

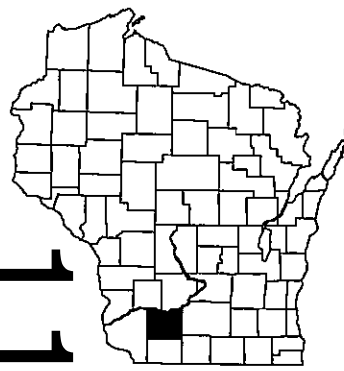
PROJECT ID: 5939-00-61
WITH: NA

COUNTY: IOWA

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 = 130



LIST OF SUBCONTRACTORS
Bob Ewers Contracting
Central States Signing Inc.
Century Fence Company
Iverson Construction, LLC
SJK Engineering, LLC
W.K. Construction Company, Inc.

DESIGN DESIGNATION

A.A.D.T. 2014	=	350
A.A.D.T. 2034	=	450
D.H.V. 2034	=	14.3
D.D.	=	60/40
T.	=	11.2
DESIGN SPEED	=	55 MPH
ESALS	=	120,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

COBB - AVOCA

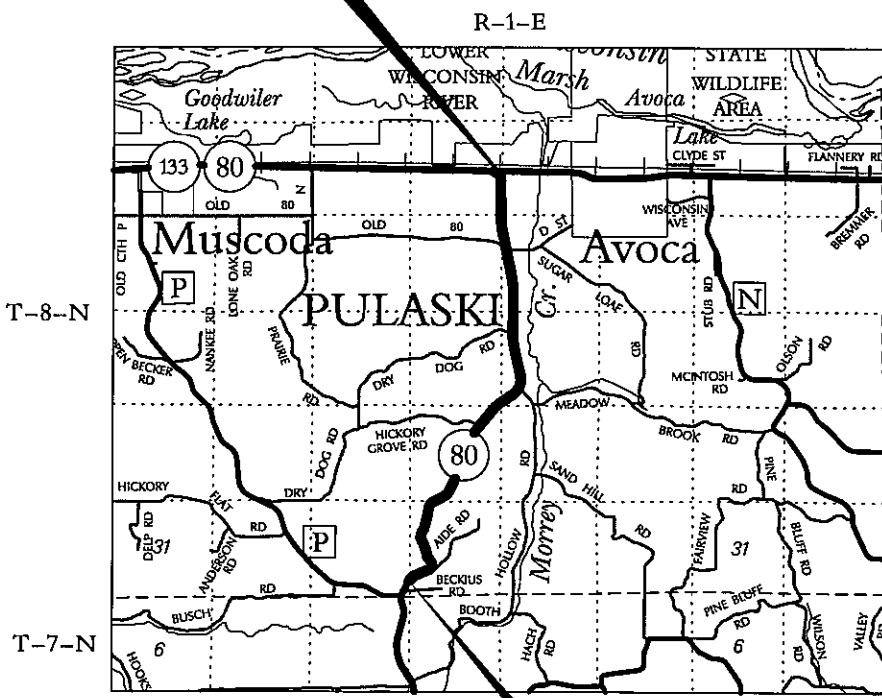
CTH P TO STH 133

STH 80

IOWA COUNTY

STATE PROJECT NUMBER
5939-00-61

END PROJECT
STA 359+00



BEGIN PROJECT

STA 101+38.1 Sta. 99+54

Y=212109.64
X=315526.71

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 4.879 MI.

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

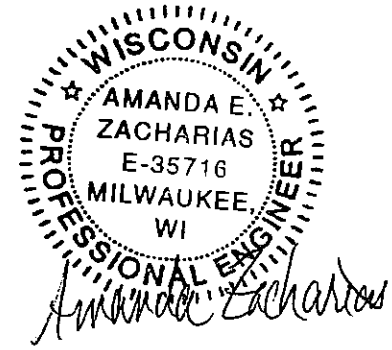
STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5939-00-61		

AS-BUILT PLAN

SUPERVISOR: Suzan Nast
PROJECT LEADER: Ralph Liegel
CONTRACTOR: Iverson Construction- A Div. of Mathy Construction
WORK STARTED: 09-09-2014
WORK COMPLETED: 11-03-2014

ORIGINAL PLANS PREPARED BY

benesch
engineers • scientists • planners
Alfred Benesch & Company
1300 West Canal Street, Suite 150
Milwaukee, Wisconsin 53233
414-308-1310 Job No. 20174.01



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	BUESING AND ASSOCIATES, INC.
Designer	ALFRED BENESCH & CO
Project Manager	SUZAN NAST
Regional Examiner	
Regional Supervisor	KURT JOHNSON
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 2/21/14

UTILITY CONTACTS

<u>ALLIANT ENERGY</u> (ELECTRIC)	<u>CENTURYLINK</u> (COMMUNICATIONS LINE)
490 SHAKERAG ST MINERAL POINT, WI 53565 MR. JASON HEMING (608) 458-4242	130 4TH STREET BARABOO, WI 53913 MR. STEVE BISHOP (608) 355-7501



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

OTHER CONTACTS

<u>DNR</u> DNR SOUTH CENTRAL REGION 3911 FISH HATCHERY ROAD FITCHBURG, WI 53711 MS. CATHY BLESER (608) 275-3308	<u>DESIGN</u> ALFRED BENESCH & COMPANY 1300 W CANAL ST, SUITE 150 MILWAUKEE WI, 53233 MS. AMANDA ZACHARIAS (414) 308-1320	<u>DOT</u> WISCONSIN DOT, SOUTHWEST REGION 2101 WRIGHT ST MADISON, WI 53704 MS. SUZAN NAST (608) 242-8051
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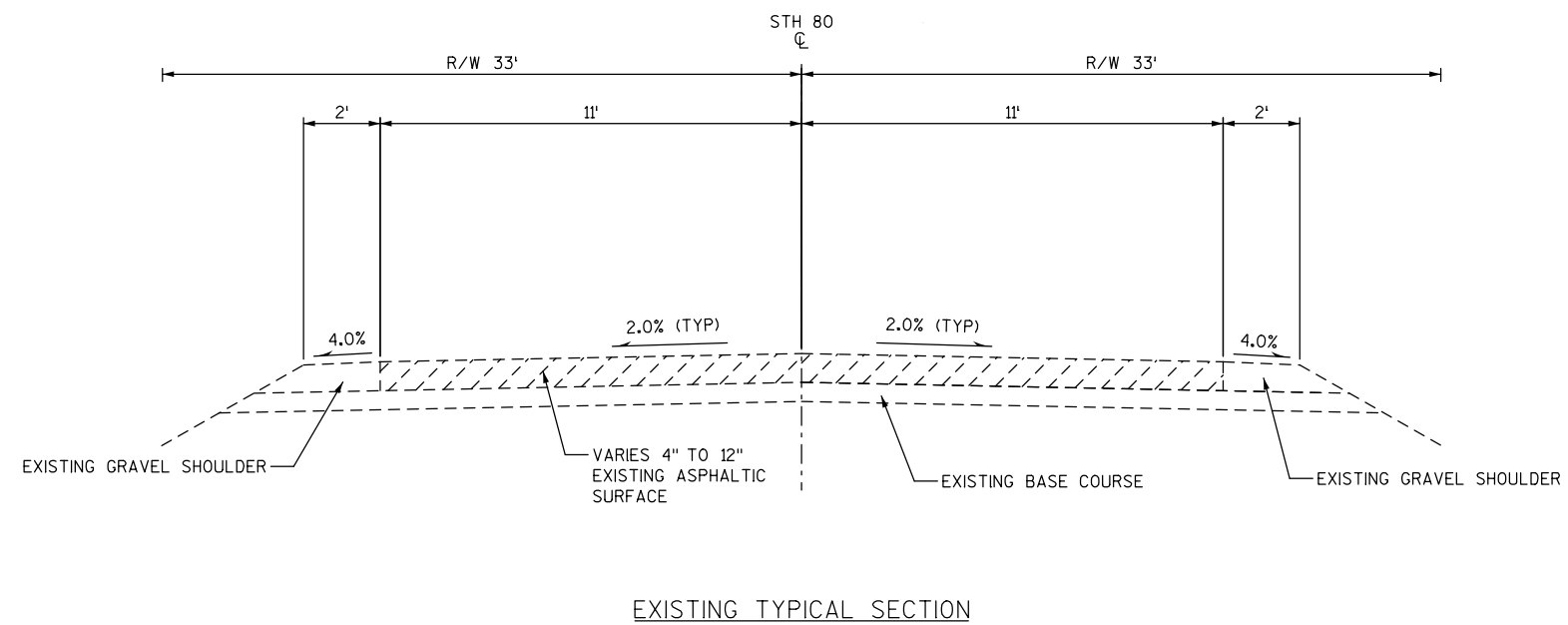
ORDER OF SECTION 2 SHEETS

- GENERAL NOTES
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PERMANENT SIGNING

