELDING WILL NOT BE PERMITTED AFTER GALVANIZING. FURNISH AND INSTALL HARDWARE PER STANDARD SPECIFICATION 614.2, UNLESS NOTED OTHERWISE.

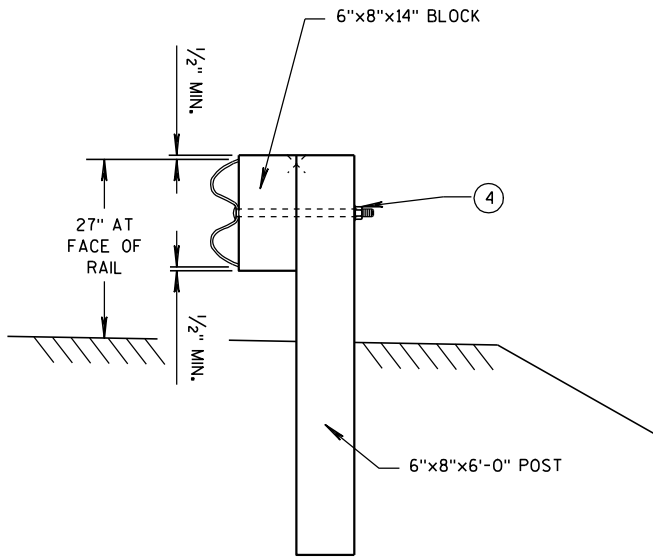
SHOP BEND CURVED RAIL SECTIONS.

SEE STANDARD DETAIL DRAWING 14 B 15 FOR OTHER DETAIL.

- ① ON THE 8 FOOT RADIUS INSTALLATION, DO NOT INSTALL BUTTON HEAD BOLT AT CENTER CRT POST.
- ② RADIUS FROM 8' - 36'. SEE PLAN.
- ③ HEIGHT TRANSITION MAY BE REQUIRED. SEE PLAN OR PROJECT ENGINEER.
- ④ 5/8" Ø X 1'-6" BUTTON HEAD BOLT AND RECESS NUT WITH ROUND WASHER UNDER NUT.

RADIUS	NUMBER OF CRT POSTS	*NUMBER AND LENGTH OF CURVED RAILS	REQUIRED AREA FREE OF FIXED OBJECTS (LENGTH x WIDTH)
8'	5	1 at 12.5'	25' x 15'
16'	7	1 at 25'	30' x 15'
24'	9	1 at 25' and 1 at 12.5'	40' x 20'
32'	11	2 at 25'	50' x 20'

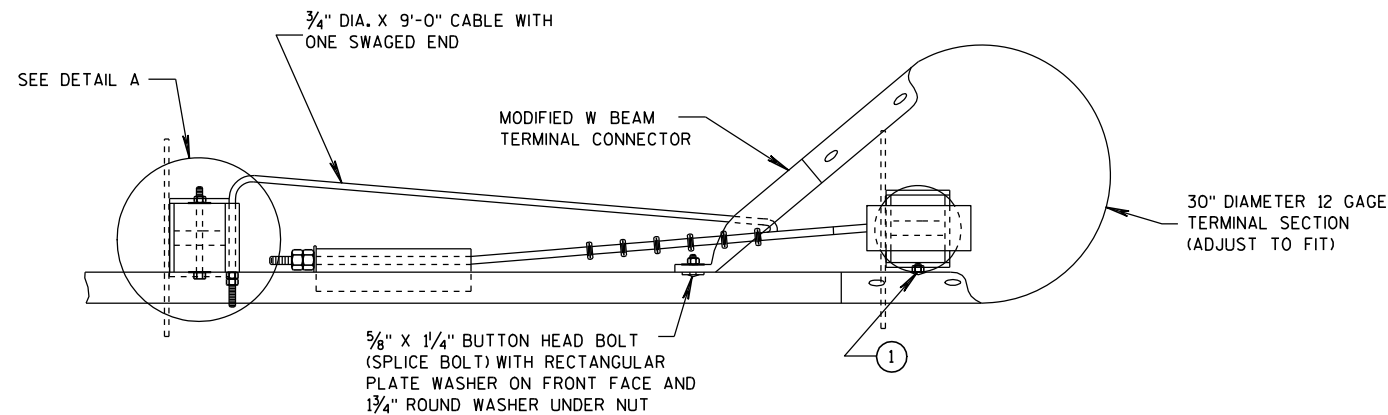
* THE NUMBER OF RAILS IS BASED ON A 90° INTERSECTION. SEE PLAN FOR NON 90° INSTALLATIONS.



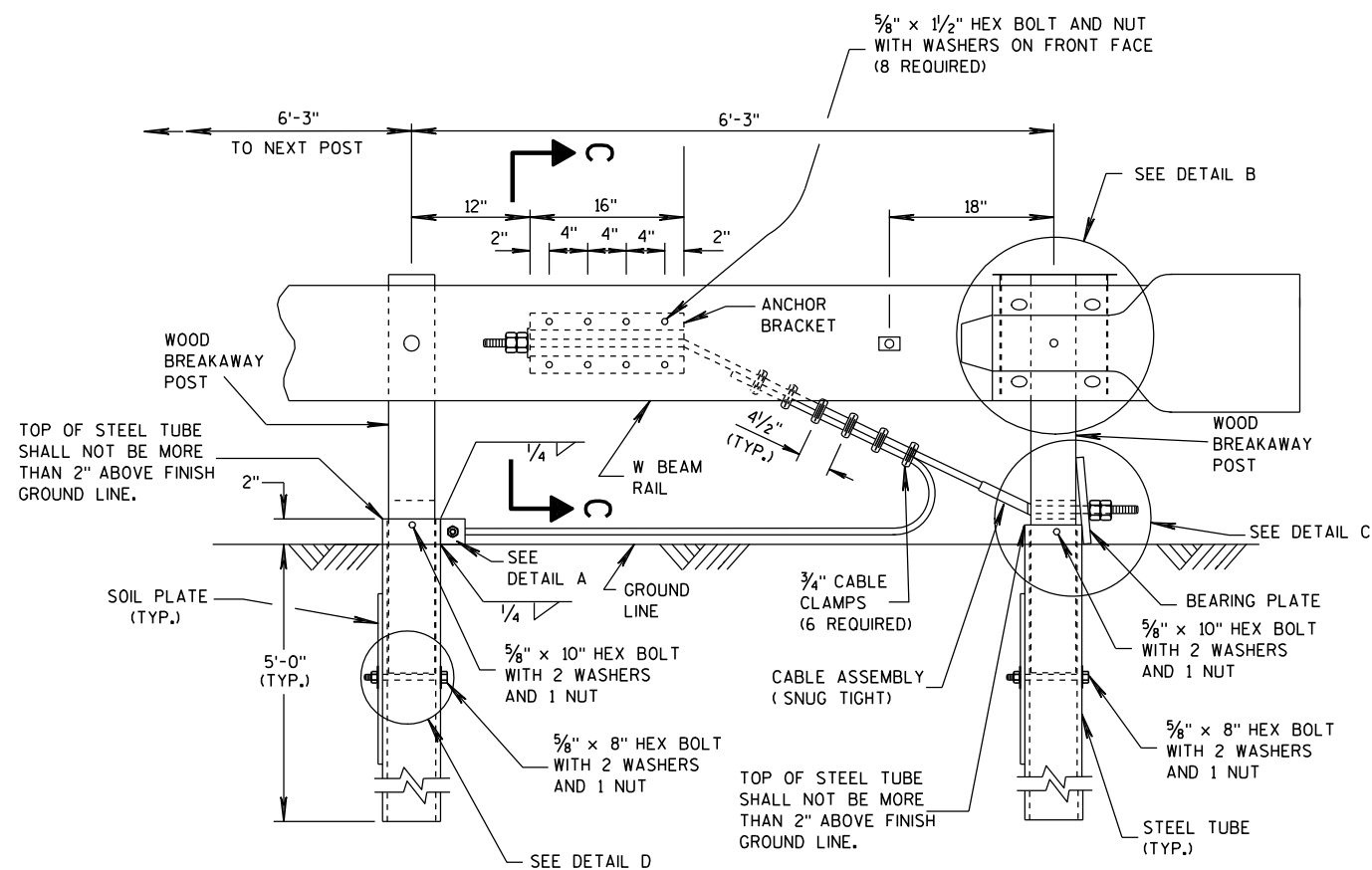
SECTION B-B
(BEAM GUARD POST)

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW

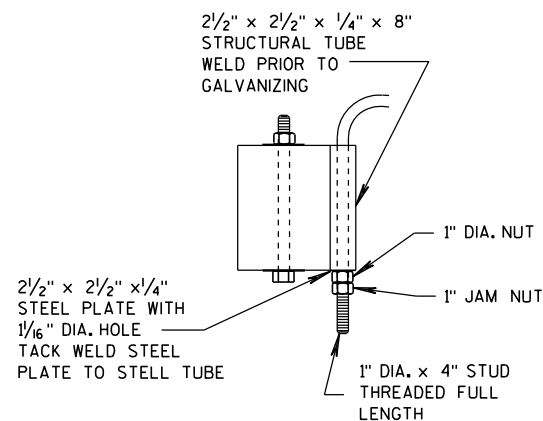


ELEVATION VIEW

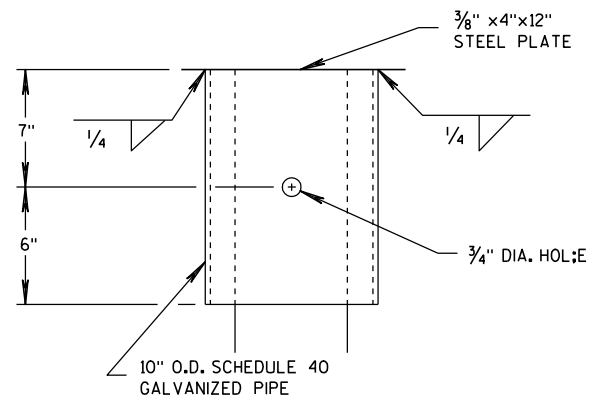
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL

GENERAL NOTES

- 1 ATTACH W BEAM RAIL TO THE STEEL PIPE WITH A 5/8" X 2" BUTTON HEAD BOLT WITH NO WASHER. CONNECTION TO THE POST IS NOT REQUIRED.
- INSTALL GALVANIZED 3/4" (6X19) PREFORMED WIRE OR INDEPENDENT WIRE ROPE CORE CONFORMING TO AASHTO M 30. MANUFACTURE WIRE ROPE OUT OF IMPROVED PLOW STEEL WITH A MINIMUM BREAKING STRENGTH OF 42,800 PSI.



DETAIL A

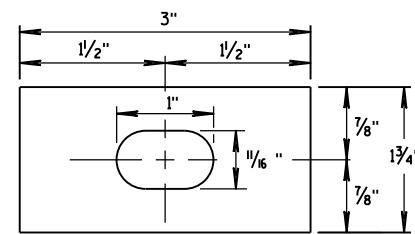


DETAIL B

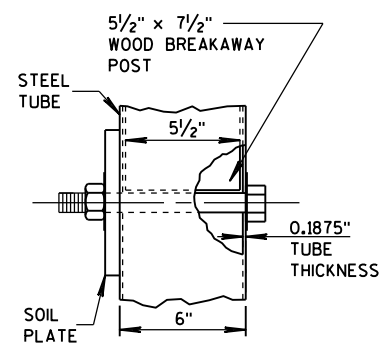
(BEAM GUARD AND TERMINAL SECTION NOT SHOWN)

STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL

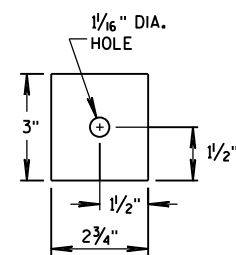
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



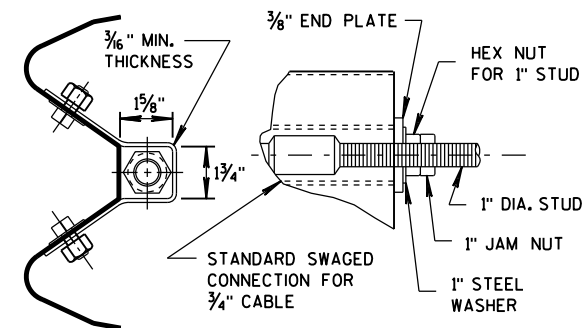
**RECTANGULAR
PLATE WASHER**



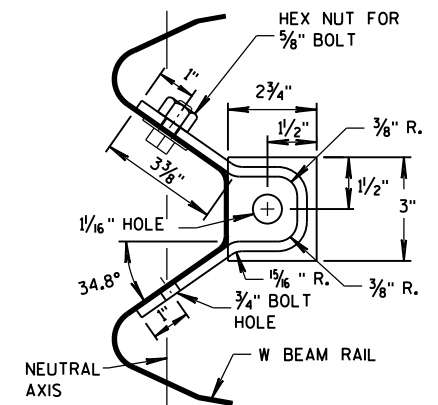
DETAIL D



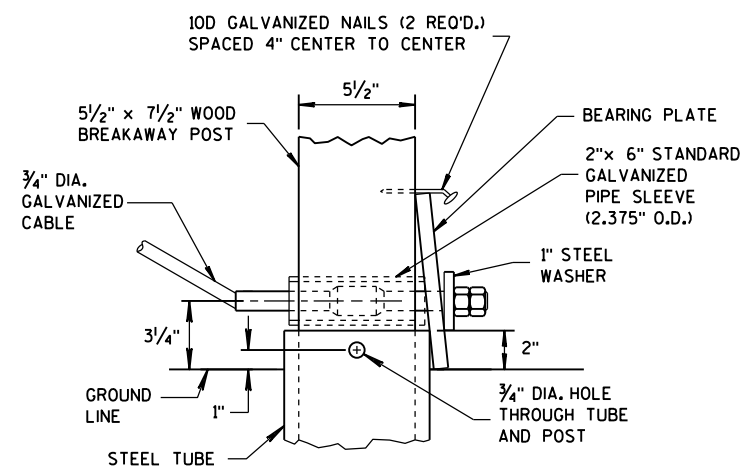
END PLATE



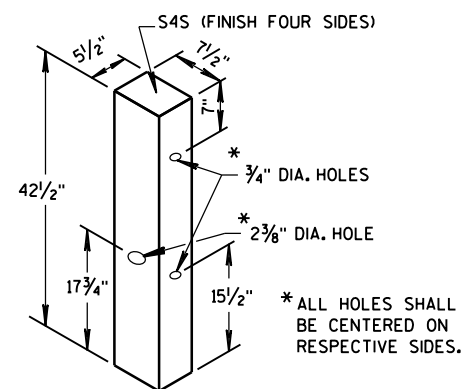
SECTION C-C
(END PLATE REMOVED)



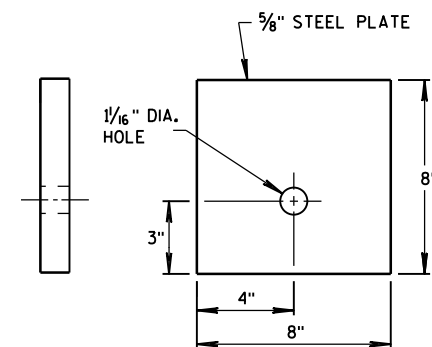
ANCHOR BRACKET



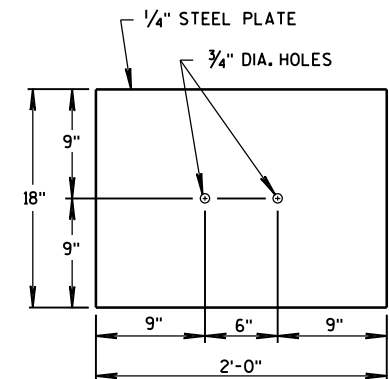
DETAIL C



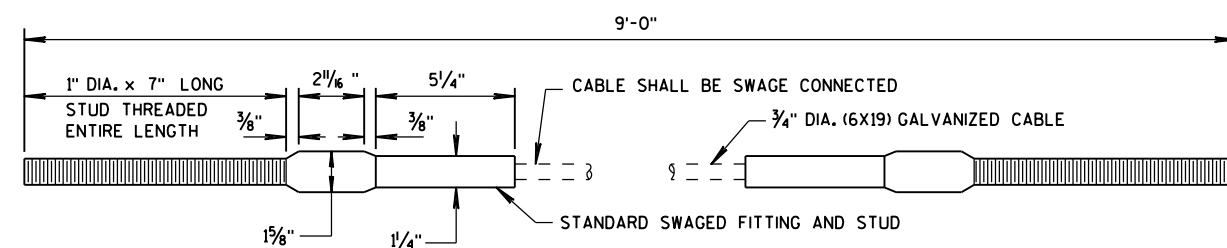
WOOD BREAKAWAY POST



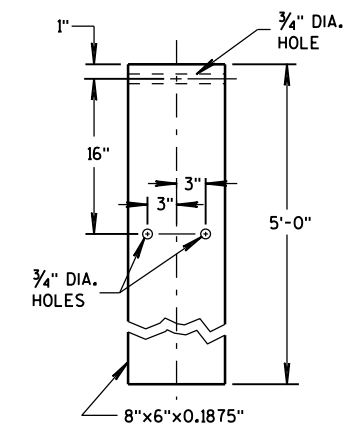
BEARING PLATE



SOIL PLATE



CABLE ASSEMBLY



STEEL TUBE

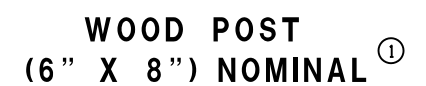
STEEL PLATE BEAM GUARD SHORT RADIUS TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12/18/08 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

6

- S.D.D. 14 B 42-2a**

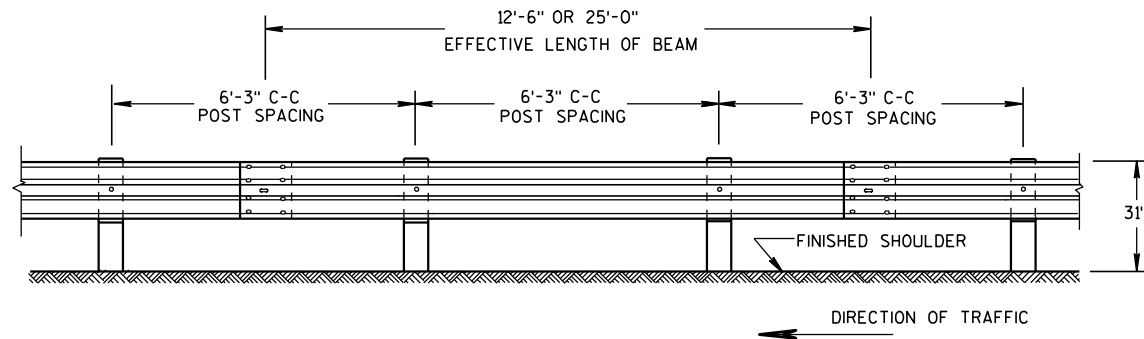


MGS LONGER POST AT HALFPOST SPACING W BEAM (K)

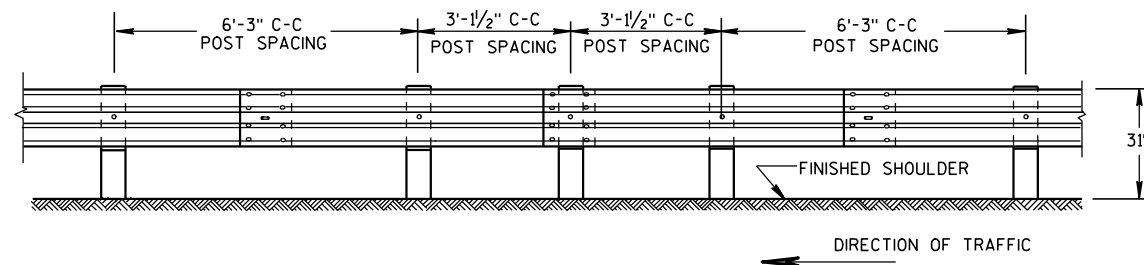


6

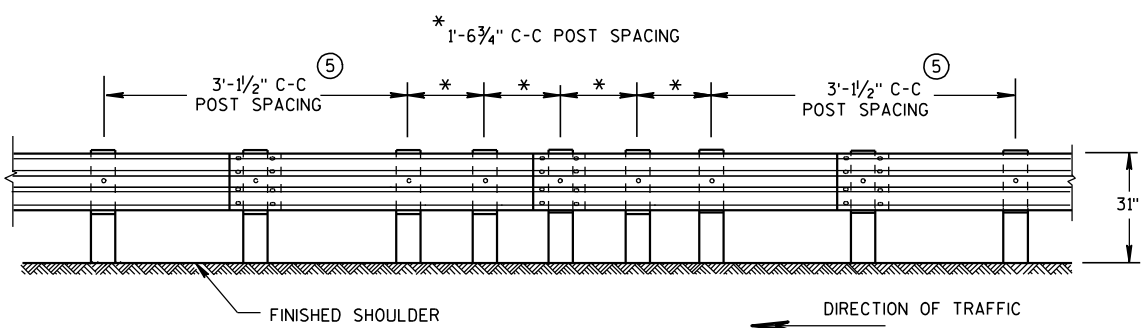
S.D.D. 14 B 42-2a



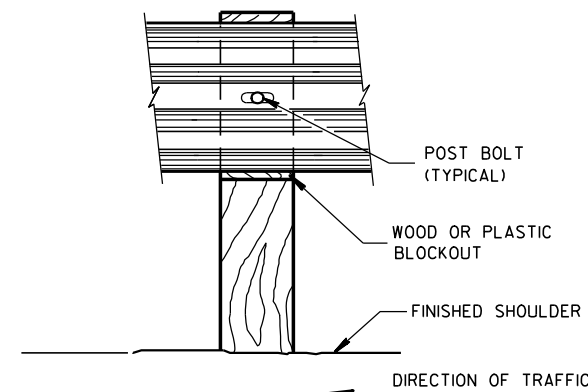
FRONT VIEW
POST SPACING STANDARD INSTALLATION



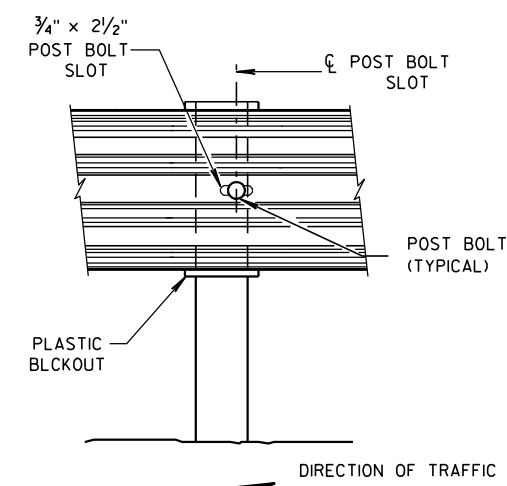
FRONT VIEW
**HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



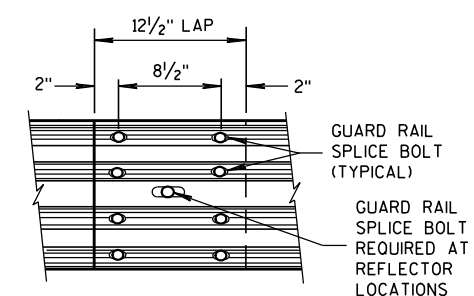
FRONT VIEW
QUARTER POST SPACING (QS)



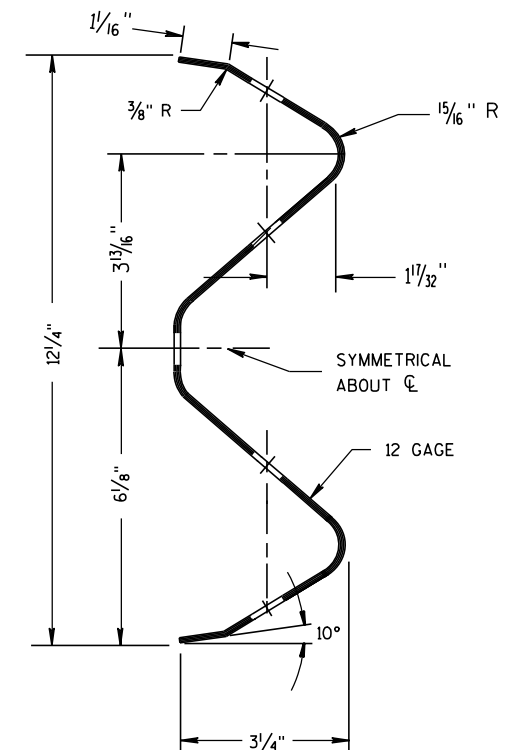
FRONT VIEW AT WOOD POST



FRONT VIEW AT STEEL POST



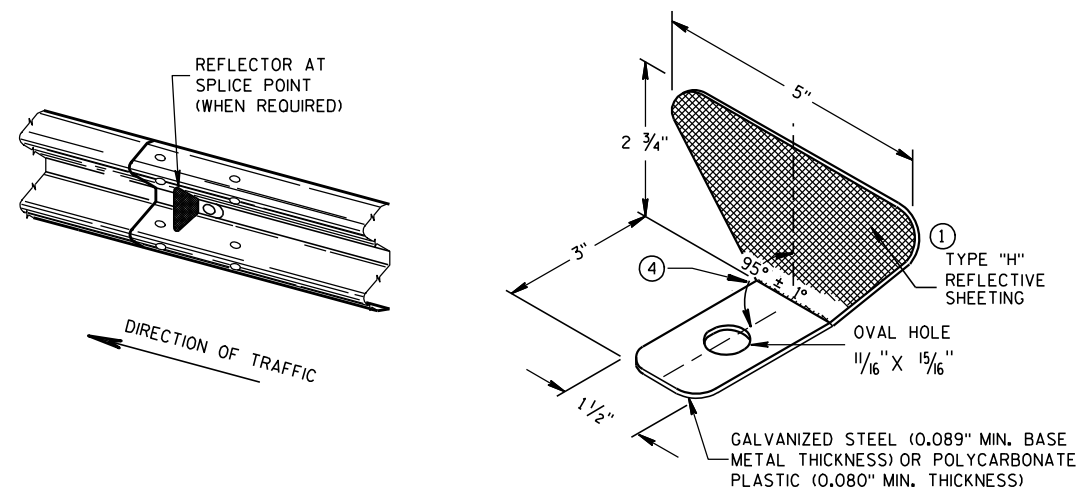
**FRONT VIEW
MID-SPAN BEAM SPLICE**



SECTION THRU W-BEAM RAIL

REFLECTOR SPACING

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



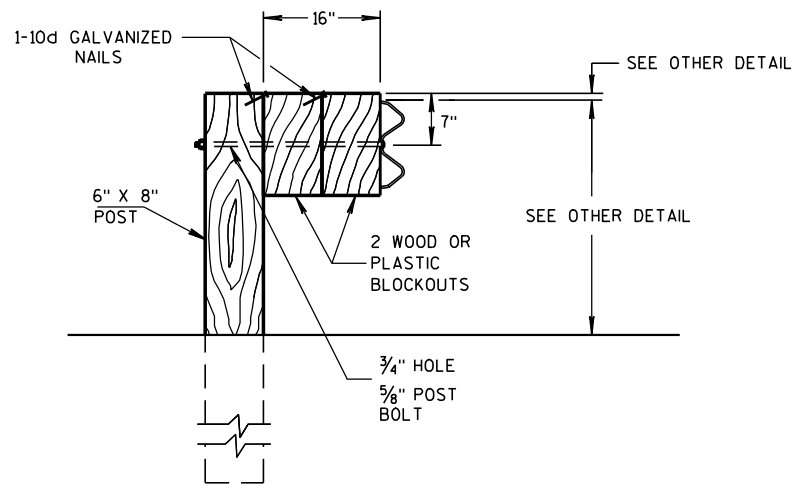
ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

- 1 PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
 - 2 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.
 - 3 REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
 - 4 PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
 - 5 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" 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.

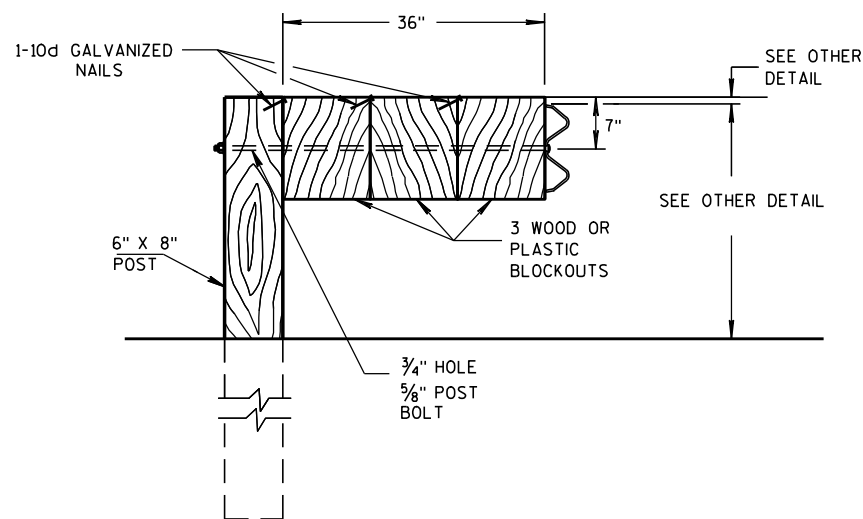
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

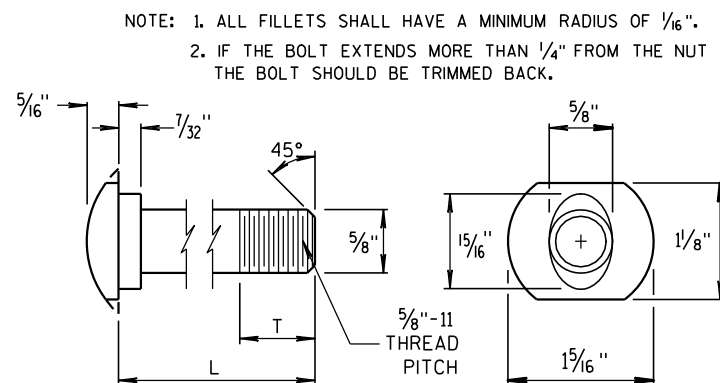
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



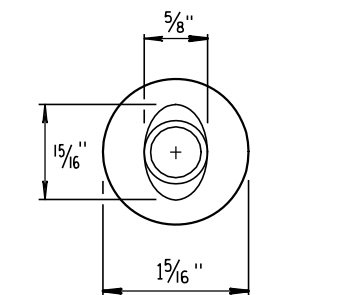
DETAIL FOR 36" BLOCKOUT DEPTH

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.

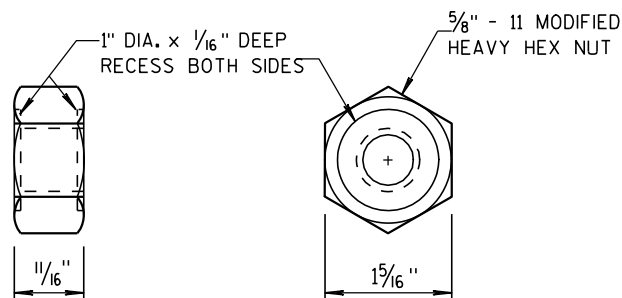
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



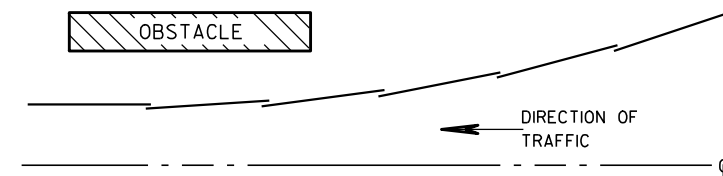
POST BOLT TABLE



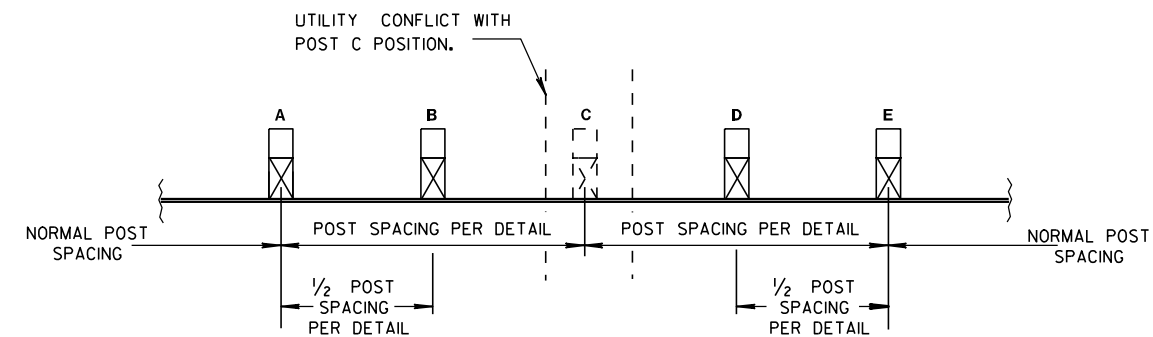
ALTERNATE BOLT HEAD



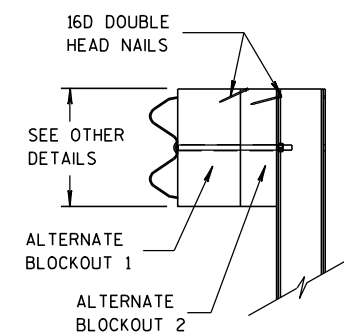
POST BOLT AND RECESS NUT



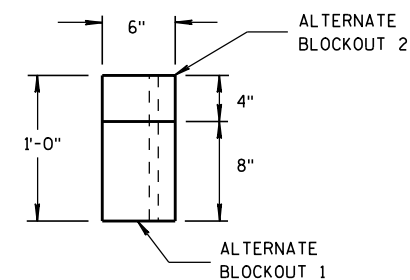
PLAN VIEW
BEAM LAPPING DETAIL



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

11/15/2011
DATE

FHWA

/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), 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.
- (F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.
- (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.

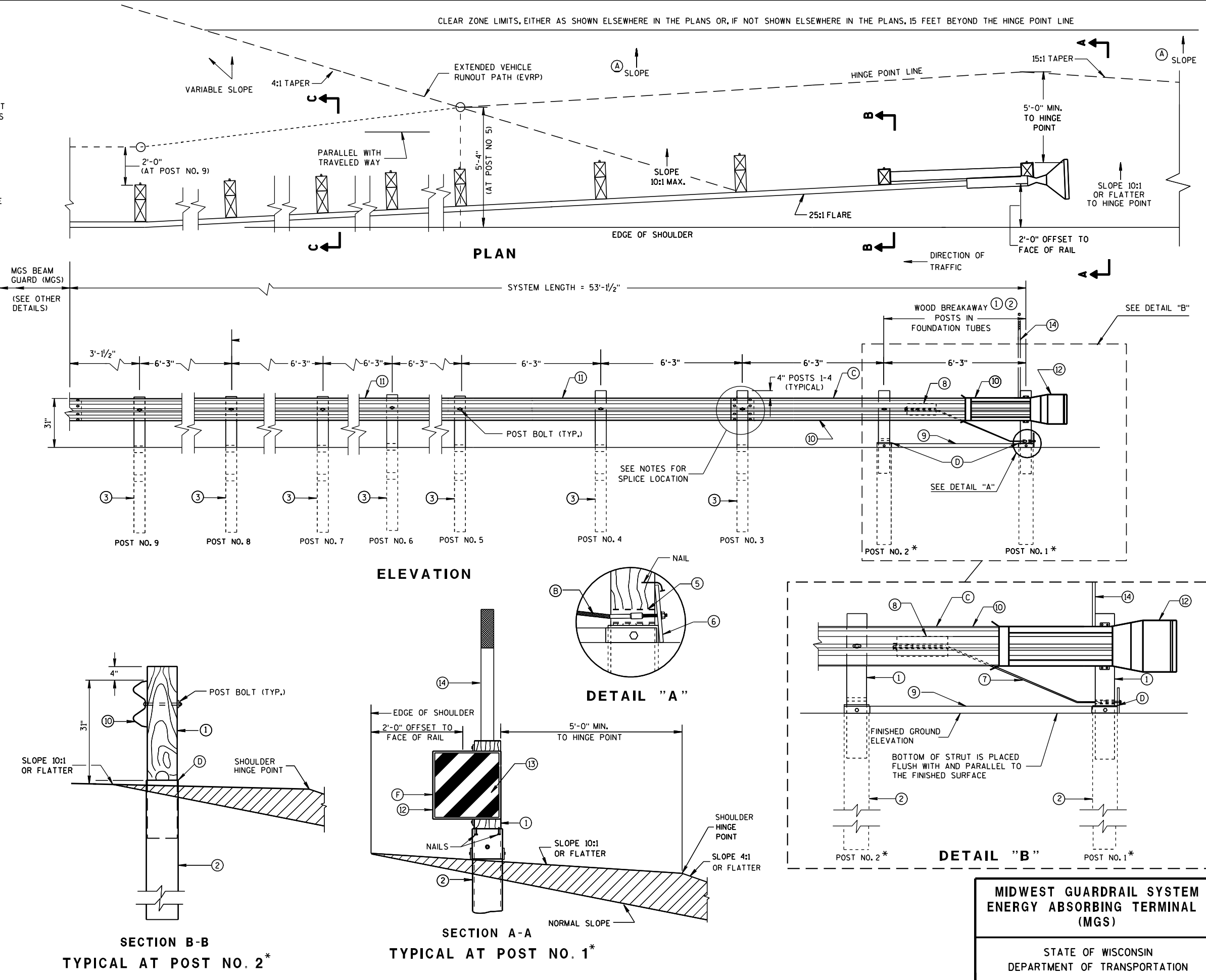
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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.

