EAU

PROJECT ID: 7510-02-60

WITH: 7510-02-62

COUNTY: JACKSON

DECEMBER 2018

ORDER OF SHEETS

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

TOTAL SHEETS = 132



31

DESIGN DESIGNATION

A.A.D.T.	2019	= 8,800
A.A.D.T.	2039	= 11,200
D.H.V.		= 1,249
D.D.		= 60/40
T.		= 16.9%
DESIGN SPEED		= 55
ESALS		= 900,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BLACK RIVER FALLS - CITY POINT

OASIS ROAD TO CTH K

STH 54

JACKSON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7510-02-60	———	—

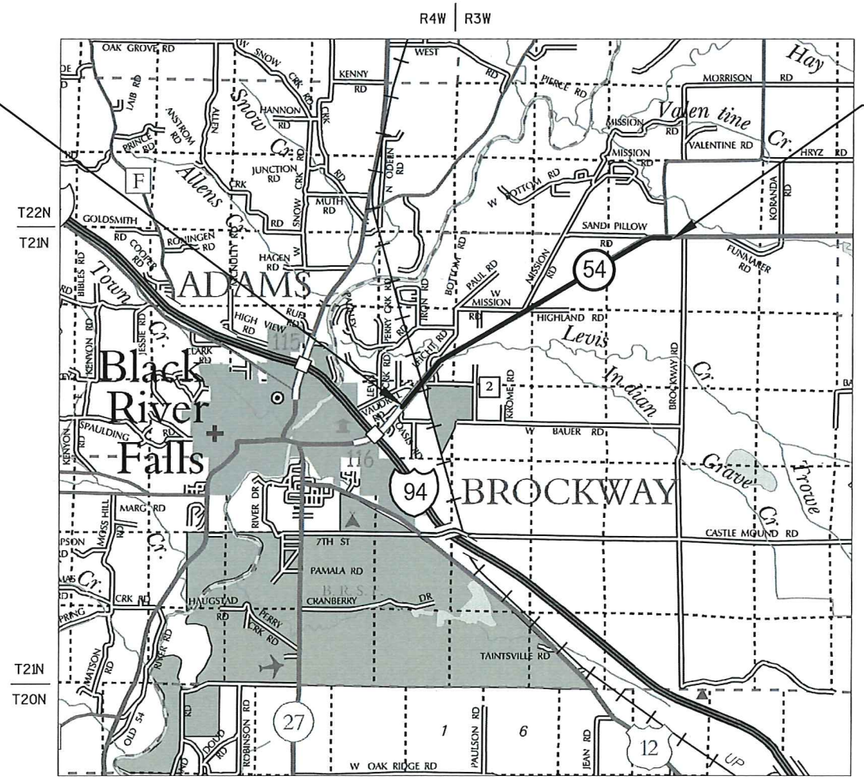
STATE PROJECT NUMBER

7510-02-60

BEGIN PROJECT
STA 86+00.00

Y = 98633.781
X = 95275.669

END PROJECT
STA 321+84.00



LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 4.467 MI

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

ORIGINAL PLANS PREPARED BY

FAA CONSULTING ENGINEERS

WISCONSIN
CHAD HALAMA
E-33618
MENOMONIE WI
PROFESSIONAL ENGINEER

7/24/18 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	FAA, INC.
Designer	FAA, INC,
Project Manager	DAVID KOEPP
Regional Examiner	TOU YANG
Regional Supervisor	JAMES KOENIG

APPROVED FOR THE DEPARTMENT
DATE: 7/31/2018 (Signature)

E

2

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.

ALL PRIVATE DRIVEWAYS AND COMMERCIAL ENTRANCES SHALL BE RESTORED IN KIND. LIMITS TO BE DETERMINED BY THE ENGINEER.

PAVING LIMITS ARE TO BE DETERMINED BY THE ENGINEER.

LOCATION OF UNDERGROUND UTILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE, THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

ALL RADII ARE MEASURED TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON THE PLAN.

CURVE DATA IS BASED ON THE ARC DEFINITION.

"ASPHALTIC SURFACE" ITEM IS TO BE USED FOR LEVELING/WEDGING AND SPOT REPAIR.

"ASPHALTIC SURFACE PATCHING" ITEM IS TO BE USED FOR RAMPING AT JOINTS AND MISCELLANEOUS REPAIRS OF POTHOLES AND POPOUTS THAT OCCUR DURING CONSTRUCTION.

"PREPARING OF FOUNDATION FOR ASPHALTIC PAVING" ITEM IS ASSOCIATED WITH THE WORK FOR THE "ASPHALTIC SURFACE PATCHING".

PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

SHAPING AND COMPACTING EXISTING SHOULDER MATERIAL PRIOR TO ADDING NEW SHOULDER MATERIAL, SHAPING AND COMPACTING GRAVEL SIDE ROADS, EXCAVATION, SHAPING AND DISPOSAL OF EXCESS MATERIAL AND REMOVAL OF EXISTING ASPHALTIC SURFACE TO NECCESSARY LENGTHS AND DEPTHS AS DIRECTED BY THE ENGINEER SHALL BE INCLUDED IN THE BID ITEM "PREPARING OF FOUNDATION FOR ASPHALTIC PAVING"

THE EROSION CONTROL FEATURES AS SHOWN ON THE PLAN DETAILS ARE AT SUGGESTED LOCATIONS, THEIR EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE PROPOSED SHOULDER WIDTHS SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH, PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTION.

HMA PAVEMENT 4MT 58-34S SHALL CONSIST OF A 1¼-INCH LEVELING LAYER AND A 1¾-INCH UPPER LAYER.

THE CONTRACTOR SHALL MILL OUT ANY WEDGE USED FOR TRAFFIC STAGING PRIOR TO PLACING THE ADJACENT LANE.

ALL PRIVATE DRIVEWAYS AND COMMERCIAL ENTRANCES SHALL BE RESTORED IN KIND. LIMITS TO BE DETERMINED BY THE ENGINEER.

REMOVE ALL EXISTING CULVERT MARKER POSTS. "MARKERS CULVERT END" REQUIRED AT ALL CROSS CULVERT LOCATIONS.

STANDARD ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
B.A.D.	BASE AGGREGATE DENSE
C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
CY	CUBIC YARD
D.D.	DAILY DIRECTIONAL SPLIT (TRAFFIC VOLUME)
D.H.V.	DAILY HOURLY TRAFFIC
E.A.T.	ENERGY ABSORBING TERMINAL
EB	EASTBOUND
EL.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
FO	FIBER OPTIC
INV	INVERT
LB	POUND
LF OR L.F.	LINEAR FEET
LT.	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
NB	NORTHBOUND
NPZ	NO PASSING ZONE
OH	OVERHEAD
P.E.	PRIVATE ENTRANCE
REQ'D	REQUIRED
R/L OR RL	REFERENCE LINE
RT.	RIGHT
R/W	RIGHT OF WAY
SB	SOUTHBOUND
S.D.D.	STANDARD DETAIL DRAWING
STA.	STATION
SF	SQUARE FOOT
STH	STATE HIGHWAY
SY	SQUARE YARD
T.	PERCENT OF TRUCK TRAFFIC
T.L.E.	TEMPORARY LIMITED EASEMENT
TYP.	TYPICAL
VAR.	VARIES
WB	WESTBOUND

DEPARTMENT OF NATURAL RESOURCES

DNR SERVICE CENTER
3550 MORMON COULEE RD
LA CROSSE, WI 54601
TELEPHONE: 608-785-9115
ATTENTION: SHAWN HASELEU
SHAWN.HASELEU@WISCONSIN.GOV

WISDOT REGIONAL CONTACT

DAVID KOEPP
WISDOT NORTHWEST REGION
EAU CLAIRE OFFICE
718 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
(715) 836-2078

DESIGN CONTACT

FLEMING, ANDRE & ASSOCIATES, INC.
MATT GUNDRY
3615 N. HASTINGS WAY - STE. 100
EAU CLAIRE, WI 54703
(715) 832-8400
mjgundry@faa-engineers.com

UTILITIES

BRAD KEMPH
AT&T LEGACY - COMMUNICATION LINE
866 ROCK CREEK RD.
PLANO, IL 60545
(715) 254-5238
bk9173@att.com

GENE LARSON
BLACK RIVER FALLS UTILITIES - WATER
199 N. WATER ST.
BLACK RIVER FALLS, WI 54615
(715) 299-5861
brfwater@wpplenergy.org

DALE HOFF
BROCKWAY SANITARY DISTRICT #1 - SEWER & WATER
236 GEBHARDT RD.
P.O. BOX 484
BLACK RIVER FALLS, WI 54615
(715) 284-5234
jdclerk5234@charter.net

DONNA SMOTHERS
CENTURYLINK - COMMUNICATION LINE
835 RED IRON RD
BLACK RIVER FALLS, WI 54615
(715) 284-4375
donna.smothers@centurylink.com

PERRY McCLELLAN
CHARTER COMMUNICATIONS - COMMUNICATION LINE
1228 12TH AVE. SOUTH
ONALASKA, WI 54650
(608) 317-6713
perry.mcclellan@charter.com

DAVE LAMBERT
HO-CHUNK NATION - COMMUNICATION LINE
W9814 AIRPORT RD.
BLACK RIVER FALLS, WI 54615
(715) 896-1541
dave.lambert@ho-chunk.com

STEVE CHRISTOPHERSON
HO-CHUNK NATION - WATER
HO-CHUNK NATION - SEWER
N6520 LUMBERJACK GUY RD.
BLACK RIVER FALLS, WI 54615
(715) 284-9851 EXT. 5091
steve.christopherson@ho-chunk.com

ERIC STEIEN
JACKSON ELECTRIC COOPERATIVE - ELECTRICITY
199 HARRISON ST.
P.O. BOX 546
BLACK RIVER FALLS, WI 54615
(715) 299-5208
esteien@jackelec.com

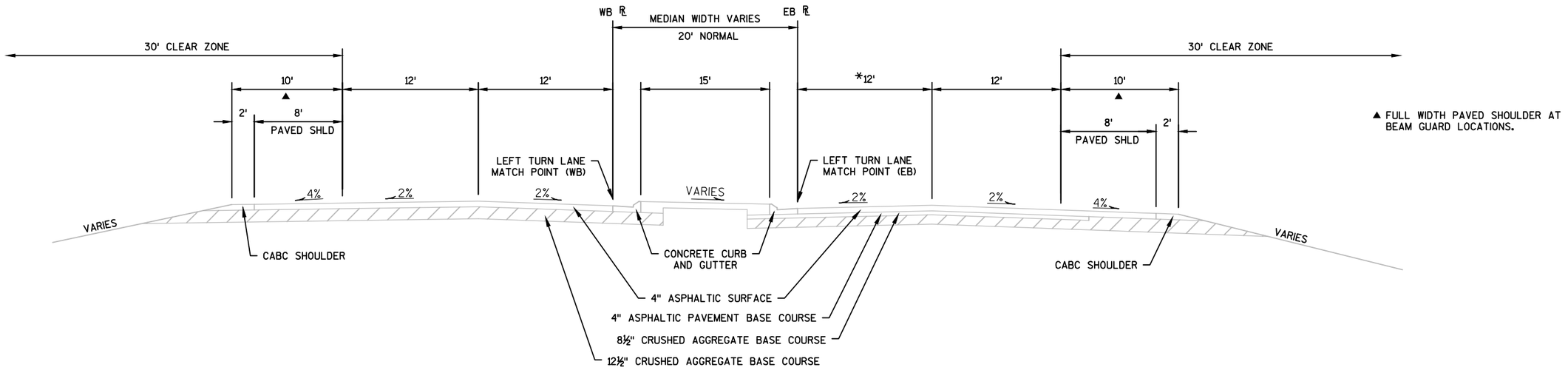
DAN HUBLI
NORTHERN NATURAL GAS COMPANY - GAS/PETROLEUM
4685 212TH ST. WEST
P.O. BOX 188
FARMINGTON, MN 55024-0188
(402) 530-3414
dan.hubli@nngco.com
(888) 367-6671 EMERGENCY 24-HOUR

TRAVIS KAHL
WE ENERGIES - GAS/PETROLEUM
ROOM A299
1921 8TH ST. SOUTH
WISCONSIN RAPIDS, WI 54495
(715) 421-7256
travis.kahl@we-energies.com
(800) 261-5325 EMERGENCY 24-HOUR

BRUCE M. ZEMKE
XCEL ENERGY - ELECTRICITY/TRANSMISSION
414 NICOLLET MALL, 5TH FLOOR
MINNEAPOLIS, MN 55401
(612) 330-7815
bruce.m.zemke@xcelenergy.com

DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

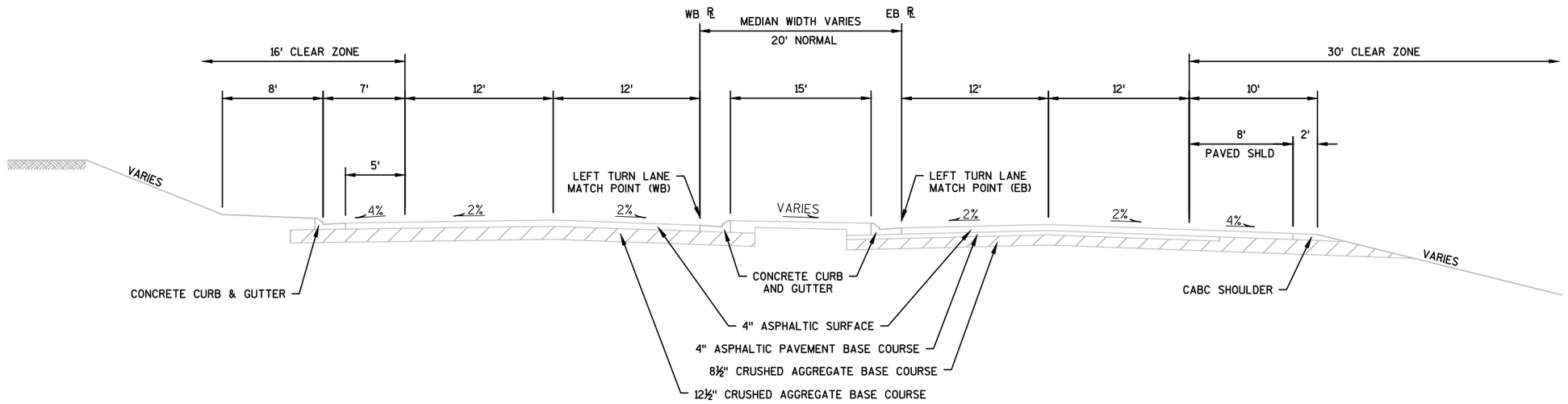
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EXISTING TYPICAL SECTION

STA 86+00'WB TO STA 124+28'WB
STA 131+00'WB TO STA 139+09'WB

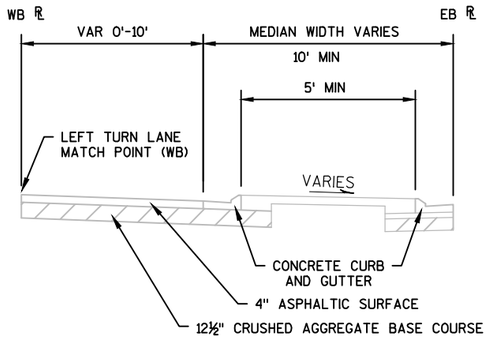
* TAPER (12' TO 0') STA 133+51'EB TO STA 139+99.8'EB



EXISTING TYPICAL SECTION

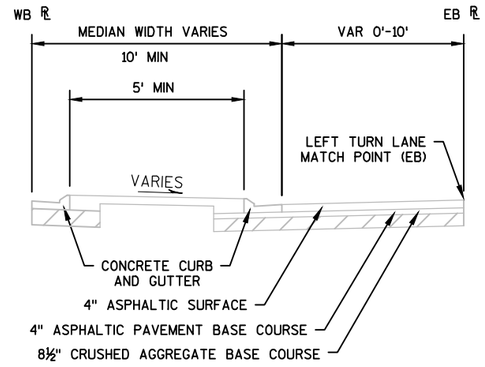
STA 124+28'WB TO STA 131+00'WB

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 3	E



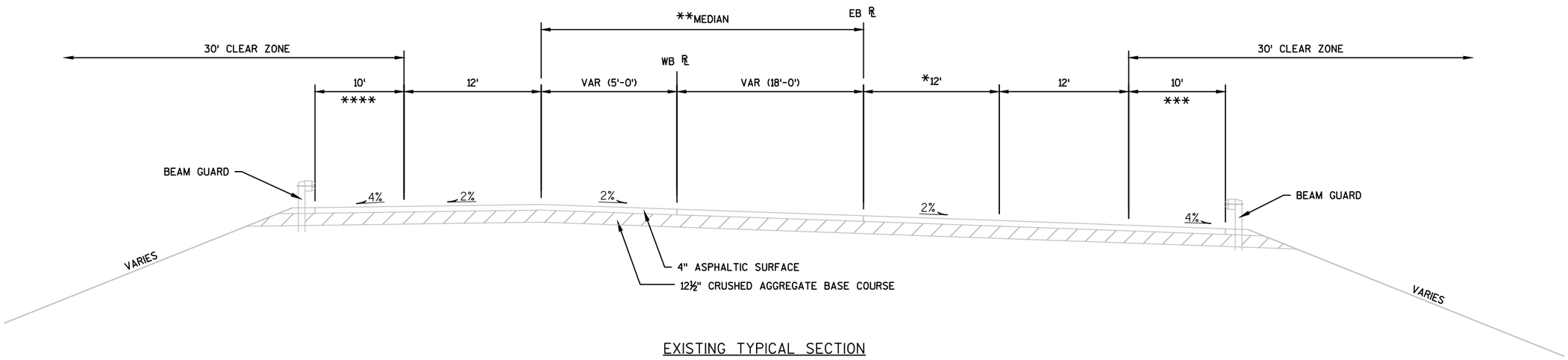
EXISTING PARTIAL SECTION
LEFT TURN LANE (WB)

WEST BAUER RD
STA 104+00
COMMERCIAL ENTRANCE
RED IRON RD



EXISTING PARTIAL SECTION
LEFT TURN LANE (EB)

WEST BAUER RD
STA 104+00
VAUDREUIL RD
LEICHT RD

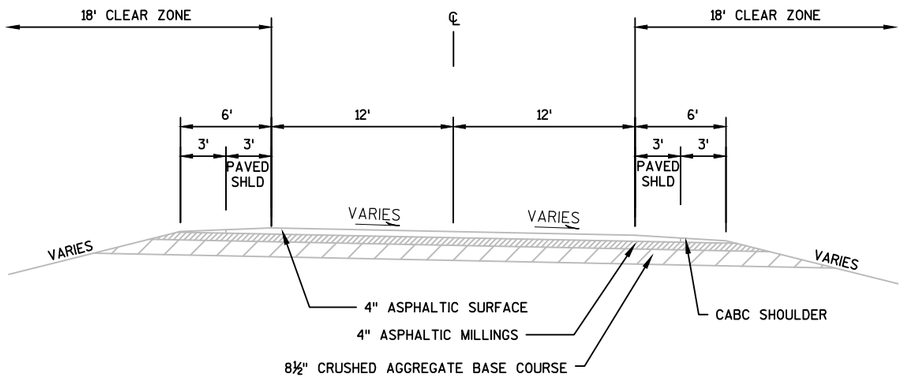


EXISTING TYPICAL SECTION
STA 139+09'WB TO STA 145+70'WB

* TAPER (12' TO 0') STA 133+51'EB TO STA 139+99.8'EB
** TAPER (23' TO 0') STA 139+09'WB TO STA 143+03'WB
*** TAPER (10' TO 6') STA 139+73'WB TO STA 145+70'WB
**** TAPER (10' TO 6') STA 141+68'WB TO STA 145+70'WB

NOTE: STA 140+02.1'WB = STA 139+99.8'EB

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 4	E

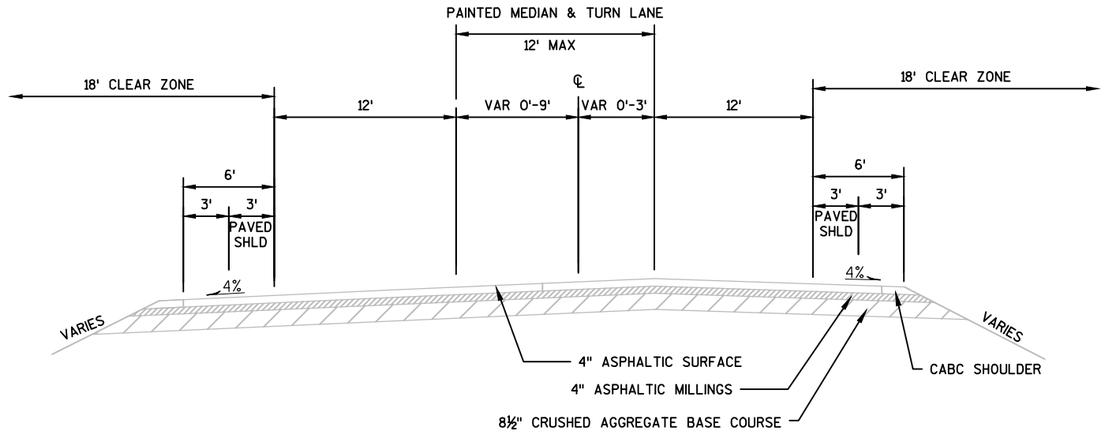


EXISTING SUPERELEVATED TYPICAL SECTION

STA 145'WB'+70 TO STA 154'WB'+87
STA 298'WB'+42.6 TO STA 316'WB'+70.8

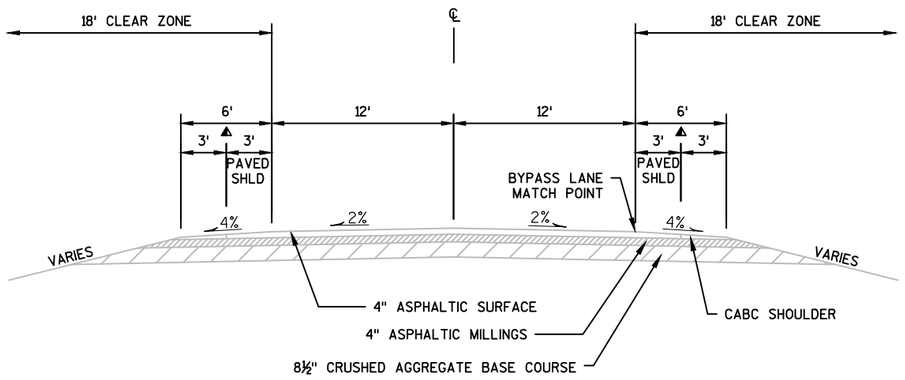
▲ FULL WIDTH PAVED SHOULDER AT BEAM GUARD LOCATIONS.

▲ FULL WIDTH PAVED SHOULDER
STA 257+99 - STA 262+85 RT
STA 259+80 - STA 264+17 LT



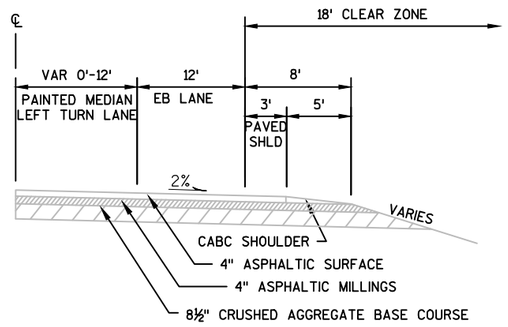
EXISTING TYPICAL SECTION

STA 196+02 TO STA 215+12



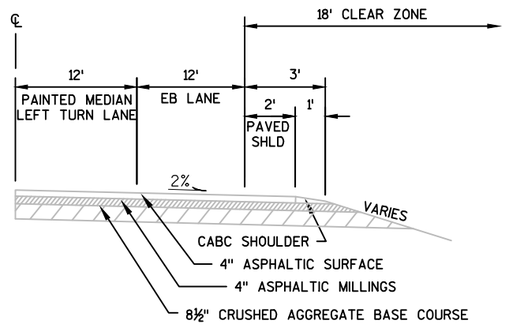
EXISTING TYPICAL SECTION

STA 154+87 TO STA 196+02
STA 215+12 TO STA 245+25
STA 297+10 TO STA 298+42.6
STA 316+70.8 TO STA 321+84.4



EXISTING PARTIAL SECTION

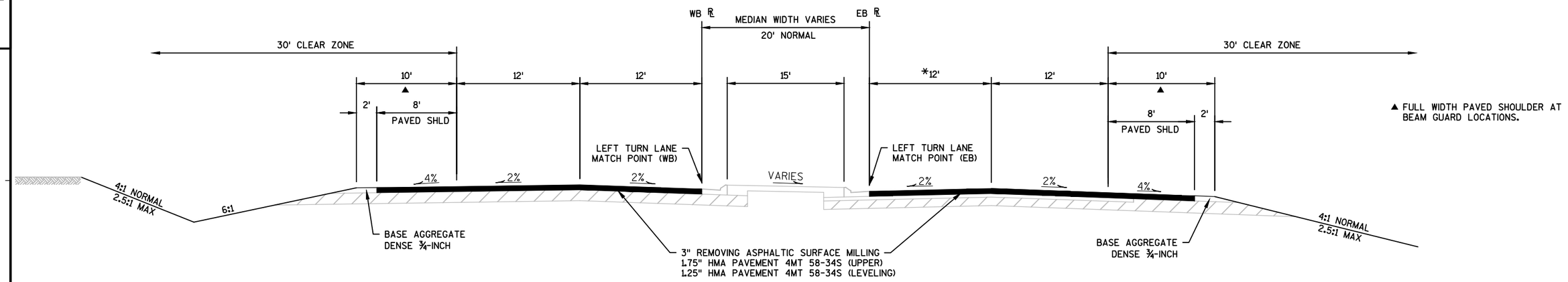
STA 245+25 TO STA 251+85 (TAPER 0'-12')
STA 251+85 TO STA 283+51 (12')
STA 289+31 TO STA 290+50 (12')
STA 290+50 TO STA 297+10 (TAPER 12'-0')



EXISTING PARTIAL SECTION

STA 283+51 TO STA 289+31

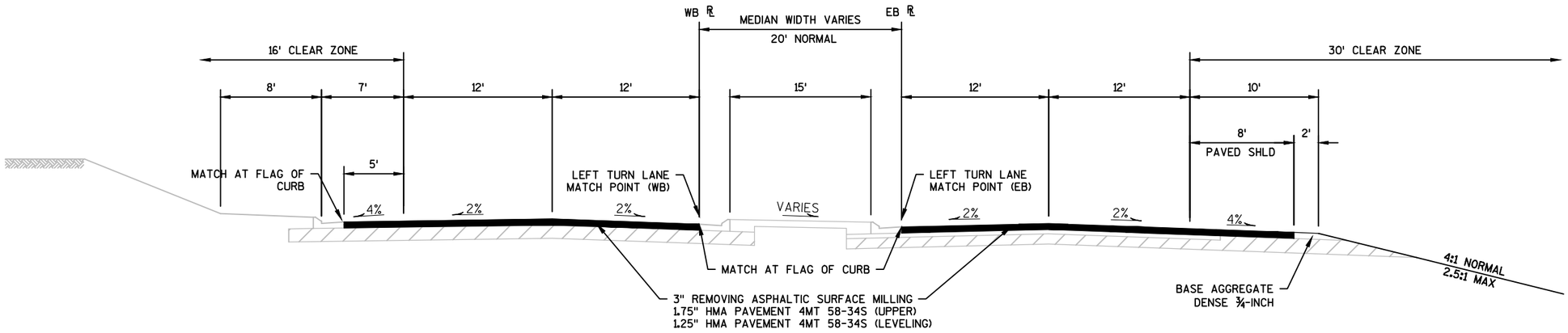
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FINISHED TYPICAL SECTION

STA 86+00'WB TO STA 124+28'WB
STA 131+00'WB TO STA 139+09'WB

* TAPER (12' TO 0') STA 133+51'EB TO STA 139+99.8'EB

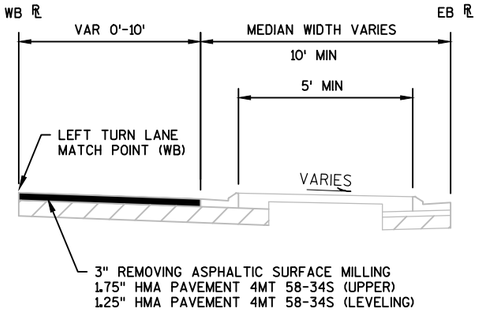


FINISHED TYPICAL SECTION

STA 124+28'WB TO STA 131+00'WB

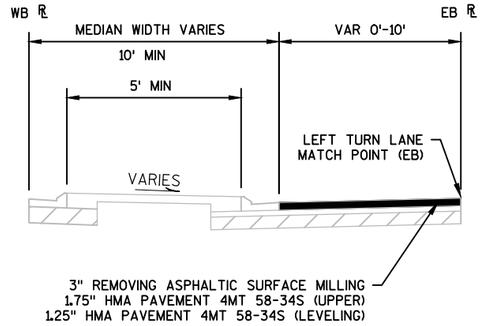
DEPTH OF MILL WILL BE SET AT THE CENTERLINE OF THE DRIVING LANES AND CONTINUE DOWN AT THE EXISTING ROADWAY SLOPE.

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 6	E



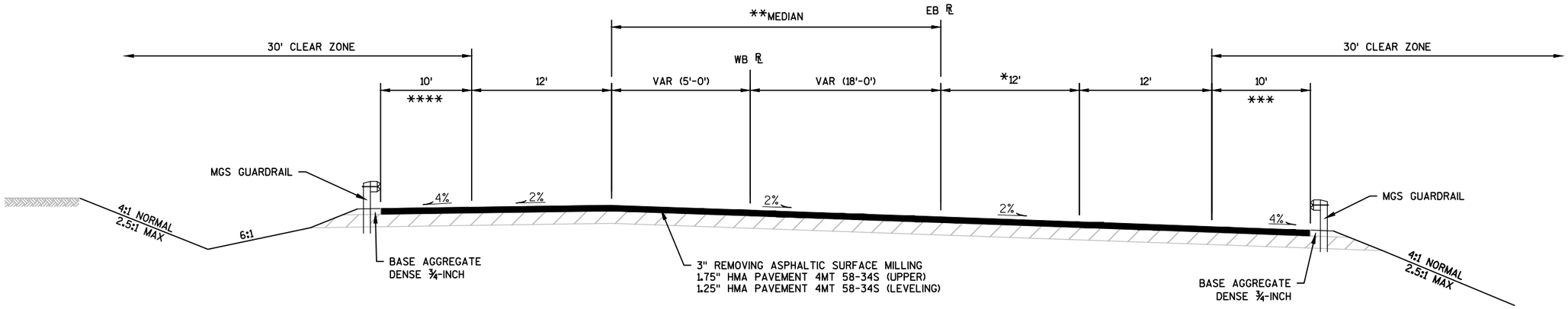
FINISHED PARTIAL SECTION
LEFT TURN LANE (WB)

WEST BAUER RD
STA 104+00
COMMERCIAL ENTRANCE
RED IRON RD



FINISHED PARTIAL SECTION
LEFT TURN LANE (EB)

WEST BAUER RD
STA 104+00
VAUDREUIL RD
LEICHT RD



FINISHED TYPICAL SECTION

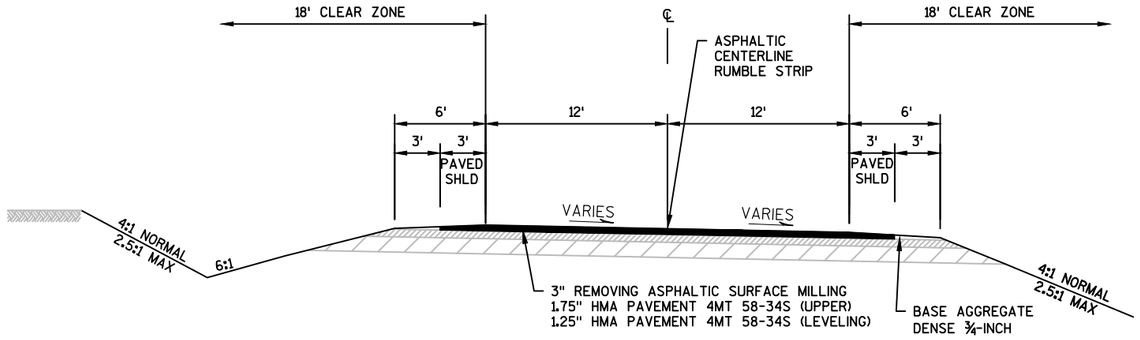
STA 139+09'WB TO STA 145+70'WB

DEPTH OF MILL WILL BE SET AT THE CENTERLINE OF THE DRIVING LANES AND CONTINUE DOWN AT THE EXISTING ROADWAY SLOPE.

* TAPER (12' TO 0') STA 133+51'EB TO STA 139+99.8'EB
** TAPER (23' TO 0') STA 139+09'WB TO STA 143+03'WB
*** TAPER (10' TO 6') STA 139+73'WB TO STA 145+70'WB
**** TAPER (10' TO 6') STA 141+68'WB TO STA 145+70'WB

NOTE: STA 140+02.1'WB = STA 139+99.8'EB

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 7	E

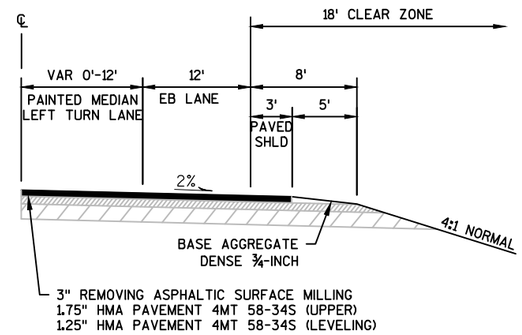


FINISHED SUPERELEVATED TYPICAL SECTION

STA 145'WB'+70 TO STA 154'WB'+87
STA 298'WB'+42.6 TO STA 316'WB'+70.8

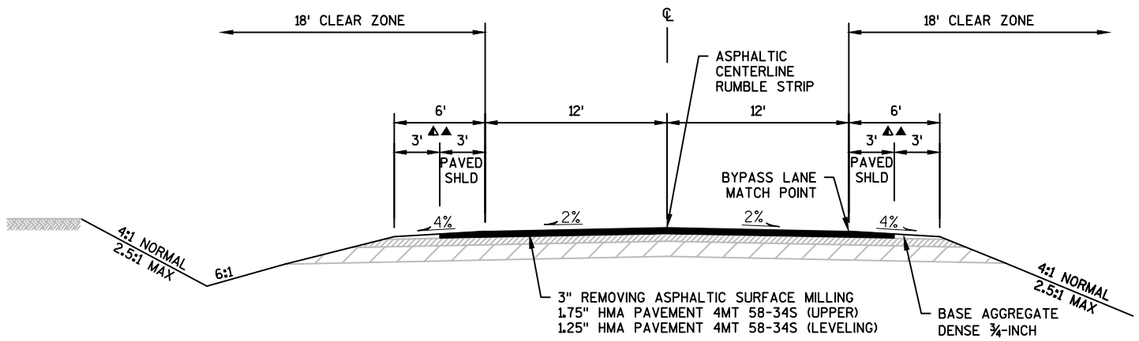
▲ FULL WIDTH PAVED SHOULDER AT BEAM GUARD LOCATIONS.

▲ FULL WIDTH PAVED SHOULDER
STA 257+99 - STA 262+85 RT
STA 259+80 - STA 264+17 LT



FINISHED PARTIAL SECTION

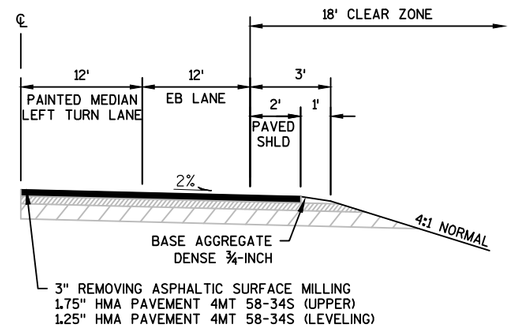
STA 245+25 TO STA 251+85 (TAPER 0'-12')
STA 251+85 TO STA 283+51 (12')
STA 289+31 TO STA 290+50 (12')
STA 290+50 TO STA 297+10 (TAPER 12'-0')



DEPTH OF MILL WILL BE SET AT THE CENTERLINE OF THE DRIVING LANES AND CONTINUE DOWN AT THE EXISTING ROADWAY SLOPE.

FINISHED TYPICAL SECTION

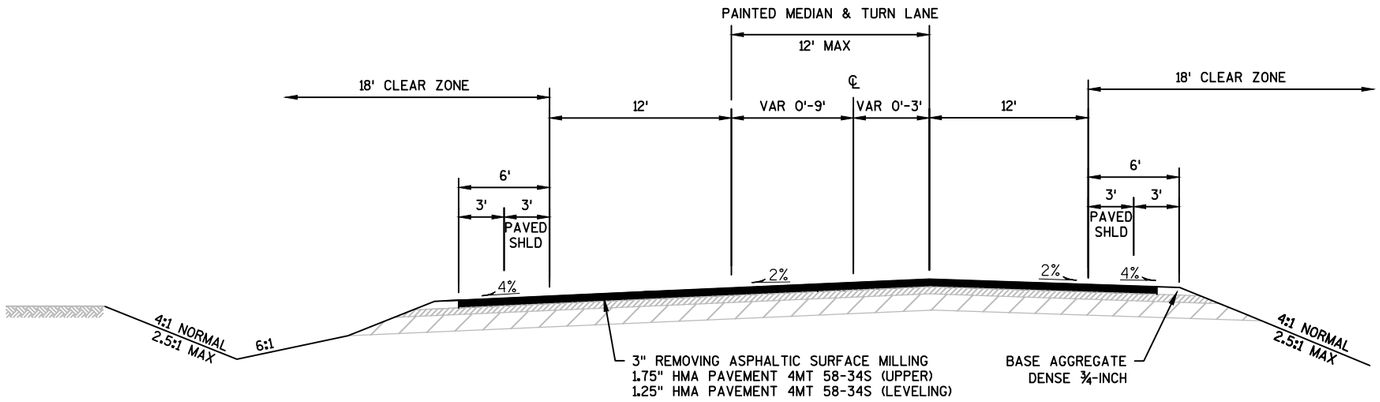
STA 154+87 TO STA 196+02
STA 215+12 TO STA 245+25
STA 297+10 TO STA 298+42.6
STA 316+70.8 TO STA 321+84.4



FINISHED PARTIAL SECTION

STA 283+51 TO STA 289+31

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 8	E



FINISHED TYPICAL SECTION

STA 196+02 TO STA 215+12

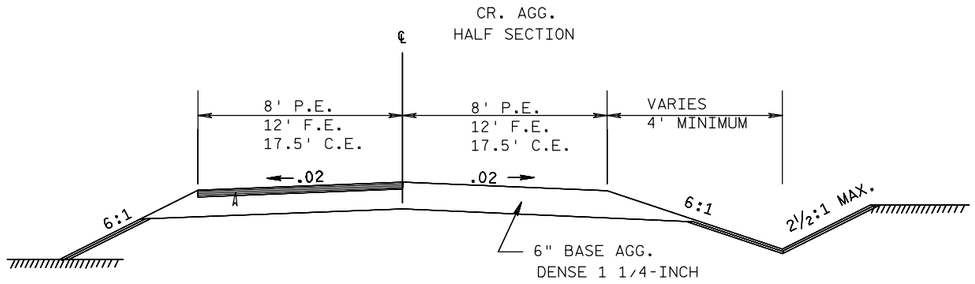
DEPTH OF MILL WILL BE SET AT THE CENTERLINE OF THE DRIVING LANES AND CONTINUE DOWN AT THE EXISTING ROADWAY SLOPE.

FIELD CORE LOG

Core No	Mile	Offset	Asphalt Pavt Depth	Asphaltic Pavnt Base Course	MIP Asphaltic Pavt	Base Course	Comments / Subgrade
--	0	-- --	--	--	--	--	OASIS RD
1	0.05 EB	7' LT	3 3/4"	4"	--	10"	SAND
2	0.05 WB	8' LT	4 1/4"	--	--	12 1/2"	SAND
3	0.25 EB	8' RT	5 1/4"	5 1/2"	--	7"	SAND
4	0.25 WB	8' RT	4 1/4"	--	--	17"	SAND
5	0.50 EB	8' RT	5 1/4"	2"	--	8"	SAND
6	0.50 WB	8 1/2' RT	3	--	--	18"	SAND
7	0.75 EB	8 1/2' RT	3 1/4"	4"	--	14 1/2"	SAND
8	0.75 WB	9 1/2' LT	4 3/4"	--	--	11"	SAND
9	1 EB	--	--	--	--	--	SKIPPED
10	1 WB	--	--	--	--	--	SKIPPED
11	1.25	--	--	--	--	--	SKIPPED
12	1.5	6' LT	4"	--	7 1/2"	7"	SAND
13	1.75	7' RT	4"	--	5"	4 1/2"	SAND
14	2	7 1/2' LT	3 3/4"	--	7 1/2"	3 1/2"	SAND
15	2.25	9 1/2' RT	3 3/4"	--	3 3/4"	11"	BYPASS LN /SAND
16	2.5	8' LT	3"	--	3"	7 1/2"	SAND
17	2.75	7 1/2' RT	4"	--	3 1/2"	7 1/2"	SAND
18	3	7 LT	4 1/4"	--	3 1/2"	7"	SAND
19	3.26	7 1/2' RT	4 3/4"	--	3 1/2"	8 1/2"	SAND
20	3.5	8' LT	4 1/2"	--	2 1/2"	5 1/2"	SAND
21	3.75	9' RT	4 1/4"	--	2 1/2"	10"	SAND
22	4	9' LT	4 1/2"	--	6"	5"	SAND
23	4.25	8' RT	4 3/4"	--	7"	7"	SAND
--	4.43	--	--	--	--	--	CTH K

FOR ADDITIONAL PAVEMENT DEPTH INFORMATION OR GPR RESULTS, CONTACT DAN REID AT 608-246-7946.

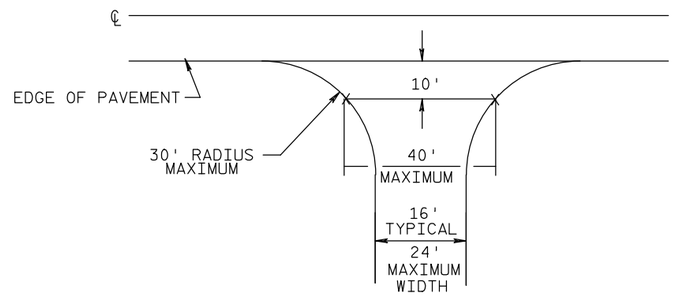
PAVEMENT FIELD CORE LOG (7-23-13 & 7-24-13)



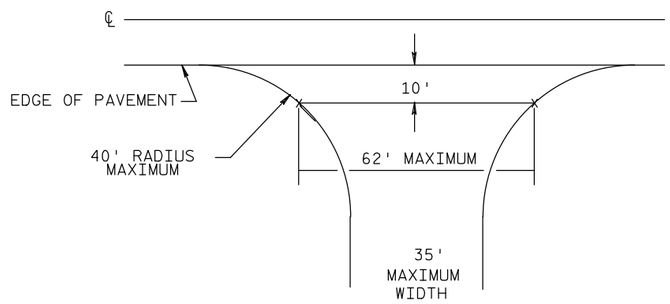
*OR MATCH EXIST.
ASPH. DEPTH

TYPICAL SECTION
FOR PRIVATE ENTRANCES

NOTE:
DRIVEWAY PROFILES NOT EXPECTED TO EXCEED 10%. PLACE LOW POINT OF DRIVEWAY PROFILE OVER DITCH FLOW LINE.

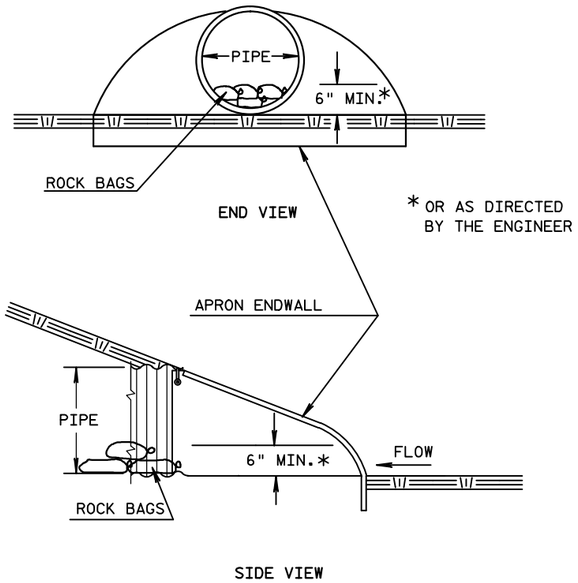


TYPICAL DRIVEWAY DETAIL
(NON-COMMERCIAL RURAL)

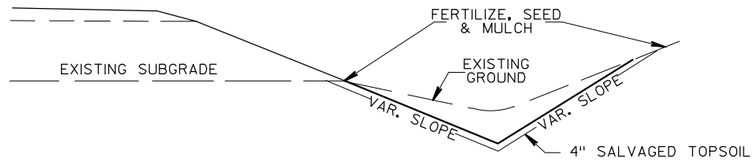


TYPICAL DRIVEWAY DETAIL
(COMMERCIAL RURAL)

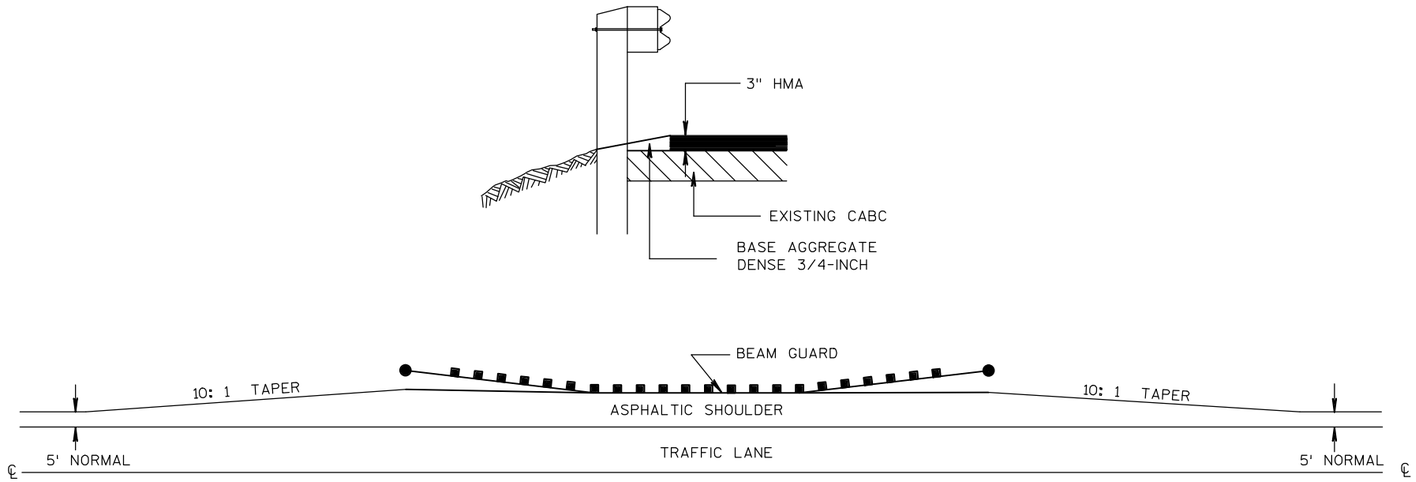
2



CULVERT PIPE CHECK



DITCH CLEANING DETAIL



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN: CONSTRUCTION DETAILS	SHEET 11	E

2

2

BEGIN PROJECT
STA 86+00.00

86'WB
86'EB
90'WB
90'EB
95'WB
95'EB
100'WB
100'EB

W BAUER RD

DITCH CLEANING REQ'D

DITCH CLEANING REQ'D

LEGEND

DIRECTION OF FLOW

TEMPORARY DITCH CHECKS

DITCH CLEANING

EROSION MAT CLASS 1 TYPE B

INLET PROTECTION TYPE C

105'WB
105'EB
110'WB
110'EB
115'WB
115'EB

VAUDREUIL RD

DITCH CLEANING REQ'D

DITCH CLEANING REQ'D

DITCH CLEANING REQ'D

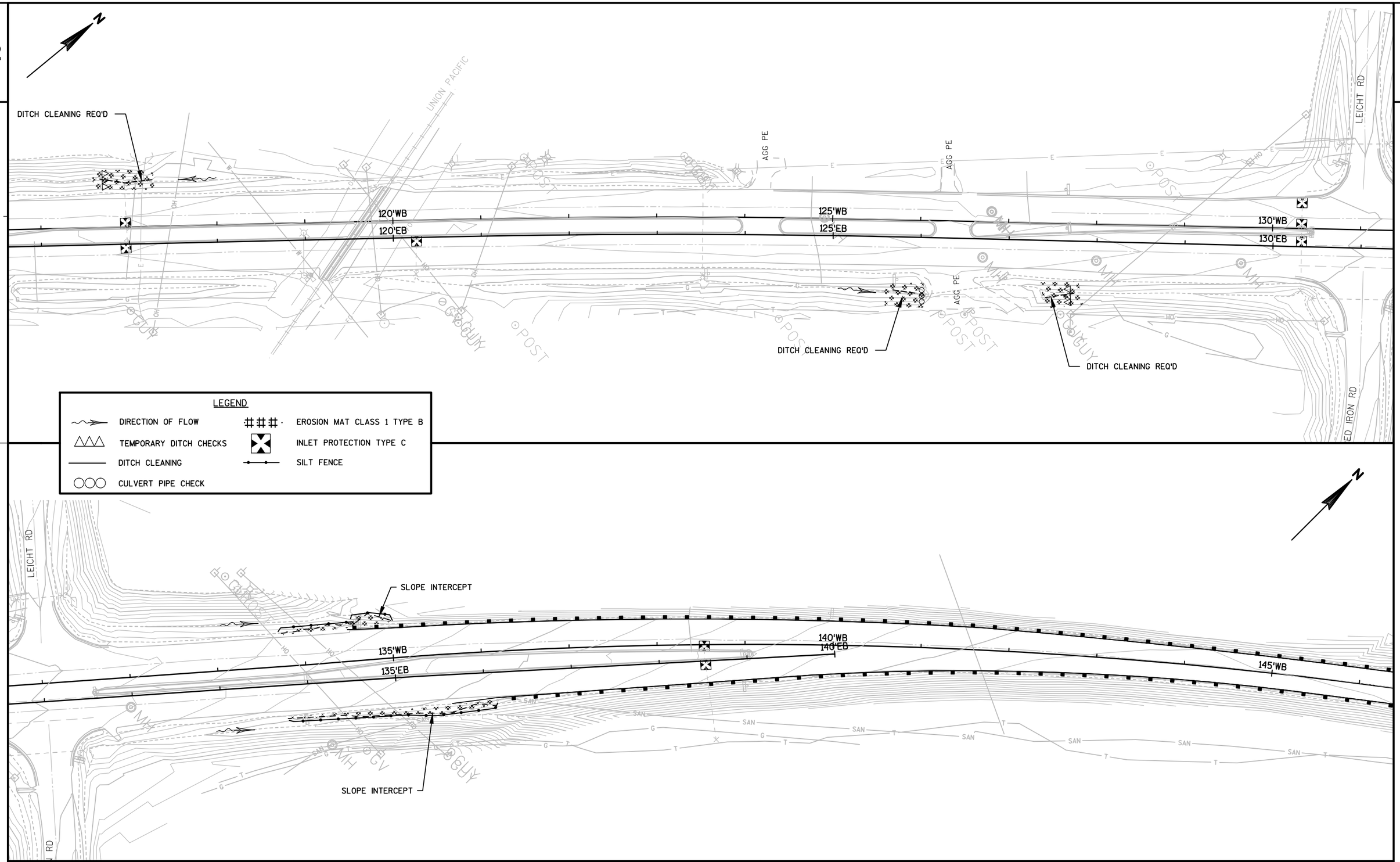
ASPH CE

ASPH CE

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL PLAN	SHEET	E

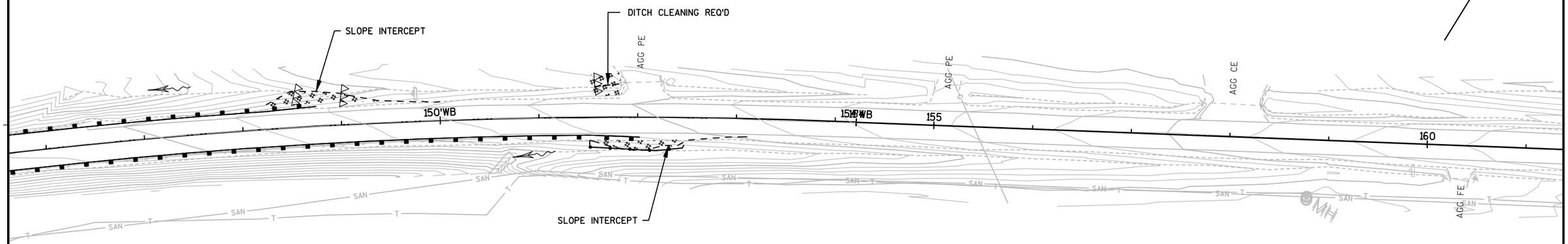
FILE NAME : F:\PROJECTS\2012-134\0007\DRAWINGS\75100200\SHEETSPLAN\022001_EC.DWG PLOT DATE : 8/1/2018 11:52 AM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44



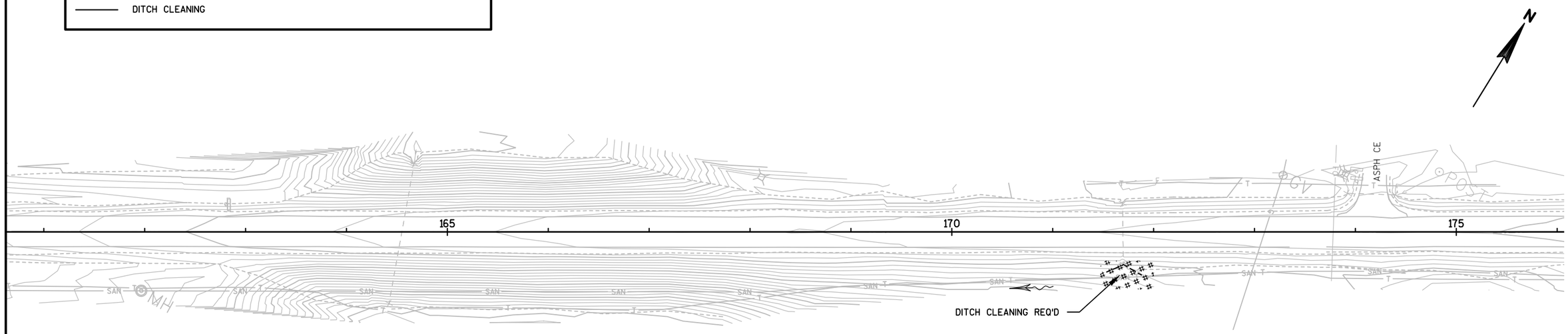
PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL PLAN	SHEET 13	E

2



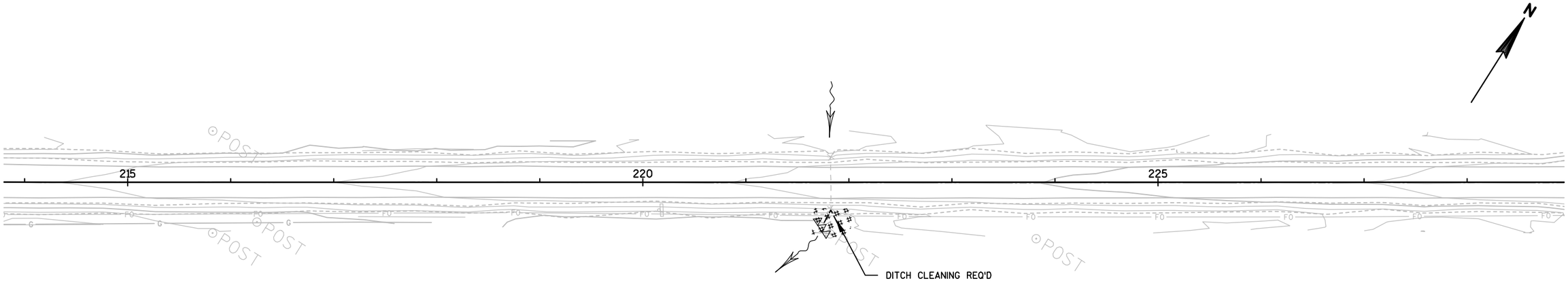
LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- DITCH CLEANING
- EROSION MAT CLASS 1 TYPE B
- SILT FENCE



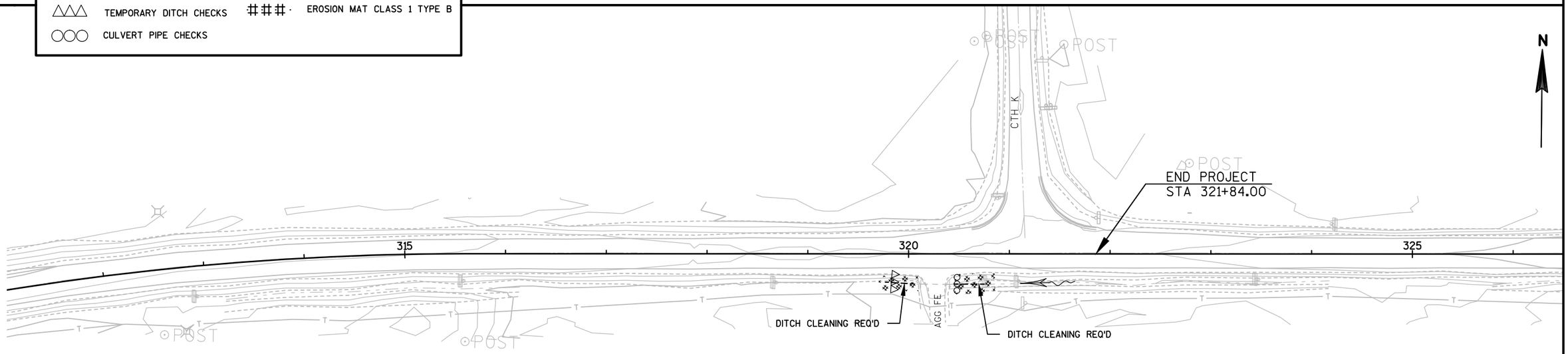
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2

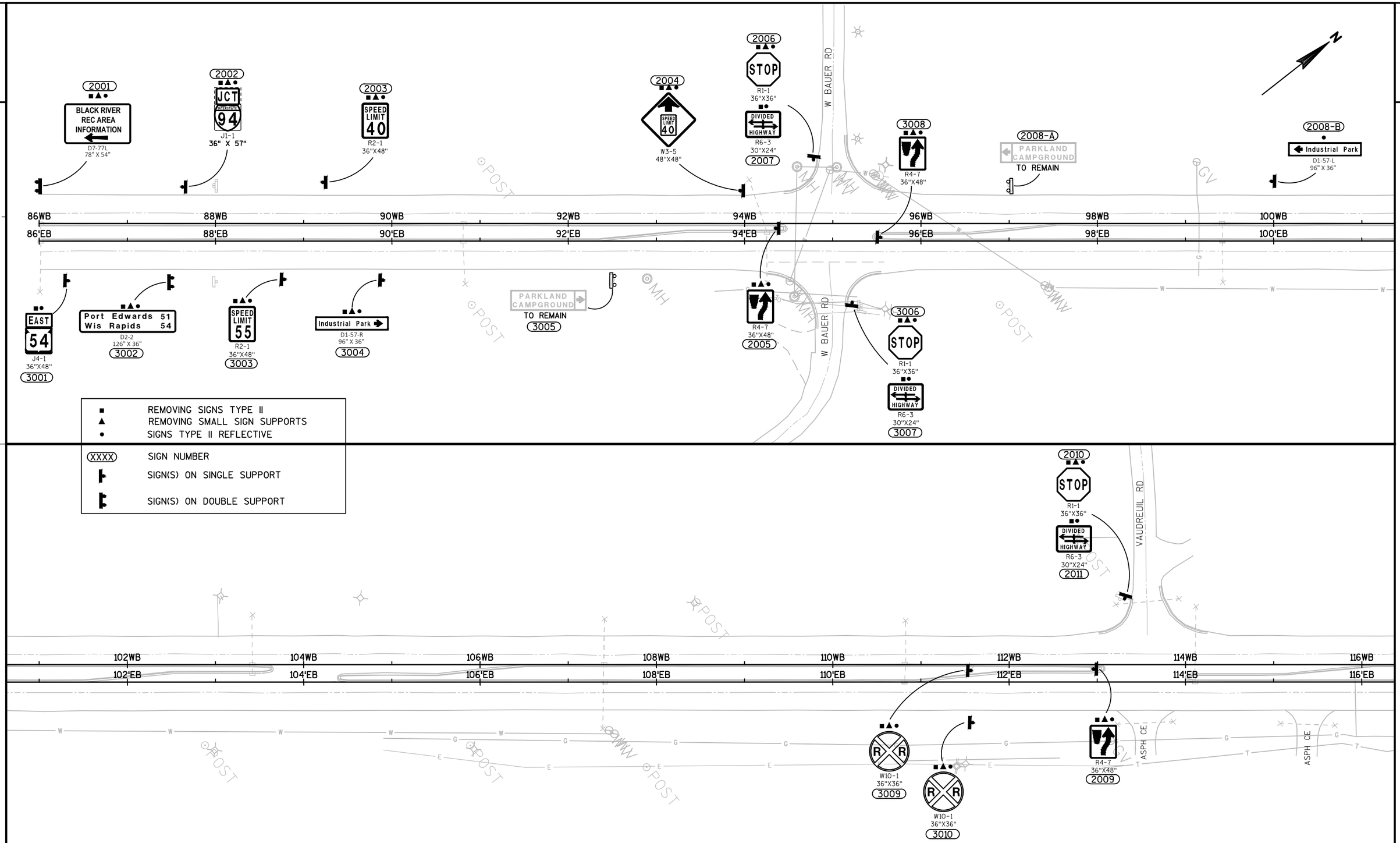


LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- EROSION MAT CLASS 1 TYPE B



PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL PLAN	SHEET 15	E



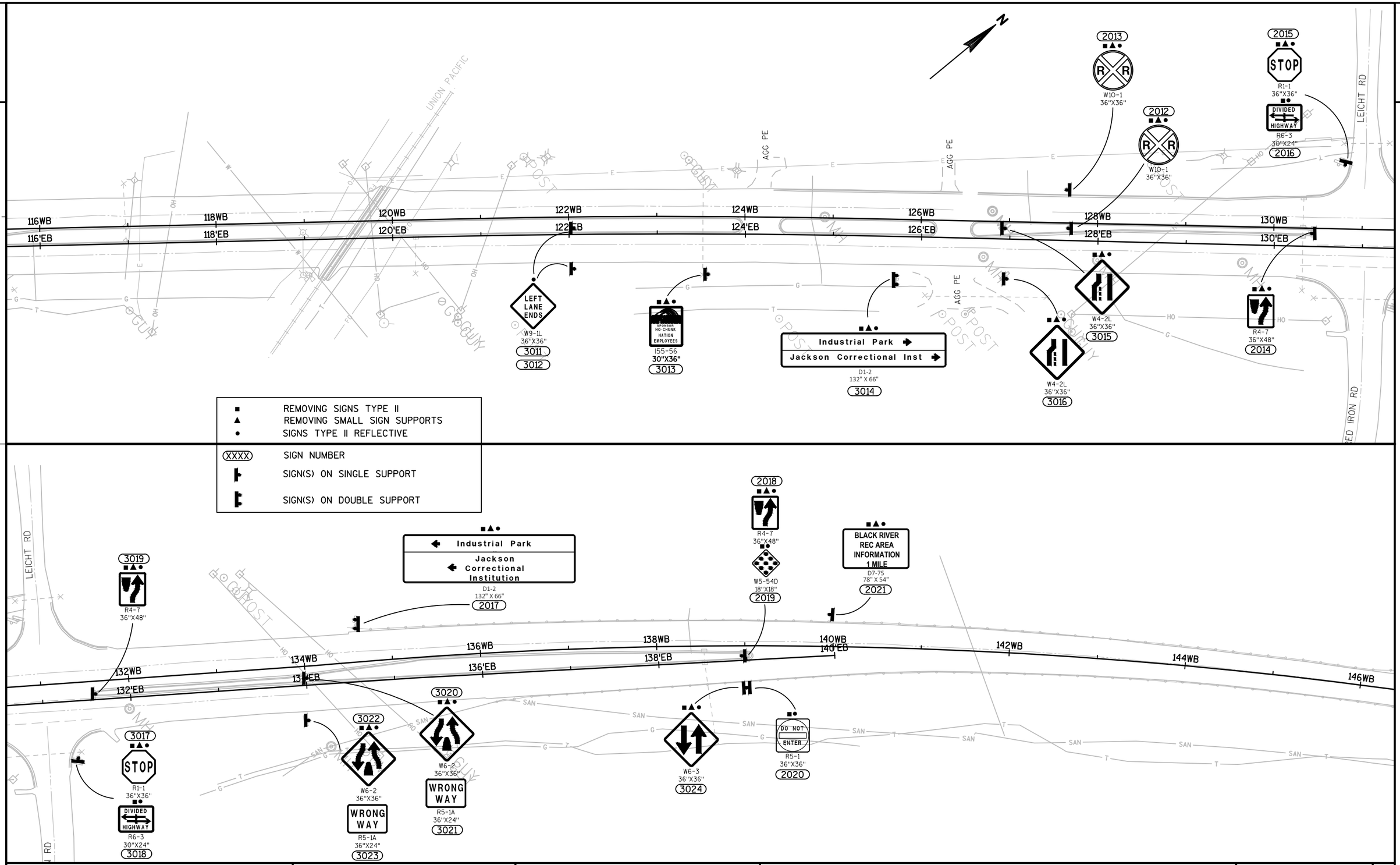
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- ▲ REMOVING SMALL SIGN SUPPORTS
- • SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

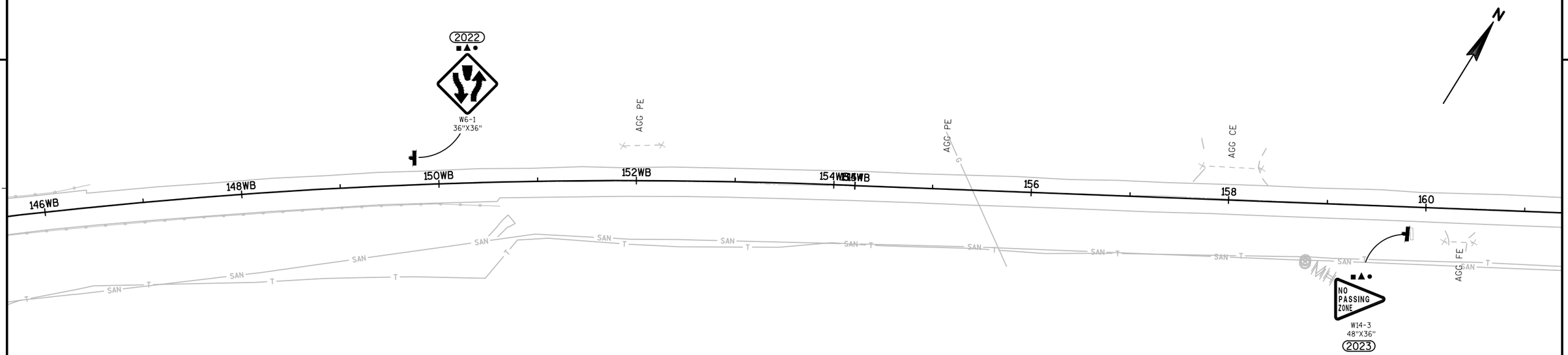
SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

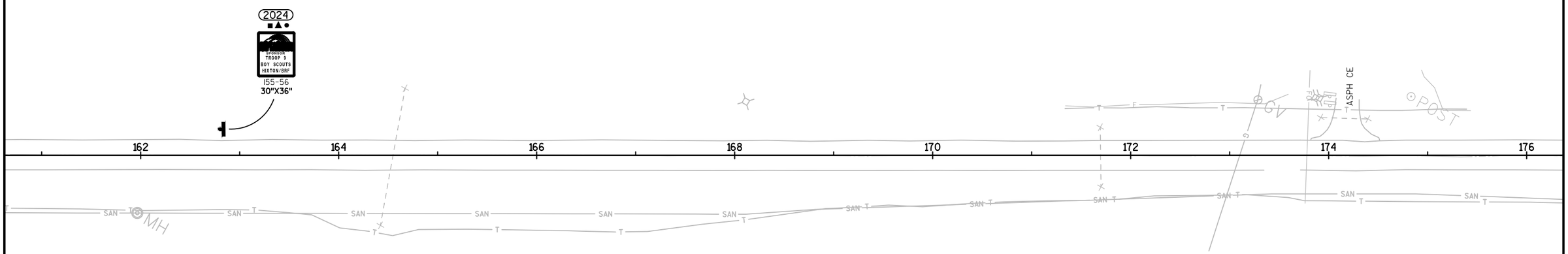
PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 16	E



PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 17	E



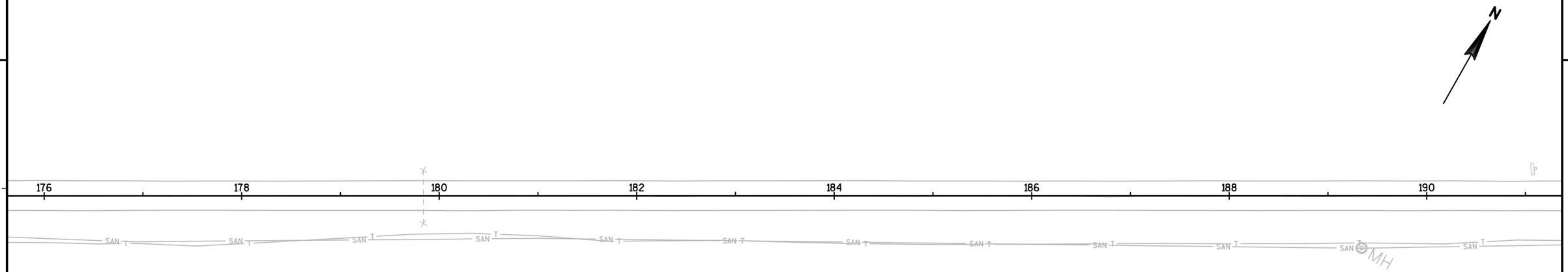
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▲	REMOVING SMALL SIGN SUPPORTS
●	SIGNS TYPE II REFLECTIVE
(XXXX)	SIGN NUMBER
	SIGN(S) ON SINGLE SUPPORT
	SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 18 E

2

2

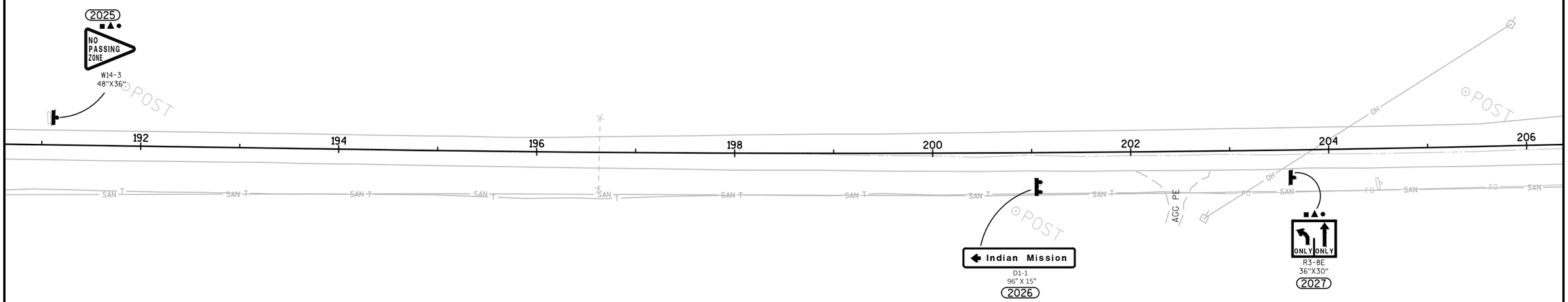


■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

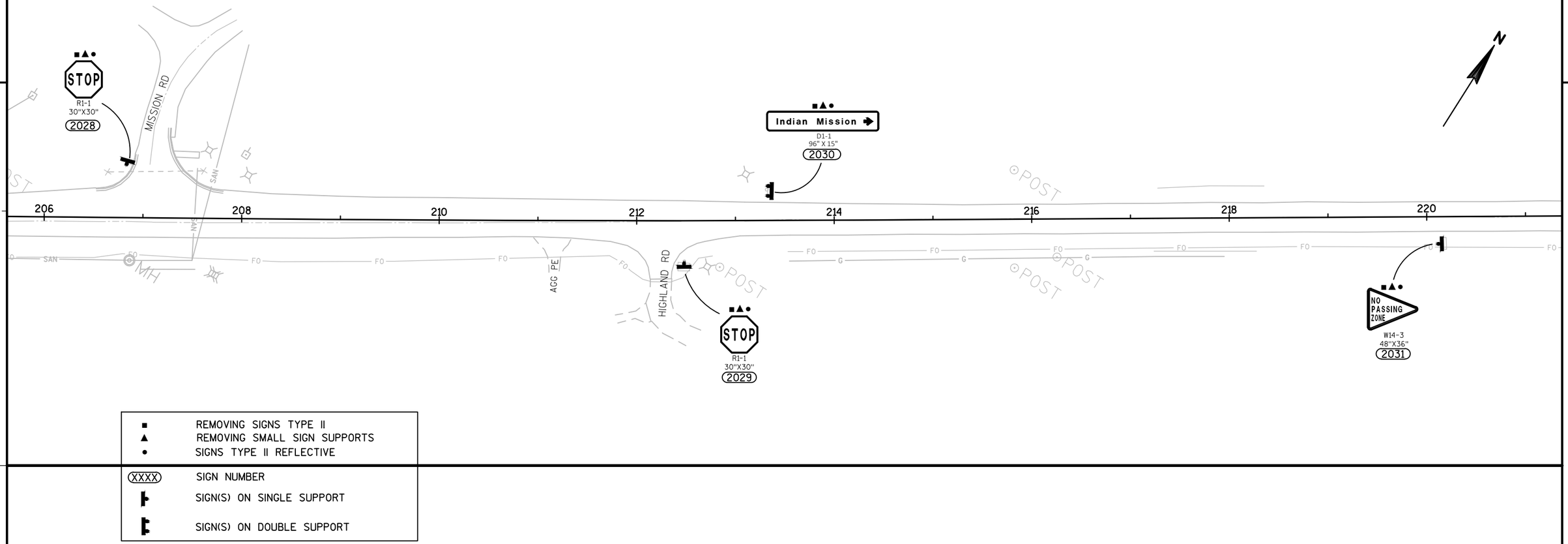
(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 19	E



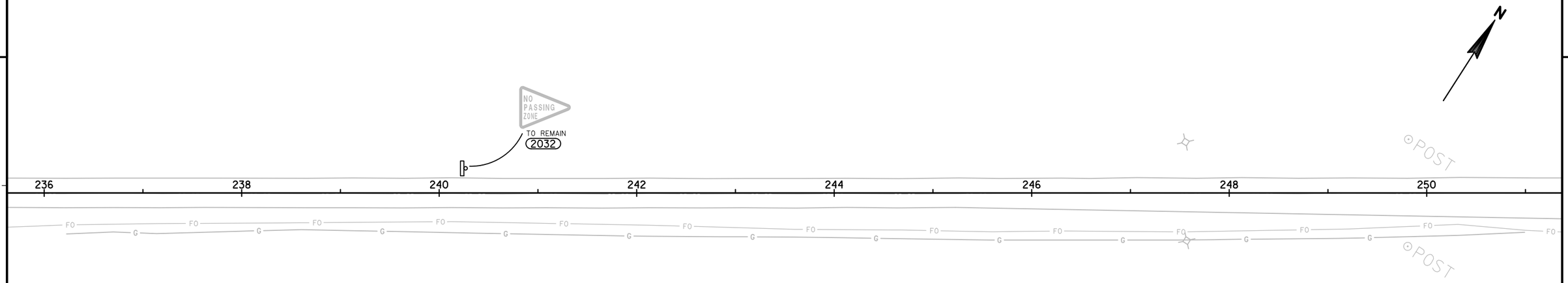
- ■ REMOVING SIGNS TYPE II
- ▲ REMOVING SMALL SIGN SUPPORTS
- ● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

2

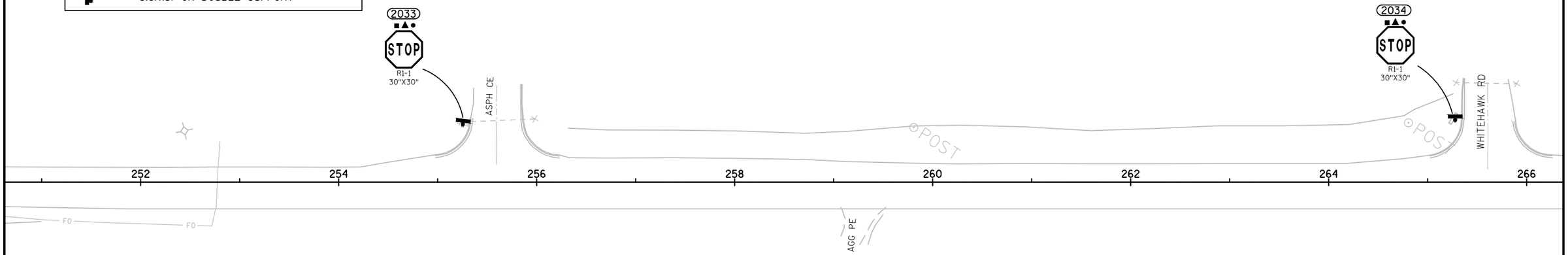


■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 21	E

FILE NAME : F:\DRAWINGS\2012-134\0007\75100200\SHEETSPLAN\023201_PS.DWG PLOT DATE : 8/1/2018 11:56 AM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

2

N

2036
CENTER LANE ONLY
TO REMAIN

POST

POST

266 268 270 272 274 276 278 280

AGG PE

BEGIN CENTER LANE ONLY
TO REMAIN
2035

CENTER LANE ONLY
TO REMAIN
2037

POST

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

2041
■▲●
STOP
R1-1
30"X30"

HO-CHUNK DR

2040
BEGIN CENTER LANE ONLY
TO REMAIN

POST

282 284 286 288 290 292 294 296

ROAD TO Wazee Lake County Park 1 MILE
REMOVE
2038

END CENTER LANE ONLY
TO REMAIN
2039

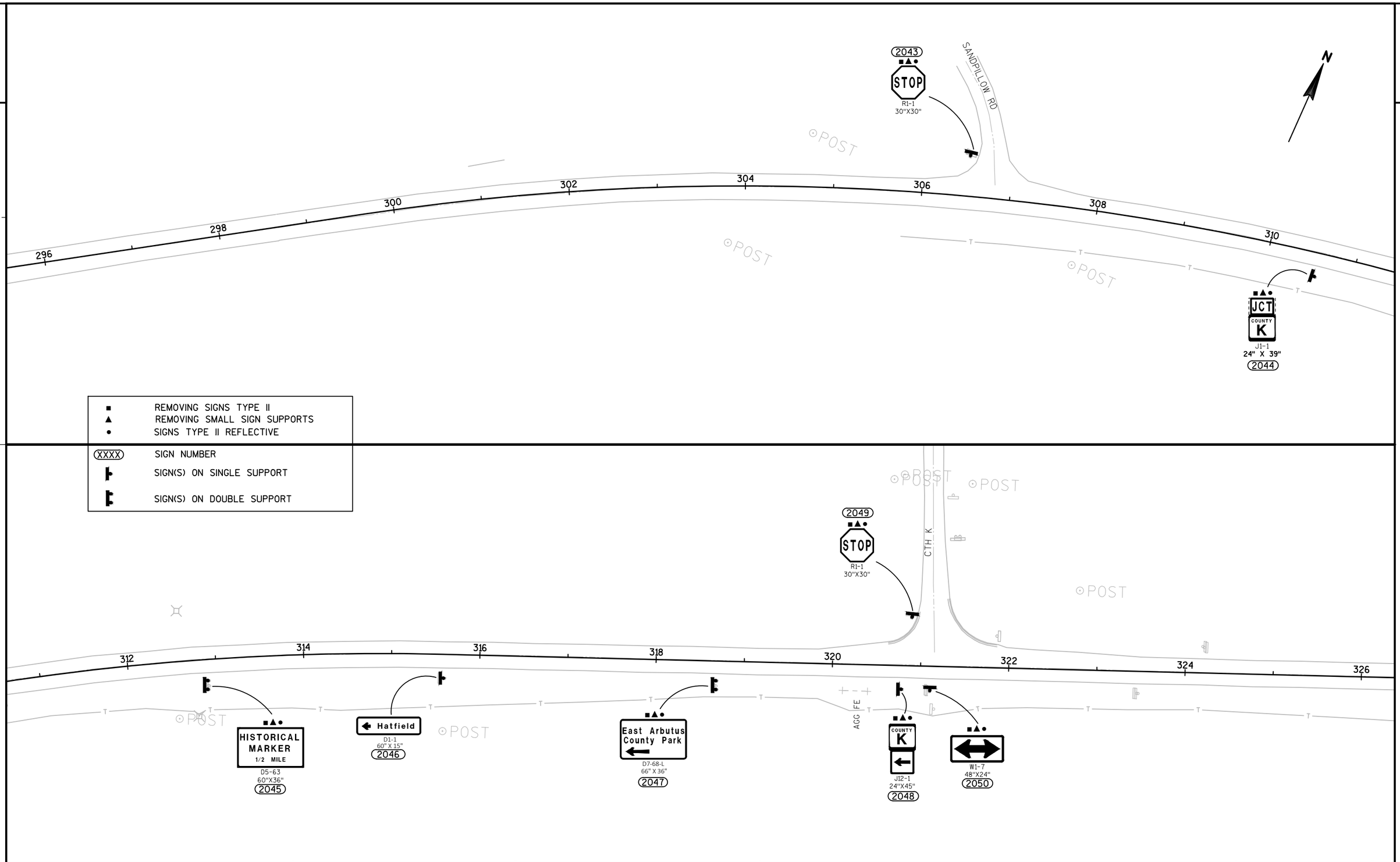
ACCESS RD

STOP
TO REMAIN
2042

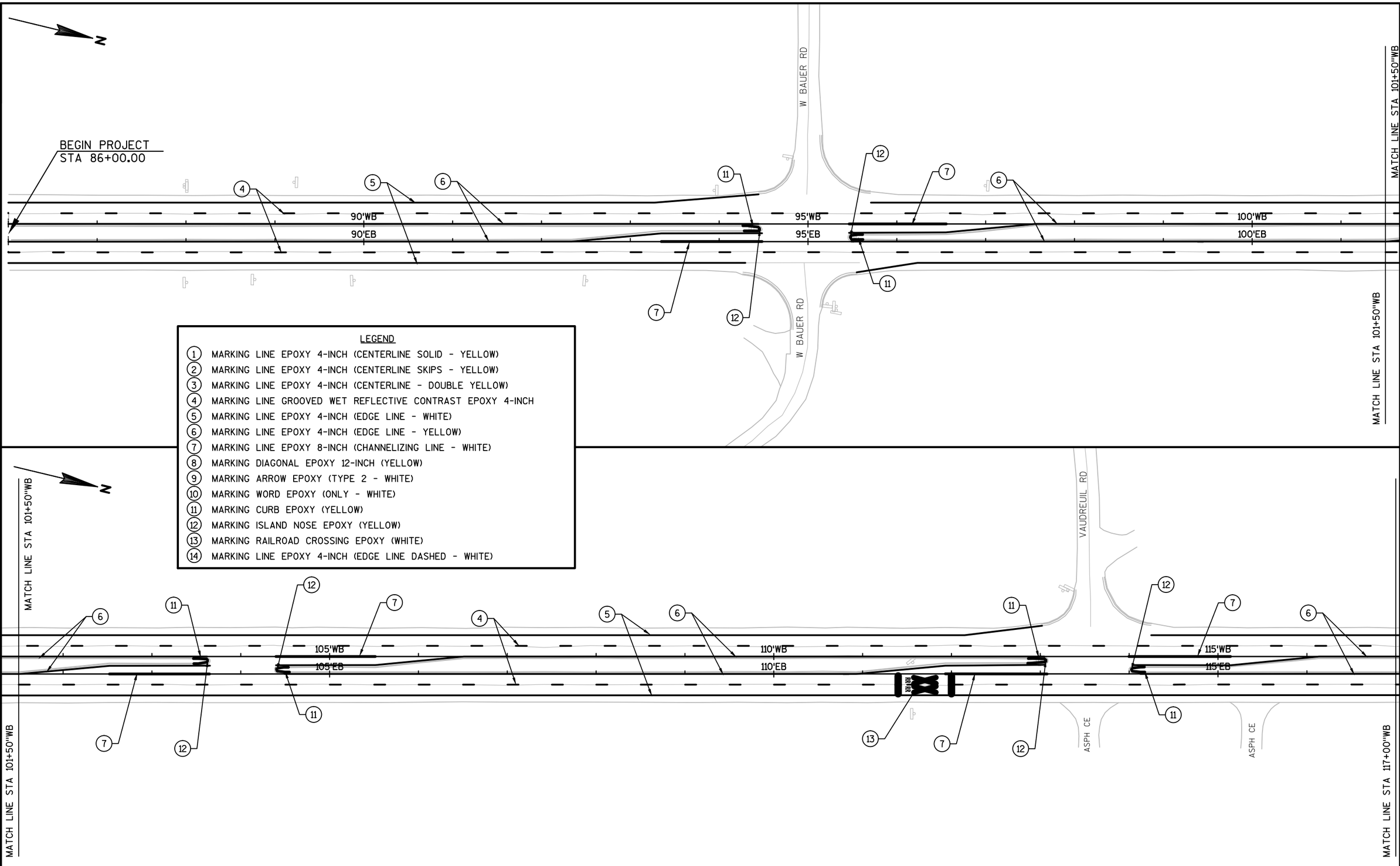
AGG CE

POST

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 22	E

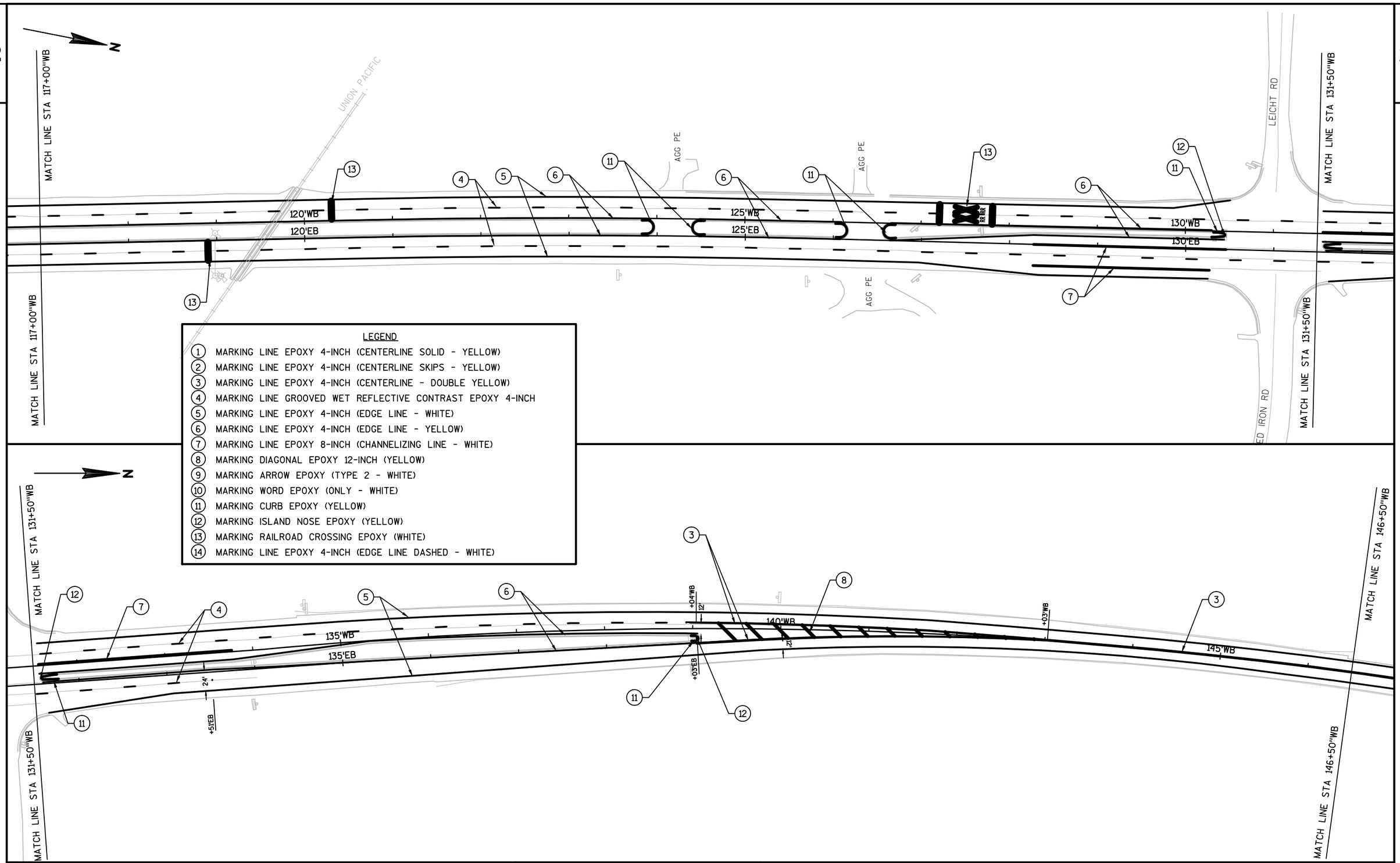


PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 23	E



PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PAVEMENT MARKING PLAN	SHEET 24	E

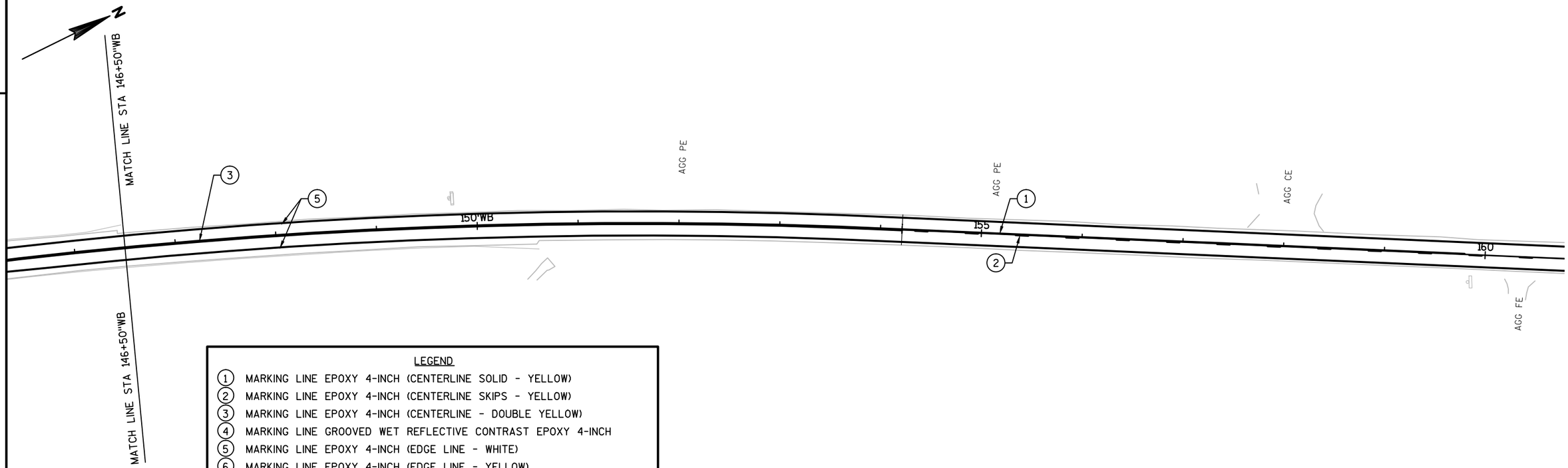
FILE NAME : F:\PROJECTS\2012-134\0007\DRAWINGS\75100200\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024501_PM
PLOT DATE : 8/1/2018 11:58 AM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



LEGEND

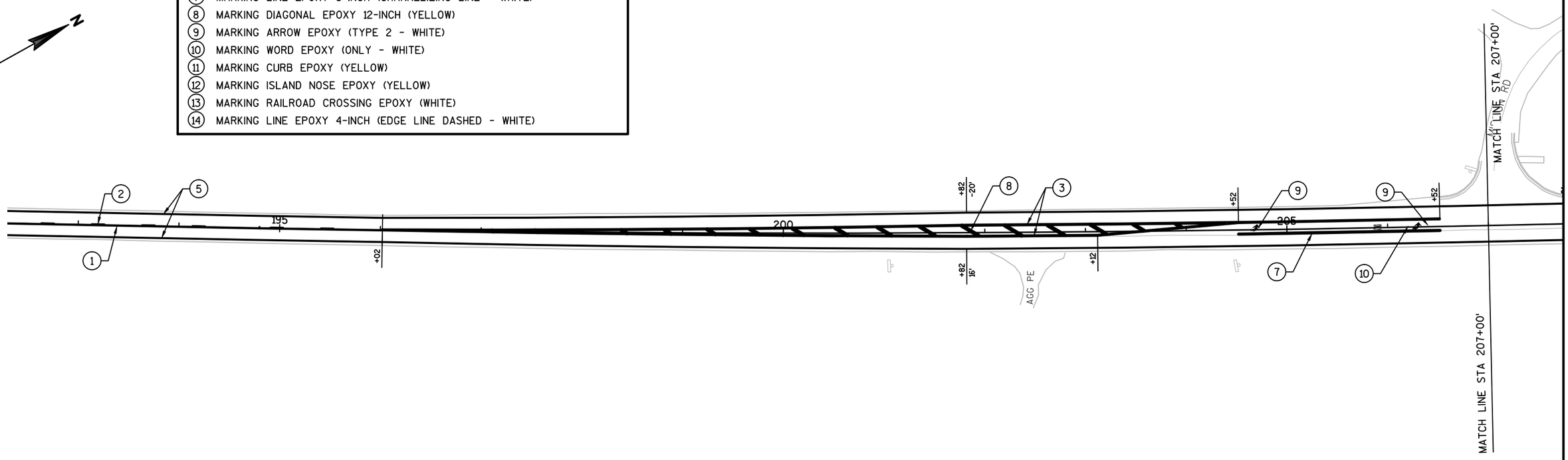
1. MARKING LINE EPOXY 4-INCH (CENTERLINE SOLID - YELLOW)
2. MARKING LINE EPOXY 4-INCH (CENTERLINE SKIPS - YELLOW)
3. MARKING LINE EPOXY 4-INCH (CENTERLINE - DOUBLE YELLOW)
4. MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH
5. MARKING LINE EPOXY 4-INCH (EDGE LINE - WHITE)
6. MARKING LINE EPOXY 4-INCH (EDGE LINE - YELLOW)
7. MARKING LINE EPOXY 8-INCH (CHANNELIZING LINE - WHITE)
8. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. MARKING ARROW EPOXY (TYPE 2 - WHITE)
10. MARKING WORD EPOXY (ONLY - WHITE)
11. MARKING CURB EPOXY (YELLOW)
12. MARKING ISLAND NOSE EPOXY (YELLOW)
13. MARKING RAILROAD CROSSING EPOXY (WHITE)
14. MARKING LINE EPOXY 4-INCH (EDGE LINE DASHED - WHITE)

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PAVEMENT MARKING PLAN	SHEET 25	E

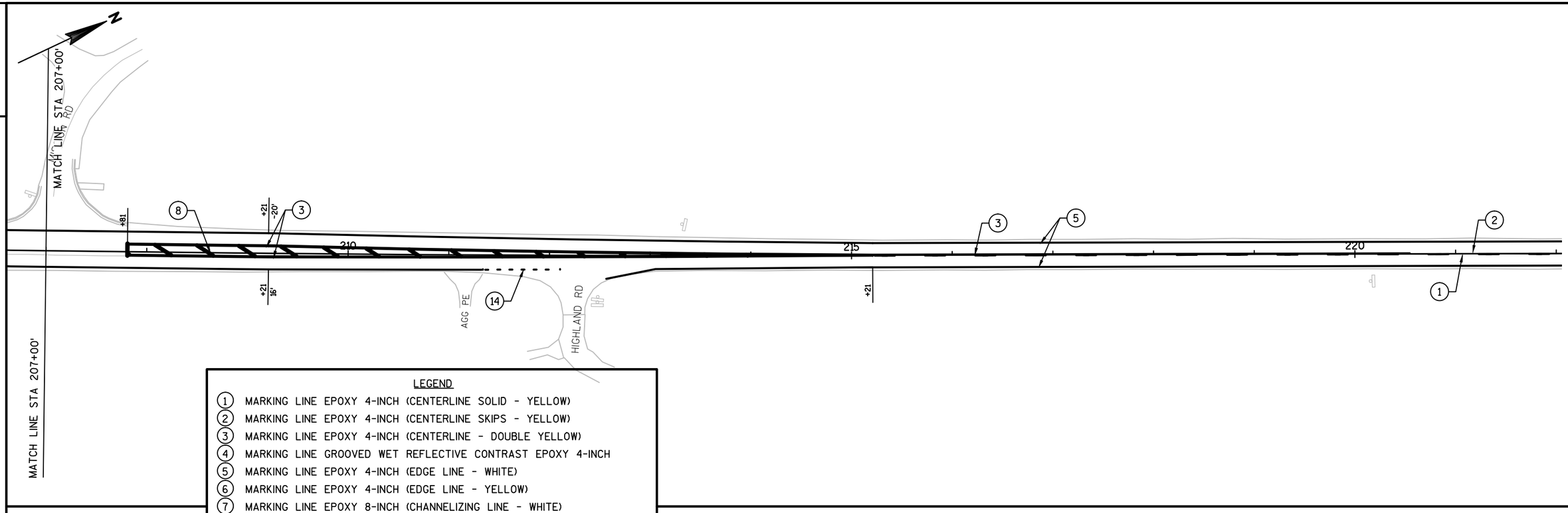


LEGEND

1. MARKING LINE EPOXY 4-INCH (CENTERLINE SOLID - YELLOW)
2. MARKING LINE EPOXY 4-INCH (CENTERLINE SKIPS - YELLOW)
3. MARKING LINE EPOXY 4-INCH (CENTERLINE - DOUBLE YELLOW)
4. MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH
5. MARKING LINE EPOXY 4-INCH (EDGE LINE - WHITE)
6. MARKING LINE EPOXY 4-INCH (EDGE LINE - YELLOW)
7. MARKING LINE EPOXY 8-INCH (CHANNELIZING LINE - WHITE)
8. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. MARKING ARROW EPOXY (TYPE 2 - WHITE)
10. MARKING WORD EPOXY (ONLY - WHITE)
11. MARKING CURB EPOXY (YELLOW)
12. MARKING ISLAND NOSE EPOXY (YELLOW)
13. MARKING RAILROAD CROSSING EPOXY (WHITE)
14. MARKING LINE EPOXY 4-INCH (EDGE LINE DASHED - WHITE)

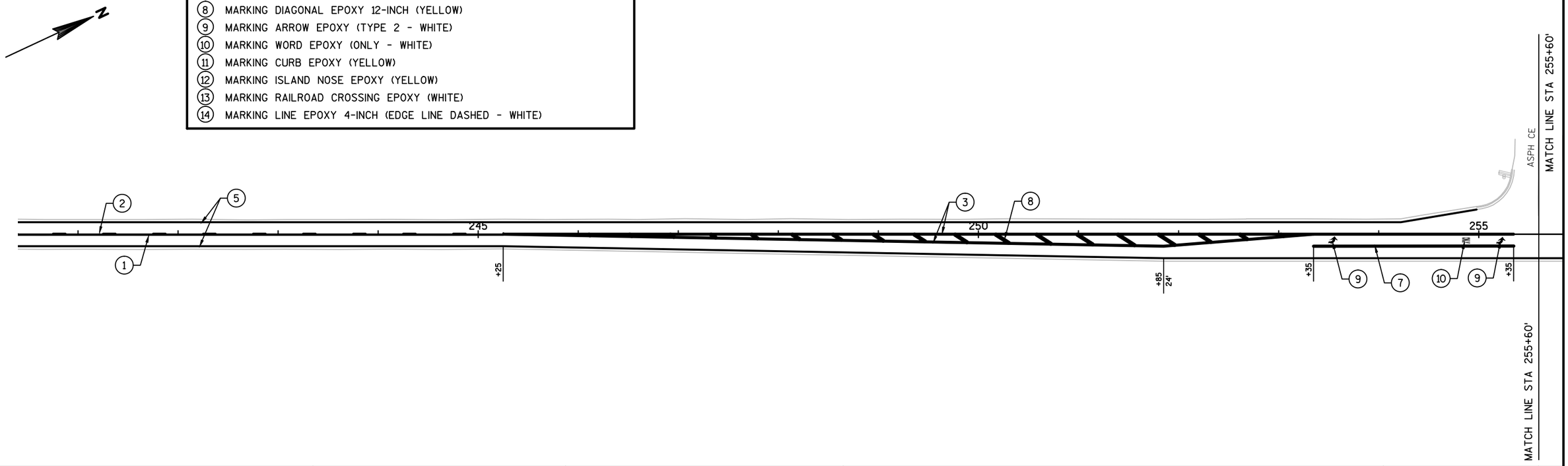


PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PAVEMENT MARKING PLAN	SHEET 26	E

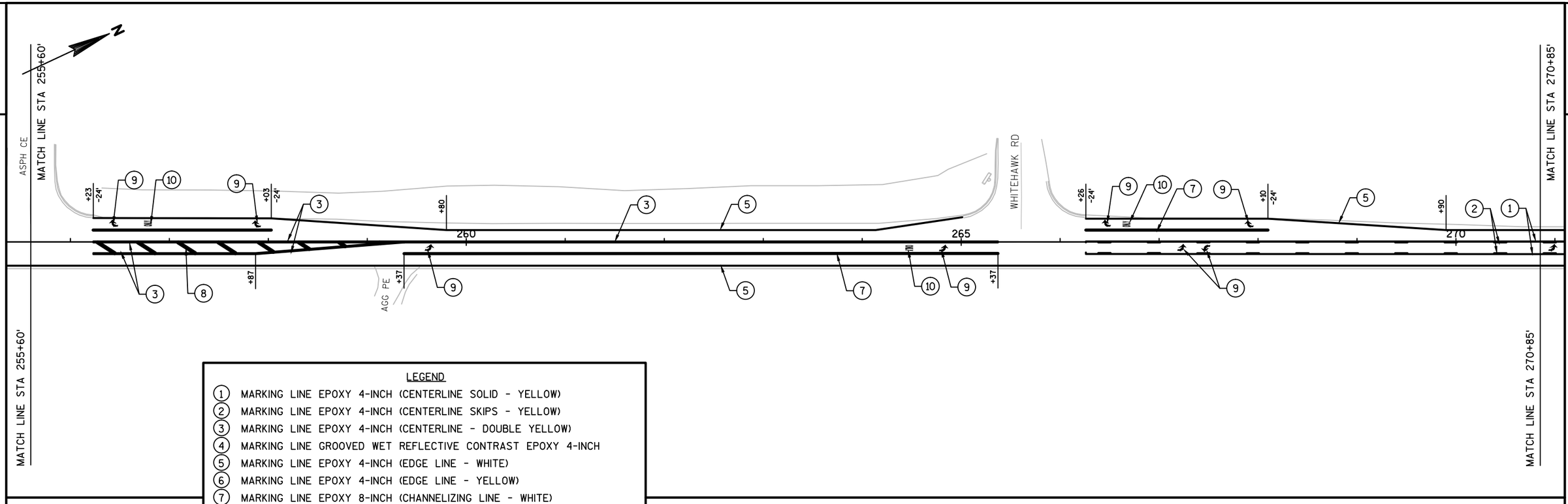


LEGEND

1. MARKING LINE EPOXY 4-INCH (CENTERLINE SOLID - YELLOW)
2. MARKING LINE EPOXY 4-INCH (CENTERLINE SKIPS - YELLOW)
3. MARKING LINE EPOXY 4-INCH (CENTERLINE - DOUBLE YELLOW)
4. MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH
5. MARKING LINE EPOXY 4-INCH (EDGE LINE - WHITE)
6. MARKING LINE EPOXY 4-INCH (EDGE LINE - YELLOW)
7. MARKING LINE EPOXY 8-INCH (CHANNELIZING LINE - WHITE)
8. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. MARKING ARROW EPOXY (TYPE 2 - WHITE)
10. MARKING WORD EPOXY (ONLY - WHITE)
11. MARKING CURB EPOXY (YELLOW)
12. MARKING ISLAND NOSE EPOXY (YELLOW)
13. MARKING RAILROAD CROSSING EPOXY (WHITE)
14. MARKING LINE EPOXY 4-INCH (EDGE LINE DASHED - WHITE)

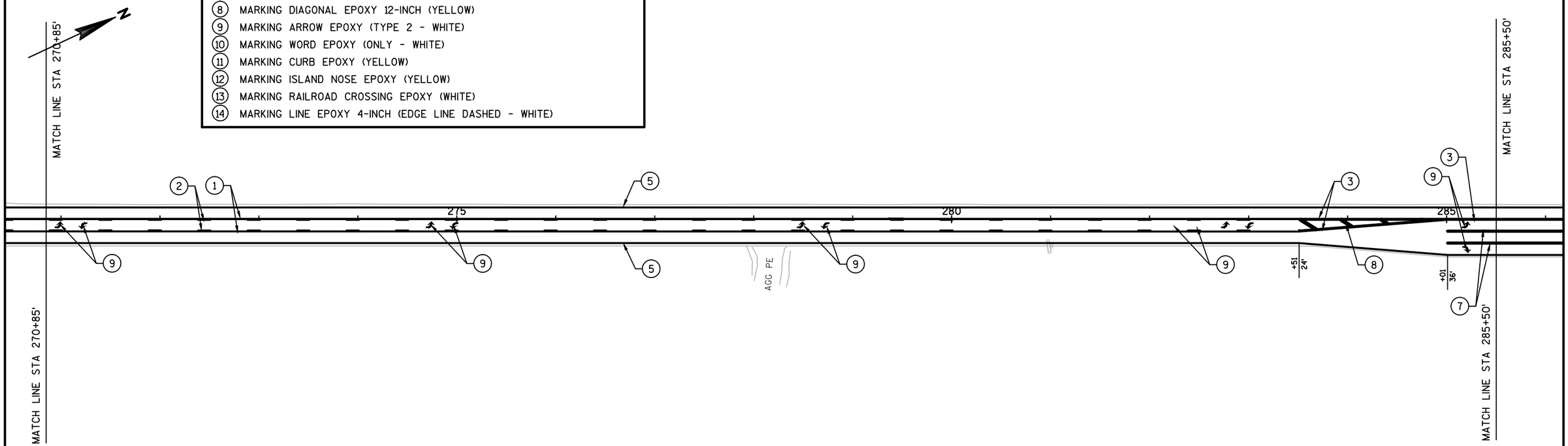


PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PAVEMENT MARKING PLAN	SHEET 27	E



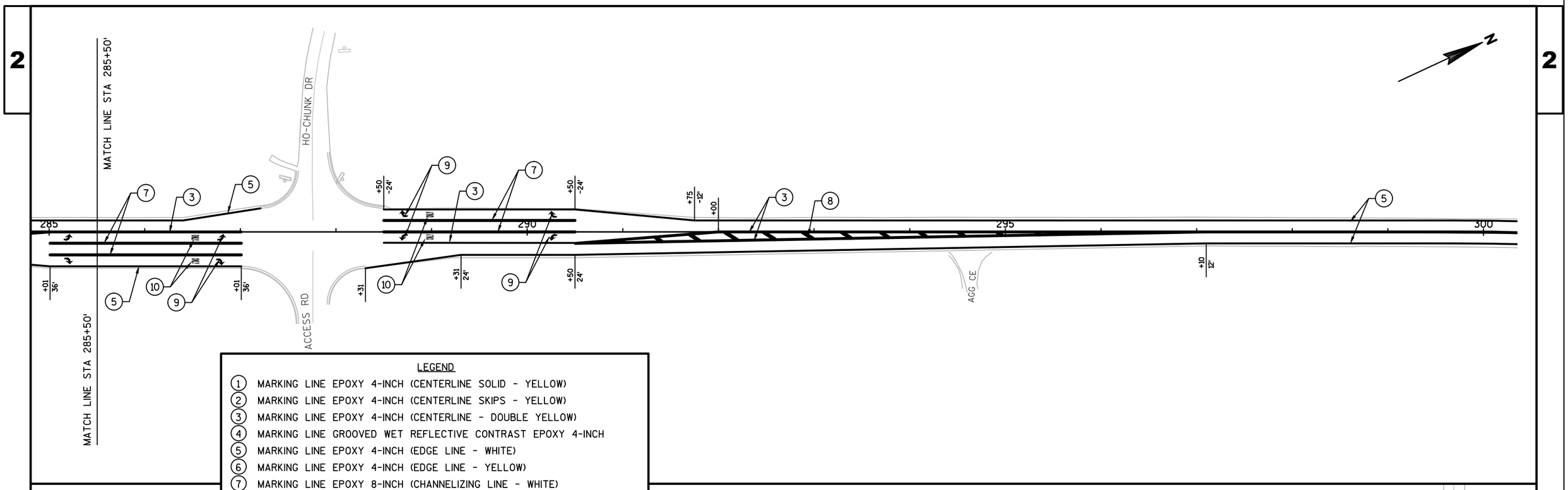
LEGEND

1. MARKING LINE EPOXY 4-INCH (CENTERLINE SOLID - YELLOW)
2. MARKING LINE EPOXY 4-INCH (CENTERLINE SKIPS - YELLOW)
3. MARKING LINE EPOXY 4-INCH (CENTERLINE - DOUBLE YELLOW)
4. MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH
5. MARKING LINE EPOXY 4-INCH (EDGE LINE - WHITE)
6. MARKING LINE EPOXY 4-INCH (EDGE LINE - YELLOW)
7. MARKING LINE EPOXY 8-INCH (CHANNELIZING LINE - WHITE)
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11. MARKING CURB EPOXY (YELLOW)
12. MARKING ISLAND NOSE EPOXY (YELLOW)
13. MARKING RAILROAD CROSSING EPOXY (WHITE)
14. MARKING LINE EPOXY 4-INCH (EDGE LINE DASHED - WHITE)



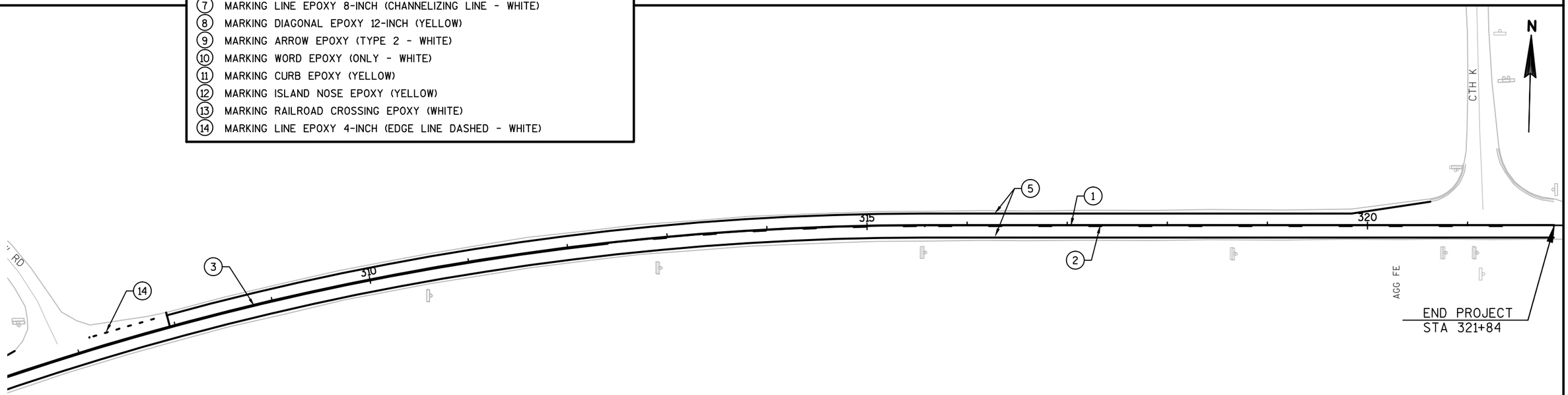
PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PAVEMENT MARKING PLAN	SHEET 28	E

FILE NAME : F:\PROJECTS\2012-134\0007\DRAWINGS\75100200\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024505_PM
PLOT DATE : 8/1/2018 11:59 AM
PLOT BY : RYAN JARVIS
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



LEGEND

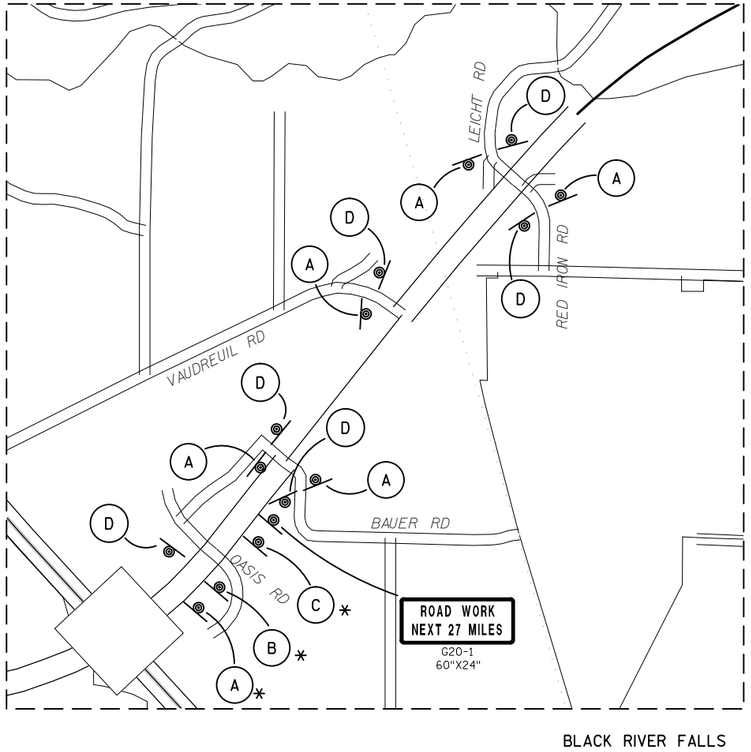
1. MARKING LINE EPOXY 4-INCH (CENTERLINE SOLID - YELLOW)
2. MARKING LINE EPOXY 4-INCH (CENTERLINE SKIPS - YELLOW)
3. MARKING LINE EPOXY 4-INCH (CENTERLINE - DOUBLE YELLOW)
4. MARKING LINE GROOVED WET REFLECTIVE CONTRAST EPOXY 4-INCH
5. MARKING LINE EPOXY 4-INCH (EDGE LINE - WHITE)
6. MARKING LINE EPOXY 4-INCH (EDGE LINE - YELLOW)
7. MARKING LINE EPOXY 8-INCH (CHANNELIZING LINE - WHITE)
8. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
9. MARKING ARROW EPOXY (TYPE 2 - WHITE)
10. MARKING WORD EPOXY (ONLY - WHITE)
11. MARKING CURB EPOXY (YELLOW)
12. MARKING ISLAND NOSE EPOXY (YELLOW)
13. MARKING RAILROAD CROSSING EPOXY (WHITE)
14. MARKING LINE EPOXY 4-INCH (EDGE LINE DASHED - WHITE)

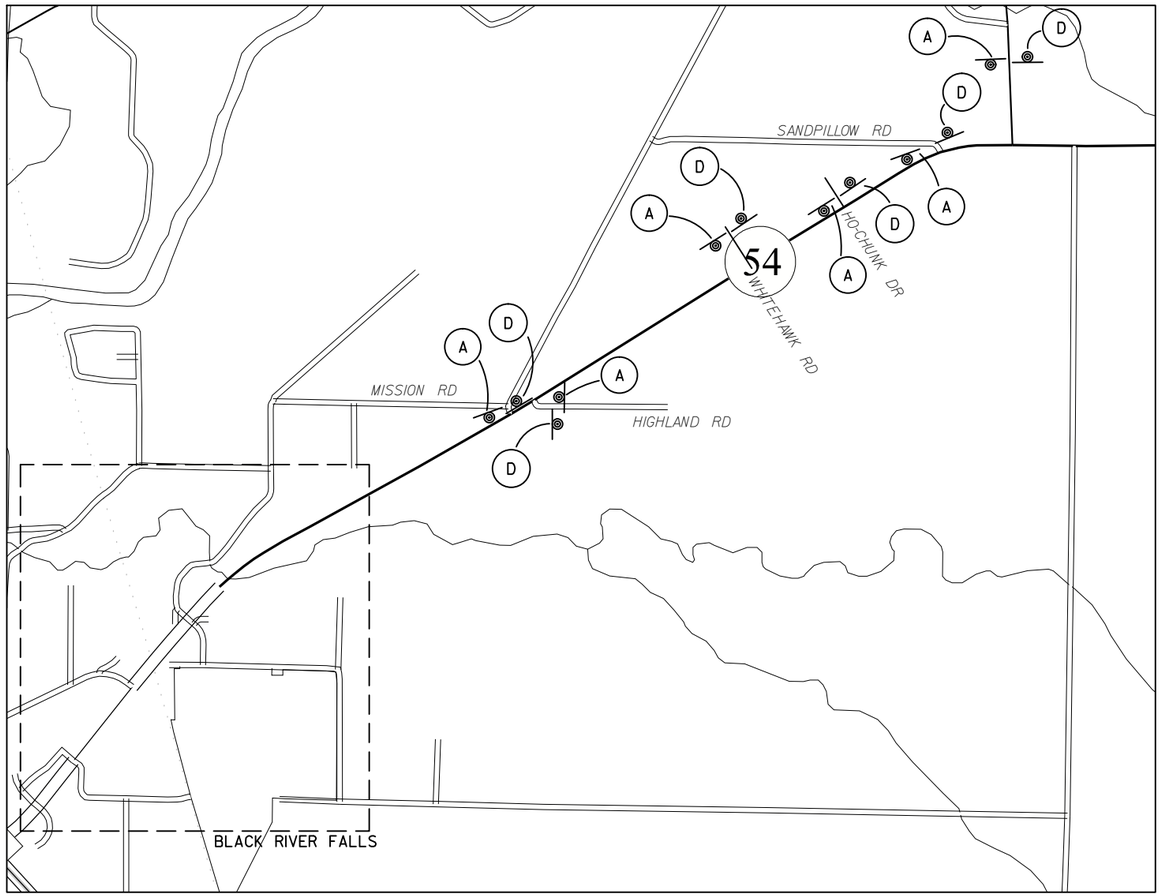


PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PAVEMENT MARKING PLAN	SHEET 29	E

FILE NAME : F:\PROJECTS\2012-134\0007\DRAWINGS\75100200\SHEETSPLAN\024501_PM.DWG
LAYOUT NAME - 024506_PM
PLOT DATE : 8/1/2018 11:59 AM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 44





* REMOVE TEMPORARY TRAFFIC CONTROL SIGNS AS NEEDED DURING SINGLE LANE CLOSURE.

NOTES:

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

A	B	C	D
ROAD WORK AHEAD W20-1-A	ROAD WORK 1000 FT W20-1-C	ROAD WORK 500 FT W20-1-D	END ROAD WORK G20-2A 48"X24"

7510-02-60

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	116,500.000	116,500.000
0006	204.0150	Removing Curb & Gutter	LF	50.000	50.000
0008	204.0180	Removing Delineators and Markers	EACH	40.000	40.000
0012	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	5.000	5.000
0018	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7510-02-60	LS	1.000	1.000
0022	213.0100	Finishing Roadway (project) 01. 7510-02-60	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,000.000	1,000.000
0030	305.0500	Shaping Shoulders	STA	464.000	464.000
0032	305.0504.S	Hauling Excess Shoulder Material	CY	200.000	200.000
0034	455.0605	Tack Coat	GAL	11,700.000	11,700.000
0036	460.2005	Incentive Density PWL HMA Pavement	DOL	7,568.000	7,568.000
0038	460.2010	Incentive Air Voids HMA Pavement	DOL	19,550.000	19,550.000
0040	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	28,884.000	28,884.000
0042	460.6244	HMA Pavement 4 MT 58-34 S	TON	19,550.000	19,550.000
0044	465.0105	Asphaltic Surface	TON	3,750.000	3,750.000
0046	465.0110	Asphaltic Surface Patching	TON	50.000	50.000
0048	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	10,000.000	10,000.000
0056	520.8700	Cleaning Culvert Pipes	EACH	23.000	23.000
0058	520.9700.S	Culvert Pipe Liners (size) 01. 24-Inch	LF	63.000	63.000
0060	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	1.000	1.000
0062	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	6.000	6.000
0064	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0068	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	8.000	8.000
0086	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	50.000	50.000
0088	611.8115	Adjusting Inlet Covers	EACH	5.000	5.000
0090	614.0010	Barrier System Grading Shaping Finishing	EACH	4.000	4.000
0092	614.0920	Salvaged Rail	LF	2,650.000	2,650.000
0098	614.2330	MGS Guardrail 3 K	LF	2,850.000	2,850.000
0104	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0108	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7510-02-60	EACH	1.000	1.000
0112	619.1000	Mobilization	EACH	0.300	0.300
0114	624.0100	Water	MGAL	15.000	15.000
0120	628.1504	Silt Fence	LF	600.000	600.000
0122	628.1520	Silt Fence Maintenance	LF	600.000	600.000
0124	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0126	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0128	628.2004	Erosion Mat Class I Type B	SY	1,300.000	1,300.000

7510-02-60

Line	Item	Item Description	Unit	Total	Qty
0130	628.7015	Inlet Protection Type C	EACH	24.000	24.000
0132	628.7504	Temporary Ditch Checks	LF	270.000	270.000
0134	628.7555	Culvert Pipe Checks	EACH	2.000	2.000
0142	633.0200	Delineators Flexible	EACH	18.000	18.000
0144	633.5200	Markers Culvert End	EACH	28.000	28.000
0146	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	56.000	56.000
0148	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	12.000	12.000
0150	637.2210	Signs Type II Reflective H	SF	603.060	603.060
0152	637.2230	Signs Type II Reflective F	SF	135.210	135.210
0154	638.2602	Removing Signs Type II	EACH	61.000	61.000
0156	638.3000	Removing Small Sign Supports	EACH	59.000	59.000
0158	642.5001	Field Office Type B	EACH	0.300	0.300
0160	643.0300	Traffic Control Drums	DAY	13,500.000	13,500.000
0164	643.0420	Traffic Control Barricades Type III	DAY	540.000	540.000
0166	643.0715	Traffic Control Warning Lights Type C	DAY	500.000	500.000
0168	643.0800	Traffic Control Arrow Boards	DAY	60.000	60.000
0170	643.0900	Traffic Control Signs	DAY	4,700.000	4,700.000
0172	643.5000	Traffic Control	EACH	1.000	1.000
0174	646.1020	Marking Line Epoxy 4-Inch	LF	87,240.000	87,240.000
0176	646.1545	Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	LF	2,175.000	2,175.000
0178	646.3020	Marking Line Epoxy 8-Inch	LF	1,900.000	1,900.000
0180	646.5020	Marking Arrow Epoxy	EACH	28.000	28.000
0182	646.5120	Marking Word Epoxy	EACH	9.000	9.000
0184	646.5320	Marking Railroad Crossings Epoxy	EACH	4.000	4.000
0186	646.7120	Marking Diagonal Epoxy 12-Inch	LF	1,250.000	1,250.000
0188	646.8120	Marking Curb Epoxy	LF	390.000	390.000
0190	646.8220	Marking Island Nose Epoxy	EACH	9.000	9.000
0192	648.0100	Locating No-Passing Zones	MI	3.390	3.390
0194	649.0105	Temporary Marking Line Paint 4-Inch	LF	65,270.000	65,270.000
0198	650.8000	Construction Staking Resurfacing Reference	LF	28,984.000	28,984.000
0200	650.9910	Construction Staking Supplemental Control (project) 01. 7510-02-60	LS	1.000	1.000
0204	690.0250	Sawing Concrete	LF	25.000	25.000
0206	740.0440	Incentive IRI Ride	DOL	21,675.000	21,675.000
0208	SPV.0060	Special 01. HMA Pavement PWL Test Strip Volumetrics	EACH	1.000	1.000
0210	SPV.0060	Special 02. HMA Pavement PWL Test Strip Density	EACH	1.000	1.000
0214	SPV.0090	Special 01. Ditch Cleaning	LF	550.000	550.000
0218	SPV.0105	Special 01. Material Transfer Vehicle	LS	1.000	1.000
0220	SPV.0105	Special 02. Milling And Removing Temporary Joint	LS	1.000	1.000

3

REMOVING SMALL PIPE CULVERTS		203.0100
STATION	DESCRIPTION	EACH
103+42 WB LT	8-FT / 18-IN / CMCP	1
ITEM TOTAL		1

REMOVING ASPHALTIC SURFACE MILLING				204.0120
STATION	TO	STATION	LOCATION	SY
86+00 EB	TO	119+26 EB	MAINLINE	11867
119+42 EB	TO	139+00 EB	MAINLINE	6130
139+00 EB	TO	143+00 EB	MAINLINE	973
92+37 EB	TO	95+00 EB	LT TURN LANE	304
101+50 EB	TO	104+00 EB	LT TURN LANE	257
111+50 EB	TO	113+50 EB	LT TURN LANE	277
126+65 EB	TO	132+45 EB	RT TURN LANE	1004
126+67 EB	TO	131+00 EB	LT TURN LANE	503
86+00 WB	TO	119+70 WB	MAINLINE	12173
119+82 WB	TO	139+05 WB	MAINLINE	6779
139+00 WB	TO	143+00 WB	MAINLINE	1003
95+00 WB	TO	97+50 WB	LT TURN LANE	279
95+00 WB			W. BAUER ROAD INT LT	435
104+00 WB	TO	106+50 WB	LT TURN LANE	261
113+50 WB	TO	116+00 WB	LT TURN LANE	293
113+67 WB			VAUDREUIL ROAD INT LT	403
124+00 WB	TO	124+38 WB	MEDIAN AREA	99
126+17 WB	TO	126+55 WB	MEDIAN AREA	90
131+00 WB			LEICHT ROAD INT LT	413
131+00 WB	TO	135+33 WB	LT TURN LANE	471
139+00 WB	TO	143+00 WB	GORE AREA	371
143+00	TO	151+00	MAINLINE	3122
151+00	TO	321+84	MAINLINE	56965
196+00	TO	204+24	GORE AREA	647
203+17	TO	206+52	LT TURN LANE	361
204+24	TO	214+84	GORE AREA	751
207+08			MISSION ROAD INT LT	414
212+25			HIGHLAND ROAD INT RT	256
245+25	TO	297+10	TWLTL	5970
255+59			COMMERCIAL ENTRANCE AREA LT	181
256+23	TO	259+59	RT TURN LANE	391
265+60			WHITEHAWK ROAD INT LT	505
266+28	TO	270+56	RT TURN LANE	320
283+51	TO	287+01	RT TURN LANE	367
287+75			HO-CHUNK DR INT LT	520
287+01	TO	289+31	ACCESS RD INT RT	240
288+00	TO	291+70	RT TURN LANE	278
306+82			SANDPILLOW ROAD INT LT	337
321+15			CTH K INT LT	490
ITEM TOTAL				116500

REMOVING CURB AND GUTTER				204.0150
STATION	TO	STATION	LOCATION	LF
86+00 WB	TO	86+10 WB	WB	10
114+05 WB	TO	114+15 WB	WB	10
116+93 WB	TO	117+03 WB	WB	10
86+00 EB	TO	86+10 EB	EB	10
90+78 EB	TO	90+88 EB	EB	10
ITEM TOTAL				50

REMOVING DELINEATORS AND MARKERS		204.0180
STATION	LOCATION	EACH
86+00 WB	LT	1
94+14 WB	LT & RT	2
86+00 EB	RT	1
99+43 EB	RT	1
103+42 WB	LT	1
107+40 WB	LT	1
107+40 EB	RT	1
110+83 WB	LT	1
114+12 WB	LT	1
116+96 WB	LT	1
120+26 EB	RT	1
123+52 WB	LT	1
123+52 EB	RT	1
130+33 EB	RT	1
138+61 EB	LT	1
163+00 TO 169+00	LT & RT	12
164+53	LT & RT	2
171+67	LT & RT	2
179+82	LT & RT	2
196+61	LT & RT	2
221+80	LT & RT	2
230+80	LT & RT	2
ITEM TOTAL		40

PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 7510-02-60				211.0100
STATION	TO	STATION	LOCATION	LS
86+00	TO	321+84	PROJECT	1
ITEM TOTAL				1

FINISHING ROADWAY (PROJECT) 7510-02-60				213.0100
STATION	TO	STATION	LOCATION	EACH
86+00	TO	321+84	PROJECT	1
ITEM TOTAL				1

BASE AGGREGATE DENSE 3/4-INCH				305.0110
STATION	TO	STATION	LOCATION	TON
86+00 WB	TO	124+32 WB	SHOULDER LT	70
132+88 WB	TO	321+84	SHOULDER LT	360
86+00	TO	321+84	SHOULDER RT	450
UNDISTRIBUTED			DRIVEWAYS	120
ITEM TOTAL				1000

SHAPING SHOULDERS				305.0500
STATION	TO	STATION	LOCATION	STA
86+00 WB	TO	124+32 WB	SHOULDER LT	39
132+88 WB	TO	321+84	SHOULDER LT	189
86+00	TO	321+84	SHOULDER RT	236
ITEM TOTAL				464

HAULING EXCESS SHOULDER MATERIAL				305.0504.S
STATION	TO	STATION	LOCATION	CY
UNDISTRIBUTED				200
ITEM TOTAL				200

HMA PERCENT WITHIN LIMITS (PWL)					
PROJECT ID	LOCATION	460.2005 INCENTIVE DENSITY PWL HMA PAVEMENT DOL	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT DOL	SPV.0060.01 HMA PAVEMENT PWL TEST STRIP VOLUMETRICS EACH	SPV.0060.02 HMA PAVEMENT PWL TEST STRIP DENSITY EACH
7510-02-60	MAINLINE LEVELING LIFT	*	6928	1	--
	MAINLINE SURFACE LIFT	7568**	9698	--	1
	INT / TURN LANES	**	2924	--	--
	TOTAL	7568	19550	1	1
* DENSITY FOR MAINLINE LEVELING LIFT WILL BE ACCEPTED BY ORDINARY COMPACTION					
** ACCEPTANCE TESTING FOR MAINLINE SURFACE SHOULDERS, INTERSECTIONS AND TURN LANES BY THE DEPARTMENT					

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS				460.4110.S
STATION	TO	STATION	LOCATION	LF
86+00 EB	TO	139+00 EB	CL	5300
86+00 WB	TO	143+00 WB	CL	5700
143+00	TO	321+84	CL	17884
ITEM TOTAL				28884

NOTE: FOR SURFACE LIFT ONLY.

TACK COAT				455.0605
STATION	TO	STATION	LOCATION	GAL
86+00 WB	TO	119+70 WB	MAINLINE	1217
119+82 WB	TO	139+05 WB	MAINLINE	678
139+00 WB	TO	143+00 WB	MAINLINE	100
95+00 WB	TO	97+50 WB	LT TURN LANE	28
95+00 WB			W BAUER ROAD INT LT	44
104+00 WB	TO	106+50 WB	LT TURN LANE	26
113+50 WB	TO	116+00 WB	LT TURN LANE	29
113+67 WB			VAUDREUIL ROAD INT LT	40
124+00 WB	TO	124+38 WB	MEDIAN AREA	10
126+17 WB	TO	126+55 WB	MEDIAN AREA	9
131+00 WB			LEICHT ROAD INT LT	41
131+00 WB	TO	135+33 WB	LT TURN LANE	47
139+00 WB	TO	143+00 WB	GORE AREA	37
86+00 EB	TO	119+26 EB	MAINLINE	1187
119+42 EB	TO	139+00 EB	MAINLINE	613
139+00 EB	TO	143+00 EB	MAINLINE	97
92+37 EB	TO	95+00 EB	LT TURN LANE	30
101+50 EB	TO	104+00 EB	LT TURN LANE	26
111+50 EB	TO	113+50 EB	LT TURN LANE	28
126+65 EB	TO	132+45 EB	RT TURN LANE	100
126+67 EB	TO	131+00 EB	LT TURN LANE	50
143+00	TO	151+00	MAINLINE	312
151+00	TO	321+84	MAINLINE	5747
196+00	TO	204+24	GORE AREA	65
203+17	TO	206+52	LT TURN LANE	36
204+24	TO	214+84	GORE AREA	75
207+08			MISSION ROAD INT LT	41
212+25			HIGHLAND ROAD INT RT	26
245+25	TO	297+10	TWLTL	597
255+59			CE AREA LT	18
256+23	TO	259+59	RT TURN LANE	39
265+60			WHITEHAWK ROAD INT LT	51
266+28	TO	270+56	RT TURN LANE	32
283+51	TO	287+01	RT TURN LANE	37
287+75			HO-CHUNK DR INT LT	52
287+01	TO	289+31	ACCESS RD INT RT	24
288+00	TO	291+70	RT TURN LANE	28
306+82			SANDPILLOW ROAD INT LT	34
321+15			CTH K INT LT	49
ITEM TOTAL				11700

NOTE: CALCULATED APPLICATION RATE OF 0.05 GAL/SY

HMA PAVEMENT 4 MT 58-34 S				460.6244
STATION	TO	STATION	LOCATION	TON
86+00 WB	TO	119+70 WB	MAINLINE	2045
119+82 WB	TO	139+05 WB	MAINLINE	1139
139+00 WB	TO	143+00 WB	MAINLINE	169
95+00 WB	TO	97+50 WB	LT TURN LANE	47
95+00 WB			W BAUER ROAD INT LT	73
104+00 WB	TO	106+50 WB	LT TURN LANE	44
113+50 WB	TO	116+00 WB	LT TURN LANE	49
113+67 WB			VAUDREUIL ROAD INT LT	68
124+00 WB	TO	124+38 WB	MEDIAN AREA	17
126+17 WB	TO	126+55 WB	MEDIAN AREA	15
131+00 WB			LEICHT ROAD INT LT	69
131+00 WB	TO	135+33 WB	LT TURN LANE	79
139+00 WB	TO	143+00 WB	GORE AREA	62
86+00 EB	TO	119+26 EB	MAINLINE	1993
119+42 EB	TO	139+00 EB	MAINLINE	1030
139+00 EB	TO	143+00 EB	MAINLINE	163
92+37 EB	TO	95+00 EB	LT TURN LANE	51
101+50 EB	TO	104+00 EB	LT TURN LANE	43
111+50 EB	TO	113+50 EB	LT TURN LANE	47
126+65 EB	TO	132+45 EB	RT TURN LANE	169
126+67 EB	TO	131+00 EB	LT TURN LANE	85
143+00	TO	151+00	MAINLINE	524
151+00	TO	321+84	MAINLINE	9550
196+00	TO	204+24	GORE AREA	109
203+17	TO	206+52	LT TURN LANE	61
204+24	TO	214+84	GORE AREA	126
207+08			MISSION ROAD INT LT	70
212+25			HIGHLAND ROAD INT RT	43
245+25	TO	297+10	TWLTL	1000
255+59			CE AREA LT	30
256+23	TO	259+59	RT TURN LANE	66
265+60			WHITEHAWK ROAD INT LT	85
266+28	TO	270+56	RT TURN LANE	54
283+51	TO	287+01	RT TURN LANE	62
287+75			HO-CHUNK DR INT LT	87
287+01	TO	289+31	ACCESS RD INT RT	40
288+00	TO	291+70	RT TURN LANE	47
306+82			SANDPILLOW ROAD INT LT	57
321+15			CTH K INT LT	82
ITEM TOTAL				19550

ASPHALTIC SURFACE				465.0105
STATION	TO	STATION	LOCATION	TON
86+00	TO	321+84	UNDISTRIBUTED	3100
86+00 EB	TO	143+00 EB	UNDISTRIBUTED	650
ITEM TOTAL				3750

ASPHALTIC SURFACE PATCHING				465.0110
STATION	TO	STATION	LOCATION	TON
86+00	TO	321+84	UNDISTRIBUTED	50
ITEM TOTAL				50

NOTE: ASPHALTIC SURFACE PATCHING IS USED FOR MINOR REPAIRS SUCH AS POP-OUTS, POT HOLES, OR RAMPING.

ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE RURAL				465.0475
STATION	TO	STATION	LOCATION	LF
143+00	TO	195+77	CL	5275
215+46	TO	245+00	CL	2950
297+35	TO	319+10	CL	1775
ITEM TOTAL				10000

CULVERT PIPE AND APRON ENDWALLS								
STATION	LOCATION	204.9060.S REMOVING APRON ENDWALLS EACH	520.8700 CLEANING CULVERT PIPES EACH	520.9700.S CULVERT PIPE LINERS (INCH) 24-INCH LF	520.9750.S CLEANING CULVERT PIPE FOR LINER VARIFICATION EACH	521.1018 APRON ENDWALLS FOR CP STEEL 18-INCH EACH	521.1024 APRON ENDWALLS FOR CP STEEL 24-INCH EACH	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH (0.064" THICKNESS) LF
94+14 WB	LT	--	--	63	1	--	2	--
103+42 WB	LT	--	1	--	--	1	--	8
107+40 WB	LT	--	1	--	--	--	--	--
110+83 WB	LT	1	1	--	--	1	--	--
113+21 WB	LT	--	1	--	--	--	--	--
114+12 WB	LT	--	1	--	--	--	--	--
116+96 WB	LT	1	1	--	--	1	--	--
123+52 WB	LT	--	1	--	--	--	--	--
86+00 EB	RT	1	--	--	--	1	--	--
90+82 EB	RT	1	1	--	--	1	--	--
99+43 EB	RT	--	1	--	--	--	--	--
113+55 EB	RT	--	1	--	--	--	--	--
115+38 EB	RT	--	1	--	--	--	--	--
120+26 EB	RT	--	1	--	--	--	--	--
126+40 EB	RT	--	1	--	--	--	--	--
130+33 EB	RT	1	1	--	--	1	--	--
138+61 EB	RT	--	1	--	--	--	--	--
152+05	LT	--	1	--	--	--	--	--
164+53	STH 54	--	1	--	--	--	--	--
171+67	STH 54	--	1	--	--	--	--	--
179+82	STH 54	--	1	--	--	--	--	--
196+61	STH 54	--	1	--	--	--	--	--
221+80	STH 54	--	1	--	--	--	--	--
230+80	STH 54	--	1	--	--	--	--	--
320+25	RT	--	1	--	--	--	--	--
ITEM TOTAL		5	23	63	1	6	2	8

CONCRETE CURB AND GUTTER 6-INCH SLOPED 30-INCH TYPE J				601.0415
STATION	TO	STATION	LOCATION	LF
86+00 WB	TO	86+10 WB	RT	10
114+05 WB	TO	114+15 WB	RT	10
116+93 WB	TO	117+03 WB	RT	10
86+00 EB	TO	86+10 EB	LT	10
90+78 EB	TO	90+88 EB	LT	10
ITEM TOTAL				50

ADJUSTING INLET COVERS				611.8115
STATION	TO	STATION	LOCATION	EACH
86+00 WB			RT	1
116+98 WB			RT	1
86+00 EB			LT	1
90+82 EB			LT	1
114+10 EB			LT	1
ITEM TOTAL				5

GUARDRAIL SUMMARY						
STATION	TO	STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.0920 SALVAGED RAIL LF	614.2330 MGS 3 GUARDRAIL K LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
134+50 WB	TO	135+03 WB	LT	1	--	--	1
135+00 WB	TO	148+25	LT	--	1195	1325	--
148+22	TO	148+75	LT	1	--	--	1
135+62 EB	TO	136+15 EB	RT	1	--	--	1
136+14 EB	TO	151+51	RT	--	1455	1525	--
151+48	TO	152+01	RT	1	--	--	1
ITEM TOTAL				4	2650	2850	4

MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 7510-02-60			618.0100
STATION		LOCATION	EACH
86+00	TO 321+84	PROJECT	1
ITEM TOTAL			1

MOBILIZATION			619.1000
STATION		LOCATION	EACH
86+00	TO 321+84	PROJECT	0.3
ITEM TOTAL			0.3

WATER			624.0100
STATION	TO STATION	LOCATION	MGAL
86+00	TO 321+84	SHOULDERS	15
ITEM TOTAL			15

SILT FENCE				
STATION	TO STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
133+95 WB	TO 135+00 WB	EAT - LT	150	150
134+40 EB	TO 136+75 EB	EAT - RT	240	240
151+10	TO 153+05	EAT - RT	110	110
UNDISTRIBUTED		PROJECT	100	100
ITEM TOTAL			600	600

MOBILIZATIONS EROSION CONTROL				
STATION	TO STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
86+00	TO 321+84	PROJECT	3	2
ITEM TOTAL			3	2

EROSION MAT CLASS I TYPE B			628.2004
STATION	TO STATION	LOCATION	SY
86+00	TO 321+84	DITCH CLEANING	600
133+95 WB	TO 135+00 WB	EAT - LT	105
134+40 EB	TO 136+75 EB	EAT - RT	145
147+62	TO 149+42	EAT - LT	120
151+10	TO 153+05	EAT - RT	80
UNDISTRIBUTED			250
ITEM TOTAL			1300

INLET PROTECTION TYPE C			628.7015
STATION	TO STATION	LOCATION	EACH
86+00	TO 139+00	LT & RT	24
ITEM TOTAL			24

TEMPORARY DITCH CHECKS			628.7504
STATION	TO STATION	LOCATION	LF
86+00	TO 321+84	DITCH CLEANING	195
147+62	TO 149+42	EAT - LT	30
UNDISTRIBUTED			45
ITEM TOTAL			270

CULVERT PIPE CHECKS			628.7555
STATION	TO STATION	LOCATION	EACH
320+40		PE - RT	2
ITEM TOTAL			2

DELINEATORS FLEXIBLE			633.0200
STATION		LOCATION	EACH
163+00	TO 169+00	LT & RT	18
ITEM TOTAL			18

MARKERS CULVERT END		
STATION	LOCATION	633.5200 EACH
94+14 WB	LT & RT	2
103+42 WB	LT	1
107+40 WB	LT & RT	2
110+83 WB	LT	1
114+12 WB	LT	1
116+96 WB	LT	1
123+52 WB	LT & RT	2
86+00 EB	RT	1
90+82 EB	RT	1
99+43 EB	RT	1
120+26 EB	RT	1
130+33 EB	RT	1
138+61 EB	RT	1
164+53	LT & RT	2
171+67	LT & RT	2
179+82	LT & RT	2
196+61	LT & RT	2
221+80	LT & RT	2
230+80	LT & RT	2
ITEM TOTAL		28

FIELD OFFICE TYPE B	642.5001
LOCATION	EACH
PROJECT	0.3
ITEM TOTAL	0.3

TRAFFIC CONTROL ITEMS						
STATION	LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY
86+00 TO 143+00	LANE CLOSURES	6000	540	500	60	600
86+00 TO 321+84	PROJECT	6000	--	--	--	4100
UNDISTRIBUTED	--	1500	--	--	--	--
ITEM TOTAL		13500	540	500	60	4700

TRAFFIC CONTROL ARROW BOARDS TO BE USED WITH SDD 15D 12-6A TRAFFIC CONTROL, LANE CLOSURE WITHIN THE FOUR LANE SECTION

MARKING LINE EPOXY 4-INCH				646.1020
STATION	TO	STATION	LOCATION	LF
86+00	TO	321+84	WHITE EDGE LINES	45600
86+00	TO	139+00	YELLOW EDGE LINES	9610
139+00	TO	321+84	YELLOW CL	32030
ITEM TOTAL				87240

MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH				646.1545
STATION	TO	STATION	LOCATION	LF
86+00	TO	139+00	WHITE CL	2175
ITEM TOTAL				2175

MARKING LINE EPOXY 8-INCH				646.3020
STATION	TO	STATION	LOCATION	LF
86+00	TO	131+84	TURN LANES	1900
ITEM TOTAL				1900

MARKING ARROWS EPOXY				646.5020
STATION			LOCATION	EACH
204+52	TO	290+50	TURN LANES	28
ITEM TOTAL				28

MARKING WORDS EPOXY				646.5120
STATION	TO	STATION	LOCATION	EACH
204+52	TO	290+50	ONLY	9
ITEM TOTAL				9

MARKING RAILROAD CROSSING EPOXY		646.5320
STATION	LOCATION	EACH
111+40 EB	EB	2
120+30 WB	WB	2
ITEM TOTAL		4

MARKING DIAGONAL EPOXY 12-INCH				646.7120
STATION	TO	STATION	LOCATION	LF
139+00	TO	143+00	MEDIAN	300
197+00	TO	214+20	MEDIAN	500
246+00	TO	259+20	MEDIAN	300
283+51	TO	296+30	MEDIAN	150
ITEM TOTAL				1250

MARKING CURB EPOXY				646.8120
STATION	TO	STATION	LOCATION	LF
86+00	TO	139+00	MEDIAN	390
ITEM TOTAL				390

MARKING ISLAND NOSE EPOXY				646.8220
STATION	TO	STATION	LOCATION	EACH
86+00	TO	139+00	MEDIAN	9
ITEM TOTAL				9

TEMPORARY MARKING LINE PAINT 4-INCH				649.0105
STATION	TO	STATION	LOCATION	LF LF
86+00	TO	139+00	WHITE CL - LIFT 1	810
86+00	TO	139+00	WHITE CL - LIFT 2	2175
139+00	TO	321+84	YELLOW CL - LIFT 1	30255
139+00	TO	321+84	YELLOW CL - LIFT 2	32030
ITEM TOTAL				65270

LOCATING NO-PASSING ZONES				648.0100
STATION	TO	STATION	LOCATION	MI
143+00	TO	321+84	MAINLINE	3.39
ITEM TOTAL				3.39

CONSTUCTION STAKING			
STATION TO STATION	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910 CONSTRUCTION STAKING SUPPLIMENTAL CONTROL (PROJECT) 7510-02-60 LS
86+00 TO 321+84	PROJECT	28984	1
ITEM TOTAL		28984	1

SPECIAL 01. DITCH CLEANING		SPV.0090.01
STATION	LOCATION	LF
103+42 WB	LT	50
110+83 WB	LT	50
113+20 WB	VAUDREUIL RD	50
116+96 WB	LT	50
86+00 EB	RT	50
99+43 EB	RT	50
113+05 EB	CE - LT	25
126+00 EB	PE - RT	25
127+50 EB	PE - RT	25
151+90	PE - LT	25
171+67	RT	50
221+80	RT	50
320+00	FE - RT	25
320+40	FE - RT	25
ITEM TOTAL		550

SAWING CONCRETE				690.0250
STATION	TO	STATION	LOCATION	LF
86+00	TO	139+00	INLET ADJUST	25
ITEM TOTAL				25

SPECIAL 01. MATERIAL TRANSFER VEHICLE				SPV.0105.01
STATION	TO	STATION	LOCATION	LS
86+00	TO	321+84	PROJECT	1.0
ITEM TOTAL				1.0

SPECIAL 02. MILLING AND REMOVING TEMPORARY JOINT				SPV.0105.02
STATION	TO	STATION	LOCATION	LS
86+00	TO	321+84	PROJECT	1.0
ITEM TOTAL				1.0

PERMANENT SIGNING													
SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	WIDTH (INCHES)	HEIGHT (INCHES)	637.2210 SIGNS, TYPE II, REFLECTIVE H (SF)	637.2230 SIGNS, TYPE II, REFLECTIVE F (SF)	634.0616 WOOD POSTS, 4X6-INCH X 16 FT (EACH)	634.0618 WOOD POSTS, 4X6-INCH X 18 FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
2001	86'WB+00	LT	D7-77L	BLACK RIVER REC AREA INFORMATION ARROW LEFT	78	54	29.25		1	1	1	1	
2002	87'WB+75	LT	J1-1	ROUTE ASSEMBLY - JTC 94	36	57	14.25		1		1	1	
2003	89'WB+21	LT	R2-1	SPEED LIMIT 40 MPH	36	48	12.00		1		1	1	
2004	93'WB+95	LT	W3-5	SPEED REDUCTION AHEAD 45 MPH	48	48		16.00	1		1	1	
2005	94'WB+35	RT	R4-7	KEEP RIGHT SYMBOL	36	48	12.00		1		1	1	
2006	94'WB+78	LT	R1-1	STOP	36	36	7.46		1		1	1	
2007	94'WB+78	LT	R6-3	DIVIDED HIGHWAY CROSSING	30	24	5.00				1		POST 2006
2008-A	97'WB+00	LT		PARKLAND CAMPGROUND, WAZEE SPORT & DIVE									TO REMAIN
2008-B	100'WB+00	LT	D1-57-L	INDUSTRIAL PARK ARROW LEFT	96	36	24.00		1	1			
2009	112'WB+95	RT	R4-7	KEEP RIGHT SYMBOL	36	48	12.00		1		1	1	
2010	113'WB+31	LT	R1-1	STOP	36	36	7.46		1		1	1	
2011	113'WB+31	LT	R6-3	DIVIDED HIGHWAY CROSSING	30	24	5.00				1		POST 2010
2012	127'WB+65	RT	W10-1	RAILROAD CROSSING	36	36		7.07	1		1	1	
2013	127'WB+65	LT	W10-1	RAILROAD CROSSING	36	36		7.07	1		1	1	
2014	130'WB+42	RT	R4-7	KEEP RIGHT SYMBOL	36	48	12.00		1		1	1	
2015	130'WB+78	LT	R1-1	STOP	36	36	7.46		1		1	1	
2016	130'WB+78	LT	R6-3	DIVIDED HIGHWAY CROSSING	30	24	5.00				1		POST 2015
2017	134'WB+60	LT	D1-2	INDUSTRIAL PARK, JACKSON CORREC	132	66	60.50		1	1	1	2	
2018	138'WB+96	RT	R4-7	KEEP RIGHT SYMBOL	36	48	12.00		1		1	1	
2019	138'WB+96	RT	W5-54D	IN ROAD OBJECT MARKER	18	18		2.25			1		POST 2019
2020	139'WB+02	RT	R5-1	DO NOT ENTER	36	36	9.00				1		POST 3024
2021	139'WB+96	LT	D7-75	BLACK RIVER REC AREA INFORMATION I MILE	78	54	29.25		1	1	1	1	
2022	149'WB+73	LT	W6-1	DIVIDED HIGHWAY SYMBOL	36	36		9.00	1		1	1	
2023	159+85	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
2024	162+80	LT	I55-56	ADOPT A HIGHWAY	30	36	7.50		1		1	1	
2025	191+10	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
2026	201+08	RT	D1-1	INDIAN MISSION ARROW LEFT	96	15	10.00		1	1	1	2	
2027	203+60	RT	R3-8E	VARIOUS LANE ONLY	36	30	7.50		1		1	1	
2028	206+83	LT	R1-1	STOP	30	30	5.18		1		1	1	
2029	212+47	RT	R1-1	STOP	30	30	5.18		1		1	1	
2030	213+33	LT	D1-1	INDIAN MISSION ARROW RIGHT	96	15	10.00		1	1	1	2	
2031	220+15	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
2032	240+15	LT		NO PASSING ZONE									TO REMAIN
2033	255+26	LT	R1-1	STOP	30	30	5.18		1		1	1	
2034	265+28	LT	R1-1	STOP	30	30	5.18		1		1	1	
2035	266+10	RT		CENTER LANE ONLY									TO REMAIN
2036	274+90	LT		CENTER LANE ONLY									TO REMAIN
2037	279+20	RT		CENTER LANE ONLY									TO REMAIN
2038	281+00	RT		WAZEE LAKE CNTY PARK							1	1	REMOVE ONLY
2039	283+00	RT		CENTER LANE ONLY									TO REMAIN
2040	283+70	LT		CENTER LANE ONLY									TO REMAIN
2041	287+46	LT	R1-1	STOP	30	30	5.18		1		1	1	
2042	288+05	RT		STOP									TO REMAIN
2043	306+52	LT	R1-1	STOP	30	30	5.18		1		1	1	
2044	310+58	RT	J1-1	ROUTE ASSEMBLY	24	39	6.50		1		1	1	
2045	312+90	RT	D5-63	HISTORICAL MARKER 1/2 MILE	60	36	15.00		1	1	1	2	
2046	315+70	RT	D1-1	HATFIELD ARROW LEFT	60	15	6.25		1	1	1	1	
2047	318+68	RT	D7-68-L	EAST ARBUTUS COUNTY PARK ARROW LEFT	66	36	16.50		1	1	1	1	
2048	320+79	RT	J12-1	ROUTE ASSEMBLY	24	45	7.50		1		1	1	
2049	320+90	LT	R1-1	STOP	30	30	5.18		1		1	1	
2050	321+11	RT	W1-7	TWO DIRECTION LARGE ARROW	48	24	8.00		1		1	1	
SUB-TOTAL							394.64	58.07	37	9	42	41	

3

3

PERMANENT SIGNING													
SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	WIDTH (INCHES)	HEIGHT (INCHES)	637.2210 SIGNS, TYPE II, REFLECTIVE H (SF)	637.2230 SIGNS, TYPE II, REFLECTIVE F (SF)	634.0616 WOOD POSTS, 4X6-INCH X 16 FT (EACH)	634.0618 WOOD POSTS, 4X6-INCH X 18 FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
3001	86'EB+40	RT	J4-1	ROUTE ASSEMBLY - EAST 54	36	48	12.00		1		1		
3002	87'EB+50	RT	D2-2	PORT EDWARDS / WIS RAPIDS	126	36	31.50		1	1	1	2	
3003	88'EB+78	RT	R2-1	SPEED LIMIT 55	36	48	12.00		1		1	1	
3004	89'EB+90	RT	D1-57-R	INDUSTRIAL PARK ARROW RIGHT	96	36	24.00		1	1	1	1	
3005	92'EB+50	RT		PARKLAND CAMPGROUND, WAZEE SPORT & DIVE									TO REMAIN
3006	95'EB+22	RT	R1-1	STOP	36	36	7.46		1		1	1	
3007	95'EB+22	RT	R6-3	DIVIDED HIGHWAY CROSSING	30	24	5.00				1		POST 3006
3008	95'EB+54	LT	R4-7	KEEP RIGHT SYMBOL	36	48	12.00		1		1	1	
3009	111'EB+57	LT	W10-1	RAILROAD CROSSING	36	36		7.07	1		1	1	
3010	111'EB+57	RT	W10-1	RAILROAD CROSSING	36	36		7.07	1		1	1	
3011	122'EB+00	LT	W9-1L	LEFT LANE ENDS	36	36		9.00	1				
3012	122'EB+01	RT	W9-1L	LEFT LANE ENDS	36	36		9.00	1				
3013	123'EB+58	RT	I55-56	ADOPT A HIGHWAY	30	36	7.50		1		1	1	
3014	125'EB+73	RT	D1-2	INDUSTRIAL PARK, JACKSON CORRECTIONAL INST	132	66	60.50		1	1	1	2	
3015	126'EB+95	LT	W4-2L	LANE REDUCTION TRANSITION SYMBOL LEFT LANE	36	36		9.00	1		1	1	
3016	126'EB+95	RT	W4-2L	LANE REDUCTION TRANSITION SYMBOL LEFT LANE	36	36		9.00	1		1	1	
3017	131'EB+36	RT	R1-1	STOP	36	36	7.46		1		1	1	
3018	131'EB+36	RT	R6-3	DIVIDED HIGHWAY CROSSING	30	24	5.00				1		POST 3017
3019	131'EB+60	LT	R4-7	KEEP RIGHT SYMBOL	36	48	12.00		1		1	1	
3020	134'EB+00	LT	W6-2	DIVIDED HIGHWAY ENDS SYMBOL	36	36		9.00	1		1	1	
3021	134'EB+00	LT	R5-1A	WRONG WAY	36	24	6.00						POST 3020
3022	134'EB+00	RT	W6-2	DIVIDED HIGHWAY ENDS SYMBOL	36	36		9.00	1		1	1	
3023	134'EB+00	RT	R5-1A	WRONG WAY	36	24	6.00						POST 3022
3024	138'EB+98	RT	W6-3	TWO WAY TRAFFIC SYMBOL	36	36		9.00	1		1	1	
SUB-TOTAL							208.42	77.14	19	3	19	18	
GRAND TOTAL							603.06	135.21	56	12	61	59	

STA 86+00'WB
(1) ADJUSTING INLET REQ'D
(SALVAGE EXISTING CASTING)
(1) REMOVE 10 LF CURB & GUTTER
(1) 10 LF CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J REQ'D

BEGIN PROJECT
STA 86+00.00
Y = 98633.781
X = 95275.669
MILLING LIMITS

STA 94+14'WB LT
INSTALL CULVERT LINER
63 LF CULVERT PIPE LINERS 24-INCH REQ'D
(2) APRON ENDWALLS FOR CPCS 24-INCH REQ'D
(2) MARKERS CULVERT END REQ'D

W BAUER RD

MILLING LIMITS

STH 54, STA 95+00'WB
BAUER RD

WE ENERGIES

EXIST R/W

EXIST R/W

86'WB 88'WB 90'WB 92'WB 94'WB 96'WB 98'WB 100'WB

86'EB 88'EB STH 54 90'EB 92'EB 94'EB 96'EB 98'EB 100'EB

DITCH CLEANING REQ'D

EXIST R/W

BROCKWAY SANITARY DISTRICT #1

DITCH CLEANING REQ'D

EXIST R/W

STH 54, STA 94+97'EB
BAUER RD

MILLING LIMITS

STA 86+00'EB
(1) ADJUSTING INLET REQ'D
(SALVAGE EXISTING CASTING)
(1) REMOVE 10 LF CURB & GUTTER
(1) 10 LF CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J REQ'D

STA 86+00'EB RT
(1) APRON ENDWALL CPCS 18-INCH REQ'D
(1) REMOVING APRON ENDWALLS REQ'D
(1) MARKERS CULVERT END REQ'D

STA 90+82'EB
(1) ADJUSTING INLET REQ'D
(SALVAGE EXISTING CASTING)
(1) REMOVE 10 LF CURB & GUTTER
(1) 10 LF CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J REQ'D

STA 90+82'EB RT
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D
(1) REMOVING APRON ENDWALLS REQ'D
(1) APRON ENDWALL FOR CPCS 18-INCH REQ'D

STA 99+43'EB RT
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D

STA 110+83'WB LT
(1) REMOVING APRON ENDWALLS REQ'D
(1) APRON ENDWALLS FOR CSCP 18-INCH REQ'D
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D

STA 113+21'WB LT
(1) CLEANING CULVERT PIPES REQ'D

VAUDREUIL RD

STA 103+42'WB
REPLACE END SECTION OF CULVERT PIPE (8' LT)
8 LF CSCP 18-INCH REQ'D
(1) APRON ENDWALL FOR CPCS 18-INCH REQ'D
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D

STA 103+42'WB
(1) REMOVING SMALL PIPE CULVERTS

STA 107+40'WB LT
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

MILLING LIMITS

DITCH CLEANING REQ'D

DITCH CLEANING REQ'D

STA 114+12'WB
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D

STH 54, STA 113+58'WB
VAUDREUIL RD

EXIST R/W

102'WB 104'WB 106'WB 108'WB 110'WB 112'WB 114'WB 116'WB

102'EB STH 54 104'EB 106'EB 108'EB 110'EB 112'EB 114'EB 116'EB

EXIST R/W

BROCKWAY SANITARY DISTRICT #1

WE ENERGIES

JACKSON ELECTRIC COOPERATIVE

DITCH CLEANING REQ'D

CENTURYLINK

STA 114+10'WB
(1) ADJUSTING INLET REQ'D
(SALVAGE EXISTING CASTING)
(1) REMOVE 10 LF CURB & GUTTER
(1) 10 LF CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J REQ'D

STA 113+55'EB RT
(1) CLEANING CULVERT PIPES

STA 115+38'EB RT
(1) CLEANING CULVERT PIPES REQ'D

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 41	E

STA 116+96'WB LT
(1) APRON ENDWALL CPCS 18-INCH REQ'D
(1) REMOVING APRON ENDWALLS REQ'D
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D

STA 116+98'WB
(1) ADJUSTING INLET REQ'D
(SALVAGE EXISTING CASTING)
(1) REMOVE 10 LF CURB & GUTTER
(1) 10 LF CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J REQ'D

STA 123+52'WB
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

STA 126+29'WB LT
RESTORE AGG PE

CP101
3/4-IN REBAR
STA 130+20.31'WB, 119.55 RT
Y = 102007.480
X = 98126.566
ELEV = 851.771

DITCH CLEANING REQ'D
EXIST R/W
BLACK RIVER FALLS UTILITIES
AT&T
MILLING LIMITS
PC: 120+54.44'EB
PC: 120+76.39'WB
BROCKWAY SANITARY DISTRICT #1
PT: 125+33.94'WB
PT: 125+93.13'EB
JACKSON ELECTRIC COOPERATIVE
116'WB
116'EB
118'WB
118'EB
120'WB
120'EB
122'WB
122'EB
124'WB
124'EB
126'WB
126'EB
128'WB
128'EB
130'WB
130'EB
STH 54
MILLING LIMITS
JACKSON ELECTRIC COOPERATIVE
WE ENERGIES
WE ENERGIES
DITCH CLEANING REQ'D
STA 126+40'EB RT
(1) CLEANING CULVERT PIPES REQ'D
BROCKWAY SANITARY DISTRICT #1
EXIST R/W
CENTURYLINK
XCEL ENERGY
STA 120+26'EB RT
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D
DITCH CLEANING REQ'D
STA 130+33'EB RT
(1) APRON ENDWALL CPCS 18-INCH REQ'D
(1) REMOVING APRON ENDWALLS REQ'D
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D
CP101
RED IRON RD
5
5

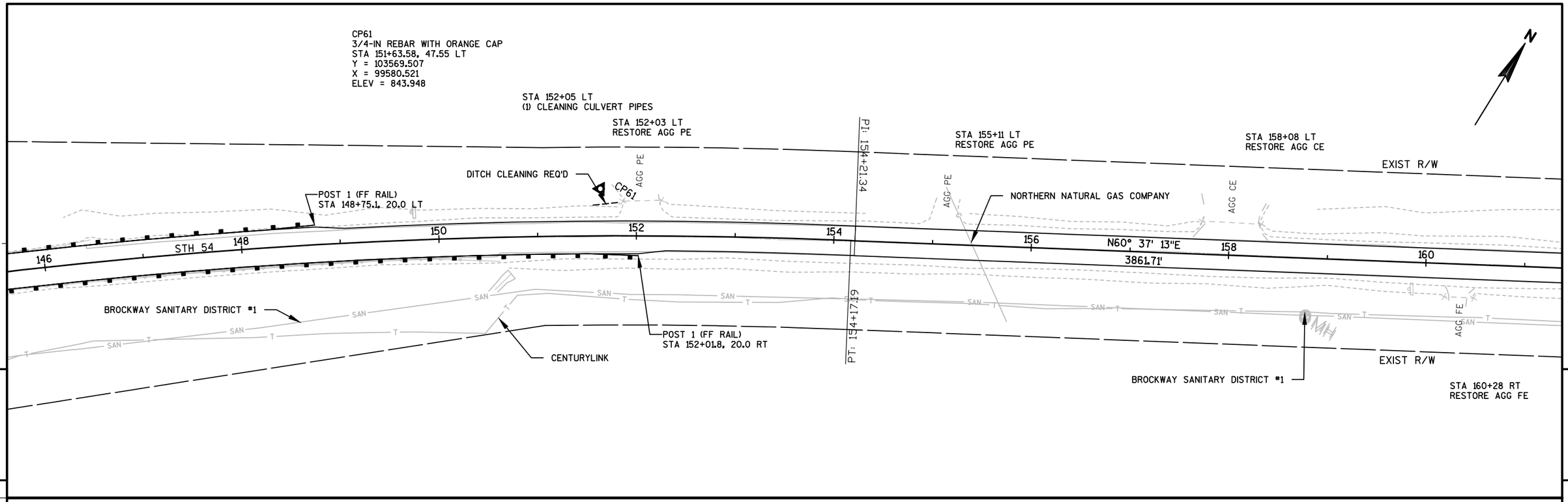
PI STA = 123+23.83'EB
Y = 101546.621
X = 97595.728
DELTA = 2°42'37"
D = 0°30'11"
T = 269.40'
L = 538.69'
R = 11387.55'
PC STA = 120+54.44
Y = 101334.999
X = 97429.021
PT STA = 125+93.13
Y = 101750.122
X = 97772.256
BK = N38°13'46.5"E
AH = N40°56'24.0"E
SE = NC

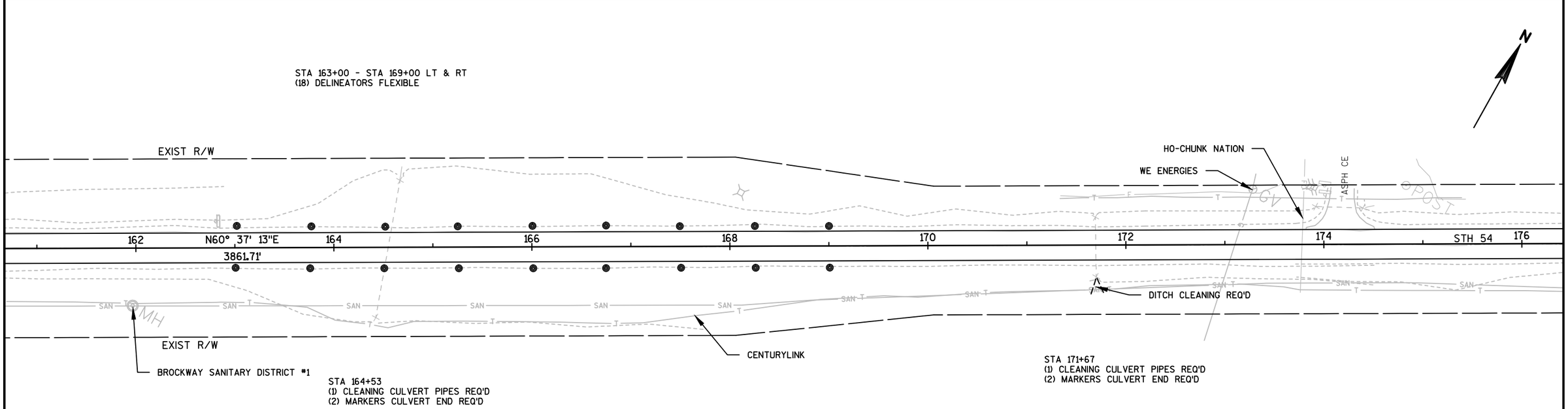
PI STA = 123+05.21'WB
Y = 101544.073
X = 97568.865
DELTA = 2°32'58"
D = 0°33'26"
T = 228.81'
L = 457.55'
R = 10283.23'
PC STA = 120+76.39
Y = 101364.348
X = 97427.248
PT STA = 125+33.94
Y = 101717.321
X = 97718.335
BK = N38°14'12.2"E
AH = N40°47'10.0"E
SE = NC

PI STA = 144+36.51'WB
Y = 103168.976
X = 98948.051
DELTA = 21°00'43"
D = 1°03'33"
T = 1003.22'
L = 1983.91'
R = 5409.72'
PC STA = 134+33.29
Y = 102398.494
X = 98305.547
PT STA = 154+17.19
Y = 103657.845
X = 99824.099
BK = N39°49'28.9"E
AH = N60°50'12.4"E
SE = 2.8%

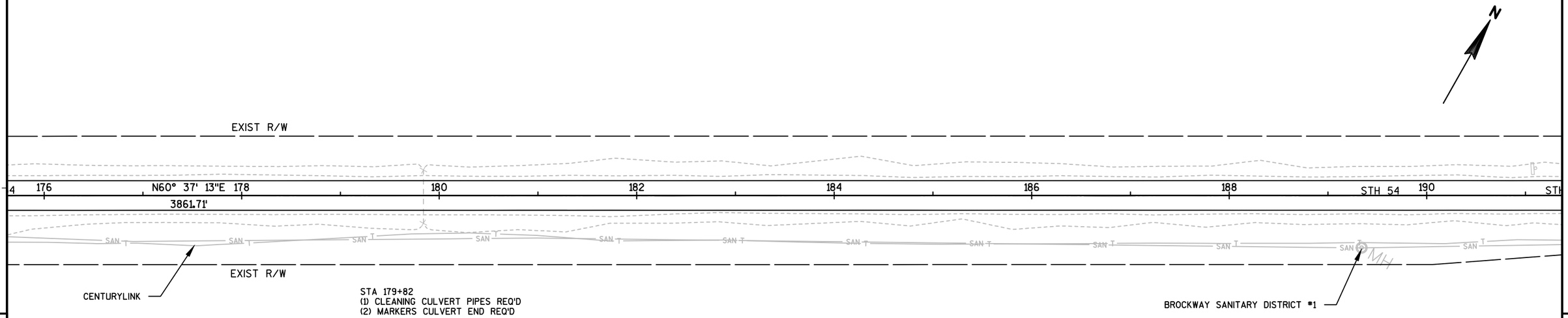
CP102
3/4-IN REBAR
STA 131+75.61'WB, 101.10 LT
Y = 102269.203
X = 98060.943
ELEV = 853.304
XCEL ENERGY
JACKSON ELECTRIC COOPERATIVE
EXIST R/W
POST 1 (FF RAIL)
STA 134+50.5'WB, 36.0 LT
LEICHT RD
MILLING LIMITS
CP102
PI: 134+11.95'WB
PC: 134+33.29'WB
STA 134+53 - STA 146+48 LT
STA 136+06 - STA 150+61 RT
2650 LF SALVAGED RAIL
STH 54, STA 131+03'WB
LEICHT RD
132'WB
132'EB
134'WB
134'EB
136'WB
136'EB
138'WB
138'EB
140'WB
140'EB
142'WB
144
STH 54
146
BROCKWAY SANITARY DISTRICT #1
STH 54, STA 131+03'EB
RED IRON RD
PI: 135+22.93'EB
POST 1 (FF RAIL)
STA 135+62.8'EB, 32.4 RT
EP: 139+99.79'EB
BROCKWAY SANITARY DISTRICT #1
MILLING LIMITS
CP100
CP100
3/4-IN REBAR
STA 131+69.60'WB, 113.06 RT
Y = 102124.756
X = 98219.169
ELEV = 850.075
WE ENERGIES
CENTURYLINK
STA 138+61'EB RT
(1) CLEANING CULVERT PIPES REQ'D
(1) MARKERS CULVERT END REQ'D
EXIST R/W

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 42	E





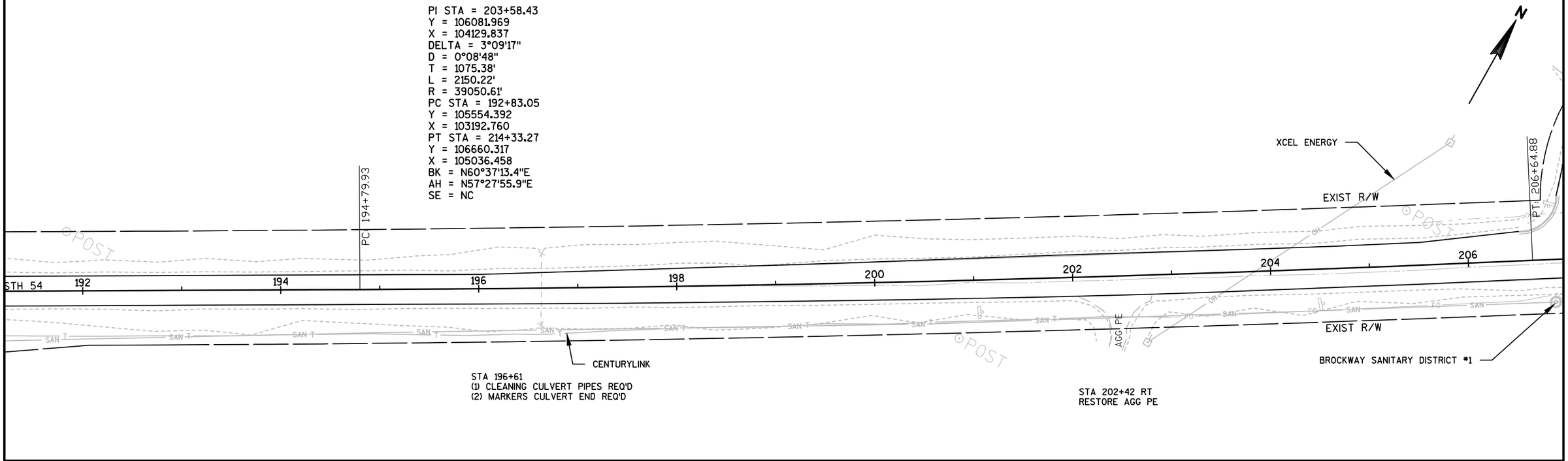
PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 43	E



5

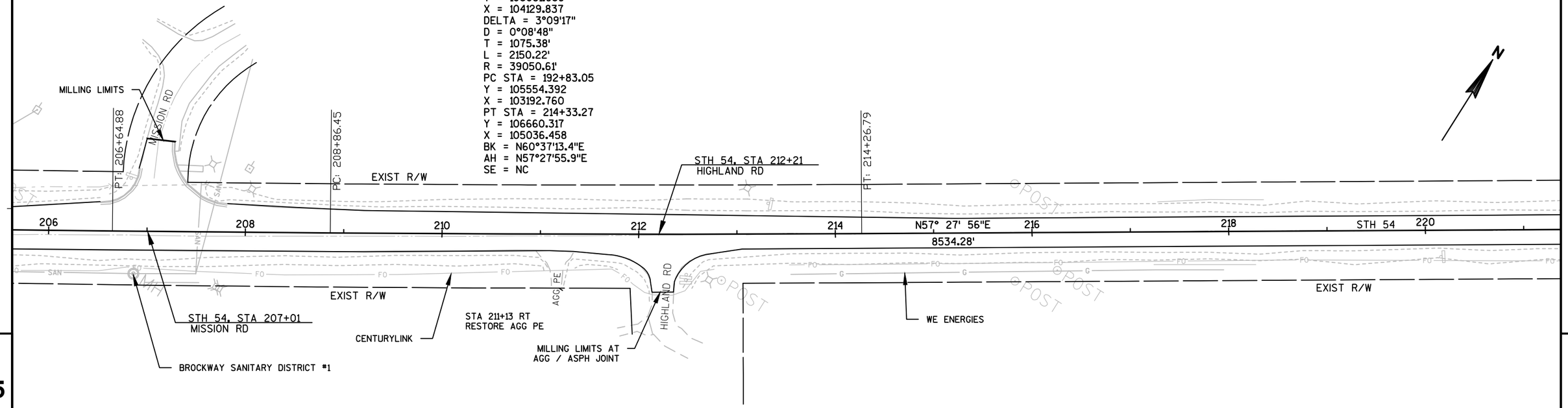
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PI STA = 203+58.43
Y = 106081.969
X = 104129.837
DELTA = 3°09'17"
D = 0°08'48"
T = 1075.38'
L = 2150.22'
R = 39050.61'
PC STA = 192+83.05
Y = 105554.392
X = 103192.760
PT STA = 214+33.27
Y = 106660.317
X = 105036.458
BK = N60°37'13.4"E
AH = N57°27'55.9"E
SE = NC

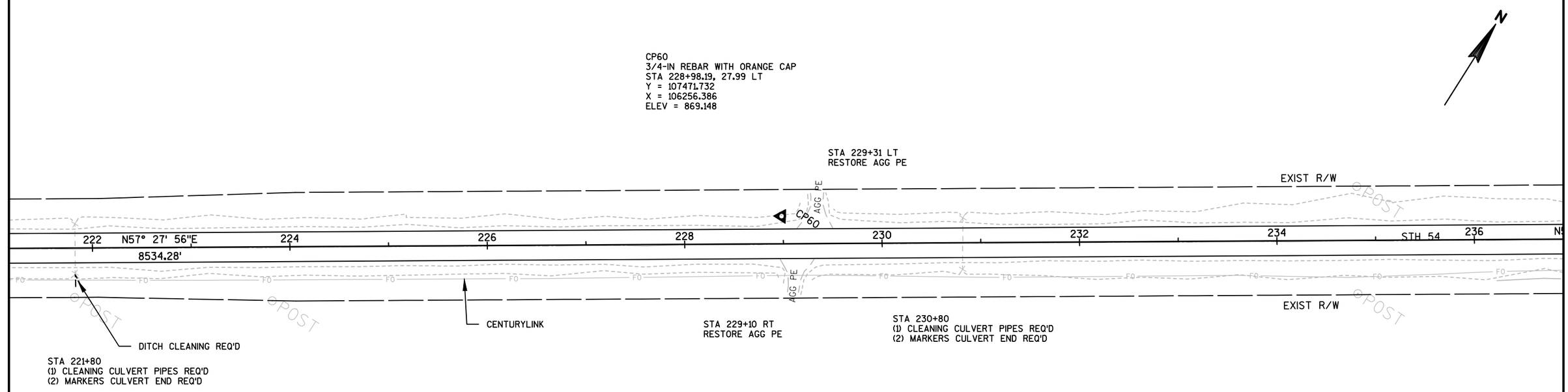


PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 44	E

PI STA = 203+58.43
Y = 106081.969
X = 104129.837
DELTA = 3°09'17"
D = 0°08'48"
T = 1075.38'
L = 2150.22'
R = 39050.61'
PC STA = 192+83.05
Y = 105554.392
X = 103192.760
PT STA = 214+33.27
Y = 106660.317
X = 105036.458
BK = N60°37'13.4"E
AH = N57°27'55.9"E
SE = NC

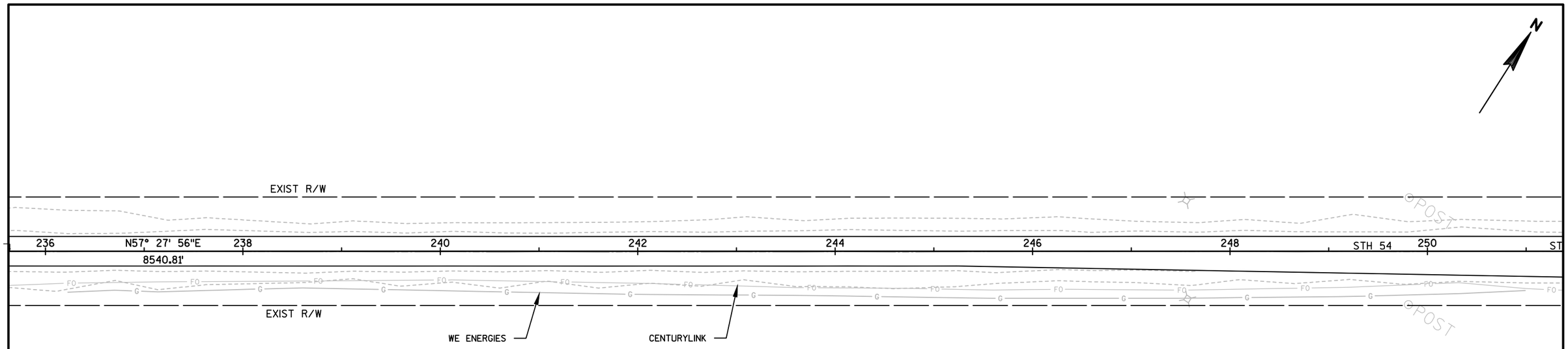


CP60
3/4-IN REBAR WITH ORANGE CAP
STA 228+98.19, 27.99 LT
Y = 107471.732
X = 106256.386
ELEV = 869.148



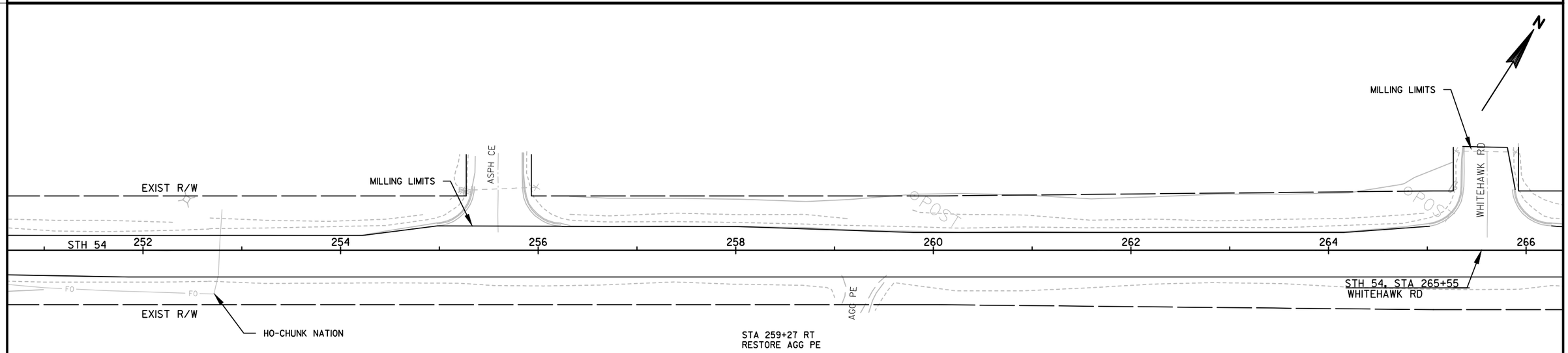
PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 45	E

FILE NAME : F:\DRAWINGS\2012-134\0007\75100200\SHEETSPLAN\050201_PN.DWG PLOT DATE : 8/1/2018 12:04 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1" = 100'_XREF

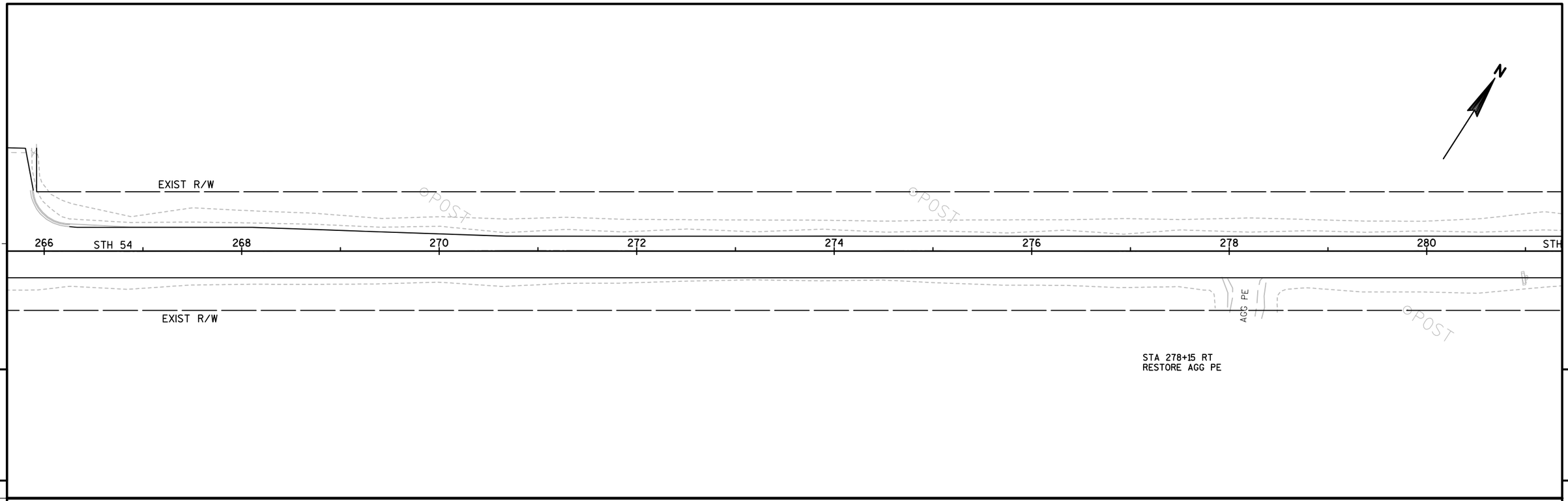


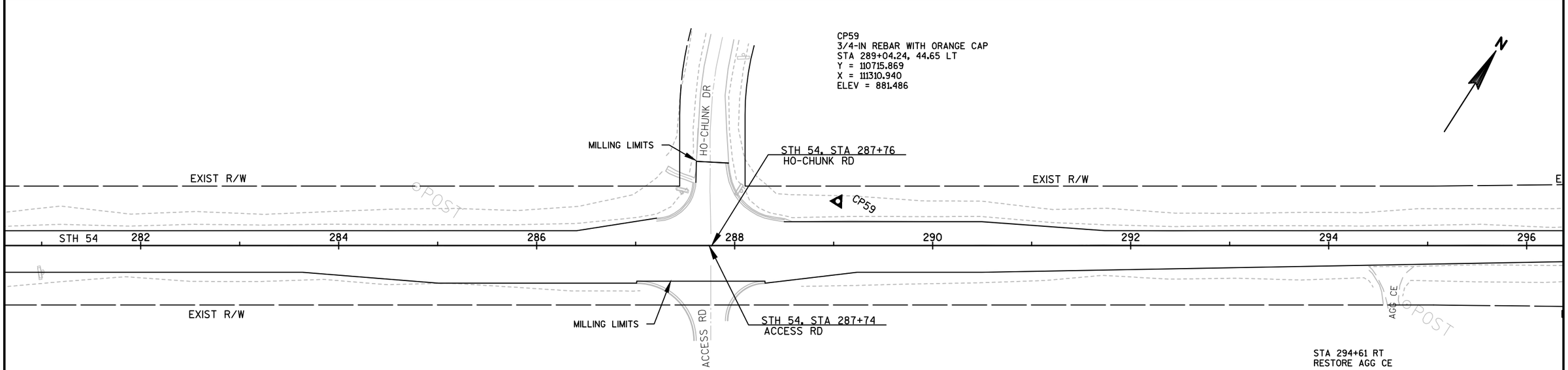
5

5

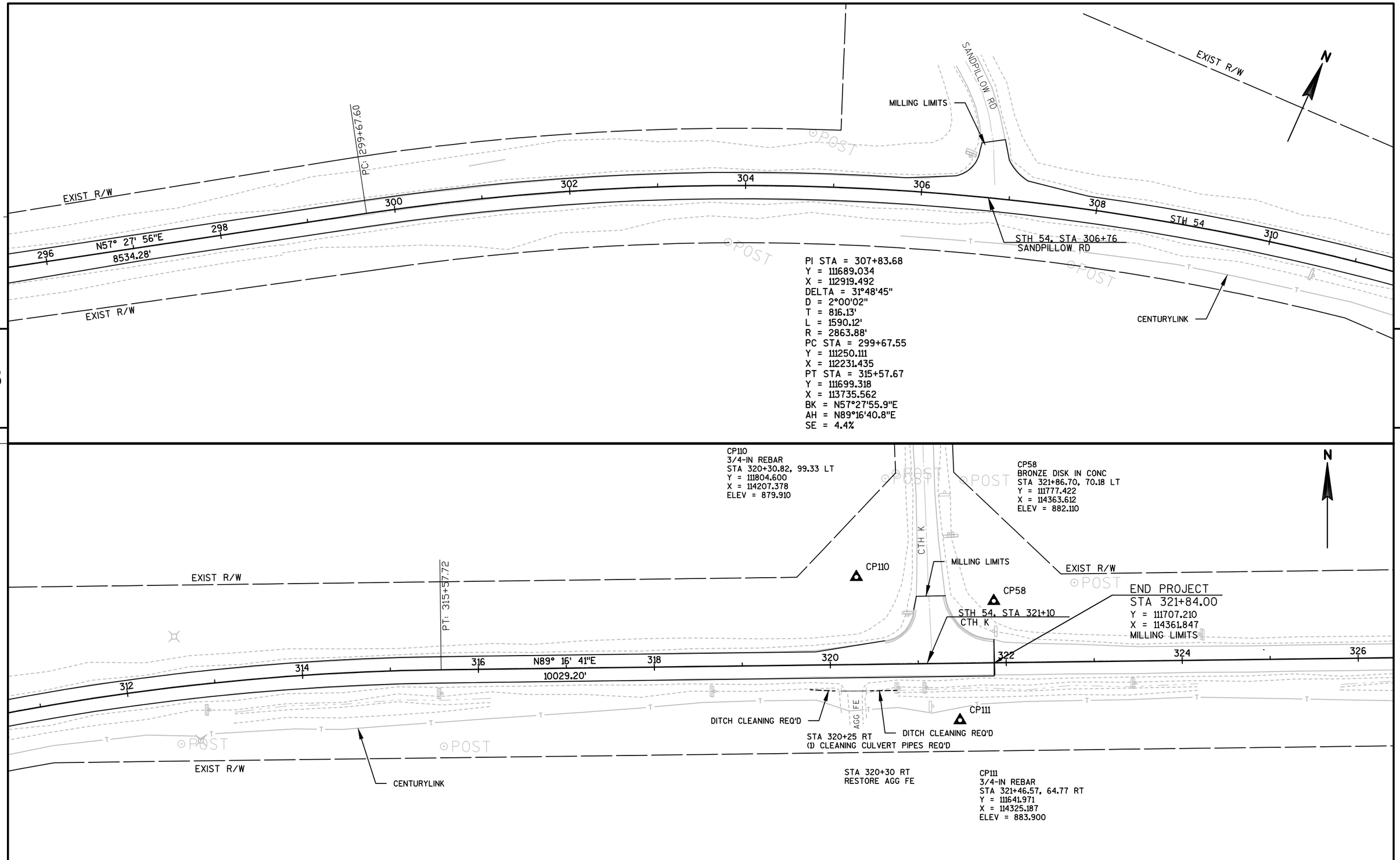


PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 46	E





PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 47	E



5

5

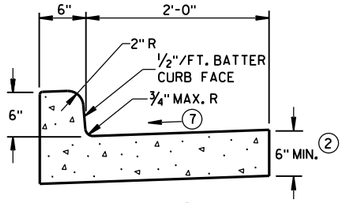
PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 48	E

FILE NAME : F:\DRAWINGS\2012-134\0007\75100200\SHEETSPLAN\050201_PN.DWG PLOT DATE : 8/1/2018 12:05 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1" = 100'_XREF

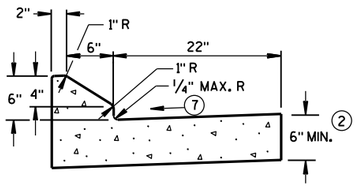
Standard Detail Drawing List

08D01-20A	CONCRETE CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-04A	FLEXIBLE DELINEATOR POST
15A04-04B	DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A04-04C	DELINEATOR POST WITH REFLECTIVE SHEETING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C08-18B	PAVEMENT MARKING (TURN LANES)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING

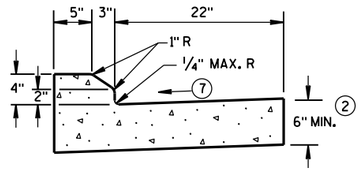
6



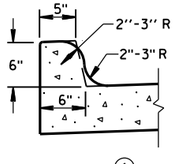
TYPES A (1) & D



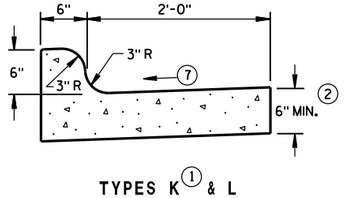
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

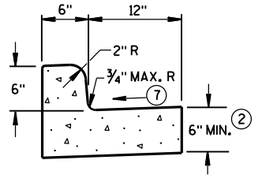


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



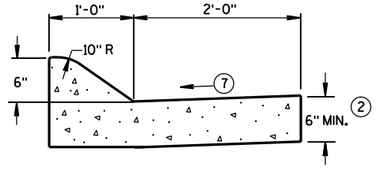
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

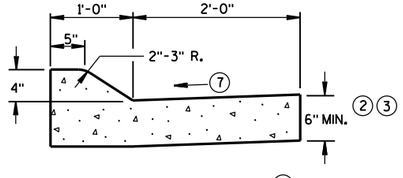


TYPES A (1) & D

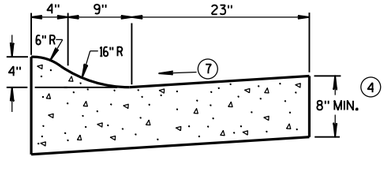
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

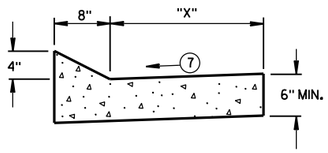


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

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

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.