GENERAL NOTES

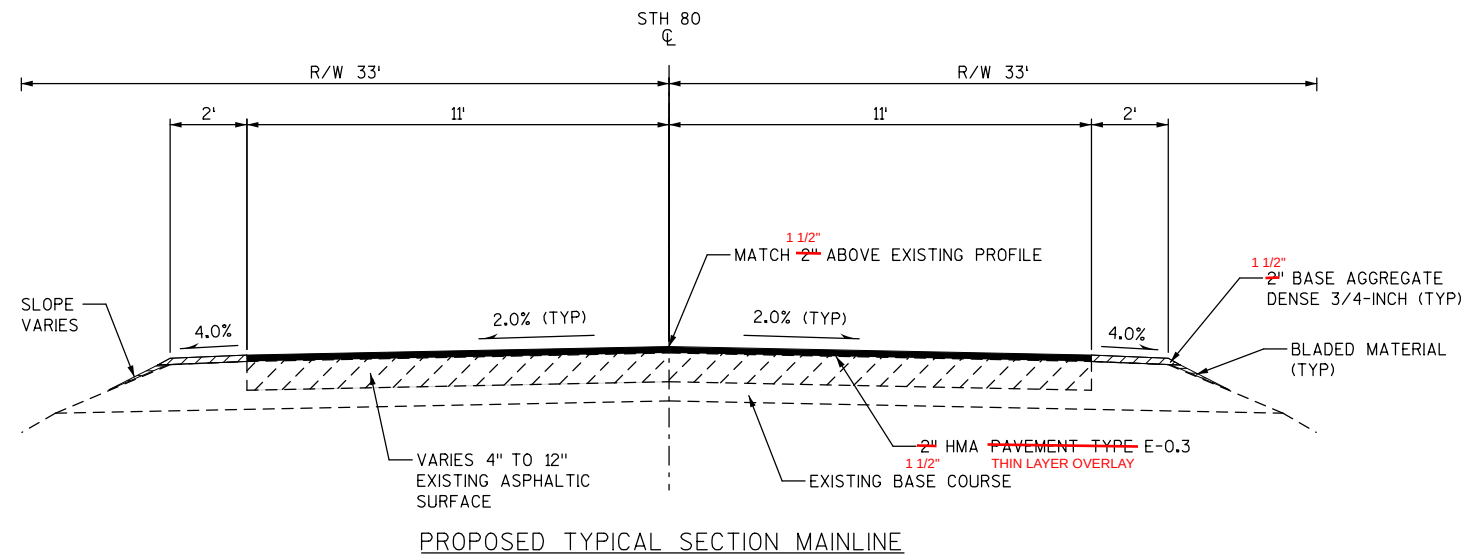
- DO NOT REMOVE TREES OR SHRUBS WITHOUT THE APPROVAL OF THE ENGINEER.
- FERTILIZE, SEED, AND MULCH DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS.
- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
- HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.
- PAVE HMA PAVEMENT CONSISTENT TO THE PLAN TYPICAL SECTIONS AND CONSTRUCT TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.
- EXISTING SUPER ELEVATION VALUES SHOWN IN THE PLAN ARE AVERAGES ACROSS BOTH LANES OF TRAFFIC AND ARE APPROXIMATE. VERIFY EXISTING NORMAL CROWN AND SUPERELEVATIONS IN THE FIELD
- PLACE EDGE LINE PAVEMENT MARKING AT 10 FEET FROM CENTERLINE.
- DO NOT STAGE PERSONNEL, EQUIPMENT, AND/OR SUPPLIES IN ENVIRONMENTALLY SENSITIVE AREAS SHOWN ON THE PLANS, WETLANDS, OR WATERWAYS.
- DO NOT USE ENVIRONMENTALLY SENSITIVE AREAS SHOWN ON THE PLANS, WETLANDS, OR WATERWAYS FOR BORROW OR WASTE DISPOSAL.
- REPLACE DRIVEWAYS IN KIND, EITHER HMA ~~PAVEMENT TYPE~~ **THIN LAYER OVERLAY** E-0.3 OR BASE AGGREGATE DENSE 3/4-INCH. ENGINEER IN THE FIELD WILL DETERMINE THE EXACT LOCATION AND WIDTH OF ALL DRIVEWAY ENTRANCES.
- PLACE SILT FENCE AS DIRECTED BY THE ENGINEER. PLACE SILT FENCE PRIOR TO CONSTRUCTION.
- PLACE EROSION MAT & TEMPORARY DITCH CHECKS AS DIRECTED BY THE ENGINEER IN THE FIELD.
- UTILIZE S.D.D. "TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADVANCED TRAFFIC CONTROL AT THE BEGINNING OF THE PROJECT.
- THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
- CONFIRM THE LOCATIONS OF EROSION CONTROL DEVICES WITH THE ENGINEER. MAINTAIN EROSION CONTROL MEASURES UNTIL THE ENGINEER DETERMINES THEY ARE NO LONGER NECESSARY. REMOVE THE TEMPORARY EROSION CONTROL MEASURES WHEN THEY ARE NO LONGER NEEDED, PAYMENT INCIDENTAL TO THE COST OF THE RESPECTIVE BID ITEM.
- CROSS SECTIONS SHOW REQUIRED SLOPES AND ANTICIPATED GRADING AT GUARD RAIL LOCATIONS AND ARE FOR INFORMATIONAL PURPOSES ONLY.
- USE HMA PAVEMENT TYPE E-0.3 ASPHALTIC MATERIAL AND 12.5 MM NOMINAL MAXIMUM SIZE GRADATION FOR WEDGING REQUIRED AT SUPER ELEVATION CORRECTIONS.
- MAXIMUM LIFT THICKNESS FOR HMA PAVEMENT TYPE E-0.3 WEDGING IS 2-INCHES.

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS (2" MAX LIFT THICKNESS)	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
STH 80	VARIES 2" (TYP)	HMA PAVEMENT TYPE E-0.3 2" UPPER	12.5 MM	PG58-28



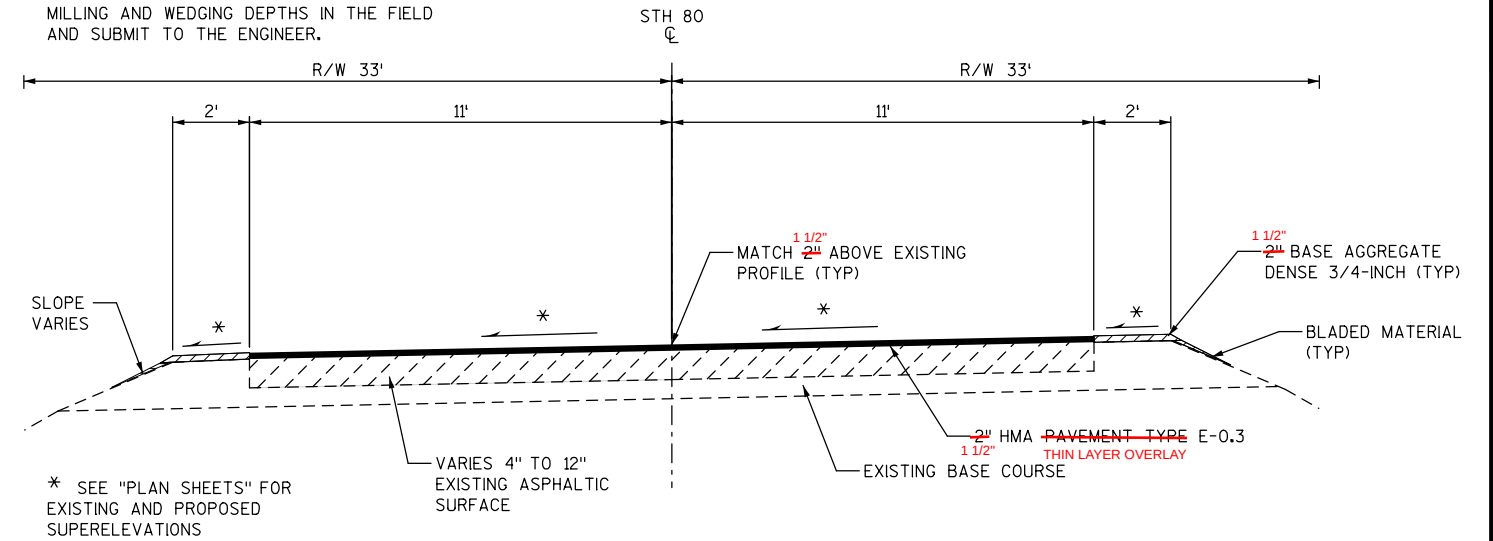
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NOTE: PLACE A SCRATCH COAT OF HMA PAVEMENT TYPE E-0.3, IN LOCATIONS DETERMINED BY THE ENGINEER, TO FILL IN EXCESSIVE RUTS, IRREGULARITIES AND/OR CORRECT CROSS SLOPE IN THE EXISTING PAVEMENT THAT IS NOT ADDRESSED BY SPOT MILLING.



STA 109+00.0	TO STA 113+00.0	STA 245+00.0	TO STA 263+00.0
STA 160+00.0	TO STA 161+50.0	STA 271+00.0	TO STA 272+22.0
STA 170+00.0	TO STA 178+50.0	STA 276+16.0	TO STA 293+00.0
STA 189+00.0	TO STA 190+50.0	STA 298+50.0	TO STA 325+00.0
STA 195+50.0	TO STA 199+75.0	STA 334+00.0	TO STA 359+00.0
STA 212+00.0	TO STA 220+00.0		
STA 226+50.0	TO STA 233+00.0		

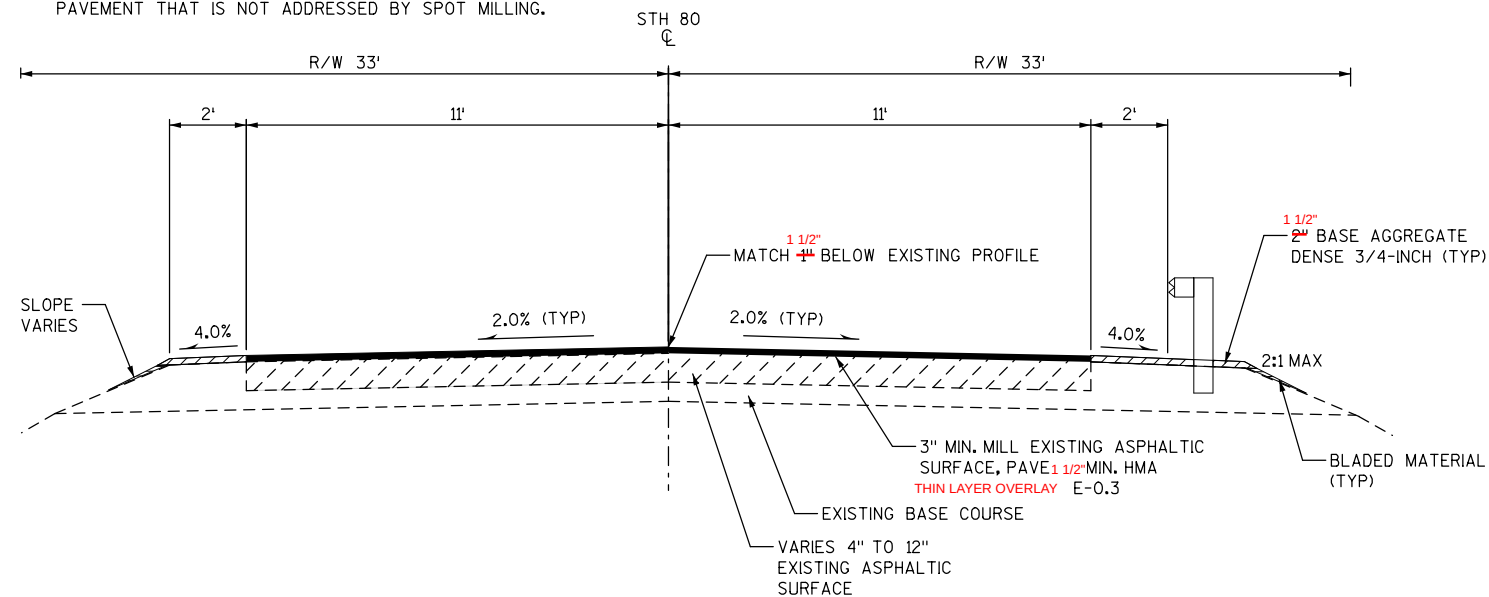
NOTES:
ACHIEVE SUPERELEVATION CORRECTION WITH
A COMBINATION OF MILLING AND WEDGING.
MILL A MAXIMUM OF 4 INCHES. (MILLING
MAY VARY ACROSS LANES) DETERMINE
MILLING AND WEDGING DEPTHS IN THE FIELD
AND SUBMIT TO THE ENGINEER.