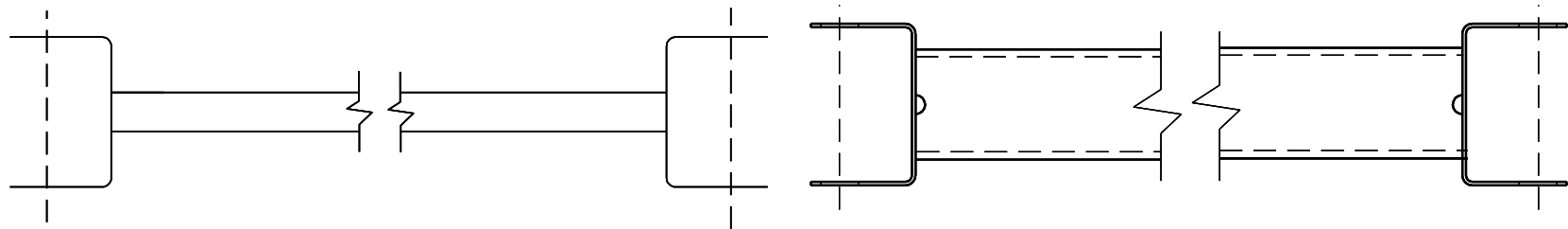
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE ($\pm \frac{3}{4}$ ")

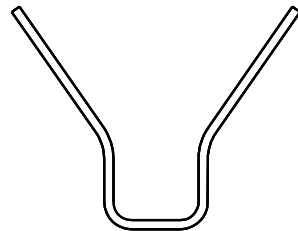
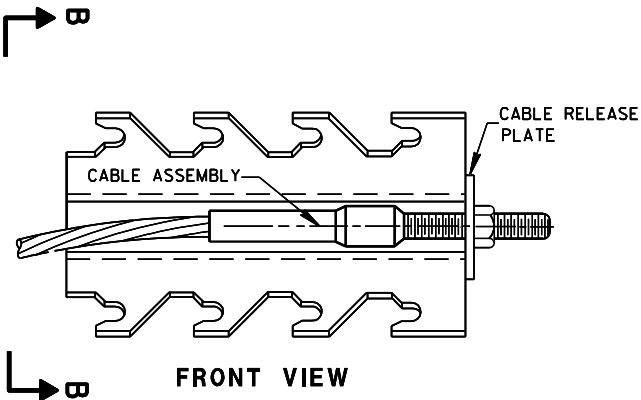


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

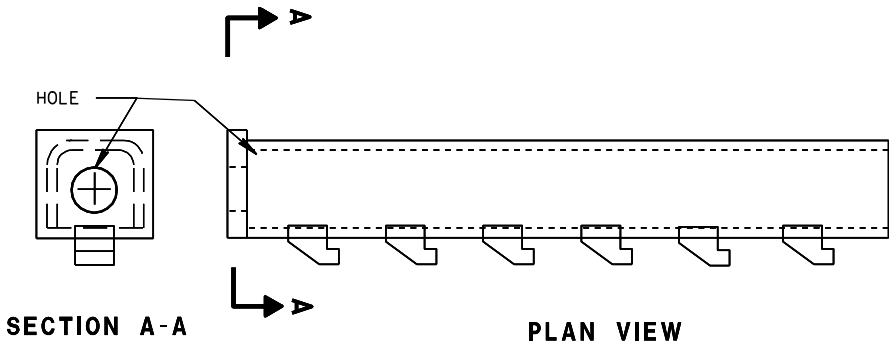
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



9 H
GENERIC GROUND STRUT



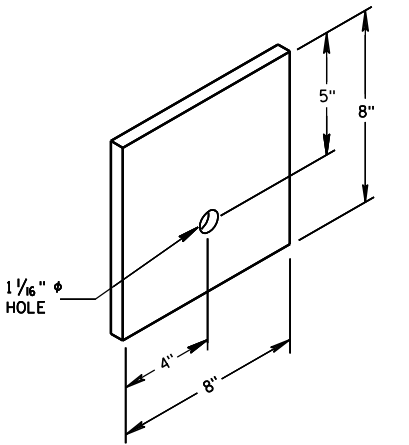
SECTION B-B



8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

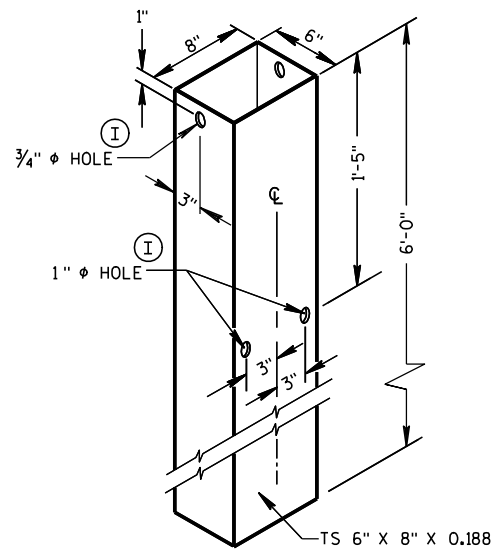
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND 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 H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



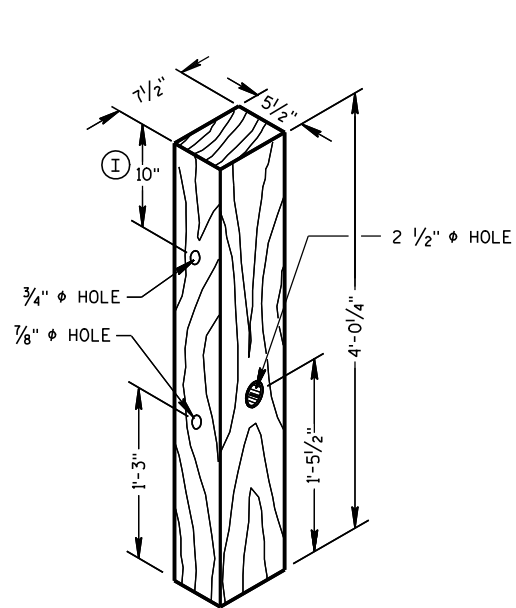
6
BEARING PLATE

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

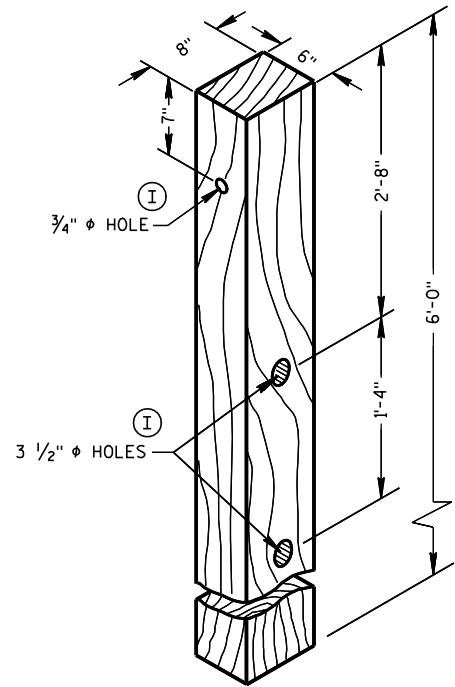
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



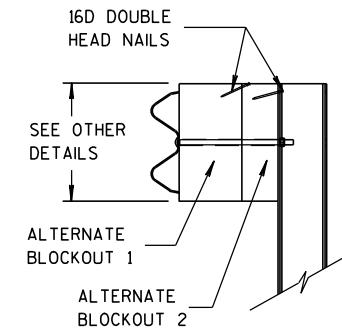
FOUNDATION TUBE ②



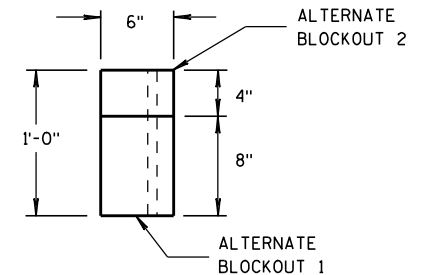
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

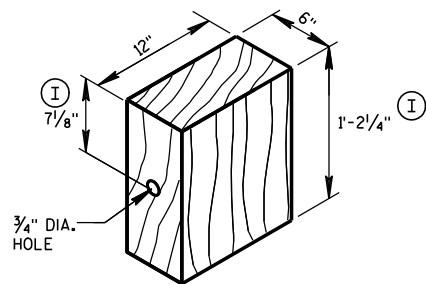


SIDE VIEW



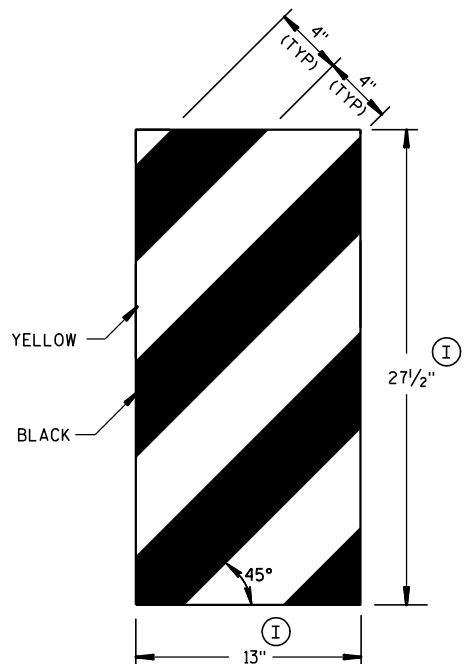
TOP VIEW

**ALTERNATE WOOD
BLOCKOUT DETAIL**

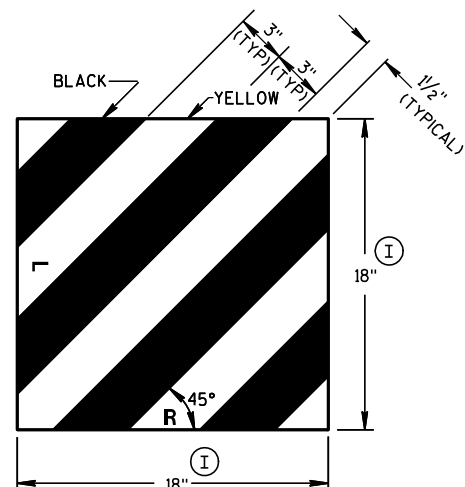


WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

YELLOW REFLECTIVE TAPE
3" X 9" TYPE H
REFLECTIVE SHEETING



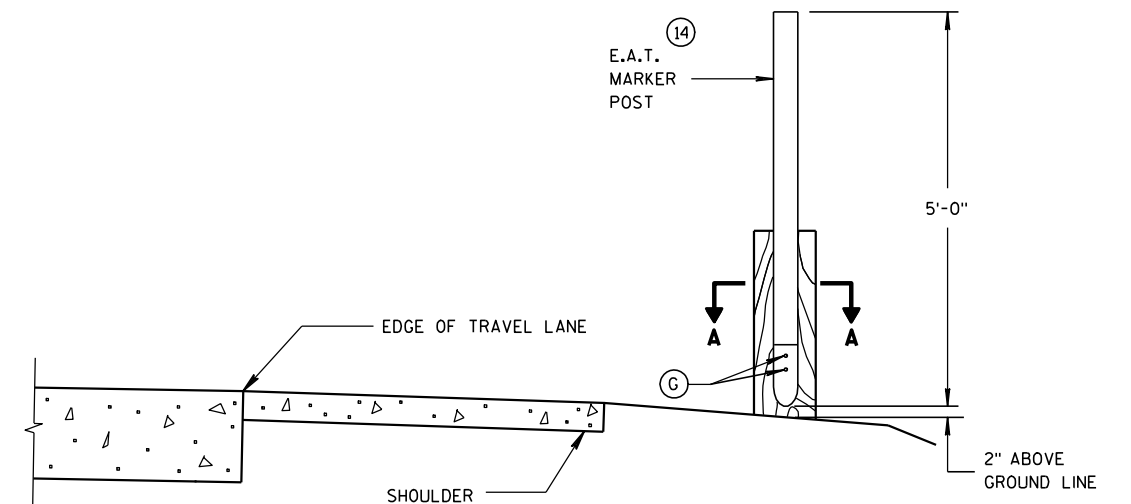
GENERIC REFLECTIVE SHEETING ⑬ ④



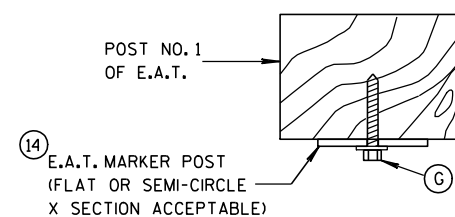
FRONT VIEW

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

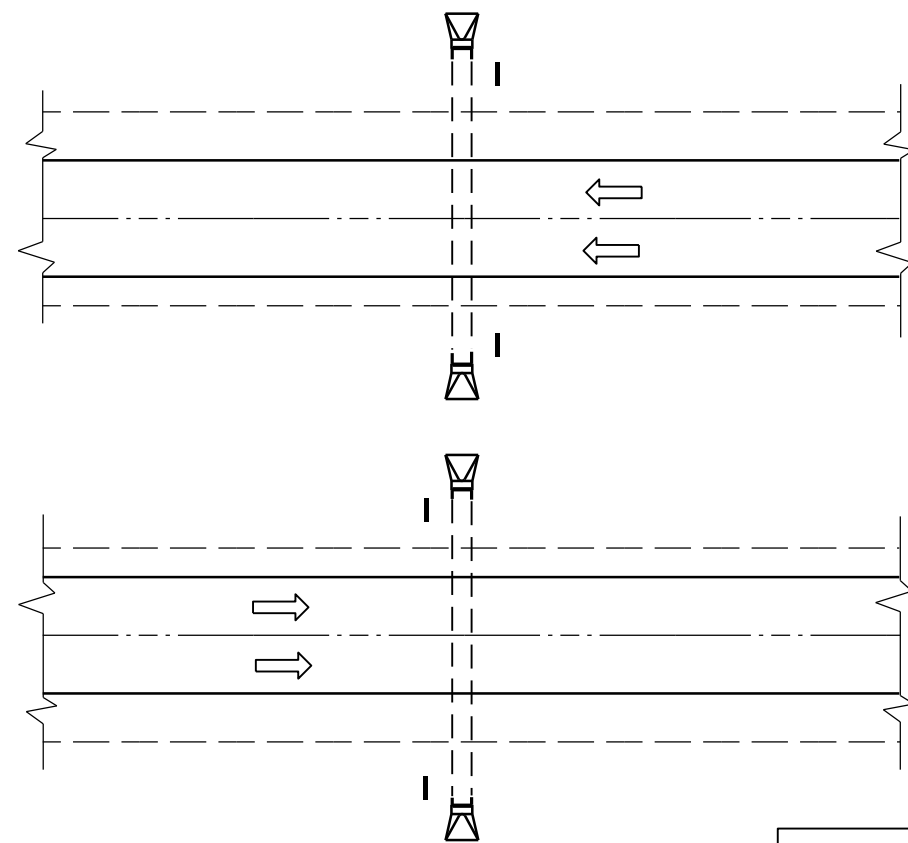
APPROVED

5/23/2011

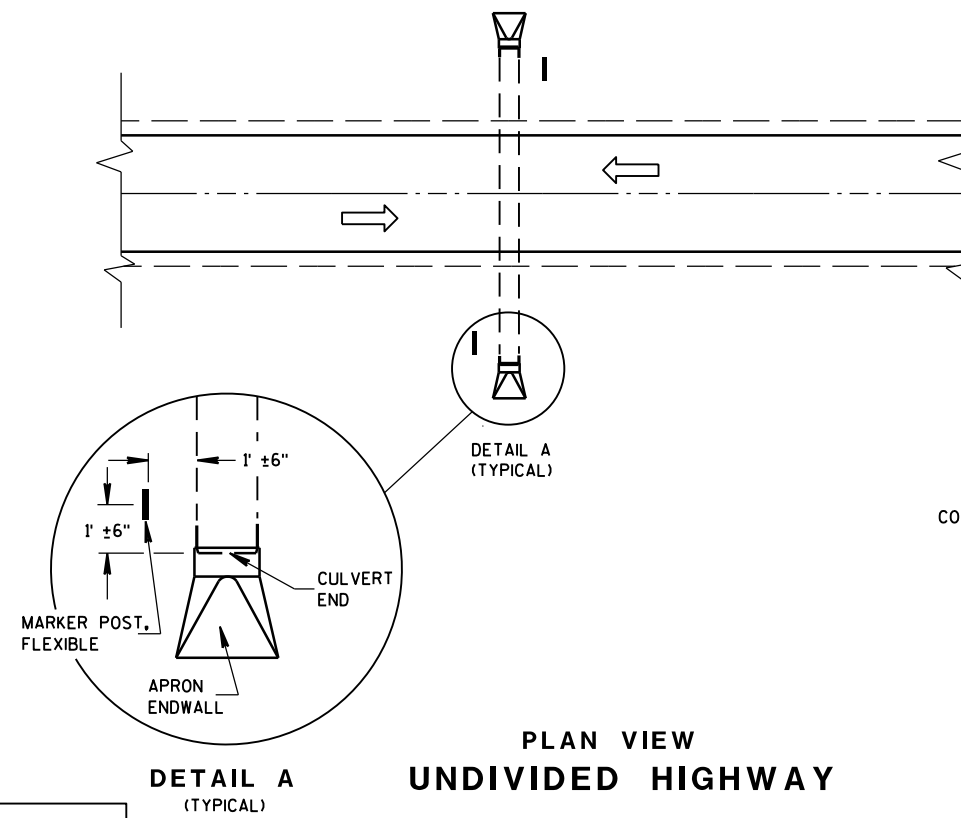
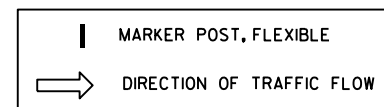
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

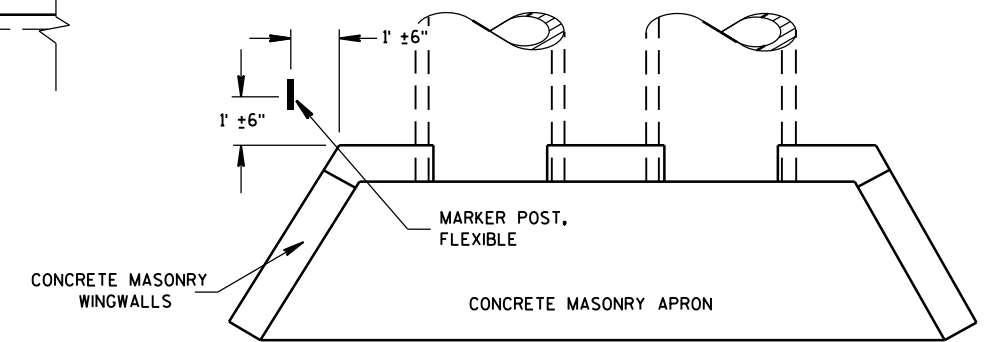


PLAN VIEW
UNDIVIDED HIGHWAY

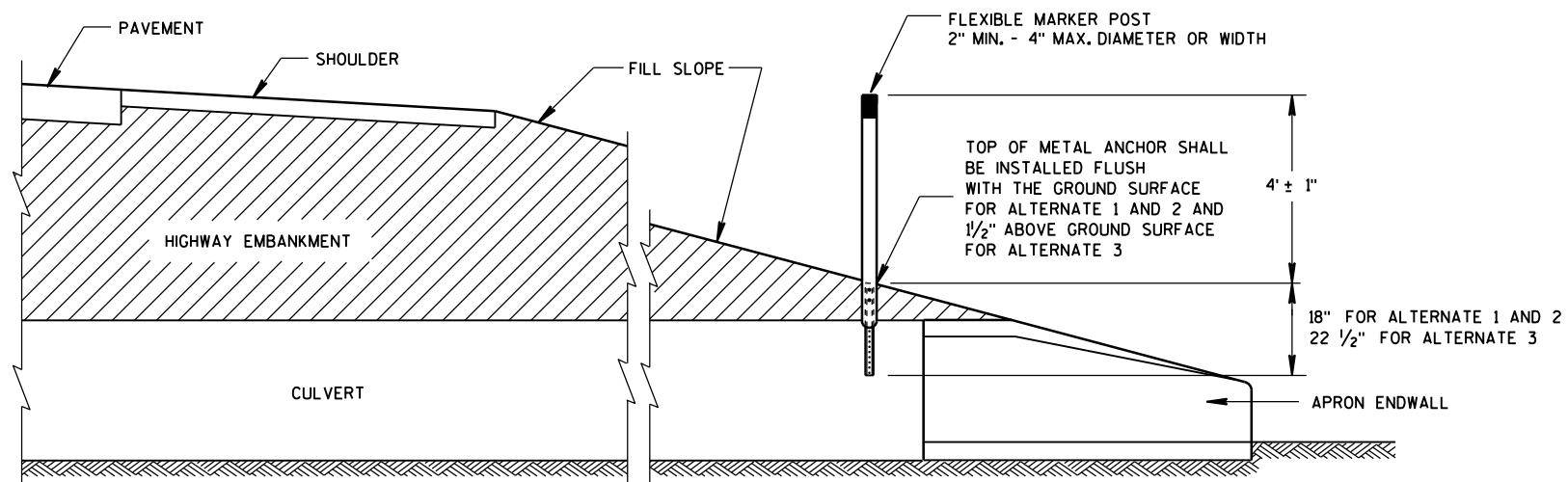
FLEXIBLE MARKER POST LOCATION

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.



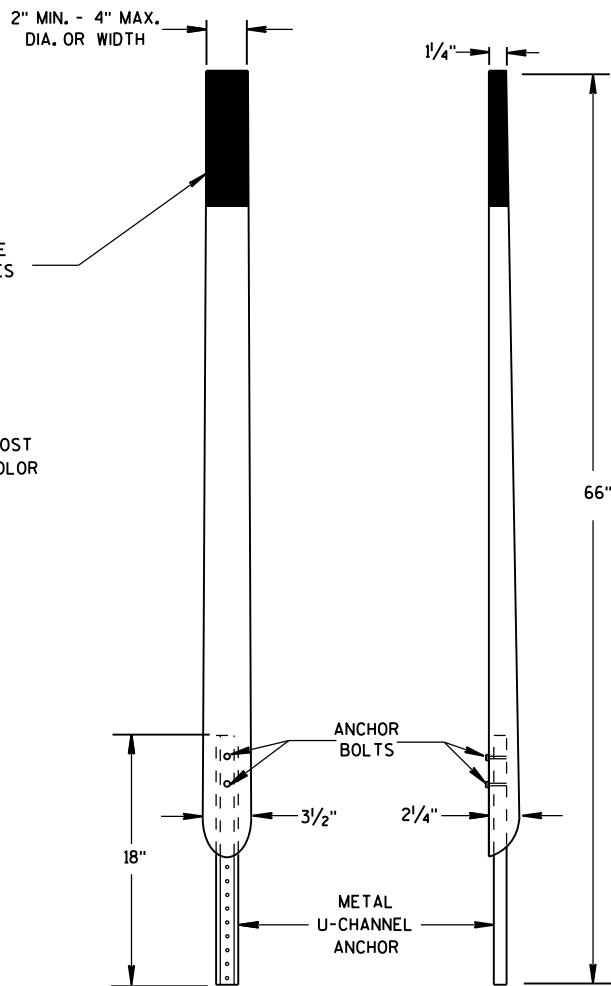
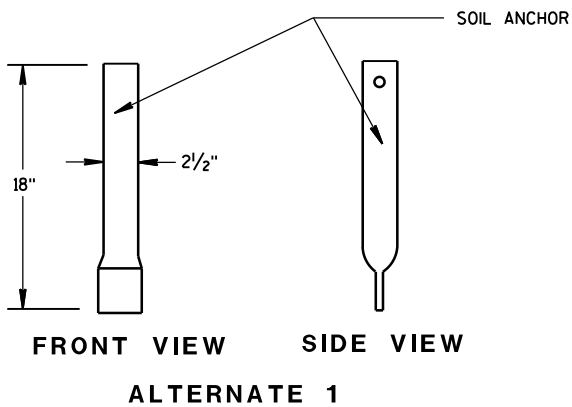
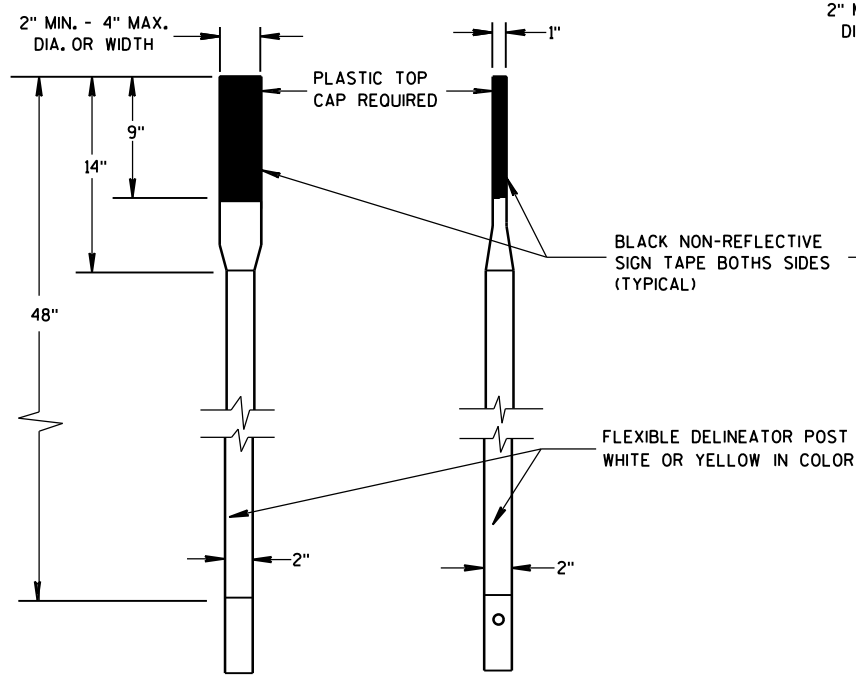
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



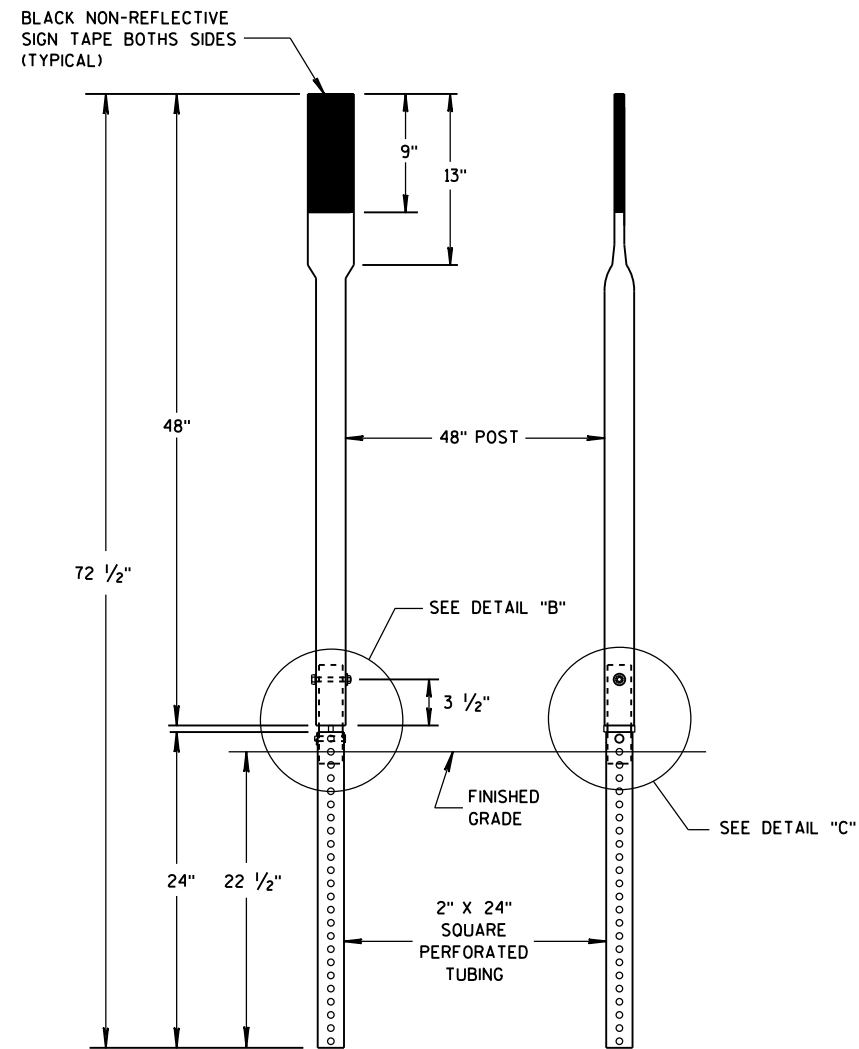
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

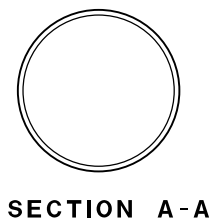
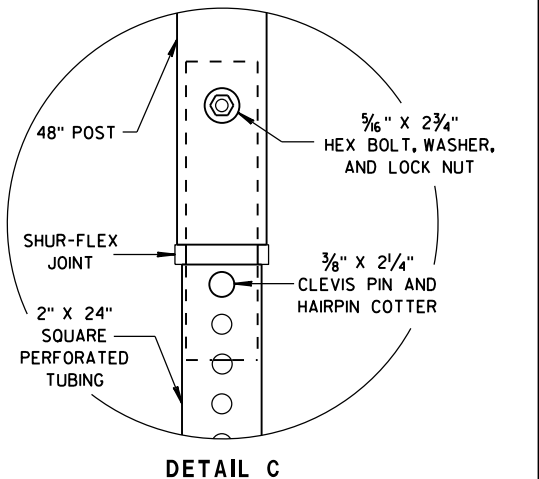
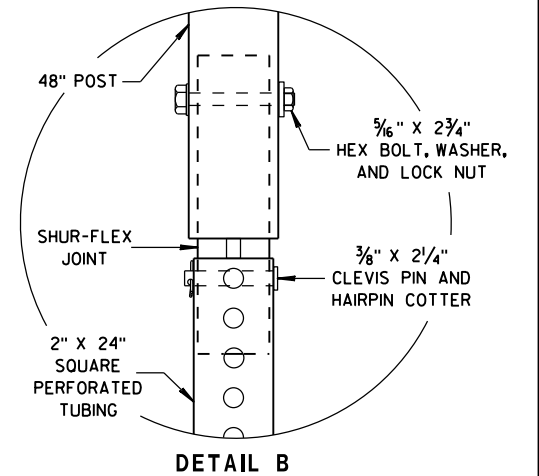
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



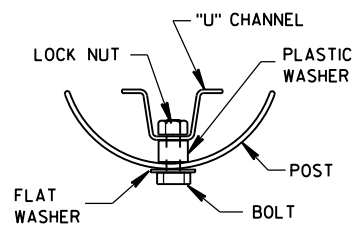
FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POSTS



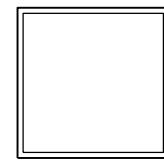
FRONT VIEW SIDE VIEW
ALTERNATE 3



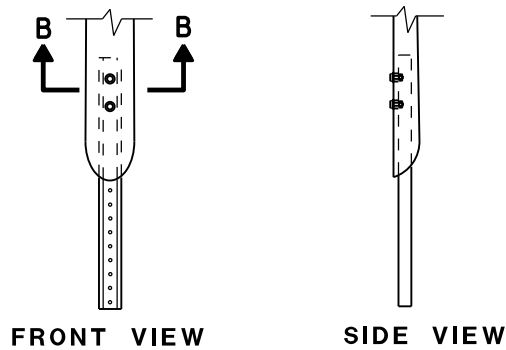
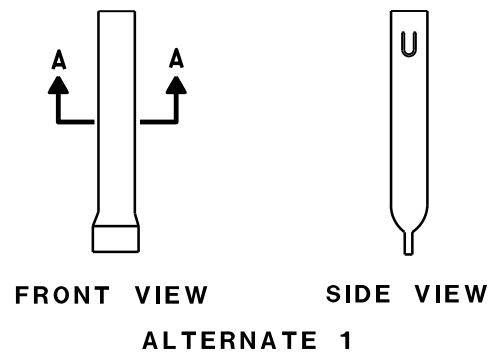
SECTION A-A



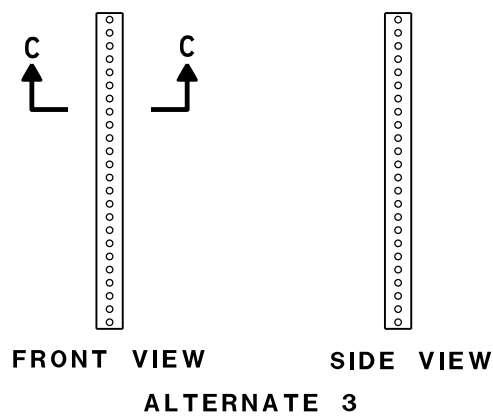
SECTION B-B



SECTION C-C



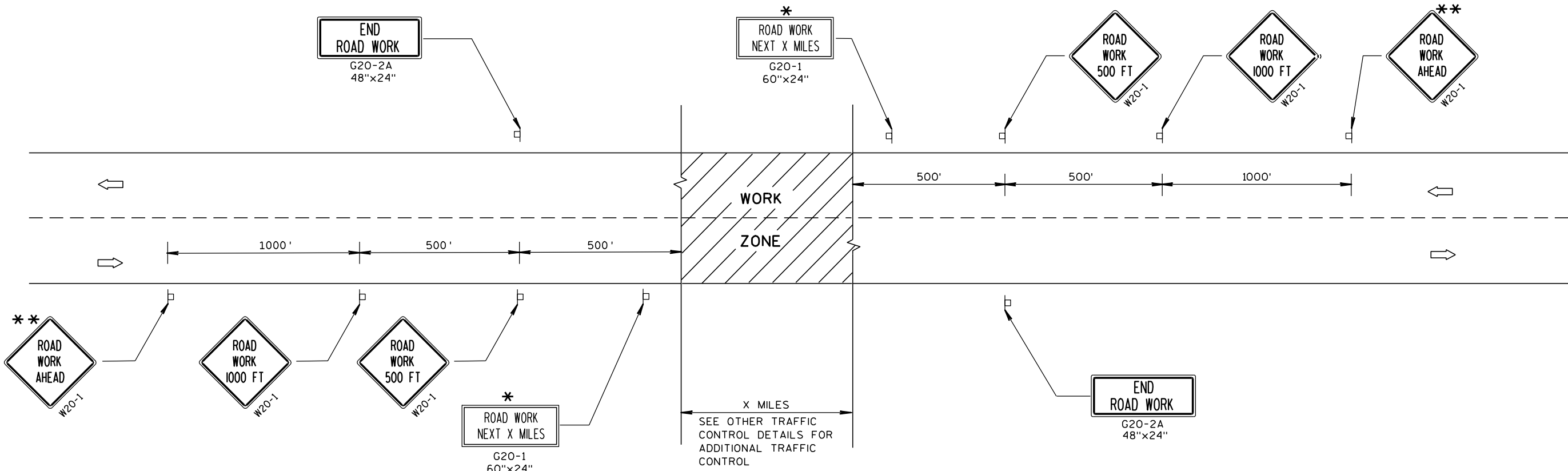
FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER OF DESIGN
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.

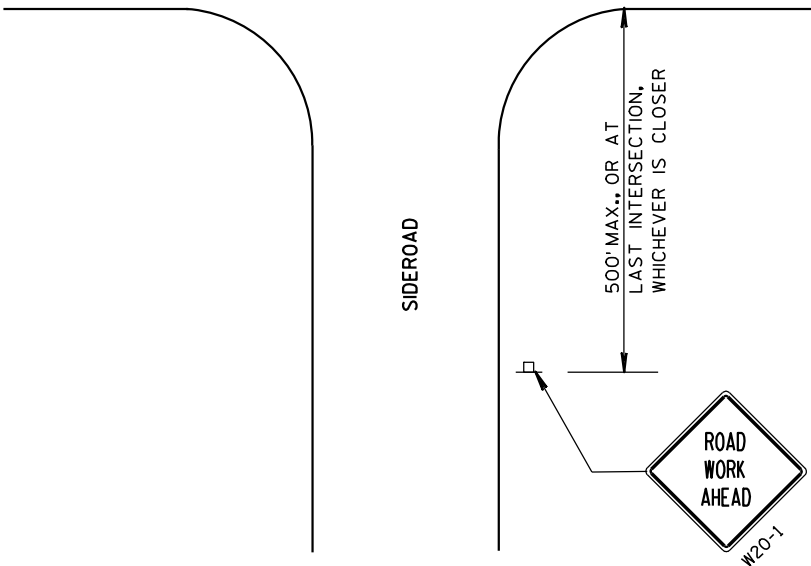
IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* 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 OR SIGNING.