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

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

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

(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) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) 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.

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

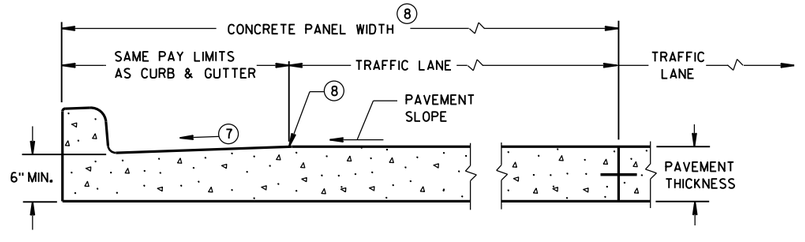
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

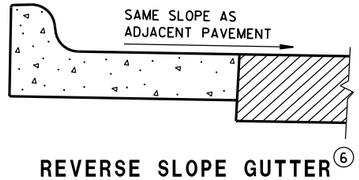
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.

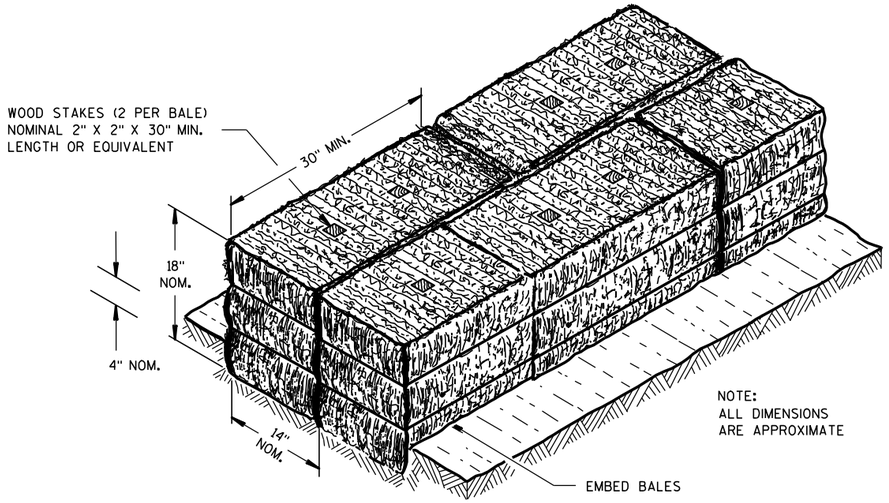


REVERSE SLOPE GUTTER (6)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

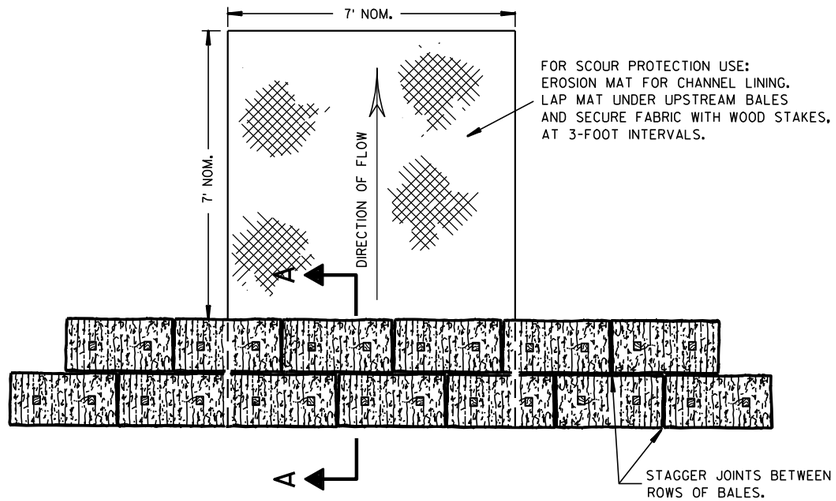
CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

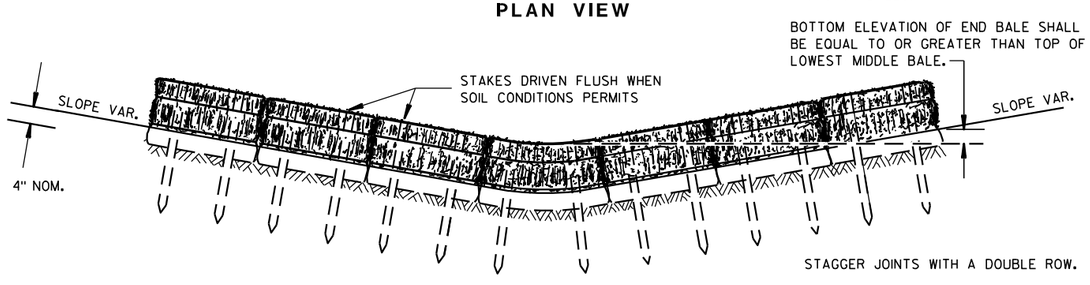
S.D.D. 8 D 1-20a



SECTION A-A



PLAN VIEW



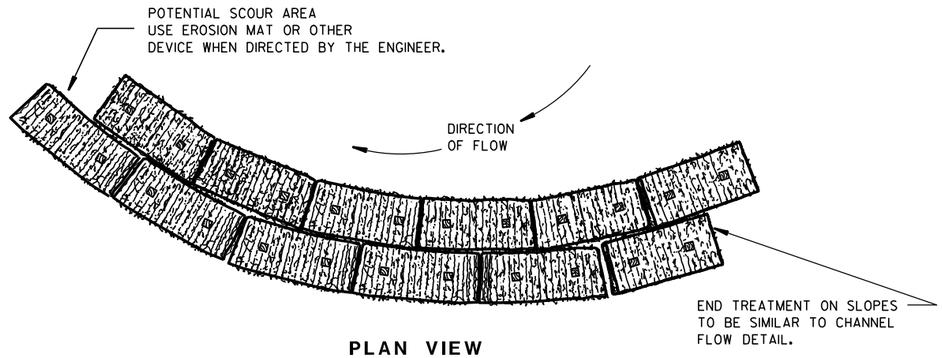
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

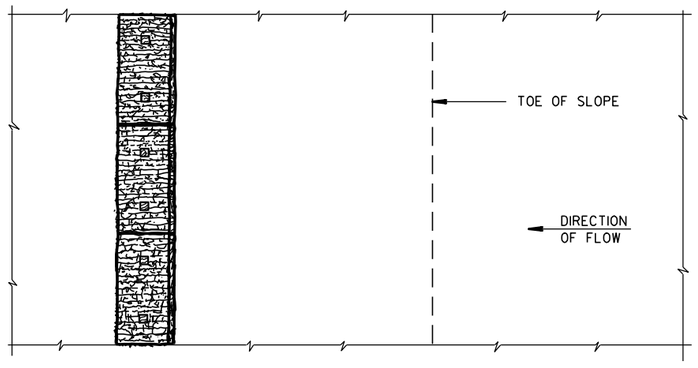
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

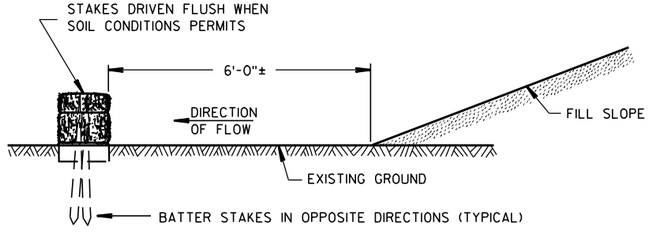


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

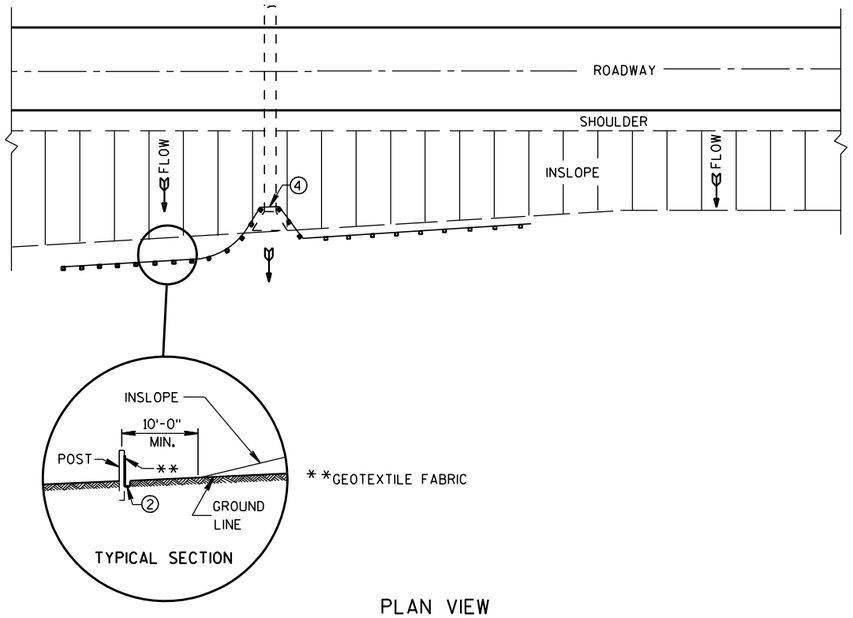
6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

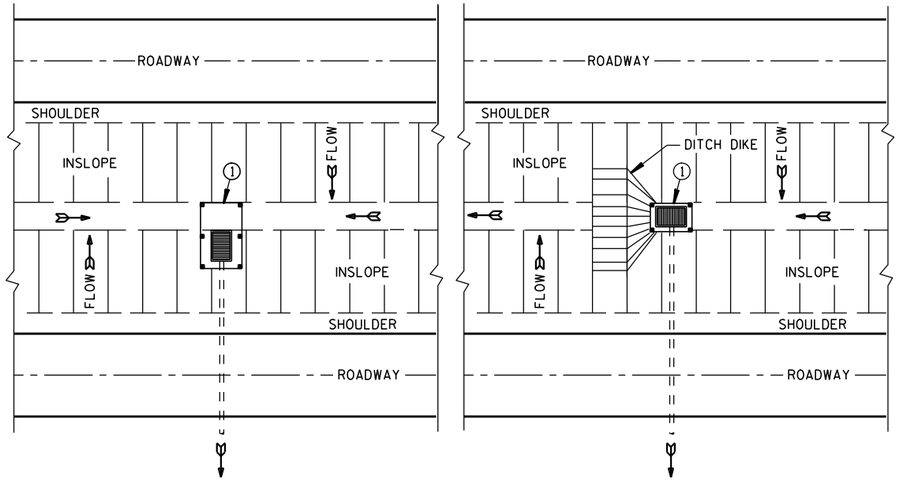
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

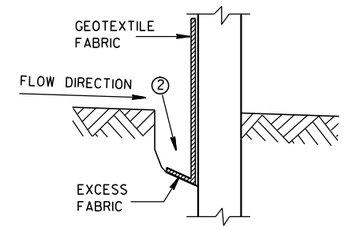
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

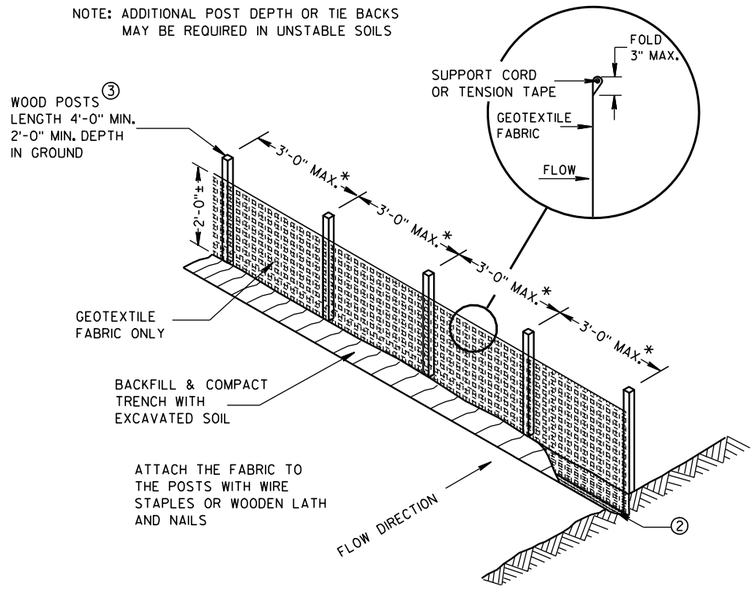
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

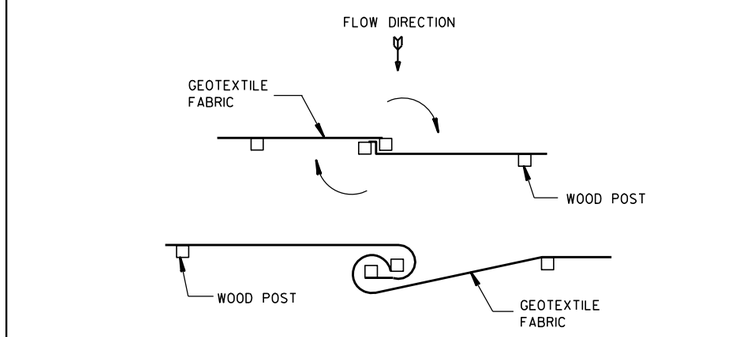
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



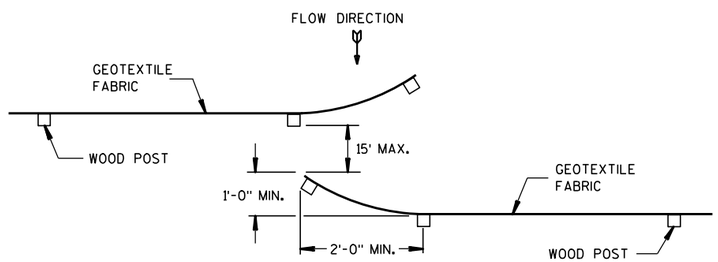
TRENCH DETAIL



SILT FENCE

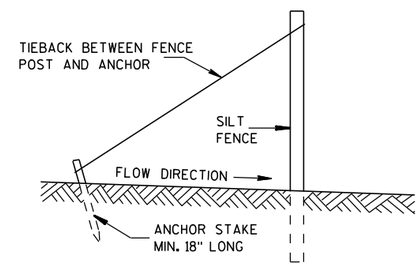


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

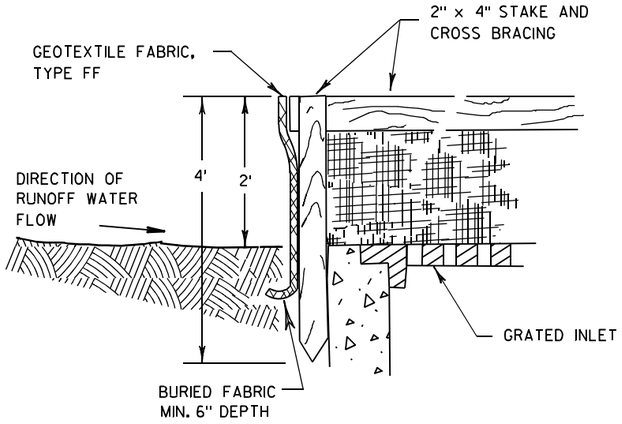
SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-29-05 DATE	/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

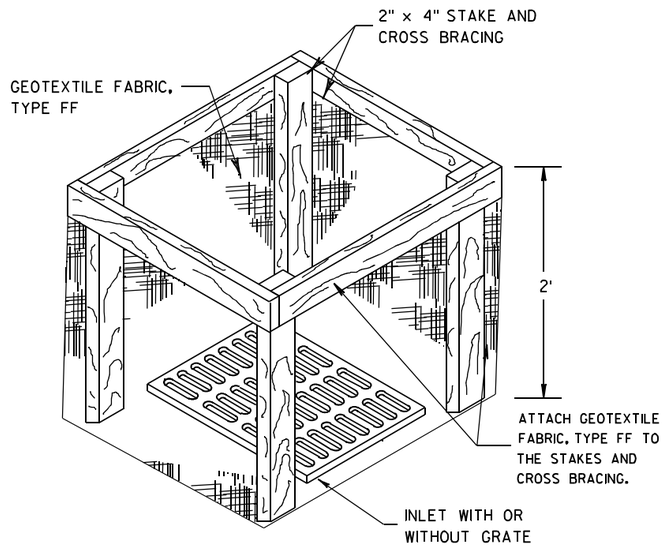
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S.D.D. 8 E 9-6

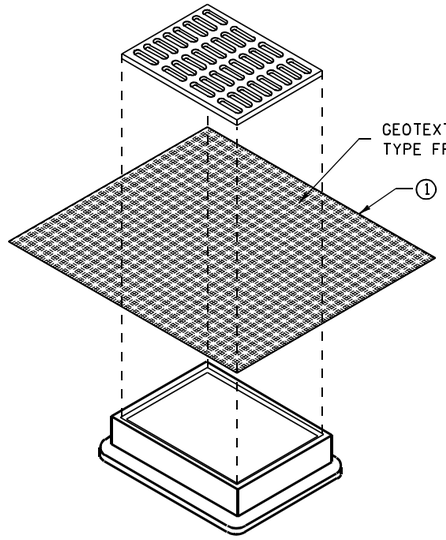
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S.D.D. 8 E 9-6



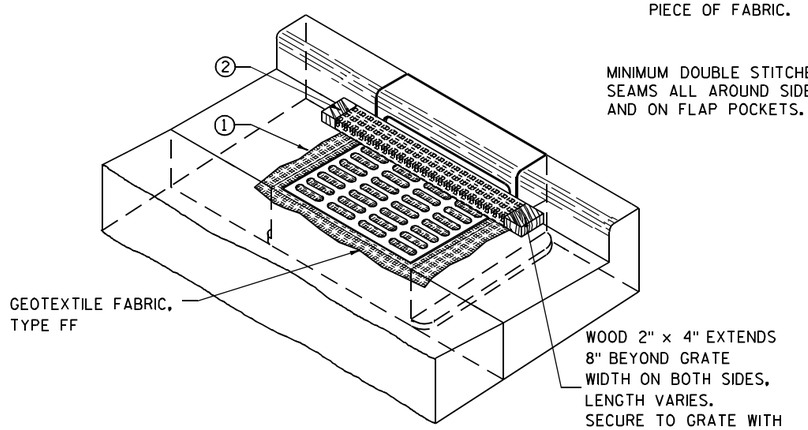


INLET PROTECTION, TYPE A

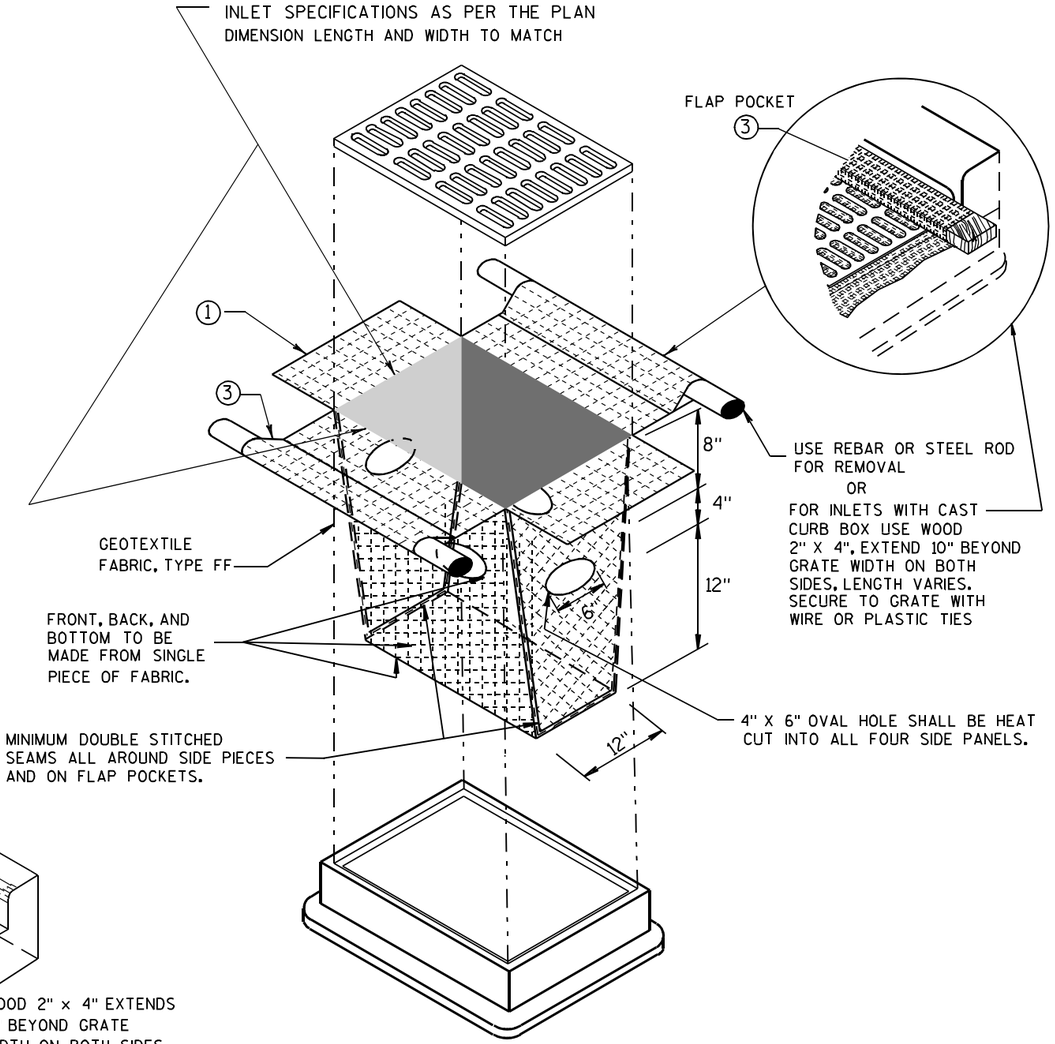


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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

METAL APRON ENDWALLS

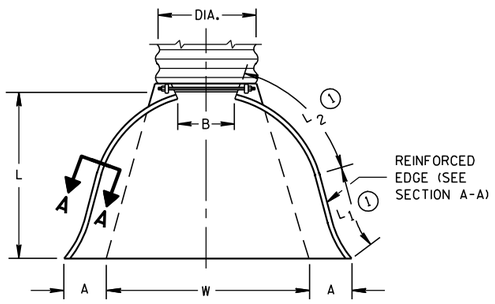
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

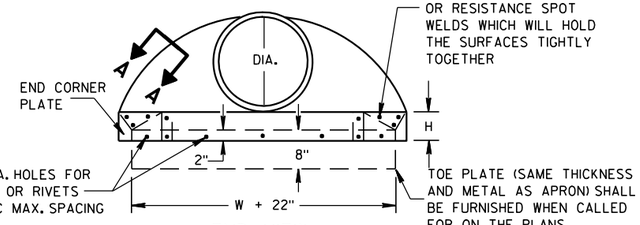
REINFORCED CONCRETE APRON ENDWALLS

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

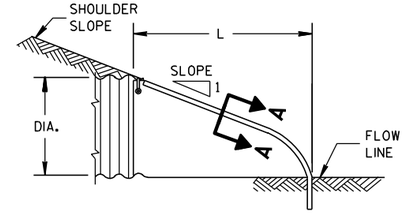
* MINIMUM
** MAXIMUM



PLAN VIEW

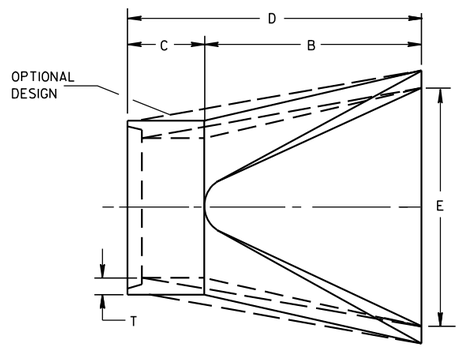


END VIEW

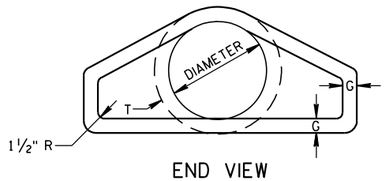


SIDE ELEVATION

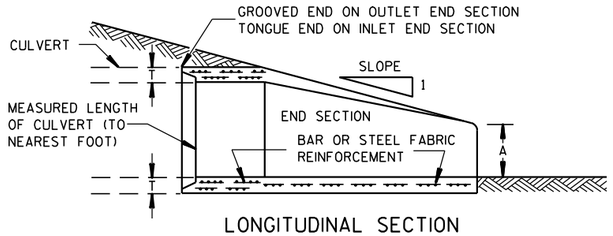
METAL ENDWALLS



PLAN

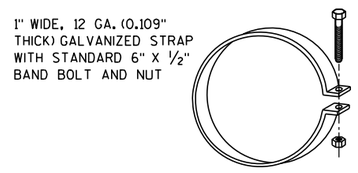


END VIEW



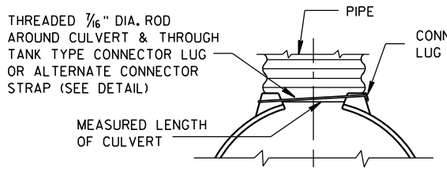
LONGITUDINAL SECTION

CONCRETE ENDWALLS

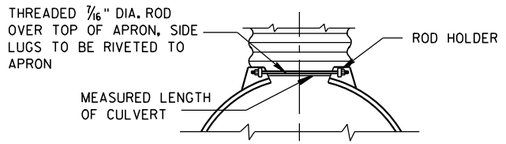


ALTERNATE FOR TYPE 1 CONNECTION

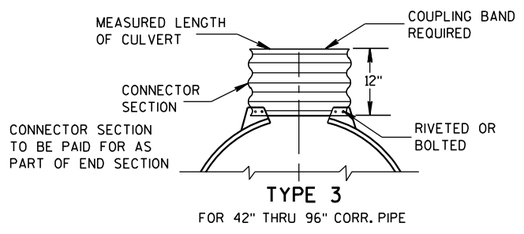
END SECTION CONNECTOR STRAP



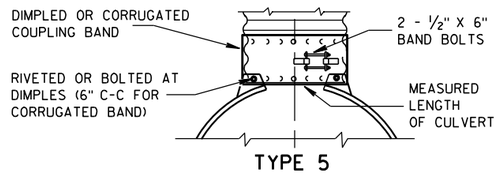
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

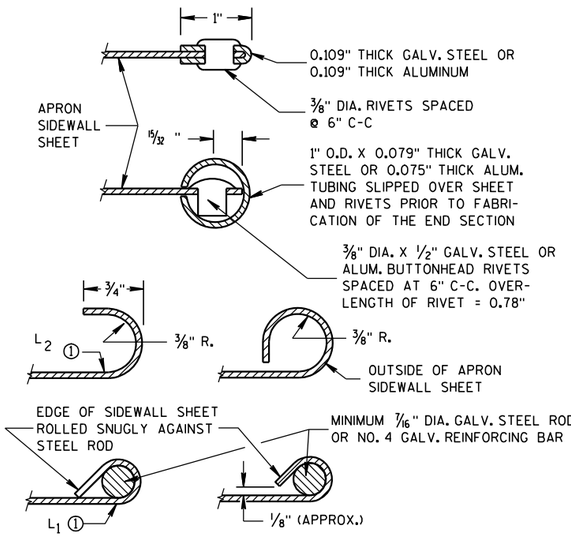
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

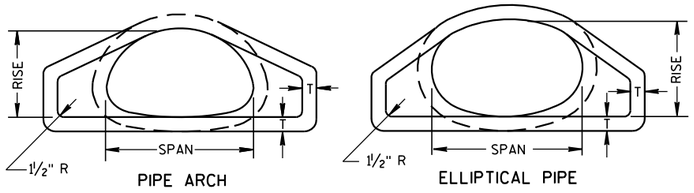
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

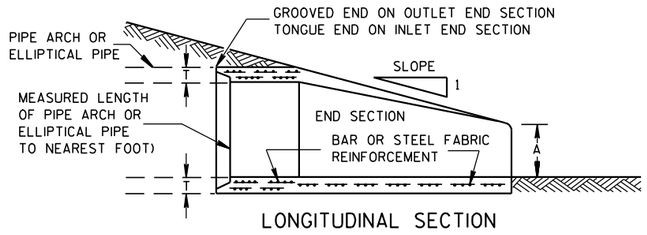
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

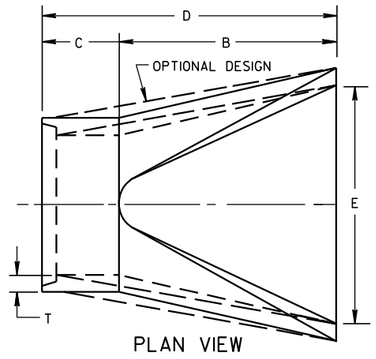
S.D.D. 8 F 1-11



END VIEW

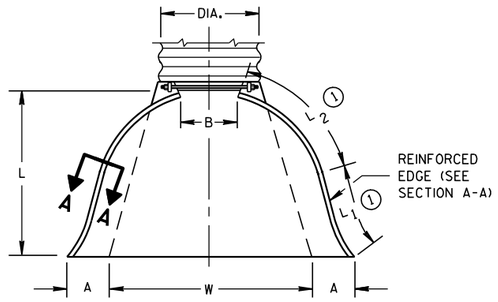


LONGITUDINAL SECTION

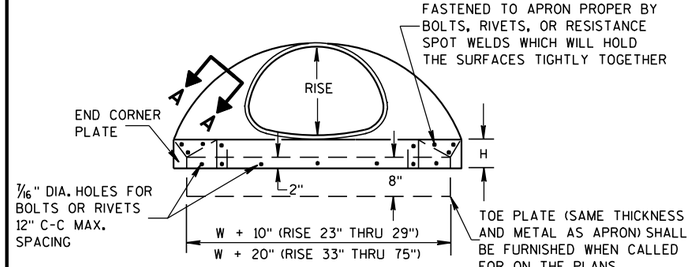


PLAN VIEW

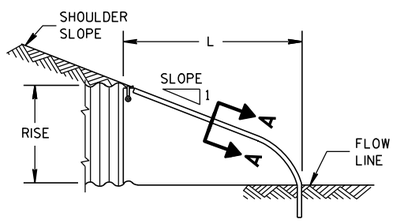
CONCRETE ENDWALLS



PLAN VIEW

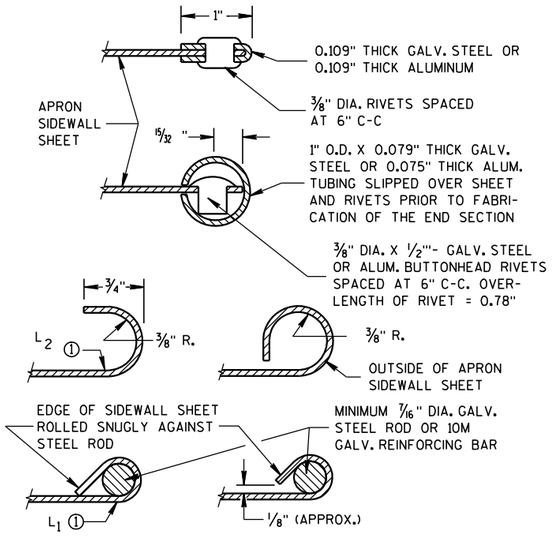


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

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

3" X 1" CORRUGATIONS

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

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

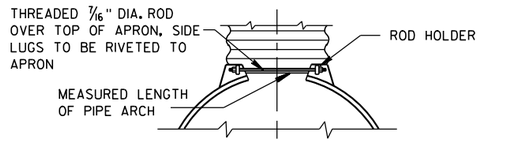
REINFORCED CONCRETE PIPE ARCH

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

REINFORCED CONCRETE ELLIPTICAL PIPE

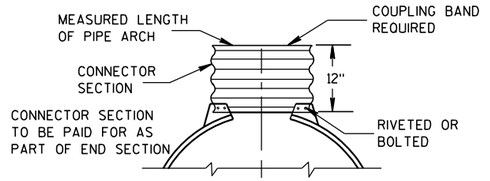
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



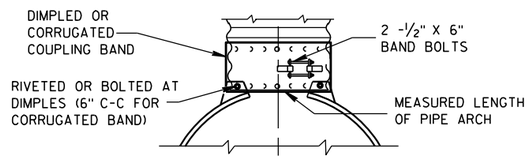
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

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

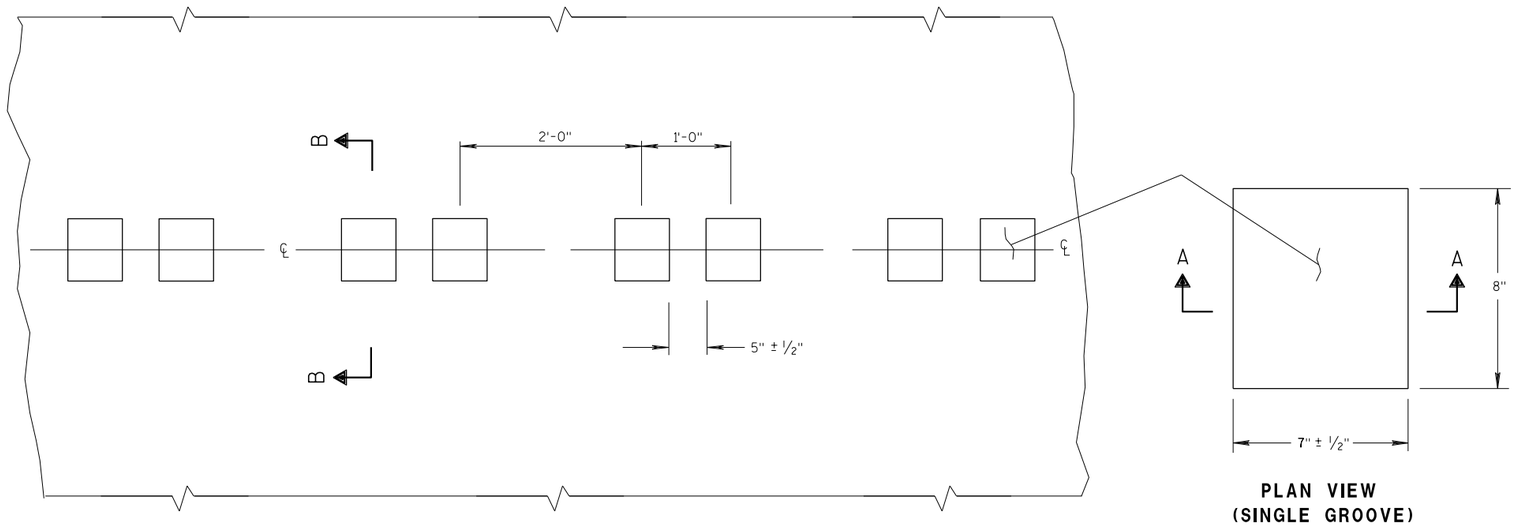
FHWA

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S.D.D. 8 F 2-1

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S.D.D. 8 F 2-1



PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

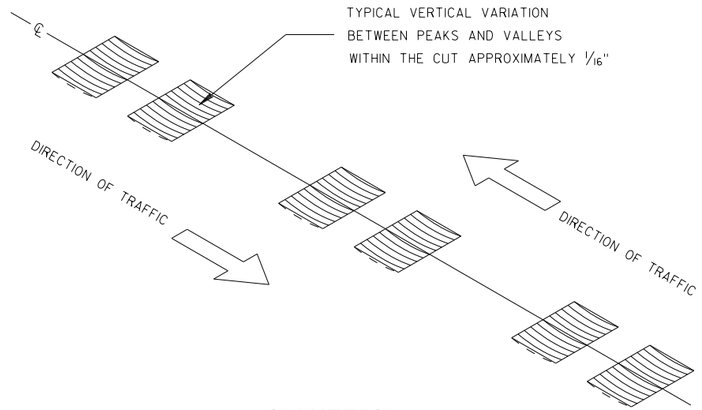
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

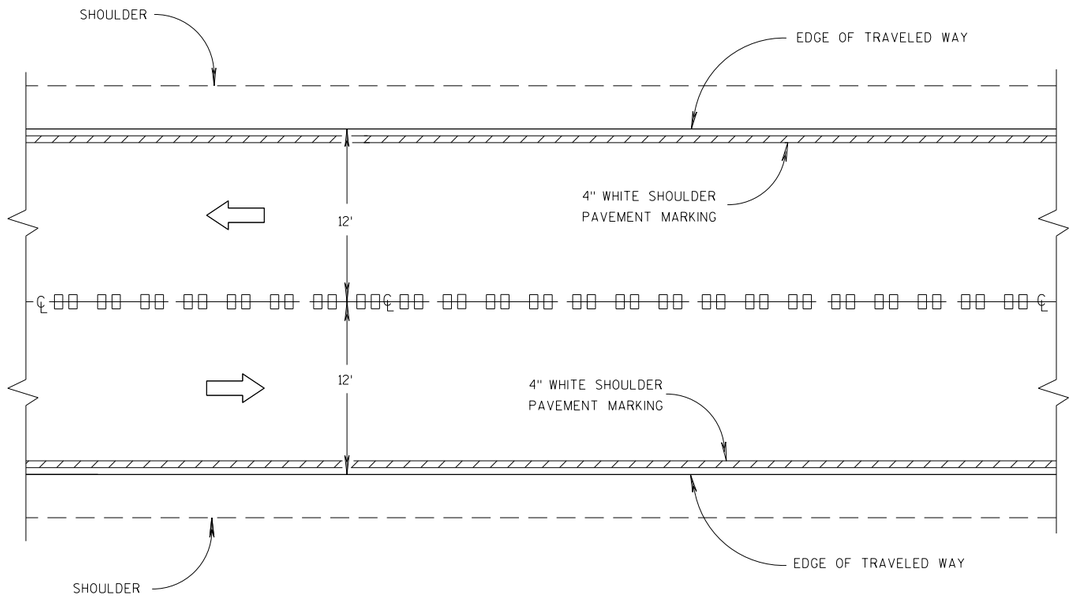
INSTALL PERMANENT MARKING EPOXY 4-INCH AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

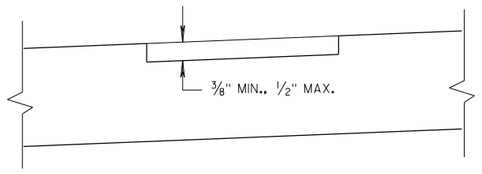
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



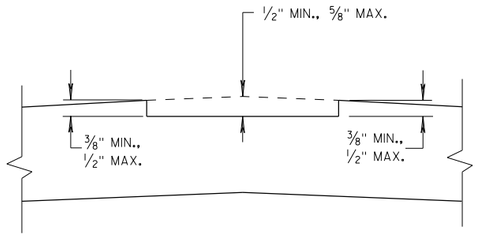
ISOMETRIC



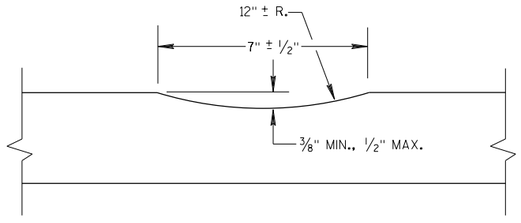
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY

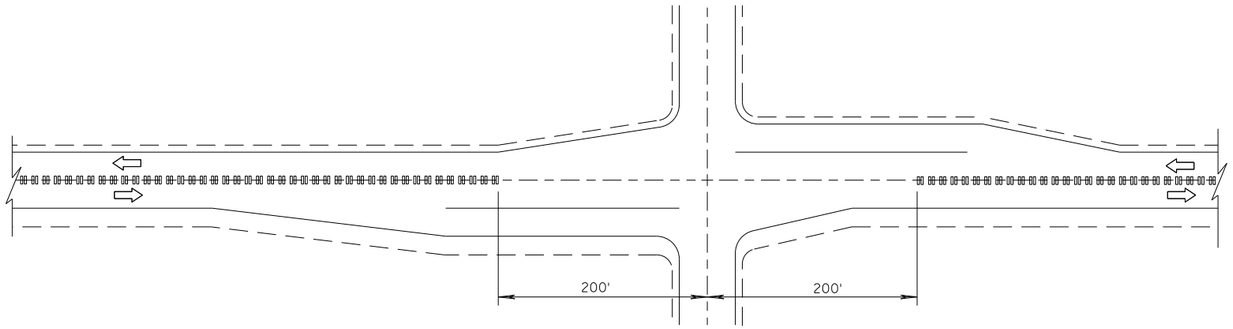


SECTION A-A

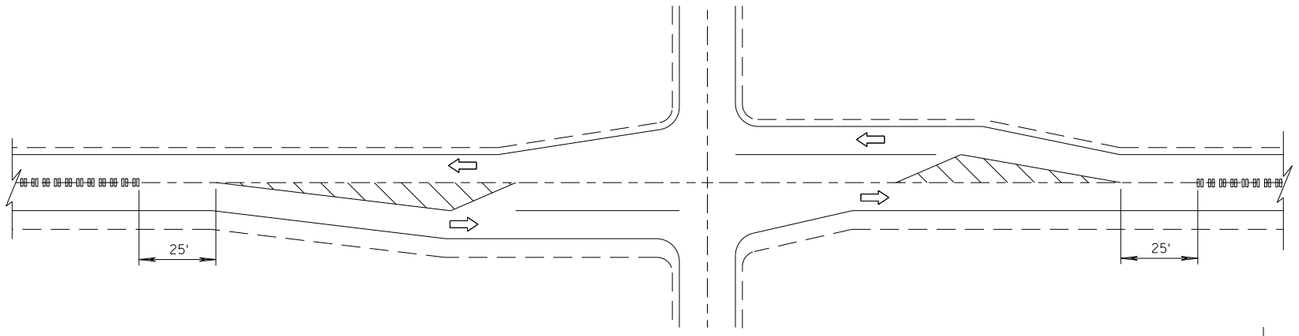
2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

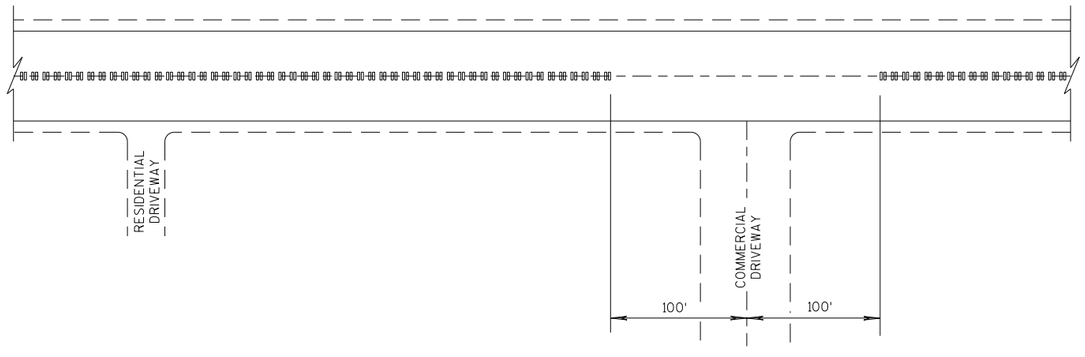
6
S.D.D. 13 A 11-3a



CENTER LINE GROOVES AT INTERSECTIONS

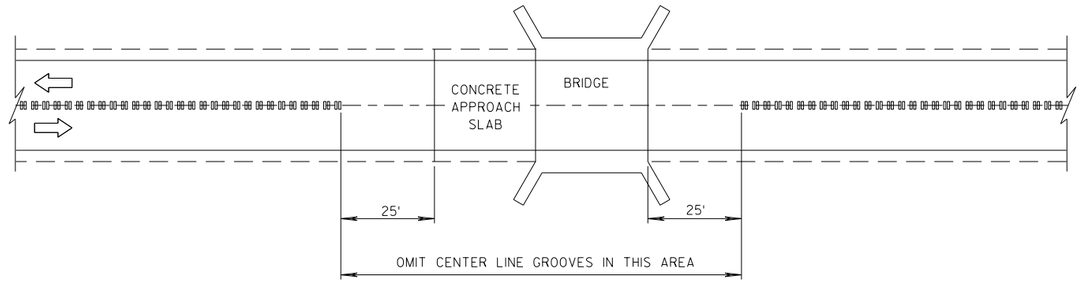


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

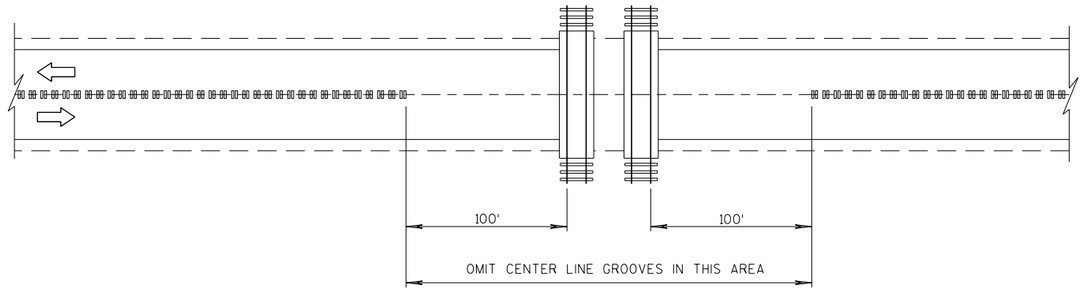


CENTER LINE GROOVES AT DRIVEWAYS (1)

(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

7/2018 — DATE

/S/ Rodney T — ROADWAY STANDARDS DE UNIT SUPERVISOR

IT

FHWA

6

S.D.D. 13 A 11-3b

6

S.D.D. 13 A 11-3b

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

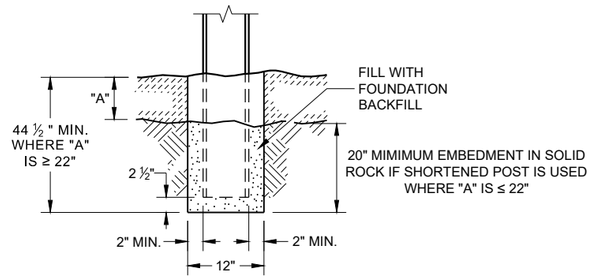
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

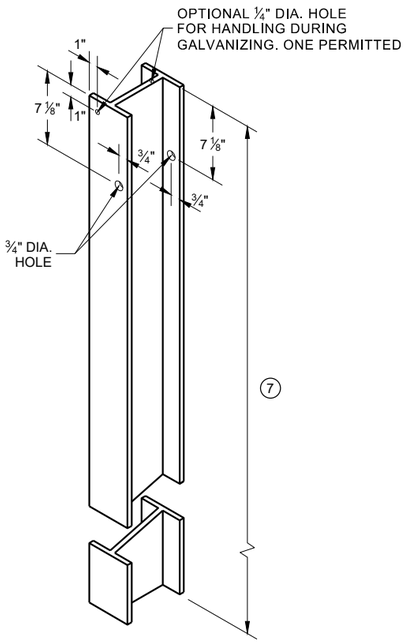
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

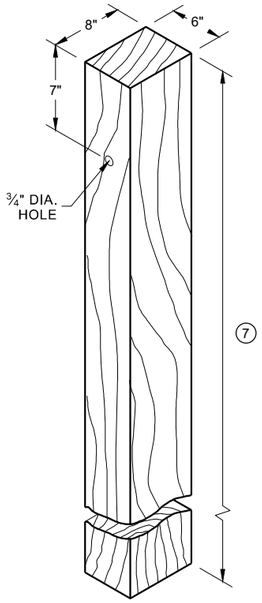
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



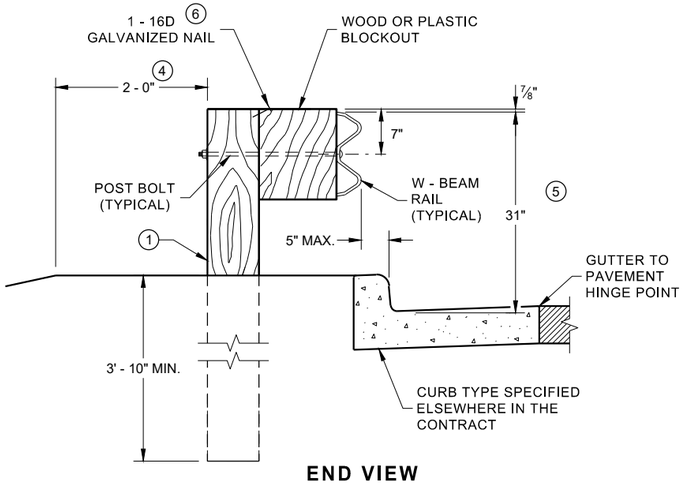
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



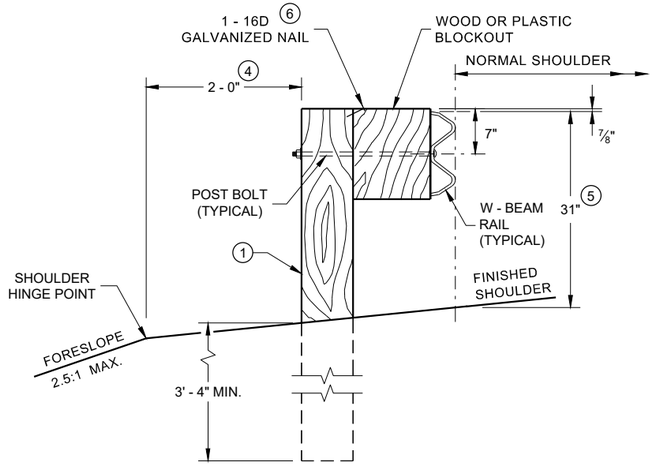
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



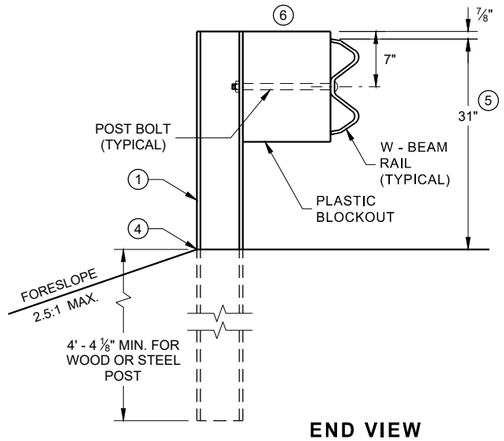
WOOD POST (6" X 8") NOMINAL (1)



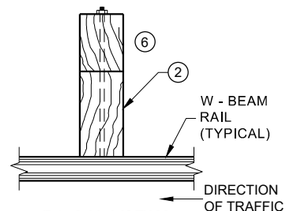
END VIEW
LOCATED ALONG A CURBED ROADWAY



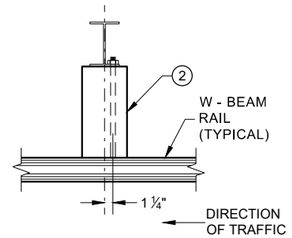
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



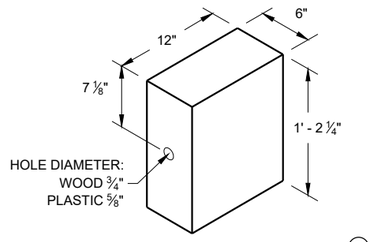
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

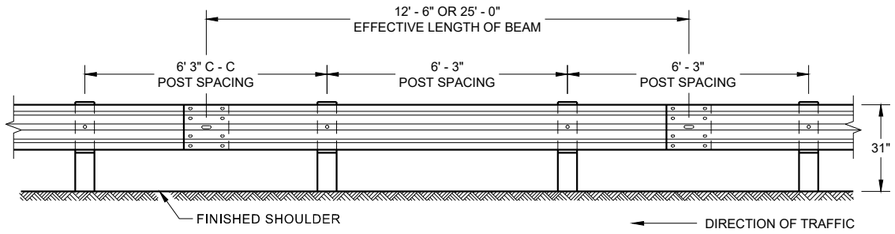
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

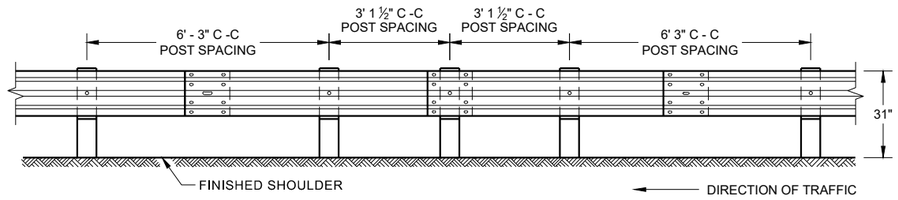
SDD 14B42 - 06a

6

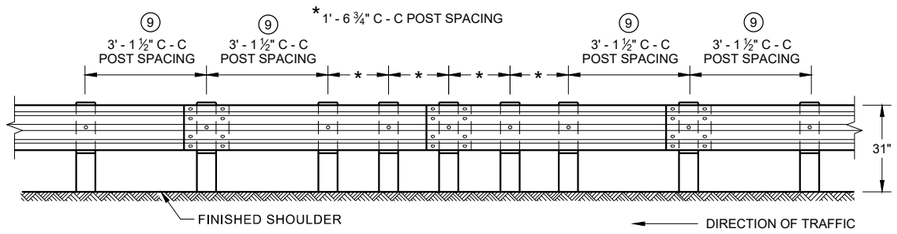
SDD 14B42 - 06a



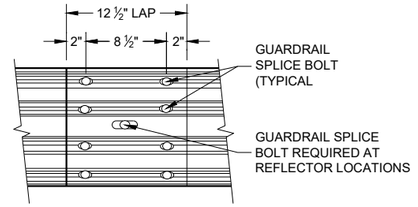
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

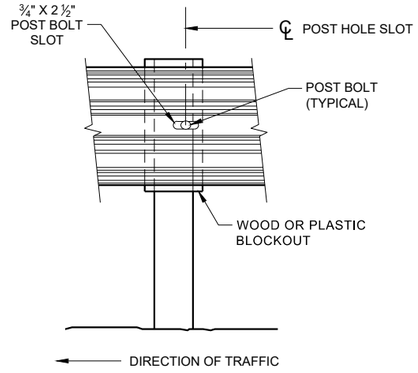
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

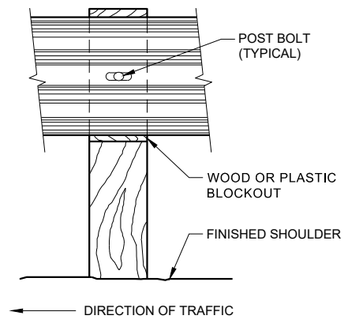
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

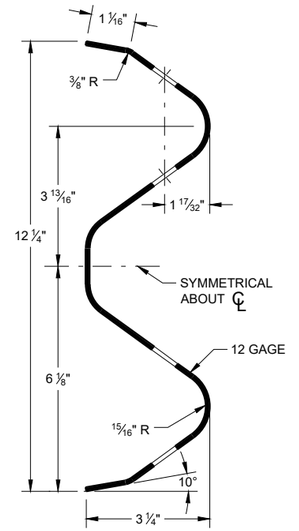
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



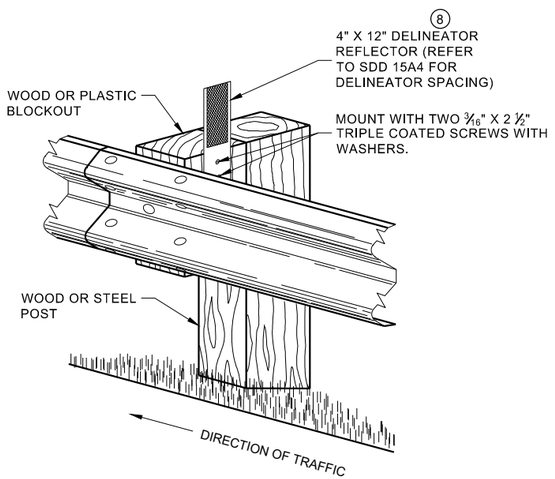
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

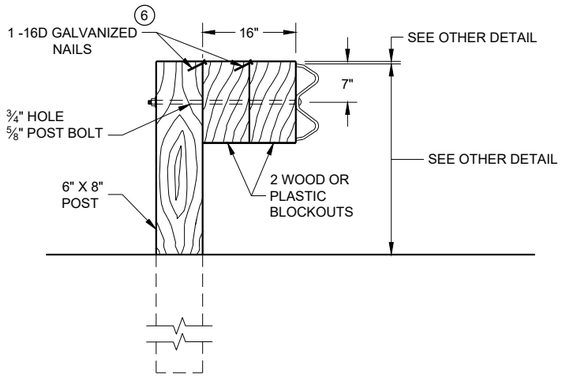


ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 06b

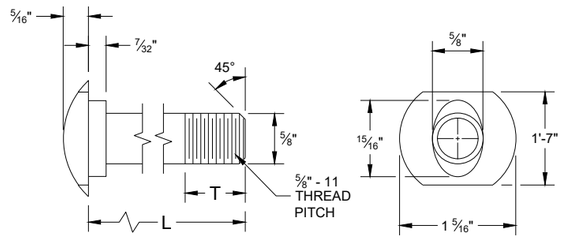


DETAIL FOR 16" BLOCKOUT DEPTH

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.

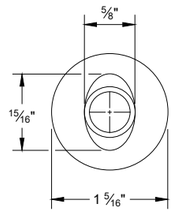
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

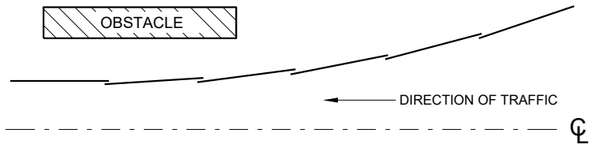


POST BOLT TABLE

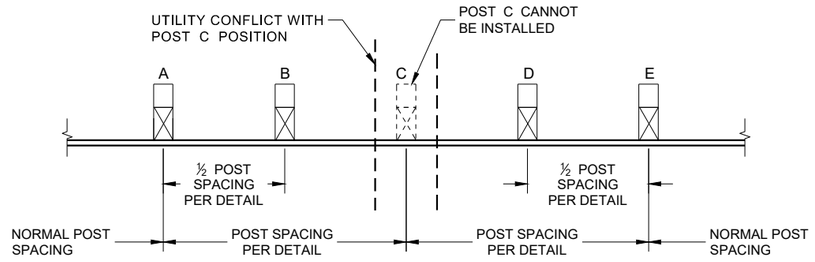
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



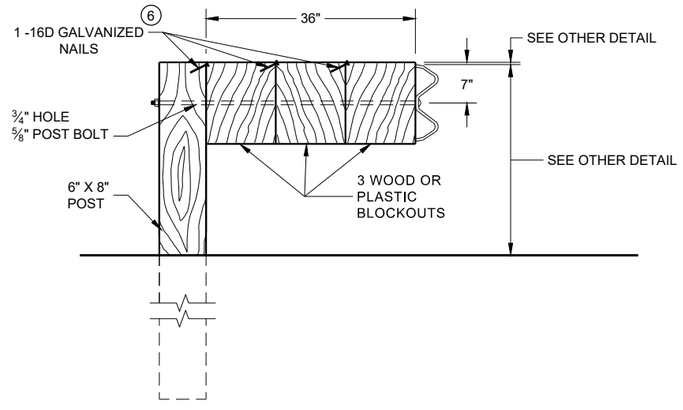
ALTERNATE BOLT HEAD



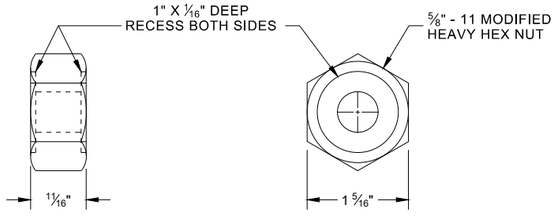
PLAN VIEW
BEAM LAPPING DETAIL



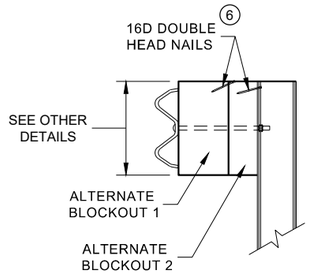
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



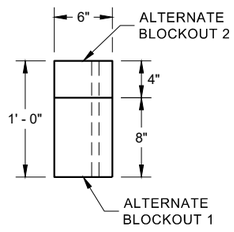
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

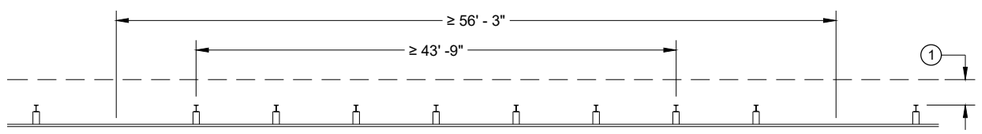
ALTERNATE WOOD BLOCKOUT DETAIL

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.

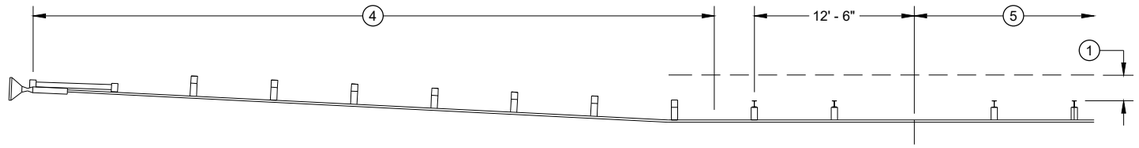
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

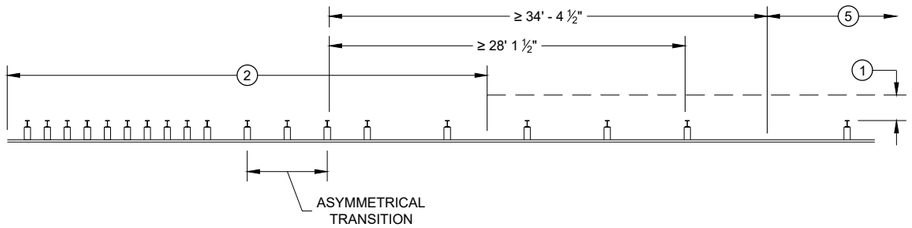
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



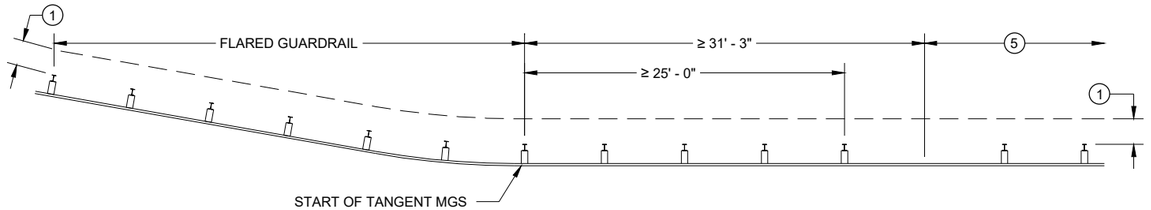
MISSING POST IN NORMAL BEAM GUARD RUN



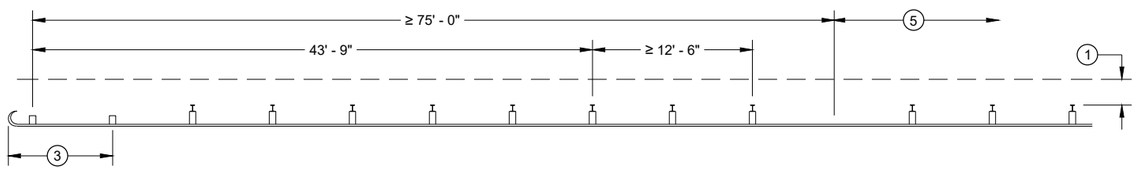
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



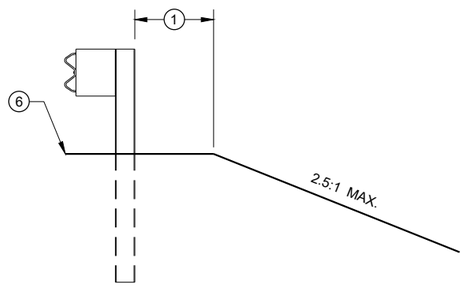
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

6

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

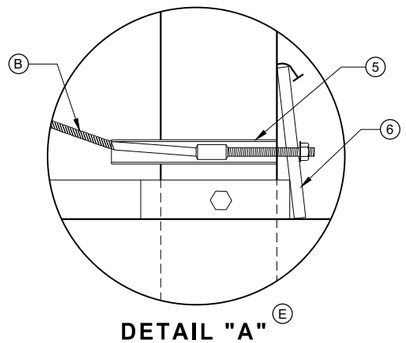
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

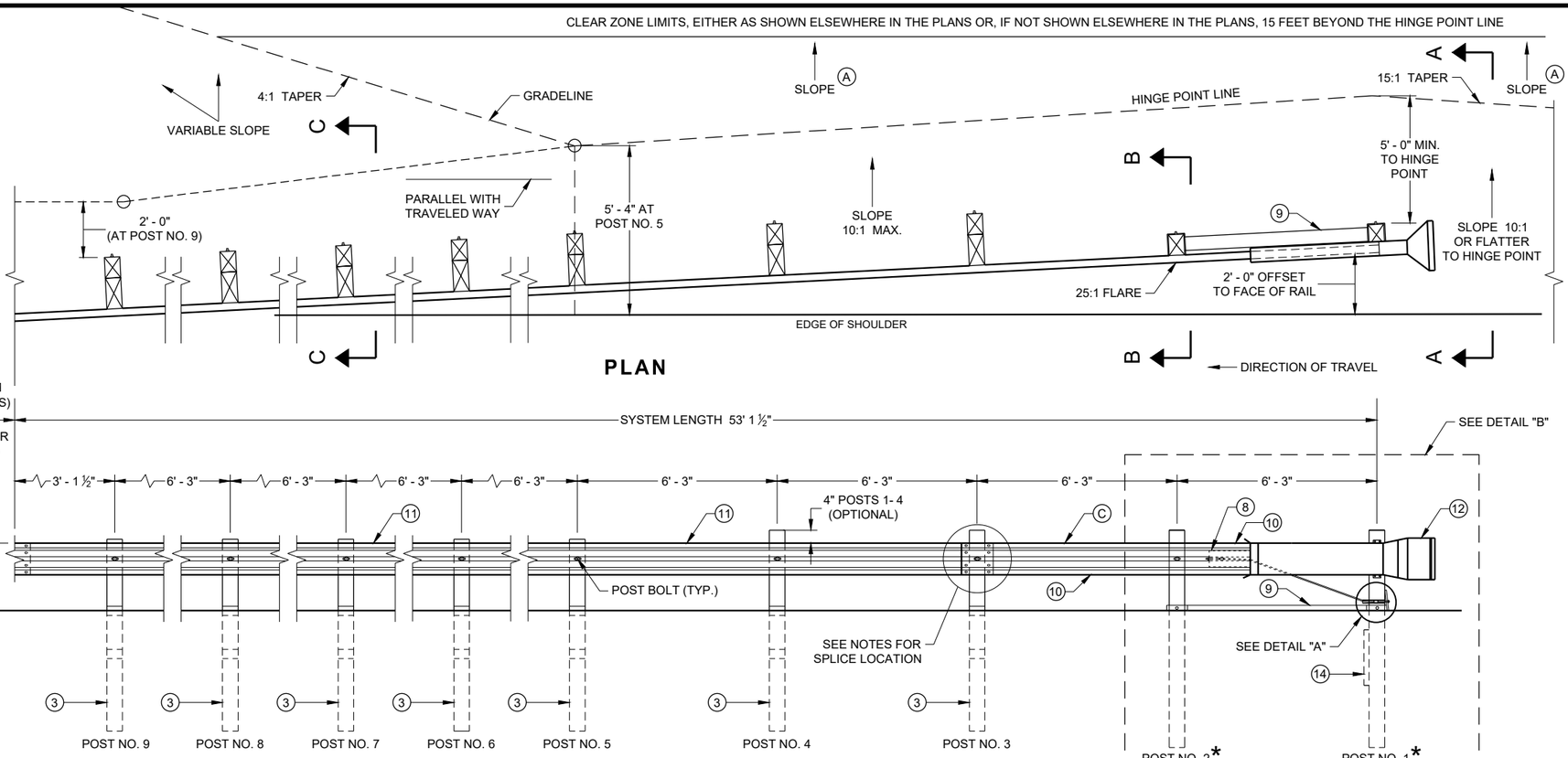
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

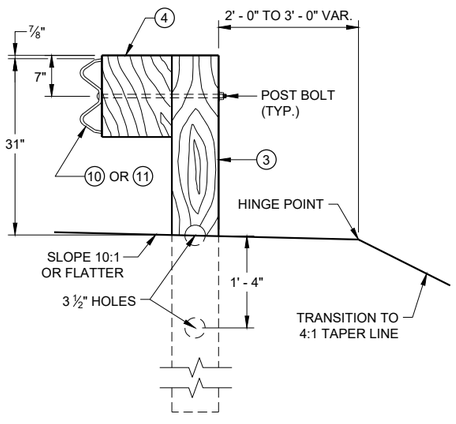
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

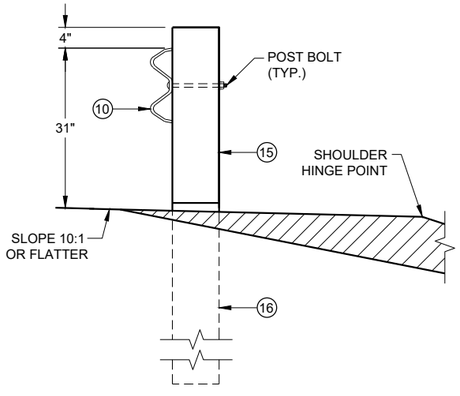


DETAIL "A" (E)

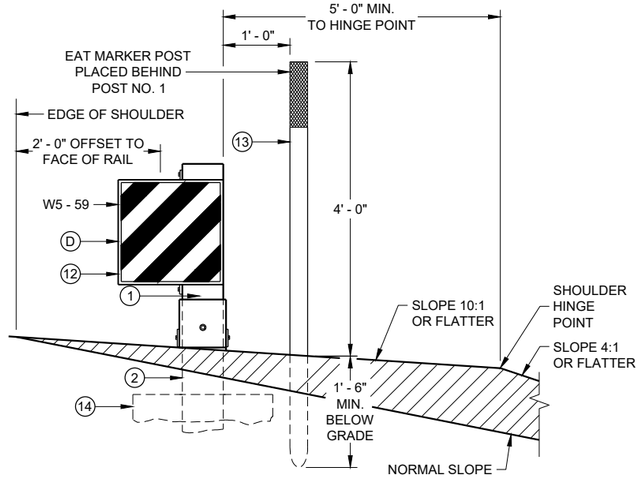




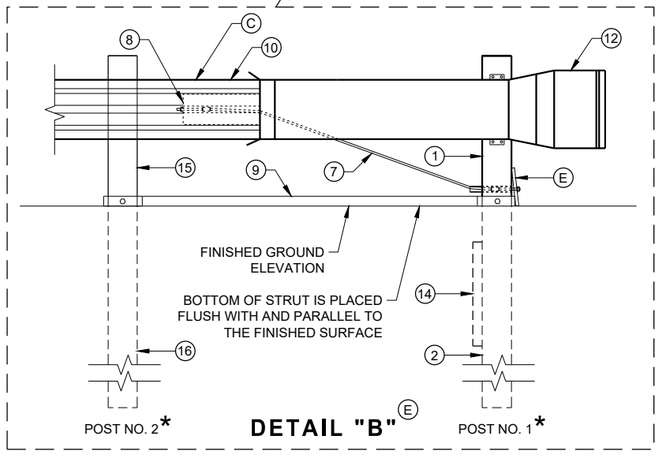
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

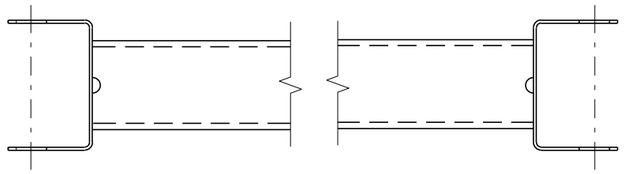


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

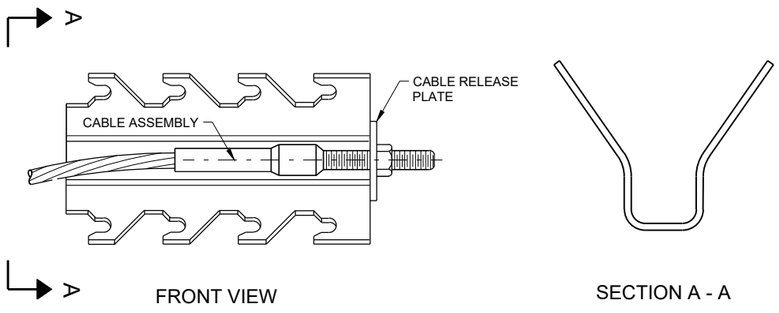
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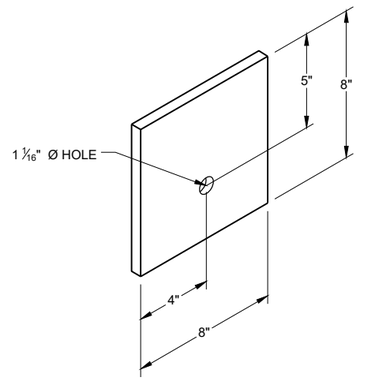
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
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	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

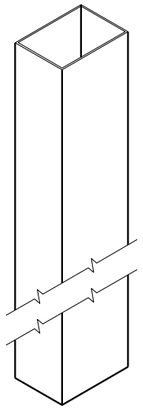
6

SDD 14B45 - 04b

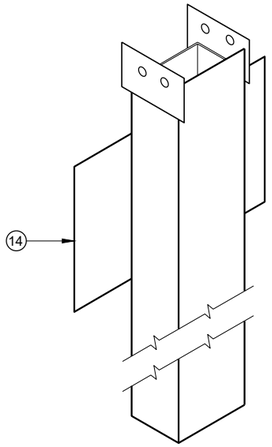
SDD 14B45 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

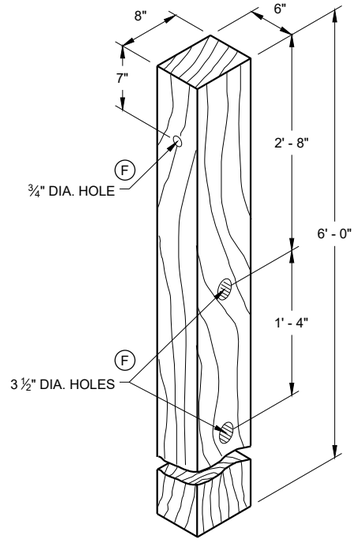
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



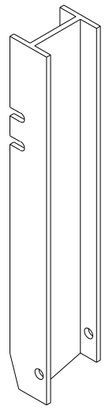
UPPER POST NO. 1 (1) (E)



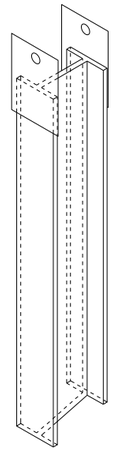
LOWER POST NO. 1 (2) (E)



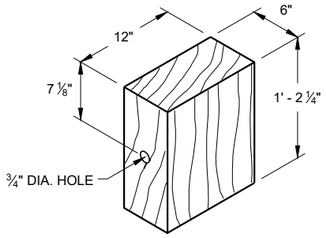
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



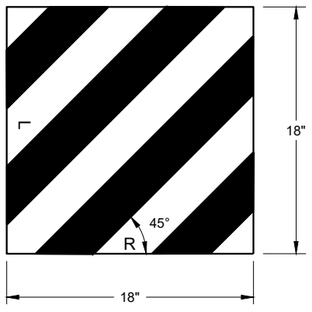
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

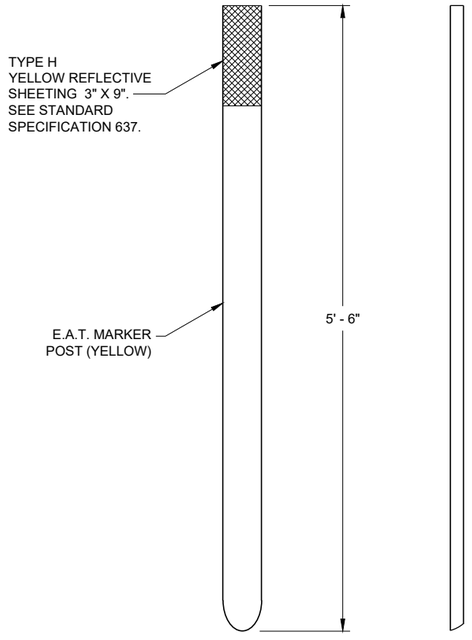


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



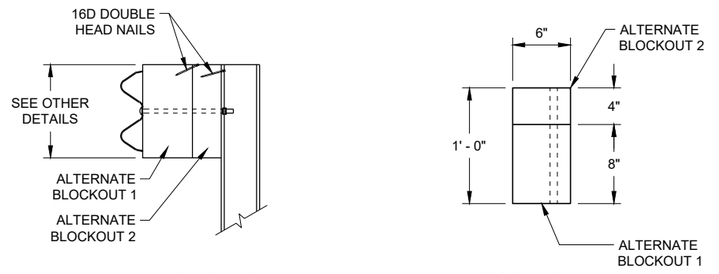
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

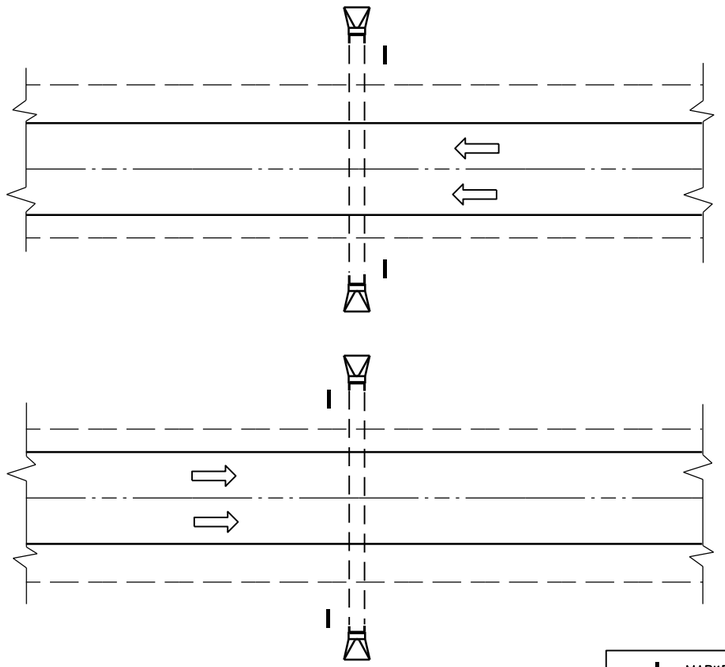
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

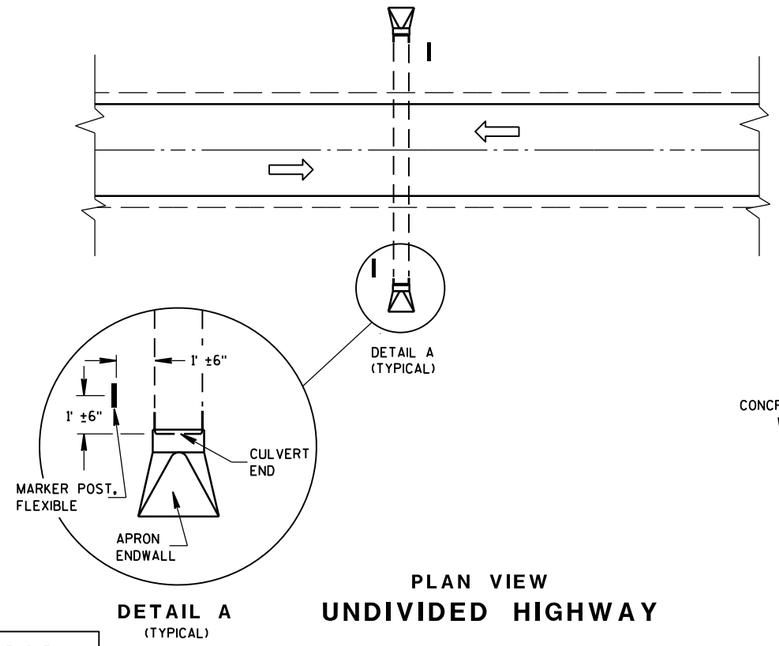
6

SDD 14B44 - 04c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

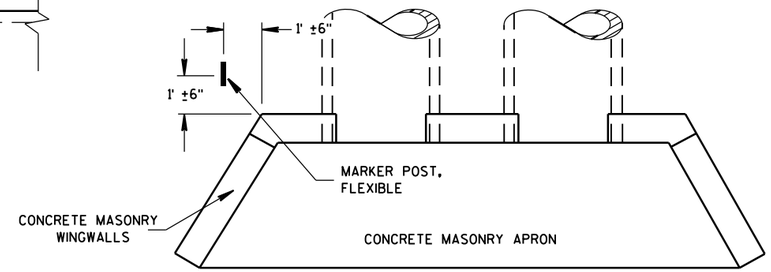
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

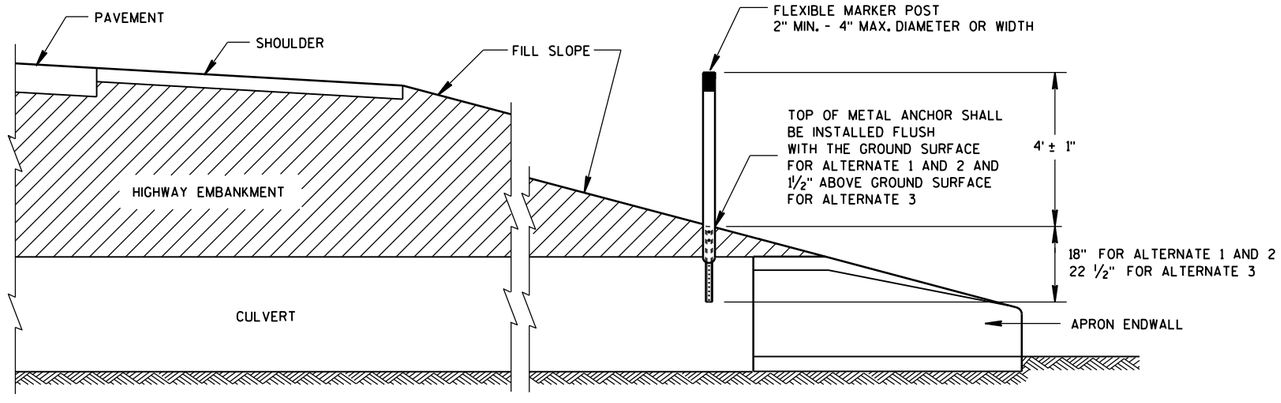
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

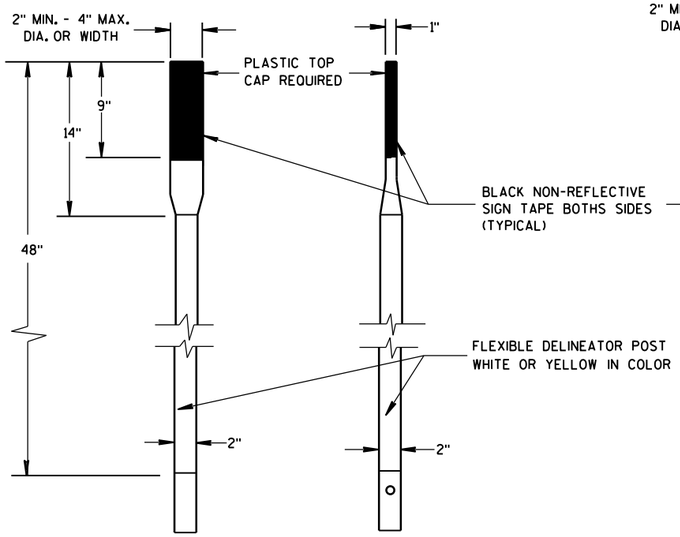
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

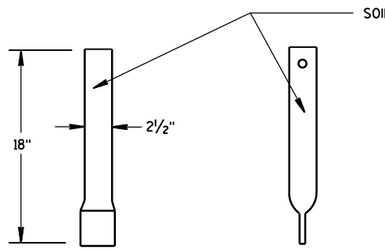
6

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

6

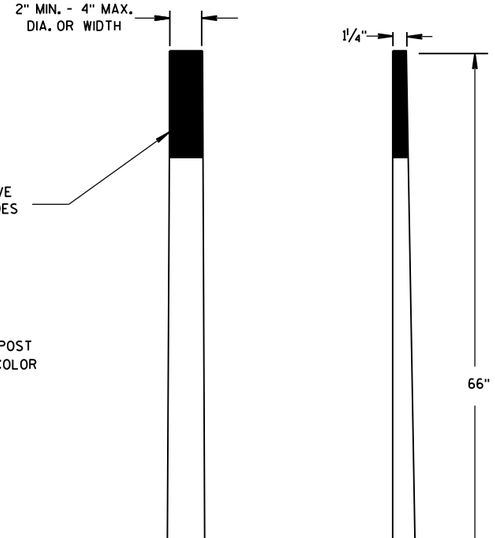
S.D.D. 15 A 3-2a





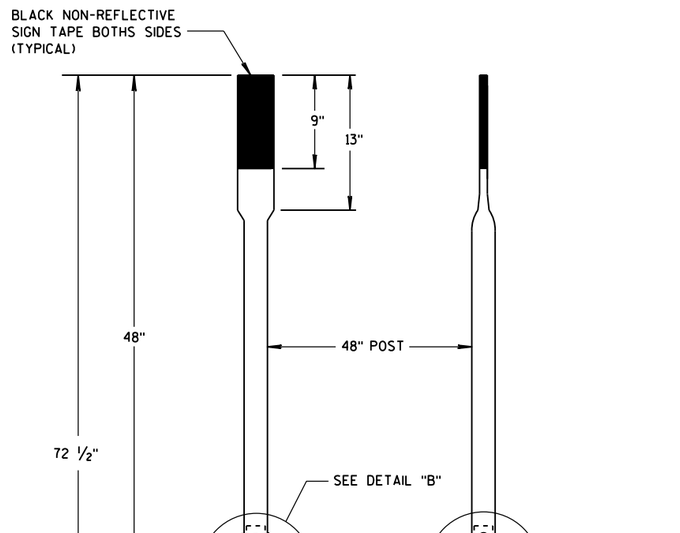
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

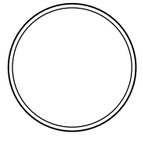
ALTERNATE 2



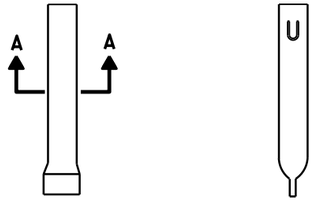
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

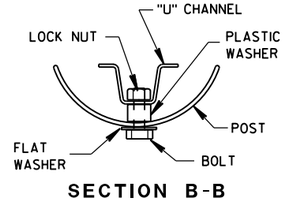


SECTION A-A

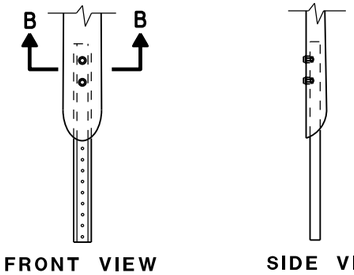


FRONT VIEW SIDE VIEW

ALTERNATE 1

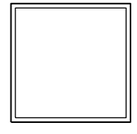


SECTION B-B

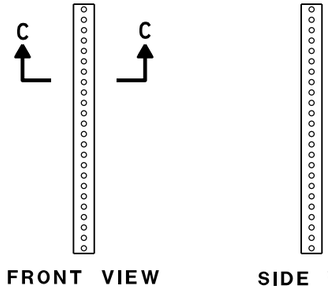


FRONT VIEW SIDE VIEW

ALTERNATE 2



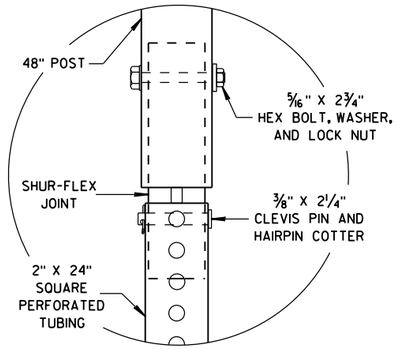
SECTION C-C



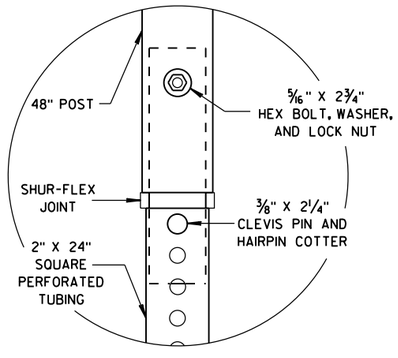
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



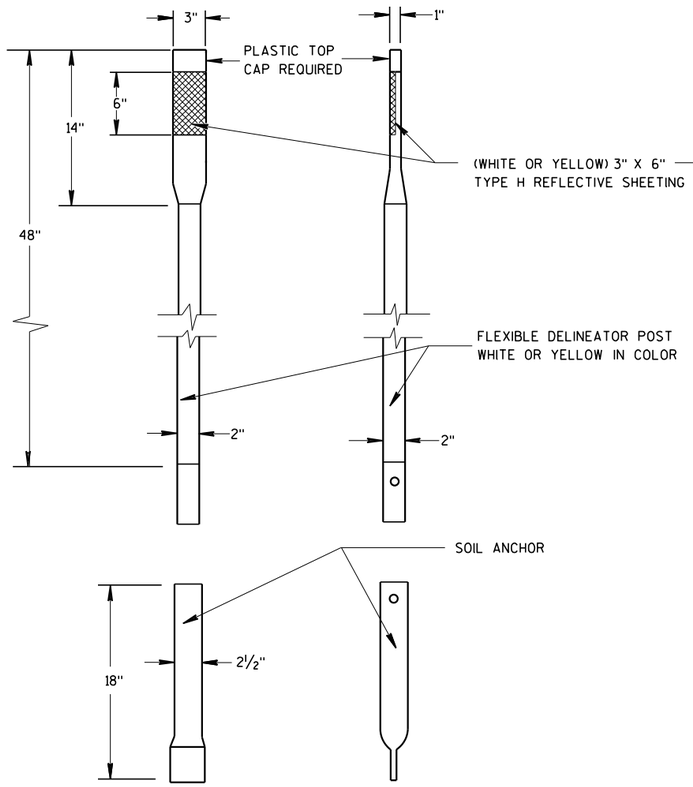
DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

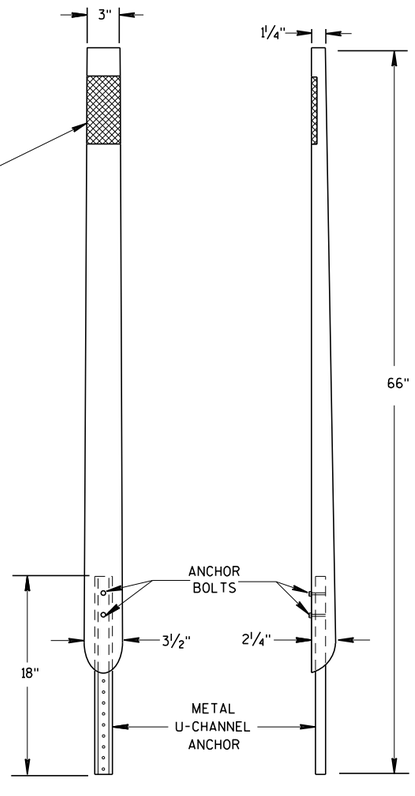
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

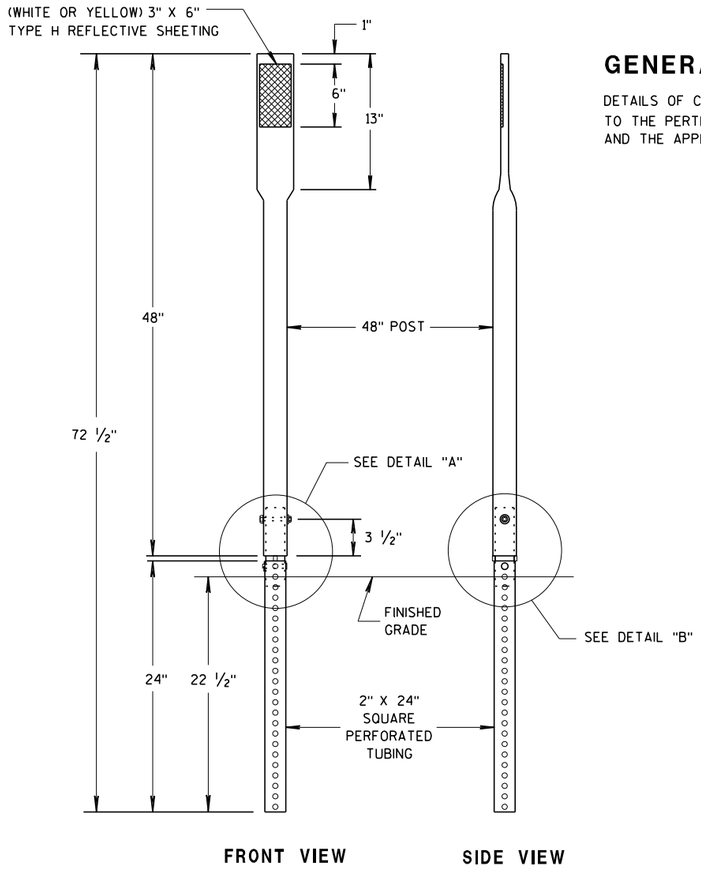
6
S.D.D. 15 A 3-2b



ALTERNATE 1



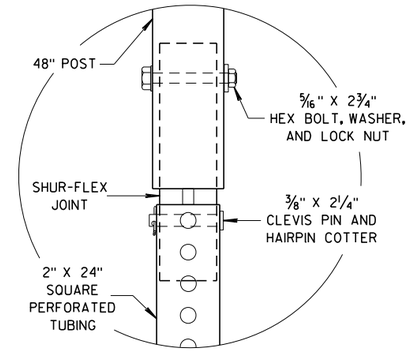
ALTERNATE 2
FLEXIBLE DELINEATOR POSTS



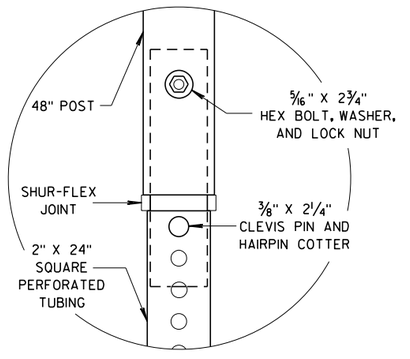
ALTERNATE 3

GENERAL NOTES

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



DETAIL A

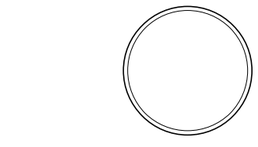


DETAIL B

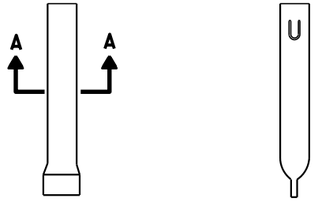
REFLECTOR SPACING TABLE

REFLECTOR SPACING	LOCATION
*100' C-C	RAMPS
400' C-C	MAINLINE

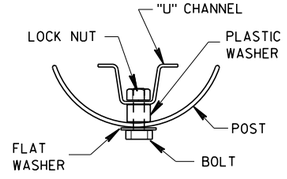
*START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER



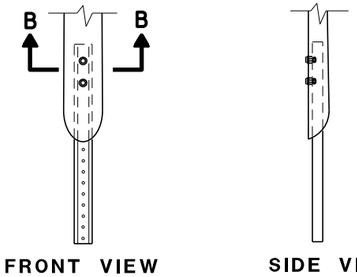
SECTION A-A



ALTERNATE 1

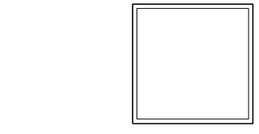


SECTION B-B

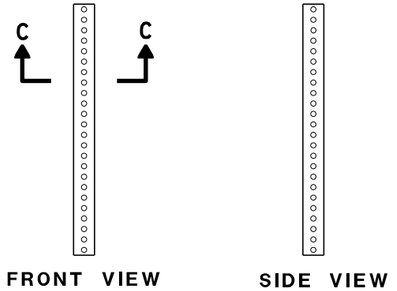


ALTERNATE 2

FLEXIBLE MARKER POST ANCHORS



SECTION C-C



ALTERNATE 3

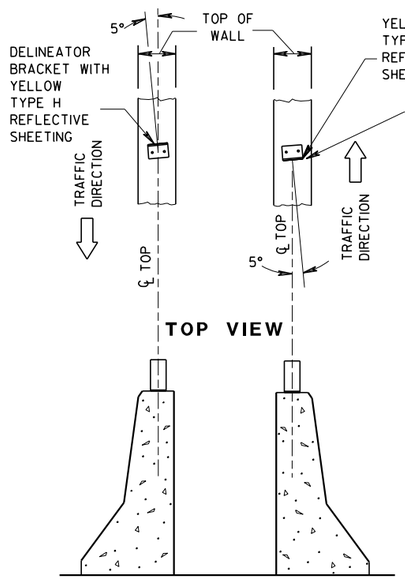
FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

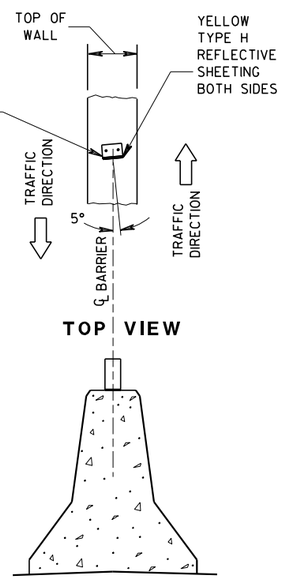
APPROVED
March 2018 — DATE
/S/ Matt Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

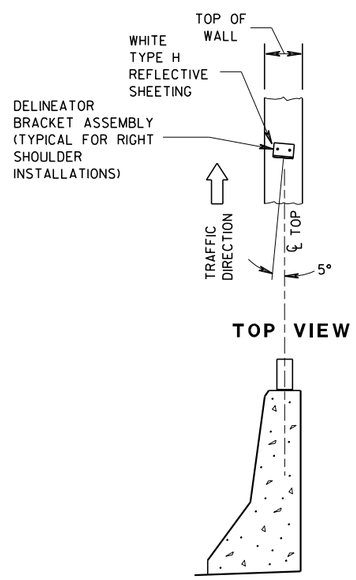
S.D.D. 15 A 4-4a



DOUBLE BARRIERS IN MEDIAN

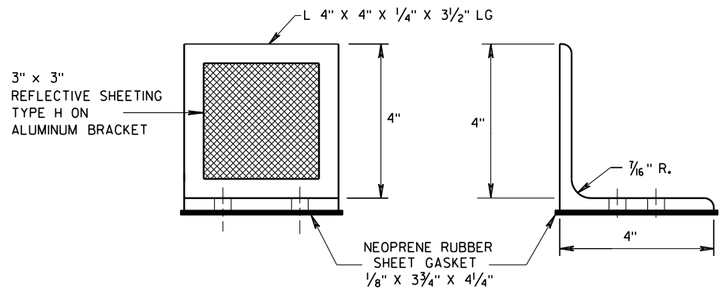


MEDIAN BARRIER

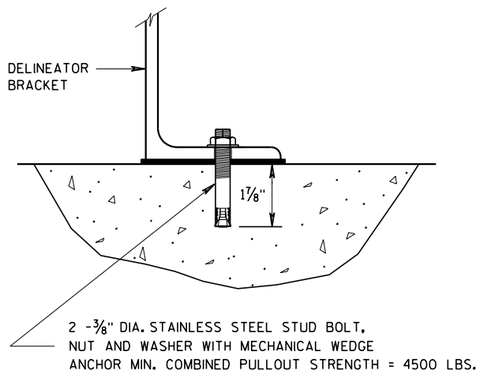


BARRIER LOCATED
TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET



DELINEATOR BRACKET
MOUNTING DETAIL

REFLECTOR SPACING TABLE

REFLECTOR SPACING	MINIMUM NUMBER OF REFLECTORS
100' C-C	3

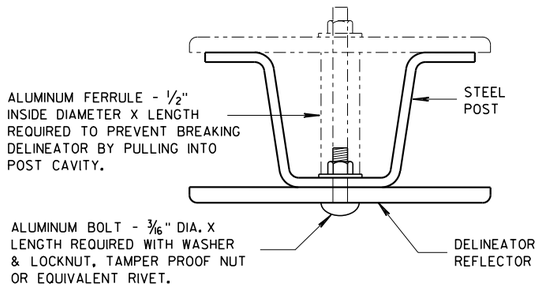
DELINEATOR BRACKET
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

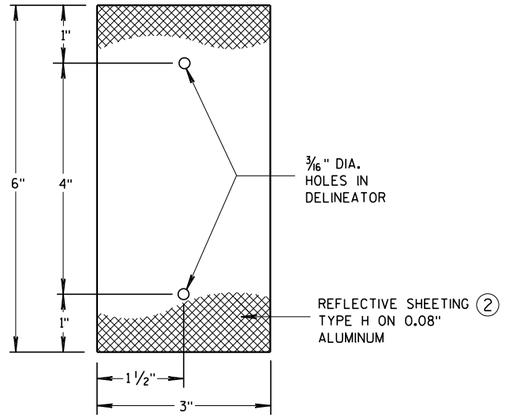
APPROVED
March 2018 /S/ Matthew P. Rauch
DATE STATE SIGNING AND M. ENGINEER
FHWA

6

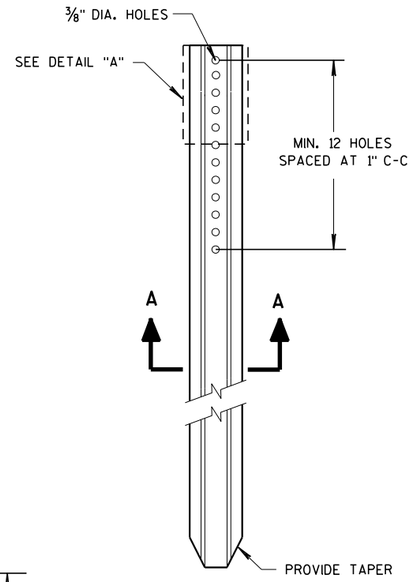
S.D.D. 15 A 4-4b



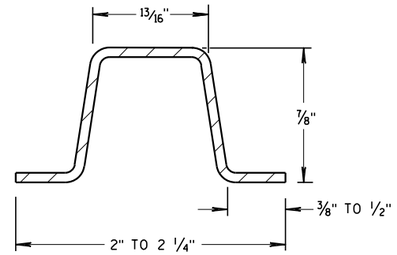
MOUNTING DETAIL
FOR DELINEATOR REFLECTOR



DETAIL "A"
3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



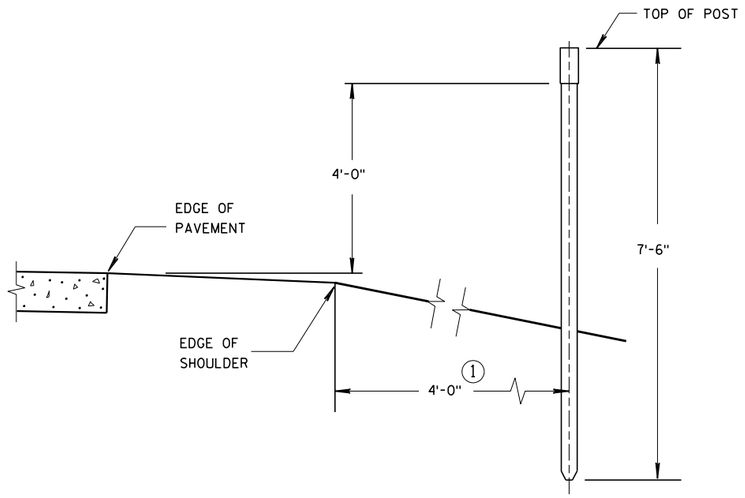
SECTION A-A

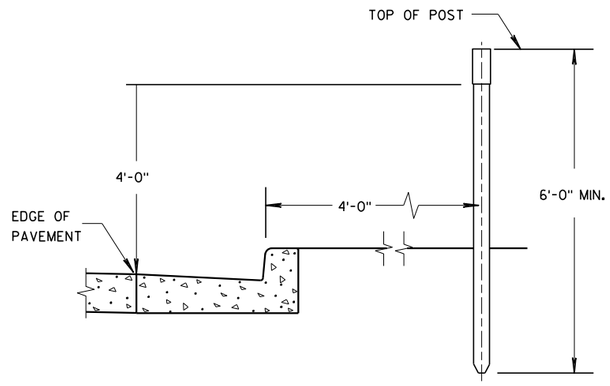
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

REFLECTOR SPACING TABLE

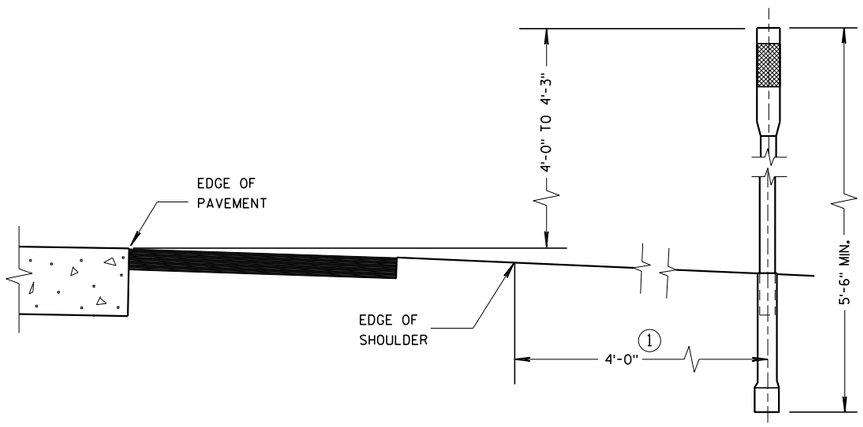
REFLECTOR SPACING	LOCATION
400'	MAINLINE
100'	RAMPS *

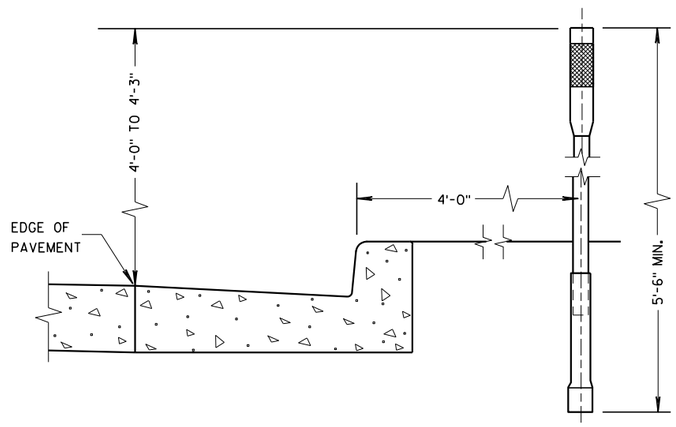
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER.





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

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

(1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

(2) FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

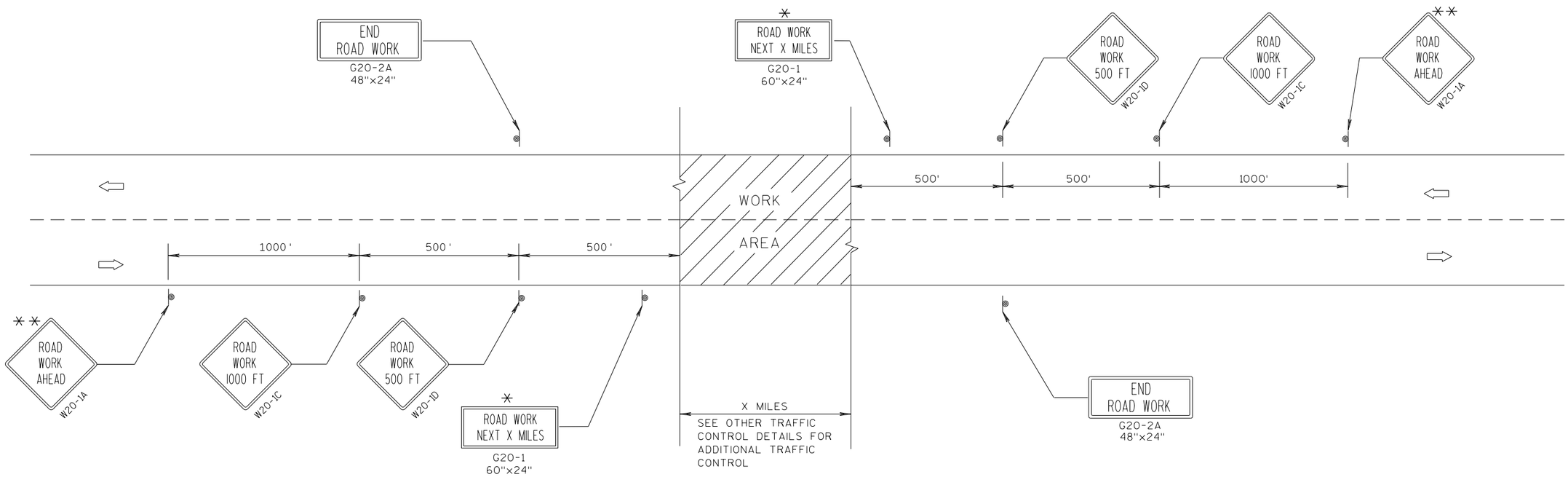
DELINEATOR POST
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Matthew P Rauch
DATE STATE SIGNING AND M[illegible]NGINEER
FHWA

6
S.D.D. 15 A 4-4c

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.

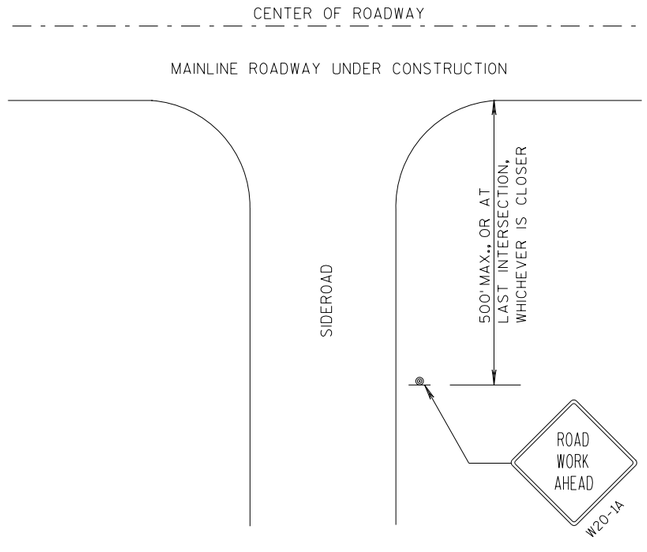
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

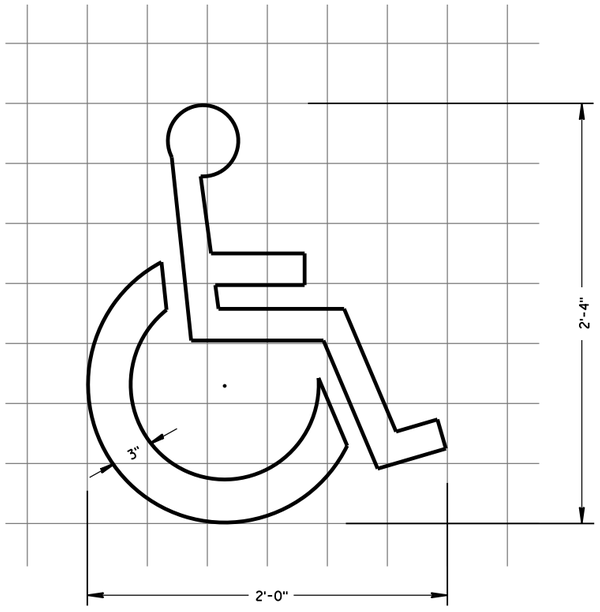
APPROVED
7/2018 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGI
FHWA

6

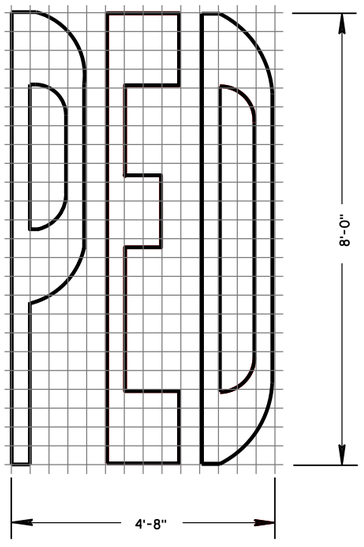
S.D.D. 15 C 4-5

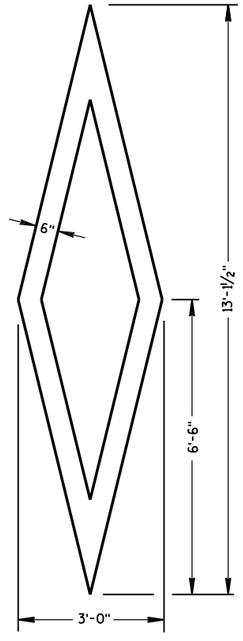
GENERAL NOTES

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



HANDICAP SYMBOL





PREFERENTIAL LANE SYMBOL

6

S.D.D. 15 C 7-14a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER

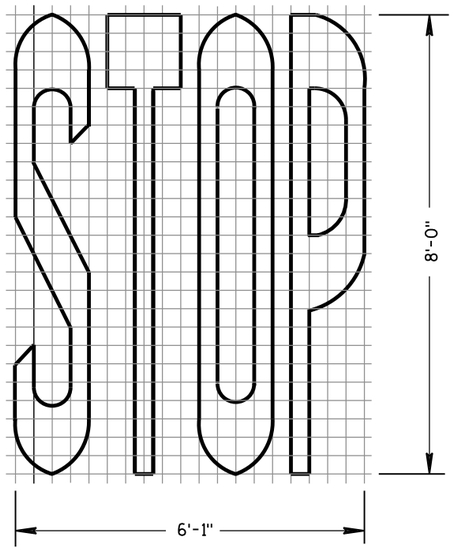
FHWA

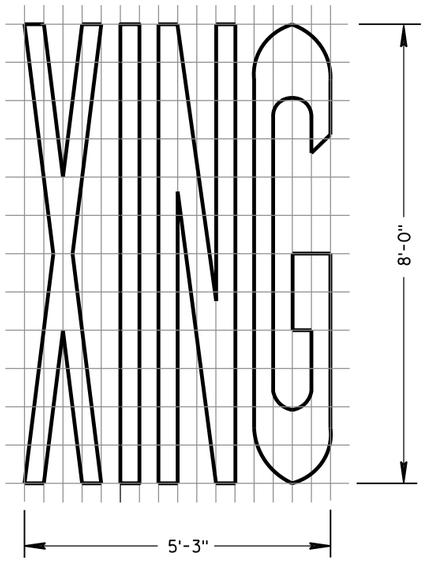
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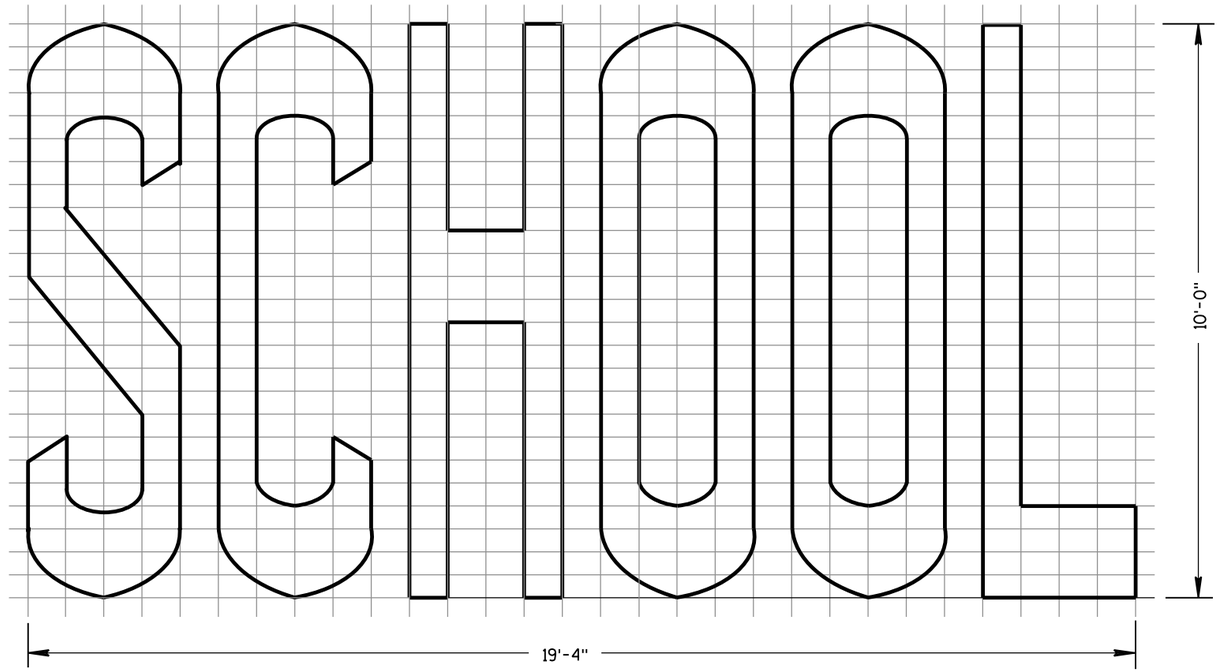
S.D.D. 15 C 7-14a

GENERAL NOTES

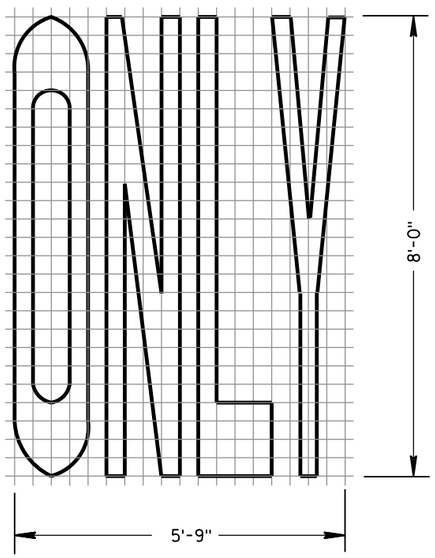
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

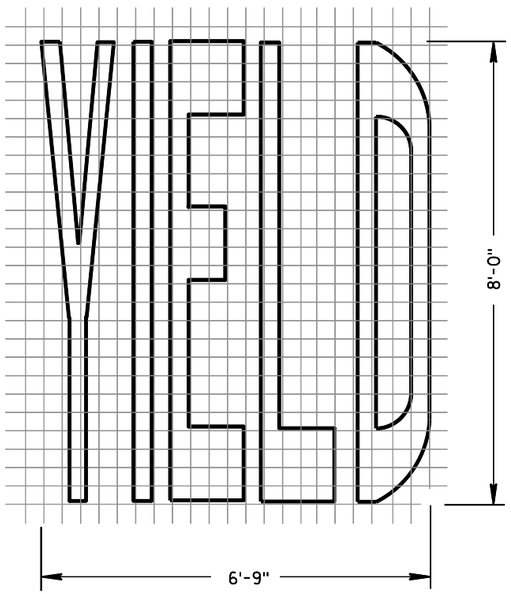


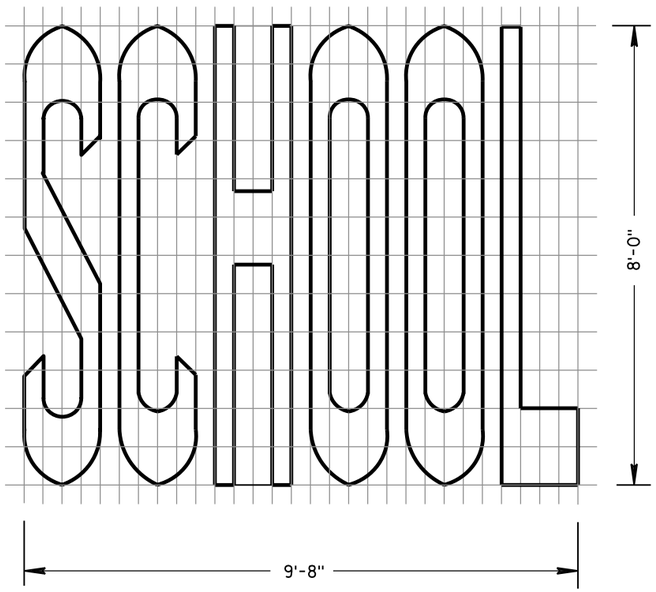




TWO-LANE







SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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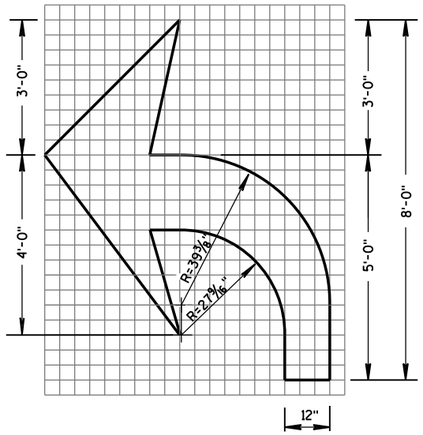
S.D.D. 15 C 7-14b

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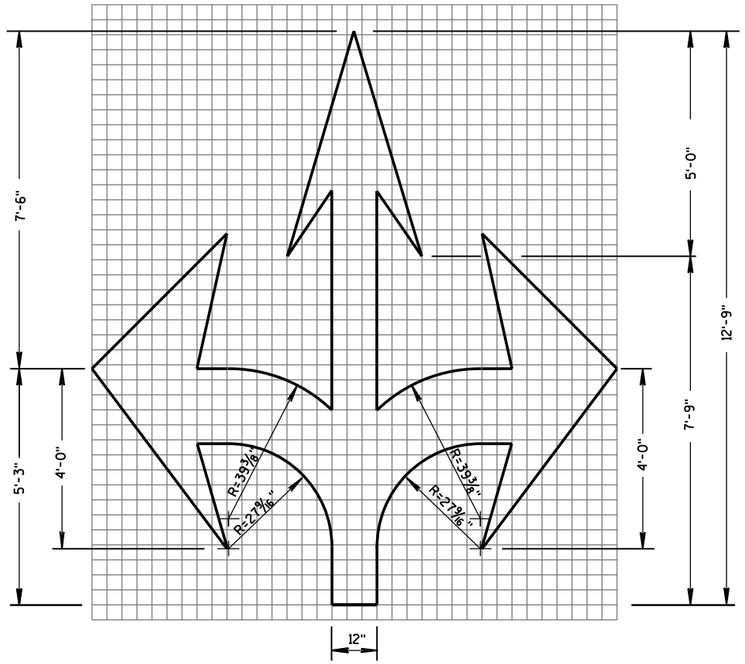
S.D.D. 15 C 7-14b

GENERAL NOTES

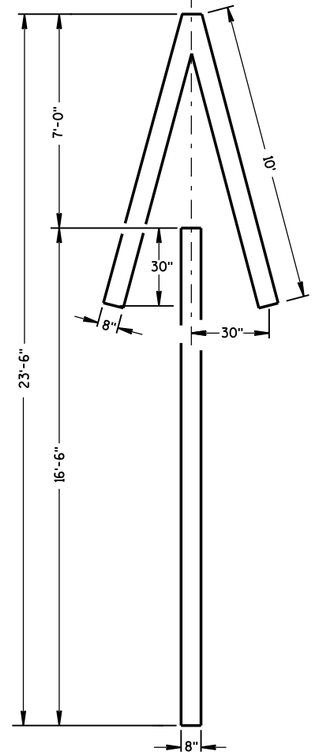
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



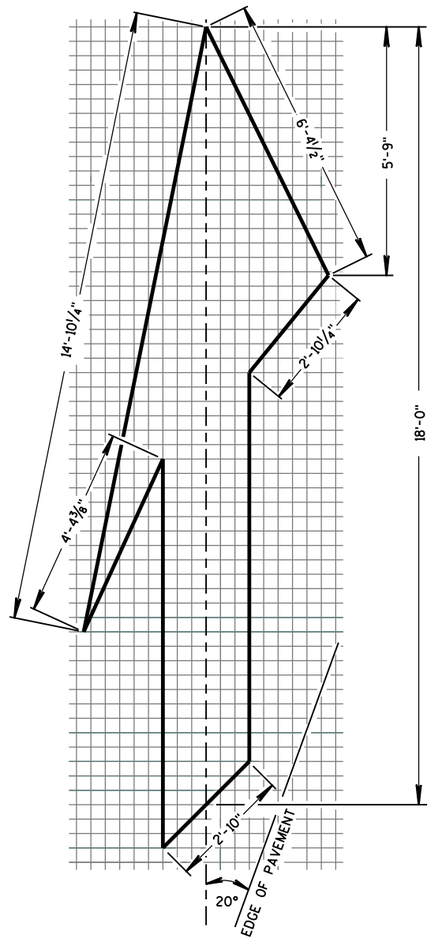
TYPE 2



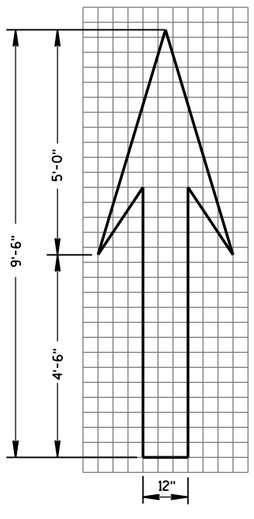
TYPE 6



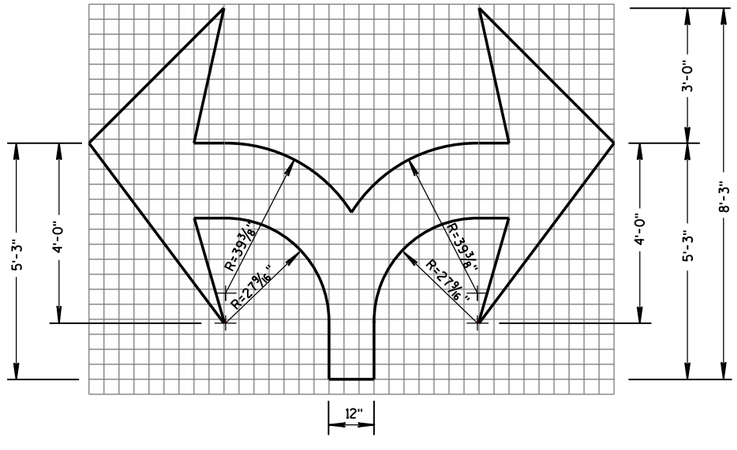
TYPE 4



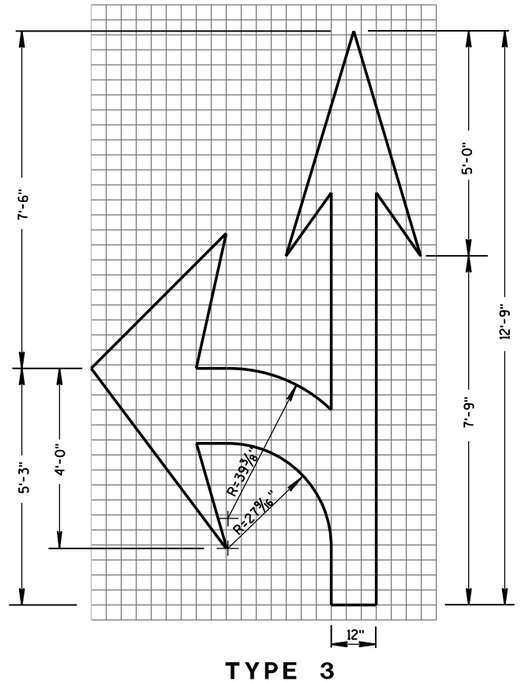
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

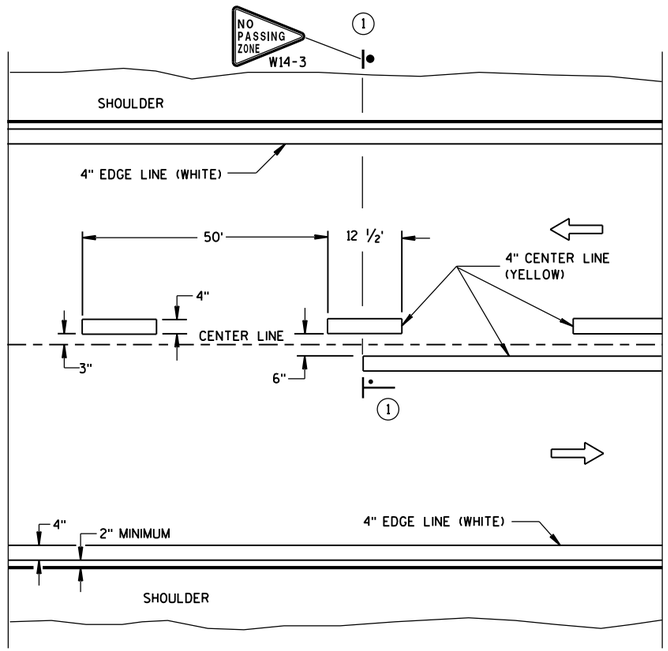
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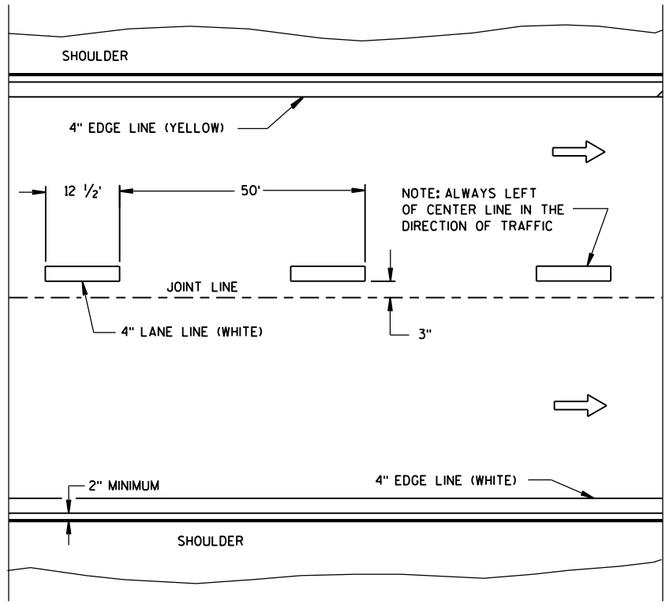
S.D.D. 15 C 7-14c

6

S.D.D. 15 C 7-14c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

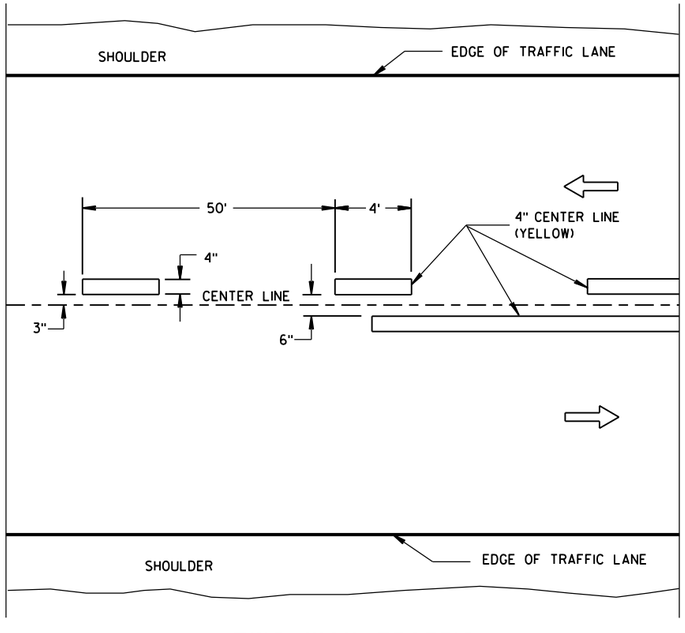
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

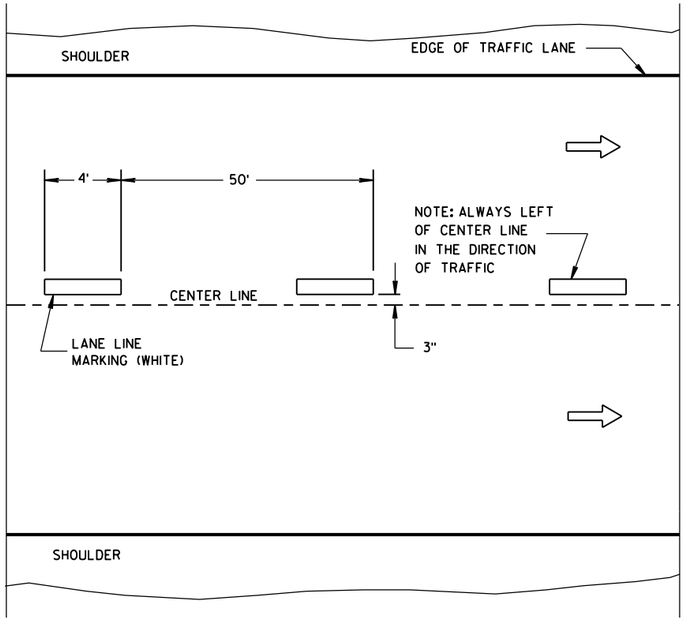
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



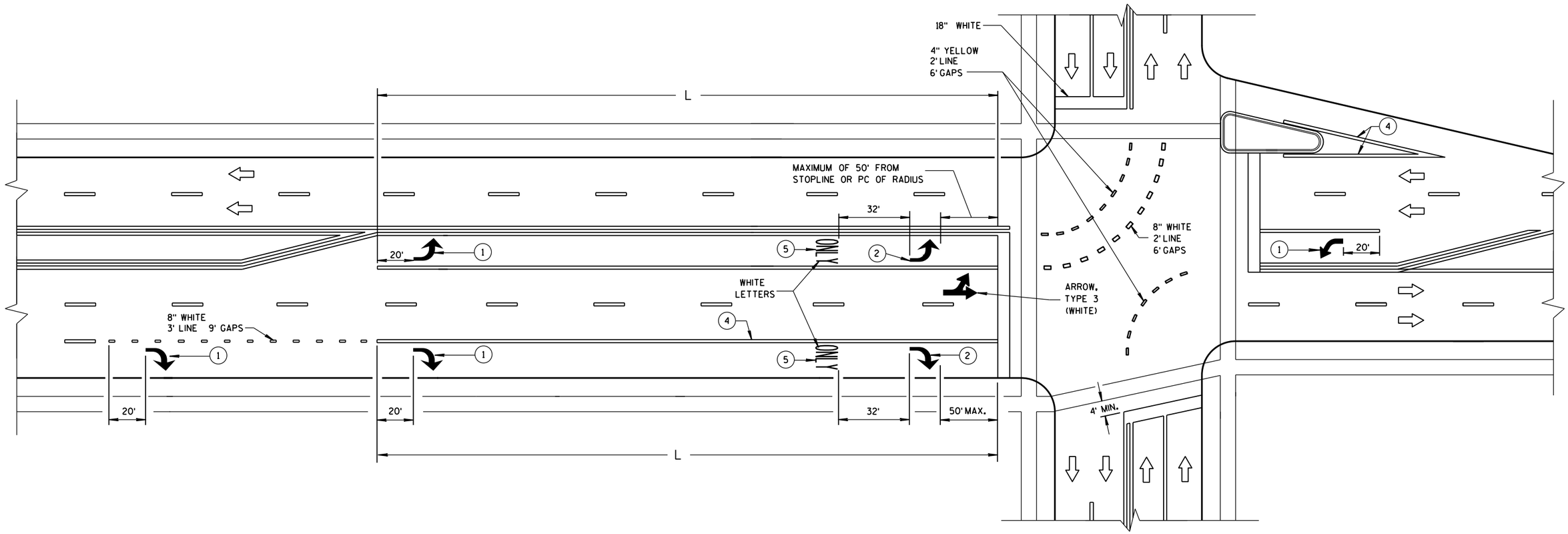
ONE WAY TRAFFIC

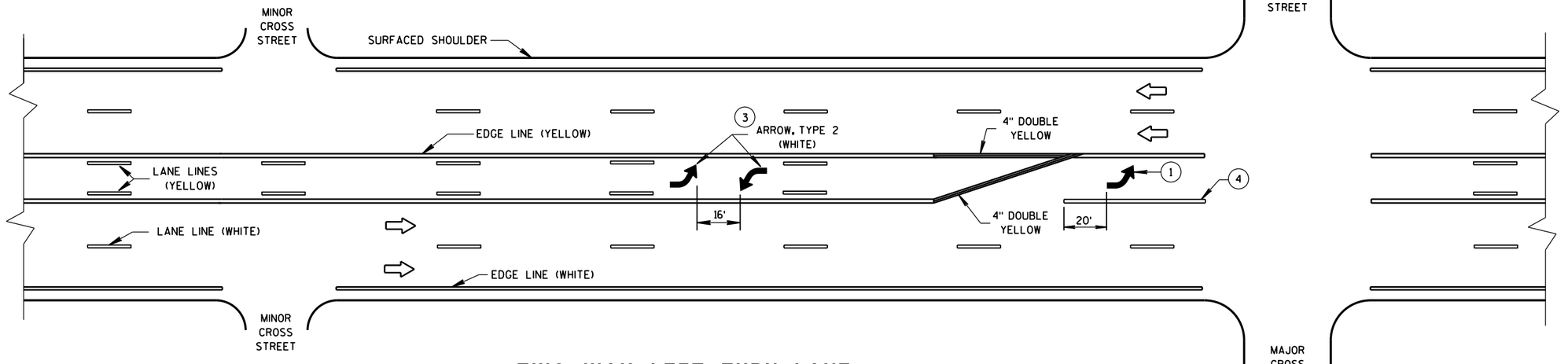
TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MAR[illegible]INEER
FHWA	

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S.D.D. 15 C 8-18a





GENERAL NOTES

(1) REQUIRED ARROW, TYPE 2 (WHITE).

(2) REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.

(3) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(4) 8" WHITE

(5) REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

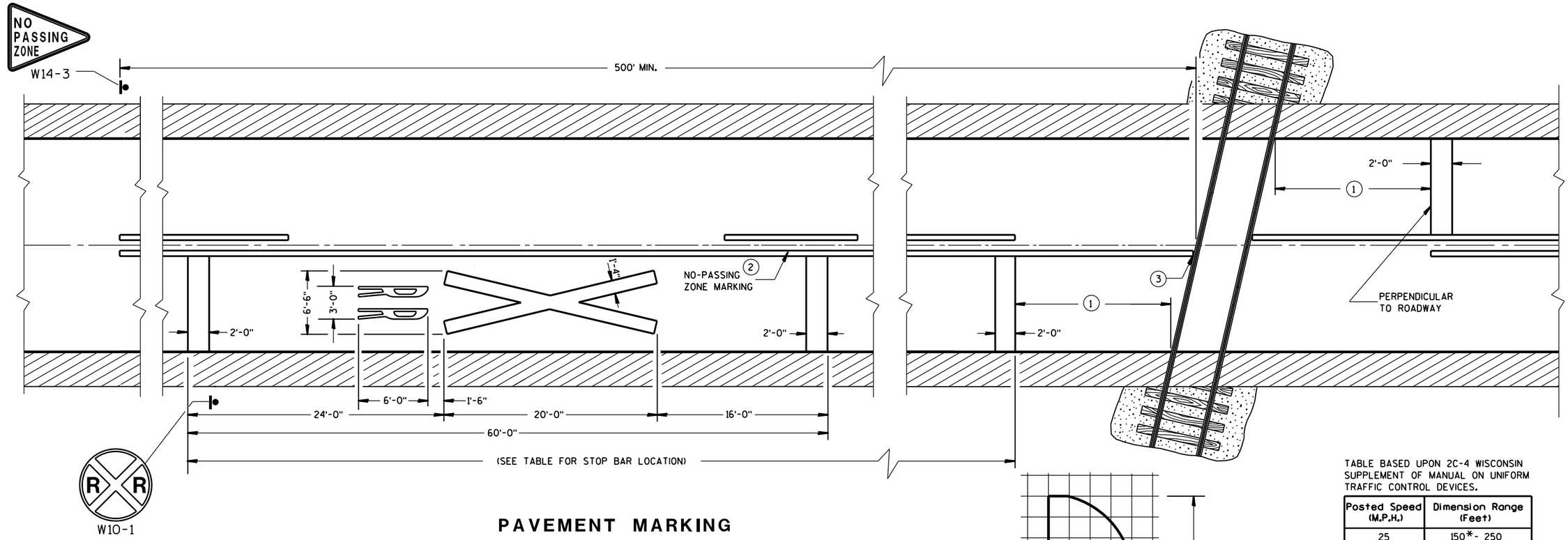
TWO WAY LEFT TURN LANE

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-18b



PAVEMENT MARKING

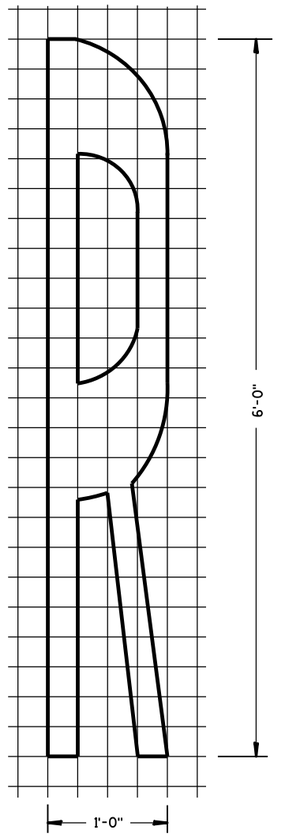


TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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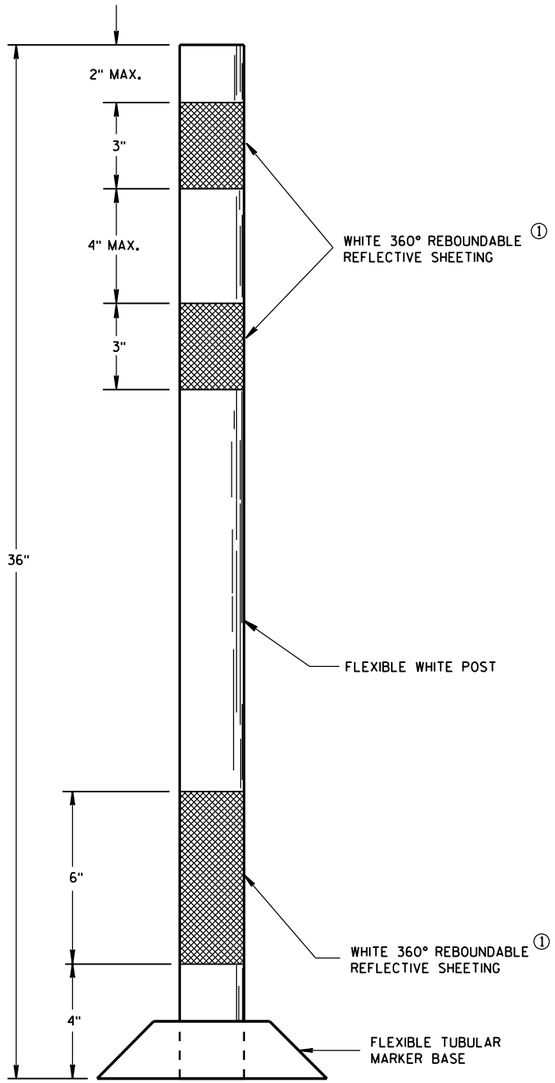
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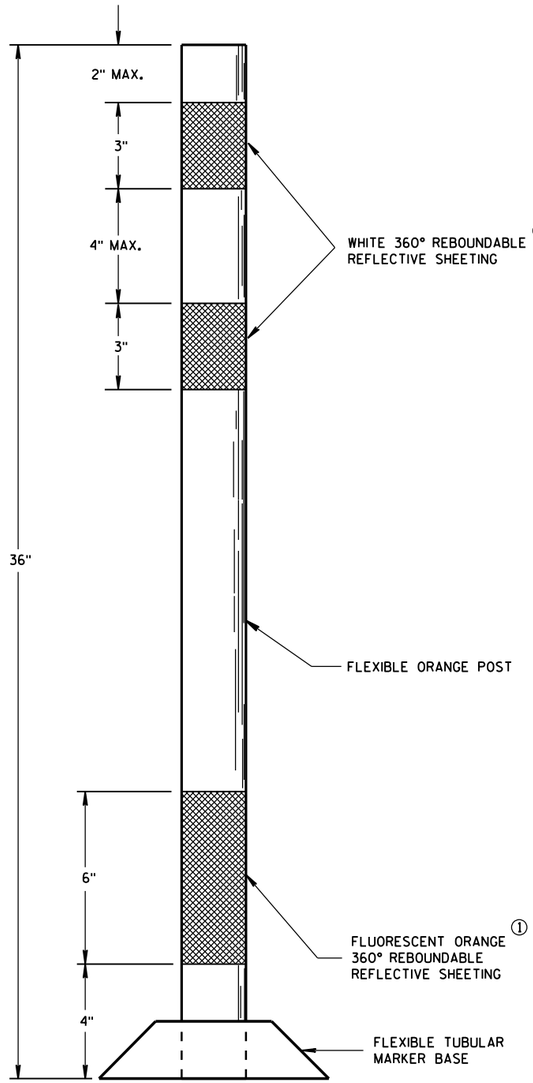
S.D.D. 15 C 9-11a

6

S.D.D. 15 C 9-11a



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

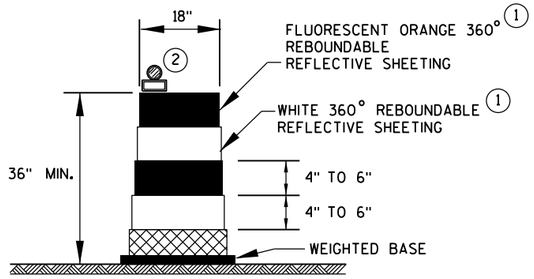
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

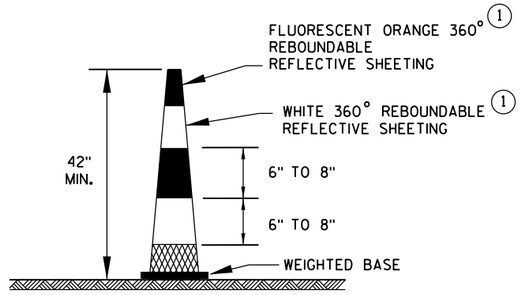
STATE OF WISCONSIN
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June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGR
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S.D.D. 15 C 11-7a



DRUM

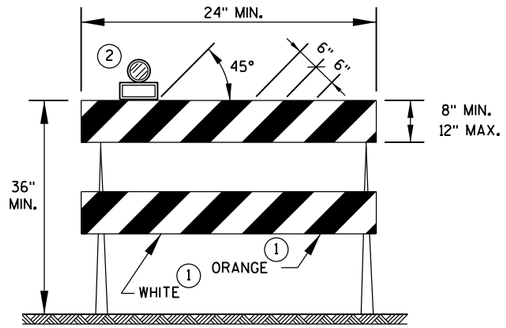


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

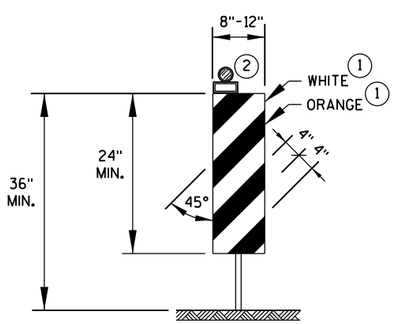
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



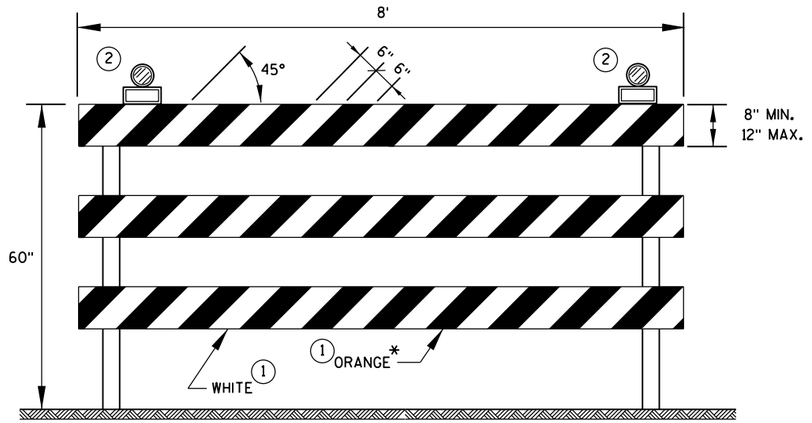
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 15 C 11-7b

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

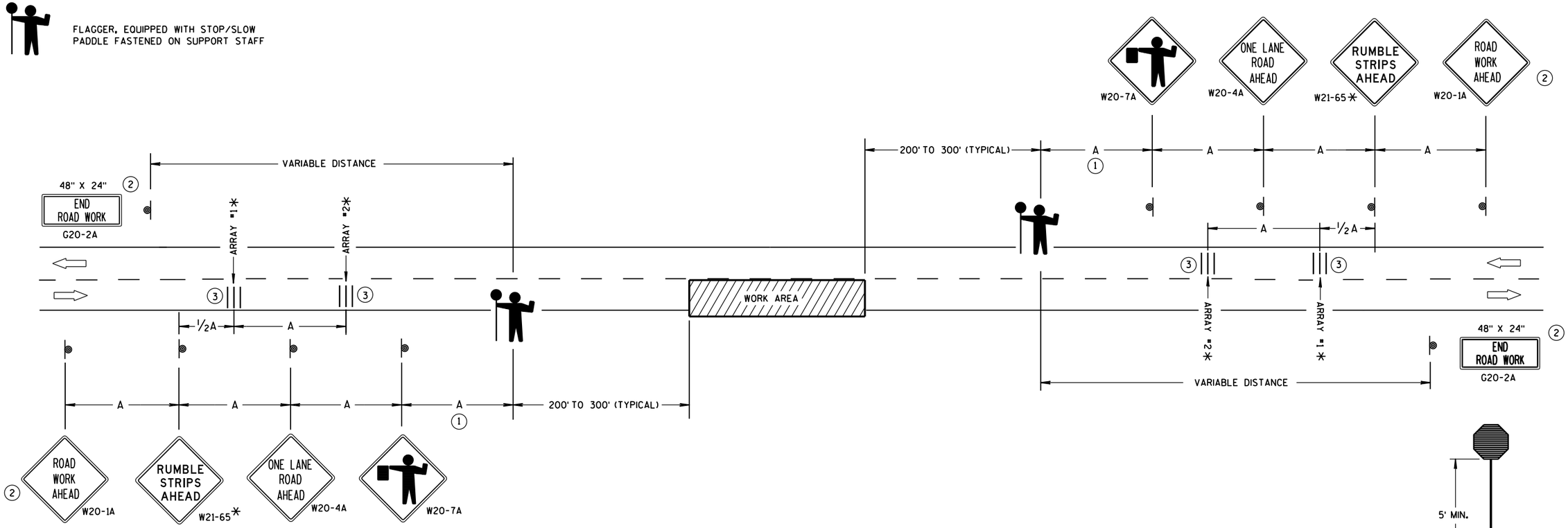
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

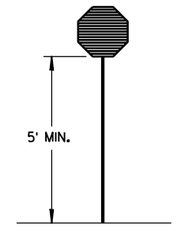
SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W03-4

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





STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

GENERAL NOTES

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

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

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

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

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

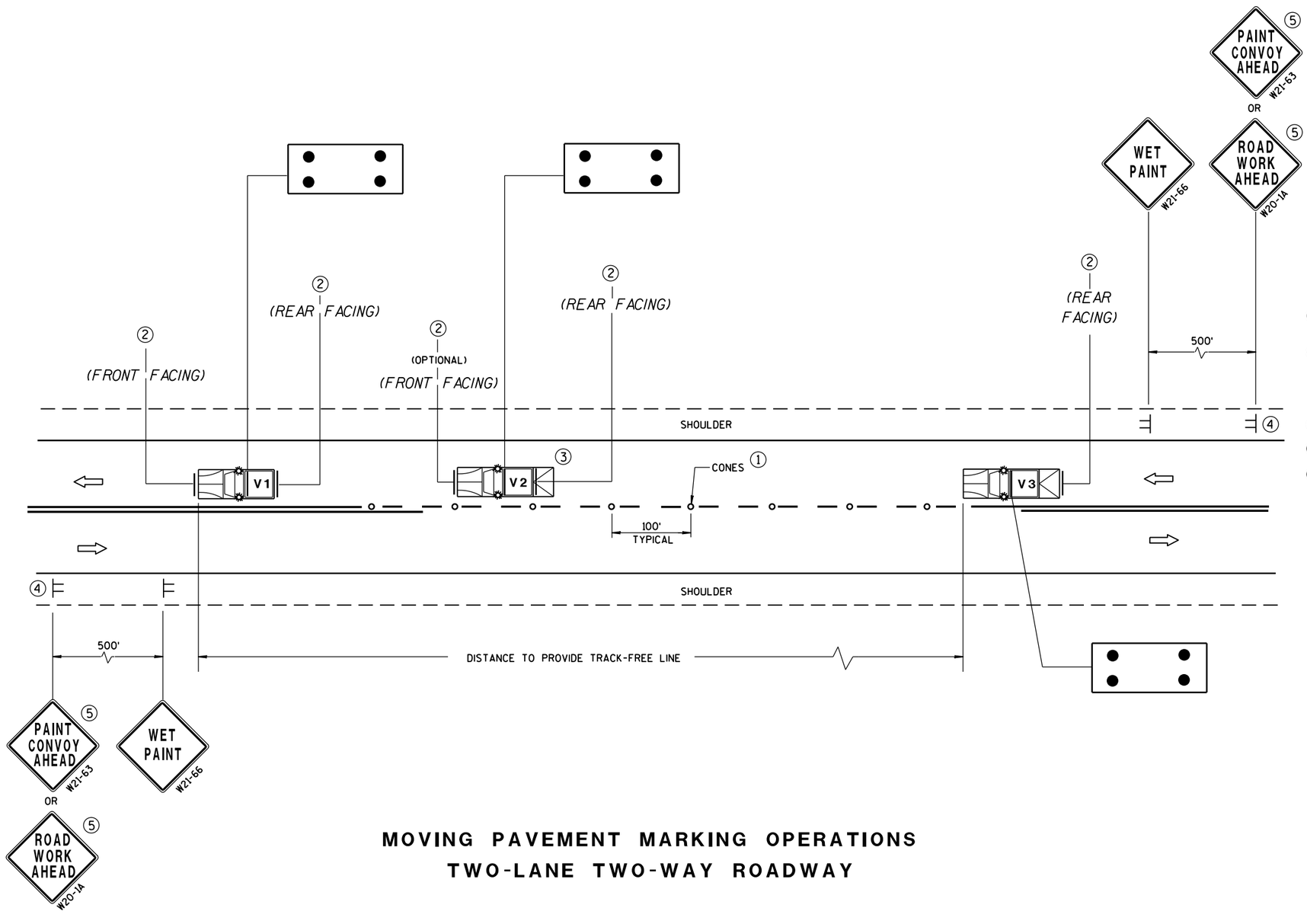
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
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S.D.D. 15 C 12-6



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

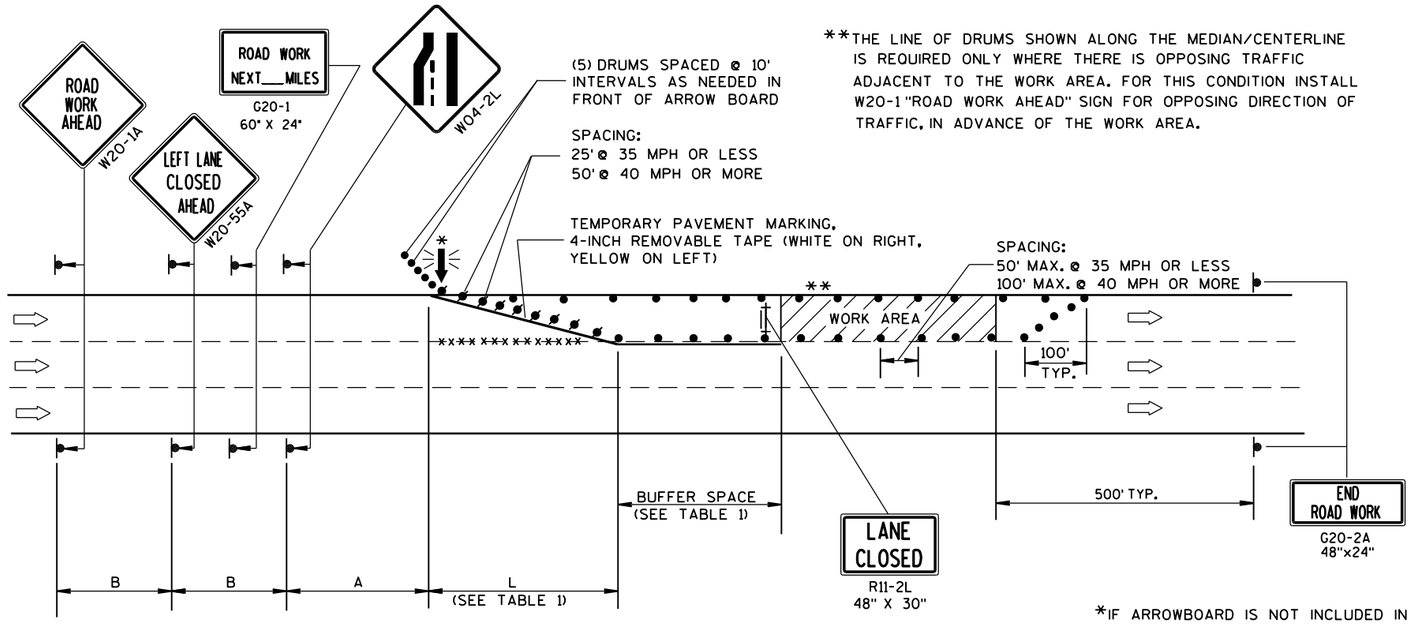
LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
⊢	SIGN ON TEMPORARY SUPPORT
⇨	DIRECTION OF TRAFFIC
o	CONES
⁘	FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGR
FHWA	

6

S.D.D. 15 C 19-5a



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

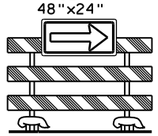


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 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 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, OR THAT WILL BE PLACED IN A CLOSED LANE, 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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

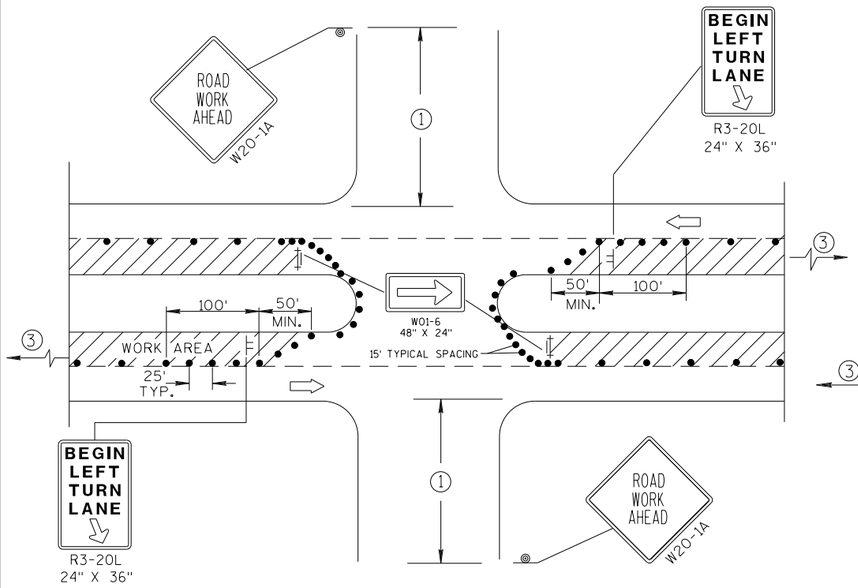
APPROVED
June 2016 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE SAFETY ENGINEER
IC
FHWA

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S.D.D. 15 D 20-4

6

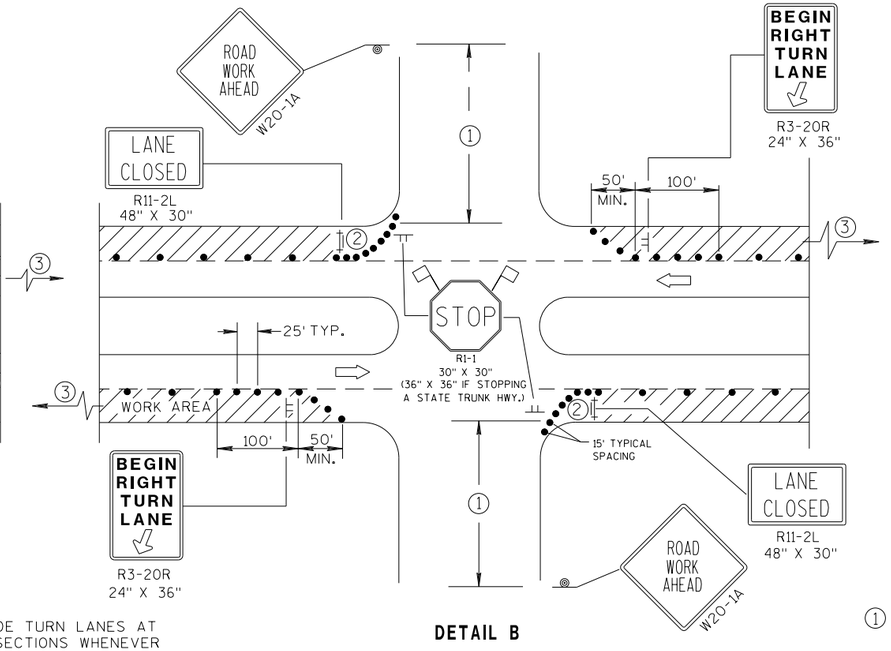
S.D.D. 15 D 20-4



DETAIL A

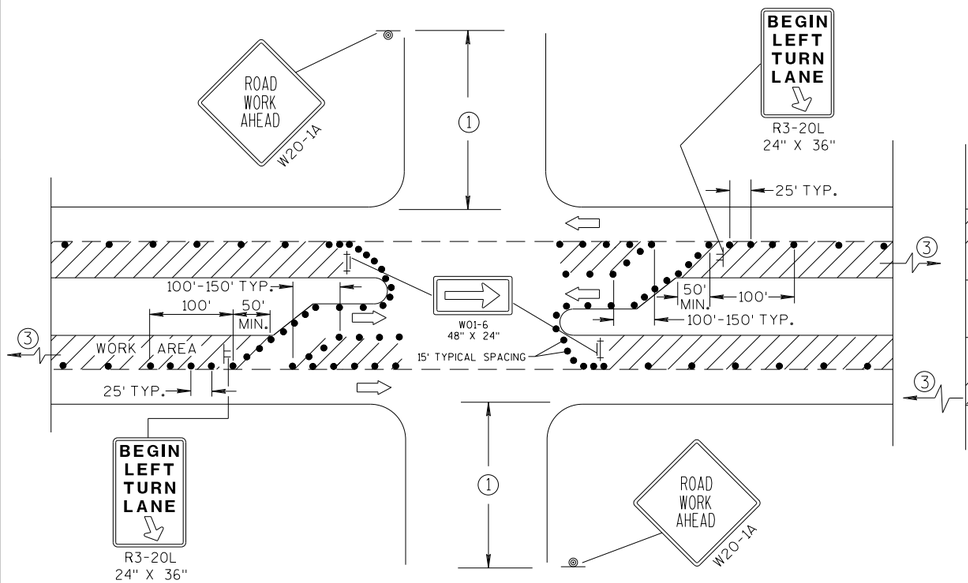
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



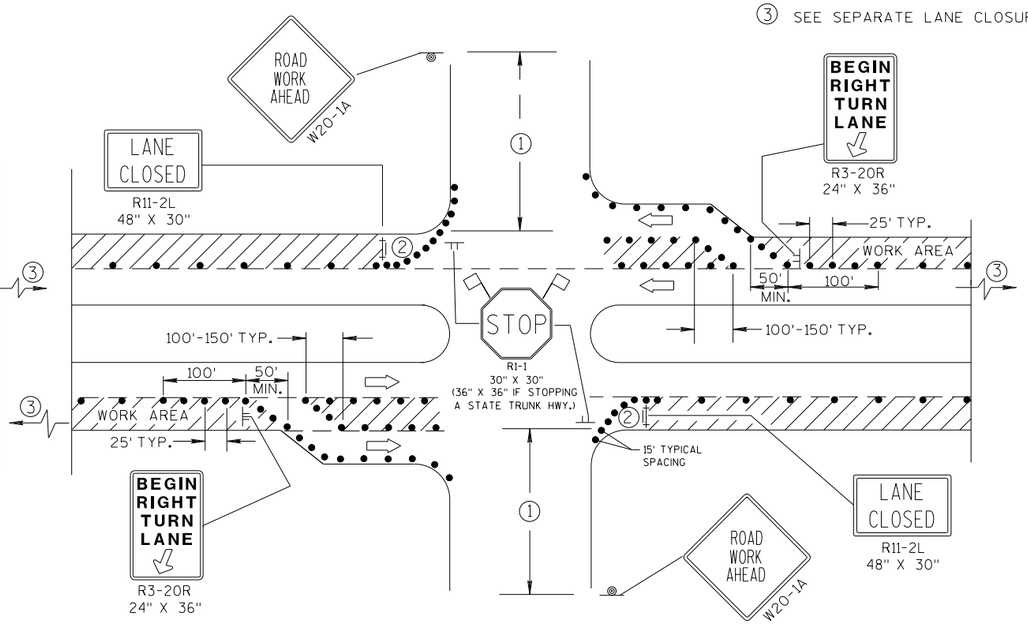
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

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.