PROPOSED SUPERELEVATION TYPICAL SECTION MAINLINE

STA 101+38.1 TO STA 109+00.0	STA 220+00.0 TO STA 226+50.0
STA 161+50.0 TO STA 170+00.0	STA 233+00.0 TO STA 245+00.0
STA 178+50.0 TO STA 189+00.0	STA 263+00.0 TO STA 271+00.0
STA 190+50.0 TO STA 195+50.0	STA 293+00.0 TO STA 298+50.0
STA 199+75.0 TO STA 212+00.0	STA 325+00.0 TO STA 334+00.0

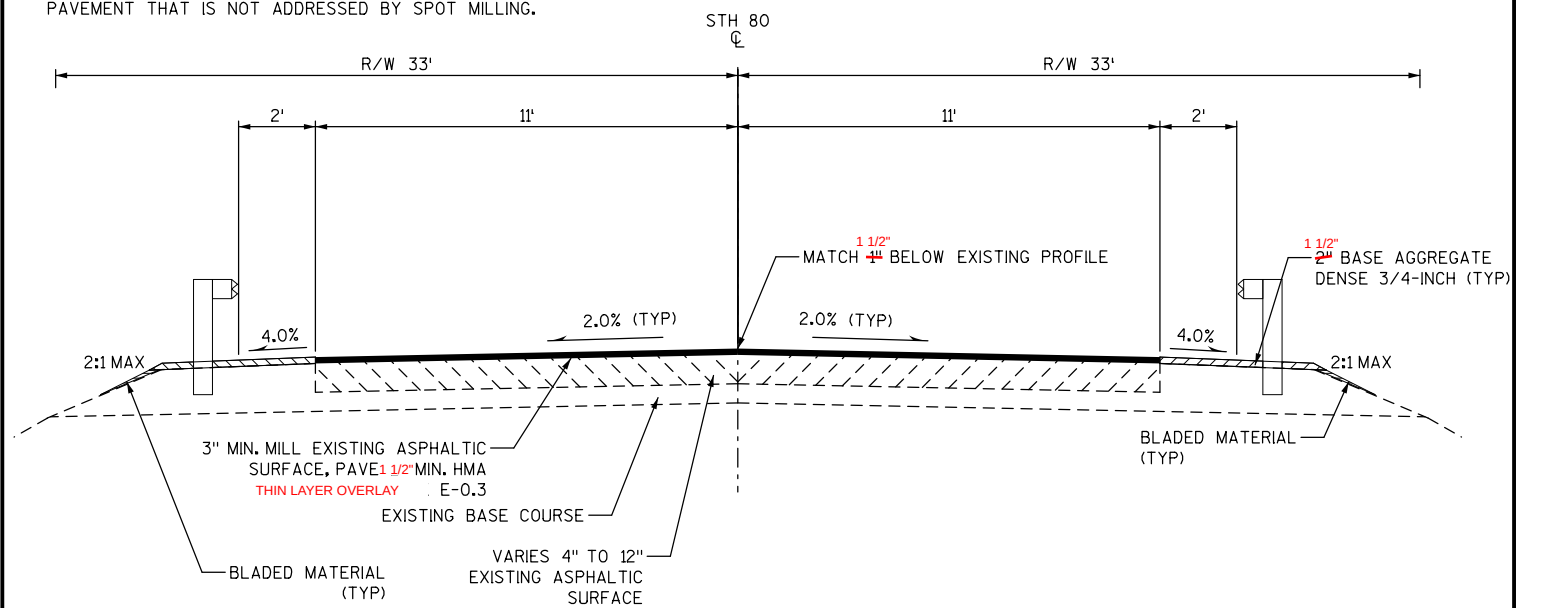
NOTE: PLACE A SCRATCH COAT OF HMA PAVEMENT TYPE E-0.3, IN LOCATIONS DETERMINED BY THE ENGINEER, TO FILL IN EXCESSIVE RUTS, IRREGULARITIES AND/OR CORRECT CROSS SLOPE IN THE EXISTING PAVEMENT THAT IS NOT ADDRESSED BY SPOT MILLING.



PROPOSED TYPICAL HALF SECTION WITH MGS GUARDRAIL

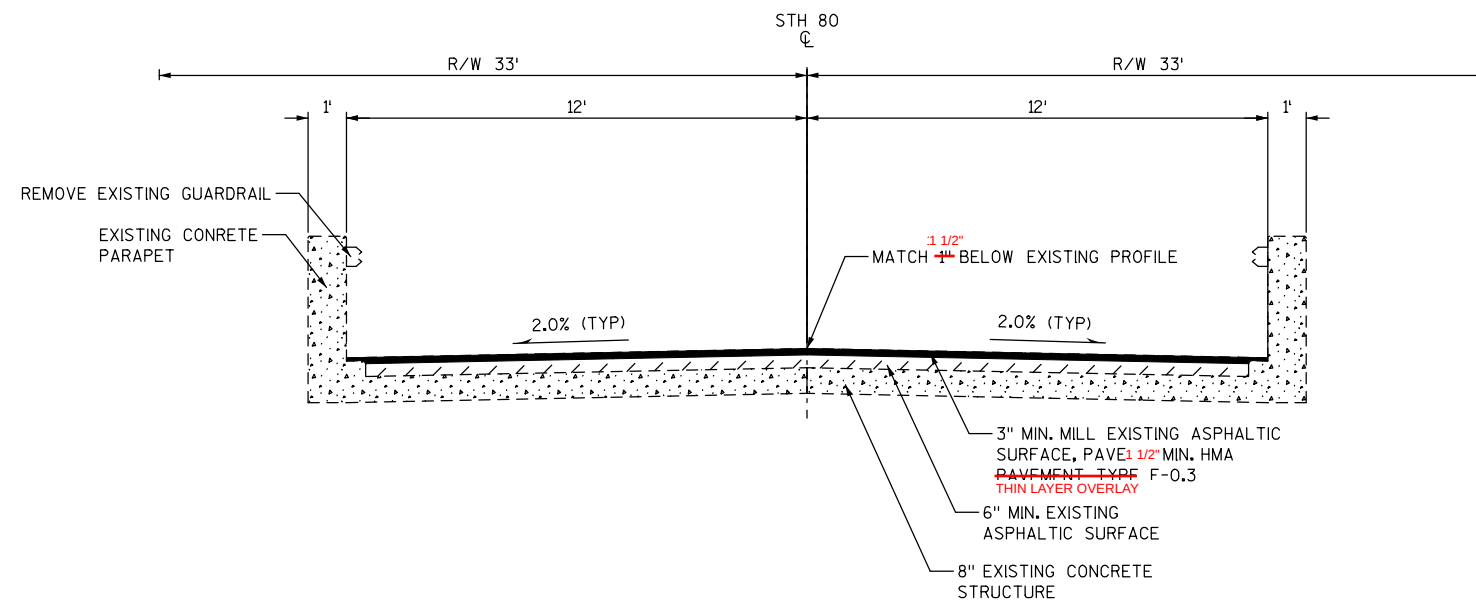
STA 272+22.0 TO STA 272+85.0

NOTE: PLACE A SCRATCH COAT OF HMA PAVEMENT TYPE E-0.3, IN LOCATIONS DETERMINED BY THE ENGINEER, TO FILL IN EXCESSIVE RUTS, IRREGULARITIES AND/OR CORRECT CROSS SLOPE IN THE EXISTING PAVEMENT THAT IS NOT ADDRESSED BY SPOT MILLING.



PROPOSED TYPICAL WITH MGS GUARDRAIL

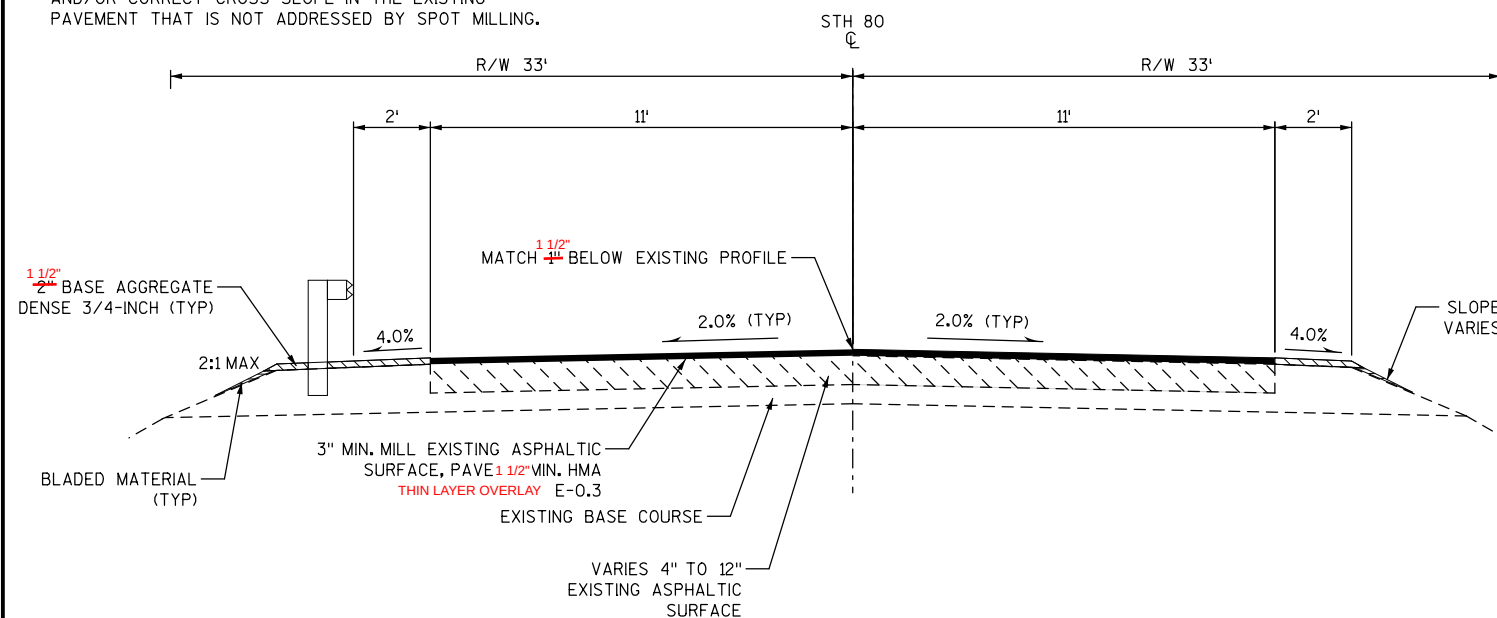
STA 272+85.0 TO STA 274+00.0
STA 274+25.0 TO STA 275+26.0