CENTER OF ROADWAY

MAINLINE ROADWAY UNDER CONSTRUCTION



LEGEND

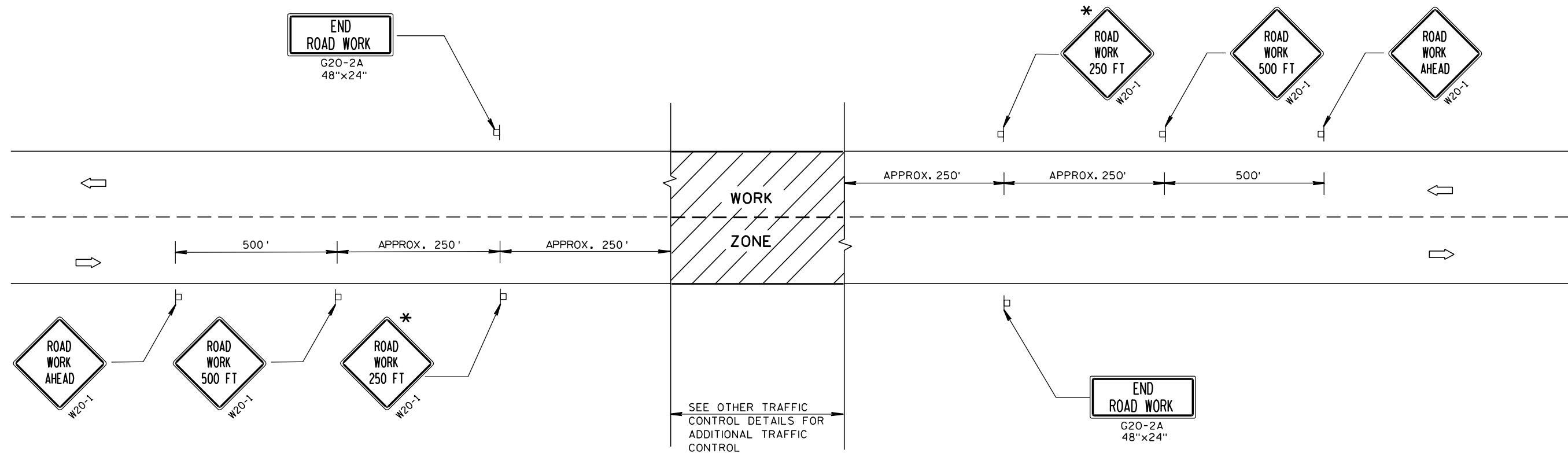
┆ POST MOUNTED SIGN

➡ DIRECTION OF TRAFFIC FLOW

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
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
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.

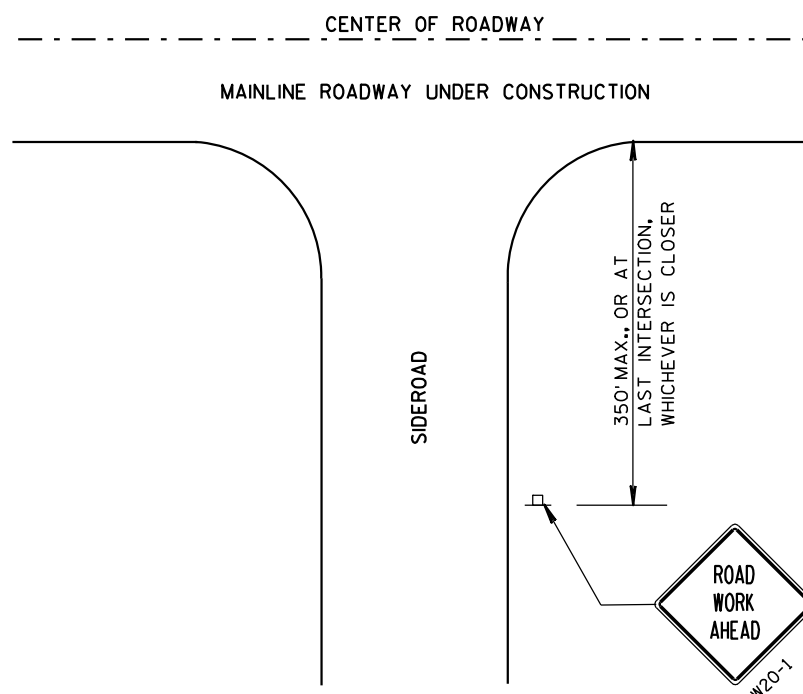
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

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.

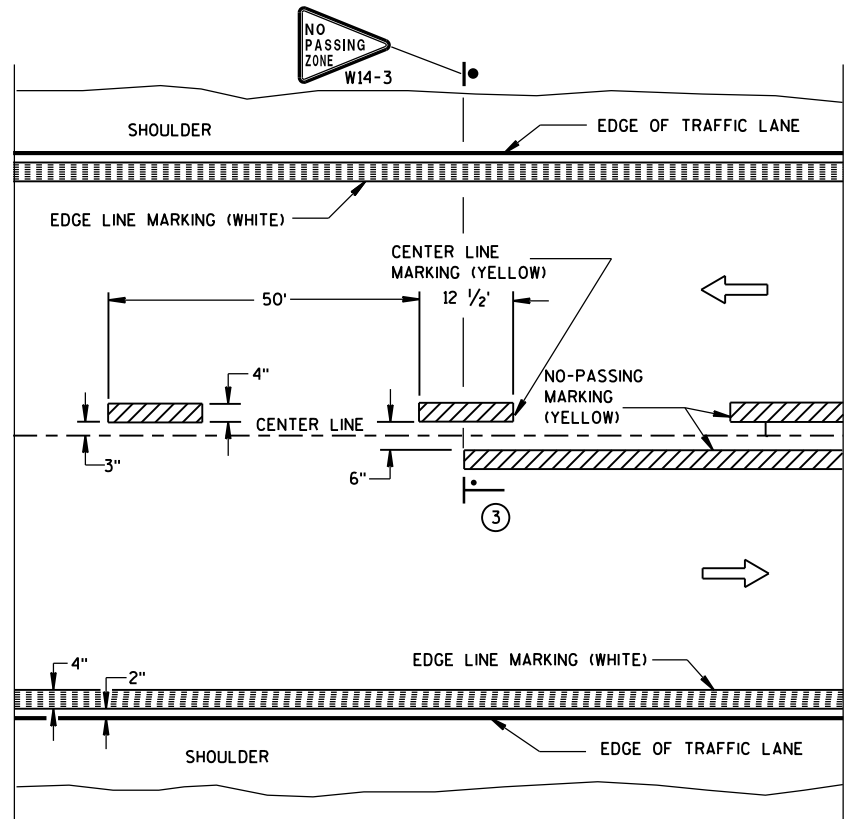
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



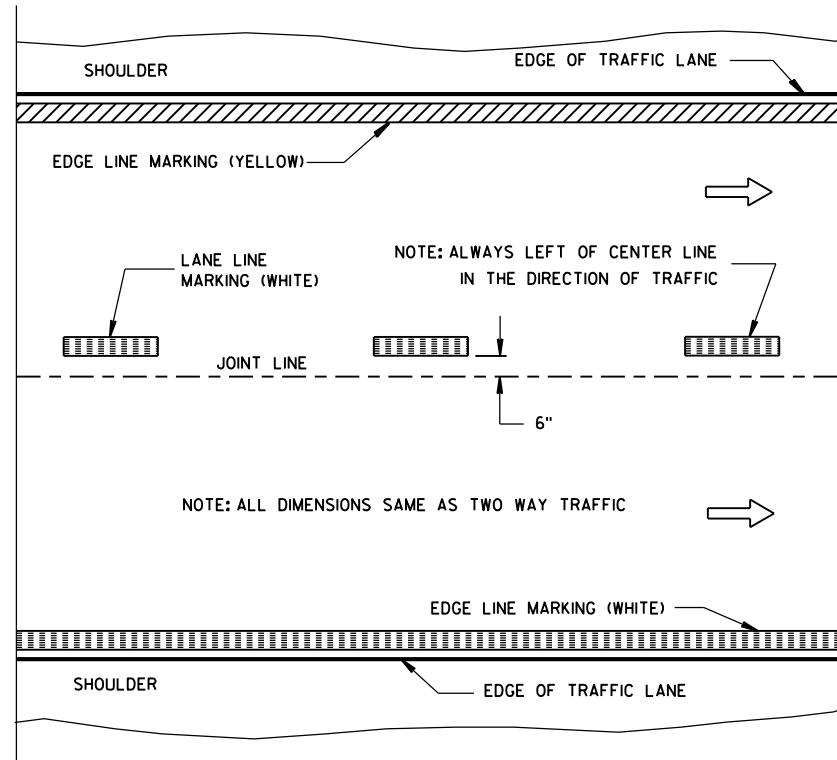
LEGEND

- POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE	/S/ Chester J. Spang CHIEF SIGNS AND MARKING ENGINEER
FHWA	

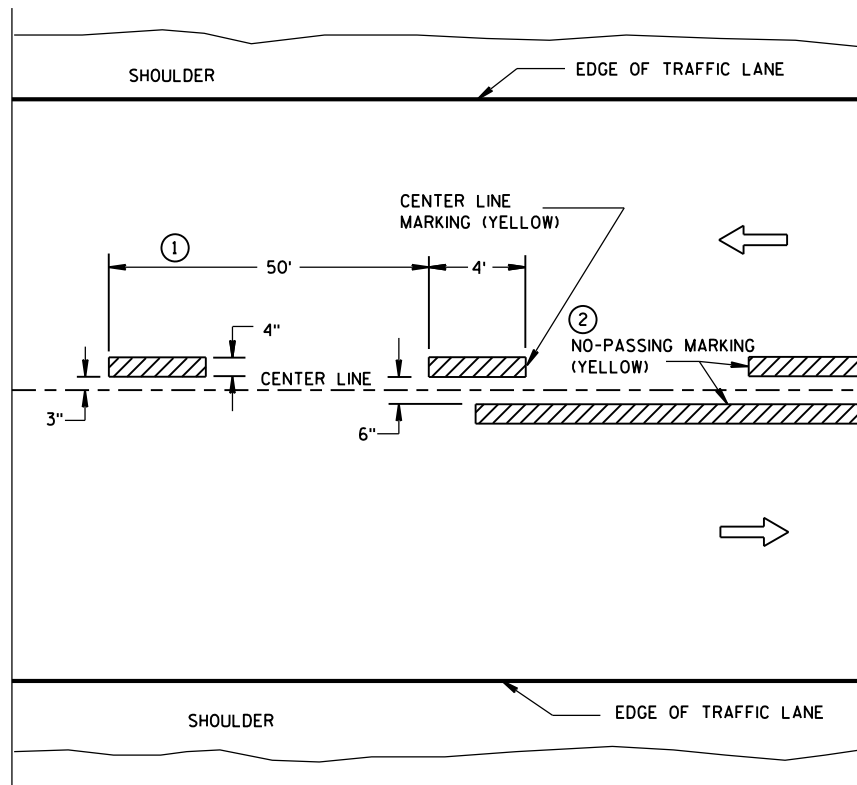


TWO WAY TRAFFIC

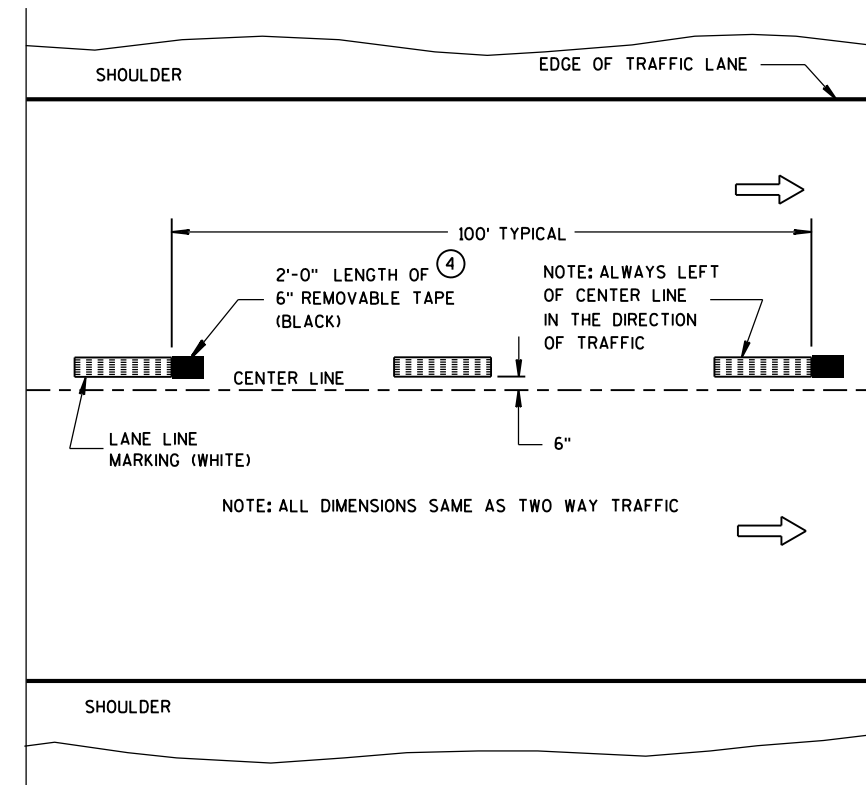


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

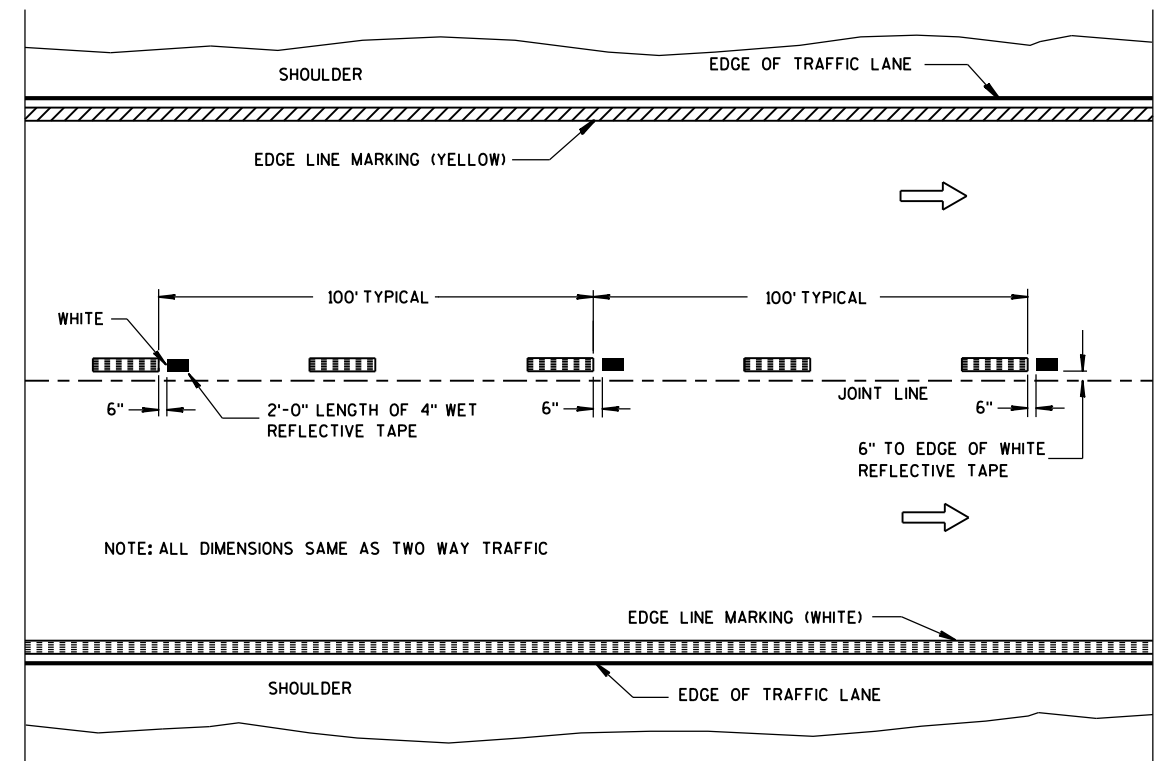
GENERAL NOTES

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

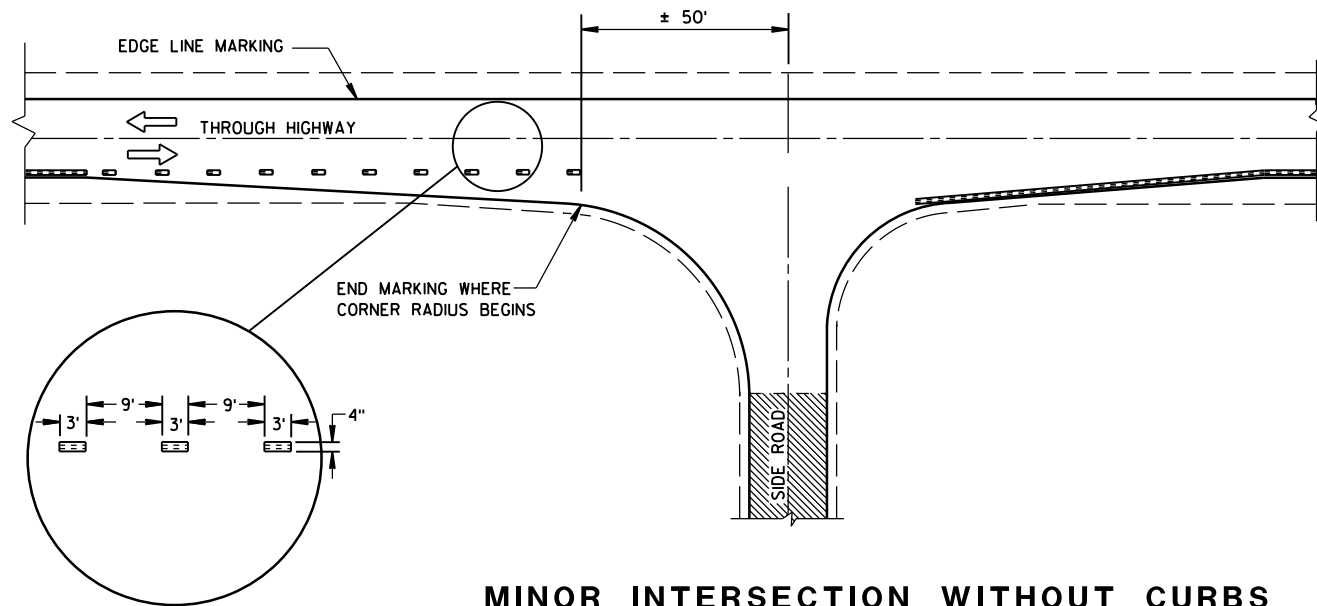
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

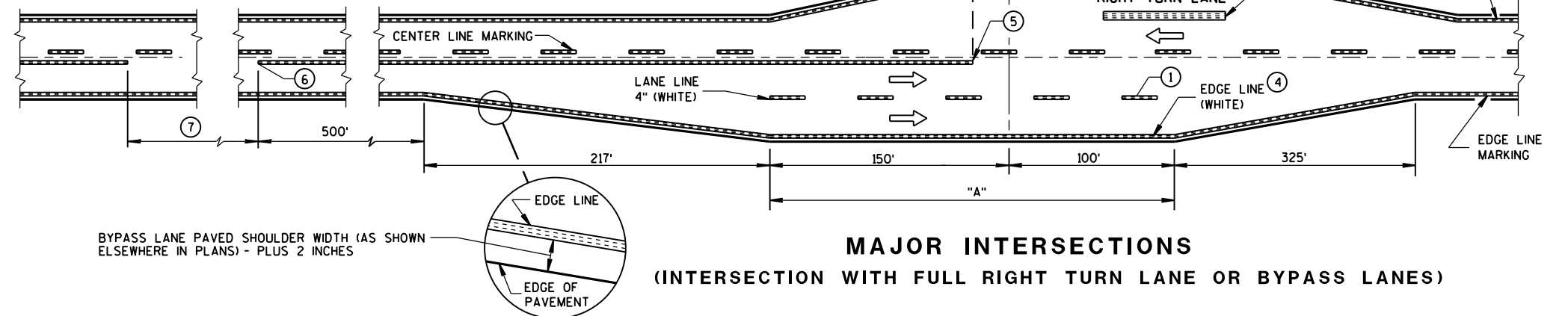
APPROVED
5-13-2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINEER
FHWA



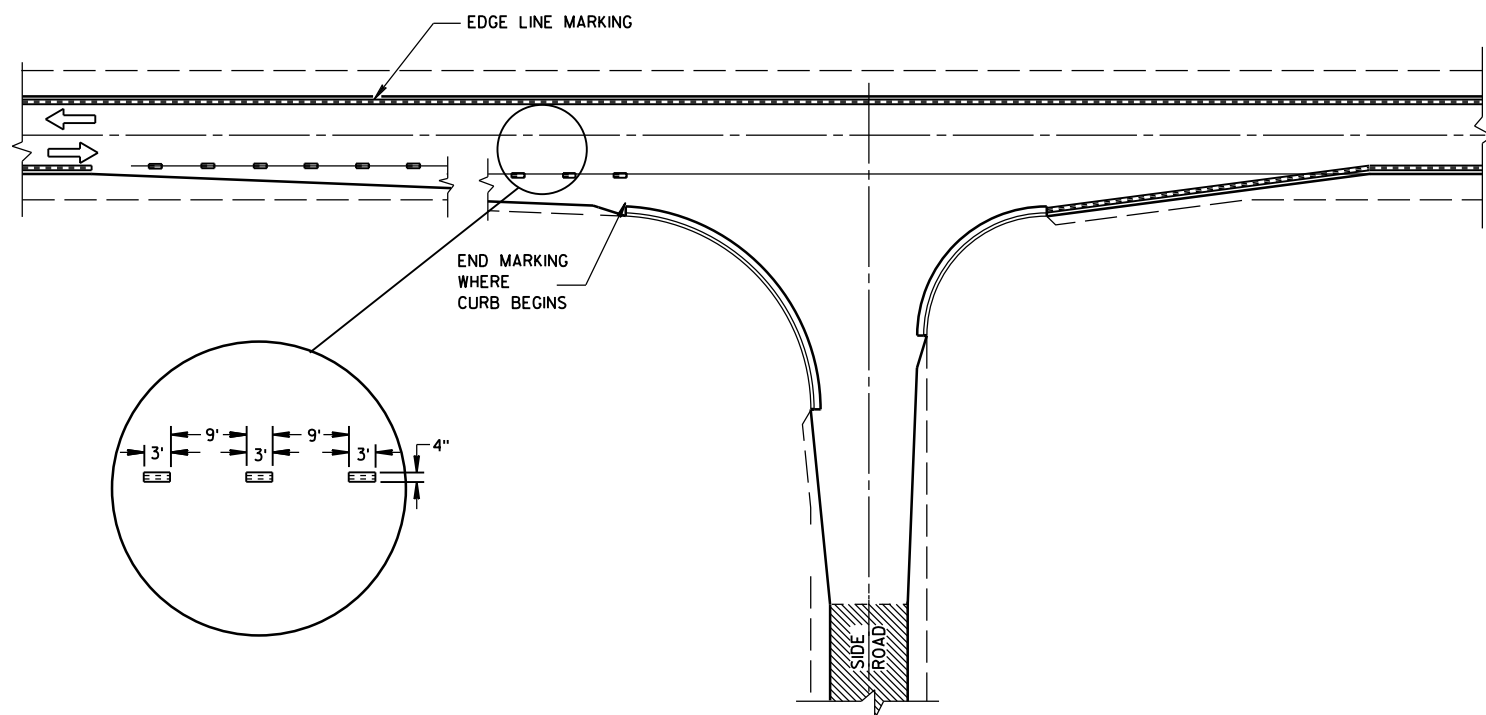
MINOR INTERSECTION WITHOUT CURBS

⑦

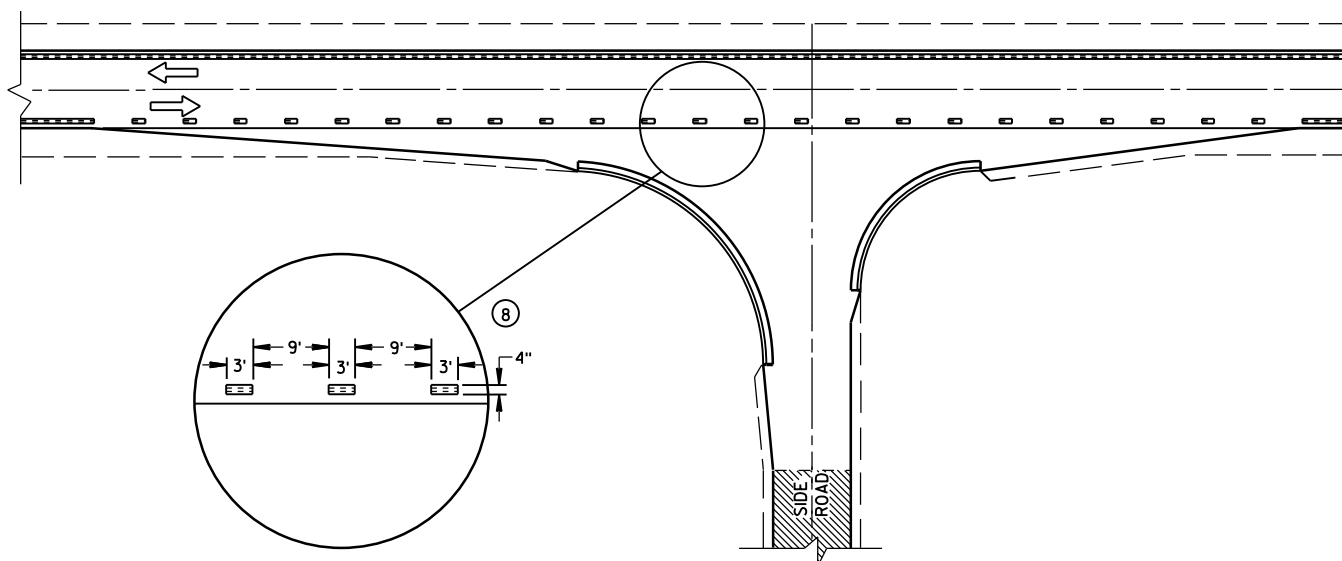
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



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



MINOR INTERSECTION WITH CURBS
(TYPICAL MARKING)



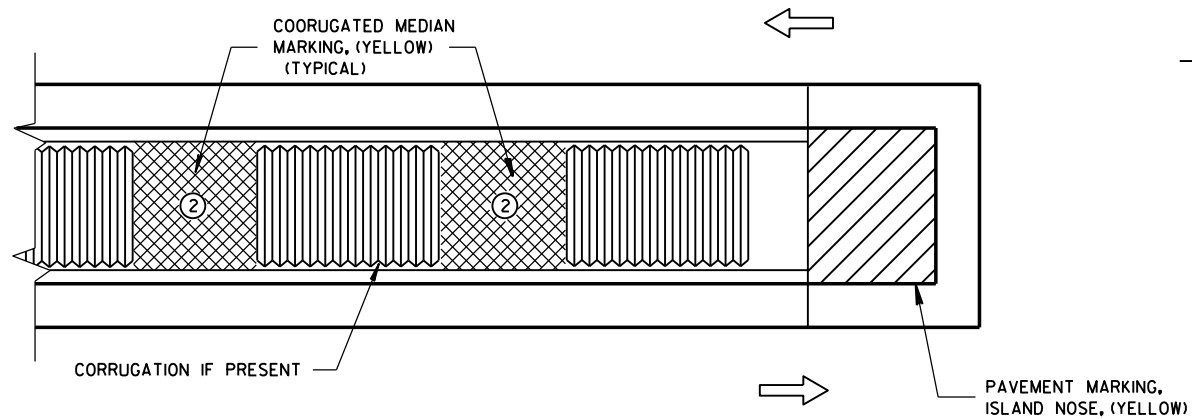
MINOR INTERSECTION WITH CURBS
③ (FOR SPECIAL CONDITIONS AS SPECIFIED)

GENERAL NOTES

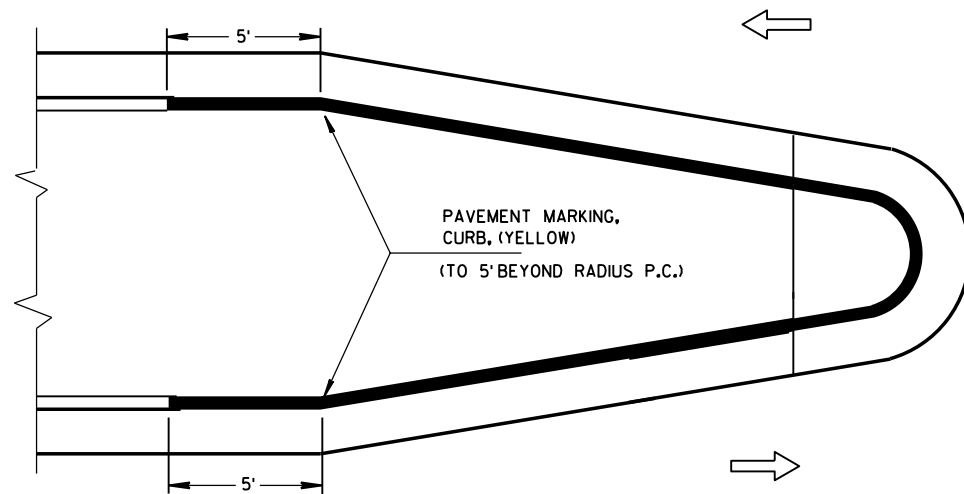
- EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
 - ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
 - ③ ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE 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)

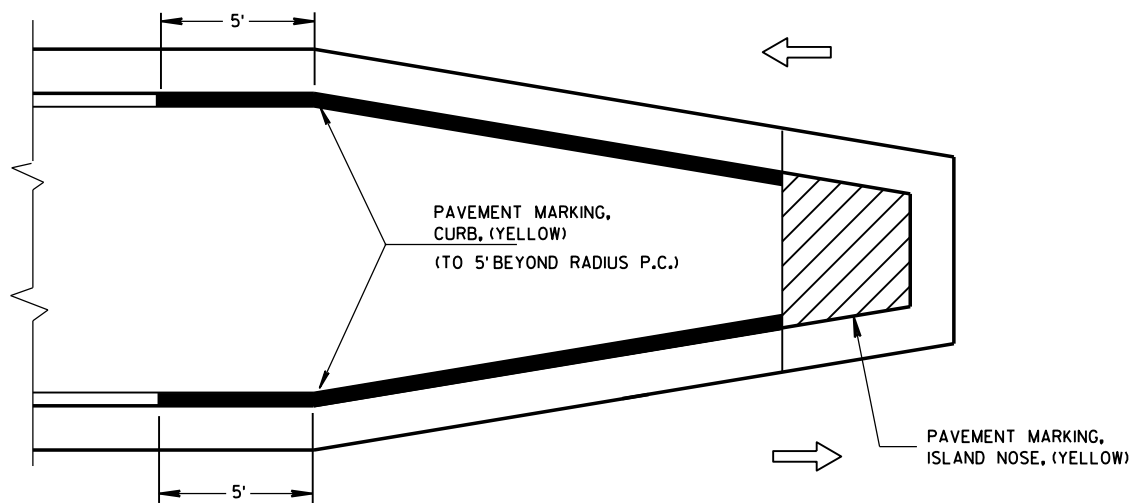
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

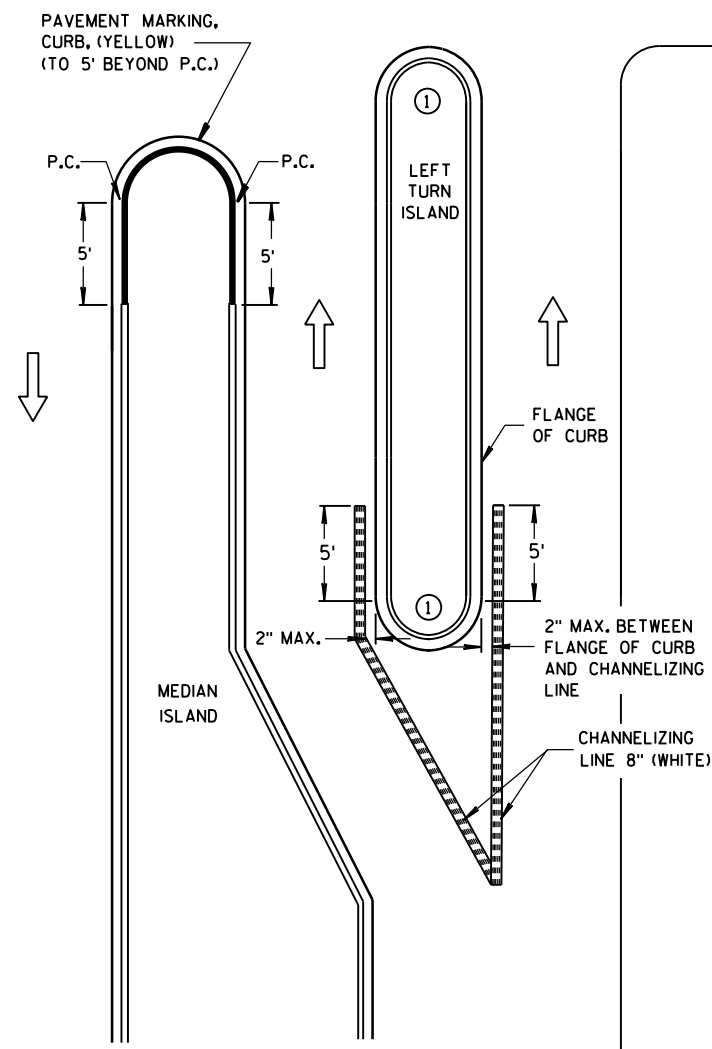


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

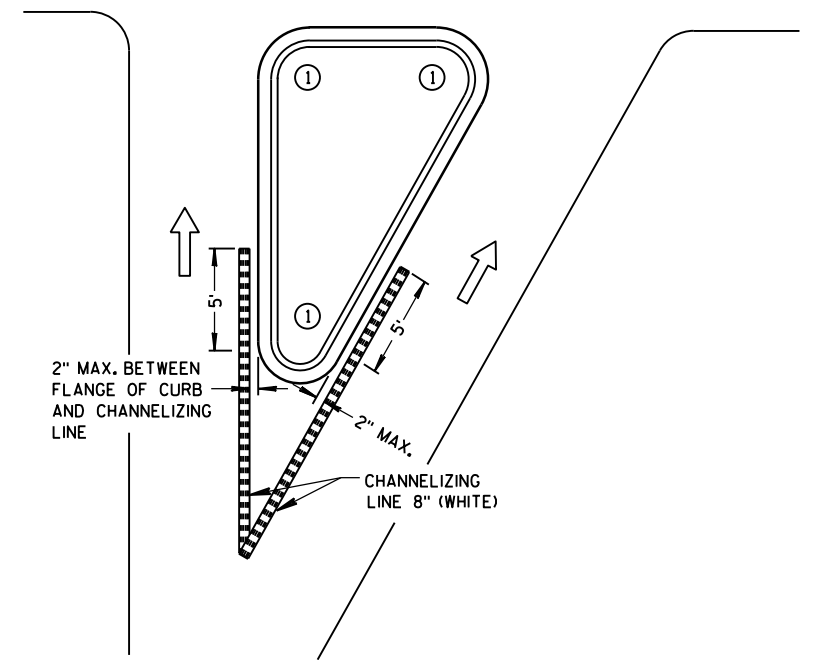
TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

- 1 DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
- 2 WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