THE SPACING BETWEEN 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 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.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, 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.

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

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

(2) ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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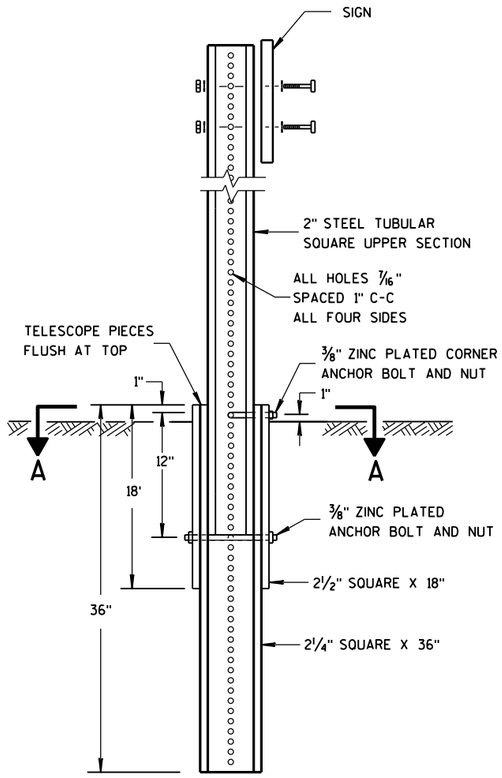
7/2018
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

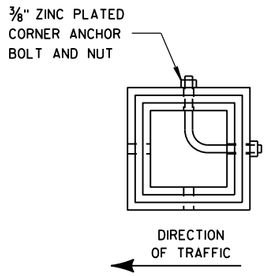
FHWA

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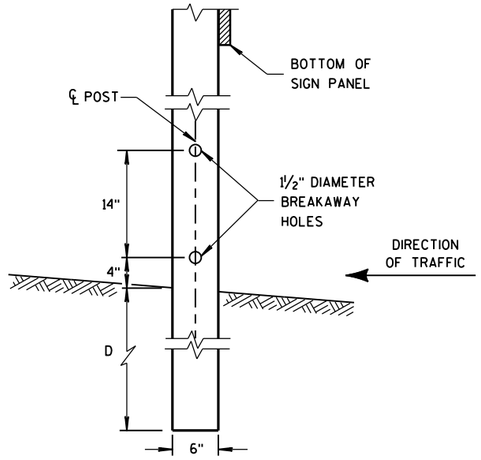
S.D.D. 15 D 21-6



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



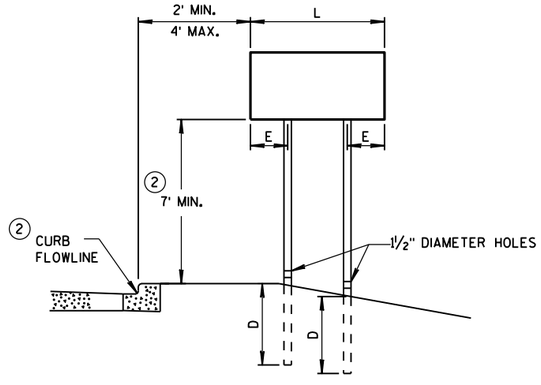
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

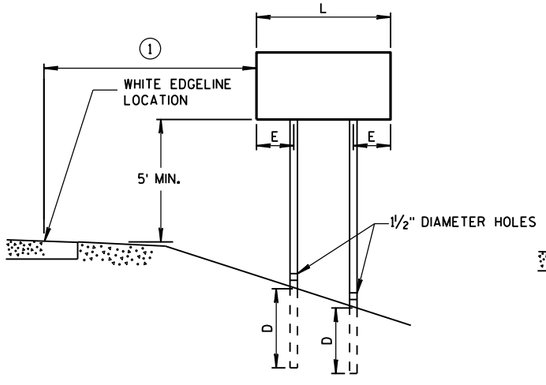
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

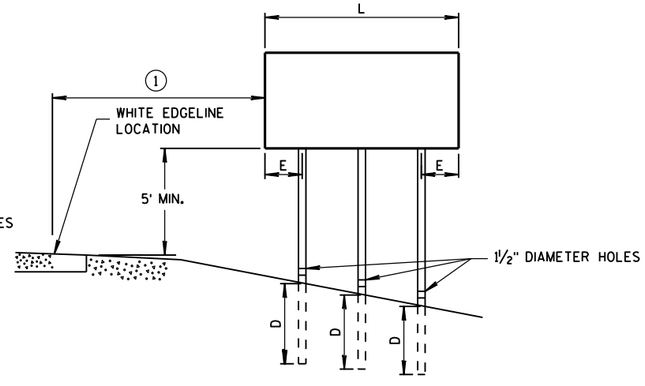
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

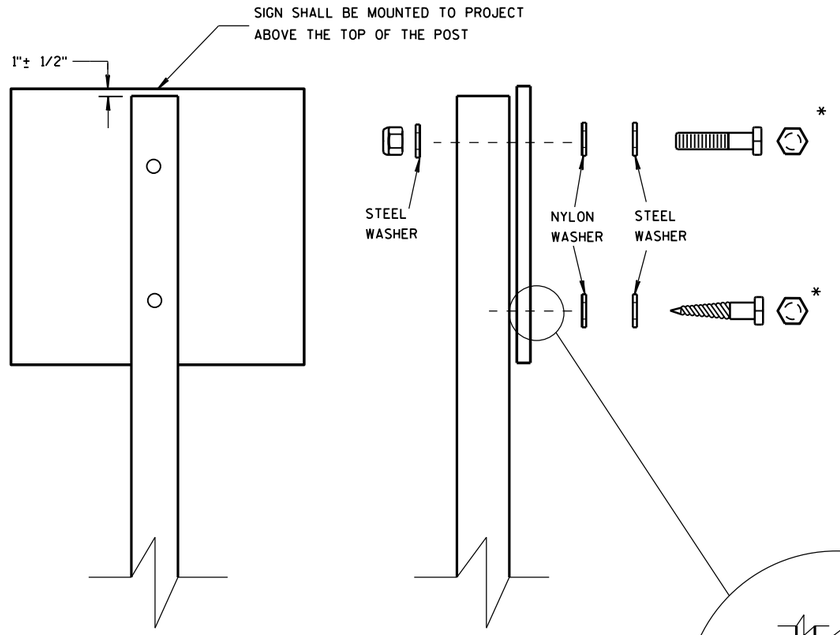
SEE NOTE (3)

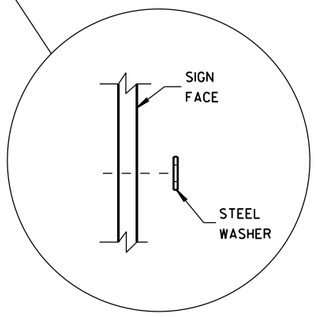
TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a





WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

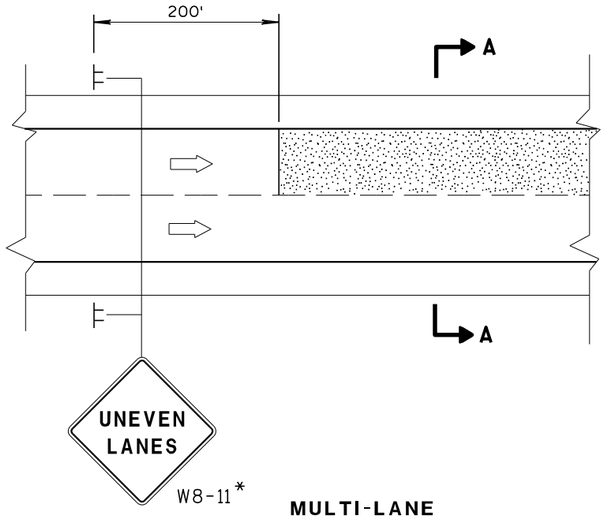
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

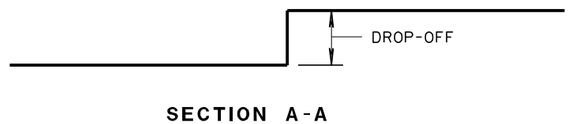
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA



MULTI-LANE

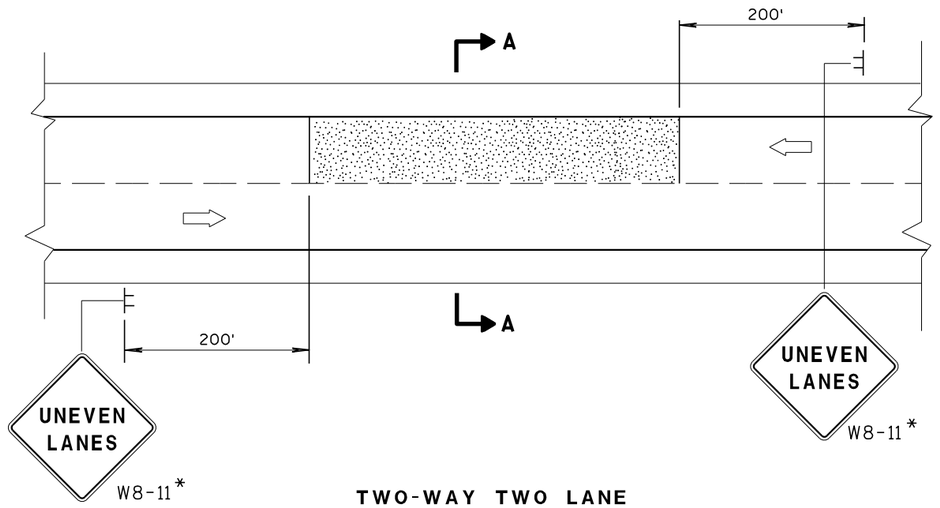


SECTION A-A

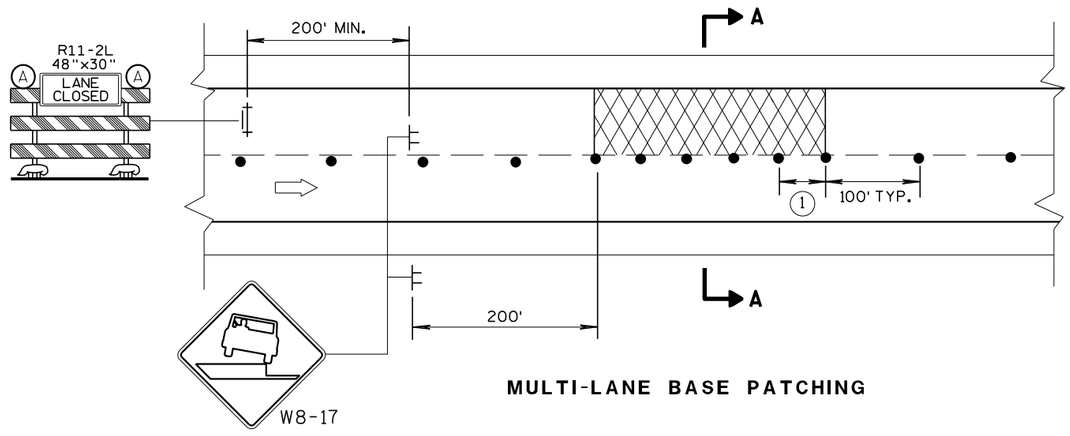
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SECTION A-A

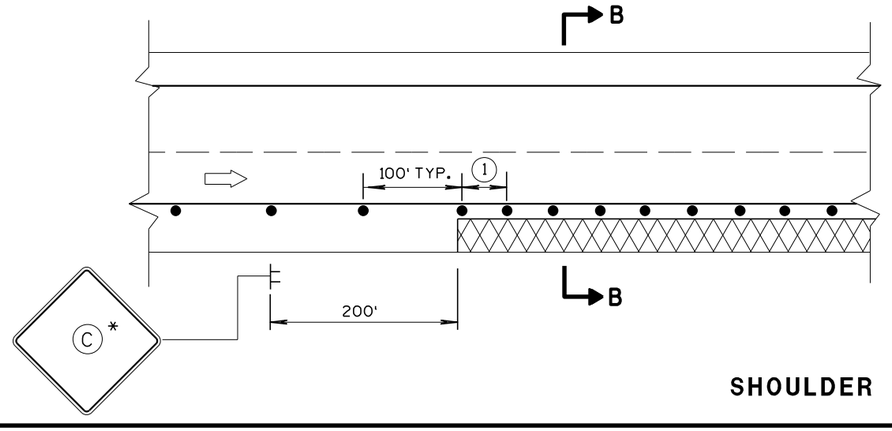


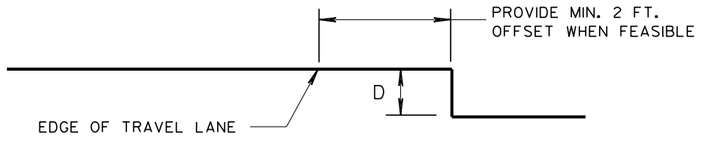
TWO-WAY TWO LANE



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS





SECTION B-B

SHOULDER DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EACH ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP-OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Andrew H — WORK ZONE EN
FHWA

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S.D.D. 15 D 39-2

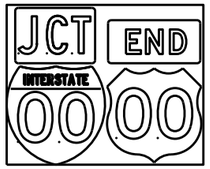
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S.D.D. 15 D 39-2

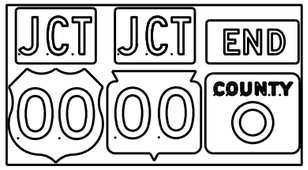
TYPICAL ASSEMBLIES



J1-1



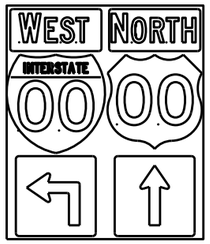
J1-2



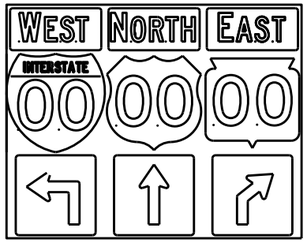
J1-3



J2-1



J2-2

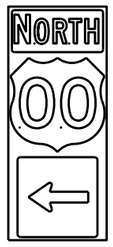


J2-3

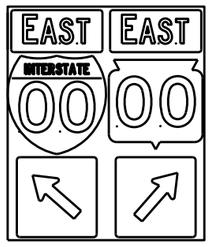


JV

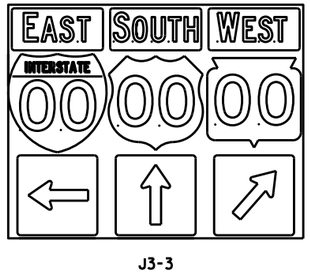
(Typical Vertical J-Assembly
See Note 10 and 11)



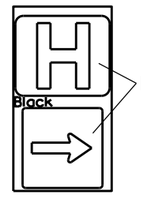
J3-1



J3-2



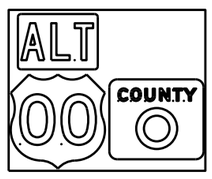
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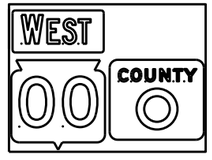
JH-1



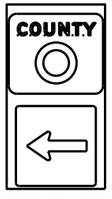
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

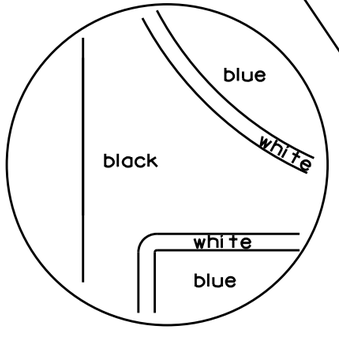


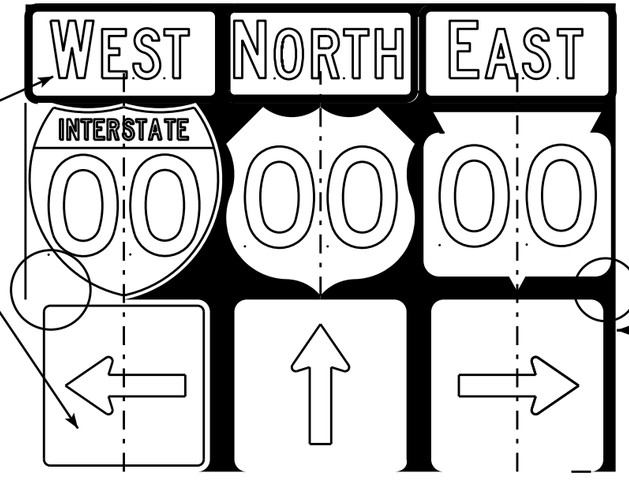
J23-1

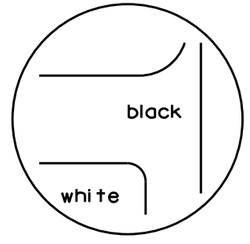


J22-1

blue background
with interstate







black background

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

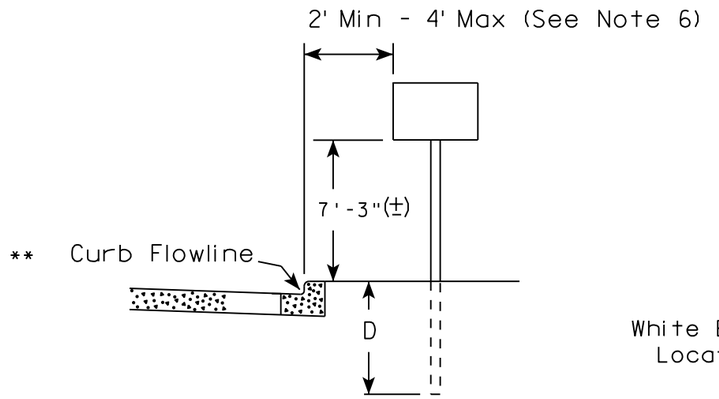
DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

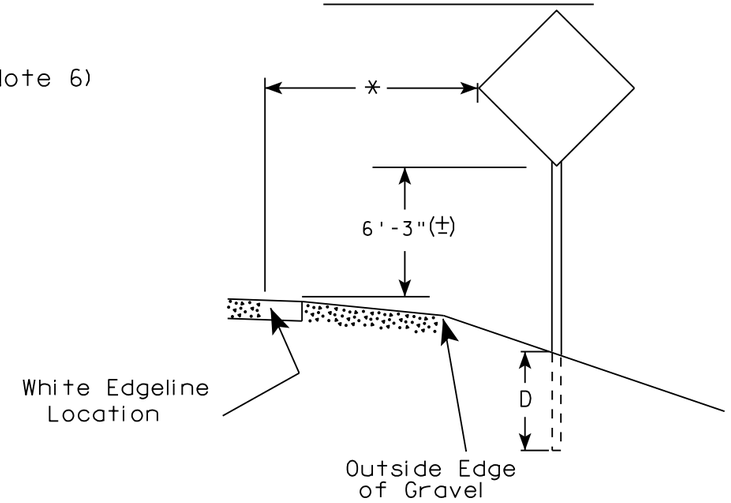
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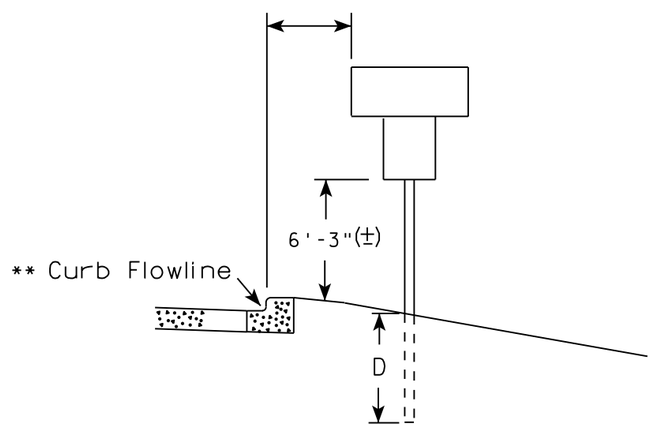
WISDOT/CADDS SHEET 42

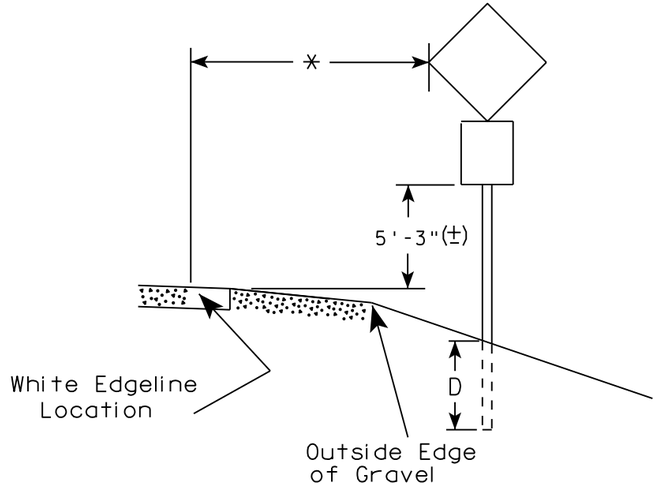
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

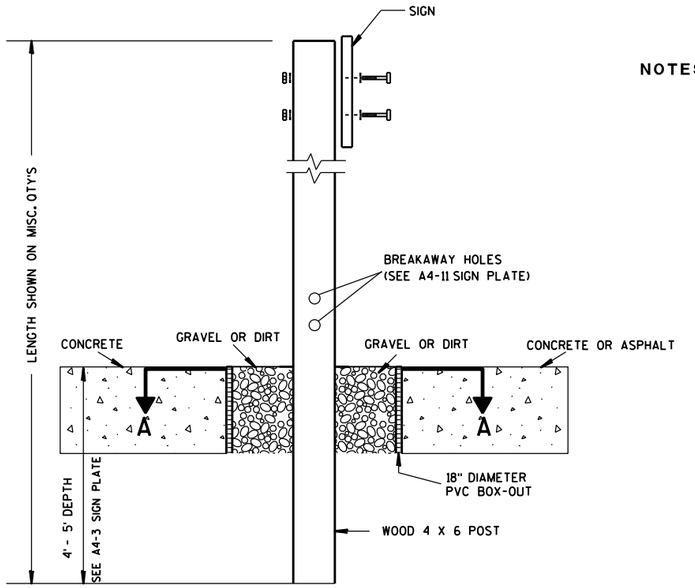
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

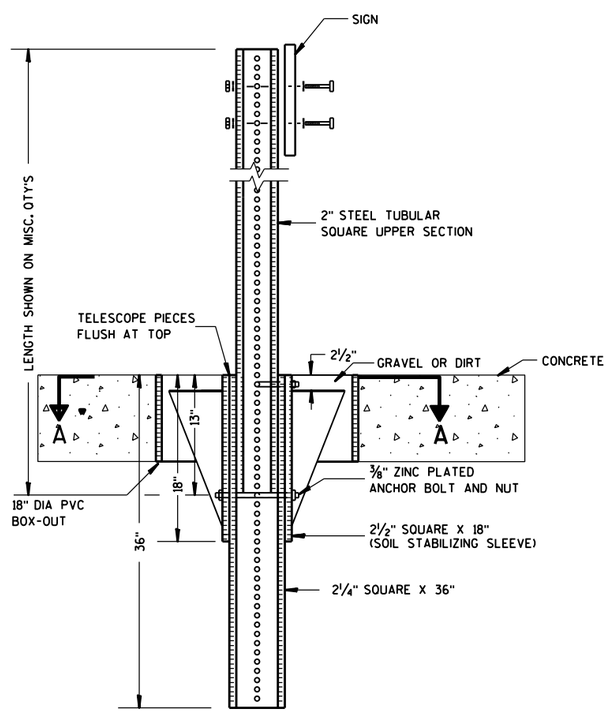
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 87	E



ELEVATION VIEW

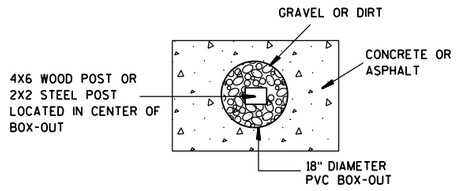
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

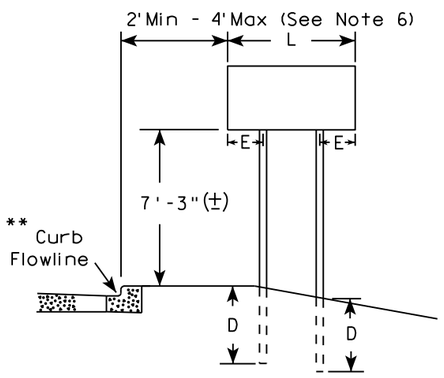
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

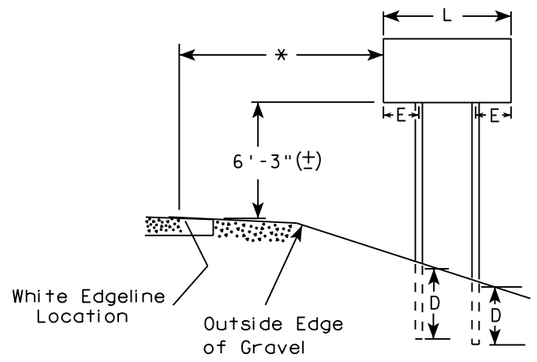
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

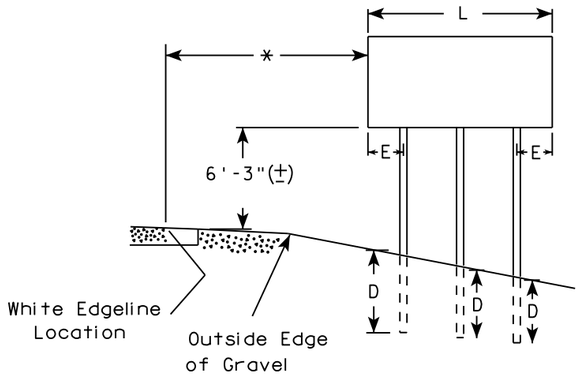
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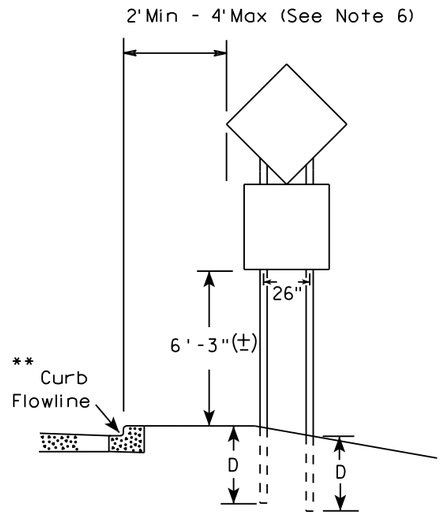
URBAN AREA



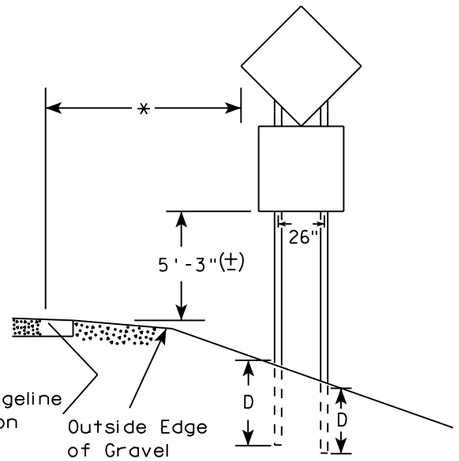
RURAL AREA (See Note 3)







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 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

POST EMBEDMENT DEPTH

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

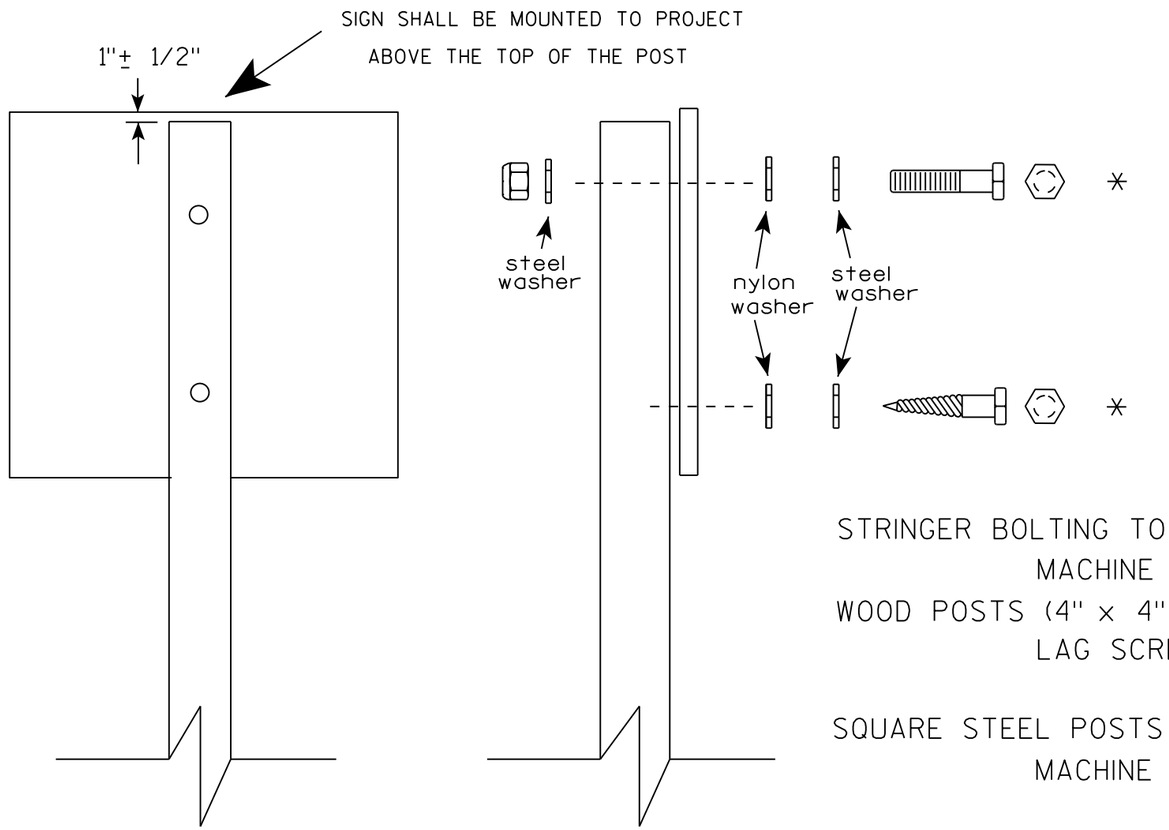
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 89	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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)

3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)

3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

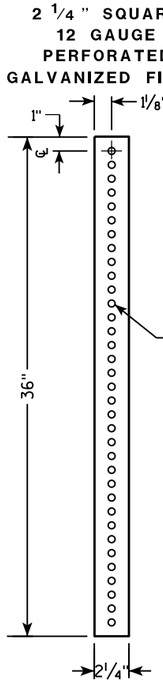
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

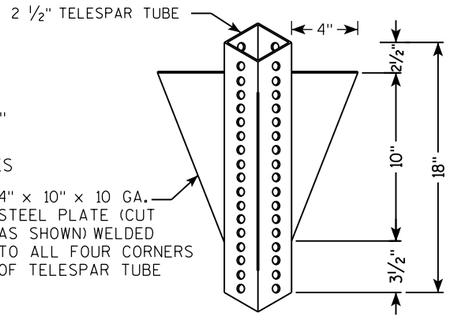
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

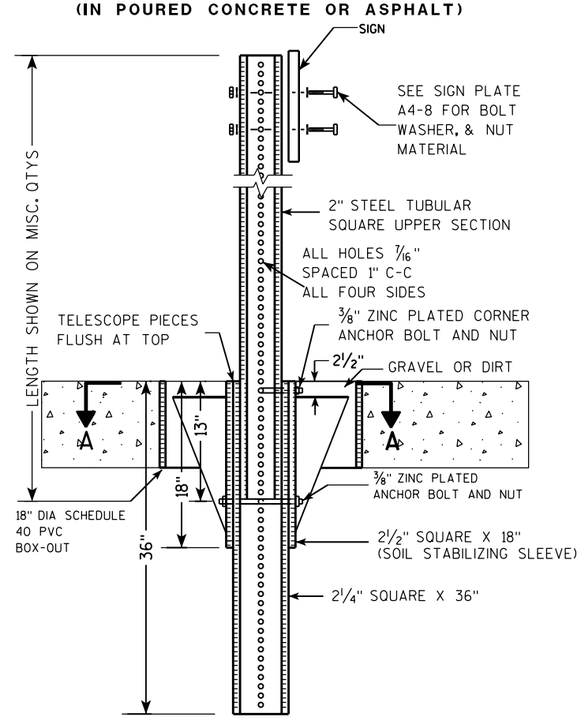
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



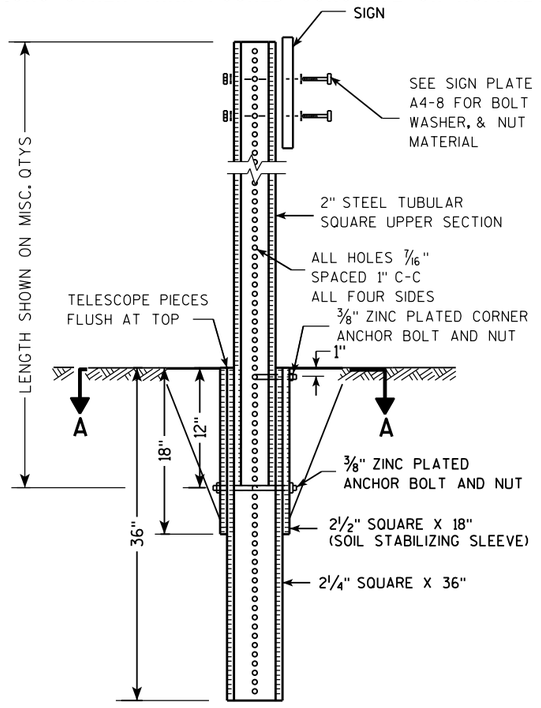
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

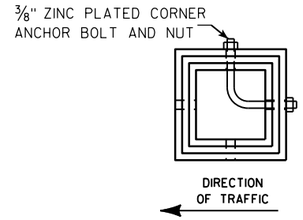


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

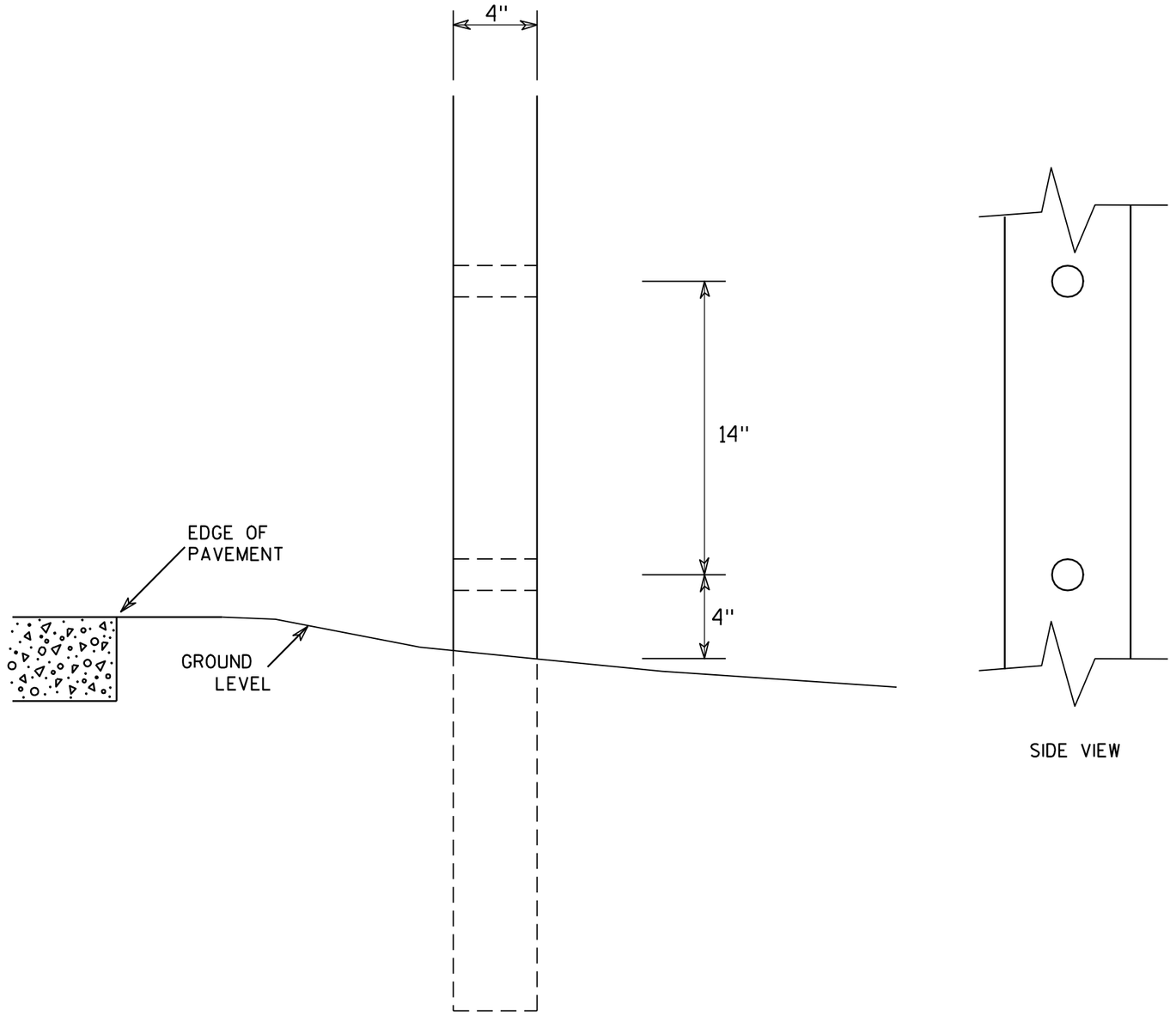
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 91 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000



SIDE VIEW

GENERAL NOTES

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

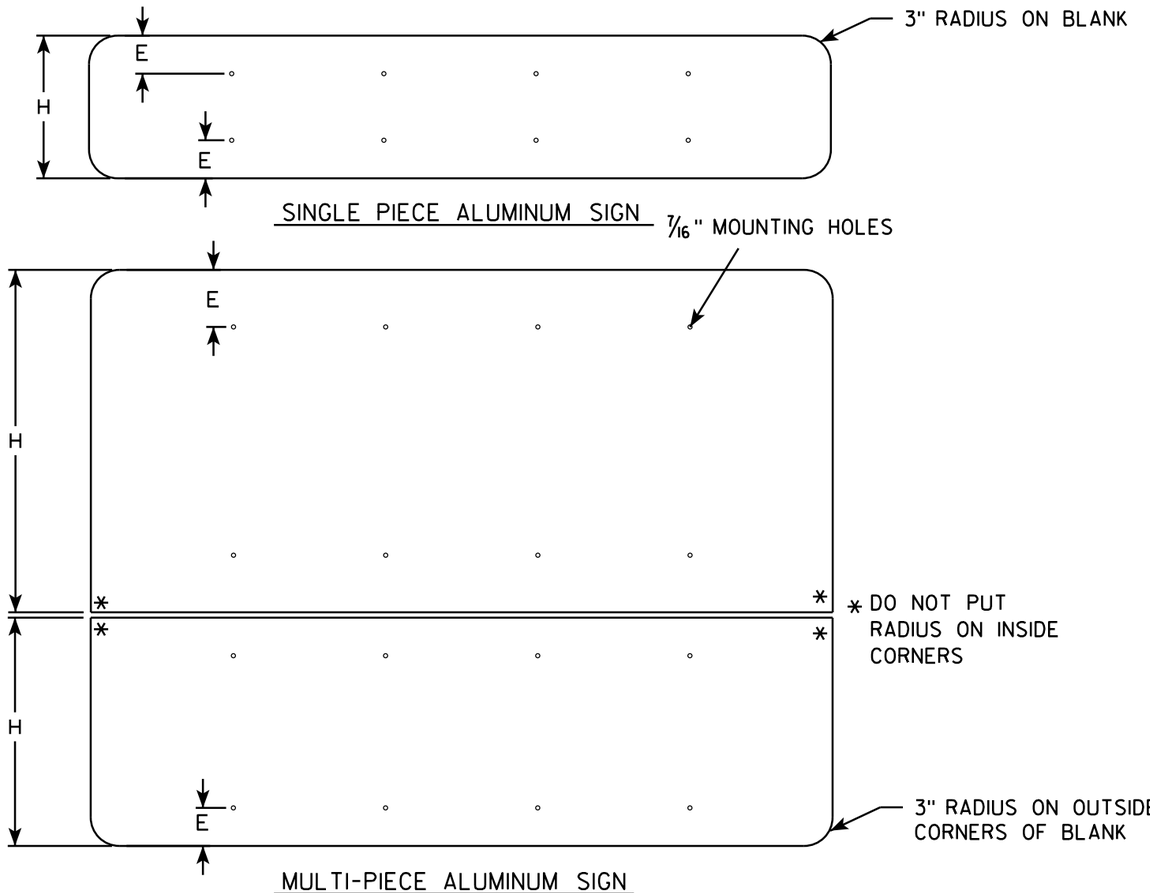
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

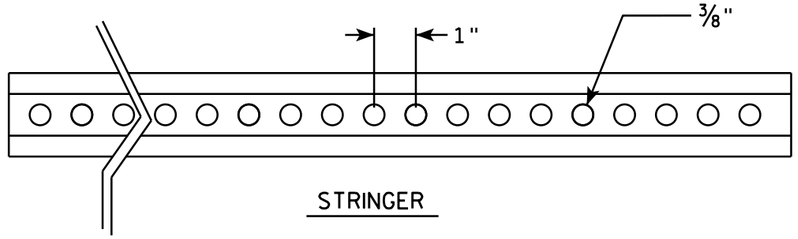
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 92	E



GENERAL NOTES

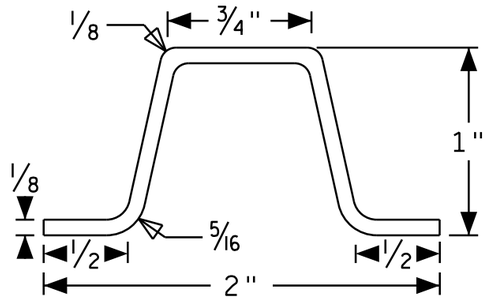
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

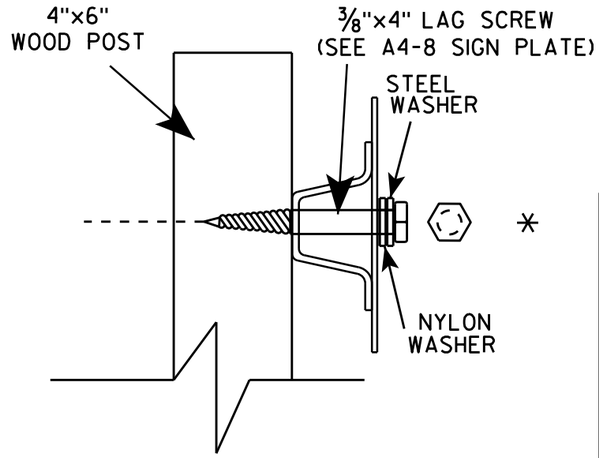


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

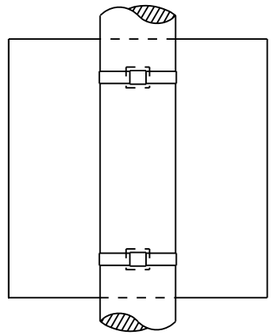
DATE 4/26/16 PLATE NO A4-18.1

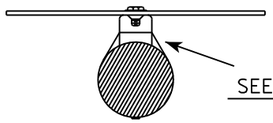
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

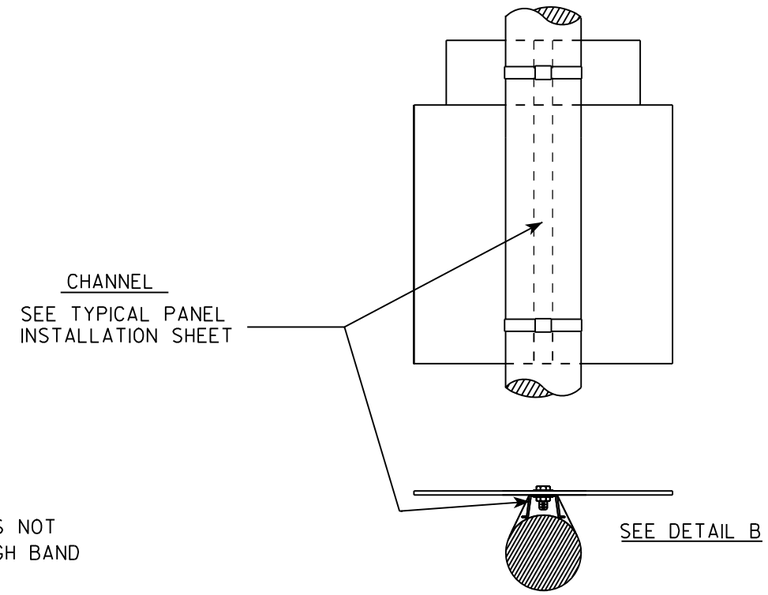
BANDING

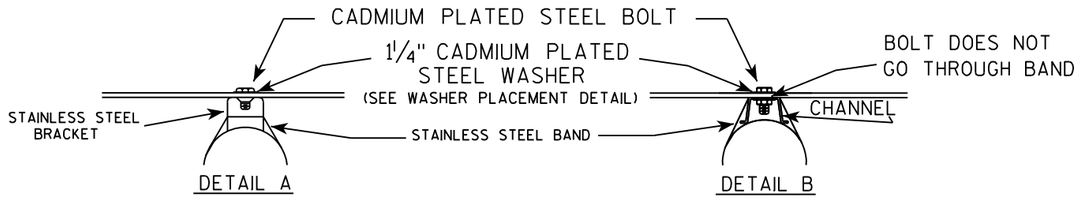
SINGLE SIGN



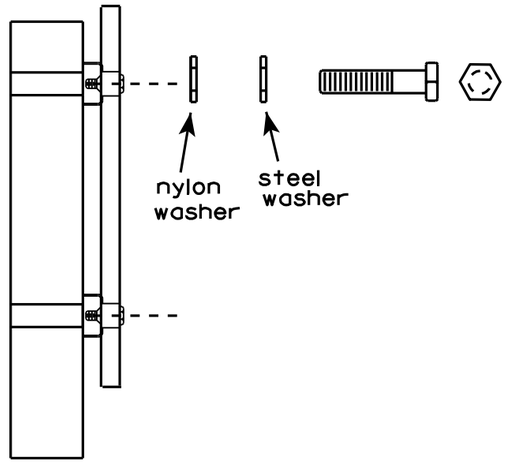


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

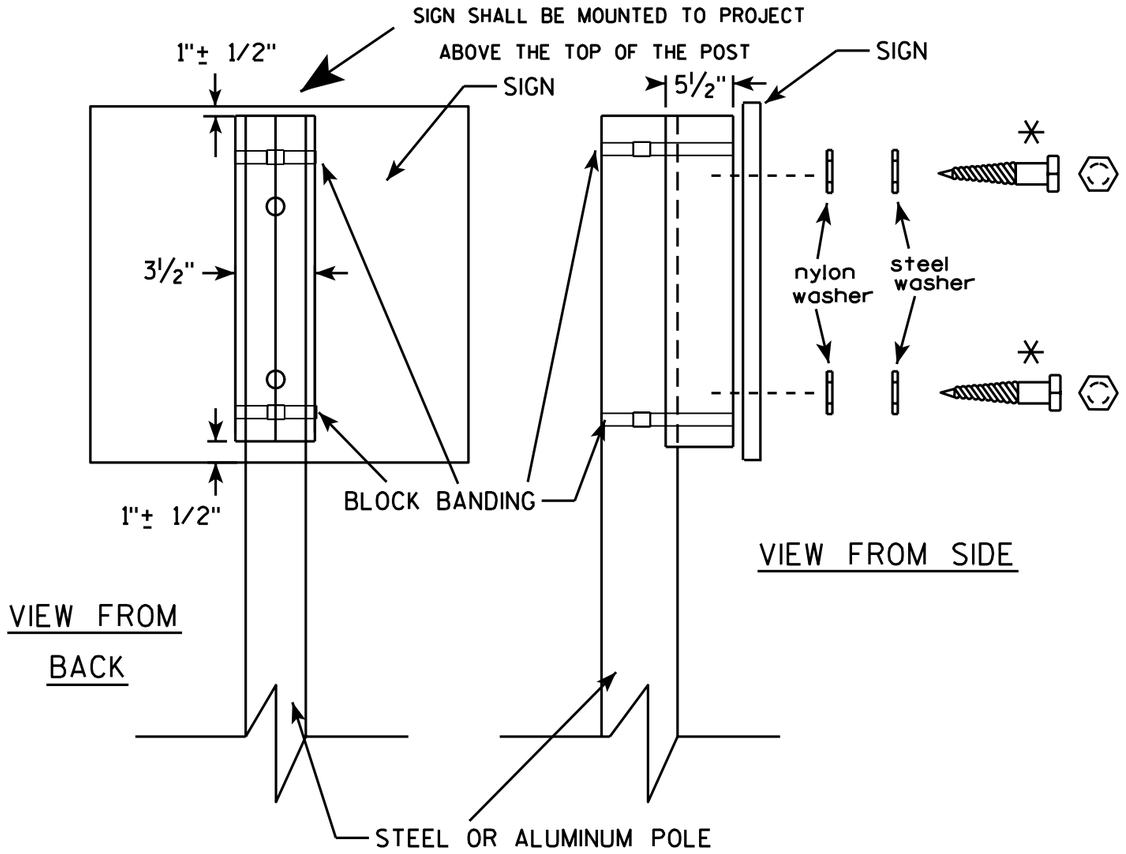
STANDARD SIGN
SIGN BANDING DETAILS

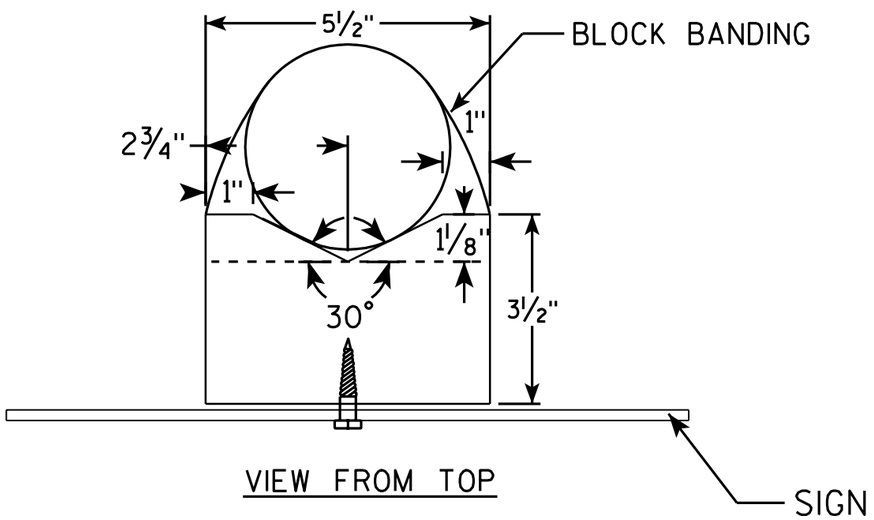
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 94	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

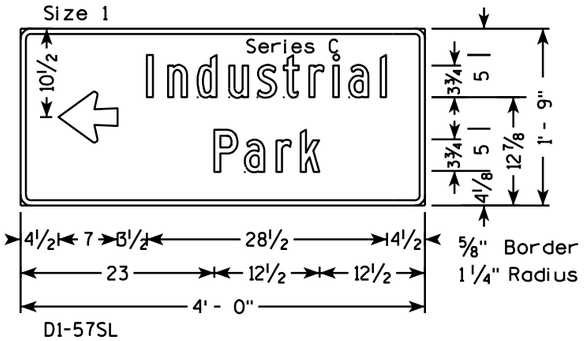
PROJECT NO:

SHEET NO: 95 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

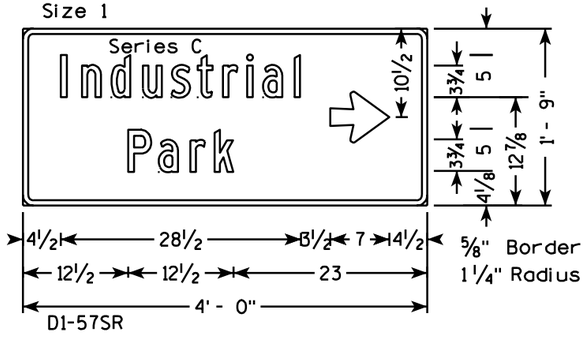
WISDOT/CADDS SHEET 42

Size 1



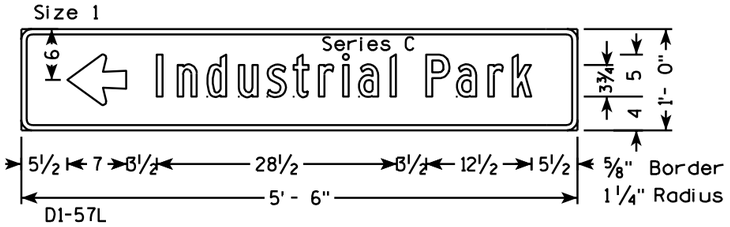
D1-57SL

Size 1



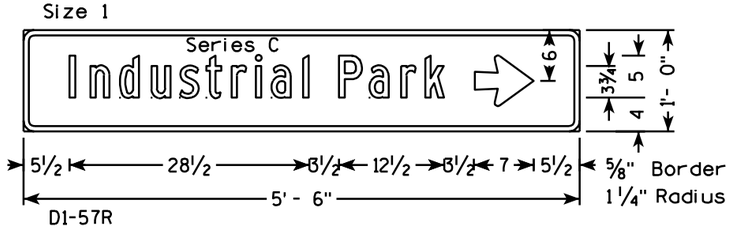
D1-57SR

Size 1



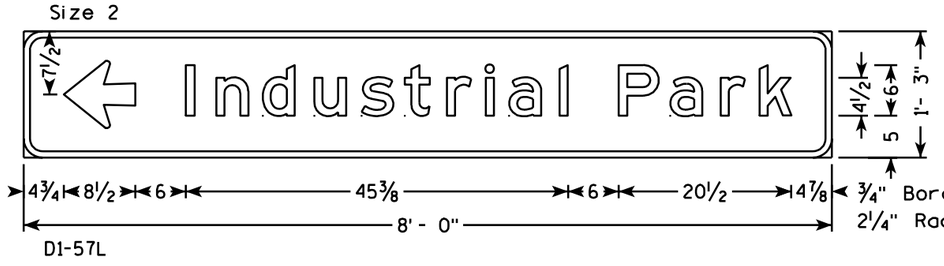
D1-57L

Size 1



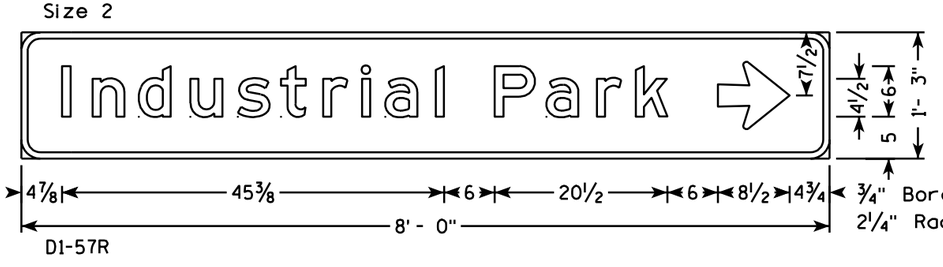
D1-57R

Size 2



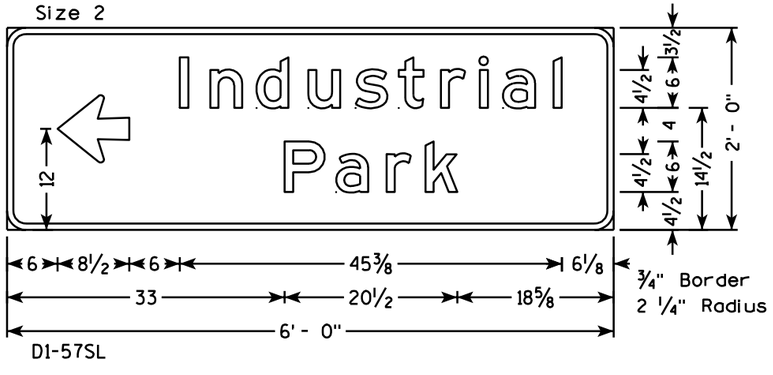
D1-57L

Size 2



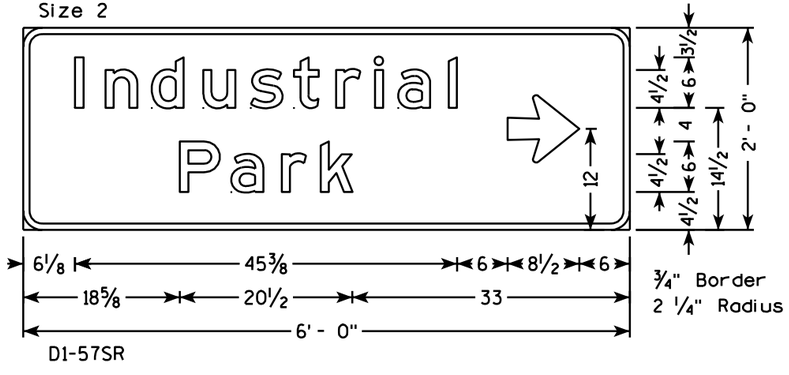
D1-57R

Size 2



D1-57SL

Size 2



D1-57SR

NOTES

1. Sign is Type 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
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.

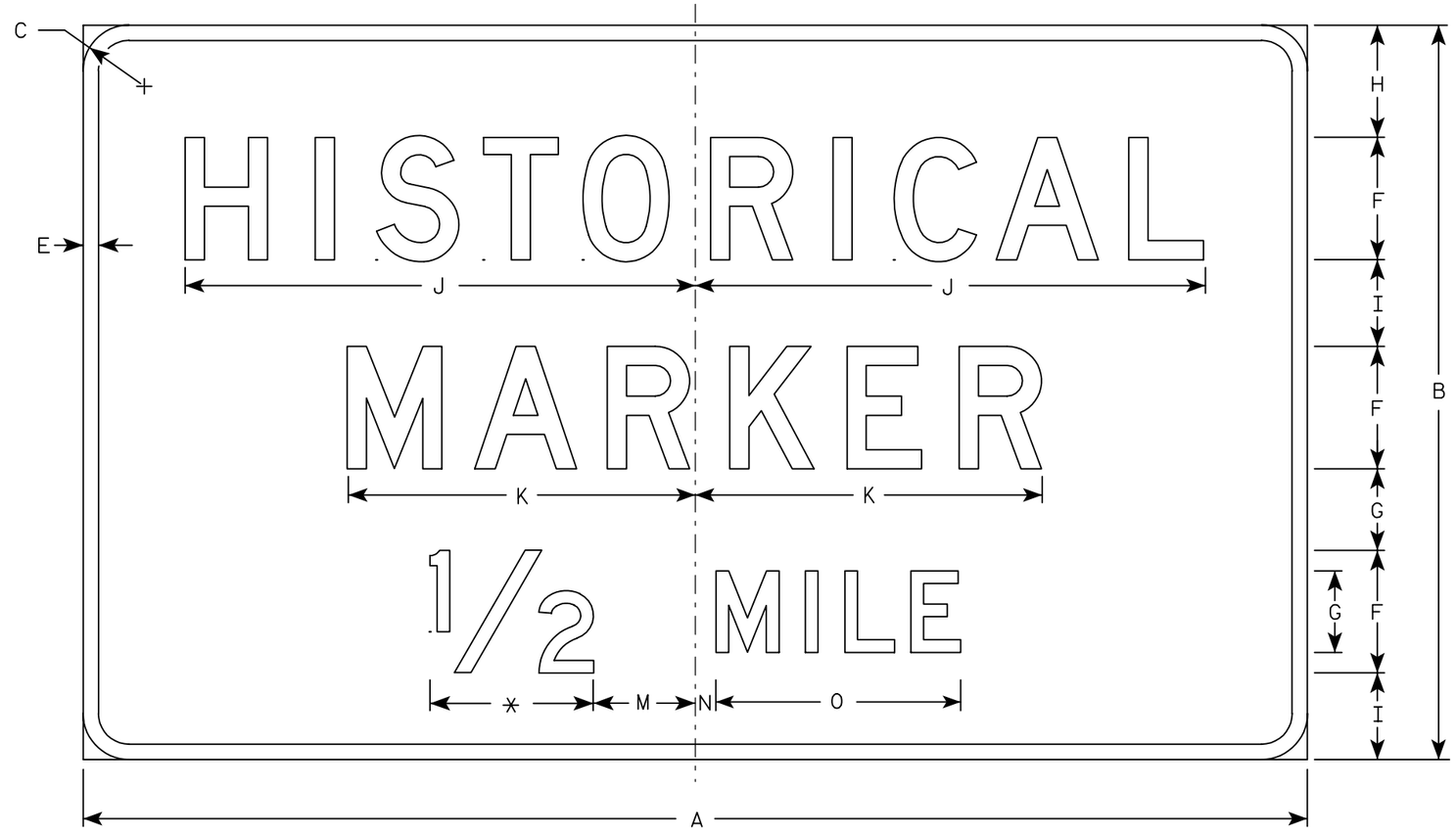
TYPICAL STANDARD
D1-57L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/19/08 PLATE NO. D1-57.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 96	E



D5-63 * See Note 5

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	36	2 1/4		3/4	6	4	5 1/2	4 1/4	25	17		5	1	12												15.0	1.35
3																												
4																												
5																												

STANDARD SIGN
D5-63

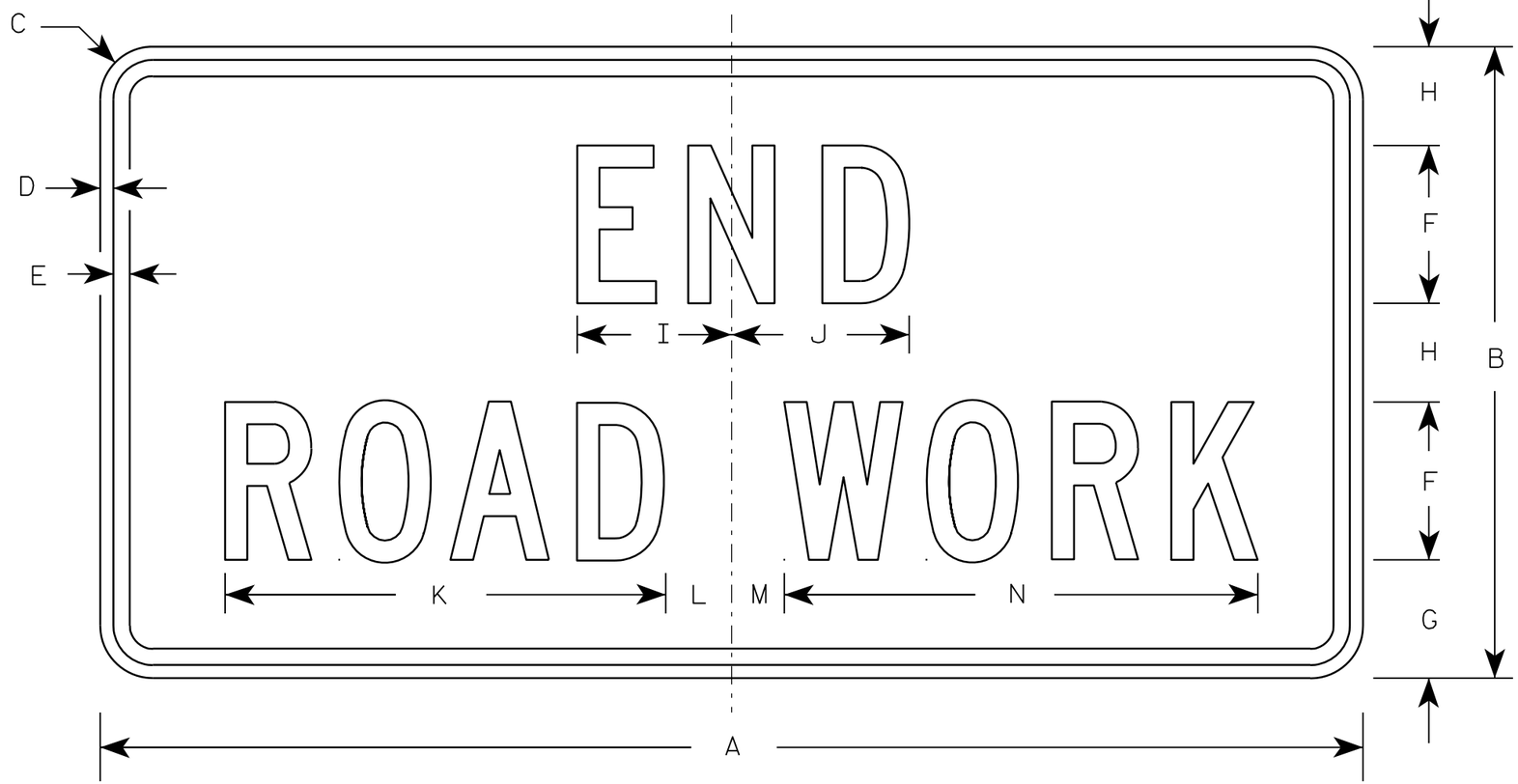
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/23/99 PLATE NO. D5-63.9

STATE PROJECT NUMBER:

SHEET NO: 97 E



G20-2A

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 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 m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

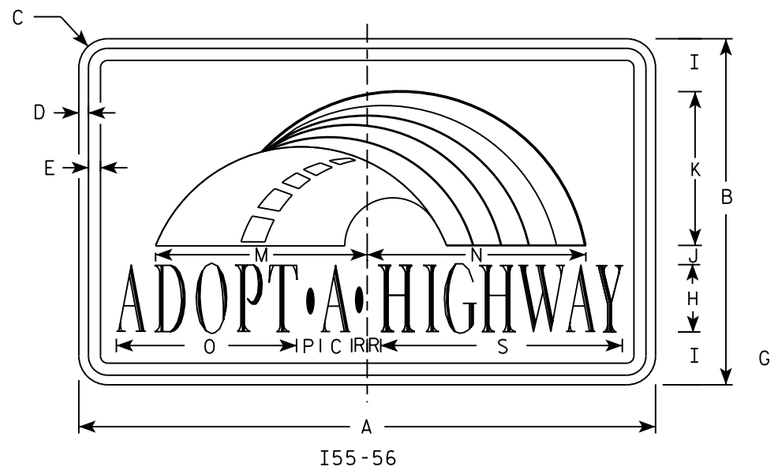
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

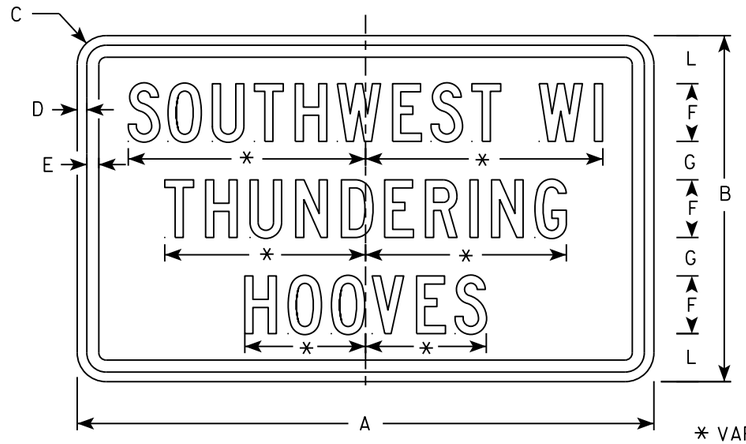
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E



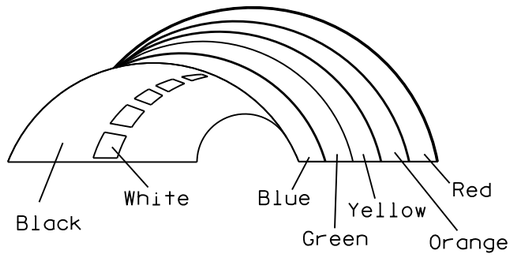
I55-56



I55-56P

* VARIES

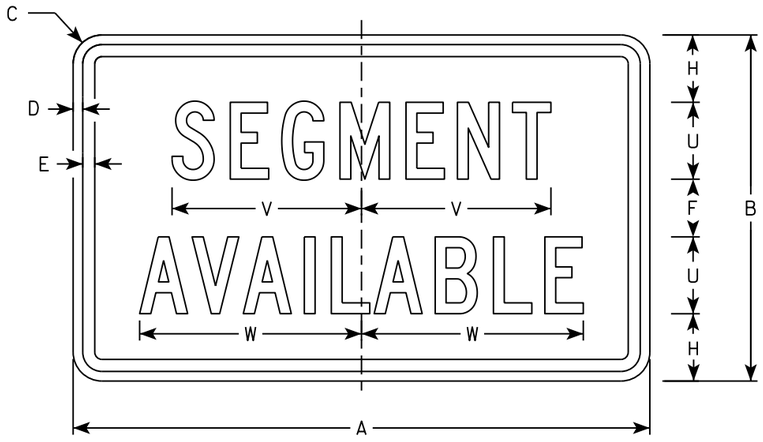
Background Colors of Symbol*



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

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - (See Note 4)
3. Message Series - (See Note 5)
4. Border - Blue
   Adopt a Highway - Red
   All other Text - Blue
5. Adopt a Highway - Dutch 8011L
   All other Text - Series C
6. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.



I55-56S

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	18	1 1/2	1/2	5/8	3	2	3 1/2	2 3/4	1	8	2 1/2	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2	4	9 7/8	11 1/2				3.75
3																											
4																											
5																											

STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

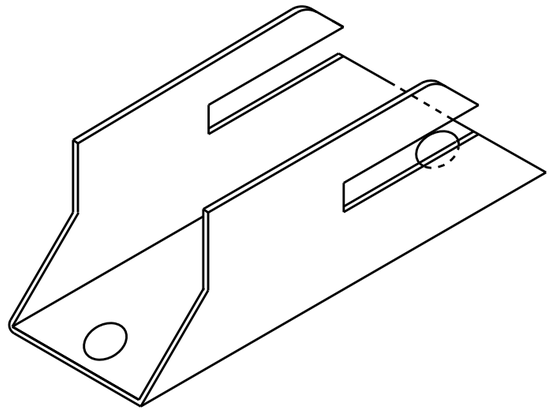
DATE 2/20/18 PLATE NO. I55-56.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 99 | E

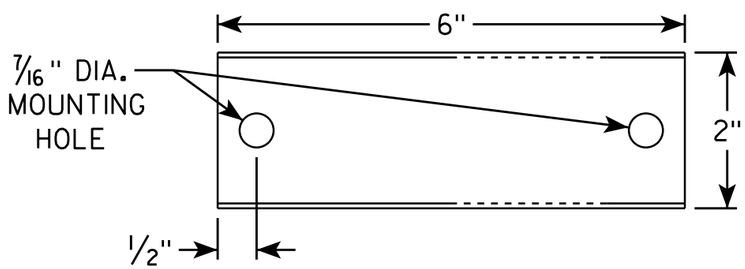
NOTES

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.

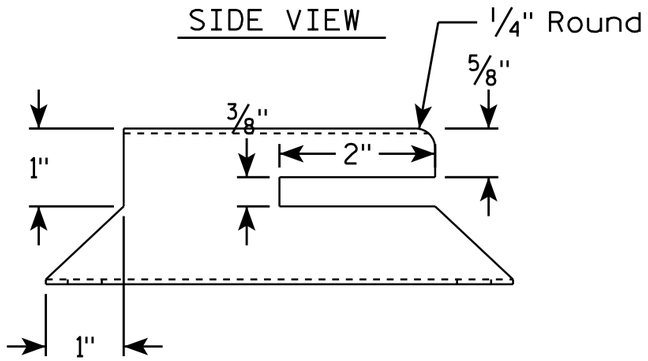
ISOMETRIC VIEW



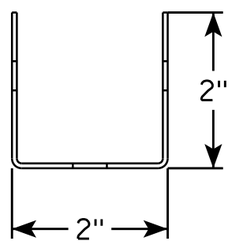
TOP VIEW



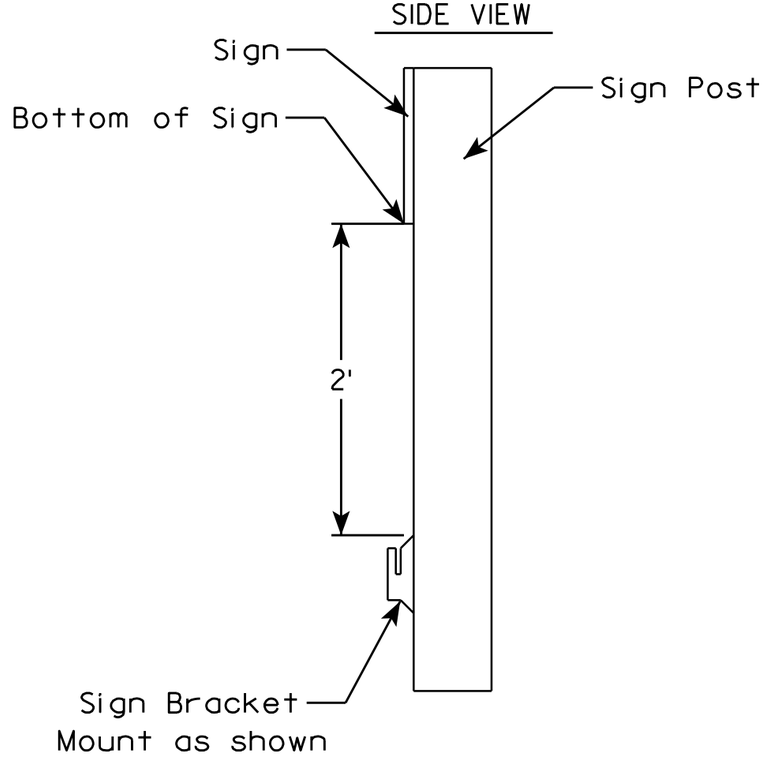
SIDE VIEW



END VIEW



SIDE VIEW



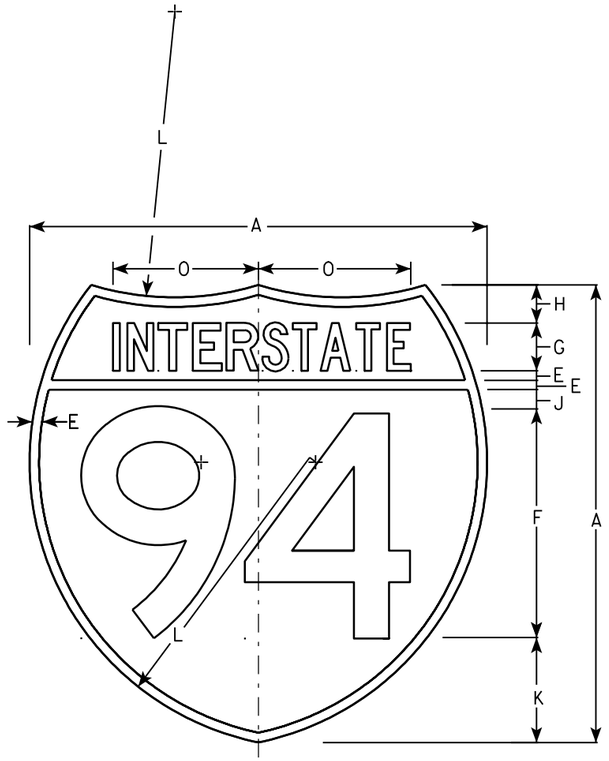
ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION

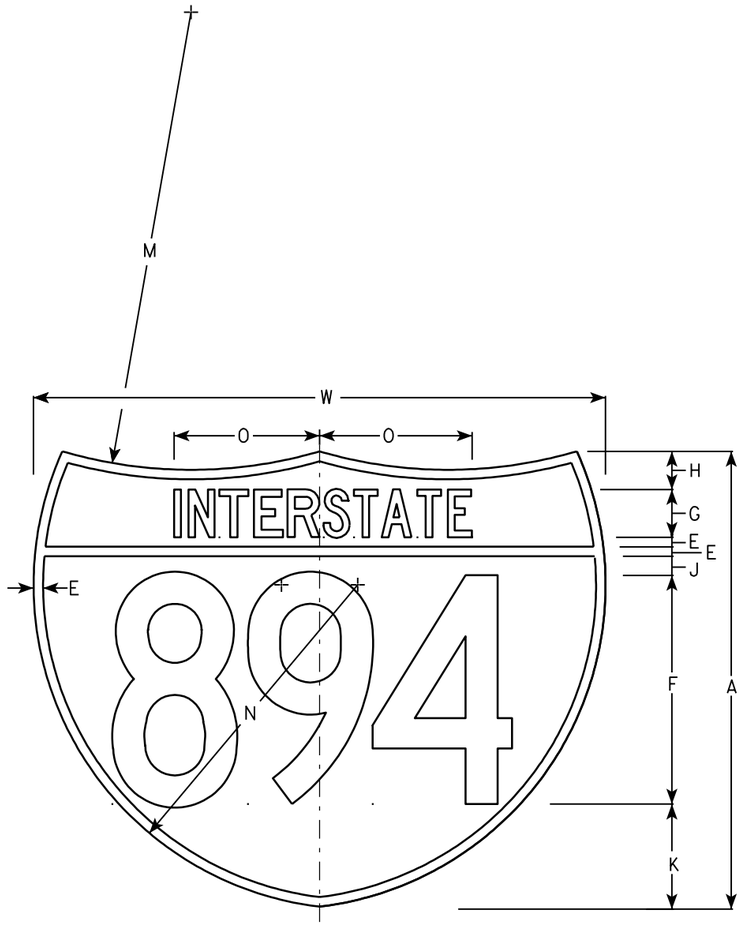
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/16 PLATE I55-56B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

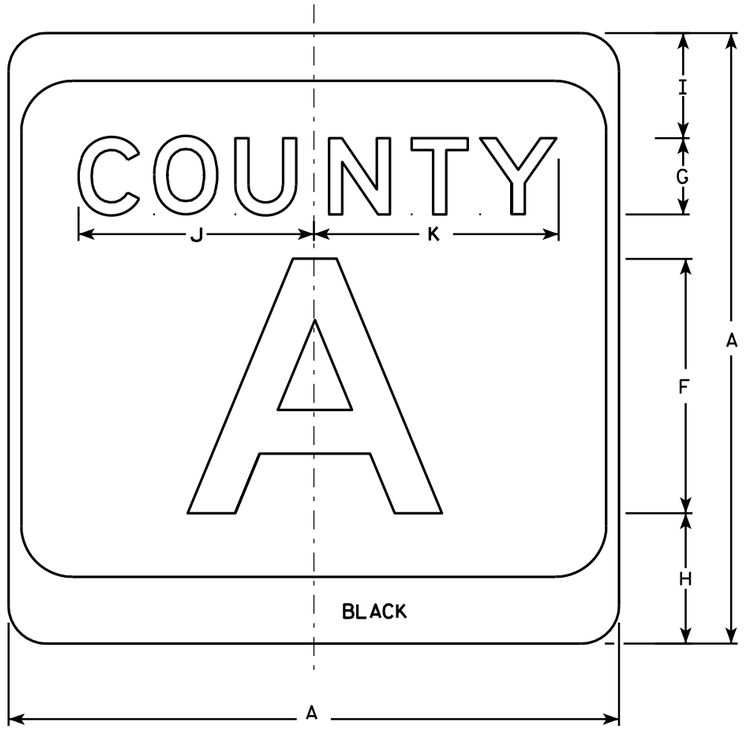
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

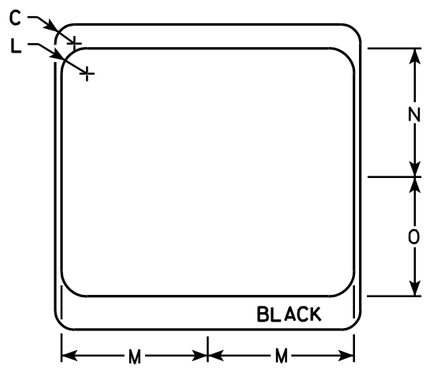
APPROVED Matthew R Rauch
for State Traffic Engineer

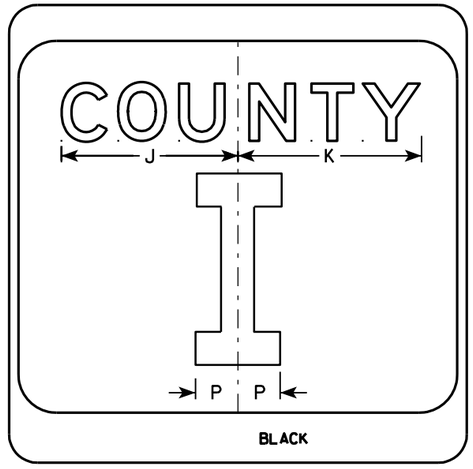
DATE 08/23/05 PLATE NO. M1-1.8

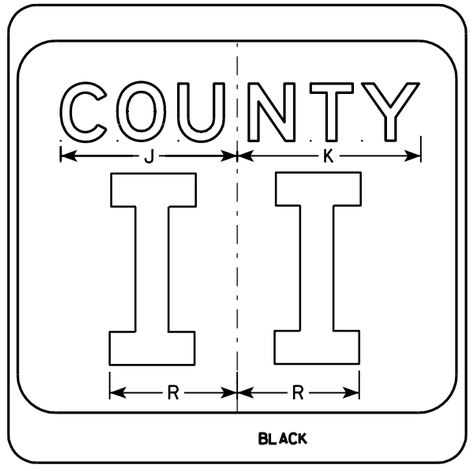
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101	E



M1-5A







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

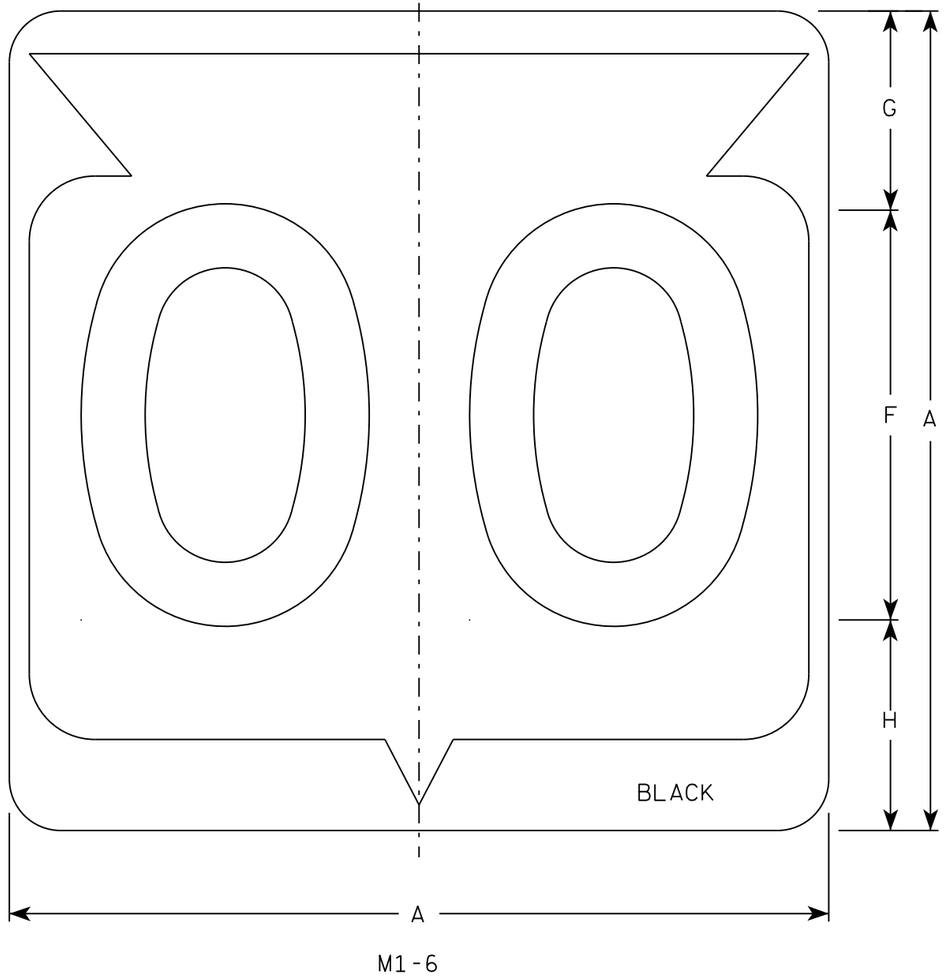
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

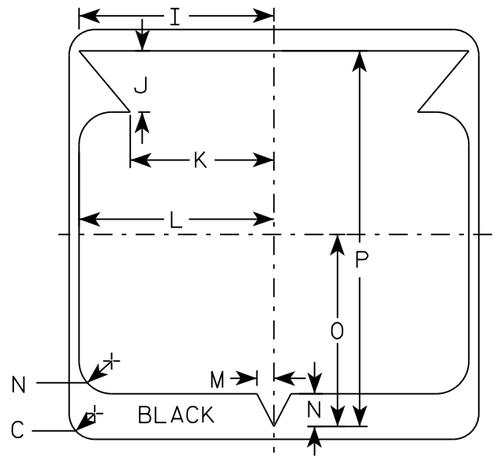
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 102 | E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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
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
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
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

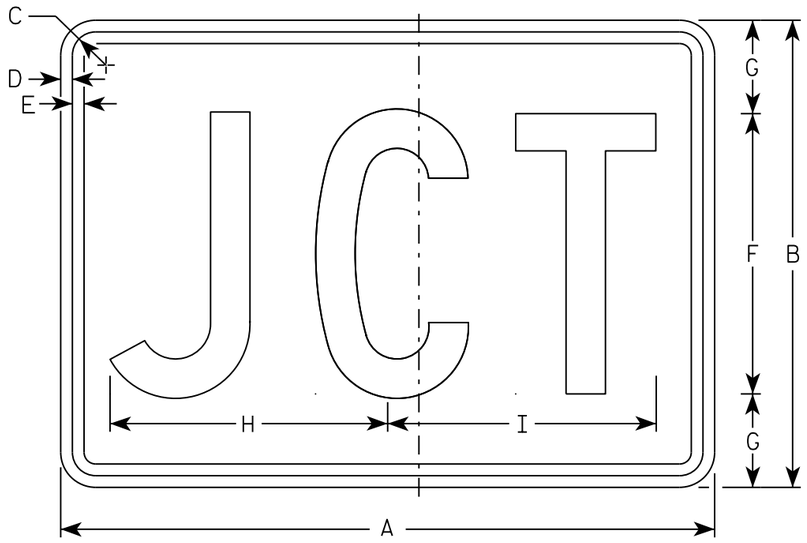
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

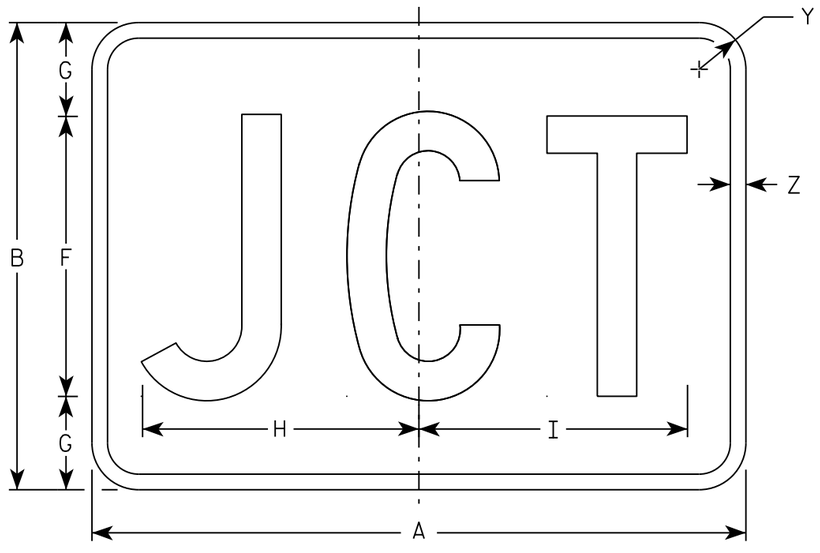
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 103 | E



M2-1
MM2-1
MP2-1



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

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

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

STANDARD SIGN
M2-1

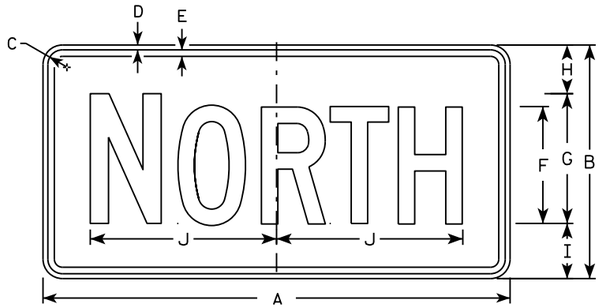
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

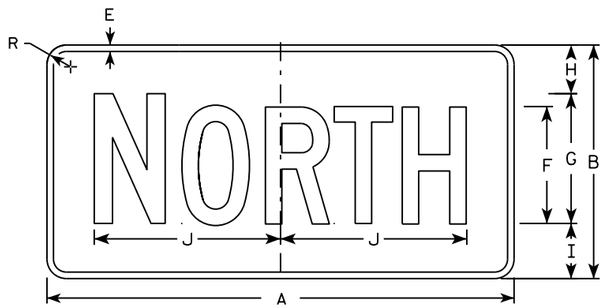
DATE 10/15/15 PLATE 104 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



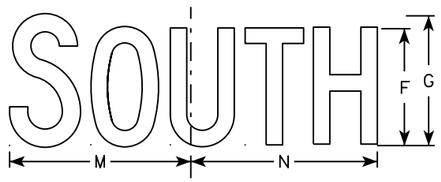
MB3-1
MK3-1
MN3-1



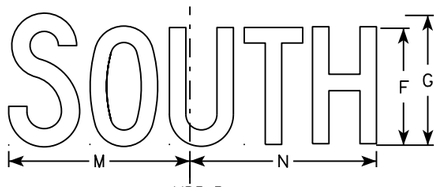
M3-2
MM3-2
MP3-2



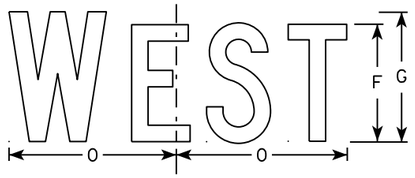
MB3-2
MK3-2
MN3-2



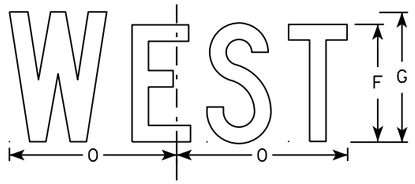
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

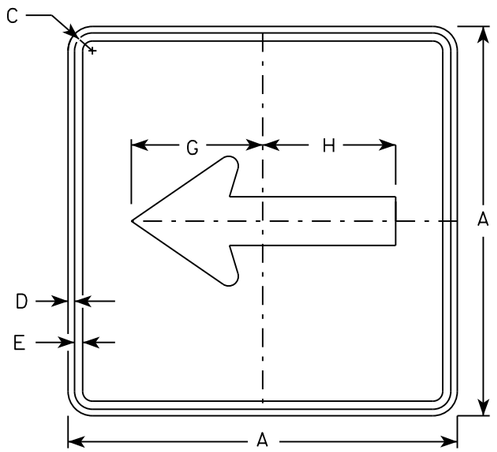
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

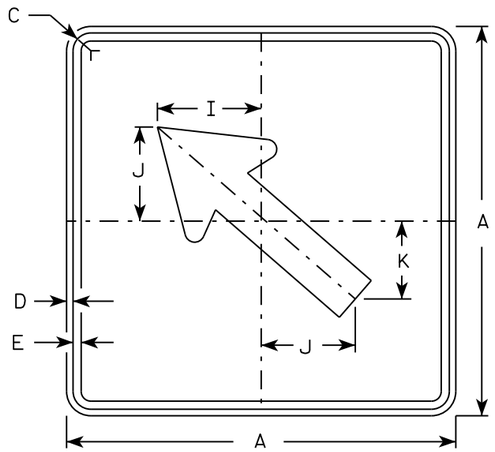
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



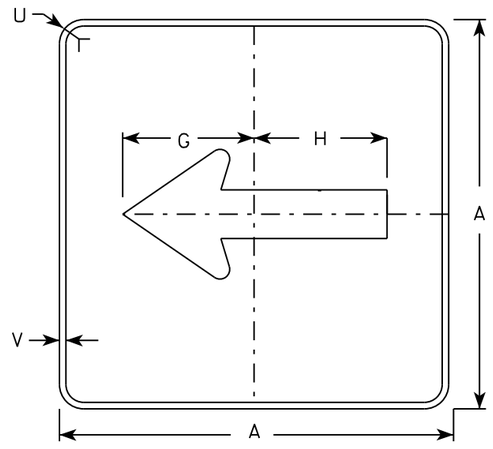
M6-1
MM6-1
MO6-1
MP6-1



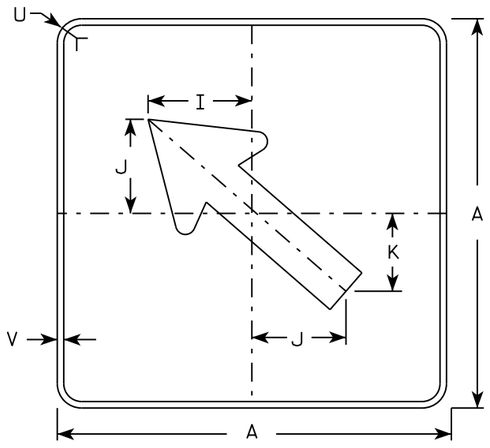
M6-2
MM6-2
MO6-2
MP6-2

NOTES

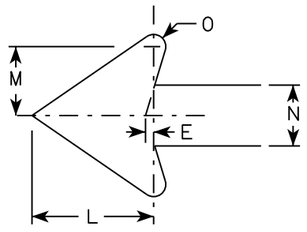
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

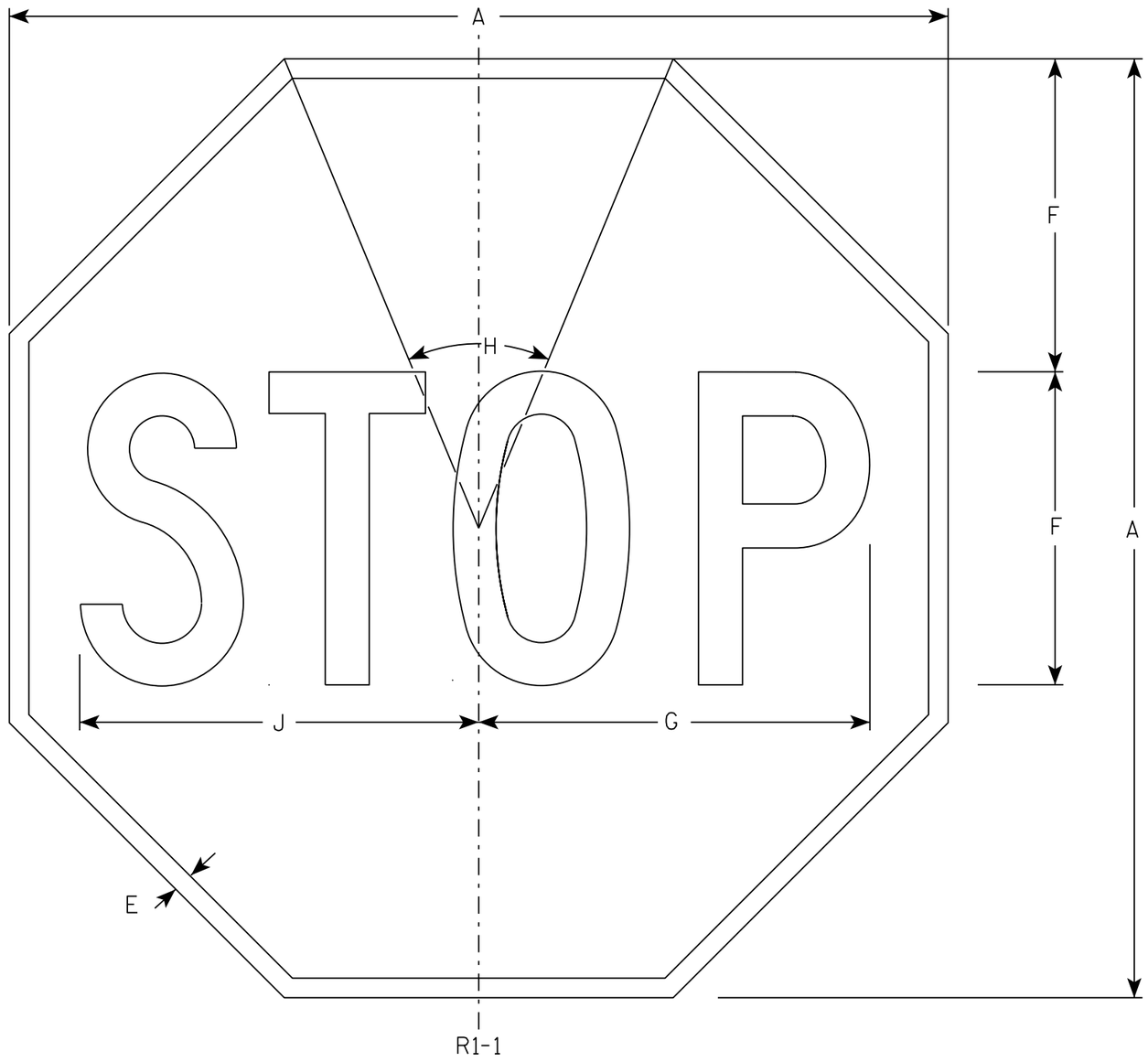
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 106 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

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

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

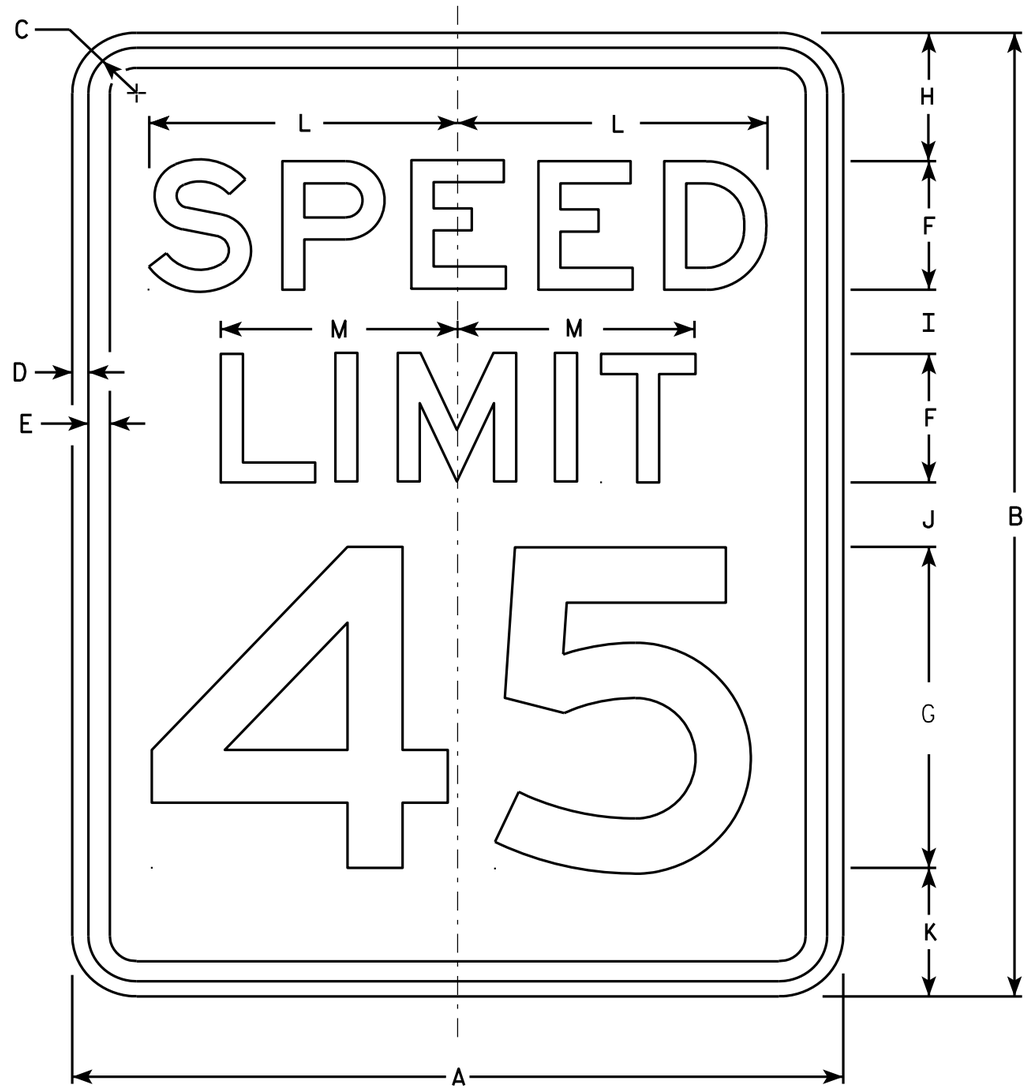
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	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

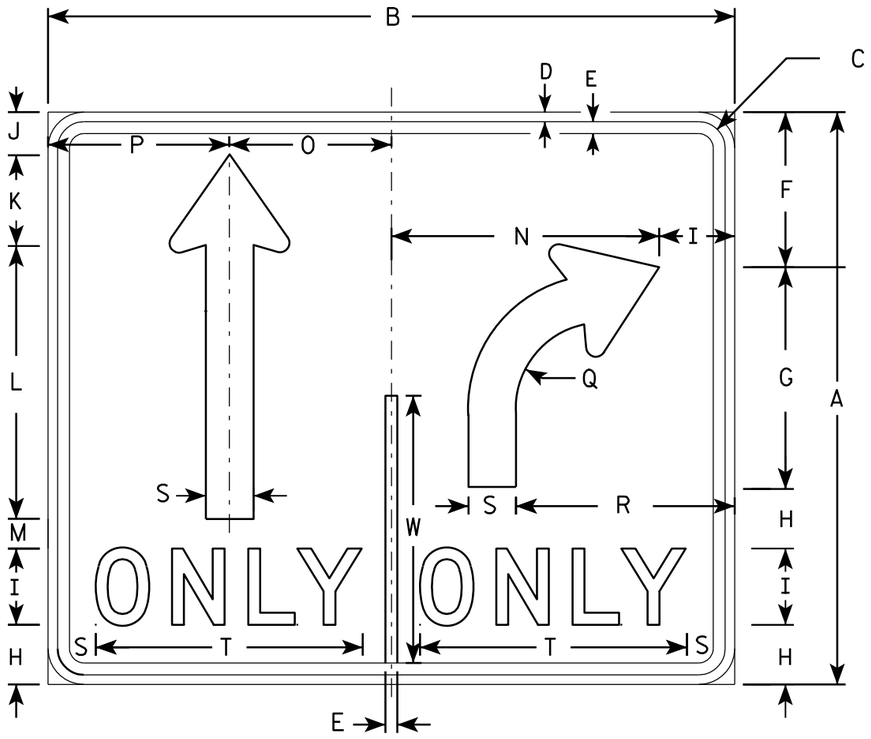
APPROVED Matthew R Rauch
for State Traffic Engineer

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

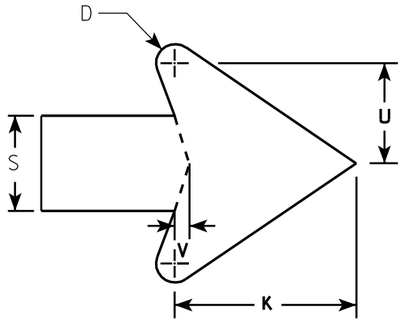
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 108 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000

WISDOT/CADDS SHEET 42



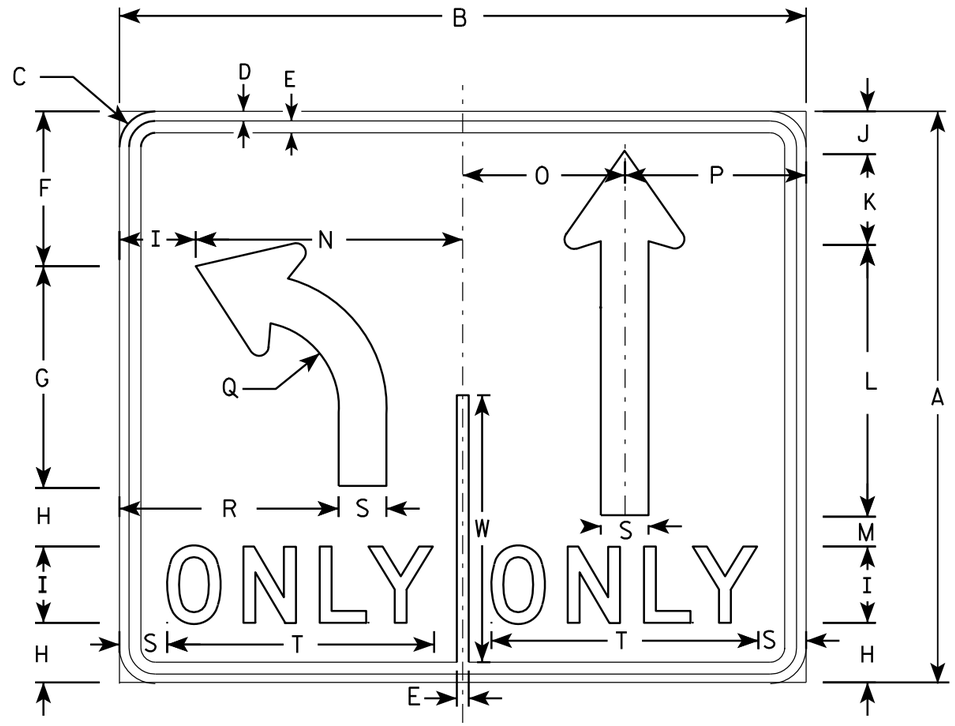
R3-8D



ARROW DETAIL

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.



R3-8E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	14	8 1/2	9 1/2	4 1/2	11 1/2	2 1/2	14	2 5/8	3/8	14				7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	14	8 1/2	9 1/2	4 1/2	11 1/2	2 1/2	14	2 5/8	3/8	14				7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7 1/8	21 1/2	4 3/4	21	12 3/4	14 1/4	7 1/4	17 1/8	3 3/4	20 5/8	4	5/8	22 3/8				18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7 1/8	21 1/2	4 3/4	21	12 3/4	14 1/4	7 1/4	17 1/8	3 3/4	20 5/8	4	5/8	22 3/8				18.0

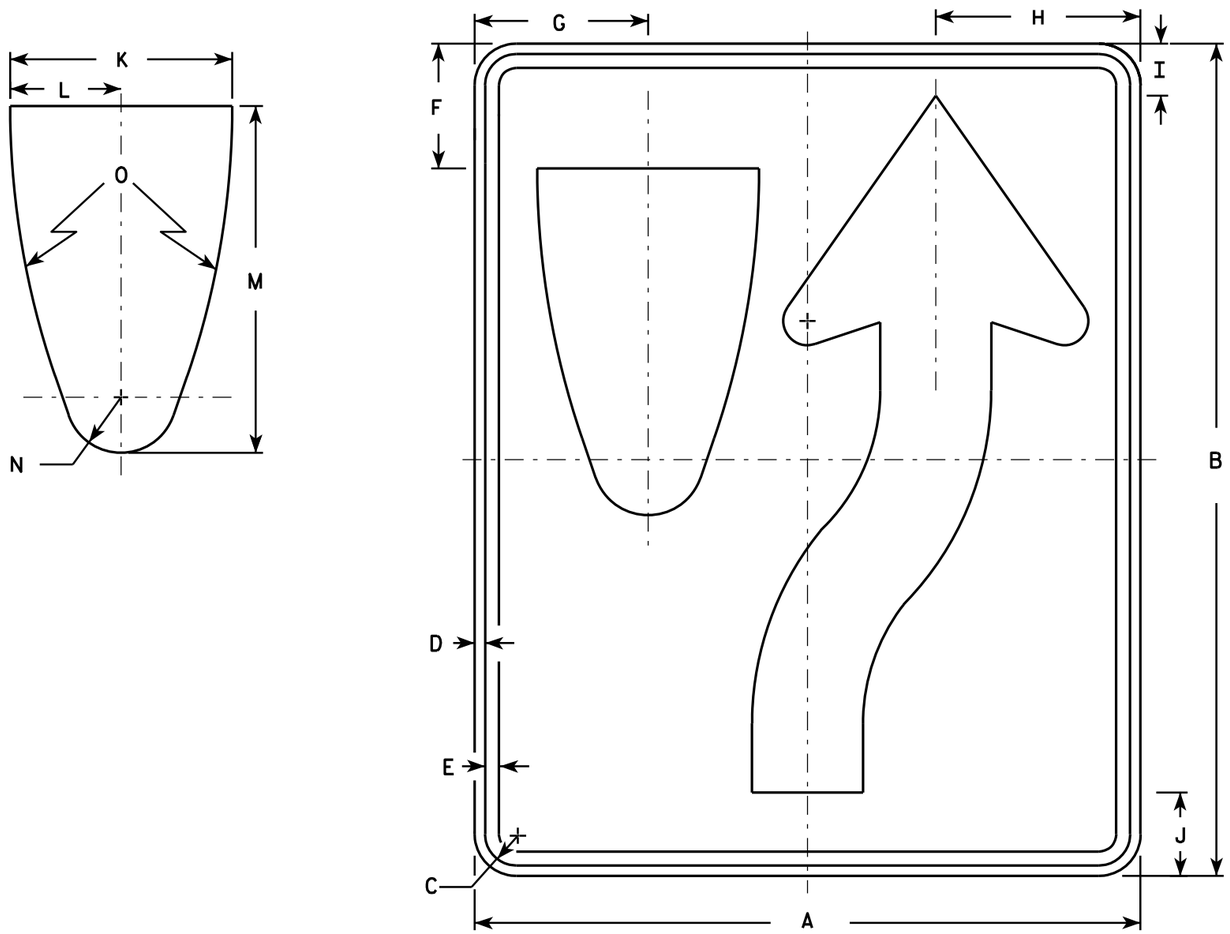
STANDARD SIGN
R3-8D & R3-8E

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8D.2

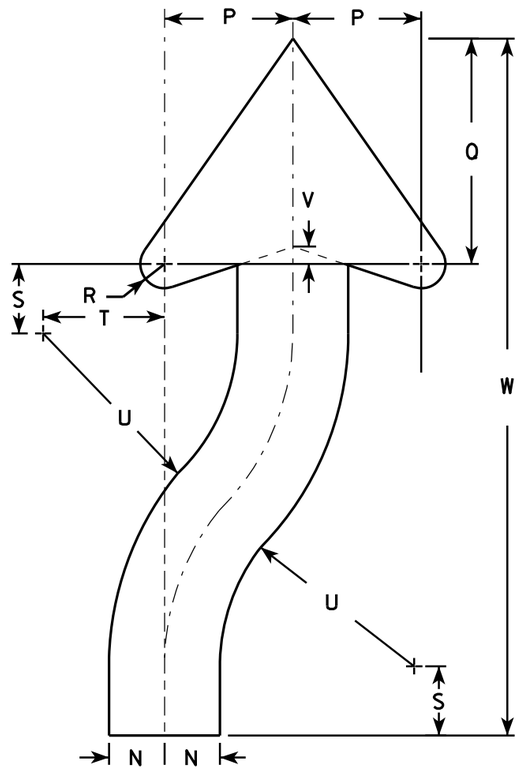
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E



R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

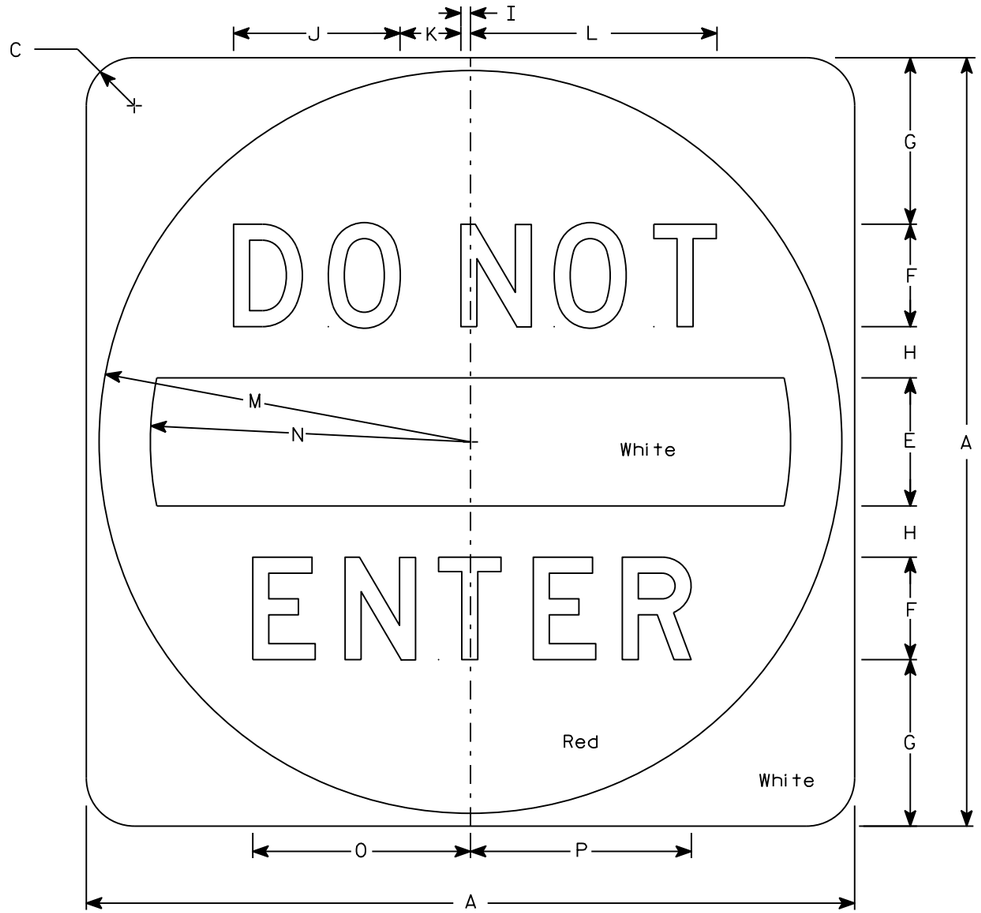
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 110	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

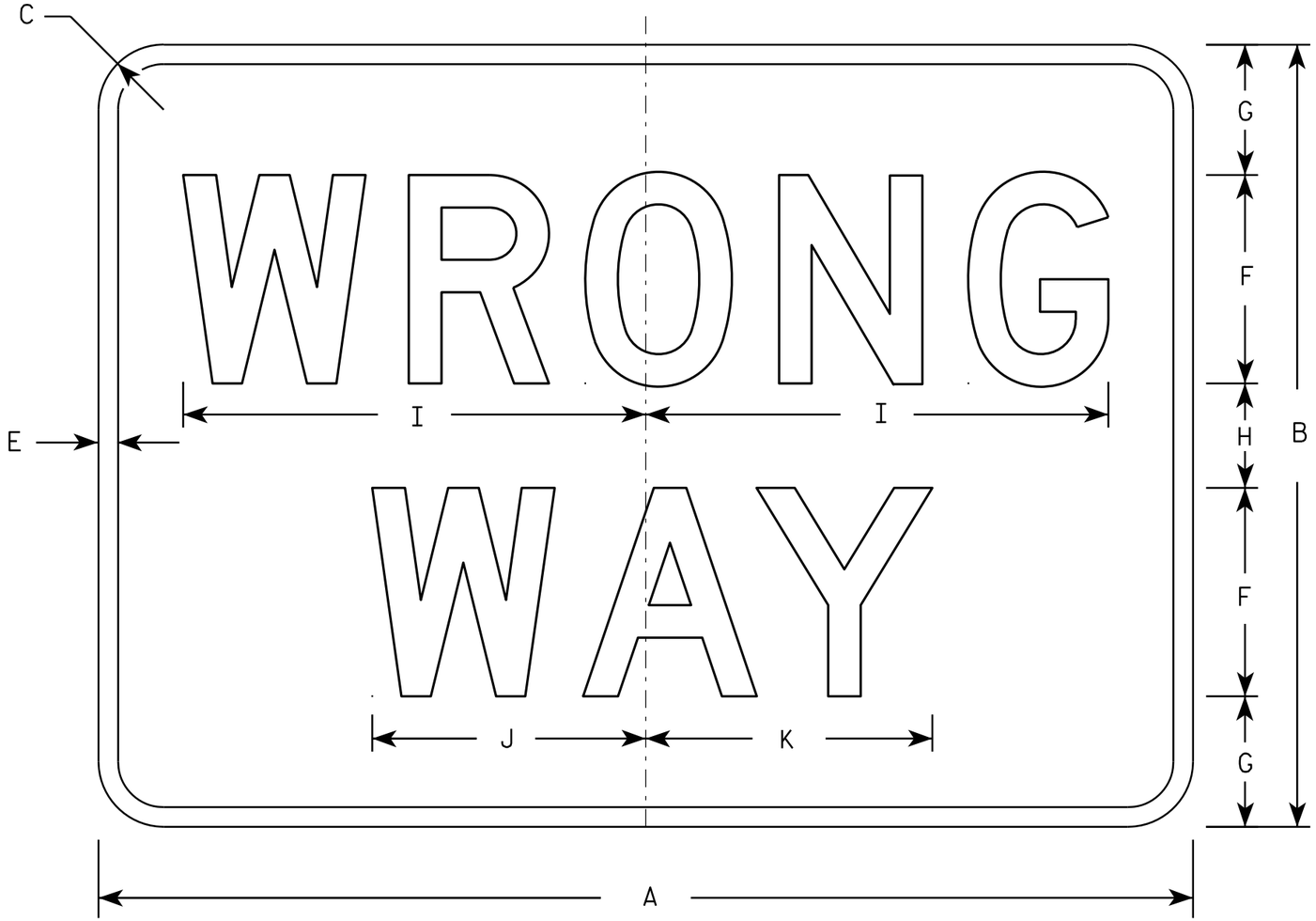
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 111 | E



R5-1A

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 - 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	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

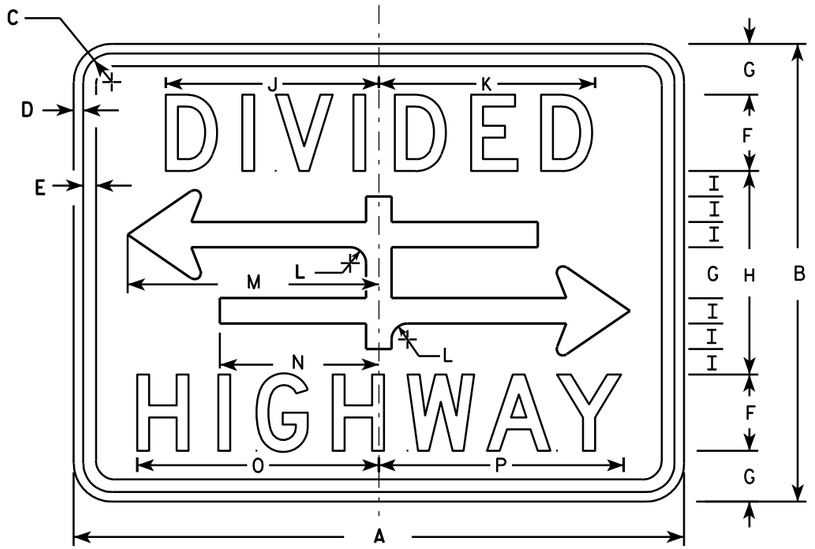
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

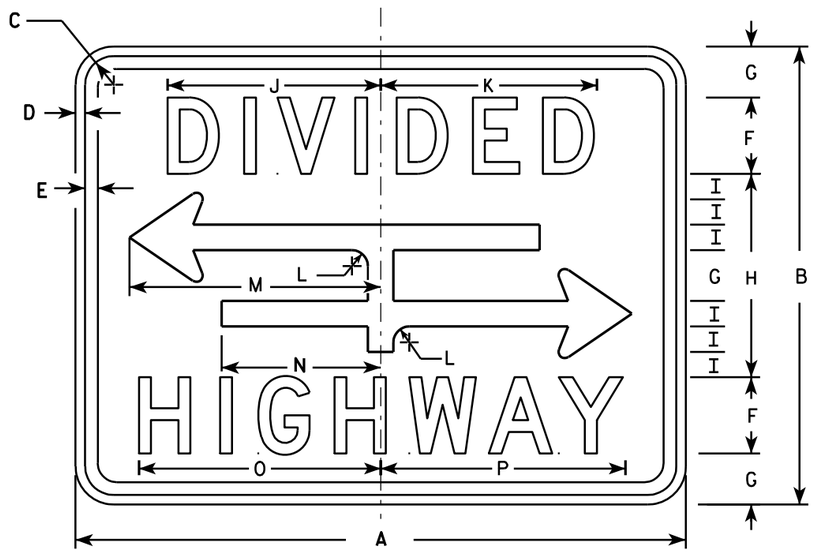
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 112 | E



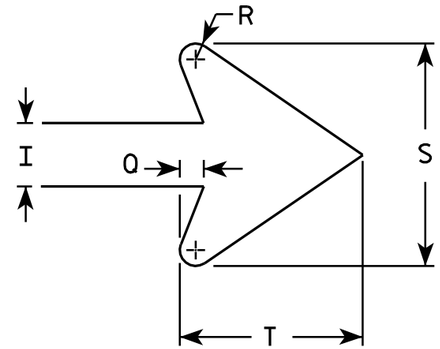
R6-3

NOTES

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



R6-3A



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	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

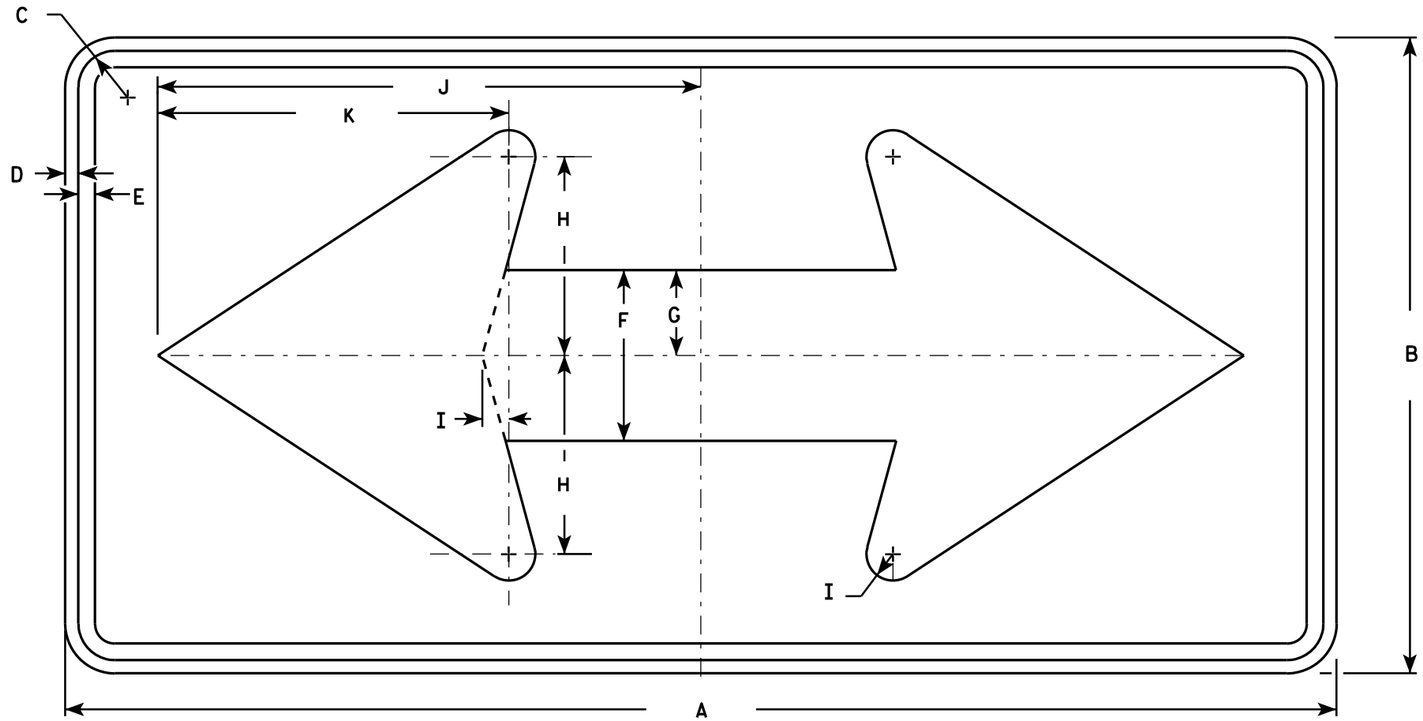
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

SHEET NO: 113 E



W1-7

NOTES

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

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	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

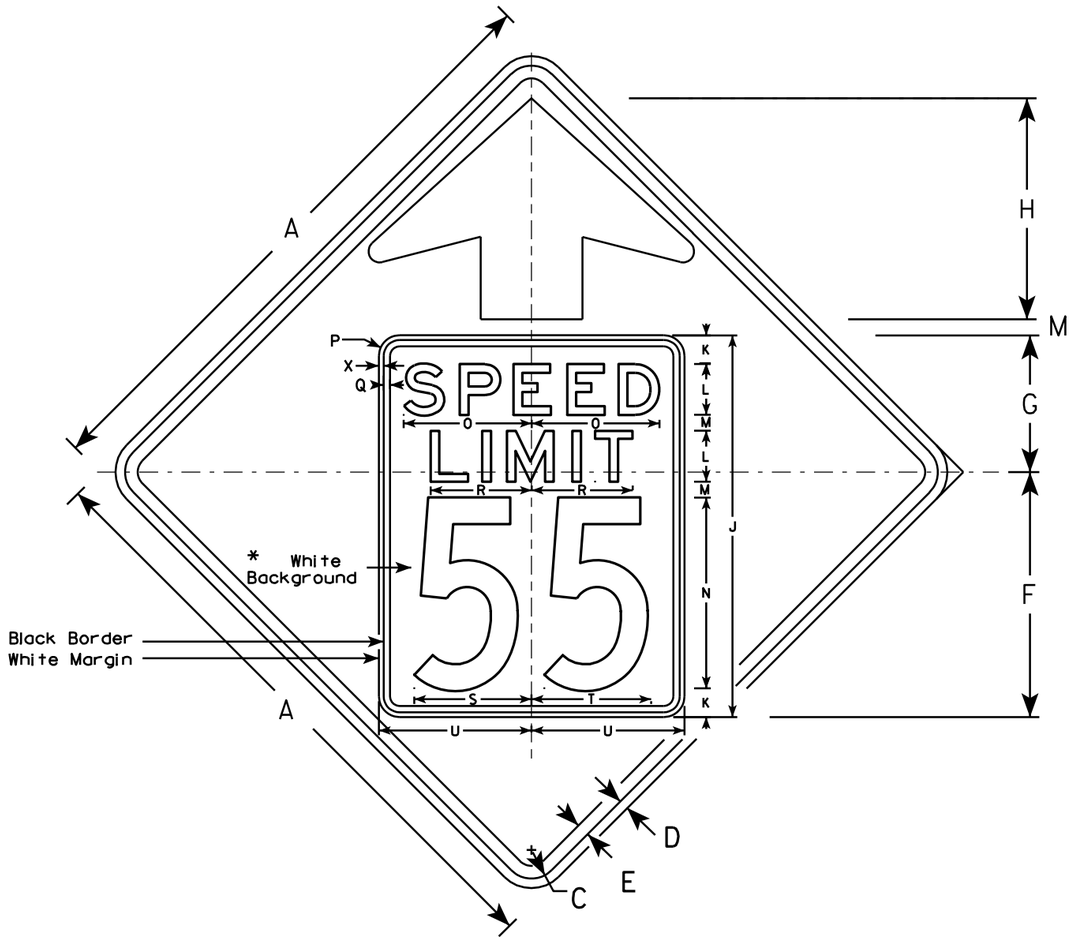
STANDARD SIGN
W1-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 114 | E

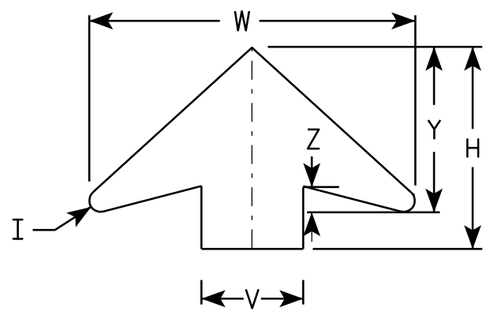


W3-5

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

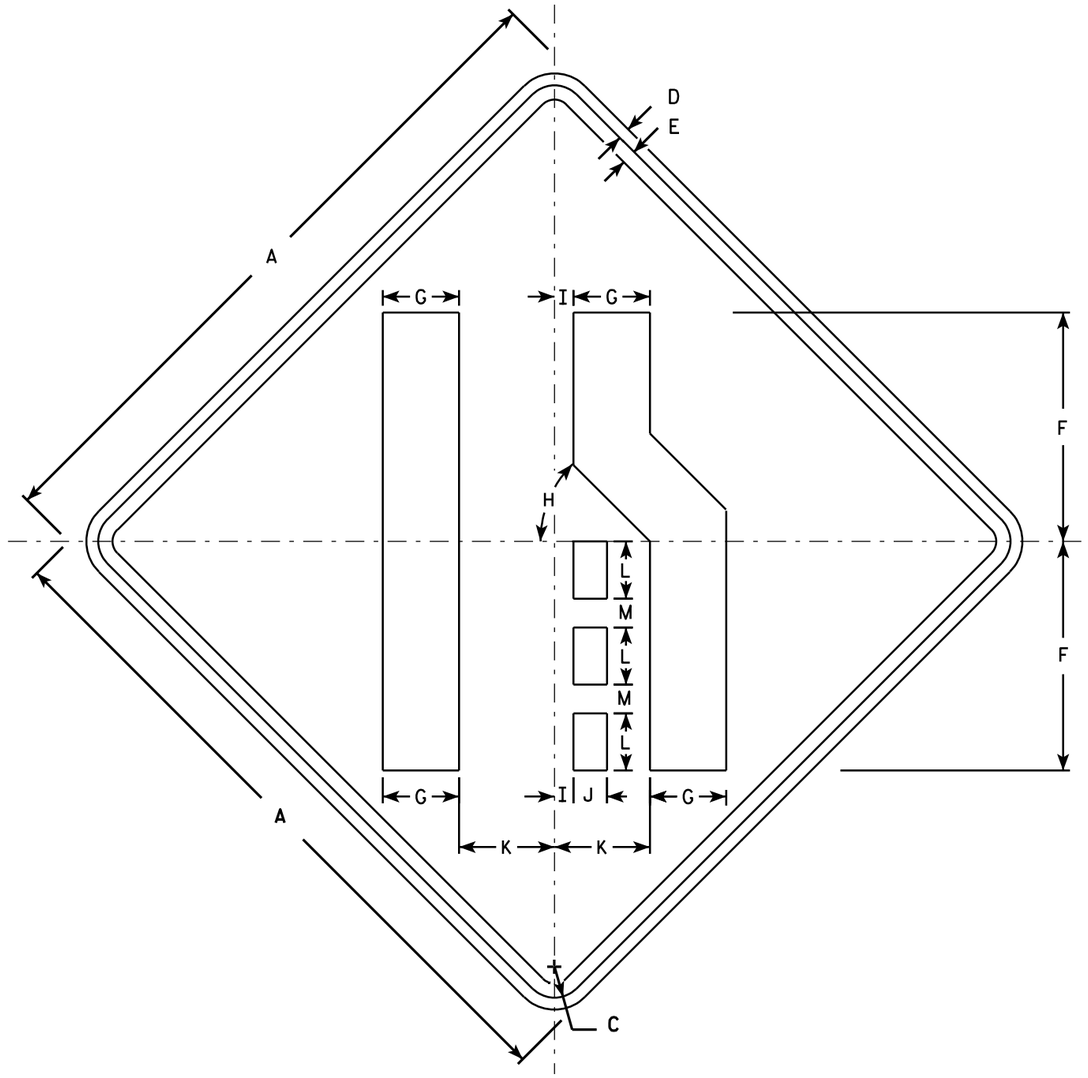
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 115 E



W4-2R

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. W4-2L is the same as W4-2R except the symbol 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	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

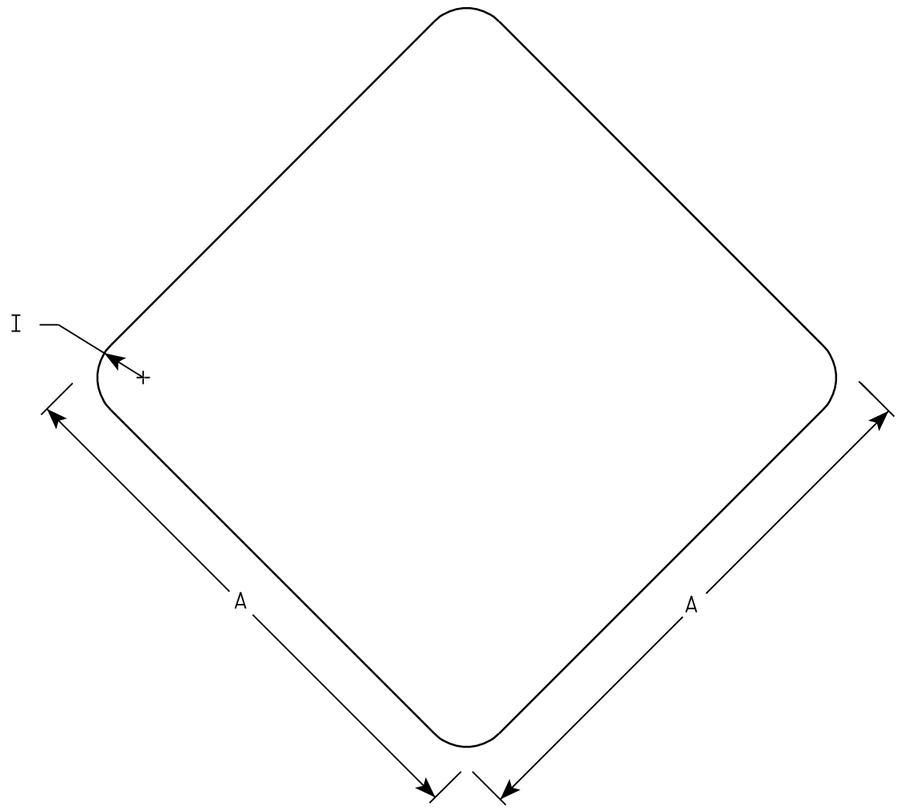
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 116 E



W5-54

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
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners 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	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

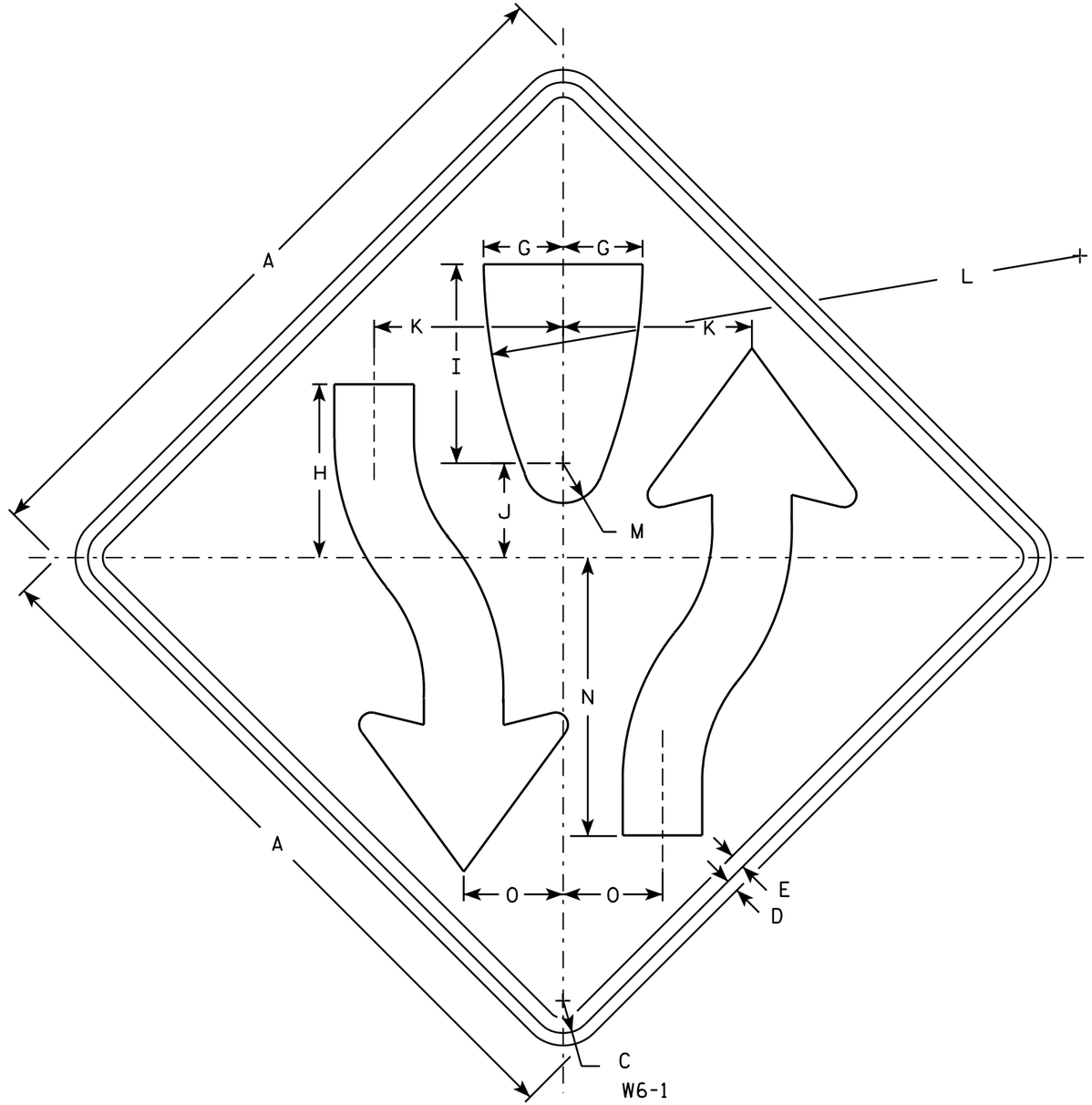
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

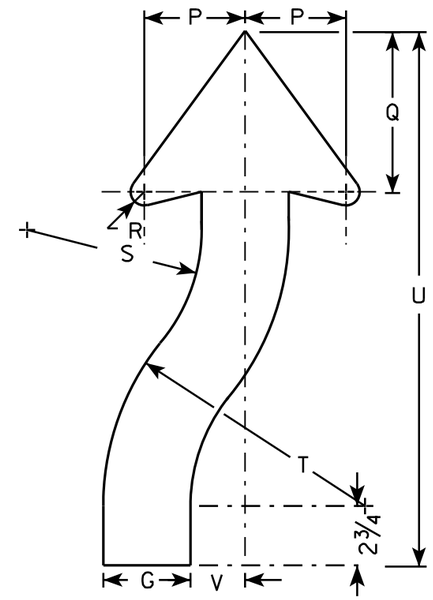
DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | 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. W6-2 same as W6-1 but is rotated 180° when mounted.



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		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

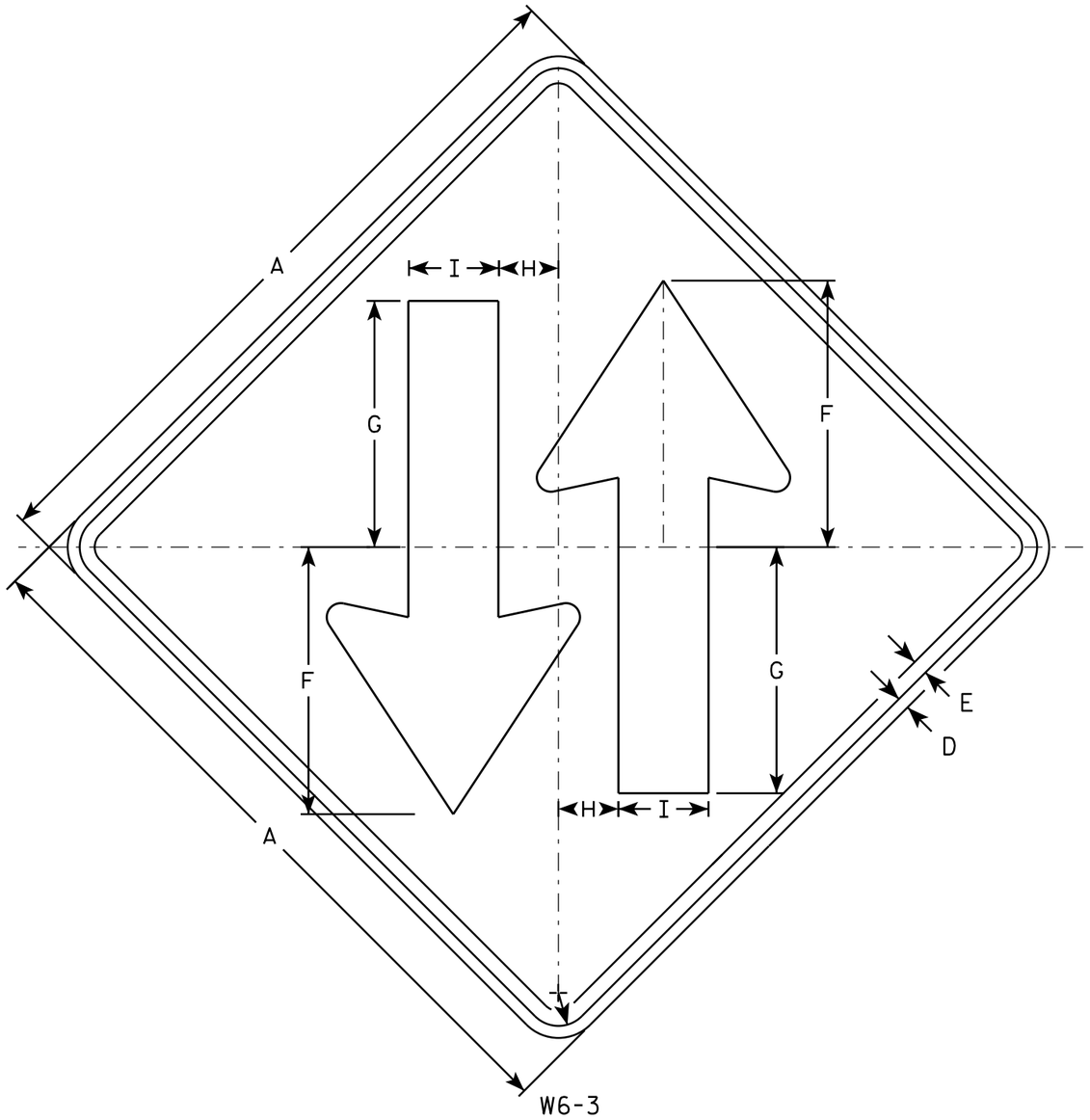
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

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

7

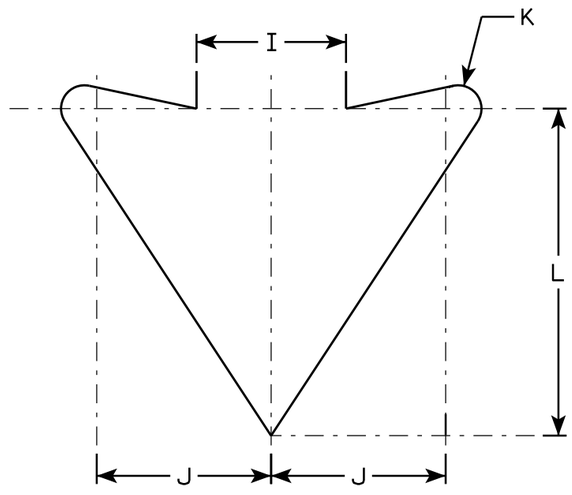
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



W6-3

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.



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	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3																											
4	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

STANDARD SIGN
W6-3

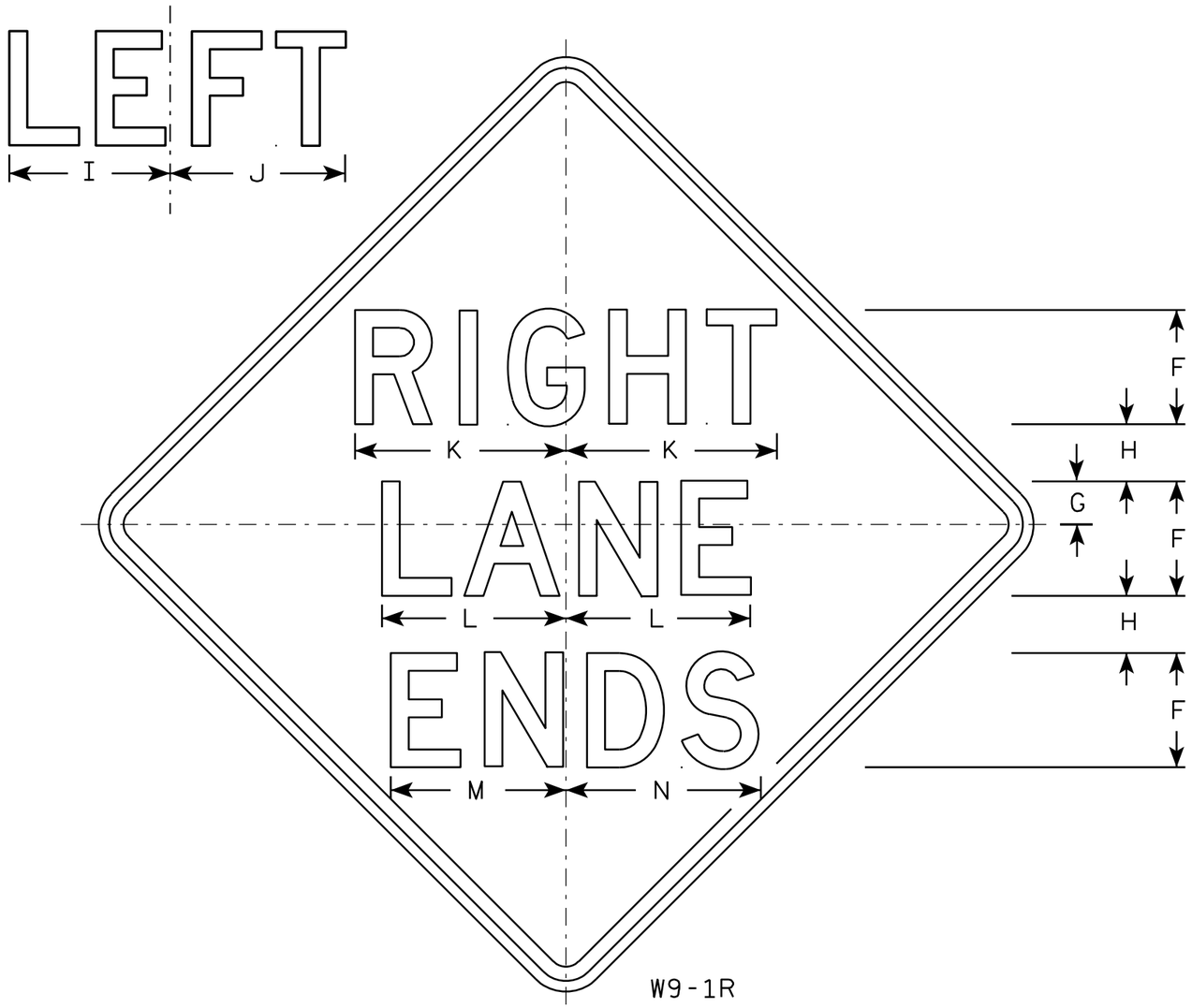
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/10/16 PLATE W6-3.11

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. W9-1L same as W9-1R except the word Left replaces 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	30		1 3/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

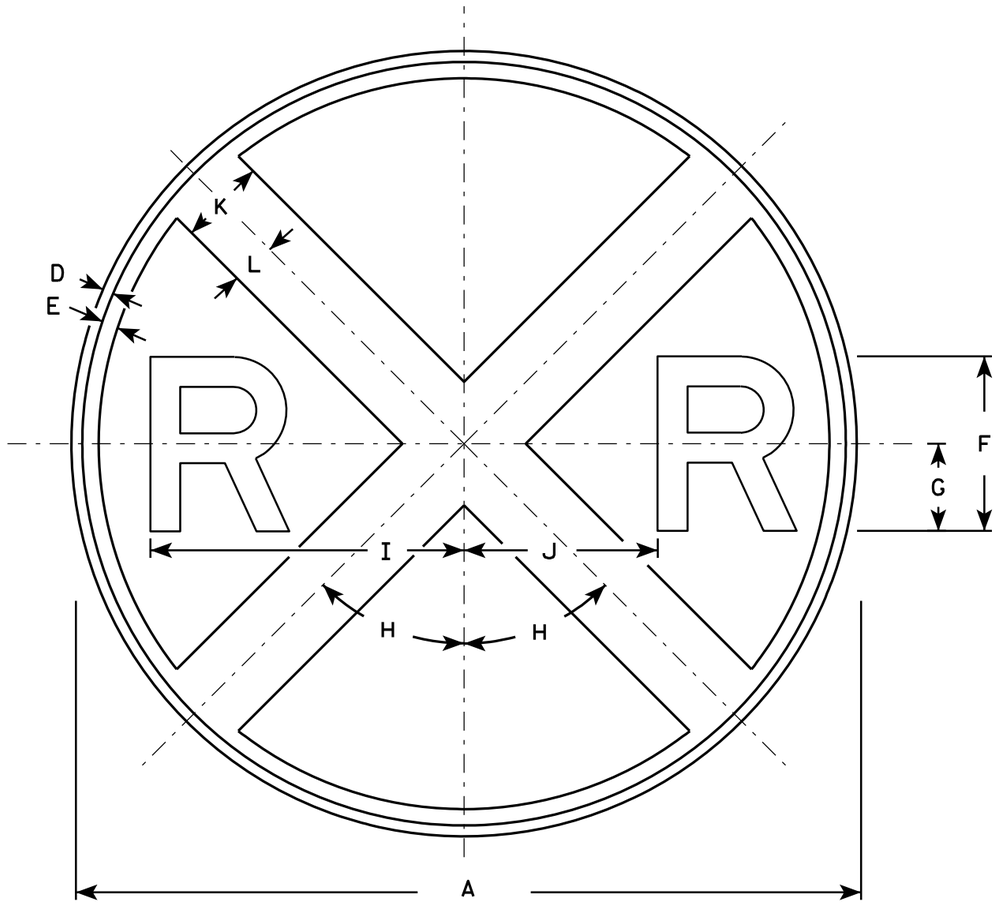
DATE 03/18/13 PLATE NO. W9-1.8

PROJECT NO:

SHEET NO: 120 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W10-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91
2S	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
2M	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
3																											
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57
5																											

STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

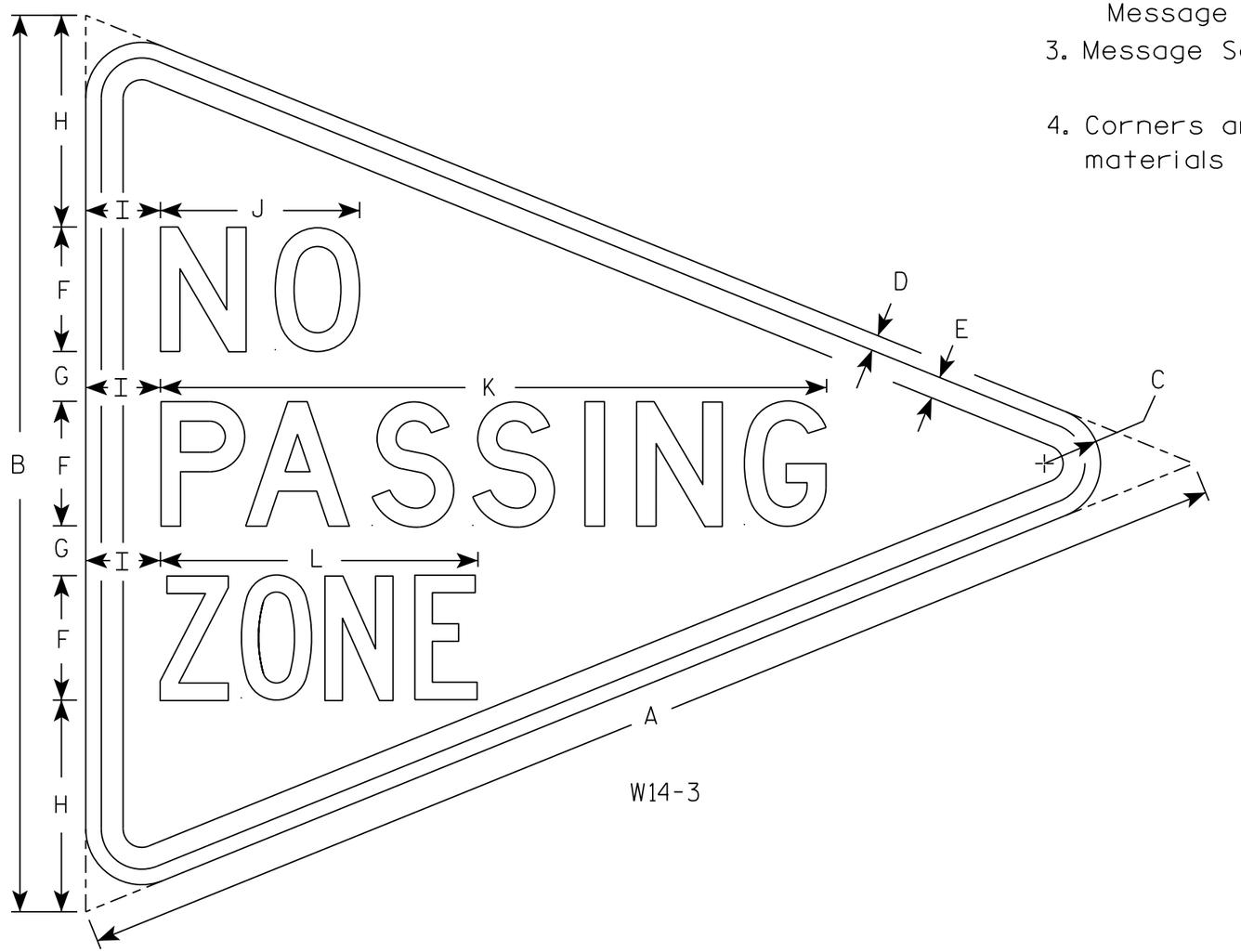
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/13/13 PLATE NO. W10-1.8

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

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - Lines 1 and 2 are Series D.
   Line 3 is series C.
4. Corners and borders shall be rounded on all base materials for this sign.