PROPOSED TYPICAL STRUCTURE B-25-176

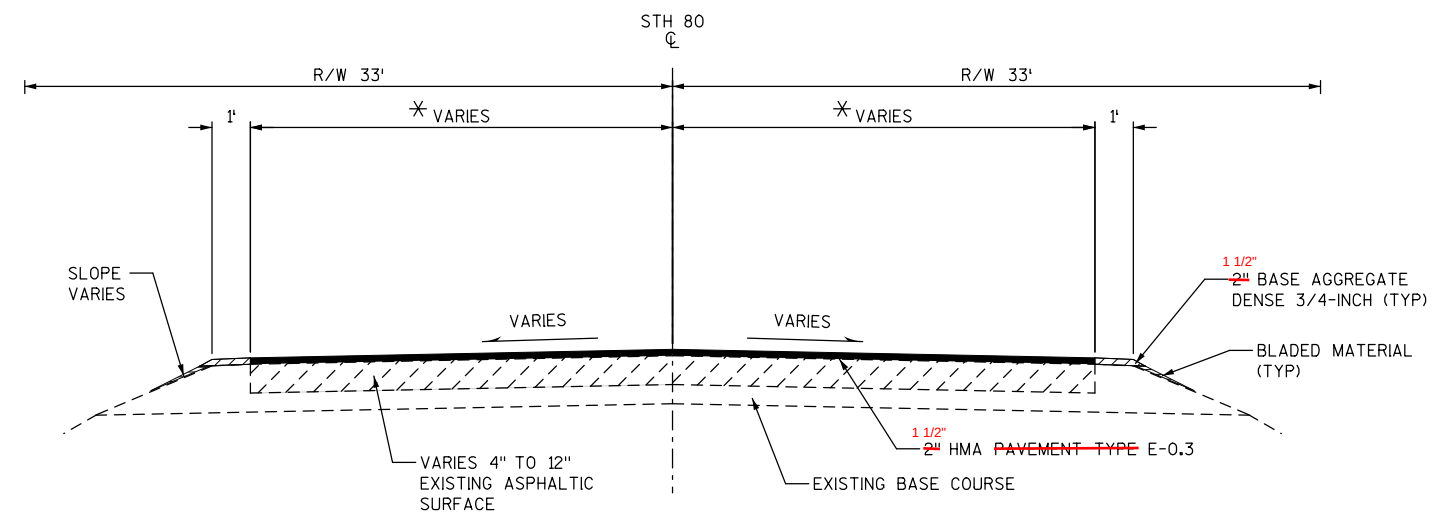
STA 274+00.0 TO STA 274+25.0

NOTE: PLACE A SCRATCH COAT OF HMA ~~PAVEMENT~~ ^{THIN LAYER OVERLAY} TYPE E-0.3, IN LOCATIONS DETERMINED BY THE ENGINEER, TO FILL IN EXCESSIVE RUTS, IRREGULARITIES AND/OR CORRECT CROSS SLOPE IN THE EXISTING PAVEMENT THAT IS NOT ADDRESSED BY SPOT MILLING.



PROPOSED TYPICAL HALF SECTION WITH MGS GUARDRAIL

STA 275+26.0 TO STA 276+16.0



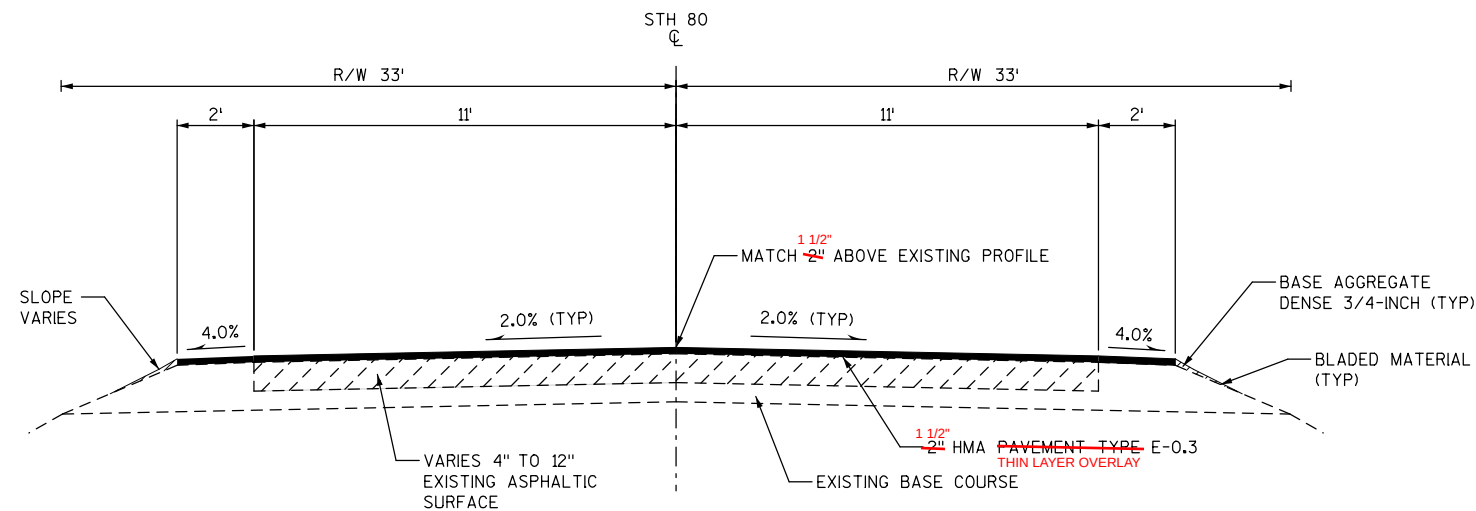
PROPOSED TYPICAL SECTION SIDEROADS

* DRIVING LANE WIDTHS AT MATCH PT

AIDE RD.	(11.0')
HICKORY GROVE RD.	(10.0') GRAVEL
BOOTH HOLLOW RD.	(11.0')
DRY DOG RD.	(11.0')
D ST. (EAST)	(13.0')
OLD HWY 80 (WEST)	(11.0')

NOTE: PLACE A SCRATCH COAT OF HMA ~~PAVEMENT~~ ^{THIN LAYER OVERLAY} TYPE E-0.3, IN LOCATIONS DETERMINED BY THE ENGINEER, TO FILL IN EXCESSIVE RUTS, IRREGULARITIES AND/OR CORRECT CROSS SLOPE IN THE EXISTING PAVEMENT THAT IS NOT ADDRESSED BY SPOT MILLING.

2

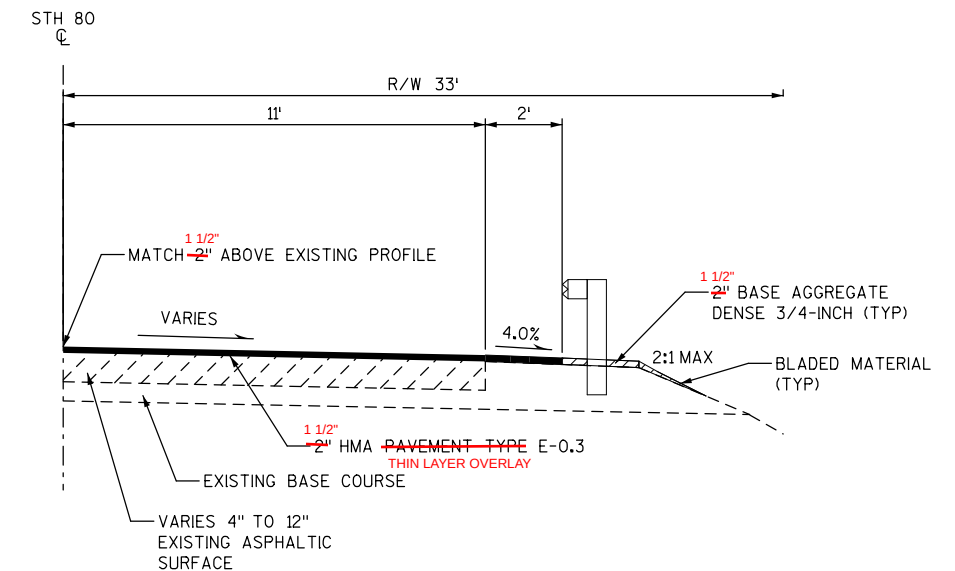


PROPOSED TYPICAL SECTION SHOULDER WIDENING MAINLINE

STA 113+00.0 TO STA 115+00.0
 STA 122+00.0 TO STA 123+00.0 RT
 STA 126+50.0 TO STA 127+00.0 RT
 STA 138+50.0 TO STA 139+50.0
 STA 144+75.00 TO STA 153+00.0
 STA 158+50.0 TO STA 160+00.0

NOTE: PLACE A SCRATCH COAT OF HMA PAVEMENT TYPE E-0.3, IN LOCATIONS DETERMINED BY THE ENGINEER, TO FILL IN EXCESSIVE RUTS, IRREGULARITIES AND/OR CORRECT CROSS SLOPE IN THE EXISTING PAVEMENT THAT IS NOT ADDRESSED BY SPOT MILLING.