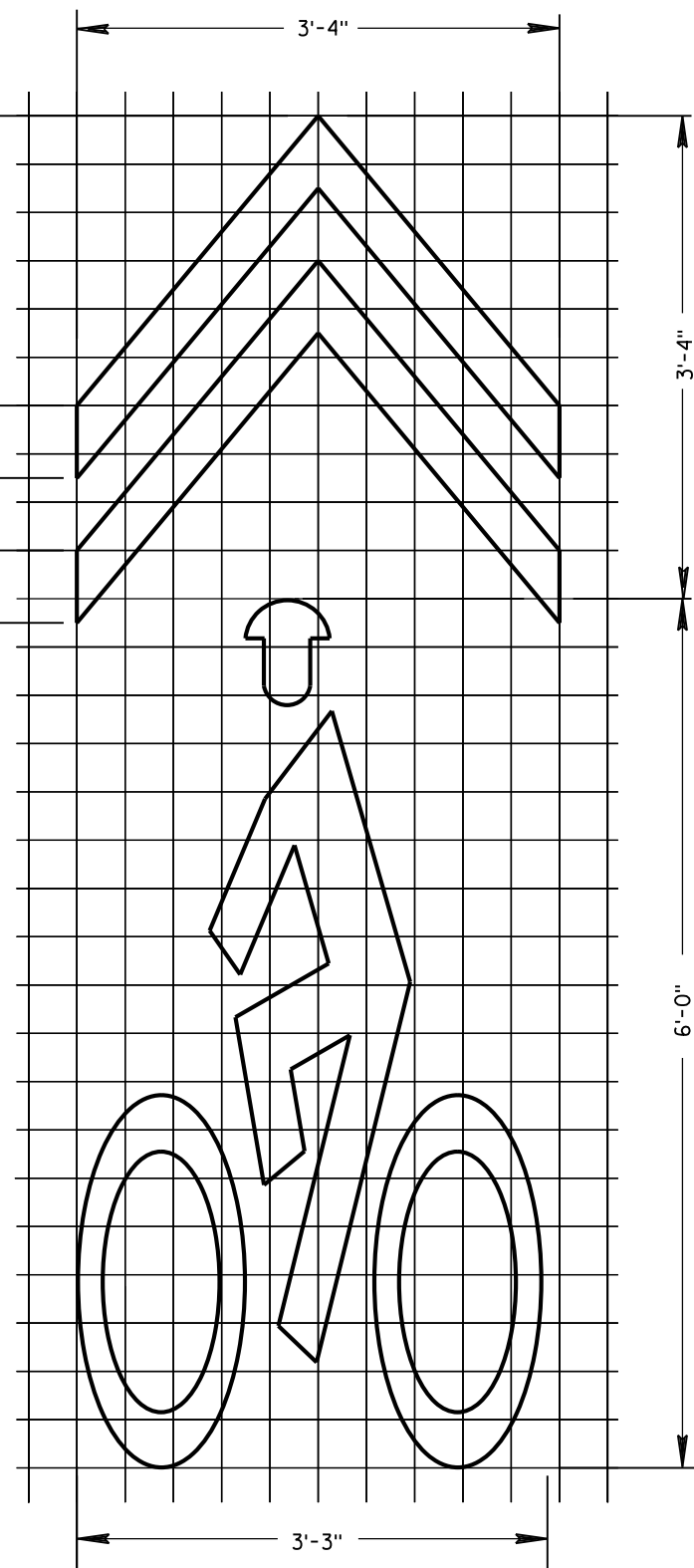
RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING (ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

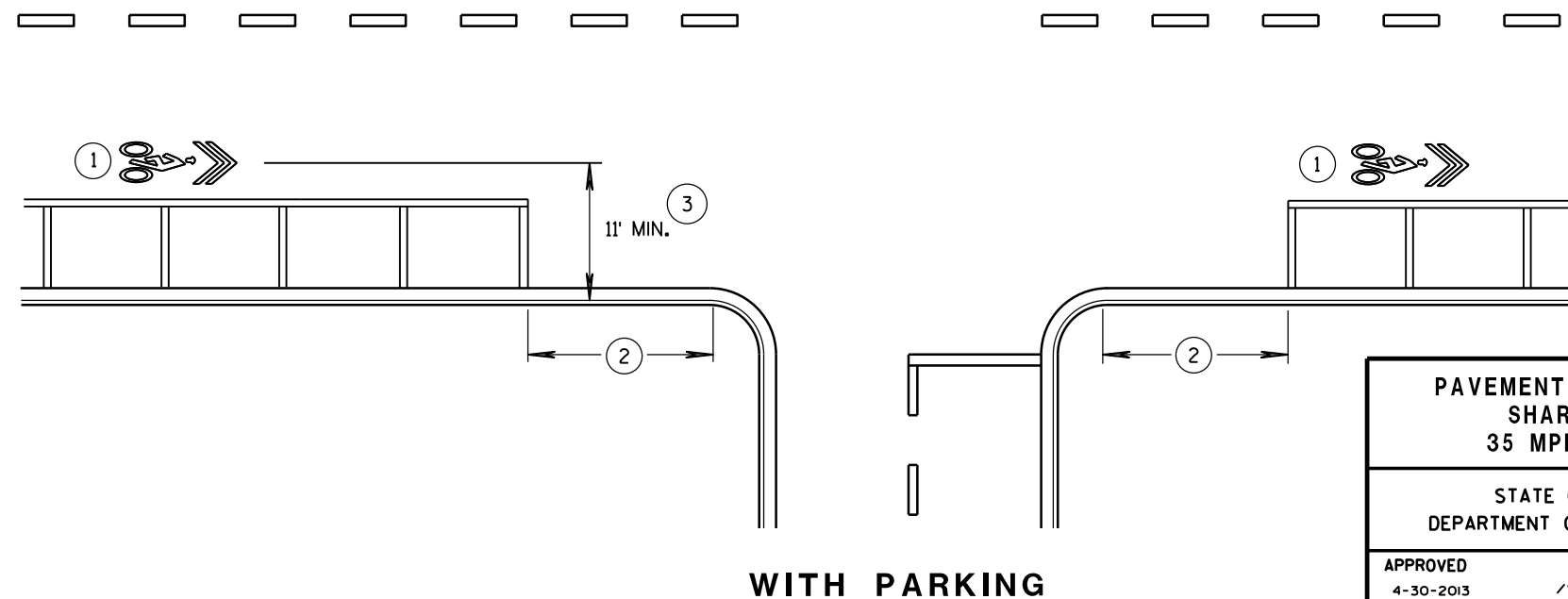
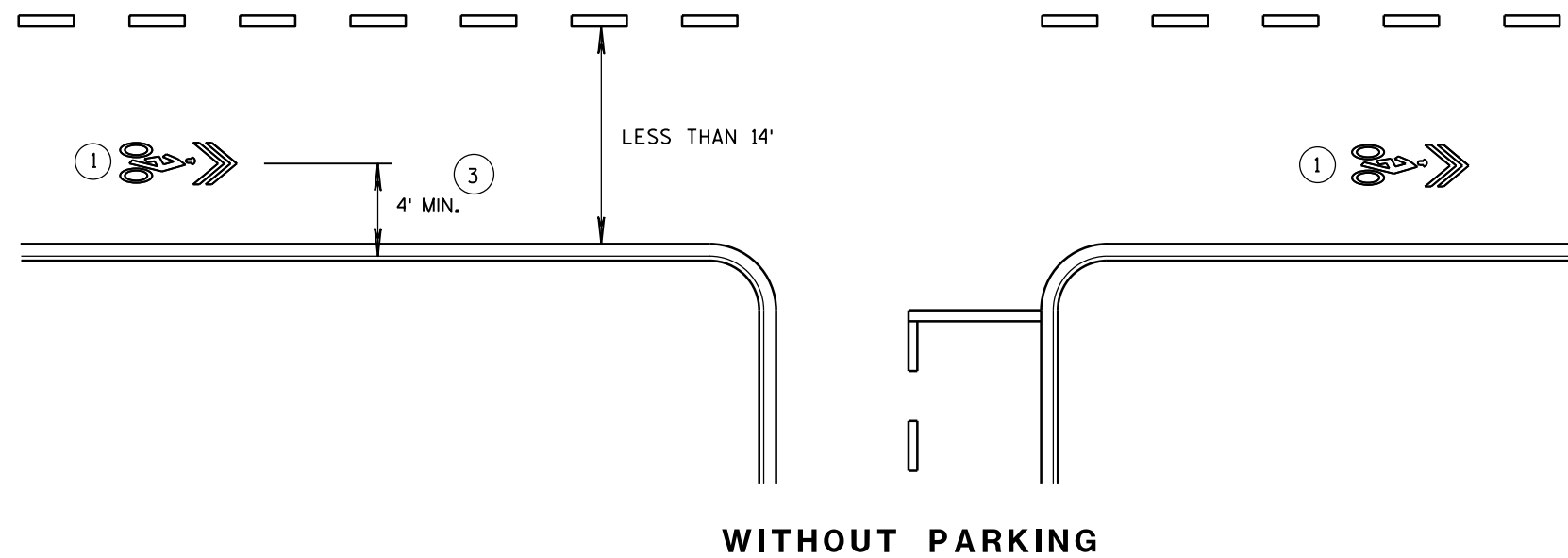


BIKE SYMBOL FOR SHARED LANE

GENERAL NOTES

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

- ① SPACED A MAXIMUM OF 250 FEET.
- ② 20 FOOT MINIMUM FROM CURB RADIUS.
- ③ OR TO EDGE OF PAVEMENT WITHOUT CURB.



PAVEMENT MARKING FOR
SHARED LANE
35 MPH OR LESS

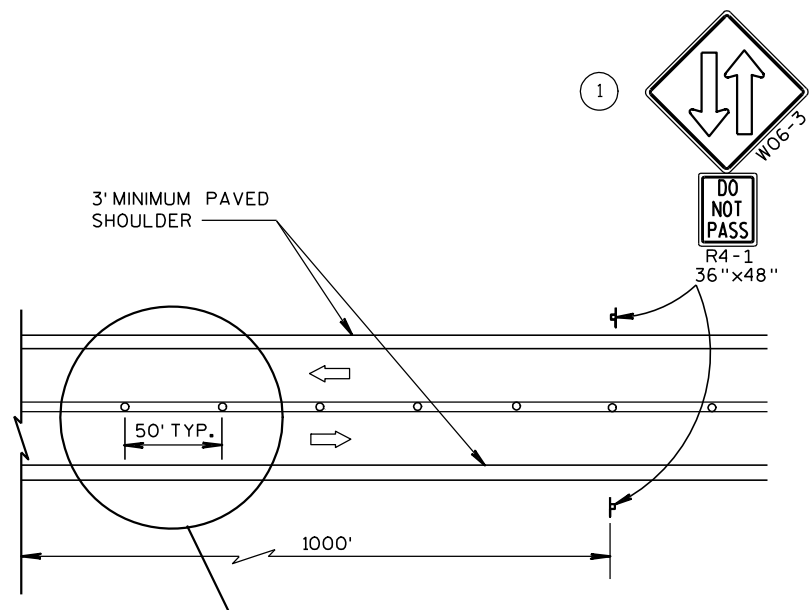
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

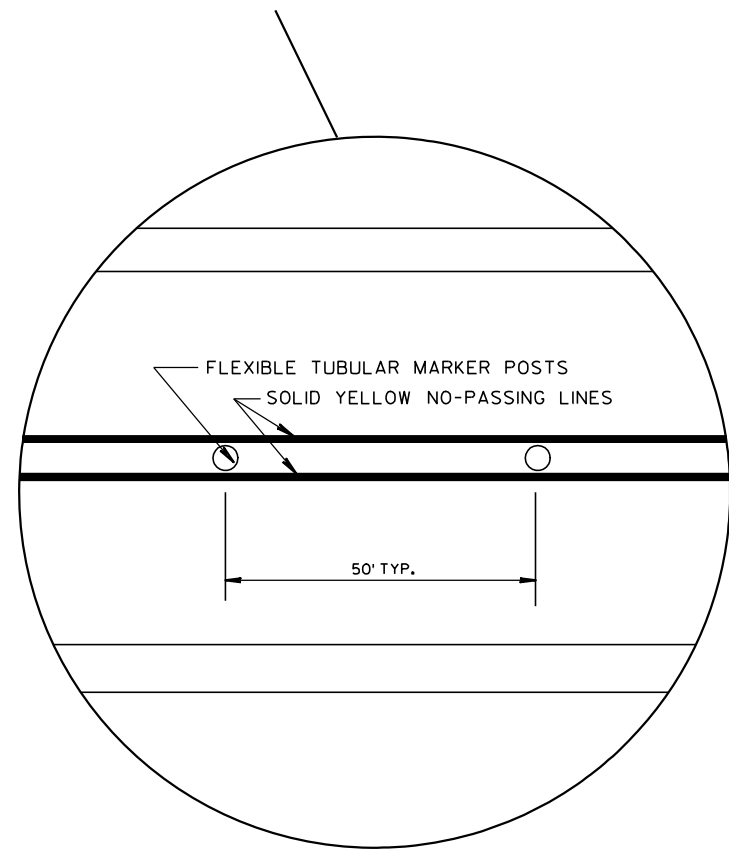
4-30-2013
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER



TWO LANE, TWO WAY OPERATION



- LEGEND**
- POST WITH ATTACHED SIGN
 - FLEXIBLE TUBULAR MARKER AND BASE
 - DIRECTION OF TRAFFIC

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

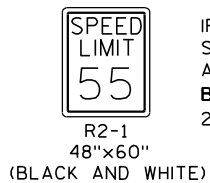
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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

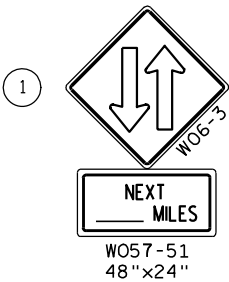
THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC @ 50' SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.



IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.



THE WO6-3 WITH THE W057-51 SHALL BE LOCATED 200' BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500' BEYOND ANY SIDEROAD. THE WO6-3 WITH THE R4-1 SHALL BE LOCATED 1000' BEYOND THE WO6-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN WO6-3 SIGNS.



TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-4-95 DATE	/S/ Chester J. Spang DIRECTOR, OFFICE OF TRAFFIC
FHWA	

GENERAL NOTES

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

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

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

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

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

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

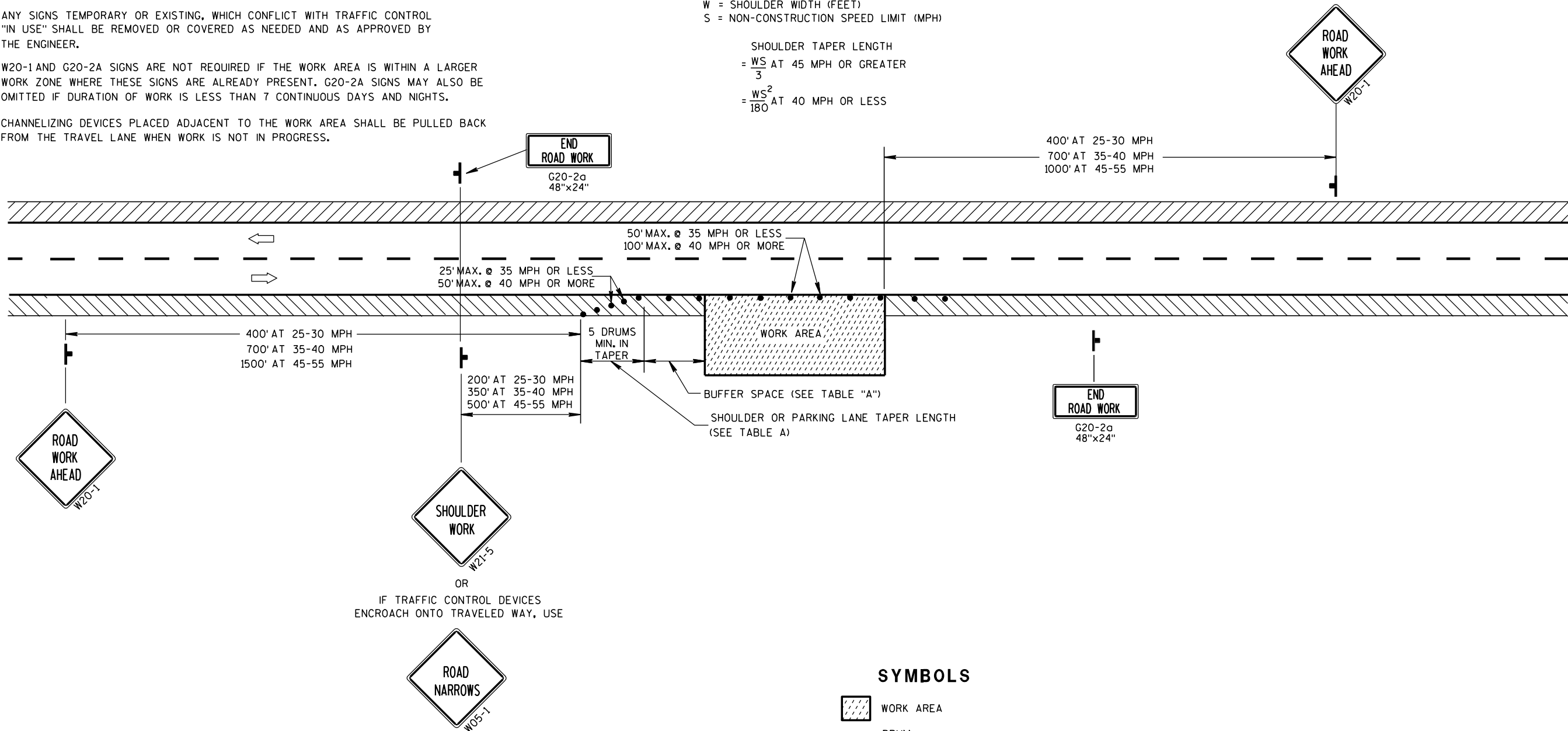
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

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

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

SHOULDER TAPER LENGTH
= $\frac{WS}{3}$ AT 45 MPH OR GREATER
= $\frac{WS^2}{180}$ AT 40 MPH OR LESS



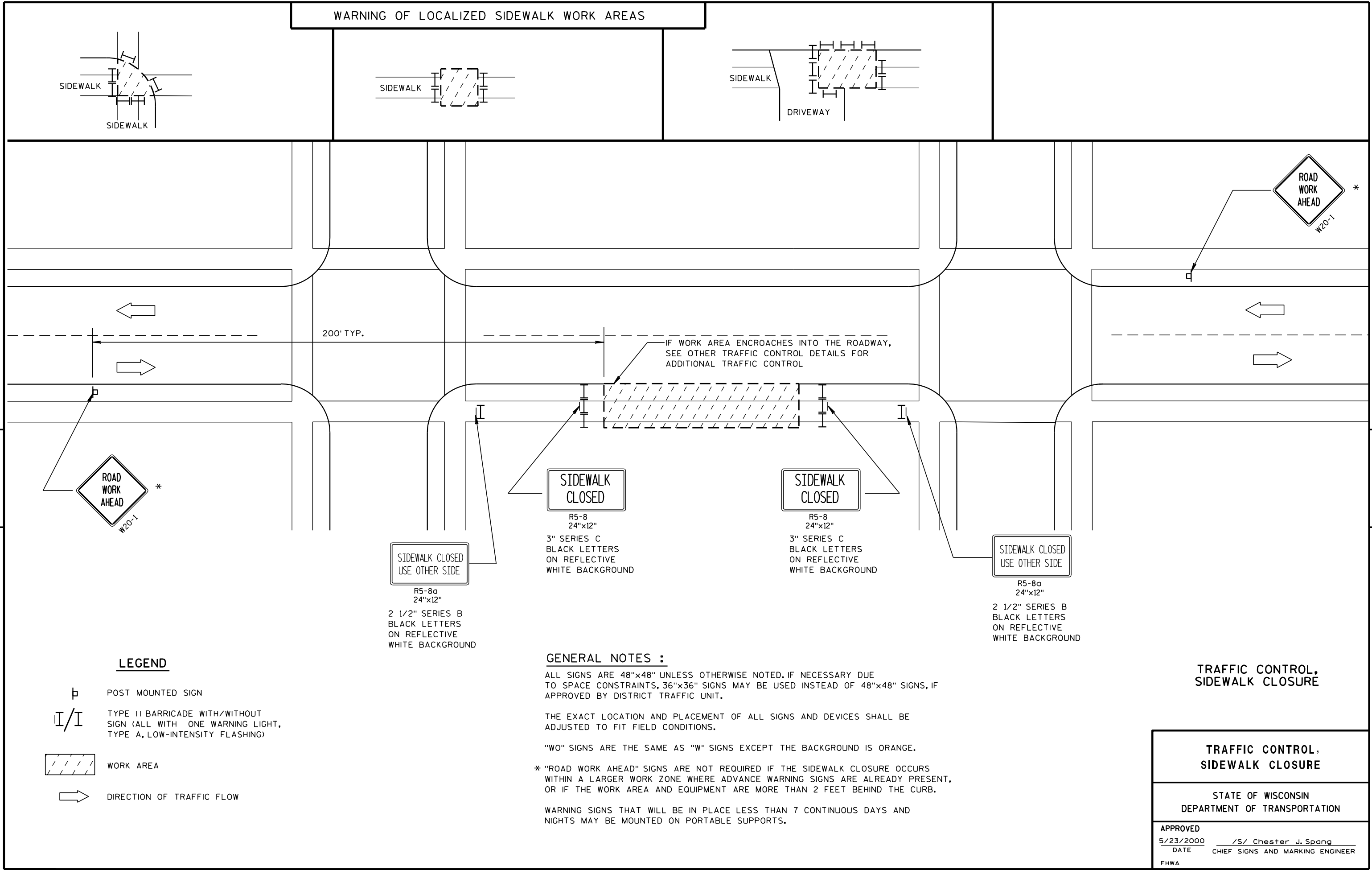
SYMBOLS

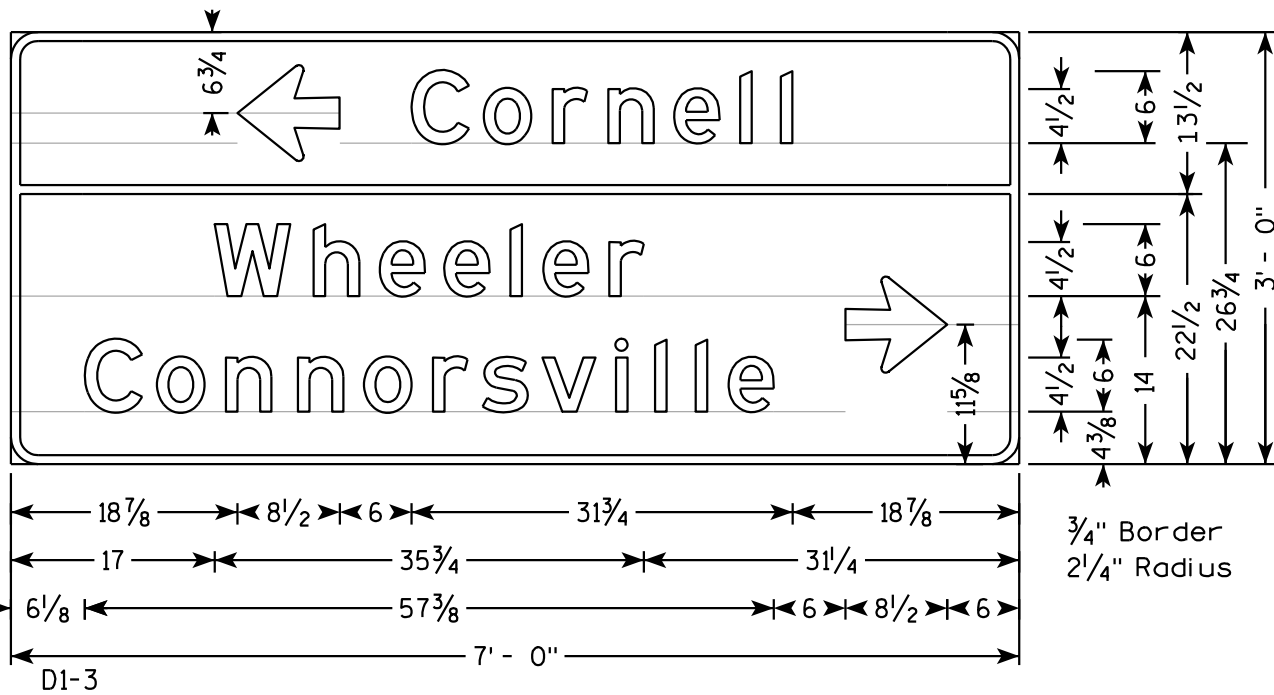
- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

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

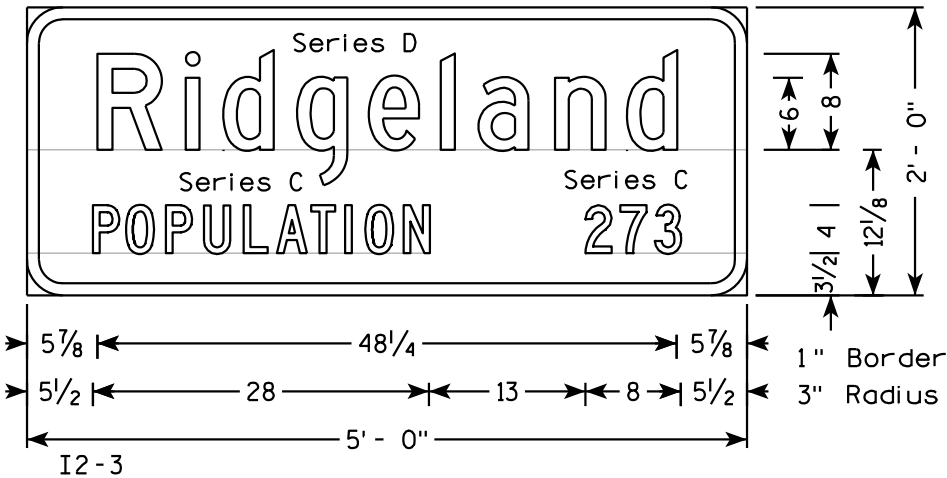
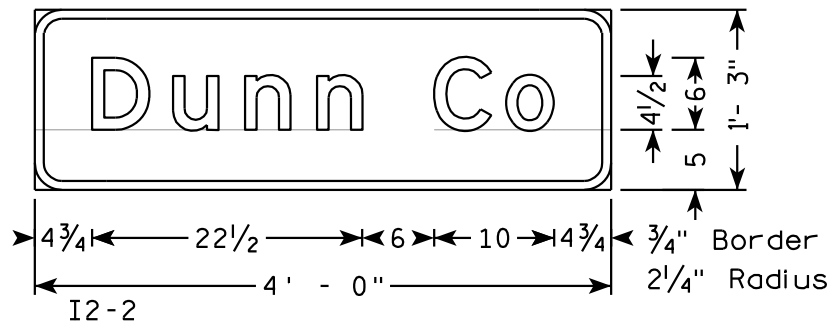
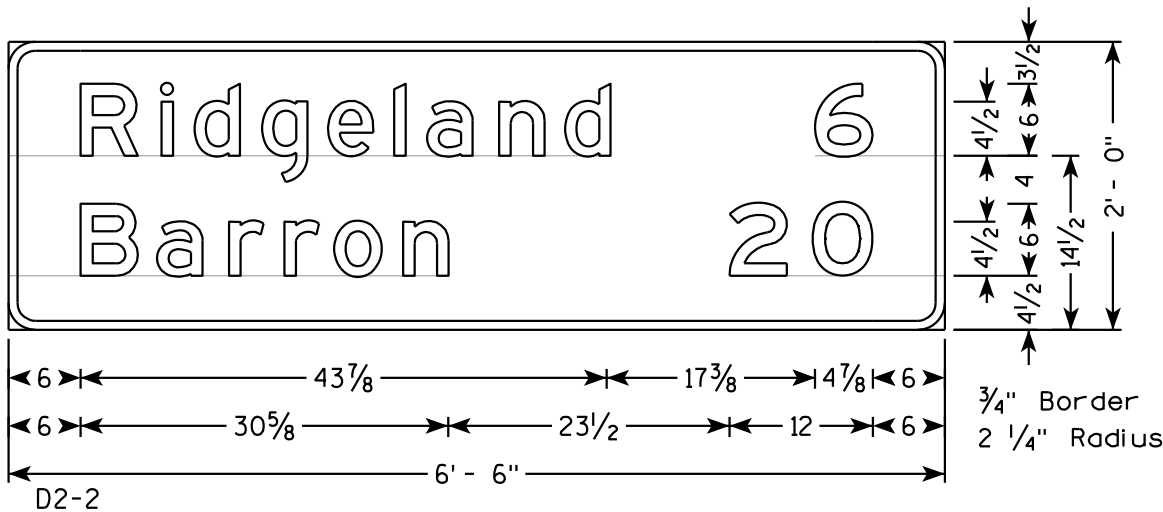
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA





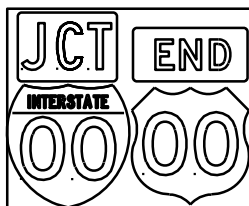
- NOTES**
1. All SignType II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Green
Message - White
 3. Message Series - E except as noted



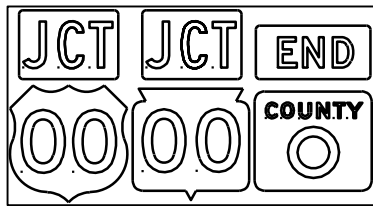
TYPICAL ASSEMBLIES



J1-1



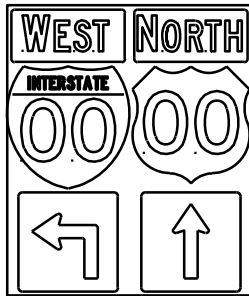
J1-2



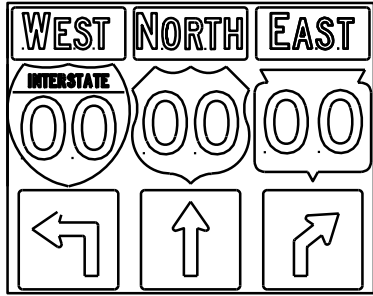
J1-3



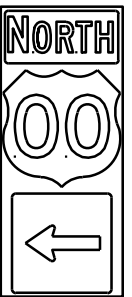
J2-1



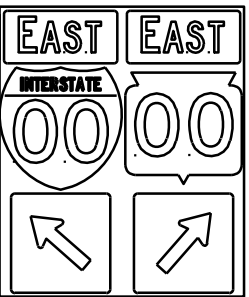
J2-2



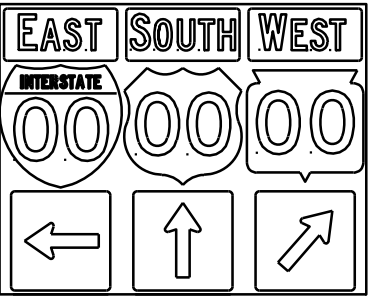
J2-3



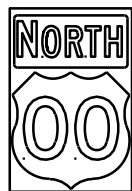
J3-1



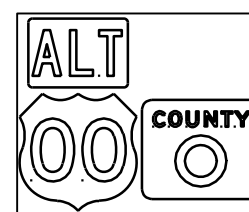
J3-2



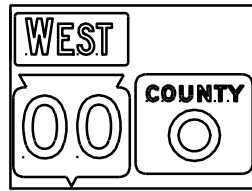
J3-3



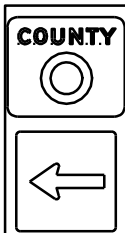
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1



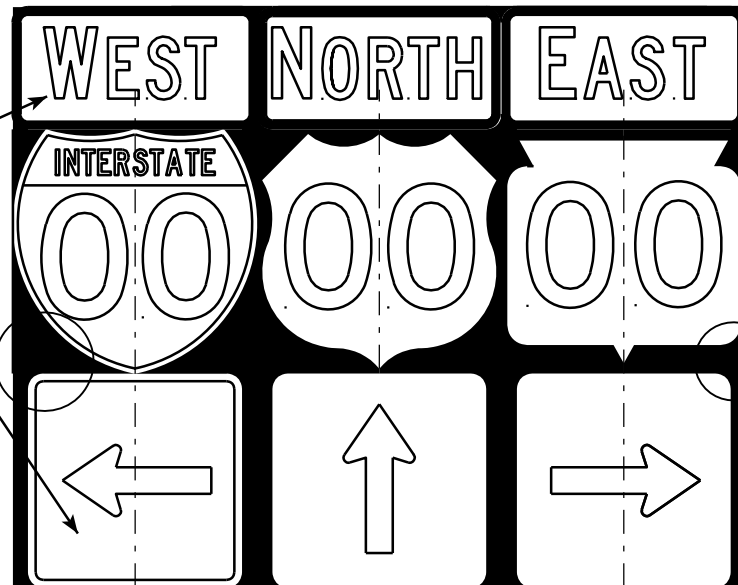
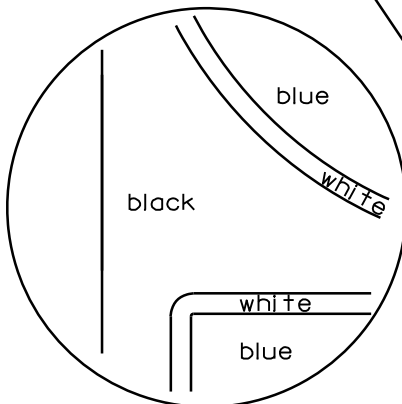
JV

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

NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- 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.
- 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.
- 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.
- 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.
- All Vertical J Assemblies are given a Sign Code of JV
- For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

[blue background
with interstate]



black

white

[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
For State Traffic Engineer

DATE 3/25/13

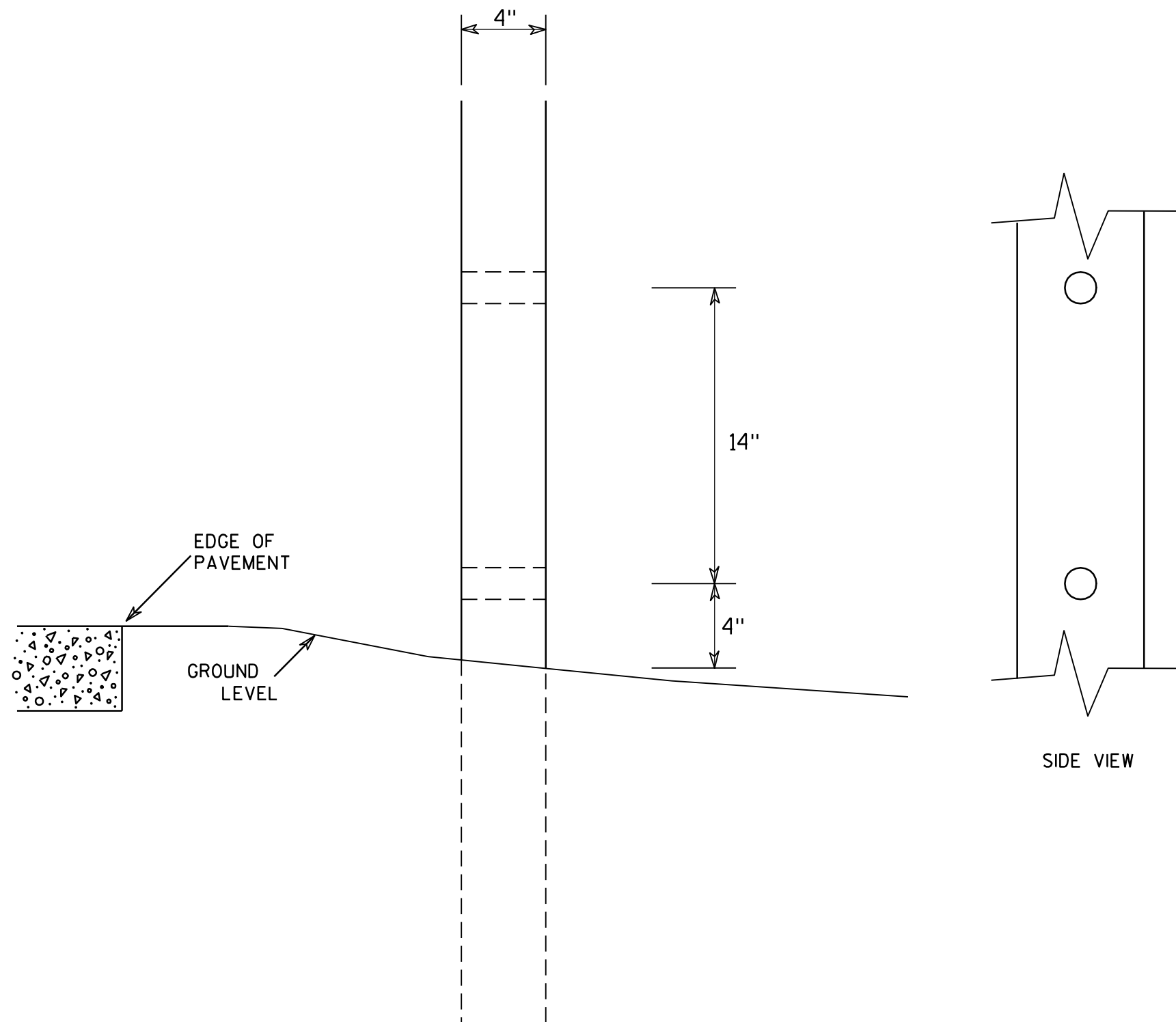
PLATE NO. A2-1S.7

PROJECT NO:

SHEET NO:

E

7



GENERAL NOTES

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

7

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:

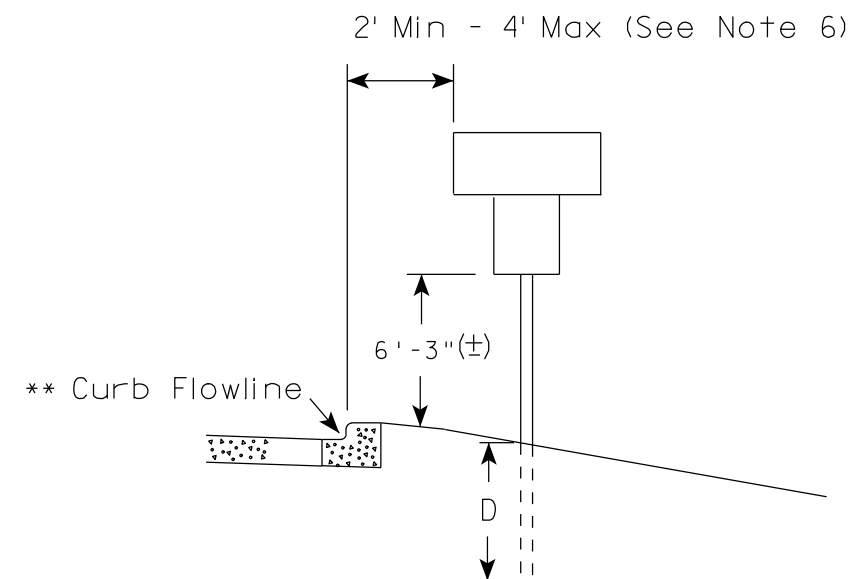
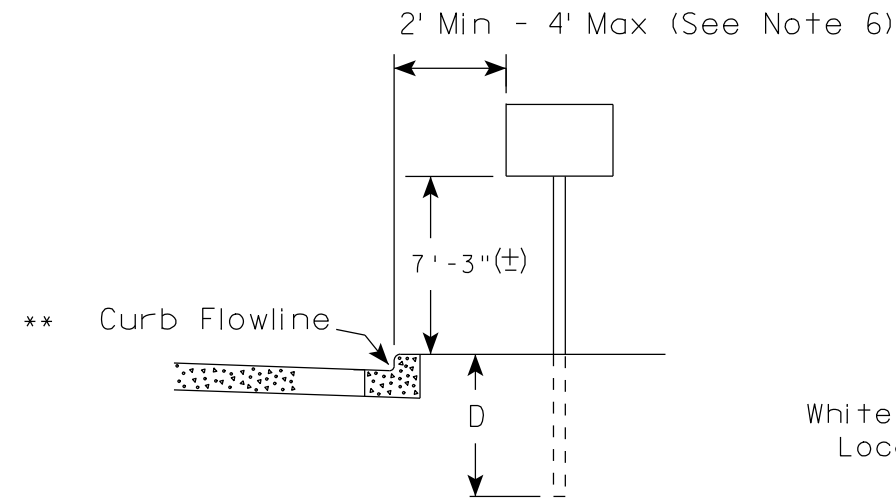
HWY:

COUNTY:

SHEET NO:

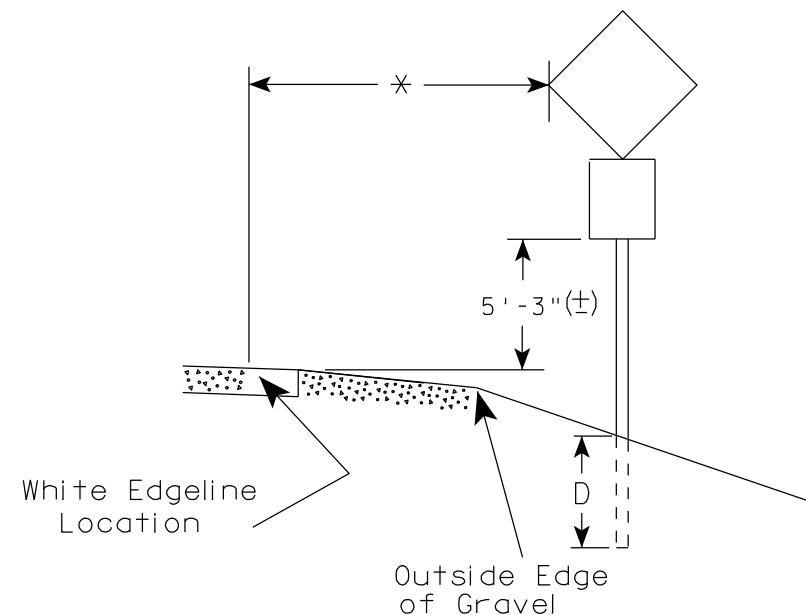
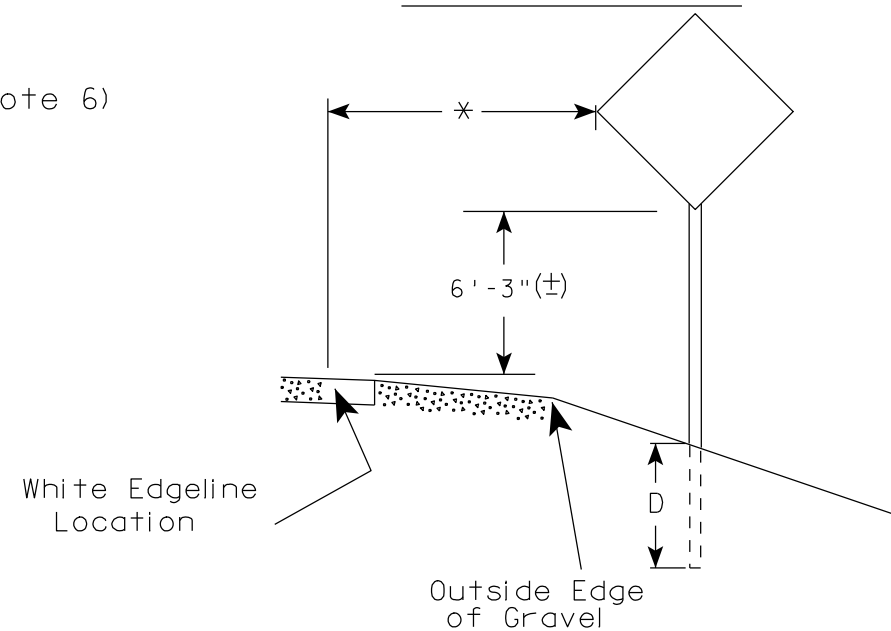
E

URBAN AREA



* * 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/24/2013 PLATE NO. A4-3.17

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

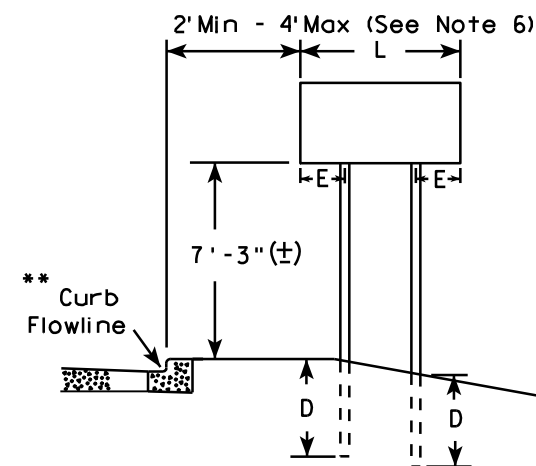
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.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

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

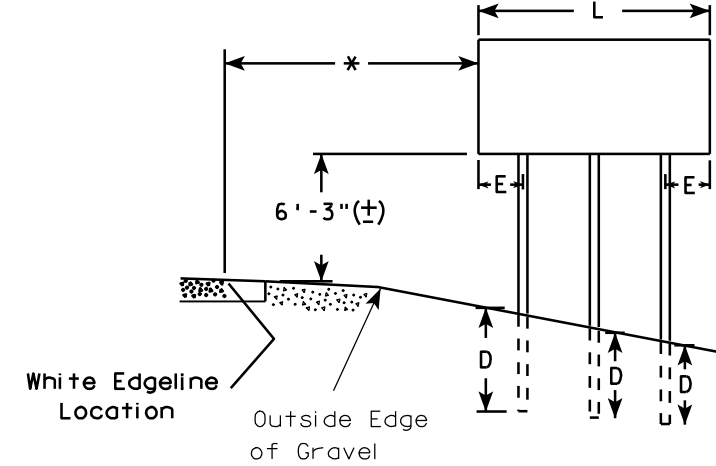
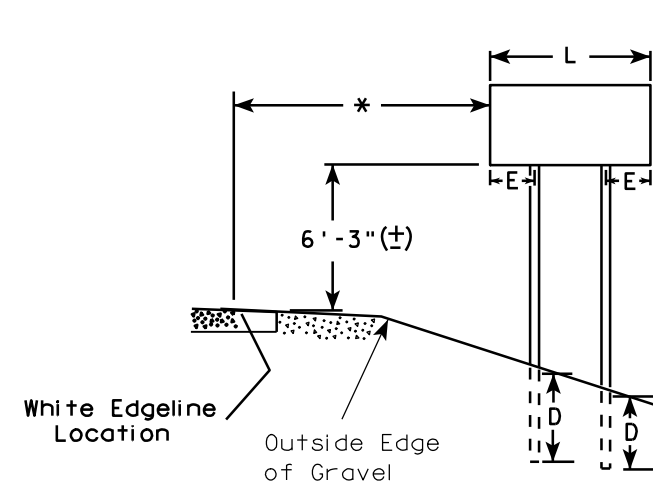
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

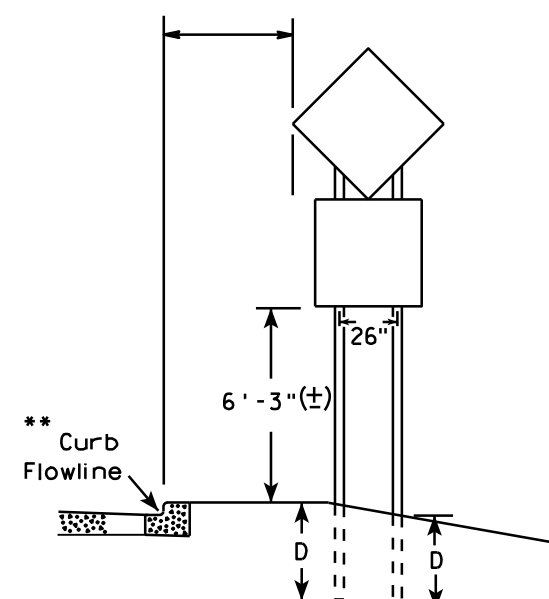
URBAN AREA



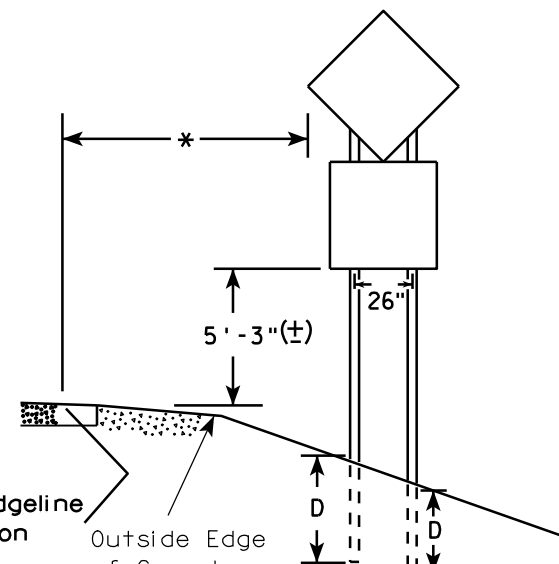
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-4.11

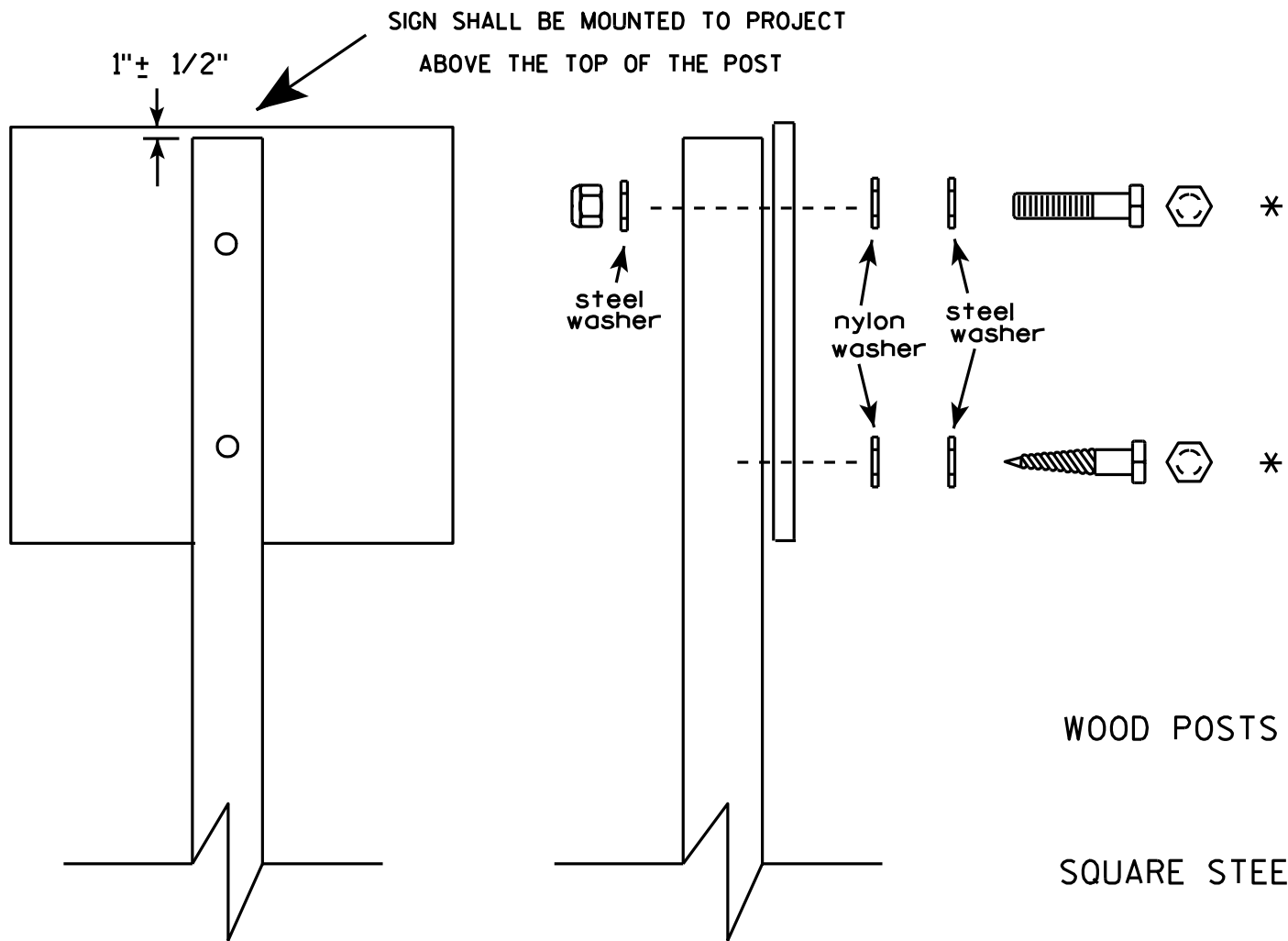
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

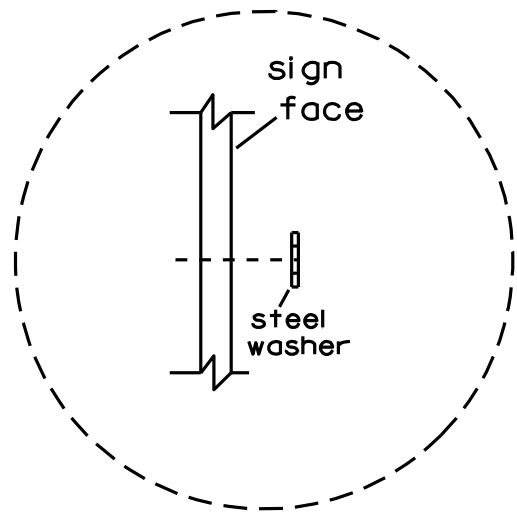


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- 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

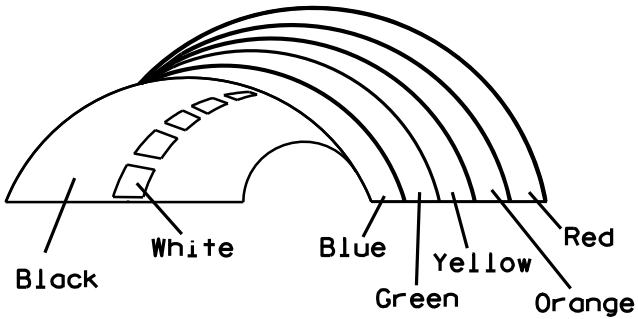
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

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 - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign 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																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

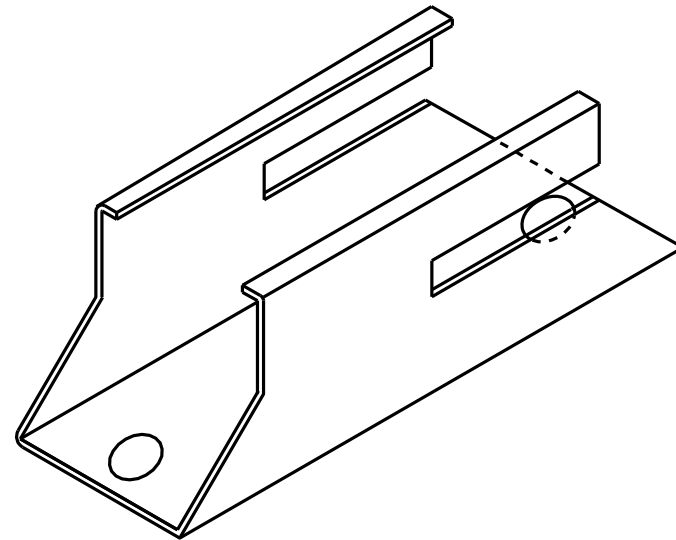
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

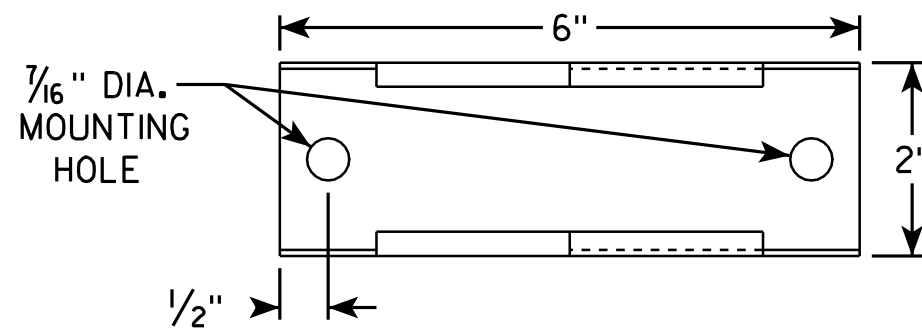
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

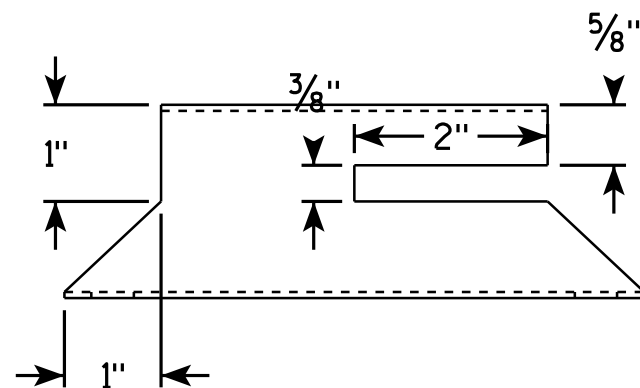
ISOMETRIC VIEW



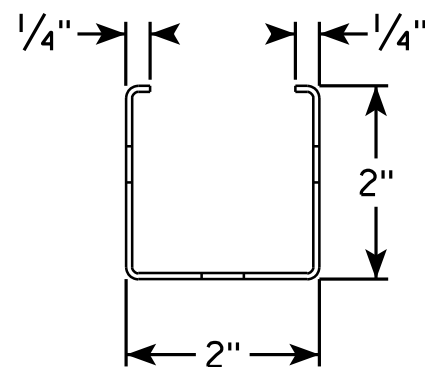
TOP VIEW



SIDE VIEW



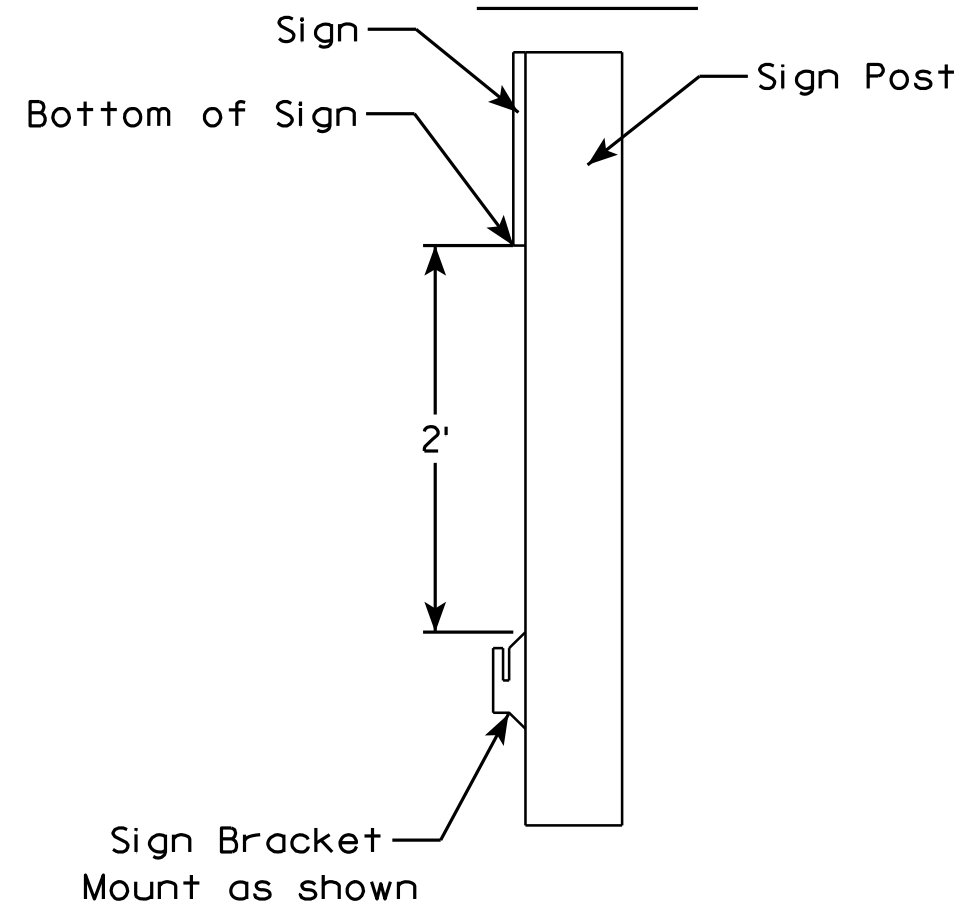
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/5/10 PLATE NO. I55-56B.1

PROJECT NO:

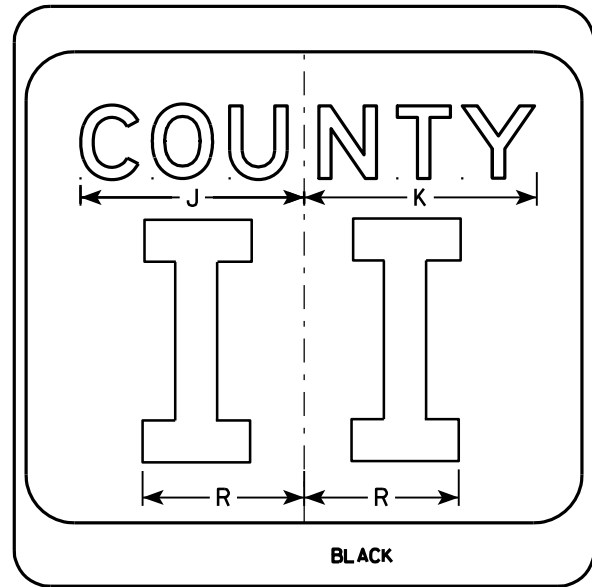
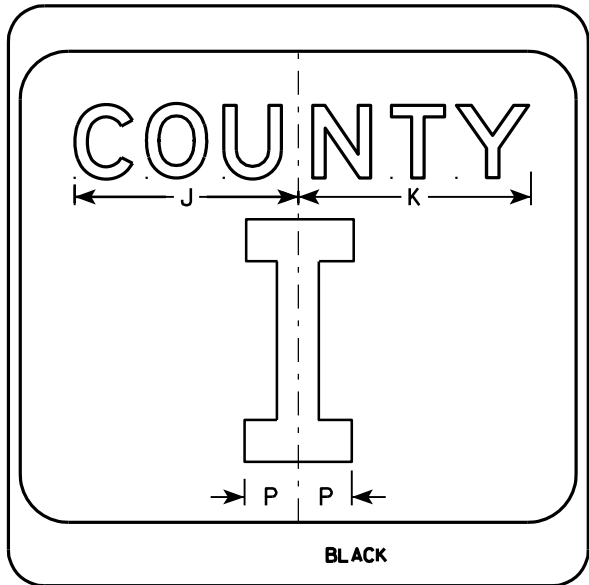
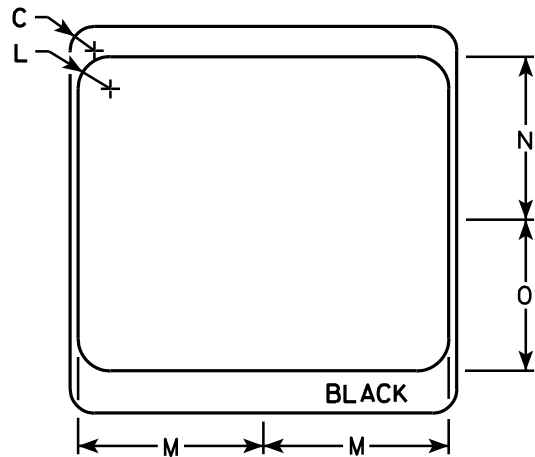
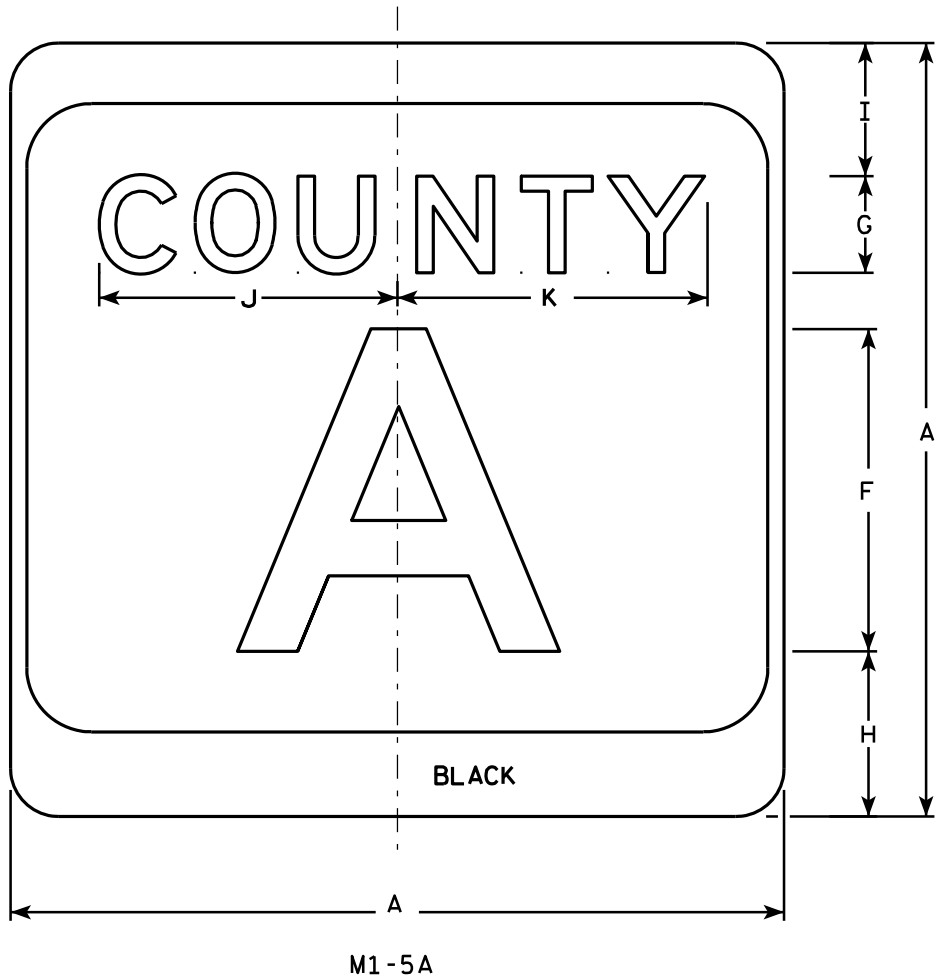
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
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. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

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		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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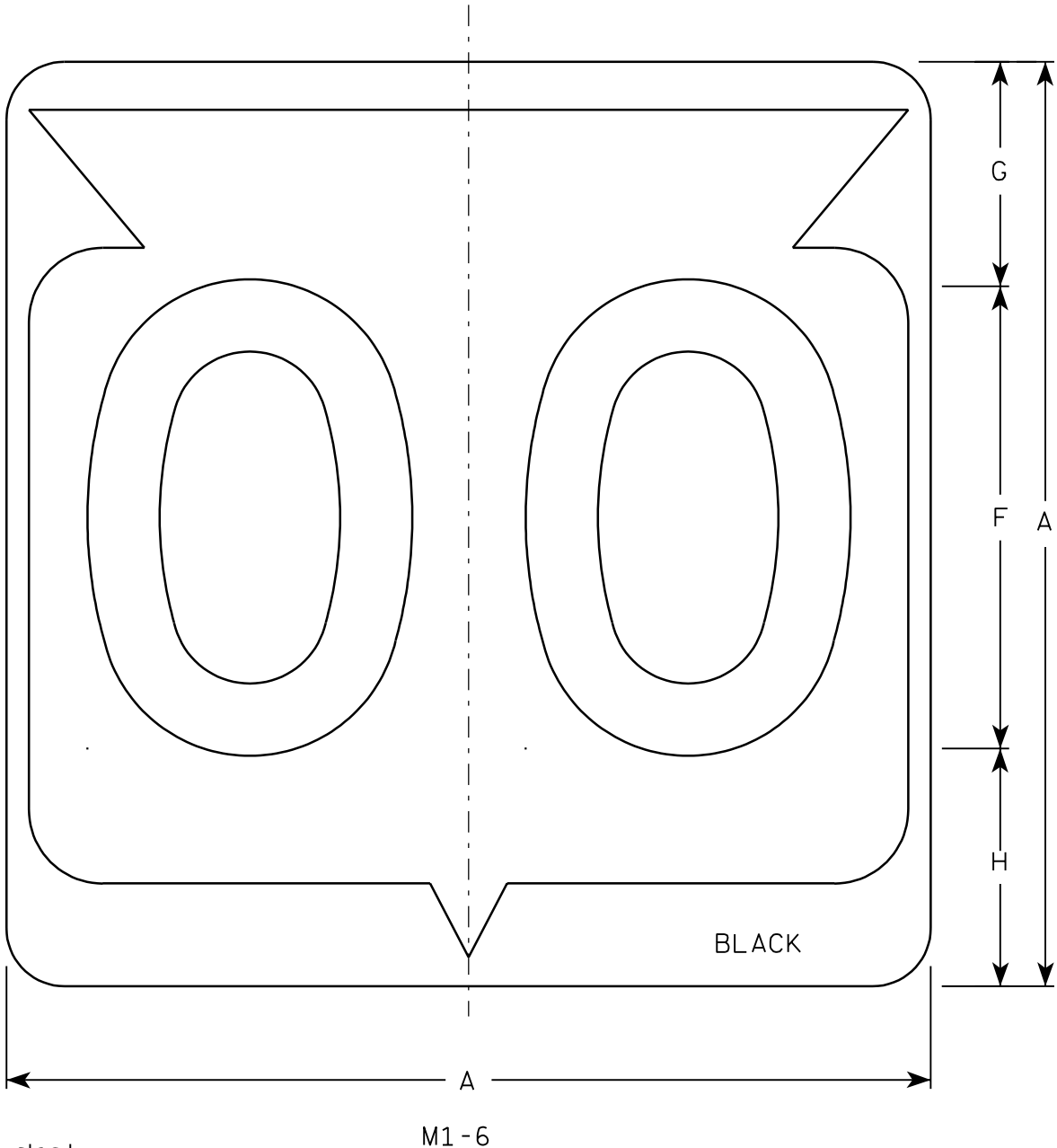
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

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:

E

FILE NAME : C:\Users\Projects\tr_stdp\late\M16.DGN

PLOT DATE : 13-OCT-2005 14:55

PLOT BY : DITJPH

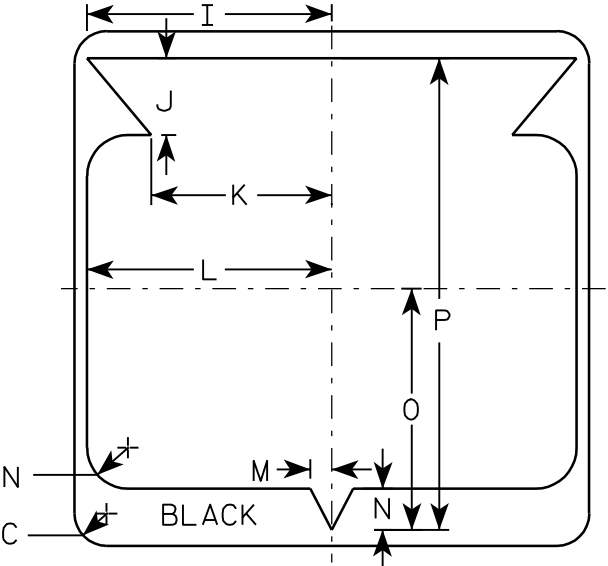
PLOT NAME :

PLOT SCALE : 6.715871:1.000000

WISDOT/CADDS SHEET 42

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

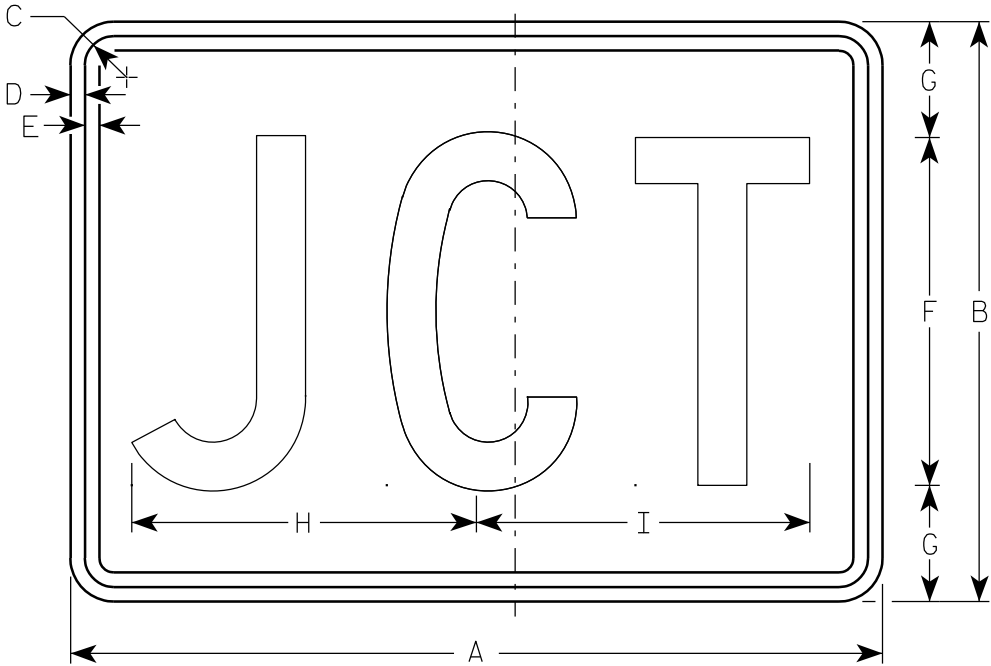
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