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															5.56
2M																											
3																											
4																											
5																											

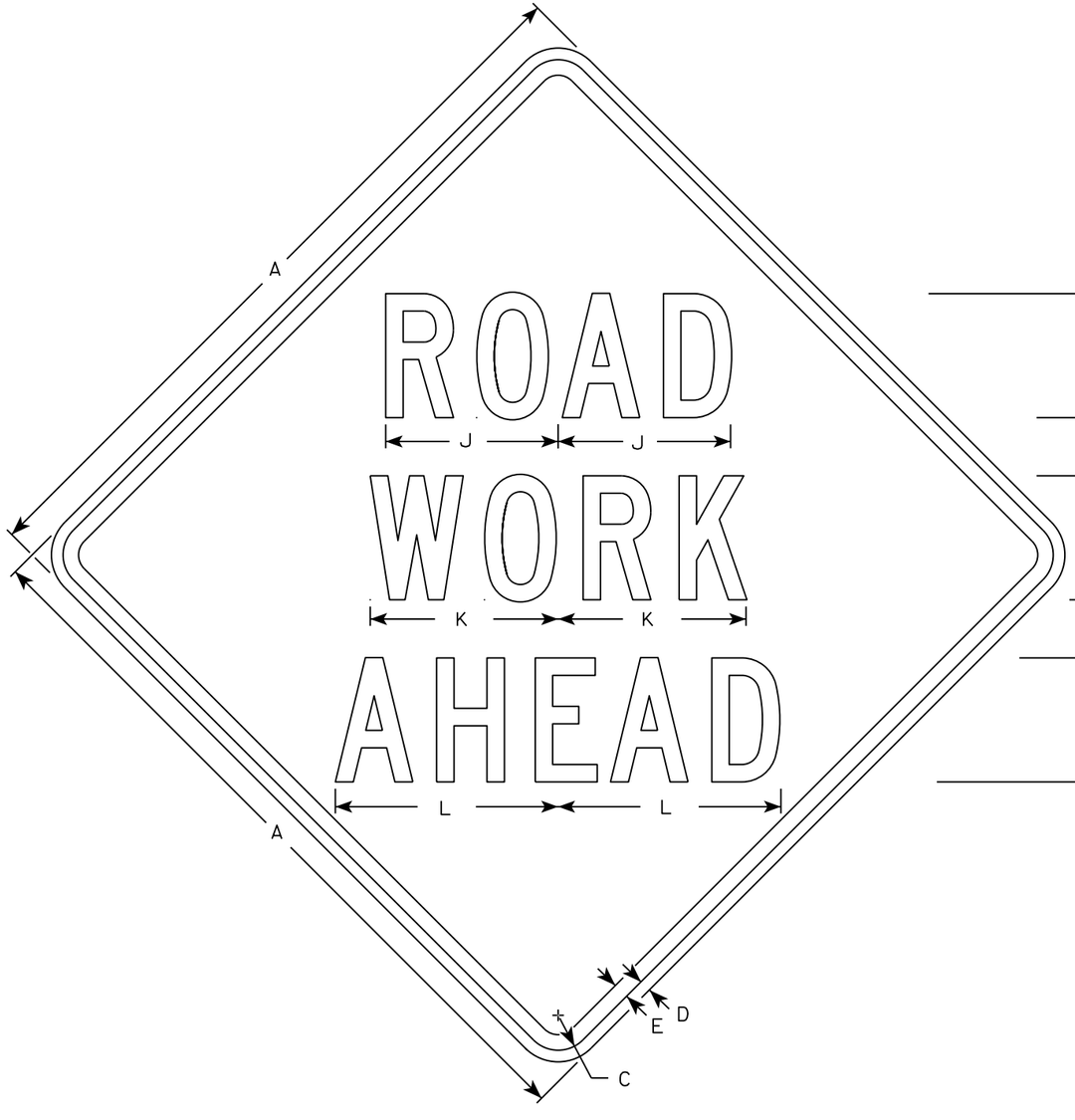
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

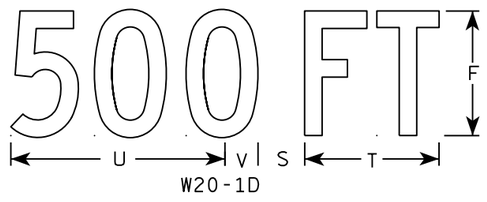
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

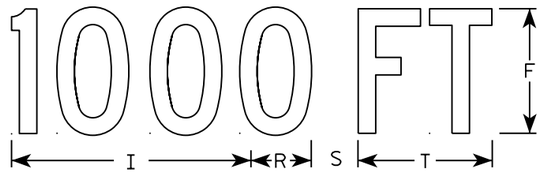
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 122 | E



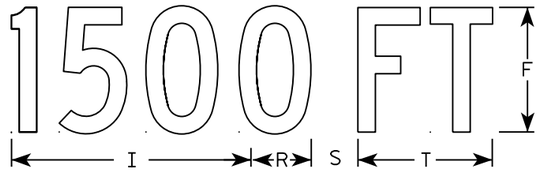
W20-1A



W20-1D



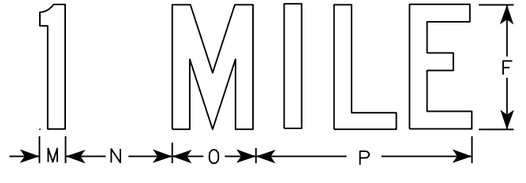
W20-1C



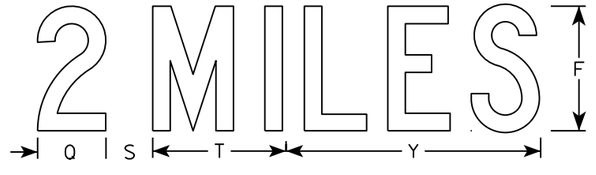
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

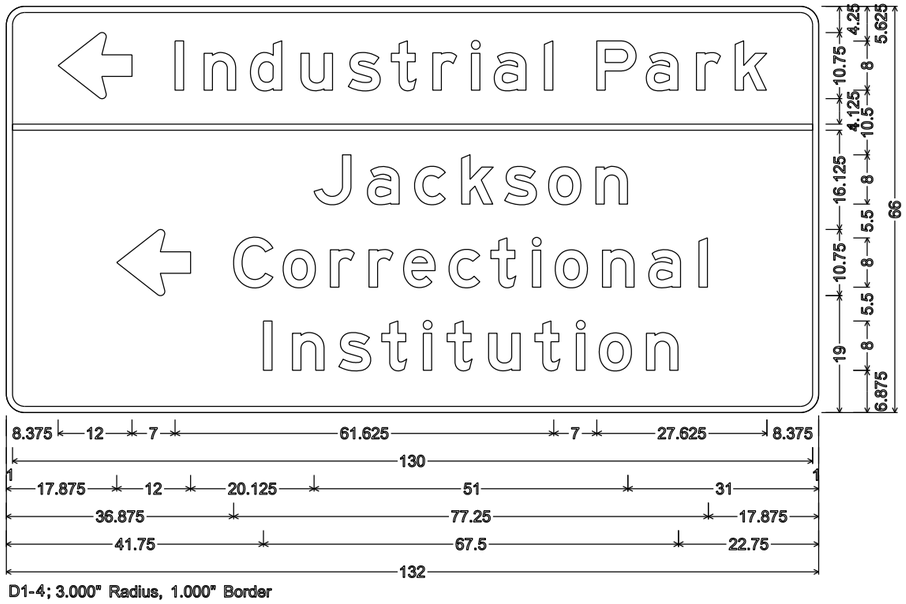
PROJECT NO:

SHEET NO: E

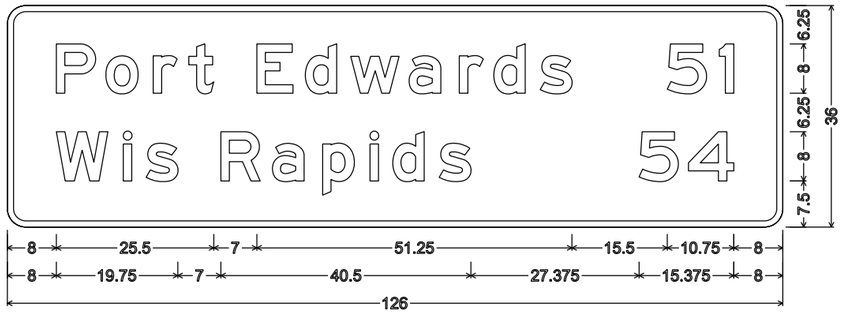
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$

NOTES

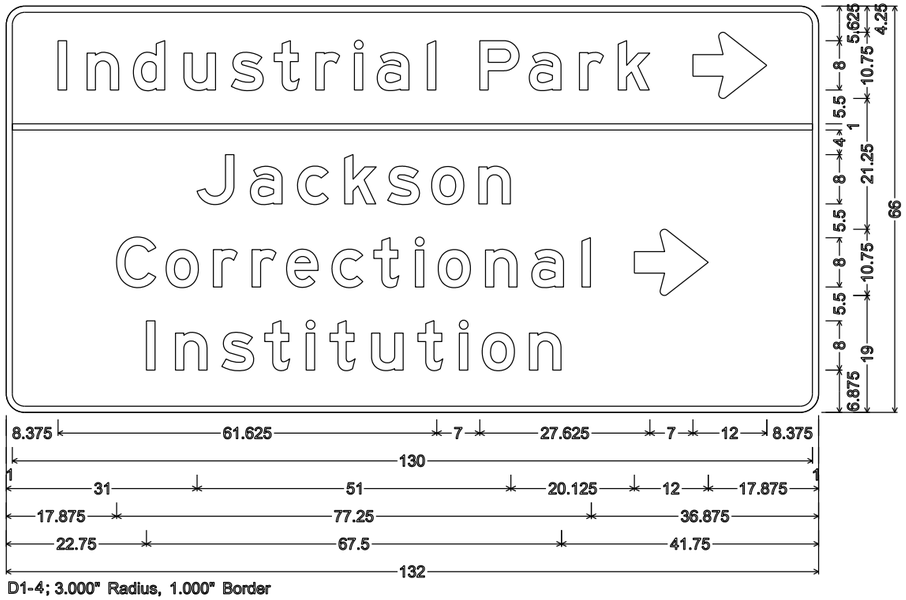
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E



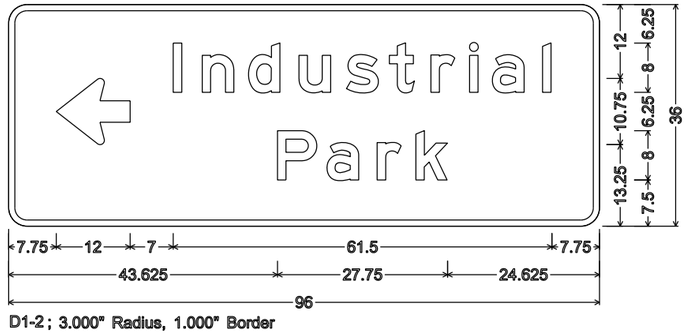
D1-4; 3.000" Radius, 1.000" Border



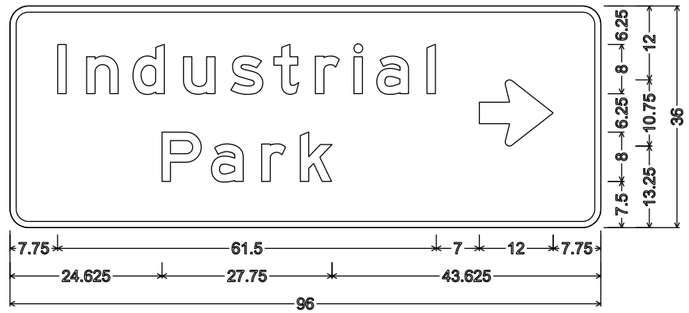
D2-2; 3.000" Radius, 1.000" Border



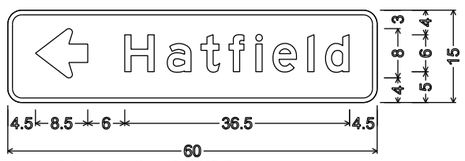
D1-4; 3.000" Radius, 1.000" Border



D1-2; 3.000" Radius, 1.000" Border



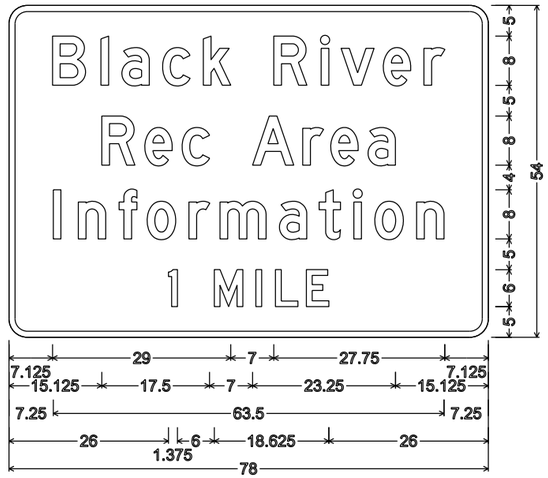
D1-2; 3.000" Radius, 1.000" Border



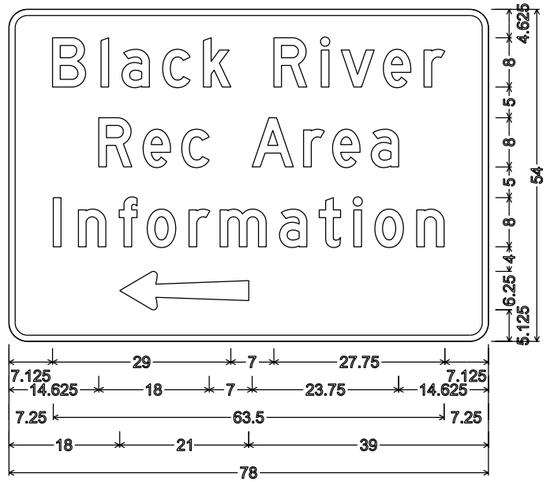
D1-1; 2.250" Radius, 0.750" Border

NOTES

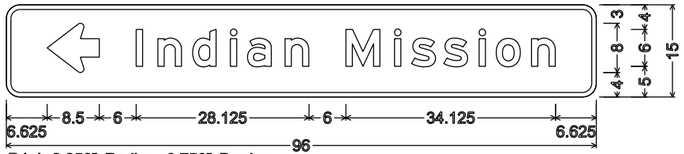
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White
3. Message Series - E except as noted



3.000" Radius, 1.000" Border, White on Brown;
"Black" D; "River" D; "Rec" D;
"Area" D; "Information" D; "1" D; "MILE" D



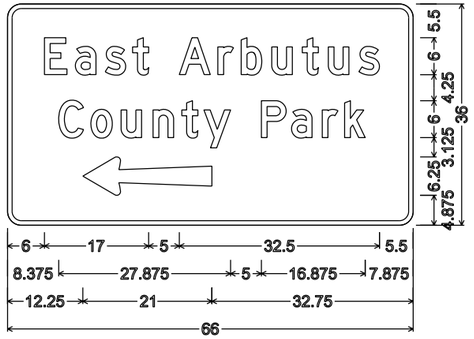
3.000" Radius, 1.000" Border, White on Brown;
"Black" D; "River" D; "Rec" D; "Area" D; "Information" D



D1-1; 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border

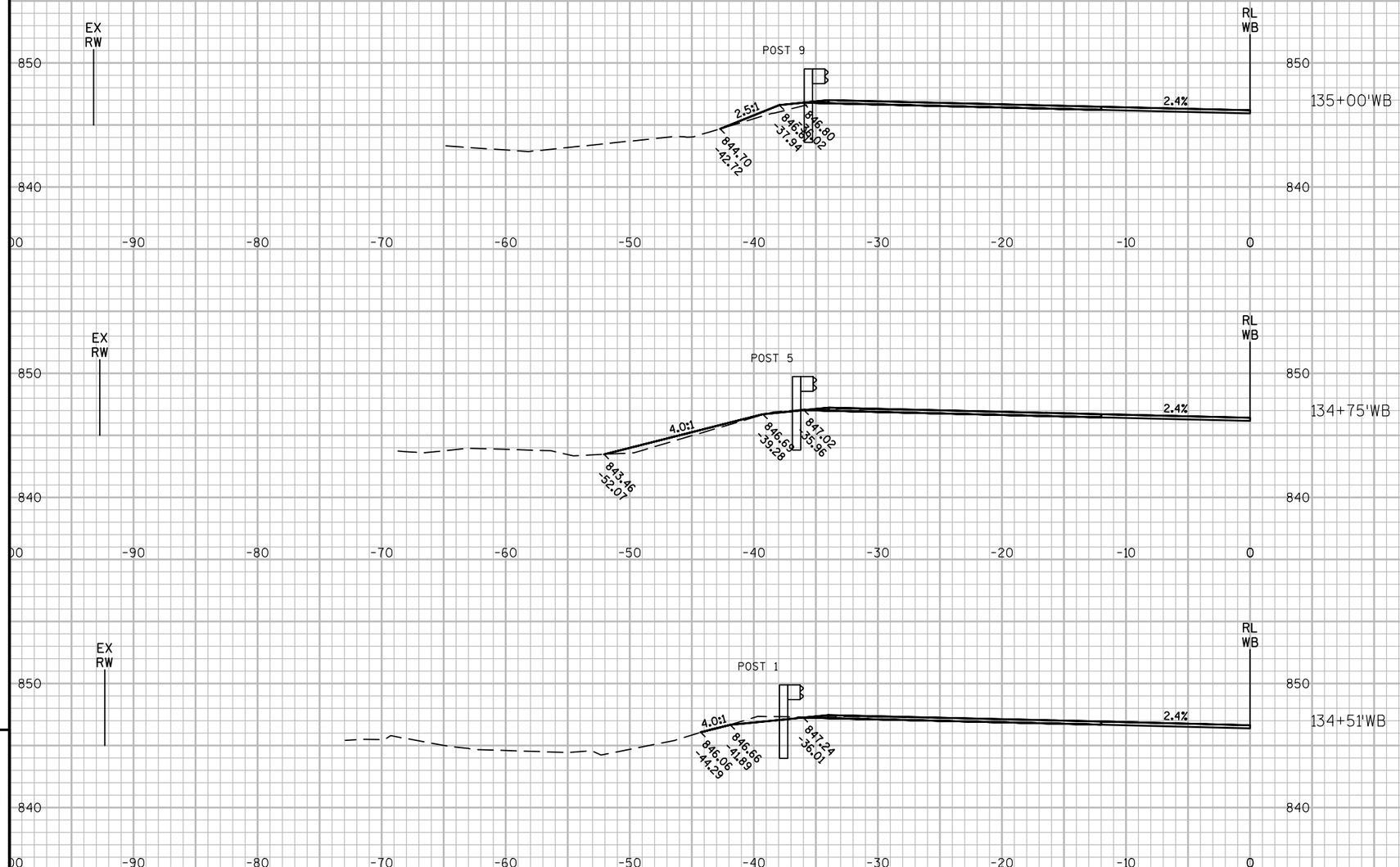


D7-68L; 2.250" Radius, 0.750" Border, White on Brown;
"East" D; "Arbutus" D; "County" D; "Park" D

7

7

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET NO: 125	E



9

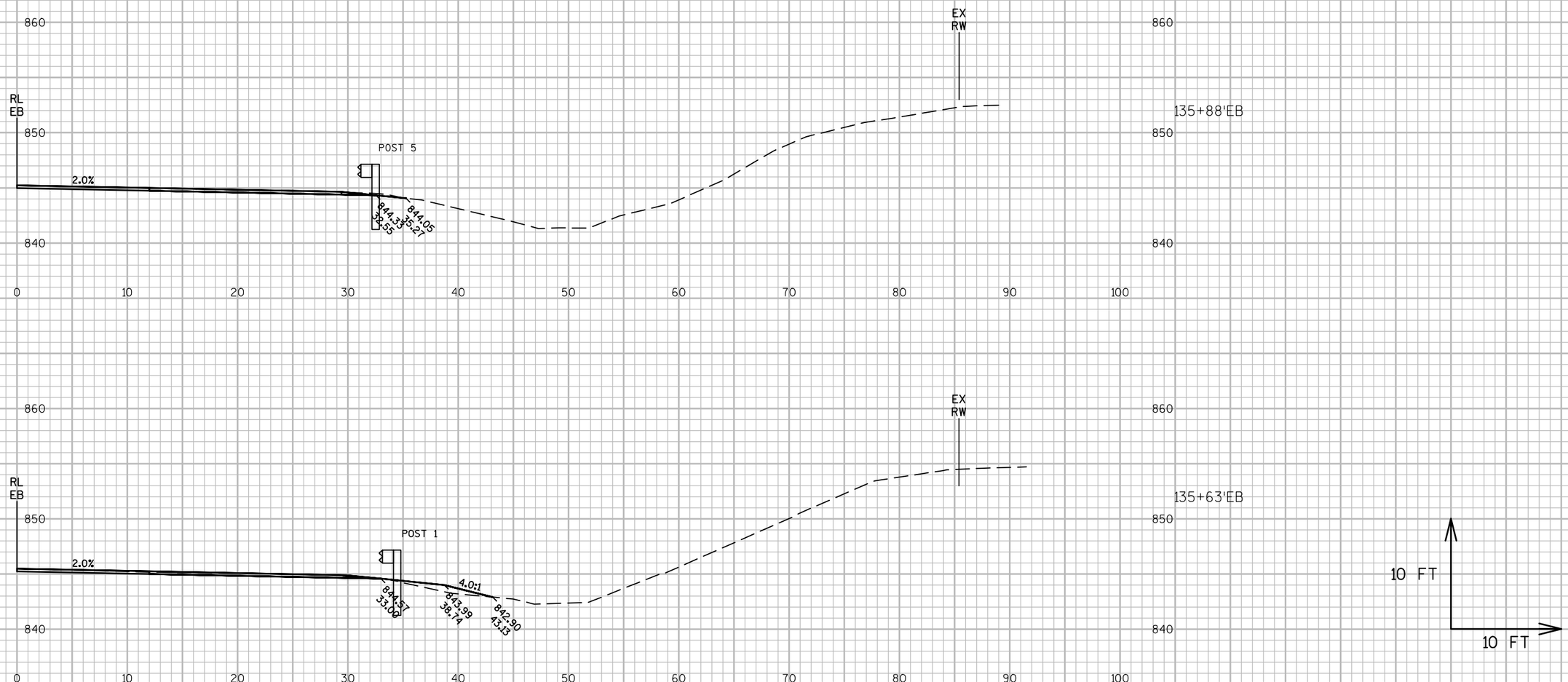
9

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: CROSS SECTIONS	SHEET 126	E

FILE NAME : F:\PROJECTS\2012-134\0007\DRAWINGS\75100200\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 8/1/2018 12:06 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

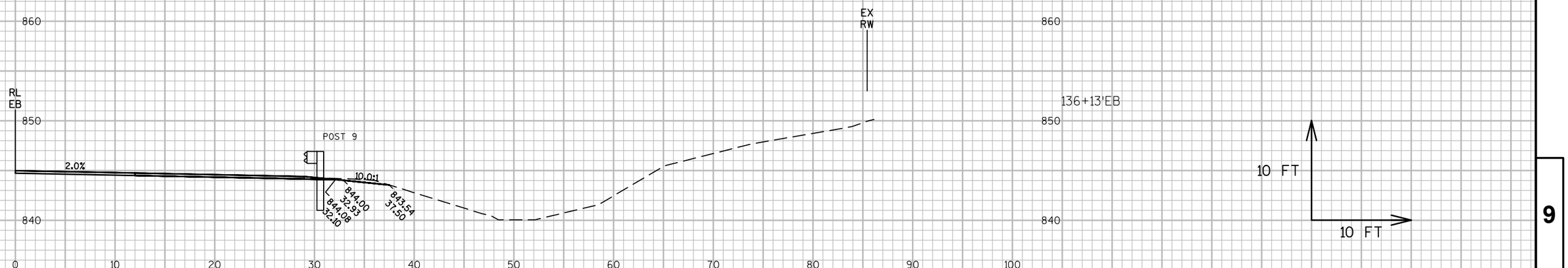
9

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: CROSS SECTIONS	SHEET 127	E

FILE NAME : F:\PROJECTS\2012-134\0007\DRAWINGS\75100200\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090202_XS

PLOT DATE : 8/1/2018 12:06 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



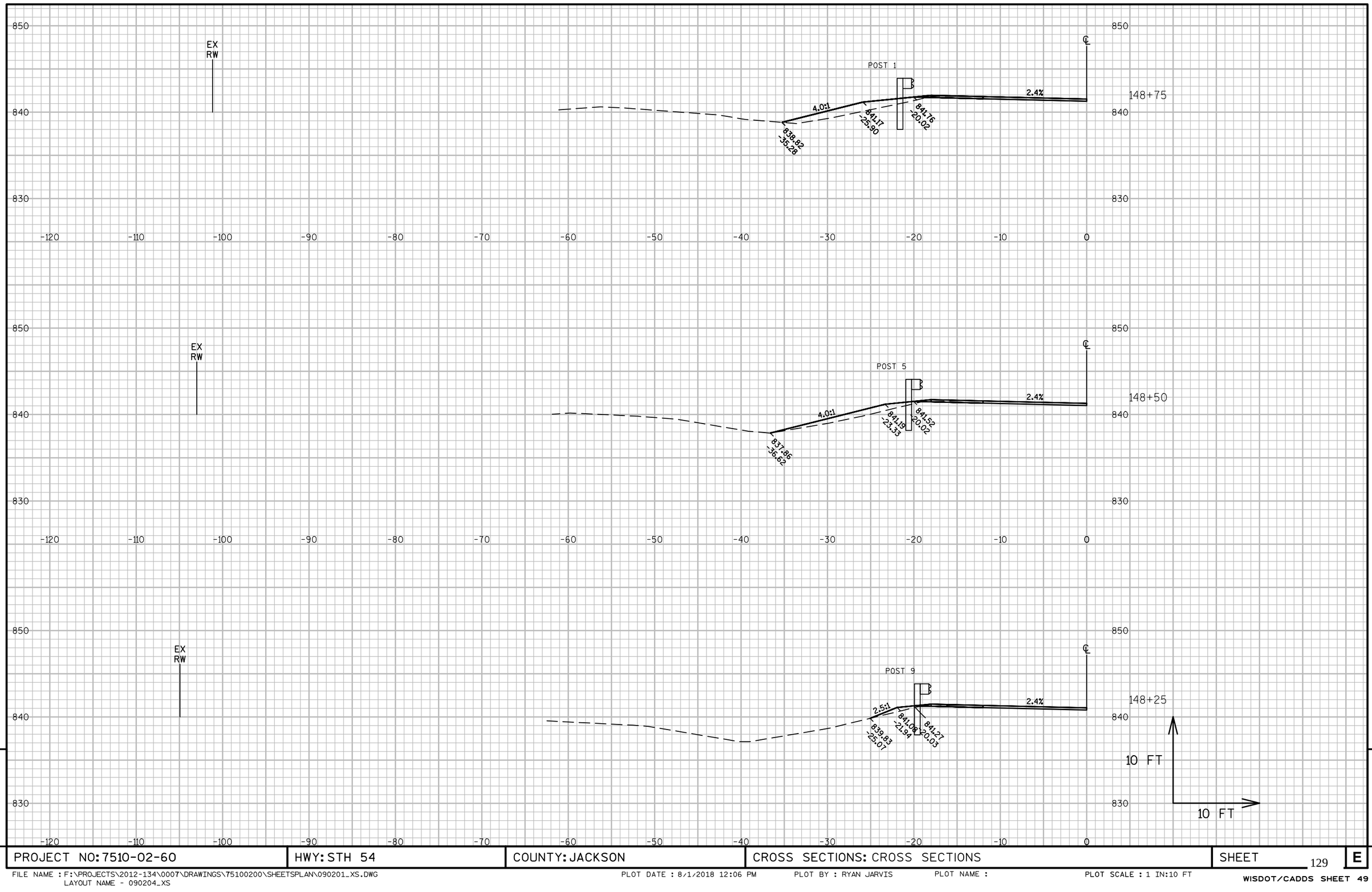
9

9

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: CROSS SECTIONS	SHEET 128	E

FILE NAME : F:\PROJECTS\2012-134\0007\DRAWINGS\75100200\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090203_XS

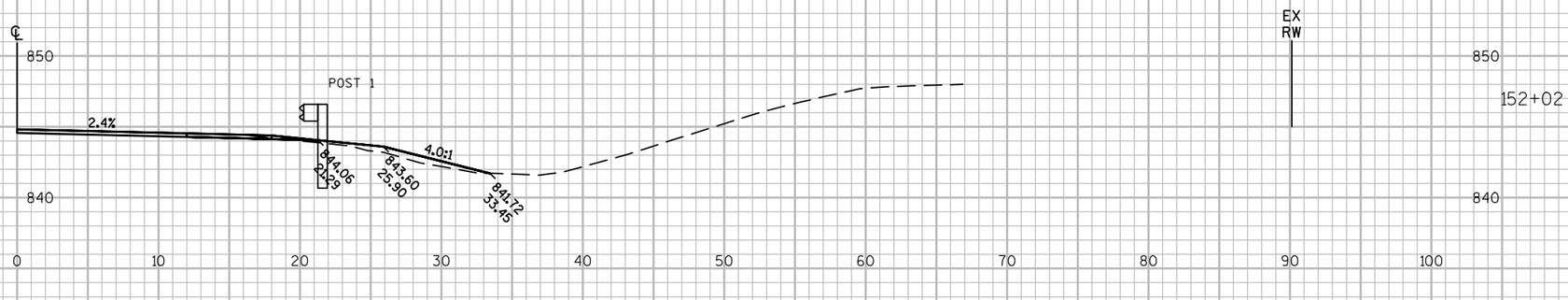
PLOT DATE : 8/1/2018 12:06 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT



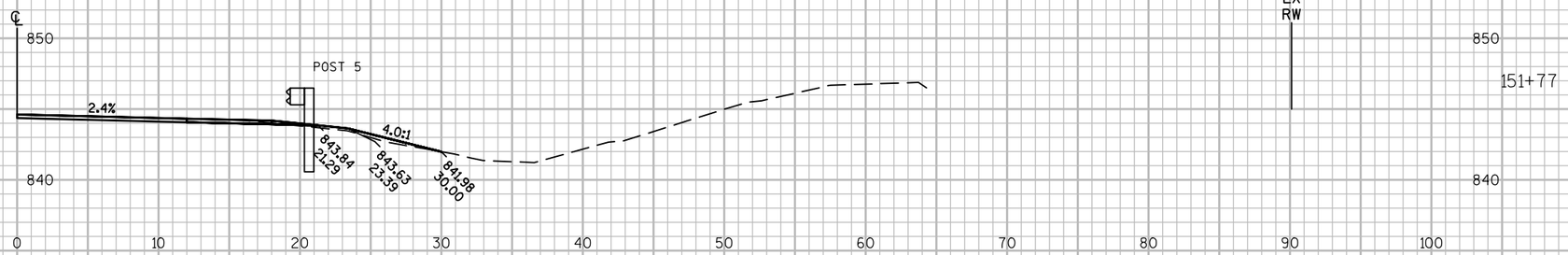
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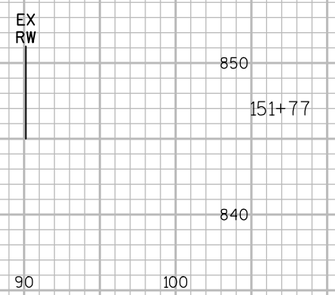
9

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: CROSS SECTIONS	SHEET 129	E



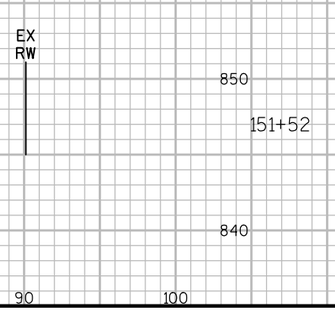
152+02



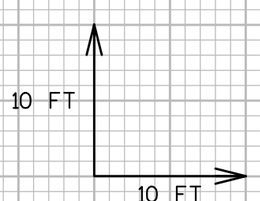


151+77





151+52



9

9

PROJECT NO: 7510-02-60	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: CROSS SECTIONS	SHEET 130	E

FILE NAME : F:\PROJECTS\2012-134\0007\DRAWINGS\75100200\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - 090205_XS

PLOT DATE : 8/1/2018 12:06 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

EAU

DECEMBER 2018

PROJECT ID: 7510-02-62

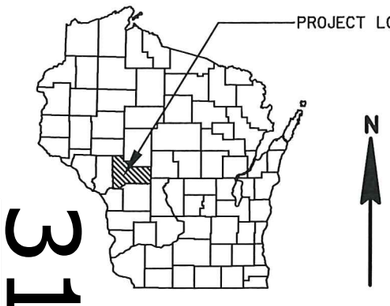
WITH: 7510-02-60

COUNTY: JACKSON

ORDER OF SHEETS

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

TOTAL SHEETS = 230



311

DESIGN DESIGNATION 7510-02-02

A.A.D.T.	2019	=	1270
A.A.D.T.	2039	=	1420
D.H.V.		=	576
D.D.		=	60/40
T.		=	16.9%
DESIGN SPEED		=	55 MPH
ESALS		=	150,000

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BLACK RIVER FALLS - CITY POINT

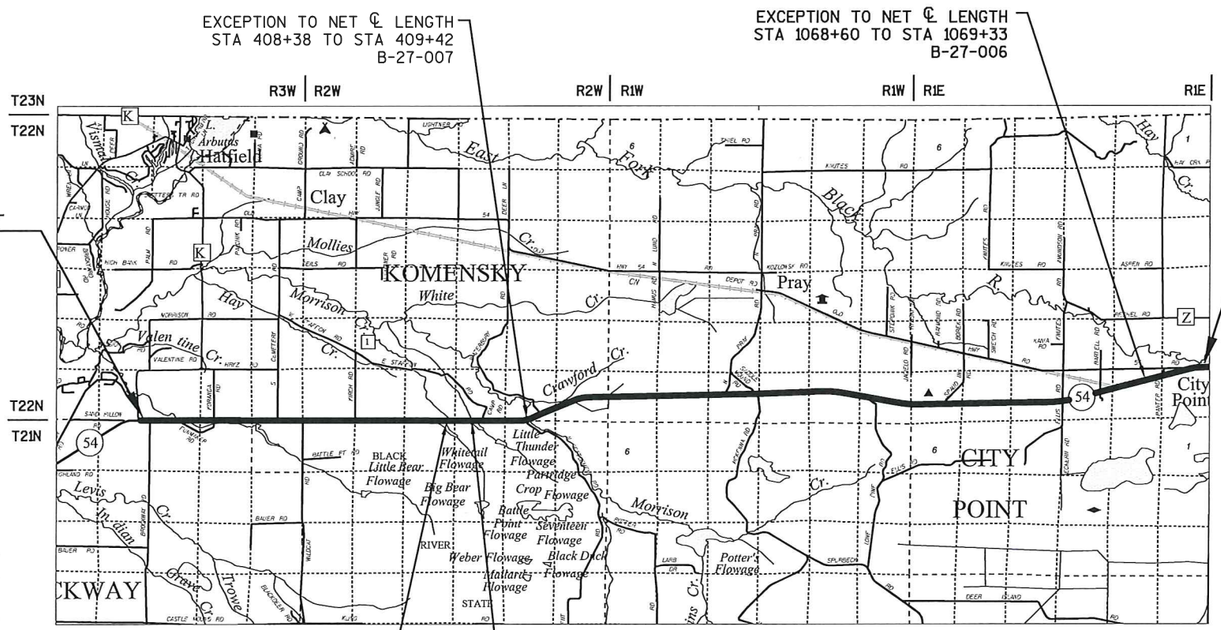
CTH K TO EAST COUNTY LINE

STH 54

JACKSON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7510-02-62	———	—

STATE PROJECT NUMBER
7510-02-62



LAYOUT SCALE 0 — 3 MILE

TOTAL NET LENGTH OF CENTERLINE = 21.408 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, JACKSON COUNTY, NAD83 (2014), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ORIGINAL PLANS PREPARED BY

FAA CONSULTING ENGINEERS

WISCONSIN PROFESSIONAL ENGINEER
CHAD HALAMA
E-33818
MENOMONIE
WI

7/24/18 (Date) Chad Halama (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION
Designer	FAA, INC.
Project Manager	DAVID KOEPP
Regional Examiner	TOU YANG
Regional Supervisor	JAMES KOENIG

APPROVED FOR THE DEPARTMENT

DATE: 7/31/2018 (Signature)

E

2

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE BEEN DESIGNATED FOR REMOVAL BY THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOIL, FERTILIZED, SEEDED AND EROSION MAT AS DIRECTED BY THE ENGINEER.

ALL PRIVATE DRIVEWAYS AND COMMERCIAL ENTRANCES SHALL BE RESTORED IN KIND. LIMITS TO BE DETERMINED BY THE ENGINEER.

PAVING LIMITS ARE TO BE DETERMINED BY THE ENGINEER.

THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL DIGGERS HOTLINE PRIOR TO BEGINNING WORK OPERATIONS. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPERATELY.

ALL RADII ARE MEASURED TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED ON THE PLAN.

CURVE DATA IS BASED ON THE ARC DEFINITION.

"ASPHALTIC SURFACE" ITEM IS TO BE USED FOR LEVELING/WEDGING AND SPOT REPAIR.

"ASPHALTIC SURFACE PATCHING" ITEM IS TO BE USED FOR RAMPING AT BUTT JOINT SAW CUTS, MISCELLANEOUS REPAIRS OF POTHOLES AND POPOUTS THAT OCCUR DURING CONSTRUCTION.

PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

THE EROSION CONTROL FEATURES AS SHOWN ON THE PLAN DETAILS ARE AT SUGGESTED LOCATIONS, THEIR EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

OTHER WETLANDS MAY EXIST IN LOCATIONS THAT ARE NOT SHOWN IN THE PLANS. DO NOT STAGE IN OR DISTURB WETLANDS AREAS.

WHEN THE QUANTITY OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE PROPOSED SHOULDER WIDTHS SHOWN IN THE TYPICAL SECTIONS ARE MINIMUM WIDTH, PERPETUATE EXISTING SHOULDERS THAT ARE WIDER THAN WHAT IS SHOWN IN THE TYPICAL SECTION.

HMA PAVEMENT 4MT 58-34S SHALL CONSIST OF A 1¼-INCH LEVELING LAYER AND A 1¾-INCH UPPER LAYER.

THE CONTRACTOR SHALL MILL OUT ANY WEDGE USED FOR TRAFFIC STAGING PRIOR TO PLACING THE ADJACENT LANE.

REMOVE ALL EXISTING CULVERT MARKER POSTS. "MARKERS CULVERT END" REQUIRED AT ALL CROSS CULVERT LOCATIONS.

STANDARD ABBREVIATIONS

A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
B.A.D.	BASE AGGREGATE DENSE
C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
CY	CUBIC YARD
D.D.	DAILY DIRECTIONAL SPLIT (TRAFFIC VOLUME)
D.H.V.	DAILY HOURLY TRAFFIC
E.A.T.	ENERGY ABSORBING TERMINAL
EB	EASTBOUND
EL.	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
FO	FIBER OPTIC
INV	INVERT
LB	POUND
LF OR L.F.	LINEAR FEET
LT.	LEFT
MAX.	MAXIMUM
MIN.	MINIMUM
NB	NORTHBOUND
NPZ	NO PASSING ZONE
OH	OVERHEAD
P.E.	PRIVATE ENTRANCE
REQ'D	REQUIRED
R/L OR RL	REFERENCE LINE
RT.	RIGHT
R/W	RIGHT OF WAY
SB	SOUTHBOUND
S.D.D.	STANDARD DETAIL DRAWING
STA.	STATION
SF	SQUARE FOOT
STH	STATE HIGHWAY
SY	SQUARE YARD
T.	PERCENT OF TRUCK TRAFFIC
T.L.E.	TEMPORARY LIMITED EASEMENT
TYP.	TYPICAL
VAR.	VARIES
WB	WESTBOUND

DEPARTMENT OF NATURAL RESOURCES

DNR SERVICE CENTER
3550 MORMON COULEE RD
LA CROSSE, WI 54601
TELEPHONE: 608-785-9115
ATTENTION: SHAWN HASELEU
SHAWN.HASELEU@WISCONSIN.GOV

WISDOT REGIONAL CONTACT

DAVID KOEPP
WISDOT NORTHWEST REGION
EAU CLAIRE OFFICE
718 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
(715) 836-2078

DESIGN CONTACT

FLEMING, ANDRE & ASSOCIATES, INC.
MATT GUNDRY
3615 N. HASTINGS WAY - STE. 100
EAU CLAIRE, WI 54703
(715) 832-8400
mjgundry@faa-engineers.com

UTILITIES

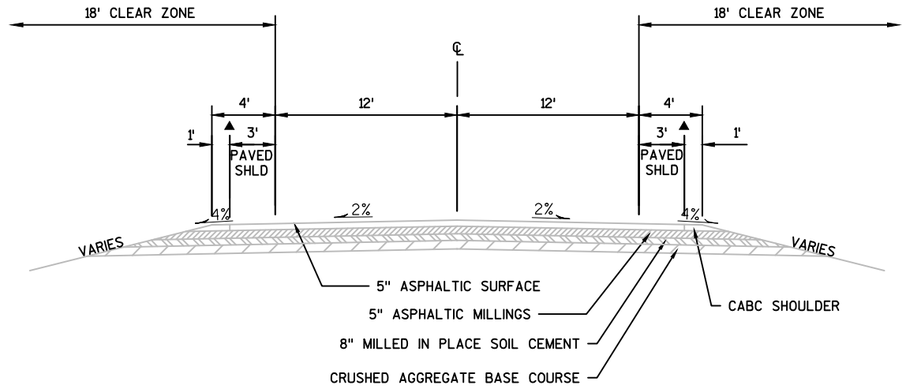
DONNA SMOTHERS
CENTURYLINK - COMMUNICATION LINE
835 RED IRON RD
BLACK RIVER FALLS, WI 54615
(715) 284-4375
donna.smothers@centurylink.com

SCOTT BROOKMAN
OAKDALE ELECTRIC COOPERATIVE - ELECTRICITY
489 N OAKWOOD ST
P.O. BOX 128
OAKDALE, WI 54649
(608) 372-4131
sbrookma@oakdalerec.com

STEVE JAKUBIEC
TDS TELECOM - COMMUNICATION LINE
SUITE 218A
10 COLLEGE AVE
APPLETON, WI 54911
(920) 882-4166
steve.jakubiec@tdstelecom.com

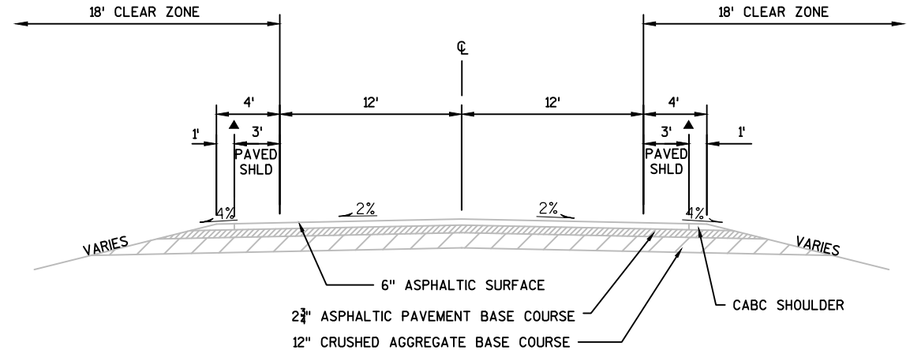
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	GENERAL NOTES	SHEET 2	E



EXISTING TYPICAL SECTION

STA 3+89 TO STA 287+47
STA 287+93 TO STA 329+42
STA 329+79 TO STA 399+60.7
STA 415+40.7 TO STA 463+60.6
STA 478+20.5 TO STA 549+00
STA 575+40 TO STA 720+92.8
STA 745+16.4 TO STA 804+20.9
STA 925+38.8 TO STA 961+25.6
STA 988+59 TO STA 1068+60
STA 1069+33 TO STA 1114+36
STA 1120+33.7 TO STA 1137+00

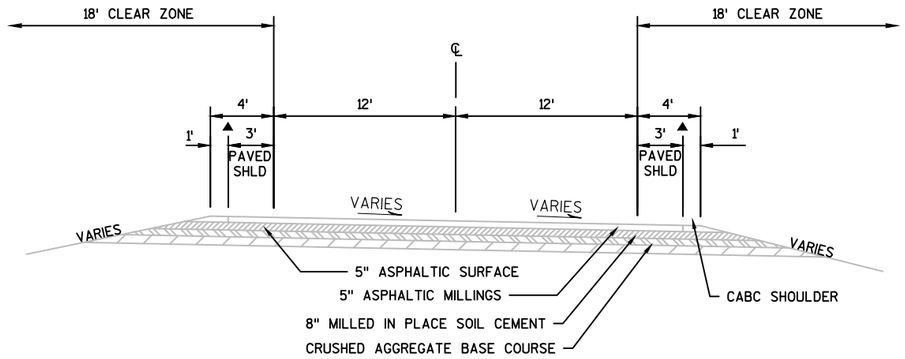


EXISTING TYPICAL SECTION

STA 549+00 TO STA 575+40

▲ FULL WIDTH PAVED SHOULDER AT BEAM GUARD LOCATIONS.

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 3	E

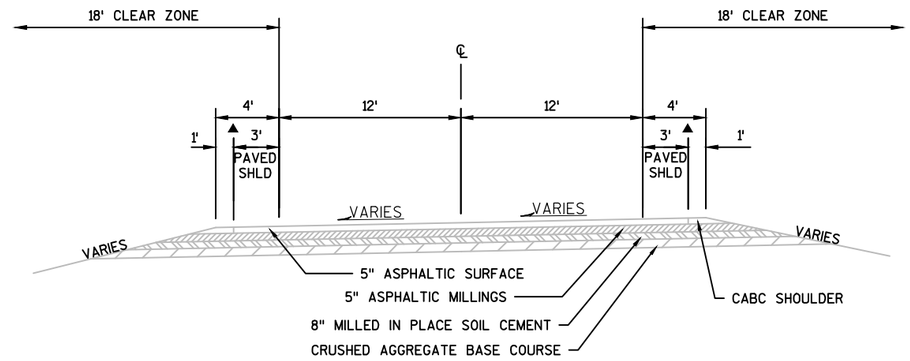


EXISTING SUPERELEVATED SECTION

STA 463+60.6 TO STA 478+20.5
STA 720+92.8 TO STA 745+16.4
STA 1114+36 TO STA 1120+33.7

FIELD CORE LOG						
Core No	Mile	Offset	Asphalt Pavt Depth	Milled Asphaltic Pavt Base Course	MIP Recycled AP & SC	Comments / Subgrade
--	0	--	--	--	--	CTH K
1	0.07	7 1/2' LT	5 3/4"	3"	7"	SAND
2	0.6	8 1/2' RT	5 1/2"	3"	7"	SAND
3	1.1	9 1/2' LT	6 1/2"	2"	8"	SAND
4	1.62	7' RT	5 1/2"	6"	7"	SAND
5	2.1	7 1/2' LT	5 3/4"	3"	7"	SAND
6	2.6	7 1/2' RT	4 1/2"	4 1/2"	7 1/2"	SAND
7	3.1	9' LT	5 1/2"	4"	7"	SAND
8	3.6	7' RT	5"	3 1/2"	8 1/2"	SAND
9	4.11	8' LT	5 3/4"	3"	8"	SAND
10	4.6	8' RT	5 1/4"	3 1/2"	8"	SAND
11	5.11	7' LT	6"	3 1/2"	7"	SAND
12	5.6	8' RT	4 1/2"	3"	12"	SAND
13	6.1	7' LT	5 1/2"	3"	11"	SAND
14	6.6	8' RT	5 1/4"	3"	10"	SAND
15	7.1	8' LT	4 1/2"	5"	9 1/2"	SAND
16	7.6	8' RT	5"	4 1/2"	8 1/2"	SAND
--	7.7	--	--	--	--	MORRISON CREEK UNDER

▲ FULL WIDTH PAVED SHOULDER AT BEAM GUARD LOCATIONS.



EXISTING SUPERELEVATED SECTION

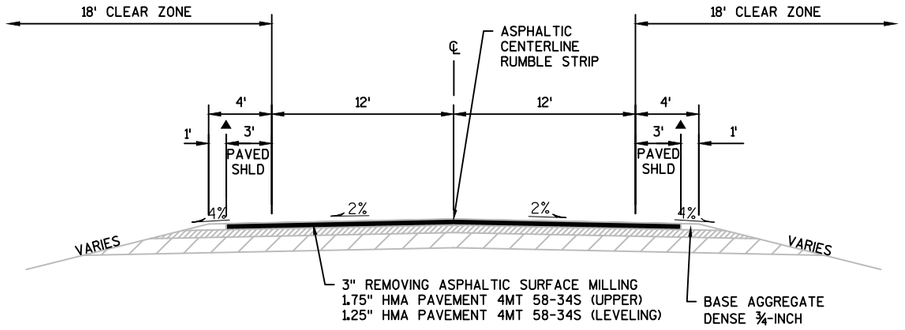
STA 399+60.7 TO STA 415+40.7
STA 804+20.9 TO STA 925+38.8
STA 961+25.6 TO STA 988+59

FIELD CORE LOG						
Core No	Mile	Offset	Asphalt Pavt Depth	Milled Asphaltic Pavt Base Course	MIP Recycled AP & SC	Comments / Subgrade
--	0	--	--	--	--	MORRISON CREEK UNDER
17	1	6.5' RT	4 3/4"	4 1/2"	8"	SAND
18	1	8' RT	5"	8 1/2"	5 1/4"	SAND
19	2	7' RT	4 1/2"	10"	5 1/4"	SAND
20	2	7' LT	5"	8 1/2"	4 3/4"	SAND
21	3	7.5' RT	3"	9 1/2"	5"	SAND
22	3	7.5' LT	1"	9"	5"	SAND
23	4	8.5' RT	1"	10"	4 1/2"	SAND
24	4	7' LT	3 1/2"	8"	4 3/4"	SAND
25	5	7.5' RT	2 1/2"	7"	5 1/2"	W. SANDSTONE
26	5	9' LT	3"	8 1/2"	5"	SAND
27	5.51	8' RT	5"	4"	9"	SAND over SANDSTONE
28	6	8' LT	3 1/2"	8 1/2"	5 1/4"	SAND over SANDSTONE
29	7	7.5' RT	3"	14"	5"	SAND
30	7	7.5' LT	4 1/2"	8"	5"	SAND
31	8	8' RT	5"	11"	5 3/4"	SAND
32	8	6' LT	4"	11 1/2"	4 1/2"	SAND
33	9	6.5' RT	4 1/2"	8"	5"	SAND
34	9	9' LT	5"	8"	4"	SAND
35	10	7' RT	3"	9"	4 1/2"	SAND
36	10	8' LT	3 1/2"	7"	5 3/4"	SAND
37	11	8' RT	3"	10"	5 3/4"	SAND
38	11	8' LT	3"	9"	5"	SAND
39	12	7' RT	5"	9 1/2"	5"	SAND
40	12	7' LT	3"	10"	5 3/4"	SAND
41	13	6' RT	6"	11"	4 1/2"	SAND
42	13	8' LT	4"	8 1/2"	4 3/4"	SAND
43	14	7.5' RT	5"	10"	4 3/4"	SAND

FOR ADDITIONAL PAVEMENT DEPTH INFORMATION OR GPR RESULTS, CONTACT DAN REID AT 608-246-7946.

MIP RECYCLED AP & SC: MILL IN PLACE LAYER OF RECYCLED ASPHALTIC PAVEMENT AND SOIL CEMENT.

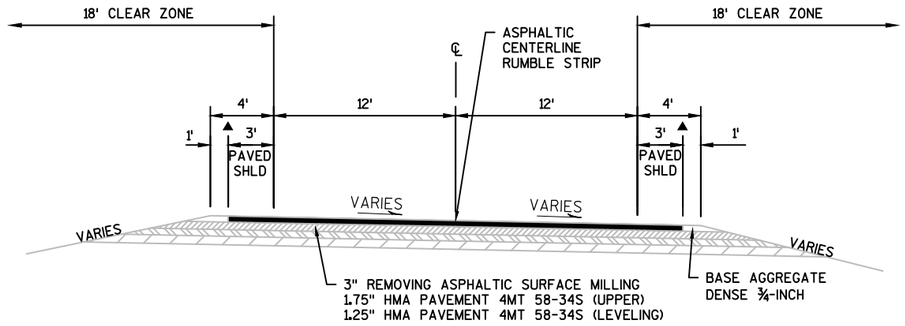
PAVEMENT FIELD CORE LOG (7-23-13 & 7-24-13)



FINISHED TYPICAL SECTION

STA 3+89 TO STA 287+47
STA 287+93 TO STA 329+42
STA 329+79 TO STA 399+60.7
STA 415+40.7 TO STA 463+60.6
STA 478+20.5 TO STA 549+00
STA 575+40 TO STA 720+92.8
STA 745+16.4 TO STA 804+20.9
STA 925+38.8 TO STA 961+25.6
STA 988+59 TO STA 1068+60
STA 1069+33 TO STA 1114+36
STA 1120+33.7 TO STA 1137+00

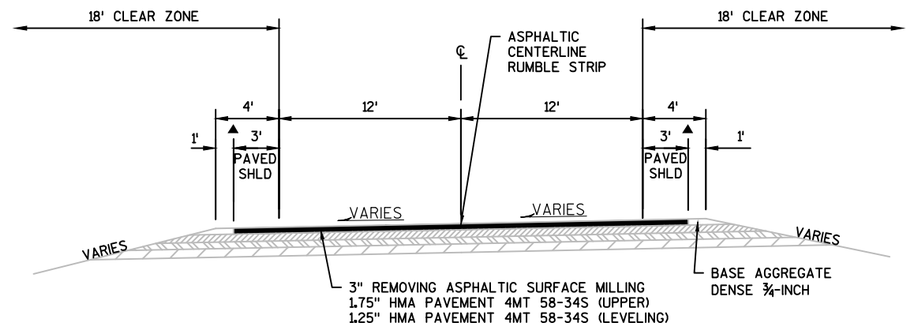
DEPTH OF MILL WILL BE SET AT THE CENTERLINE OF THE DRIVING LANES AND CONTINUE DOWN AT THE EXISTING ROADWAY SLOPE.



FINISHED SUPERELEVATED SECTION

STA 463+60.6 TO STA 478+20.5
STA 720+92.8 TO STA 745+16.4
STA 1114+36 TO STA 1120+33.7

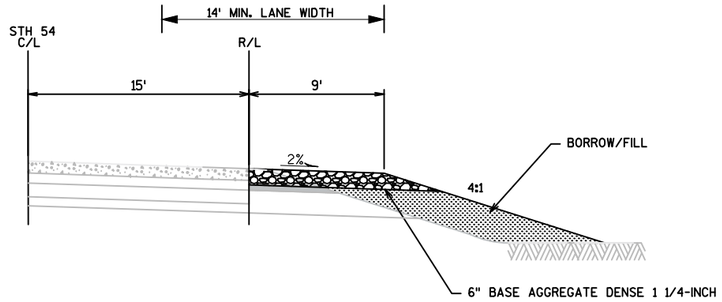
▲ FULL WIDTH PAVED SHOULDER AT BEAM GUARD LOCATIONS.



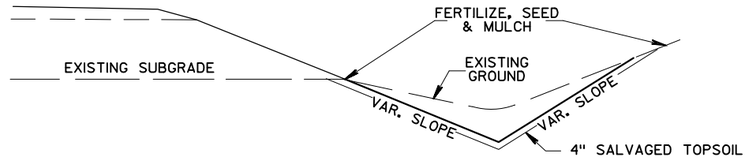
FINISHED SUPERELEVATED SECTION

STA 399+60.7 TO STA 415+40.7
STA 804+20.9 TO STA 925+38.8
STA 961+25.6 TO STA 988+59

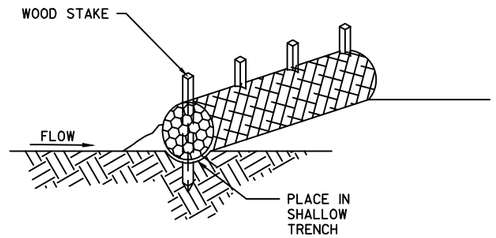
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN: TYPICAL SECTIONS	SHEET 5	E



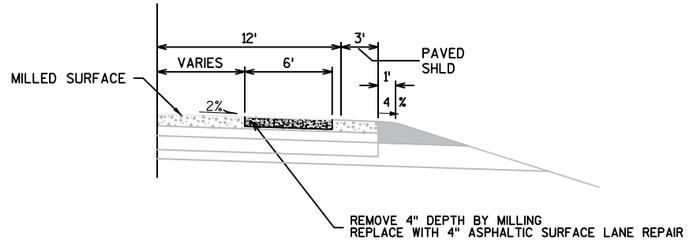
WIDENING AT CULVERT REPLACEMENT STA 498+00 TO STA 501+00



DITCH CLEANING DETAIL



TEMPORARY DITCH CHECKS



LANE REPAIR NOTES:

EXACT LOCATIONS OF REPAIRS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

HMA LANE REPAIR TO BE PERFORMED AFTER MAINLINE MILLING OPERATIONS.

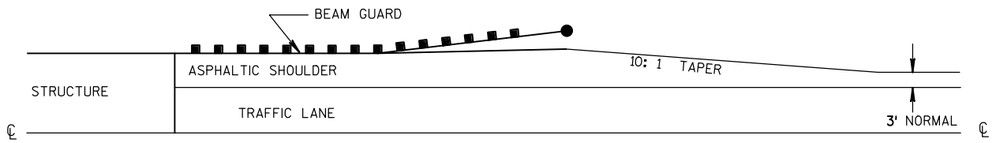
REMOVAL AREA MAY CONSIST OF ANY COMBINATION OF ASPHALT PAVEMENT, MILLED ASPHALT PAVEMENT BASE, AND/OR BASE COURSE.

DIMENSIONS SHOWN ON THIS DETAIL SHOW ANTICIPATED CONDITIONS. ACTUAL CONDITIONS ENCOUNTERED IN THE FIELD MAY VARY.

REMOVAL AREAS SHALL BE REPAVED EACH DAY PRIOR TO SUSPENSION OF WORK FOR THAT DAY.

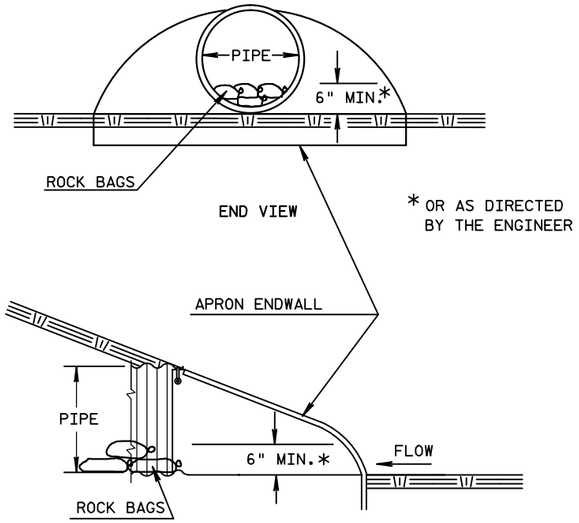
ASPHALTIC SURFACE LANE REPAIR MAY BE PLACED IN ONE 4-INCH LIFT.

HMA LANE REPAIR



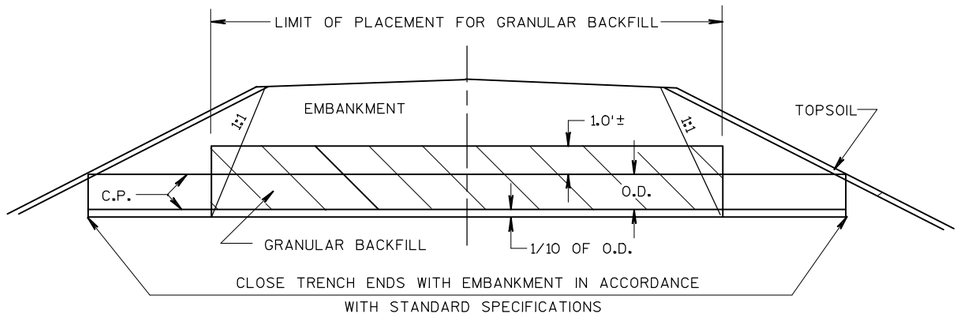
DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

2

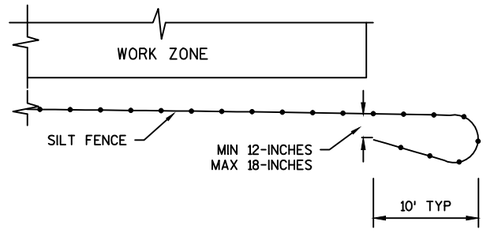


SIDE VIEW

CULVERT PIPE CHECK

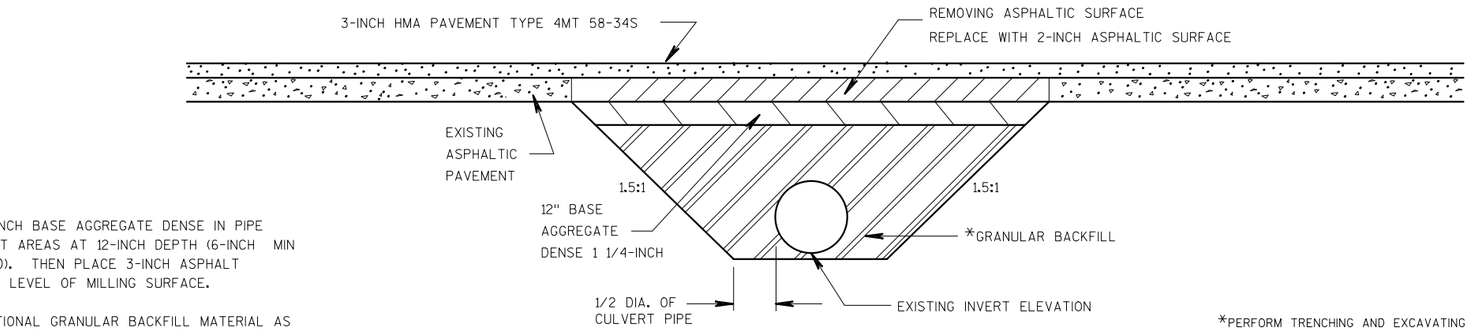


CULVERT BACKFILL DETAIL



EXCLUSTION FENCING TURN-AROUND

TO REMAIN FOR DURATION OF PROJECT



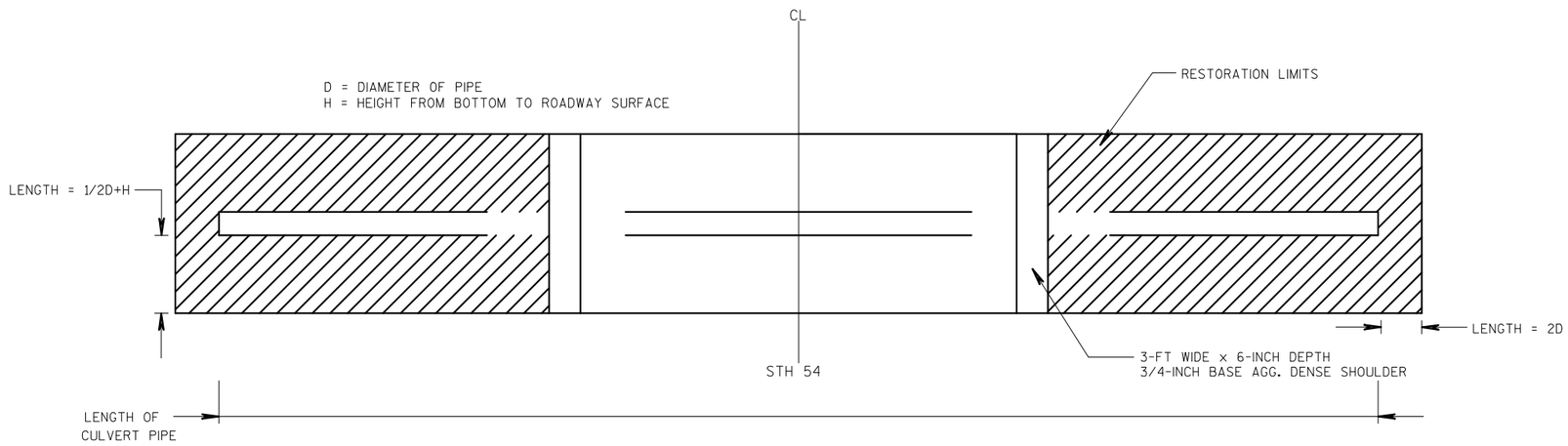
NOTE:

PLACE 1 $\frac{1}{4}$-INCH BASE AGGREGATE DENSE IN PIPE REPLACEMENT AREAS AT 12-INCH DEPTH (6-INCH MIN AT SIDEROAD). THEN PLACE 3-INCH ASPHALT SURFACE TO LEVEL OF MILLING SURFACE.

PLACE ADDITIONAL GRANULAR BACKFILL MATERIAL AS NEEDED WHEN DIRECTED BY THE FIELD ENGINEER.

ADJUSTMENTS TO EXISTING INVERT ELEVATIONS SHALL BE APPROVED BY THE FILED ENGINEER.

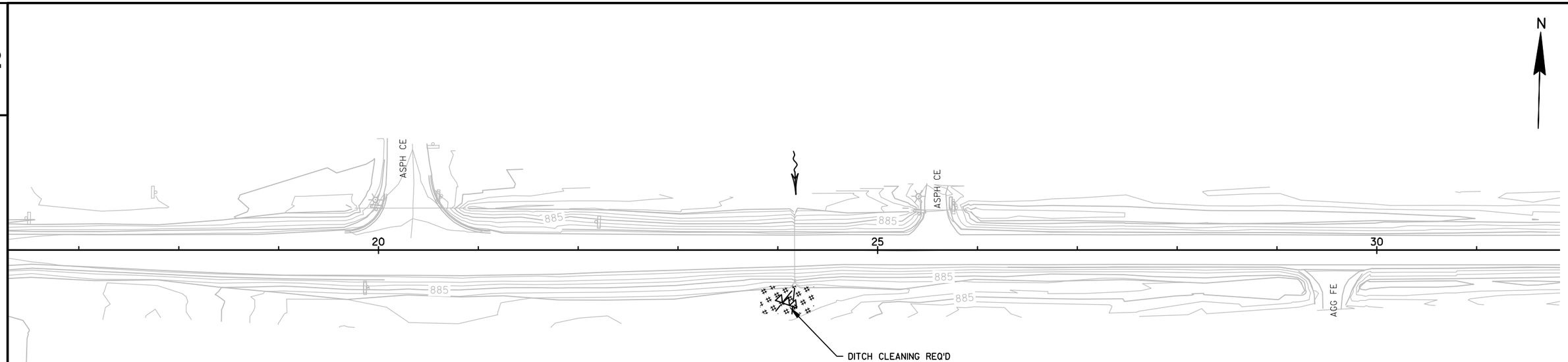
*PERFORM TRENCHING AND EXCAVATING ACCORDING TO 29 CFR PART 1926, OSHA SUBPART P FOR EXCAVATIONS. REPLACE EXISTING MATERIAL WITH GRANULAR BACKFILL (BACKFILL IS INCIDENTAL TO CULVERT PIPE BID ITEM).



DETAIL FOR CULVERT PIPE INSTALLATION

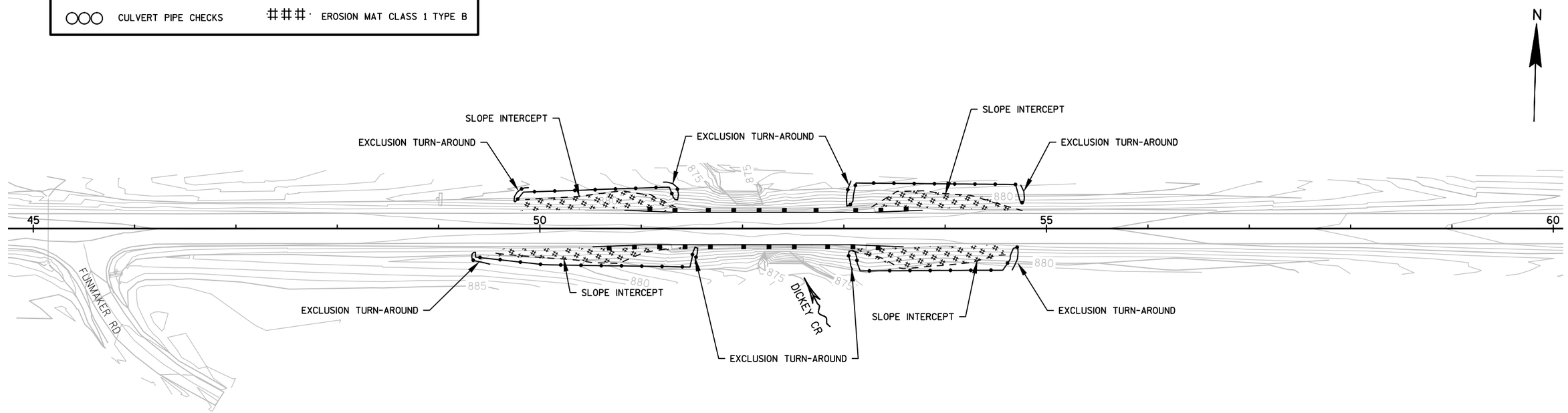
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CONSTRUCTION DETAILS	SHEET 8	E

2

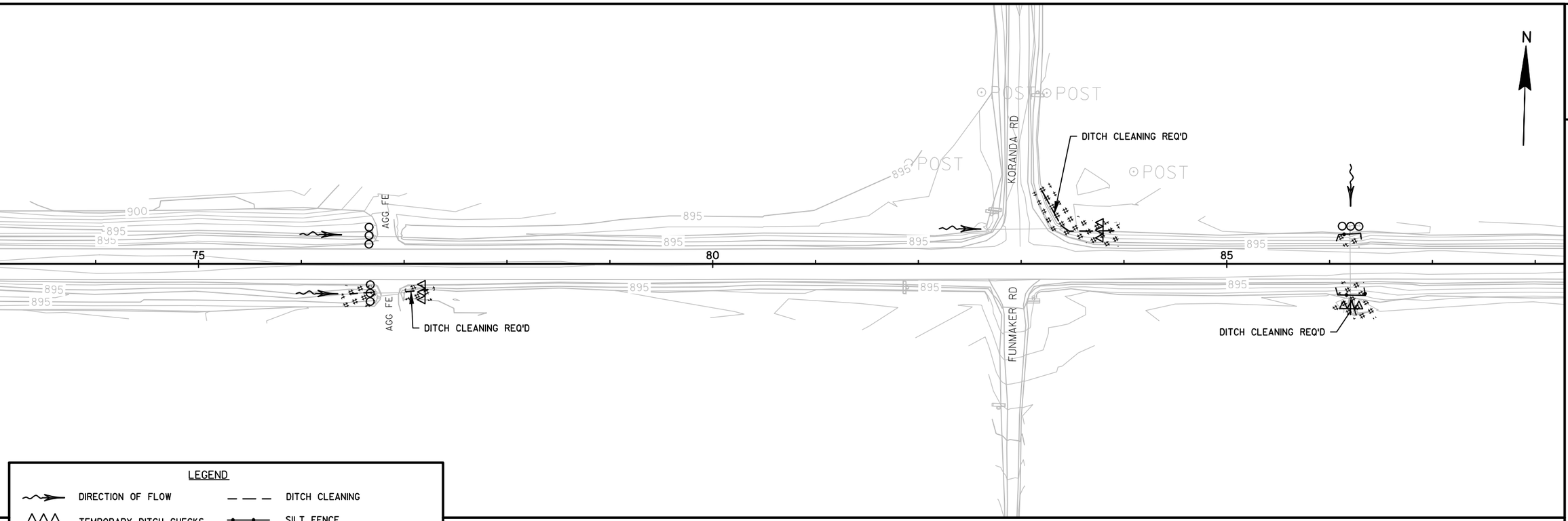


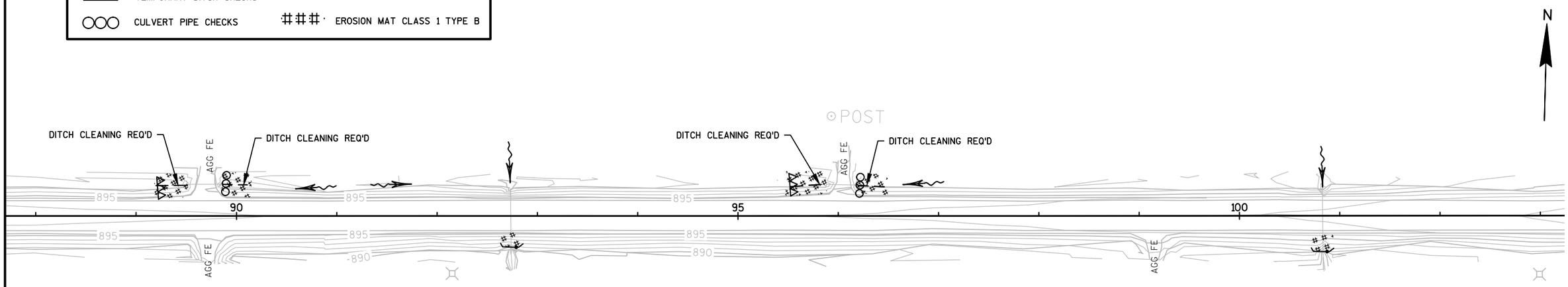
LEGEND

DIRECTION OF FLOW	DITCH CLEANING
TEMPORARY DITCH CHECKS	SILT FENCE
CULVERT PIPE CHECKS	EROSION MAT CLASS 1 TYPE B

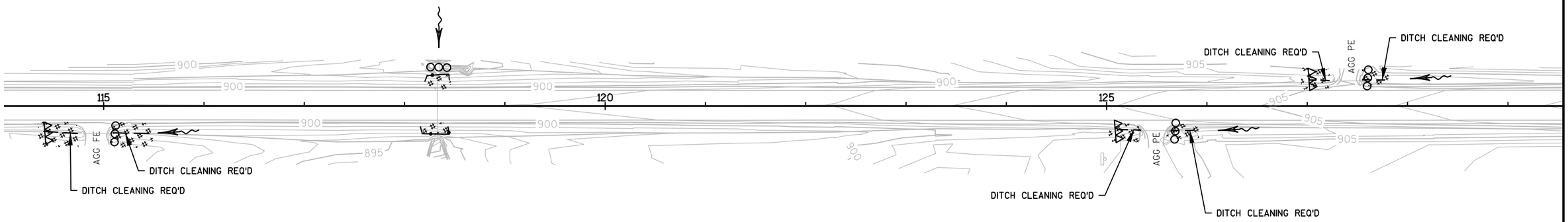


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 9	E



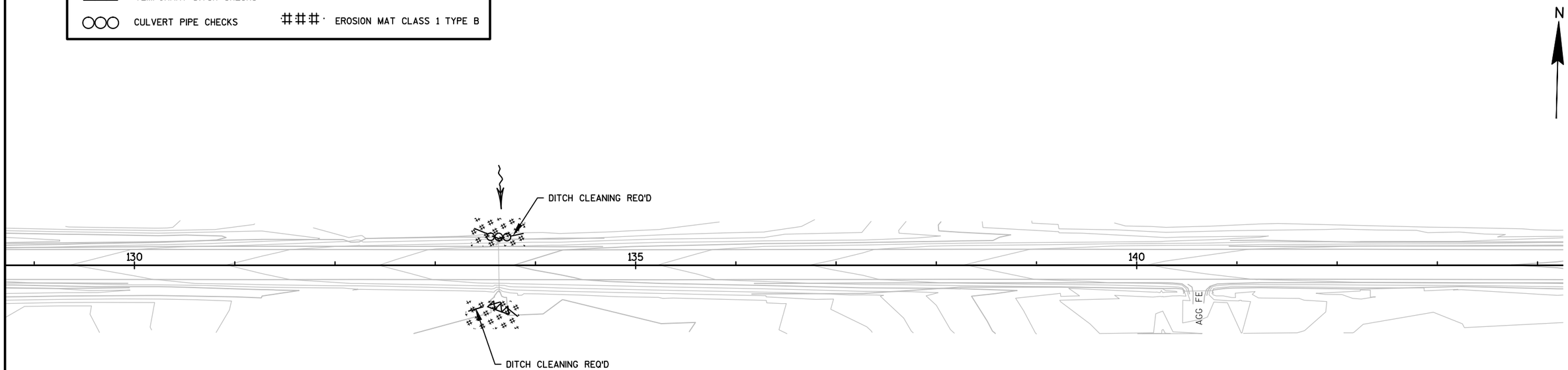


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 10	E



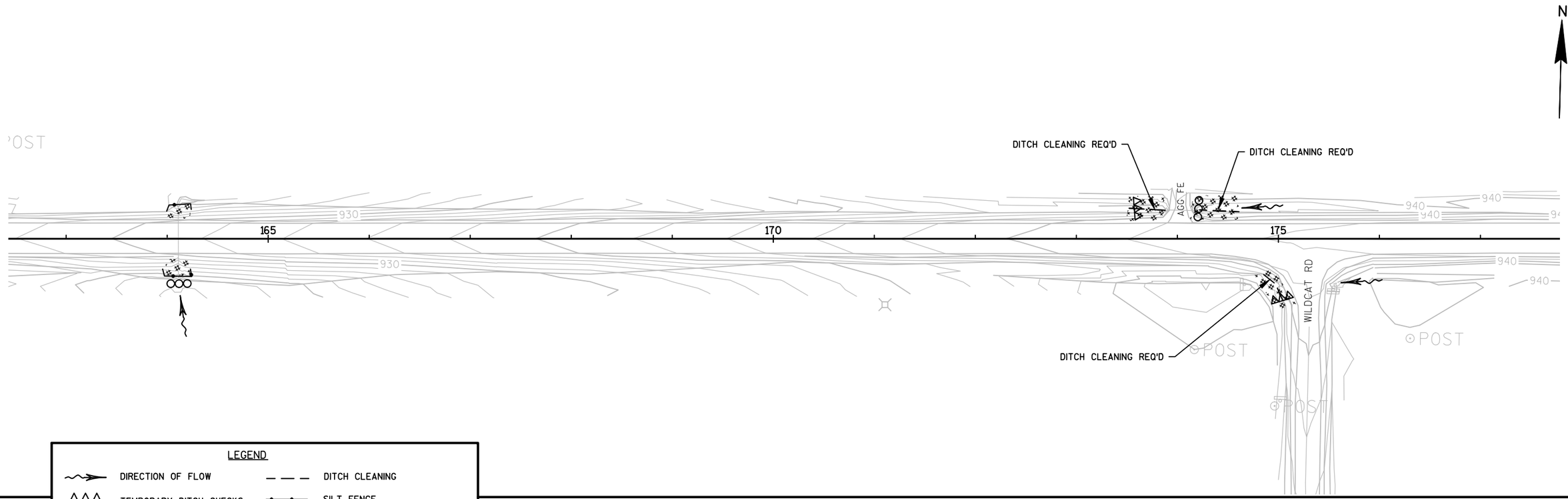
LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 11	E

2

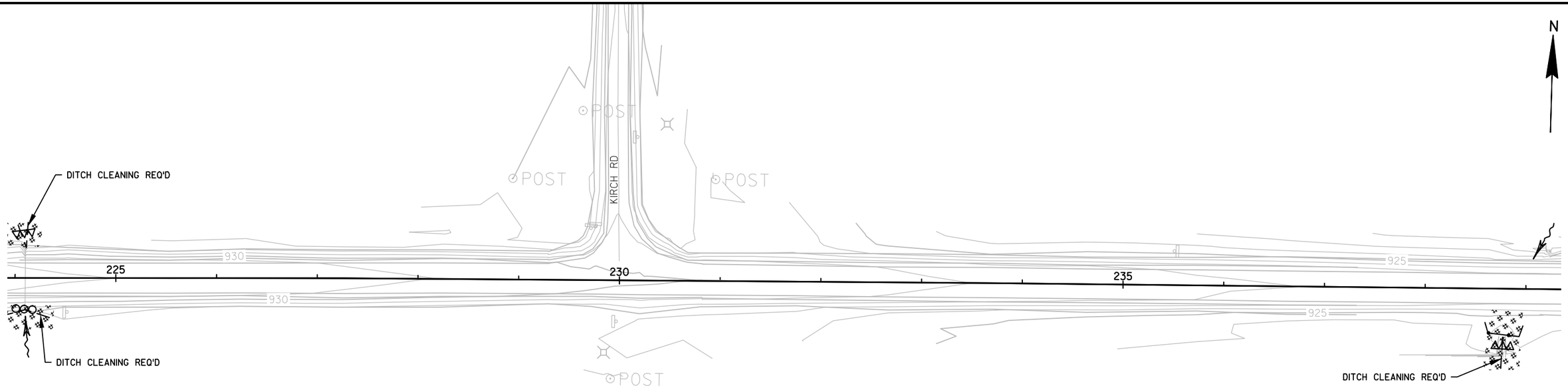


LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B

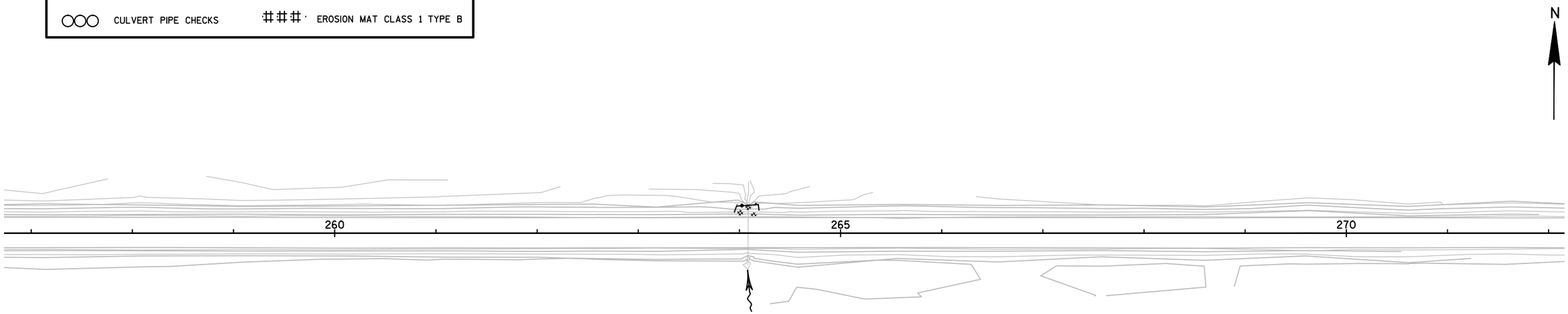


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 12	E

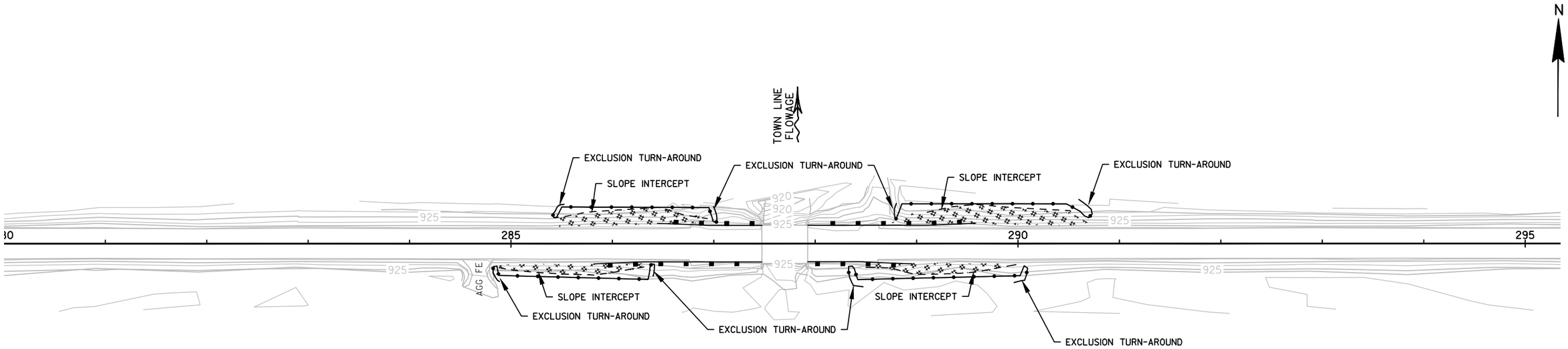


LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B

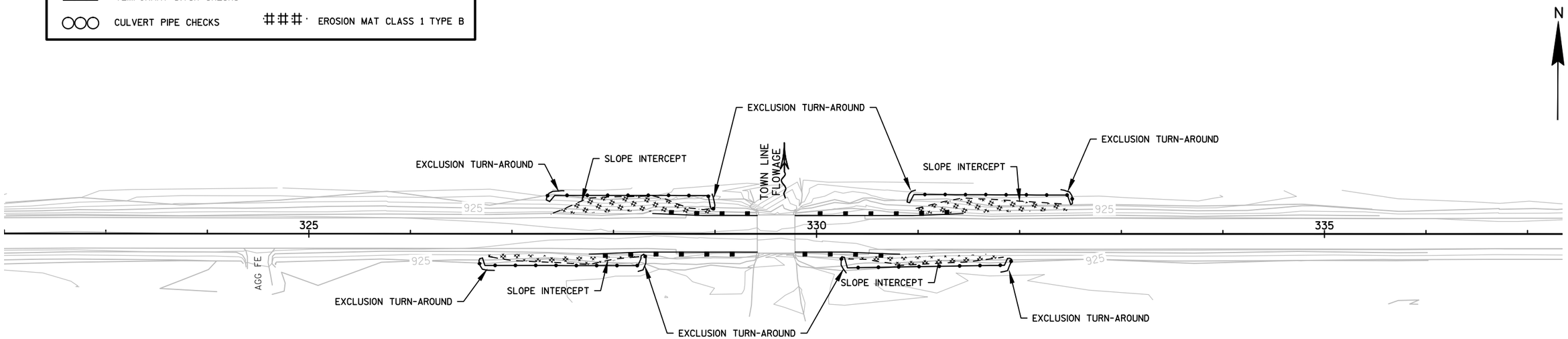


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 13	E



LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 14	E

2

2

N

AGG FE

925

345

350

355

AGG FE

925

925

925

DITCH CLEANING REQ'D

LEGEND

DIRECTION OF FLOW

DITCH CLEANING

TEMPORARY DITCH CHECKS

SILT FENCE

CULVERT PIPE CHECKS

EROSION MAT CLASS 1 TYPE B

N

POST

POST

POST

E STAFFON RD

925

925

925

925

360

365

370

AGG FE

DITCH CLEANING REQ'D

DITCH CLEANING REQ'D

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 15	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022007_EC

PLOT DATE : 8/1/2018 12:20 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

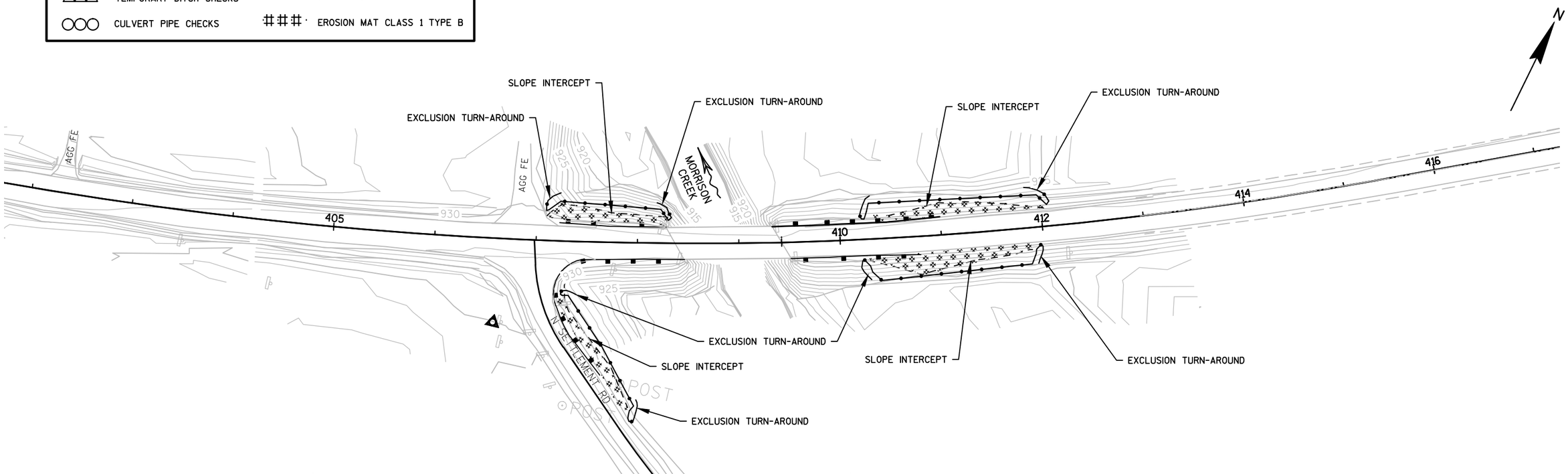
2

2



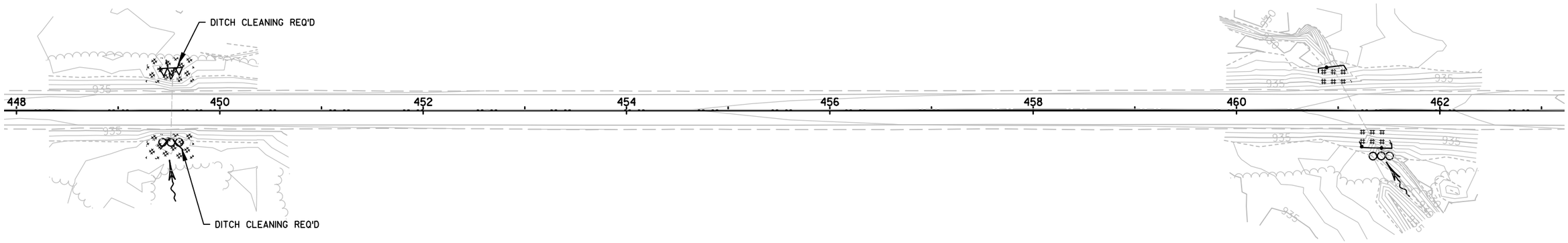
LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B



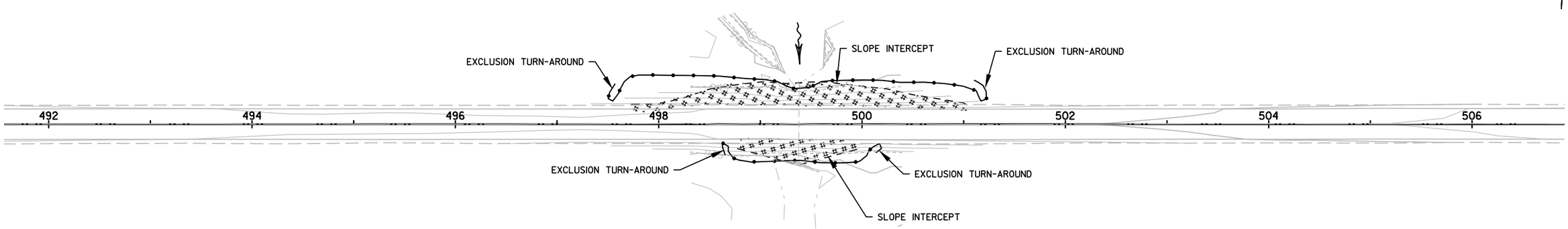
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 16	E

2



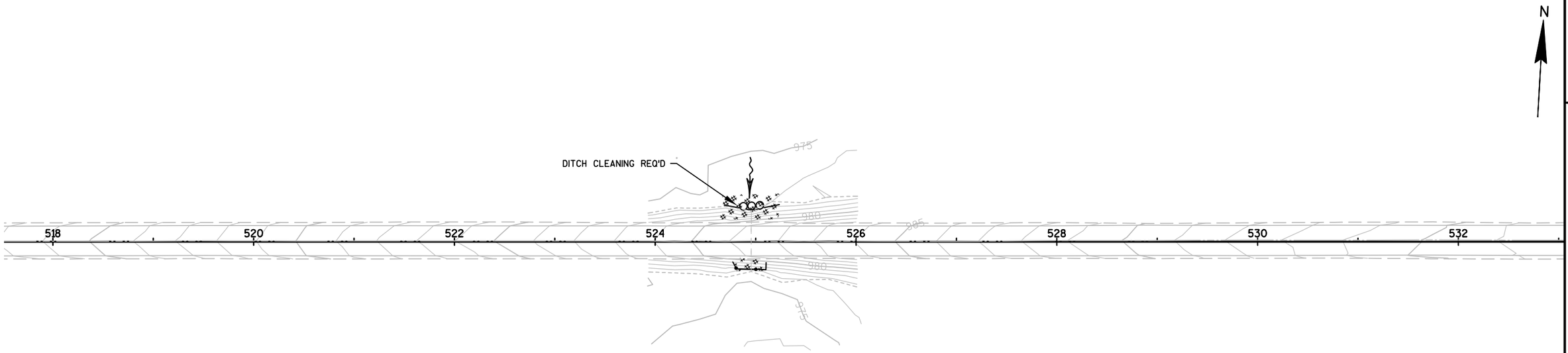
LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B



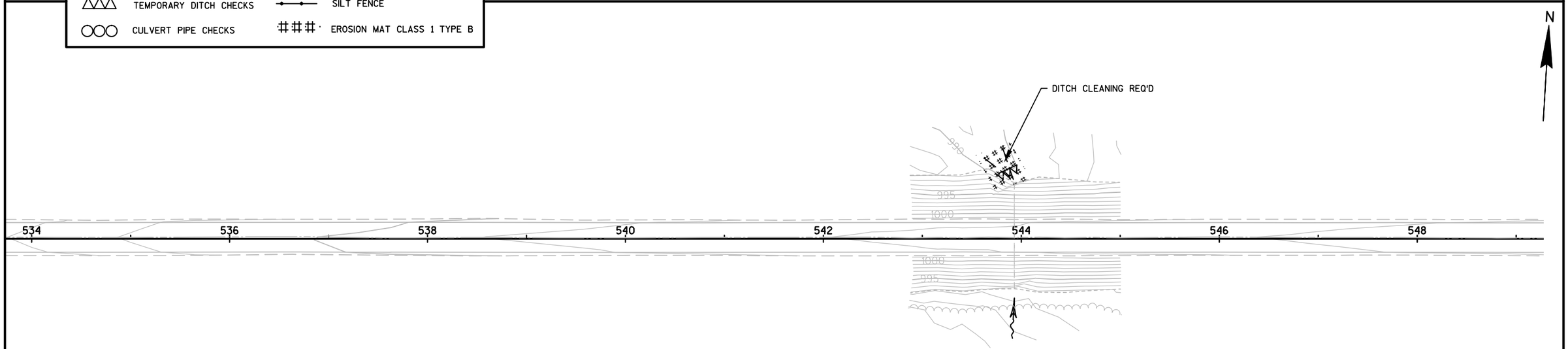
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 17	E

2

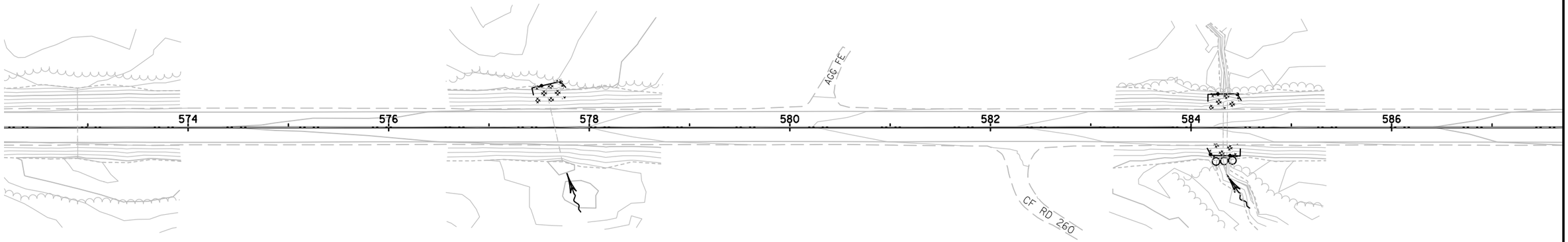


LEGEND

DIRECTION OF FLOW	DITCH CLEANING
TEMPORARY DITCH CHECKS	SILT FENCE
CULVERT PIPE CHECKS	EROSION MAT CLASS 1 TYPE B



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 18	E

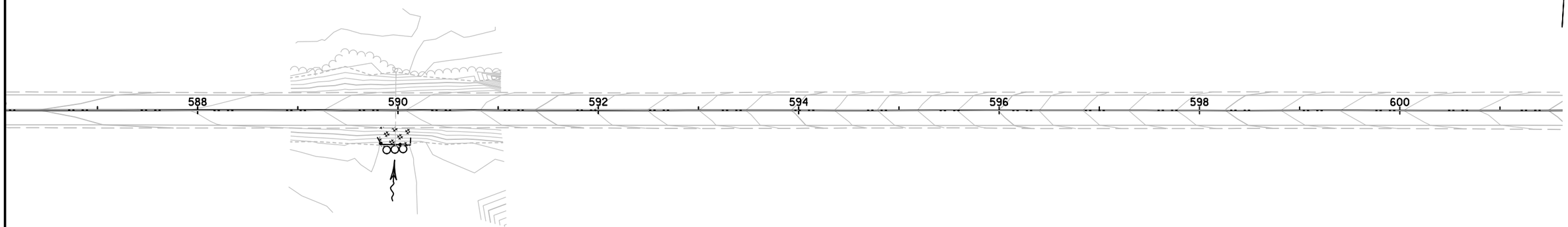




2

LEGEND

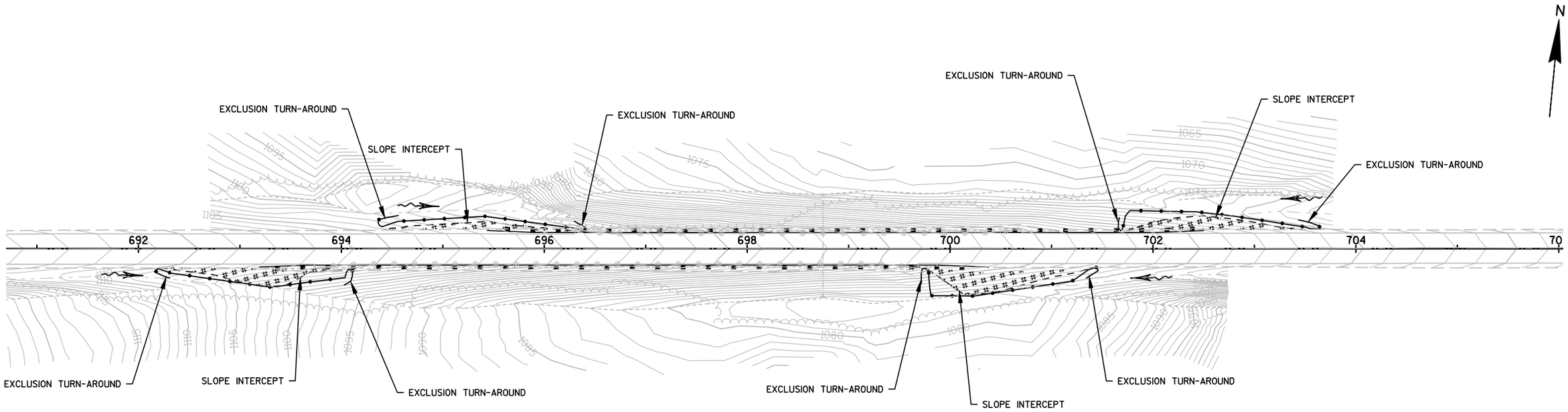
- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B





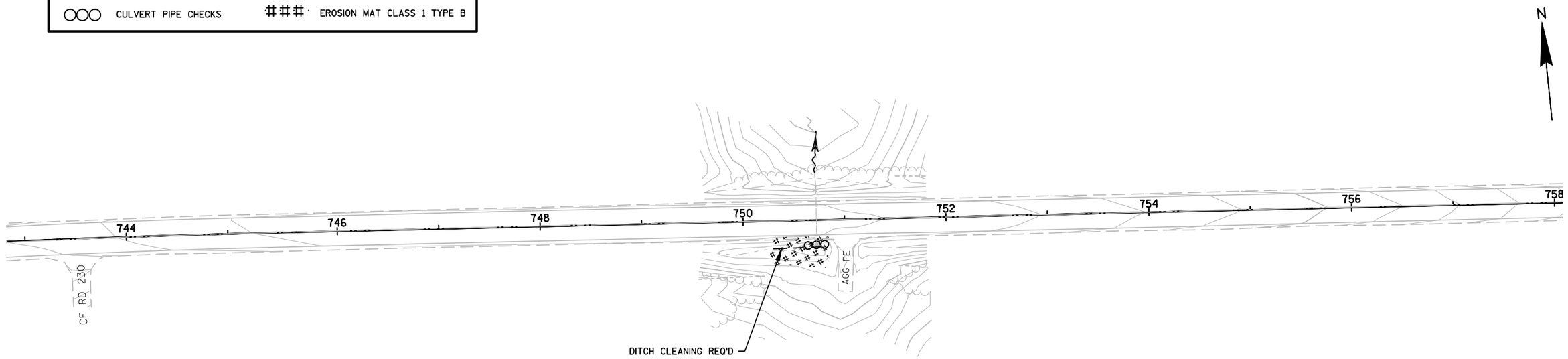
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 19	E

2



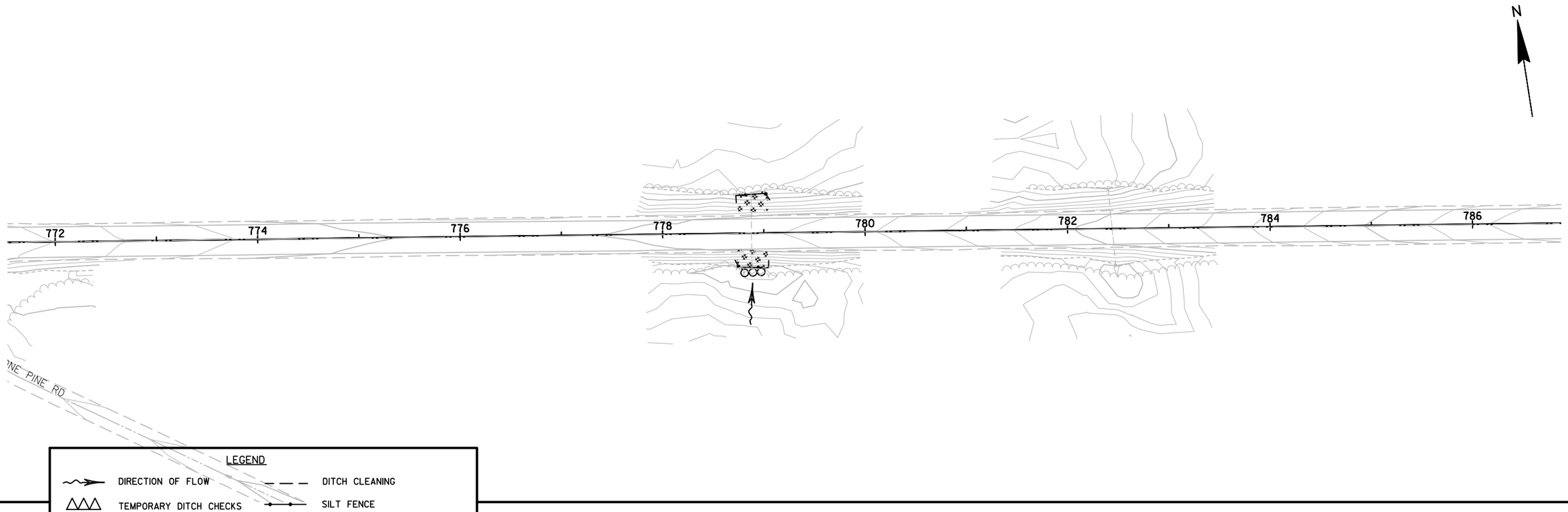
LEGEND

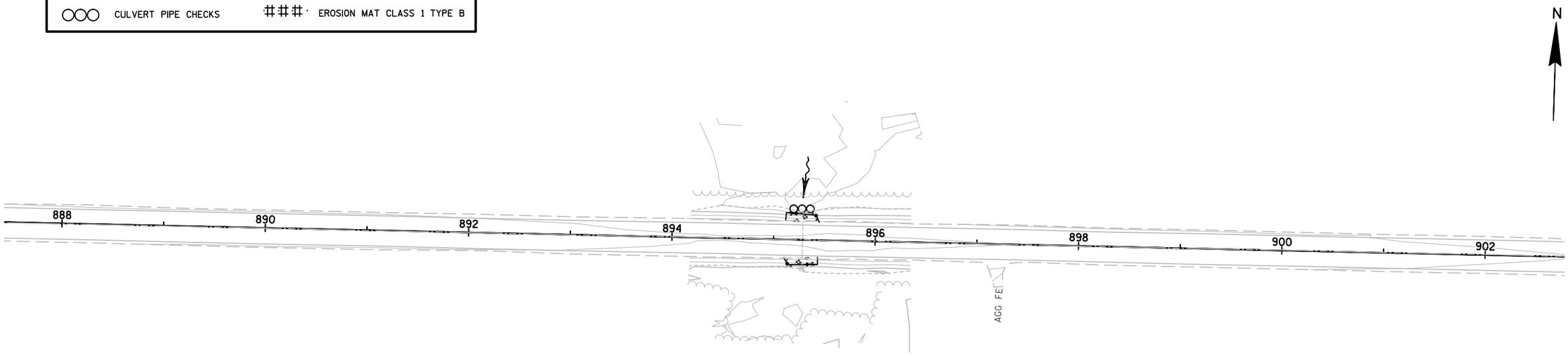
- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 20	E

2



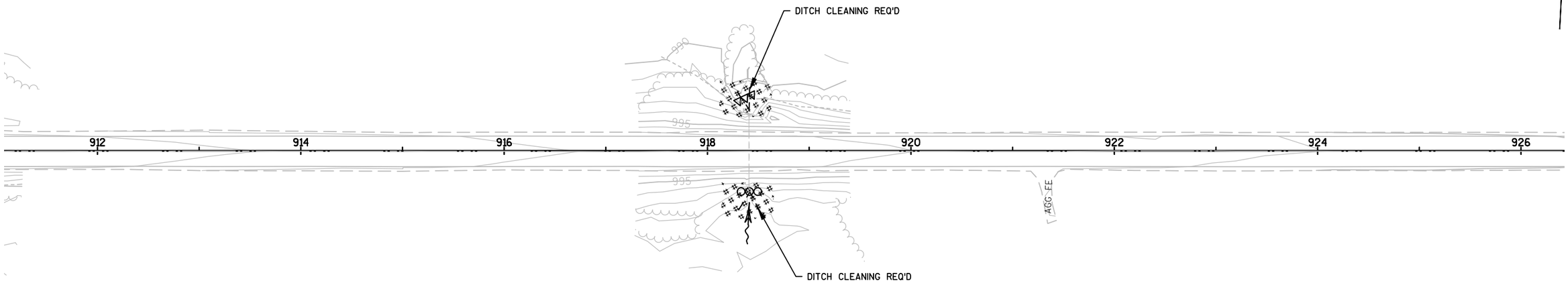


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 21	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022011-B_EC

PLOT DATE : 8/1/2018 12:22 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



LEGEND

DIRECTION OF FLOW

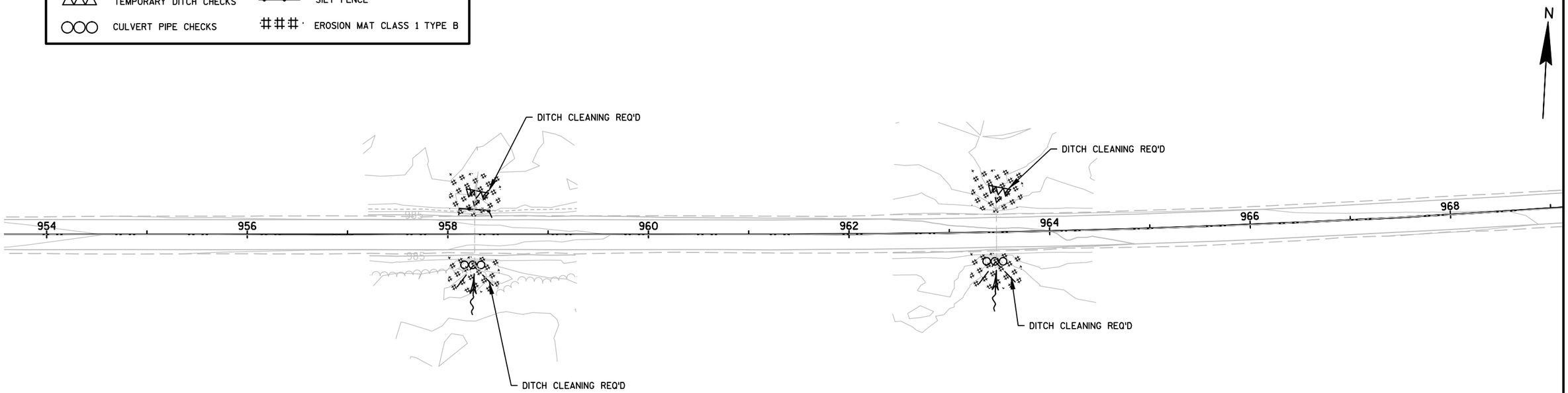
TEMPORARY DITCH CHECKS

CULVERT PIPE CHECKS

DITCH CLEANING

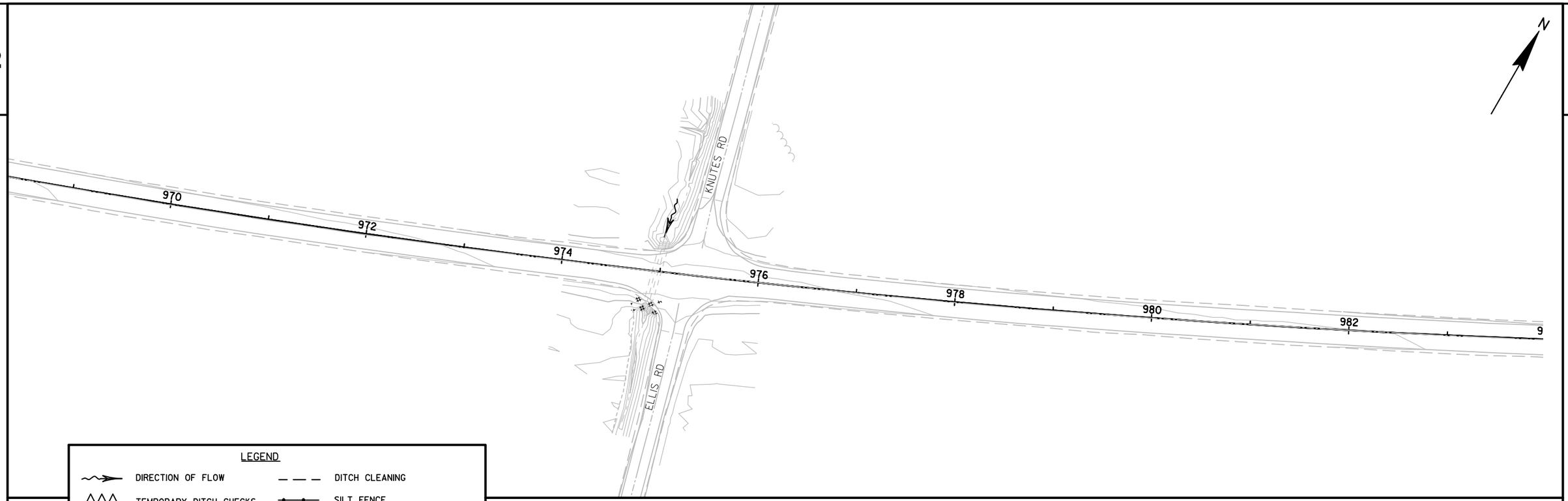
SILT FENCE

EROSION MAT CLASS 1 TYPE B



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 22	E

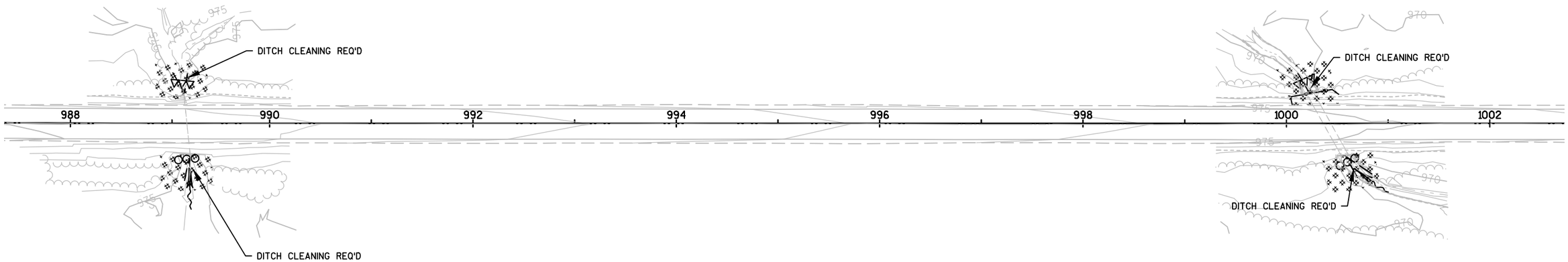
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2

LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B

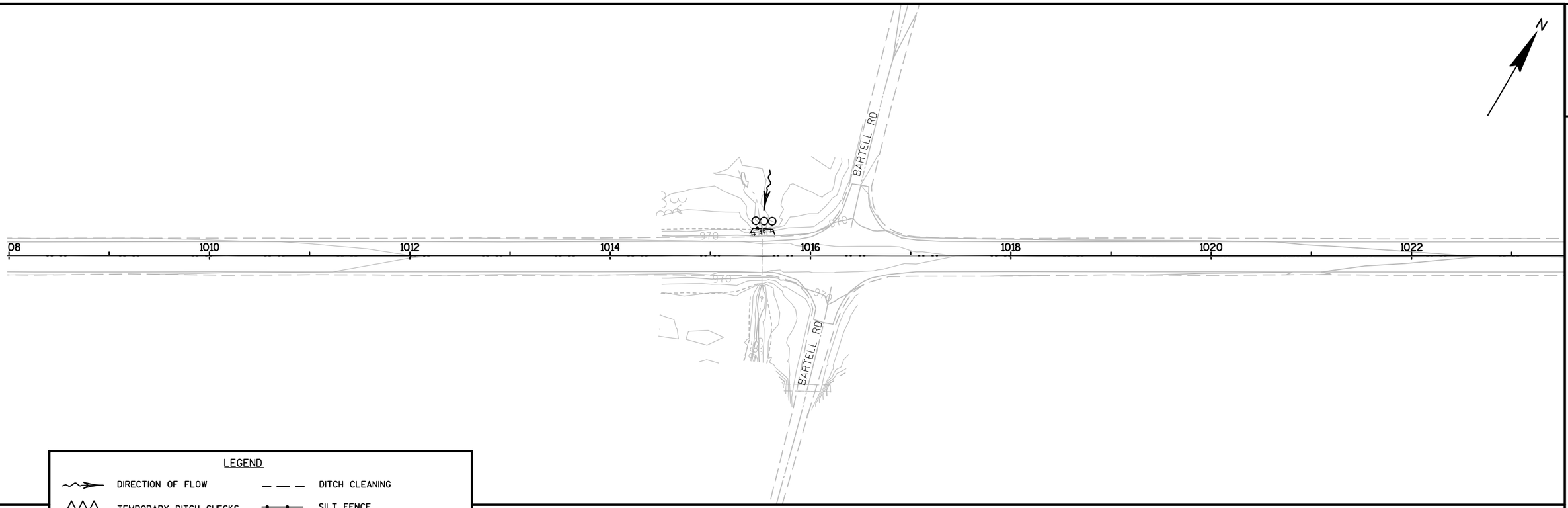


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 23	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\022001_EC.DWG
LAYOUT NAME - 022013_EC

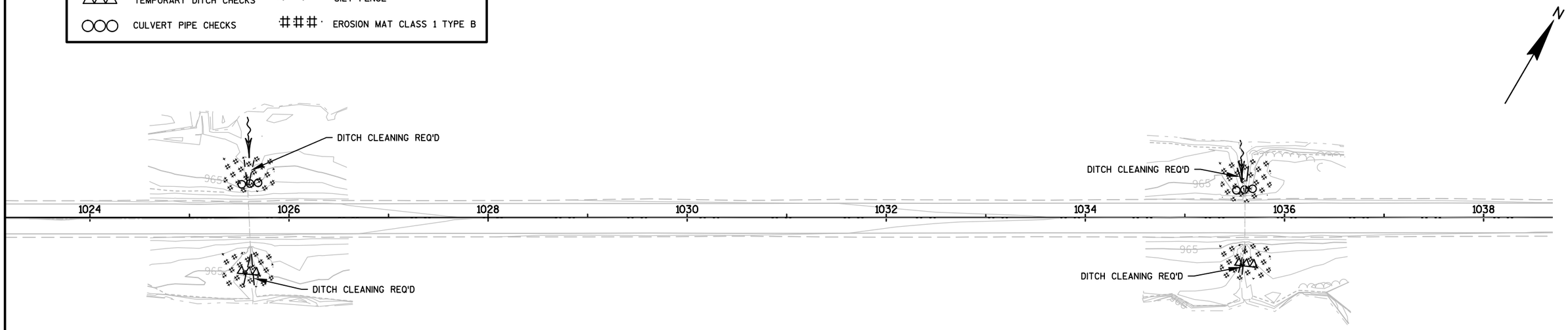
PLOT DATE : 8/1/2018 12:23 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



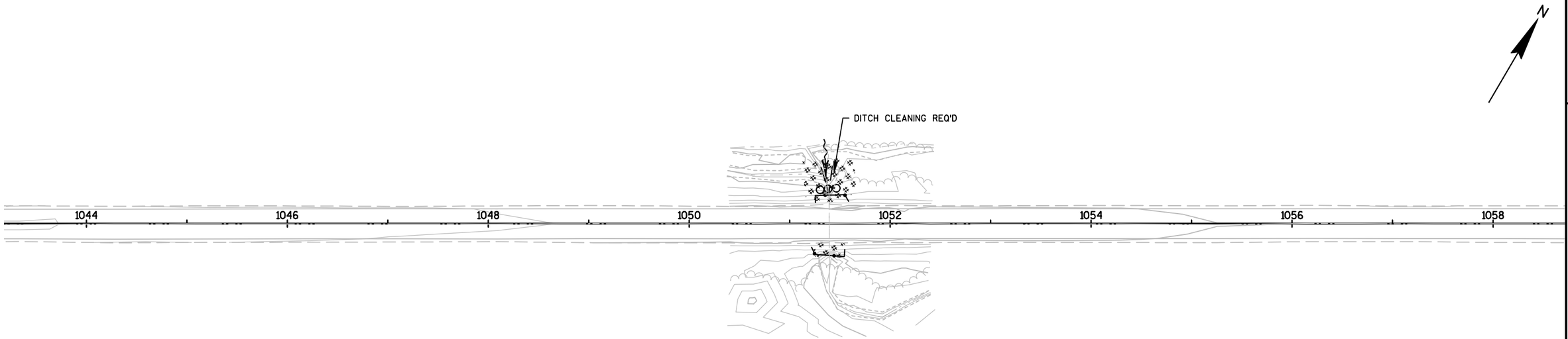
LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B



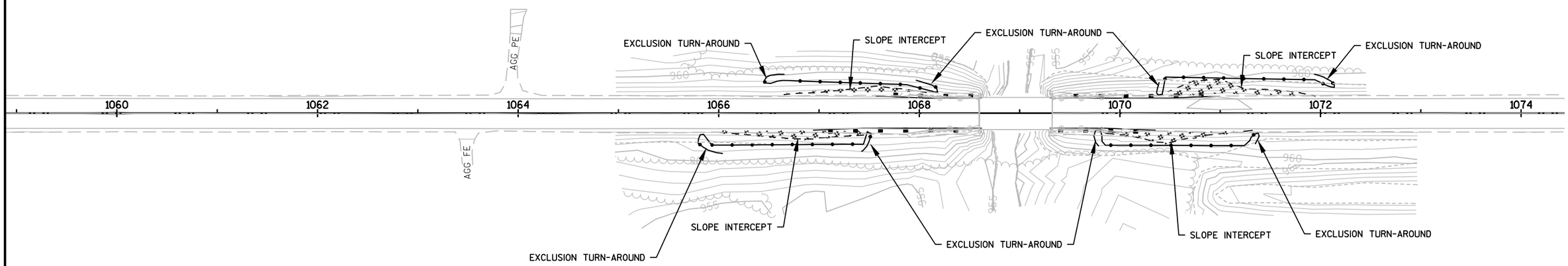
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 24	E

2

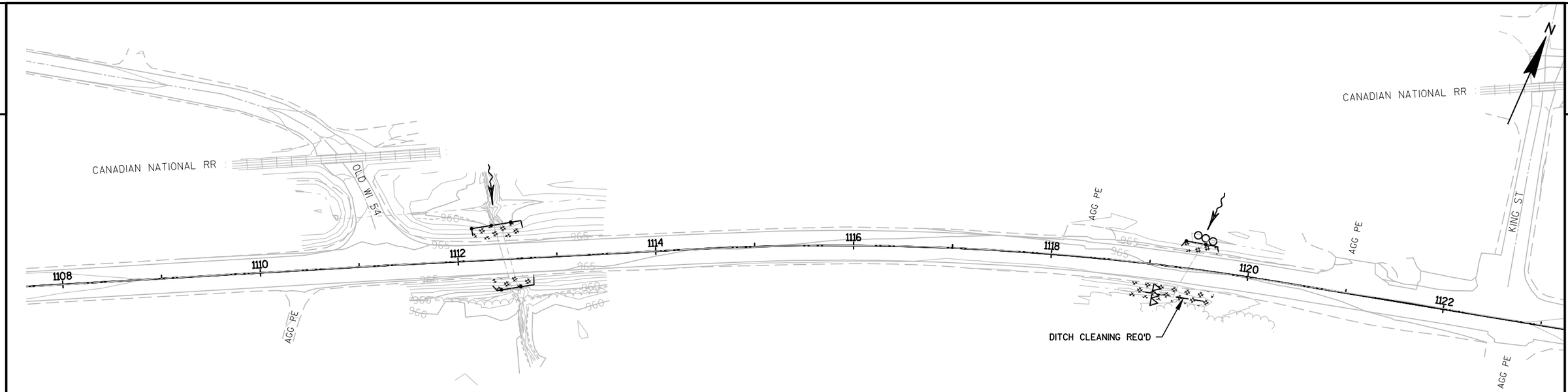


LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B

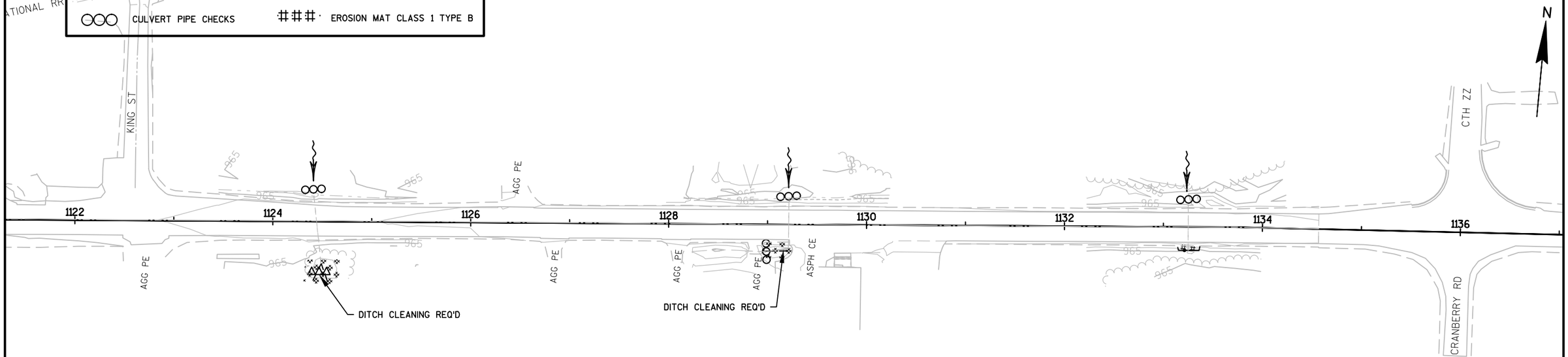


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 25	E



LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- DITCH CLEANING
- SILT FENCE
- EROSION MAT CLASS 1 TYPE B



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	EROSION CONTROL	SHEET 26	E

2

2

N

CTH K

POST

1001
COUNTY K
J12-1
24"X45"

1003
East Arbutus County Park
D7-68-R
66"X36"

0

5

AGG FE

BEGIN PROJECT
STA 3+89.00

1002
NO PASSING ZONE
W14-3
48"X36"

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER
SIGN(S) ON SINGLE SUPPORT
SIGN(S) ON DOUBLE SUPPORT

N

1004
Hatfield
D1-1
60" X 15"

1005
NO PASSING ZONE
W14-3
48"X36"

1006
SPONSOR HO CHUNK NATION EMPLOYEES
I55-56
30"X36"

1007
JCT
COUNTY K
J1-1
24" X 39"

1010
Wazee Lake County Park
D7-68-L
66"X36"

1011
STOP
R1-1
30"X30"

ASPH CE

1013
HISTORICAL MARKER
D5-64-R
60"X36"

10

15

20

1008
Wazee Lake County Park
D7-68-R
66"X36"

N BROCKWAY RD

1009
STOP
R1-1
30"X30"

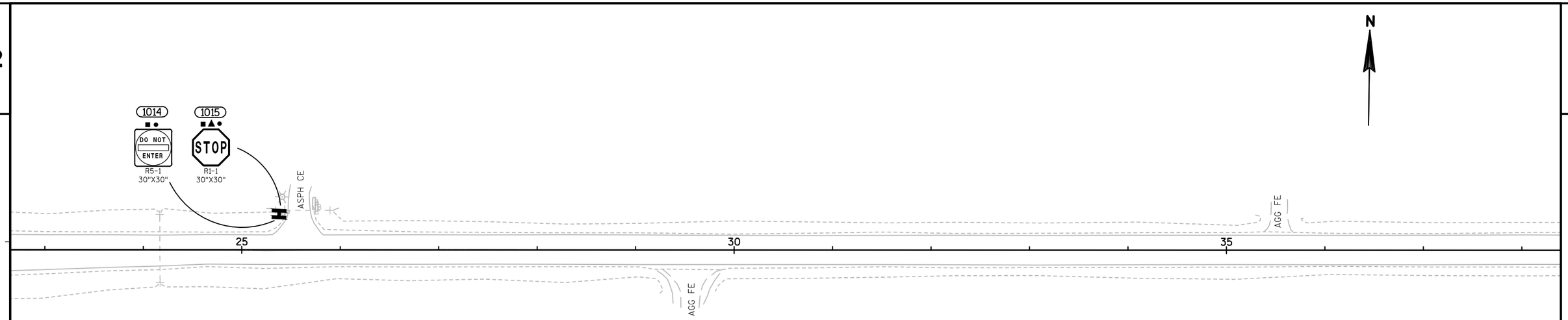
1012
HISTORICAL MARKER
D5-64-L
60"X36"

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 27	E

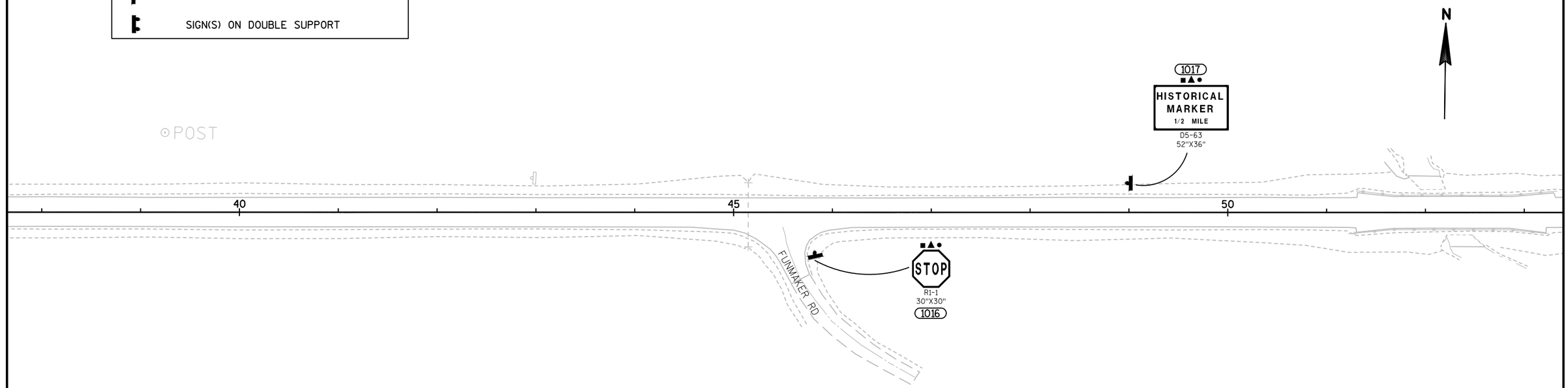
FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023201_PS.DWG PLOT DATE : 8/1/2018 12:25 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 44

2



■	REMOVING SIGNS TYPE II
▲	REMOVING SMALL SIGN SUPPORTS
●	SIGNS TYPE II REFLECTIVE
(XXXX)	SIGN NUMBER
	SIGN(S) ON SINGLE SUPPORT
	SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 28	E

2

2

N

55 60 65

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

N

1018
■▲
ROAD TO
Wazee Lake
County Park
1 MILE
REMOVE

1020
■▲●
STOP
R1-1
30"X30"

AGG FE

KORANDA RD

70 75 80

AGG FE

FUNMAKER RD

■▲●
BLACK RIVER CORRECTION CENTER
I55-56
30"X36"
1019

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 29	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023201_PS.DWG PLOT DATE : 8/1/2018 12:26 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 44

2

N

POST POST

KORANDA RD

POST

AGG FE

AGG FE

POST

85

90

95

FUNMAKER RD

AGG FE

STOP

R1-1
30"X30"
1021

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

N

1022

STOP

R1-1
30"X30"

POST POST

S CEMETERY RD

145

150

155

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 30	E

2

2

N

AGG FE

175

180

185

WILDCAT RD

1023

STOP

R1-1
30"X30"

POST

POST

POST

■	REMOVING SIGNS TYPE II
▲	REMOVING SMALL SIGN SUPPORTS
●	SIGNS TYPE II REFLECTIVE
XXXX	SIGN NUMBER
	SIGN(S) ON SINGLE SUPPORT
	SIGN(S) ON DOUBLE SUPPORT

1024

SPONSOR
BLACK RIVER
CORRECTION
CENTER

155-56
30"X36"

AGG FE

190

195

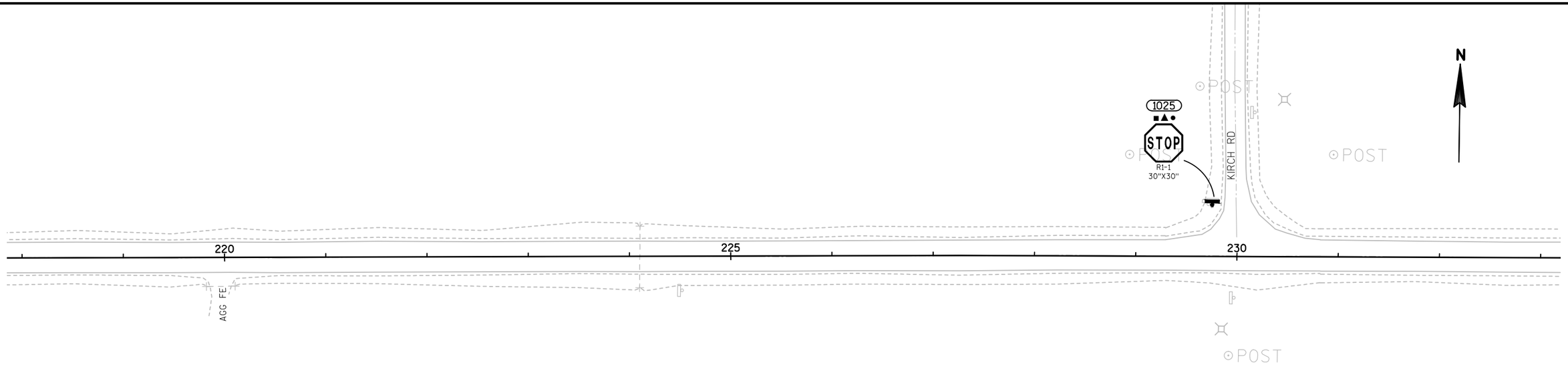
200

AGG FE

POST

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 31	E

2

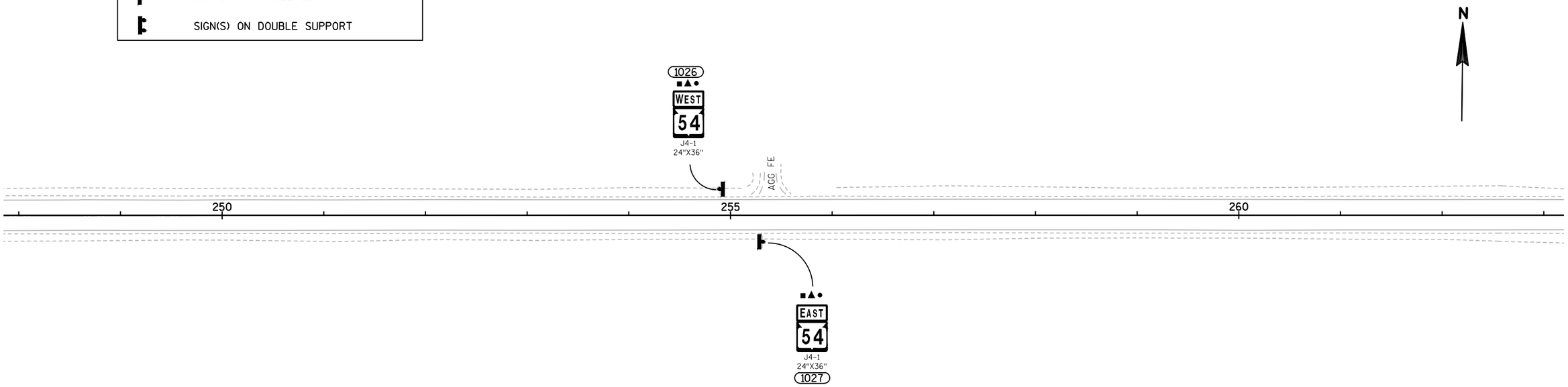


■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

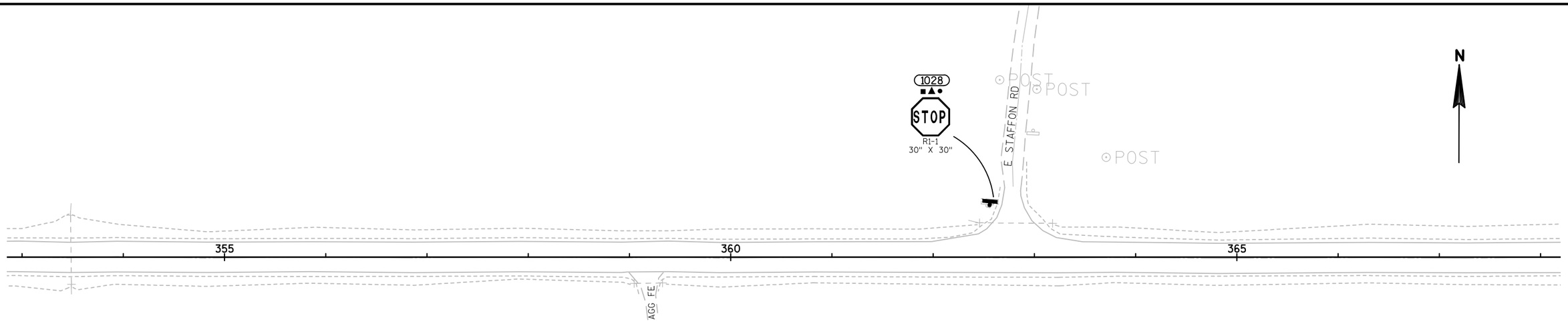
SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 32	E

2

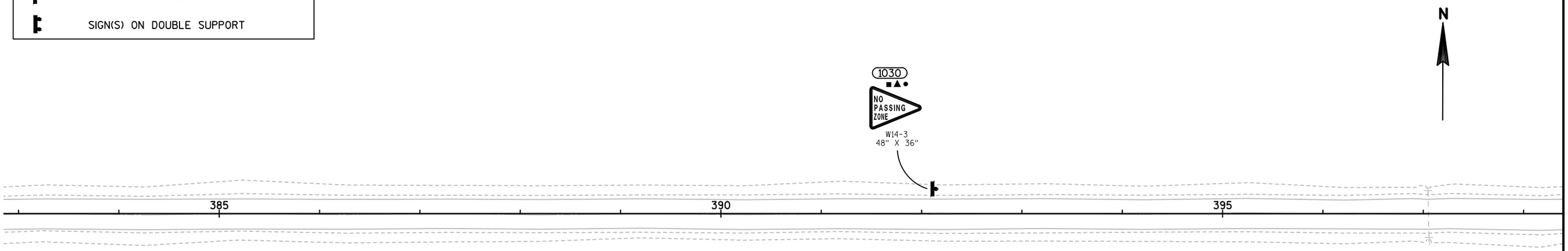


- ■ REMOVING SIGNS TYPE II
- ▲ REMOVING SMALL SIGN SUPPORTS
- ● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

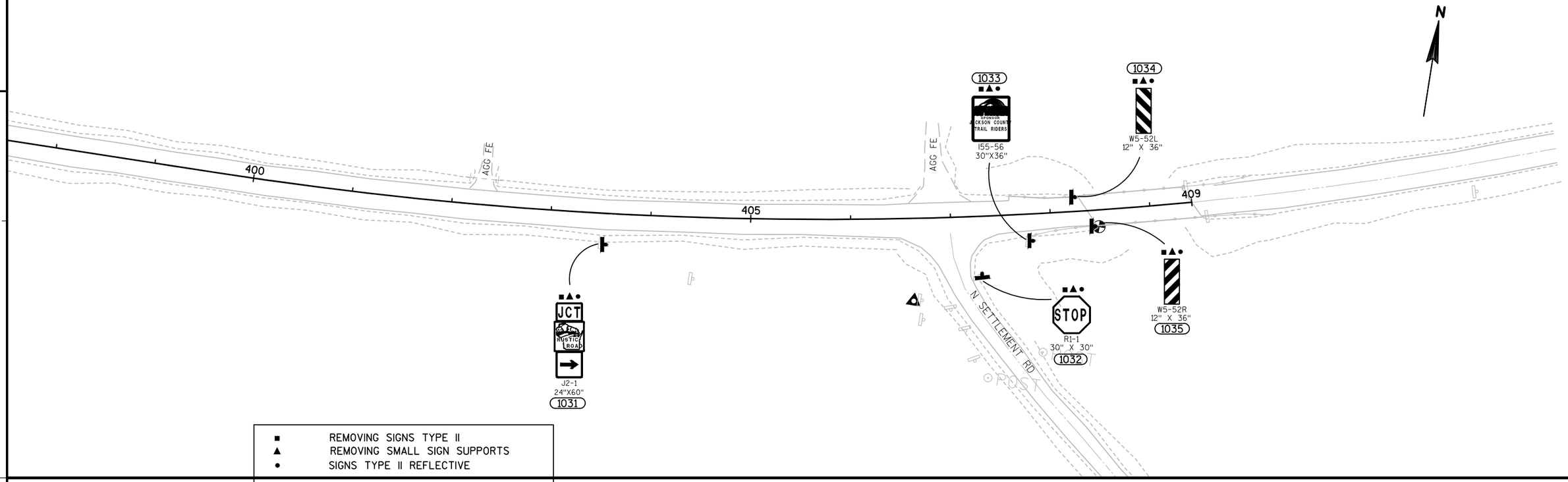
SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT



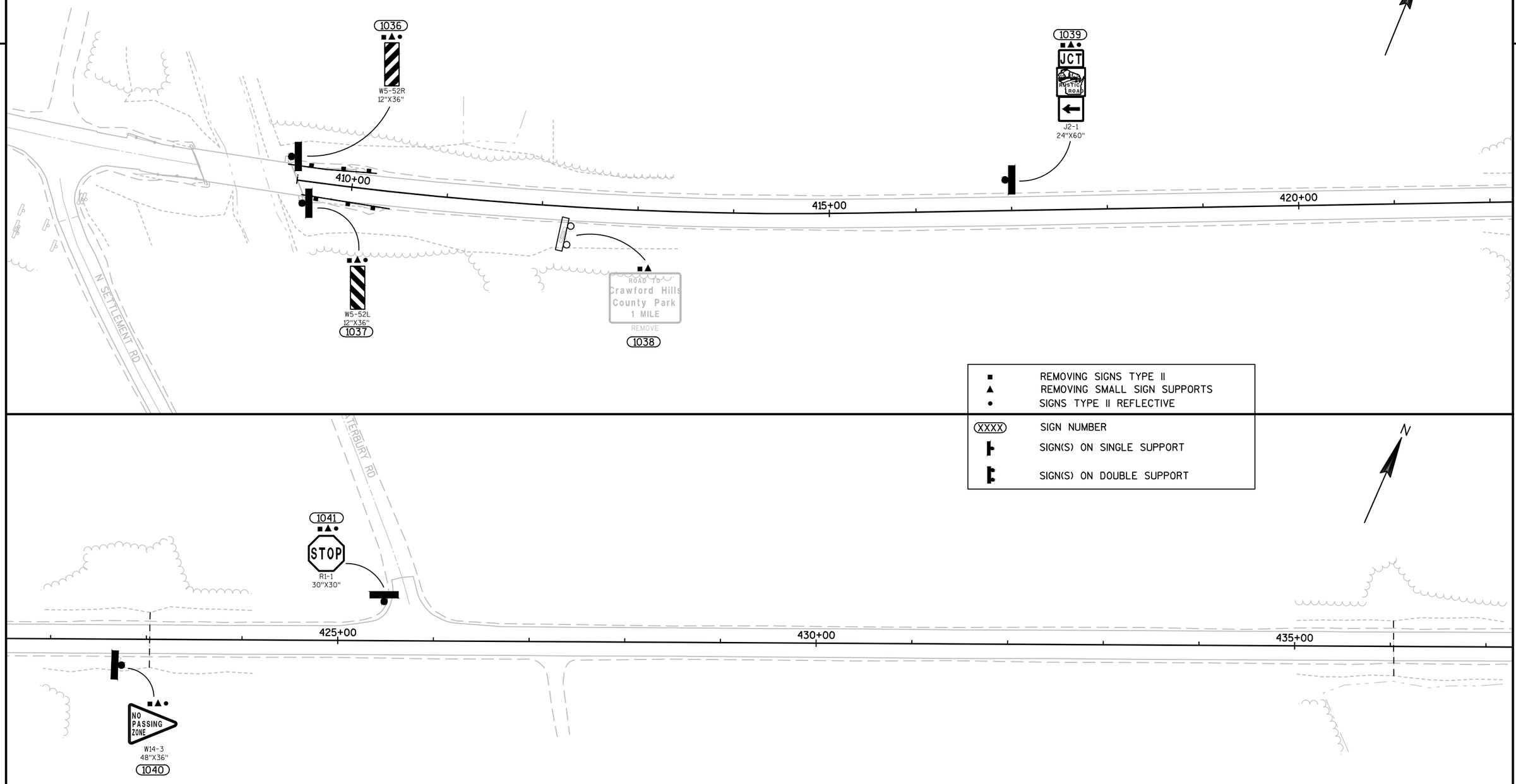
2

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 33	E



■	REMOVING SIGNS TYPE II
▲	REMOVING SMALL SIGN SUPPORTS
●	SIGNS TYPE II REFLECTIVE
(XXXX)	SIGN NUMBER
	SIGN(S) ON SINGLE SUPPORT
	SIGN(S) ON DOUBLE SUPPORT

2



■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

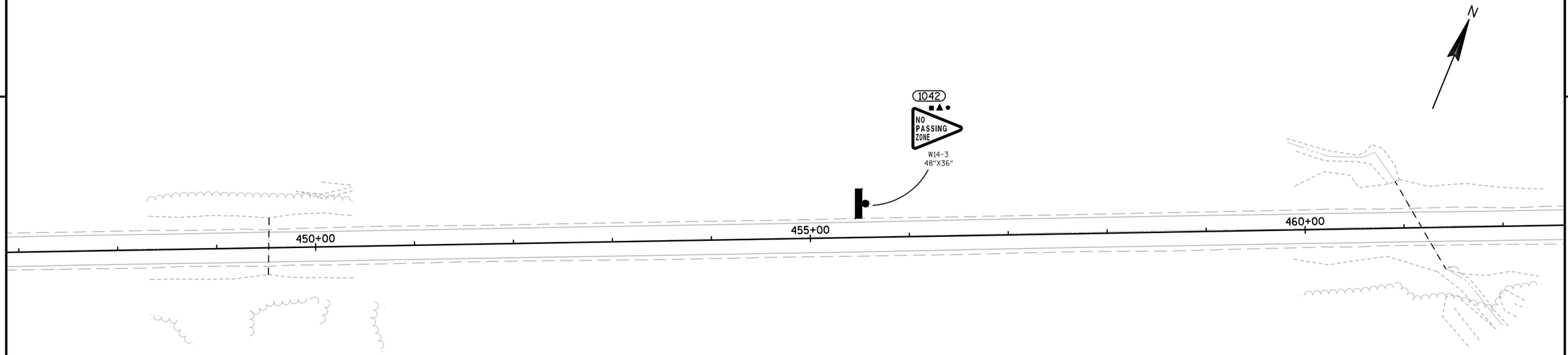
(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

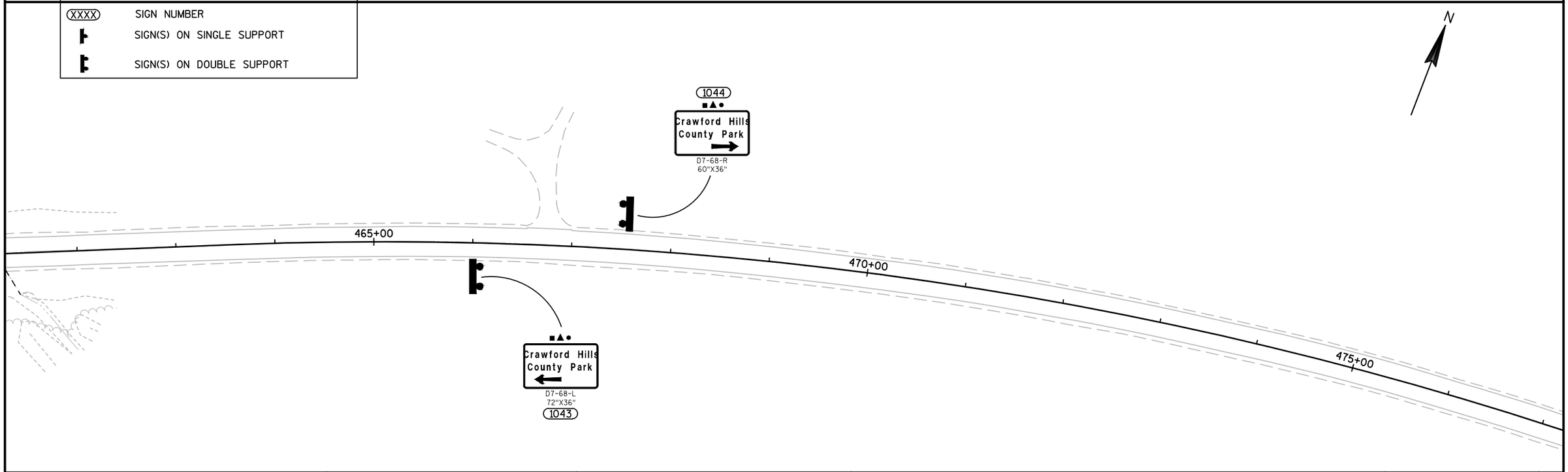
SIGN(S) ON DOUBLE SUPPORT

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 35	E

2



- ■ REMOVING SIGNS TYPE II
- ▲ REMOVING SMALL SIGN SUPPORTS
- • SIGNS TYPE II REFLECTIVE
- (XXXX) SIGN NUMBER
- SIGN(S) ON SINGLE SUPPORT
- SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 36	E

2

2

N

485+00

490+00

495+00

NO PASSING ZONE

W14-3
48"X36"
1045

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER
SIGN(S) ON SINGLE SUPPORT
SIGN(S) ON DOUBLE SUPPORT

N

1046

WEST
54

J4-1
24"X36"

500+00

505+00

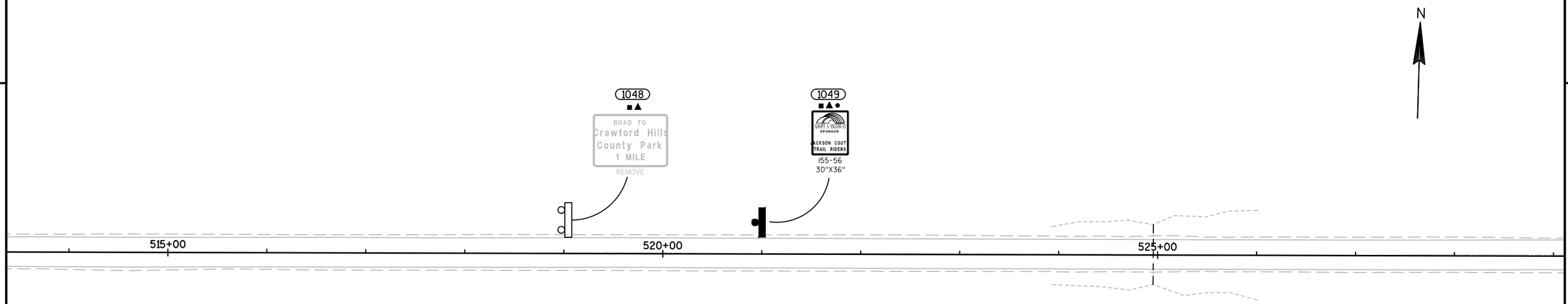
510+00

EAST
54

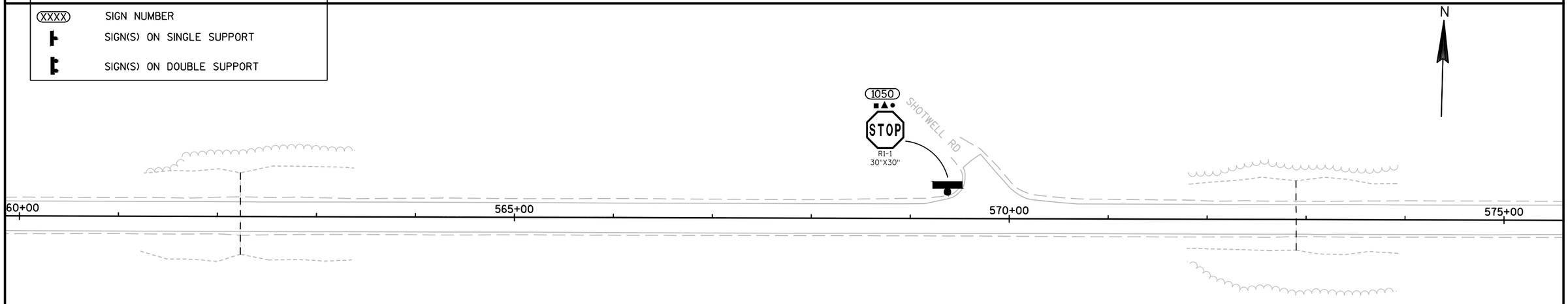
J4-1
24"X36"
1047

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 37	E

2



- ■ REMOVING SIGNS TYPE II
- ▲ REMOVING SMALL SIGN SUPPORTS
- • SIGNS TYPE II REFLECTIVE
- (XXXX) SIGN NUMBER
- SIGN(S) ON SINGLE SUPPORT
- SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 38	E

2

N

1051

NO PASSING ZONE

W14-3
48"X36"

595+00

600+00

605+00

ROAD TO
Merlin Lambert
County Park
1 MILE

REMOVE

1052

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

N

610+00

615+00

620+00

Pray

D1-1
48"X15"

1053

NO PASSING ZONE

W14-3
48"X36"

1054

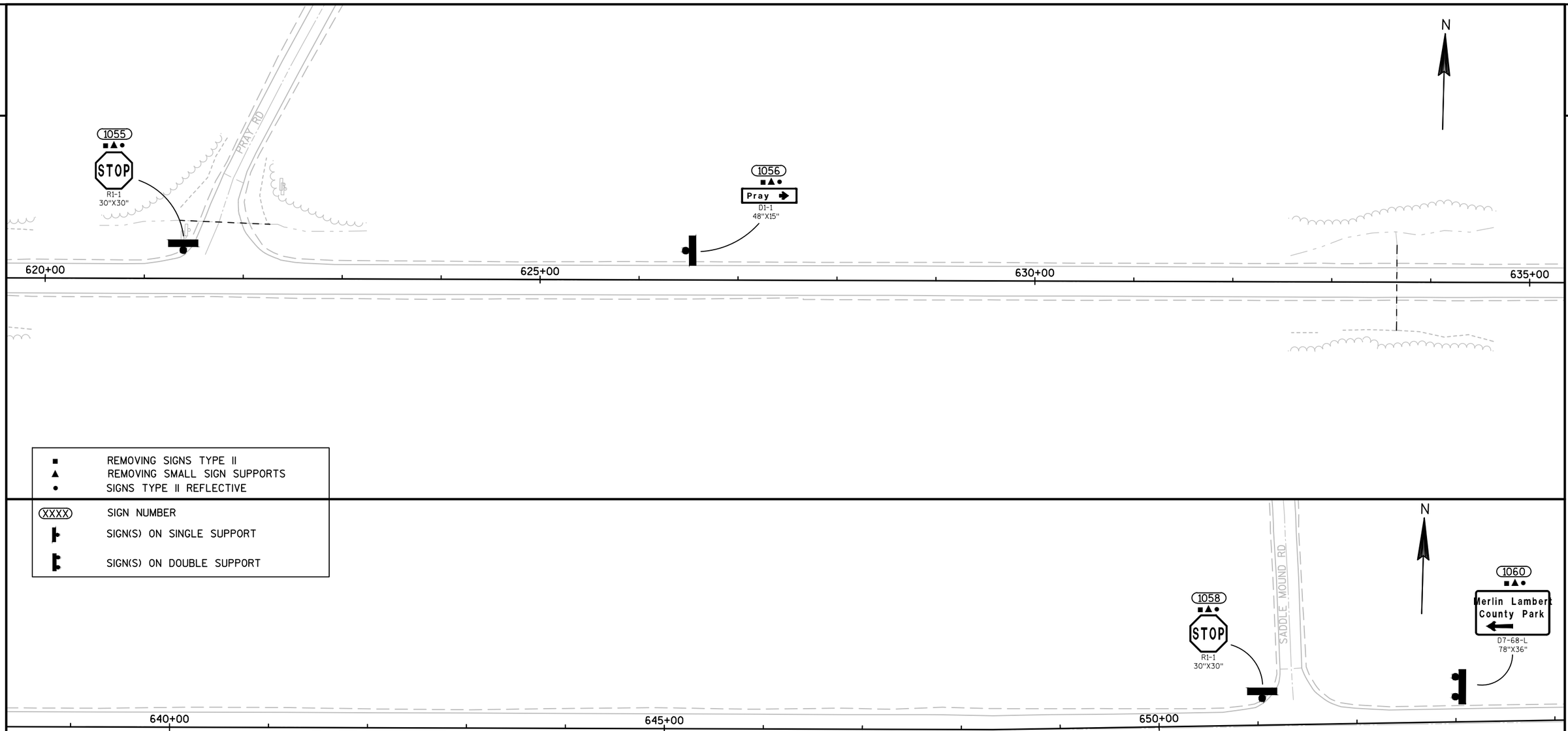
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 39	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023001_PS_STH54_75100202.DWG
LAYOUT NAME - 023001_PS_STH54_75100202 - 023213_PS

PLOT DATE : 8/1/2018 12:30 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

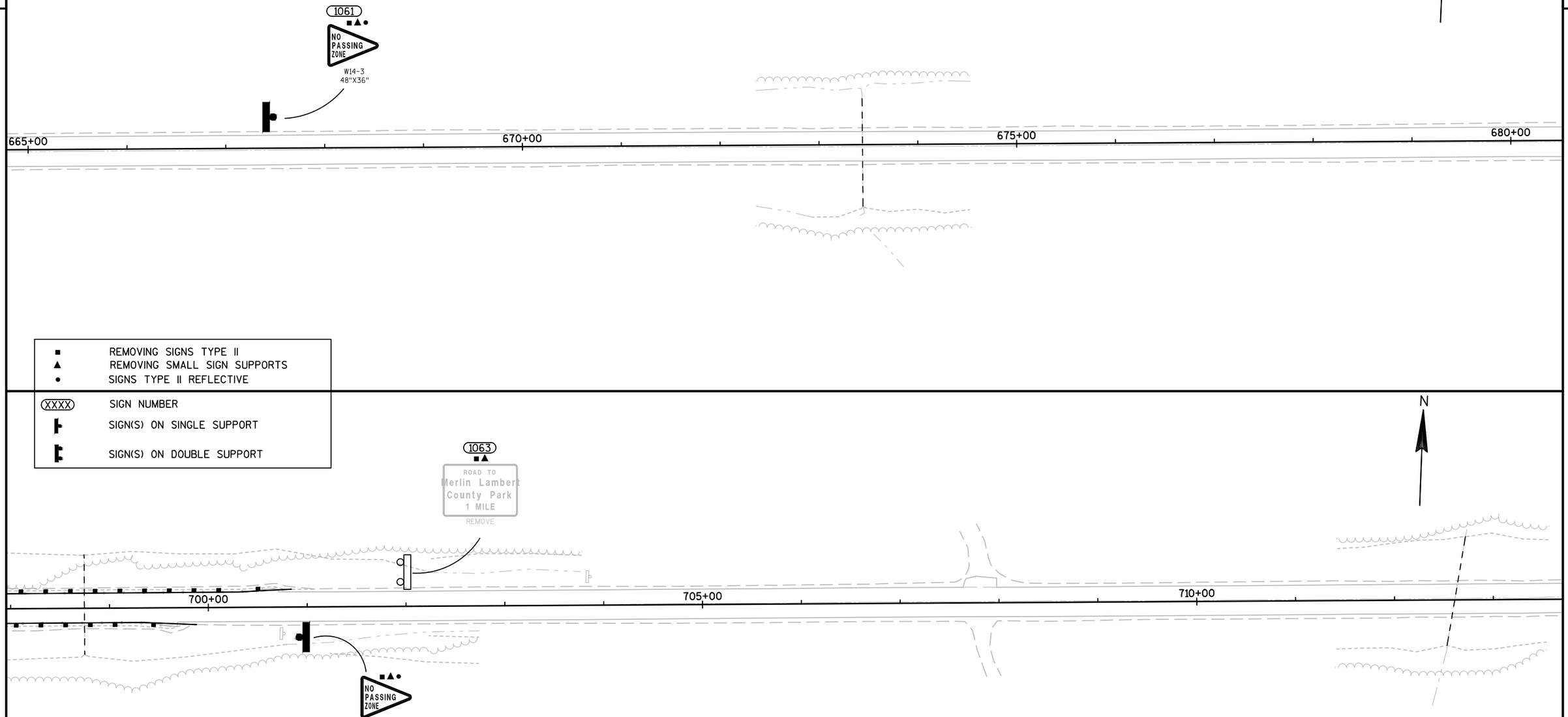
2



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 40	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023001_PS_STH54_75100202.DWG
LAYOUT NAME - 023001_PS_STH54_75100202 - 023214_PS
PLOT DATE : 8/1/2018 12:31 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

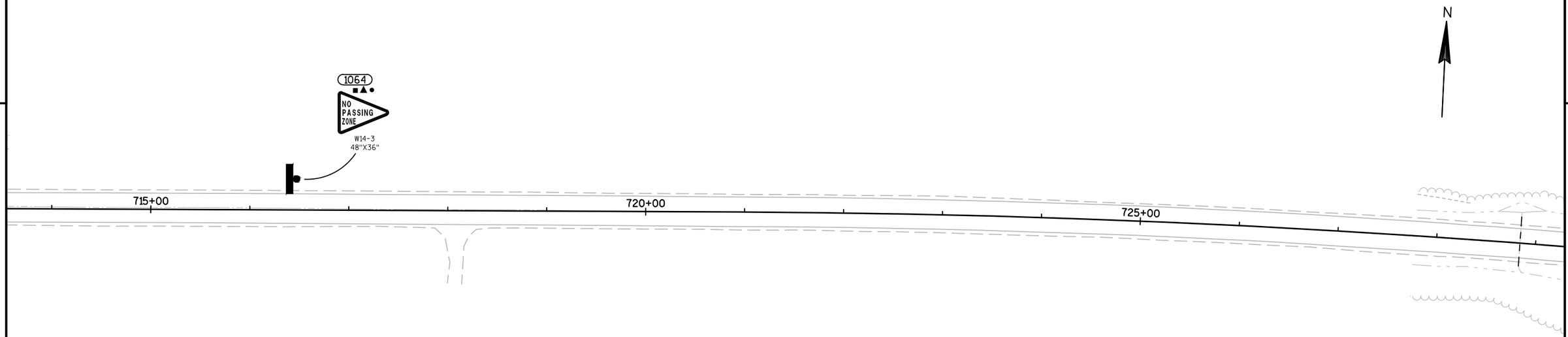
2



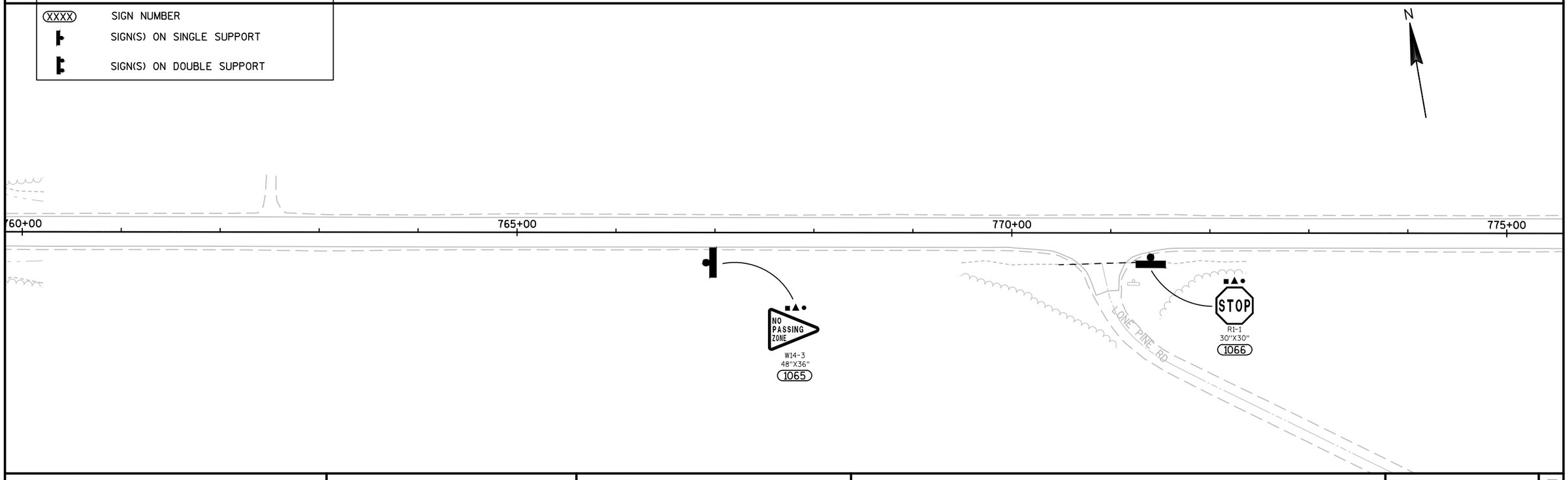
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 41	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023001_PS_STH54_75100202.DWG
LAYOUT NAME - 023001_PS_STH54_75100202 - 023215_PS
PLOT DATE : 8/1/2018 12:31 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 44

2



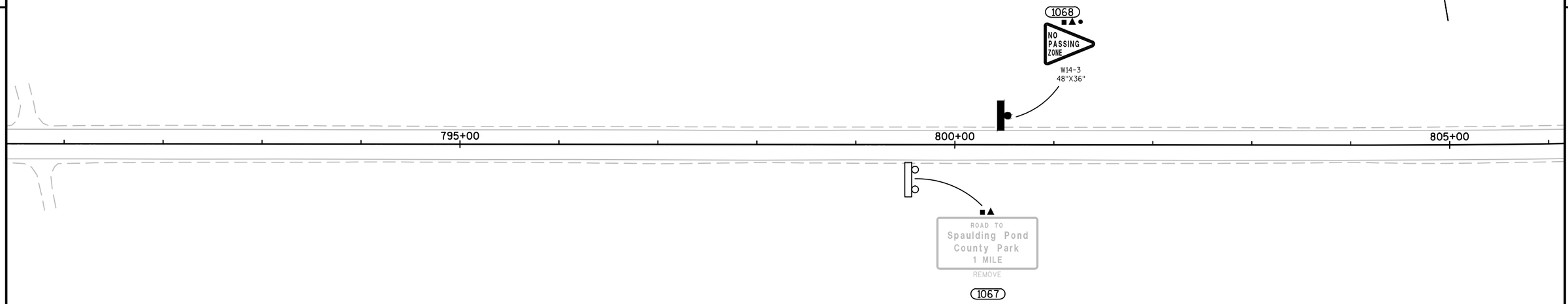
- ■ REMOVING SIGNS TYPE II
- ▲ REMOVING SMALL SIGN SUPPORTS
- • SIGNS TYPE II REFLECTIVE
- (XXXX) SIGN NUMBER
- SIGN(S) ON SINGLE SUPPORT
- SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 42	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023001_PS_STH54_75100202.DWG
LAYOUT NAME - 023001_PS_STH54_75100202 - 023216_PS
PLOT DATE : 8/1/2018 12:31 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 44

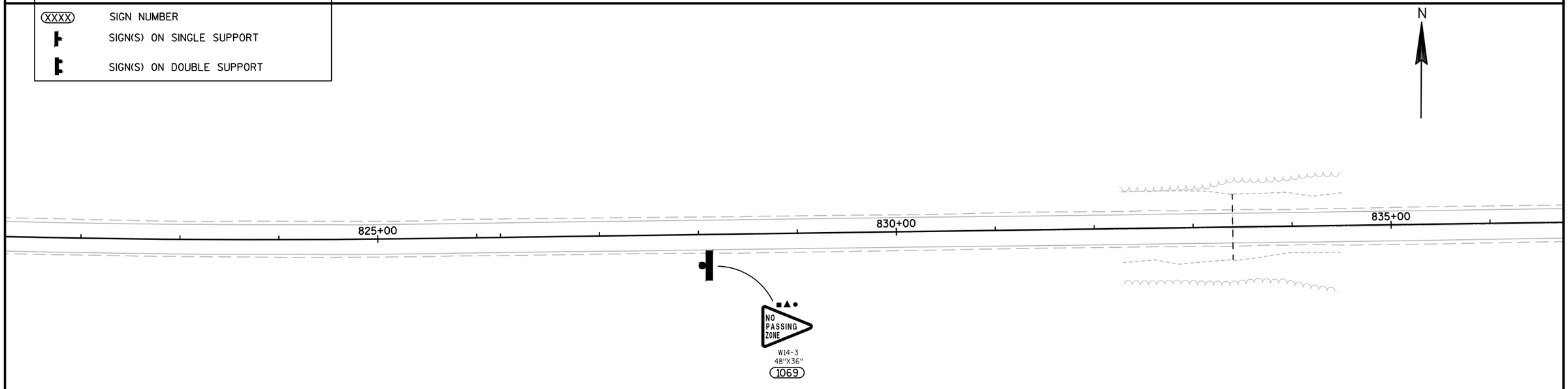
2



2

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER
SIGN(S) ON SINGLE SUPPORT
SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 43	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023001_PS_STH54_75100202.DWG
LAYOUT NAME - 023001_PS_STH54_75100202 - 023217_PS
PLOT DATE : 8/1/2018 12:32 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 44

2

2

N

840+00

845+00

850+00

Spaulding Pond
County Park

D7-68-L
78"X36"
1070

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

N

1071

STOP

R1-1
30"X30"

SPAULDING RD

1072

Spaulding Park
County Park

D7-68-R
78"X36"

855+00

860+00

865+00

ADOPT A HIGHWAY
SPONSOR
CITY POINT
VOLUNTEER
FIRE DEPARTMENT

I55-56
30"X36"
1073

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 44	E

2

2

N

1074

ROAD TO
Spaulding Pond
County Park
1 MILE

REMOVE

900+00

905+00

910+00

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

N

1075

NO PASSING ZONE

W14-3
48"X36"

45+00

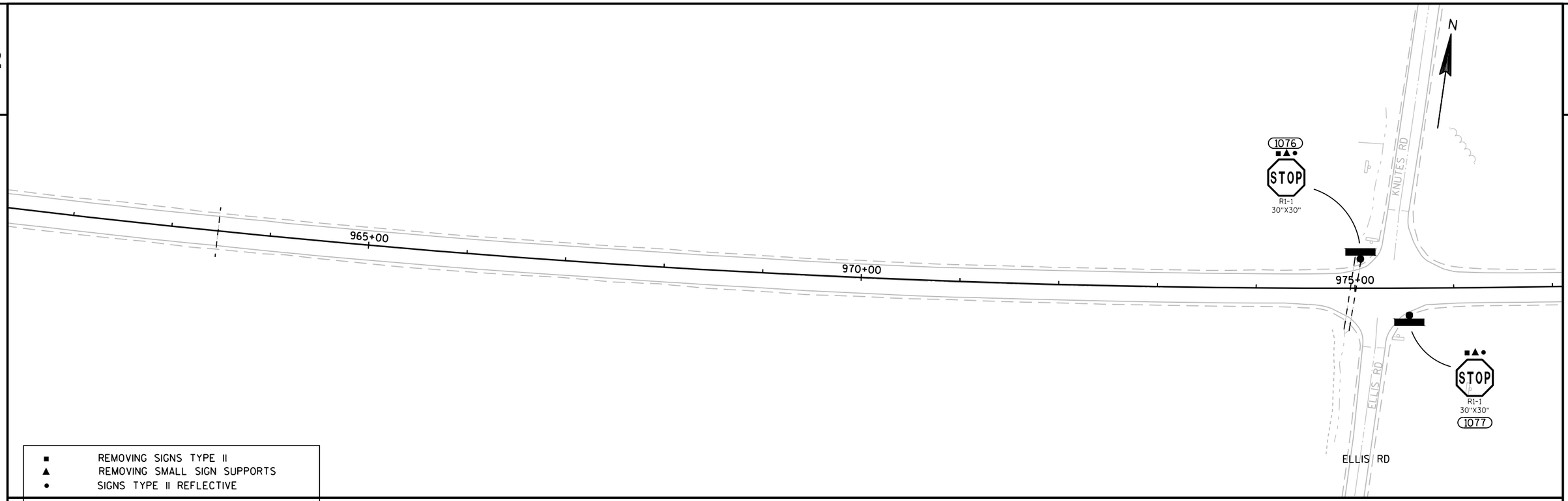
950+00

955+00

960+00

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 45	E

2

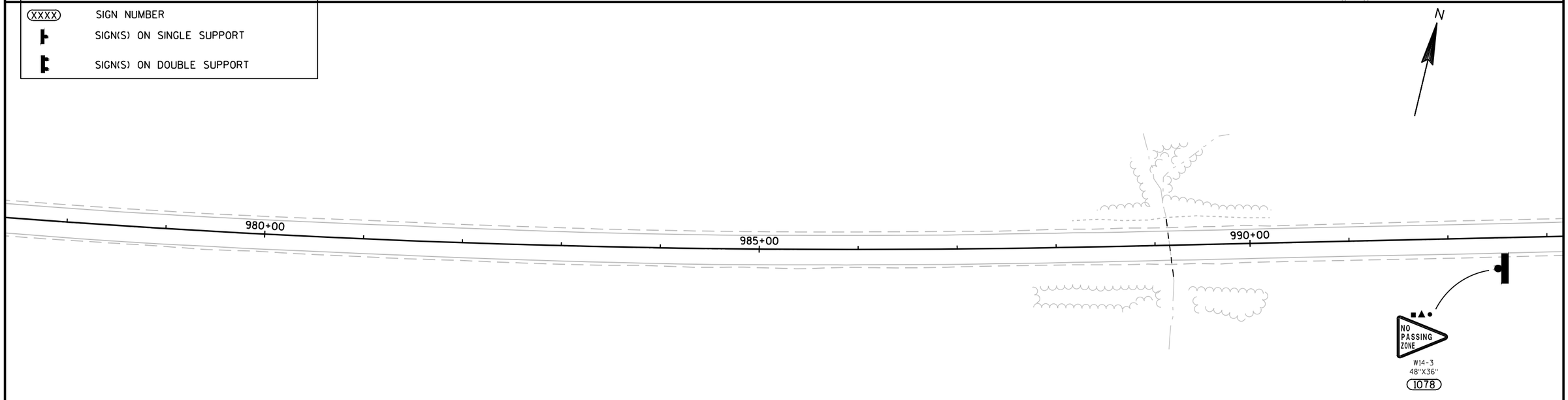


- ■ REMOVING SIGNS TYPE II
- ▲ REMOVING SMALL SIGN SUPPORTS
- ● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

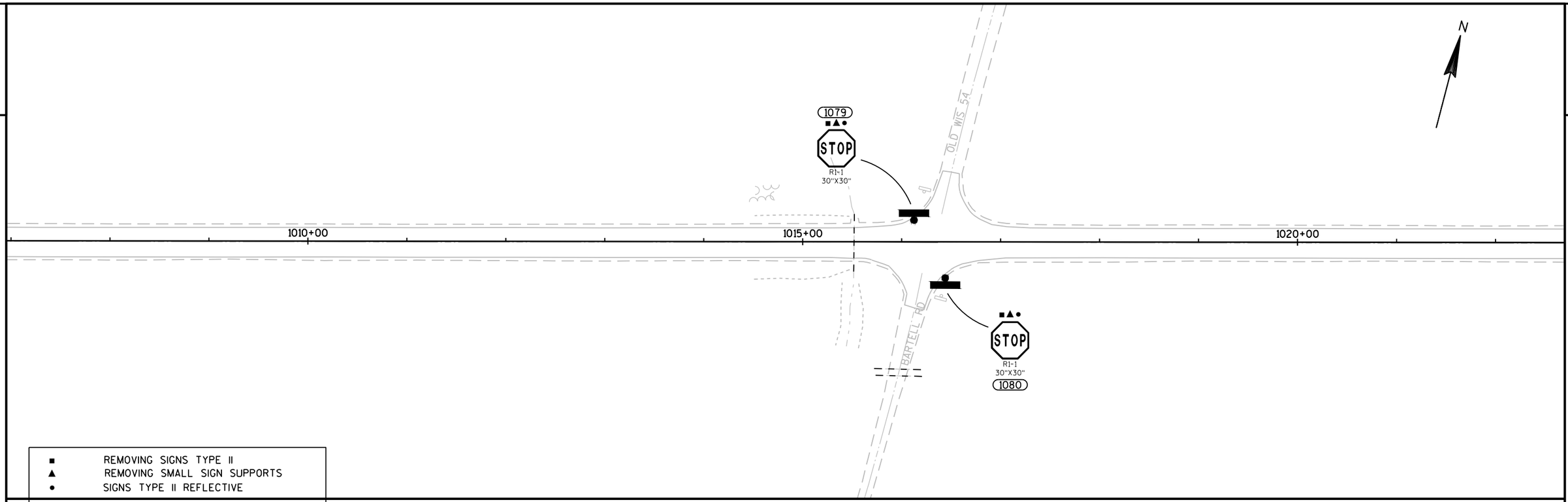
SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

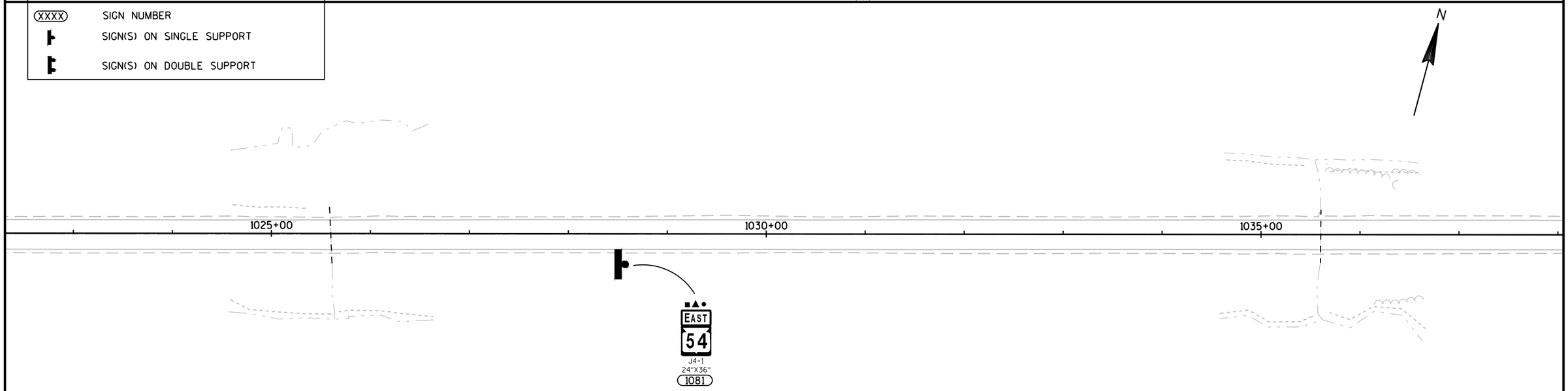


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 46	E

2



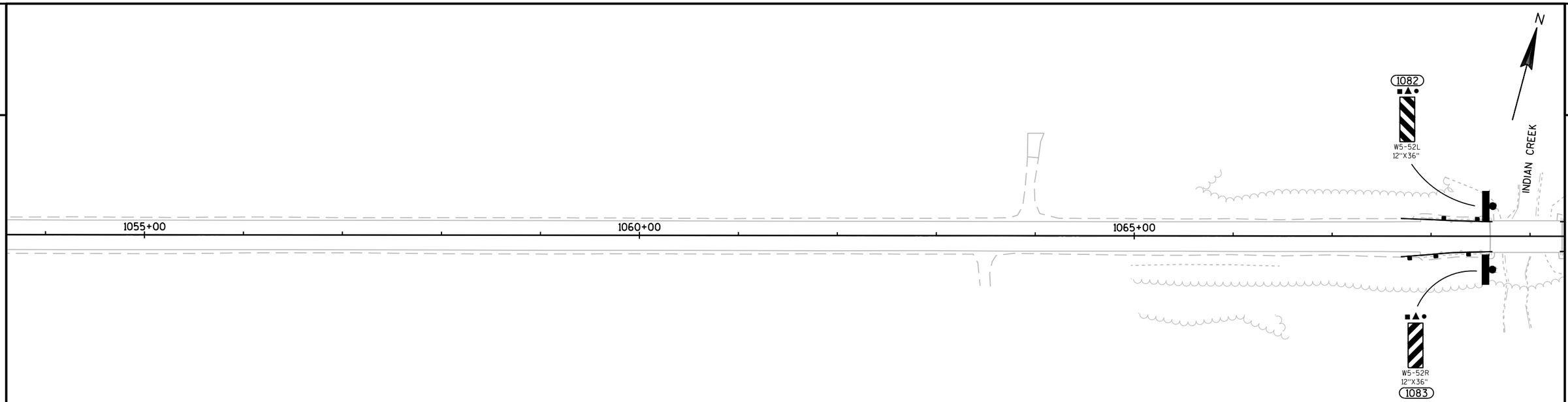
- ■ REMOVING SIGNS TYPE II
- ▲ REMOVING SMALL SIGN SUPPORTS
- ● SIGNS TYPE II REFLECTIVE
- (XXXX) SIGN NUMBER
- SIGN(S) ON SINGLE SUPPORT
- SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 47	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023001_PS_STH54_75100202.DWG
LAYOUT NAME - 023001_PS_STH54_75100202 - 023221_PS
PLOT DATE : 8/1/2018 12:33 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 44

2

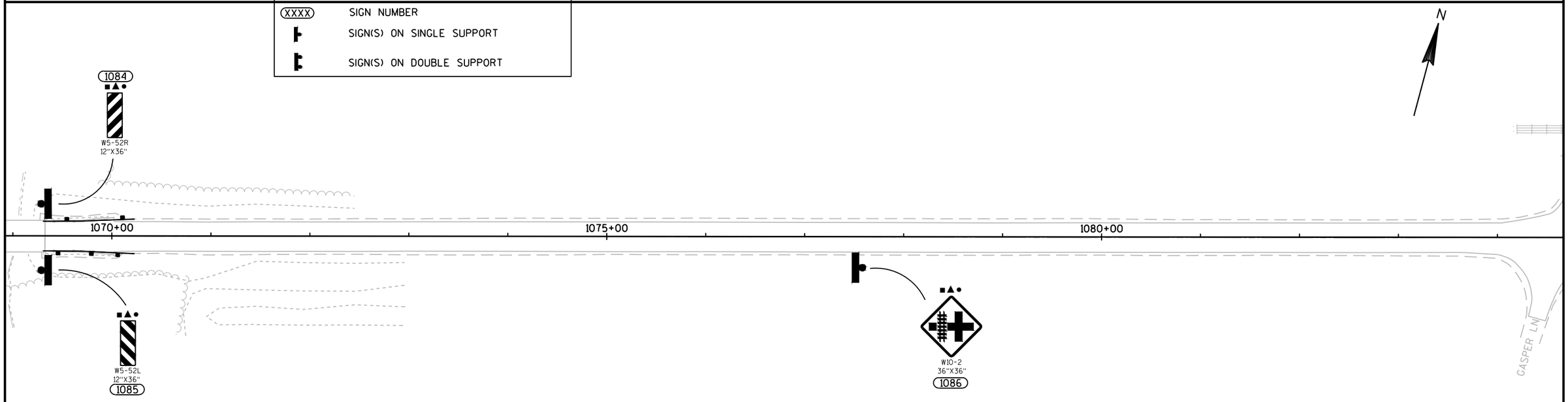


■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 48	E

2

2

PANTER RD

CANADIAN NATIONAL RAILROAD

1087
STOP
R1-1
30"X30"

1089
W10-2
36"X36"

1085+00

1090+00

1095+00

CASPER LN

STOP
R1-1
30"X30"
1088

■ REMOVING SIGNS TYPE II
▲ REMOVING SMALL SIGN SUPPORTS
● SIGNS TYPE II REFLECTIVE

(XXXX) SIGN NUMBER

SIGN(S) ON SINGLE SUPPORT

SIGN(S) ON DOUBLE SUPPORT

OLD WIS 54

1091
Black River Falls 27
D2-1
114"X15"

1093
NO PASSING ZONE
W14-3
48"X36"

1094
SPEED LIMIT 45
R2-1
24"X30"

1096
WEST 54
J4-1
24"X36"

1098
STOP
R1-1
30"X30"

CANADIAN NATIONAL RAILROAD

1100+00

1105+00

1110+00

1115+0

SPEED LIMIT 45
W3-5
36"X36"
1090

CITY POINT
UNINCORPORATED
I2-3
72"X24"
1092

SPEED LIMIT 45
R2-1
24"X30"
1095

STOP
R1-1
30"X30"
1097

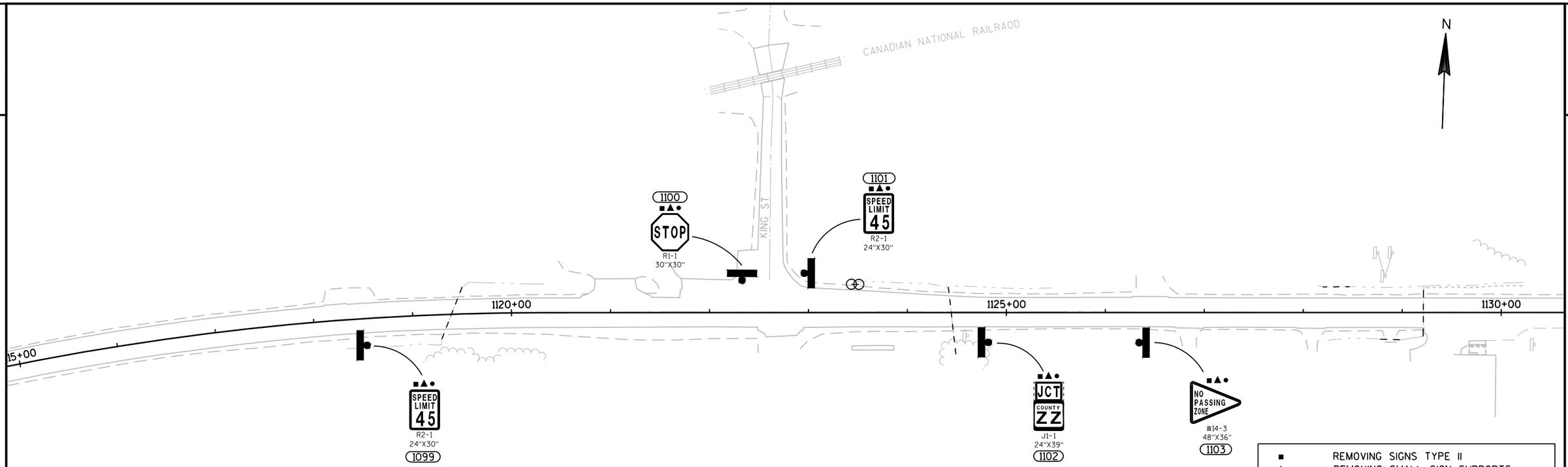
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 49	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023001_PS_STH54_75100202.DWG
LAYOUT NAME - 023001_PS_STH54_75100202 - 023223_PS

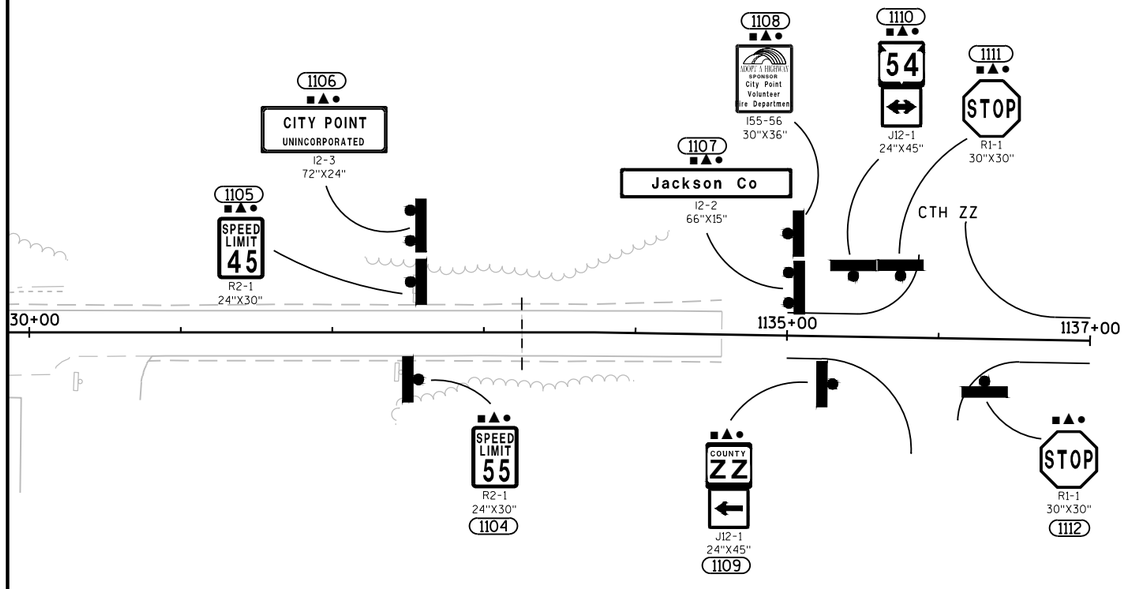
PLOT DATE : 8/1/2018 12:34 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 44

2



- ■ REMOVING SIGNS TYPE II
- ▲ REMOVING SMALL SIGN SUPPORTS
- • SIGNS TYPE II REFLECTIVE
- (XXXX) SIGN NUMBER
- SIGN(S) ON SINGLE SUPPORT
- SIGN(S) ON DOUBLE SUPPORT

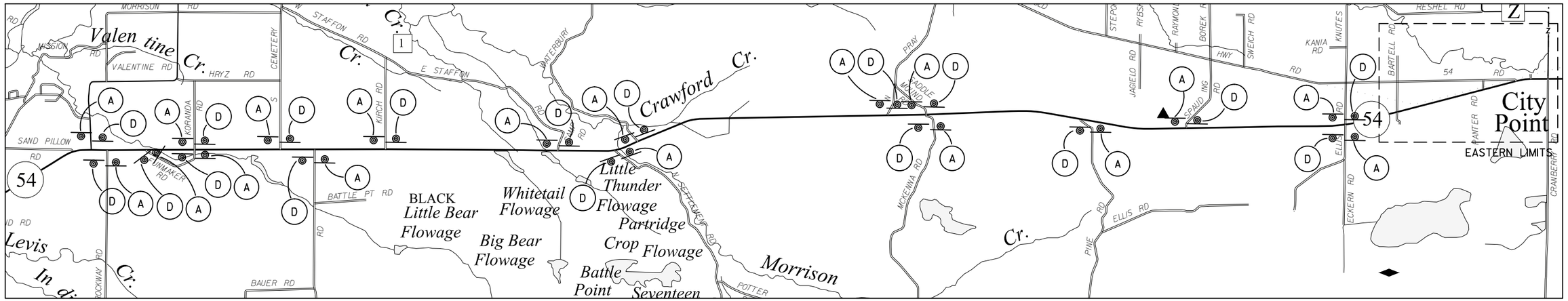




PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PERMANENT SIGNING	SHEET 50	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\023001_PS_STH54_75100202.DWG
LAYOUT NAME - 023001_PS_STH54_75100202 - 023224_PS
PLOT DATE : 8/1/2018 12:35 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 44

2

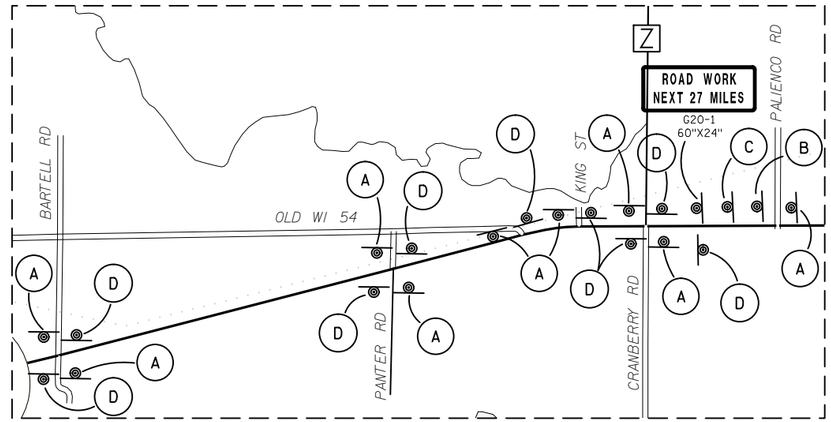


NOTES:

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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



ROAD WORK AHEAD W20-1-A	ROAD WORK 1000 FT W20-1-C	ROAD WORK 500 FT W20-1-D	END ROAD WORK G20-2A 48"X24"
A	B	C	D

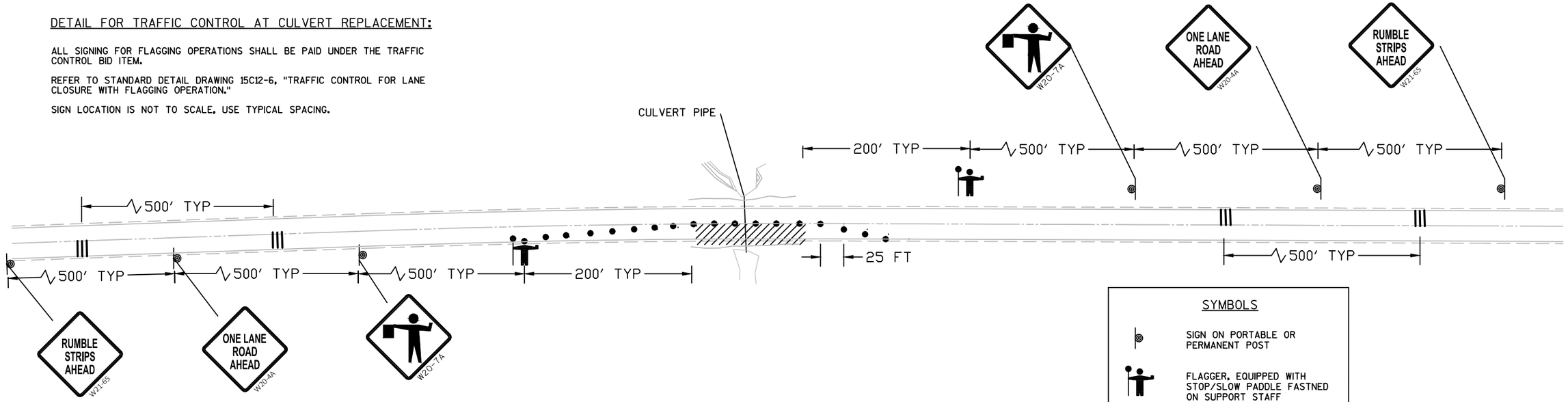
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	TRAFFIC CONTROL	SHEET 51 E

DETAIL FOR TRAFFIC CONTROL AT CULVERT REPLACEMENT:

ALL SIGNING FOR FLAGGING OPERATIONS SHALL BE PAID UNDER THE TRAFFIC CONTROL BID ITEM.