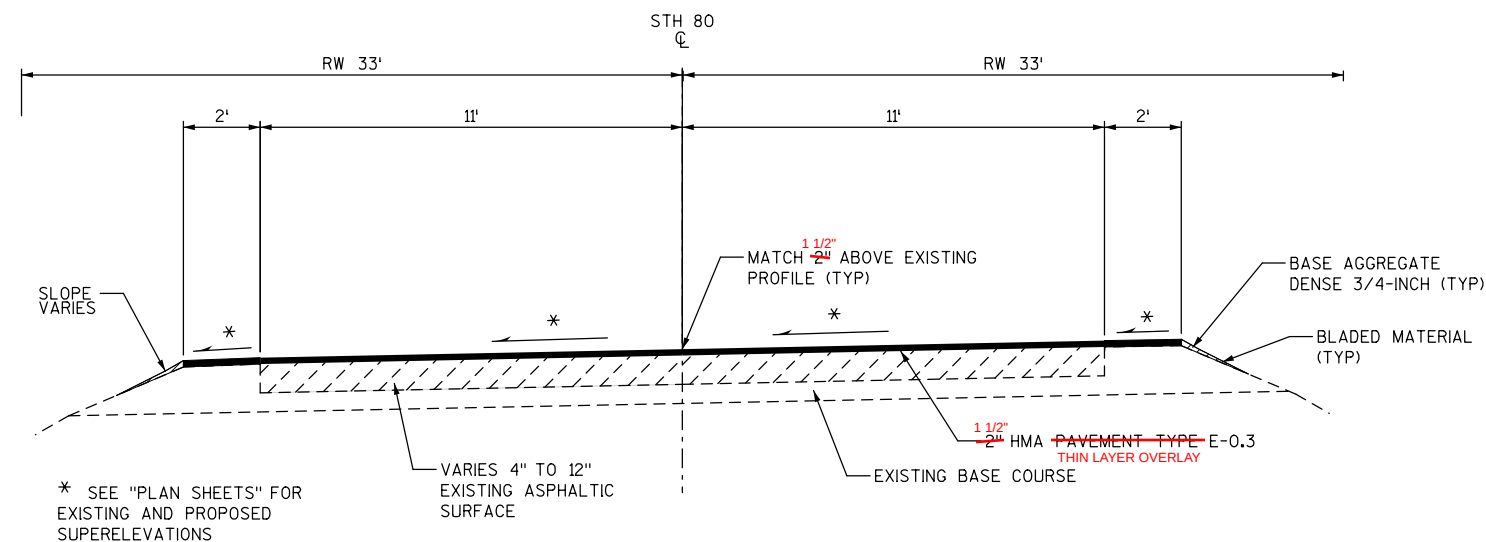
2



PROPOSED TYPICAL HALF SECTION SHOULDER WIDENING WITH MGS GUARDRAIL

STA 118+10.0 TO STA 137+90.0 LT
 STA 128+10.0 TO STA 136+39.0 RT

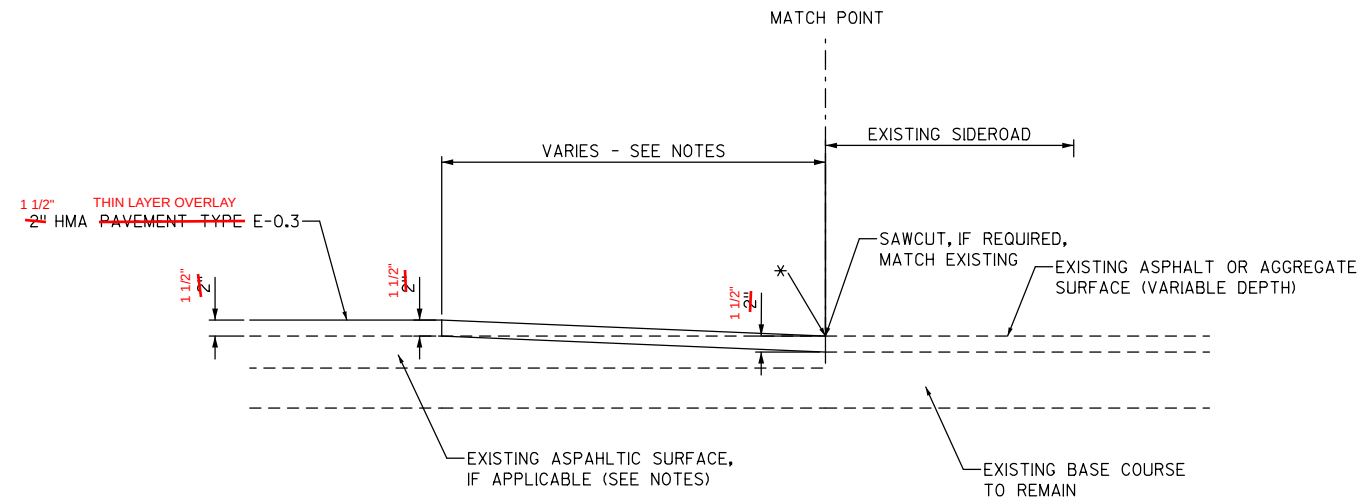
NOTE: PLACE A SCRATCH COAT OF HMA PAVEMENT TYPE E-0.3, IN LOCATIONS DETERMINED BY THE ENGINEER, TO FILL IN EXCESSIVE RUTS, IRREGULARITIES AND/OR CORRECT CROSS SLOPE IN THE EXISTING PAVEMENT THAT IS NOT ADDRESSED BY SPOT MILLING.



PROPOSED SUPERELEVATION TYPICAL SECTION SHOULDER WIDENING MAINLINE

STA 115+00.0 TO STA 118+10.0
 STA 118+10.0 TO STA 122+00.0 RT
 STA 123+00.0 TO STA 126.50.0 RT
 STA 127+00.0 TO STA 128+10.0 RT
 STA 136+39.0 TO STA 137+90.0 RT
 STA 137+90.0 TO STA 138+50.0
 STA 139+50.0 TO STA 144+75.0
 STA 153+00.0 TO STA 158+50.0

NOTES:
 ACHIEVE SUPERELEVATION CORRECTION WITH A COMBINATION OF MILLING AND WEDGING. MILL A MAXIMUM OF 4 INCHES. (MILLING MAY VARY ACROSS LANES) DETERMINE MILLING AND WEDGING DEPTHS IN THE FIELD AND SUBMIT TO THE ENGINEER.



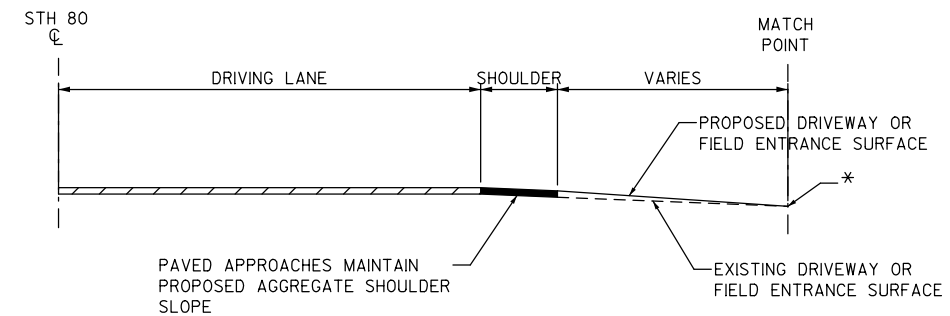
* FOR AGGREGATE SURFACES: GRADE INTERSECTION TO ~~2~~^{1 1/2} INCH BELOW THE MATCHING SURFACE AND TAPER BACK FOR 30 FEET.

* FOR ASPHALTIC SURFACES: MILL THE EXISTING PAVEMENT PER ITEM ~~"REMOVING ASPHALTIC SURFACE BUTT JOINTS"~~ TO ~~2~~^{1 1/2} INCH BELOW THE MATCHING SURFACE AND TAPER BACK PER SIDEROAD LISTED BELOW:

AIDE RD.	40'
BOOTH HALLOW RD.	50'
DRY DOG RD.	30'
D STREET (EAST)	40'
OLD HWY 80 (WEST)	50'

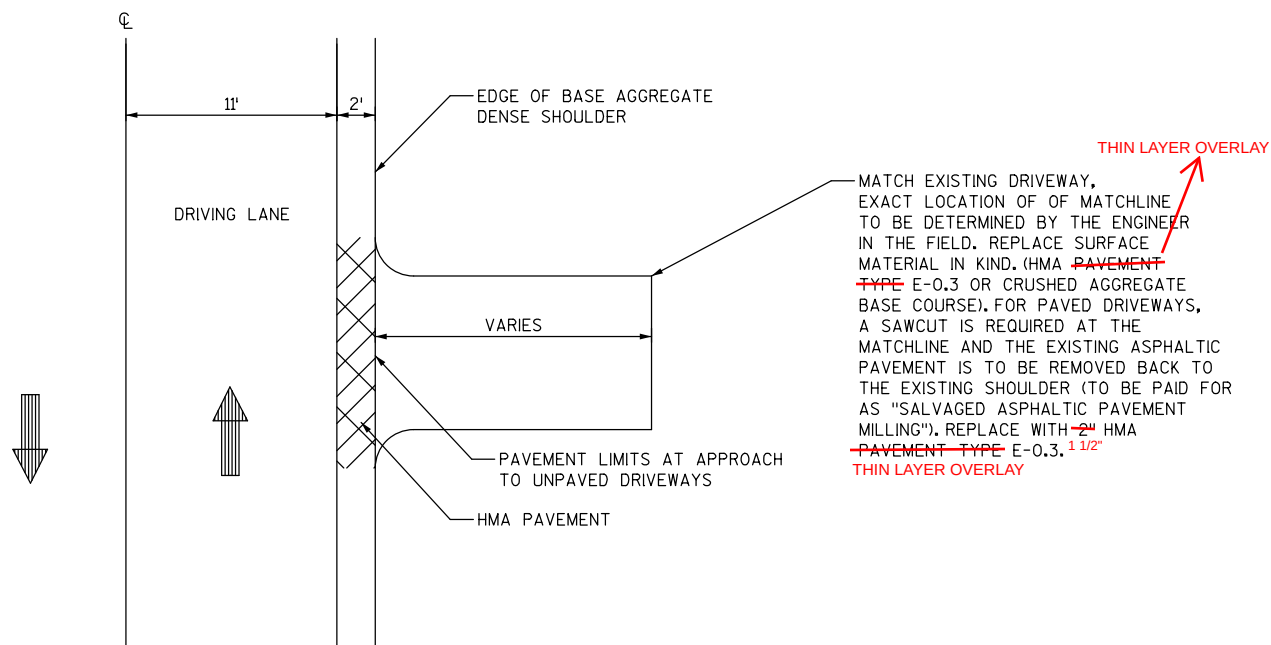
SIDE ROAD BUTT JOINT DETAIL AT MATCH POINT