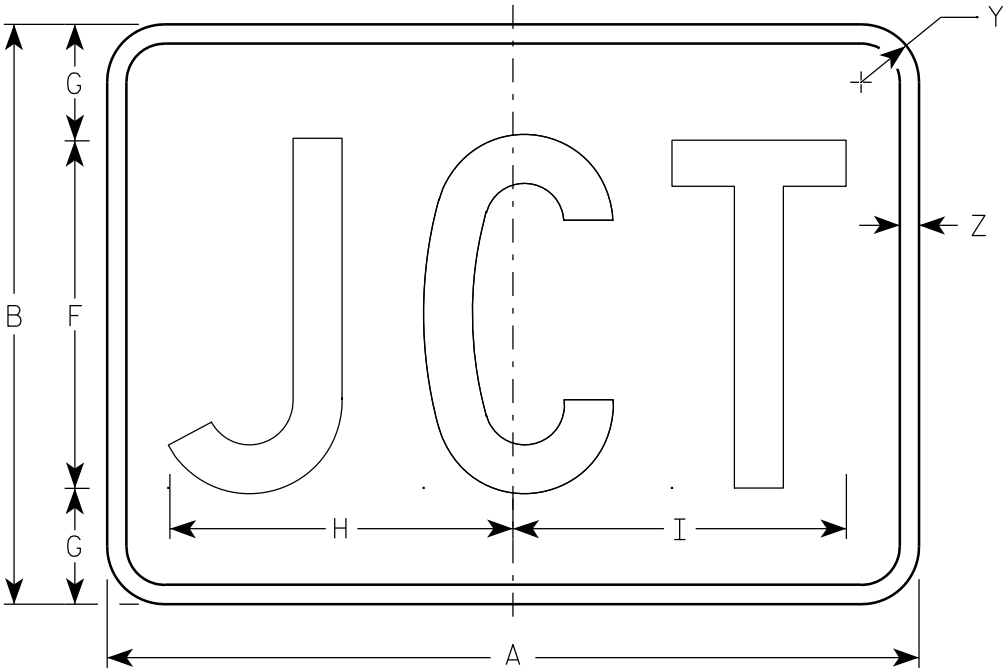
PLATE NO. M1-6.9

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

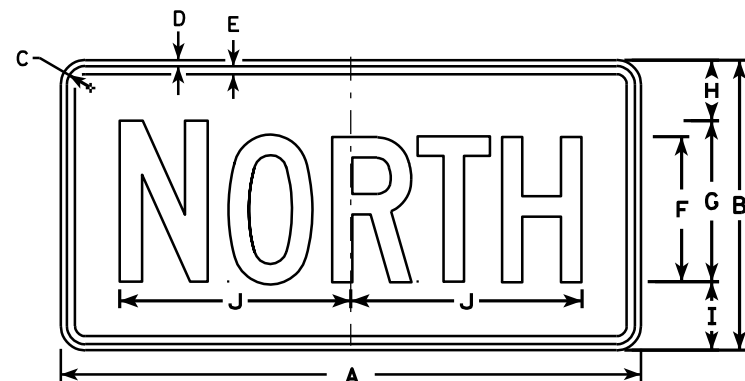
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
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	0.20

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

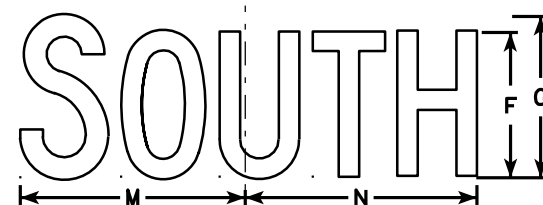
DATE 3/16/10 PLATE NO. M2-1.10



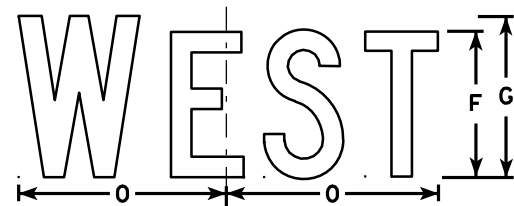
M3-1
MK3-1
M03-1



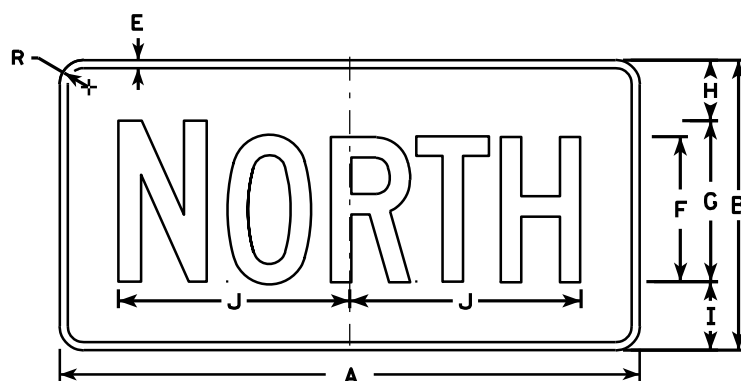
M3-2
MK3-2
M03-2



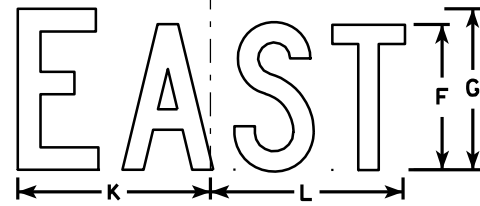
M3-3
MK3-3
M03-3



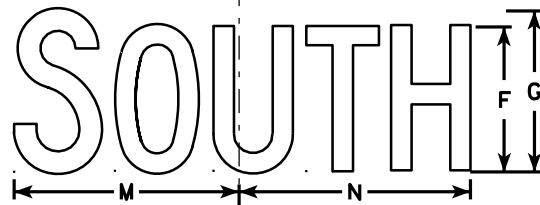
M3-4
MK3-4
M03-4



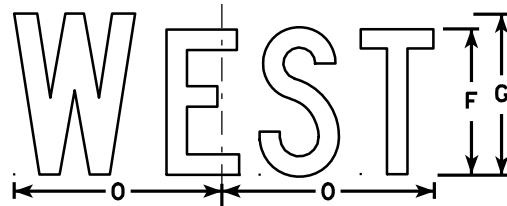
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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 - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
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

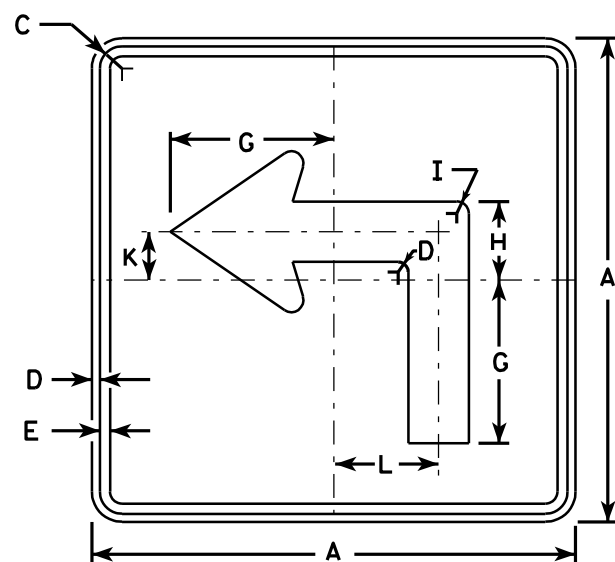
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS M3-1 thru M3-4 SERIES

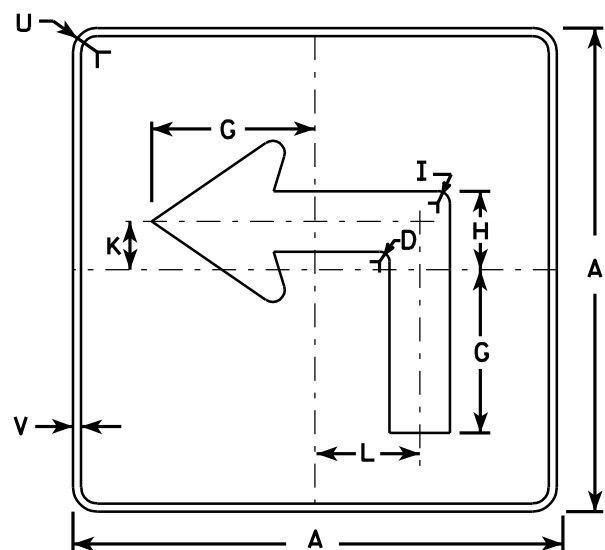
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

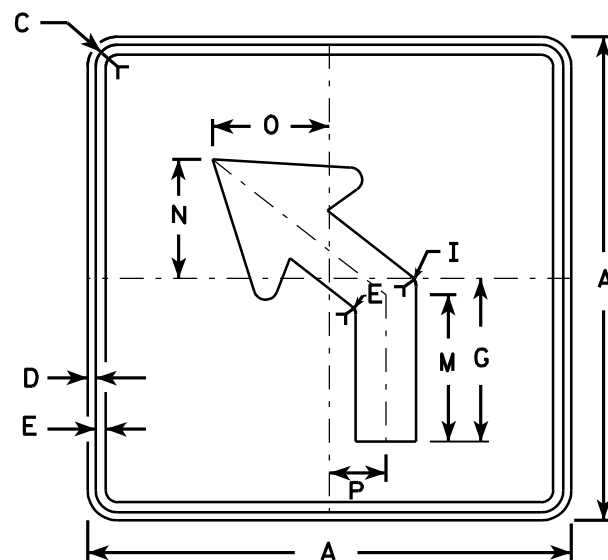
DATE 11/10/10 PLATE NO. M3-1.12



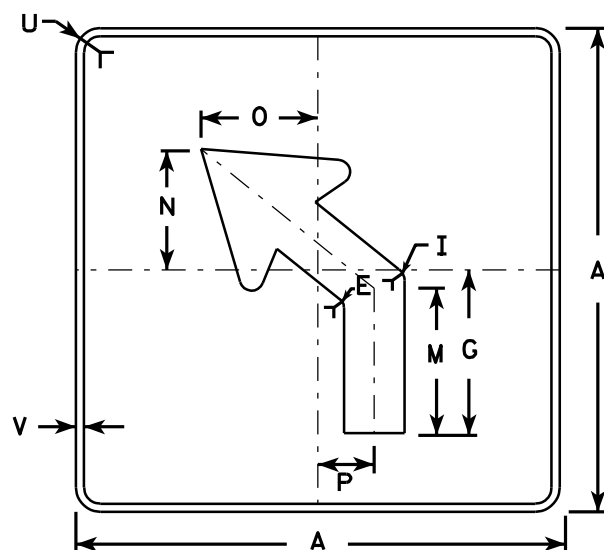
M5-1L
MK5-1L
MM5-1L
M05-1L
MP5-1L
MR5-1L



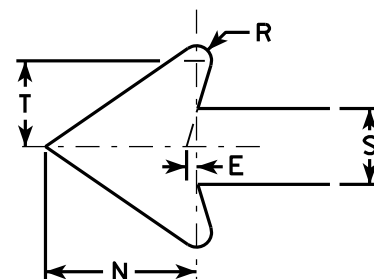
MB5-1L
MG5-1L
MN5-1L



M5-2L
MK5-2L
MM5-2L
M05-2L
MP5-2L
MR5-2L



MB5-2L
MG5-2L
MN5-2L



NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 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 - Type H Reflective
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
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 - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

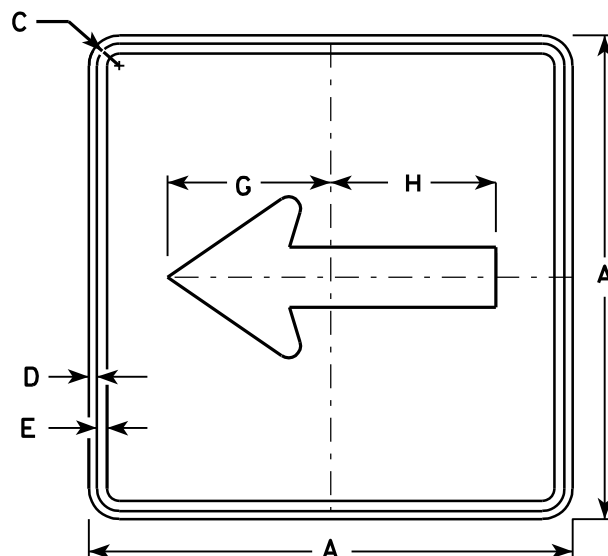
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
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

STANDARD SIGN
M5-1 & M5-2

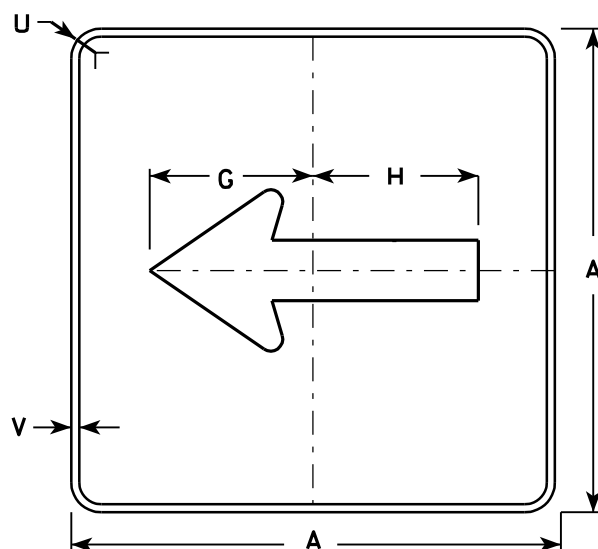
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

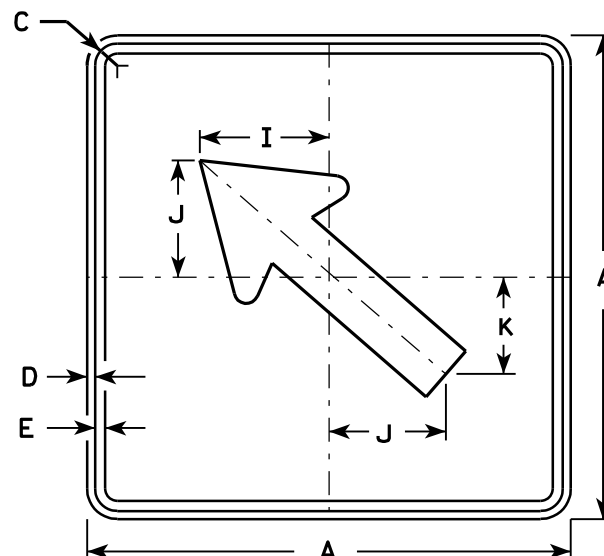
DATE 7/29/13 PLATE NO. M5-1.12



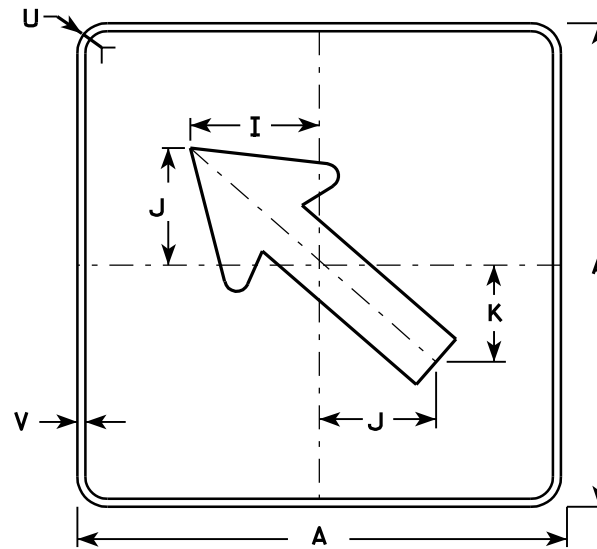
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



MB6-1
MG6-1
MN6-1



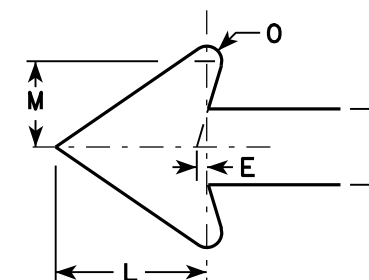
M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 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.
- M6-1 and M6-2 Background - White - Type H Reflective
Message - Black
 MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
 MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
 MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
 MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
 MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
 MO6-1 and MO6-2 Background - Orange - Type F Reflective
Message - Black
 MP6-1 and MP6-2 Background - White - Type H Reflective
Message - Blue
 MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective



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

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

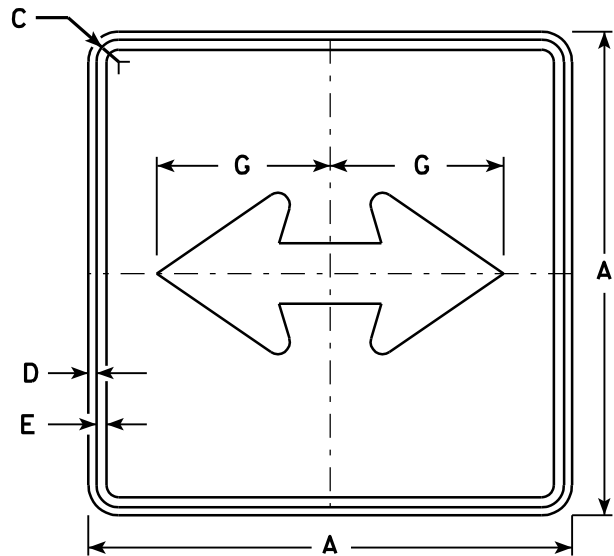
PROJECT NO:

HWY:

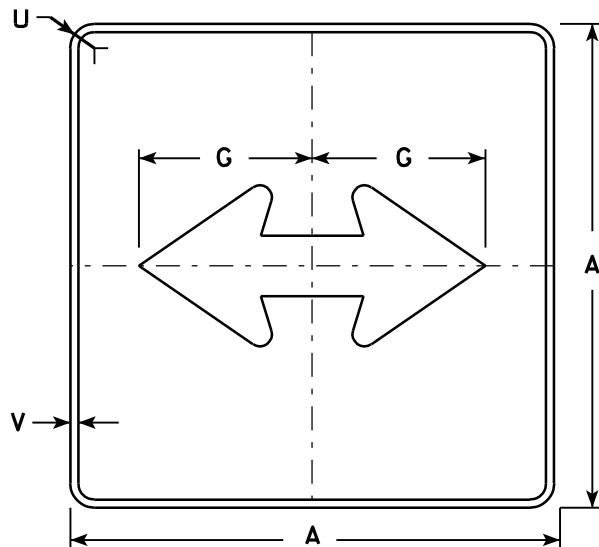
COUNTY:

SHEET NO:

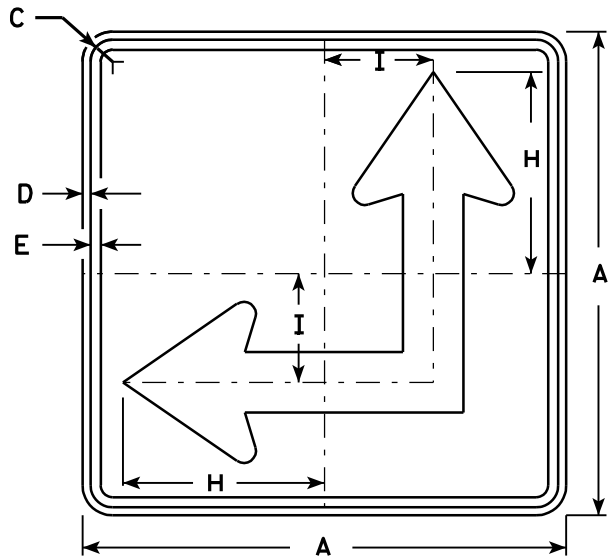
E



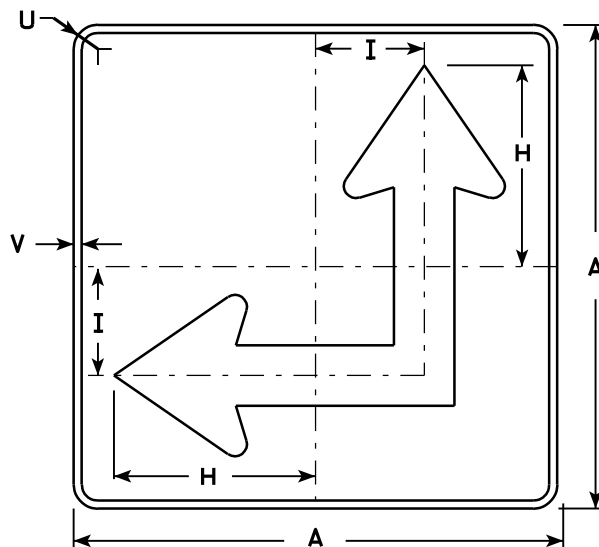
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MP6 - 4
MR6 - 4



MB6 - 4
MG6 - 4
MN6 - 4



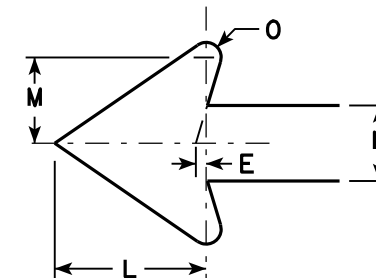
M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MP6 - 6
MR6 - 6



MB6 - 6
MG6 - 6
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 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.
- M6-4 and M6-6 Background - White - Type H Reflective
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
MO6-4 and MO6-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White - Type H Reflective
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and 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 1/2	8 3/4	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	12 1/2	6 3/4			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	12 1/2	6 3/4			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	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

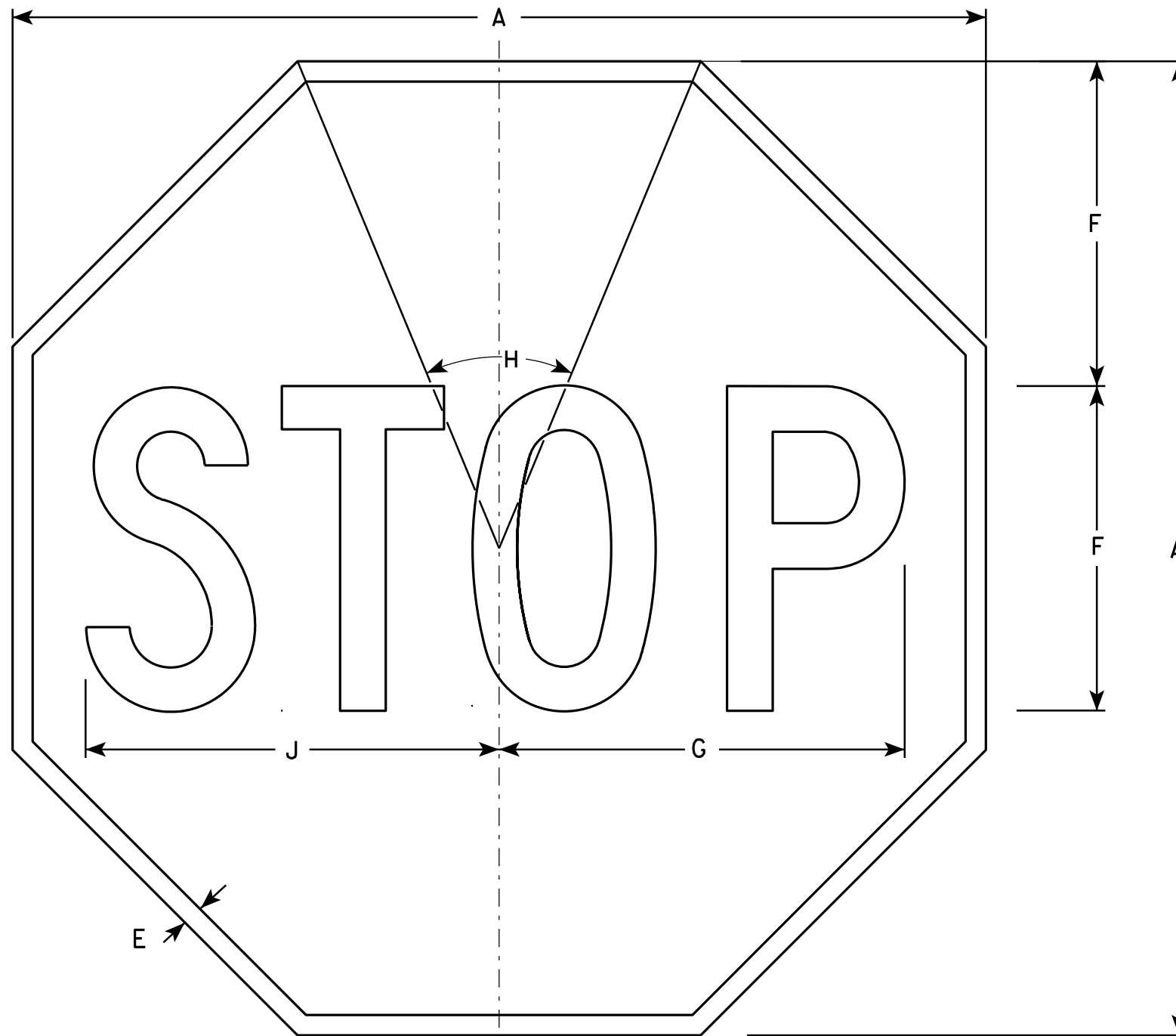
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-4.8



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

R1-1

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

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

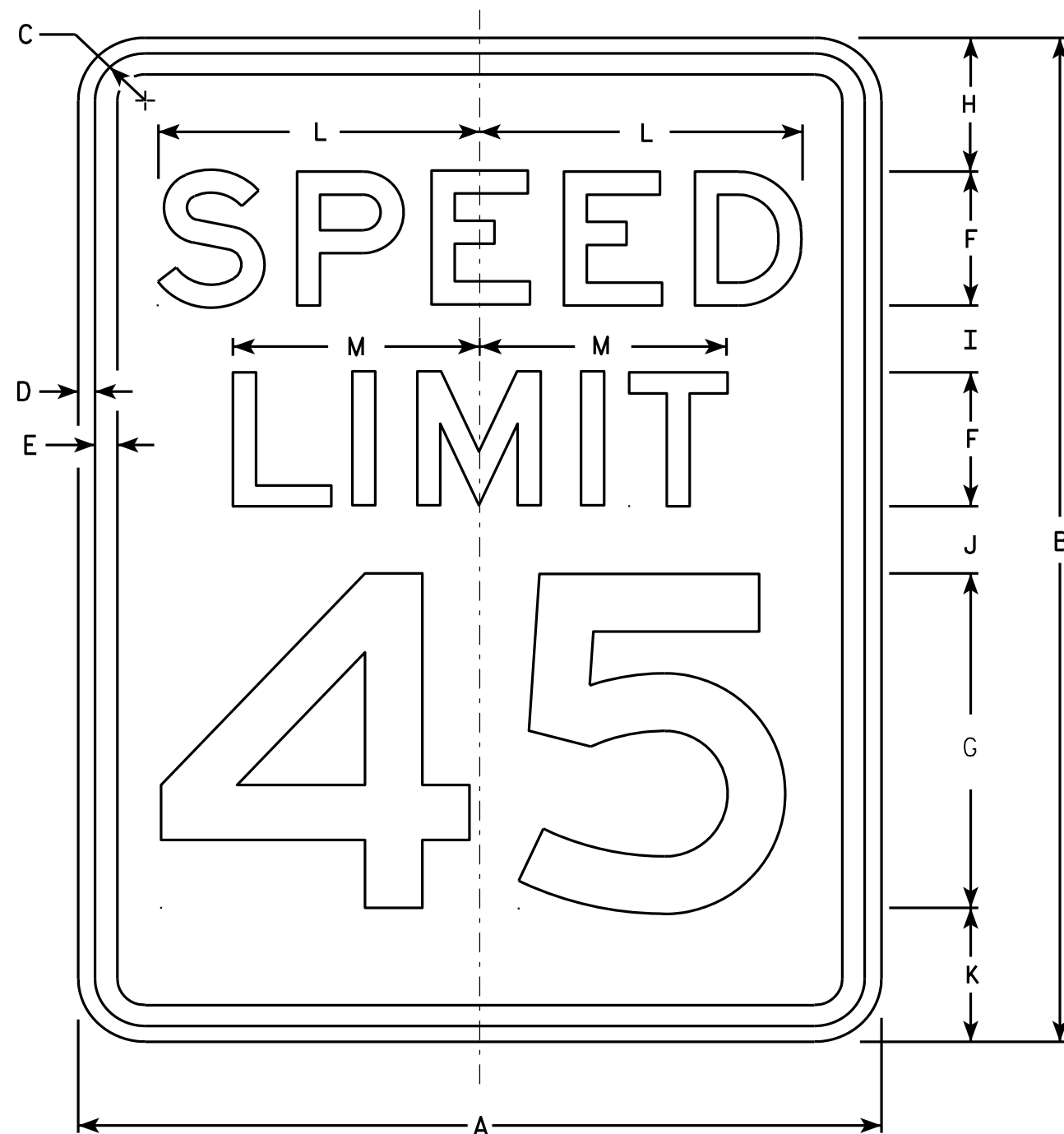
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



R2-1

NOTES

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

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

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: E



R2-6P

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.

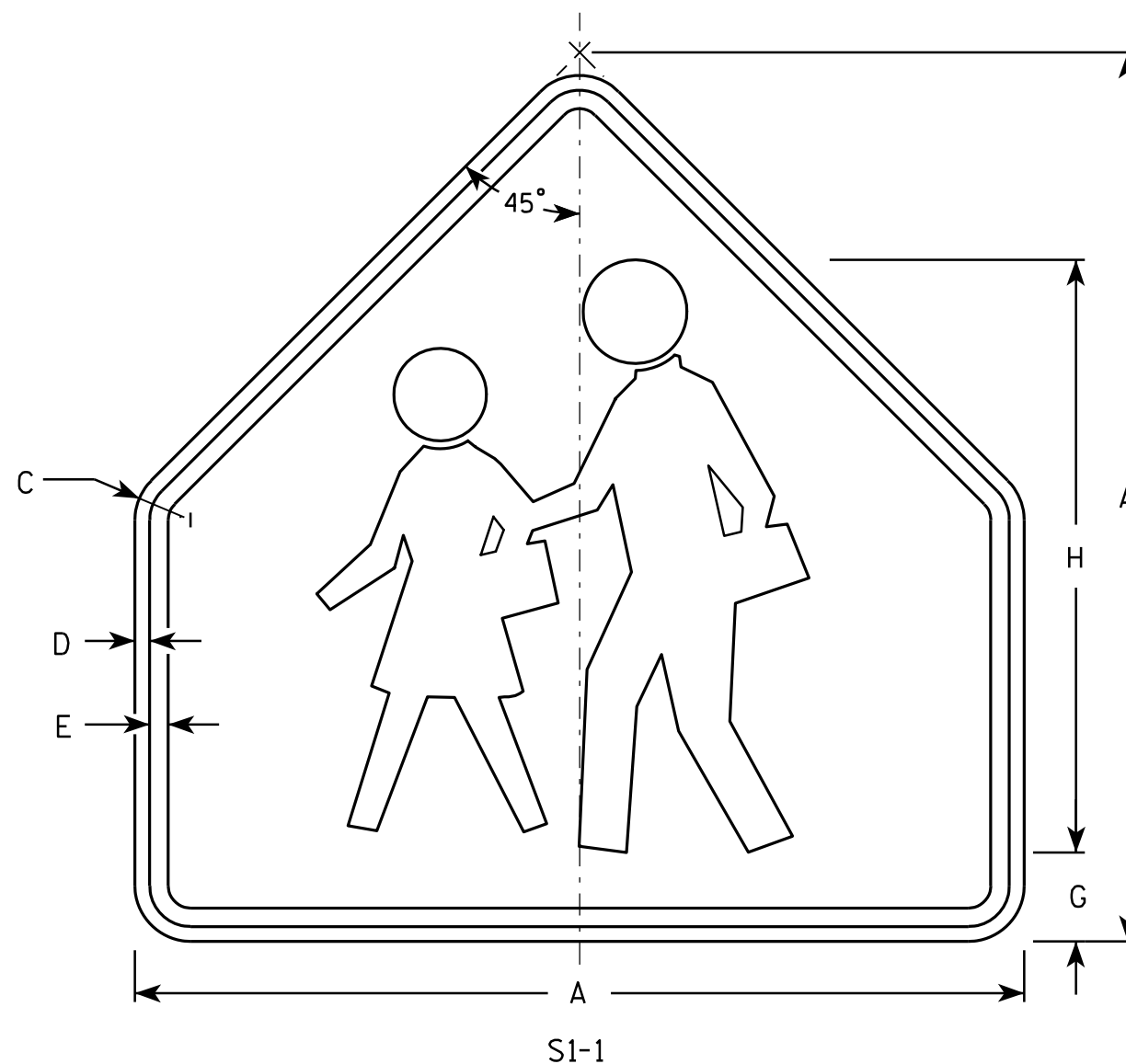
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.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 - Yellow-Green
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

STANDARD SIGN S1-1

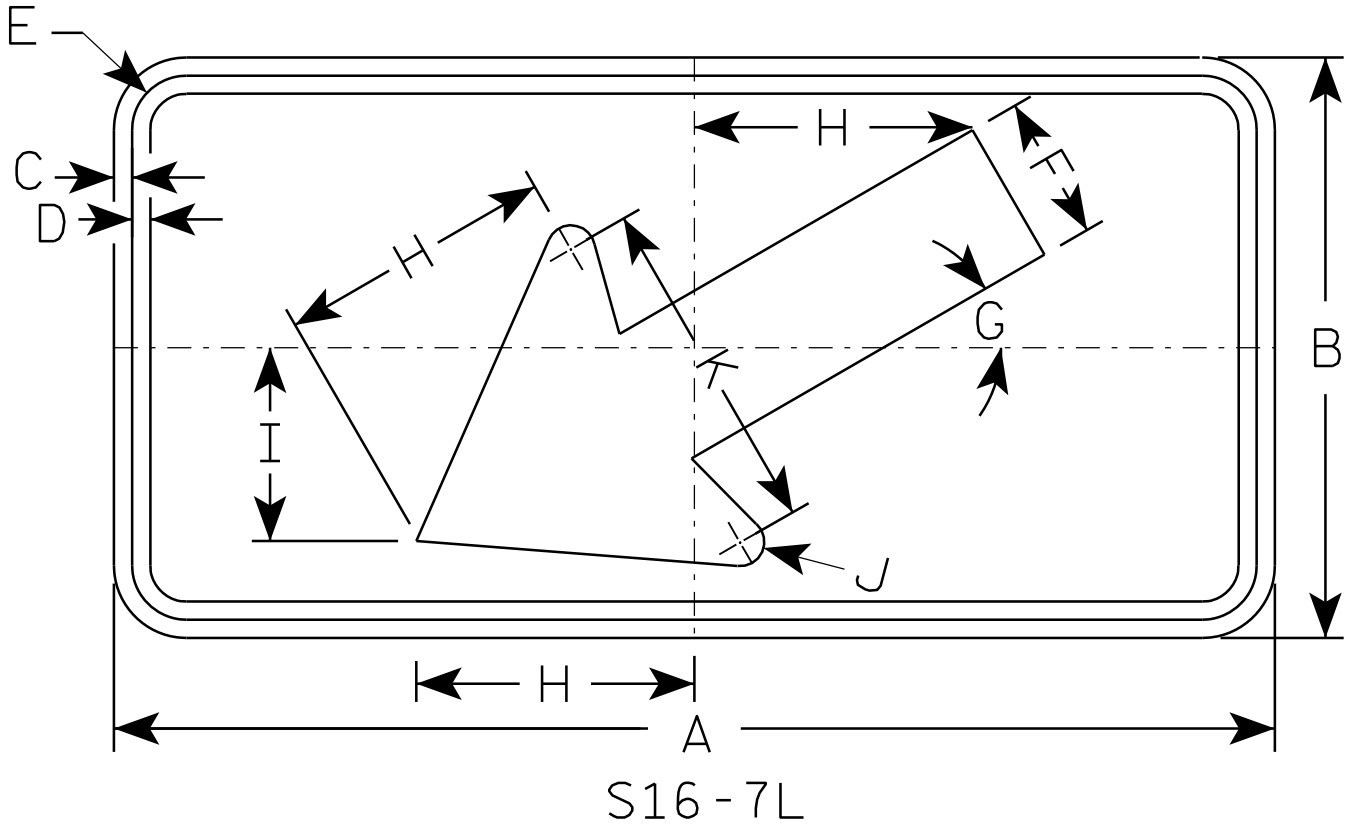
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer
DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