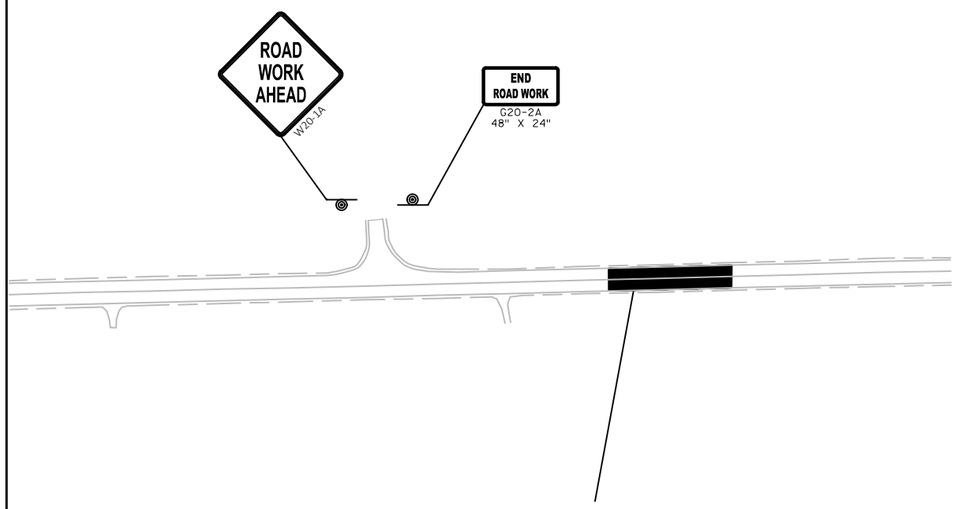
REFER TO STANDARD DETAIL DRAWING 15C12-6, "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION."

SIGN LOCATION IS NOT TO SCALE, USE TYPICAL SPACING.



SYMBOLS

- SIGN ON PORTABLE OR PERMANENT POST
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTNED ON SUPPORT STAFF
- TRAFFIC CONTROL DRUMS
- WORK AREA LIMITS
- TEMPORARY PORTABLE RUMBLE STRIPS



ASPHALT PAVING/LANE REPAIR TRAFFIC CONTROL:

REFER TO TRAFFIC CONTROL DETAILS AND STANDARD DETAIL DRAWING 15C12-6, "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION."

TRAFFIC CONTROL NOTES:

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THAT THE BACKGROUND IS ORANGE. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

EXISTING TRAFFIC SIGNS MAY REQUIRE RELOCATION DURING STAGES OF CONSTRUCTION AND SHALL BE LOCATED AS REQUIRED BY THE FIELD ENGINEER.

SIGNS FOR ADVANCE WARNING OF CONSTRUCTION SHALL BE PLACED IN THE INITIAL PHASE OF CONSTRUCTION.

DETAILS OF CONSTRUCTION NOT ON THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

LOCAL ACCESS SHALL BE MAINTAINED AT ALL TIMES.

ROADWAY SHALL BE OPEN TO THRU TRAFFIC AT ALL TIMES.

TEMPORARY LANE CLOSURES OR FLAGGING OPERATIONS ARE ONLY ALLOWED DURING DAYLIGHT HOURS.

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	TRAFFIC CONTROL PLAN	SHEET 52	E

7510-02-62

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	48.000	48.000
0004	204.0120	Removing Asphaltic Surface Milling	SY	384,100.000	384,100.000
0008	204.0180	Removing Delineators and Markers	EACH	177.000	177.000
0010	204.0185	Removing Masonry	CY	6.000	6.000
0014	205.0100	Excavation Common	CY	89.000	89.000
0016	208.0100	Borrow	CY	216.000	216.000
0020	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 7510-02-62	LS	1.000	1.000
0024	213.0100	Finishing Roadway (project) 01. 7510-02-62	EACH	1.000	1.000
0026	305.0110	Base Aggregate Dense 3/4-Inch	TON	3,300.000	3,300.000
0028	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	220.000	220.000
0030	305.0500	Shaping Shoulders	STA	2,260.000	2,260.000
0032	305.0504.S	Hauling Excess Shoulder Material	CY	500.000	500.000
0034	455.0605	Tack Coat	GAL	38,450.000	38,450.000
0036	460.2005	Incentive Density PWL HMA Pavement	DOL	29,091.000	29,091.000
0038	460.2010	Incentive Air Voids HMA Pavement	DOL	63,560.000	63,560.000
0040	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	113,151.000	113,151.000
0042	460.6244	HMA Pavement 4 MT 58-34 S	TON	63,560.000	63,560.000
0044	465.0105	Asphaltic Surface	TON	4,000.000	4,000.000
0046	465.0110	Asphaltic Surface Patching	TON	100.000	100.000
0048	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	102,010.000	102,010.000
0050	504.0900	Concrete Masonry Endwalls	CY	5.000	5.000
0052	520.3318	Culvert Pipe Class III-A 18-Inch	LF	32.000	32.000
0054	520.8000	Concrete Collars for Pipe	EACH	38.000	38.000
0056	520.8700	Cleaning Culvert Pipes	EACH	45.000	45.000
0062	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	4.000	4.000
0064	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	2.000	2.000
0066	521.1228	Apron Endwalls for Pipe Arch Steel 28x20-Inch	EACH	1.000	1.000
0070	521.3136	Culvert Pipe Corrugated Steel 36-Inch	LF	20.000	20.000
0072	521.3728	Pipe Arch Corrugated Steel 28x20-Inch	LF	8.000	8.000
0074	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	280.000	280.000
0076	522.0130	Culvert Pipe Reinforced Concrete Class III 30-Inch	LF	80.000	80.000
0078	522.0142	Culvert Pipe Reinforced Concrete Class III 42-Inch	LF	32.000	32.000
0080	522.0148	Culvert Pipe Reinforced Concrete Class III 48-Inch	LF	80.000	80.000
0082	522.0160	Culvert Pipe Reinforced Concrete Class III 60-Inch	LF	112.000	112.000
0084	522.1060	Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	EACH	2.000	2.000
0090	614.0010	Barrier System Grading Shaping Finishing	EACH	24.000	24.000
0092	614.0920	Salvaged Rail	LF	2,556.000	2,556.000
0094	614.2300	MGS Guardrail 3	LF	975.000	975.000

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Line	Item	Item Description	Unit	Total	Qty
0096	614.2310	MGS Guardrail 3 HS	LF	150.000	150.000
0098	614.2330	MGS Guardrail 3 K	LF	1,213.000	1,213.000
0100	614.2350	MGS Guardrail Short Radius	LF	63.000	63.000
0102	614.2500	MGS Thrie Beam Transition	LF	630.000	630.000
0104	614.2610	MGS Guardrail Terminal EAT	EACH	24.000	24.000
0106	614.8010	Anchor Post Assembly Top Mount	EACH	16.000	16.000
0110	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7510-02-62	EACH	1.000	1.000
0112	619.1000	Mobilization	EACH	0.700	0.700
0114	624.0100	Water	MGAL	50.000	50.000
0116	625.0500	Salvaged Topsoil	SY	800.000	800.000
0118	627.0200	Mulching	SY	1,800.000	1,800.000
0120	628.1504	Silt Fence	LF	7,500.000	7,500.000
0122	628.1520	Silt Fence Maintenance	LF	7,500.000	7,500.000
0124	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0126	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0128	628.2004	Erosion Mat Class I Type B	SY	7,300.000	7,300.000
0132	628.7504	Temporary Ditch Checks	LF	540.000	540.000
0134	628.7555	Culvert Pipe Checks	EACH	120.000	120.000
0136	629.0210	Fertilizer Type B	CWT	1.000	1.000
0138	630.0171	Seeding Mixture No. 70A	LB	4.000	4.000
0140	630.0200	Seeding Temporary	LB	20.000	20.000
0142	633.0200	Delineators Flexible	EACH	18.000	18.000
0144	633.5200	Markers Culvert End	EACH	126.000	126.000
0146	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	102.000	102.000
0148	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	17.000	17.000
0150	637.2210	Signs Type II Reflective H	SF	630.290	630.290
0152	637.2230	Signs Type II Reflective F	SF	124.080	124.080
0154	638.2602	Removing Signs Type II	EACH	112.000	112.000
0156	638.3000	Removing Small Sign Supports	EACH	128.000	128.000
0158	642.5001	Field Office Type B	EACH	0.700	0.700
0160	643.0300	Traffic Control Drums	DAY	3,200.000	3,200.000
0162	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0170	643.0900	Traffic Control Signs	DAY	3,350.000	3,350.000
0172	643.5000	Traffic Control	EACH	1.000	1.000
0174	646.1020	Marking Line Epoxy 4-Inch	LF	280,290.000	280,290.000
0192	648.0100	Locating No-Passing Zones	MI	21.410	21.410
0194	649.0105	Temporary Marking Line Paint 4-Inch	LF	92,730.000	92,730.000
0196	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0198	650.8000	Construction Staking Resurfacing Reference	LF	111,311.000	111,311.000

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Line	Item	Item Description	Unit	Total	Qty
0202	650.9910	Construction Staking Supplemental Control (project) 01. 7510-02-62	LS	1.000	1.000
0206	740.0440	Incentive IRI Ride	DOL	85,632.000	85,632.000
0208	SPV.0060	Special 01. HMA Pavement PWL Test Strip Volumetrics	EACH	1.000	1.000
0210	SPV.0060	Special 02. HMA Pavement PWL Test Strip Density	EACH	1.000	1.000
0212	SPV.0060	Special 03. Apron Endwalls for Pipe Arch Aluminum 21x15-Inch	EACH	6.000	6.000
0214	SPV.0090	Special 01. Ditch Cleaning	LF	1,300.000	1,300.000
0216	SPV.0090	Special 02. Pipe Arch Correugated Aluminum 21x15-Inch	LF	32.000	32.000
0222	SPV.0180	Special 01. Removing Asphaltic Surface Milling Lane Repair	SY	3,333.000	3,333.000
0224	SPV.0195	Special 01. Asphaltic Surface Lane Repair	TON	730.000	730.000

*ALL ITEMS ARE CATEGORY 0010

REMOVING SMALL PIPE CULVERTS			203.0100
STATION	LOCATION	DESCRIPTION	EACH
76+86	FE - LT	32-FT / 18-IN / RCCP	1
86+20	LT & RT	8-FT LT, 16-FT RT / 24-IN / RCCP	2
92+74	RT	16-FT / 24-IN / RCCP	1
100+84	RT	8-FT / 24-IN / RCCP	1
118+33	LT & RT	8-FT LT, 8-FT RT / 30-IN / RCCP	2
149+10	RT	16-FT / 30-IN / RCCP	1
164+11	LT & RT	16-FT LT, 16-FT RT / 30-IN / RCCP	2
200+09	RT	8-FT / 24-IN / RCCP	1
239+05	RT	20-FT / 36-IN / CMCP	1
264+09	LT	16-FT / 24-IN / RCCP	1
397+05	LT & RT	8-FT LT, 8-FT RT / 24-IN / CMCP	2
449+50	RT	8-FT / 24-IN / RCCP	1
461+18	LT & RT	16-FT LT, 16-FT RT / 60-IN / RCCP	2
499+38	ML	80-FT / 48-IN / RCCP	1
524+96	RT	16-FT / 24-IN / RCCP	1
577+65	LT	8-FT / 24-IN / RCCP	1
584+31	LT & RT	16-FT LT, 16-FT RT / 24-IN / RCCP	2
584+35	LT & RT	16-FT LT, 16-FT RT / 24-IN / RCCP	2
589+97	RT	8-FT / 24-IN / RCCP	1
778+88	LT & RT	16-FT LT, 16-FT RT / 24-IN / RCCP	2
895+28	LT & RT	8-FT LT, 8-FT RT / 24-IN / RCCP	2
958+27	LT	8-FT / 24-IN / RCCP	1
975+01	RT	16-FT / 24-IN / RCCP	1
975+05	RT	16-FT / 24-IN / RCCP	1
1000+16	LT	8-FT / 48-IN / RCCP	1
1000+27	LT	8-FT / 48-IN / RCCP	1
1015+52	LT	16-FT / 30-IN / RCCP	1
1035+60	LT	8-FT / 24-IN / RCCP	1
1051+39	LT & RT	8-FT LT, 16-FT RT / 24-IN / RCCP	2
1112+48	LT & RT	16-FT LT, 16-FT RT / 48-IN / RCCP	2
1112+52	LT & RT	16-FT LT, 16-FT RT / 48-IN / RCCP	2
1119+40	RT	8-FT / 28x20-IN / CMCP	1
1124+45	LT	8-FT / 21x15-IN / CMCP	1
1129+21	LT	8-FT / 21x15-IN / CMCP	1
1133+25	LT & RT	8-FT LT, 8-FT RT / 21x15-IN / CMCP	2
ITEM TOTAL			48

REMOVING ASPHALTIC SURFACE MILLING				204.0120
STATION	TO	STATION	LOCATION	SY
3+89	TO	287+47	MAINLINE	94527
287+93	TO	329+42	MAINLINE	13830
329+79	TO	408+38	MAINLINE	26197
409+42	TO	1068+60	MAINLINE	219729
1069+33	TO	1137+00	MAINLINE	22557
16+70	TO	24+50	BYPASS LANE	1040
N BROCKWAY RD			INTERSECTION LT	292
FUNMAKER RD			INTERSECTION RT	260
KORANDA RD			INTERSECTION LT	234
S. CEMETERY RD			INTERSECTION LT	312
WILDCAT RD			INTERSECTION RT	244
KIRCH RD			INTERSECTION LT	248
E STAFFON RD			INTERSECTION LT	244
N SETTLEMENT RD			INTERSECTION RT	187
SHOTWELL LN			INTERSECTION LT	222
PRAY RD			INTERSECTION LT	414
MCKENNA RD			INTERSECTION RT	296
SADDLEMOUND RD			INTERSECTION LT	242
LONE PINE RD			INTERSECTION RT	230
SPAULDING RD			INTERSECTION LT	181
ELLIS RD			INTERSECTION RT	243
KNUTES RD			INTERSECTION LT	287
BARTELL RD S			INTERSECTION RT	264
BARTELL RD N			INTERSECTION LT	232
PAINTER RD S			INTERSECTION RT	288
PAINTER RD N			INTERSECTION LT	210
OLD 54			INTERSECTION LT	196
KING ST			INTERSECTION LT	283
CRANBERRY RD			INTERSECTION RT	259
CTH ZZ			INTERSECTION LT	352
ITEM TOTAL				384100

REMOVING DELINEATORS AND MARKERS				204.0180
STATION			LOCATION	EACH
3+89	TO	1137+00	LT & RT	159
736+00	TO	742+00	LT & RT	18
ITEM TOTAL				177

REMOVING MASONRY				204.0185
STATION	TO	STATION	LOCATION	CY
1000+16	TO	1000+27	LT	3
1112+36	TO	1112+50	LT	3
ITEM TOTAL				6

PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 7510-02-62				211.0100
STATION	TO	STATION	LOCATION	LS
86+00	TO	321+84	PROJECT	1
ITEM TOTAL				1

FINISHING ROADWAY (PROJECT) 7510-02-62				213.0100
STATION	TO	STATION	LOCATION	EACH
86+00	TO	321+84	PROJECT	1
ITEM TOTAL				1

STH 54 EARTHWORK SUMMARY											
Division	From To Stations	Location	Common Excavation (1) (Item *205.0100) Cut (2)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6) Factor 1.25	Mass Ordinate +/- (7)	Waste	Borrow (Item *208.0100)	Comment:
Division 1											
Temporary Widening	497+73 to 501+03	LT	11	0	11	127	158	-148	0	148	
Division 2											
RCCP Shaping Left	498+38 to 500+38	LT	79	0	79	8	10	68	68	0	
Division 3											
RCCP Shaping Right	498+78 to 499+98	RT	0	0	0	54	68	-68	0	68	(8)
Grand Total			89	0	89	189	237	-148	68	216	

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusable Pavement Material
6) Expanded Fill. Factor = 1.25

7) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.
8) Use 68 CY of waste material from Division 1. Borrow Excavation item number 208.0100

BASE AGGREGATE DENSE 3/4-INCH				305.0110
STATION	TO	STATION	LOCATION	TON
3+89	TO	1137+00	SHOULDER LT	1400
3+89	TO	1137+00	SHOULDER RT	1400
UNDISTRIBUTED			DRIVEWAYS	500
ITEM TOTAL				3300

BASE AGGREGATE DENSE 1 1/4-INCH				305.0120
STATION	TO	STATION	LOCATION	TON
497+73	TO	500+73	BYPASS WIDENDING LT	105
499+10	TO	499+60	CULVERT AREA	115
ITEM TOTAL				220

SHAPING SHOULDERS				305.0500
STATION	TO	STATION	LOCATION	STA
3+89	TO	1137+00	SHOULDER LT	1130
3+89	TO	1137+00	SHOULDER RT	1130
ITEM TOTAL				2260

HAULING EXCESS SHOULDER MATERIAL			305.0504.S
STATION TO STATION		LOCATION	CY
UNDISTRIBUTED			500
ITEM TOTAL			500

TACK COAT			455.0605
STATION TO STATION		LOCATION	GAL
3+89	TO 287+47	MAINLINE	9453
287+93	TO 329+42	MAINLINE	1383
329+79	TO 408+38	MAINLINE	2620
409+42	TO 1068+60	MAINLINE	21980
1068+33	TO 1137+00	MAINLINE	2289
16+70	TO 24+50	BYPASS LANE	104
N BROCKWAY RD		INTERSECTION LT	29
FUNMAKER RD		INTERSECTION RT	26
KORANDA RD		INTERSECTION LT	23
S. CEMETERY RD		INTERSECTION LT	31
WILDCAT RD		INTERSECTION RT	24
KIRCH RD		INTERSECTION LT	25
E STAFFON RD		INTERSECTION LT	24
N SETTLEMENT RD		INTERSECTION RT	19
SHOTWELL LN		INTERSECTION LT	22
PRAY RD		INTERSECTION LT	41
MCKENNA RD		INTERSECTION RT	30
SADDLEMOUND RD		INTERSECTION LT	24
LONE PINE RD		INTERSECTION RT	23
SPAULDING RD		INTERSECTION LT	18
ELLIS RD		INTERSECTION RT	24
KNUTES RD		INTERSECTION LT	29
BARTELL RD S		INTERSECTION RT	26
BARTELL RD N		INTERSECTION LT	23
PAINTER RD S		INTERSECTION RT	29
PAINTER RD N		INTERSECTION LT	21
OLD 54		INTERSECTION LT	20
KING ST		INTERSECTION LT	28
CRANBERRY RD		INTERSECTION RT	26
CTH ZZ		INTERSECTION LT	35
ITEM TOTAL			38450

NOTE: CALCULATED USING 0.05 GAL/SY

REHEATING HMA PAVEMENT LONGITUDINAL JOINTS				460.4110.S
STATION	TO	STATION	LOCATION	LF
3+89	TO	287+47	CL	28358
287+93	TO	329+42	CL	4149
329+79	TO	408+38	CL	7859
409+42	TO	1068+60	CL	65918
1068+33	TO	1137+00	CL	6867
ITEM TOTAL				113151

NOTE: FOR SURFACE LIFT ONLY.

HMA PERCENT WITHIN LIMITS (PWL)					
PROJECT ID	LOCATION	460.2005 INCENTIVE DENSITY PWL HMA PAVEMENT DOL	460.2010 INCENTIVE AIR VOIDS HMA PAVEMENT DOL	SPV.0060.01 HMA PAVEMENT PWL TEST STRIP VOLUMETRICS EACH	SPV.0060.02 HMA PAVEMENT PWL TEST STRIP DENSITY EACH
7510-02-62	MAINLINE LEVELING LIFT	*	25974	1	--
	MAINLINE SURFACE LIFT	29091**	36364	--	1
	INT / TURN LANES	**	1222	--	--
	TOTAL	29091	63560	1	1
* DENSITY FOR MAINLINE LEVELING LIFT WILL BE ACCEPTED BY ORDINARY COMPACTION					
** ACCEPTANCE TESTING FOR MAINLINE SURFACE SHOULDERS, INTERSECTIONS AND TURN LANES BY THE DEPARTMENT					
ITEM TOTAL					

HMA PAVEMENT 4 MT 58-34 S				460.6244
STATION	TO	STATION	LOCATION	TON
3+89	TO	287+47	MAINLINE	15621
287+93	TO	329+42	MAINLINE	2306
329+79	TO	408+38	MAINLINE	4346
409+42	TO	1068+60	MAINLINE	36279
1068+33	TO	1137+00	MAINLINE	3803
16+70	TO	24+50	BYPASS LANE	173
N BROCKWAY RD			INTERSECTION LT	48
FUNMAKER RD			INTERSECTION RT	43
KORANDA RD			INTERSECTION LT	39
S. CEMETERY RD			INTERSECTION LT	51
WILDCAT RD			INTERSECTION RT	40
KIRCH RD			INTERSECTION LT	41
E STAFFON RD			INTERSECTION LT	40
N SETTLEMENT RD			INTERSECTION RT	31
SHOTWELL LN			INTERSECTION LT	37
PRAY RD			INTERSECTION LT	68
MCKENNA RD			INTERSECTION RT	49
SADDLEMOUND RD			INTERSECTION LT	40
LONE PINE RD			INTERSECTION RT	38
SPAULDING RD			INTERSECTION LT	30
ELLIS RD			INTERSECTION RT	40
KNUTES RD			INTERSECTION LT	47
BARTELL RD S			INTERSECTION RT	44
BARTELL RD N			INTERSECTION LT	38
PAINTER RD S			INTERSECTION RT	48
PAINTER RD N			INTERSECTION LT	35
OLD 54			INTERSECTION LT	32
KING ST			INTERSECTION LT	47
CRANBERRY RD			INTERSECTION RT	43
CTH ZZ			INTERSECTION LT	64
ITEM TOTAL				63560

ASPHALTIC SURFACE				465.0105
STATION	TO	STATION	LOCATION	TON
3+89	TO	1137+00	WEDGING/LEVELING/SPOT REPAIRS	3950
499+38			MAINLINE CULVERT	50
ITEM TOTAL				4000

ASPHALTIC SURFACE PATCHING				465.0110
STATION	TO	STATION	LOCATION	TON
3+89	TO	1137+00	UNDISTRIBUTED	100
ITEM TOTAL				100

ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE RURAL				465.0475
STATION	TO	STATION	LOCATION	LF
5+18	TO	1105+00	CL	102010
ITEM TOTAL				102010

CONCRETE MASONRY ENDWALLS				504.0900
STATION	TO	STATION	LOCATION	CY
1000+16	TO	1000+27	LT	2.5
1112+36	TO	1112+50	LT	2.5
ITEM TOTAL				5.0

CULVERT PIPE AND APRON ENDWALLS											
STATION	LOCATION	520.3318 CULVERT PIPE CLASS III-A 18-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	520.8700 CLEANING CULVERT PIPES EACH	521.1018 APRON ENDWALLS FOR CP STEEL 18-INCH EACH	521.1024 APRON ENDWALLS FOR CP STEEL 24-INCH EACH	SPV.0060.03 APRON ENDWALLS FOR PIPE ARCH ALUMINIUM 21x15-INCH EACH	521.1228 APRON ENDWALLS FOR PIPE ARCH STEEL 28x20-INCH EACH	521.3136 CULVERT PIPE CORRUGATED STEEL 36-INCH (0.079" THICKNESS) LF	SPV.0090.02 PIPE ARCH CORRUGATED ALUMINIUM 21x15-INCH (0.060" THICKNESS) LF	521.3728 PIPE ARCH CORRUGATED STEEL 28x20-INCH (0.064" THICKNESS) LF
20+61	CE - LT	--	--	1	--	--	--	--	--	--	--
24+17	ML	--	--	1	--	--	--	--	--	--	--
25+72	CE - LT	--	--	1	--	--	--	--	--	--	--
45+14	ML	--	--	1	--	--	--	--	--	--	--
76+86	FE - LT	32	--	--	2	--	--	--	--	--	--
76+86	FE - RT	--	--	1	--	--	--	--	--	--	--
83+01	KORANDA RD - LT	--	--	1	--	--	--	--	--	--	--
86+20	ML	--	2	--	--	--	--	--	--	--	--
89+70	FE - LT	--	--	1	--	--	--	--	--	--	--
92+74	ML	--	1	--	--	--	--	--	--	--	--
96+05	FE - LT	--	--	1	--	--	--	--	--	--	--
100+84	ML	--	1	--	--	--	--	--	--	--	--
114+92	FE - RT	--	--	1	--	--	--	--	--	--	--
118+33	ML	--	2	--	--	--	--	--	--	--	--
125+50	FE - RT	--	--	1	--	--	--	--	--	--	--
127+41	FE - LT	--	--	1	--	--	--	--	--	--	--
133+63	ML	--	--	--	--	--	--	--	--	--	--
149+10	ML	--	1	--	--	--	--	--	--	--	--
159+90	FE - RT	--	--	1	--	--	--	--	--	--	--
162+09	FE - LT	--	--	1	--	--	--	--	--	--	--
164+11	ML	--	2	--	--	--	--	--	--	--	--
174+03	FE - LT	--	--	1	--	--	--	--	--	--	--
175+30	WILDCAT RD - RT	--	--	1	2	--	--	--	--	--	--
184+11	ML	--	--	1	--	--	--	--	--	--	--
194+26	FE - LT	--	--	1	--	--	--	--	--	--	--
194+75	FE - RT	--	--	1	--	--	--	--	--	--	--
200+09	ML	--	1	--	--	--	--	--	--	--	--
206+30	FE - LT	--	--	1	--	--	--	--	--	--	--
220+00	FE - RT	--	--	1	--	--	--	--	--	--	--
224+10	ML	--	--	1	--	--	--	--	--	--	--
239+05	ML	--	--	--	--	--	--	--	20	--	--
264+09	ML	--	1	--	--	--	--	--	--	--	--
348+68	FE - RT	--	--	1	--	--	--	--	--	--	--
353+48	ML	--	--	1	--	--	--	--	--	--	--
359+20	FE - RT	--	--	1	--	--	--	--	--	--	--
382+49	ML	--	--	1	--	--	--	--	--	--	--
397+05	ML	--	--	--	--	2	--	--	--	--	--
423+03	ML	--	--	1	--	--	--	--	--	--	--
436+03	ML	--	--	1	--	--	--	--	--	--	--
449+50	ML	--	1	--	--	--	--	--	--	--	--
461+18	ML	--	2	--	--	--	--	--	--	--	--
499+38	ML	--	--	--	--	--	--	--	--	--	--
SUB TOTAL		32	14	27	4	2	0	0	20	0	0

3

CULVERT PIPE AND APRON ENDWALLS											
STATION	LOCATION	520.3318 CULVERT PIPE CLASS III-A 18-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	520.8700 CLEANING CULVERT PIPES EACH	521.1018 APRON ENDWALLS FOR CP STEEL 18-INCH EACH	521.1024 APRON ENDWALLS FOR CP STEEL 24-INCH EACH	SPV.0060.03 APRON ENDWALLS FOR PIPE ARCH ALUMINIUM 21x15-INCH EACH	521.1228 APRON ENDWALLS FOR PIPE ARCH STEEL 28x20-INCH EACH	521.3136 CULVERT PIPE CORRUGATED STEEL 36-INCH (0.079" THICKNESS) LF	SPV.0090.02 PIPE ARCH CORRUGATED ALUMINIUM 21x15-INCH (0.060" THICKNESS) LF	521.3728 PIPE ARCH CORRUGATED STEEL 28x20-INCH (0.064" THICKNESS) LF
524+96	ML	--	1	--	--	--	--	--	--	--	--
543+93	ML	--	--	--	--	--	--	--	--	--	--
562+23	ML	--	--	1	--	--	--	--	--	--	--
572+90	ML	--	--	1	--	--	--	--	--	--	--
577+65	ML	--	1	--	--	--	--	--	--	--	--
584+31	ML	--	2	--	--	--	--	--	--	--	--
584+35	ML	--	2	--	--	--	--	--	--	--	--
589+97	ML	--	1	1	--	--	--	--	--	--	--
618+83	ML	--	--	--	--	--	--	--	--	--	--
633+66	ML	--	--	1	--	--	--	--	--	--	--
673+44	ML	--	--	1	--	--	--	--	--	--	--
698+74	ML	--	--	1	--	--	--	--	--	--	--
712+63	ML	--	--	--	--	--	--	--	--	--	--
728+84	ML	--	--	1	--	--	--	--	--	--	--
738+90	ML	--	--	1	--	--	--	--	--	--	--
750+72	ML	--	--	1	--	--	--	--	--	--	--
759+16	ML	--	--	1	--	--	--	--	--	--	--
778+88	ML	--	2	1	--	--	--	--	--	--	--
782+43	ML	--	--	1	--	--	--	--	--	--	--
833+40	ML	--	--	1	--	--	--	--	--	--	--
873+56	ML	--	--	--	--	--	--	--	--	--	--
895+28	ML	--	2	1	--	--	--	--	--	--	--
910+12	ML	--	--	1	--	--	--	--	--	--	--
918+41	ML	--	--	--	--	--	--	--	--	--	--
958+27	ML	--	1	1	--	--	--	--	--	--	--
963+47	ML	--	--	--	--	--	--	--	--	--	--
975+01	ML	--	1	--	--	--	--	--	--	--	--
975+05	ML	--	1	--	--	--	--	--	--	--	--
989+19	ML	--	--	1	--	--	--	--	--	--	--
1000+16	ML	--	1	--	--	--	--	--	--	--	--
1000+27	ML	--	1	--	--	--	--	--	--	--	--
1015+52	ML	--	1	--	--	--	--	--	--	--	--
1025+60	ML	--	--	1	--	--	--	--	--	--	--
1035+60	ML	--	1	--	--	--	--	--	--	--	--
1051+39	ML	--	2	--	--	--	--	--	--	--	--
1112+48	ML	--	2	--	--	--	--	--	--	--	--
1112+52	ML	--	2	--	--	--	--	--	--	--	--
1119+40	ML	--	--	--	--	--	--	1	--	--	8
1124+45	ML	--	--	--	--	--	2	--	--	8	--
1129+21	ML	--	--	--	--	--	2	--	--	8	--
1133+25	ML	--	--	--	--	--	2	--	--	16	--
SUB TOTAL		0	24	18	0	0	6	1	0	32	8
GRAND TOTAL		32	38	45	4	2	6	1	20	32	8

3

CULVERT PIPE AND APRON ENDWALLS								
STATION	LOCATION	522.0124 CPRC CLASS III 24-INCH LF	522.0130 CPRC CLASS III 30-INCH LF	522.0142 CPRC CLASS III 42-INCH LF	522.0148 CPRC CLASS III 48-INCH LF	522.0160 CPRC CLASS III 60-INCH LF	522.1060 APRON ENDWALLS FOR CPRC 60-INCH LF	633.5200 MARKERS CULVERT END LF
20+61	CE - LT	--	--	--	--	--	--	--
24+17	ML	--	--	--	--	--	--	2
25+72	CE - LT	--	--	--	--	--	--	--
45+14	ML	--	--	--	--	--	--	2
76+86	FE - LT	--	--	--	--	--	--	--
76+86	FE - RT	--	--	--	--	--	--	--
83+01	KORANDA RD - LT	--	--	--	--	--	--	--
86+20	ML	24	--	--	--		--	2
89+70	FE - LT	--	--	--	--	--	--	--
92+74	ML	16	--	--	--	--	--	2
96+05	FE - LT	--	--	--	--	--	--	--
100+84	ML	8	--	--	--	--	--	2
114+92	FE - RT	--	--	--	--	--	--	--
118+33	ML	--	16	--	--	--	--	2
125+50	FE - RT	--	--	--	--	--	--	--
127+41	FE - LT	--	--	--	--	--	--	--
133+63	ML	--	--	--	--	--	--	2
149+10	ML	--	16	--	--	--	--	2
159+90	FE - RT	--	--	--	--	--	--	--
162+09	FE - LT	--	--	--	--	--	--	--
164+11	ML	--	32	--	--	--	--	2
174+03	FE - LT	--	--	--	--	--	--	--
175+30	WILDCAT RD - RT	--	--	--	--	--	--	--
184+11	ML	--	--	--	--	--	--	2
194+26	FE - LT	--	--	--	--	--	--	--
194+75	FE - RT	--	--	--	--	--	--	--
200+09	ML	8	--	--	--	--	--	2
206+30	FE - LT	--	--	--	--	--	--	--
220+00	FE - RT	--	--	--	--	--	--	--
224+10	ML	--	--	--	--	--	--	2
239+05	ML	--	--	--	--	--	--	2
264+09	ML	16	--	--	--	--	--	2
348+68	FE - RT	--	--	--	--	--	--	--
353+48	ML	--	--	--	--	--	--	2
359+20	FE - RT	--	--	--	--	--	--	--
382+49	ML	--	--	--	--	--	--	2
397+05	ML	16	--	--	--	--	--	2
423+03	ML	--	--	--	--	--	--	2
436+03	ML	--	--	--	--	--	--	2
449+50	ML	8	--	--	--	--	--	2
461+18	ML	--	--	--	--	32	--	2
499+38	ML	--	--	--	--	80	2	2
SUB TOTAL		96	64	0	0	112	2	44

3

CULVERT PIPE AND APRON ENDWALLS								
STATION	LOCATION	522.0124 CPRC CLASS III 24-INCH LF	522.0130 CPRC CLASS III 30-INCH LF	522.0142 CPRC CLASS III 42-INCH LF	522.0148 CPRC CLASS III 48-INCH LF	522.0160 CPRC CLASS III 60-INCH LF	522.1060 APRON ENDWALLS FOR CPRC 60-INCH EACH	633.5200 MARKERS CULVERT END EACH
524+96	ML	16	--	--	--	--	--	2
543+93	ML	--	--	--	--	--	--	2
562+23	ML	--	--	--	--	--	--	2
572+90	ML	--	--	--	--	--	--	2
577+65	ML	8	--	--	--	--	--	2
584+31	ML	32	--	--	--	--	--	2
584+35	ML	32	--	--	--	--	--	2
589+97	ML	8	--	--	--	--	--	2
618+83	ML	--	--	--	--	--	--	2
633+66	ML	--	--	--	--	--	--	2
673+44	ML	--	--	--	--	--	--	2
698+74	ML	--	--	--	--	--	--	2
712+63	ML	--	--	--	--	--	--	2
728+84	ML	--	--	--	--	--	--	2
738+90	ML	--	--	--	--	--	--	2
750+72	ML	--	--	--	--	--	--	2
759+16	ML	--	--	--	--	--	--	2
778+88	ML	32	--	--	--	--	--	2
782+43	ML	--	--	--	--	--	--	2
833+40	ML	--	--	--	--	--	--	2
873+56	ML	--	--	--	--	--	--	2
895+28	ML	16	--	--	--	--	--	2
910+12	ML	--	--	--	--	--	--	2
918+41	ML	--	--	--	--	--	--	2
958+27	ML	8	--	--	--	--	--	2
963+47	ML	--	--	--	--	--	--	2
975+01	ML	--	--	16	--	--	--	2
975+05	ML	--	--	16	--	--	--	2
989+19	ML	--	--	--	--	--	--	2
1000+16	ML	--	--	--	8	--	--	2
1000+27	ML	--	--	--	8	--	--	2
1015+52	ML	--	16	--	--	--	--	2
1025+60	ML	--	--	--	--	--	--	2
1035+60	ML	8	--	--	--	--	--	2
1051+39	ML	24	--	--	--	--	--	2
1112+48	ML	--	--	--	32	--	--	2
1112+52	ML	--	--	--	32	--	--	2
1119+40	ML	--	--	--	--	--	--	2
1124+45	ML	--	--	--	--	--	--	2
1129+21	ML	--	--	--	--	--	--	2
1133+25	ML	--	--	--	--	--	--	2
SUB TOTAL		184	16	32	80	0	0	82
GRAND TOTAL		280	80	32	80	112	2	126

BARRIER SYSTEM GRADING SHAPING FINISHING										614.0010
STATION	TO	STATION	LOCATION	* EXCAVATION COMMON CY	* BORROW CY	* SALVAGED TOPSOIL SY	* MULCHING SY	* FERTILIZER TYPE B CWT	* SEEDING MIXTURE NO. 70A LB	EACH
50+52	TO	53+58	RT	--	118	365	365	0.2	1.3	2
50+83	TO	53+77	LT	--	117	370	370	0.2	1.3	2
285+81	TO	288+95	RT	--	62	150	150	0.1	0.5	2
286+44	TO	289+58	LT	--	158	365	365	0.2	1.3	2
327+76	TO	330+81	RT	--	50	155	155	0.1	0.6	2
328+38	TO	331+44	LT	--	126	325	325	0.2	1.2	2
407+22	TO	410+99	LT	--	78	240	240	0.2	0.9	2
72+51'NS			N SETTLEMENT RD - RT	5	--	95	95	0.1	0.4	1
410+78			RT	--	38	160	160	0.1	0.6	1
693+19	TO	700+38	RT	--	115	400	400	0.3	1.4	2
695+43	TO	702+50	LT	--	53	175	175	0.1	0.6	2
1066+94	TO	1070+35	RT	2	11	115	115	0.1	0.4	2
1067+56	TO	1070+97	LT	3	34	150	150	0.1	0.5	2
ITEM TOTAL				10	960	3065	3065	2	11	24

GUARDRAIL SUMMARY											
STATION	TO	STATION	LOCATION	614.0920 SALVAGED RAIL LF	614.2300 MGS GUARDRAIL 3 LF	614.2310 MGS 3 GUARDRAIL HS LF	614.2330 MGS GUARDRAIL 3K LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2500 MGS THRIE BEAM TRANSITION LF	614.8010 ANCHOR POST ASSEMBLY TOP MOUNT EACH
50+83	TO	51+74	LT	--	37.5	--	--	--	1	--	--
51+74	TO	52+49	LT	203	--	75	--	--	--	--	8
52+49	TO	53+77	LT	--	75.0	--	--	--	1	--	--
50+52	TO	51+96	RT	--	87.5	--	--	--	1	--	--
51+93	TO	52+68	RT	203	--	75	--	--	--	--	8
52+68	TO	53+58	RT	--	37.5	--	--	--	1	--	--
285+81	TO	287+47	RT	70	75.0	--	--	--	1	39.4	--
286+44	TO	287+47	LT	70	12.5	--	--	--	1	39.4	--
287+92	TO	288+95	RT	70	12.5	--	--	--	1	39.4	--
287+92	TO	289+58	LT	70	75.0	--	--	--	1	39.4	--
327+76	TO	329+41	RT	70	75.0	--	--	--	1	39.4	--
328+38	TO	329+41	LT	70	12.5	--	--	--	1	39.4	--
329+78	TO	330+81	RT	70	12.5	--	--	--	1	39.4	--
329+78	TO	331+44	LT	70	75.0	--	--	--	1	39.4	--
407+22	TO	408+29	LT	70	12.5	--	--	--	1	39.4	--
407+20	TO	408+46	RT	70	87.5	--	--	62.50	1	39.4	--
409+49	TO	410+78	RT	70	37.5	--	--	--	1	39.4	--
409+32	TO	410+99	LT	70	75.0	--	--	--	1	39.4	--
693+19	TO	700+38	RT	590	--	--	612.5	--	2	--	--
695+43	TO	702+50	LT	440	--	--	600	--	2	--	--
1066+94	TO	1068+62	RT	70	75.0	--	--	--	1	39.4	--
1067+56	TO	1068+62	LT	70	12.5	--	--	--	1	39.4	--
1069+30	TO	1070+35	RT	70	12.5	--	--	--	1	39.4	--
1069+30	TO	1070+97	LT	70	75.0	--	--	--	1	39.4	--
ITEM TOTAL				2556	975	150	1213	63	24	630	16

MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 7510-02-62			618.0100
STATION		LOCATION	EACH
3+89 TO 1137+00		PROJECT	1
ITEM TOTAL			1

MOBILIZATION			619.1000
STATION		LOCATION	EACH
3+89 TO 1137+00		PROJECT	0.7
ITEM TOTAL			0.7

WATER			624.0100
STATION TO STATION		LOCATION	MGAL
3+89 TO 1137+00		SHOULDERS	50
ITEM TOTAL			50

SALVAGED TOPSOIL, MULCHING, FERTILIZING, & SEEDING							
STATION TO STATION		LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0171 SEEDING MIXTURE NO. 70A LBS	630.0200 SEEDING TEMPORARY LB
498+00 TO 501+00		LT	520	1373	0.7	2	15
498+75 TO 500+00		RT	180	319	0.2	1	0
UNDISTRIBUTED			100	108	0.1	1	5
ITEM TOTAL			800	1800	1	4	20

SILT FENCE				
STATION TO STATION		LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
50+52	53+77	B-27-005	990	990
285+81	289+58	B-27-119	910	910
327+76	331+44	B-27-120	860	860
407+22	410+99	B-27-007	880	880
498+00	501+00	CULVERT REPLACEMENT	630	630
693+19	702+50	GUARDRAIL	970	970
1066+94	1070+97	B-27-006	900	900
3+89 TO	1137+00	CULVERT END SECTIONS	760	760
UNDISTRIBUTED			600	600
ITEM TOTAL			7500	7500

MOBILIZATIONS EROSION CONTROL			
STATION TO STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT LIMITS	1510-02-60	2	2
ITEM TOTAL		2	2

EROSION MAT CLASS I TYPE B			628.2004
STATION TO STATION		LOCATION	SY
50+52	53+77	B-27-005	860
285+81	289+58	B-27-119	770
327+76	331+44	B-27-120	565
407+22	410+99	B-27-007	690
498+00	501+00	CULVERT REPLACEMENT	830
693+19	702+50	GUARDRAIL	665
1066+94	1070+97	B-27-006	380
3+89 TO	1137+00	CULVERT END SECTIONS	710
3+89 TO	1137+00	DITCH CLEANING	1220
UNDISTRIBUTED			610
ITEM TOTAL			7300

TEMPORARY DITCH CHECKS			628.7504
STATION TO STATION		LOCATION	LF
3+89 TO	1137+00	DITCH CLEANING	465
UNDISTRIBUTED			75
ITEM TOTAL			540

CULVERT PIPE CHECKS			628.7555
STATION TO STATION		LOCATION	EACH
499+38		CULVERT REPLACEMENT	6
3+89 TO	1137+00	CROSS PIPES	93
3+89 TO	1137+00	DRIVEWAYS	11
UNDISTRIBUTED			10
ITEM TOTAL			120

DELINEATORS FLEXIBLE			633.0200
STATION		LOCATION	EACH
736+25 TO	742+25	LT & RT	18
ITEM TOTAL			18

FIELD OFFICE TYPE B	642.5001
LOCATION	EACH
PROJECT	0.7
ITEM TOTAL	0.7

TRAFFIC CONTROL ITEMS			
LOCATION	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0310.S TEMPORARY PORTABLE RUMBLE STRIPS LS	643.0900 TRAFFIC CONTROL SIGNS DAY
SEE TRAFFIC CONTROL SHEETS	3200	1	3350
ITEM TOTAL	3200	1	3350

MARKING LINE EPOXY 4-INCH				646.1020
STATION	TO	STATION	LOCATION	LF
3+89	TO	1137+00	EDGE LINES	224658
3+89	TO	1137+00	CL	55632
ITEM TOTAL				280290

LOCATING NO-PASSING ZONES				648.0100
STATION	TO	STATION	LOCATION	MI
3+89	TO	1137+00	MAINLINE	21.41
ITEM TOTAL				21.41

TEMPORARY MARKING LINE PAINT 4-INCH				649.0105
STATION	TO	STATION	LOCATION	LF LF
3+89	TO	1137+00	YELLOW CL-LOWER AND UPPER LIFT	92730
ITEM TOTAL				92730

CONSTUCTION STAKING						
STATION	TO	STATION	LOCATION	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910 CONSTRUCTION STAKING SUPPLIMENTAL CONTROL (PROJECT) 7510-02-62 LS
3+89	TO	1137+00	PROJECT	1	111311	1
ITEM TOTAL				1	111311	1

SPECIAL 01. DITCH CLEANING		SPV.0090.01
STATION	LOCATION	LF
76+75	RT	25
77+10	RT	25
89+40	RT	25
89+70	RT	25
96+20	LT	25
114+71	RT	25
125+30	RT	25
127+70	LT	25
133+63	LT AND RT	50
140+46	RT	25
175+00	RT	25
175+60	RT	25
194+00	LT	25
194+60	RT	25
200+09	LT	25
224+10	LT AND RT	50
238+85	RT	25
353+48	RT	25
359+40	RT	25
382+49	LT AND RT	50
397+05	LT	25
449+50	LT AND RT	50
524+96	LT	25
543+93	LT	25
750+72	RT	25
918+41	LT AND RT	50
958+27	LT AND RT	50
963+47	LT AND RT	50
989+19	LT AND RT	50
963+47	LT AND RT	50
989+19	LT AND RT	50
1000+16	LT AND RT	50
1025+60	LT AND RT	50
1035+60	LT AND RT	50
1051+39	LT	25
1119+30	RT	25
1124+50	RT	25
1129+21	LT AND RT	50
ITEM TOTAL		1300

SPECIAL 01. REMOVING ASPHALTIC SURFACE MILLING LANE REPAIR				SPV.0180.01
STATION	TO	STATION	LOCATION	SY
3+89	TO	1137+00	UNDISTRIBUTED	3333
ITEM TOTAL				3333

SPECIAL 01. ASPHALTIC LANE REPAIR				SPV.0195.01
STATION	TO	STATION	LOCATION	TON
3+89	TO	1137+00	UNDISTRIBUTED	730
ITEM TOTAL				730

3

PERMANENT SIGNING													
SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	WIDTH (INCHES)	HEIGHT (INCHES)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0616 POSTS WOOD 4X6-INCH X 16 FT (EACH)	634.0618 POSTS WOOD 4X6-INCH X 18 FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
1001	3+88	LT	J12-1	ROUTE ASSEMBLY	24	45	7.50		1		1	1	
1002	5+48	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1003	6+23	LT	D7-68-R	EAST ARBUTUS CNTY PARK ARROW-RT	66	36	16.50		1	1	1	2	
1004	8+61	LT	D1-1	HATFIELD RIGHT ARROW	60	15	6.25		1	1	1	1	
1005	11+55	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1006	11+55	LT	I55-56	ADOPT A HIGHWAY	30	36	7.50				1	1	POST 1005
1007	13+30	LT	J1-1	ROUTE ASSEMBLY	24	39	6.50		1		1	1	
1008	14+80	RT	D7-68-R	WAZEE LAKE CNTY PARK ARROW-RT	66	36	16.50		1	1	1	2	
1009	15+73	RT	R1-1	STOP	30	30	5.18		1		1	1	
1010	15+95	LT	D7-68-L	WAZEE LAKE CNTY PARK ARROW-LT	66	36	16.50		1	1	1	2	
1011	19+98	LT	R1-1	STOP	30	30	5.18		1		1	1	
1012	19+90	RT	D5-64-L	HISTORICAL MARKER ARROW-LT	60	36	15.00		1	1	1	2	
1013	22+18	LT	D5-64-R	HISTORICAL MARKER ARROW-RT	60	36	15.00		1	1	1	2	
1014	25+42	LT	R5-1	DO NOT ENTER	30	30	6.25				1		POST 1015
1015	25+42	LT	R1-1	STOP	30	30	5.18		1		1	1	
1016	45+80	RT	R1-1	STOP	30	30	5.18		1		1	1	
1017	49+00	LT	D5-63	HISTORICAL MARKER	52	36	13.00		1	1	1	1	
1018	68+25	LT		WAZEE LAKE CNTY PARK 1 MILE							1	1	REMOVE ONLY
1019	81+90	RT	I55-56	ADOPT A HIGHWAY	30	36	7.50		1		1	1	
1020	82+72	LT	R1-1	STOP	30	30	5.18		1		1	1	
1021	83+12	RT	R1-1	STOP	30	30	5.18		1		1	1	
1022	148+60	LT	R1-1	STOP	30	30	5.18		1		1	1	
1023	175+55	RT	R1-1	STOP	30	30	5.18		1		1	1	
1024	189+04	LT	I55-56	ADOPT A HIGHWAY	30	36	7.50		1		1	1	
1025	229+74	LT	R1-1	STOP	30	30	6.25		1		1	1	
1026	254+88	LT	J4-1	ROUTE ASSEMBLY	24	36	6.00		1		1	1	
1027	255+33	RT	J4-1	ROUTE ASSEMBLY	24	36	6.00		1		1	1	
1028	362+55	LT	R1-1	STOP	30	30	5.18		1		1	1	
1030	392+13	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1031	403+54	RT	J2-1	JUNCTION ASSEMBLY	24	60	10.00		1		1	1	
1032	407+28	RT	R1-1	STOP	30	30	5.18		1		1	1	
1033	407+79	LT	I55-56	ADOPT A HIGHWAY	30	36	7.50		1		1	1	
1034	408+25	LT	W5-52L	CLEARANCE STRIPER DOWN-LT	12	36		3.00	1		1	1	
1035	408+45	RT	W5-52R	CLEARANCE STRIPER DOWN-RT	12	36		3.00	1		1	1	
1036	409+35	LT	W5-52R	CLEARANCE STRIPER DOWN-RT	12	36		3.00	1		1	1	
1037	409+50	RT	W5-52L	CLEARANCE STRIPER DOWN-LT	12	36		3.00	1		1	1	
1038	412+25	RT		CRAWFORD HILLS CNTY PARK 1 MILE							1	2	REMOVE ONLY
1039	417+00	LT	J2-1	JUNCTION ASSEMBLY	24	60	10.00		1		1	1	
SUB-TOTAL							245.30	28.68	35	7	39	44	

PERMANENT SIGNING													
SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	WIDTH (INCHES)	HEIGHT (INCHES)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0616 POSTS WOOD 4X6-INCH X 16 FT (EACH)	634.0618 POSTS WOOD 4X6-INCH X 18 FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
1040	422+72	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1041	425+50	LT	R1-1	STOP	30	30	5.18		1		1	1	
1042	455+58	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1043	466+10	RT	D7-68-L	CRAWFORD HILLS CNTY PARK ARROW-LT	72	36	18.00		1	1	1	2	
1044	467+50	LT	D7-68-R	CRAWFORD HILLS CNTY PARK ARROW-RT	72	36	18.00		1	1	1	2	
1045	486+65	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1046	510+91	LT	J4-1	ROUTE ASSEMBLY	24	36	6.00		1		1	1	
1047	511+07	RT	J4-1	ROUTE ASSEMBLY	24	36	6.00		1		1	1	
1048	518+90	LT		CRAWFORD HILLS CNTY PARK 1 MILE							1	2	REMOVE ONLY
1049	520+93	LT	I55-56	ADOPT A HIGHWAY	30	36	7.50		1		1	1	
1050	569+38	LT	R1-1	STOP	30	30	5.18		1		1	1	
1051	593+90	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1052	596+60	RT		MERLIN LAMBERT CNTY PARK 1 MILE							1	2	REMOVE ONLY
1053	613+39	RT	D1-1	PRAY ARROW LEFT	48	15	5.00		1		1	1	
1054	613+39	RT	W14-3	NO PASSING ZONE	48	36		5.56			1		POST 1053
1055	621+40	LT	R1-1	STOP	30	30	5.18		1		1	1	
1056	626+47	LT	D1-1	PRAY ARROW RIGHT	48	15	5.00		1		1	1	
1057	649+40	RT	D7-68-R	MERLIN LAMBERT CNTY PARK ARROW-RT	78	36	19.50		1	1	1	2	
1058	651+05	LT	R1-1	STOP	30	30	5.18		1		1	1	
1059	651+66	RT	R1-1	STOP	30	30	5.18		1		1	1	
1060	653+00	LT	D7-68-L	MERLIN LAMBERT CNTY PARK ARROW-LT	78	36	19.50		1	1	1	2	
1061	667+48	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1062	700+92	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1063	701+92	LT		MERLIN LAMBERT CNTY PARK 1 MILE							1	2	REMOVE ONLY
1064	716+50	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1065	766+90	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1066	771+41	RT	R1-1	STOP	30	30	5.18		1		1	1	
1067	799+57	RT	D7-68	SPAULDING POND CNTY PARK 1 MILE							1	2	REMOVE ONLY
1068	800+54	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1069	828+00	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1070	851+48	RT	D7-68-L	SPAULDING POND CNTY PARK ARROW-LT	78	36	19.50		1	1	1	2	
1071	852+43	LT	R1-1	STOP	30	30	5.18		1		1	1	
1072	853+58	LT	D7-68-R	SPAULDING POND CNTY PARK ARROW-RT	78	36	19.50		1	1	1	2	
1073	854+55	RT	I55-56	ADOPT A HIGHWAY	30	36	7.50		1		1	1	
1074	905+45	LT		SPAULDING POND CNTY PARK 1 MILE							1	2	REMOVE ONLY
1075	957+71	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1076	975+05	LT	R1-1	STOP	30	30	5.18		1		1	1	
1077	975+55	RT	R1-1	STOP	30	30	5.18		1		1	1	
1078	992+50	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1079	1016+12	LT	R1-1	STOP	30	30	5.18		1		1	1	
SUB-TOTAL							202.80	72.28	34	6	40	50	

3

PERMANENT SIGNING													
SIGN NUMBER	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	WIDTH (INCHES)	HEIGHT (INCHES)	637.2210 SIGNS TYPE II REFLECTIVE H (SF)	637.2230 SIGNS TYPE II REFLECTIVE F (SF)	634.0616 POSTS WOOD 4X6-INCH X 16 FT (EACH)	634.0618 POSTS WOOD 4X6-INCH X 18 FT (EACH)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)	REMARKS
1080	1016+45	RT	R1-1	STOP	30	30	5.18		1		1	1	
1081	1028+57	RT	J4-1	ROUTE ASSEMBLY	24	36	6.00		1		1	1	
1082	1068+63	LT	W5-52L	CLEARANCE STRIPER DOWN-LT	12	36		3.00	1		1	1	
1083	1068+63	RT	W5-52R	CLEARANCE STRIPER DOWN-RT	12	36		3.00	1		1	1	
1084	1069+29	LT	W5-52L	CLEARANCE STRIPER DOWN-LT	12	36		3.00	1		1	1	
1085	1069+29	RT	W5-52R	CLEARANCE STRIPER DOWN-RT	12	36		3.00	1		1	1	
1086	1077+58	RT	W10-2	RAILROAD AT INTERSECTION LEFT	36	36	9.00		1		1	1	
1087	1084+53	LT	R1-1	STOP	30	30	5.18		1		1	1	
1088	1084+83	RT	R1-1	STOP	30	30	5.18		1		1	1	
1089	1091+95	LT	W10-2	RAILROAD AT INTERSECTION RIGHT	36	36	9.00		1		1	1	
1090	1100+56	RT	W3-5	SPEED REDUCTION AHEAD 45 MPH	36	36	9.00		1		1	1	
1091	1103+93	LT	D2-1	BLACK RIVER FALLS 27	114	15	11.88		1	1	1	2	
1092	1104+09	RT	I2-3	CITY POINT UNINCORPORATED	72	24	12.00		1	1	1	1	
1093	1105+55	LT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1094	1108+04	LT	R2-1	SPEED LIMIT 45	24	30	5.00		1		1	1	
1095	1108+09	RT	R2-1	SPEED LIMIT 45	24	30	5.00		1		1	1	
1096	1110+14	LT	J4-1	ROUTE ASSEMBLY	24	36	6.00		1		1	1	
1097	1110+55	RT	R1-1	STOP	30	30	5.18		1		1	1	
1098	1110+80	LT	R1-1	STOP	30	30	5.18		1		1	1	
1099	1118+52	RT	R2-1	SPEED LIMIT 45	24	30	5.00		1		1	1	
1100	112234	LT	R1-1	STOP	30	30	5.18		1		1	1	
1101	1122+95	LT	R2-1	SPEED LIMIT 45	24	30	5.00		1		1	1	
1102	1124+81	RT	J1-1	ROUTE ASSEMBLY	24	39	6.50		1		1	1	
1103	1126+34	RT	W14-3	NO PASSING ZONE	48	36		5.56	1		1	1	
1104	1132+57	RT	R2-1	SPEED LIMIT 55	24	30	5.00		1		1	1	
1105	1132+51	LT	R2-1	SPEED LIMIT 45	24	30	5.00		1		1	1	
1106	1132+51	LT	I2-3	CITY POINT UNINCORPORATED	72	24	12.00		1	1	1	1	
1107	1135+04	LT	I2-2	JACKSON CO	66	15	6.88		1	1	1	1	
1108	1135+04	LT	I55-56	ADOPT A HIGHWAY	30	36	7.50		1		1	1	
1109	1135+30	RT	J12-1	ROUTE ASSEMBLY	24	45	7.50		1		1	1	
1110	1135+44	LT	J12-1	ROUTE ASSEMBLY	24	45	7.50		1		1	1	
1111	1135+73	LT	R1-1	STOP	30	30	5.18		1		1	1	
1112	1136+31	RT	R1-1	STOP	30	30	5.18		1		1	1	
SUB-TOTAL							182.19	23.12	33	4	33	34	
GRAND TOTAL							630.29	124.08	102	17	112	128	

CP110
3/4-IN REBAR
STA 2+33.21, 99.33 LT
Y = 111804.600
X = 114207.378
ELEV = 879.910

CP58
BRONZE DISK IN CONC
STA 3+89.09, 70.18 LT
Y = 111777.422
X = 114363.612
ELEV = 882.110

N

CTH K

POST

POST

CP110

EXIST R/W

POST

CP58

STH 54, STA 15+50
N BROCKWAY RD

2 4 6 8 N89° 16' 41"E 10 12 14 16

10029.20'

AGG FE

CP111

MILLING LIMITS

POST

EXIST R/W

N BROCKWAY RD

5

MATCH PROJECT 7510-02-60

BEGIN PROJECT
STA 3+89.00
Y = 111707.242
X = 114364.411
MILLING LIMITS

CP111
3/4-IN REBAR
STA 3+48.96, 64.77 RT
Y = 111641.971
X = 114325.187
ELEV = 883.900

5

CP57
MAG NAIL IN ASPHALT
STA 25+74.70, 22.30 LT
Y = 111757.083
X = 116549.659
ELEV = 888.236

N

STA 20+61 LT
(1) CLEANING CULVERT PIPES

STA 25+72 LT
(1) CLEANING CULVERT PIPES

EXIST R/W

MILLING LIMITS

ASPH CE

MILLING LIMITS

ASPH CE

CP57

18 20 22 24 26 28 N89° 16' 41"E 30 32

10029.20'

AGG FE

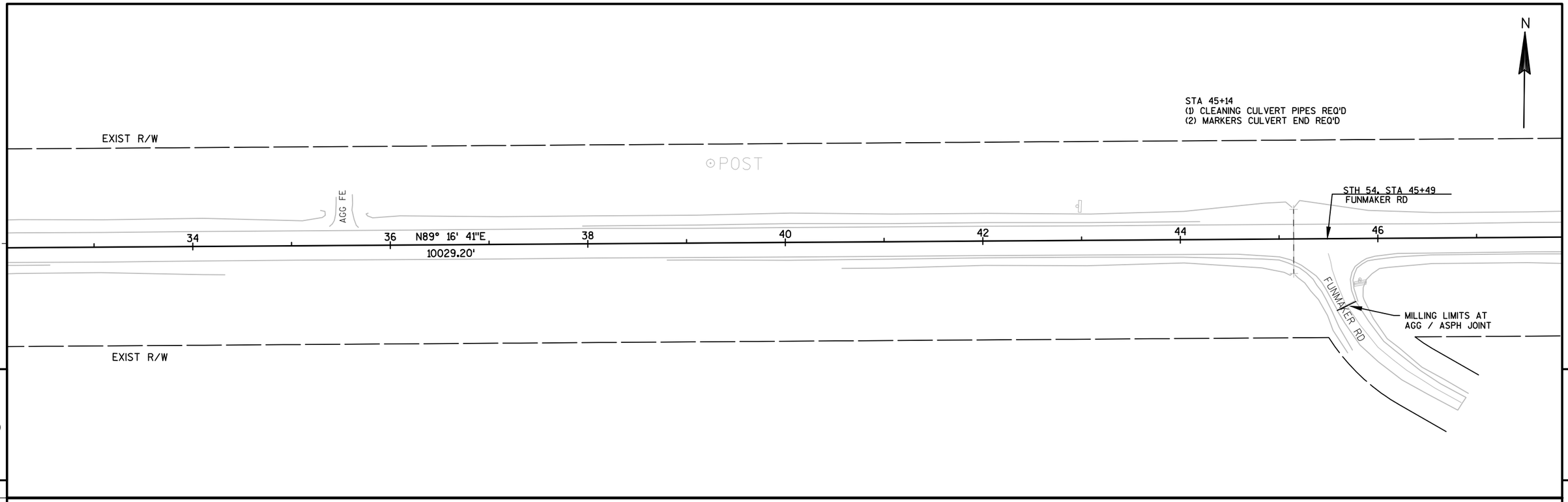
STA 29+57 RT
RESTORE AGG FE

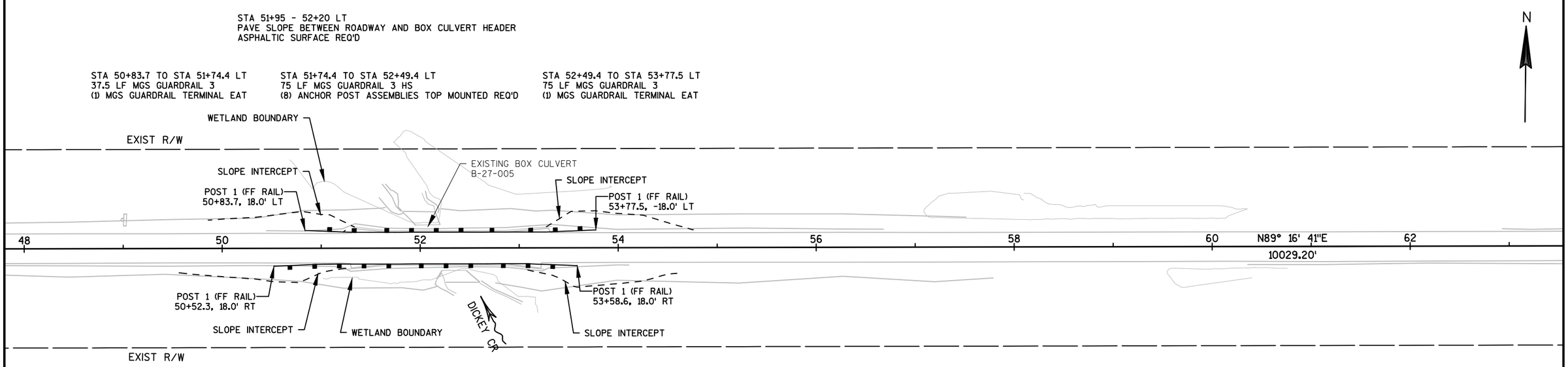
STA 24+17
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

DITCH CLEANING REQ'D

EXIST R/W

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 68	E





PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 69	E

N

EXIST R/W

STA 76+86 LT
REPLACE CULVERT PIPE
(1) REMOVING SMALL PIPE CULVERTS
32 LF - CP CLASS III-A 18-INCH REQ'D
(2) AEW FOR CP STEEL 18-INCH REQ'D
RESTORE AGG FE

AGG FE

STH 54 64 66 68 N89° 16' 41"E 70 72 74 76 78

10029.20'

DITCH CLEANING REQ'D

AGG FE

STA 76+86 RT
(1) CLEANING CULVERT PIPES
RESTORE AGG FE

EXIST R/W

5

5

N

EXIST R/W

POST POST

KORANDA RD

STA 86+20
REPLACE END SECTIONS OF CULVERT PIPE (8' LT & 16' RT)
(2) REMOVING SMALL PIPE CULVERTS
24 LF - CPRC CLASS III 24-INCH REQ'D
(2) CONCRETE COLLARS REQ'D
(2) MARKERS CULVERT END REQ'D

STA 92+74
REPLACE END SECTION OF CULVERT PIPE (16' RT)
(1) REMOVING SMALL PIPE CULVERTS
16 LF - CPRC CLASS III 24-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

EXIST R/W

POST POST

MILLING LIMITS

STA 83+01 LT
(1) CLEANING CULVERT PIPES

DITCH CLEANING REQ'D

DITCH CLEANING REQ'D

AGG FE

STA 89+70 LT
(1) CLEANING CULVERT PIPES
RESTORE AGG FE

STH 54, STA 83+00
KORNADA RD

STH 54 80 82 84 88 90 92 94

STH 54, STA 82+92
FUNMAKER RD

FUNMAKER RD

CP56

DITCH CLEANING REQ'D

AGG FE

STA 89+70 RT
RESTORE AGG FE

EXIST R/W

EXIST R/W

CP56
3/4-IN REBAR WITH ORANGE CAP
STA 83+38.12, 42.09 RT
Y = 111765.317
X = 122313.426
ELEV = 893.740

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 70	E

STA 96+05 LT
(1) CLEANING CULVERT PIPES
RESTORE AGG FE

STA 100+84
REPLACE END SECTION OF CULVERT PIPE (8' RT)
(2) REMOVING SMALL PIPE CULVERTS
8 LF - CPRC CLASS III 24-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

N

EXIST R/W

POST

AGG FE

DITCH CLEANING REQ'D

STH 54 96 N88° 10' 30"E 98 100 102 104 N89° 15' 01"E 106 108 110

56.62'

12937.54'

AGG FE

EXIST R/W

5

5

N

STA 118+33
REPLACE END SECTIONS OF CULVERT PIPE (8' LT & 8' RT)
(2) REMOVING SMALL PIPE CULVERTS
16 LF - CPRC CLASS III 30-INCH REQ'D
(2) CONCRETE COLLARS REQ'D
(2) MARKERS CULVERT END REQ'D

EXIST R/W

STH 54 112 114 116 118 120 122 124 126

DITCH CLEANING REQ'D

AGG FE

STA 114+92 RT
(1) CLEANING CULVERT PIPES
RESTORE AGG FE

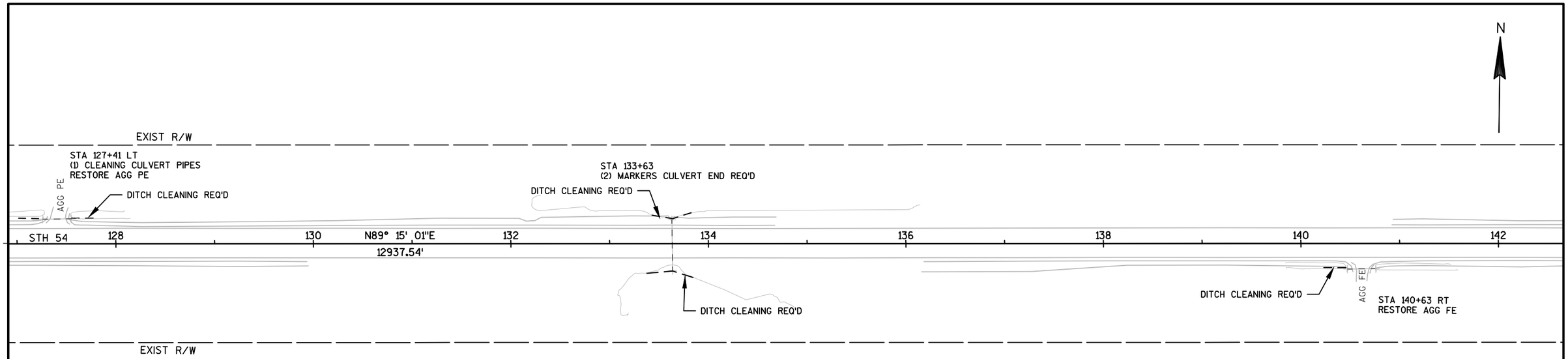
DITCH CLEANING REQ'D

AGG PE

STA 125+50 RT
(1) CLEANING CULVERT PIPES
RESTORE AGG PE

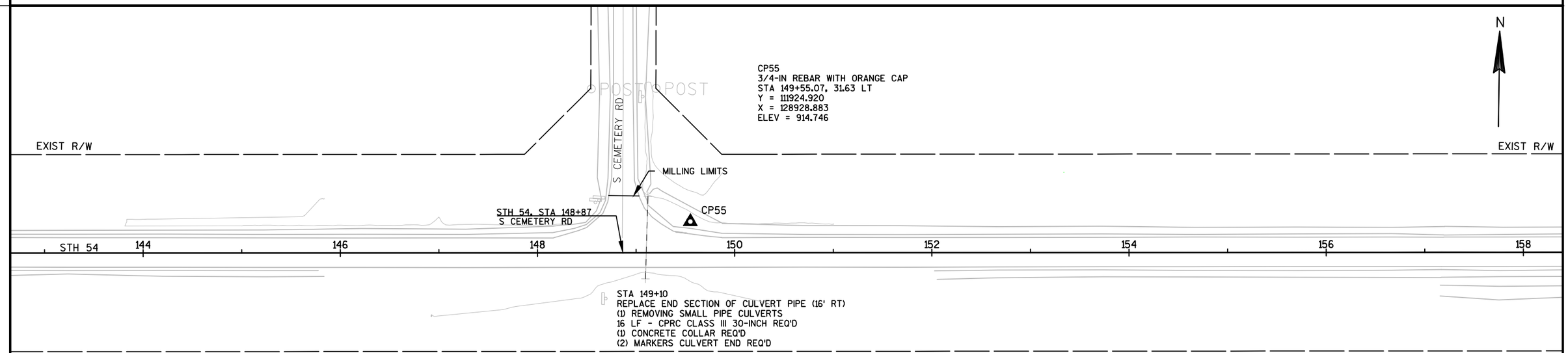
EXIST R/W

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 71	E



5

5



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 72	E

N

EXIST R/W

STA 162+09 LT
(1) CLEANING CULVERT PIPES
RESTORE AGG FE

AGG FE

STH 54 158 160 162 164 166 N89° 15' 01"E 168 170 172

12937.54'

AGG FE

STA 159+90 RT
(1) CLEANING CULVERT PIPES
RESTORE AGG FE

STA 164+11
REPLACE END SECTIONS OF CULVERT PIPE (16' RT & 16' LT)
(2) REMOVING SMALL PIPE CULVERTS
32 LF - CPRC CLASS III 30-INCH REQ'D
(2) CONCRETE COLLARS REQ'D
(2) MARKERS CULVERT END REQ'D

EXIST R/W

5

5

N

STA 184+11
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

EXIST R/W

STA 174+03 LT
(1) CLEANING CULVERT PIPES
RESTORE AGG FE

DITCH CLEANING REQ'D

AGG FE

STH 54, STA 175+29
WILDCAT RD

172 174 176 178 180 182 184 186 STH 54

WILDCAT RD

DITCH CLEANING REQ'D

DITCH CLEANING REQ'D

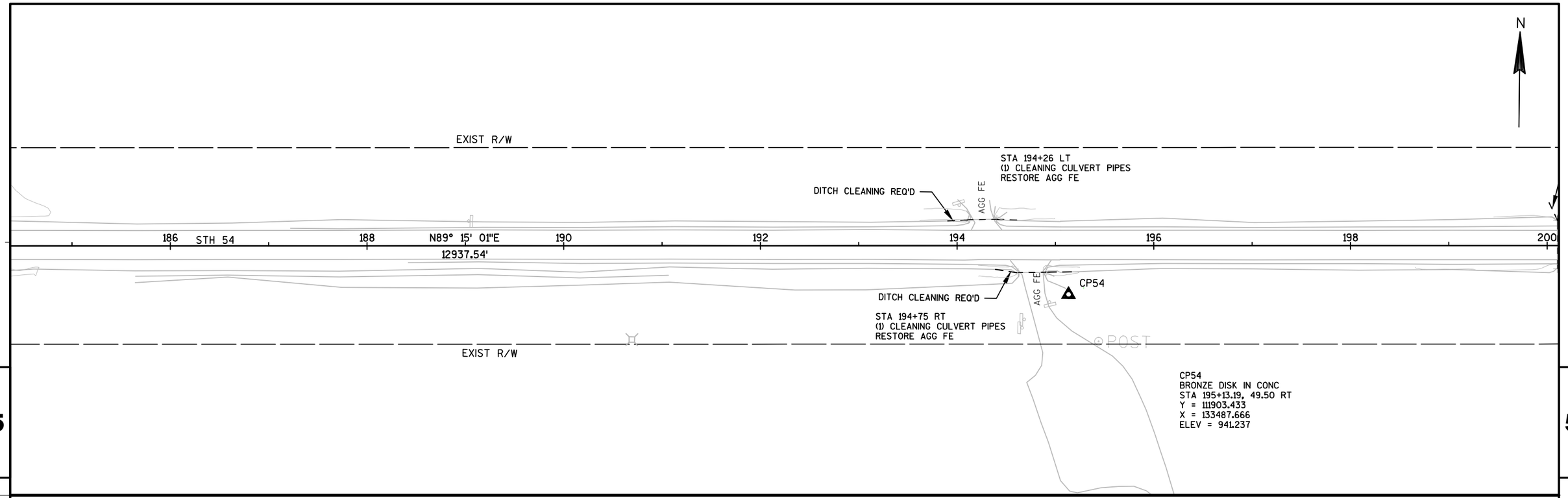
MILLING LIMITS

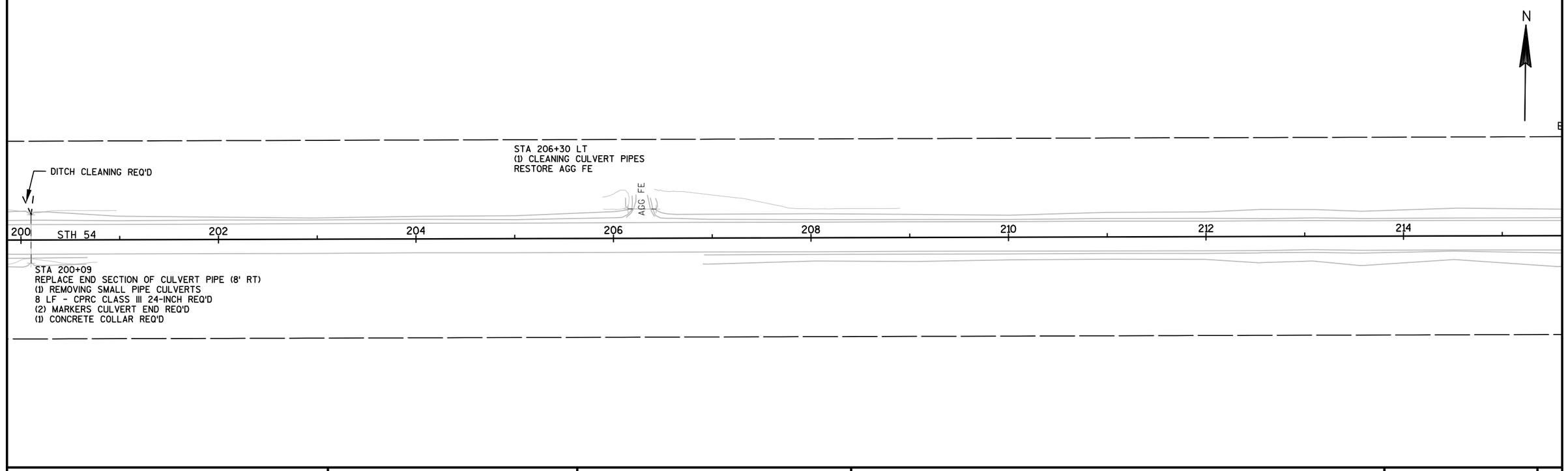
EXIST R/W

EXIST R/W

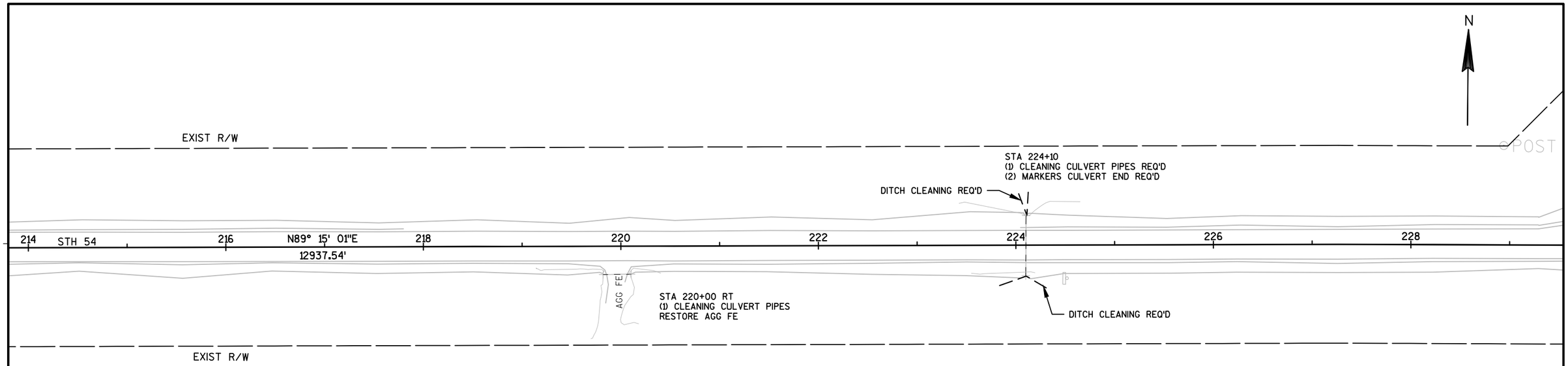
STA 175+30 RT
REPLACE APRON ENDWALLS
(2) REMOVING APRON ENDWALLS
(2) AEW FOR CP STEEL 18-INCH REQ'D
(1) CLEANING CULVERT PIPES REQ'D

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 73	E



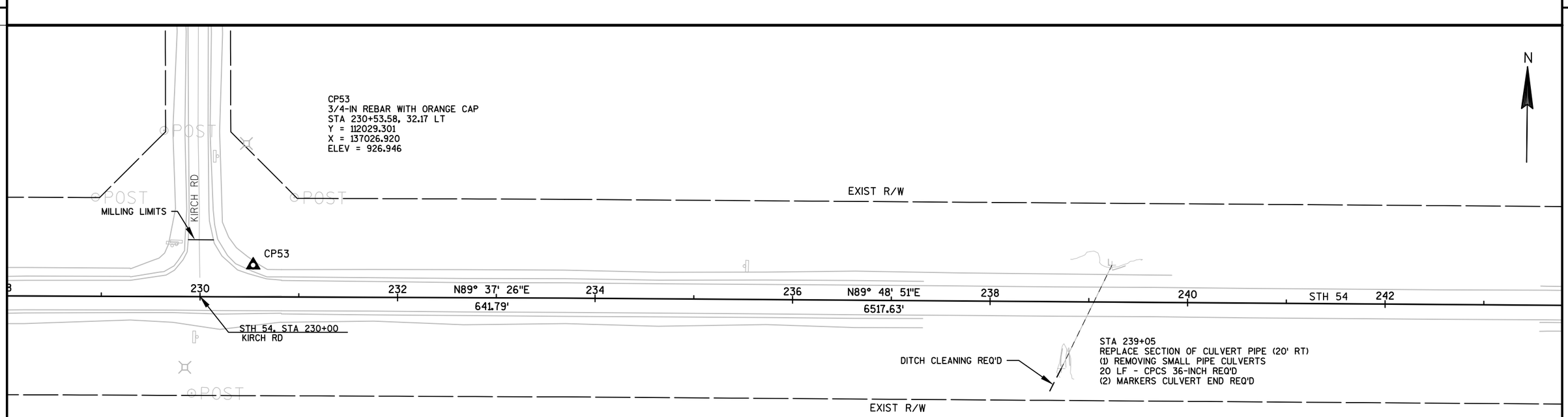


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 74	E



5

5



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 75	E

N

EXIST R/W

STA 255+40 LT
RESTORE AGG FE

AGG FE

242 244 N89° 48' 51"E 246 248 250 252 STH 54 254 256

6517.63'

EXIST R/W

5

5

N

STA 264+09
REPLACE END SECTION OF CULVERT PIPE (16' LT)
(1) REMOVING SMALL PIPE CULVERTS
16 LF - CPRC CLASS III 24-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

EXIST R/W

258 STH 54 260 262 264 266 268 270 272

EXIST R/W

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 76	E

N

EXIST R/W

STA 273+66 LT
RESTORE AGG FE

AGG FE

STH 54 270 272 274 N89° 48' 51"E 276 278 280 282 284

6517.63'

STA 284+68 RT
RESTORE AGG FE

EXIST R/W

5

5

N

STA 286+44.3 TO STA 287+47.4 LT
12.5 LF MGS GUARDRAIL 3
39.4 LF MGS THRIE BEAM TRANSITION
(1) MGS GUARDRAIL TERMINAL EAT

STA 287+92.6 TO STA 289+58.2 LT
75 LF MGS GUARDRAIL 3
39.4 LF MGS THRIE BEAM TRANSITION
(1) MGS GUARDRAIL TERMINAL EAT

EXIST R/W

SLOPE INTERCEPT
POST 1 (FF RAIL)
286+44.3, 20.0' LT

TOWN LINE
FLOWAGE

SLOPE INTERCEPT
POST 1 (FF RAIL)
289+58.2, -20.0' LT

284 286 288 290 292 294 N89° 48' 51"E 296 STH 54 298

6517.63'

AGG FE

STA 284+68 RT
RESTORE AGG FE

SLOPE INTERCEPT

POST 1 (FF RAIL)
285+81.8, 20.0' RT

EXCEPTION TO NET LENGTH
STRUCTURE B-27-119
STA 287+47 - STA 287+93

POST 1 (FF RAIL)
288+95.7, 20.0' RT

SLOPE INTERCEPT

EXIST R/W

STA 285+81.8 TO STA 287+47.4 RT
75 LF MGS GUARDRAIL 3
39.4 LF MGS THRIE BEAM TRANSITION
(1) MGS GUARDRAIL TERMINAL EAT

STA 287+92.6 TO STA 288+95.7 RT
12.5 LF MGS GUARDRAIL 3
39.4 LF MGS THRIE BEAM TRANSITION
(1) MGS GUARDRAIL TERMINAL EAT

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 77	E

N

EXIST R/W

298 STH 54 300 302 N89° 50' 59"E 304 306 308 310 312

2790.92'

AGG FE

CP52

STA 309+71 RT
RESTORE AGG FE

EXIST R/W

CP52
3/4-IN REBAR WITH ORANGE CAP
STA 310+10.44, 38.78 RT
Y = 111984.496
X = 144984.047
ELEV = 924.579

5

5

N

EXIST R/W

312 STH 54 314 316 318 320 322 N89° 50' 59"E 324 326

2790.92'

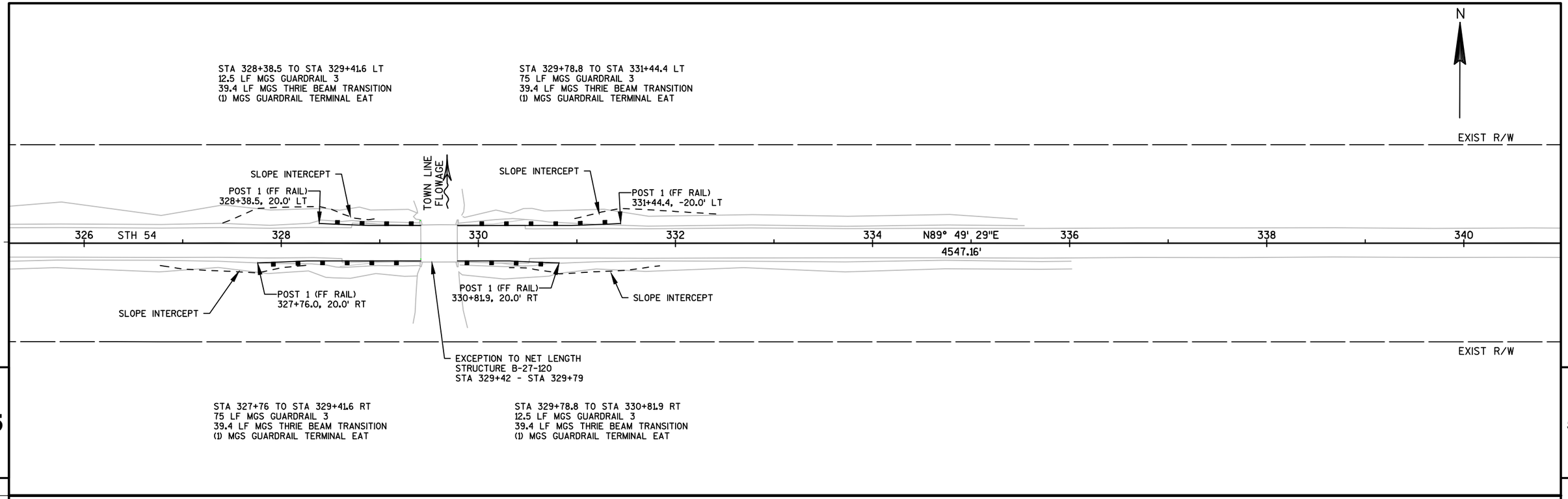
AGG FE

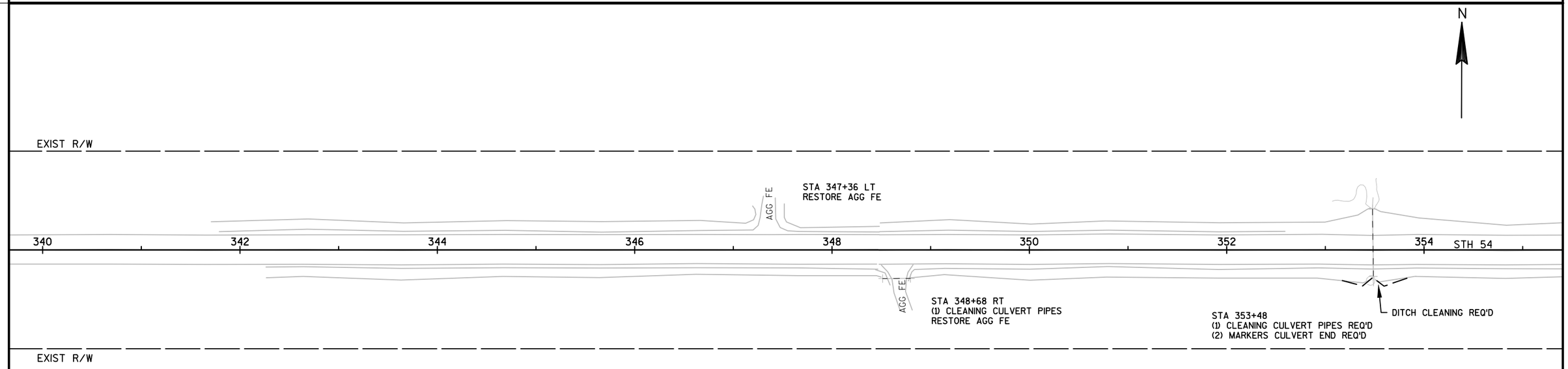
STA 324+49 RT
RESTORE AGG FE

EXIST R/W

AP

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 78	E





PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 79	E

CP51
3/4-IN REBAR WITH ORANGE CAP
STA 363+15.96, 54.78 LT
Y = 112093.555
X = 150289.274
ELEV = 925.190

N

EXIST R/W

EXIST R/W

E STAFFON RD

POST

POST

POST

MILLING LIMITS AT
AGG / ASPH JOINT

CP51

STH 54, STA 362+80
E STAFFON RD

354 STH 54 356 N89° 49' 29"E 358 360 362 364 366 368

4547.16'

AGG FE

DITCH CLEANING REQ'D

STA 359+20 RT
(1) CLEANING CULVERT PIPES
RESTORE AGG FE

REQ'D
EQ'D

EXIST R/W

5

5

N

IST R/W

EXIST R/W

368 370 N89° 49' 29"E 372 374 N89° 50' 35"E 376 378 380 STH 54 382

4547.16'

2736.34'

EXIST R/W

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET 80	E

N

STA 382+49
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

EXIST R/W

DITCH CLEANING REQ'D

STH 54 382 384 386 388 390 N89° 50' 35"E 392 394

2736.34'

DITCH CLEANING REQ'D

EXIST R/W

5

5

PI STA = 404+53.99
Y = 112050.404
X = 154427.452
DELTA = 14°07'52"
D = 1°26'23"
T = 493.31'
L = 981.61'
R = 3980.00'
PC STA = 399+60.68
Y = 112049.052
X = 153934.144
PT STA = 409+42.29
Y = 112172.152
X = 154905.503
BK = N89°50'35.0"E
AH = N75°42'42.5"E
SE = 3.2%

N

STA 407+22.8 TO STA 408+29.0 LT
12.5 LF MGS GUARDRAIL 3
39.4 LF MGS THRIE BEAM TRANSITION
(1) MGS GUARDRAIL TERMINAL EAT

EXIST R/W

STH 54 396 398 N89° 50' 35"E 400 402 404 406 408 410

2736.34'

DITCH CLEANING REQ'D

AGG FE

AGG FE

BP: 409+42.29

POST 1 (FF RAIL)
407+22.8, -18.0' LT

SLOPE INTERCEPT

POST 1 (FF
410+99.6, -18.0

STH 54, STA 406+99
N SETTLEMENT RD

PT: 72+94.50'NS

END RAD
STA 407+45.1,
18' RT

34' RAD

EXISTING STRUCTURE
B-27-007

STA 397+05
REPLACE END SECTIONS OF CULVERT PIPE (8' LT & 8' RT)
(2) REMOVING SMALL PIPE CULVERTS
16 LF - CPCS CLASS III 24-INCH REQ'D
(2) AEW FOR CPCS 24-INCH REQ'D
(2) MARKERS CULVERT END REQ'D

CP50
ALUM DISK ON CONC POST
STA 406+61.37, 82.79 RT
Y = 112031.014
X = 154645.772
ELEV = 930.619

MILLING LIMITS

CP50

BEGIN RAD
STA 72+45.6'NS,
12' RT

SLOPE INTERCEPT

MORRISON CREEK

N SETTLEMENT RD

SW21

POST

POST

STA 407+20 TO STA 408+46 RT
39.4 LF MGS THRIE BEAM TRANSITION
87.5 LF MGS GUARDRAIL 3
62.5 LF MGS GUARDRAIL SHORT RADIUS
(64' RAD - 10 CRT POSTS)
(1) MGS GUARDRAIL TERMINAL EAT

PC: 72+07.84'NS

POST 1 (FF RAIL)
71+64.8'NS, 14.0' RT

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEET	SHEET	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\051001_PLN_STH54_75100202.DWG PLOT DATE : 8/1/2018 12:50 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 44

STA 409+32 TO STA 410+99.6 LT
75 LF MGS GUARDRAIL 3
39.4 LF MGS THRIE BEAM TRANSITION
(1) MGS GUARDRAIL TERMINAL EAT

EXCEPTION TO NET LENGTH
STRUCTURE B-27-007
STA 408+38 - STA 409+42

PI STA = 412+37.34
Y = 112247.186
X = 155190.879
DELTA = 8°41'13"
D = 1°28'30"
T = 295.05'
L = 588.97'
R = 3884.63'
PC STA = 409+42.29
Y = 112172.065
X = 154905.550
PT STA = 415+40.66
Y = 112364.541
X = 155461.590
BK = N75°14'59.8"E
AH = N66°33'46.6"E
SE = 3.3%

BP: 409+42.29

EXIST R/W

POST 1 (FF RAIL)
410+99.6, -18.0' LT

SLOPE INTERCEPT

410 412 414 416 418 420 422 424

MILLING LIMITS

POST 1 (FF RAIL)
410+78.7, 18.0' RT

SLOPE INTERCEPT

MORRISON CREEK

EXIST R/W

PT: 415+40.66

N66° 33' 47"E
1036.34'

STH 54

STA 423+03
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

STA BACK = 415+29.30
STA AHEAD = 415+38.70

STA 409+49 TO STA 410+78.7 RT
37.5 LF MGS GUARDRAIL 3
39.4 LF MGS THRIE BEAM TRANSITION
(1) MGS GUARDRAIL TERMINAL EAT

5

5

CP501
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 424+81.32, 40.81 LT
Y = 112776.120
X = 156308.408
ELEV = 928.950

WATERBURY RD

PI: 425+77.00

MILLING LIMITS AT
AGG / ASPH JOINT

CP501

STH 54 424 426 428 430 432 434 436 438

N66° 33' 47"E
1036.34'

N66° 32' 58"E
3783.60'

STH 54, STA 425+77
WATERBURY RD

CF RD 270

STA 427+25 RT
RESTORE AGG FE

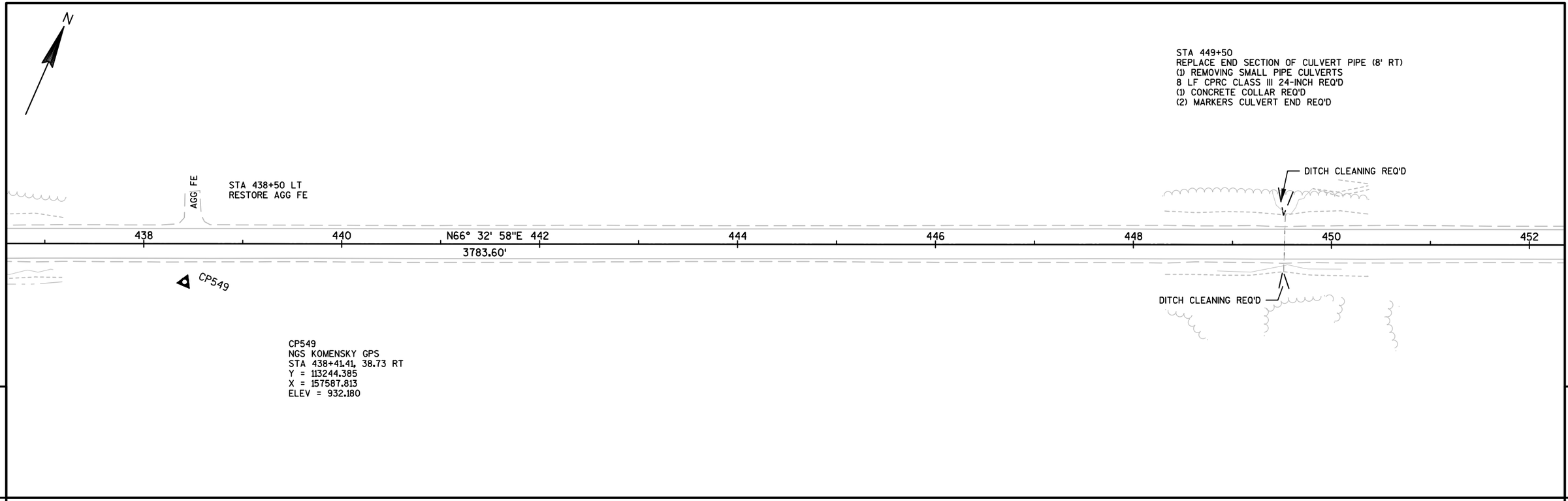
AGG FE

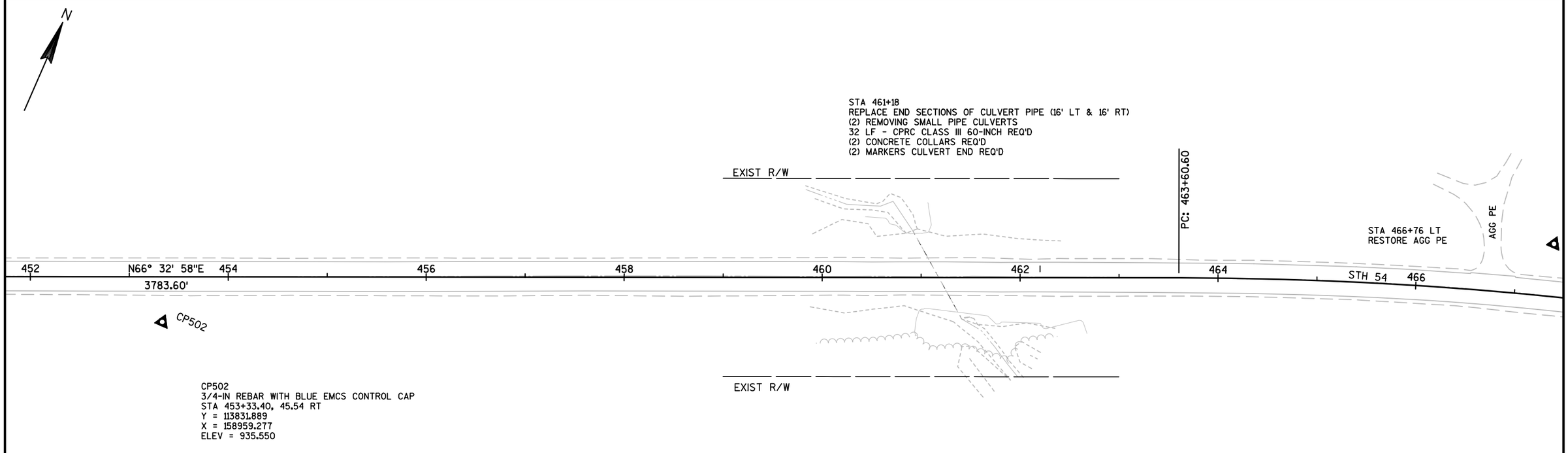
CP54

STA 436+03
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

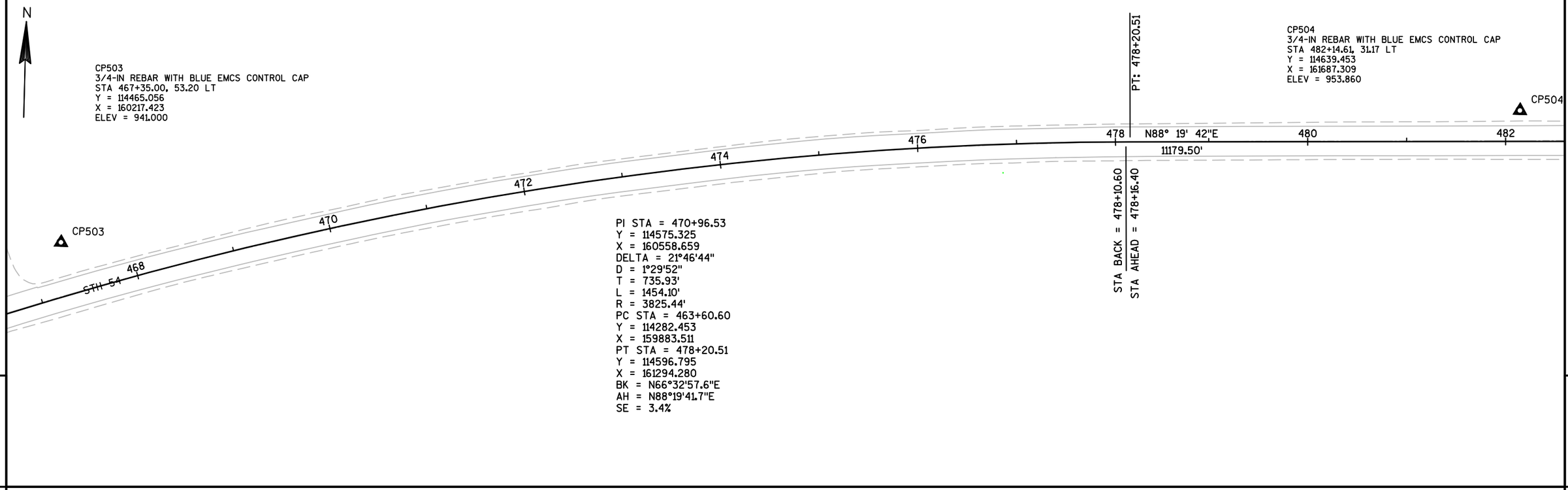
PI STA: 425+77.00
Y = 112776.736
X = 156412.428
DELTA = 0°00'49"
BK = N66°33'46.59"E
AH = N66°32'57.60"E

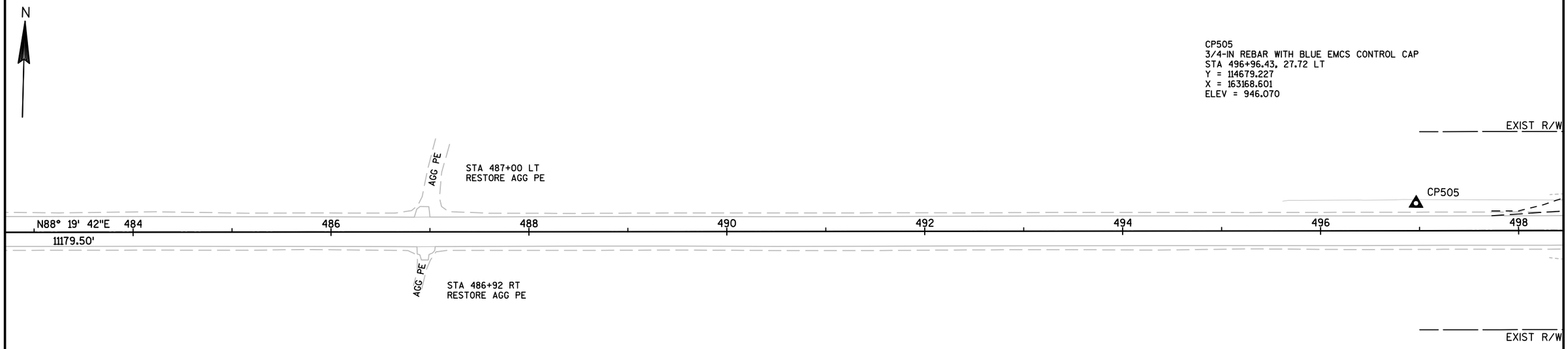
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 82	E





PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 83	E

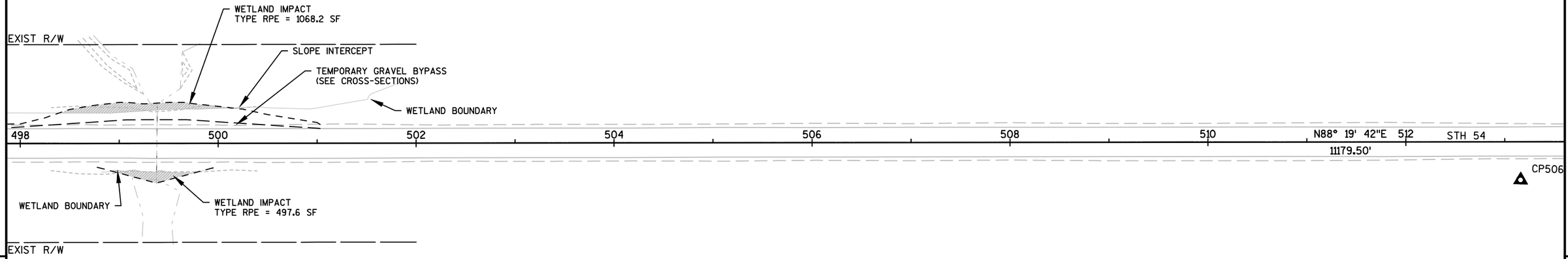




PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 84	E

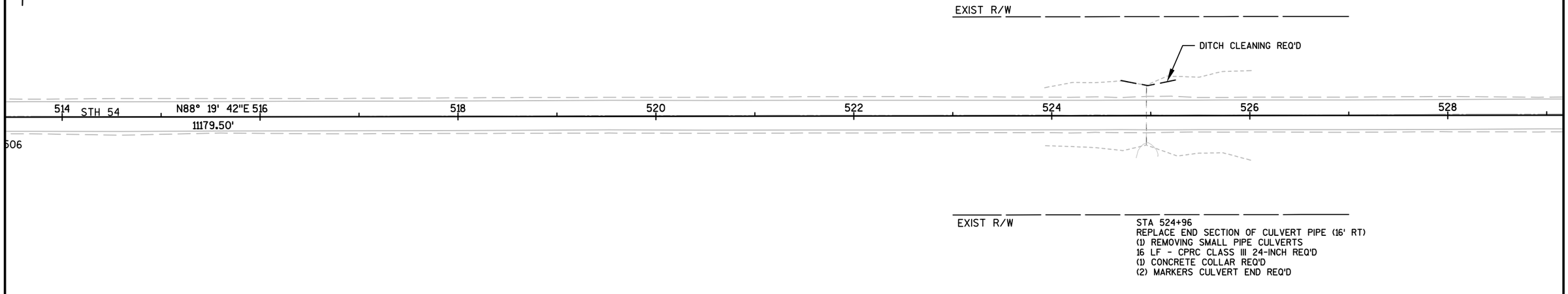
N

STA 499+38
REPLACE CULVERT PIPE
(1) REMOVING SMALL PIPE CULVERTS
80 LF - CPRC CLASS III 60-INCH REQ'D
(2) AEW CPRC CLASS III 60-INCH REQ'D
(2) MARKERS CULVERT END REQ'D



CP506
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 513+15.92, 38.54 RT
Y = 114660.244
X = 164789.334
ELEV = 950.010

N



STA 524+96
REPLACE END SECTION OF CULVERT PIPE (16' RT)
(1) REMOVING SMALL PIPE CULVERTS
16 LF - CPRC CLASS III 24-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 85	E

N

DITCH CLEANING REQ'D

530 532 534 536 538 540 STH 54 542 N88° 19' 42"E 544

11179.50'

CP507

STA 543+93
(2) MARKERS CULVERT END REQ'D

CP507
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 529+44.68, 40.55 RT
Y = 114705.753
X = 166417.456
ELEV = 985.700

5

5

N

CP508
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 546+49.70, 49.86 LT
Y = 114845.861
X = 168119.116
ELEV = 996.130

AGG FE

STA 550+81 LT
RESTORE AGG FE

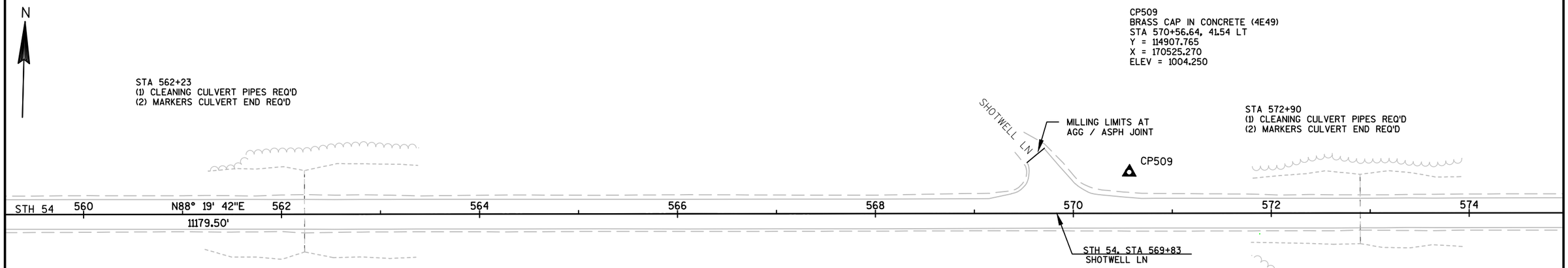
STH 54 546 N88° 19' 42"E 548 550 552 554 556 558

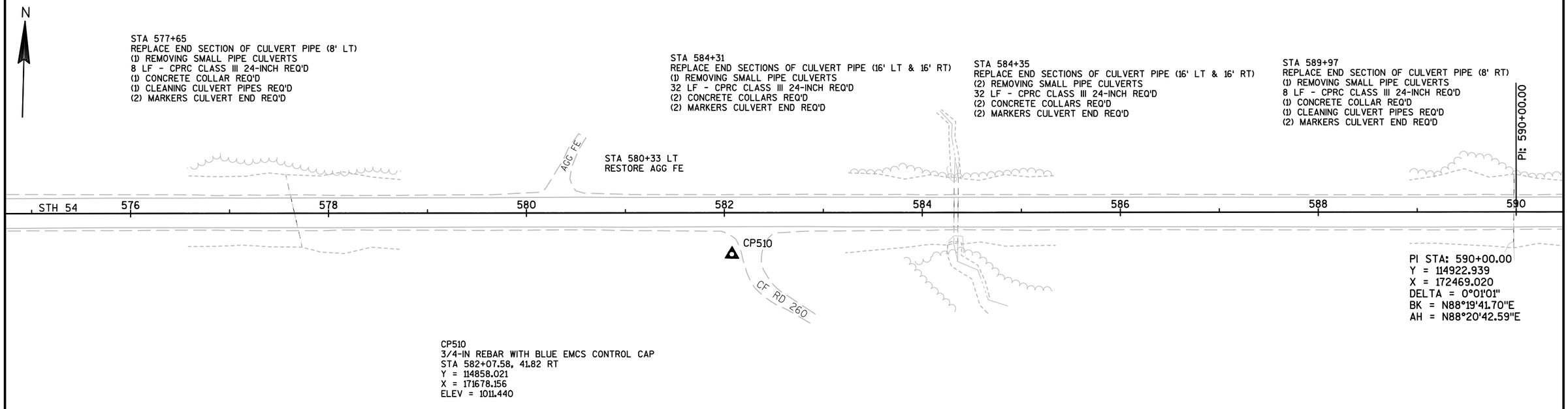
11179.50'

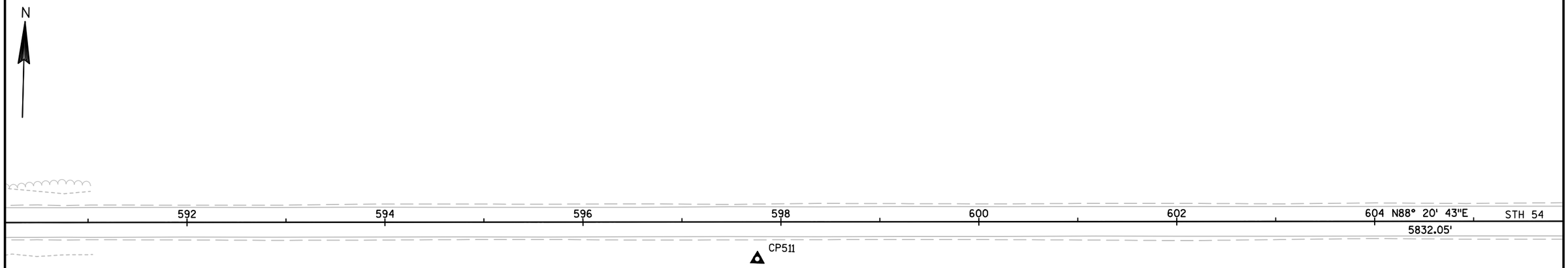
AGG FE

STA 550+84 RT
RESTORE AGG FE

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 86	E


N
STA 562+23
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D
CP509
BRASS CAP IN CONCRETE (4E49)
STA 570+56.64, 41.54 LT
Y = 114907.765
X = 170525.270
ELEV = 1004.250
SHOTWELL LN
MILLING LIMITS AT
AGG / ASPH JOINT
CP509
STA 572+90
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D
STH 54
560
N88° 19' 42"E
11179.50'
562
564
566
568
570
572
574
STH 54, STA 569+83
SHOTWELL LN

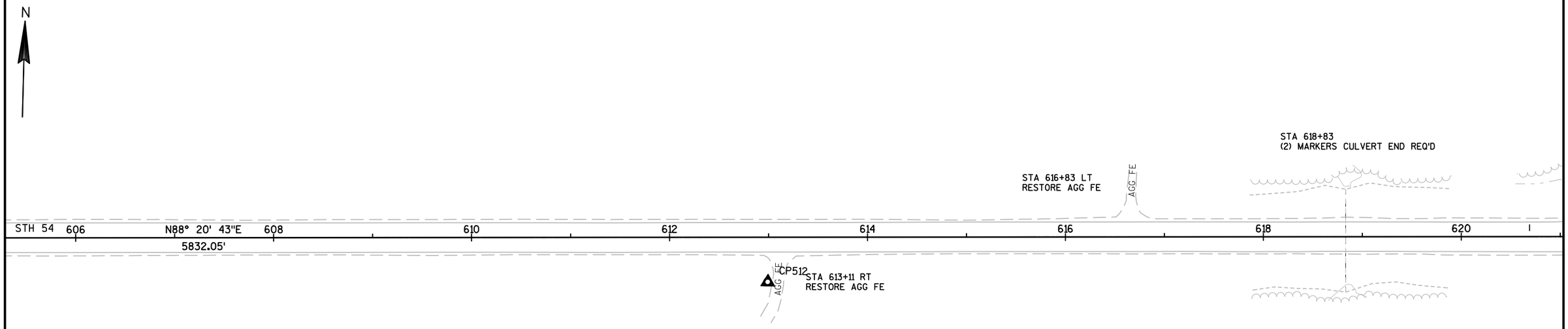

N
STA 577+65
REPLACE END SECTION OF CULVERT PIPE (8' LT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - CPRC CLASS III 24-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D
STA 584+31
REPLACE END SECTIONS OF CULVERT PIPE (16' LT & 16' RT)
(1) REMOVING SMALL PIPE CULVERTS
32 LF - CPRC CLASS III 24-INCH REQ'D
(2) CONCRETE COLLARS REQ'D
(2) MARKERS CULVERT END REQ'D
STA 584+35
REPLACE END SECTIONS OF CULVERT PIPE (16' LT & 16' RT)
(2) REMOVING SMALL PIPE CULVERTS
32 LF - CPRC CLASS III 24-INCH REQ'D
(2) CONCRETE COLLARS REQ'D
(2) MARKERS CULVERT END REQ'D
STA 589+97
REPLACE END SECTION OF CULVERT PIPE (8' RT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - CPRC CLASS III 24-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D
PI: 590+00.00
AGG FE
STA 580+33 LT
RESTORE AGG FE
STH 54
576
578
580
582
584
586
588
590
CP510
CF RD 260
PI STA: 590+00.00
Y = 114922.939
X = 172469.020
DELTA = 0°01'01"
BK = N88°19'41.70"E
AH = N88°20'42.59"E
CP510
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 582+07.58, 41.82 RT
Y = 114858.021
X = 171678.156
ELEV = 1011.440



CP511
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 597+76.19, 37.53 RT
Y = 114907.843
X = 173245.963
ELEV = 1032.390

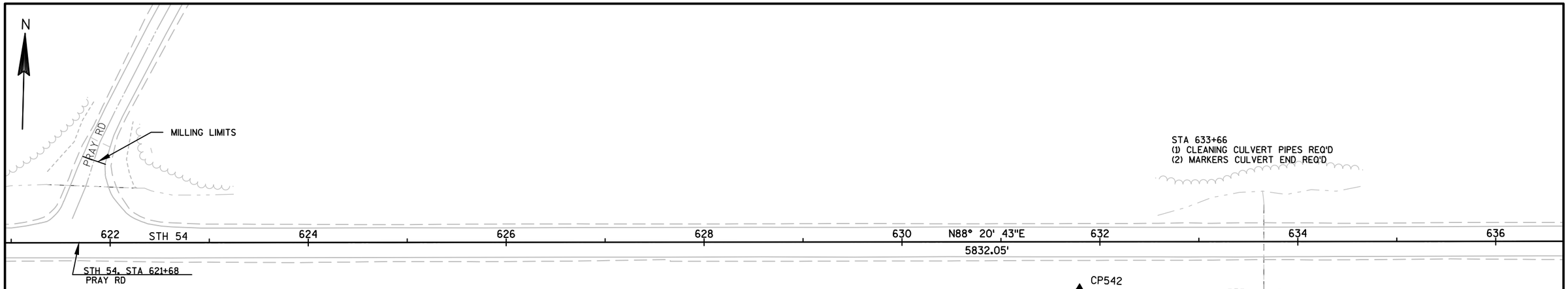
5

5

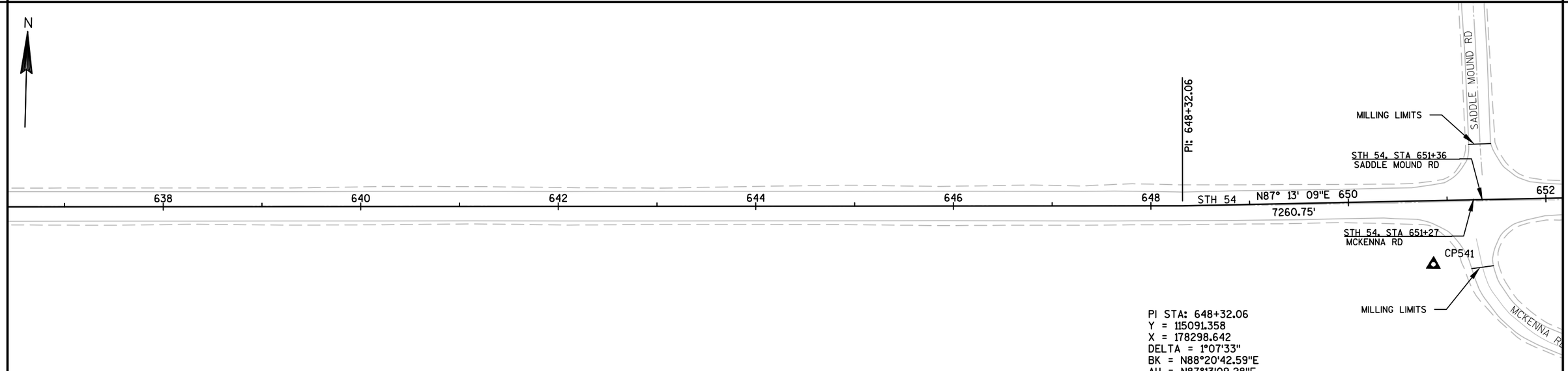


CP512
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 612+99.24, 45.19 RT
Y = 114944.163
X = 174768.599
ELEV = 1041.940

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 88	E



CP542
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 631+79.26, 50.35 RT
Y = 114993.301
X = 176647.989
ELEV = 1063.770



PI STA: 648+32.06
Y = 115091.358
X = 178298.642
DELTA = 1°07'33"
BK = N88°20'42.59"E
AH = N87°13'09.28"E

CP541
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 650+84.84, 64.51 RT
Y = 115039.193
X = 178554.260
ELEV = 1092.230

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 89	E

N

652 STH 54 N87° 13' 09"E 654 656 658 660 662 664 666

7260.75'

MCKENNA RD

5

5

N

CP540
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 668+84.28, 51.80 LT
Y = 115242.657
X = 180345.932
ELEV = 1124.510

STA 673+44
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

CP540

668 670 672 674 676 678 680 682

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 90	E

N

CP539
3/4-IN IRON ROD FOUND W/ RED WISDOT CAP
STA 687+61.67, 22.40 LT
Y = 115304.370
X = 182222.541
ELEV = 1118.520

CP554
NGS PRAY GPS
STA 687+86.46, 86.23 LT
Y = 115369.335
X = 182244.201
ELEV = 1151.230

STA 695+43.8 TO STA 701+37 LT
600 LF MGS GUARDRAIL 3K
(1) MGS GUARDRAIL TERMINAL EAT

EXIST R/W

SLOPE INTERCEPT

POST 1 (FF RAIL)
695+43.8, -18.0' LT

CP554

CP539

684 N87° 13' 09"E 686 STH 54 688 690 692 694 696 698

7260.75'

POST 1 (FF RAIL)
693+19.3, 18.0' RT

SLOPE INTERCEPT

EXIST R/W

STA 693+19.3 TO STA 699+35 RT
612.5 LF MGS GUARDRAIL 3K
(1) MGS GUARDRAIL TERMINAL EAT

5

5

N

STA 698+74
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

STA 701+37 TO STA 702+50 LT
(1) MGS GUARDRAIL TERMINAL EAT

EXIST R/W

POST 1 (FF RAIL)
702+50.0, -18.0' LT

SLOPE INTERCEPT

CF RD 125

STA 707+80 LT
RESTORE AGG FE

STA 712+63
(2) MARKERS CULVERT END REQ'D

698 700 702 704 N87° 13' 09"E 706 708 710 STH 54 712

7260.75'

CP538

STA 707+80 RT
RESTORE AGG FE

AGG FE

POST 1 (FF RAIL)
700+38.0, 18.0' RT

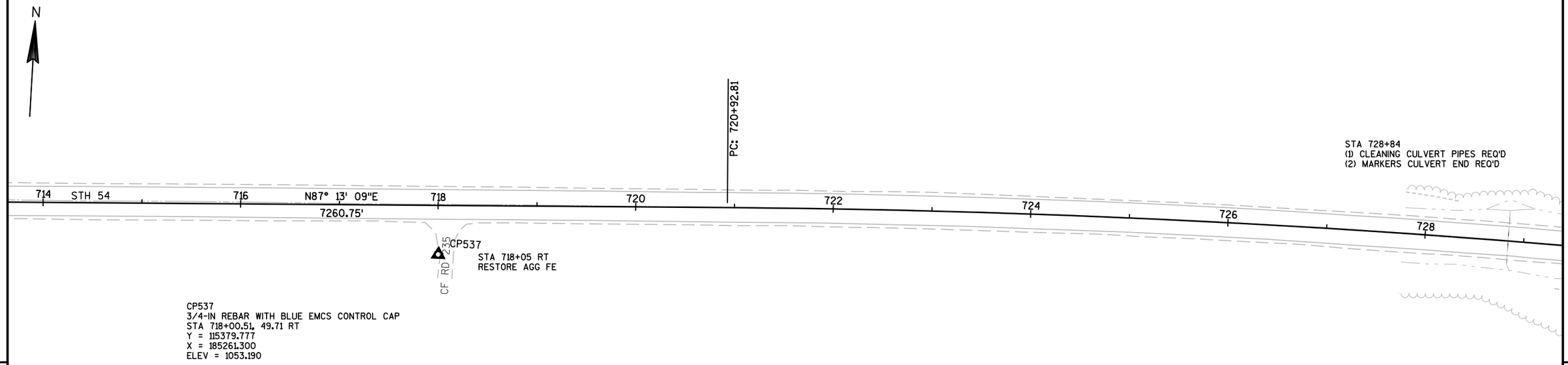
SLOPE INTERCEPT

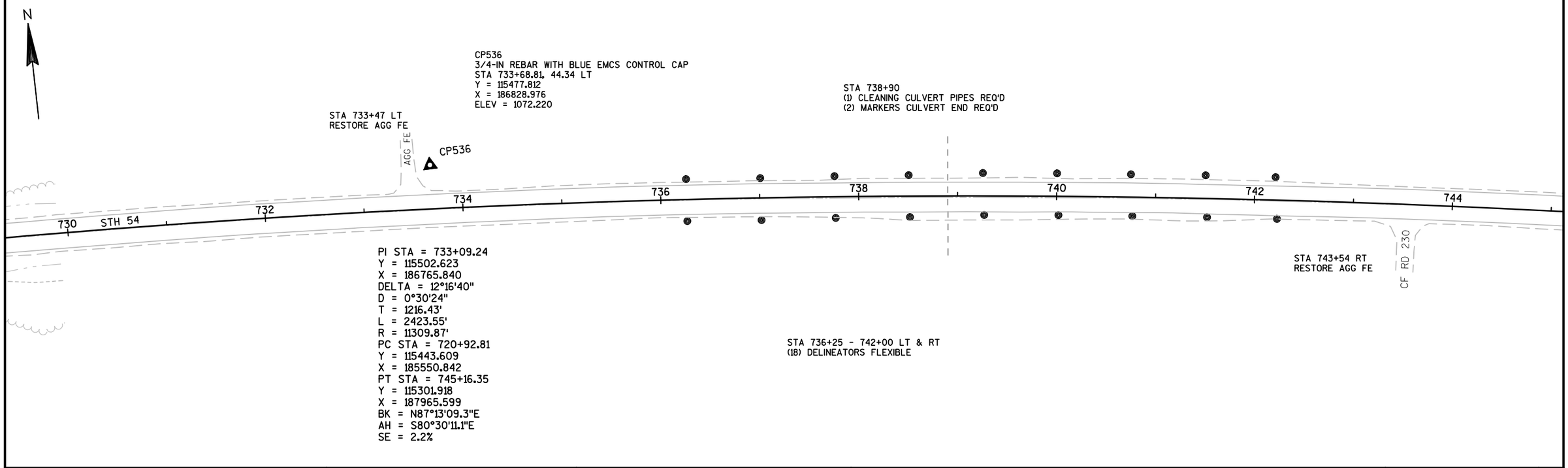
EXIST R/W

STA 699+35 TO STA 700+38 RT
(1) MGS GUARDRAIL TERMINAL EAT

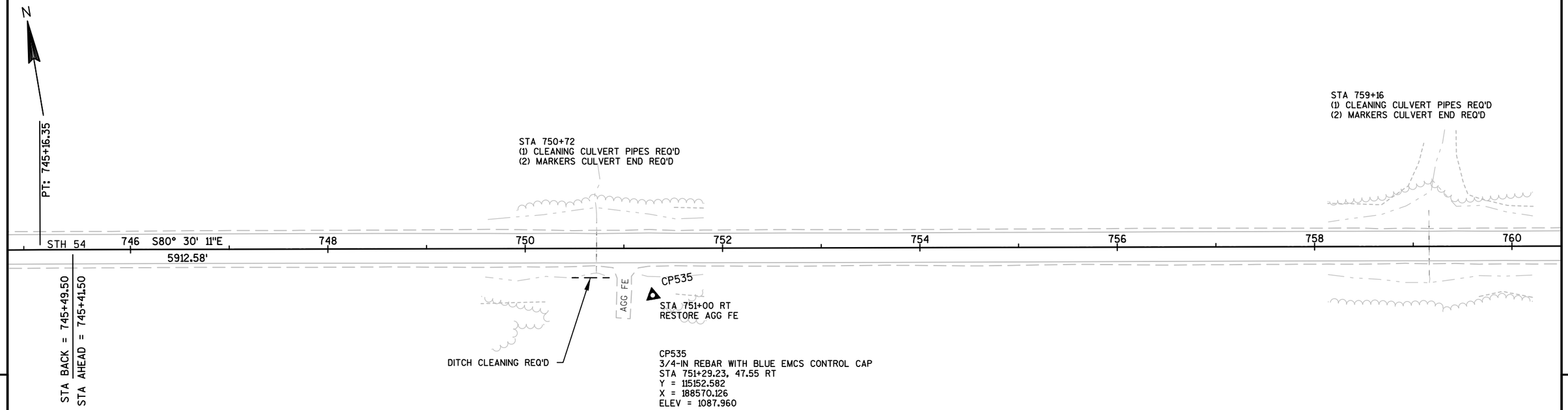
CP538
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 707+98.43, 42.89 RT
Y = 115337.969
X = 184260.069
ELEV = 1063.020

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 91	E

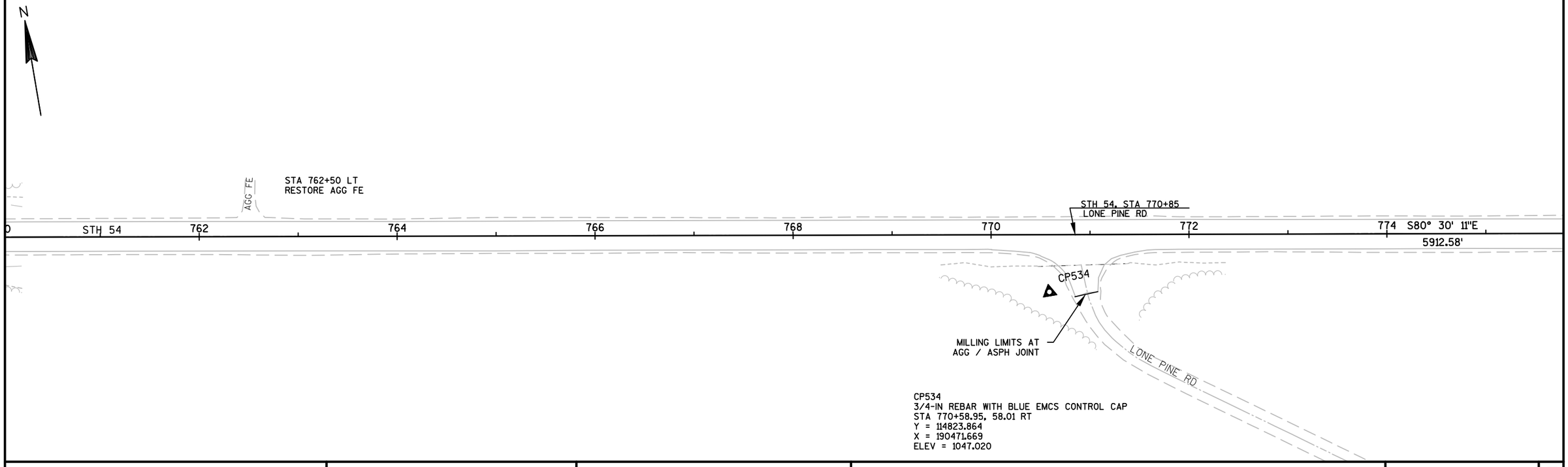


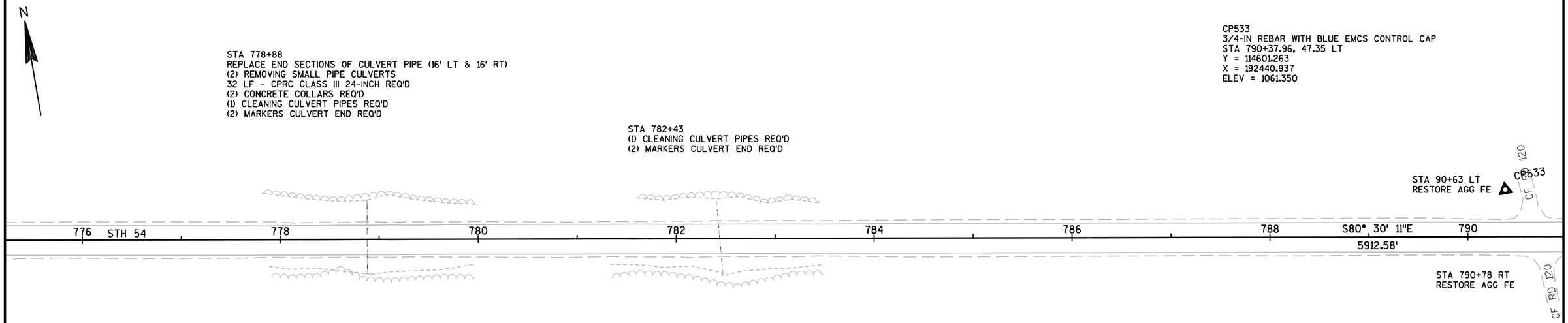


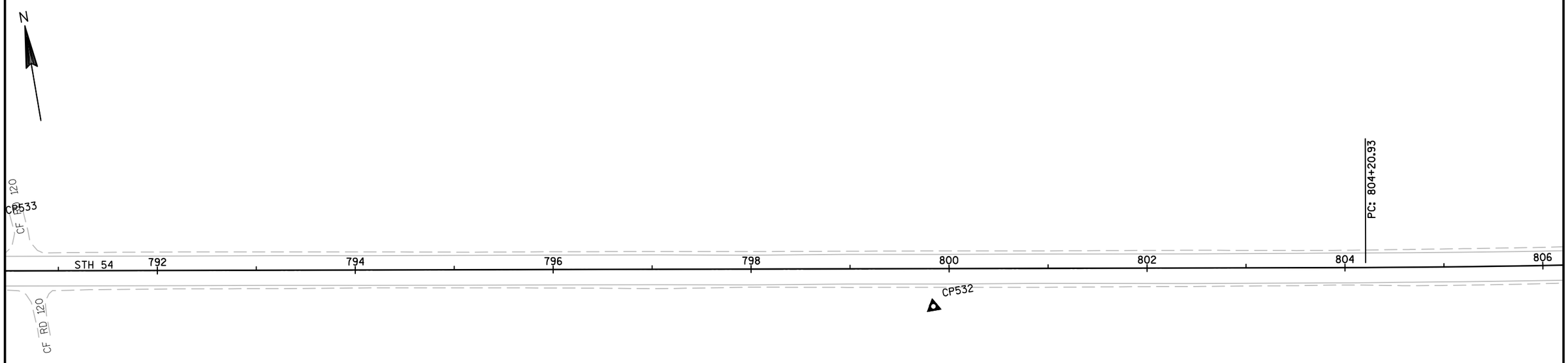
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 92	E


N
PT: 745+16.35
STA 750+72
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D
STA 759+16
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D
STH 54
746
S80° 30' 11"E
5912.58'
748
750
752
754
756
758
760
STA BACK = 745+49.50
STA AHEAD = 745+41.50
AGG FE
CP535
STA 751+00 RT
RESTORE AGG FE
DITCH CLEANING REQ'D
CP535
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 751+29.23, 47.55 RT
Y = 115152.582
X = 188570.126
ELEV = 1087.960

5


N
AGG FE
STA 762+50 LT
RESTORE AGG FE
STH 54, STA 770+85
LONE PINE RD
STH 54
762
764
766
768
770
772
774
S80° 30' 11"E
5912.58'
CP534
MILLING LIMITS AT
AGG / ASPH JOINT
LONE PINE RD
CP534
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 770+58.95, 58.01 RT
Y = 114823.864
X = 190471.669
ELEV = 1047.020





CP532
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 799+84.16, 38.34 RT
Y = 114360.622
X = 193360.029
ELEV = 1057.800

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 94	E

N

PI STA = 814+83.13
Y = 114151.118
X = 194844.781
DELTA = 11°00'46"
D = 0°31'12"
T = 1062.19'
L = 2117.84'
R = 11018.33'
PC STA = 804+20.93
Y = 114326.375
X = 193797.145
PT STA = 825+38.78
Y = 114179.219
X = 195906.604
BK = S80°30'11.1"E
AH = N88°29'02.5"E
SE = 2.2%

STA 817+35 LT
RESTORE AGG FE

AGG FE

806 STH 54 808 810 812 814 816 818 820

CP531

STA 817+35 RT
RESTORE AGG FE

AGG FE

CP531
ALUMINUM CAP IN CONCRETE
STA 815+46.81, 61.97 RT
Y = 114135.777
X = 194911.211
ELEV = 1046.360

5

5

N

STA 833+40
(1) CLEANING PIPE CULVERT REQ'D
(2) MARKERS CULVERT END REQ'D

PT: 825+38.78

EXIST R/W

822 STH 54 824 826 826 N88° 29' 03"E 828 830 832 834 836
13610.85'

STA BACK = 826+17.60
STA AHEAD = 825+93.60

CP530

EXIST R/W

CP530
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 835+35.88, 46.87 RT
Y = 114159.380
X = 196928.581
ELEV = 1015.150

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 95	E

N

STH 54

838

N88° 29' 03"E 840

842

844

846

848

850

13610.85'

AGG FE

STA 849+11 RT
RESTORE AGG FE

5

5

N

CP529
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 853+11.34, 64.13 LT
Y = 114317.313
X = 198700.487
ELEV = 1007.260

SPAULDING RD

MILLING LIMITS

CP529

STH 54, STA 852+65
SPAULDING RD

852

854

856

N88° 29' 03"E

858

860

862

864

STH 54

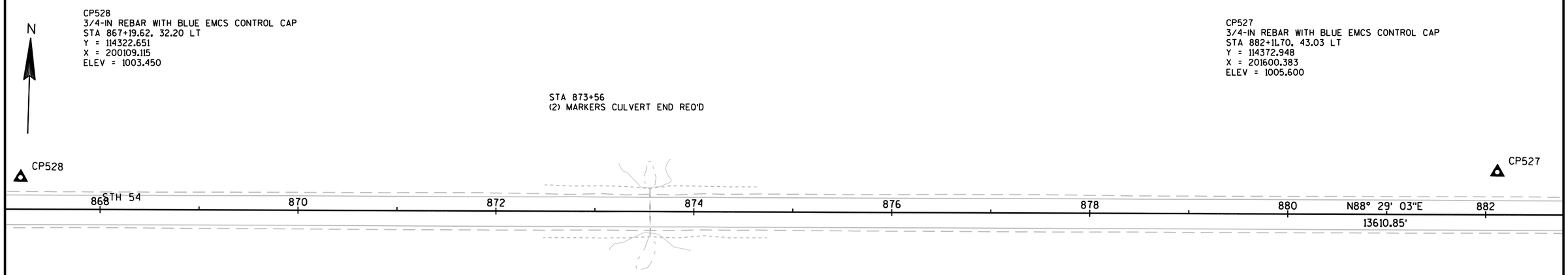
866

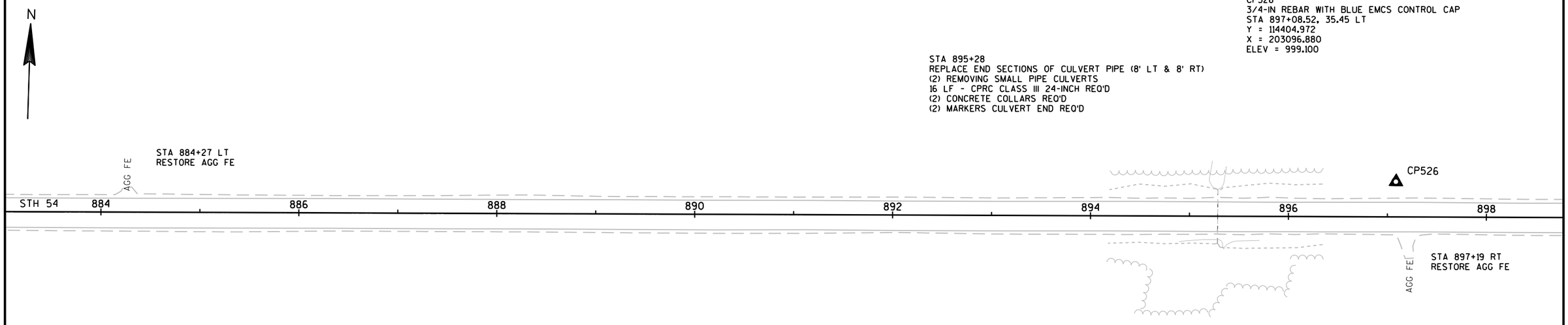
13610.85'

AGG FE

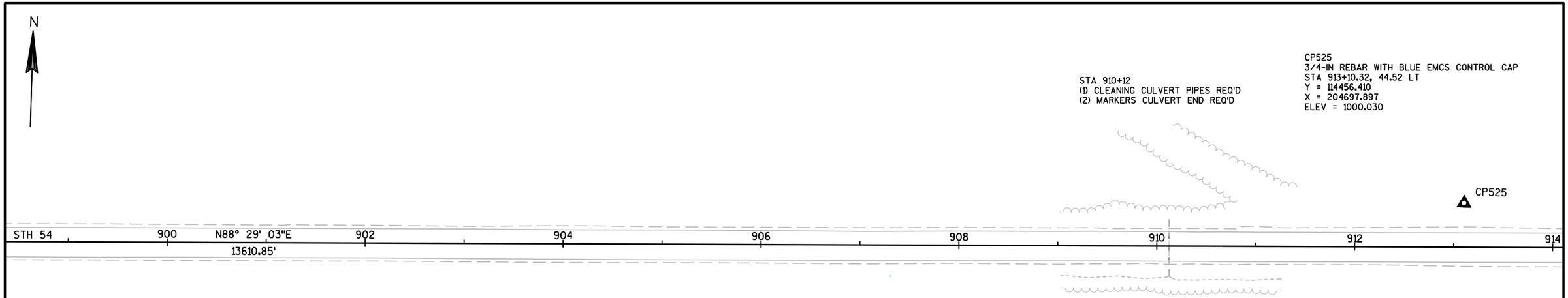
STA 854+27 RT
RESTORE AGG FE

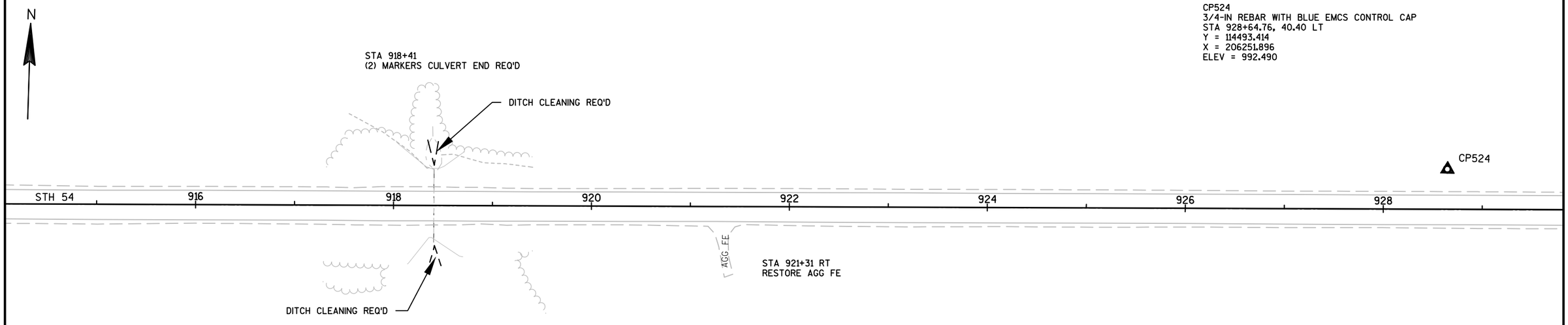
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 96	E





PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 97	E





PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 98 E

N

930 932 934 936 938 940 STH 54 942 N88° 29' 03"E 944

13610.85'

5

5

N

CP523
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 945+71.18, 33.82 LT
Y = 114531.981
X = 207957.896
ELEV = 985.660

CP522
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 959+27.72, 29.22 LT
Y = 114563.273
X = 209314.077
ELEV = 982.860

STA 958+27
REPLACE END SECTION OF CULVERT PIPE (8' LT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - CPRC CLASS III 24-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

CP523

DITCH CLEANING REQ'D

CP522

STH 54 946 948 950 952 954 956 958 960

DITCH CLEANING REQ'D

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 99	E

N

PC: 961+25.63

DITCH CLEANING REQ'D

STH 54

962 964 966 968 970 972 974 976

DITCH CLEANING REQ'D

STA 963+47
(2) MARKERS CULVERT END REQ'D

PI STA = 974+98.81
Y = 114575.628
X = 210885.391
DELTA = 13°39'54"
D = 0°30'00"
T = 1373.18'
L = 2733.33'
R = 11460.57'
PC STA = 961+25.63
Y = 114539.300
X = 209512.694
PT STA = 988+58.96
Y = 114935.219
X = 212210.651
BK = N88°29'02.5"E
AH = N74°49'08.7"E
SE = 2.8%

OAKDALE ELECTRIC COOPERATIVE

STA 975+01
REPLACE RT END SECTION OF CULVERT PIPE (16' RT)
(1) REMOVING SMALL PIPE CULVERTS
16 LF - CPRC CLASS III 42-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

KNUTES RD

MILLING LIMITS

STH 54, STA 975+36
KNUTES RD

STH 54, STA 975+24
ELLIS RD

MILLING LIMITS

ELLIS RD

OH

STA 975+05
REPLACE END SECTION OF CULVERT PIPE (16' RT)
(1) REMOVING SMALL PIPE CULVERTS
16 LF - CPRC CLASS III 42-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

CP521
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 975+67.94, 53.99 RT
Y = 114614.603
X = 210956.494
ELEV = 979.160

5

5

N

STA 989+19
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

PT: 988+58.96

DITCH CLEANING REQ'D

976 978 980 982 984 986 STH 54 988 N74° 49' 09"E 990

12258.76'

DITCH CLEANING REQ'D

STA BACK = 989+13.90
STA AHEAD = 989+17.80

CP521

OAKDALE ELECTRIC COOPERATIVE

OH

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 100	E

STA 1000+16 TO STA 1000+27 LT
REPLACE CONCRETE MASONRY ENDWALL
3 CY REMOVING MASONRY REQ'D
2.5 CY CONCRETE MASONRY ENDWALL REQ'D

CP520
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 1001+63.37, 28.69 LT
Y = 115303.444
X = 213458.162
ELEV = 971.650

STA 1000+16
REPLACE END SECTION OF CULVERT PIPE (8' LT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - CPRC CLASS III 48-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

STA 1000+27
REPLACE END SECTION OF CULVERT PIPE (8' LT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - CPRC CLASS III 48-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

EXIST R/W

DITCH CLEANING REQ'D

CP520

STH 54 992 994 996 998 1000 1002 1004 1006

N74° 49' 09"E
12258.76'

OAKDALE ELECTRIC COOPERATIVE

OH

DITCH CLEANING REQ'D

EXIST R/W

5

5

N

STA 1015+52
REPLACE END SECTION OF CULVERT PIPE (16' LT)
(1) REMOVING SMALL PIPE CULVERTS
16 LF - CPRC CLASS III 30-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

N

EXIST R/W

BARTELL RD

MILLING LIMITS AT
AGG / ASPH JOINT

STH 54, STA 1016+30
BARTELL RD

STH 54 1008 1010 1012 1014 1016 1018 1020 1022

N74° 49' 09"E
12258.76'

CP519

BARTELL RD

EXIST R/W

MILLING LIMITS AT
AGG / ASPH JOINT

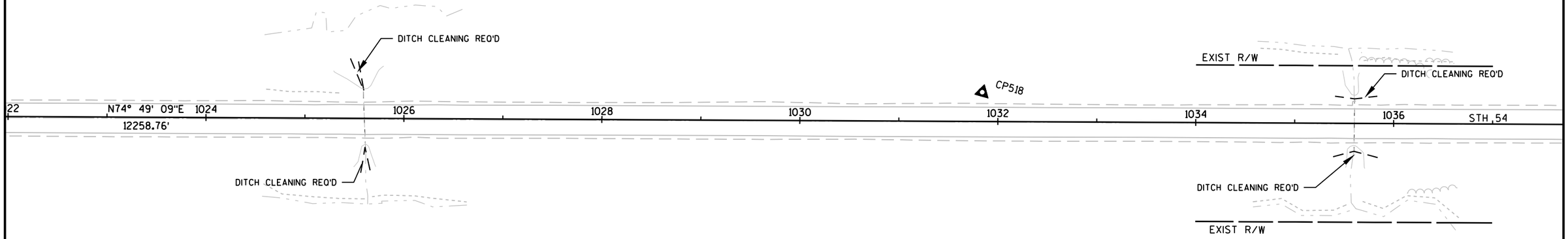
CP519
BRASS CAP IN CONCRETE CITY POINT GPS AZ MARK
STA 1015+94.13, 48.25 RT
Y = 115603.856
X = 214859.149
ELEV = 968.770

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 101	E

CP518
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 1031+84.27, 29.45 LT
Y = 116095.248
X = 216373.450
ELEV = 965.410

STA 1035+60
REPLACE END SECTION OF CULVERT PIPE (8' LT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - CPRC CLASS III 24-INCH REQ'D
(1) CONCRETE COLLAR REQ'D
(2) MARKERS CULVERT END REQ'D

STA 1025+60
(1) CLEANING CULVERT PIPES REQ'D
(2) MARKERS CULVERT END REQ'D

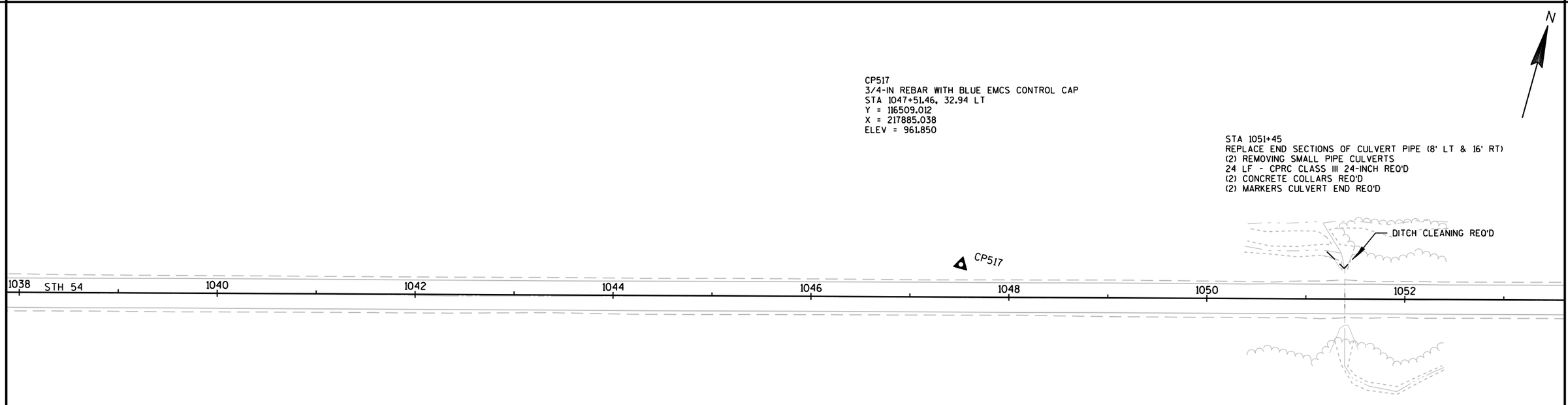


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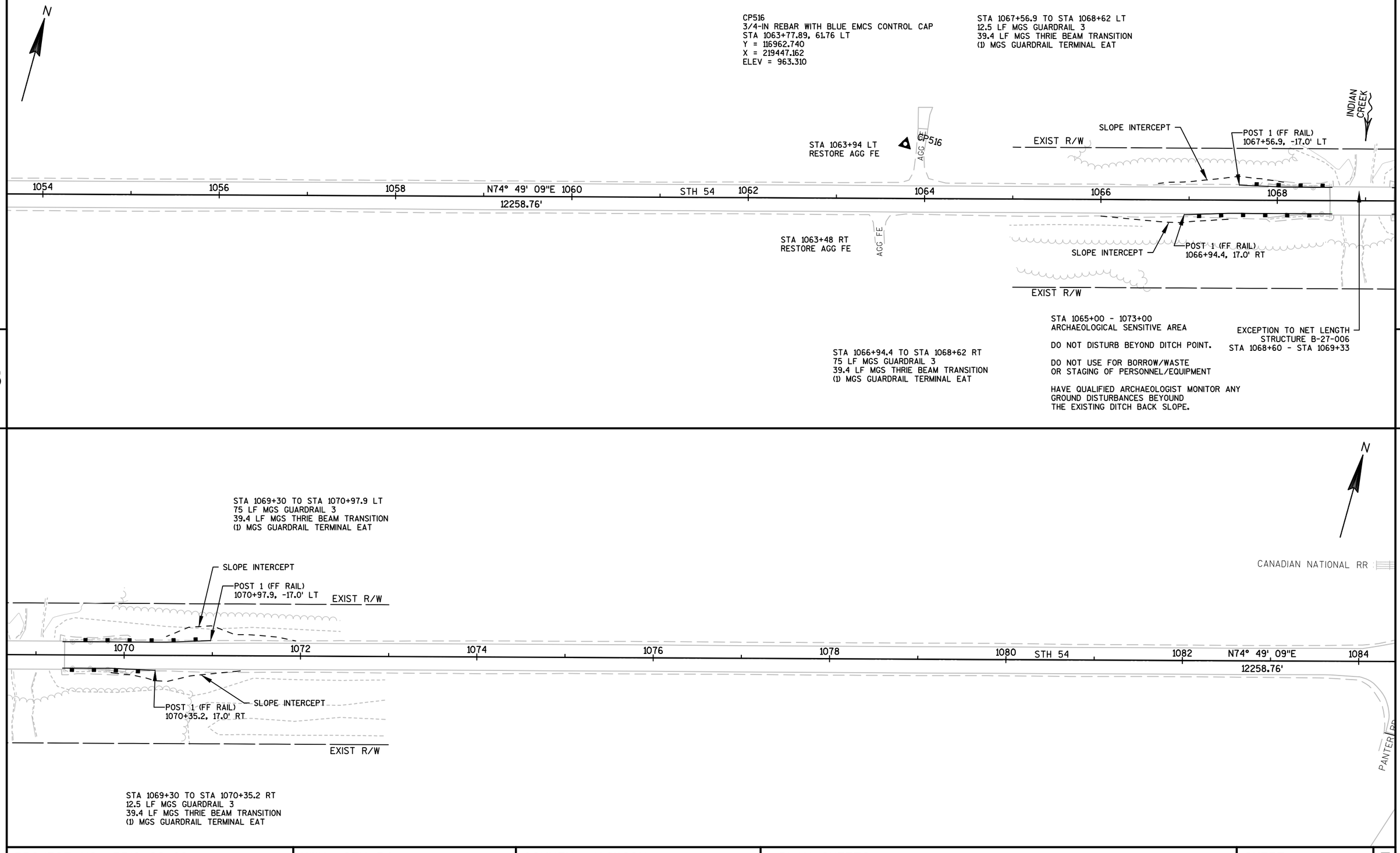
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CP517
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 1047+51.46, 32.94 LT
Y = 116509.012
X = 217885.038
ELEV = 961.850

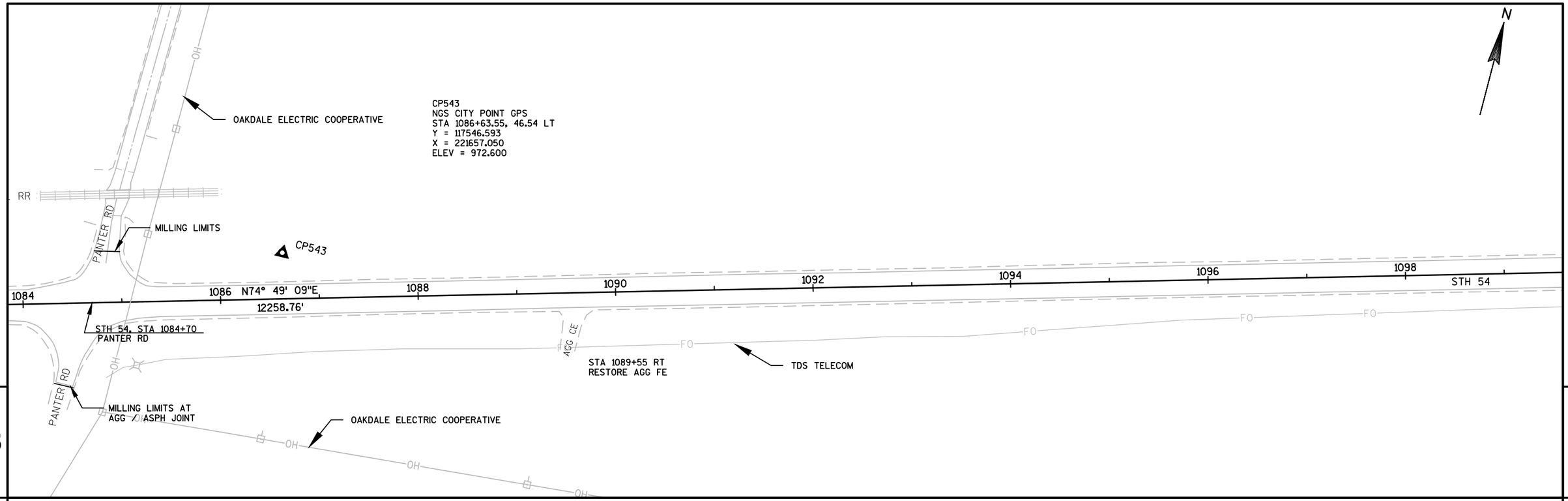
STA 1051+45
REPLACE END SECTIONS OF CULVERT PIPE (8' LT & 16' RT)
(2) REMOVING SMALL PIPE CULVERTS
24 LF - CPRC CLASS III 24-INCH REQ'D
(2) CONCRETE COLLARS REQ'D
(2) MARKERS CULVERT END REQ'D

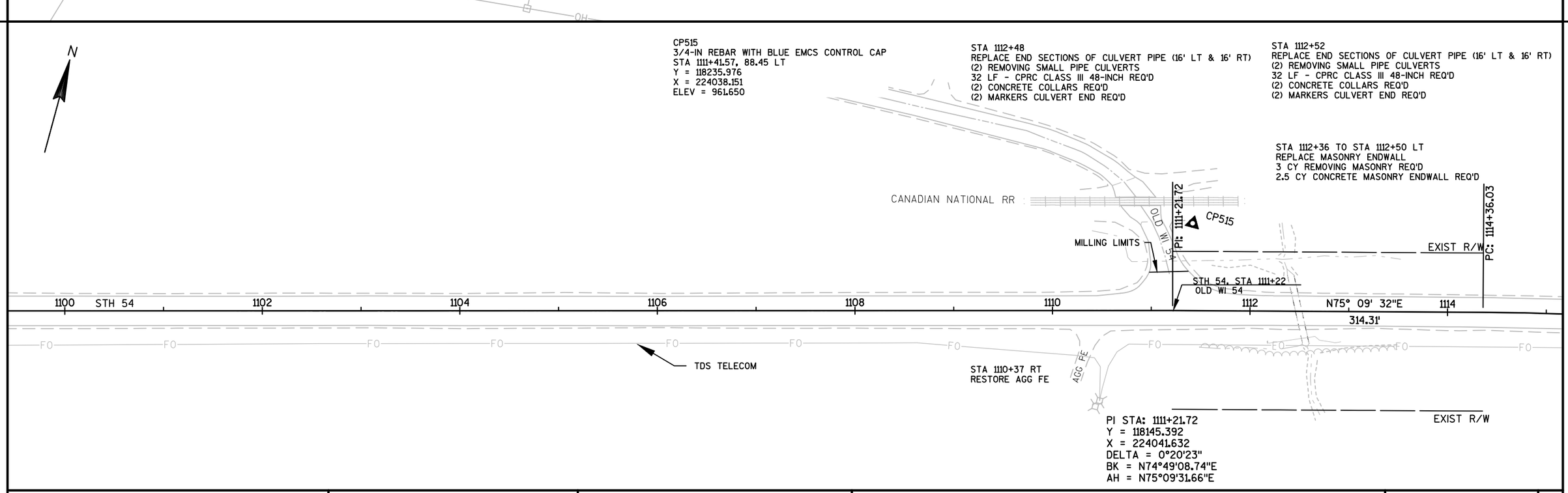


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 102	E



PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 103	E





PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 104	E

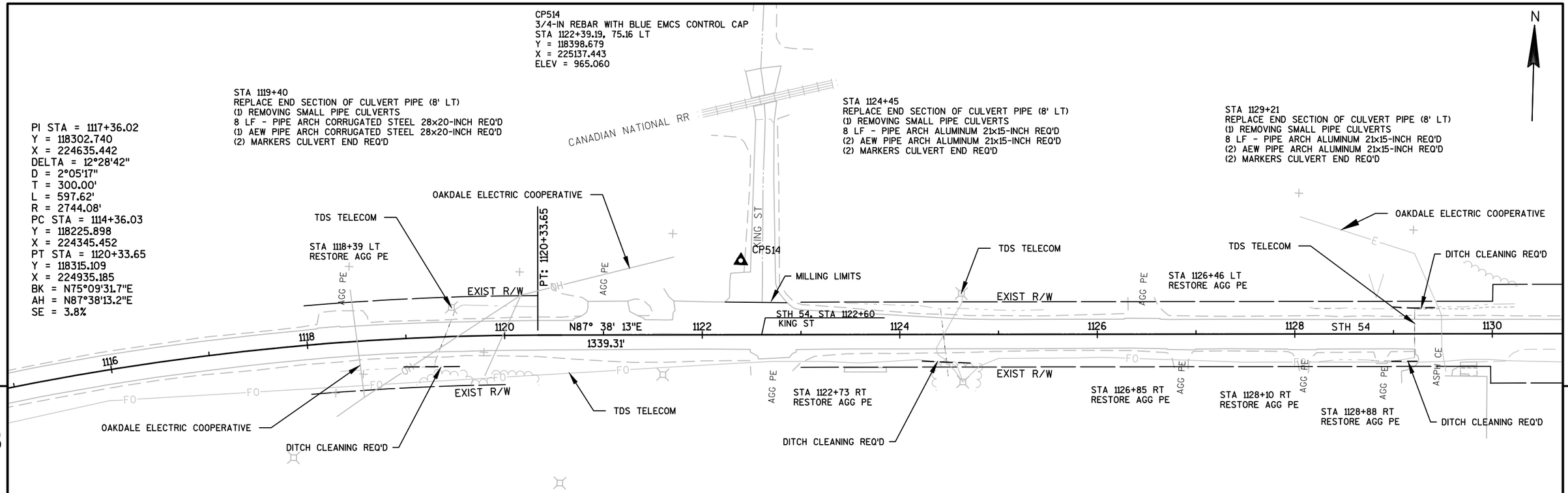
CP514
3/4-IN REBAR WITH BLUE EMCS CONTROL CAP
STA 1122+39.19, 75.16 LT
Y = 118398.679
X = 225137.443
ELEV = 965.060

STA 1119+40
REPLACE END SECTION OF CULVERT PIPE (8' LT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - PIPE ARCH CORRUGATED STEEL 28x20-INCH REQ'D
(1) AEW PIPE ARCH CORRUGATED STEEL 28x20-INCH REQ'D
(2) MARKERS CULVERT END REQ'D

STA 1124+45
REPLACE END SECTION OF CULVERT PIPE (8' LT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - PIPE ARCH ALUMINUM 21x15-INCH REQ'D
(2) AEW PIPE ARCH ALUMINUM 21x15-INCH REQ'D
(2) MARKERS CULVERT END REQ'D

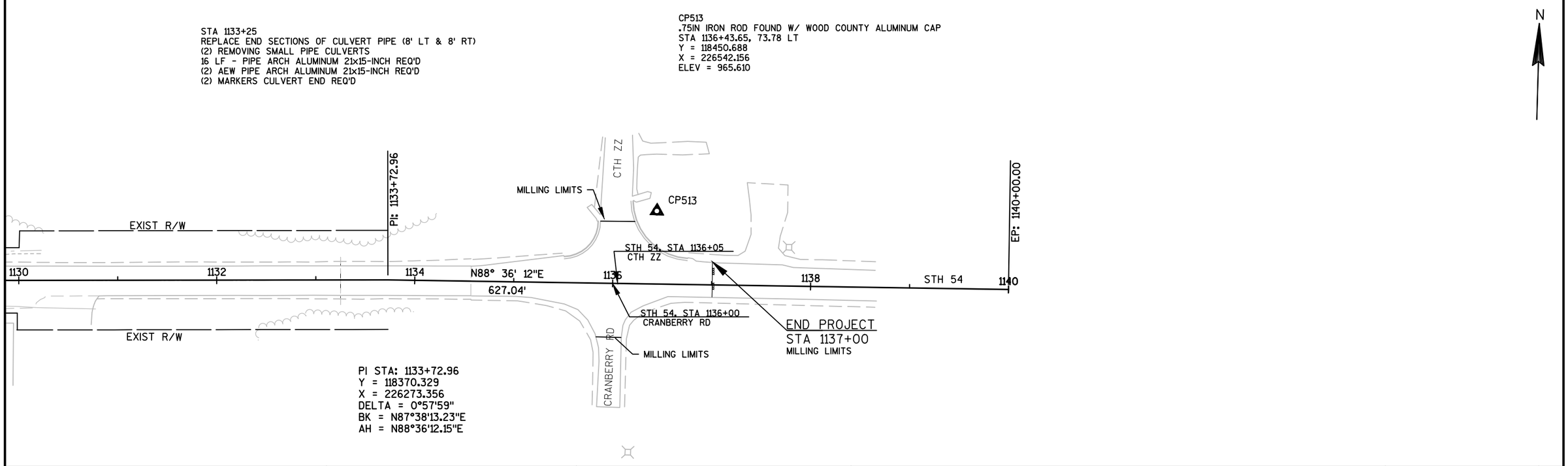
STA 1129+21
REPLACE END SECTION OF CULVERT PIPE (8' LT)
(1) REMOVING SMALL PIPE CULVERTS
8 LF - PIPE ARCH ALUMINUM 21x15-INCH REQ'D
(2) AEW PIPE ARCH ALUMINUM 21x15-INCH REQ'D
(2) MARKERS CULVERT END REQ'D

PI STA = 1117+36.02
Y = 118302.740
X = 224635.442
DELTA = 12°28'42"
D = 2°05'17"
T = 300.00'
L = 597.62'
R = 2744.08'
PC STA = 1114+36.03
Y = 118225.898
X = 224345.452
PT STA = 1120+33.65
Y = 118315.109
X = 224935.185
BK = N75°09'31.7"E
AH = N87°38'13.2"E
SE = 3.8%



STA 1133+25
REPLACE END SECTIONS OF CULVERT PIPE (8' LT & 8' RT)
(2) REMOVING SMALL PIPE CULVERTS
16 LF - PIPE ARCH ALUMINUM 21x15-INCH REQ'D
(2) AEW PIPE ARCH ALUMINUM 21x15-INCH REQ'D
(2) MARKERS CULVERT END REQ'D

CP513
.75IN IRON ROD FOUND W/ WOOD COUNTY ALUMINUM CAP
STA 1136+43.65, 73.78 LT
Y = 118450.688
X = 226542.156
ELEV = 965.610



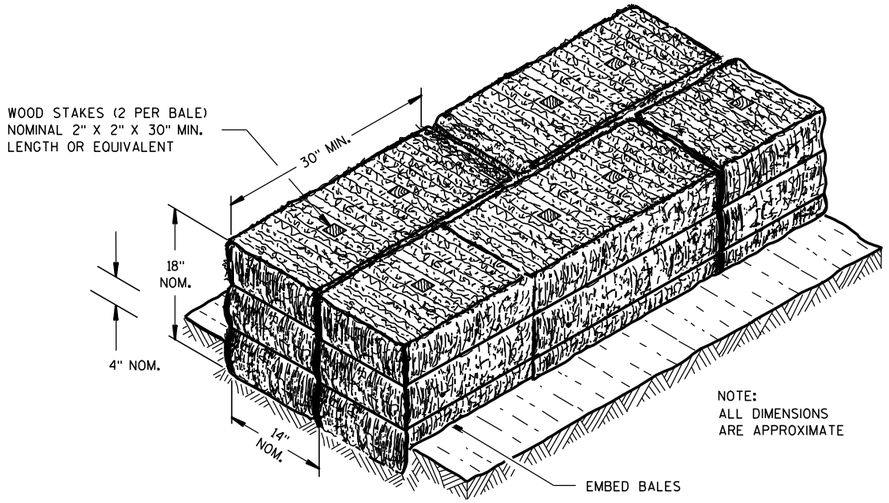
PI STA: 1133+72.96
Y = 118370.329
X = 226273.356
DELTA = 0°57'59"
BK = N87°38'13.23"E
AH = N88°36'12.15"E

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	PLAN SHEETS	SHEET 105	E

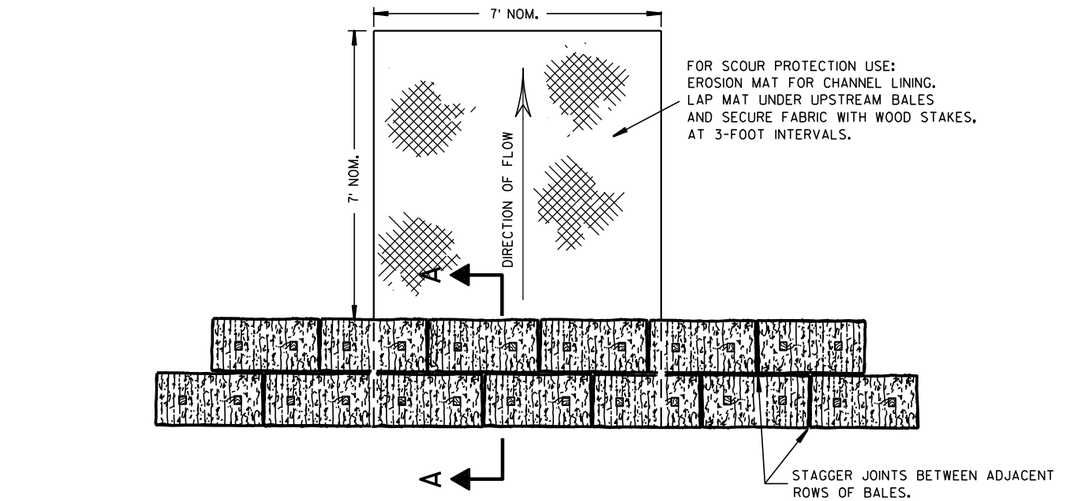
Standard Detail Drawing List

08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F03-03	DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALLS AND STEPS
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B51-01A	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-01B	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-01C	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B53-01A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-04A	FLEXIBLE DELINEATOR POST
15A04-04B	DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A04-04C	DELINEATOR POST WITH REFLECTIVE SHEETING
15A07-02	OBJECT MARKER FOR HAZARDOUS CULVERT
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C08-18B	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING

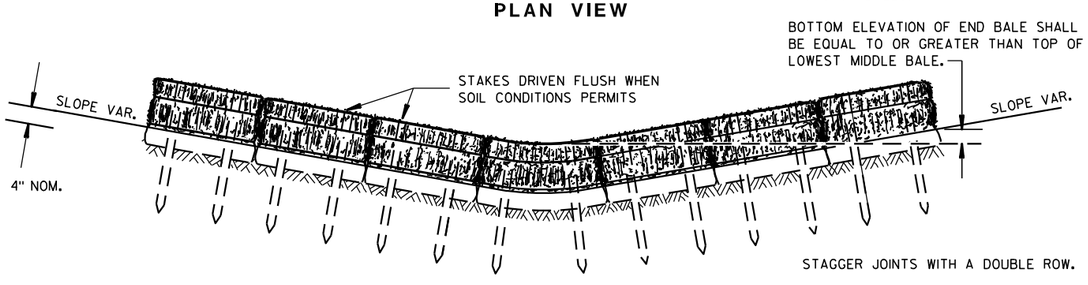
6



SECTION A-A



PLAN VIEW



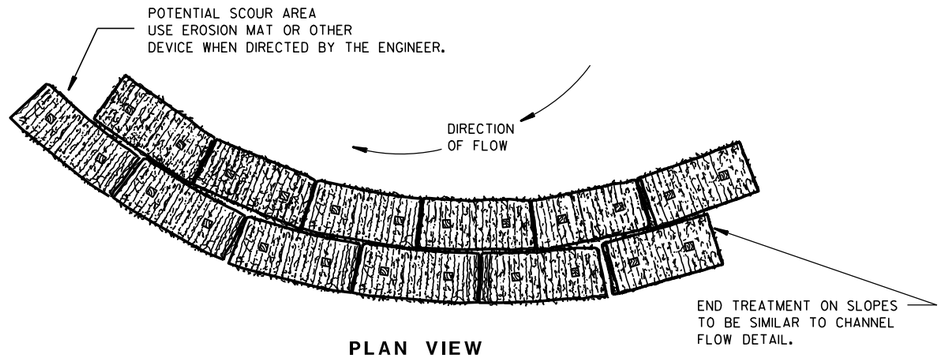
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

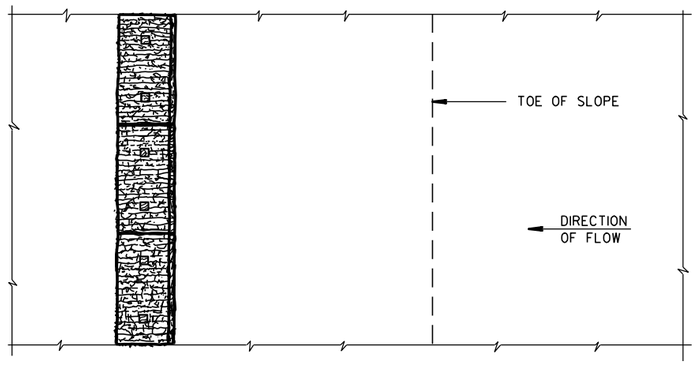
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

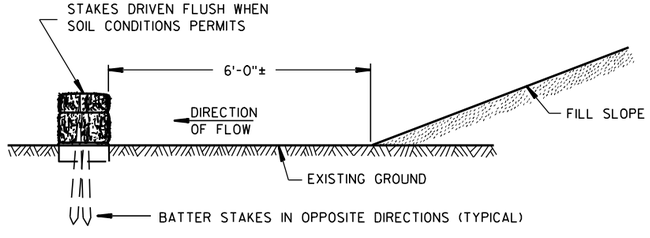


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

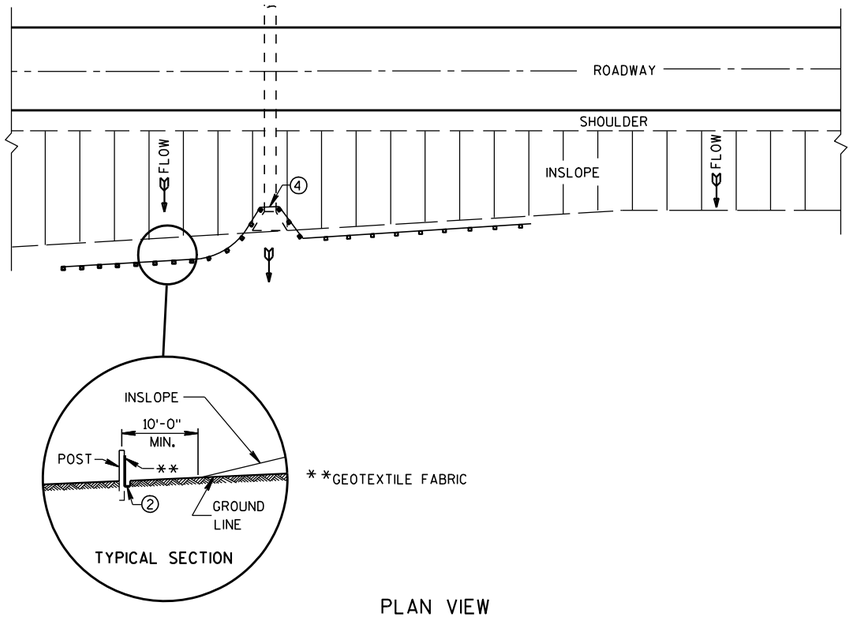
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

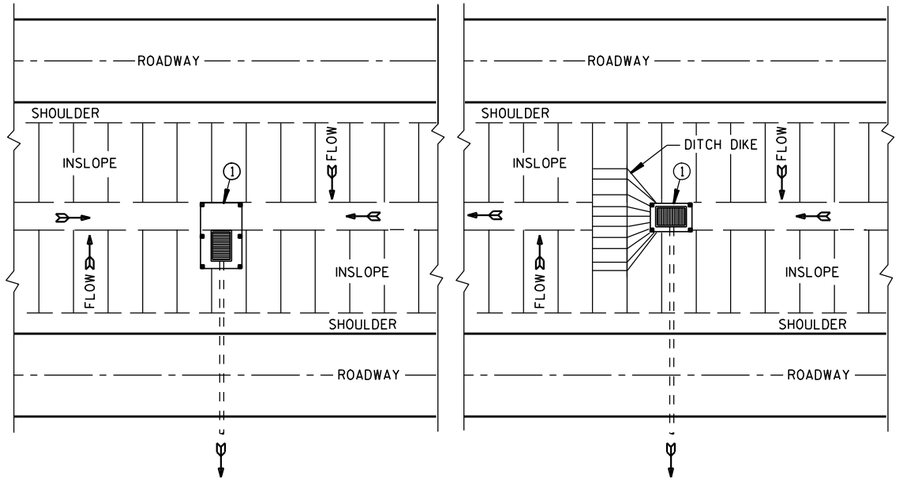
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

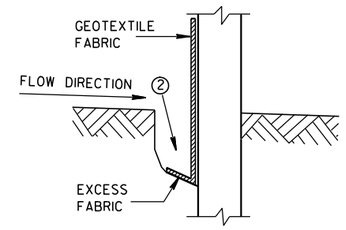
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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

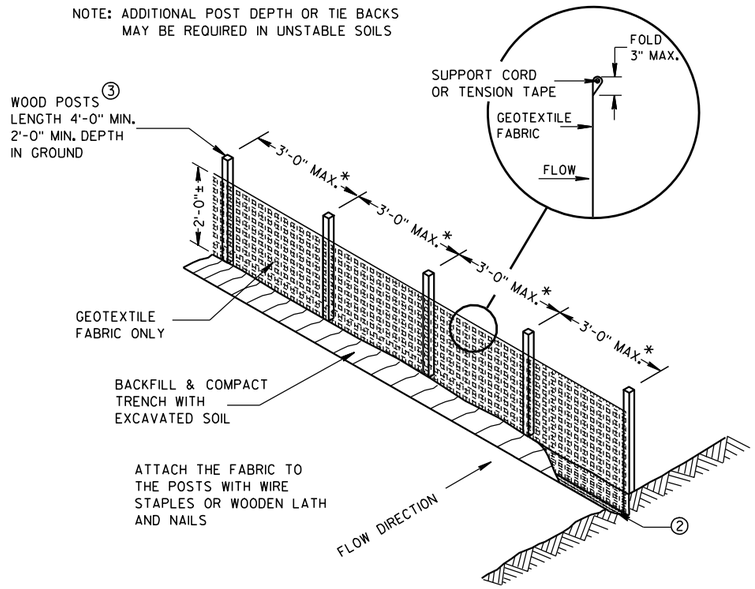
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

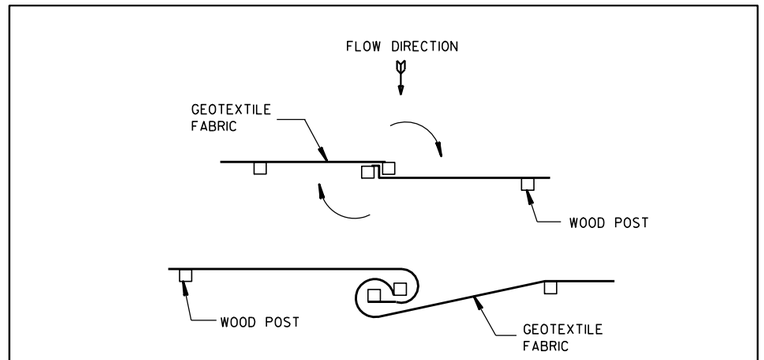
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



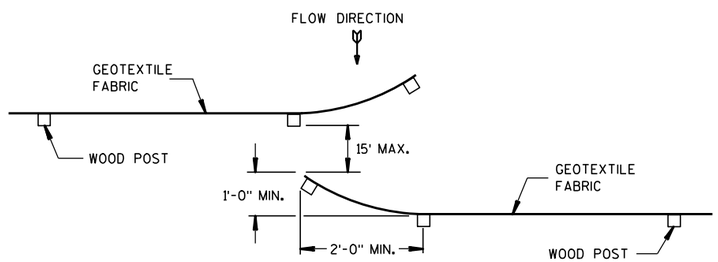
TRENCH DETAIL



SILT FENCE

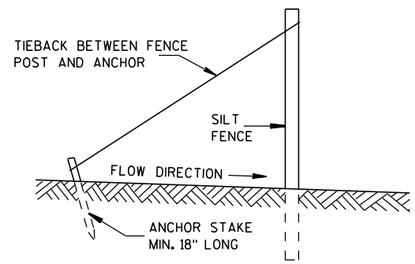


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6

METAL APRON ENDWALLS

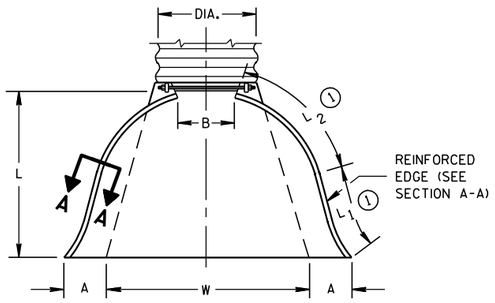
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

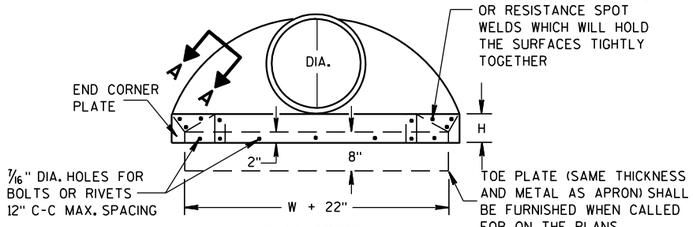
REINFORCED CONCRETE APRON ENDWALLS

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

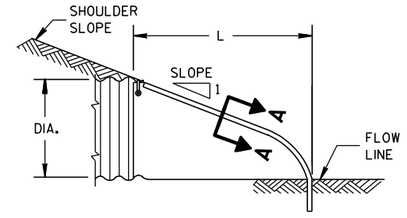
* MINIMUM
** MAXIMUM



PLAN VIEW

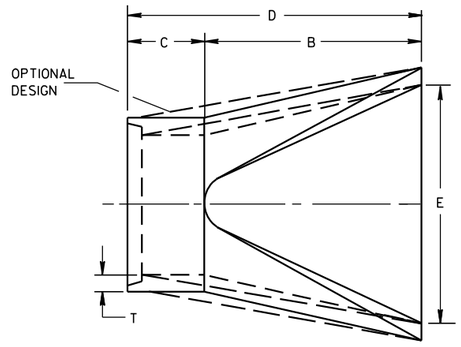


END VIEW

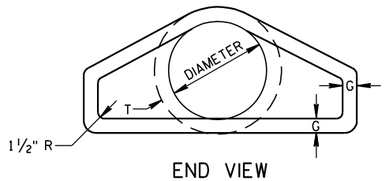


SIDE ELEVATION

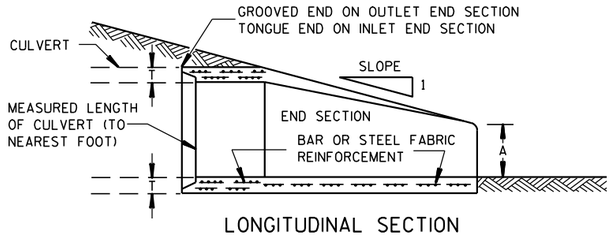
METAL ENDWALLS



PLAN

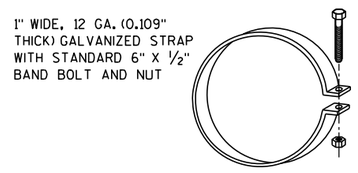


END VIEW



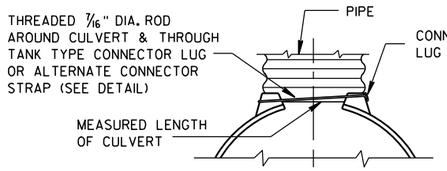
LONGITUDINAL SECTION

CONCRETE ENDWALLS

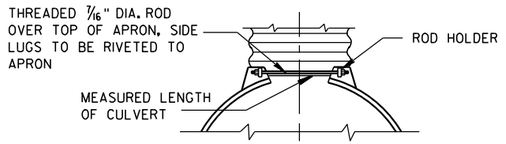


ALTERNATE FOR TYPE 1 CONNECTION

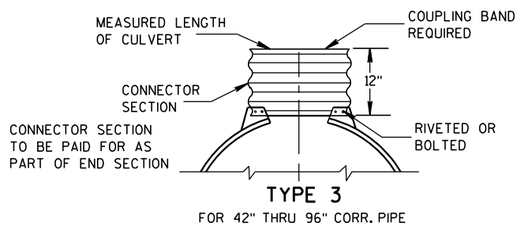
END SECTION CONNECTOR STRAP



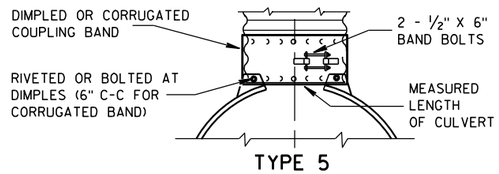
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

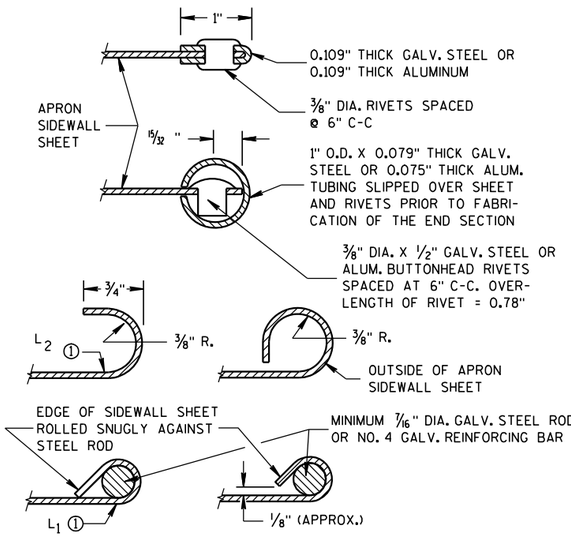
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

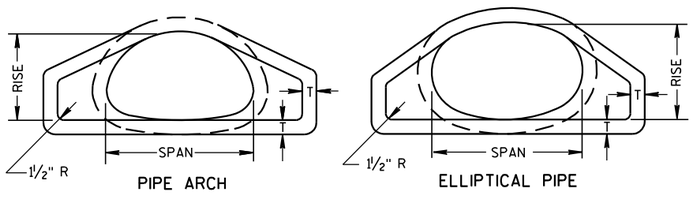
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

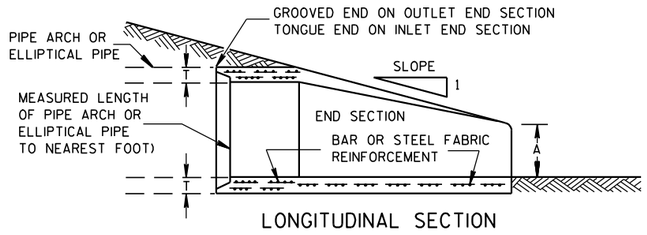
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

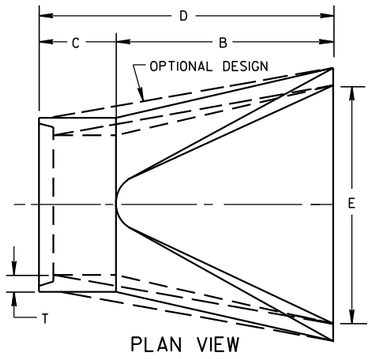
6
S.D.D. 8 F 1-11



END VIEW

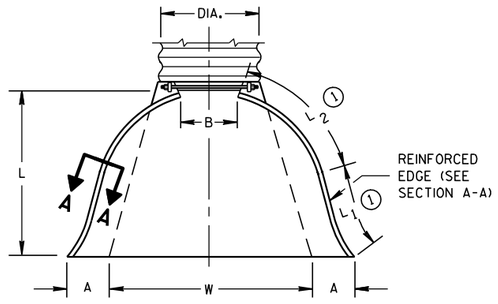


LONGITUDINAL SECTION

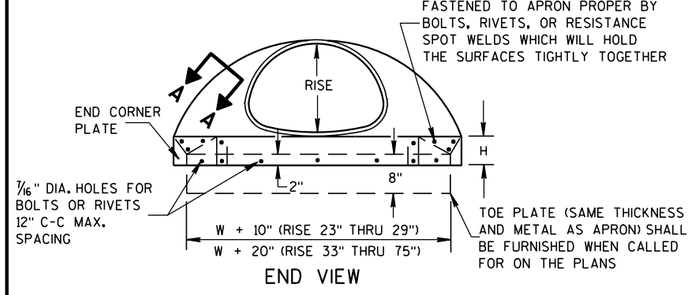


PLAN VIEW

CONCRETE ENDWALLS

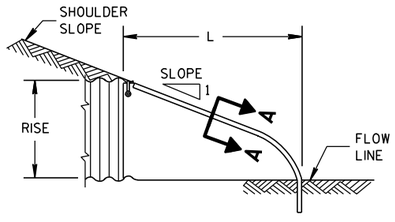


PLAN VIEW



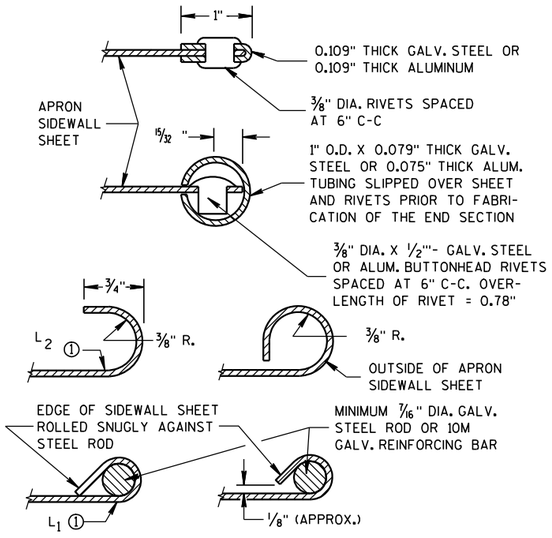
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

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

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

3" X 1" CORRUGATIONS

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

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

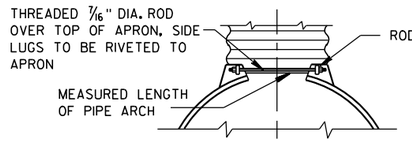
REINFORCED CONCRETE PIPE ARCH

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

REINFORCED CONCRETE ELLIPTICAL PIPE

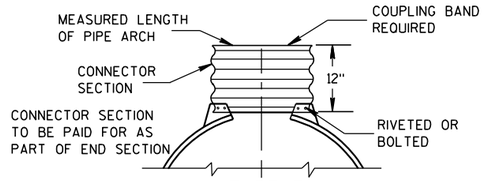
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48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

**NOMINAL SIZE



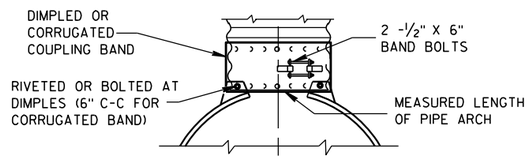
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

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

CONNECTION DETAILS

GENERAL NOTES

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

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

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

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

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

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

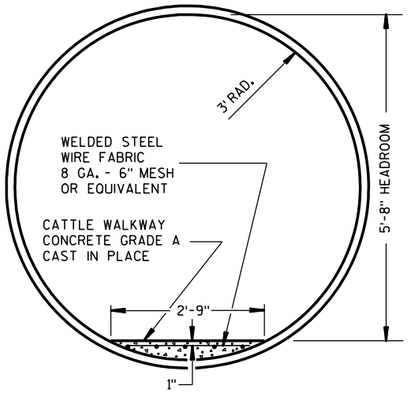
FHWA

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S.D.D. 8 F 2-1

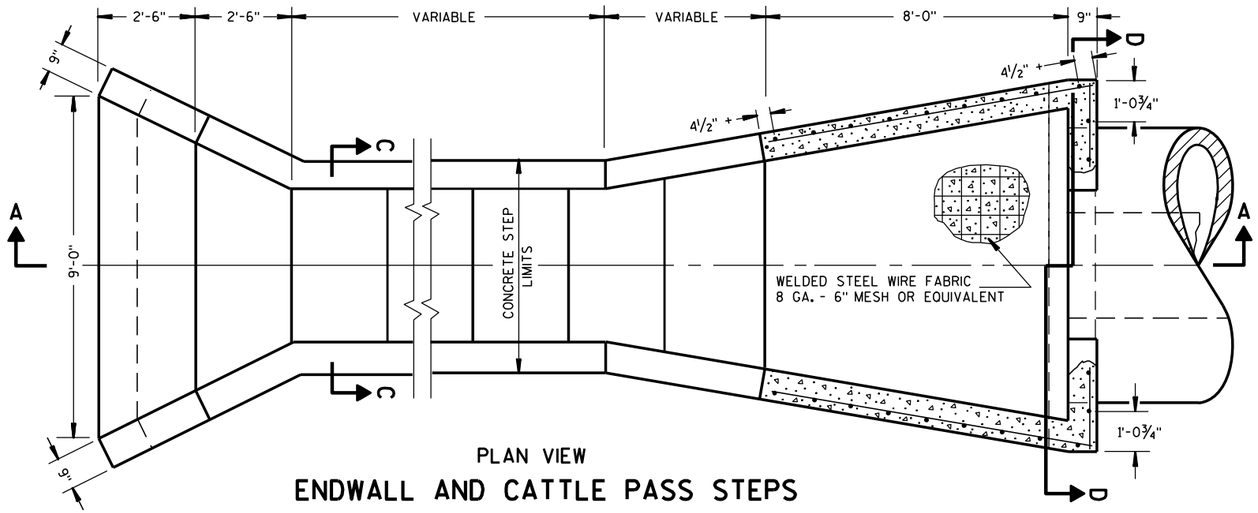
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S.D.D. 8 F 2-1



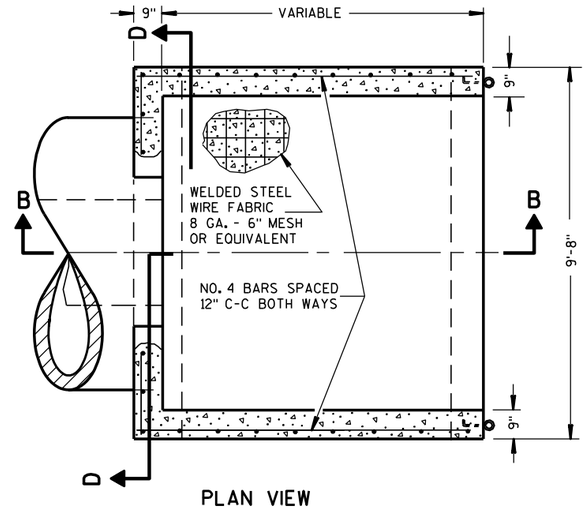
CROSS SECTION

CORRUGATED METAL PIPE CATTLE PASS



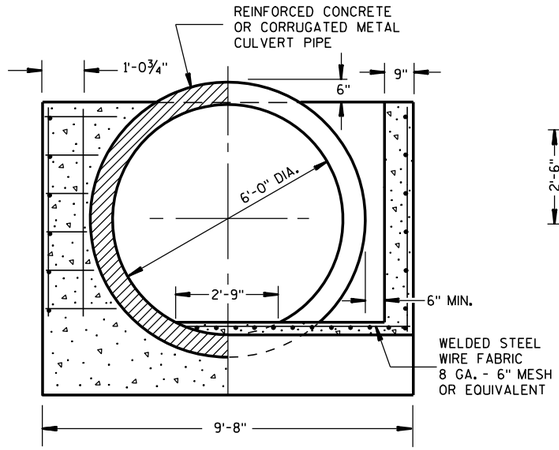
PLAN VIEW

ENDWALL AND CATTLE PASS STEPS

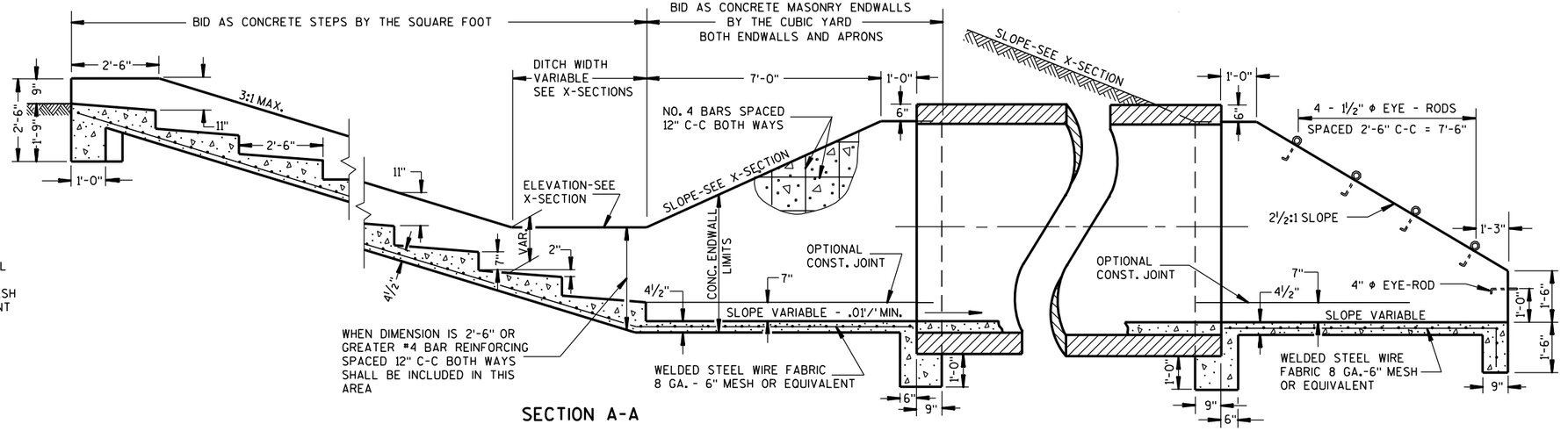


PLAN VIEW

ENDWALL FOR CATTLE PASS

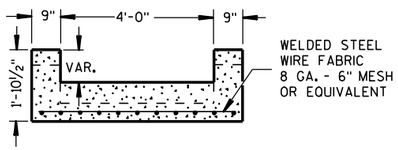


SECTION D-D

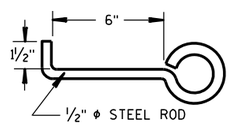


SECTION A-A

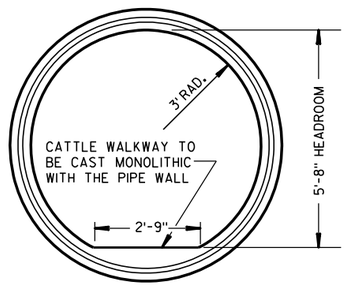
SECTION B-B



SECTION C-C



EYE-ROD ANCHOR



END VIEW

REINFORCED CONCRETE PIPE CATTLE PASS

GENERAL NOTES

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

ALL STEEL REINFORCEMENT IN ENDWALLS AND CATTLE PASS STEPS SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

ALL STEEL REINFORCEMENT OR FABRIC USED AS SHOWN ABOVE SHALL BE INCIDENTAL TO THE BID ITEM OF WHICH IT IS AN INTEGRAL PART.

EYE-RODS FOR FENCE CONNECTIONS SHALL BE PROVIDED BY THE CONTRACTOR AS AN INCIDENTAL TO THE BID ITEM OF CONCRETE MASONRY, ENDWALLS AND SHALL BE GALVANIZED.

CONCRETE USED FOR THE CATTLE WALKWAY WITHIN THE PIPE SHALL BE INCIDENTAL TO THE BID ITEM OF PIPE CATTLE PASS.

DETAILS FOR PIPE CATTLE PASS, CONCRETE ENDWALL AND STEPS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/6/75 — DATE

/S/ Harold Fiedler — STATE DESIGN ENGINE 111 — HWYS

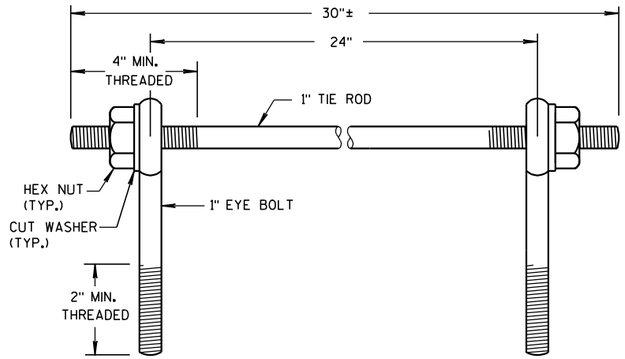
FHWA

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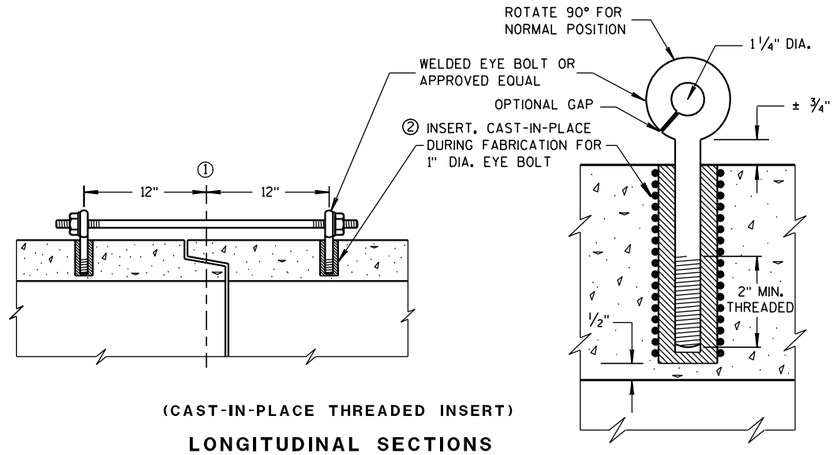
S.D.D. 8 F 3-3

6

S.D.D. 8 F 3-3



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

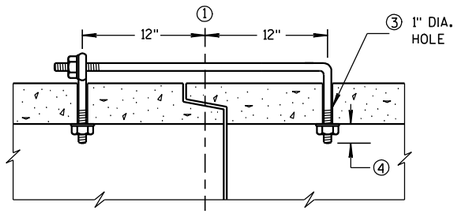
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

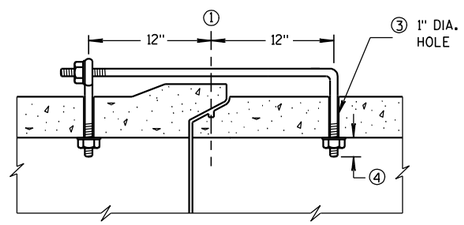
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

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



(TONGUE & GROOVE PIPE)

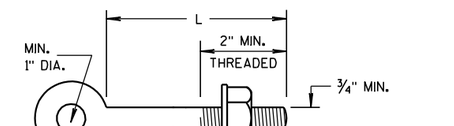


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

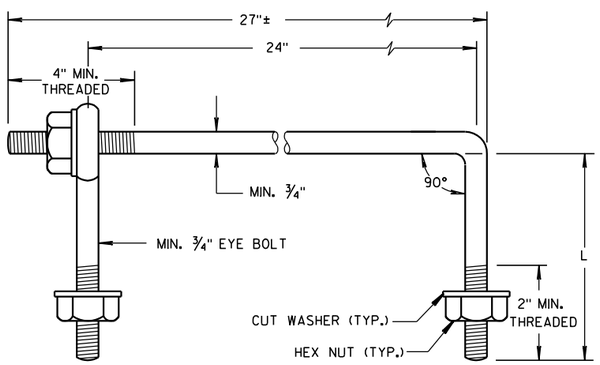
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

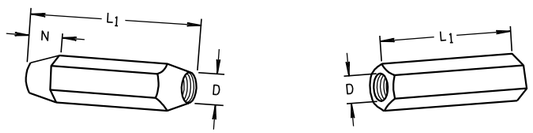
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

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

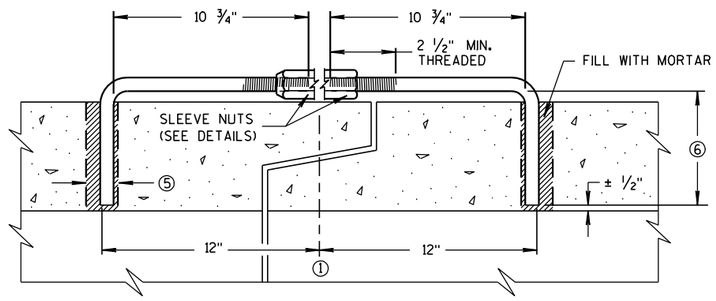
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

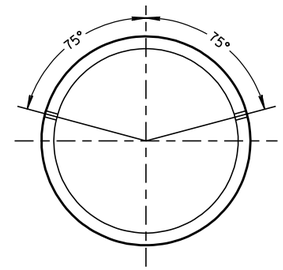
SLEEVE NUTS



LONGITUDINAL SECTION

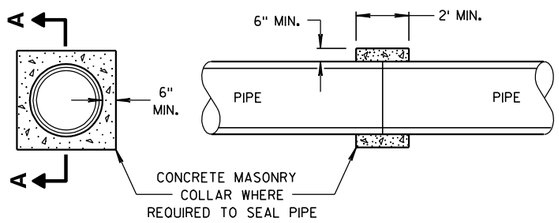
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

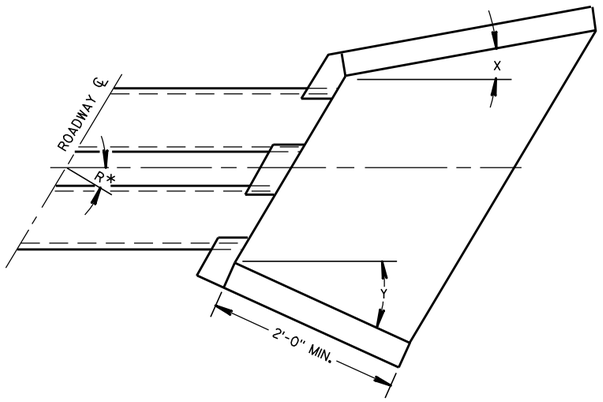
FHWA

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S.D.D. 8 F 4-7

6

S.D.D. 8 F 4-7



WINGWALL ANGLE DETAILS

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

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

GENERAL NOTES

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

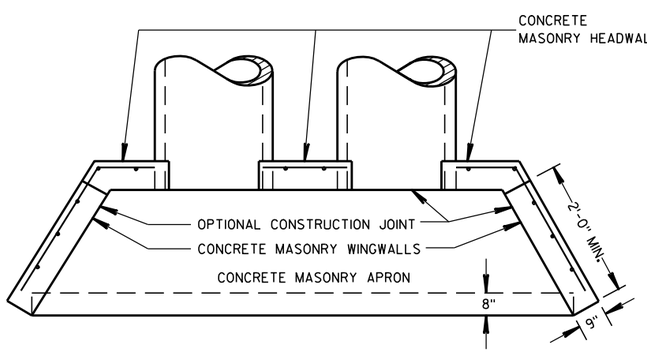
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

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

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

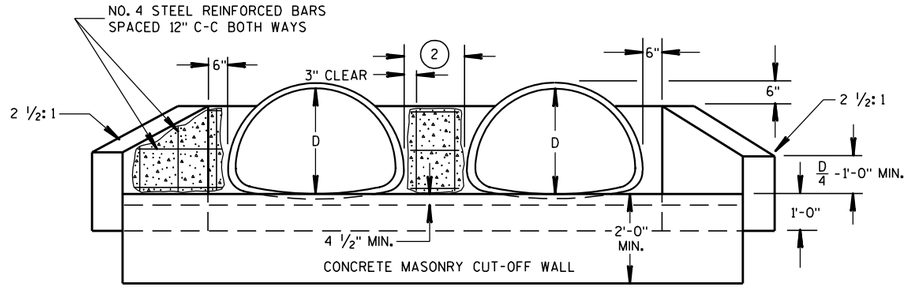
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

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



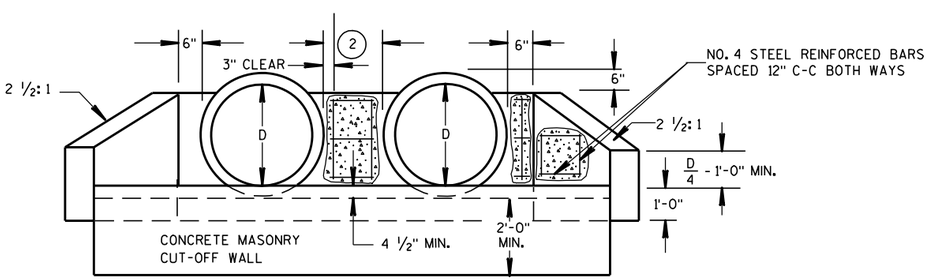
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



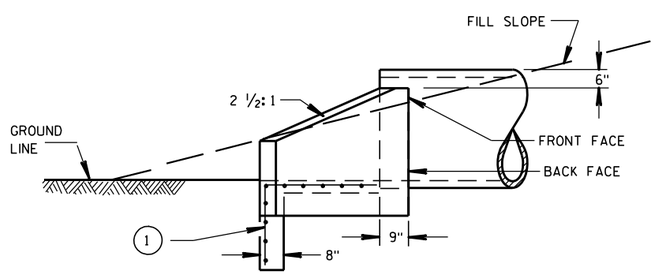
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

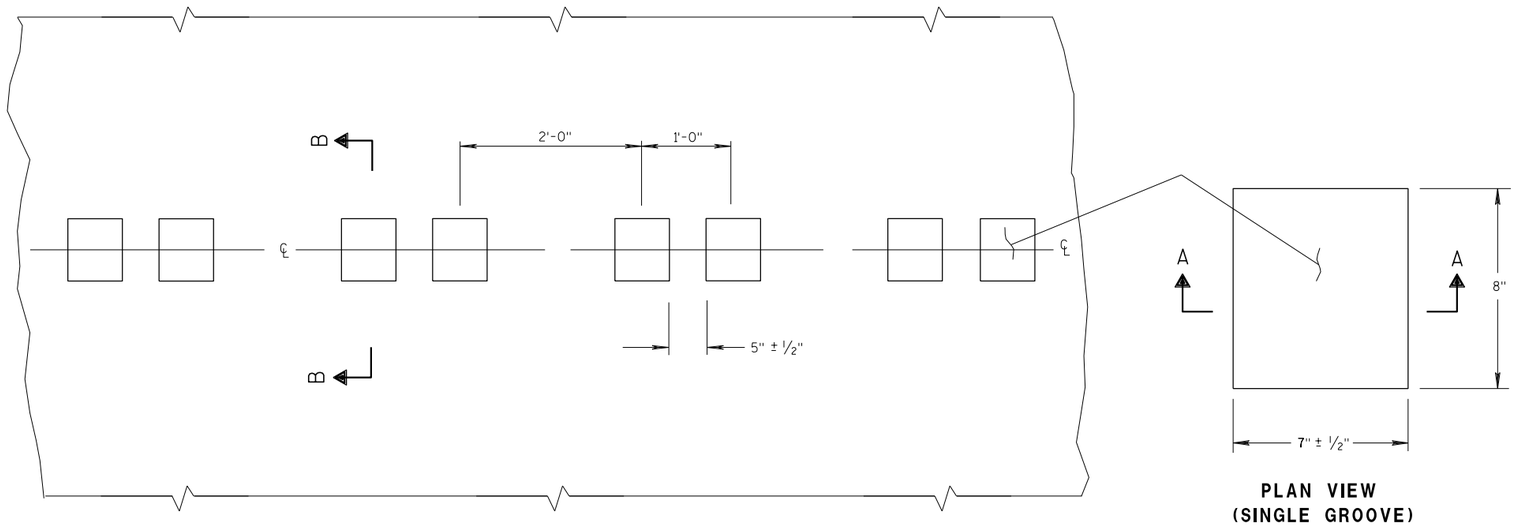
9/14/98 — DATE

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

FHWA

6

S.D.D. 8 F 10-1



PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

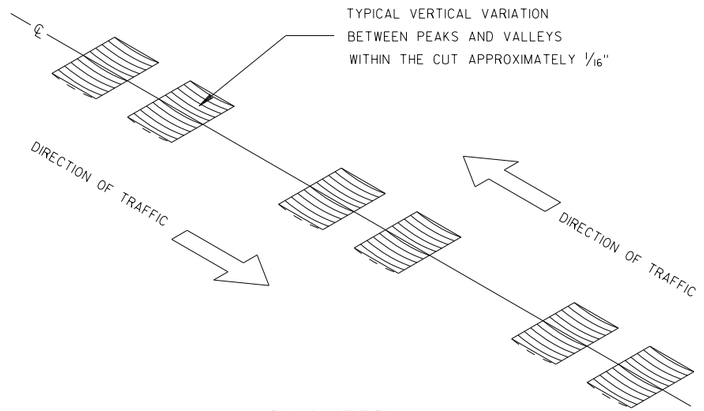
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

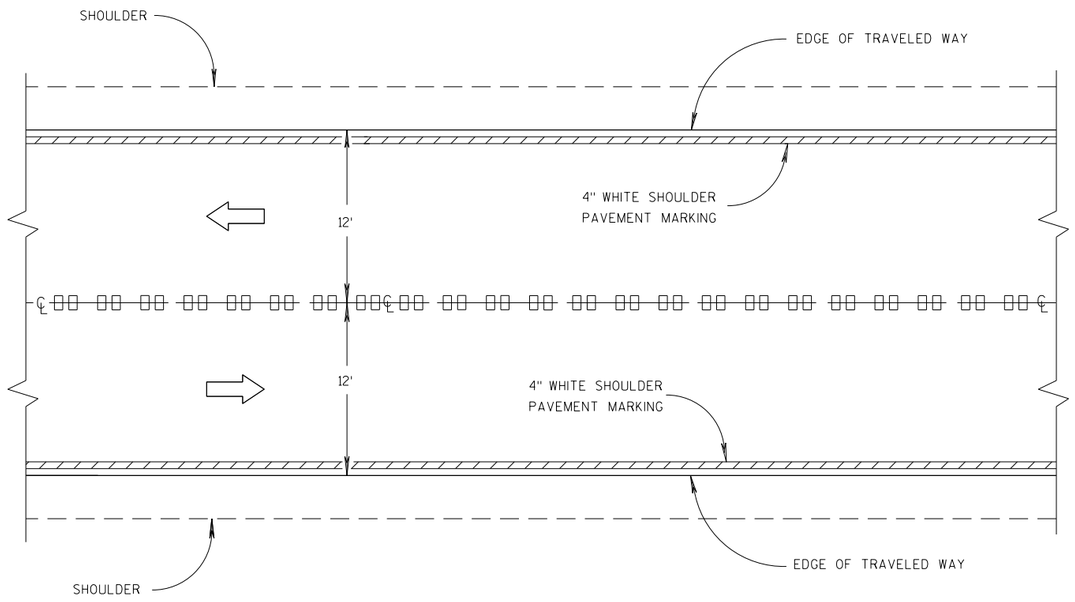
INSTALL PERMANENT MARKING EPOXY 4-INCH AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

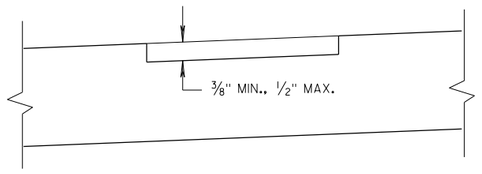
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



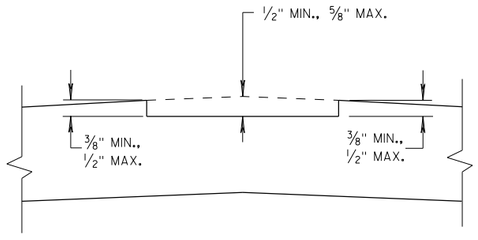
ISOMETRIC



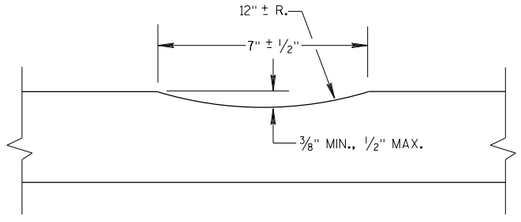
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY

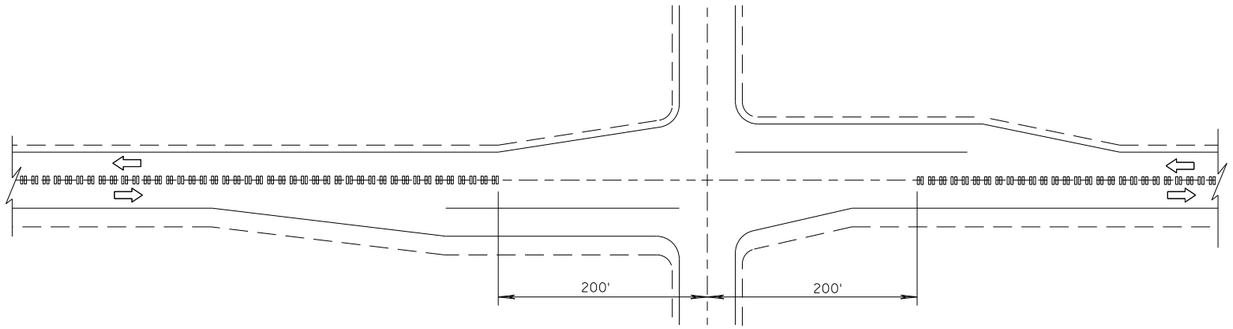


SECTION A-A

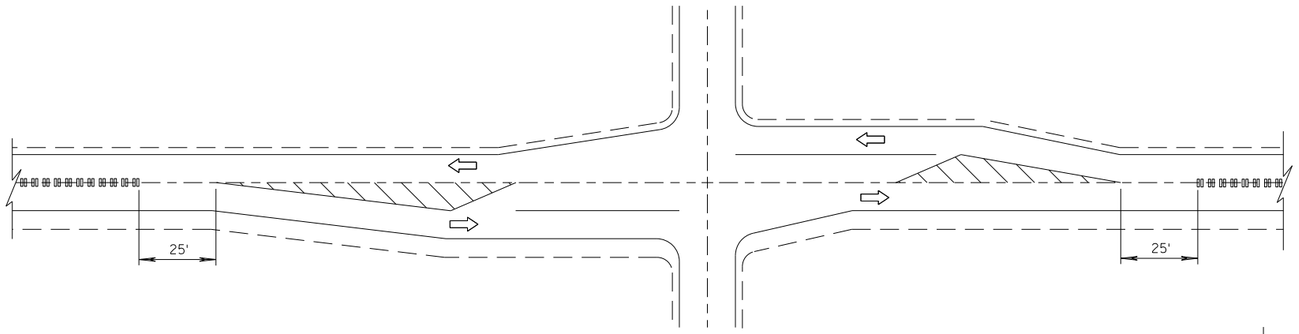
2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

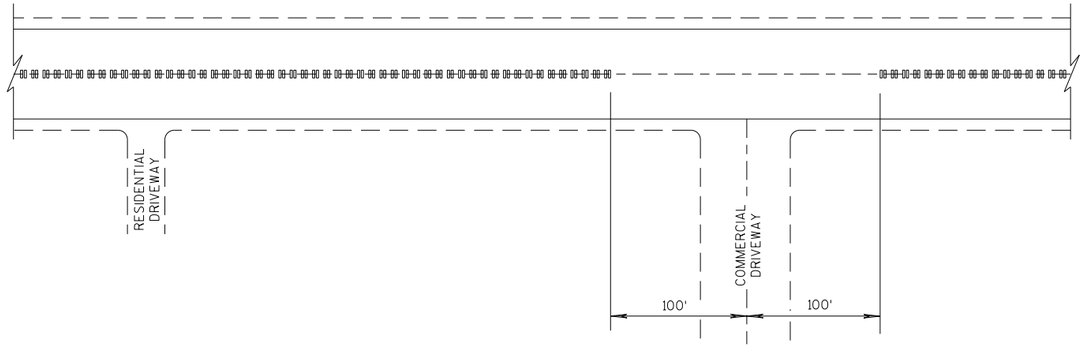
6
S.D.D. 13 A 11-3a



CENTER LINE GROOVES AT INTERSECTIONS

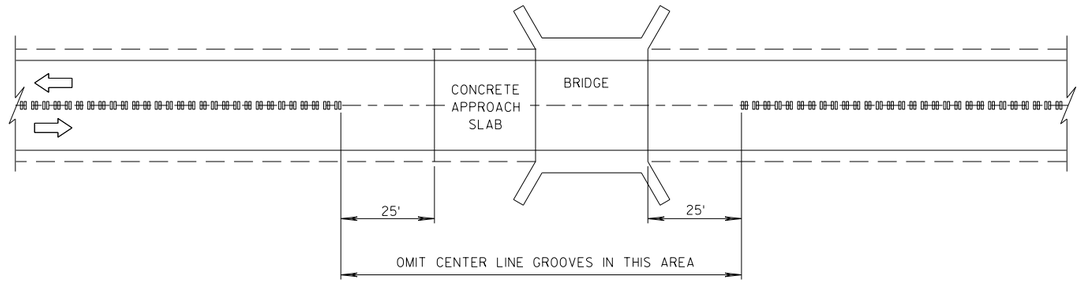


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

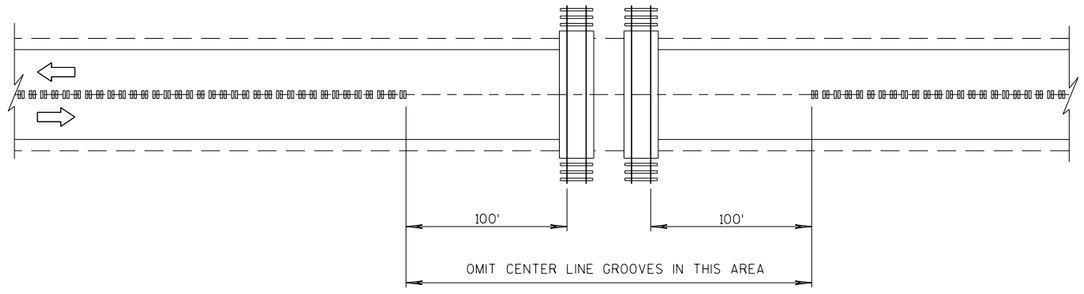


CENTER LINE GROOVES AT DRIVEWAYS (1)

(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

7/2018 — DATE

/S/ Rodney T — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

S.D.D. 13 A 11-3b

6

S.D.D. 13 A 11-3b

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

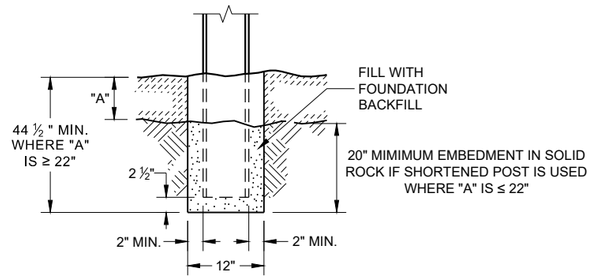
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

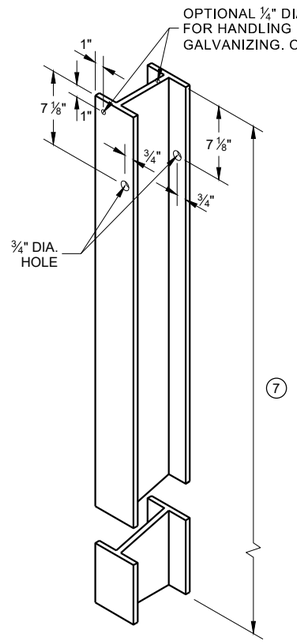
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

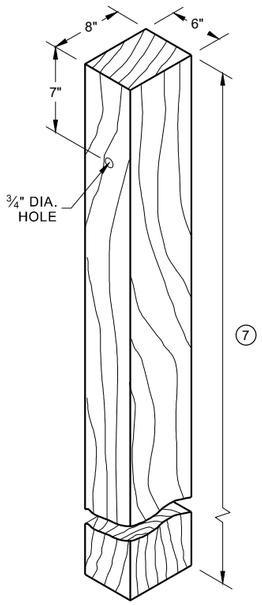
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



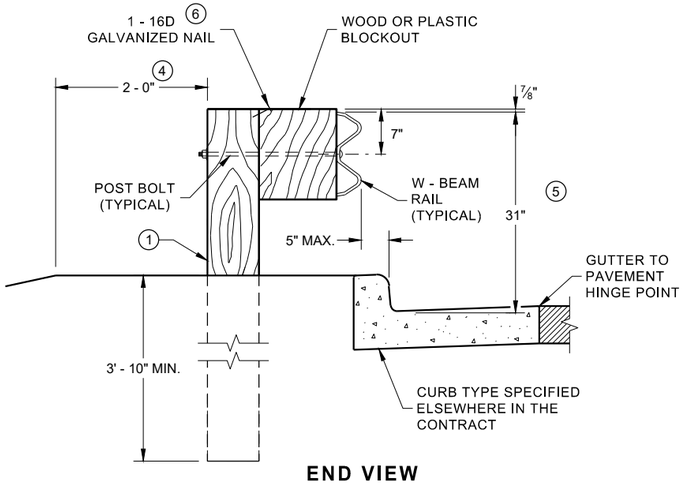
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



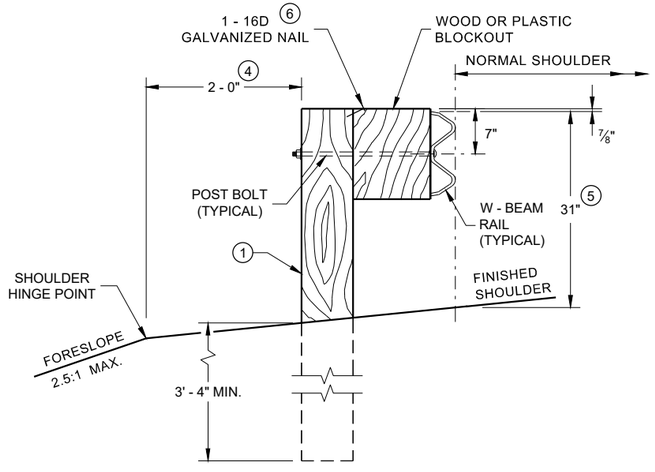
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



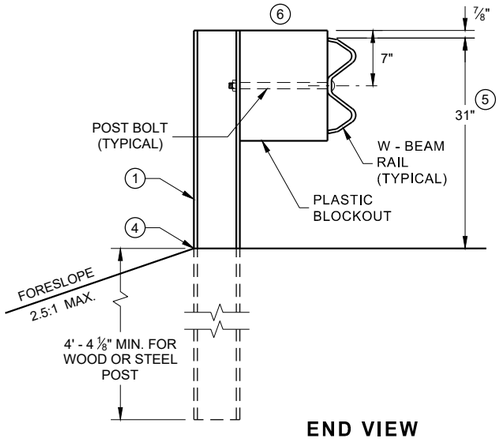
WOOD POST (6" X 8") NOMINAL (1)



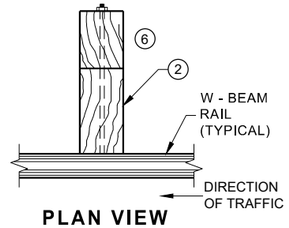
END VIEW
LOCATED ALONG A CURBED ROADWAY



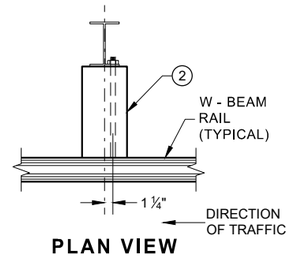
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



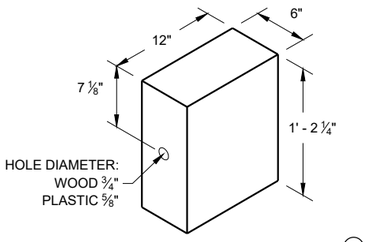
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

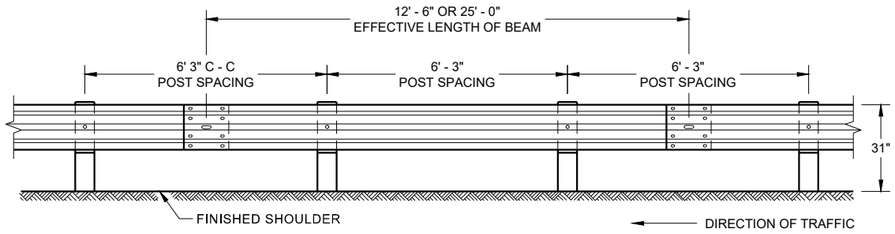
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

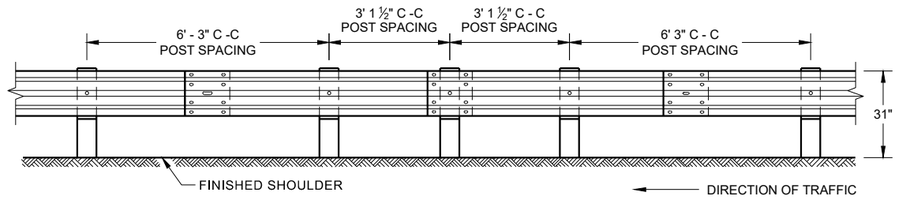
SDD 14B42 - 06a

6

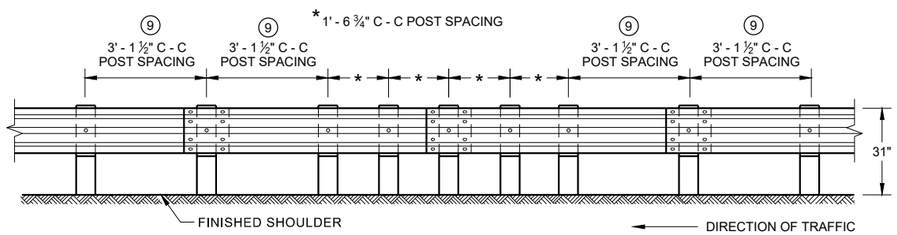
SDD 14B42 - 06a



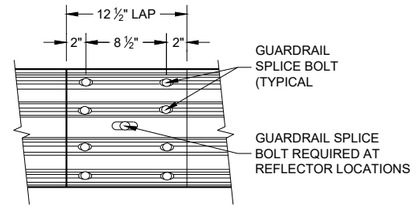
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

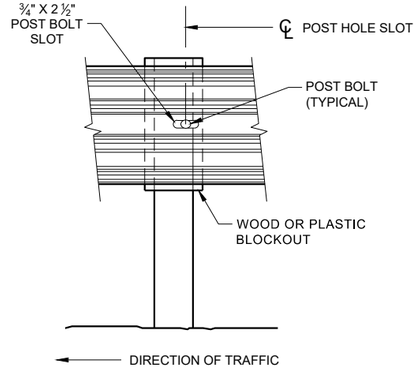
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

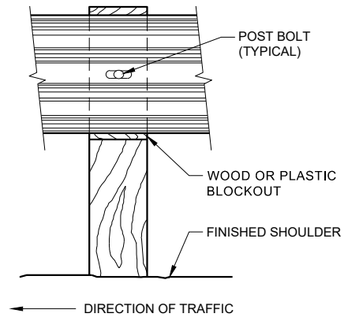
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

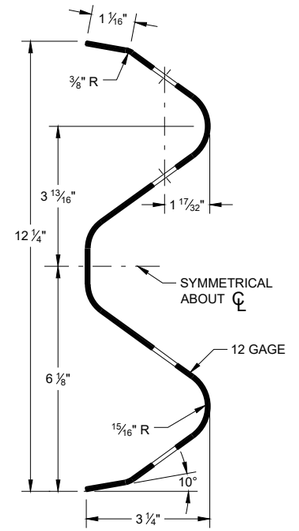
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



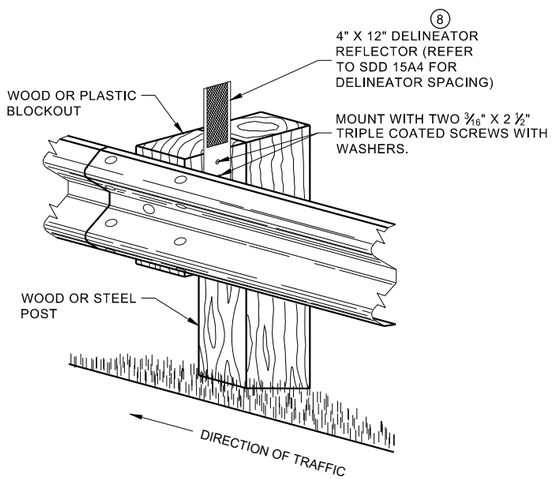
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL

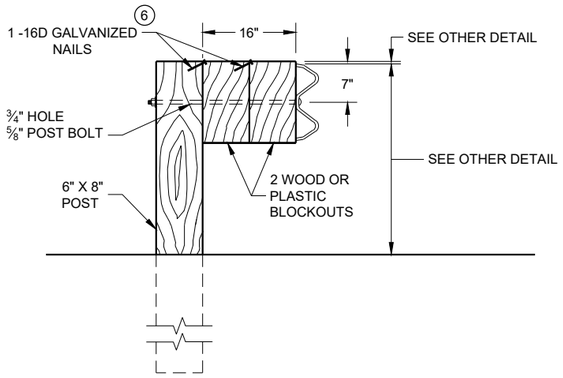


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 06b

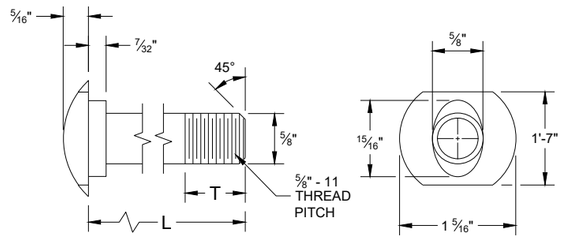


DETAIL FOR 16" BLOCKOUT DEPTH

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.

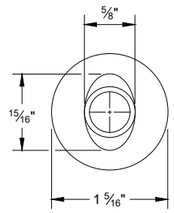
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

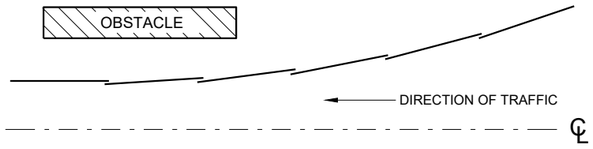


POST BOLT TABLE

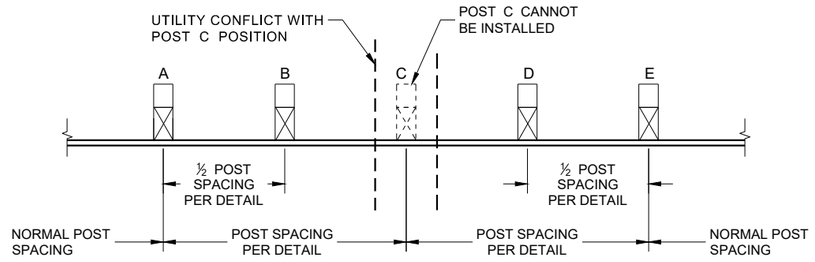
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



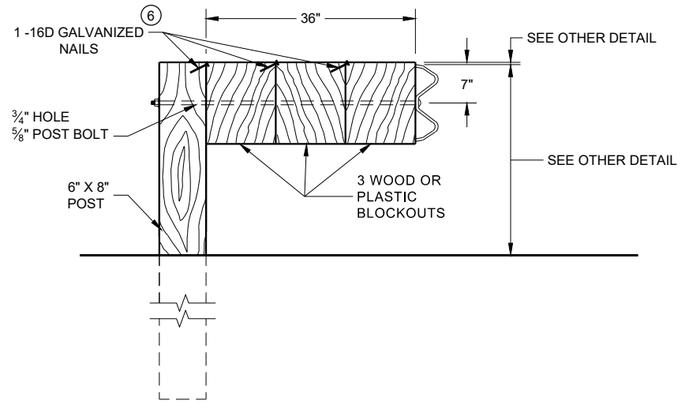
ALTERNATE BOLT HEAD



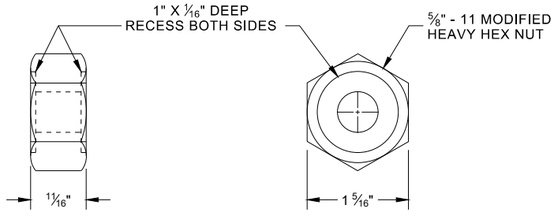
PLAN VIEW
BEAM LAPPING DETAIL



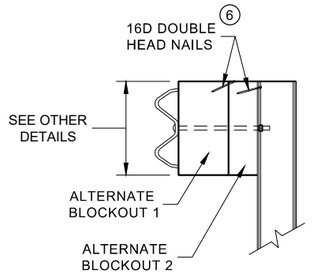
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



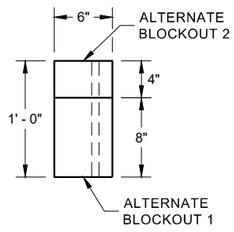
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



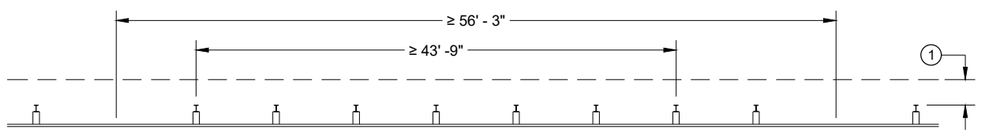
PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

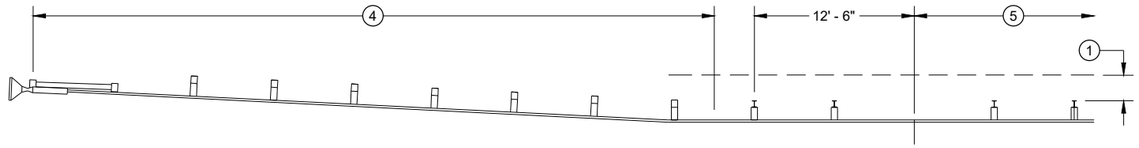
NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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.

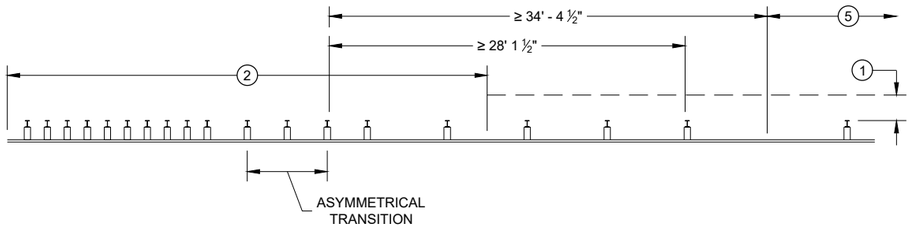
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



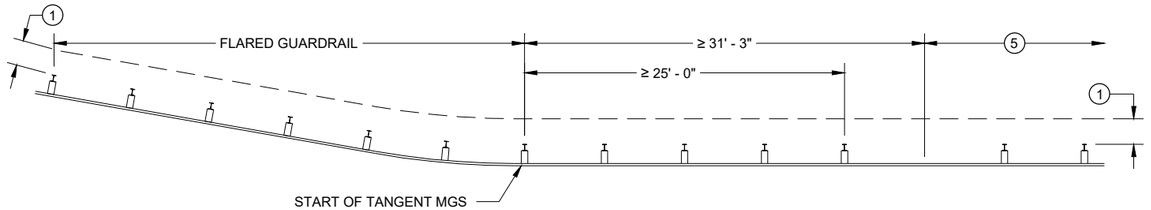
MISSING POST IN NORMAL BEAM GUARD RUN



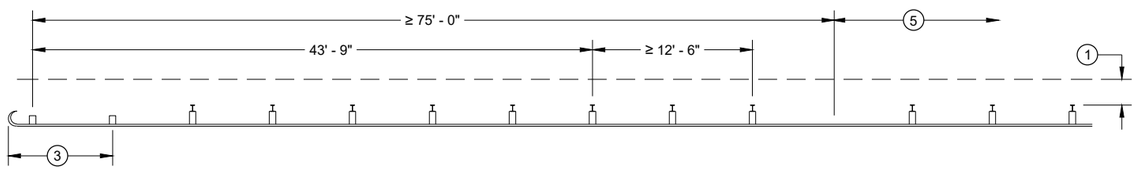
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



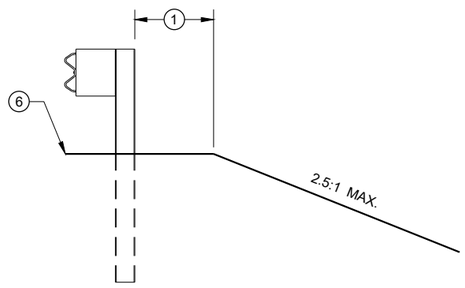
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

SDD 14B42 - 06d

SDD 14B42 - 06d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

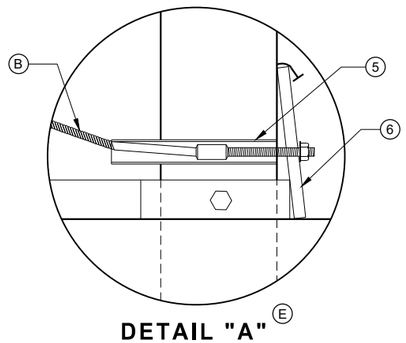
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

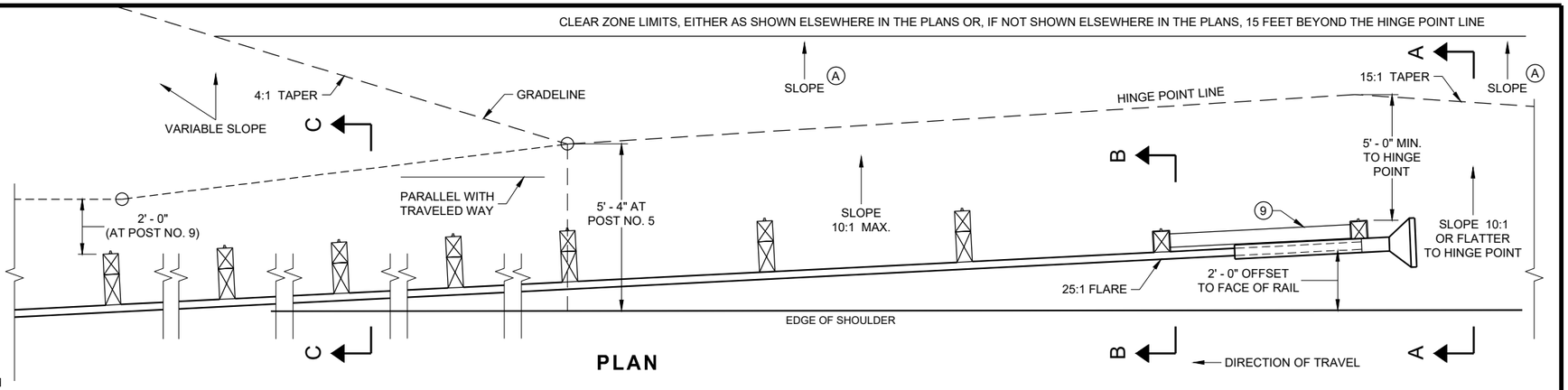
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

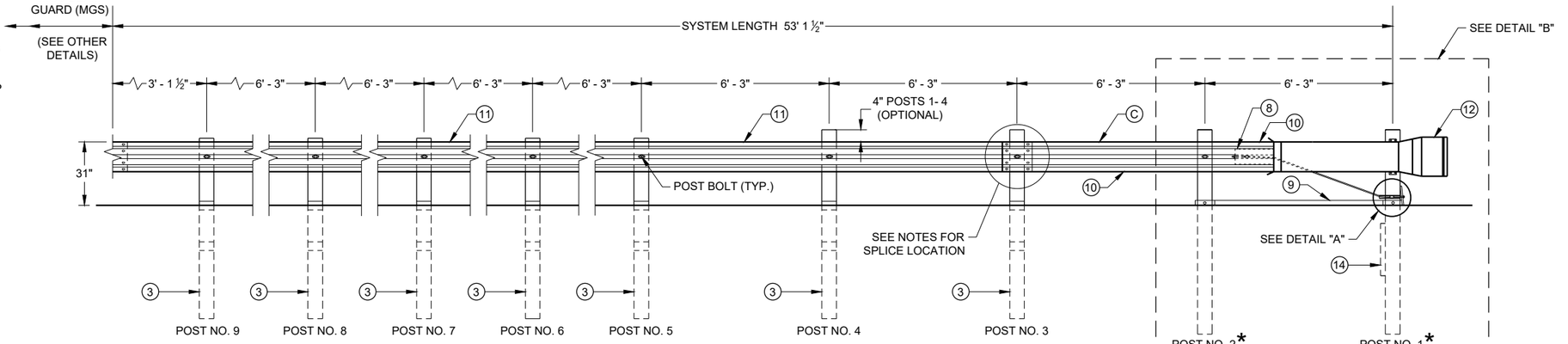
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



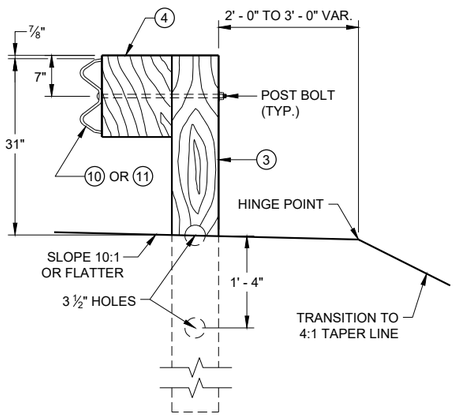
DETAIL "A" (E)



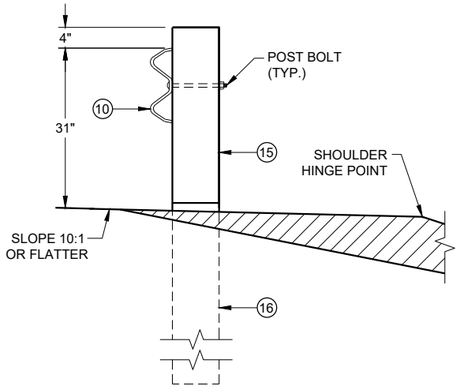
PLAN



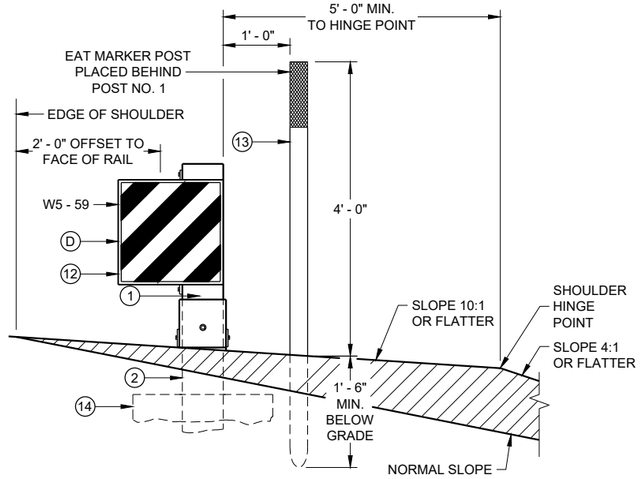
ELEVATION



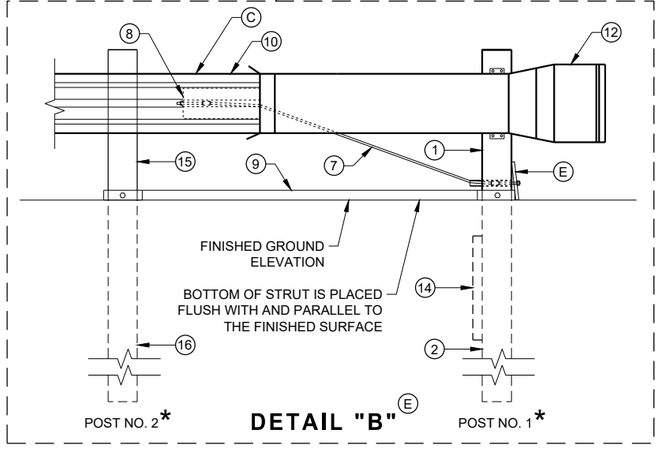
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



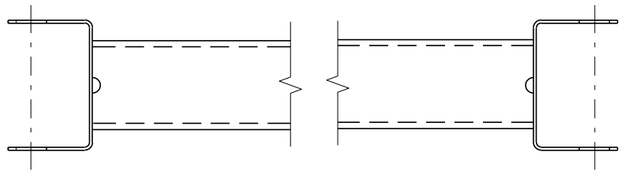
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

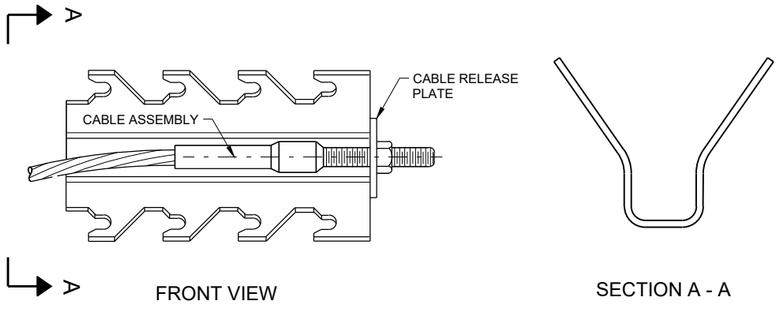
SDD 14B44 - 04a



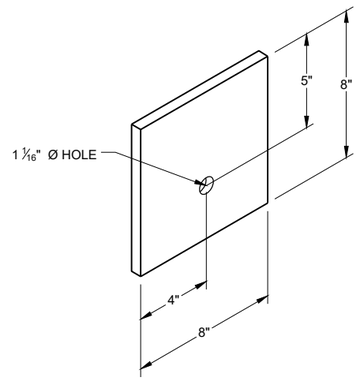
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
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	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

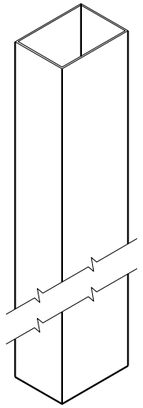
6

SDD 14B45 - 04b

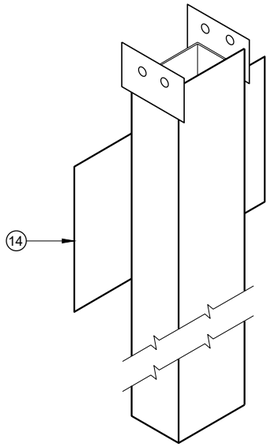
SDD 14B45 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

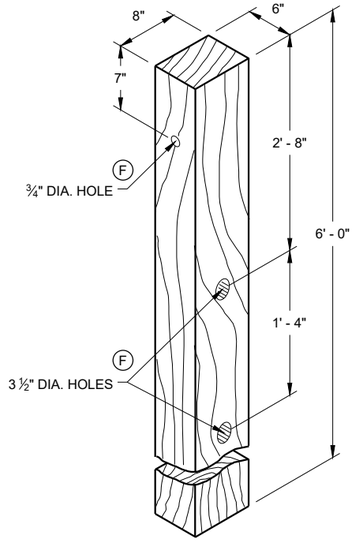
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA



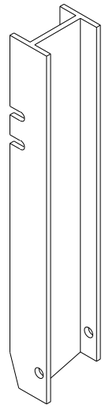
UPPER POST NO. 1 (1) (E)



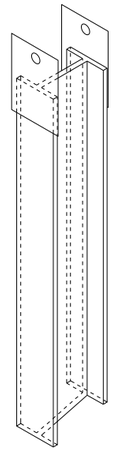
LOWER POST NO. 1 (2) (E)



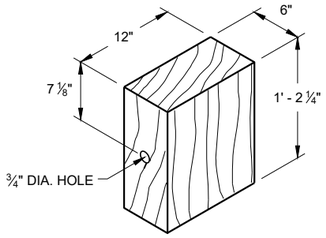
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



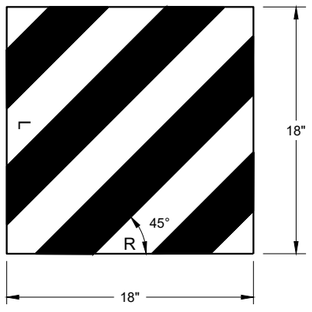
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

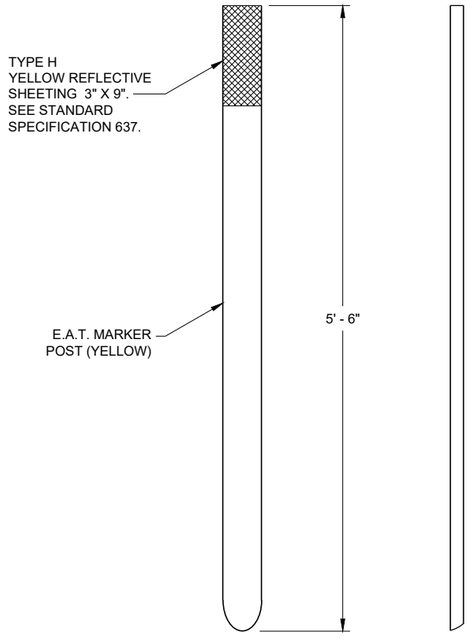


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



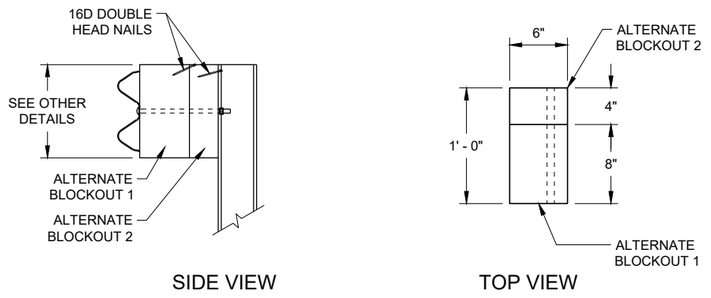
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

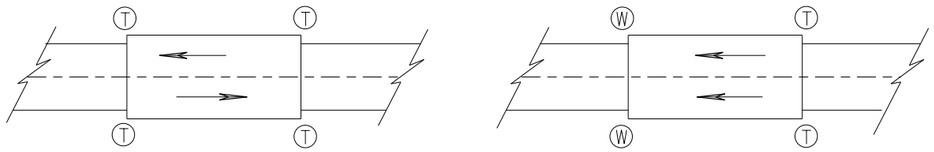
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

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SDD 14B44 - 04c
SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

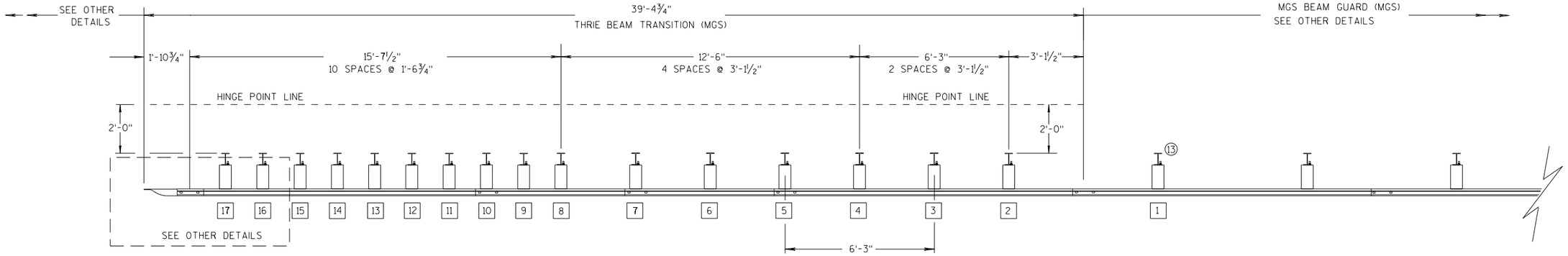
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

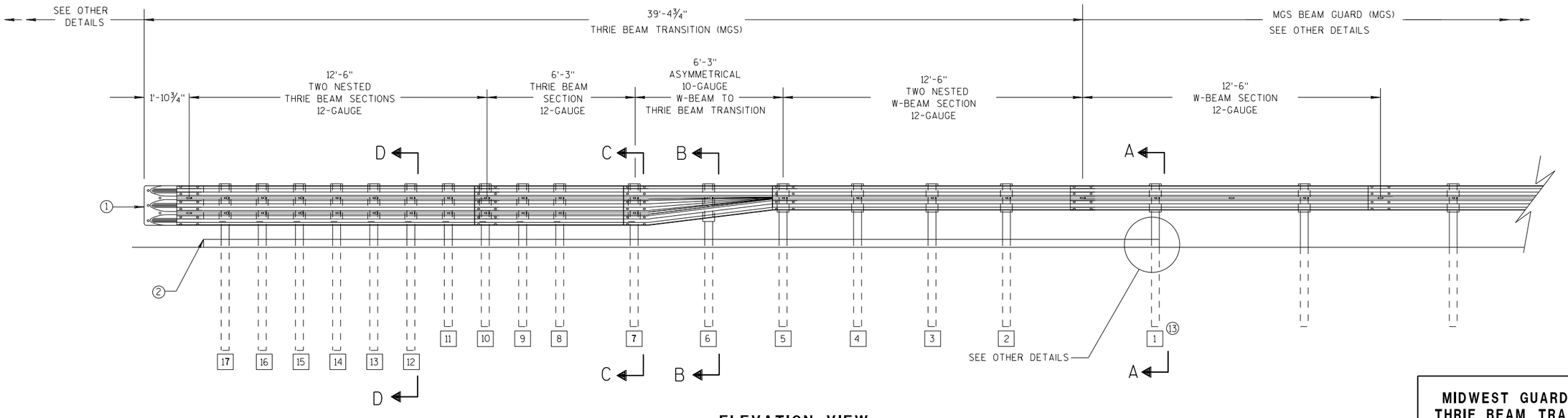
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

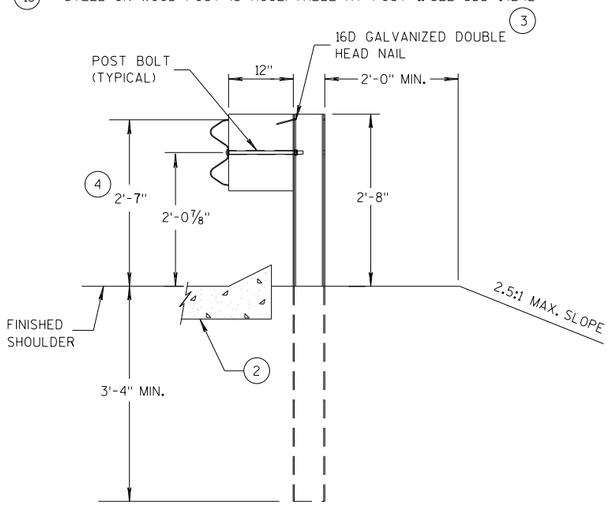
GENERAL NOTES

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

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

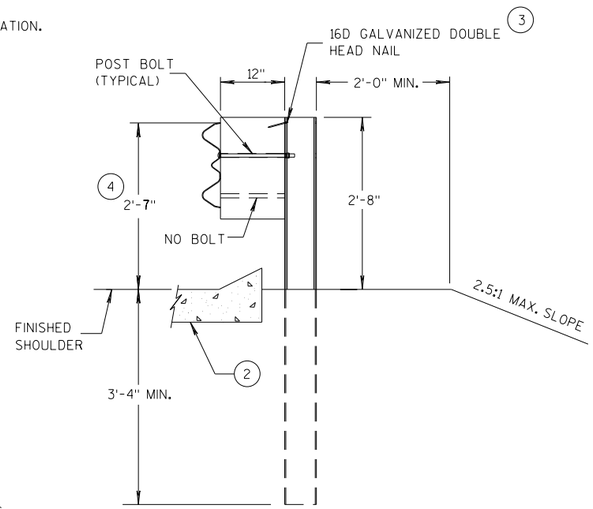
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



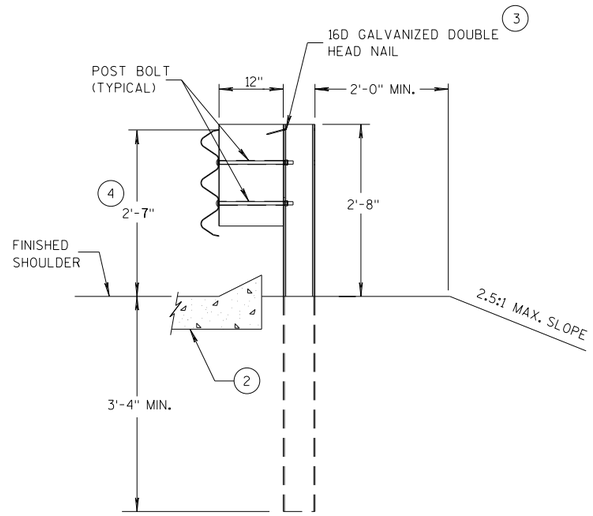
SECTION A-A (13)

POSTS 1-5



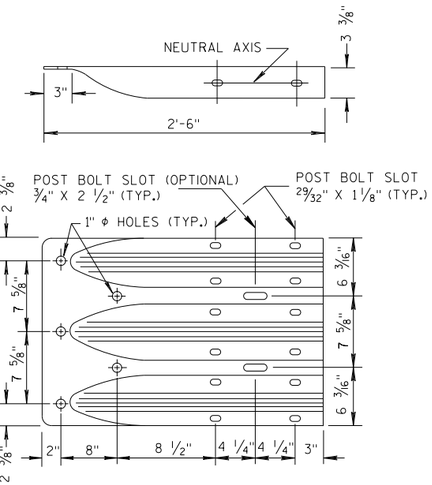
SECTION B-B

POST 6

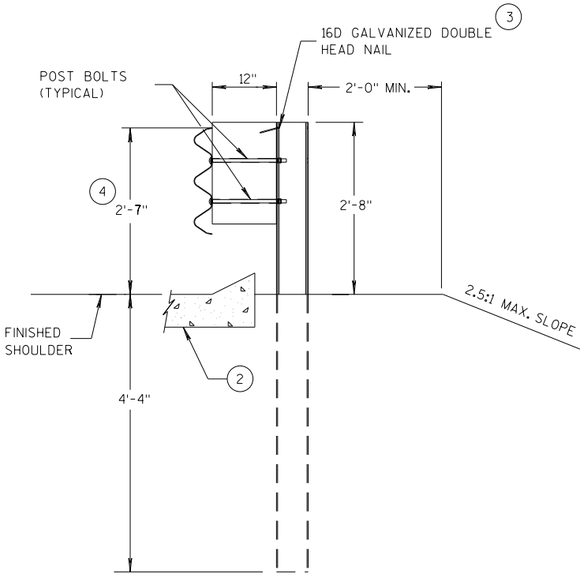


SECTION C-C

POSTS 7-11

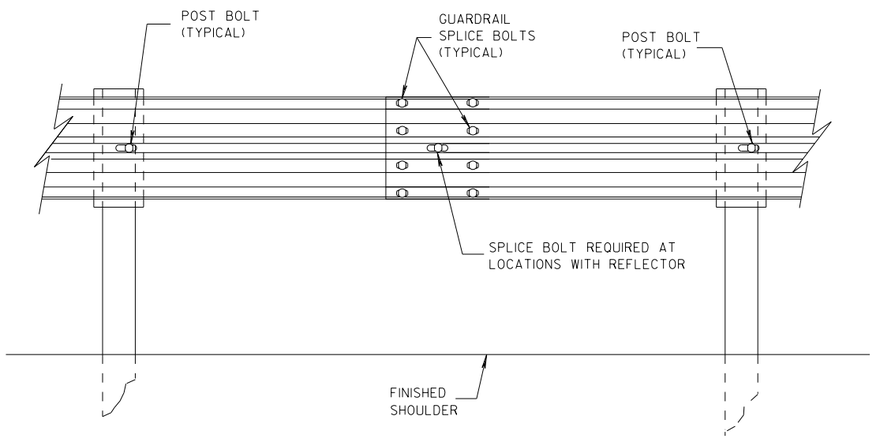


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

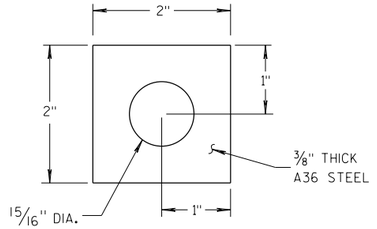
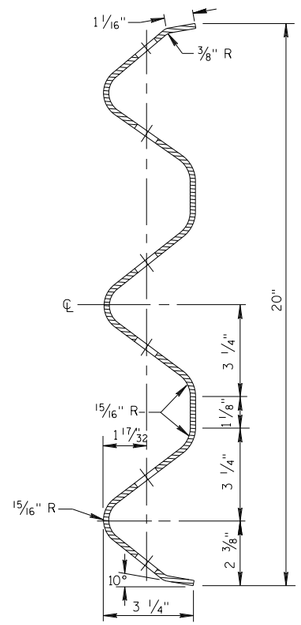


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

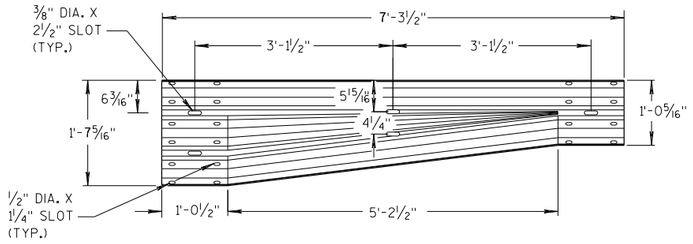
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 124

6

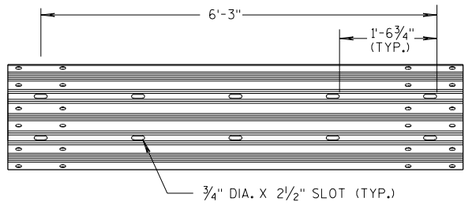
S.D.D. 14 B 45-5b

6

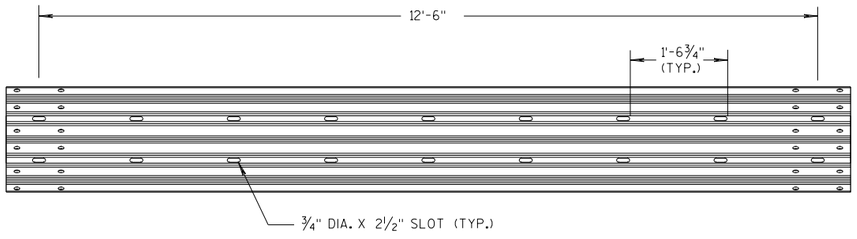
S.D.D. 14 B 45-5b



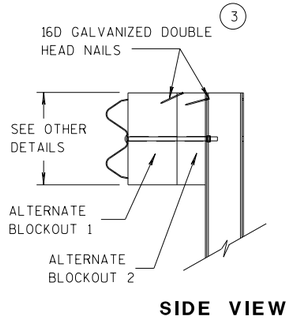
W-BEAM TO THRIE BEAM TRANSITION SECTION



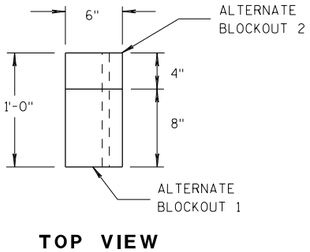
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

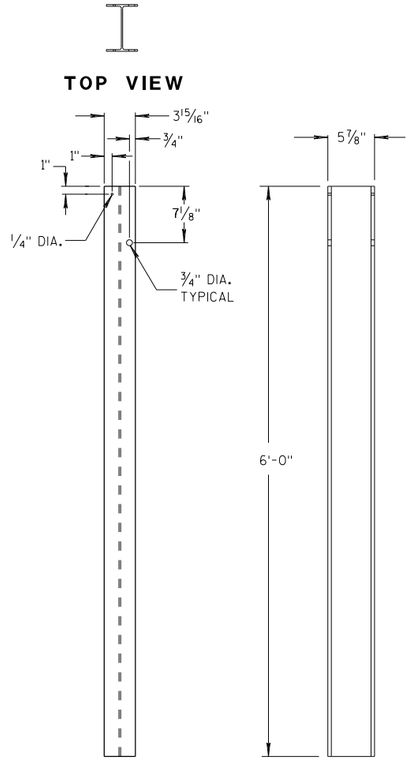


SIDE VIEW



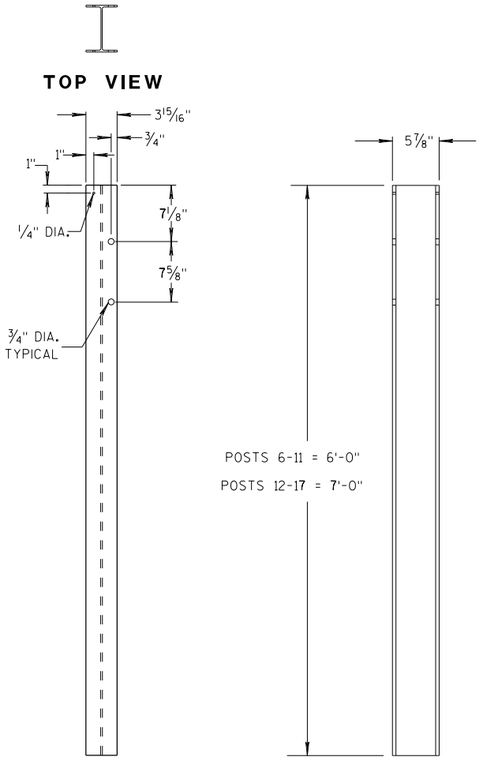
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



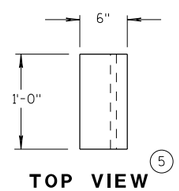
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

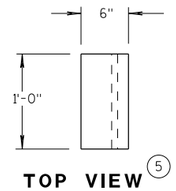


FRONT VIEW SIDE VIEW

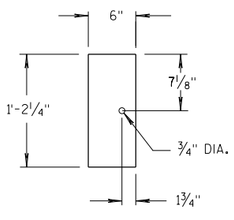
STEEL POSTS 6-17



TOP VIEW (5)

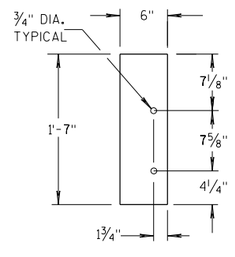


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

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

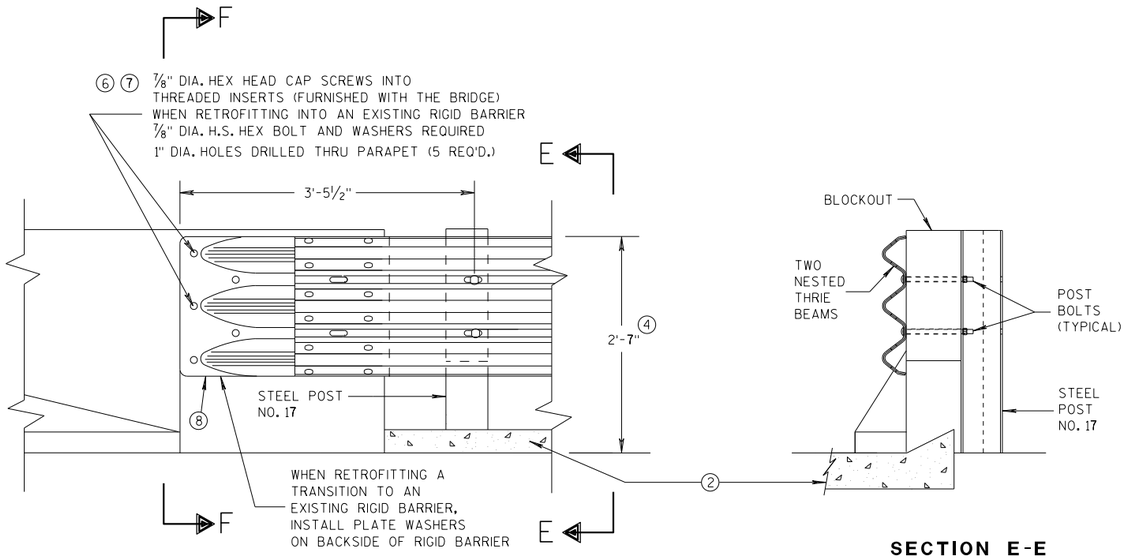
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

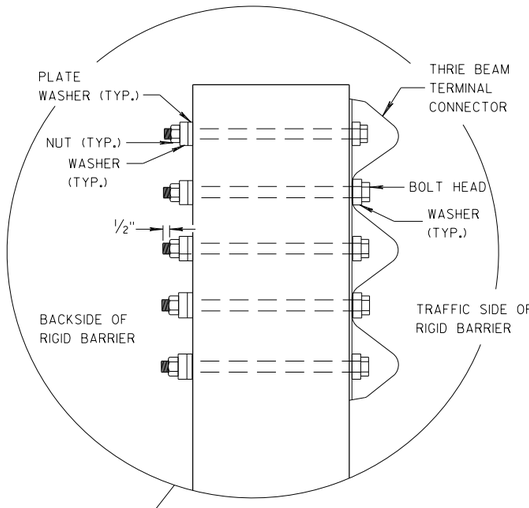
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

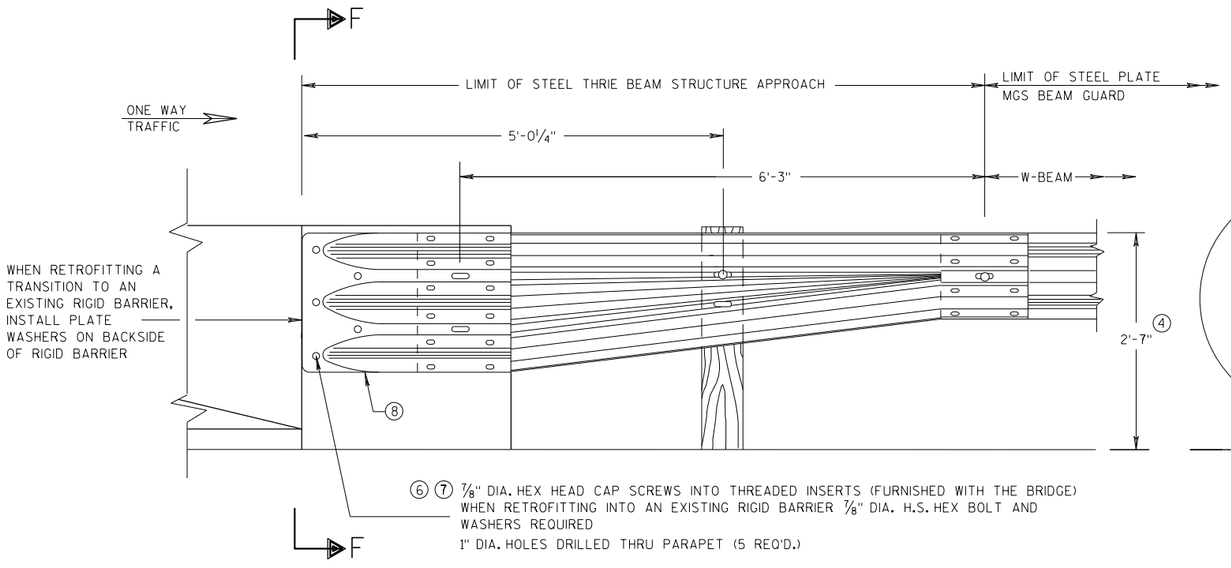
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

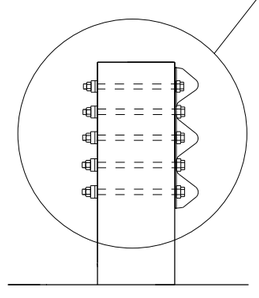
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

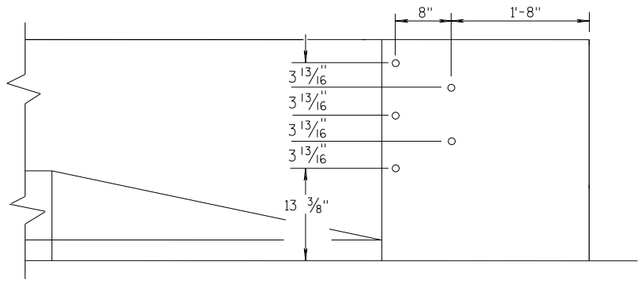




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]NT
FHWA

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S.D.D. 14 B 45-5d

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S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

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

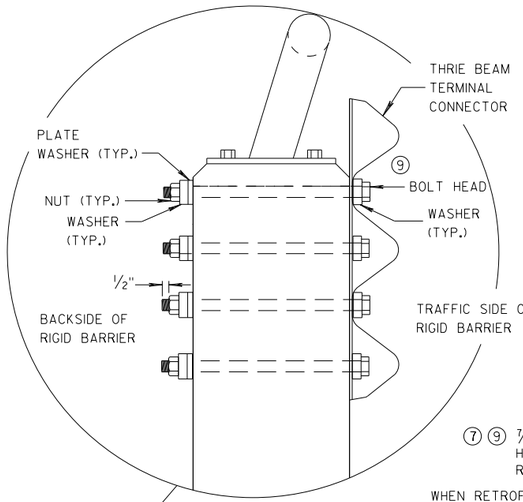
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

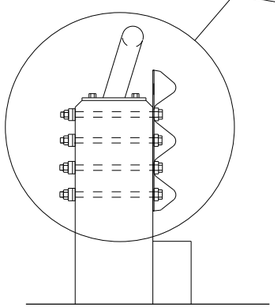
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

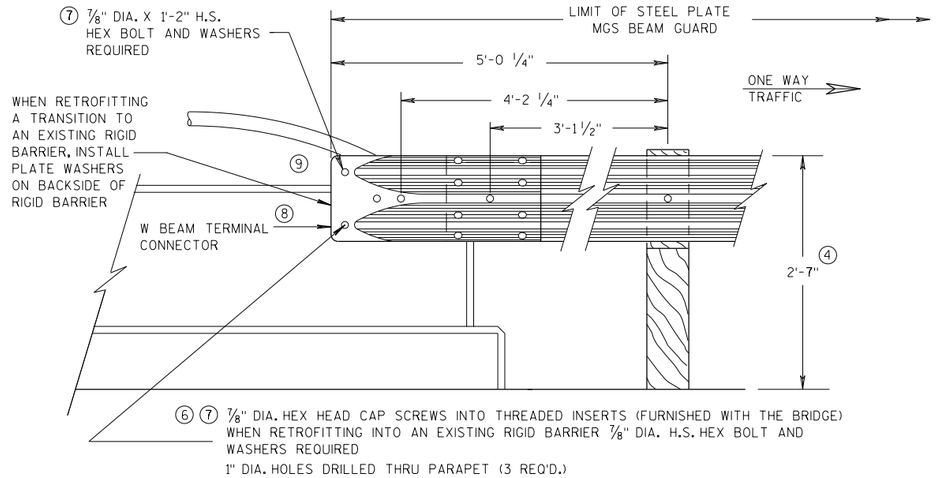
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





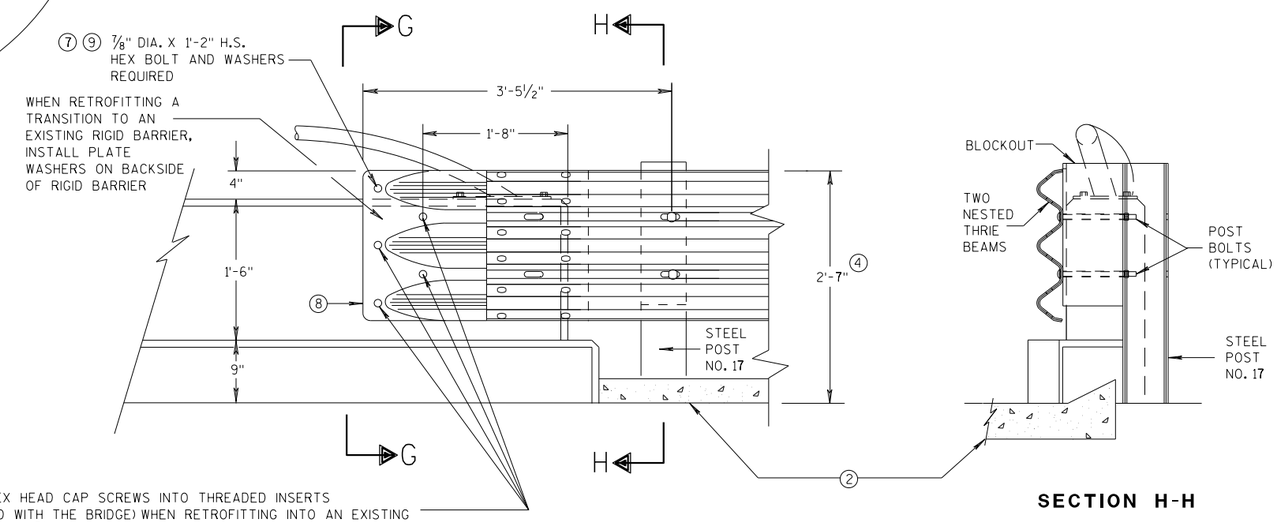
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

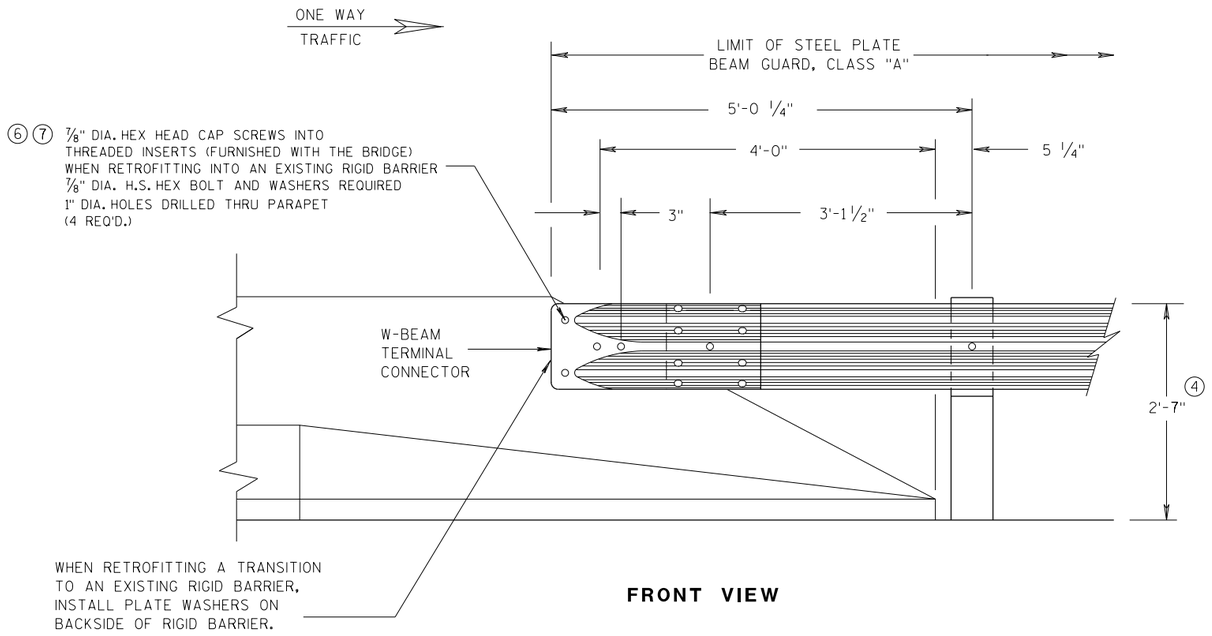
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FHWA

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S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

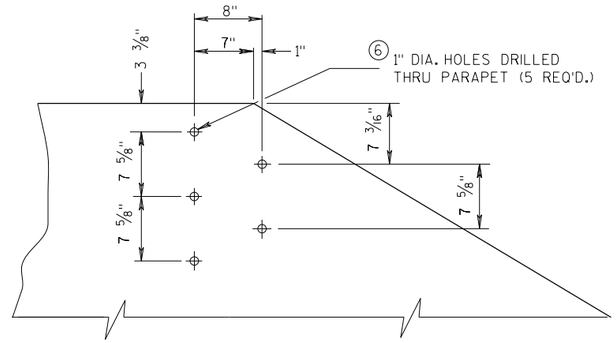
GENERAL NOTES

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

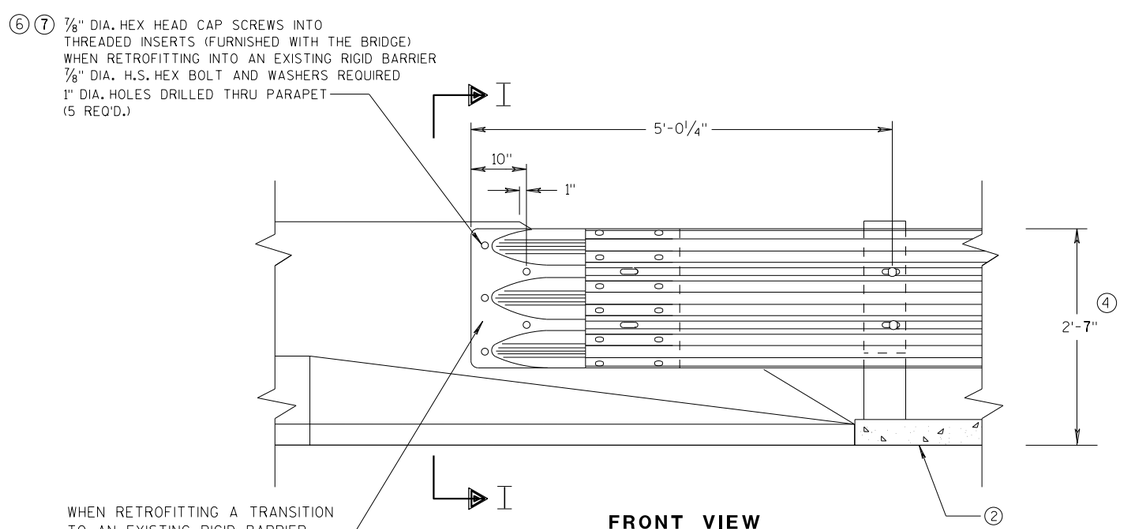
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

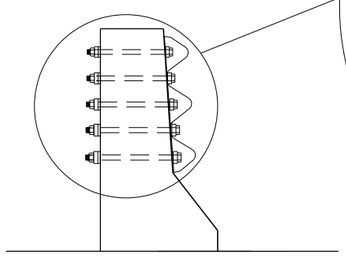
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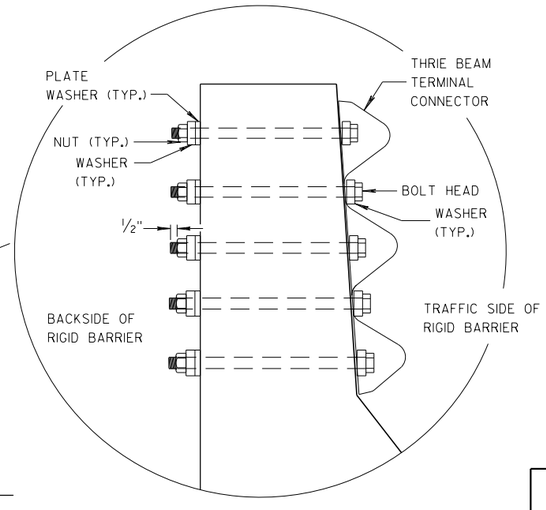
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

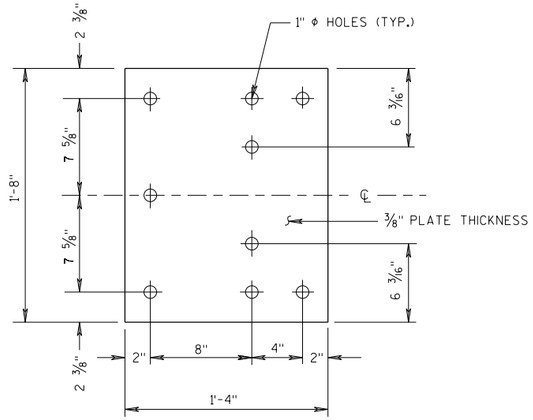
APPROVED
07/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS I
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FHWA

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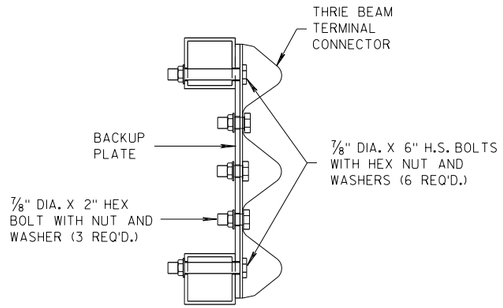
S.D.D. 14 B 45-5f

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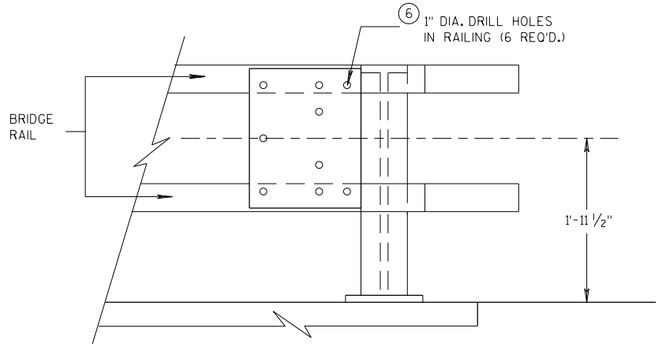
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

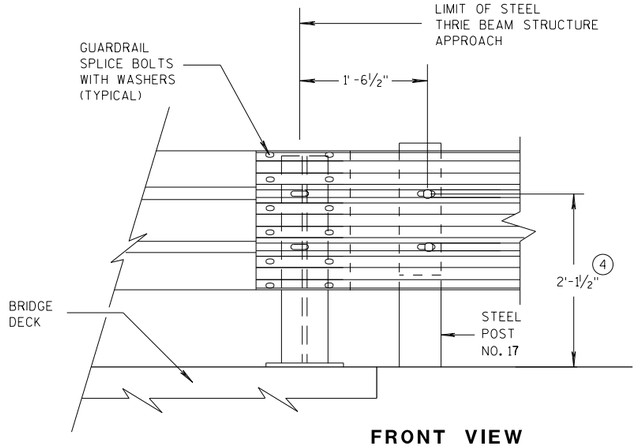


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

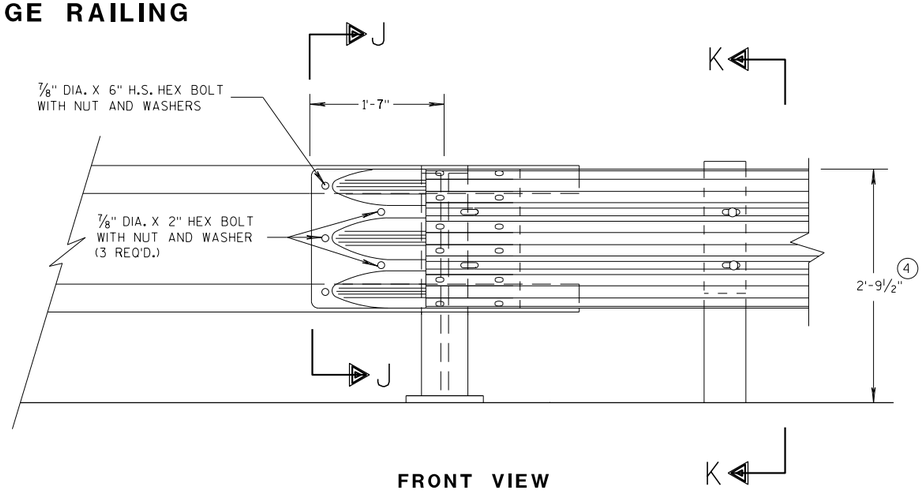
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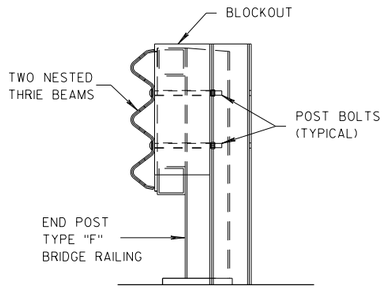


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
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/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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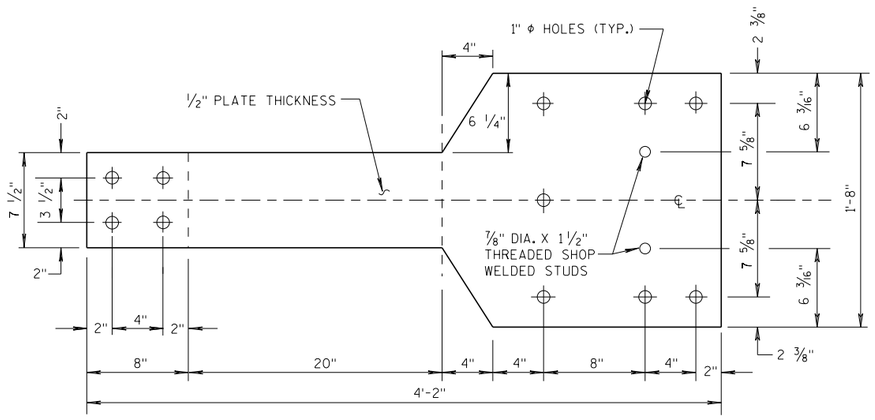
S.D.D. 14 B 45-5g

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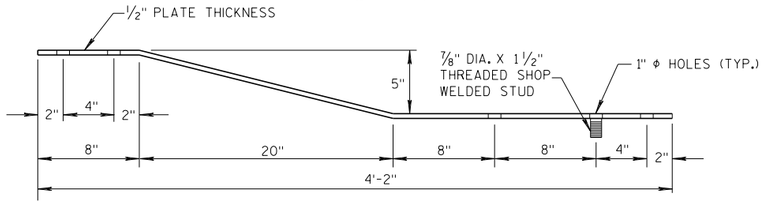
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

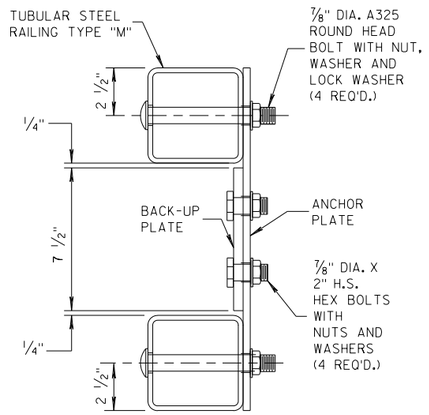


FRONT VIEW

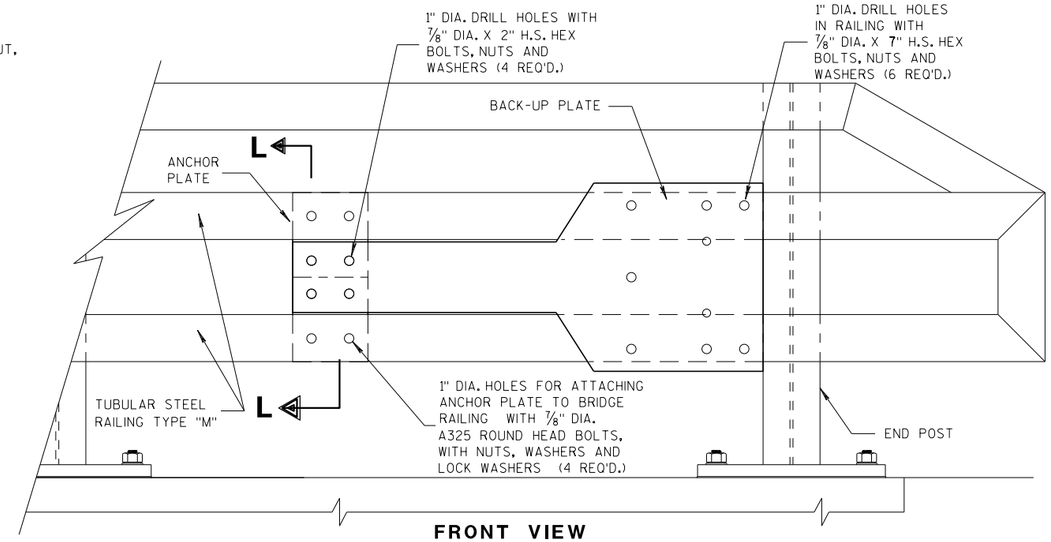


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"



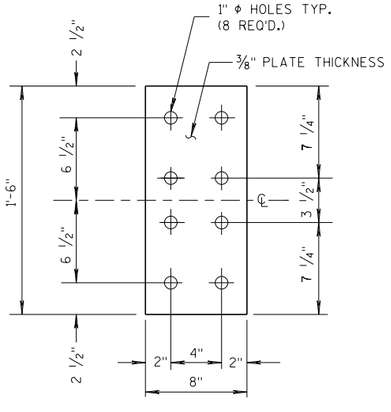
SECTION L-L



FRONT VIEW

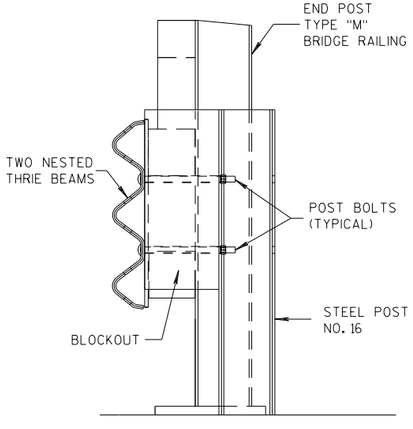
ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

FRONT VIEW

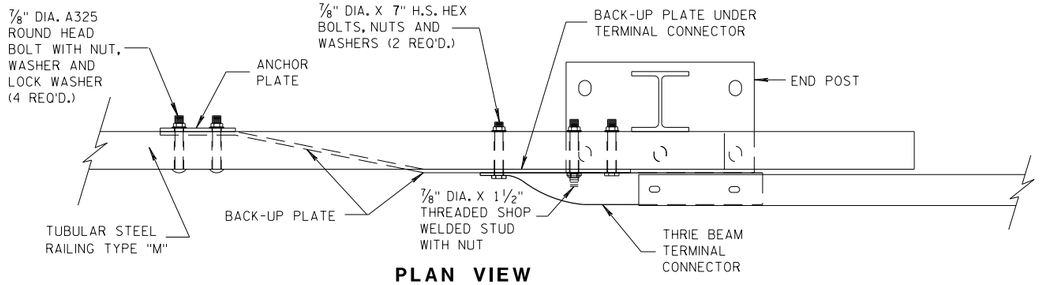


FRONT VIEW

ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

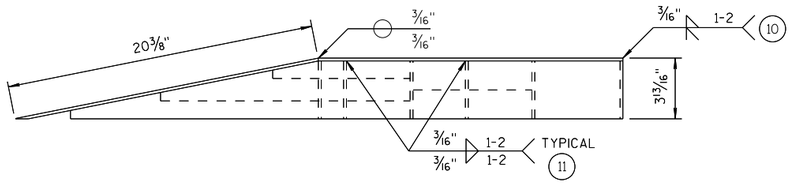
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FHWA

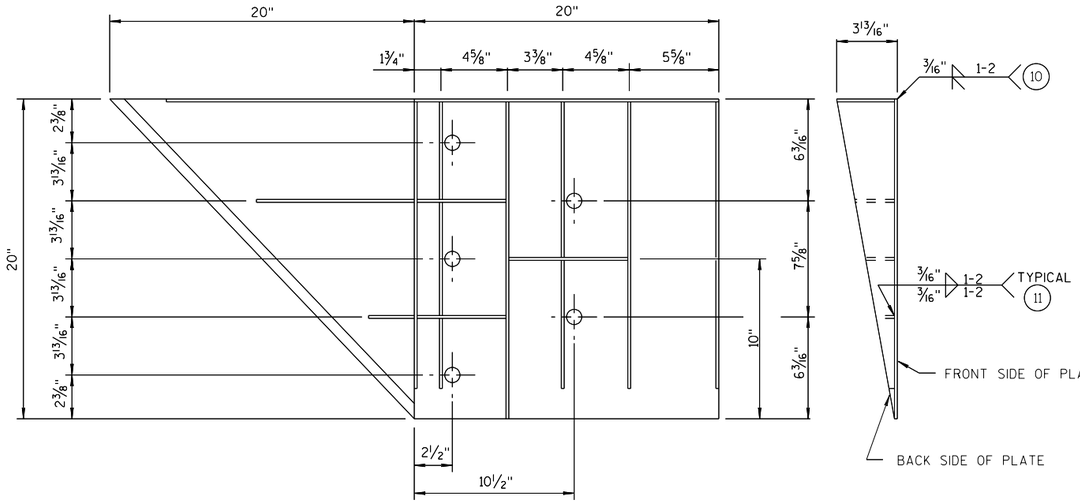
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S.D.D. 14 B 45-5h

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S.D.D. 14 B 45-5h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

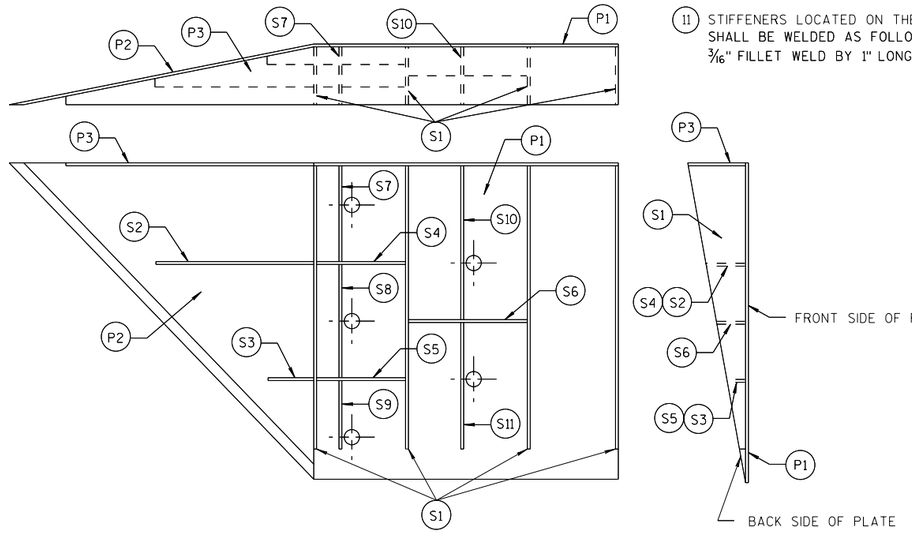


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

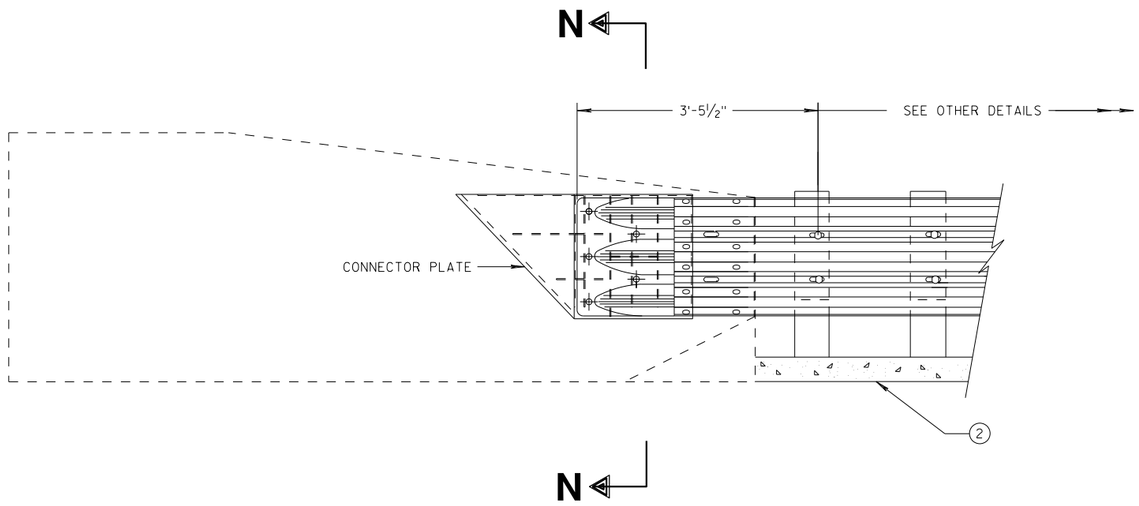
/S/ Rodney Taylor
ROADWAY STANDARDS I
UNIT SUPERVI

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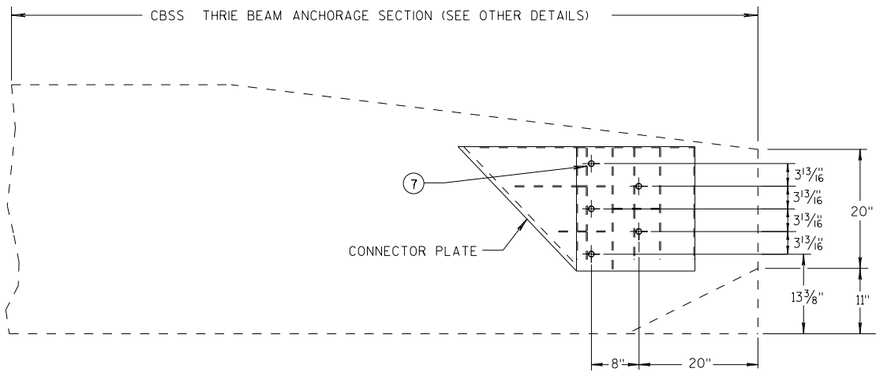
S.D.D. 14 B 45-5i

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S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



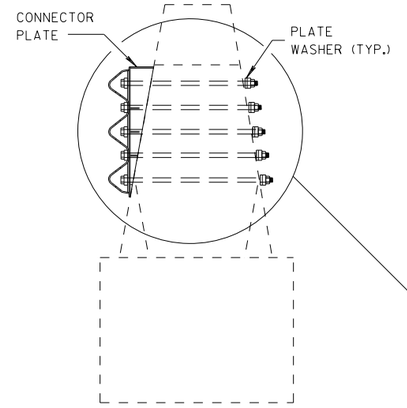
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

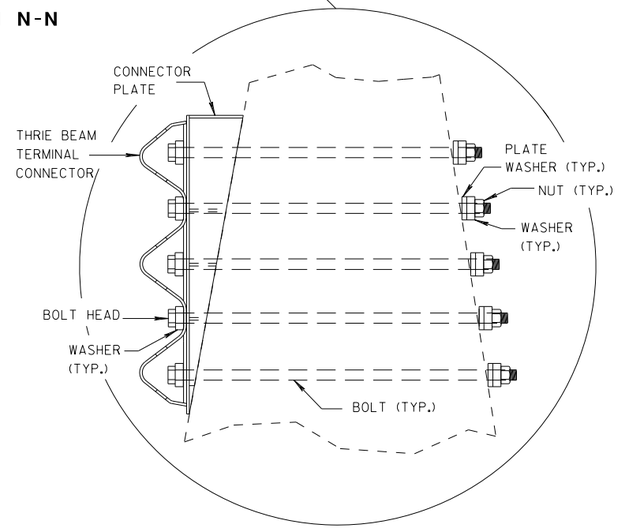
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DI
UNIT SUPERVIS

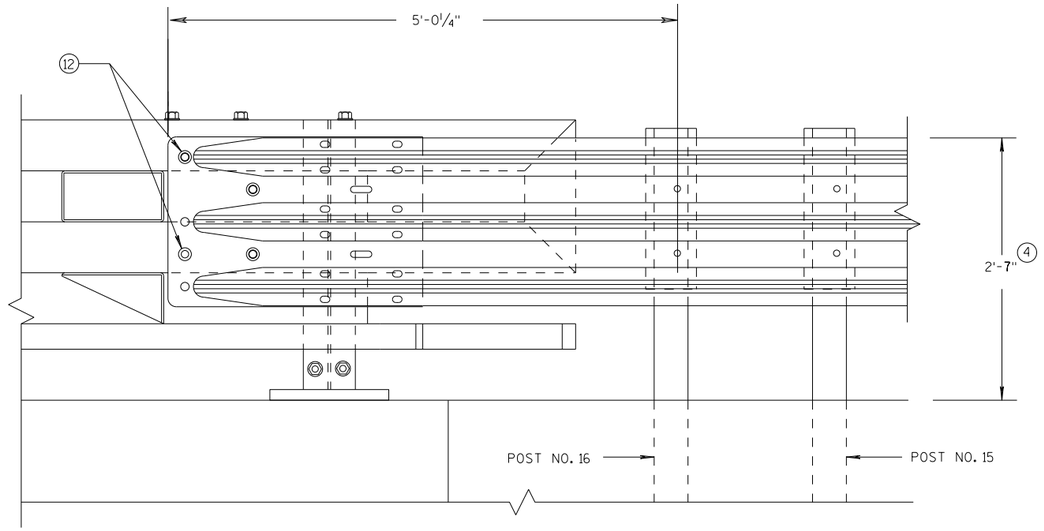
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S.D.D. 14 B 45-5j

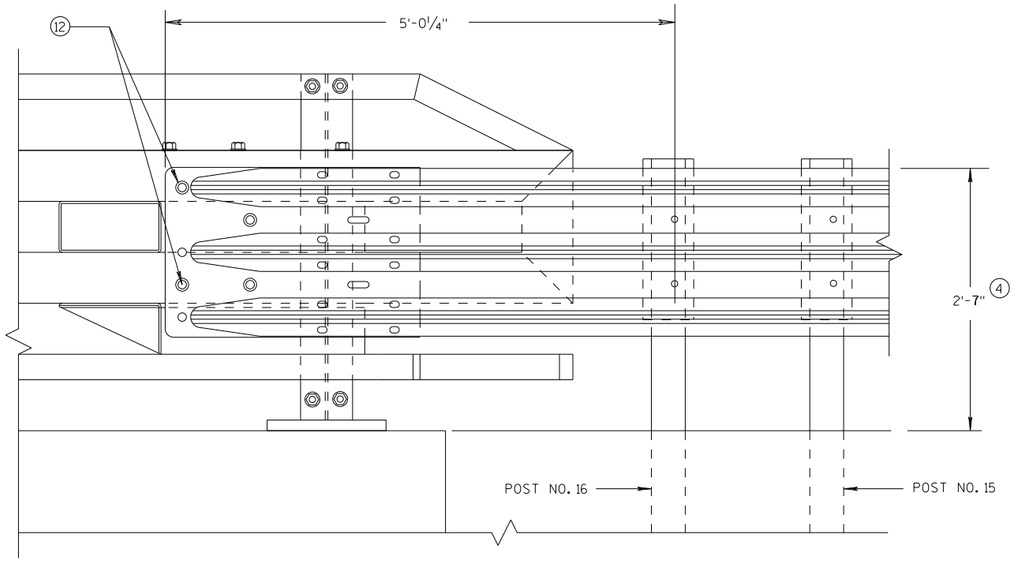
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S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

FHWA

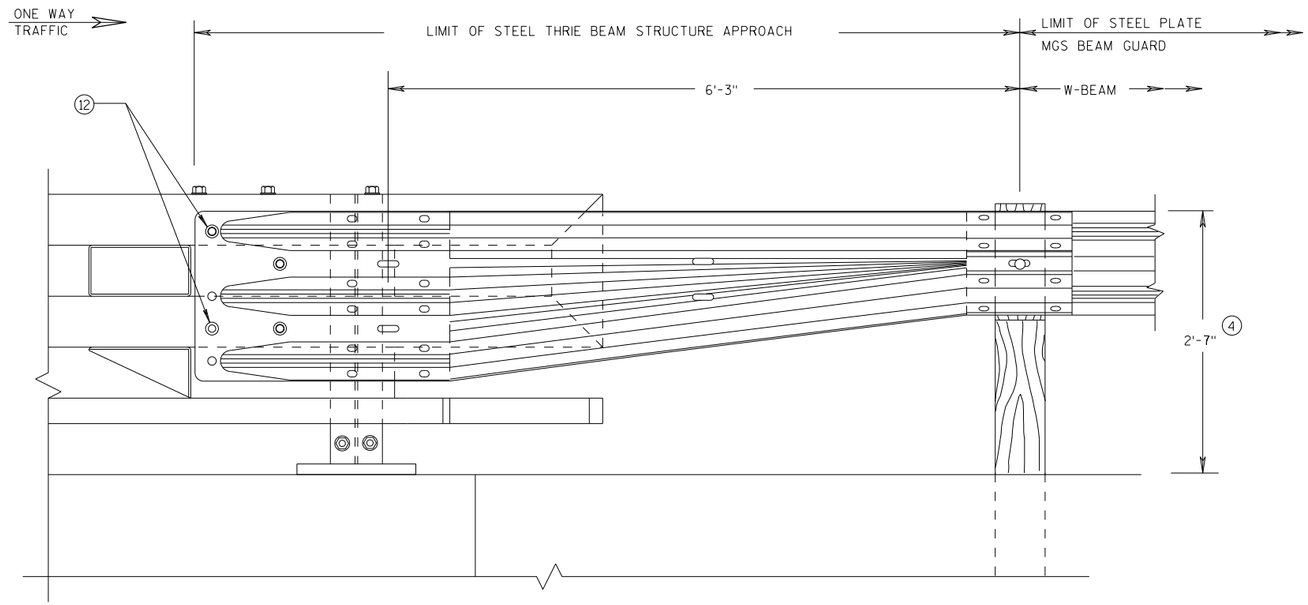
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S.D.D. 14 B 45-5k

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S.D.D. 14 B 45-5k



FRONT VIEW

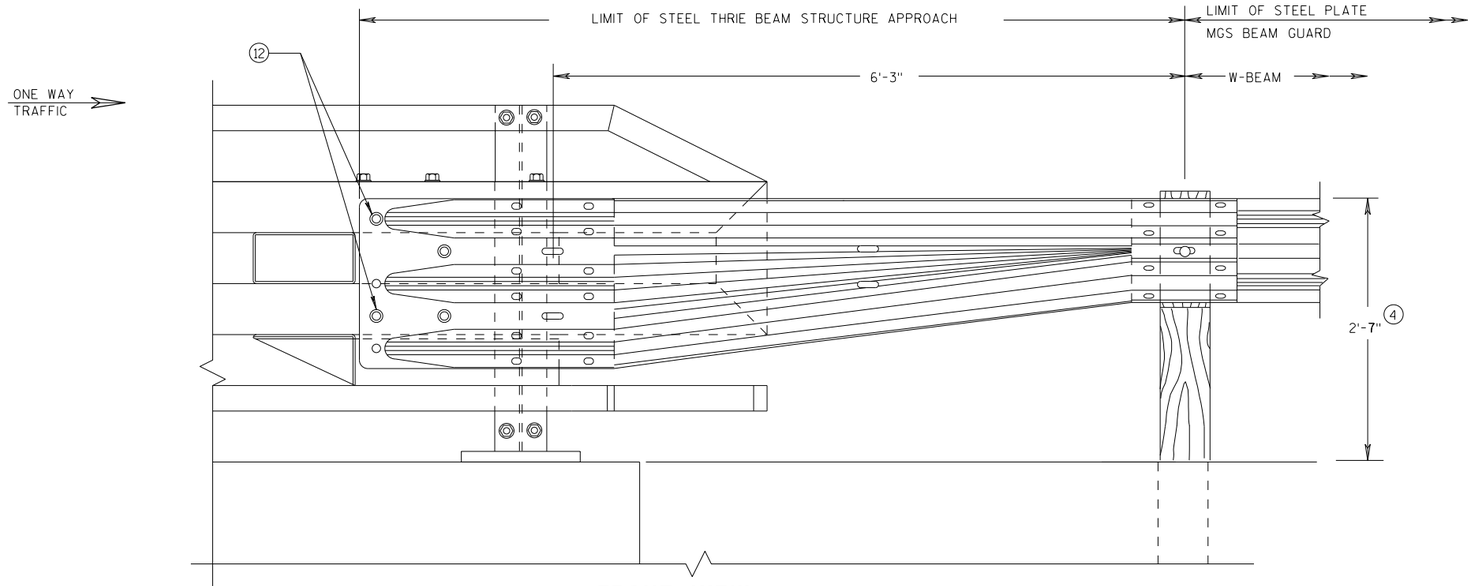
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

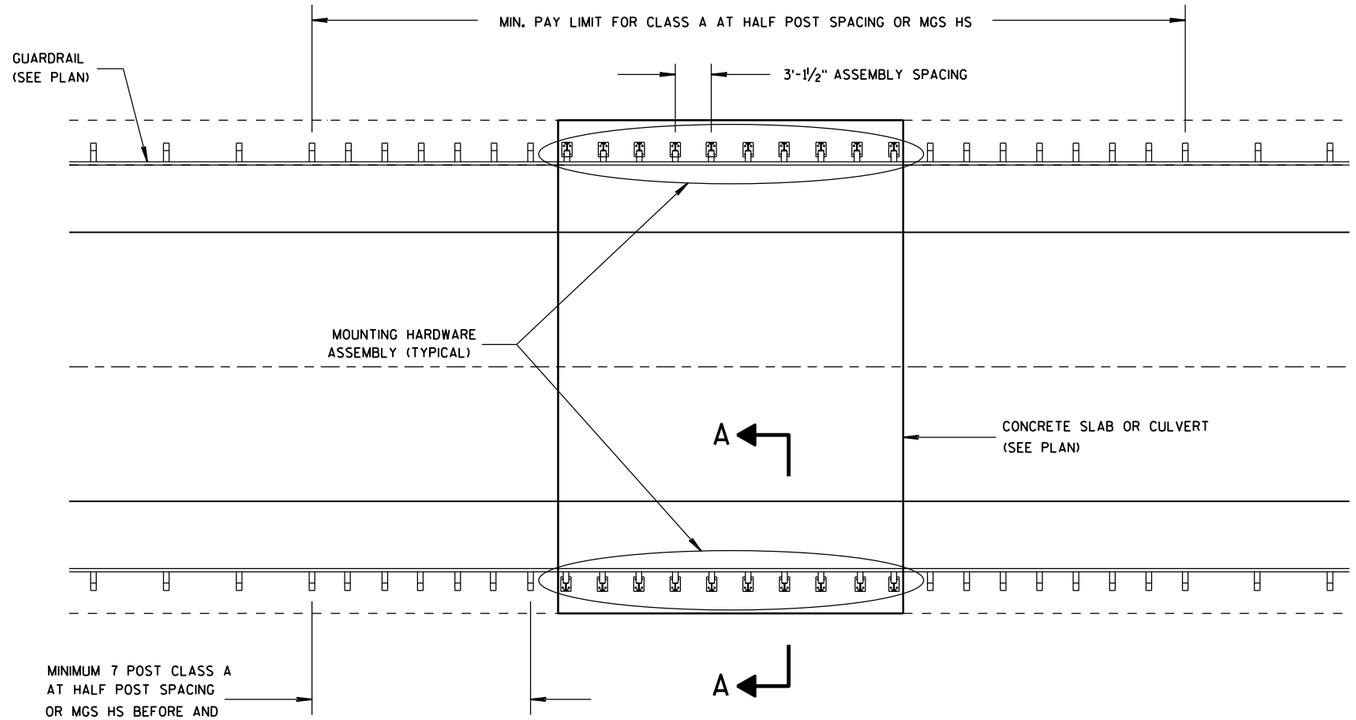
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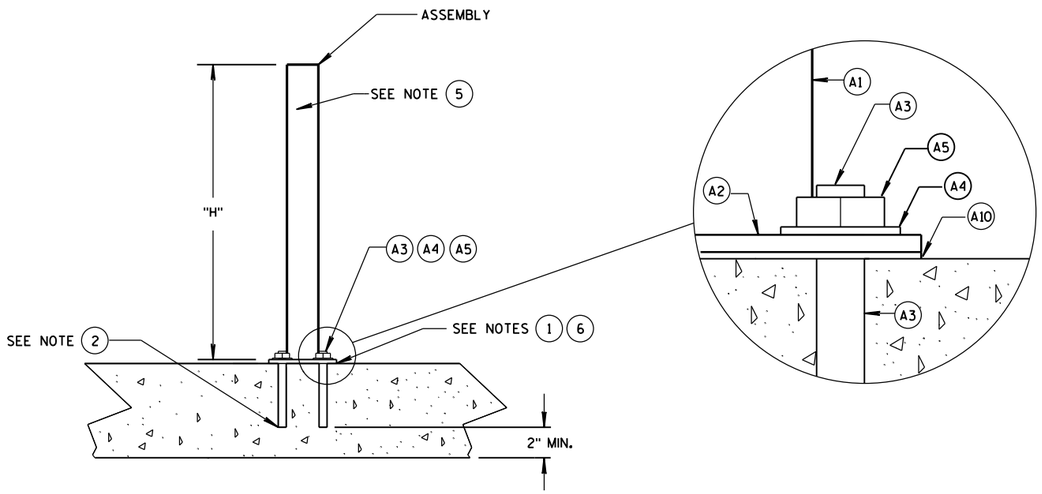
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S.D.D. 14 B 45-5L

S.D.D. 14 B 45-5L

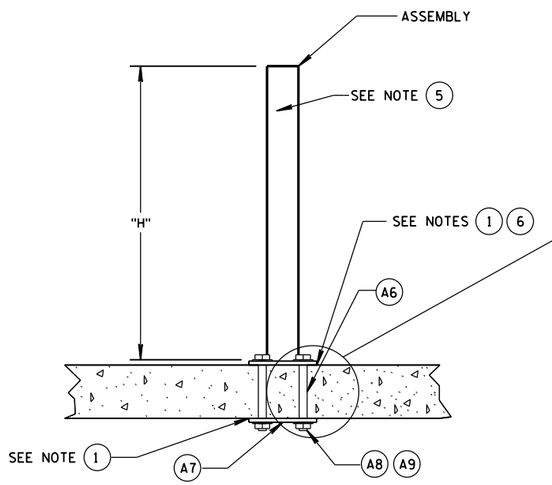


PLAN VIEW



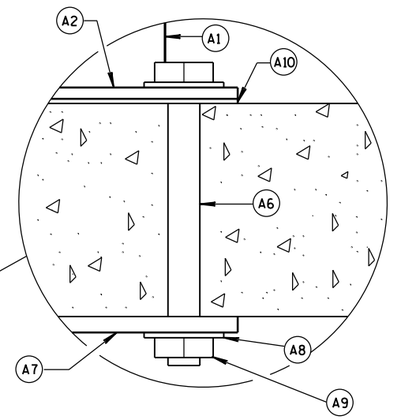
ADHESIVE ANCHOR DETAIL

SEE NOTE 4



BOLT THROUGH DETAIL

SEE NOTE 4



GENERAL NOTES

HOLES DRILLED INTO CONCRETE SLAB OR CULVERT ARE 1⅛-INCH DIAMETER.

POST BASE PLATE (AND BOTTOM PLATES IF USED) SHALL BE FLAT WITH ALL SURFACES SMOOTH, AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS. CUT BOTTOM OF POST SO THAT POST WILL BE VERTICAL WHEN POST ASSEMBLY IS PLACED ON TOP OF CONCRETE. HEX BOLTS AND THREADED RODS ARE TO BE PLACED PERPENDICULAR TO THE BASE PLATE.

"H" DIMENSION WILL VARY. SEE PLAN FOR "H" DIMENSION. CONTRACTOR HAS OPTION OF INSTALLING POSTS THAT ARE TALLER THAN "H" DIMENSION AND CUT POSTS TO PROPER "H" DIMENSION IN THE FIELD. IF ELECTING TO FIELD CUT POSTS, DRILL HOLES AT APPROPRIATE LOCATIONS AND APPLY GALVANIZATION.

GALVANIZE STEEL COMPONENTS AFTER FABRICATION PER SECTION 614 OF THE WISCONSIN DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS.

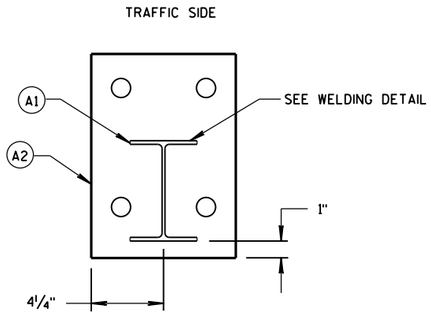
INSTALL 1 NUT AND 1 WASHER WHERE APPLICABLE. PROVIDE SUFFICIENT LENGTH OF BOLT OR THREADED ROD TO ALLOW FOR ¼-INCH TO ½-INCH OF THREAD TO BEYOND THE NUT.

1. PLACE NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER ON THE BOTTOM (A2) AND IN DRILL HOLES FOR BOLT THROUGH OPTION.
2. BOND STRENGTH OF ADHESIVE IS 1,305 PSI OR GREATER WITH A MINIMUM EMBEDMENT DEPTH OF 8-INCHES. IF MINIMUM EMBEDMENT CANNOT BE ACHIEVED BOLT THROUGH STRUCTURE.
3. USE GAS-METAL ARC WELDING (GMAW) PROCESS WITH ER70S-3 WELDING WIRE AND ARGON-OXYGEN OR CO2 COVER GAS.
4. OTHER COMPONENT OF BARRIER SYSTEM NOT SHOWN. SEE OTHER STANDARD DETAIL DRAWINGS. SEE SDD 14 B 15 OR SDD 14 B 42 FOR MORE DETAILS.
5. HOLES TO MOUNT BEAM GUARD AND BLOCK NOT SHOWN ON DRAWINGS. SEE OTHER STANDARD DETAIL DRAWINGS. SEE SDD 14 B 15 OR SDD 14 B 42 FOR MORE DETAILS.
6. ADD AND ADJUST SHIM PLATES AS NECESSARY TO INSTALL POST PLUMB. SEE (A10) FOR DETAIL.

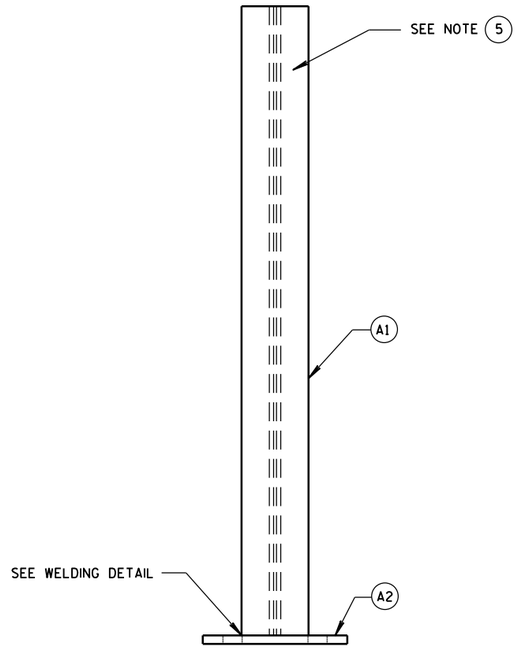
ANCHOR POST
ASSEMBLY TOP-MOUNTED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

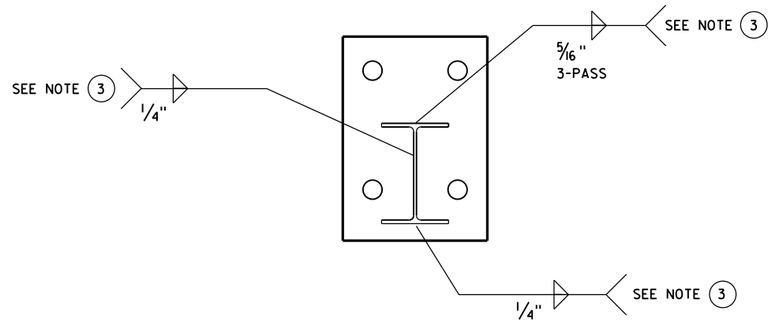
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S.D.D. 14 B 51-1a



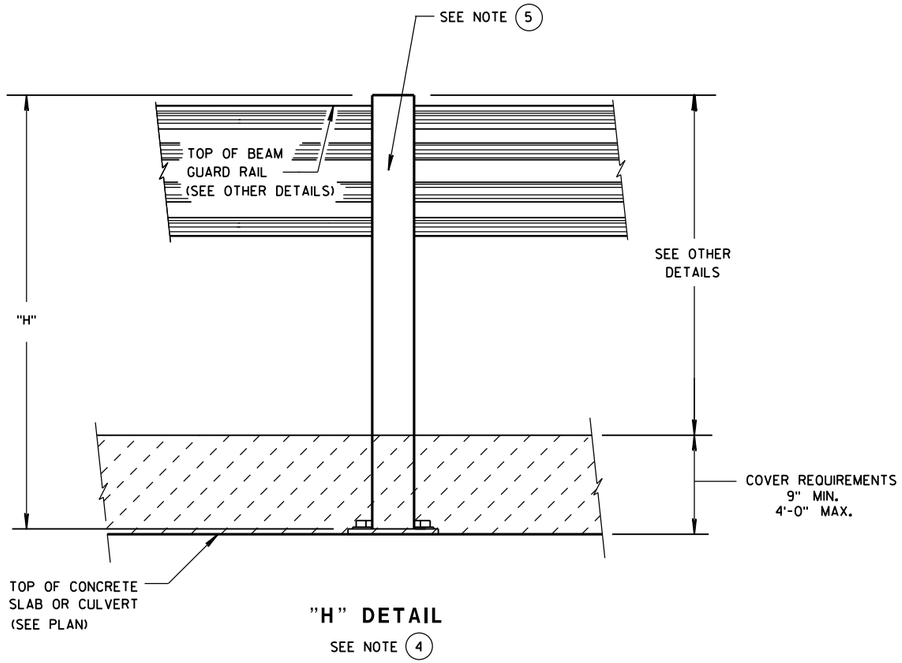
PLAN VIEW OF ASSEMBLY



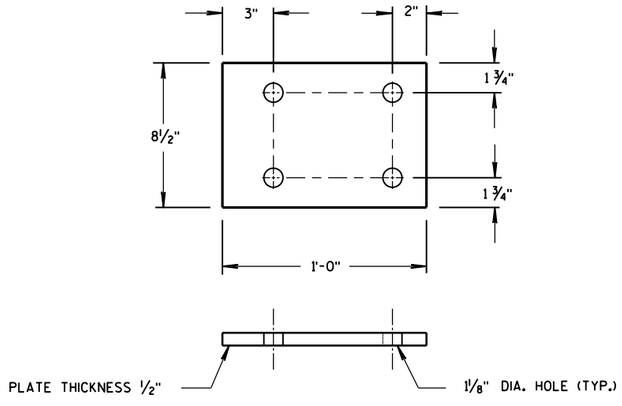
PROFILE VIEW OF ASSEMBLY



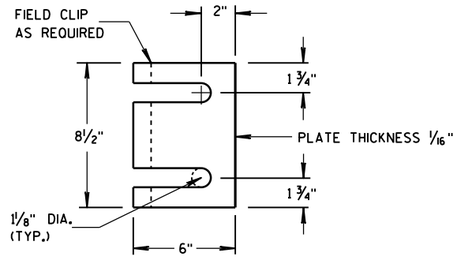
WELDING DETAIL



"H" DETAIL
SEE NOTE (4)



A2 DETAILS



A10 DETAILS

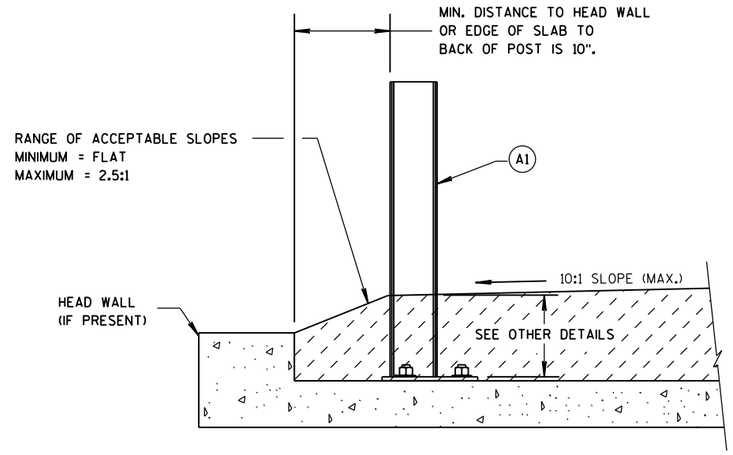
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ASSEMBLY TOP-MOUNTED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 51-1b

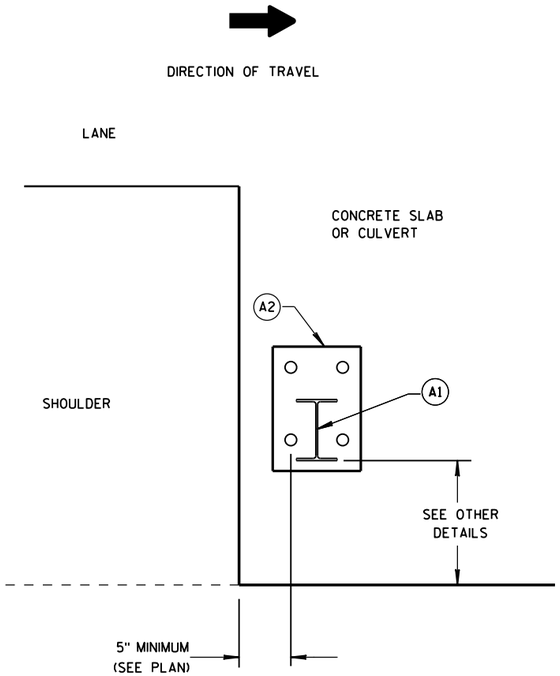
MATERIALS LIST

ITEM	DESCRIPTION	MATERIAL SPECIFICATIONS	NOTES
(A1)	W6x9 or W6x8.5	ASTM A992, 50 KSI MIN. ASTM A709 GRADE 50 OR ASTM A36	SEE SDD 14B15 OR 14B42 LENGTH WILL VARY
(A2)	STEEL BASE PLATE	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	
(A3)	1" DIA. THREADED ROD	SAE J429 GRADE 2, ASTM A307 GRADE C, OR ASTM F1554 GRADE 36	LENGTH WILL VARY
(A4)	1" DIA. FLAT WASHER	ASTM F844	
(A5)	1" HEX NUT	ASTM A563A	
(A6)	1" DIA. HEX BOLT	ASTM A307	LENGTH WILL VARY
(A7)	PLATE WASHER	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	
(A8)	1" DIA. FLAT WASHER	ASTM F844	
(A9)	1" DIA. HEX NUT	ASTM A563A	
(A10)	SHIM PLATE	SEE (A2)	4 MAX PER POST



SECTION A-A

SEE NOTE (4)



EDGE PLACEMENT

SEE NOTE (4)

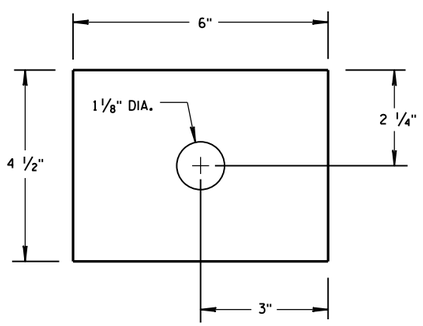
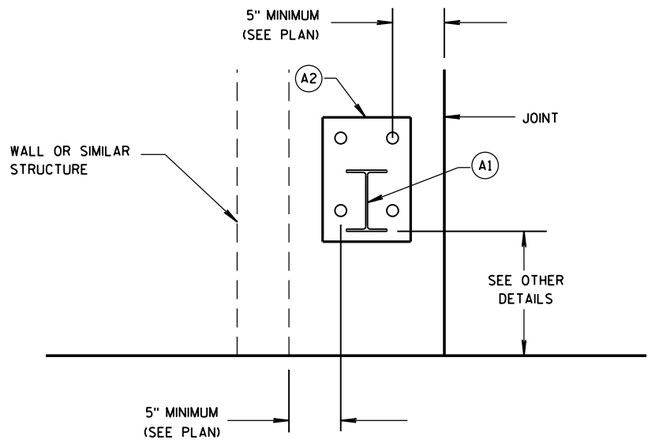


PLATE WASHER - (A7)



OBSTRUCTION AND JOINT PLACEMENT

SEE NOTE (4)

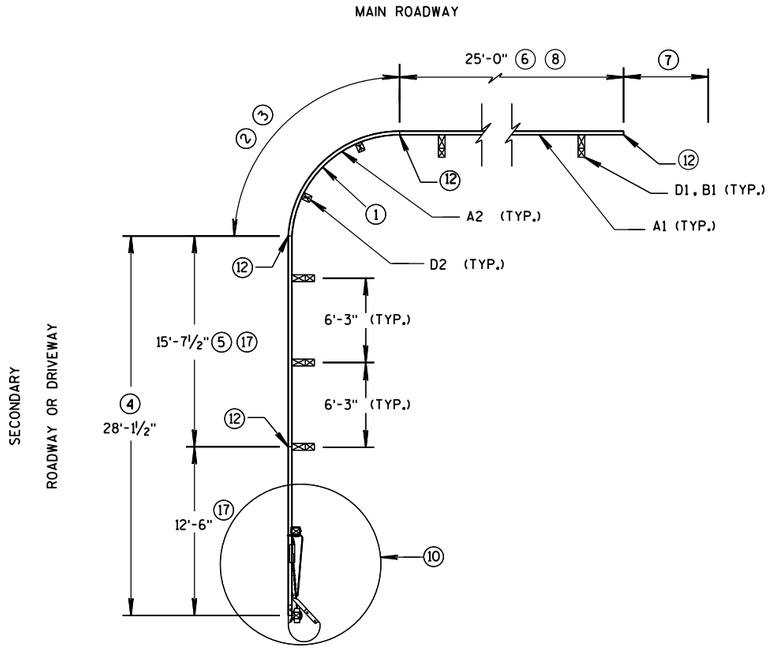
ANCHOR POST
ASSEMBLY TOP-MOUNTED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

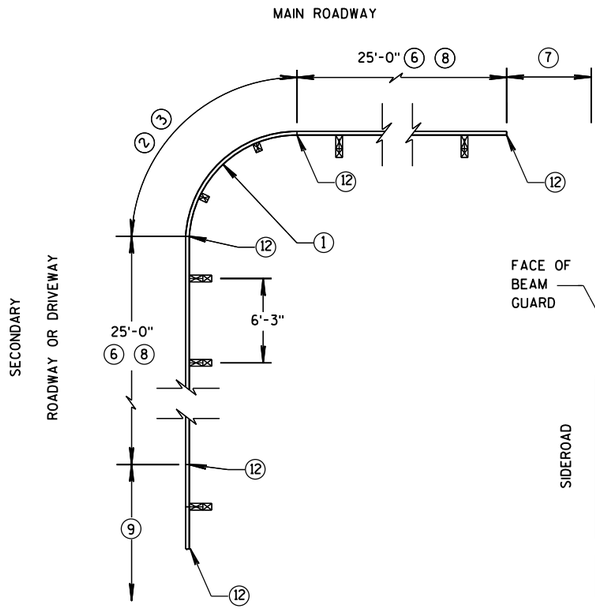
APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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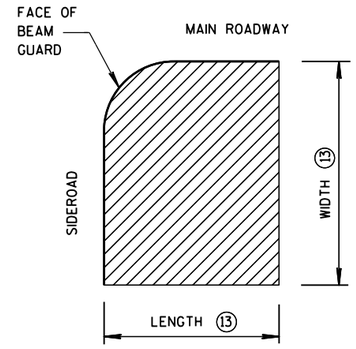
S.D.D. 14 B 51-1c



SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY PLAN VIEW



SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY PLAN VIEW



AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS (16)

TABLE FOR RADIUS OF 32' AND LESS

RADIUS FT	LENGTH FT	WIDTH FT
8	25	15
16	30	15
24	40	20
32	50	30

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING IS TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI/AWS D1.1

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERITCAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUTS.

UNLESS NOTED OTHERWISE CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6'-3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE TERMINAL (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAILS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID FOR WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS)

(11) HEIGHT VARIES. SEE NOTE (8) AND (17).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRE PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

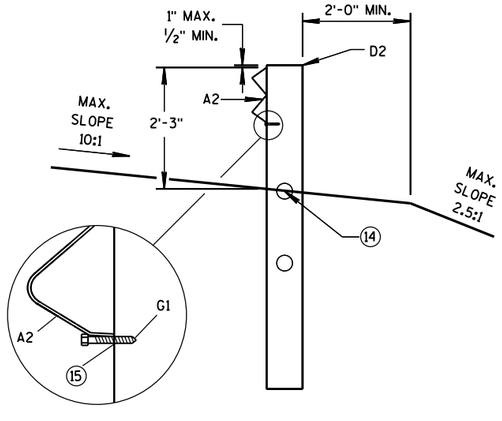
(13) SEE TABLE FOR VALUES.

(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".

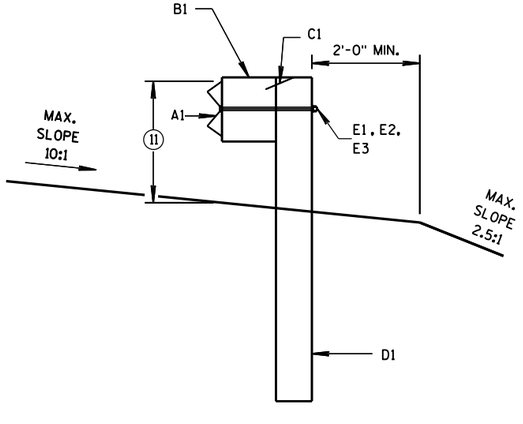
(15) DRILL 15/64" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

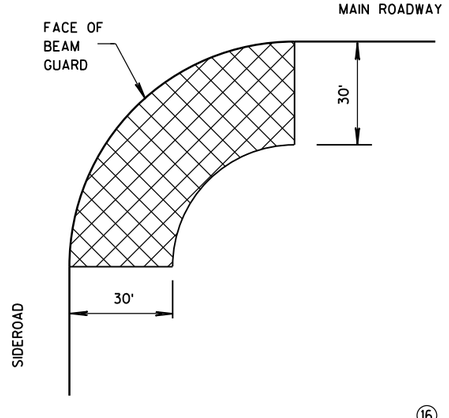
(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL.



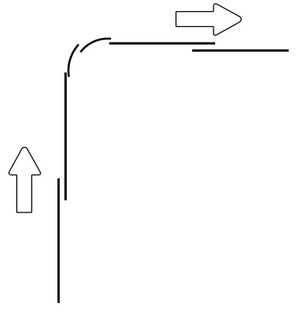
CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



BEAM GUARD POSTS IN HEIGHT TRANSITION



AREA FREE OF FIXED OBJECTS (16) RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

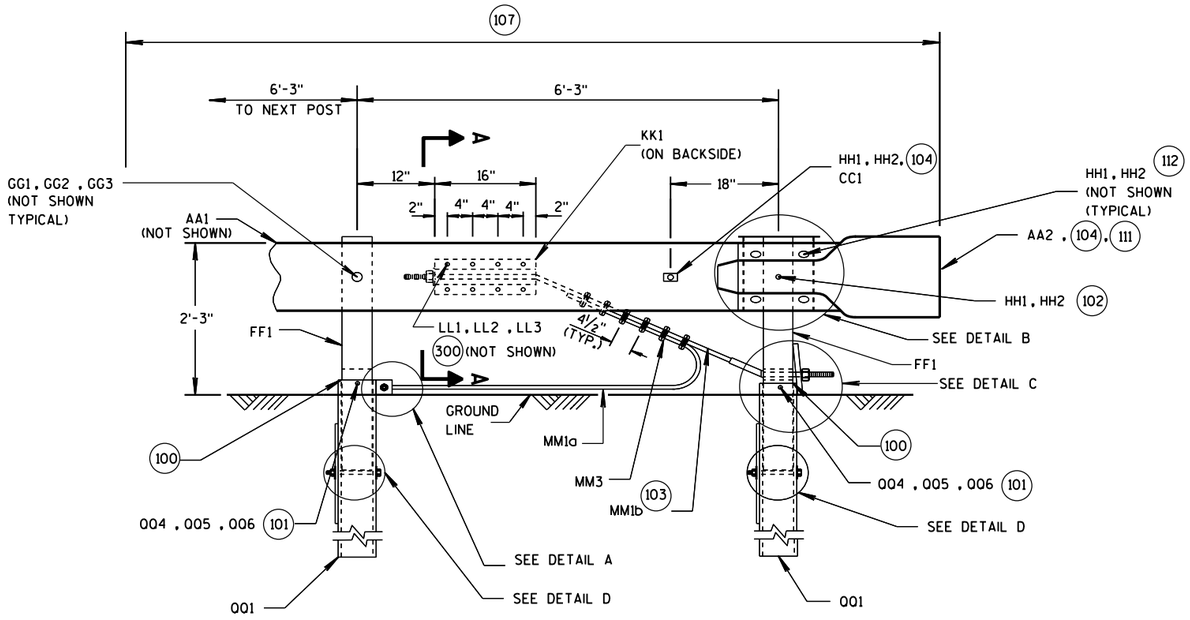
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 138

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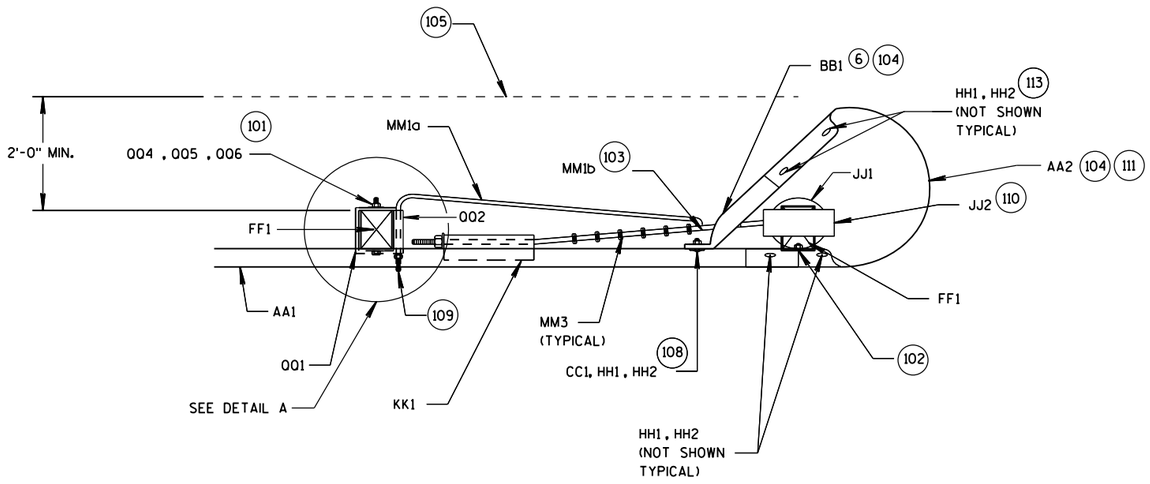
S.D.D. 14 B 53-1a

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S.D.D. 14 B 53-1a



SHORT RADIUS TERMINAL
PROFILE VIEW



SHORT RADIUS TERMINAL
TOP VIEW

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM END SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL B.