EXISTING AGGREGATE SURFACE:	HICKORY GROVE ROAD
EXISTING ASPHALTIC SURFACE:	AIDE ROAD BOOTH HALLOW ROAD DRY DOG ROAD D STREET (EAST) OLD HWY 80 (WEST)

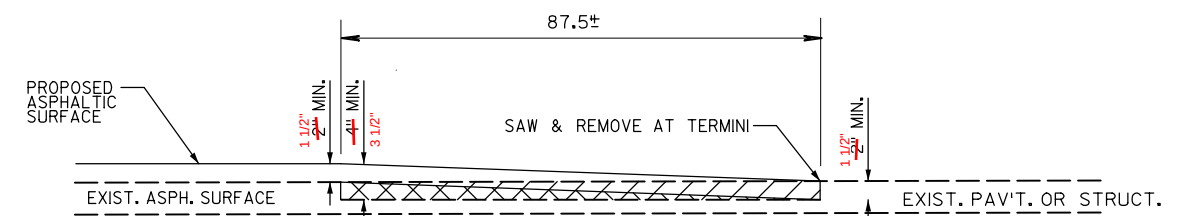


* MATCH EXISTING DRIVEWAY OR FIELD ENTRANCE, EXACT LOCATION OF MATCHLINE TO BE DETERMINED BY THE ENGINEER IN THE FIELD. REPLACE SURFACE MATERIAL IN KIND, (HMA ~~PAVEMENT TYPE~~ E-0.3 OR BASE AGGREGATE DENSE 3/4-INCH). FOR PAVED DRIVEWAYS, A SAWCUT IS REQUIRED AT THE MATCHLINE AND THE EXISTING ASPHALTIC PAVEMENT IS TO BE REMOVED BACK TO THE ROADWAY PAVEMENT EDGE (TO BE PAID FOR AS "SALVAGED ASPHALTIC PAVEMENT MILLING"). REPLACE WITH ~~2~~^{1 1/2} INCH THIN LAYER OVERLAY

TYPICAL DRIVEWAY PROFILE DETAIL FOR RURAL PRIVATE DRIVEWAY AND FIELD ENTRANCE

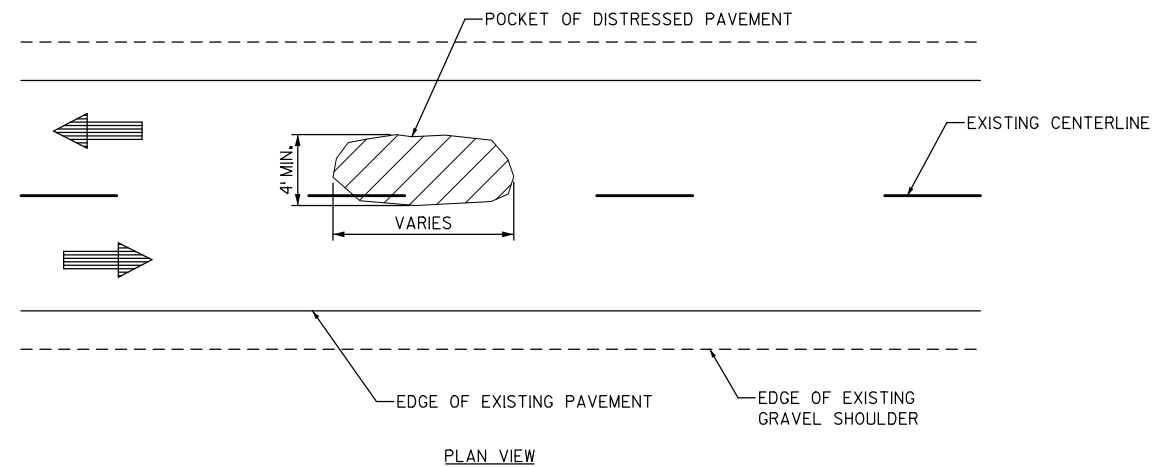


DRIVEWAY INTERSECTION DETAIL

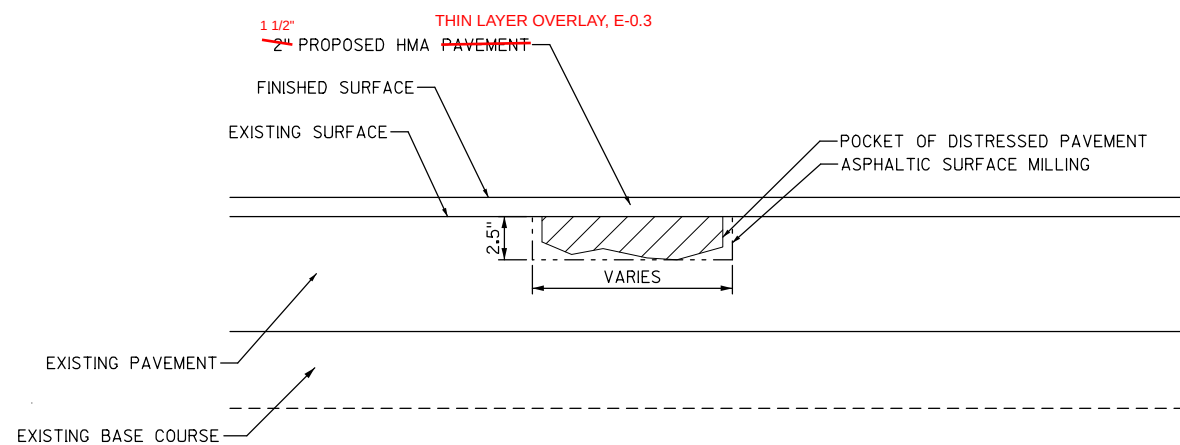


- ASPHALTIC SURFACE WEDGING ~~2~~^{1 1/2} UPPER LAYER, 0"-2" LOWER LAYER)
- ~~2~~^{1 1/2} EXISTING ASPHALTIC SURFACE MILLING TO BE PAID FOR AS ~~"REMOVING ASPHALTIC SURFACE BUTT JOINTS"~~ SALVAGED ASPHALTIC PAVEMENT MILLING

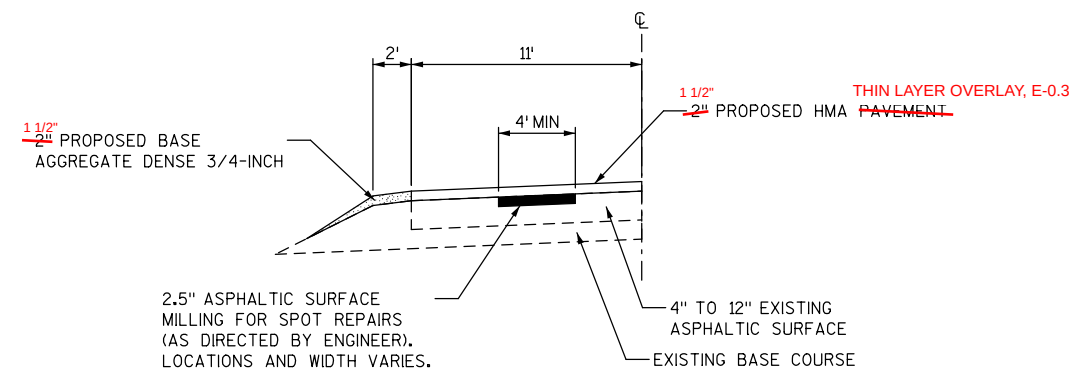
BUTT JOINT DETAIL (MAINLINE)



PLAN VIEW



PROFILE VIEW



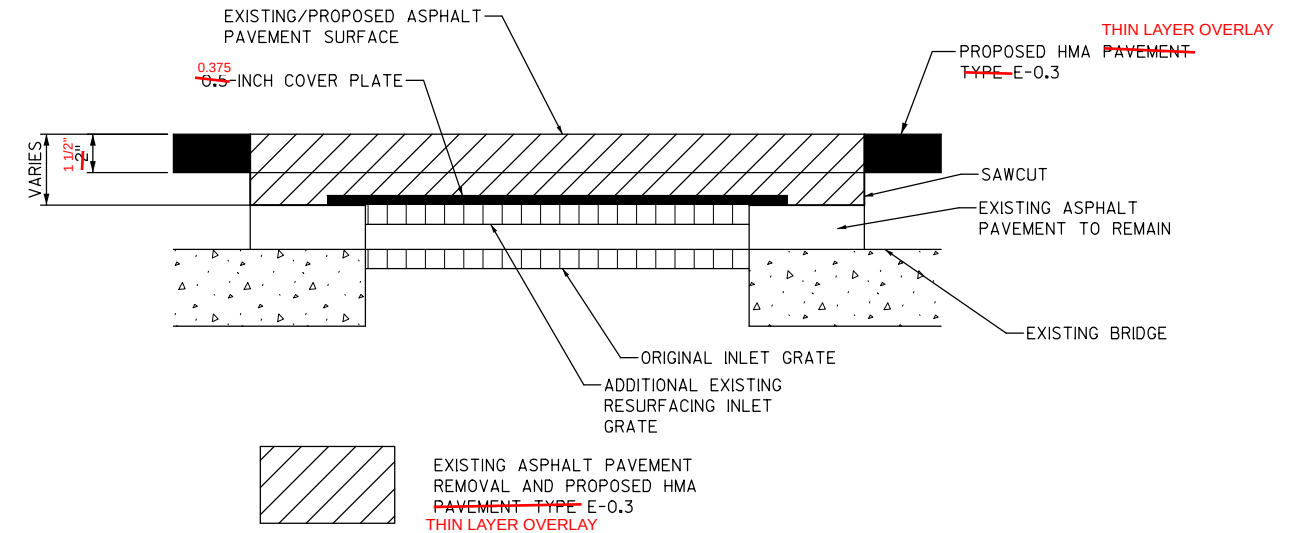
TYPICAL SECTION VIEW

SPOT REPAIRS OF DISTRESSED PAVEMENT

NOTES:

COMPLETE SPOT REPAIRS OF DISTRESSED PAVEMENT AREAS BY MILLING 2.5" DEEP BY A MINIMUM WIDTH OF 4 FEET. INLAY WITH 2.5" OF HMA PAVEMENT TYPE E-0.3 PRIOR TO BEING OVERLAID.