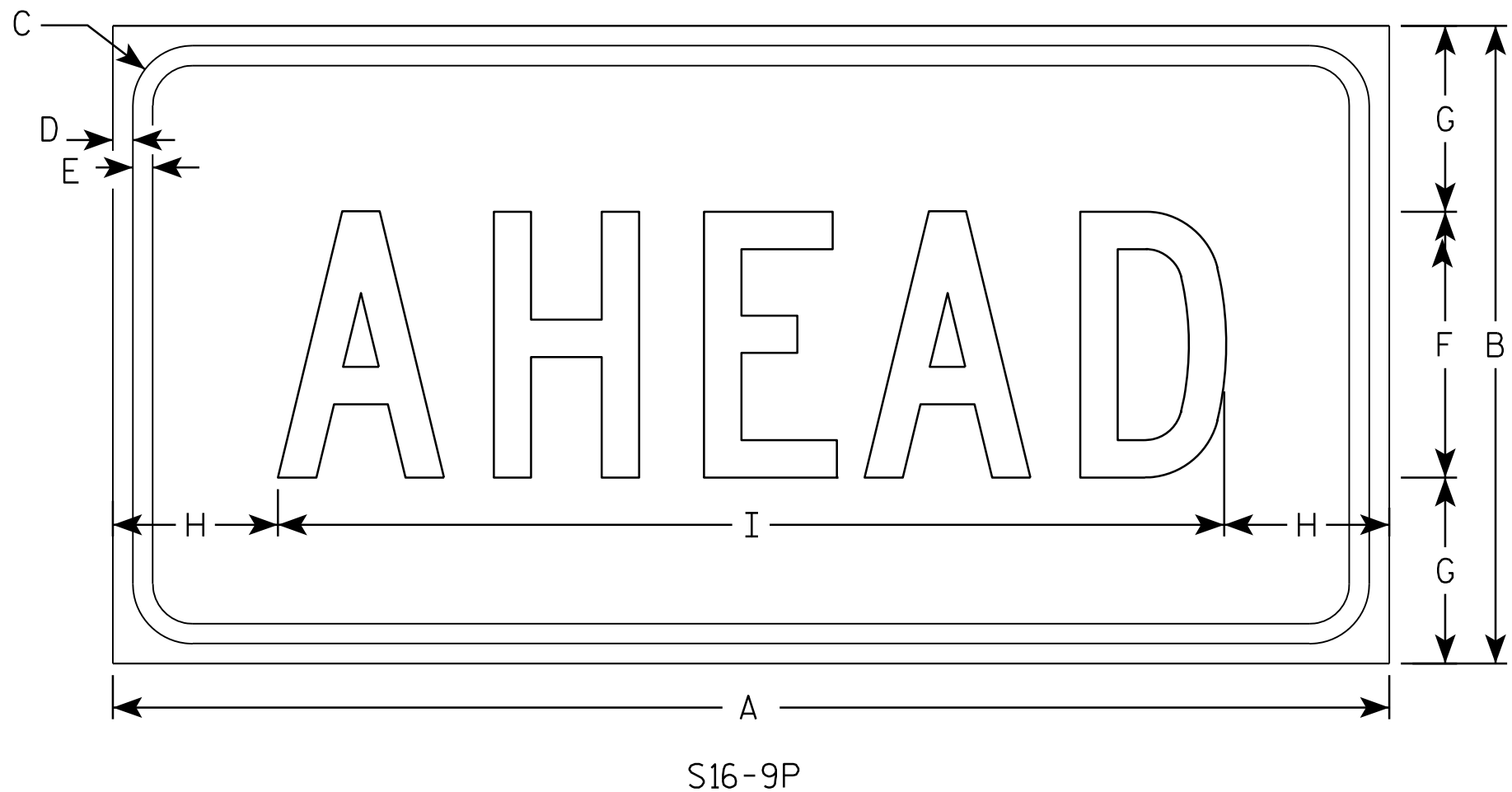
- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow-Green
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When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



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

STANDARD SIGN	
S16-7	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 7/22/13	PLATE NO. S16-7.1

7



NOTES

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

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	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

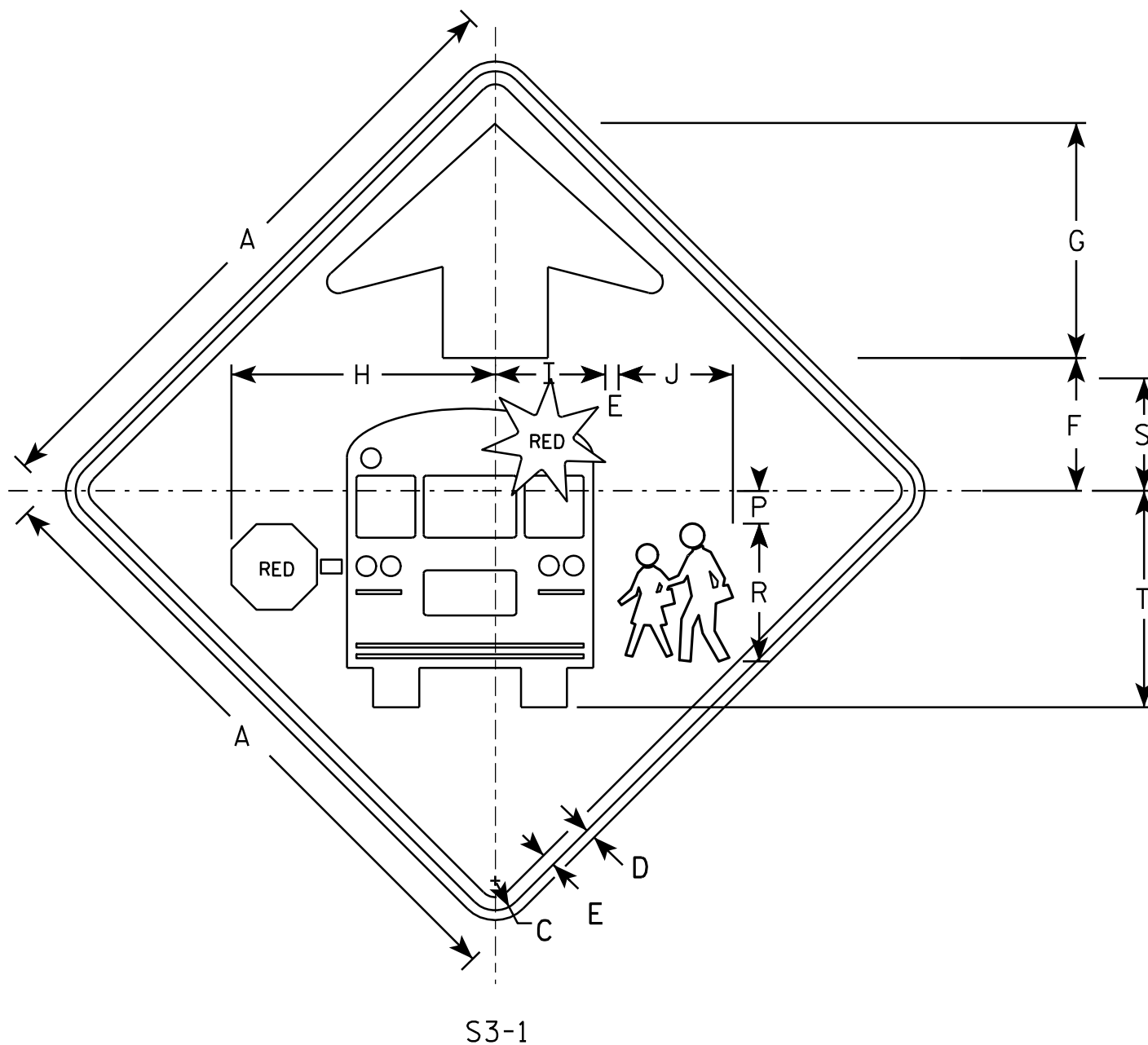
STANDARD SIGN

S16-9P

WISCONSIN DEPT OF TRANSPORTATION

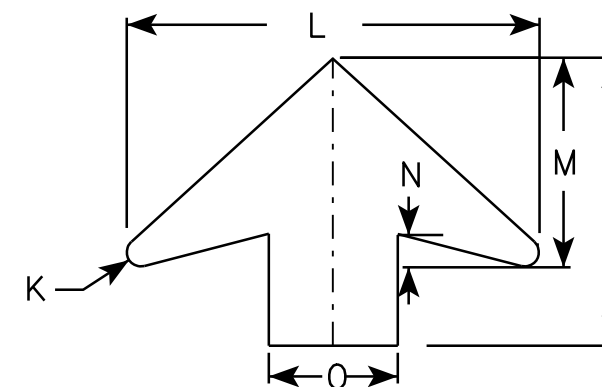
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

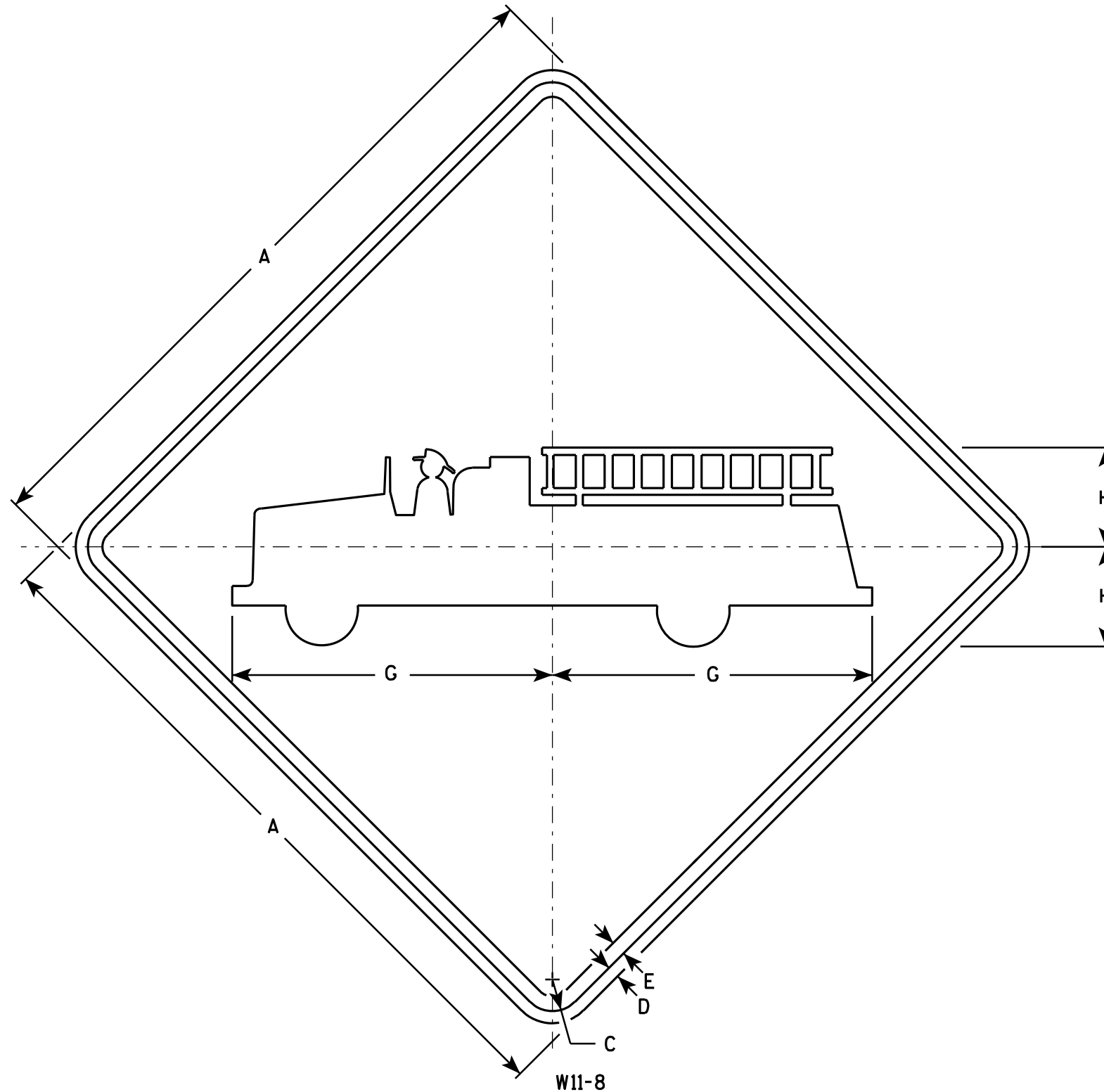


NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - YELLOW-GREEN
 - Message - BLACK except as noted
 - Circles except PEDS- RED BACKGROUND
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.

[illegible]

STANDARD SIGN	
S3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>6/8/10</u>	PLATE NO. <u>S3-16</u>



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.

W11-8

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	24		1 1/8	3/8	1/2		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

STANDARD SIGN W11-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/13/13 PLATE NO. W11-8.7

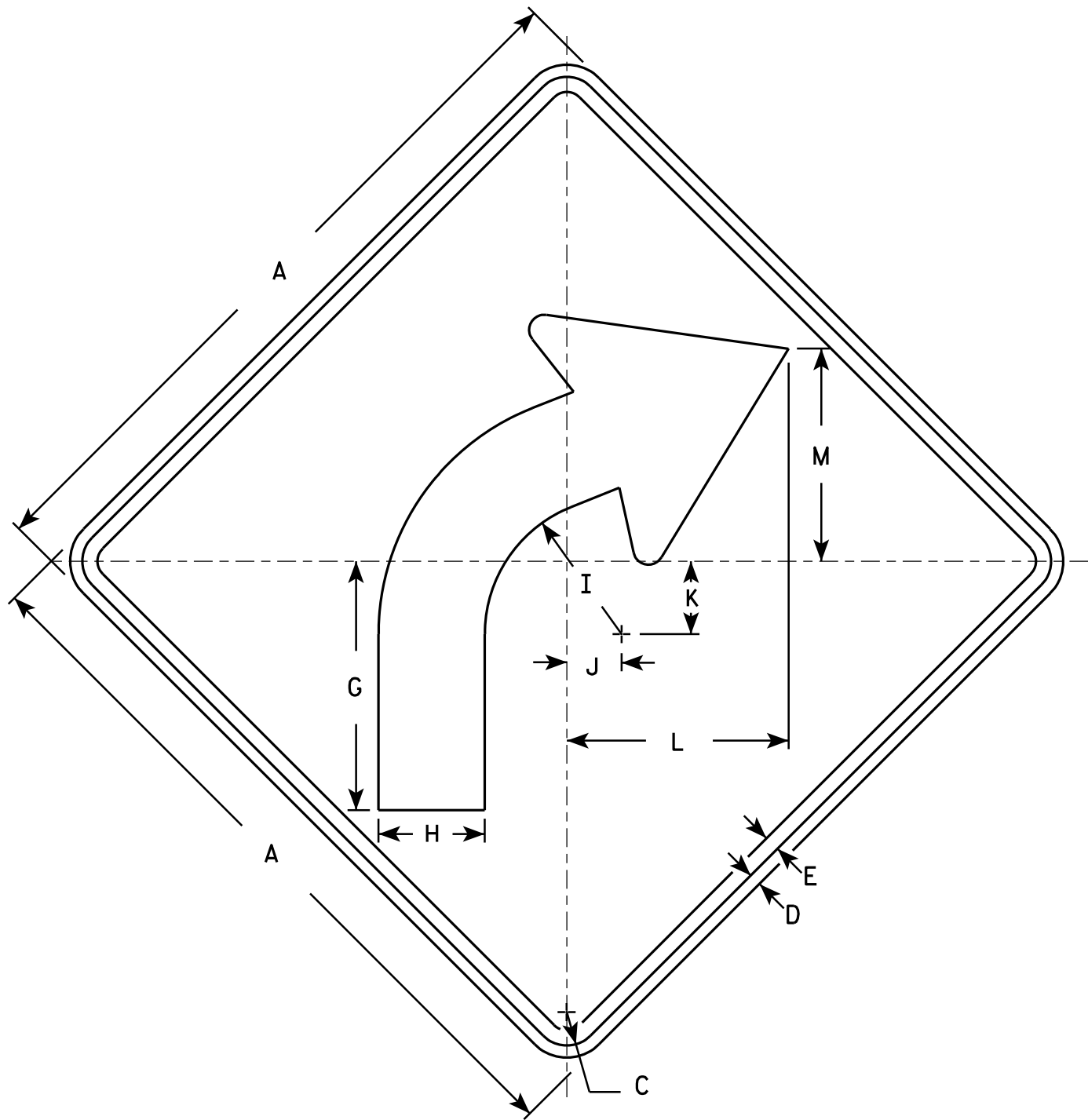
PROJECT NO:

SHEET NO:

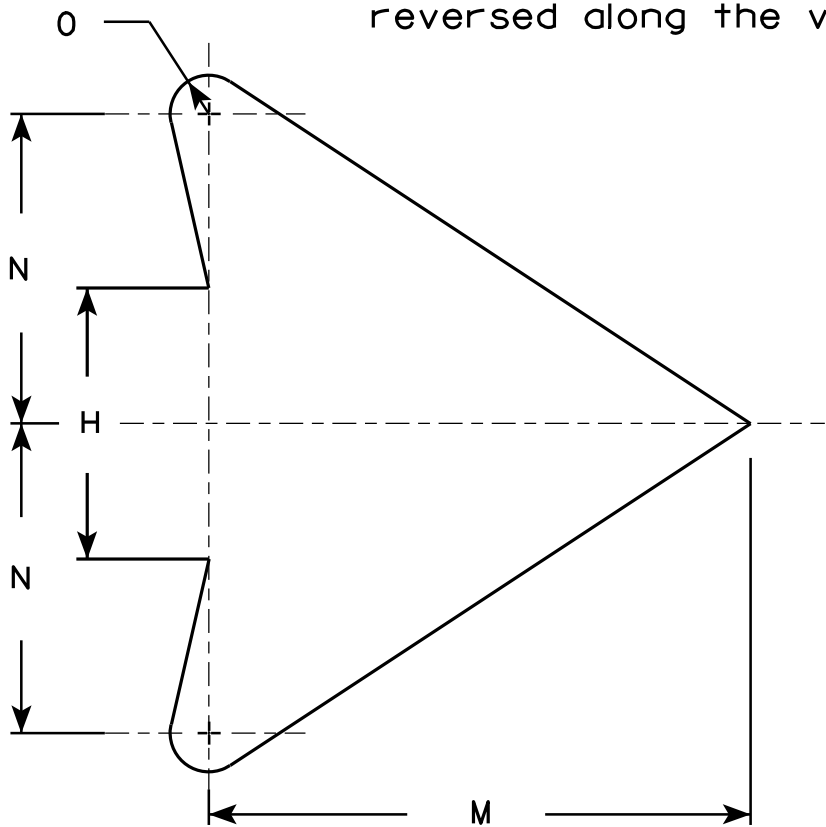
E

NOTES

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



W1-2R



ARROW DETAIL

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

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

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

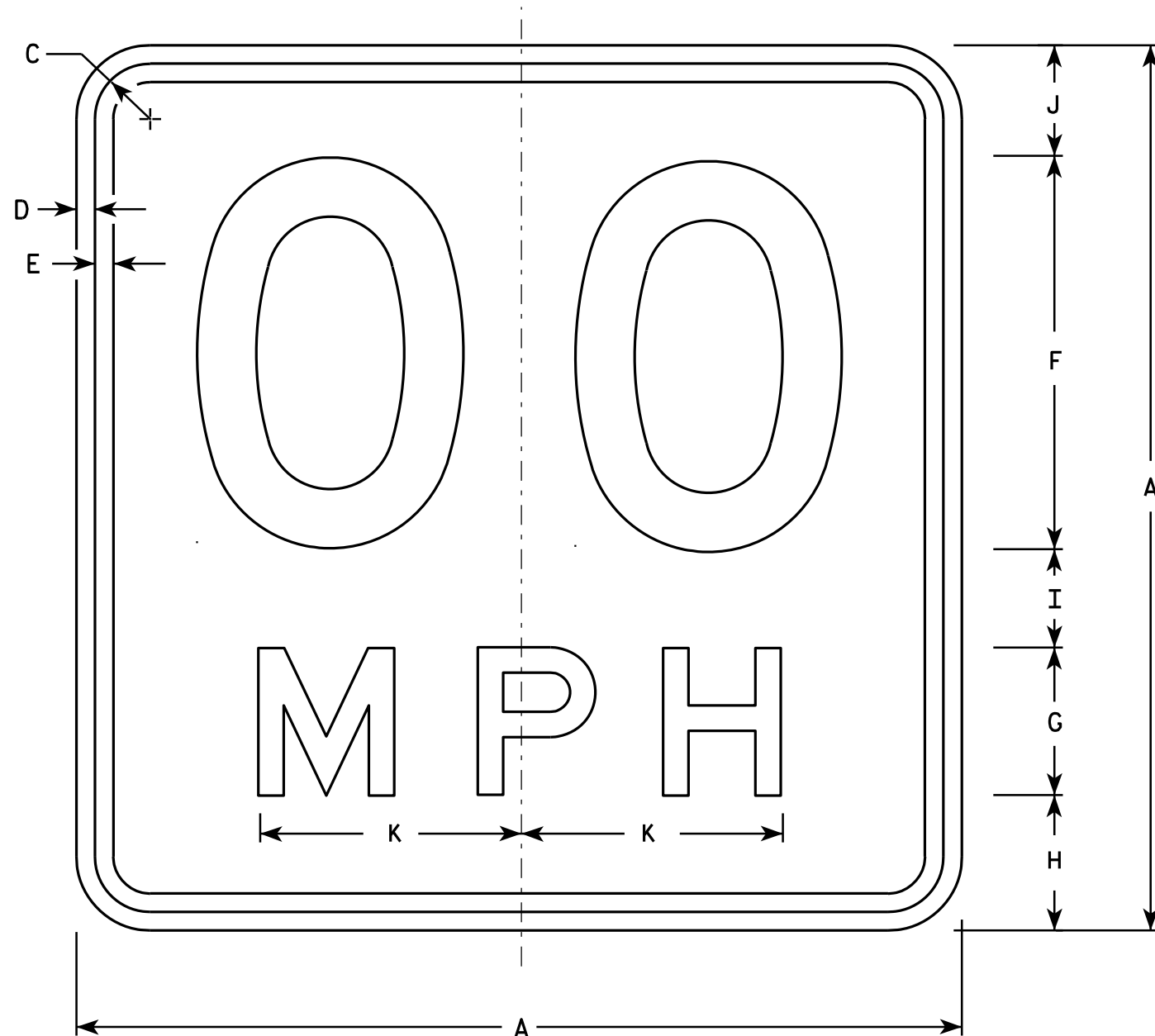
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

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 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

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

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

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

PROJECT NO:

HWY:

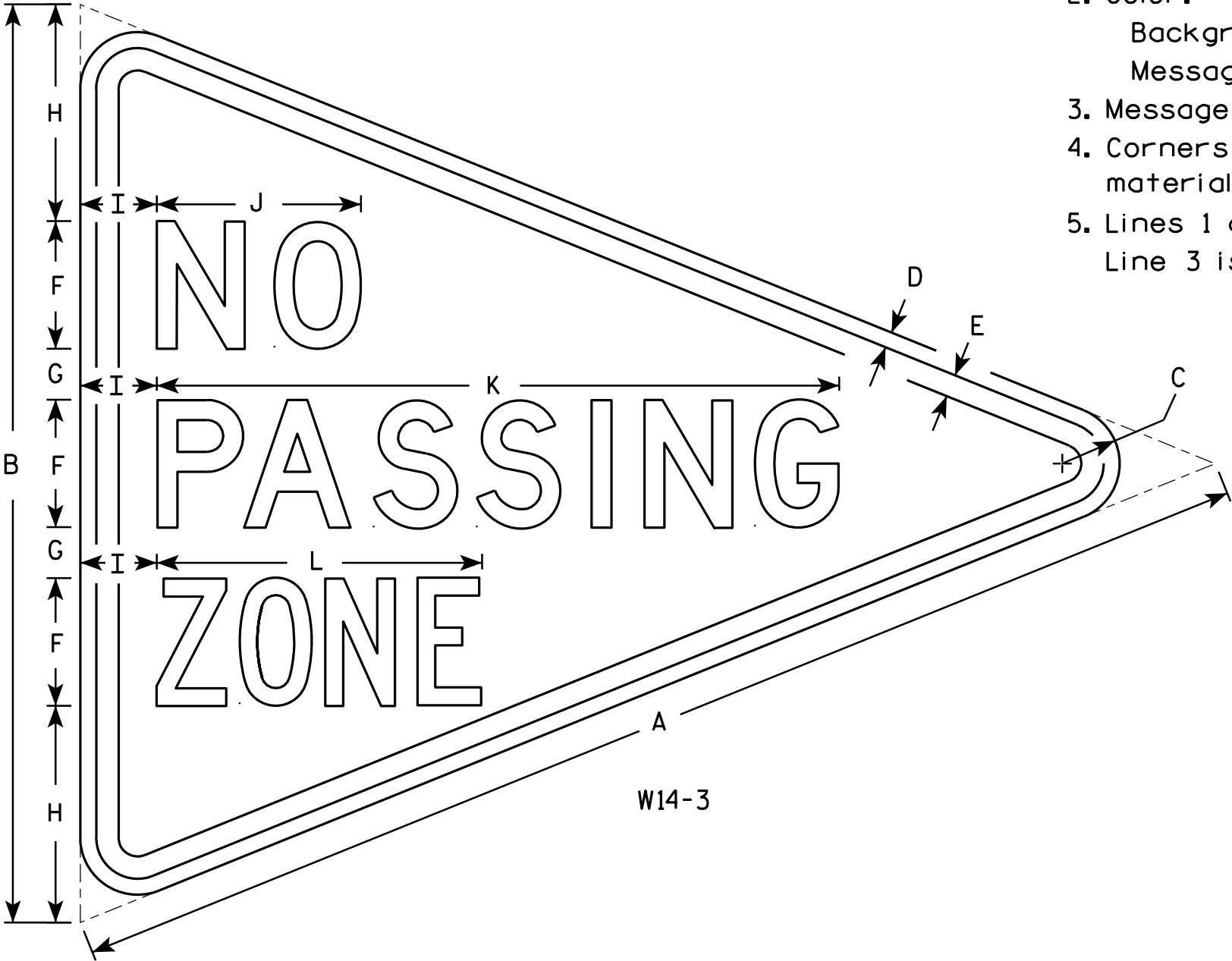
COUNTY:

SHEET NO:

E

NOTES

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



W14-3

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

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

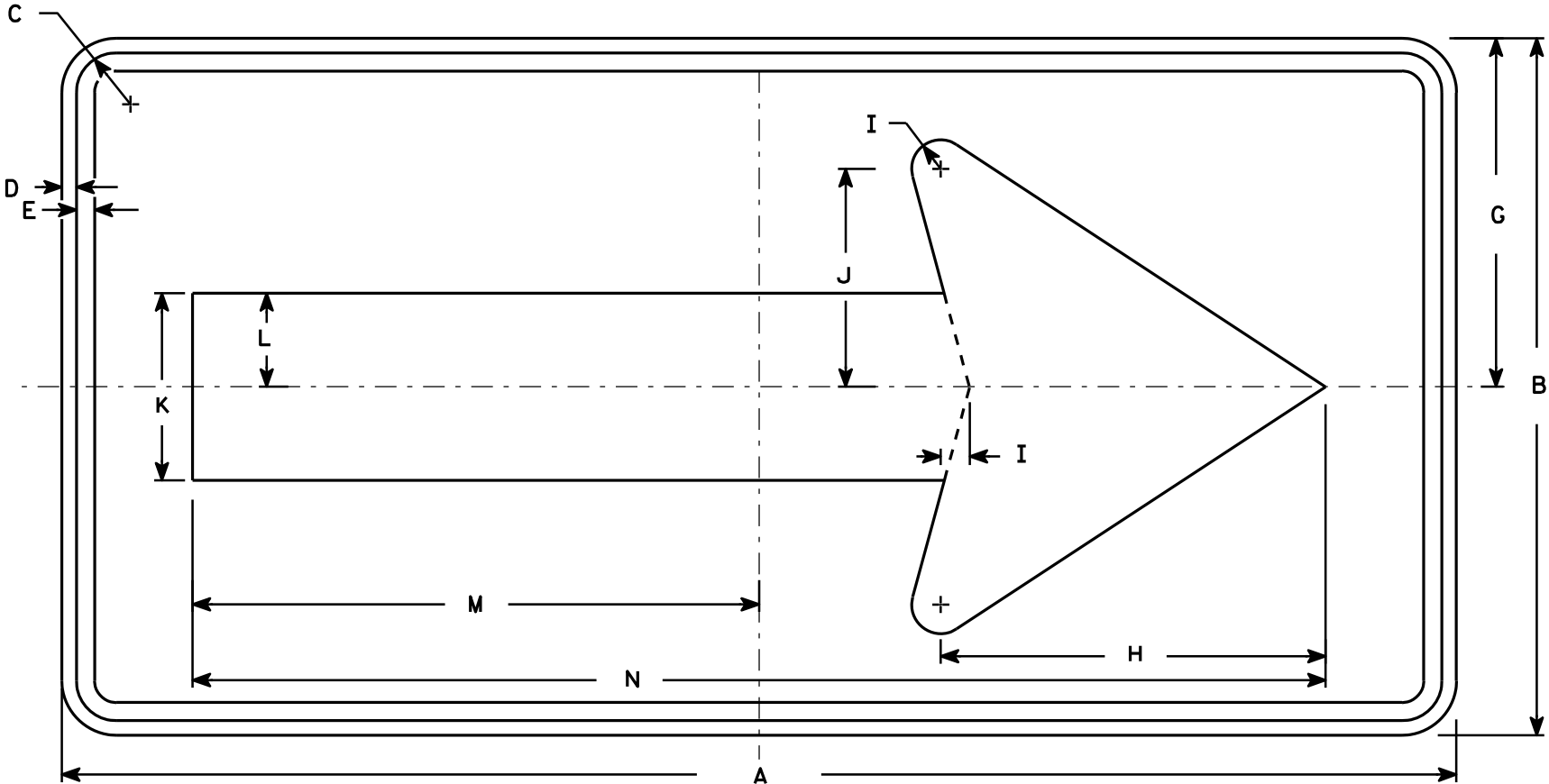
DATE 6/7/10 PLATE NO. W14-3.9

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.



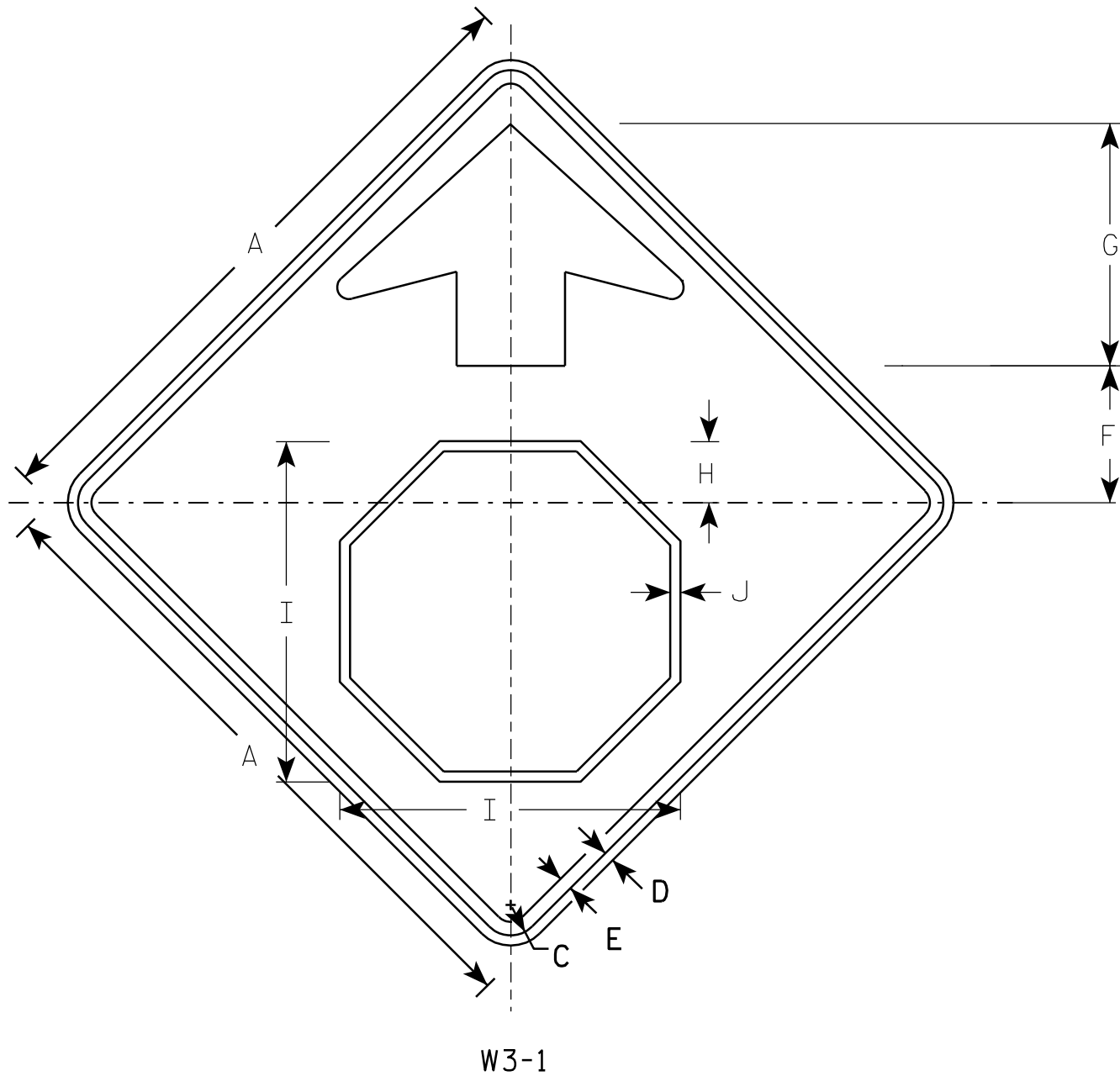
W1-6

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

STANDARD SIGN
W1-6

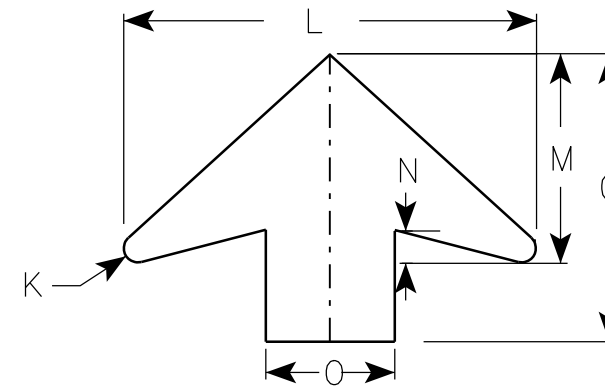
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8



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:

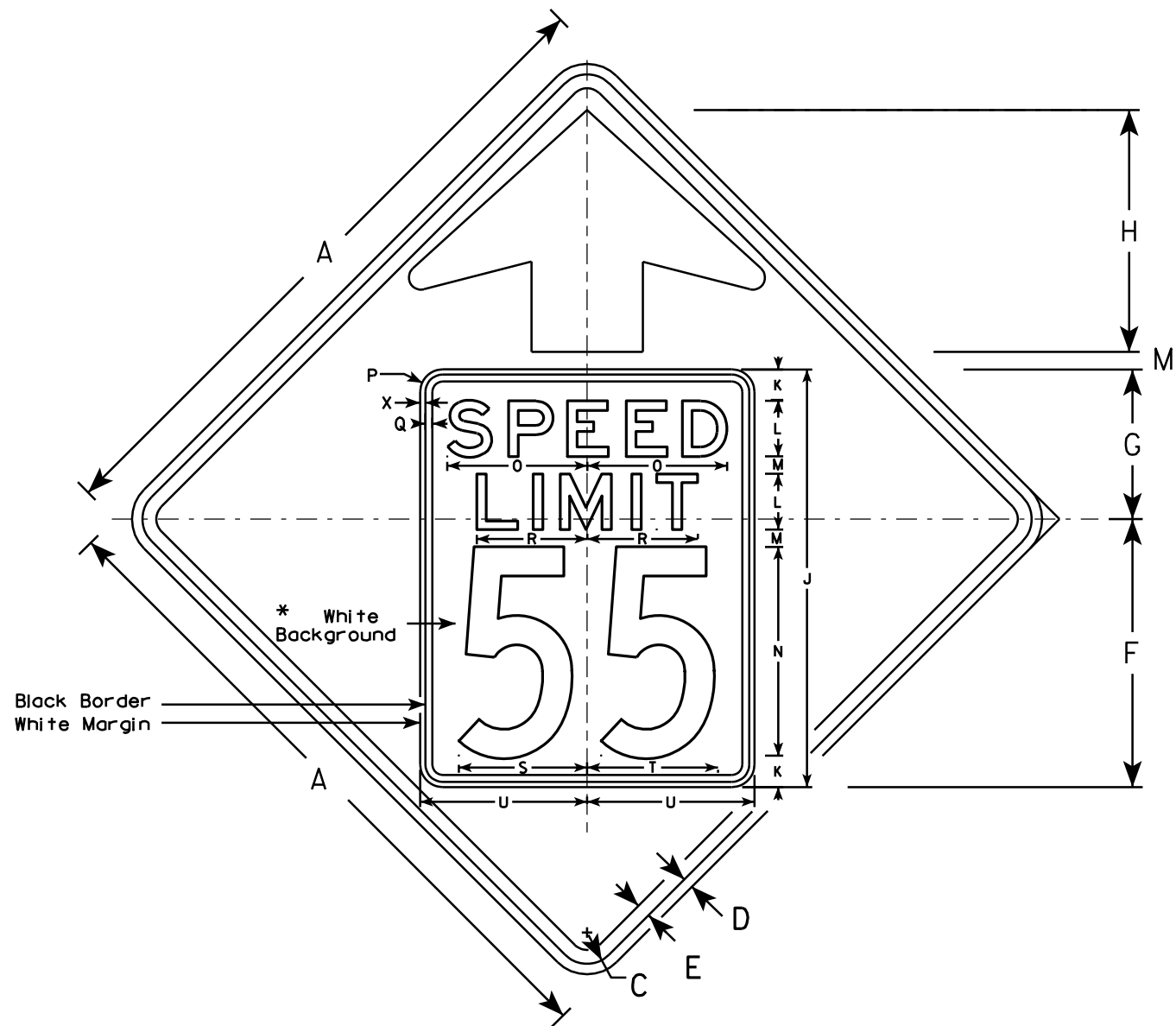
STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