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL A PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

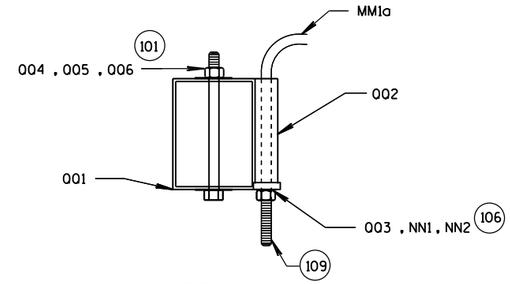
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

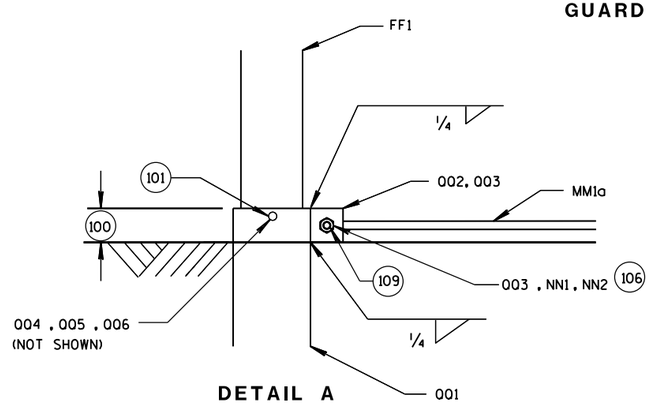
111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

113 FOUR HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



DETAIL A
TOP VIEW
(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)

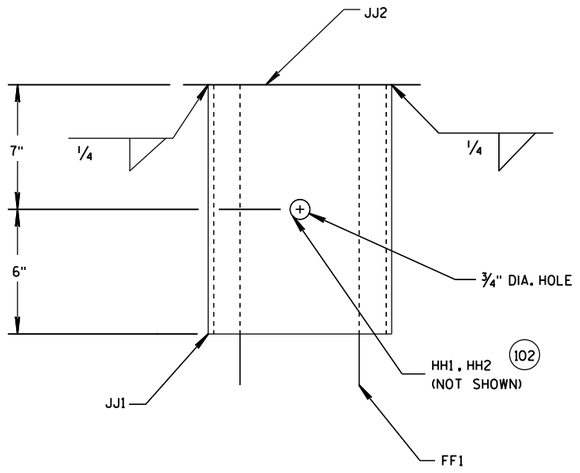


DETAIL A
PROFILE VIEW

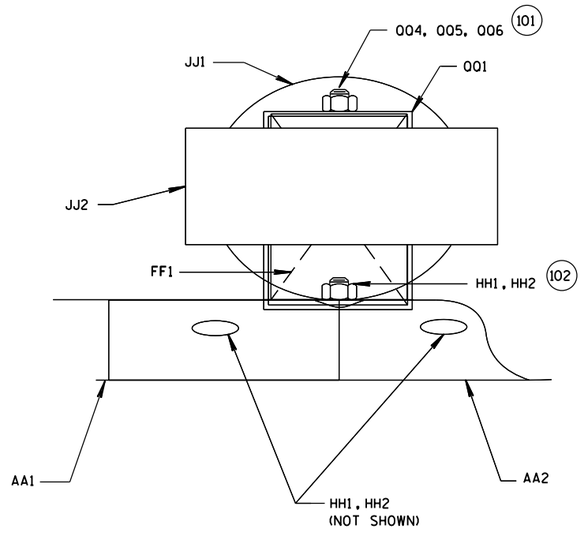
STEEL PLATE BEAM GUARD
SHORT RADIUS TERMINAL
MGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 53-1b

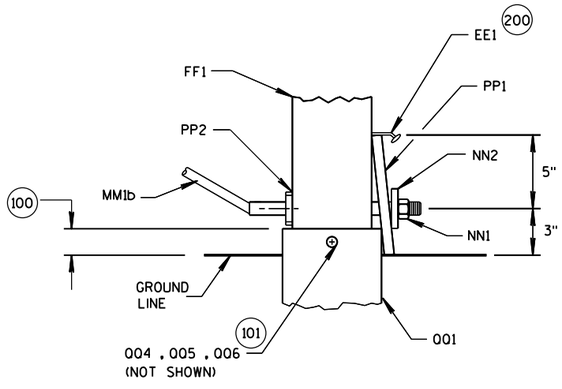


DETAIL B
PROFILE VIEW OF STEEL PIPE ASSEMBLY
(BEAM GUARD AND W-BEAM
END SECTION NOT SHOWN)

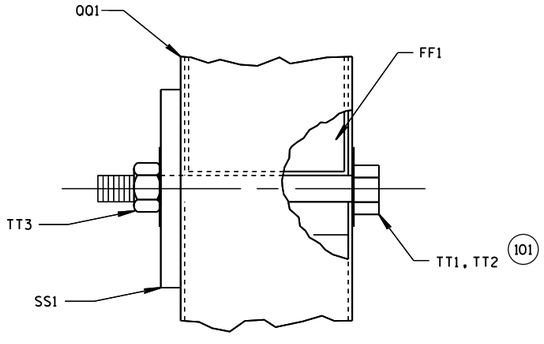


DETAIL B
PLAN VIEW OF STEEL PIPE ASSEMBLY

200 2 NAILS SPACED 4 INCHES CENTER TO CENTER.



DETAIL C
PROFILE VIEW



DETAIL D
PROFILE VIEW

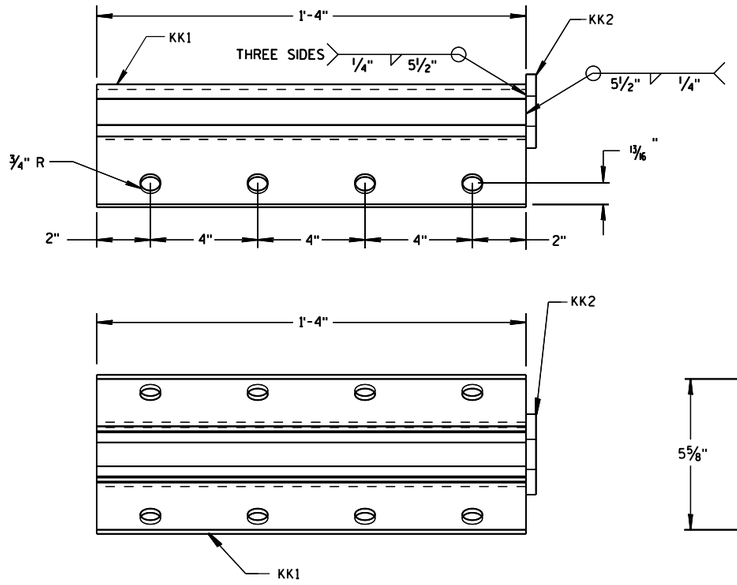
SHORT RADIUS BEAM GUARD
(MGS) SHORT RADIUS
TERMINAL (MGS)

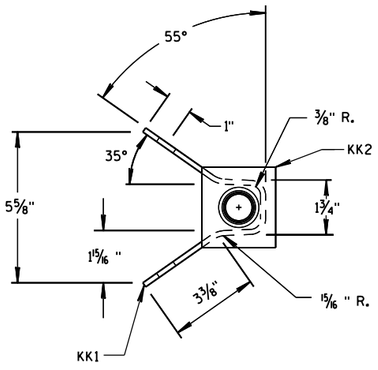
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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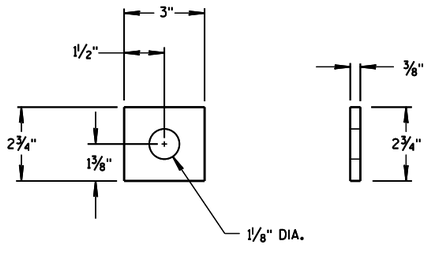
S.D.D. 14 B 53-1c

(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT LL1 AND LL3 REQUIRED. SIXTEEN LL2 REQUIRED.

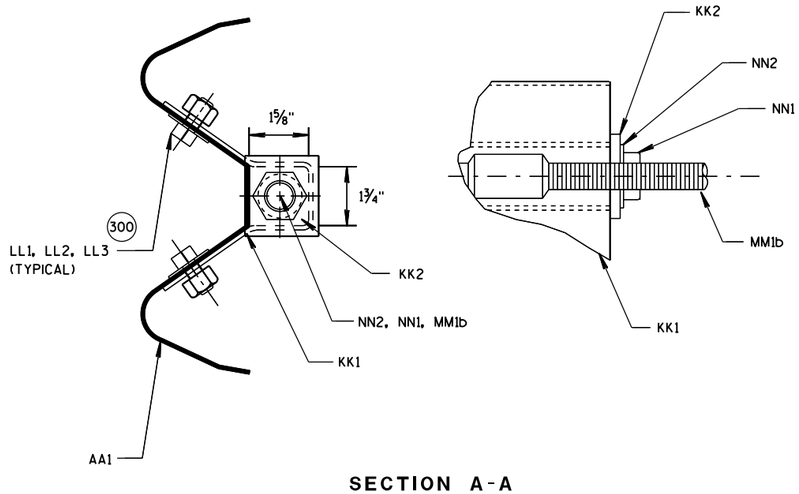




ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

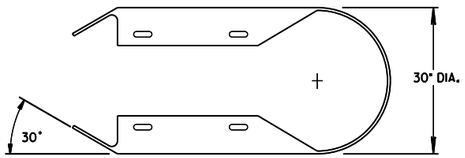


SECTION A-A

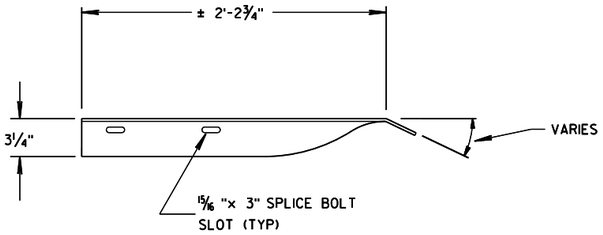
SHORT RADIUS BEAM GUARD
(MGS) SHORT RADIUS
TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 53-1d



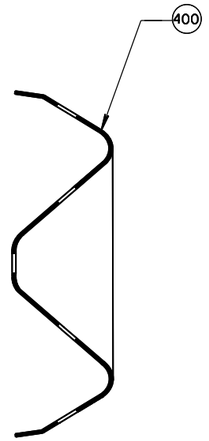
TOP VIEW



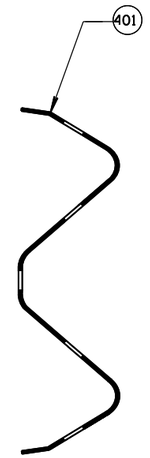
TOP VIEW

(400) CROSS SECTON OF PART IS TO FIT OVER AA1.

(401) CROSS SECTON OF PART IS TO FIT OVER OR UNDER AA1.

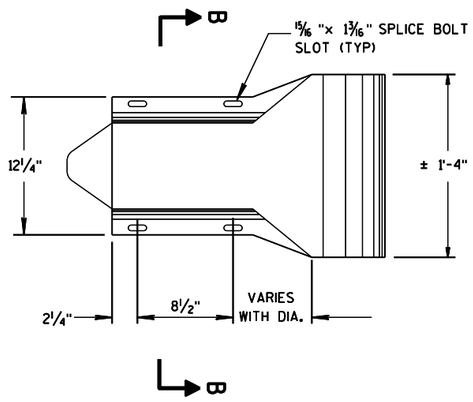


SECTION B-B



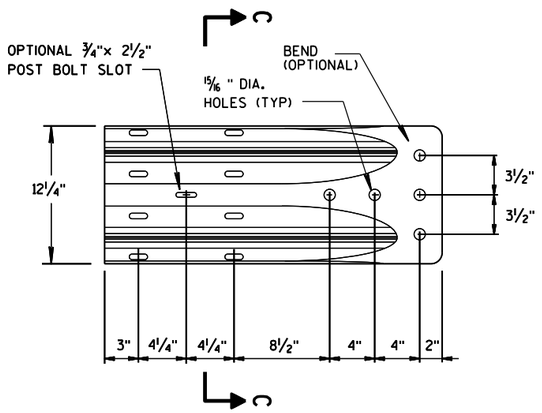
SECTION C-C

6



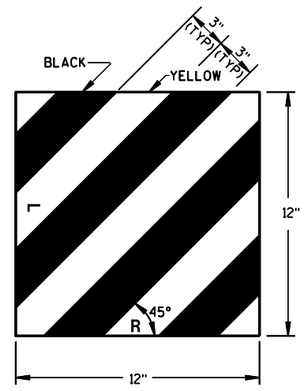
W-BEAM
END SECTION BUFFER (AA2)

PROFILE VIEW



W-BEAM
TERMINAL CONNECTOR (BB1)

PROFILE VIEW

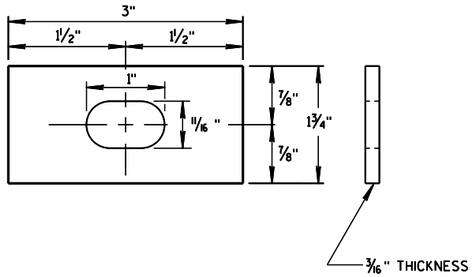


REFLECTIVE SHEETING
(UU1, UU2)

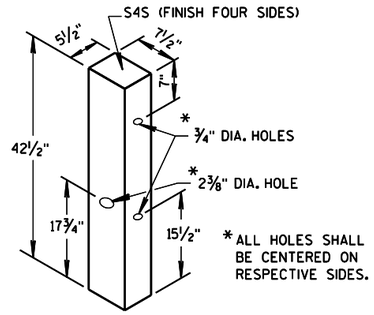
SHORT RADIUS BEAM GUARD
(MGS) SHORT RADIUS
TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

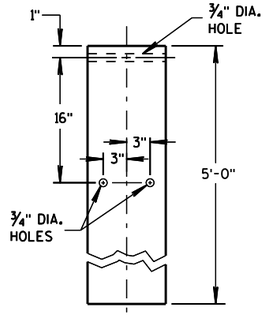
S.D.D. 14 B 53-1e



RECTANGULAR PLATE WASHER (CC1)



WOOD BREAKAWAY POST (FF1)



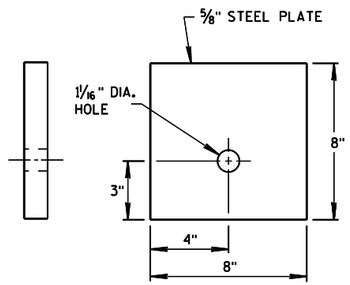
FOUNDATION TUBE (QQ1) (500)

(500) SEE DETAIL "D" FOR LOCATION AND ATTACHING SS1.

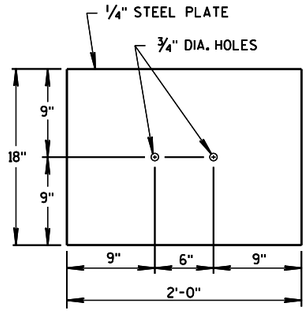
(501) FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

(502) LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

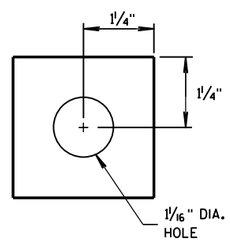
(503) MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE (109).



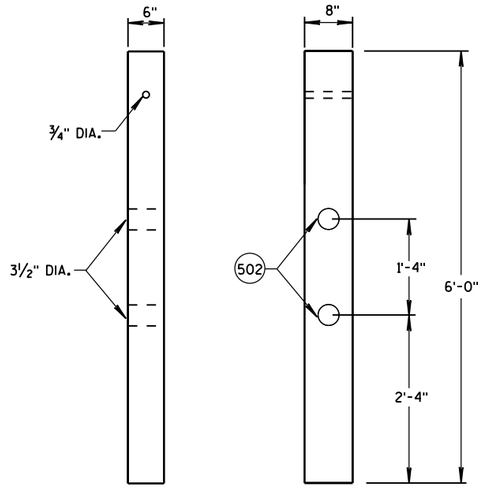
BEARING PLATE (PP1)



SOIL PLATE (SS1)

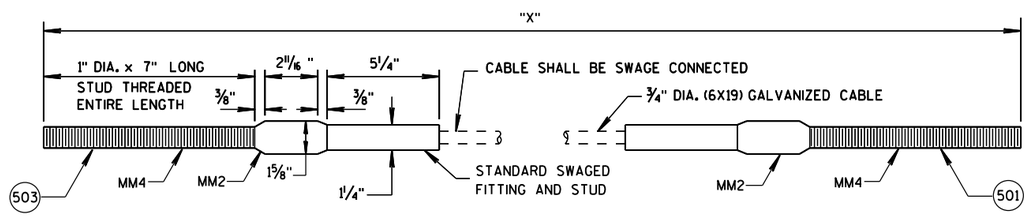


TUBE END PLATE (QQ3)



FRONT VIEW SIDE VIEW

CONTROLLED RELEASE TERMINAL POST (CRT) (D2)



"X" LENGTH	
MM1a	9'-0"
MM1b	6'-8"

CABLE ASSEMBLY (MM1a , MM1b)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

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S.D.D. 14 B 53-1f

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT-WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329	
E3	POST BOLT - NUT		5/8" DIA. SEE SDD 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR GEOMETRY AND OTHER INFORMATION
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	3/8" DIA. 3" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

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S.D.D. 14 B 53-1g

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S.D.D. 14 B 53-1g

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	3/8" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	SEE 14B42 FOR GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	3/8" DIA. SEE 14B42 FOR GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	3/8" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	SEE 14B42 FOR GEOMETRY
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 3/8" X 4" X 1'-0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	5/8" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A563	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	3/4"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
PP1	BEARING PLATE AT POST	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 53-1h

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

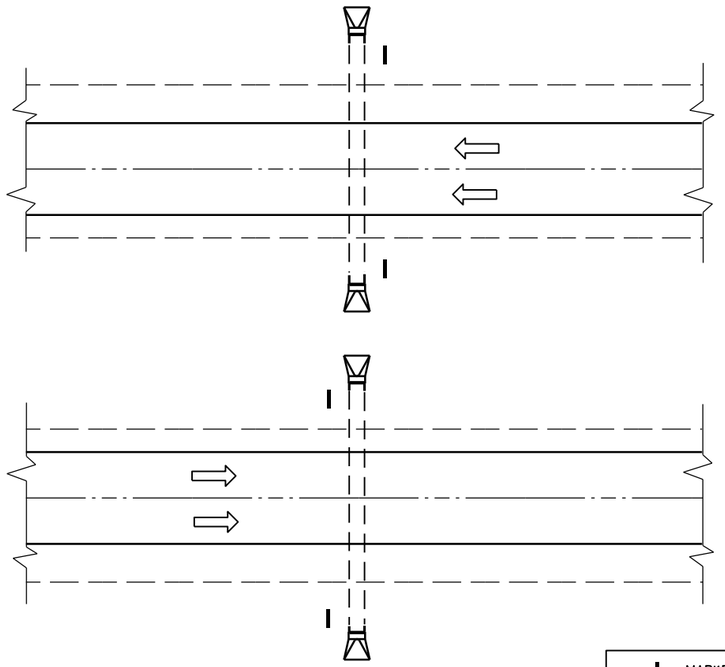
PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
003	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2½" X 2½" X ¼"
		GALV. AASHTO M111 / ASTM A123	
004	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅝" DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
005	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
006	GROUND STRUT AND YOKE - NUT	HEAVY HEX	⅝" DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
SS1	SOIL PLATE	ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR5 GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅝" DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING SHEETING TYPE FOR MARKER
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

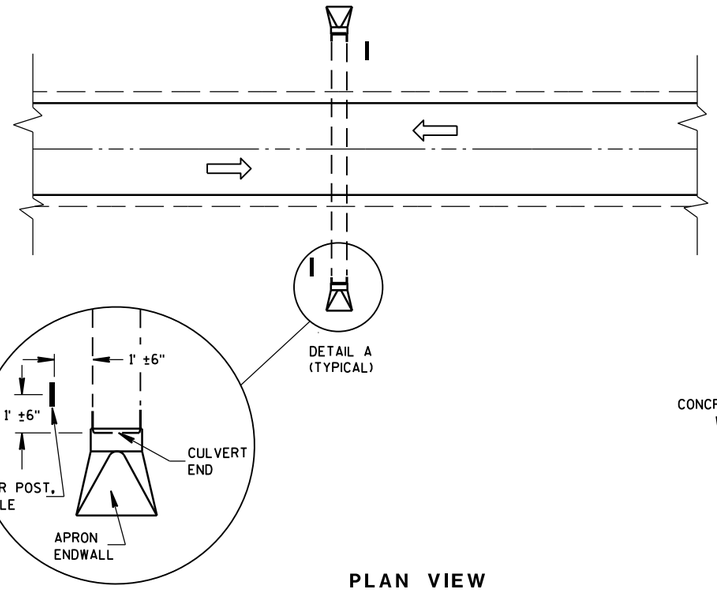
APPROVED
June 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVI
FHWA

6
S.D.D. 14 B 53-1i



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

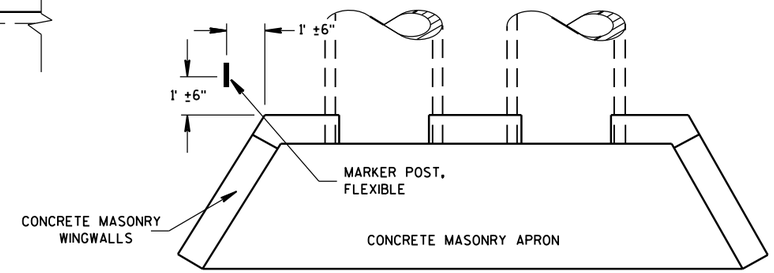
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

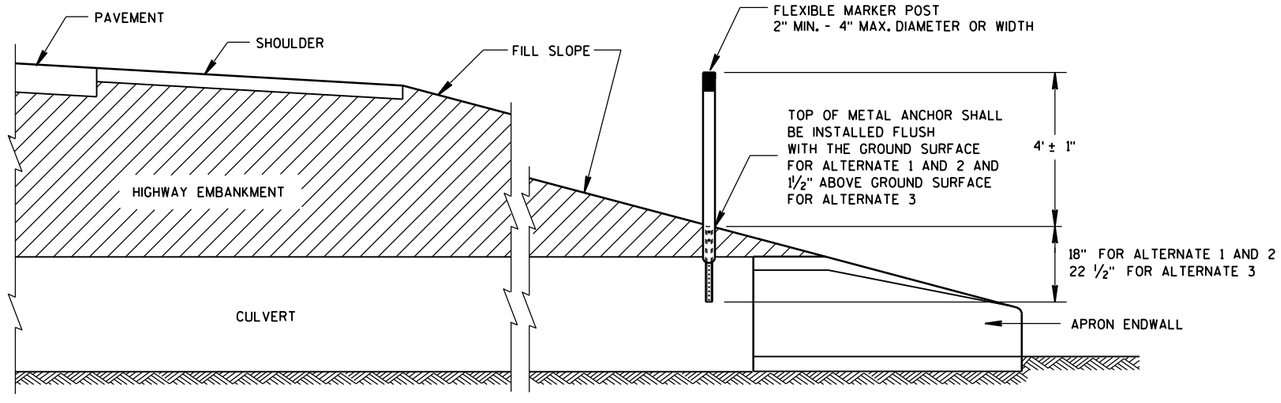
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

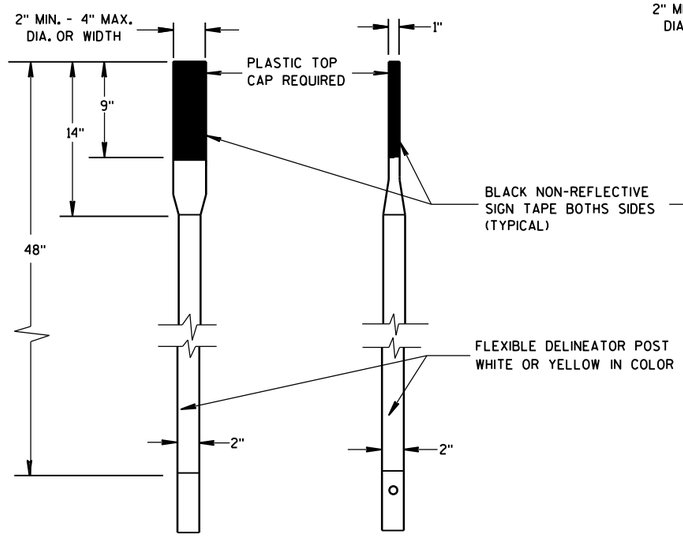
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

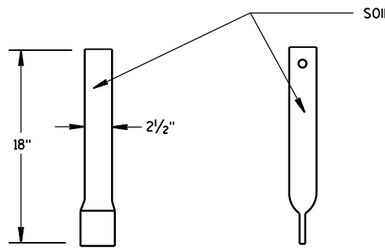
6

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

6

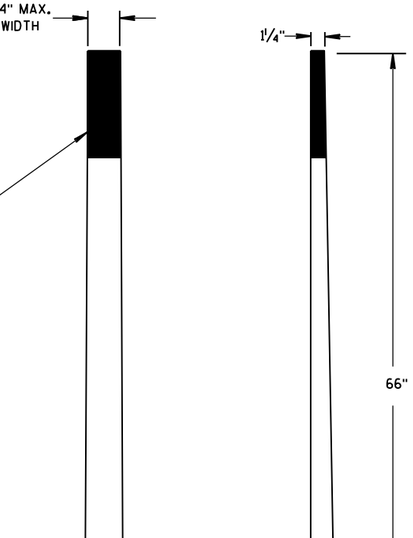
S.D.D. 15 A 3-2a





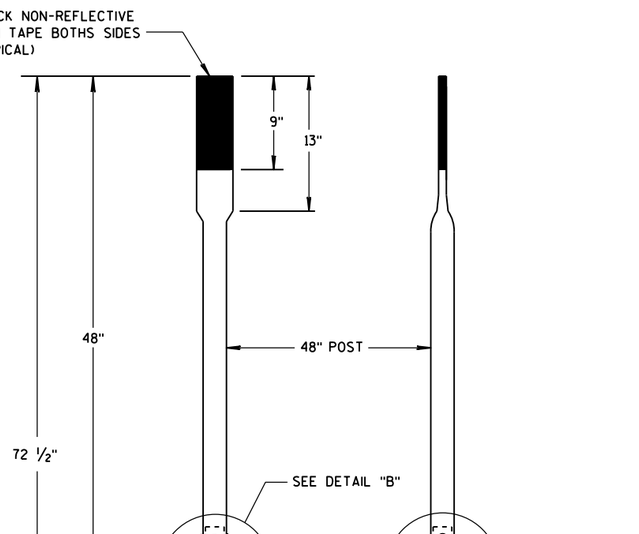
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

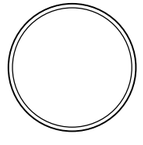
ALTERNATE 2



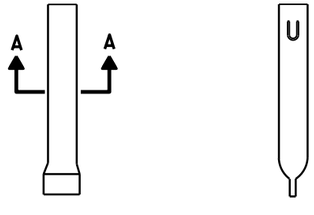
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

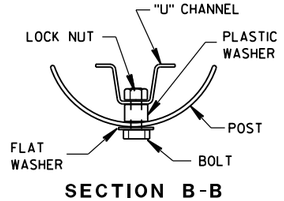


SECTION A-A

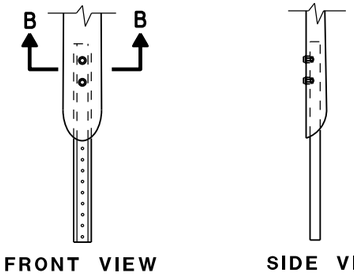


FRONT VIEW SIDE VIEW

ALTERNATE 1

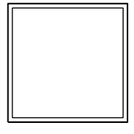


SECTION B-B

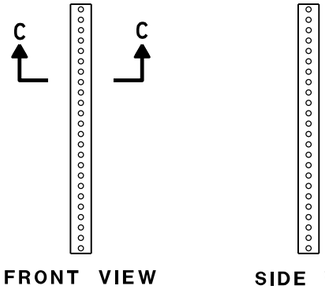


FRONT VIEW SIDE VIEW

ALTERNATE 2



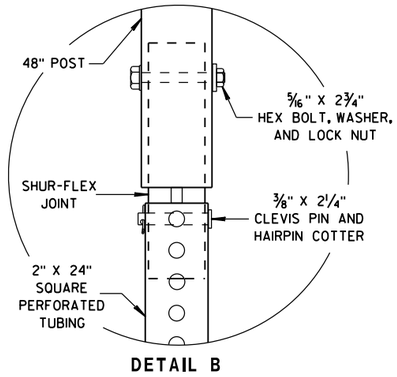
SECTION C-C



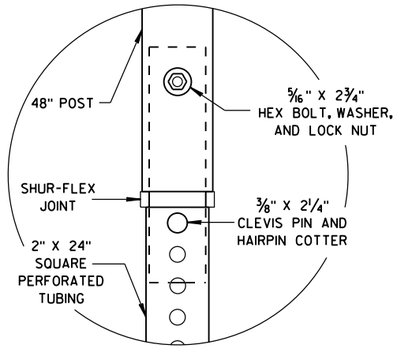
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

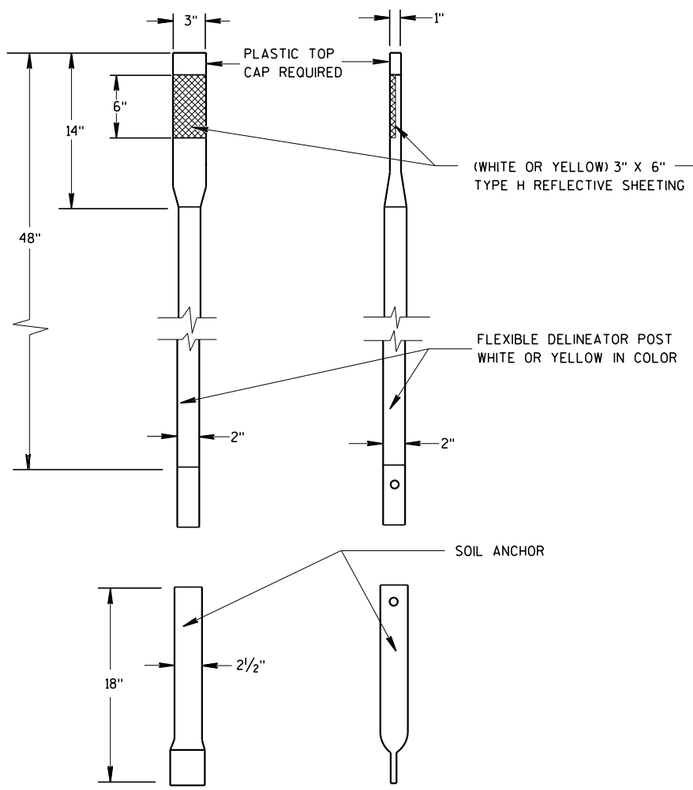
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

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

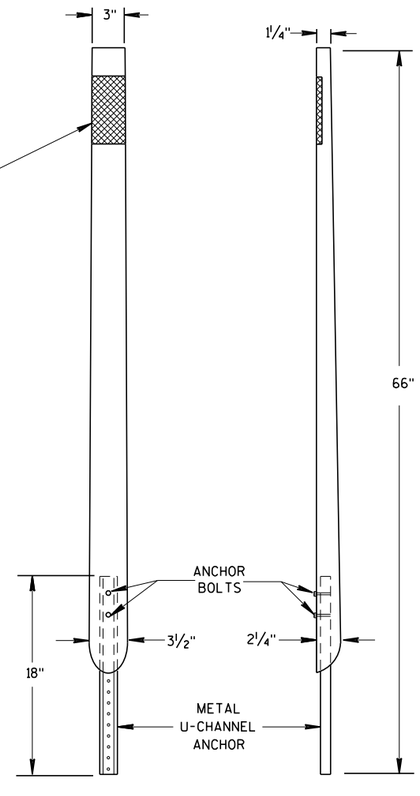
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S.D.D. 15 A 3-2b



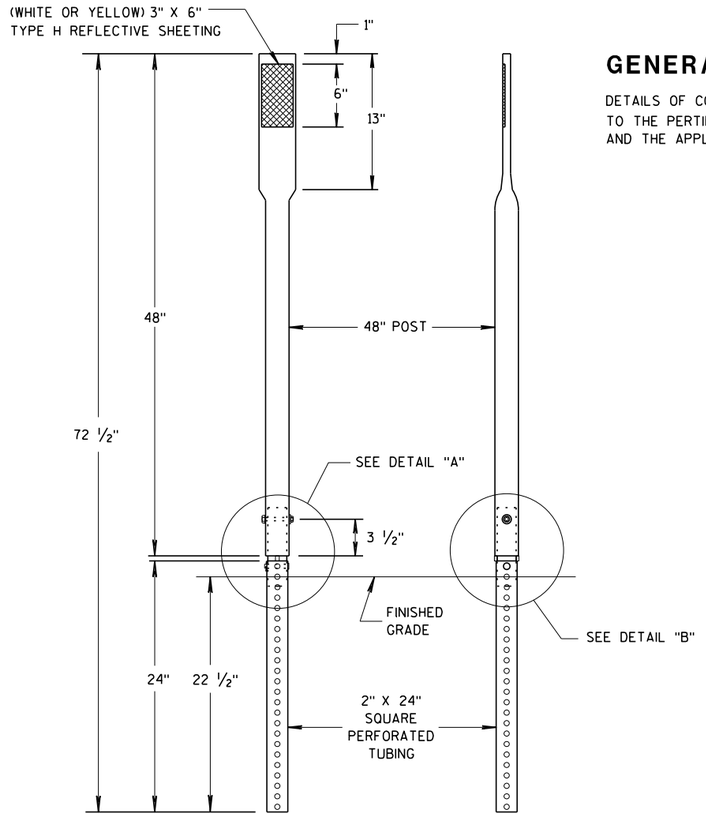
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2
FLEXIBLE DELINEATOR POSTS

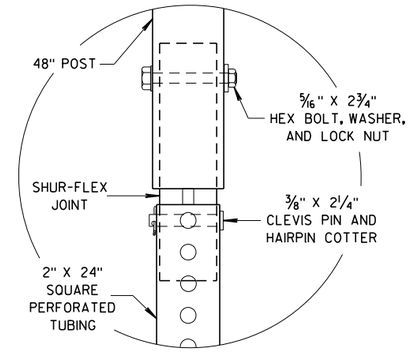


FRONT VIEW SIDE VIEW

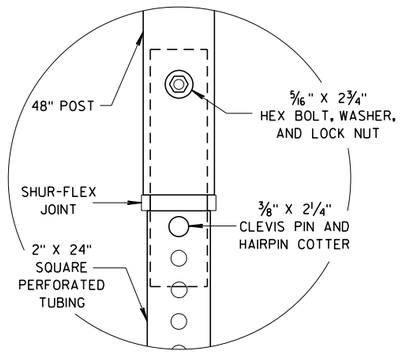
ALTERNATE 3

GENERAL NOTES

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



DETAIL A

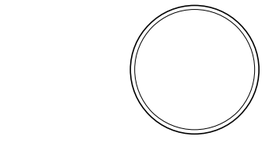


DETAIL B

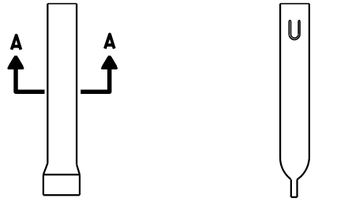
REFLECTOR SPACING TABLE

REFLECTOR SPACING	LOCATION
*100' C-C	RAMPS
400' C-C	MAINLINE

*START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

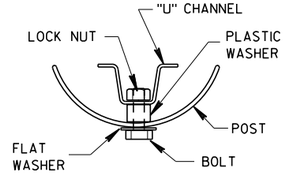


SECTION A-A

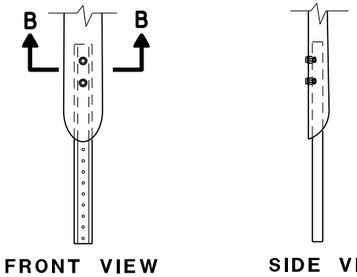


FRONT VIEW SIDE VIEW

ALTERNATE 1

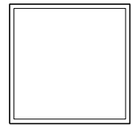


SECTION B-B

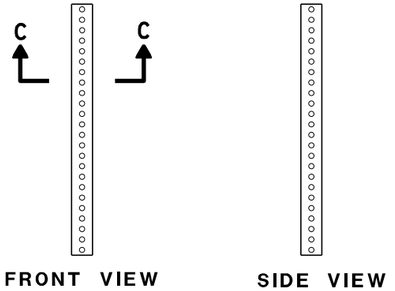


FRONT VIEW SIDE VIEW

ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



SECTION C-C



FRONT VIEW SIDE VIEW

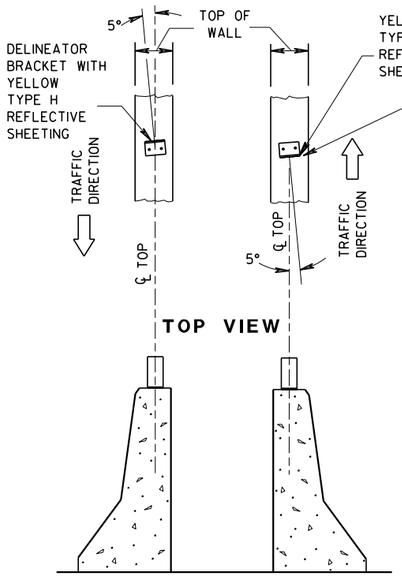
ALTERNATE 3

FLEXIBLE DELINEATOR POST

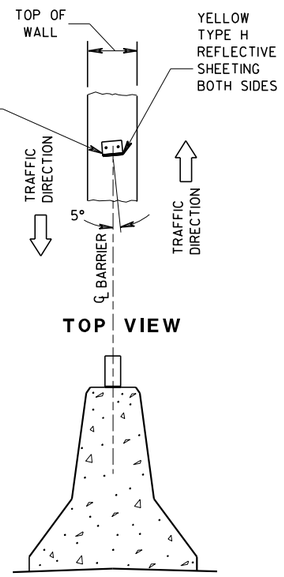
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Matt Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

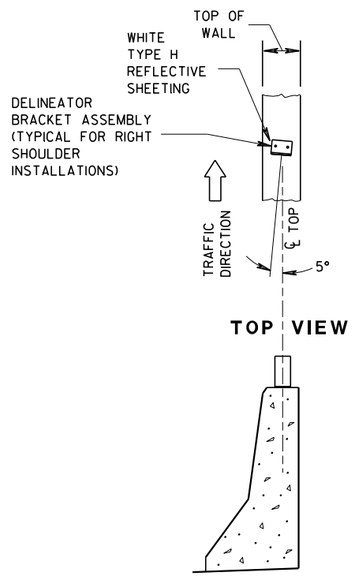
6
S.D.D. 15 A 4-4a



DOUBLE BARRIERS IN MEDIAN

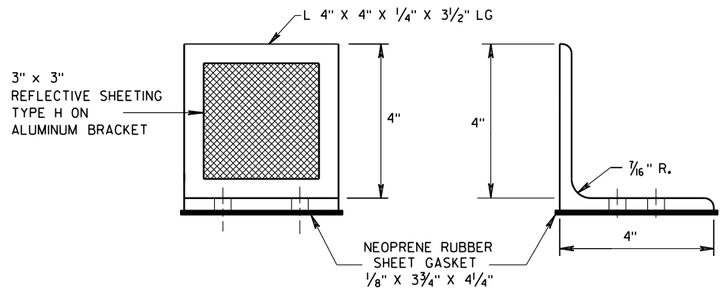


MEDIAN BARRIER

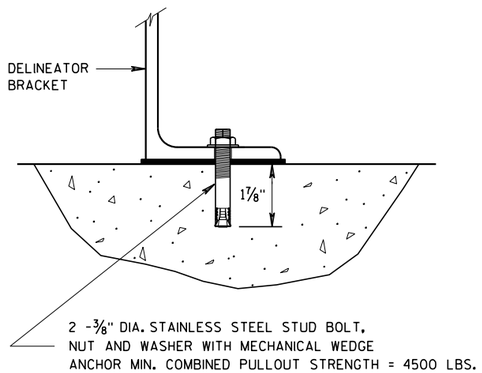


BARRIER LOCATED
TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATOR BRACKETS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET



DELINEATOR BRACKET
MOUNTING DETAIL

REFLECTOR SPACING TABLE

REFLECTOR SPACING	MINIMUM NUMBER OF REFLECTORS
100' C-C	3

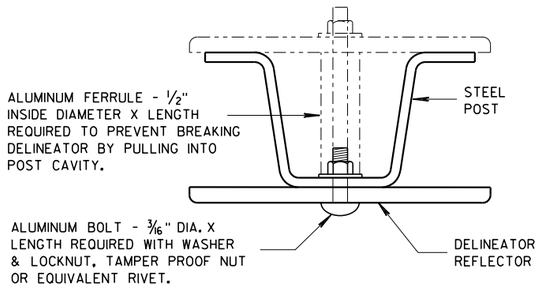
DELINEATOR BRACKET
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

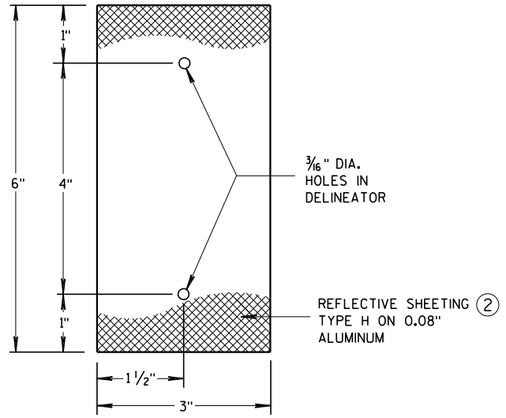
APPROVED
March 2018 /S/ Matthew P. Rauch
DATE STATE SIGNING AND M. ENGINEER
FHWA

6

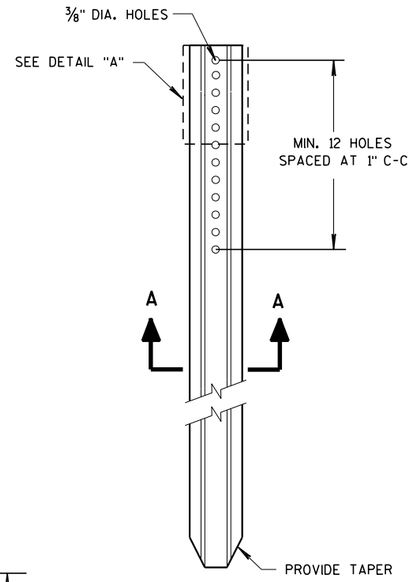
S.D.D. 15 A 4-4b



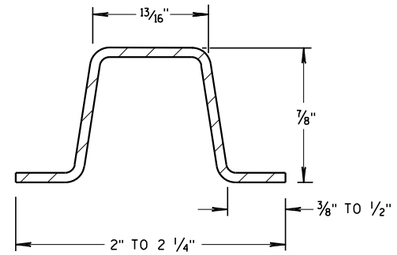
MOUNTING DETAIL
FOR DELINEATOR REFLECTOR



DETAIL "A"
3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



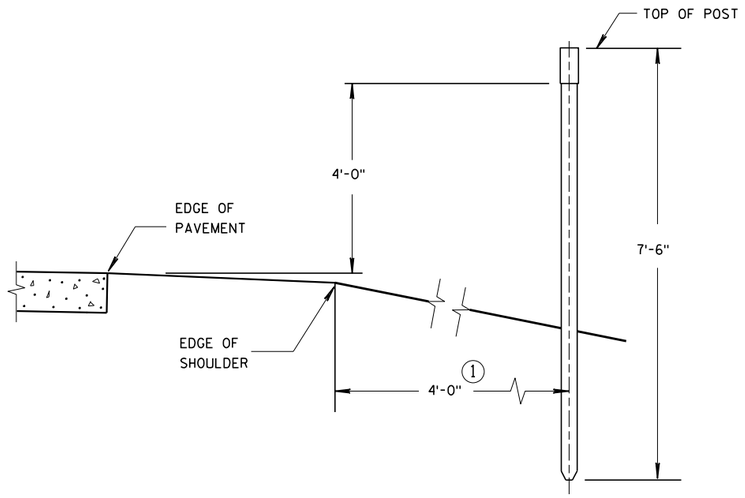
SECTION A-A

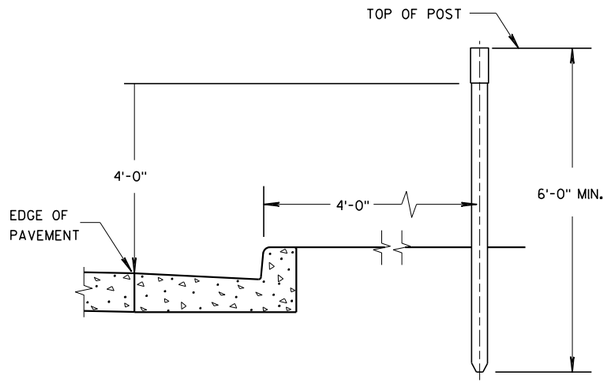
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

REFLECTOR SPACING TABLE

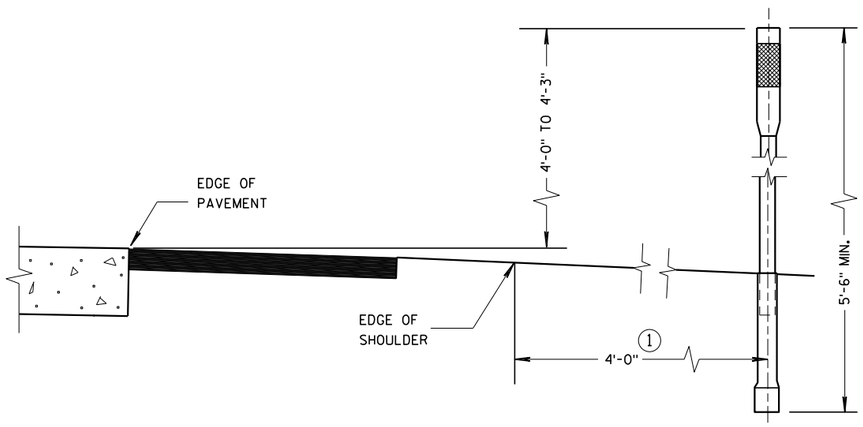
REFLECTOR SPACING	LOCATION
400'	MAINLINE
100'	RAMPS *

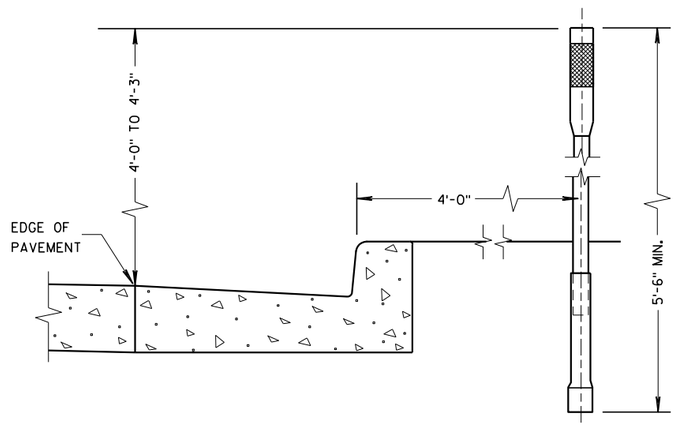
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER.





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

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

(1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.

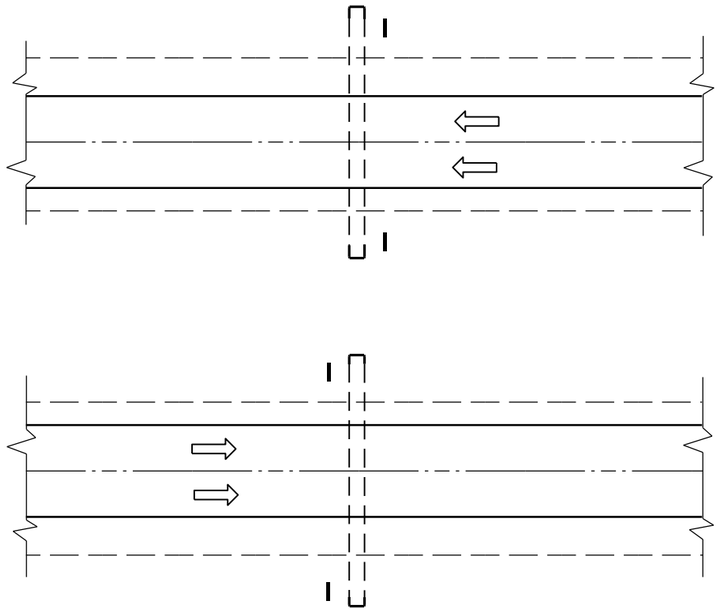
(2) FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

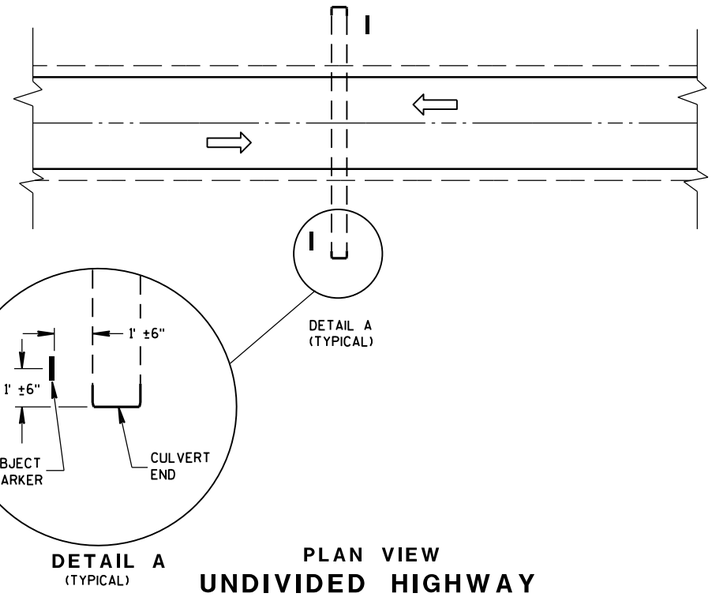
APPROVED
March 2018 — /S/ Matthew P Rauch
DATE — STATE SIGNING AND M[illegible]NGINEER
FHWA

6
S.D.D. 15 A 4-4c



PLAN VIEW

DIVIDED HIGHWAY



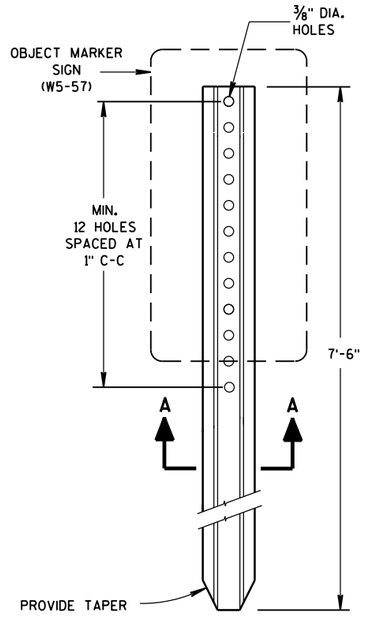
DETAIL A
(TYPICAL)

PLAN VIEW

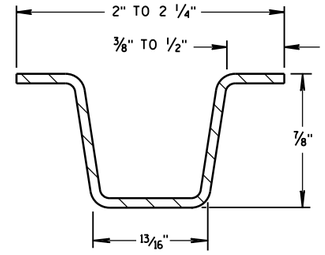
UNDIVIDED HIGHWAY

OBJECT MARKER

DIRECTION OF TRAFFIC FLOW



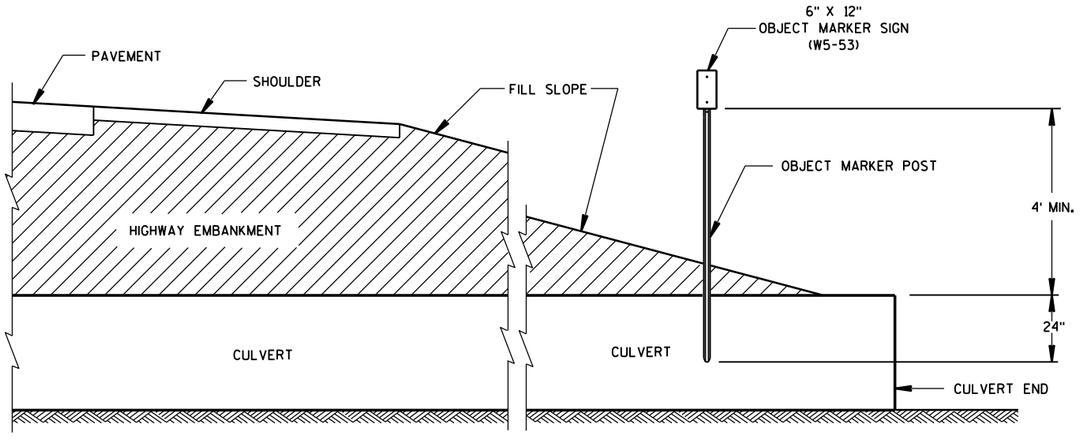
OBJECT MARKER POST



SECTION A-A

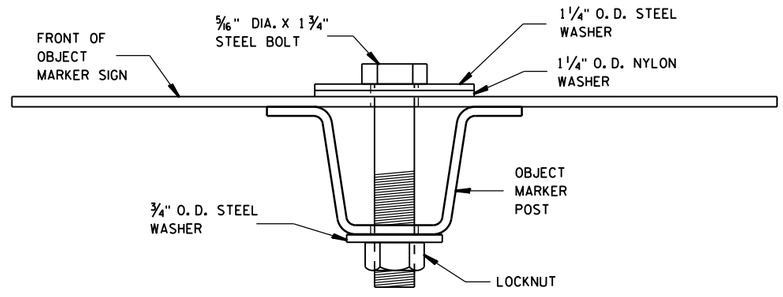
WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

OBJECT MARKER LOCATION



CROSS SECTION

OBJECT MARKER PLACEMENT



MOUNTING DETAIL FOR OBJECT MARKER SIGN

OBJECT MARKER FOR HAZARDOUS CULVERT

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June 2017 — DATE

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EER

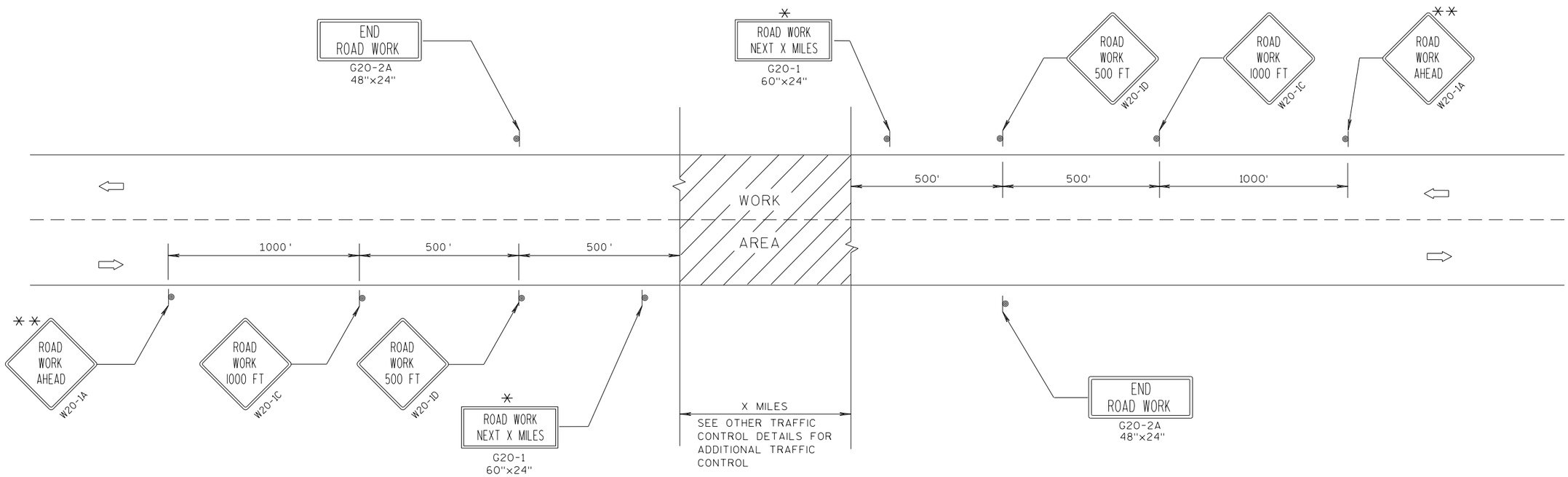
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S.D.D. 15 A 7-2

6

S.D.D. 15 A 7-2

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.

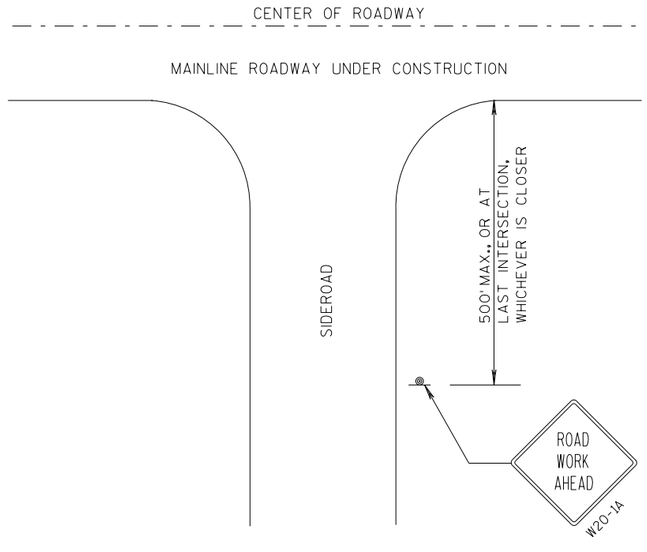
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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



LEGEND

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

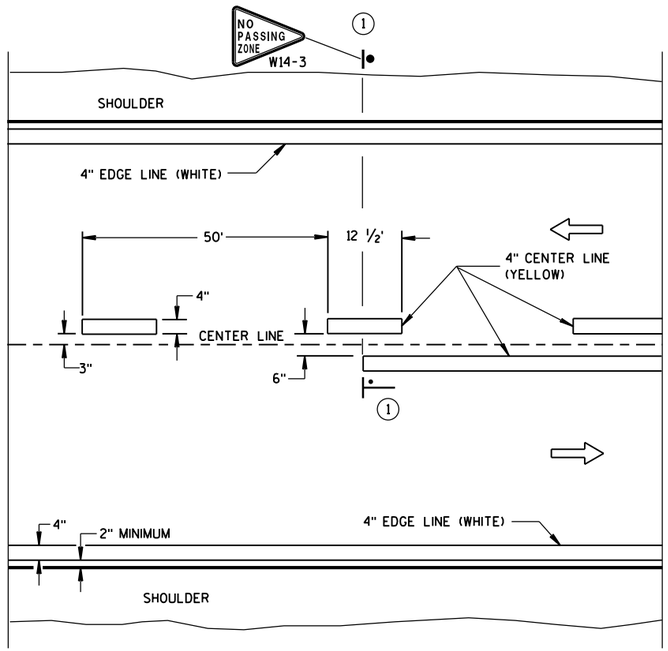
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

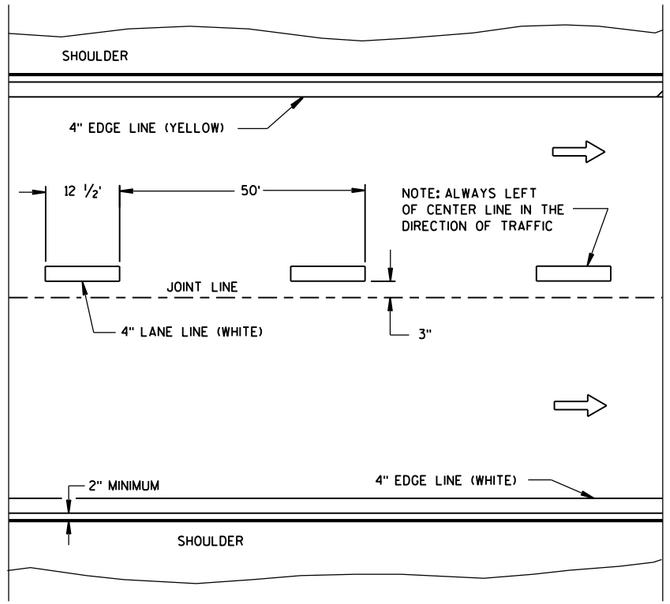
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7/2018 — DATE
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S.D.D. 15 C 4-5



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

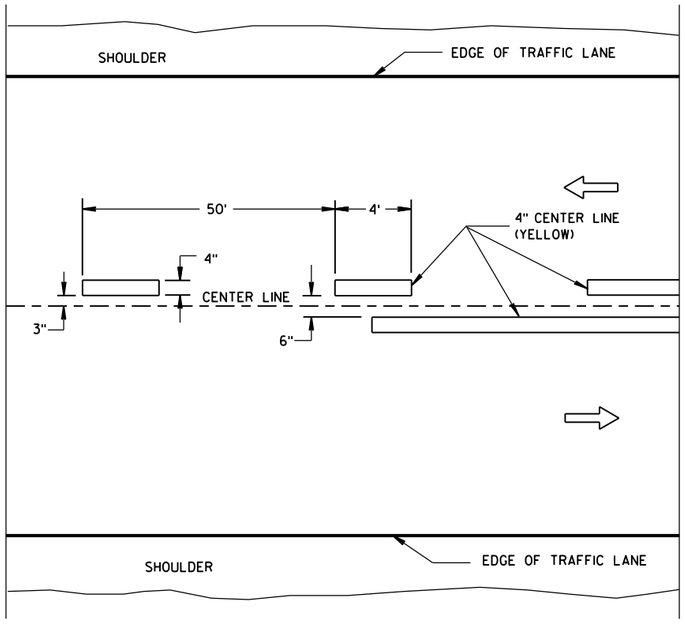
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

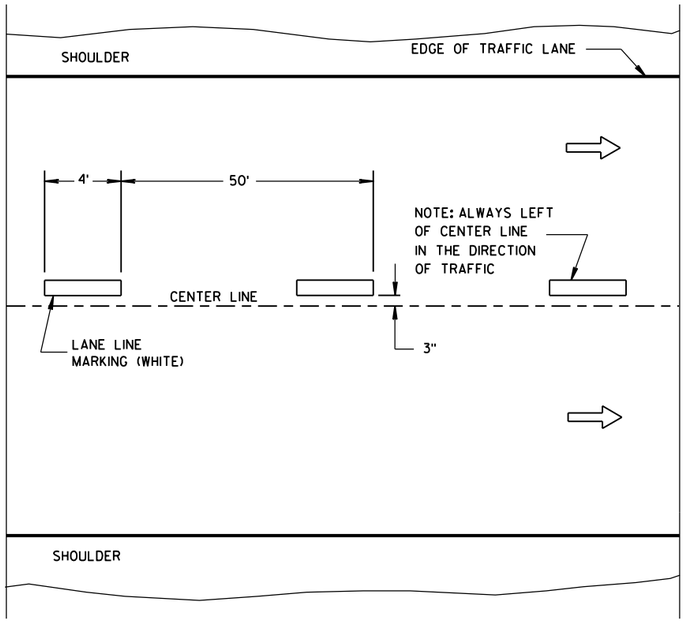
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

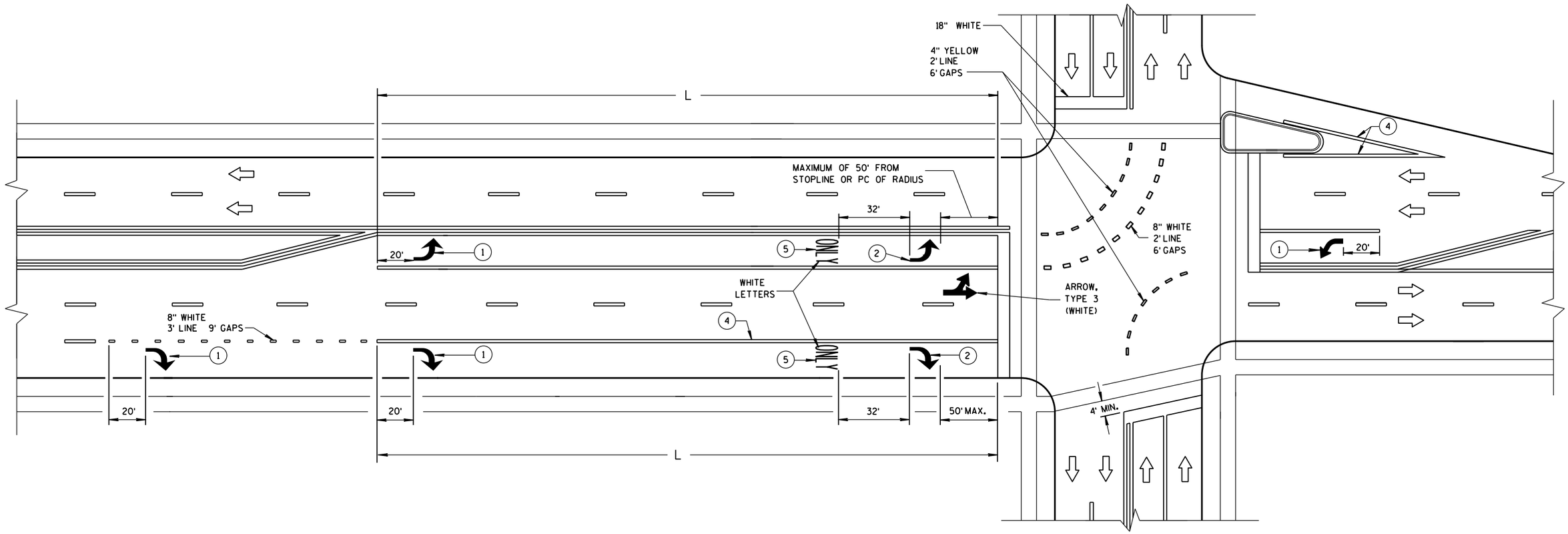
LONGITUDINAL MARKING (MAINLINE)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MAR[illegible]
FHWA	

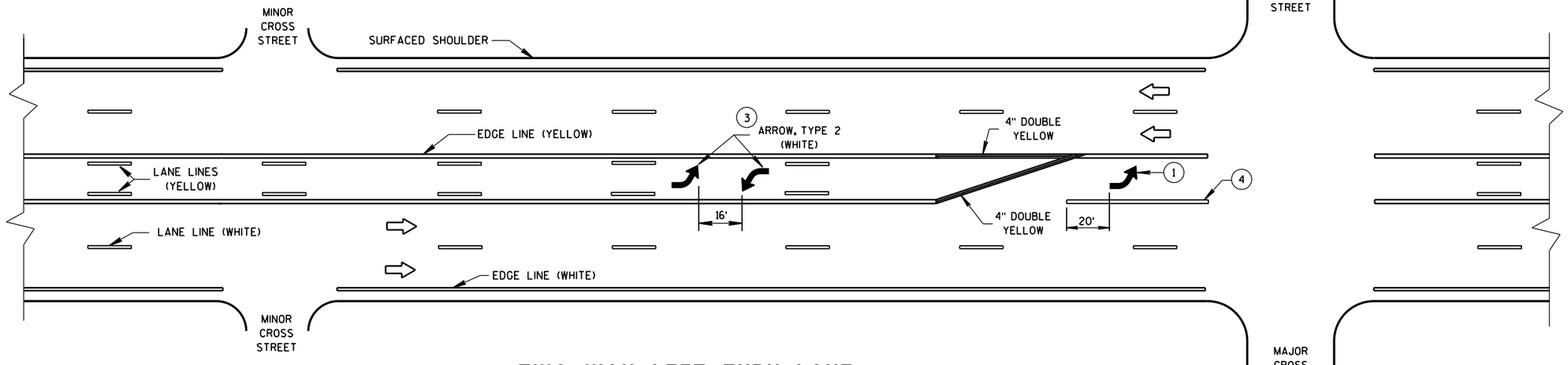
6

S.D.D. 15 C 8-18a

6

S.D.D. 15 C 8-18a





GENERAL NOTES

(1) REQUIRED ARROW, TYPE 2 (WHITE).

(2) REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.

(3) A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.

(4) 8" WHITE

(5) REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

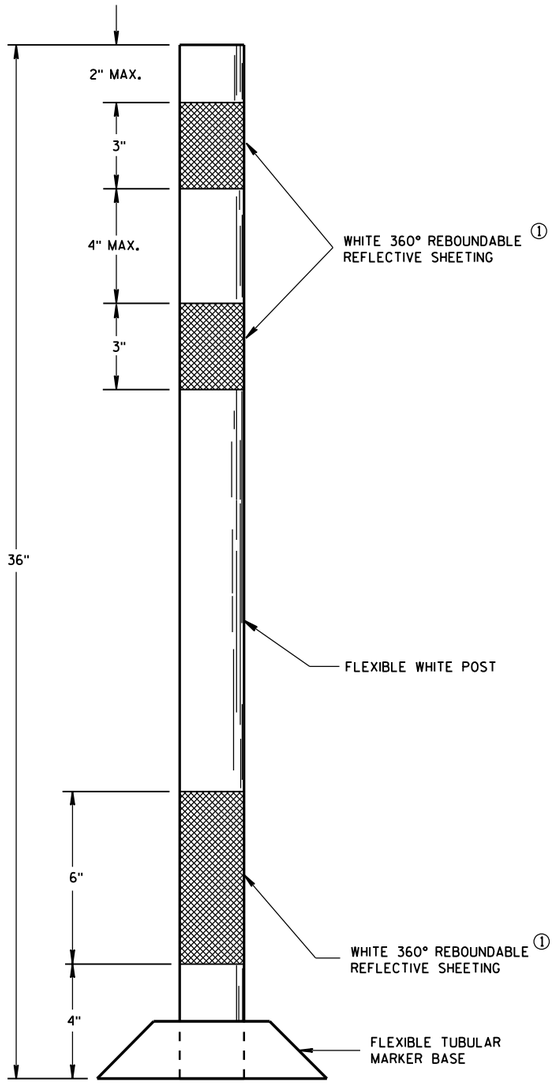
TWO WAY LEFT TURN LANE

PAVEMENT MARKING
(TURN LANES)

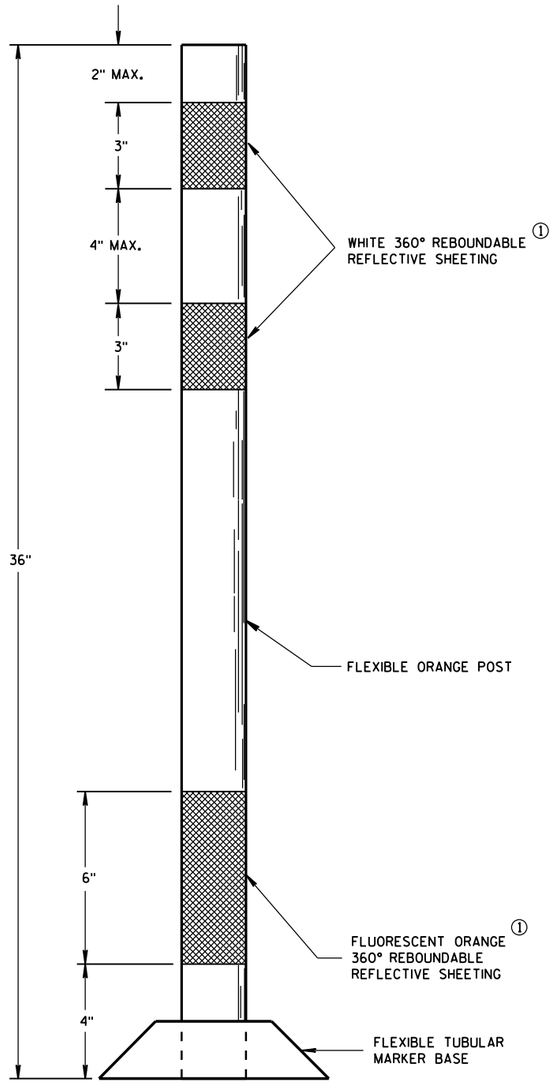
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-18b



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

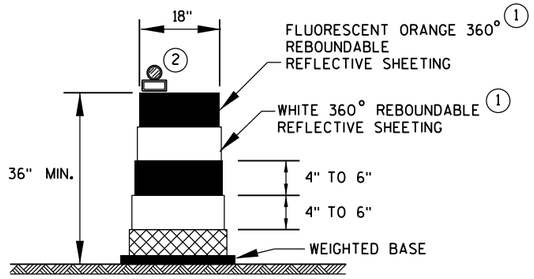
CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

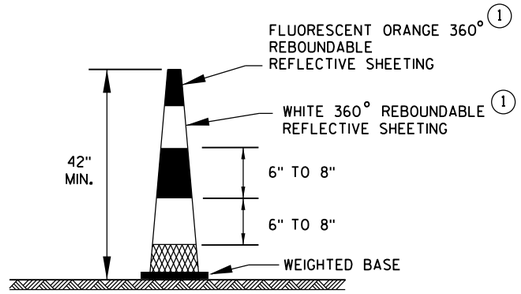
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S.D.D. 15 C 11-7a



DRUM

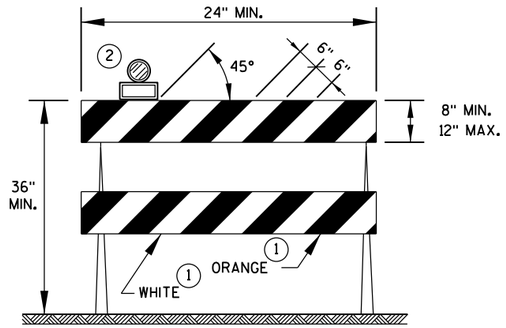


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

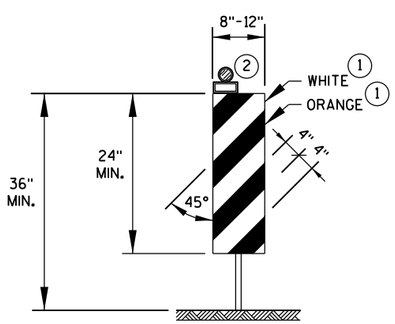
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



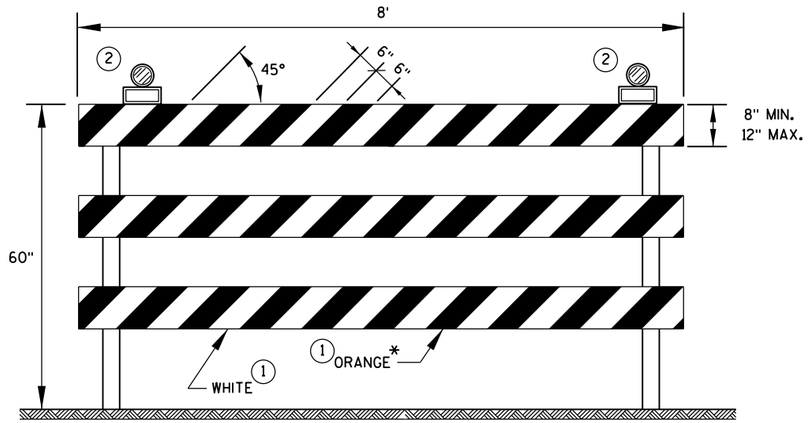
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
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S.D.D. 15 C 11-7b

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

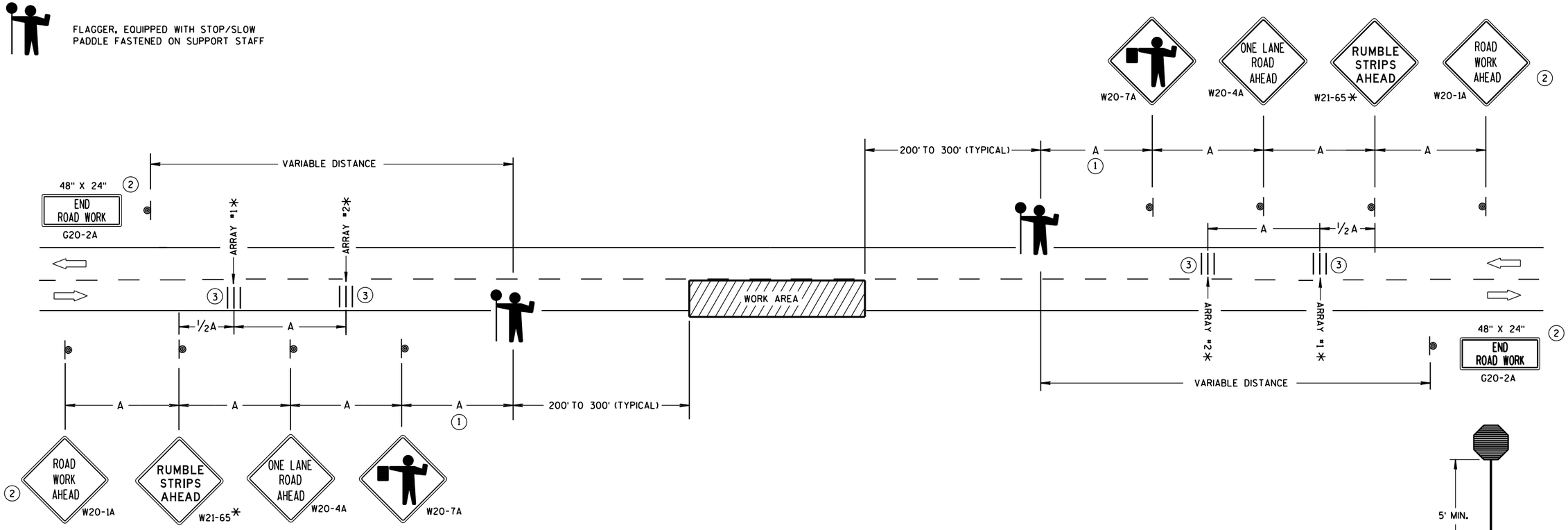
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

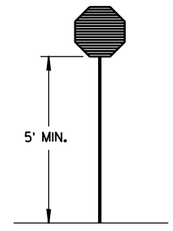


W03-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

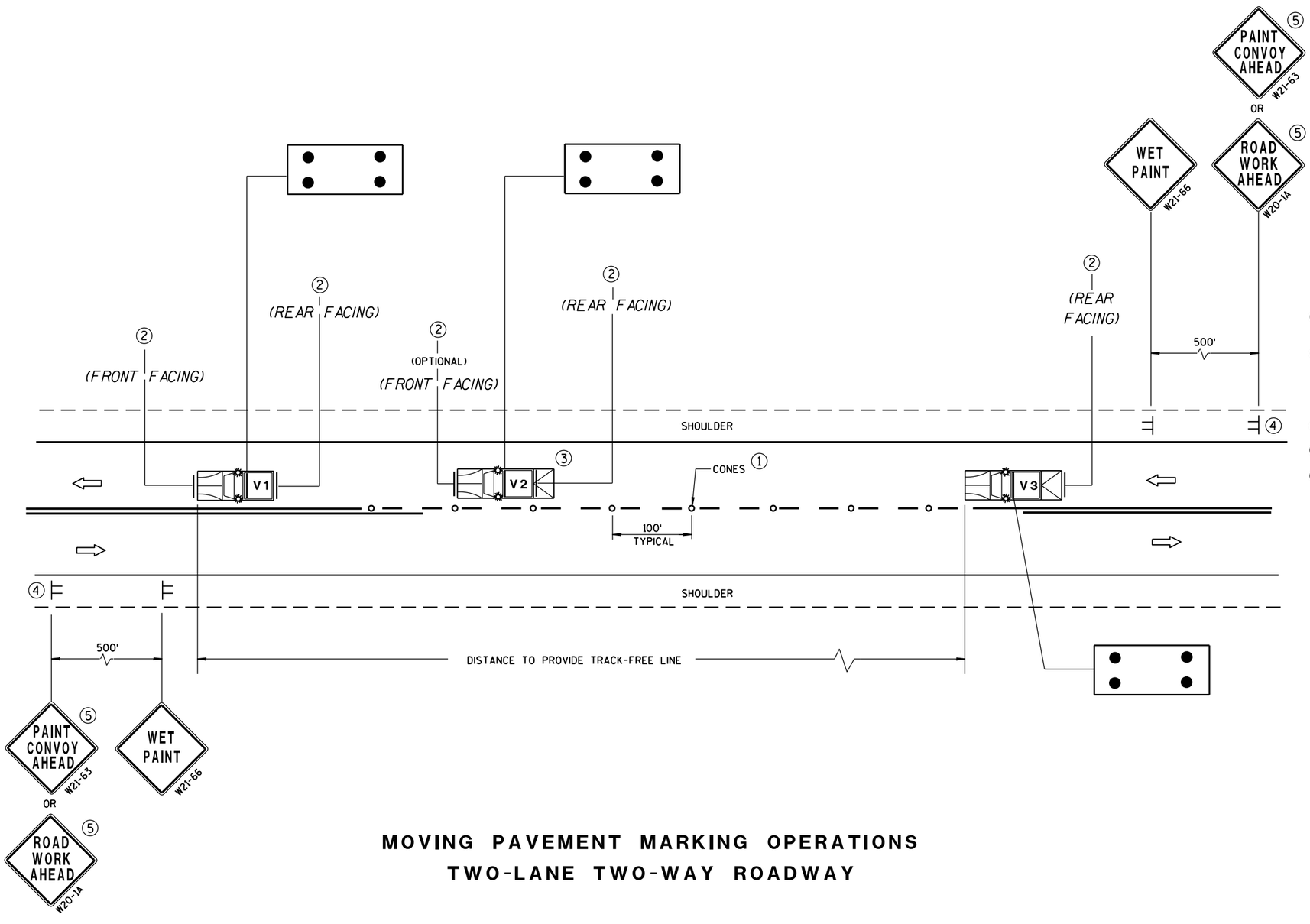
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APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
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S.D.D. 15 C 12-6

S.D.D. 15 C 12-6



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

- **V1** LEAD VEHICLE
- **V2** SHADOW VEHICLE
- **V3** TRAIL VEHICLE WITH TMA
- **TMA** TRUCK-MOUNTED ATTENUATOR
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- CONES
- FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept., 2017 DATE	/S/ Andrew Heldtke WORK ZONE ENGR
FHWA	

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

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.

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

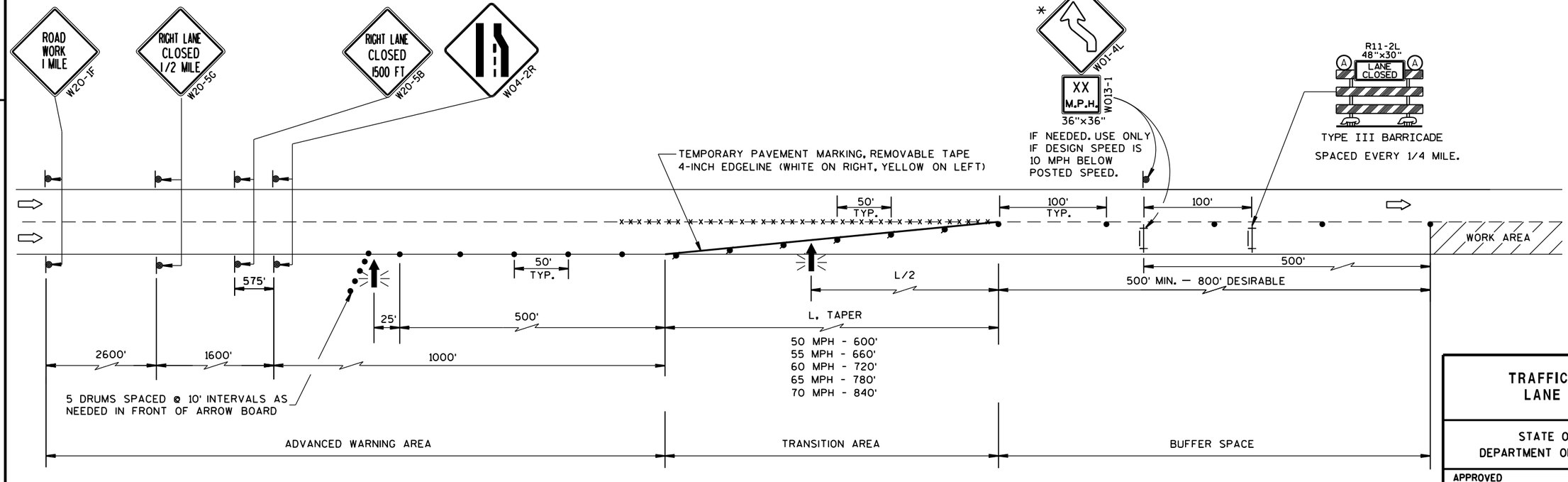
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



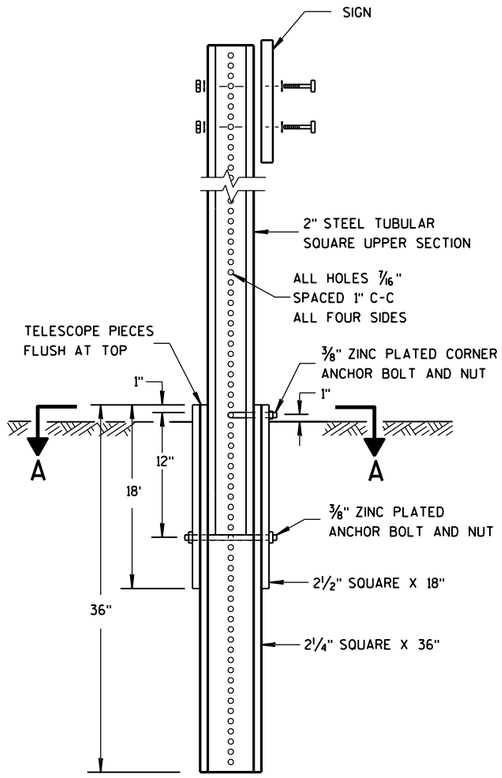
TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

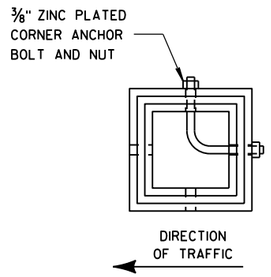
APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGIN IC
FHWA

6

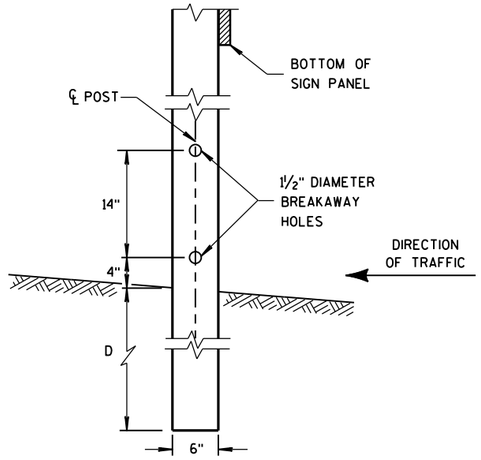
S.D.D. 15 D 12-6a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



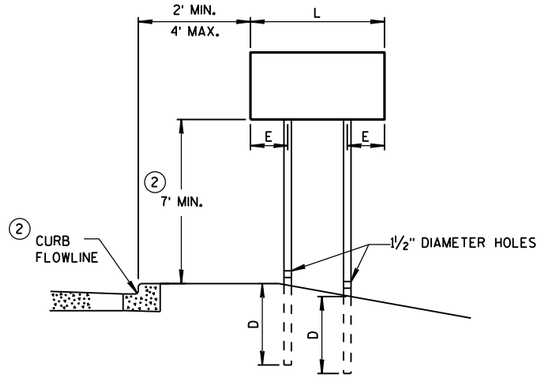
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

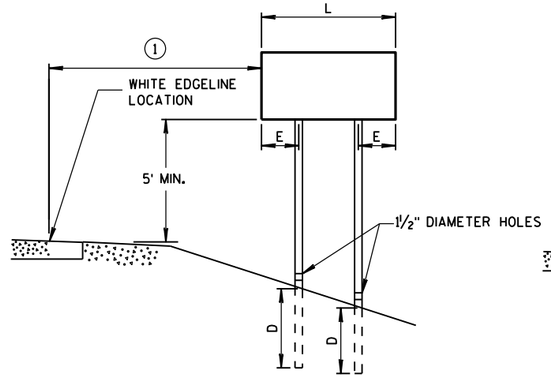
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

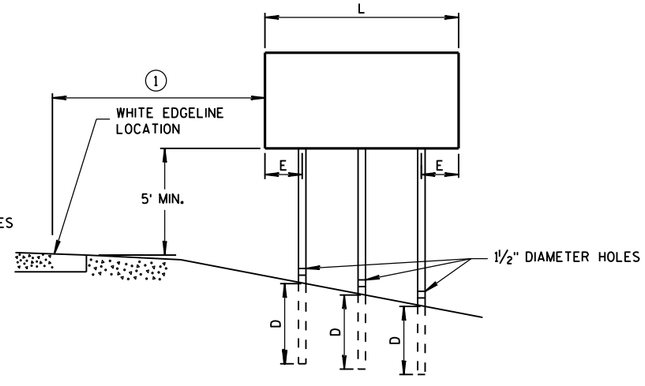
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

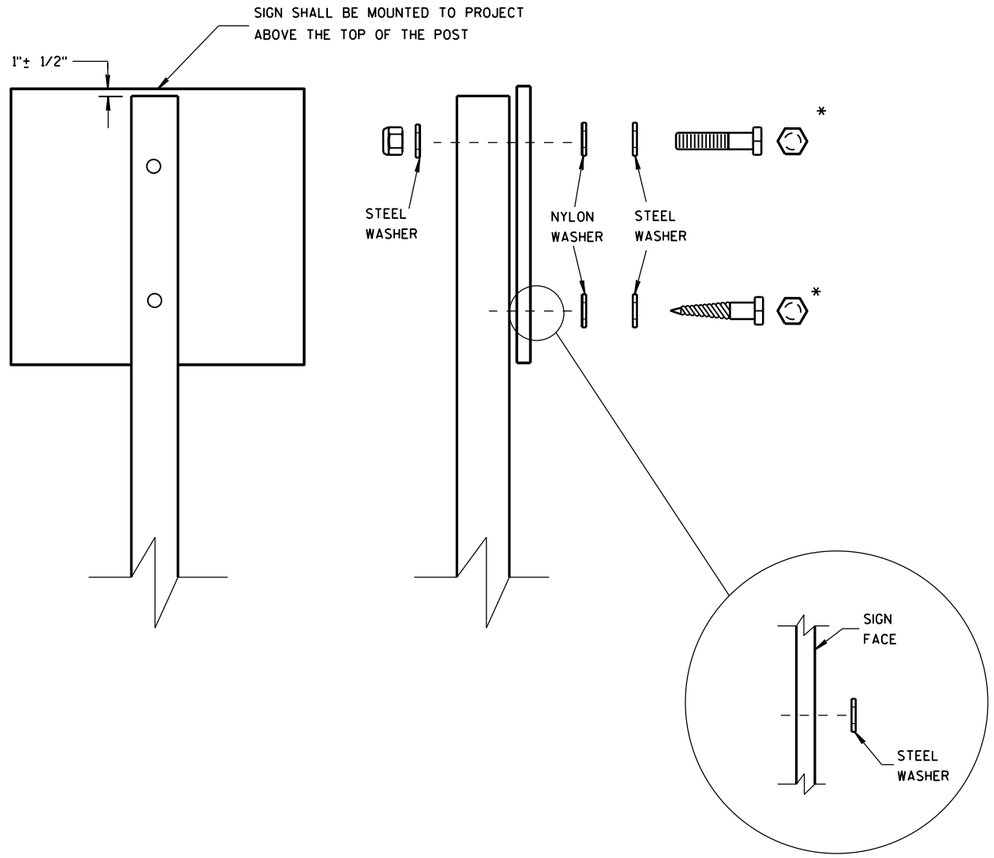
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

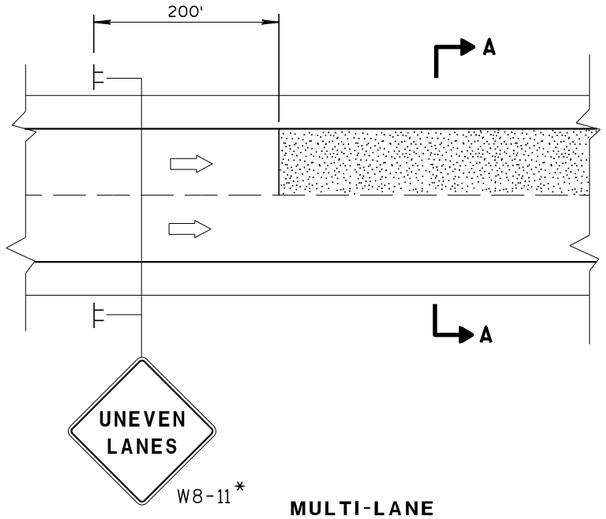
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

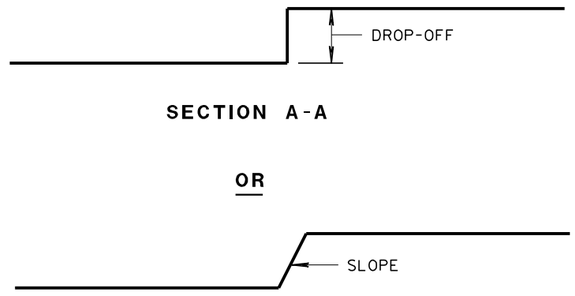
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA



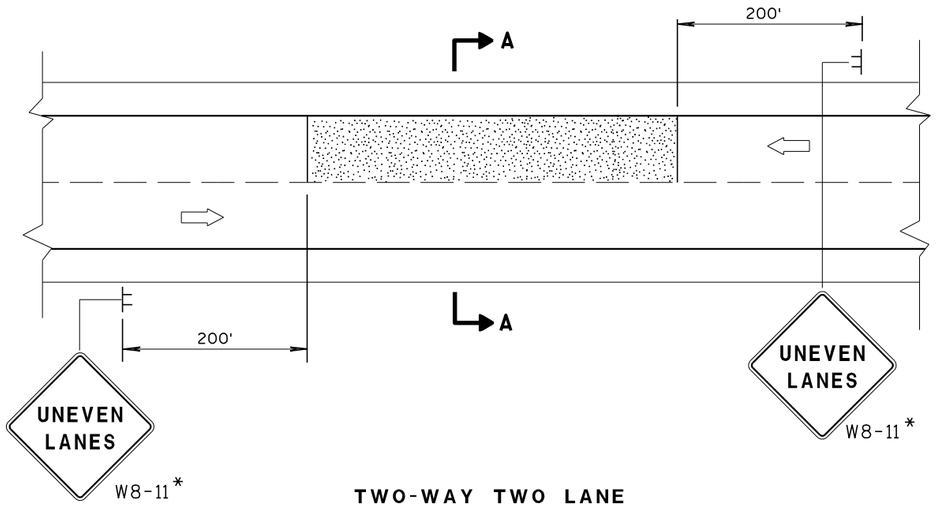
MULTI-LANE



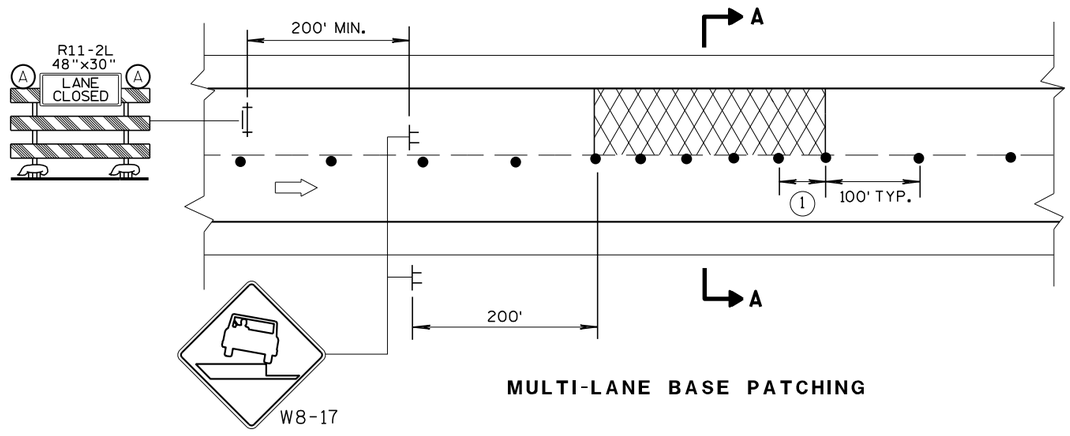
SECTION A-A

OR

SECTION A-A



TWO-WAY TWO LANE



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

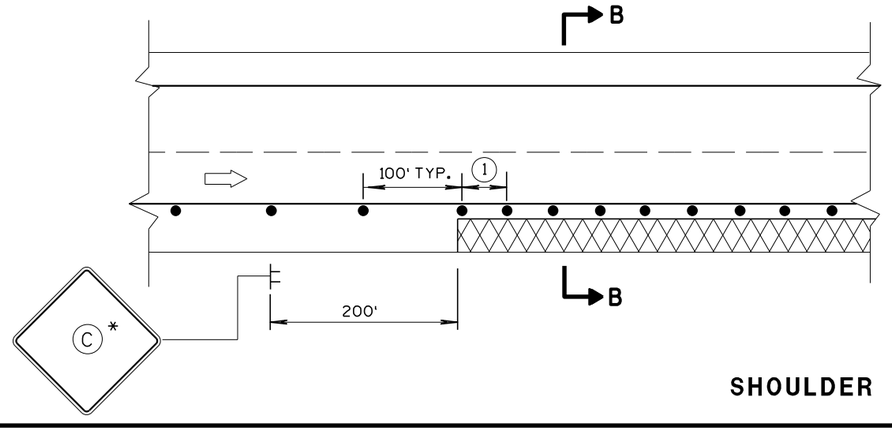
* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EACH ENTRANCE RAMP.

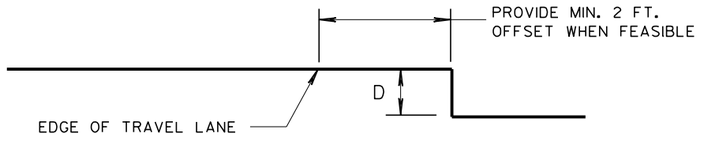
(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP-OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT





SECTION B-B

SHOULDER DROP-OFFS

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

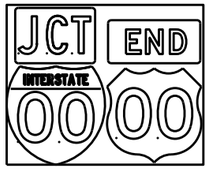
APPROVED
March 2018 — DATE
/S/ Andrew H — WORK ZONE EN
FHWA

6
S.D.D. 15 D 39-2

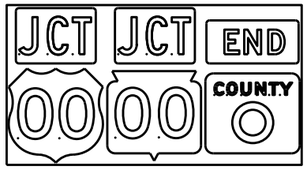
TYPICAL ASSEMBLIES



J1-1



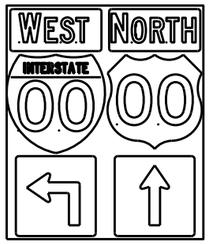
J1-2



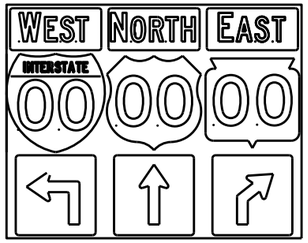
J1-3



J2-1



J2-2

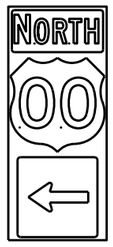


J2-3

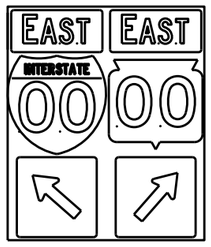


JV

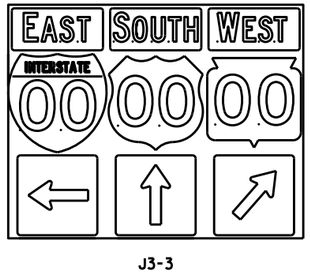
(Typical Vertical J-Assembly
See Note 10 and 11)



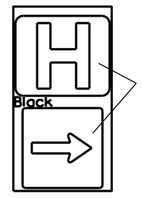
J3-1



J3-2



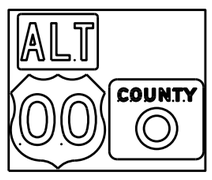
J3-3



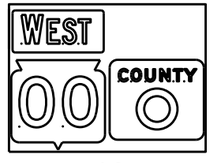
JH-1



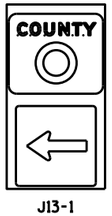
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1

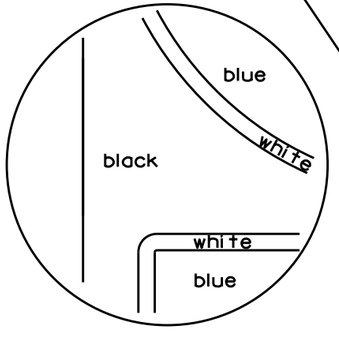


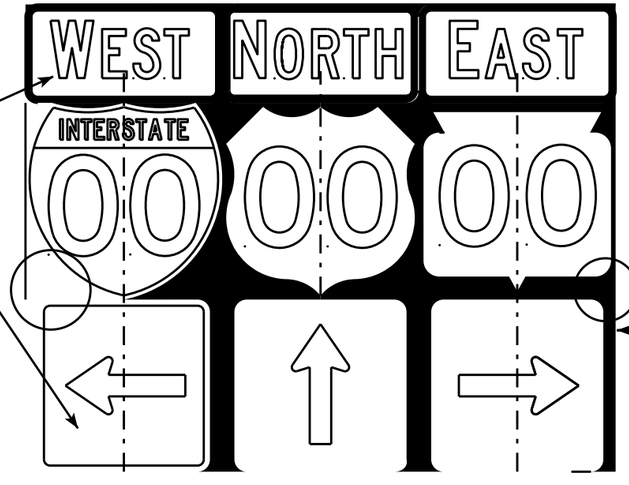
J23-1

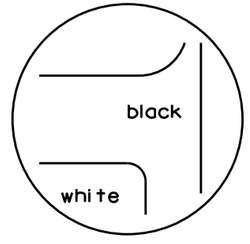


J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

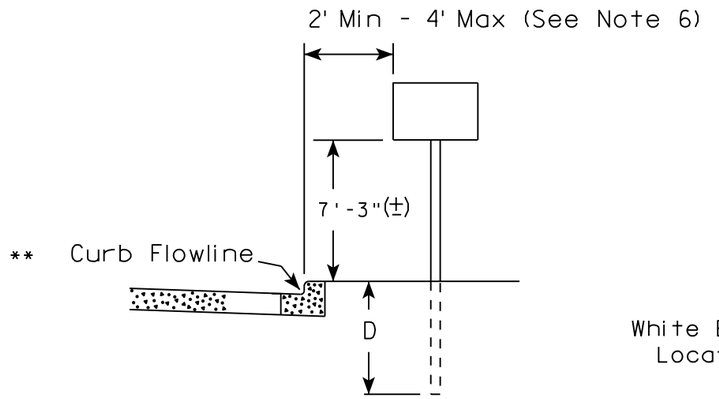
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

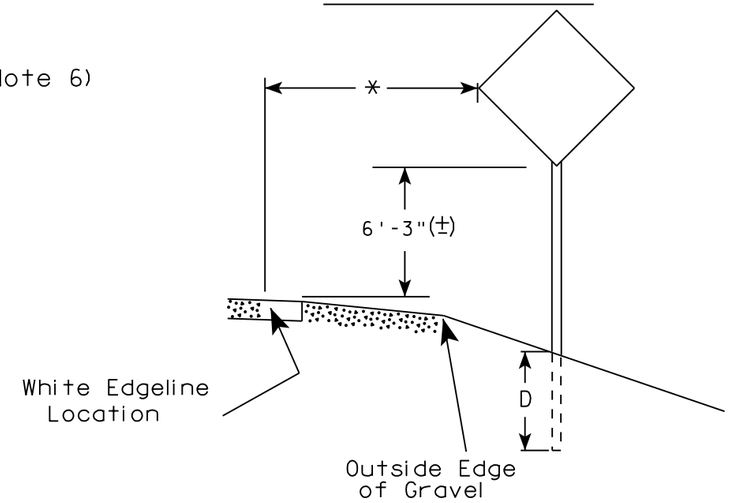
DATE 2/06/14 PL... A2-1S.8

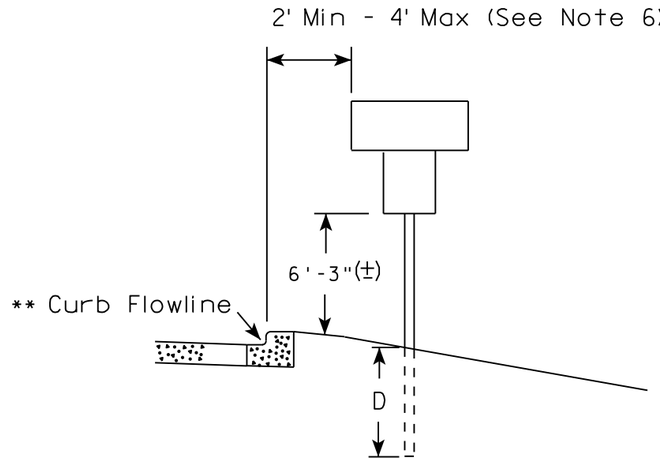
PROJECT NO: SHEET NO: E

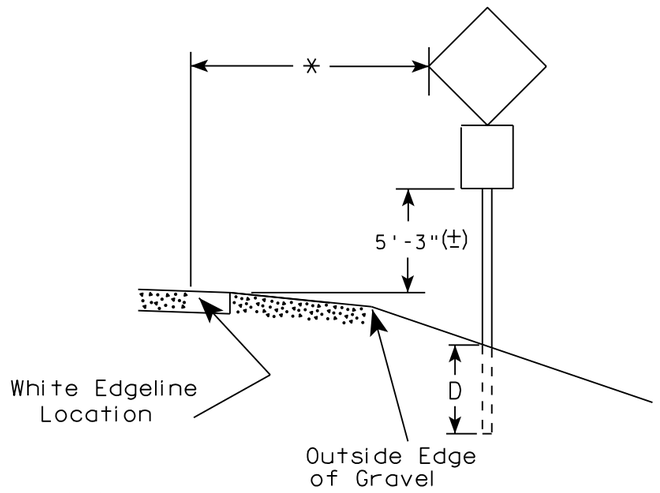
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

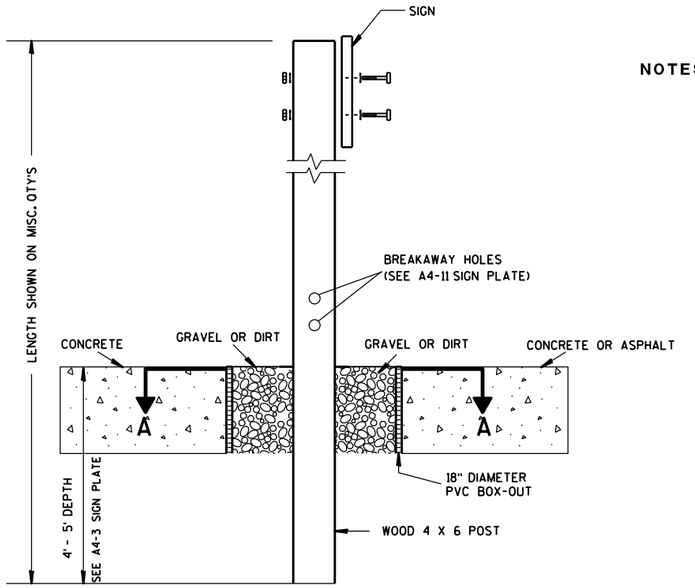
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

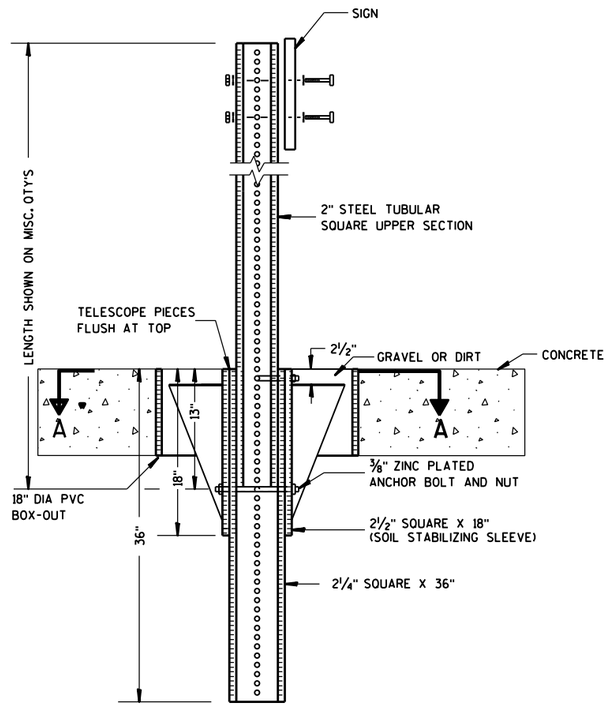
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 165	E



ELEVATION VIEW

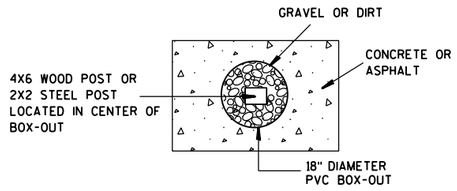
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

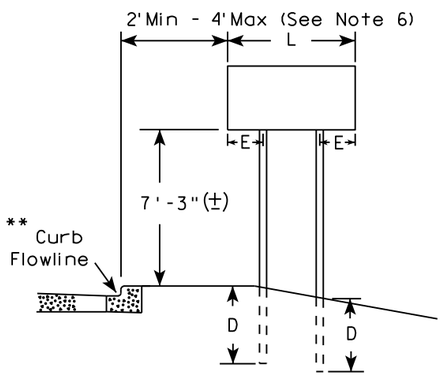
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

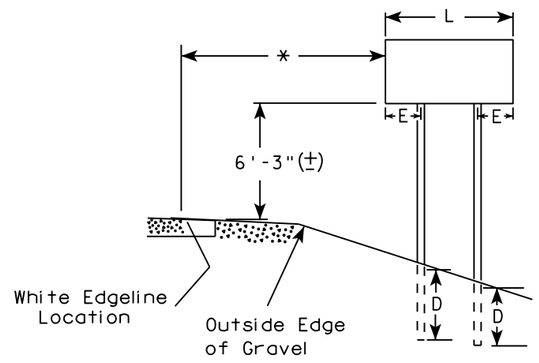
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

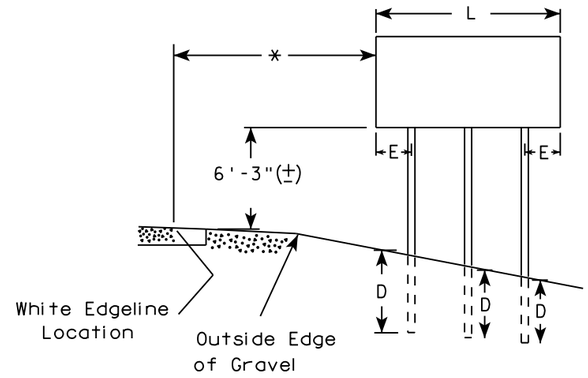
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

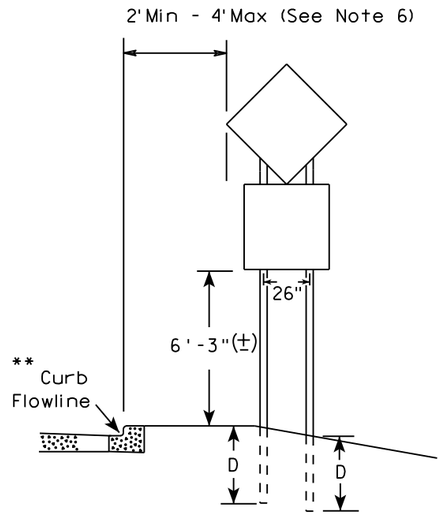
URBAN AREA



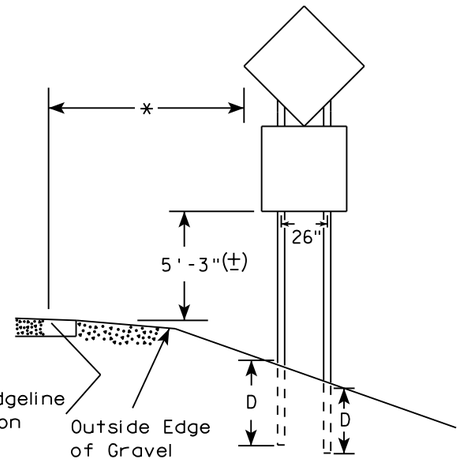
RURAL AREA (See Note 3)







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 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

POST EMBEDMENT DEPTH

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

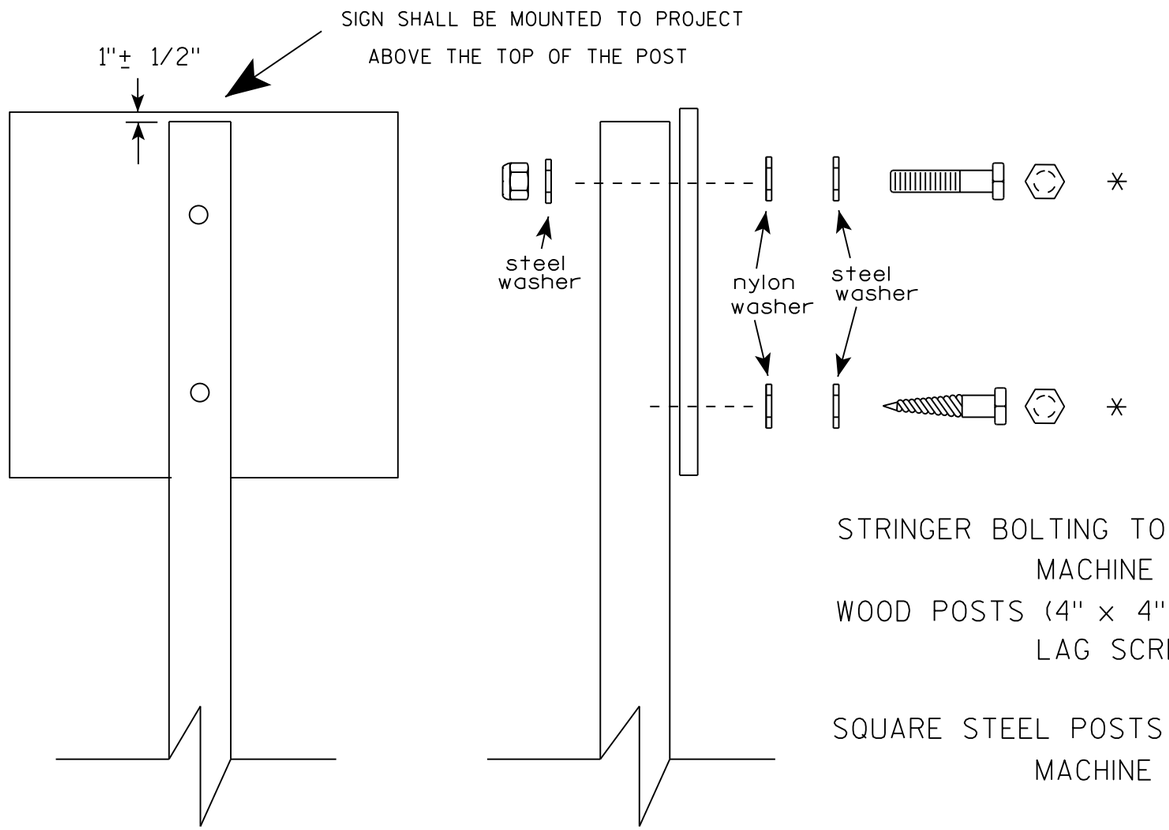
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 167	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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

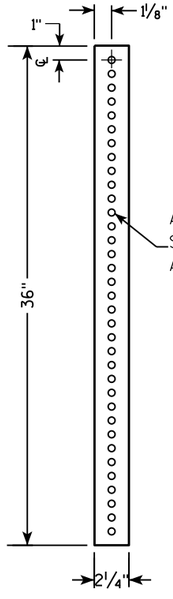
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

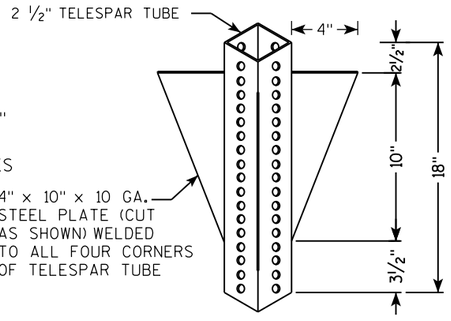
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

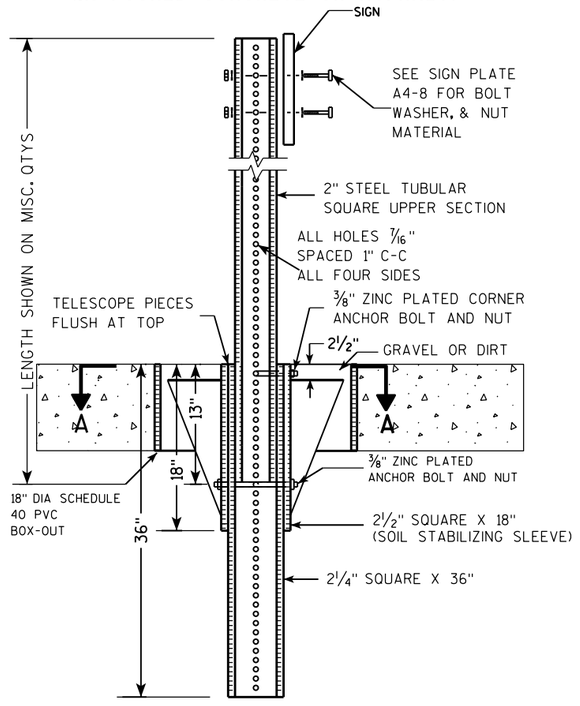
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



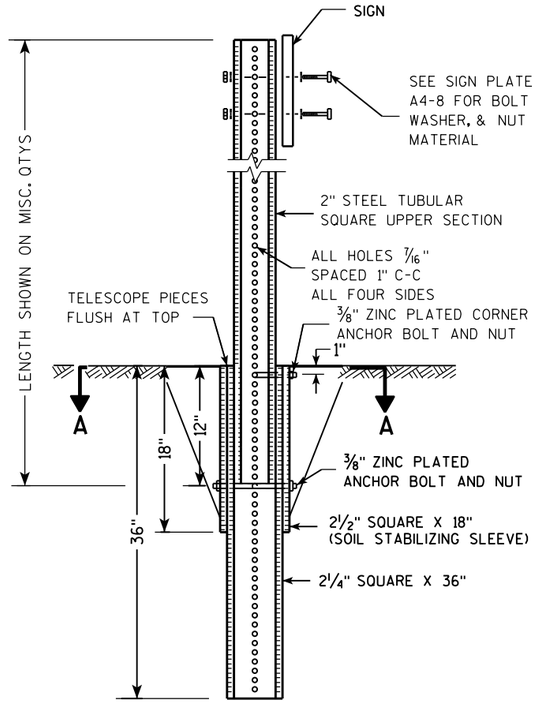
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

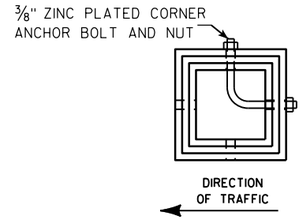


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

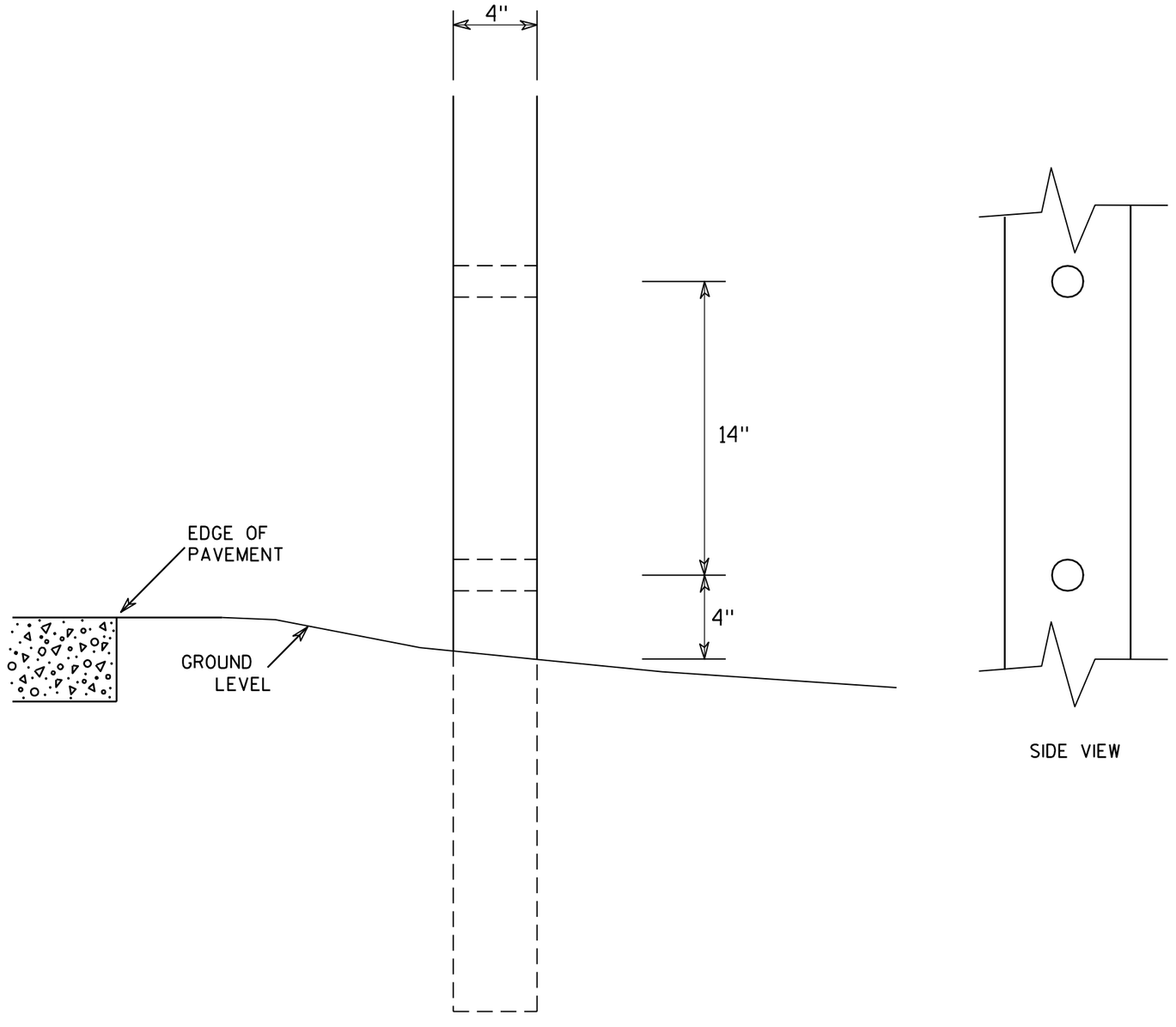
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000
WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

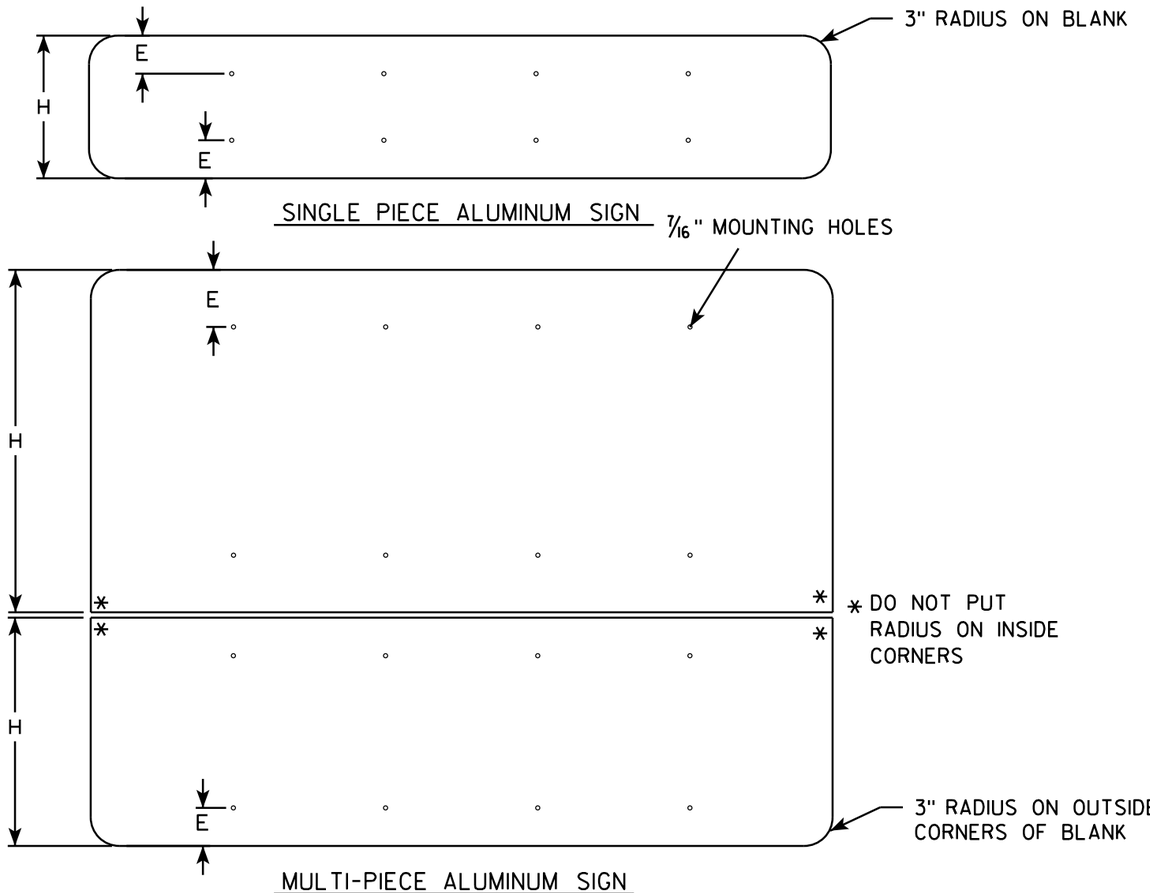
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

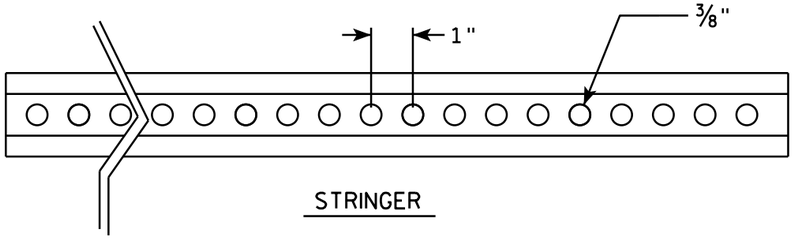
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 170	E



GENERAL NOTES

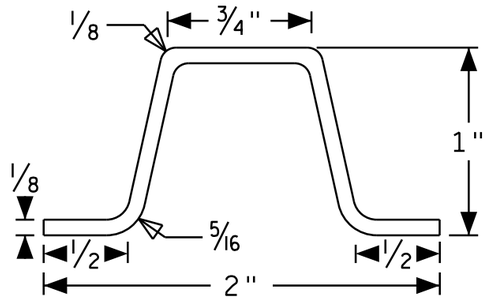
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

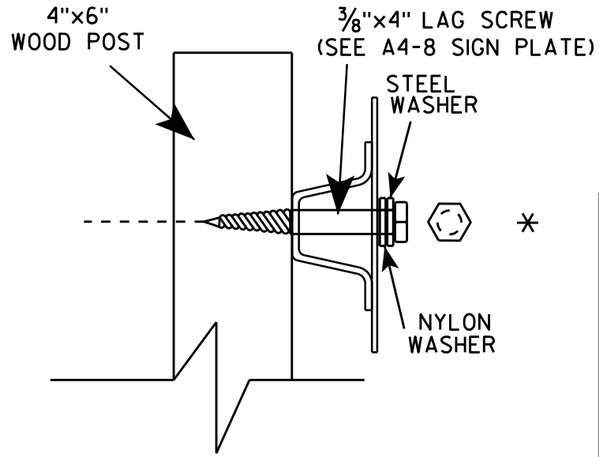


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

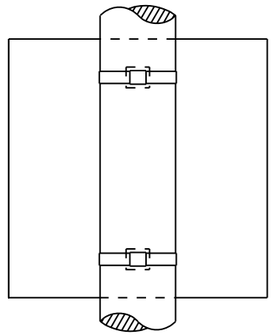
DATE 4/26/16 PLATE NO A4-18.1

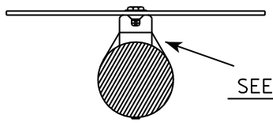
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

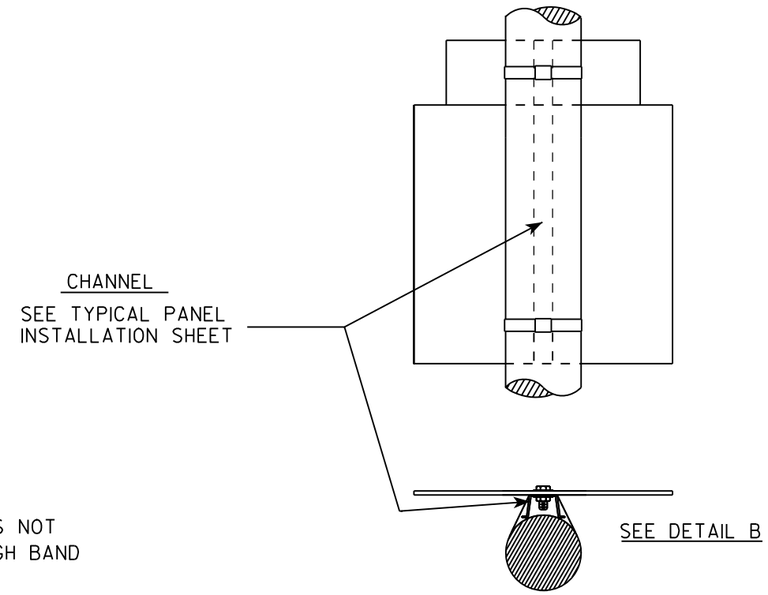
BANDING

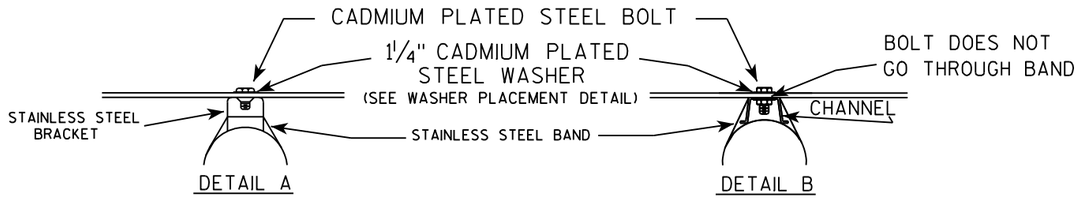
SINGLE SIGN



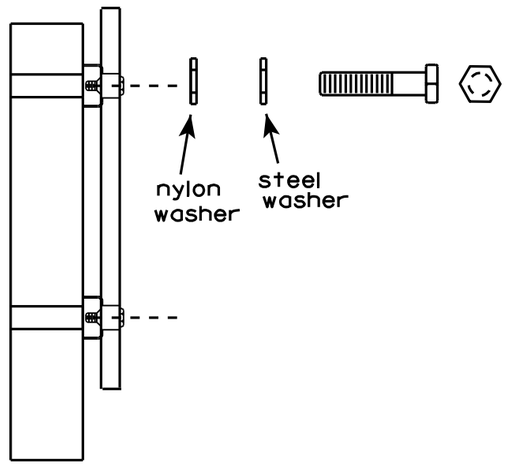


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

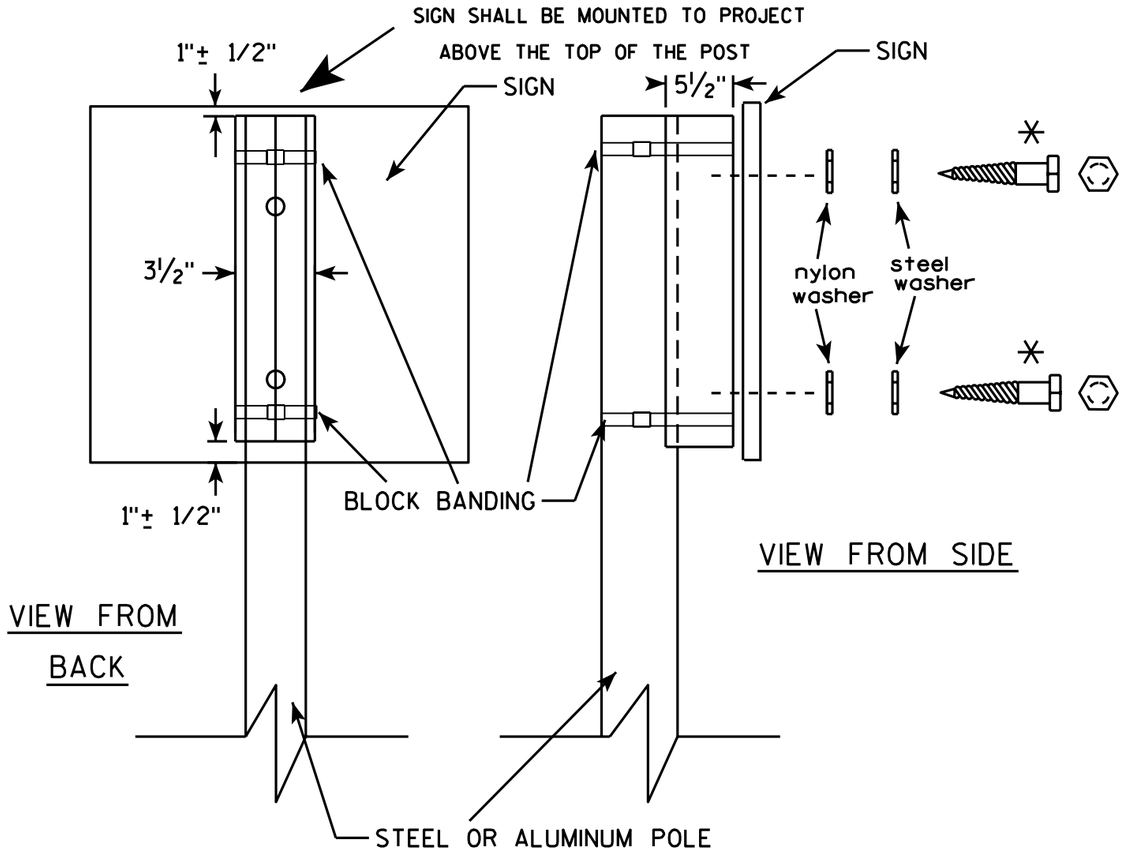
STANDARD SIGN
SIGN BANDING DETAILS

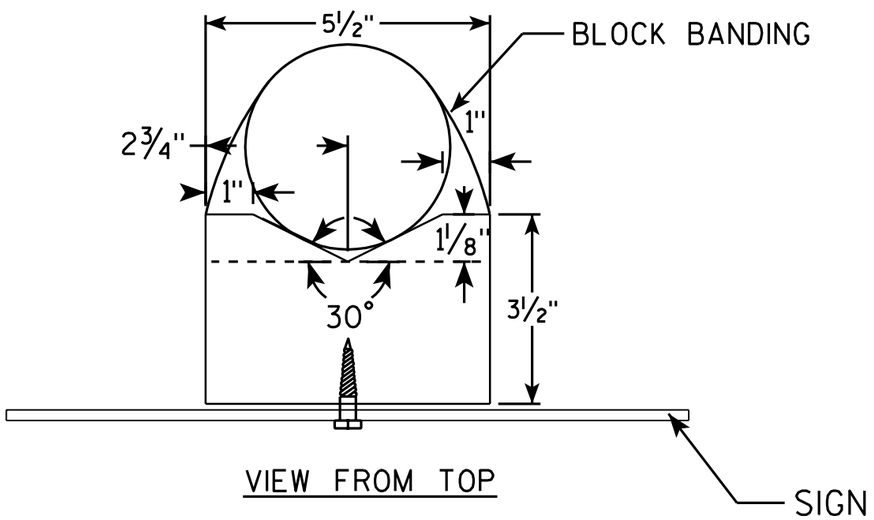
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 172	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

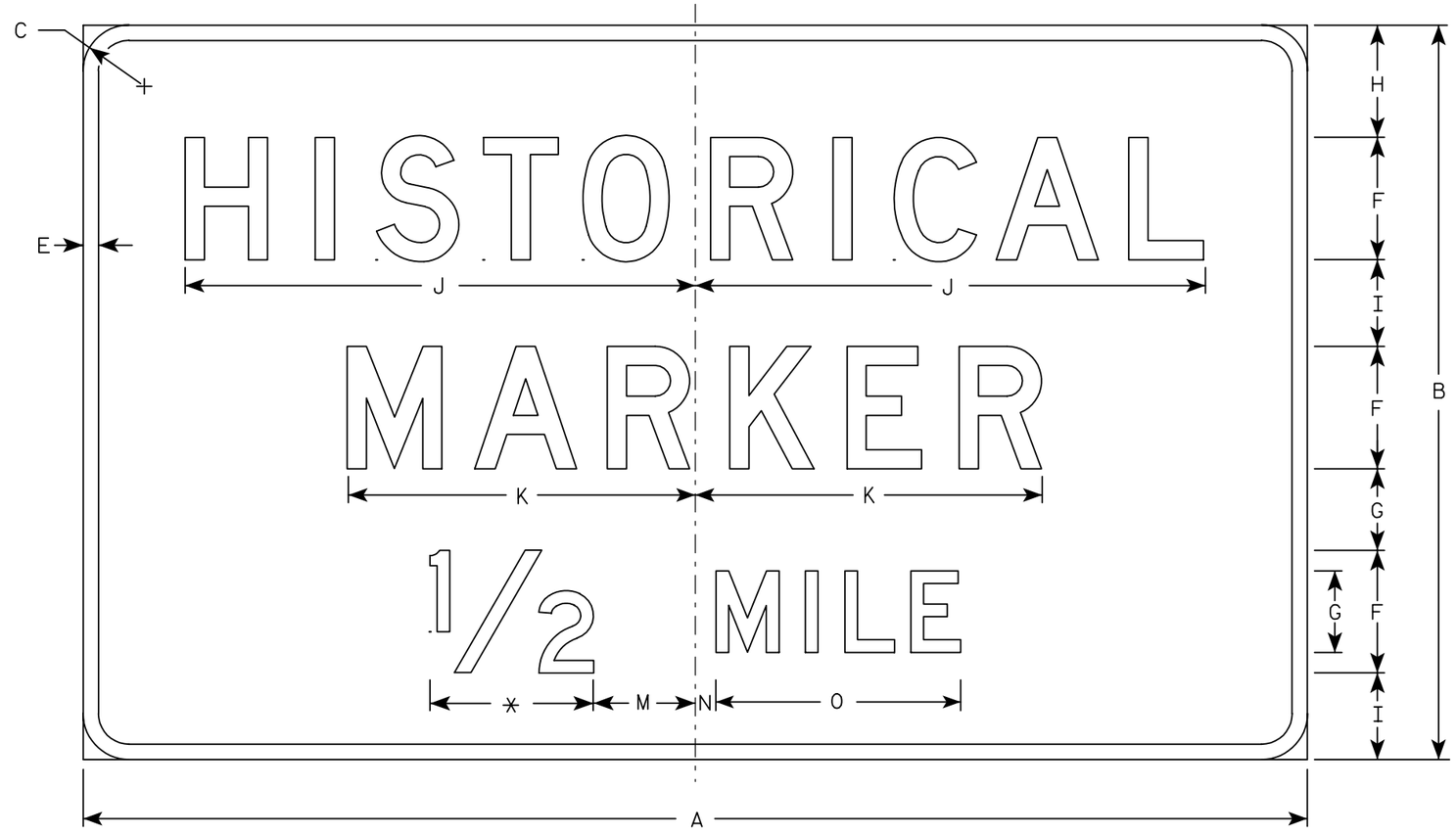
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 173 E



D5-63 * See Note 5

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	36	2 1/4		3/4	6	4	5 1/2	4 1/4	25	17		5	1	12												15.0	1.35
3																												
4																												
5																												

STANDARD SIGN
D5-63

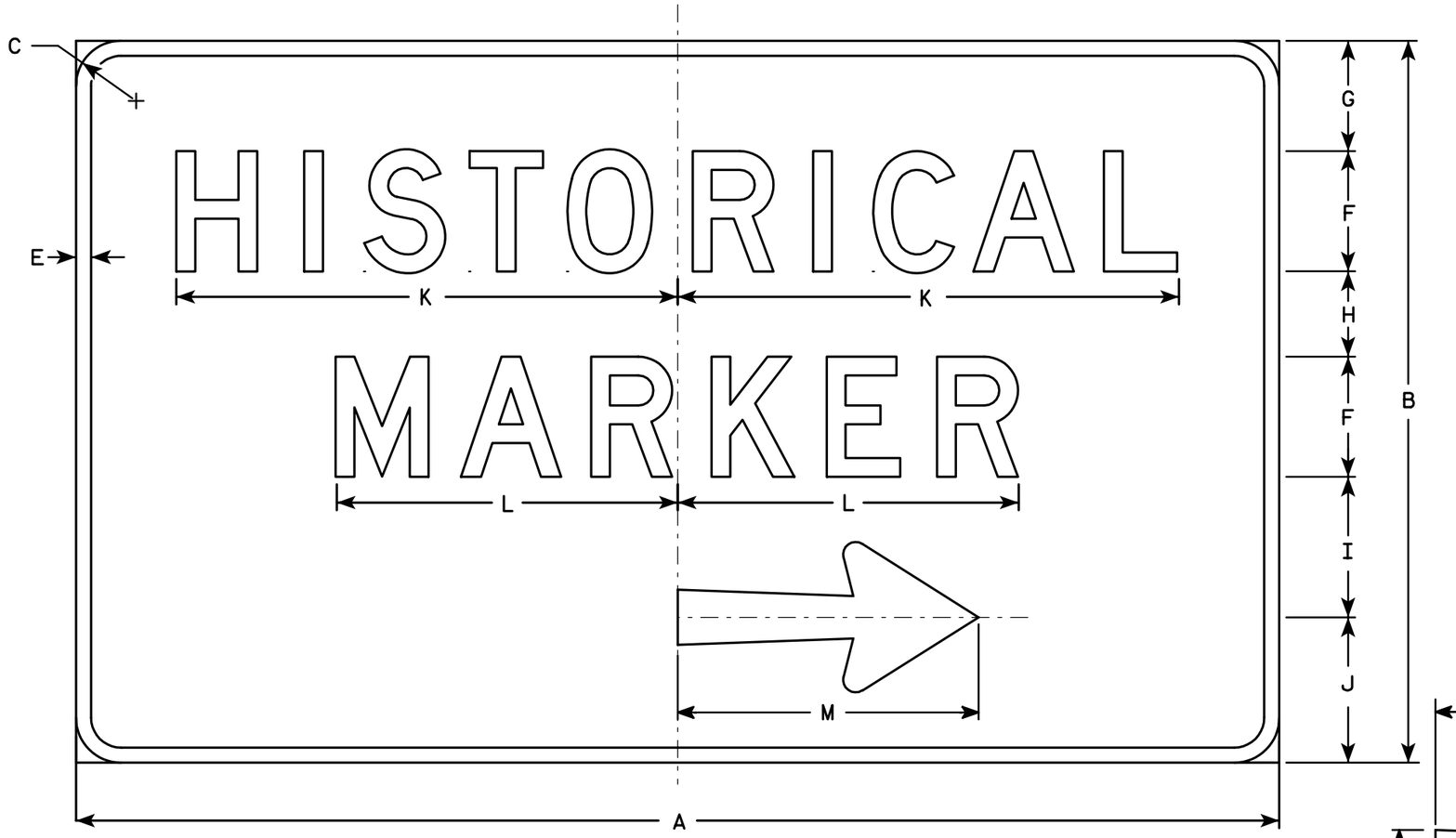
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/23/99 PLATE NO. D5-63.9

STATE PROJECT NUMBER:

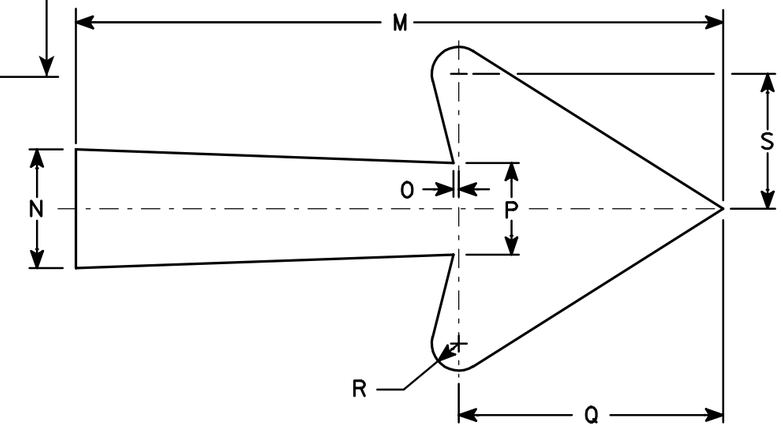
SHEET NO: 174 E



D5-64R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Brown
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. D5-64L is the same as D5-64R except the arrow is reversed.



Arrow Detail

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	36	2 1/4		3/4	6	5 1/2	4 1/4	7	7 1/4	25	17	15	2 3/4	1/8	2 1/8	6 1/8	5/8	3 1/8								15.0	1.35
3																												
4																												
5																												

STANDARD SIGN
D5-64

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Charles J Spay
for State Traffic Engineer

DATE 1/09/02 PLATE NO. D5-64.5

STATE PROJECT NUMBER:

SHEET NO: 175 E

LEVELS ON - 2.3. 5.6. 10.

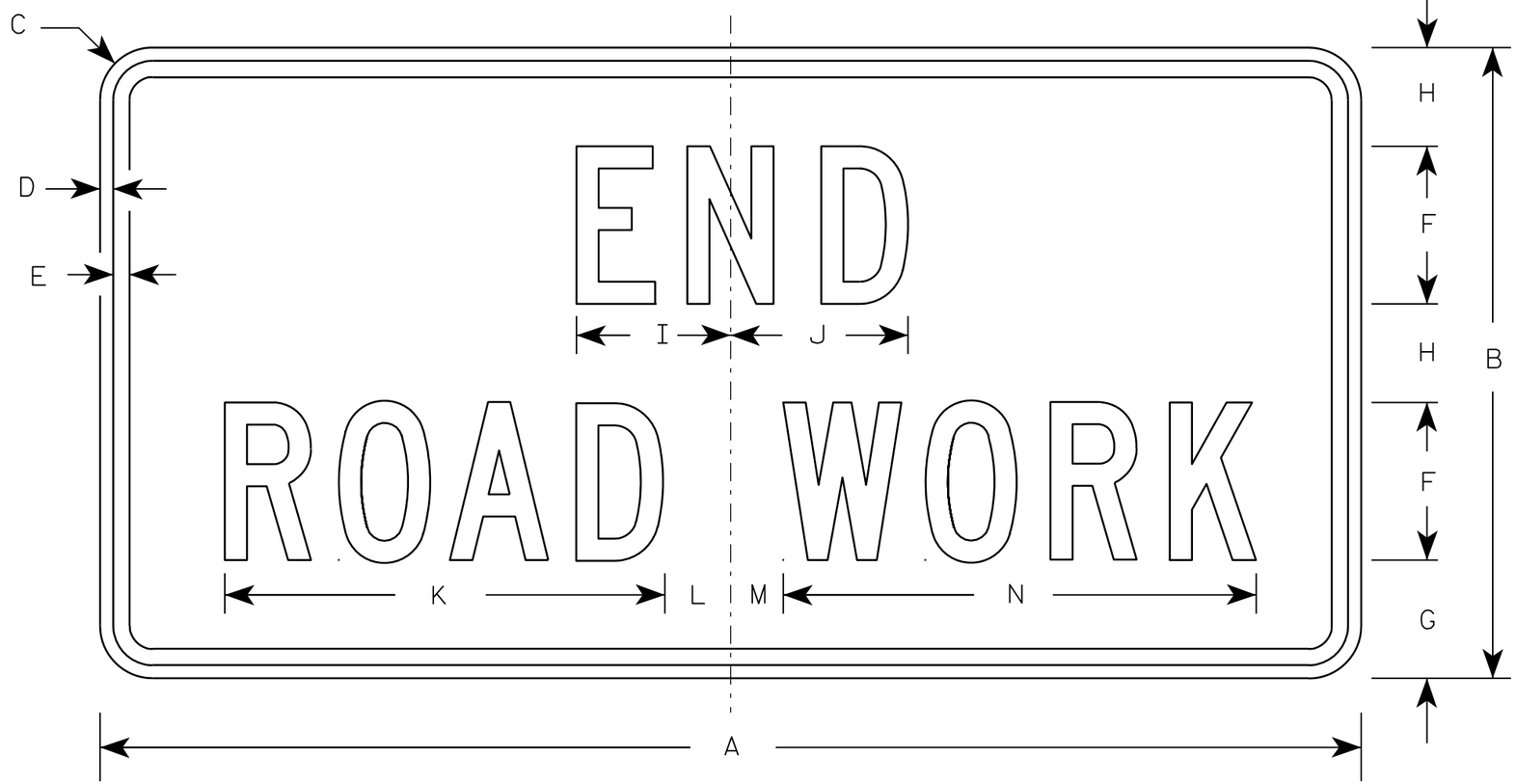
58.59.60.61.62.63

FILE NAME : C:\Users\Projects\tr_stdplate\D564.DGN PLOT DATE : 09-JAN-2002 11:10 ORG DATE : 7/17/97 Originator : Don Kluever

WISDOT/CADDS SHEET 42

7

7



G20-2A

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 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 m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

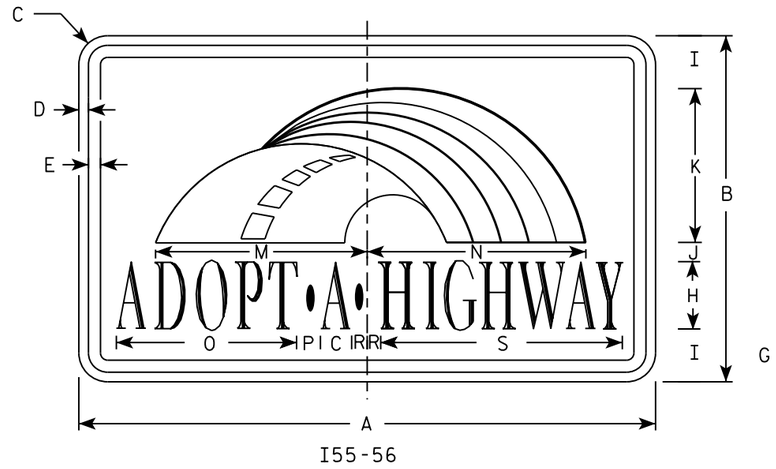
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

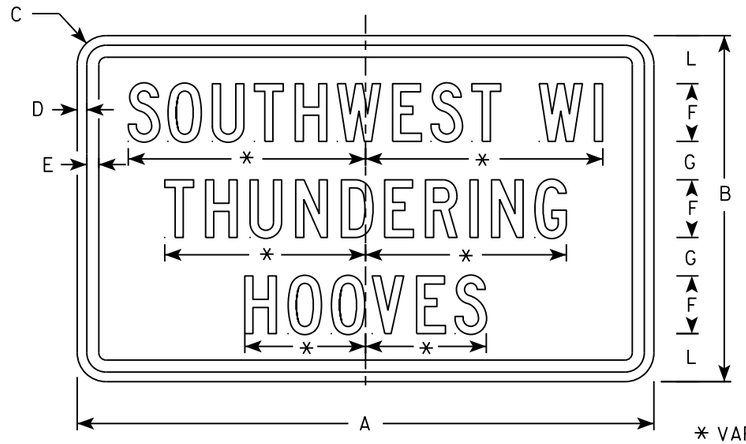
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 176	E



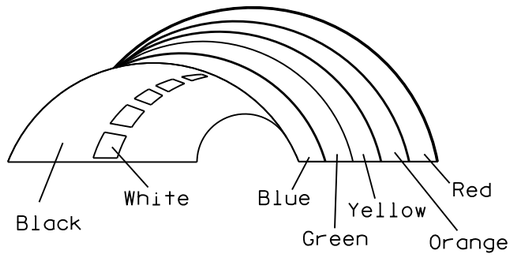
I55-56



I55-56P

* VARIES

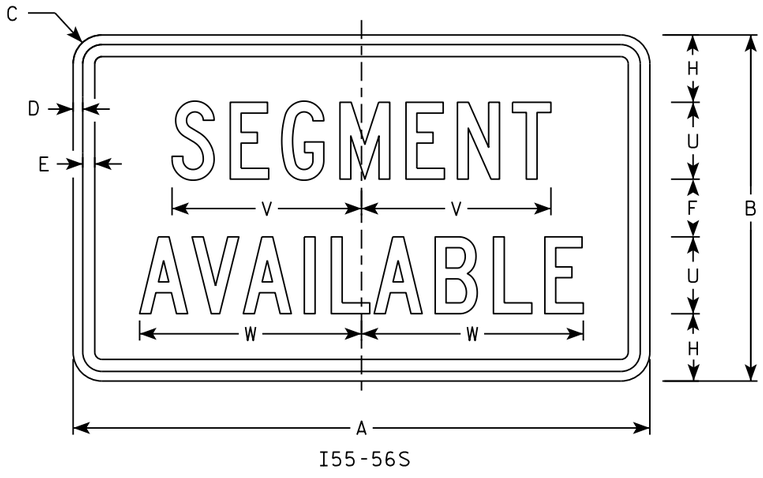
Background Colors of Symbol*



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

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - (See Note 4)
3. Message Series - (See Note 5)
4. Border - Blue
   Adopt a Highway - Red
   All other Text - Blue
5. Adopt a Highway - Dutch 8011L
   All other Text - Series C
6. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.