ENGINEER IN THE FIELD WILL LOCATE THE AREAS OF DISTRESSED PAVEMENT THAT REQUIRE SPOT REPAIRS



PROFILE VIEW

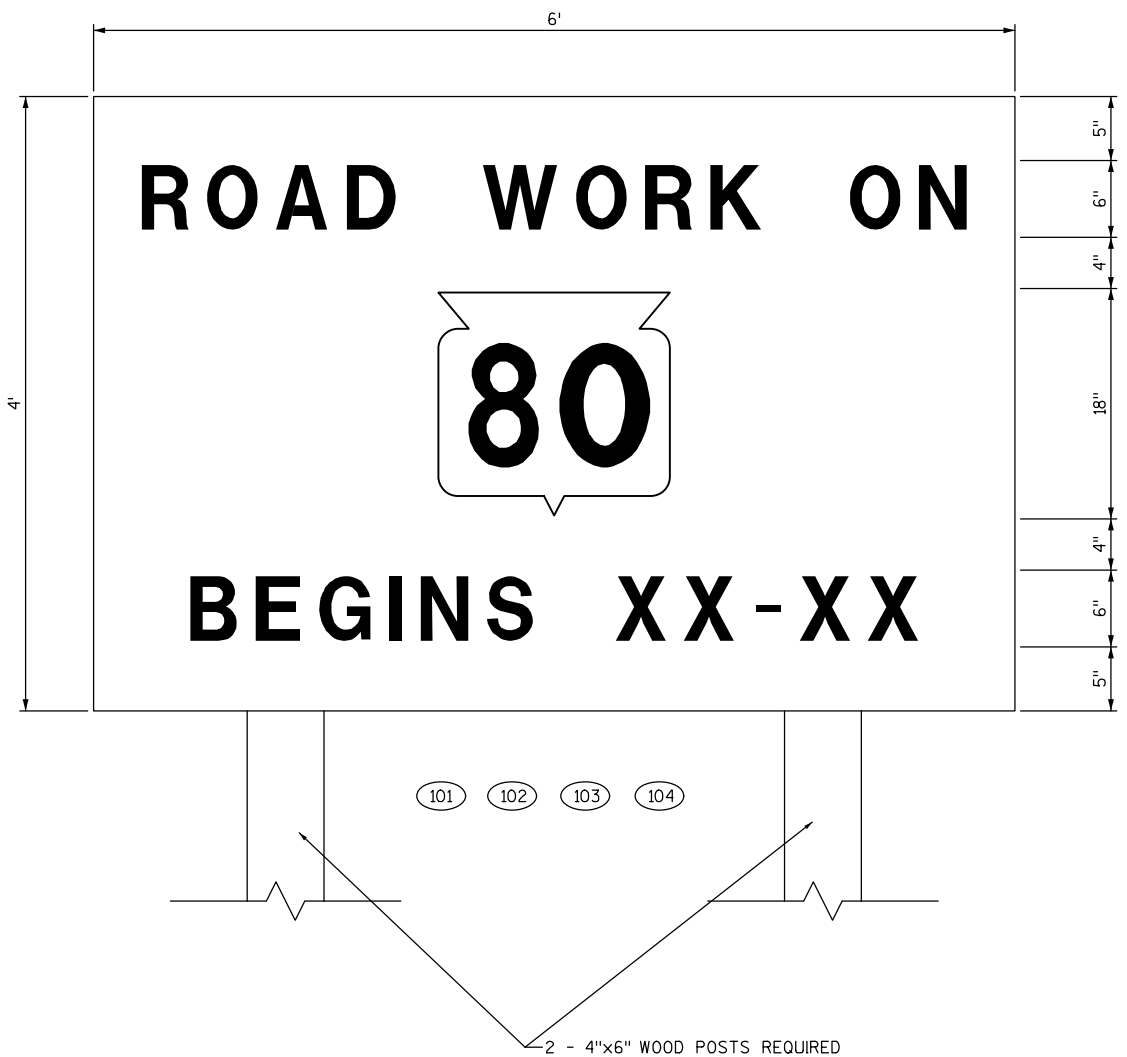
NOTES:

1. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT OR MILL EXISTING ASPHALT PAVEMENT TO PLACE COVER PLATE OVER EXISTING RESURFACING INLET GRATE. DO NOT SAW THE BRIDGE DECK.
2. INSTALL COVER PLATE TO REST FLAT UPON THE EXISTING RESURFACING INLET GRATE. COVER PLATE SHOULD EXTEND TO A MINIMUM OF 2-INCHES OUTSIDE EDGE OF THE EXISTING RESURFACING INLET GRATE.
3. PLACE ADHESIVE BETWEEN THE COVER PLATE AND EXISTING RESURFACING INLET GRATE/EXISTING PAVEMENT.
4. PLACE ASPHALT PAVEMENT OVER COVER PLATE TO MATCH PROPOSED ASPHALT PAVEMENT SURFACE.
5. MAXIMUM LAYER THICKNESS OF PAVEMENT NOT TO EXCEED ~~3~~ 2-INCH LIFTS.

COVER PLATE LEFT IN PLACE

GENERAL NOTES

- ALL SIGNS TO HAVE FLUORESCENT REFLECTIVE SHEETING - REFERENCE: WISDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION, LATEST EDITION.
- AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE PROJECT ENGINEER WILL VERIFY EACH SIGN LOCATION.
- SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "FIXED MESSAGE SIGNS".
- SIGNS ARE BLACK NON-REFLECTIVE MESSAGE ON ORANGE FLUORESCENT REFLECTIVE BACKGROUND PER PEC. 637 & 643.
- ALL SIGNS HAVE CAPITAL LETTERS AND NUMERALS: 6" CAPS ARE SERIES "C".
- THE CONTRACTOR WILL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO MANUFACTURING. CONTRACTOR WILL VERIFY DIMENSIONS.
- SIGN BASE MATERIAL IS ACCORDING TO SECTION 637 & 643.
- PLACE FIXED MESSAGE SIGNS 2 WEEKS BEFORE STARTING CONSTRUCTION.



FIXED MESSAGE SIGN

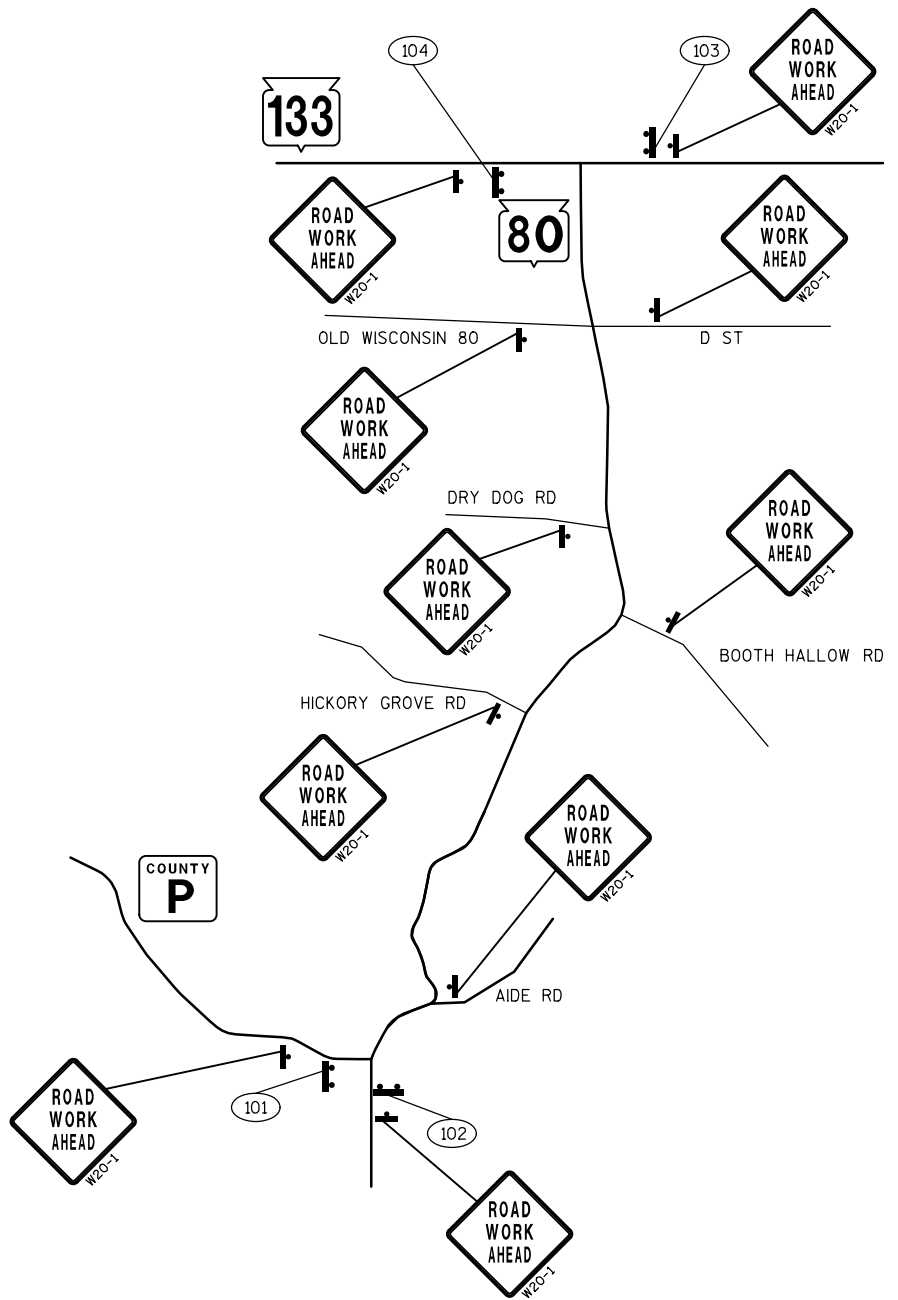
XXX SIGN NUMBER

TRAFFIC CONTROL

COMPLETE ALL CONSTRUCTIONS ACTIVITIES WHILE OPEN TO THRU TRAFFIC.