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

SHEET NO:

E

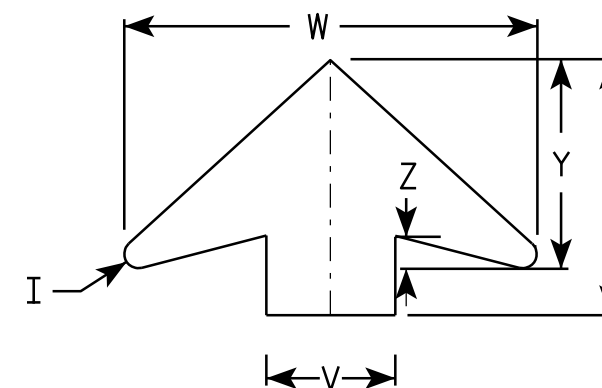


W3-5

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 - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White 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																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

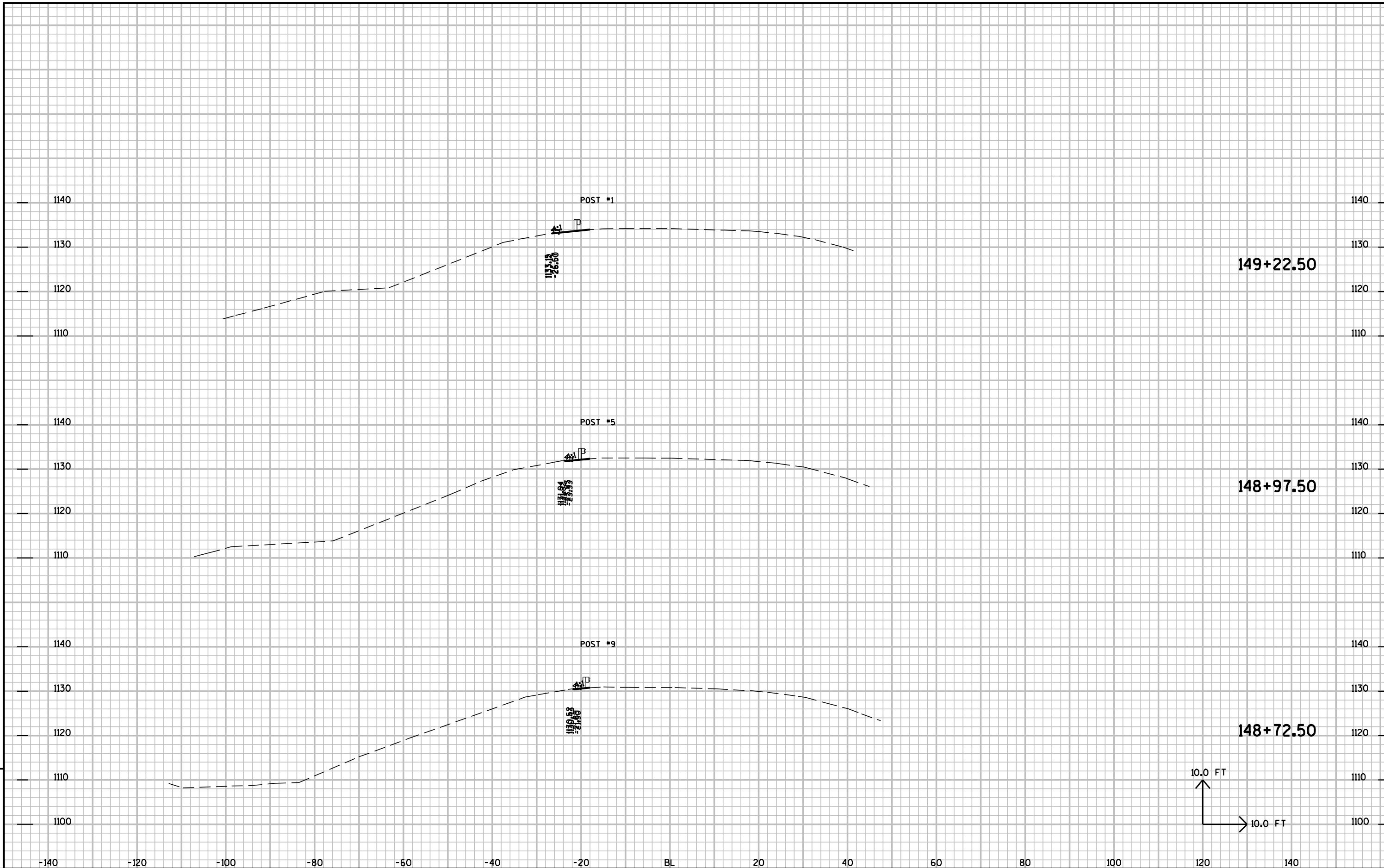
DATE 5/29/12

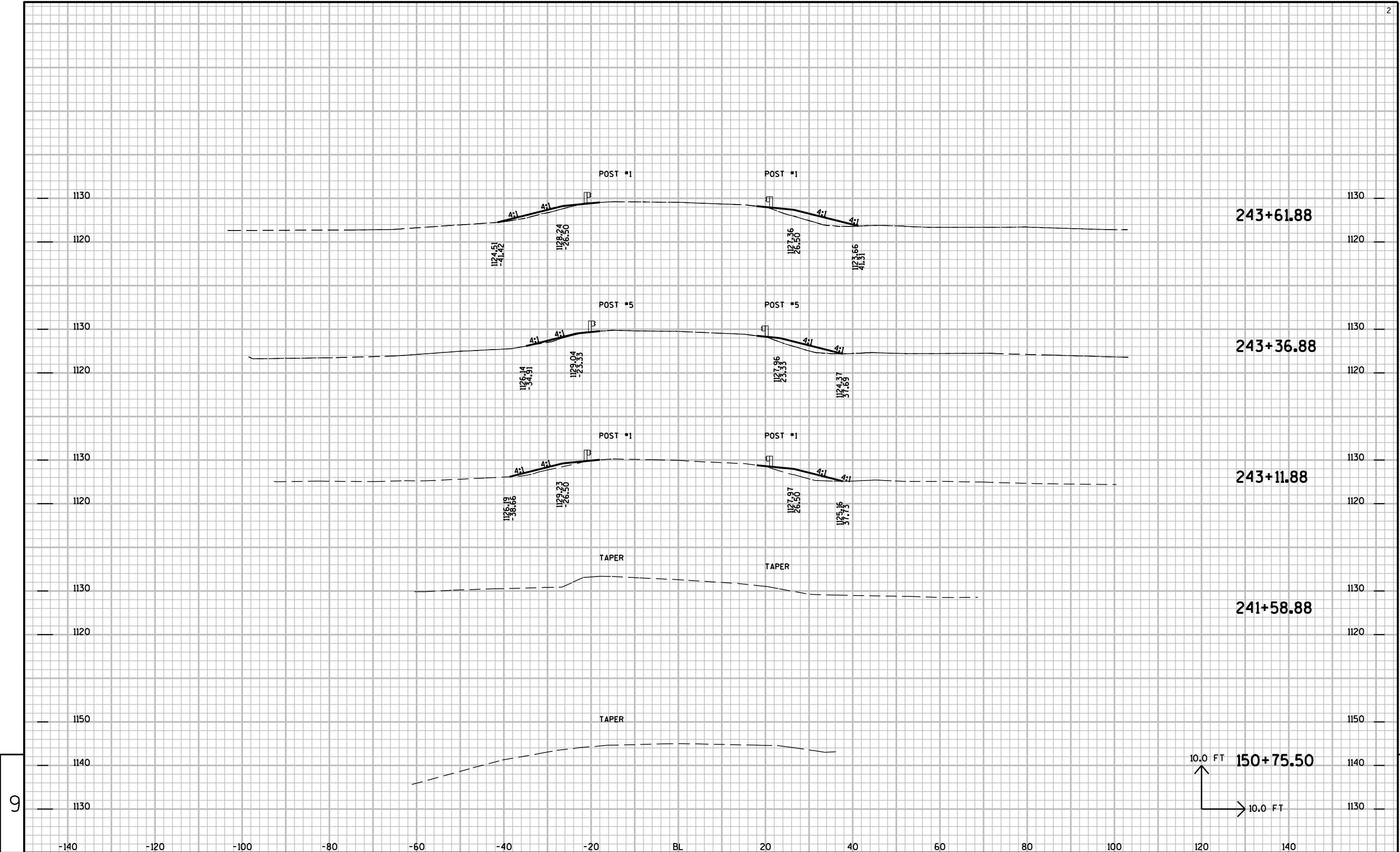
PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E





PROJECT NO: 8100-03-62

HWY: STH 25

COUNTY: DUNN

CROSS SECTIONS: GUARD RAIL LOCATION

SHEET NO:

E

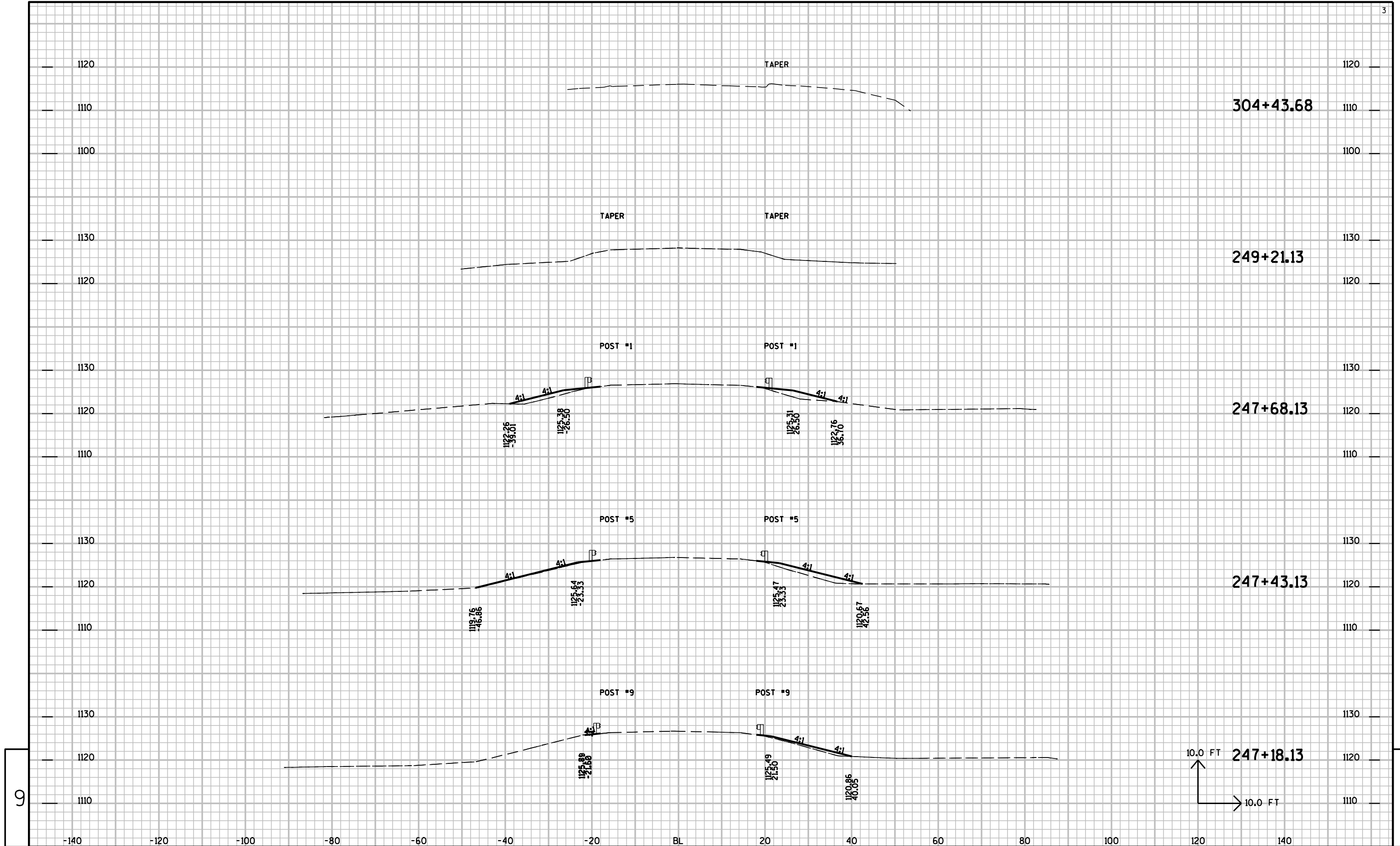
FILE NAME : n:\PDS\Projects-LET\8100-03-02\Design\Guardrail Analysis\GUARD RAIL LOCATIONS.DGN

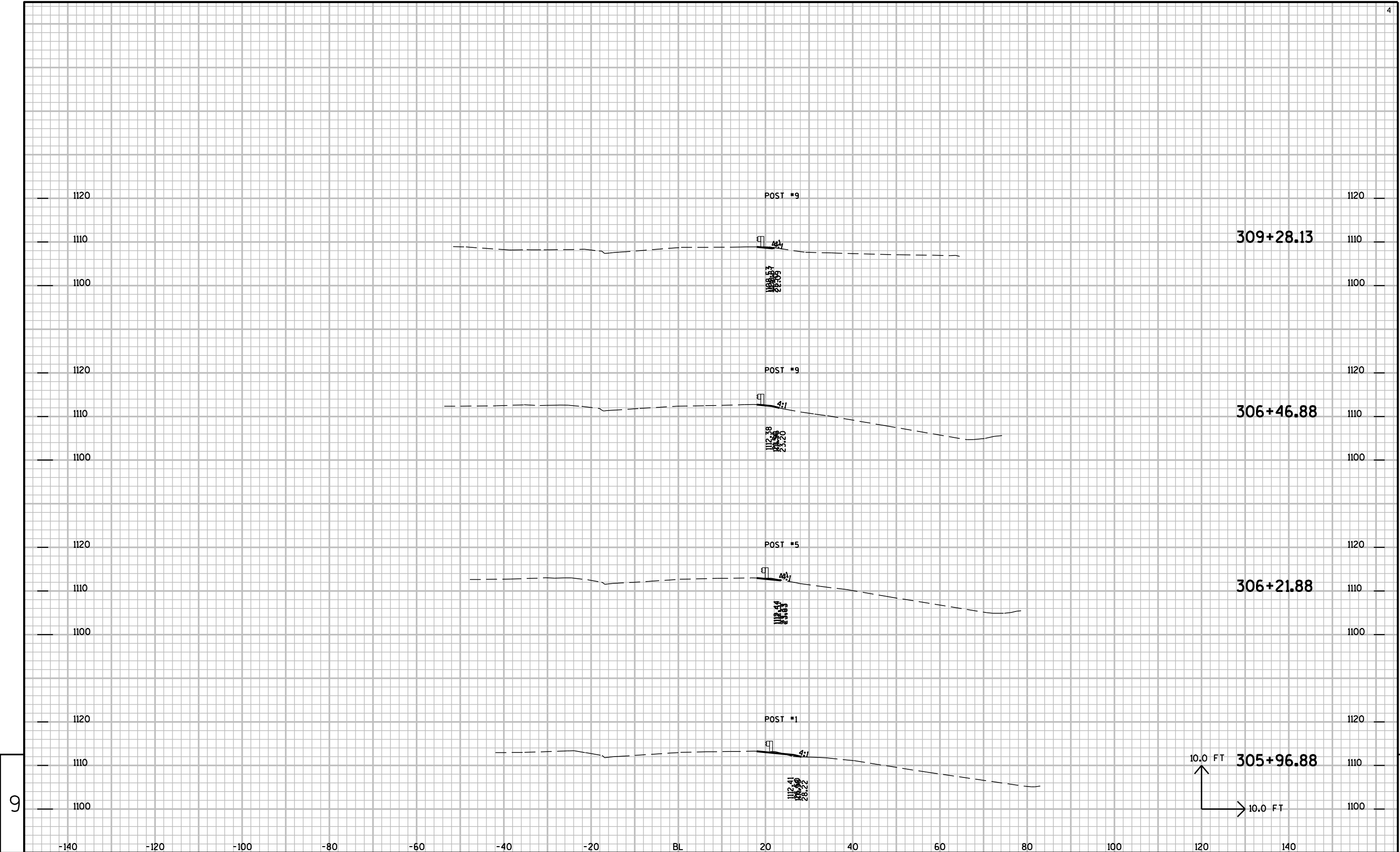
PLOT DATE : 11-JUN-2013 11:17

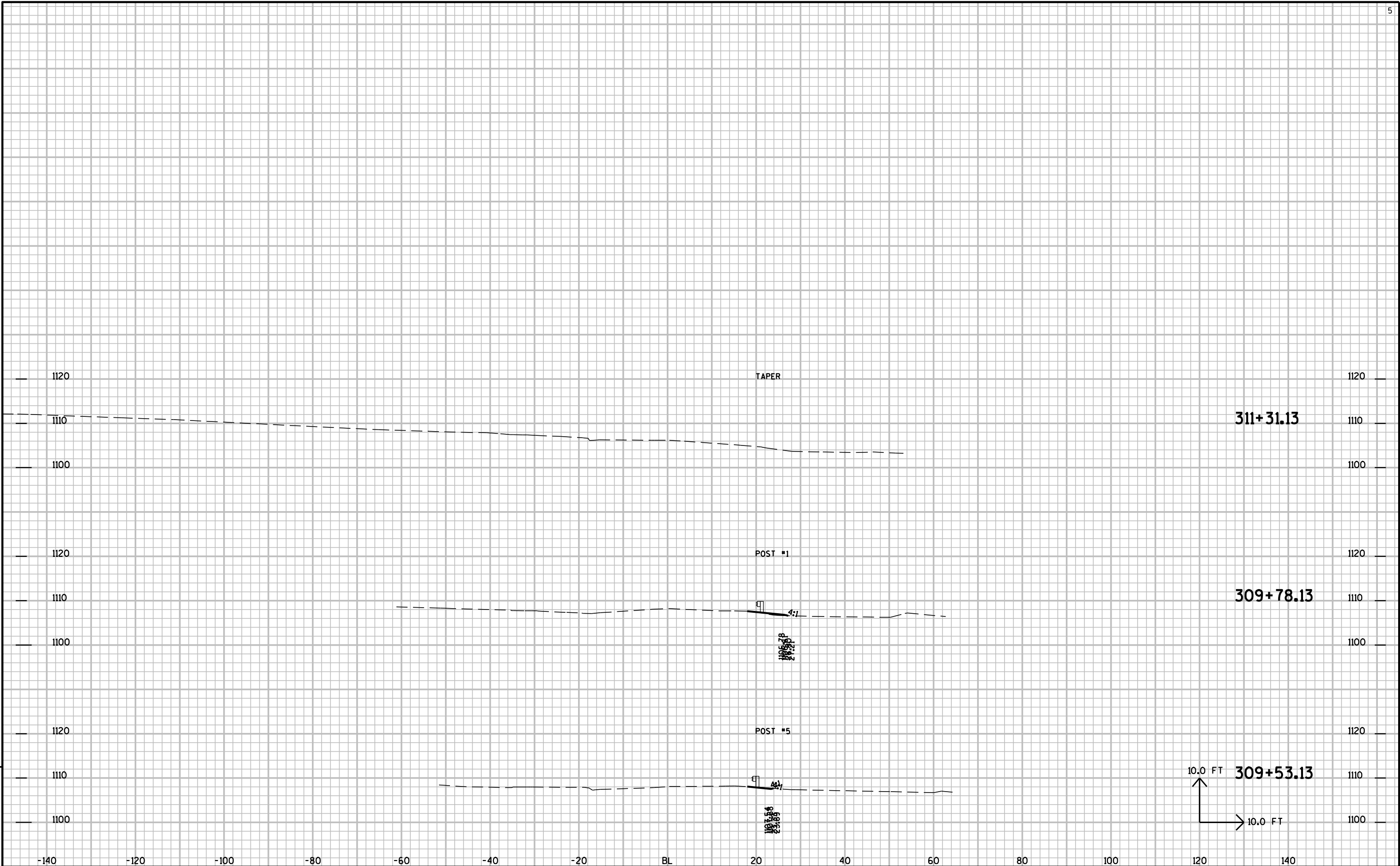
PLOT BY : dotad2c

PLOT NAME :

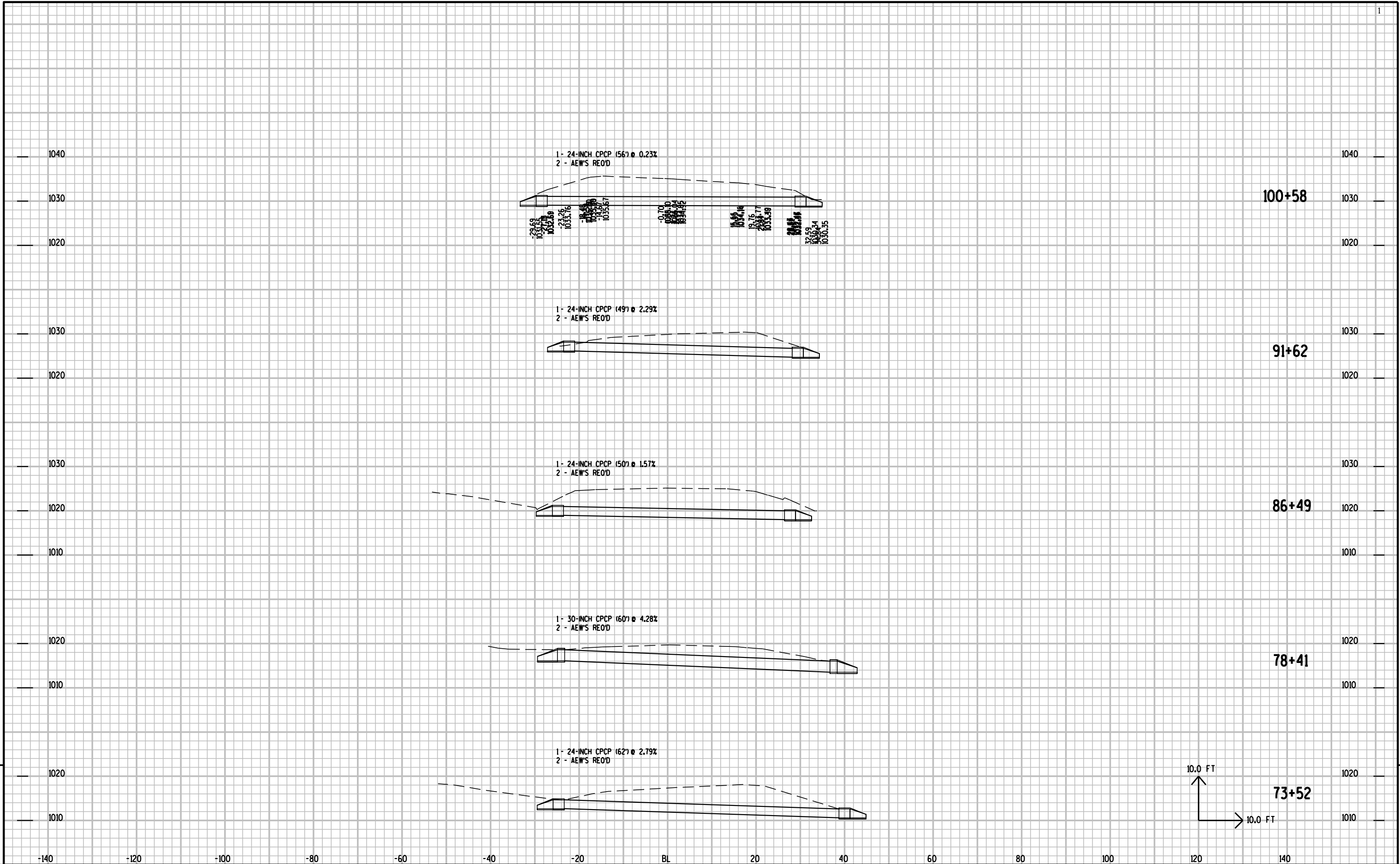
PLOT SCALE : 2:1



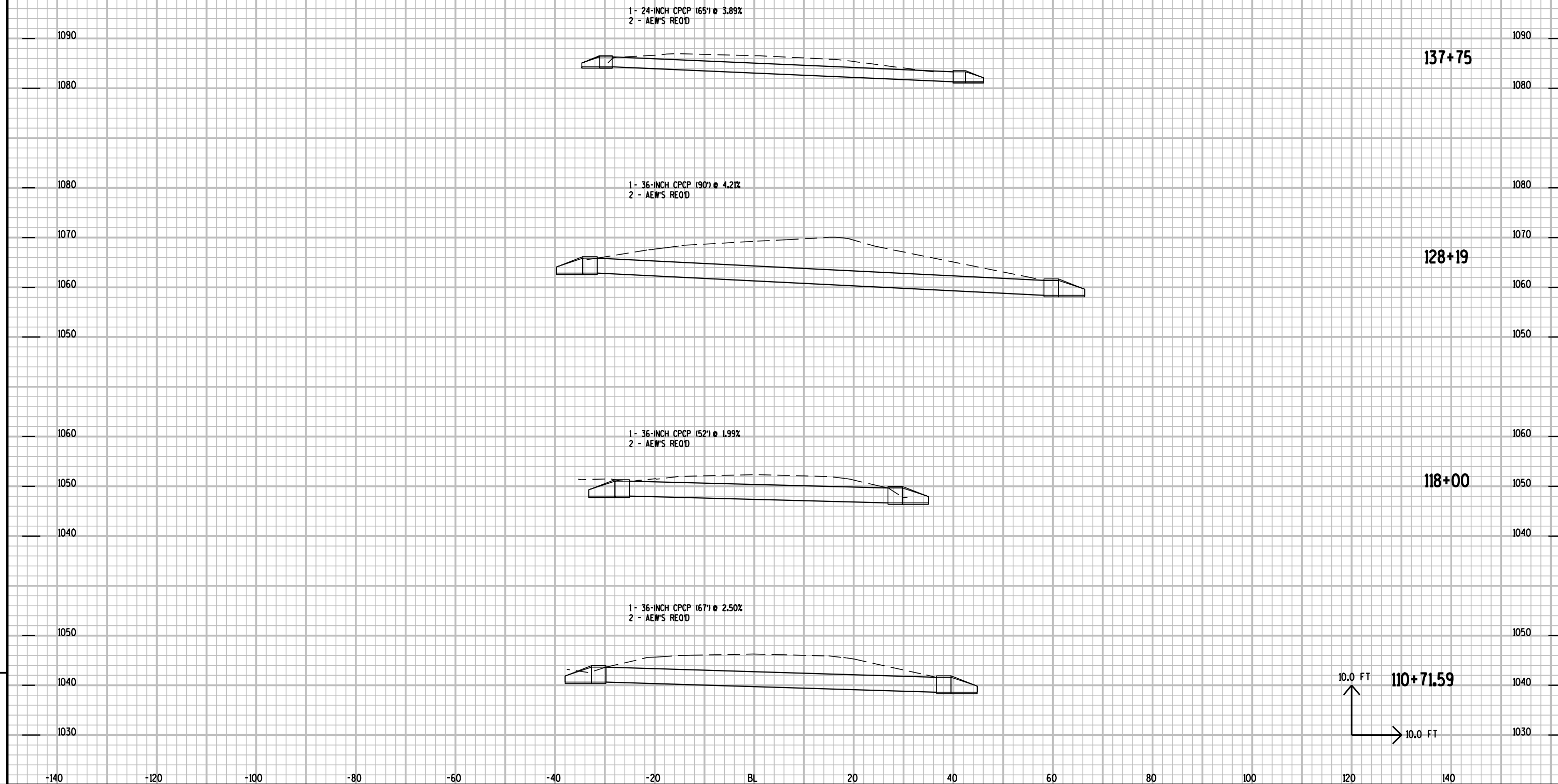




9

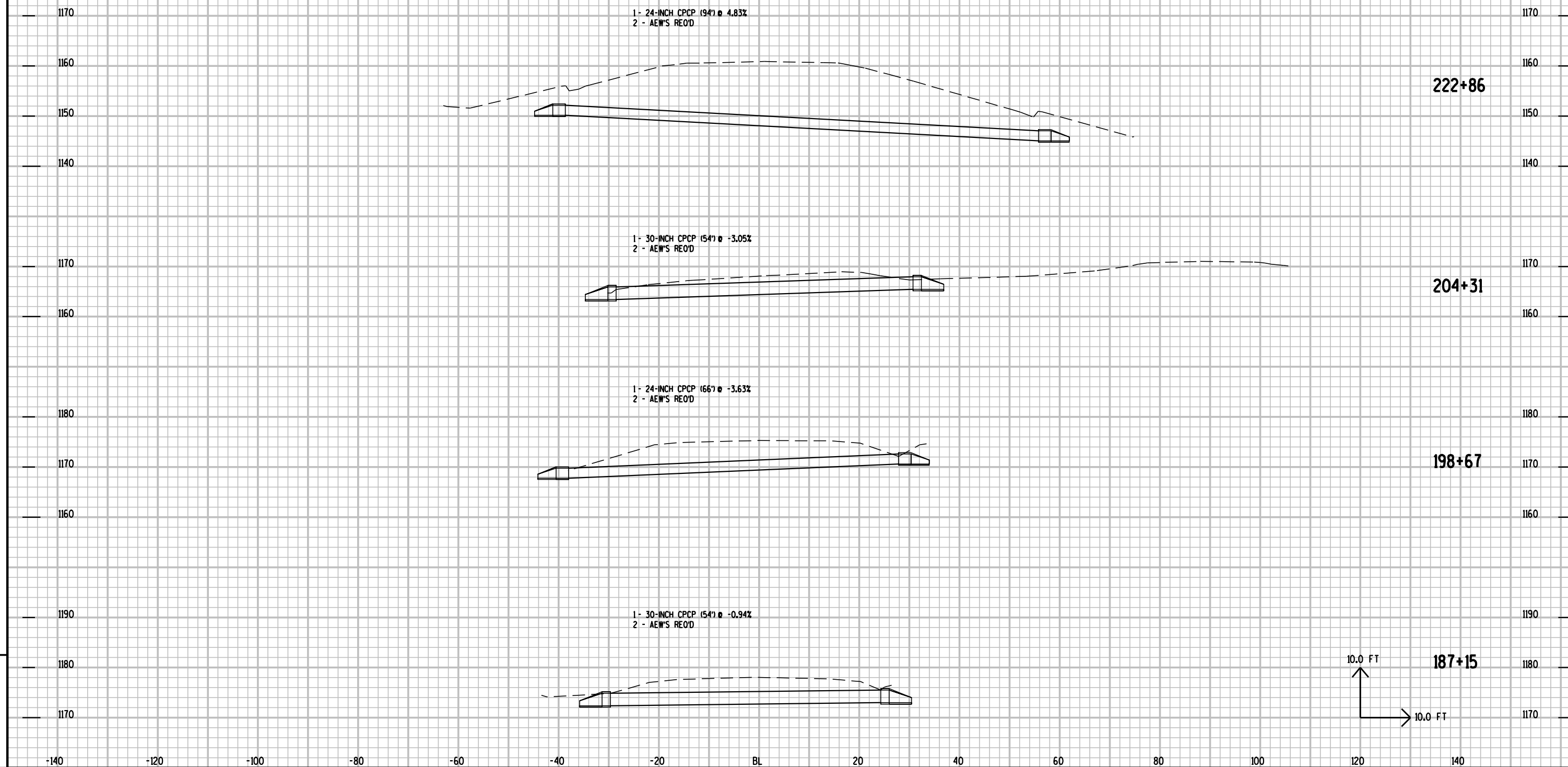


9



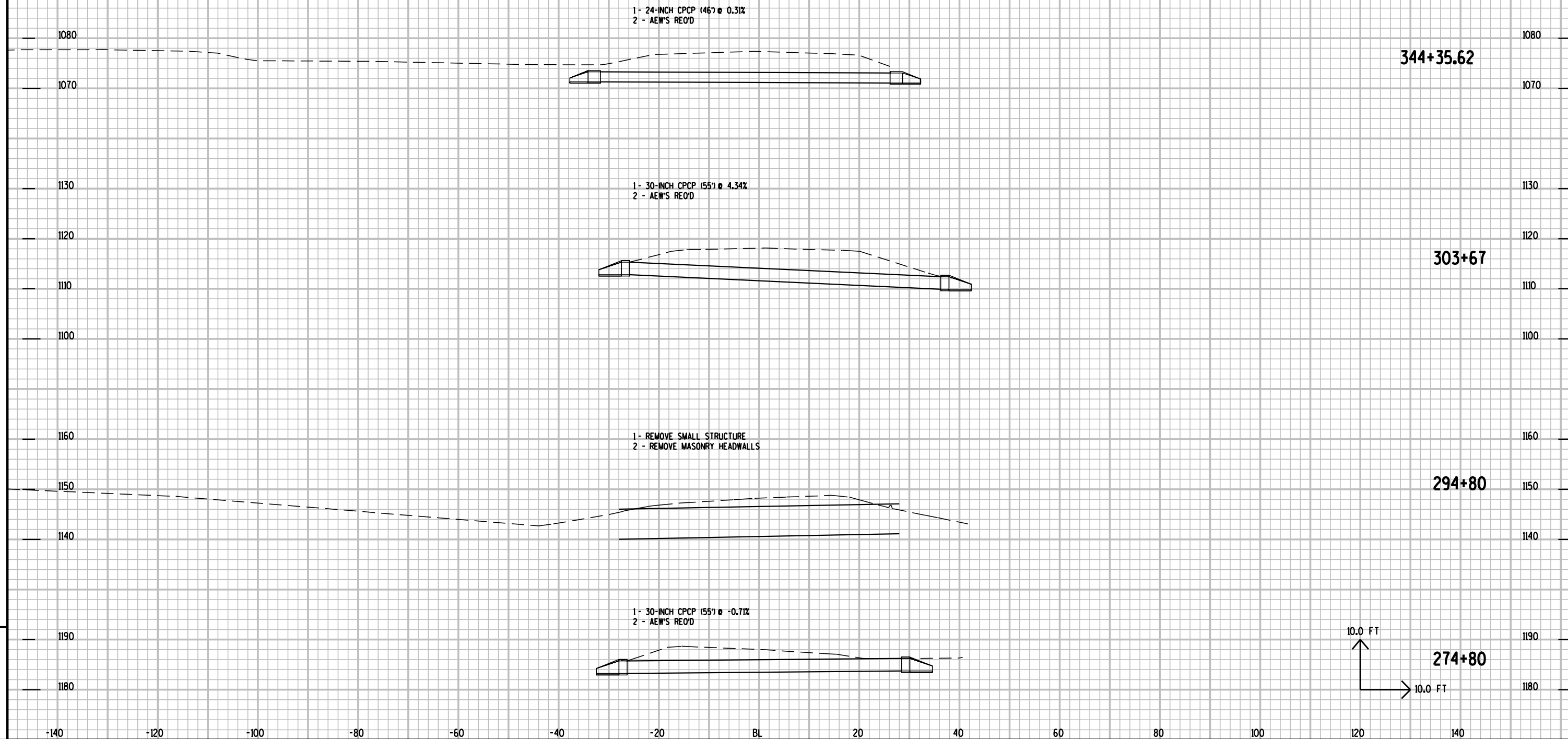
9

9



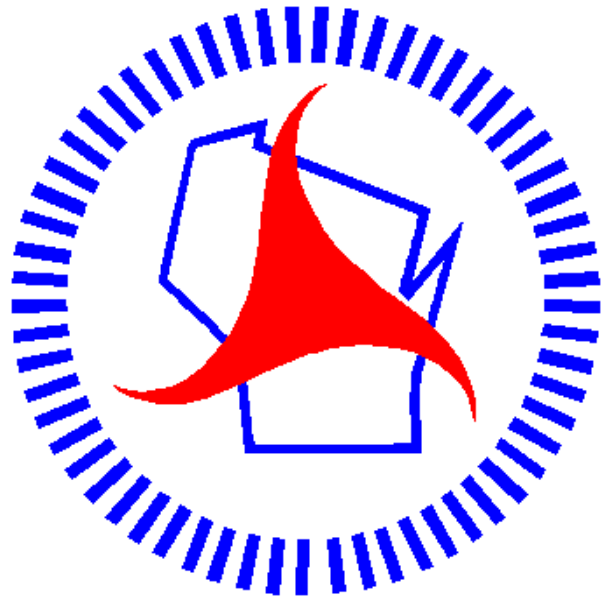
9

9



9

9



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