I55-56S

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	18	1 1/2	1/2	5/8	3	2	3 1/2	2 3/4	1	8	2 1/2	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2	4	9 7/8	11 1/2				3.75
3																											
4																											
5																											

STANDARD SIGN
I55-56

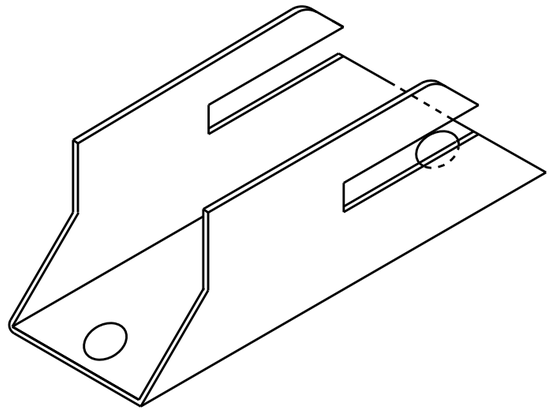
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

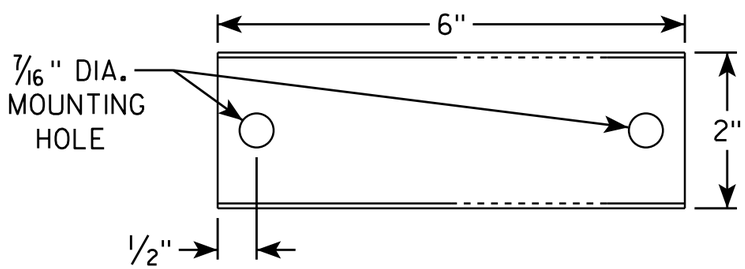
DATE 2/20/18 PLATE NO. I55-56.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 177 | E

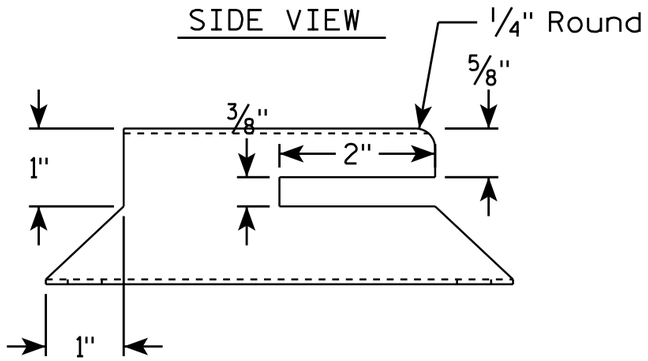
ISOMETRIC VIEW



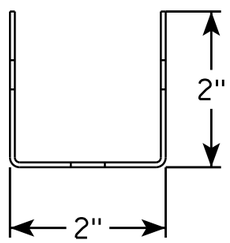
TOP VIEW



SIDE VIEW



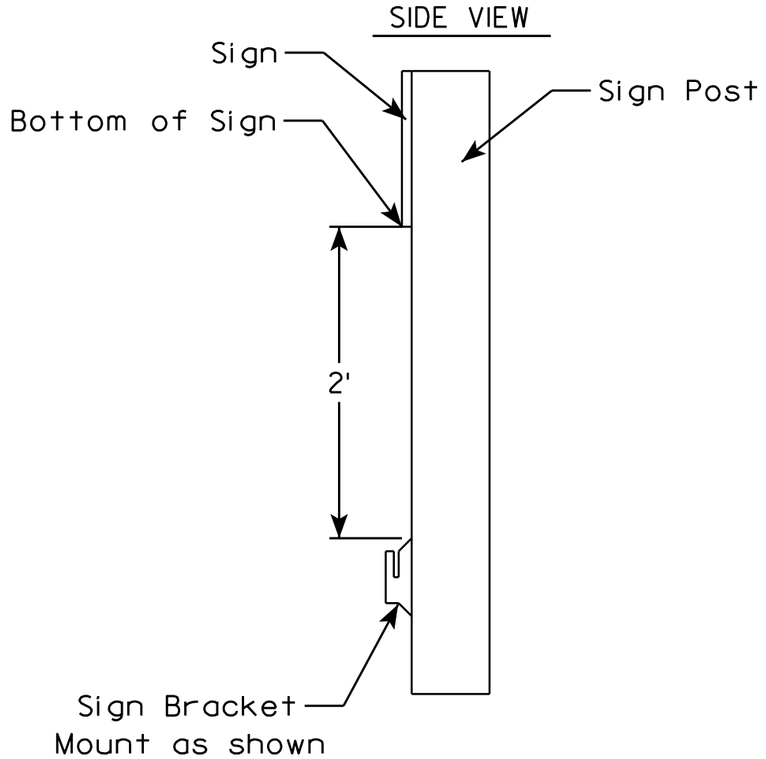
END VIEW



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

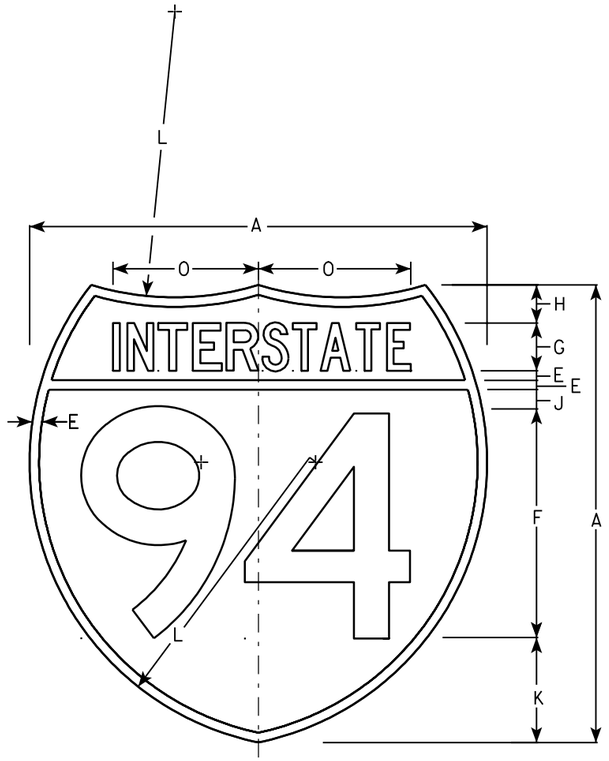
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

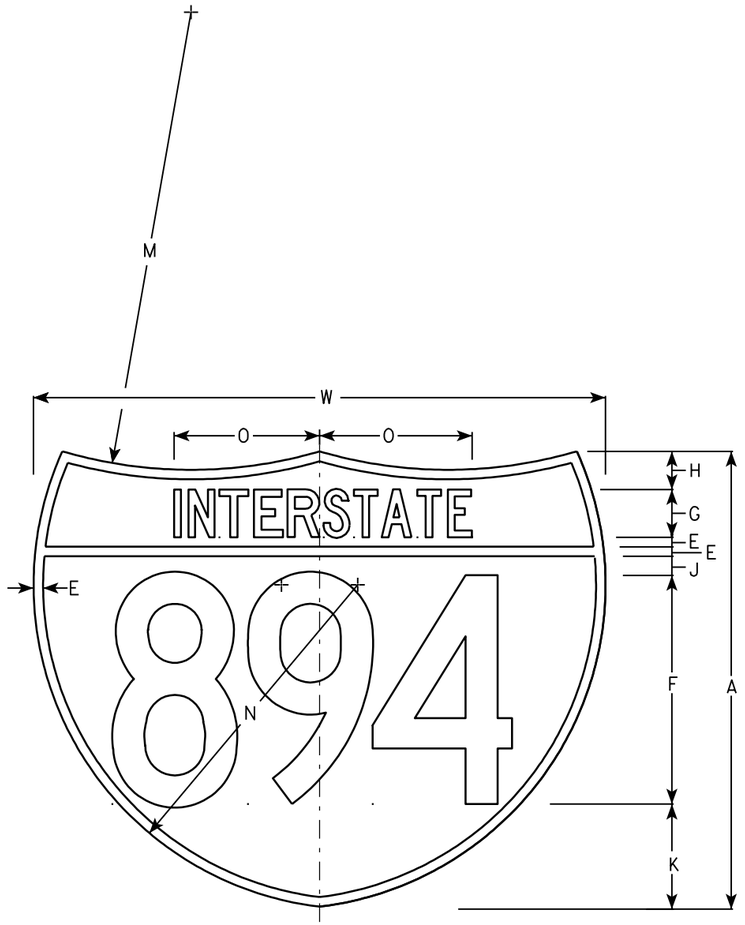
DATE 4/26/16 PLATE I55-56B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\I5556B.DGN PLOT DATE : 26-APR-2016 17:29 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.945842:1.000000
WISDOT/CADDS SHEET 42



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

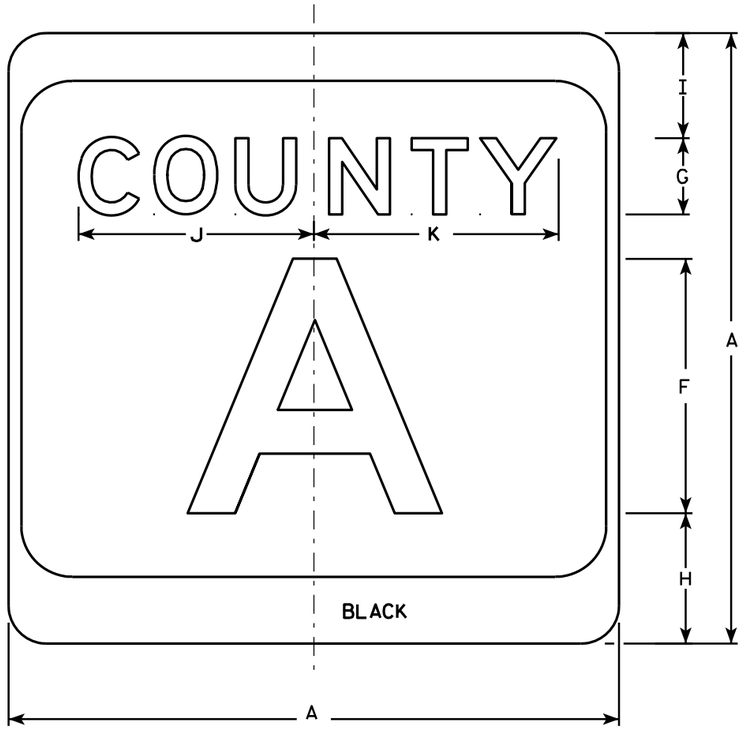
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

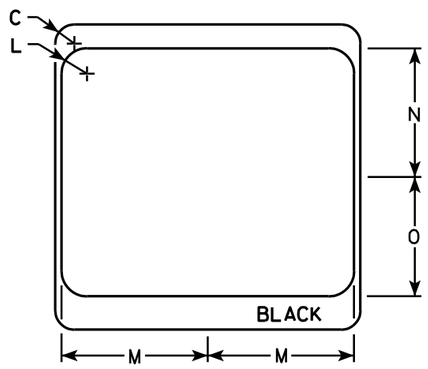
APPROVED Matthew R Rauch
for State Traffic Engineer

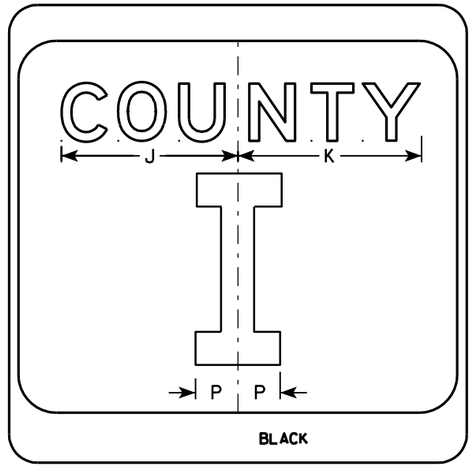
DATE 08/23/05 PLATE NO. M1-1.8

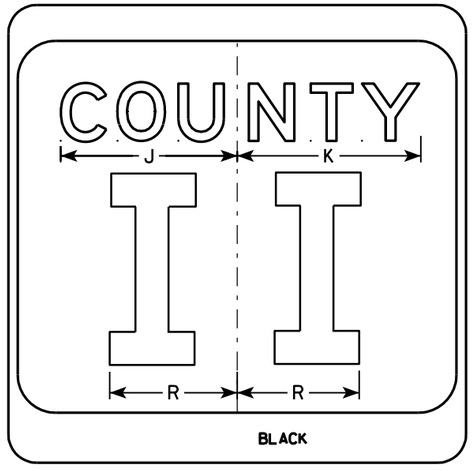
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 179	E



M1-5A







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

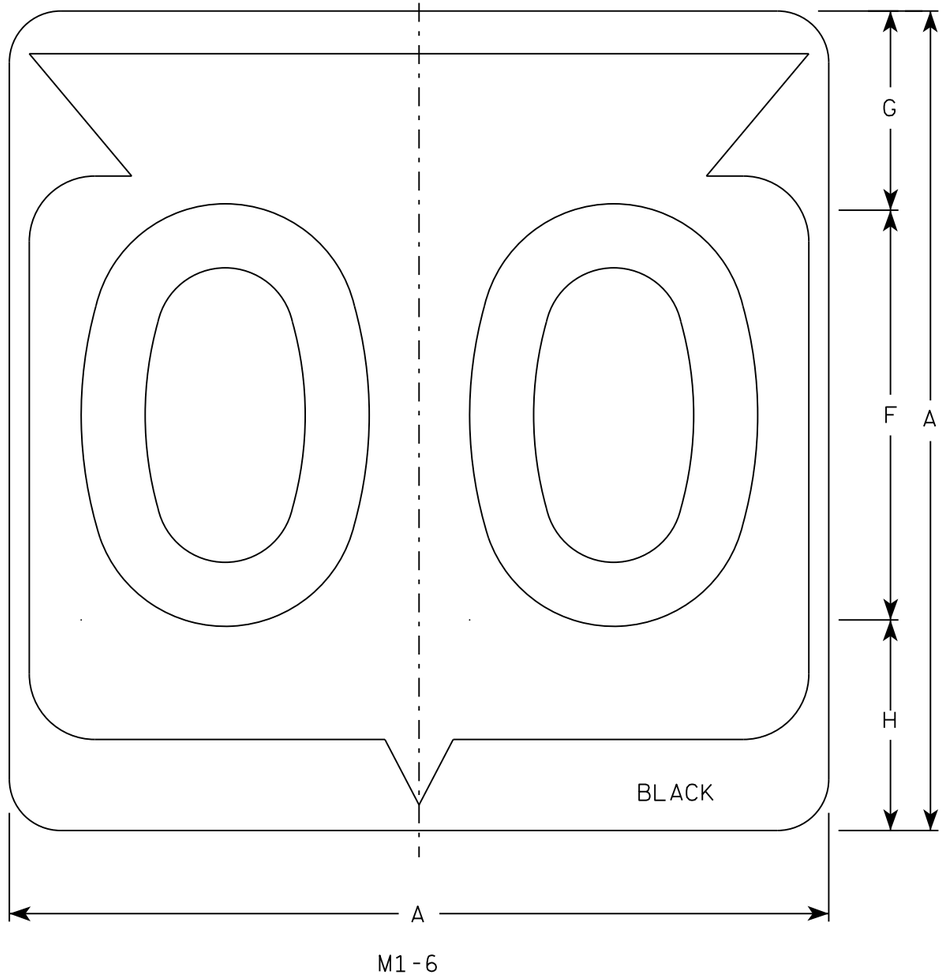
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

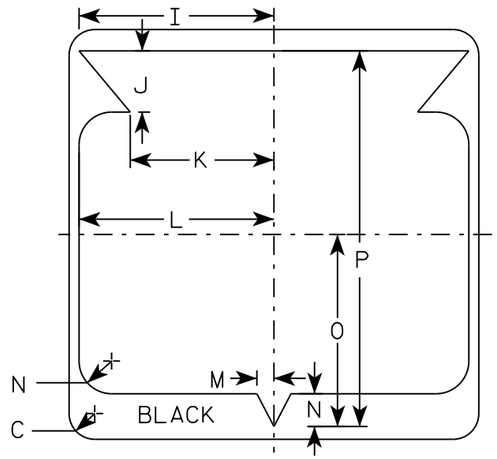
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 180	E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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
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
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
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

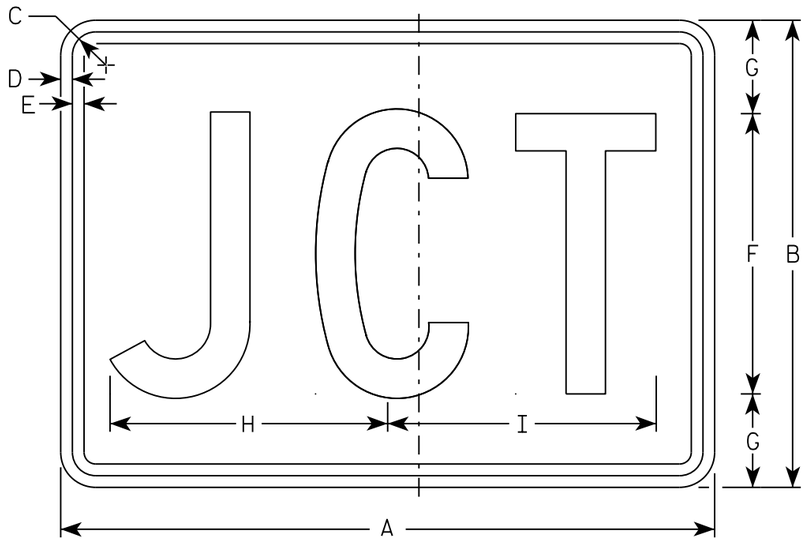
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

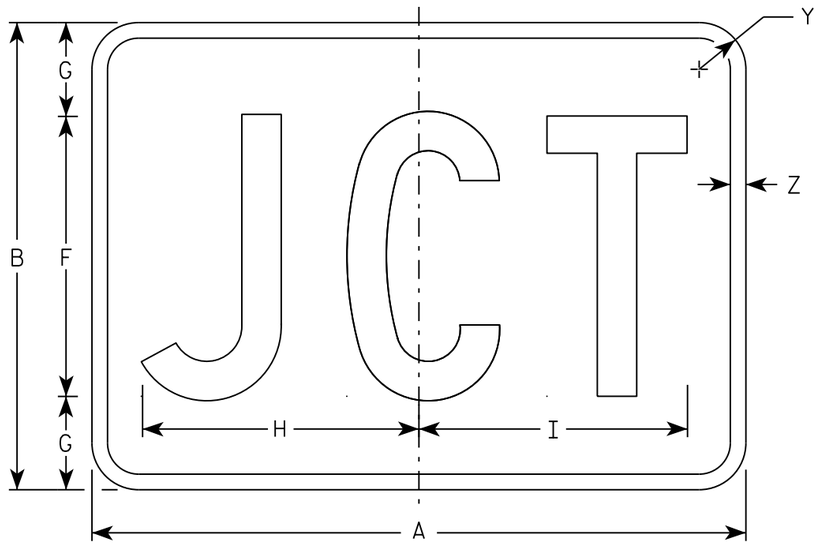
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 181 | E



M2-1
MM2-1
MP2-1



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

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

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

STANDARD SIGN
M2-1

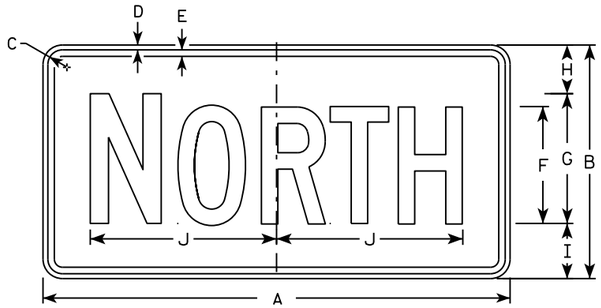
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

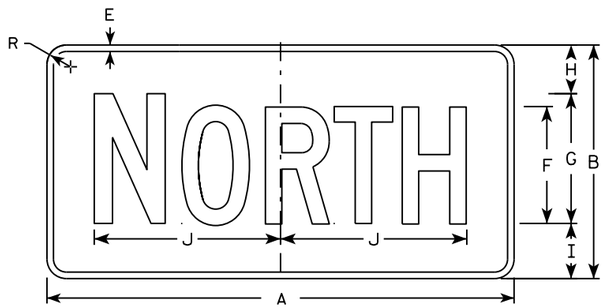
DATE 10/15/15 PLATE 182 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



M3-1
MM3-1
MP3-1



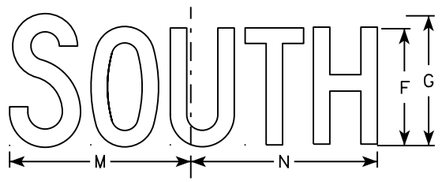
MB3-1
MK3-1
MN3-1



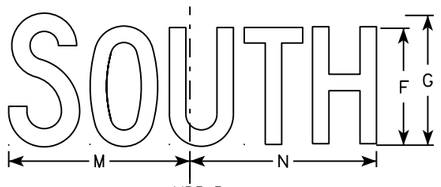
M3-2
MM3-2
MP3-2



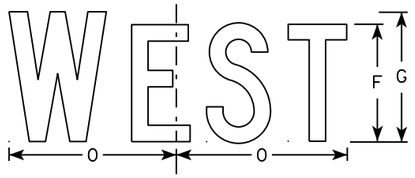
MB3-2
MK3-2
MN3-2



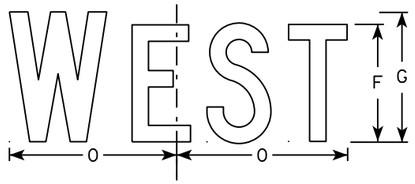
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

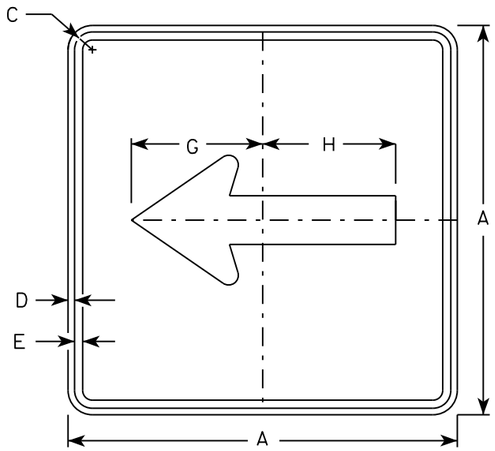
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

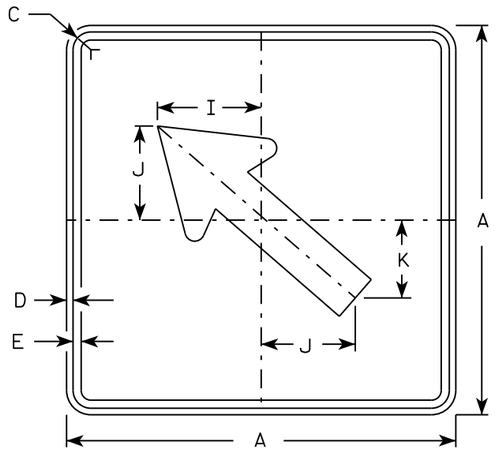
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



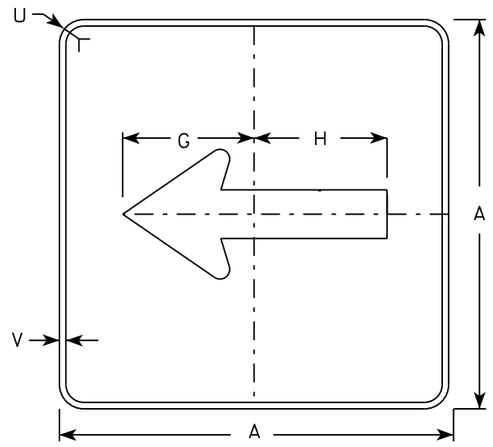
M6-1
MM6-1
MO6-1
MP6-1



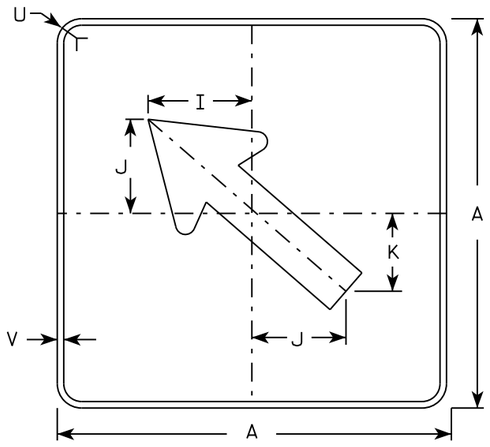
M6-2
MM6-2
MO6-2
MP6-2

NOTES

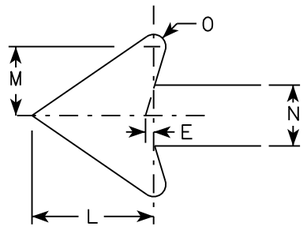
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

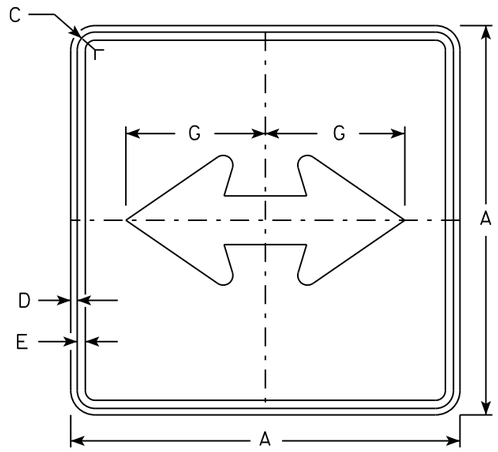
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

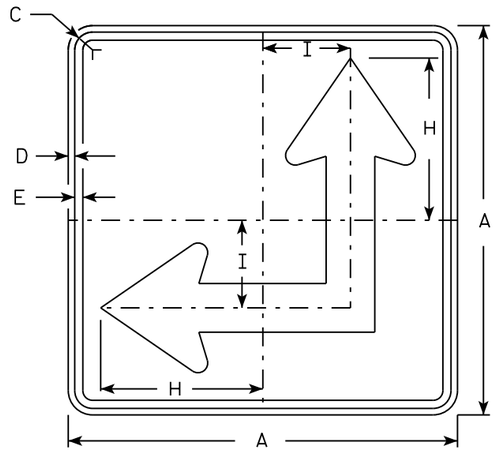
DATE 10/15/15 PLATE 184 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



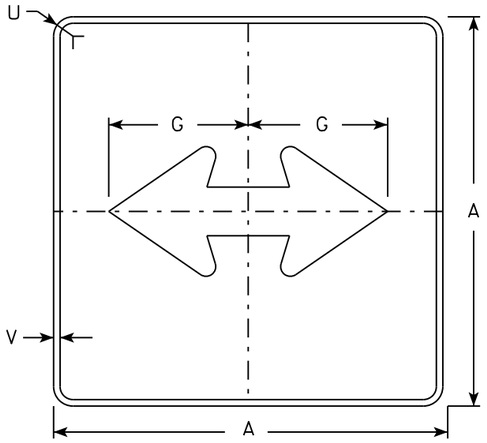
M6-4
MM6-4
MO6-4
MP6-4



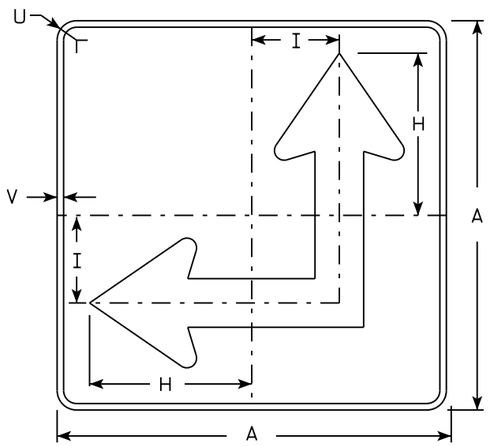
M6-6
MM6-6
MO6-6
MP6-6

NOTES

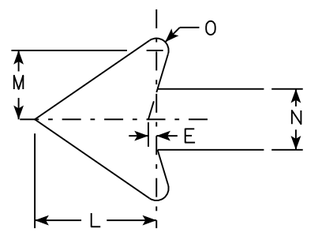
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



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																											
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

STANDARD SIGN
M6-4 & M6-6
SERIES

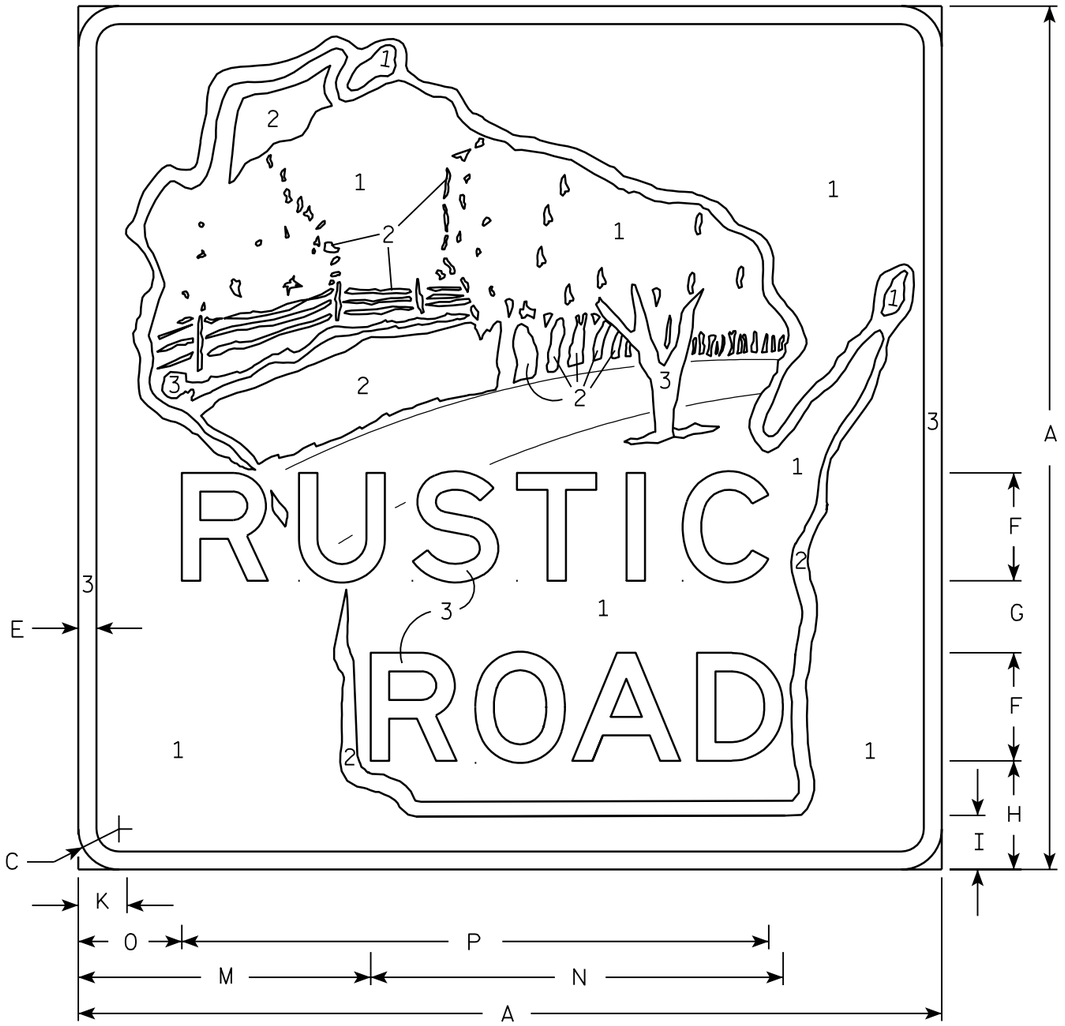
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 185 M6-4.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

1. Sign is Type II - Type H Reflective - 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 - Modified 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. The sign will be color coded by numerical designation Numeral *1 Brown
   2 Type H Reflective White
   3 Reflective Yellow

   Exact color descriptions will be furnished upon request.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/8		1/2	3	2	3	1 1/2		1 3/8		8 1/8	11 1/4	2 7/8	16 1/4											4.0	0.36
3																												
4																												
5																												

STANDARD SIGN
MR1-99

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/05 PLATE NO. MR1-99.5

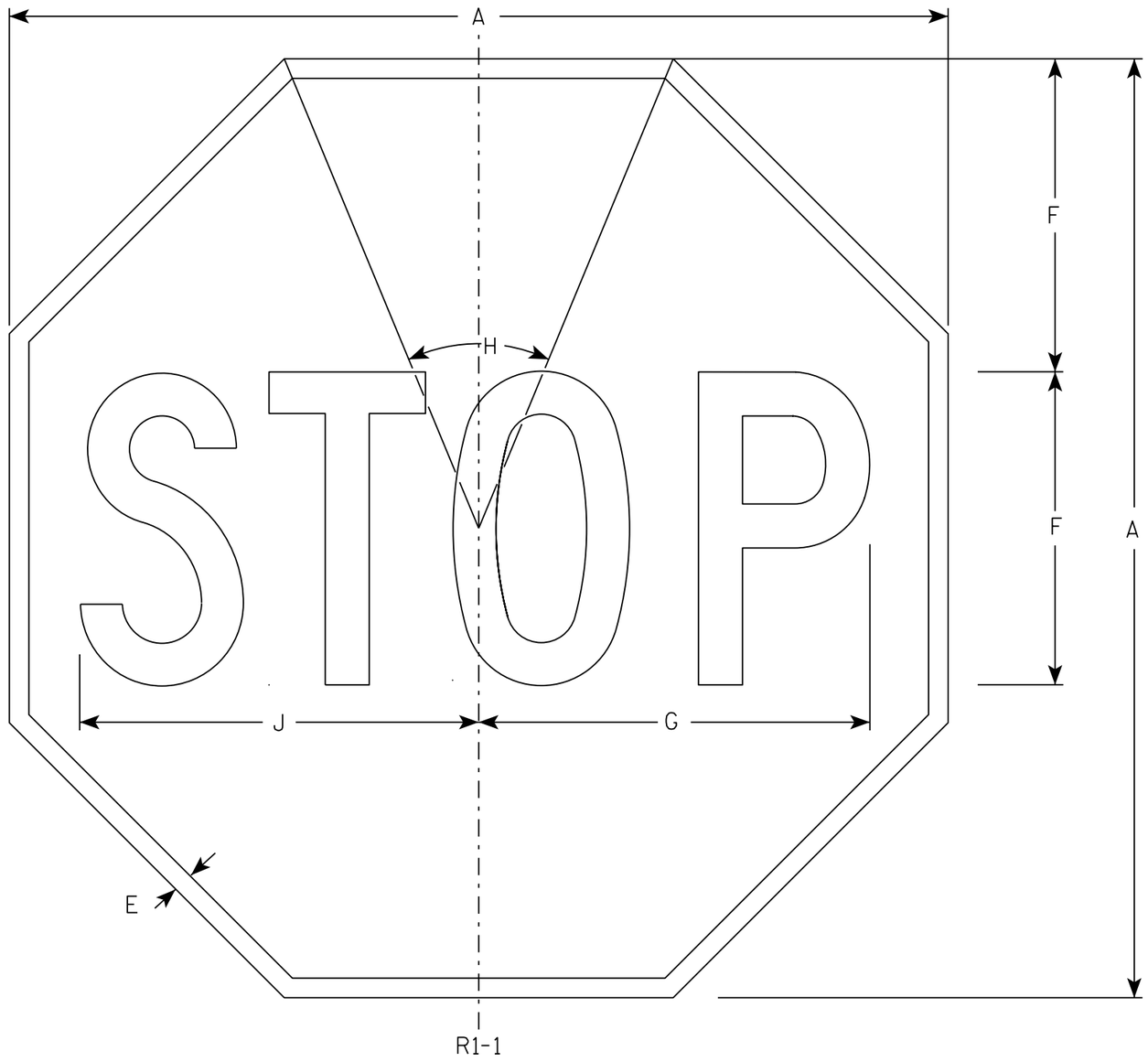
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 186	E

FILE NAME : C:\Users\Projects\tr_stdplate\MR199.DGN PLOT DATE : 18-OCT-2005 15:42 PLOT BY : DITJPH PLOT NAME : PLOT SCALE : 4.212325:1.000000

WISDOT/CADDS SHEET 42

7

7



NOTES

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

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

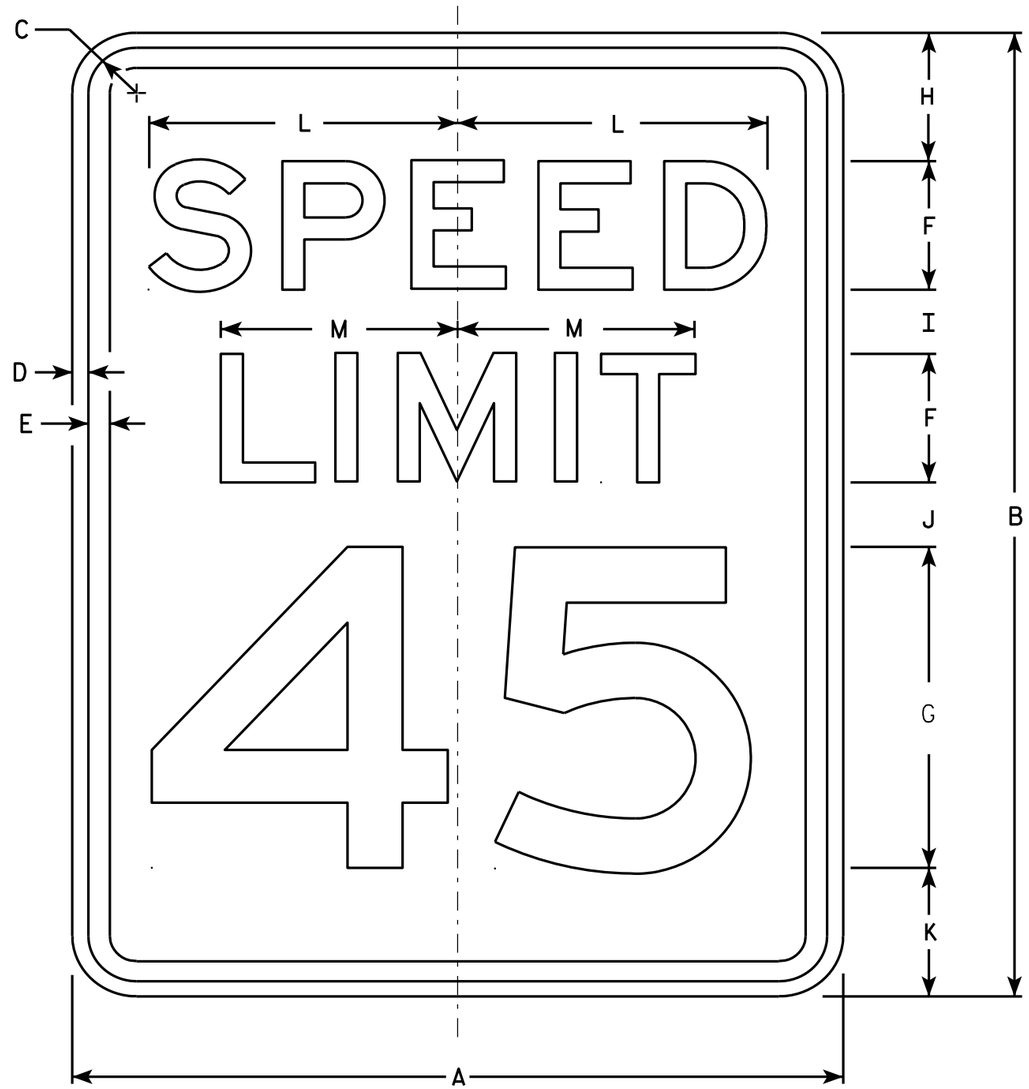
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 187	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

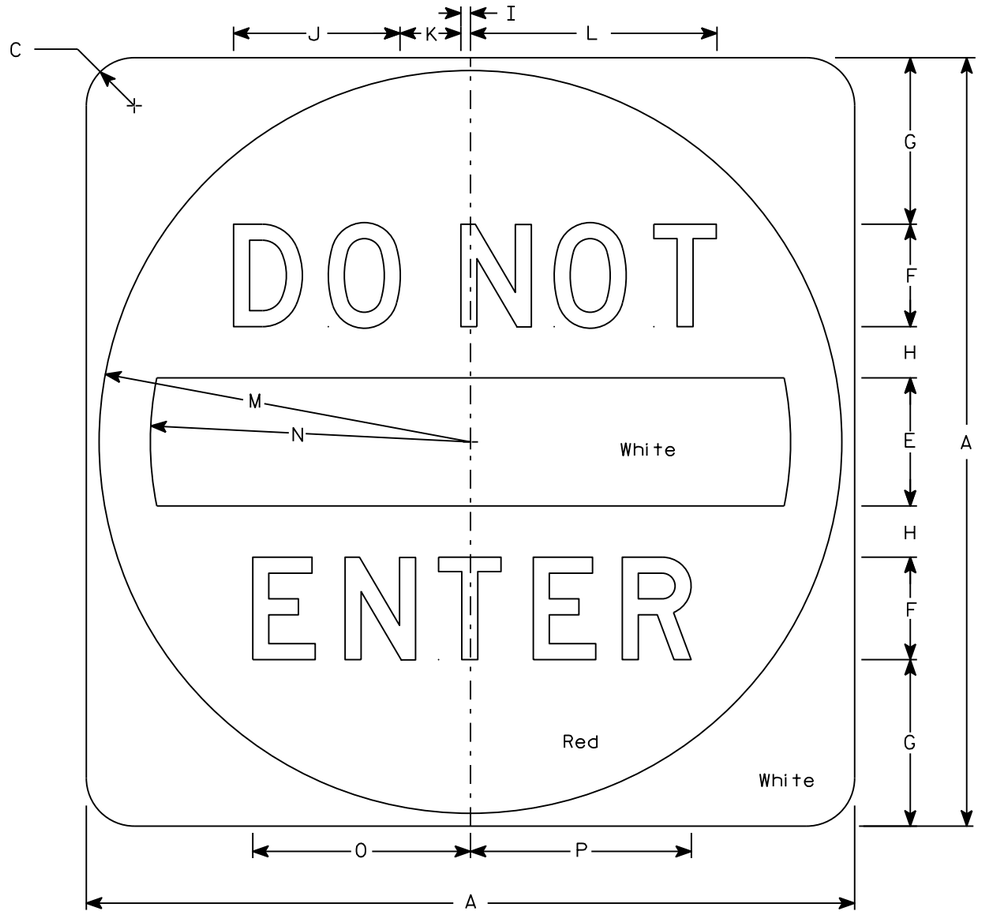
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 188 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000
WISDOT/CADDS SHEET 42



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

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	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

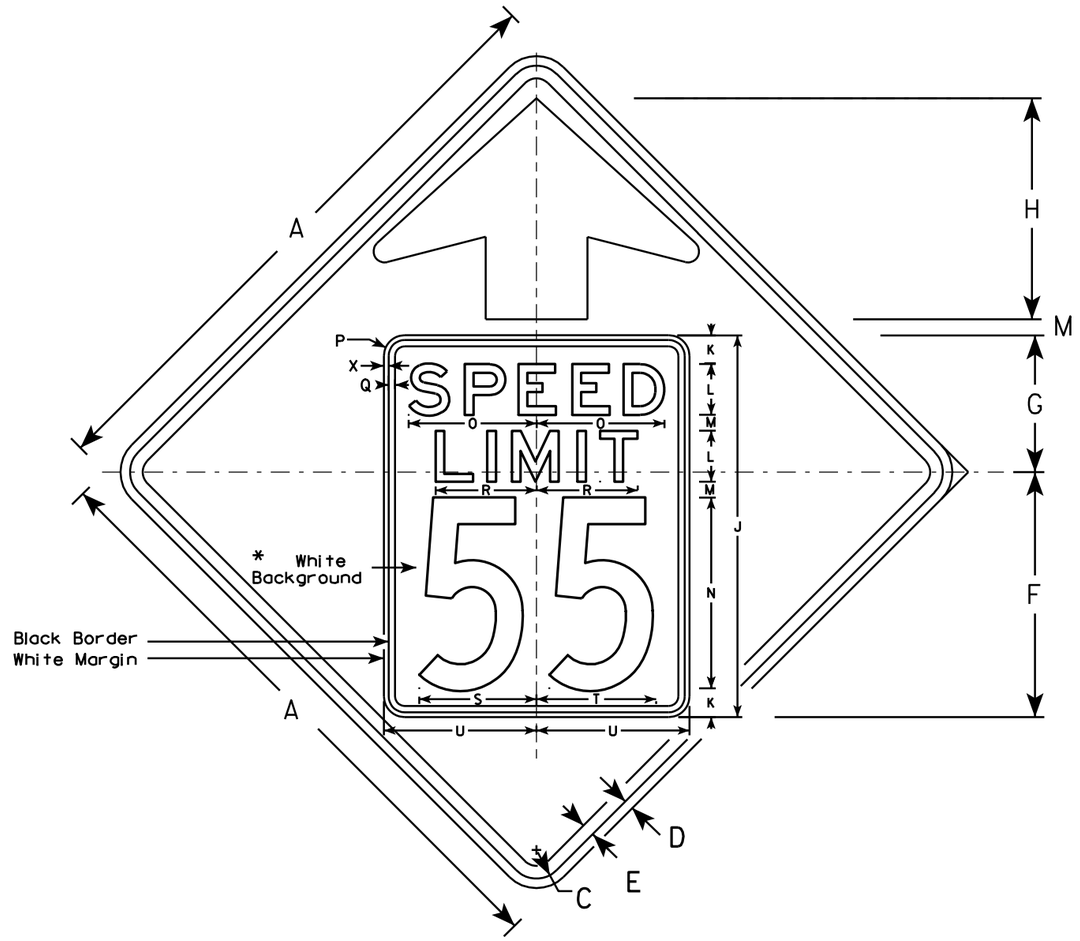
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 189 | E

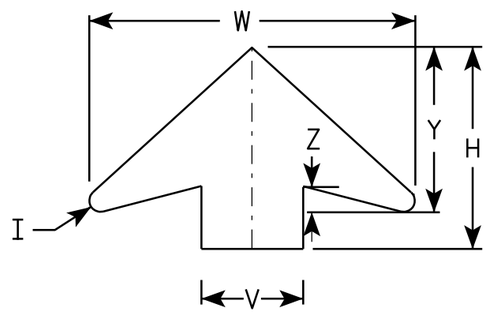


W3-5

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

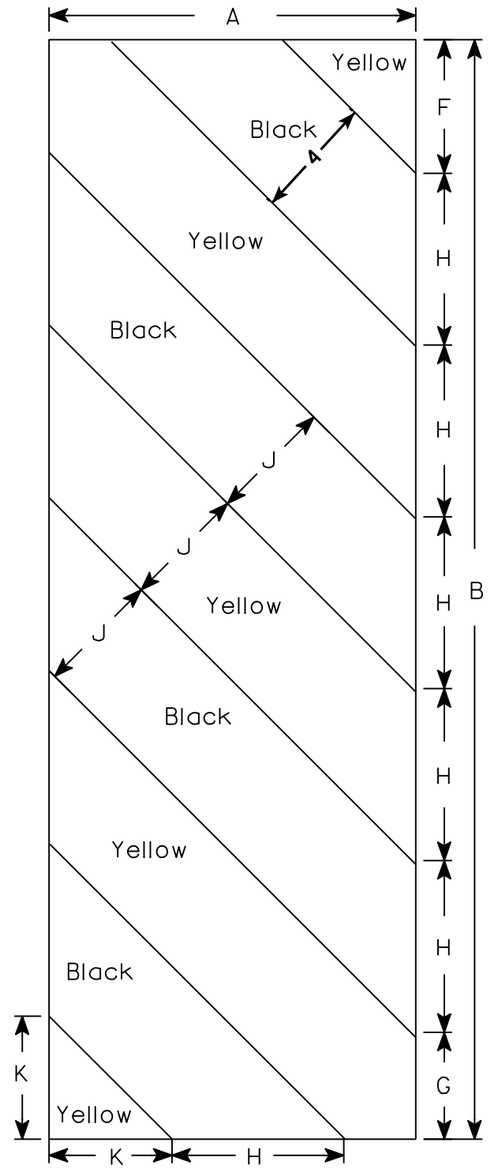
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

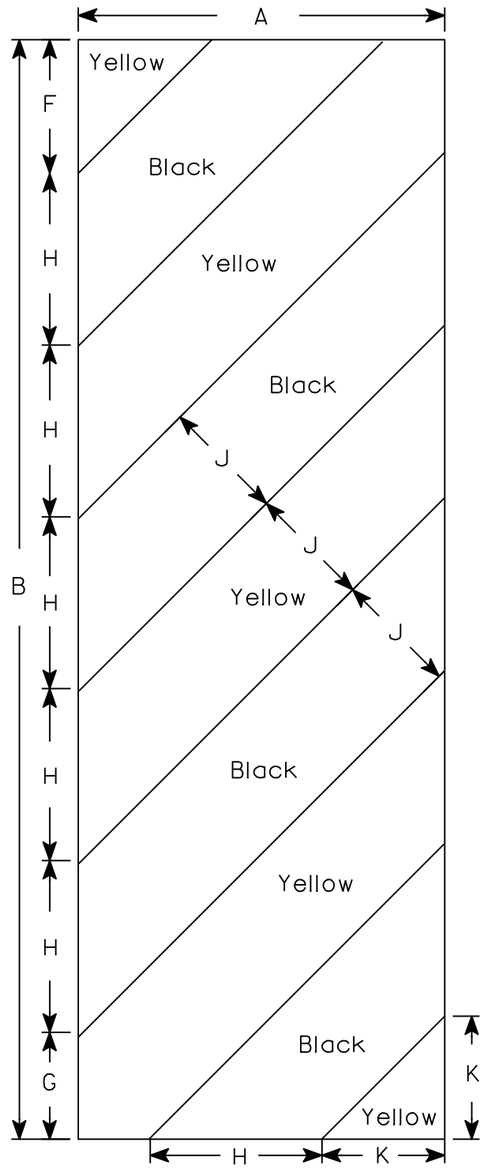
DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 190 E



W5-52L



W5-52R

NOTES

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

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

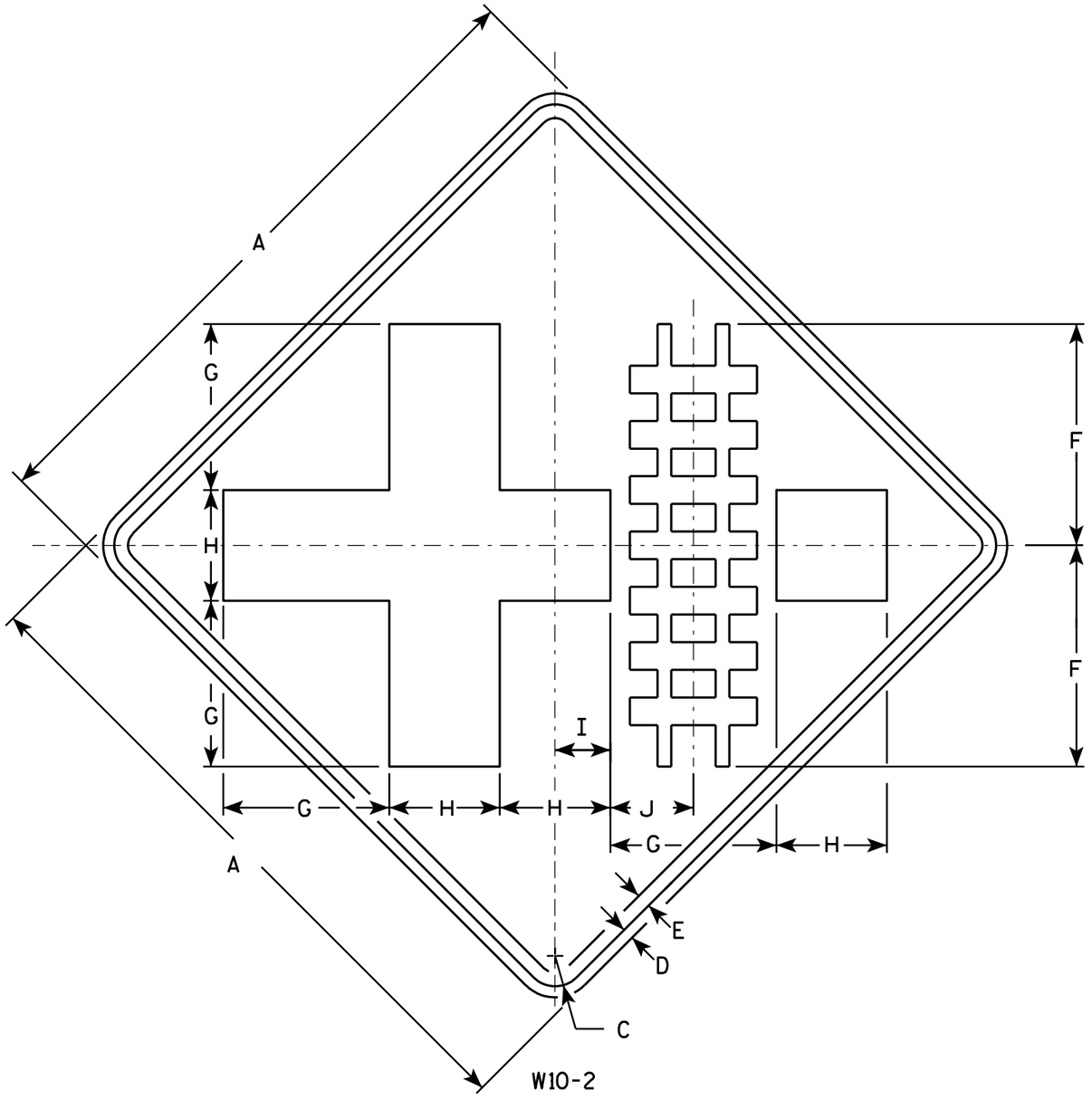
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

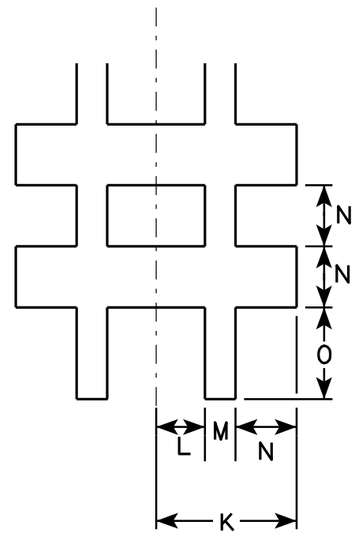
DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 191	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.



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	10	7 1/2	5	2 1/2	3 3/4	2 7/8	1	5/8	1 1/4	1 7/8												6.25
2S	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
2M	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
3	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
4	48		2 1/4	3/4	1	16	12	8	4	6	4 1/2	1 1/2	1	2	3												16.0
5																											

STANDARD SIGN
W10-2

WISCONSIN DEPT OF TRANSPORTATION

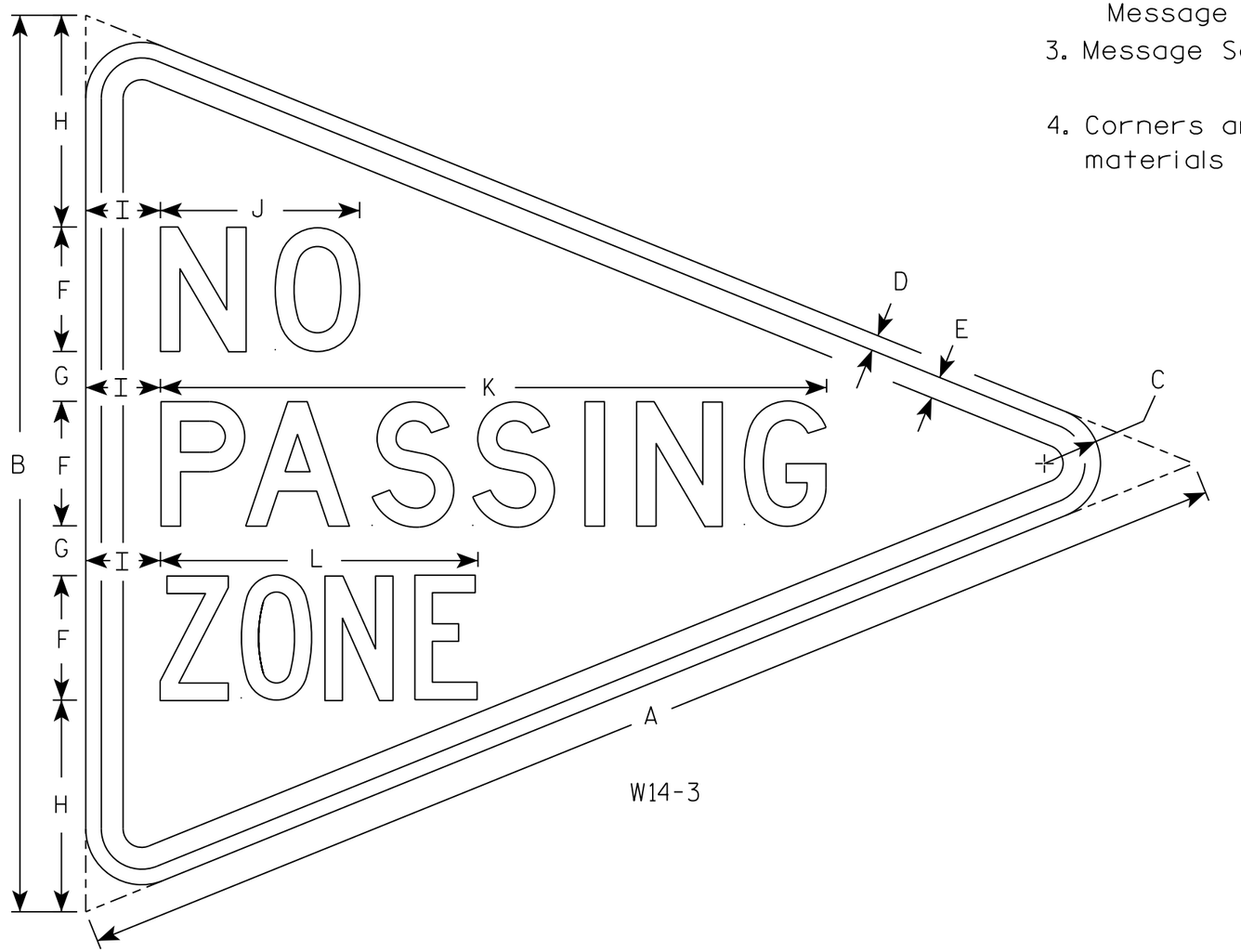
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W10-2.8

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 192 | E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - Lines 1 and 2 are Series D.
   Line 3 is series C.
4. Corners and borders shall be rounded on all base materials for this sign.



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															5.56
2M																											
3																											
4																											
5																											

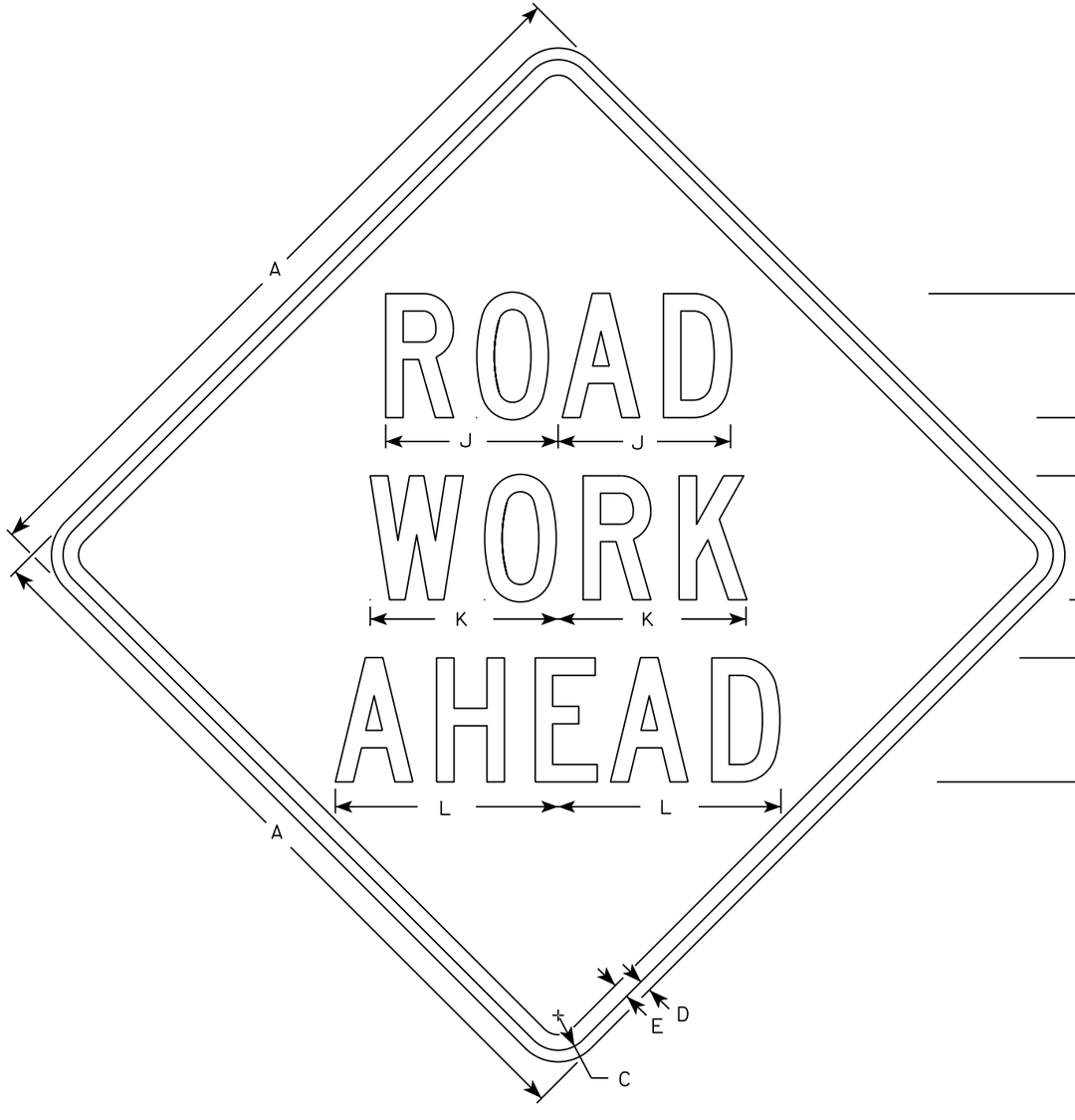
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

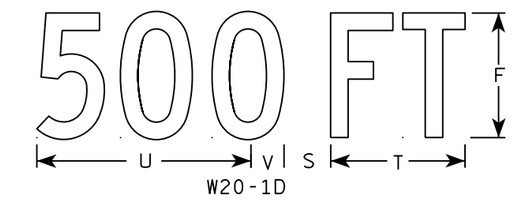
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W14-3.10

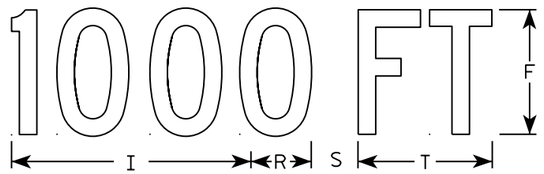
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 193 | E



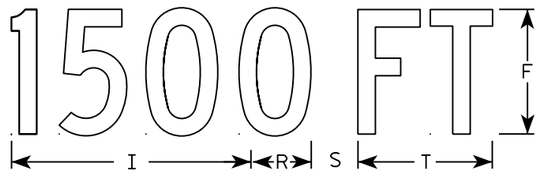
W20-1A



W20-1D



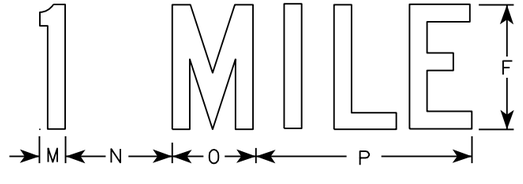
W20-1C



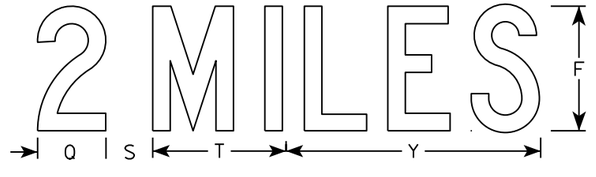
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

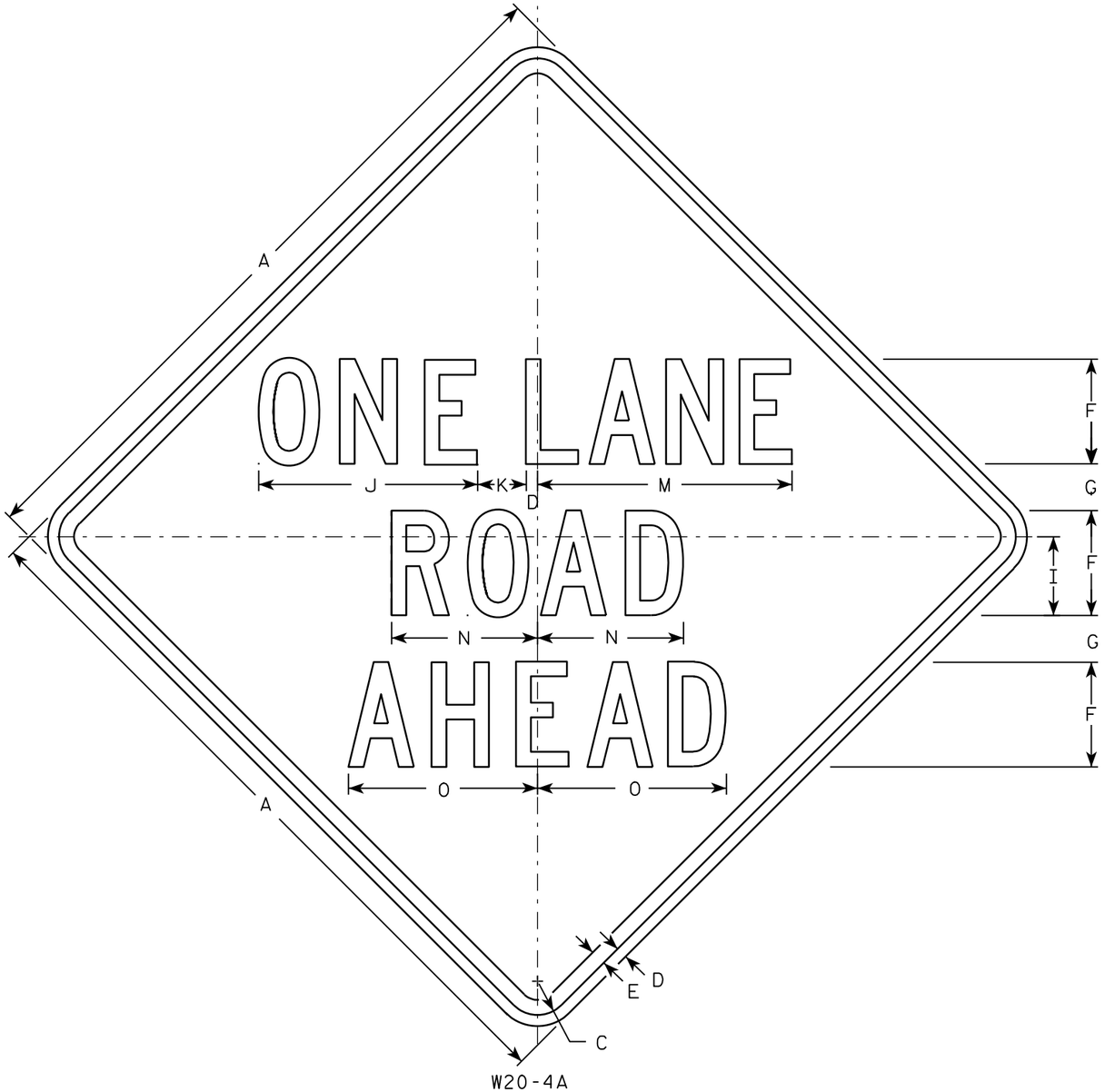
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

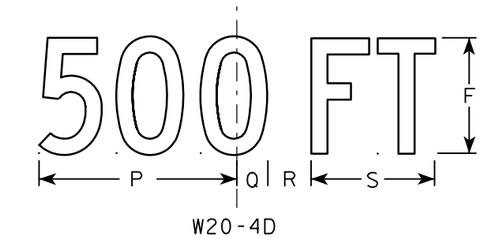
PROJECT NO:

SHEET NO: E

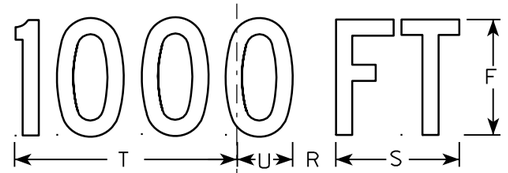
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



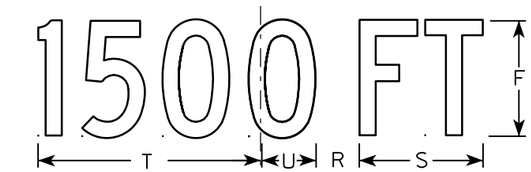
W20-4A



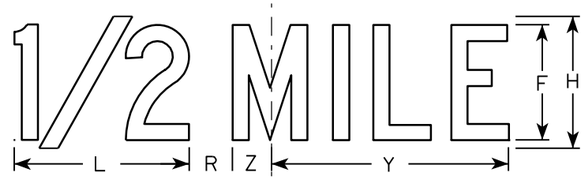
W20-4D



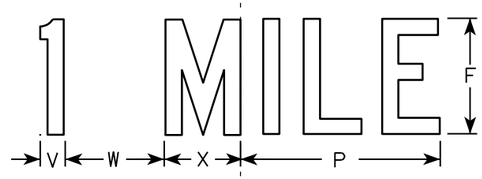
W20-4C



W20-4B



W20-4G



W20-4F

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

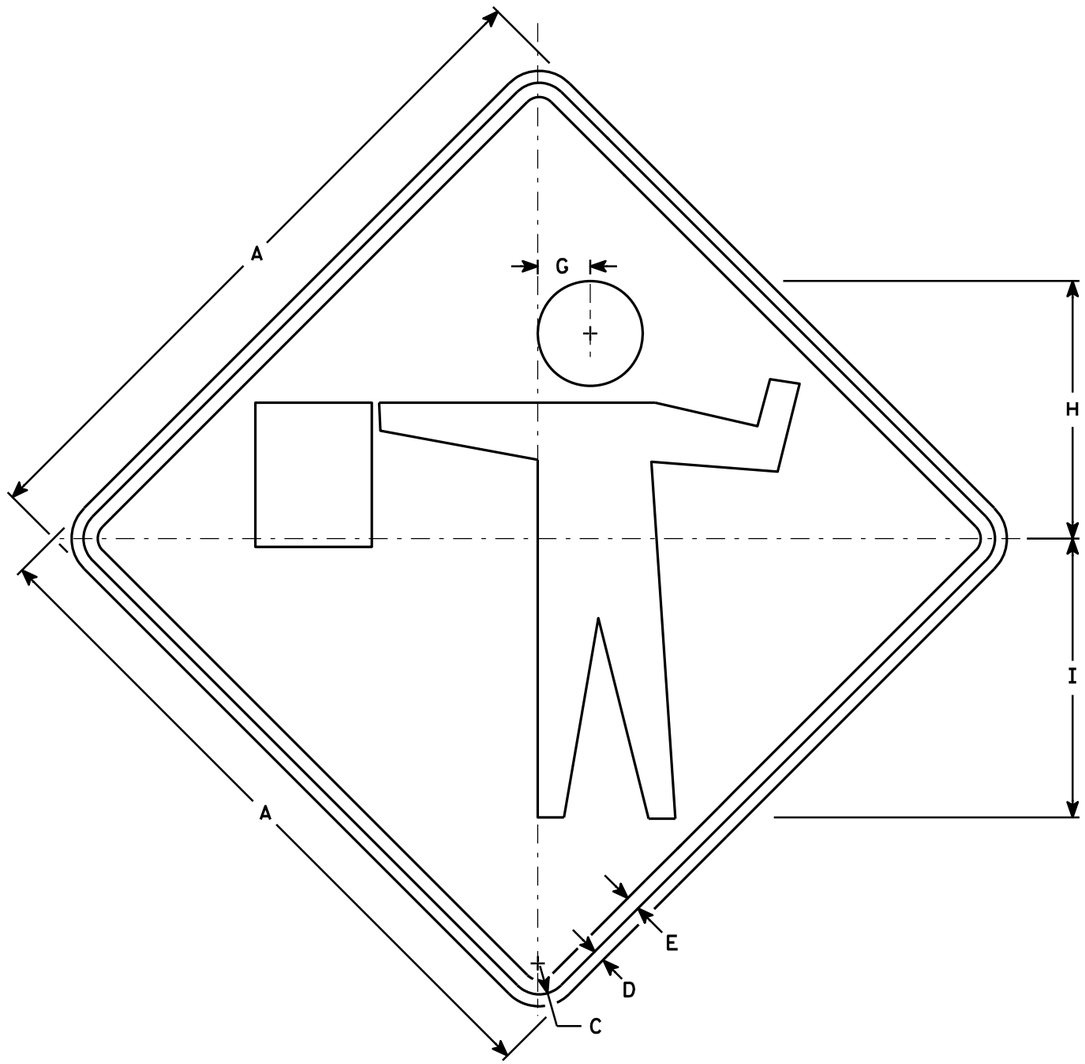
DATE 3/18/11 PLATE NO. W20-4.9

PROJECT NO:

SHEET NO: 195 E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W204.DGN PLOT DATE : 18-MAR-2011 12:11 PLOT BY : mscj9h



W20-7A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

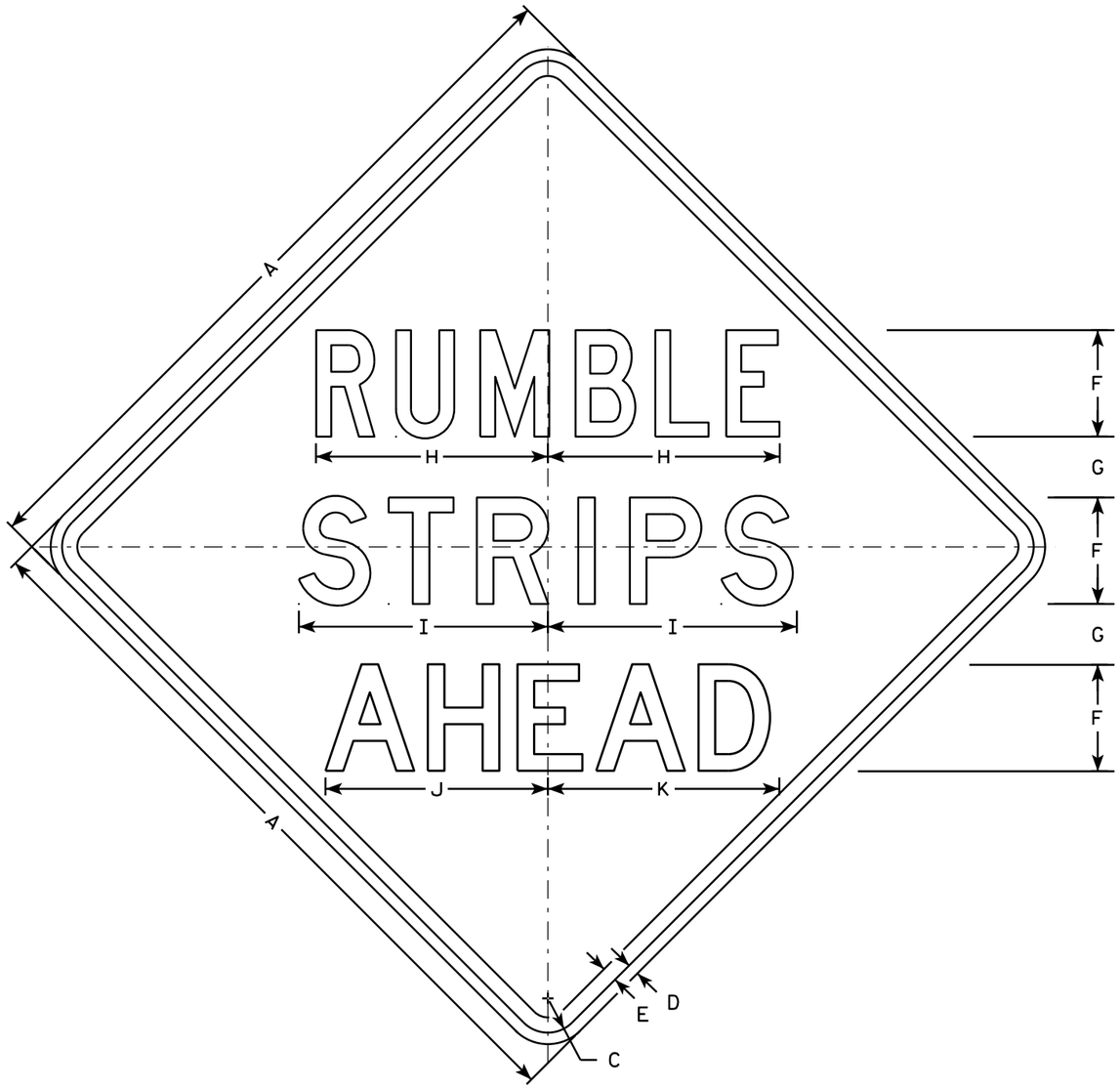
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 196 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W207A.DGN PLOT DATE : 18-MAR-2011 13:14 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 7.945391:1.000000 WISDOT/CADDS SHEET 42



W21-65

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 and 3 are Series D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 1/4	10 7/8	11 5/8	11	11 5/8																9.0
2S	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
2M	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
3	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
4	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
5	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0

STANDARD SIGN

W21-65

WISCONSIN DEPT OF TRANSPORTATION

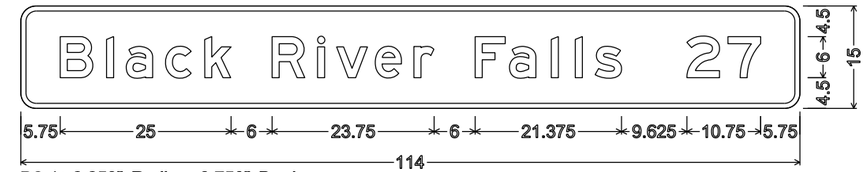
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/28/14 PLATE W21-65.1

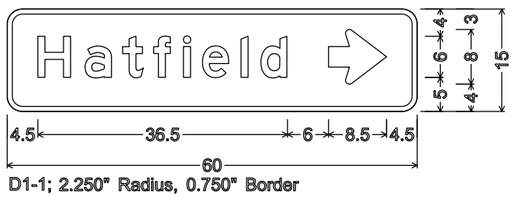
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

NOTES

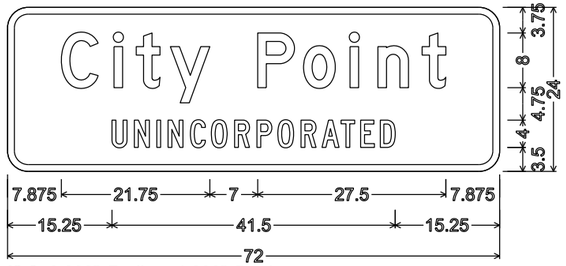
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



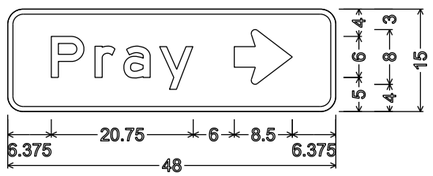
D2-1; 2.250" Radius, 0.750" Border



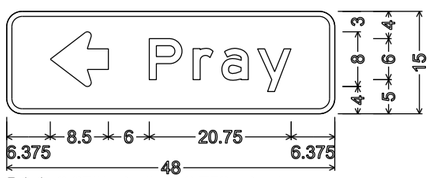
D1-1; 2.250" Radius, 0.750" Border



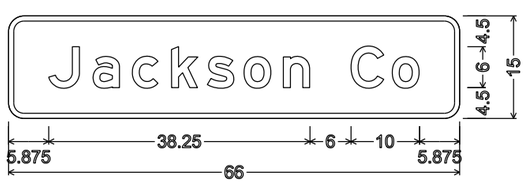
I2-3; 3.000" Radius, 1.000" Border,
"City" D; "Point" D; "UNINCORPORATED" C



D1-1; 2.250" Radius, 0.750" Border



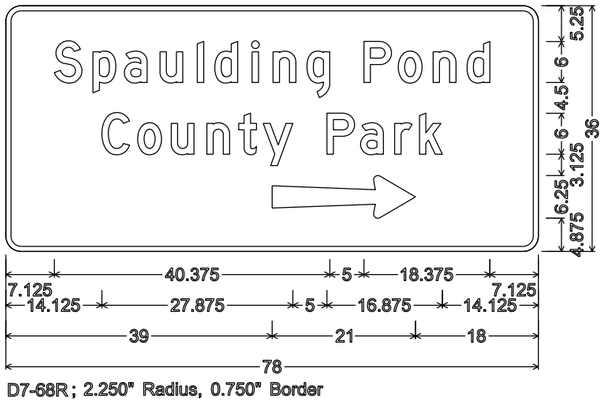
D1-1; 2.250" Radius, 0.750" Border



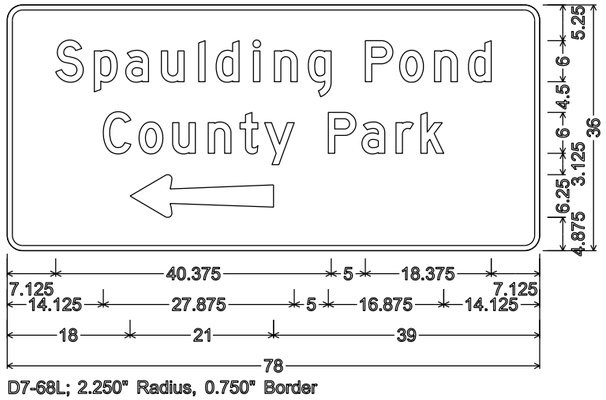
I2-2; 2.250" Radius, 0.750" Border

7

7



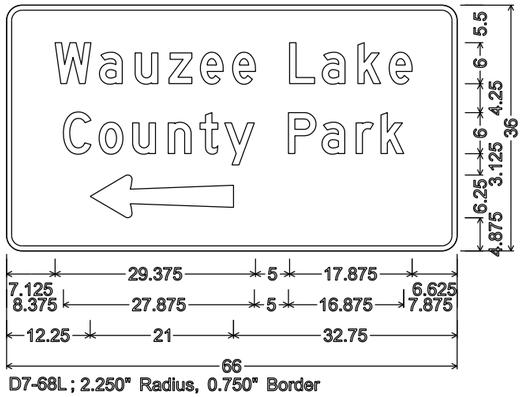
D7-68R; 2.250" Radius, 0.750" Border



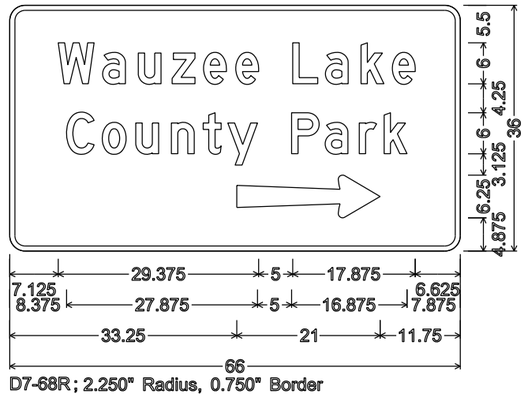
D7-68L; 2.250" Radius, 0.750" Border

NOTES

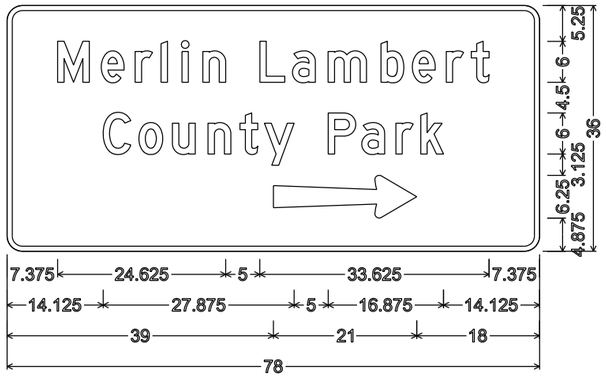
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Brown
   Message - White
3. Message Series - D



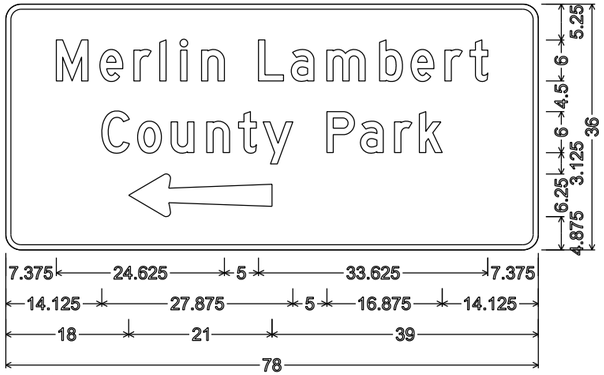
D7-68L; 2.250" Radius, 0.750" Border



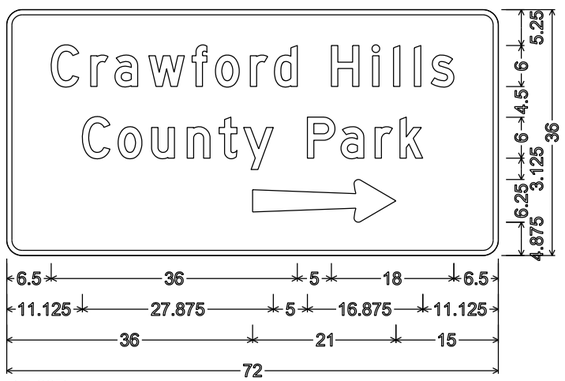
D7-68R; 2.250" Radius, 0.750" Border



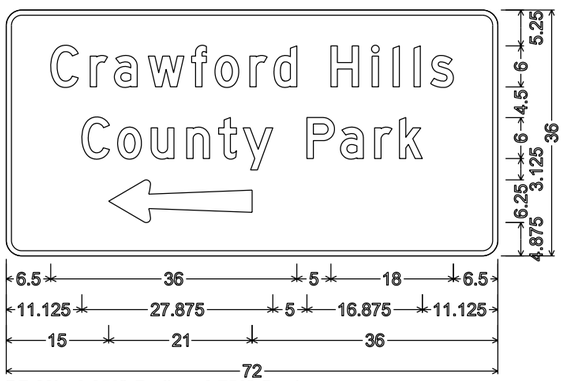
D7-68R; 2.250" Radius, 0.750" Border



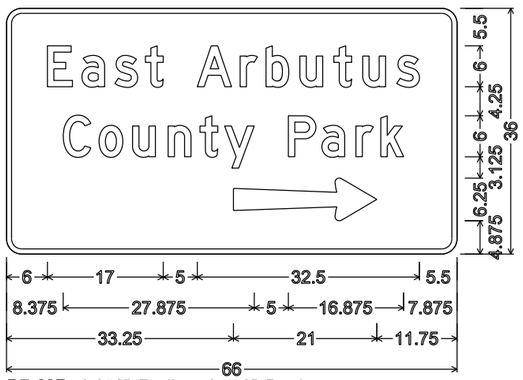
D7-68L; 2.250" Radius, 0.750" Border



D7-68R; 2.250" Radius, 0.750" Border



D7-68L; 2.250" Radius, 0.750" Border

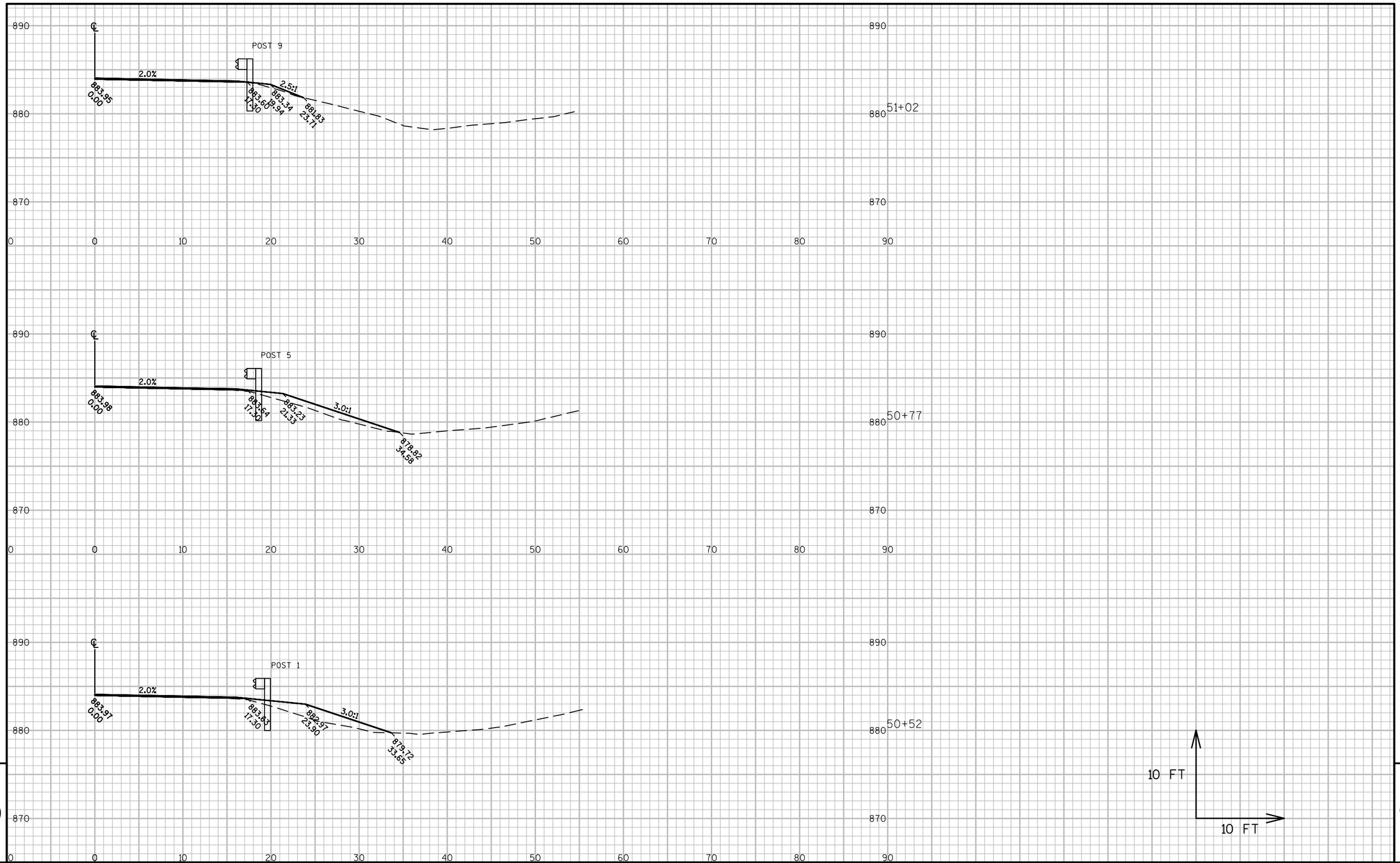


D7-68R; 2.250" Radius, 0.750" Border

DIVISION 1 - TEMPORARY WIDENING											
			AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
497+73	49757.80	0.00	1.0	0.0	0.0	0.0	0.0	0.0	0	0	0
498+00	49784.80	27.00	0.9	0.0	0.0	1.0	0.0	0.0	1	0	1
498+50	49834.80	50.00	0.8	0.0	5.8	1.6	0.0	5.4	3	7	-4
499+00	49884.80	50.00	0.7	0.0	22.7	1.4	0.0	26.4	4	40	-36
499+50	49934.80	50.00	0.9	0.0	24.0	1.5	0.0	43.2	6	94	-88
500+00	49984.80	50.00	0.9	0.0	13.0	1.6	0.0	34.2	7	137	-129
500+50	50034.80	50.00	0.9	0.0	2.9	1.6	0.0	14.7	9	155	-146
501+00	50084.80	50.00	1.0	0.0	0.0	1.7	0.0	2.7	10	158	-148
501+03	50087.80	3.00	1.0	0.0	0.0	0.1	0.0	0.0	11	158	-148
				COLUMN TOTALS		10.6	0.0	126.7			

DIVISION 2 - SHAPING AT RCCP LT											
			AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
498+38	49838.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0
498+88	49888.00	50.00	15.7	0.0	0.0	14.5	0.0	0.0	15	0	15
499+38	49938.00	50.00	3.9	0.0	4.4	18.1	0.0	4.1	33	5	28
499+88	49988.00	50.00	22.8	0.0	0.0	24.7	0.0	4.1	57	10	47
500+38	50038.00	50.00	0.0	0.0	0.0	21.1	0.0	0.0	79	10	68
				COLUMN TOTALS		78.5	0.0	8.1			

DIVISION 3 - SHAPING AT RCCP LT											
			AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.25	Mass Ordinate Note 8
498+78	49878.00	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0	0	0
499+38	49938.00	60.00	0.0	0.0	24.5	0.0	0.0	27.2	0	34	-34
499+98	49998.00	60.00	0.0	0.0	0.0	0.0	0.0	27.2	0	68	-68
				COLUMN TOTALS		0.0	0.0	54.4			



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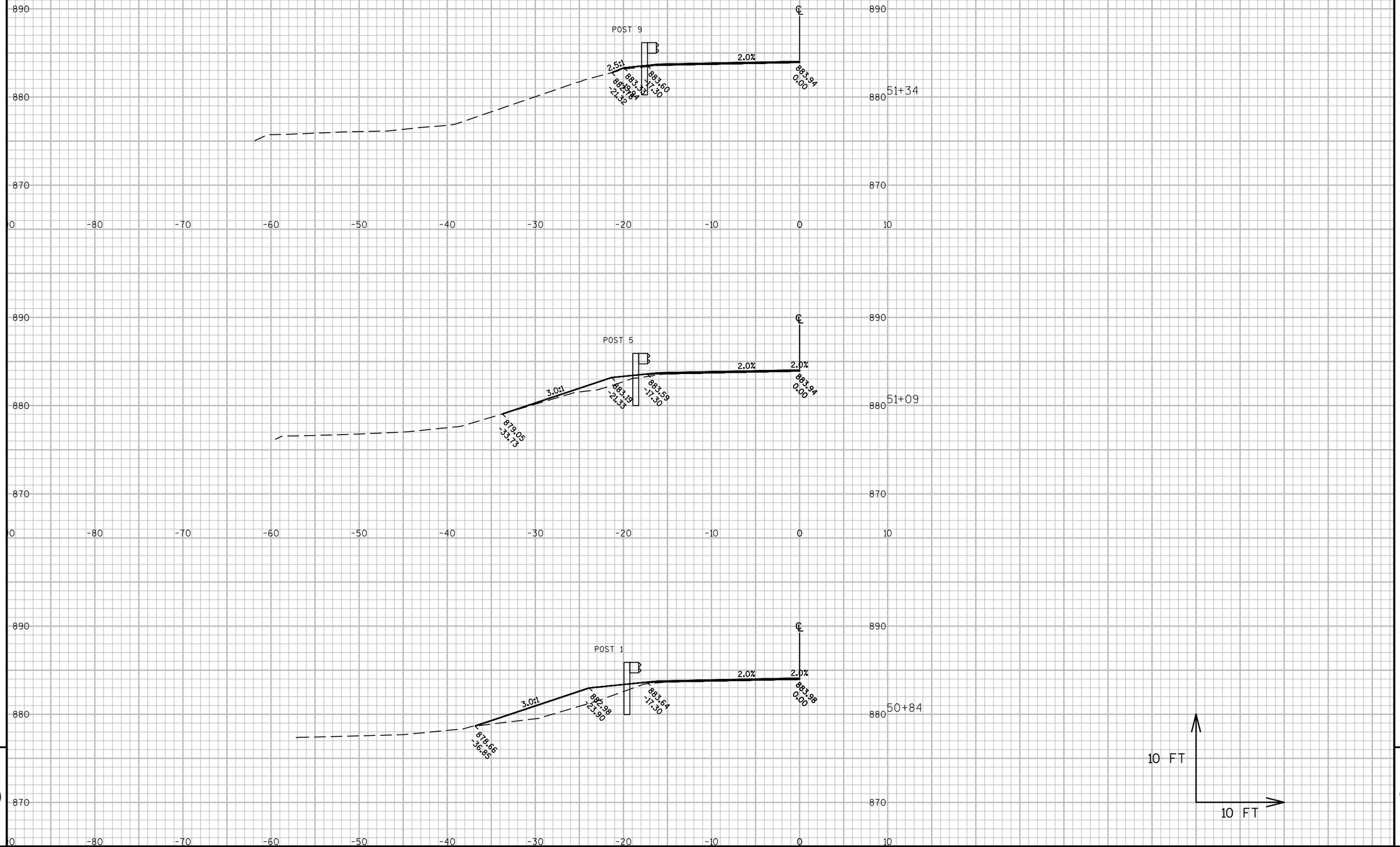
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-005	SHEET 201	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090201_XS

PLOT DATE : 8/1/2018 1:09 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

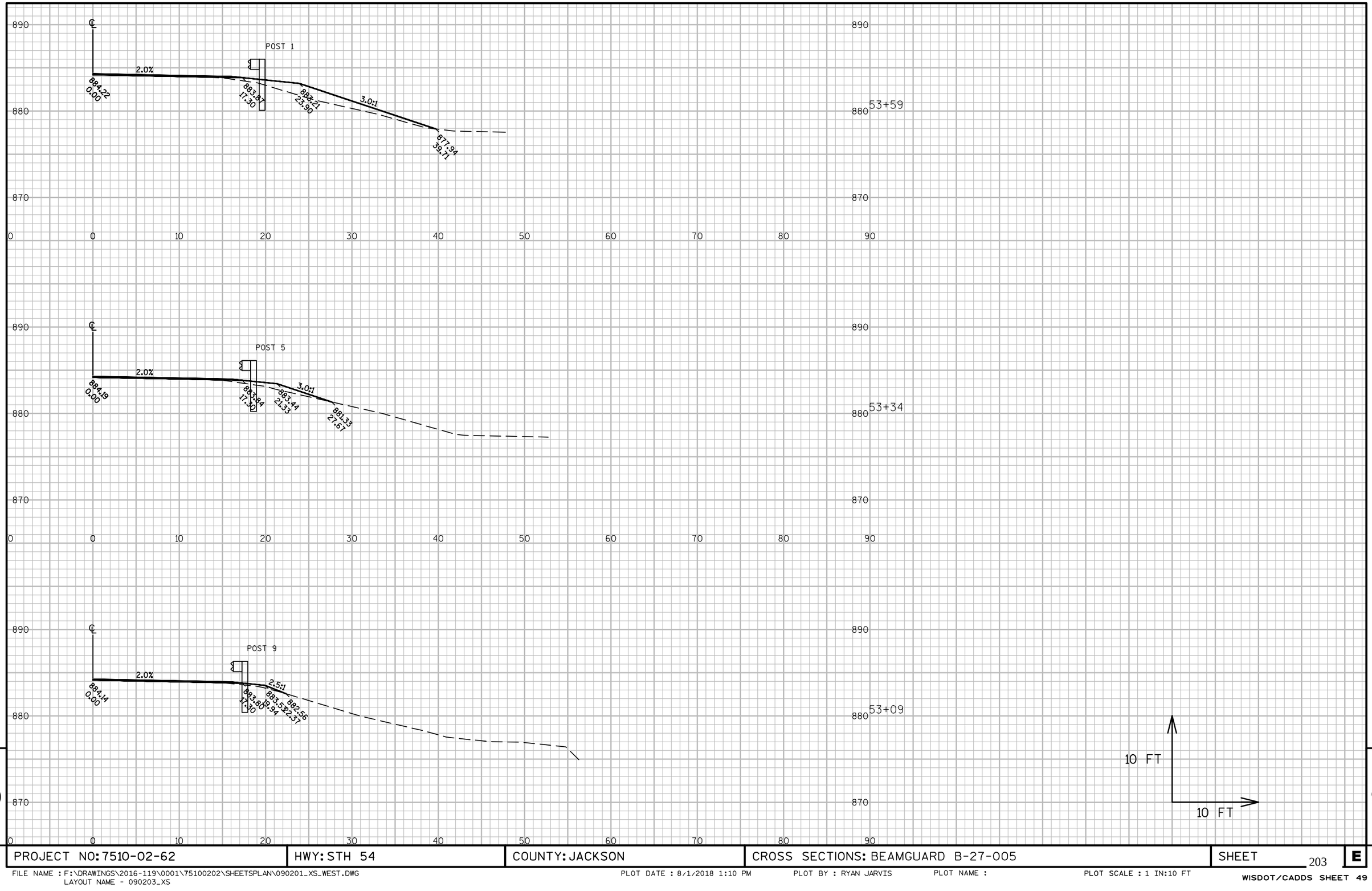
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-005	SHEET 202	E

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FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090202_XS

PLOT DATE : 8/1/2018 1:10 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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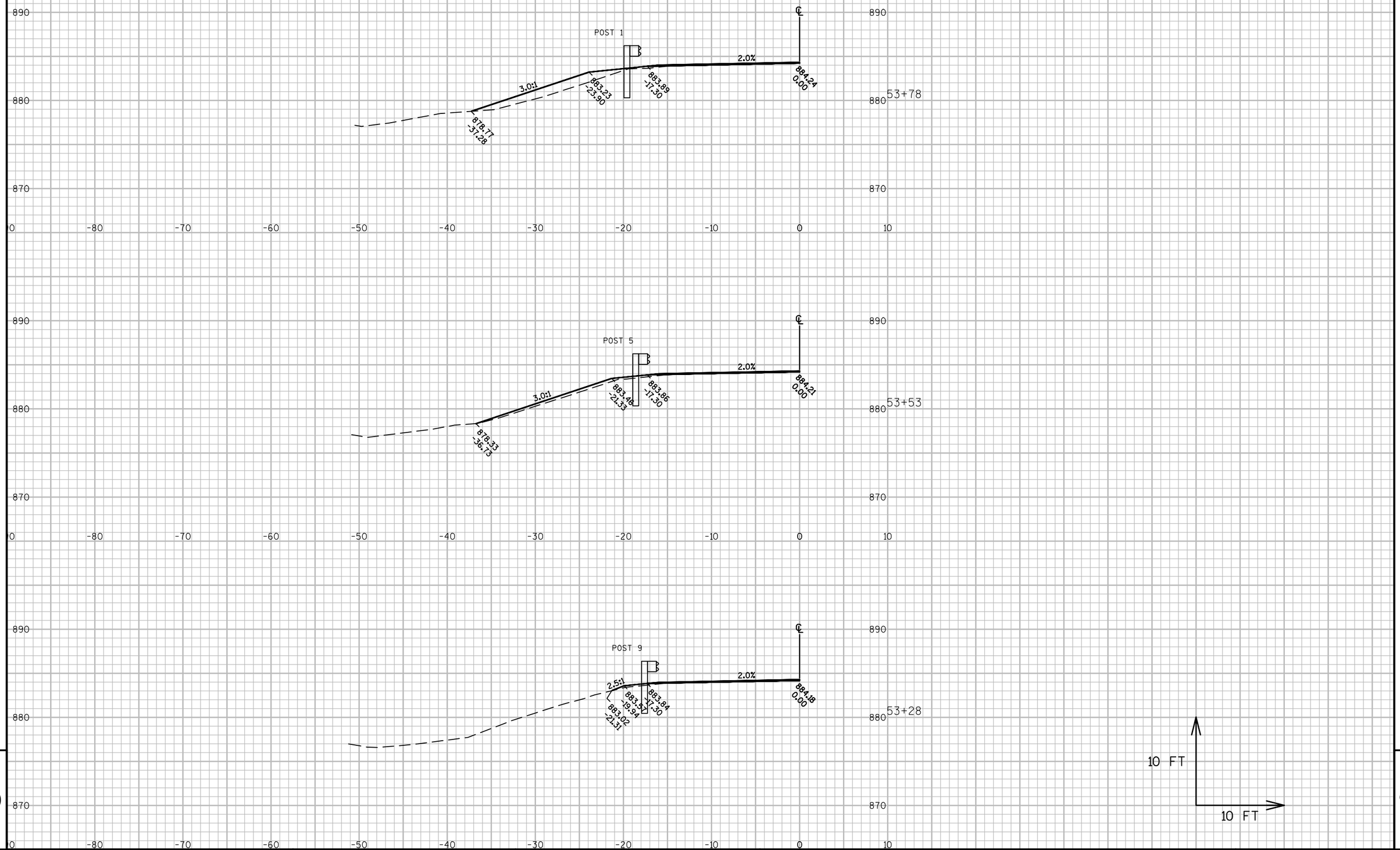
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-005	SHEET 203	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090203_XS

PLOT DATE : 8/1/2018 1:10 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

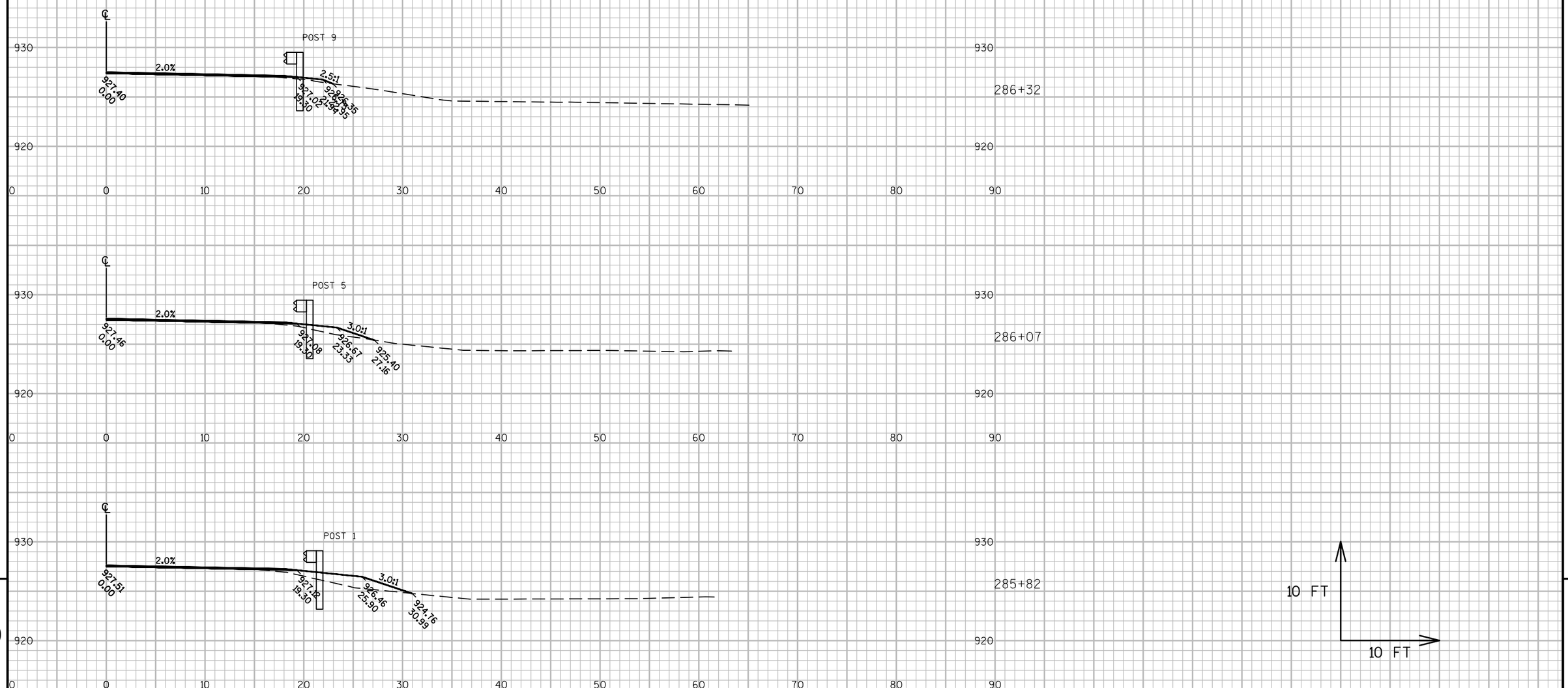


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-005	SHEET 204	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090204_XS

PLOT DATE : 8/1/2018 1:10 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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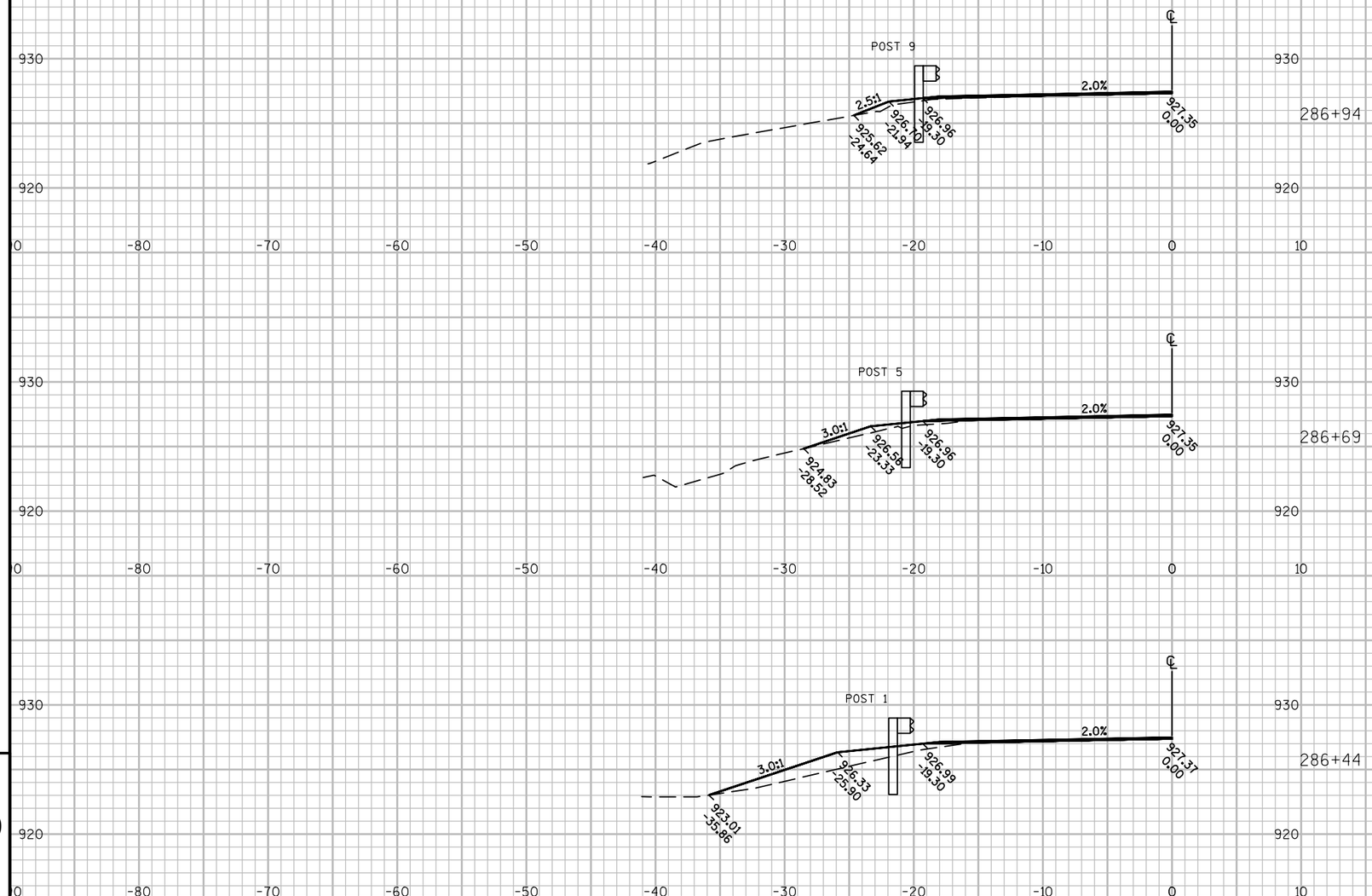
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-119	SHEET 205	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090205_XS

PLOT DATE : 8/1/2018 7:26 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

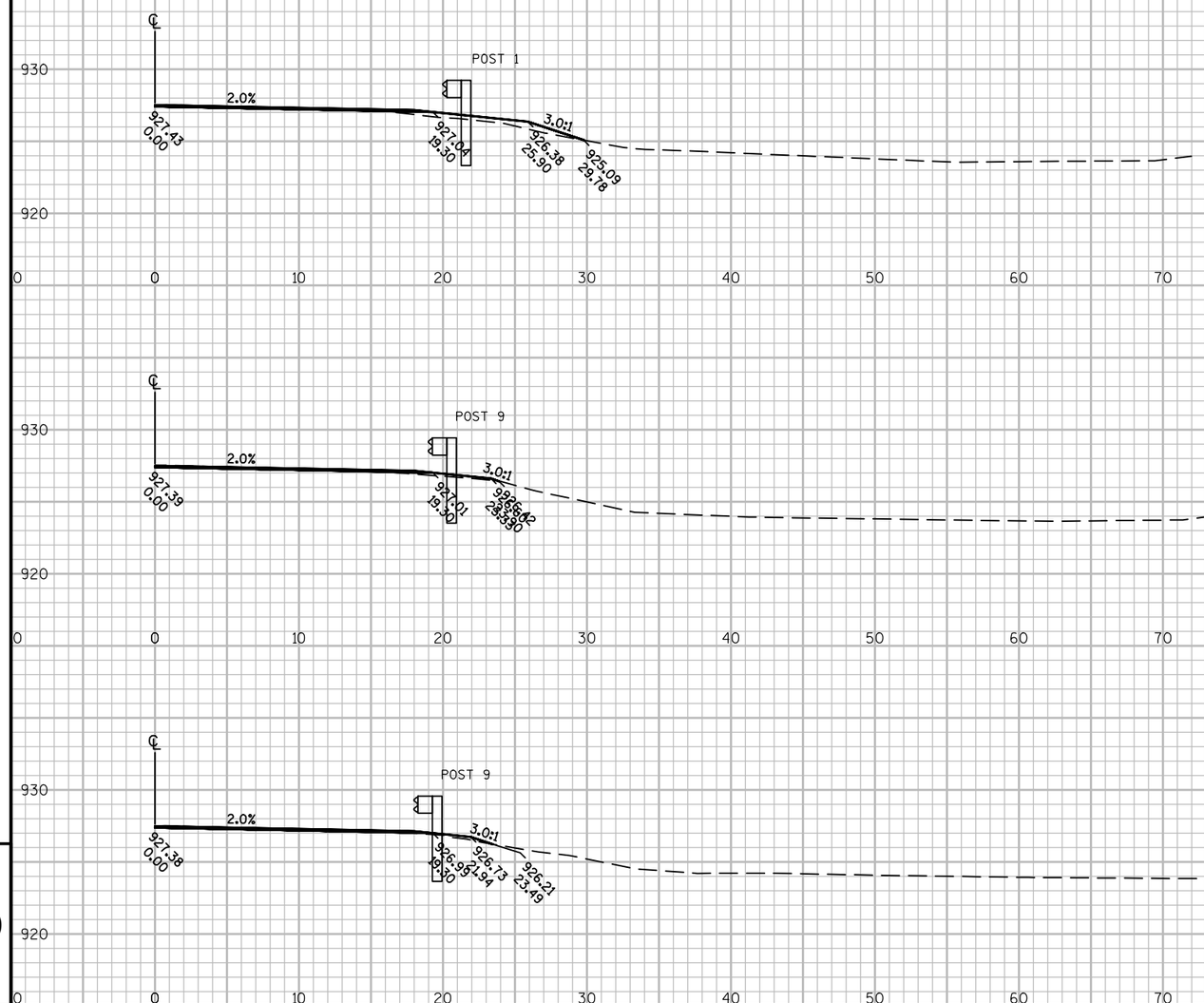


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-119	SHEET 206 E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090206_XS

PLOT DATE : 8/1/2018 7:26 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

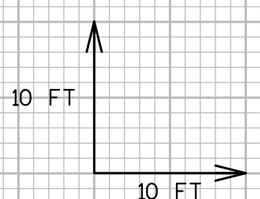
WISDOT/CADDS SHEET 49



288+96

288+71

288+46



9

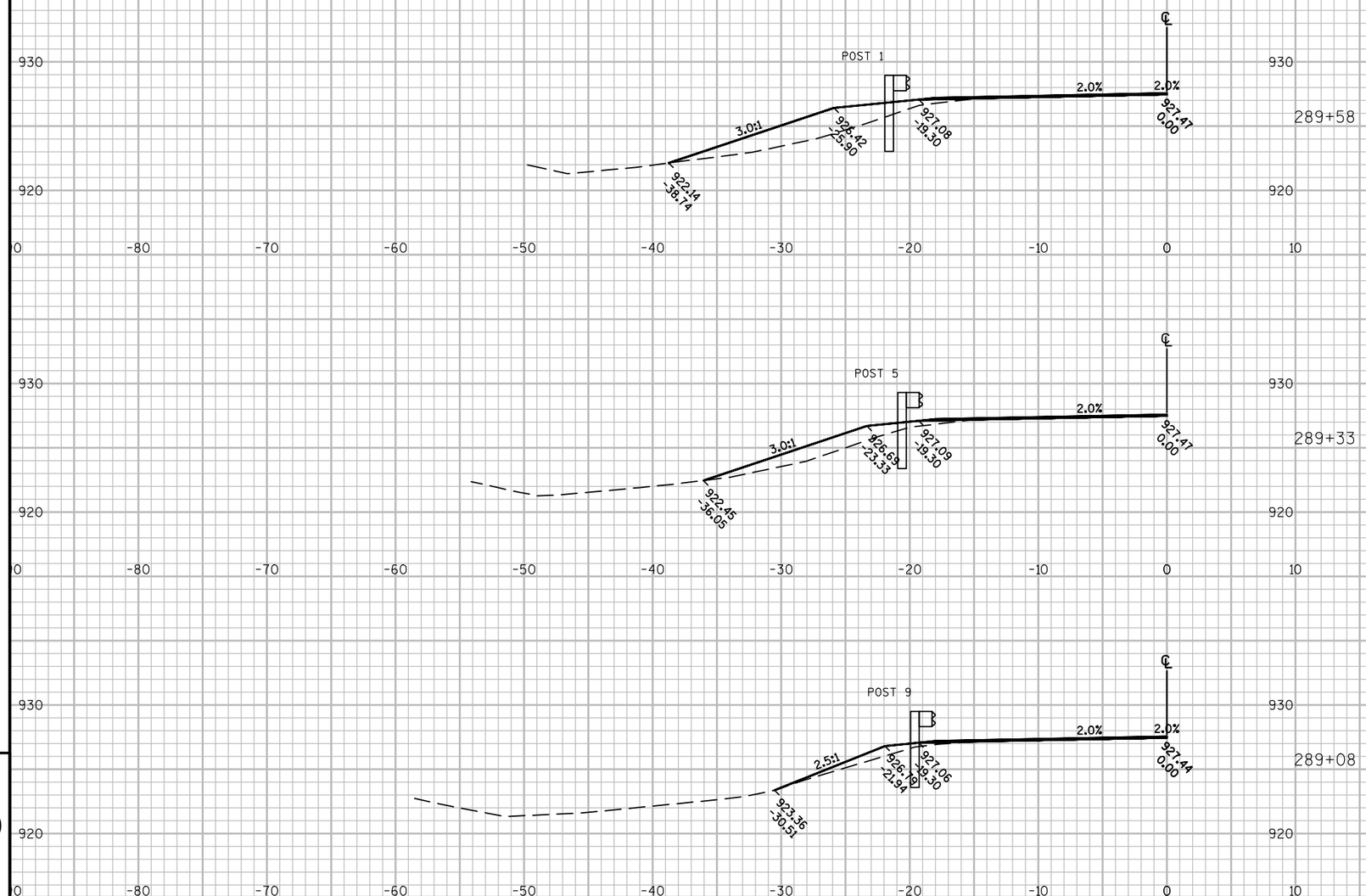
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-119	SHEET 207 E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090207_XS

PLOT DATE : 8/1/2018 7:46 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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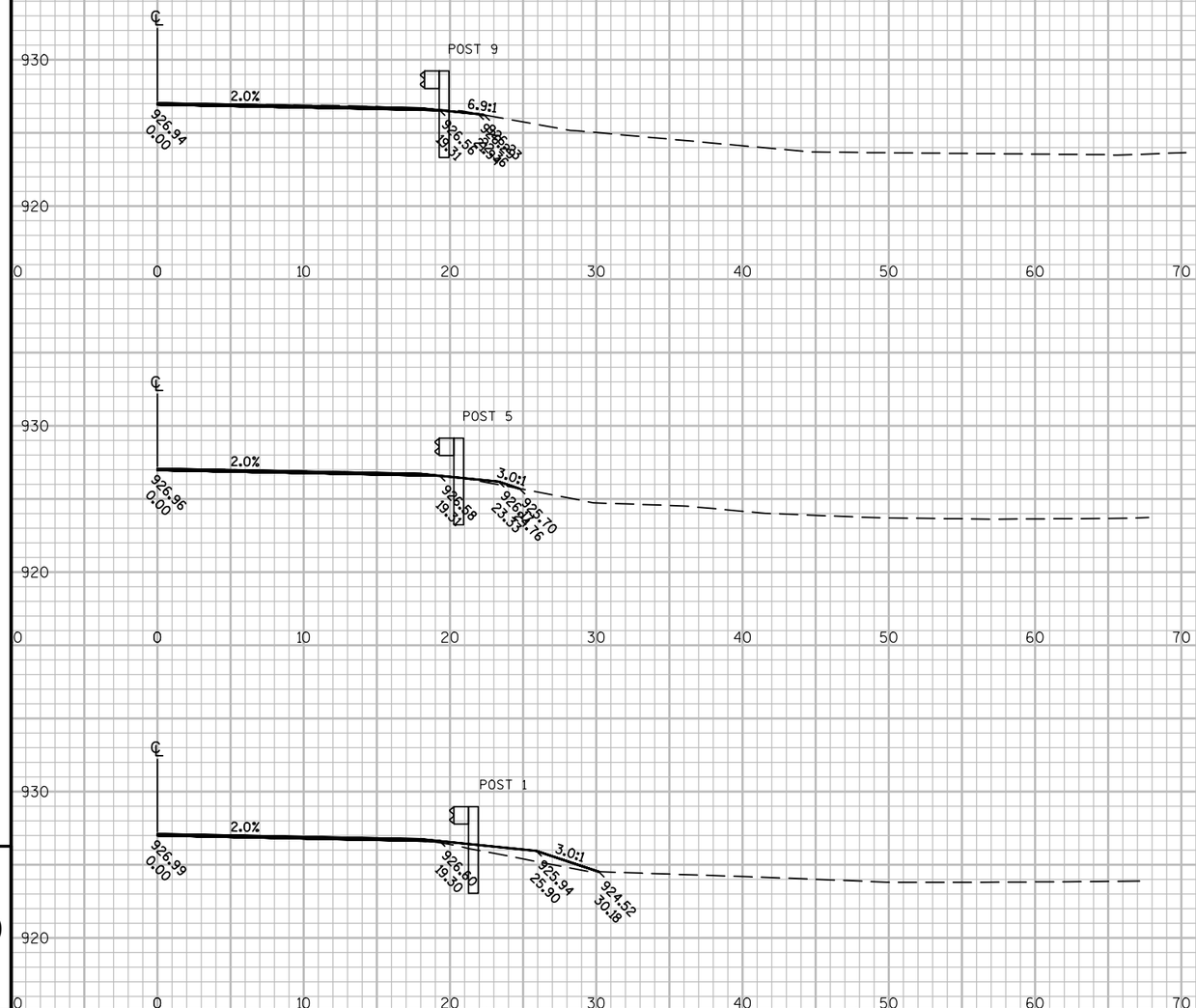
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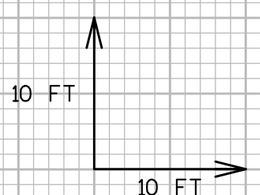
PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-119	SHEET 208	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090208_XS

PLOT DATE : 8/1/2018 7:47 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49





9

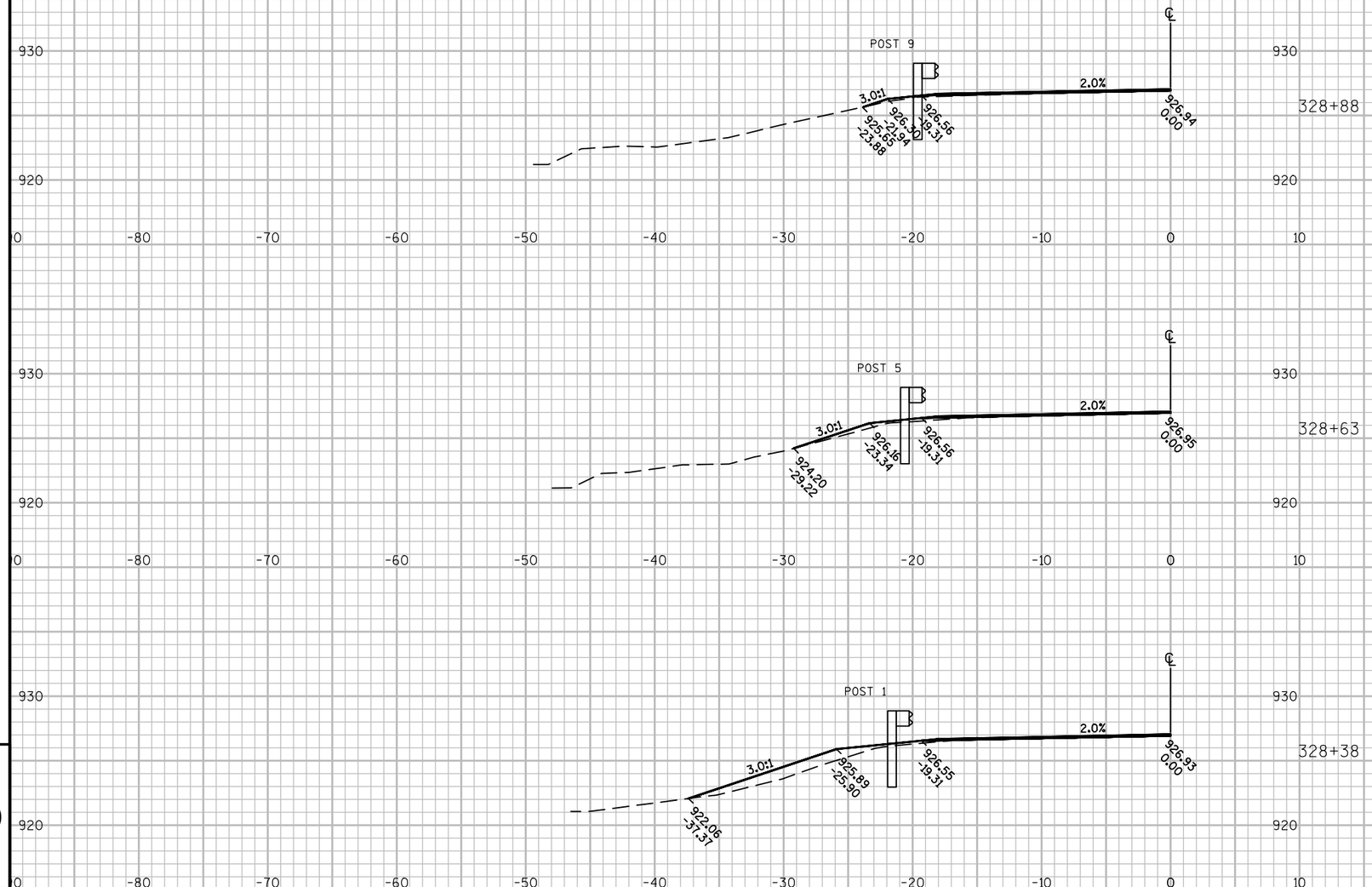
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-120	SHEET 209	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090209_XS

PLOT DATE : 8/1/2018 7:27 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

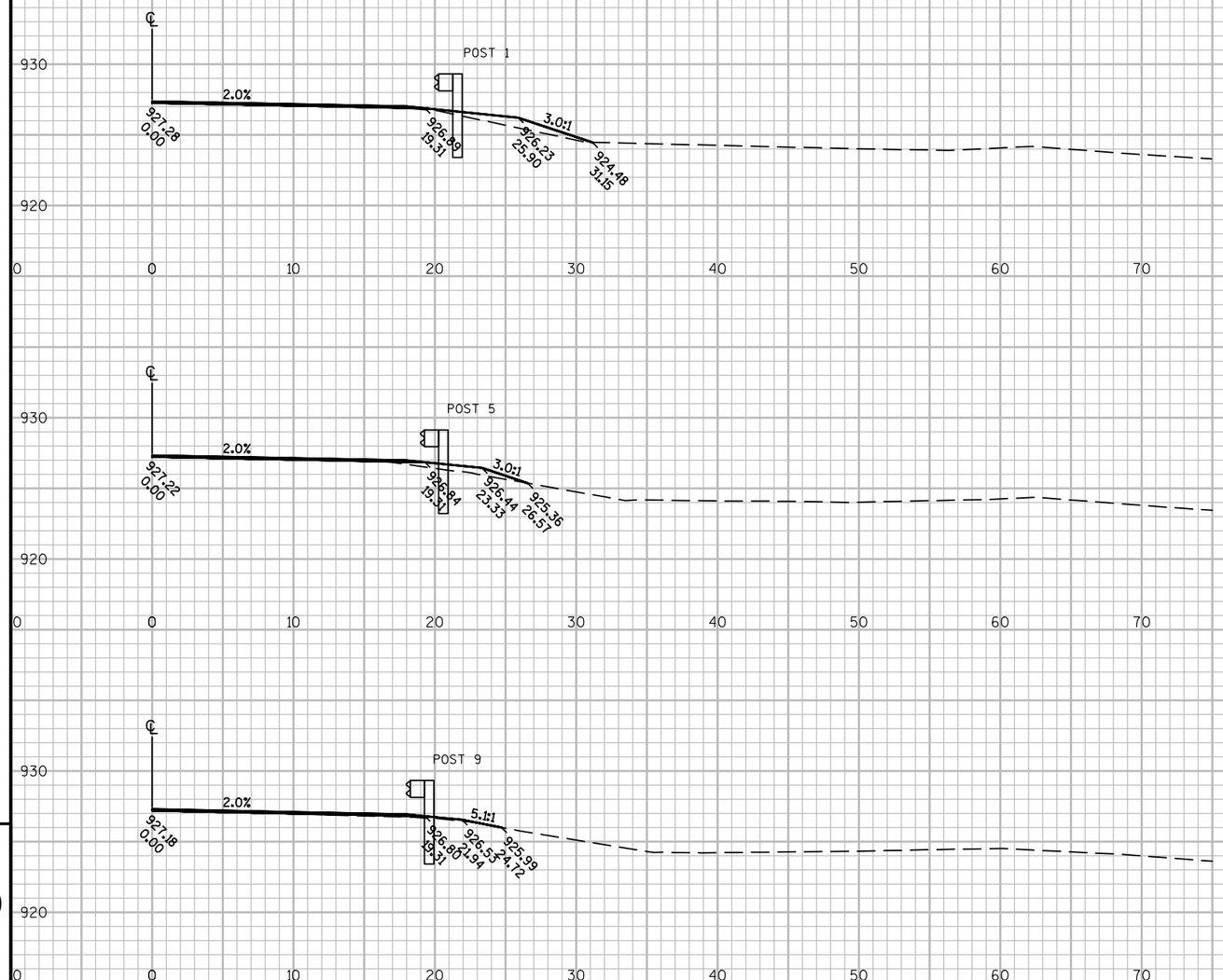


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-120	SHEET 210 E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090210_XS

PLOT DATE : 8/1/2018 1:13 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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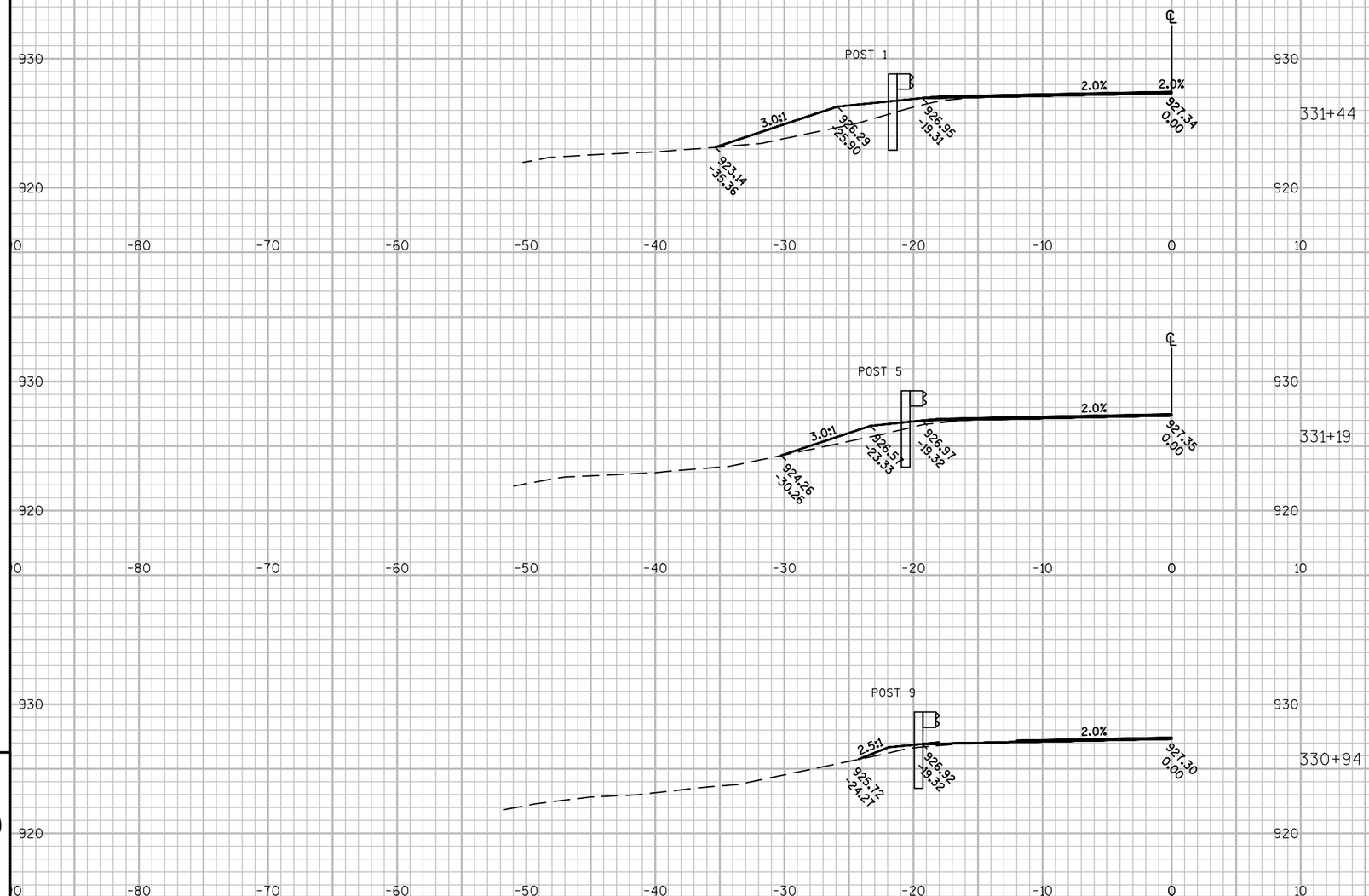
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-120	SHEET 211	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090211_XS

PLOT DATE : 8/1/2018 1:13 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



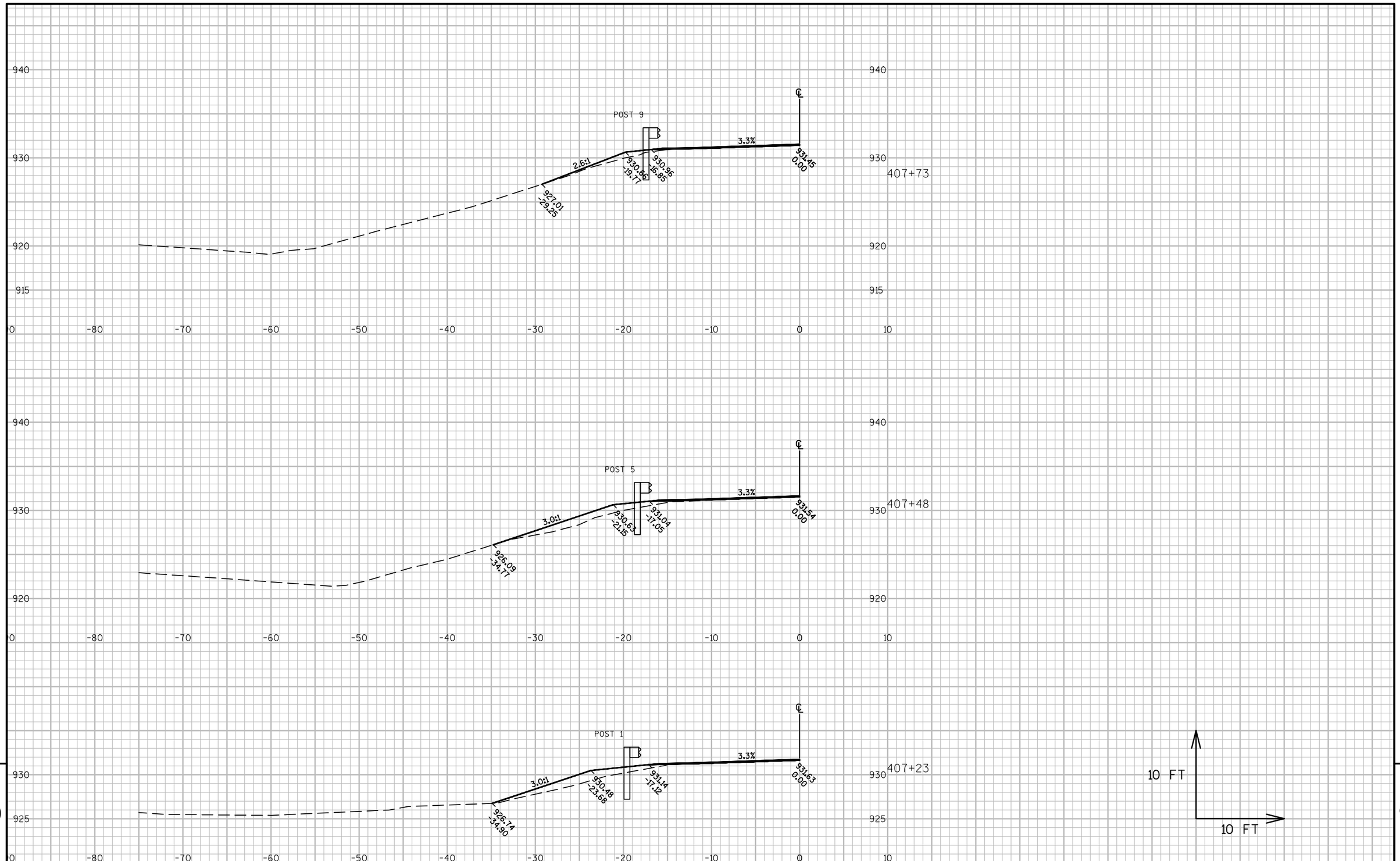
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-120	SHEET 212	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090212_XS

PLOT DATE : 8/1/2018 1:14 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT



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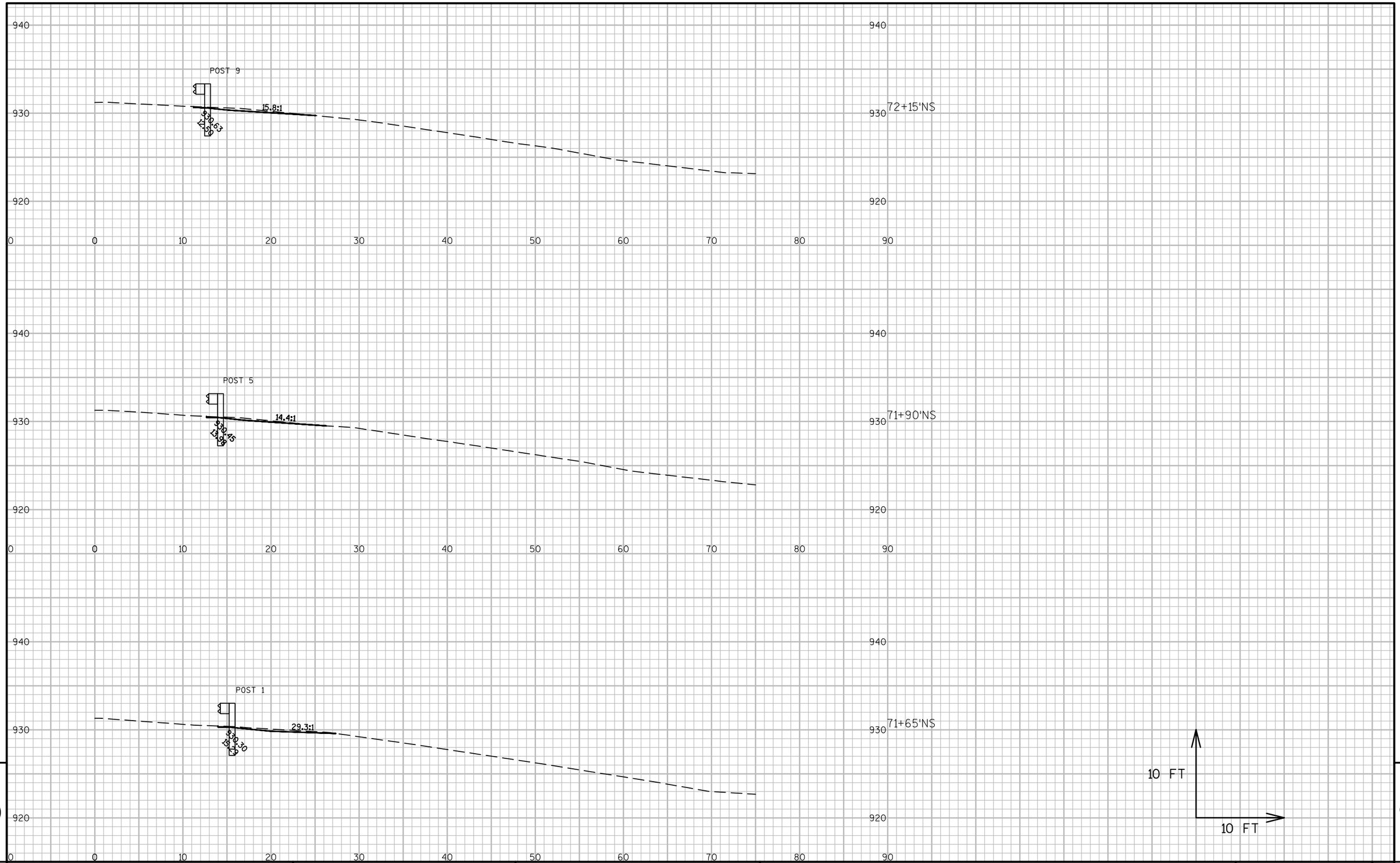
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-007	SHEET 213	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090213_XS

PLOT DATE : 8/1/2018 1:14 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

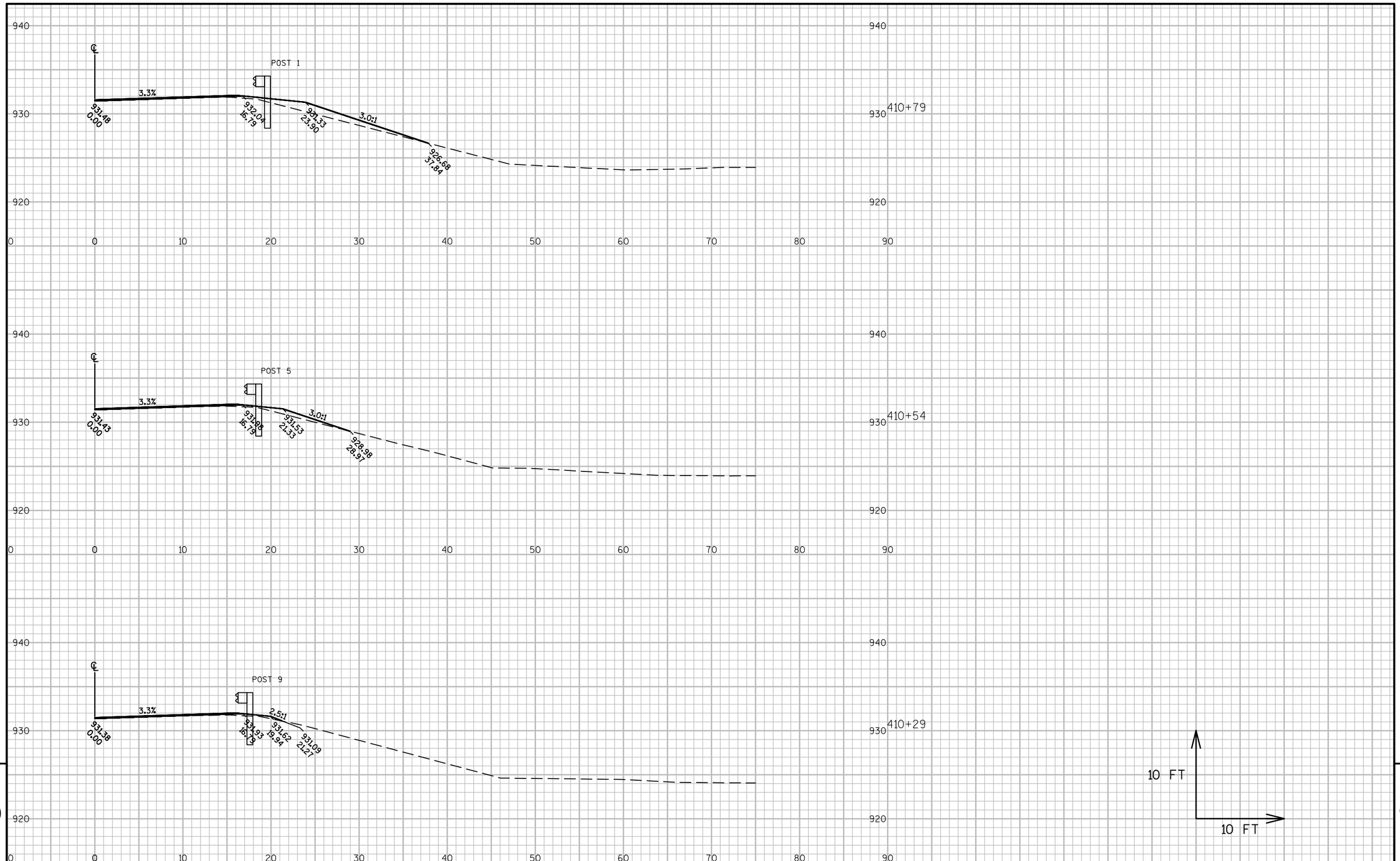
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-007 - NORTH SETTLEMENT RD	SHEET 214	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090201_XS_WEST.DWG
LAYOUT NAME - 090214_XS

PLOT DATE : 8/1/2018 1:14 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

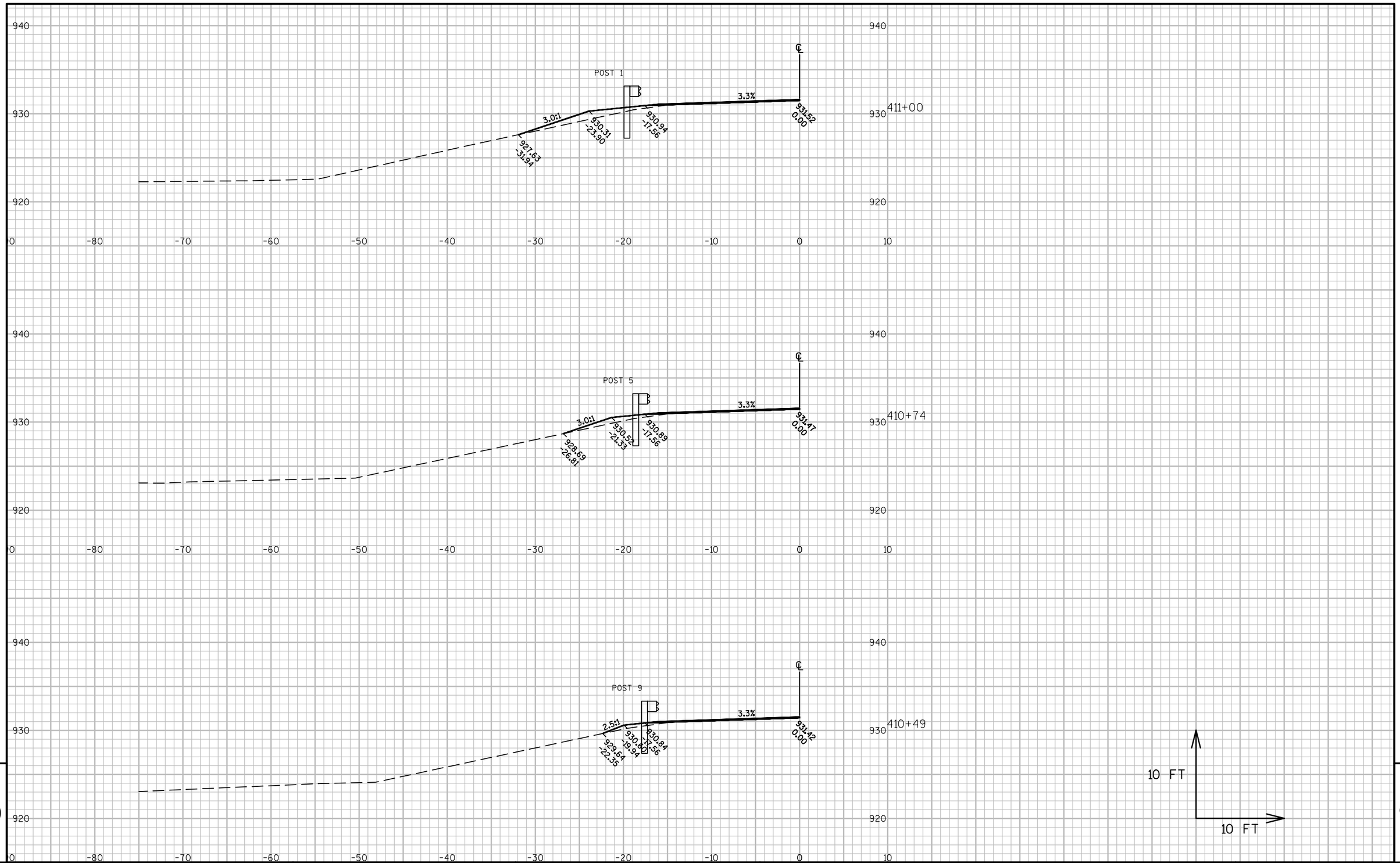
WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-007	SHEET 215	E



9

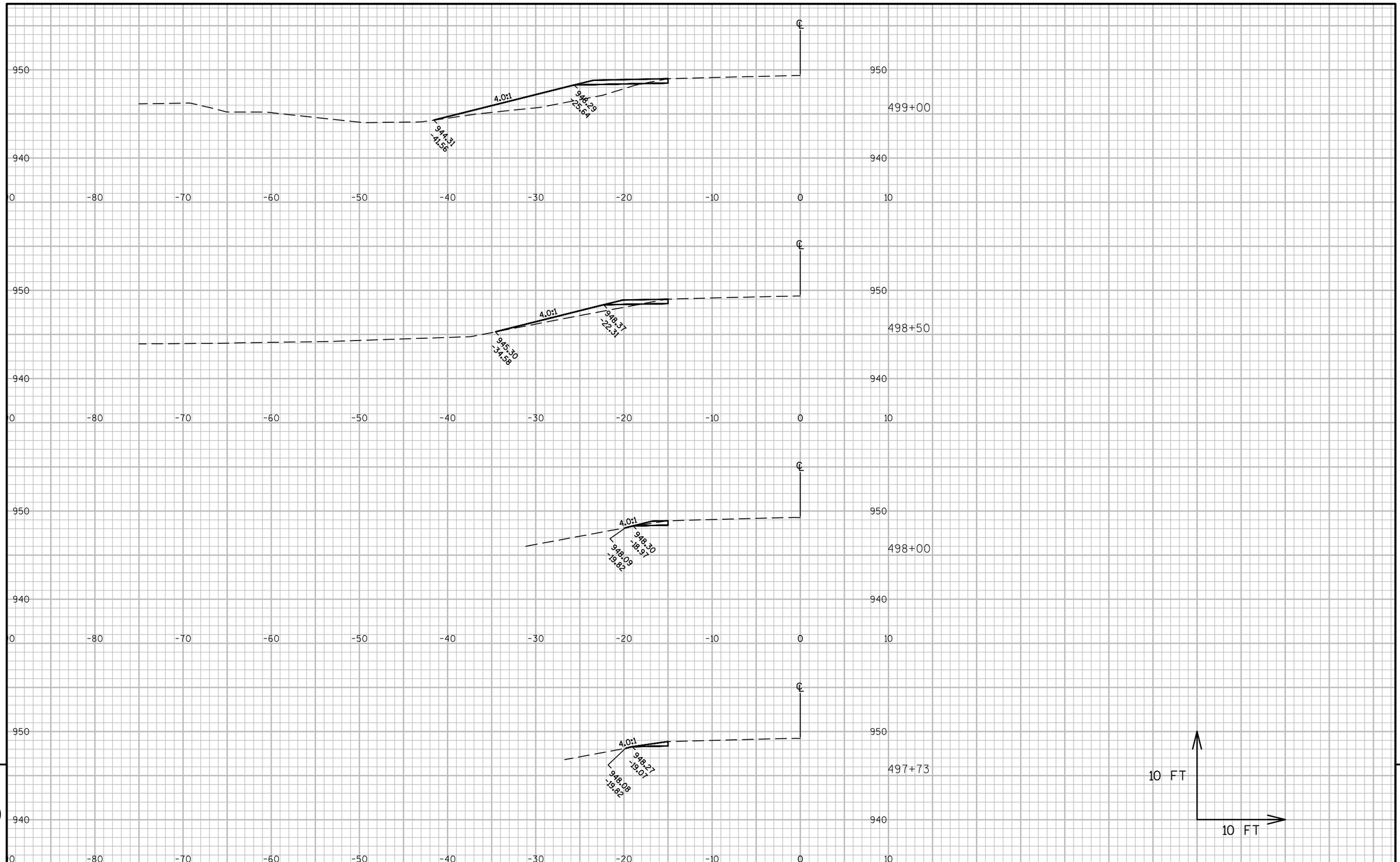
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-007	SHEET 216	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090216_XS

PLOT DATE : 8/1/2018 1:16 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

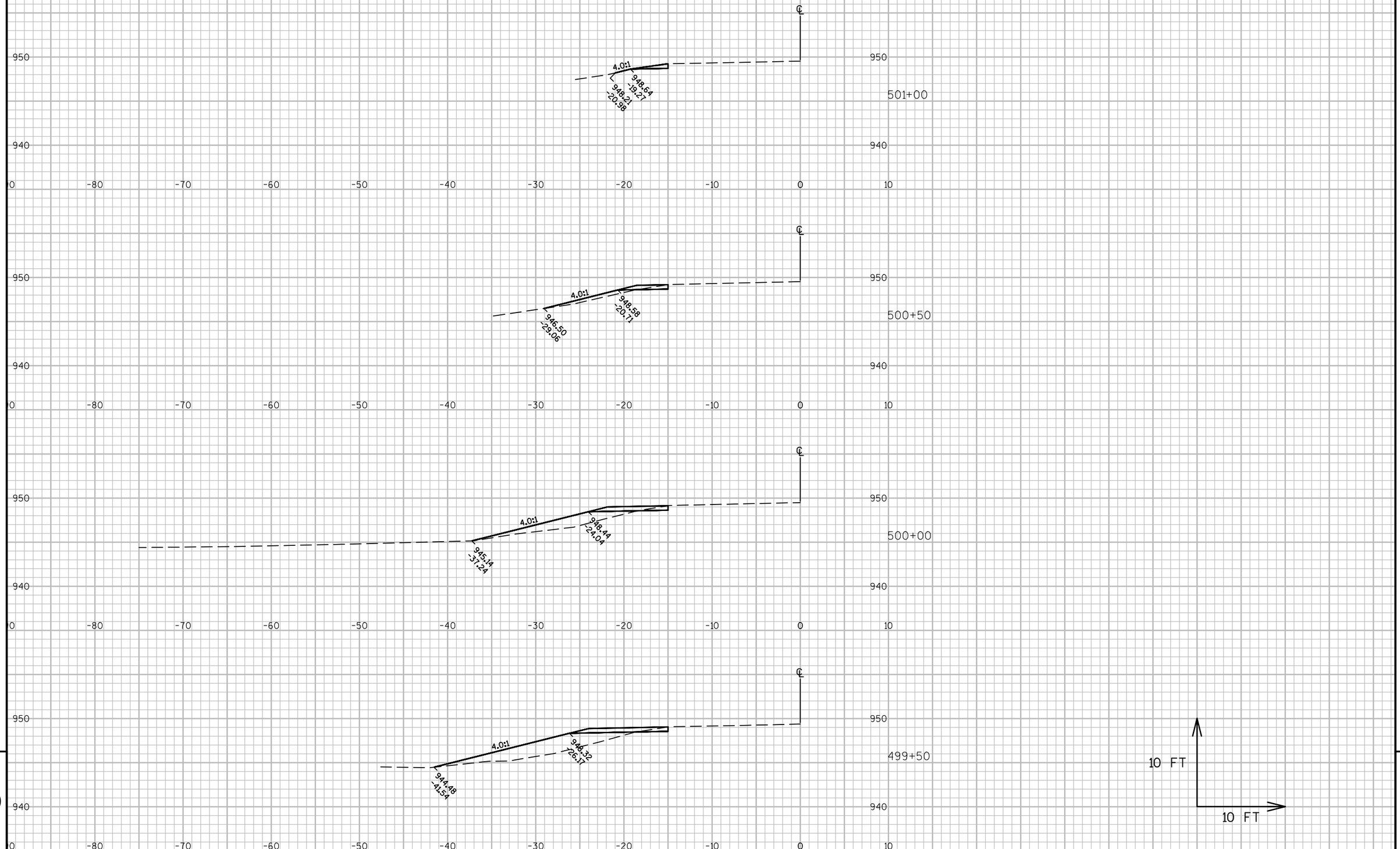


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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 217	E

9

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090217_XS
PLOT DATE : 8/1/2018 1:16 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49

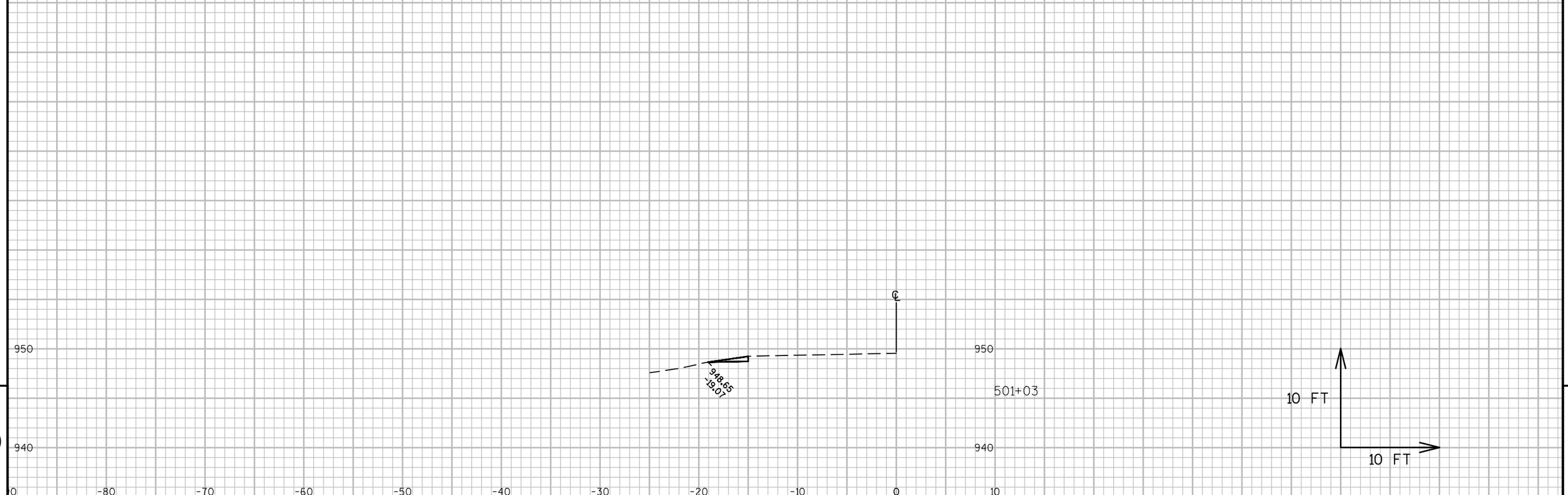


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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 218 E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090218_XS
PLOT DATE : 8/1/2018 1:16 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 49



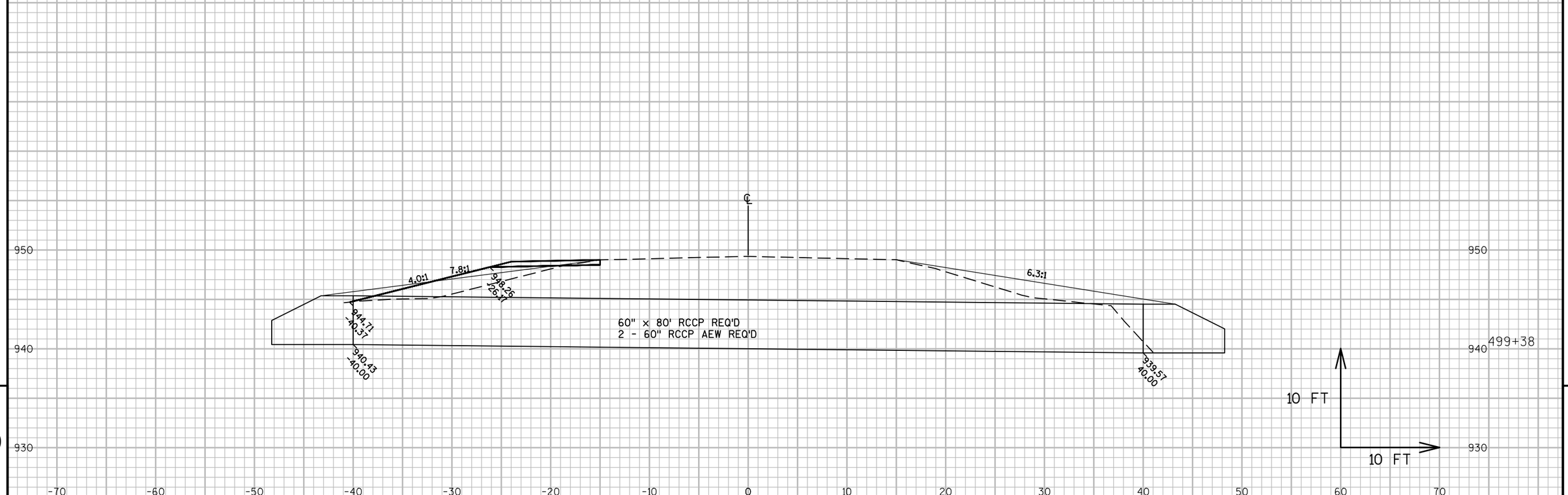
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: TEMPORARY WIDENING	SHEET 219	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090219_XS

PLOT DATE : 8/1/2018 1:17 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT



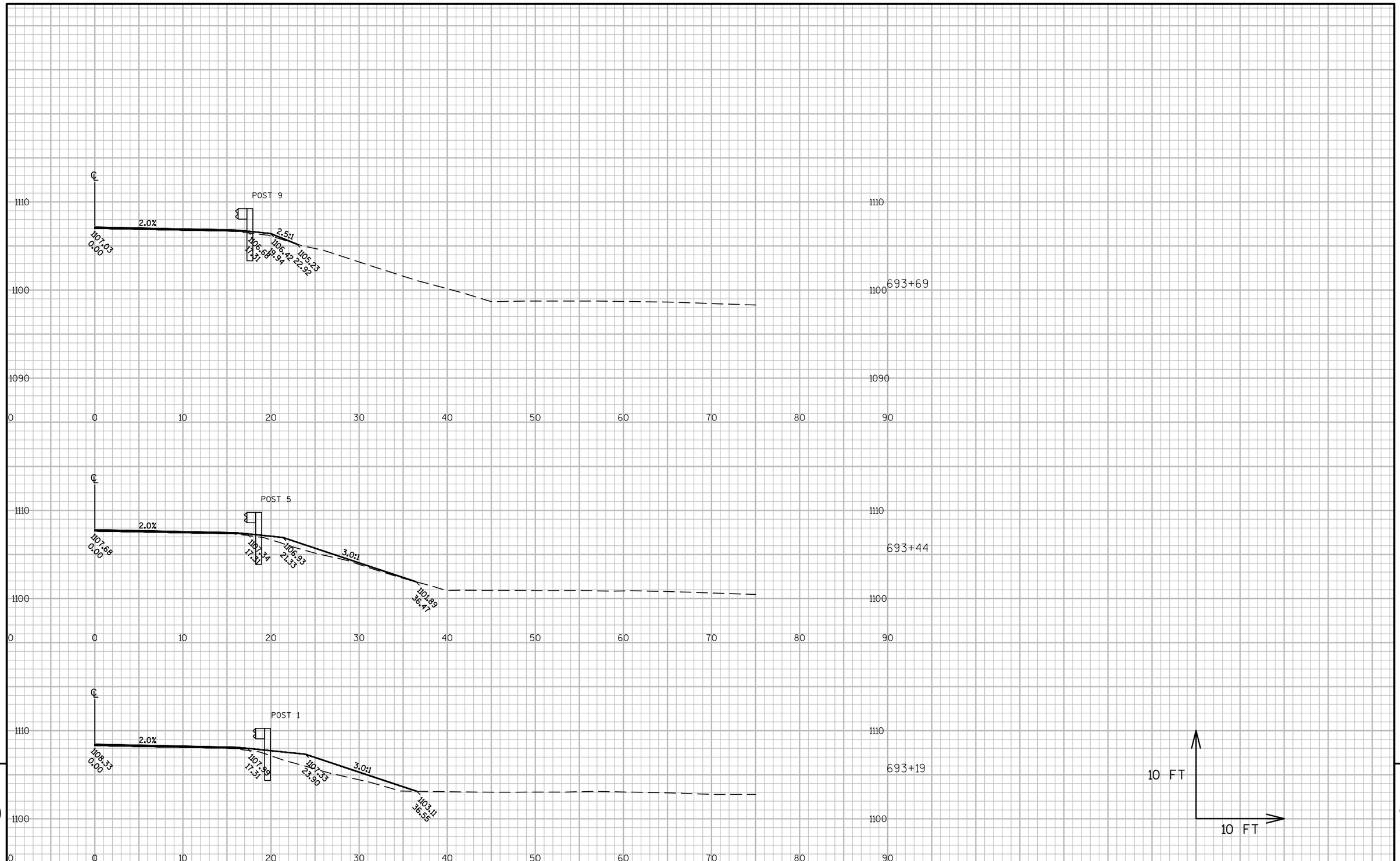
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: CULVERT REPLACEMENT	SHEET 220	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090220_XS

PLOT DATE : 8/1/2018 1:17 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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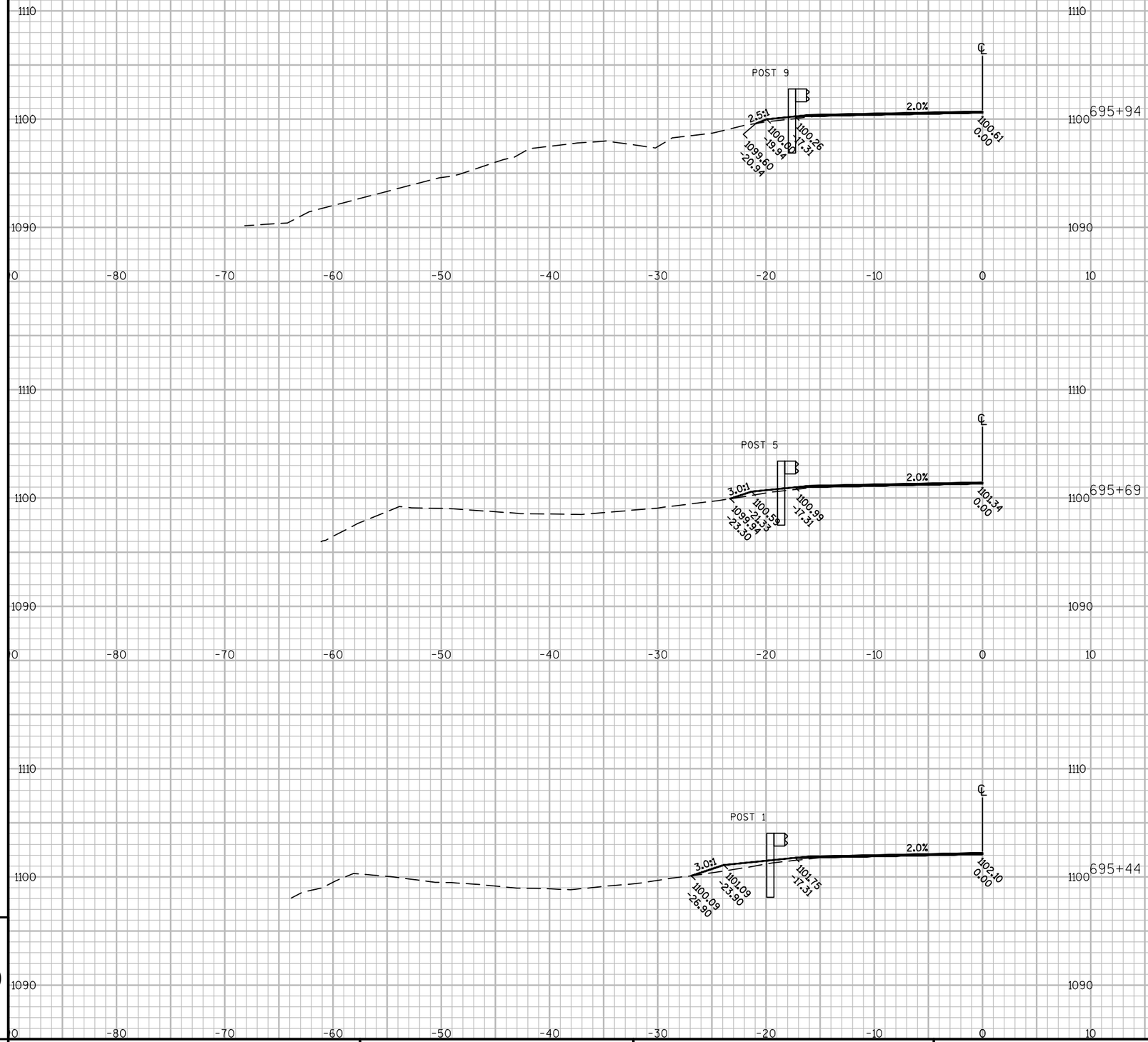
9

PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD	SHEET 221	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090221_XS

PLOT DATE : 8/1/2018 1:17 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

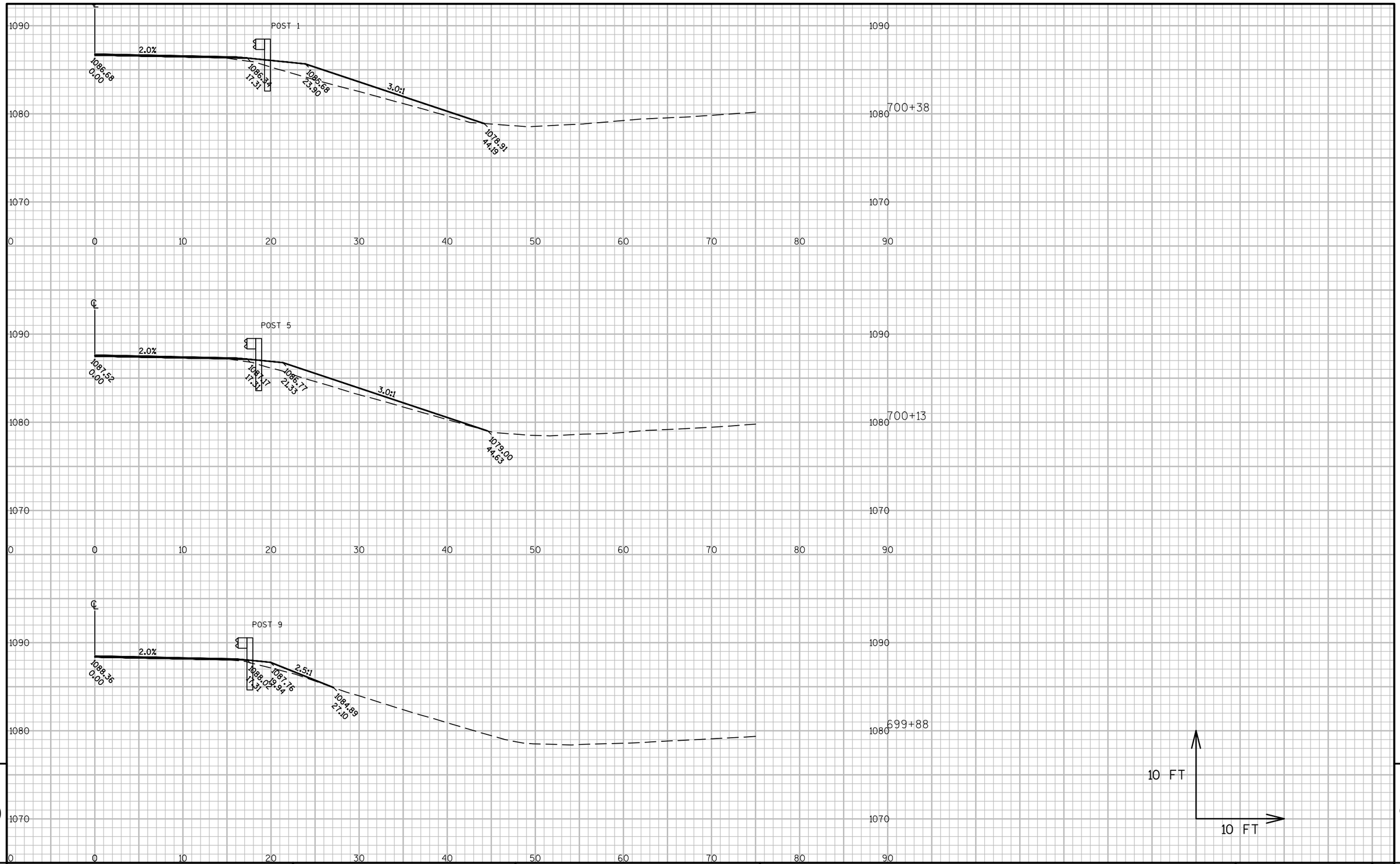
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD	SHEET 222	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090222_XS

PLOT DATE : 8/1/2018 1:17 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

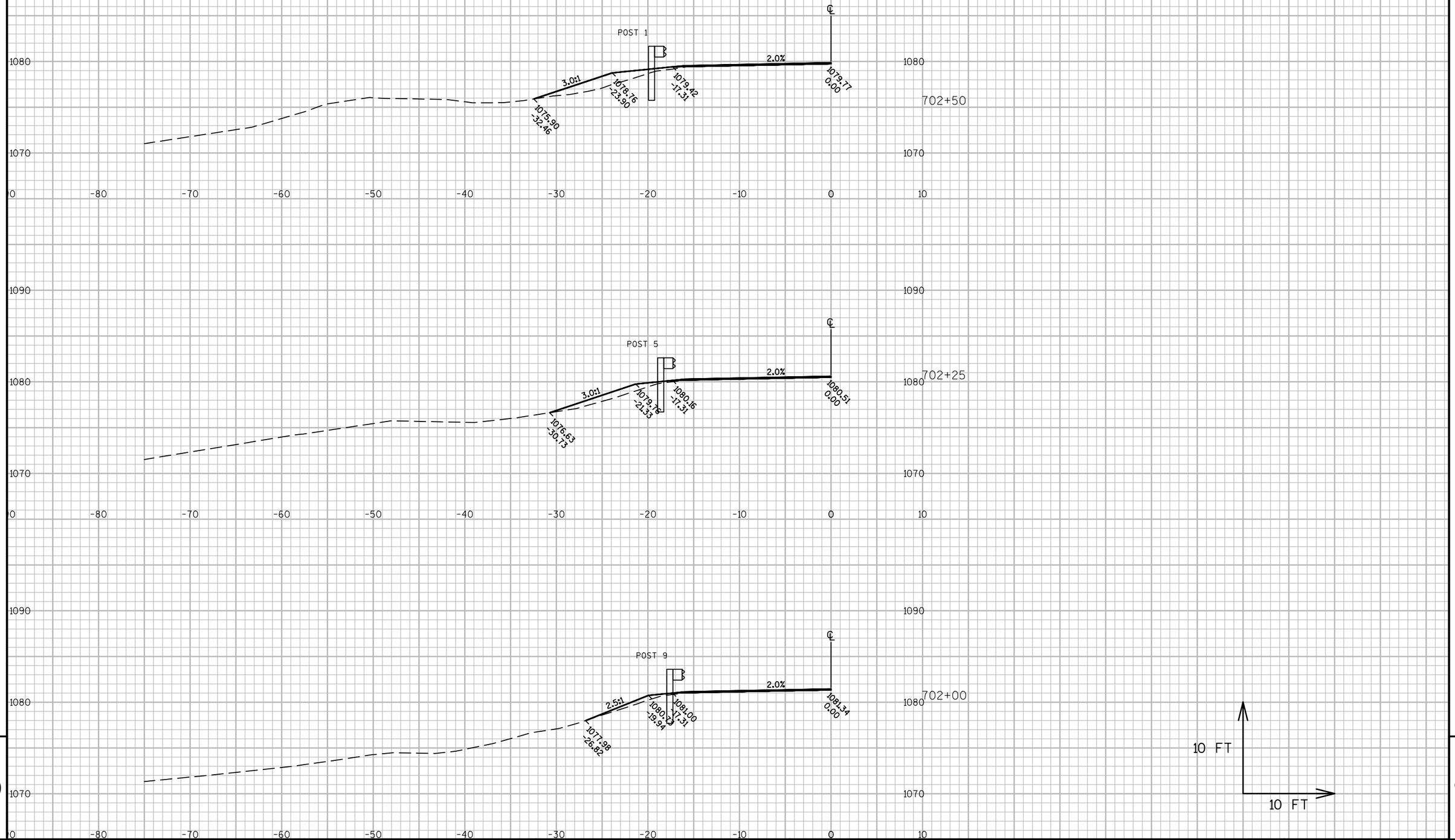


PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD	SHEET 223 E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090223_XS

PLOT DATE : 8/1/2018 1:18 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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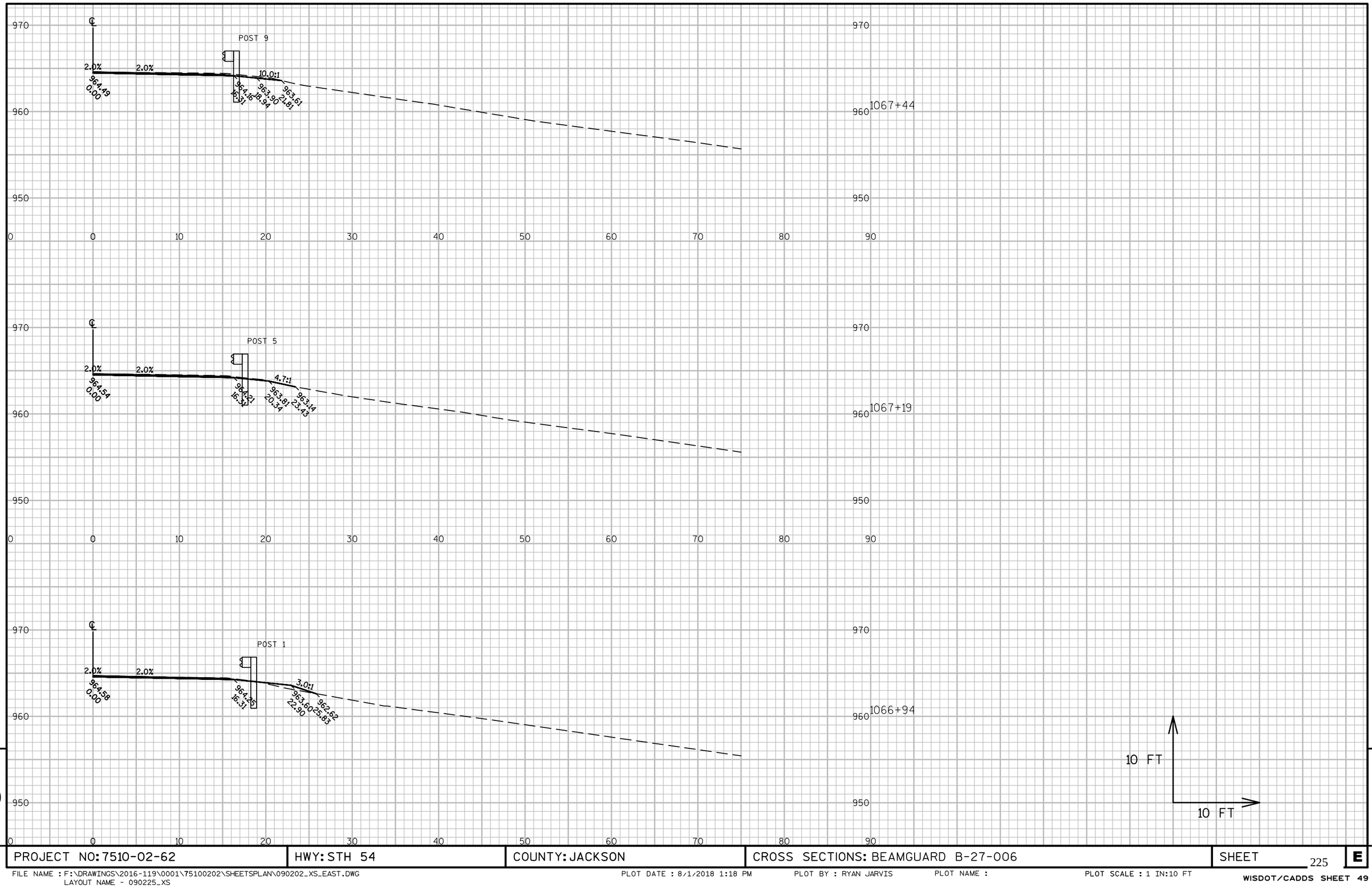
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD	SHEET 224	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090224_XS

PLOT DATE : 8/1/2018 1:18 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



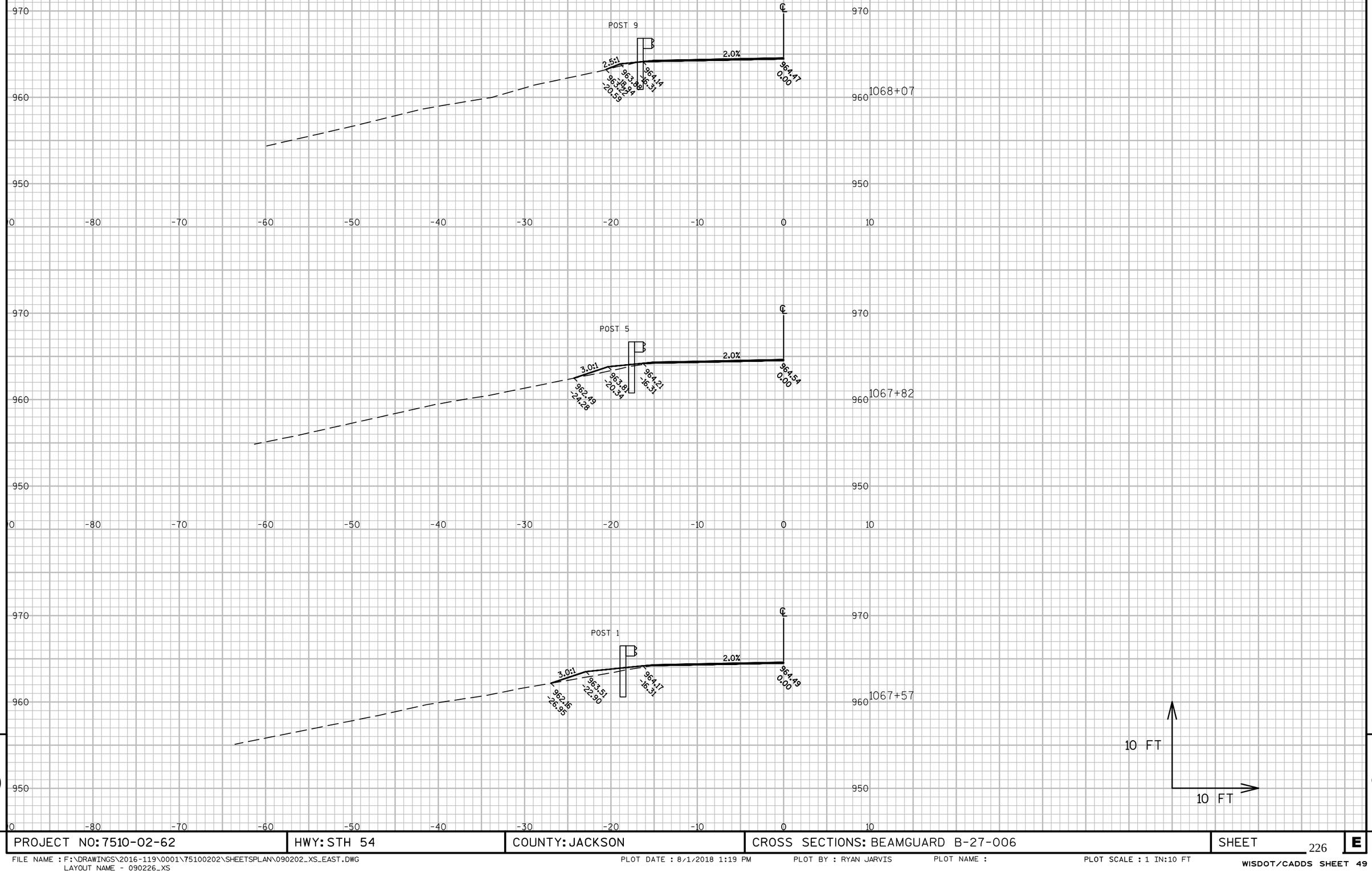
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-006	SHEET 225	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090225_XS

PLOT DATE : 8/1/2018 1:18 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



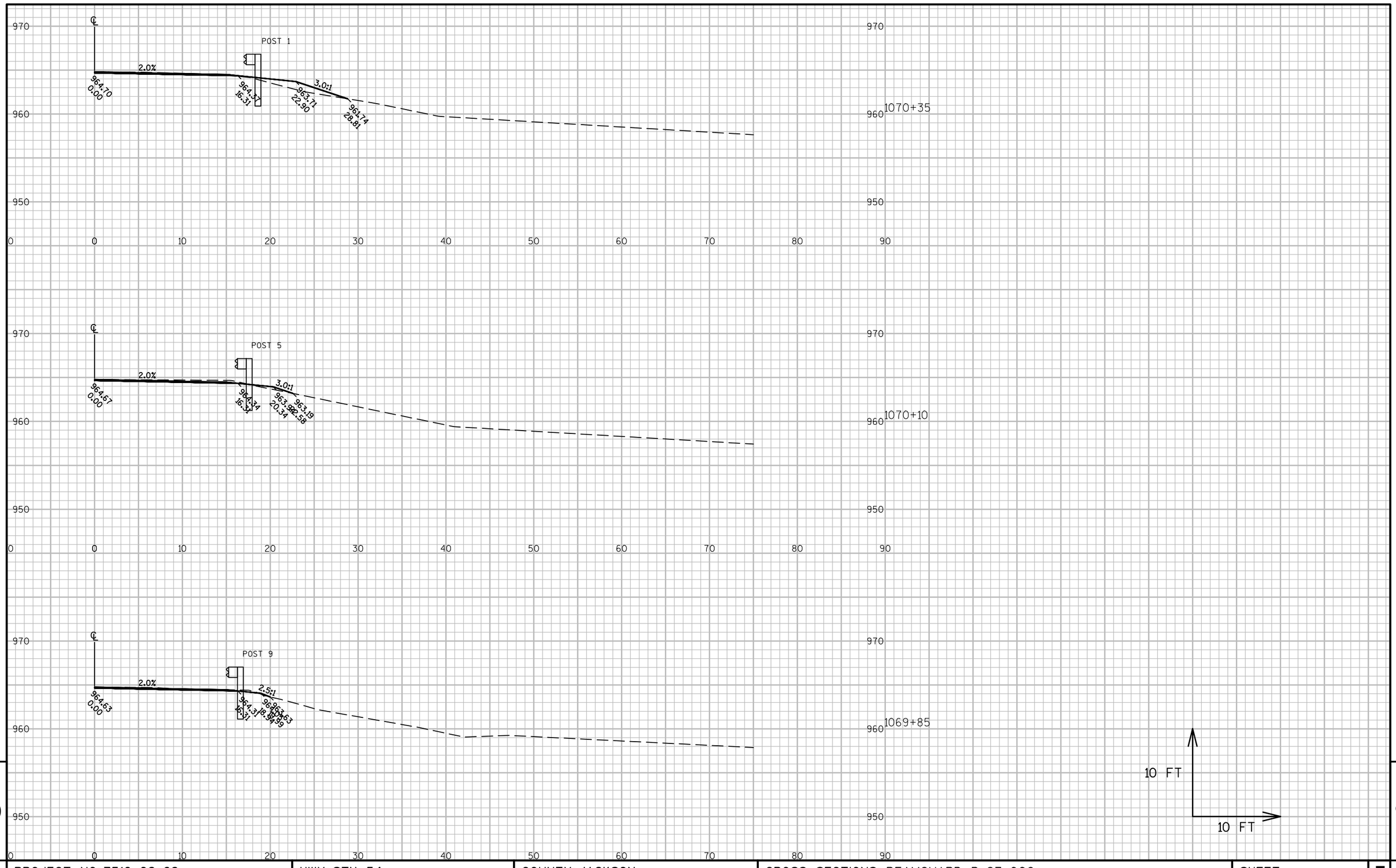
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-006	SHEET 226	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090226_XS

PLOT DATE : 8/1/2018 1:19 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT



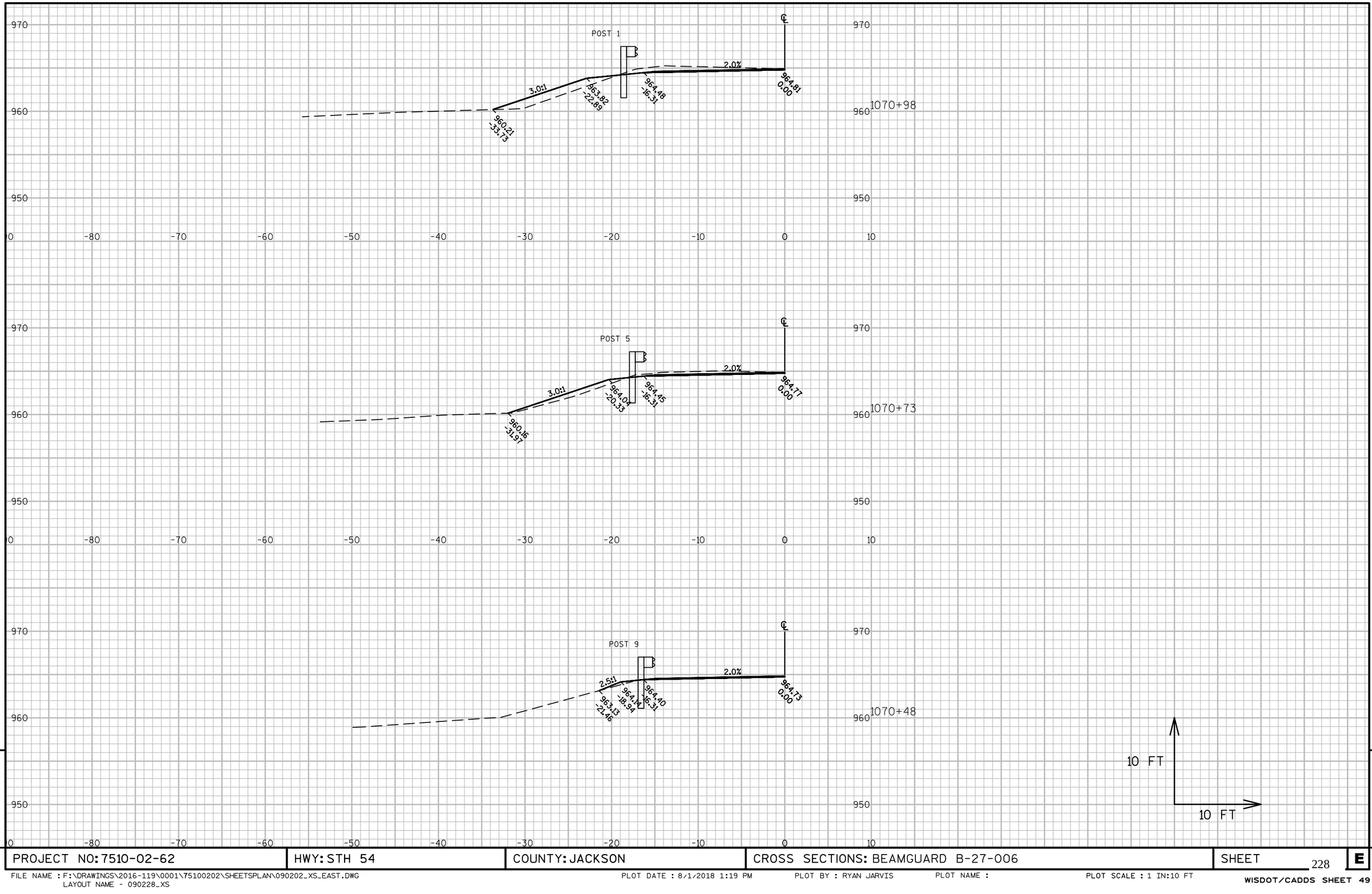
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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-006	SHEET 227	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090227_XS

PLOT DATE : 8/1/2018 1:19 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT



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PROJECT NO: 7510-02-62	HWY: STH 54	COUNTY: JACKSON	CROSS SECTIONS: BEAMGUARD B-27-006	SHEET 228	E

FILE NAME : F:\DRAWINGS\2016-119\0001\75100202\SHEETSPLAN\090202_XS_EAST.DWG
LAYOUT NAME - 090228_XS

PLOT DATE : 8/1/2018 1:19 PM PLOT BY : RYAN JARVIS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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