UTILIZE SDD TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS) TO COMPLETE WORK.

AT SIDE ROAD INTERSECTIONS SEE BELOW FOR ADVANCED W20-1 SIGNS AND ALSO REFERENCE SDD TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC. PLACE ALL ADVANCED WARNING SIGNS IN THE LOCATIONS SPECIFIED BY THE ENGINEER IN THE FIELD.

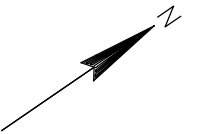


FIXED MESSAGE AND ADVANCED WARNING SIGN LOCATIONS

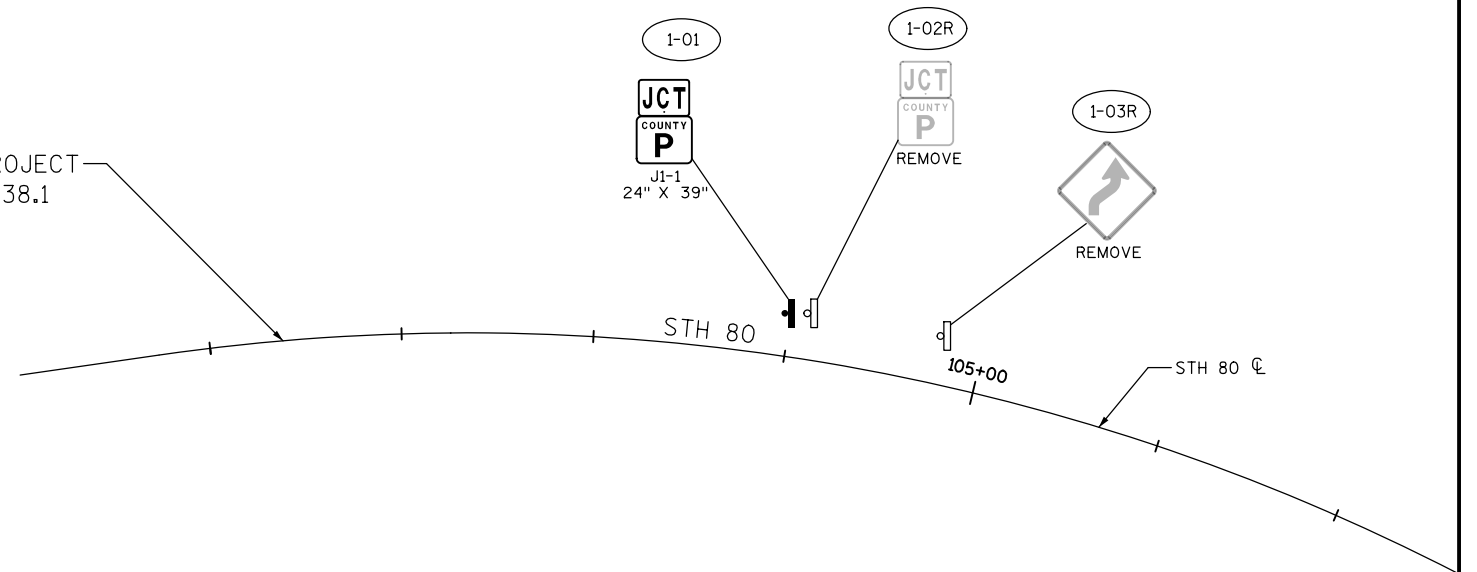
LEGEND

-  EXISTING SIGN MOUNTED ON POST(S)
-  EXISTING SIGN
-  PROPOSED SIGN MOUNTED ON POST(S)
-  PROPOSED SIGN
-  SIGN NUMBER

NOTE: UTILIZE STATION PROVIDED ON MISCELLANEOUS QUANTITY SHEETS FOR SIGN PLACEMENT.



BEGIN PROJECT
STA. 101+38.1



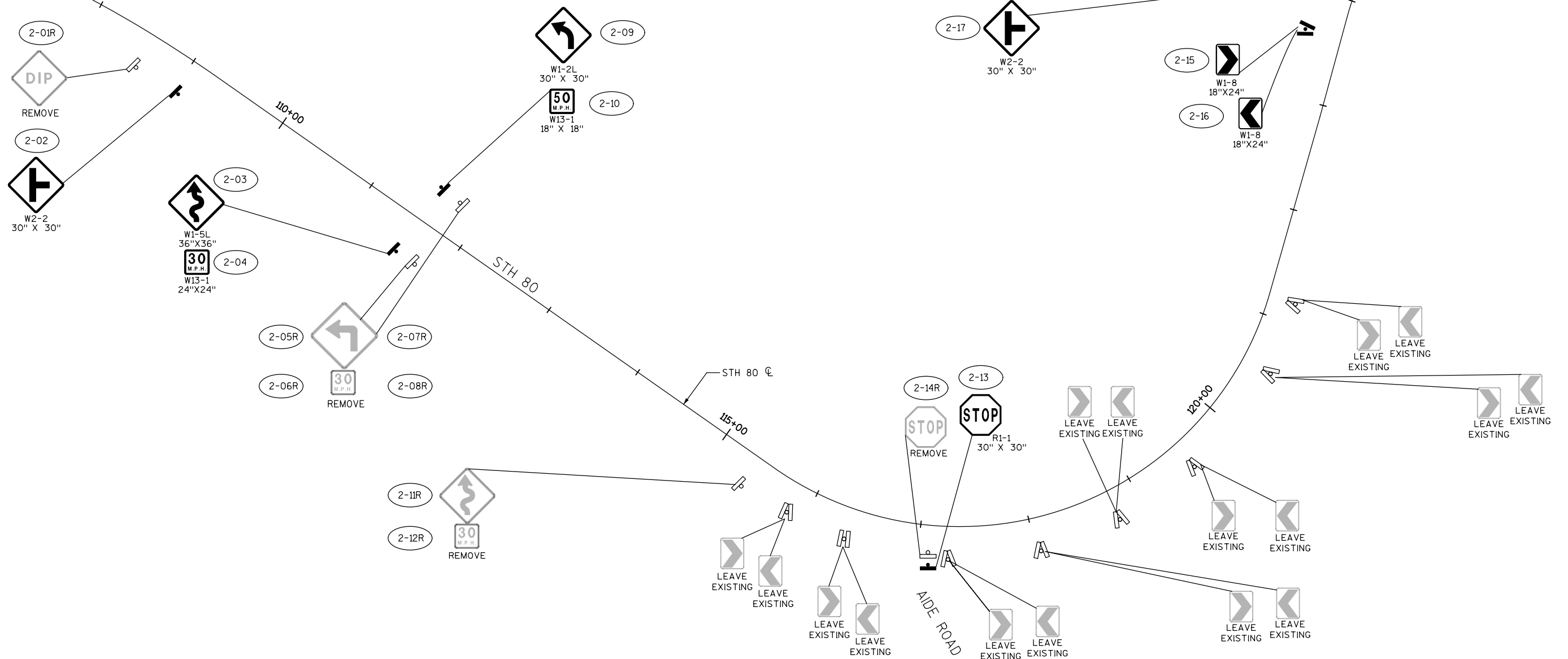
LEGEND

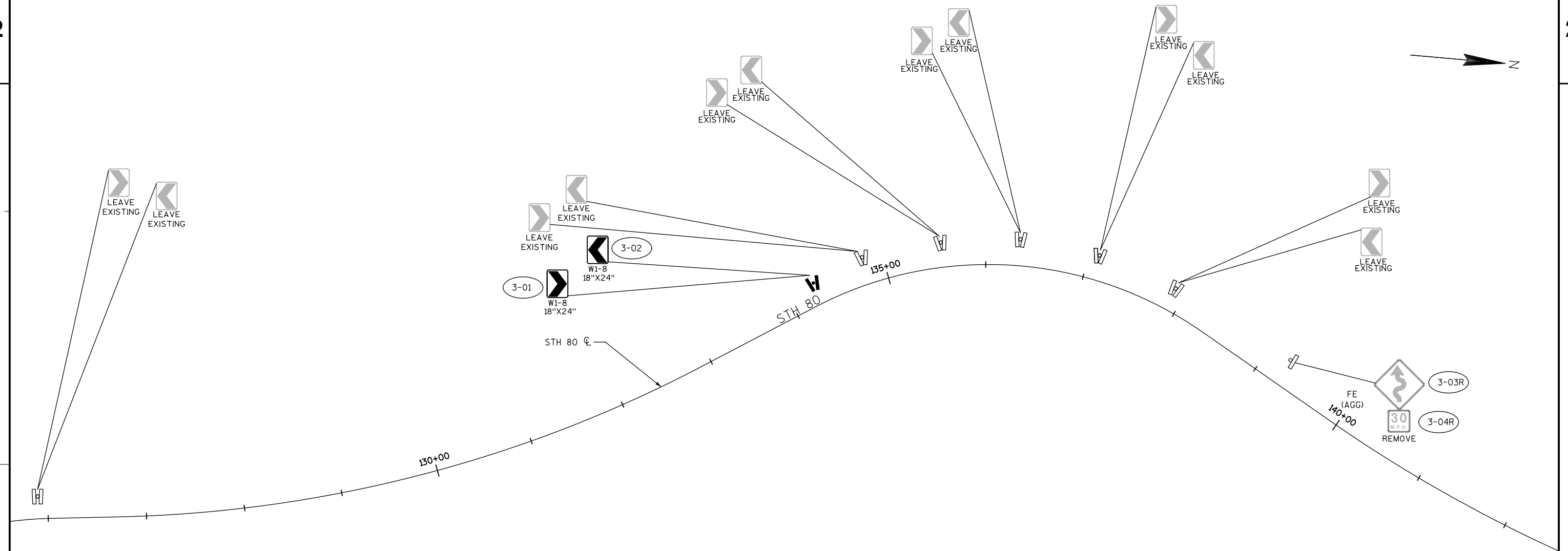
 EXISTING SIGN MOUNTED ON POST(S)

 PROPOSED SIGN MOUNTED ON POST(S)

XX-XX SIGN NUMBER

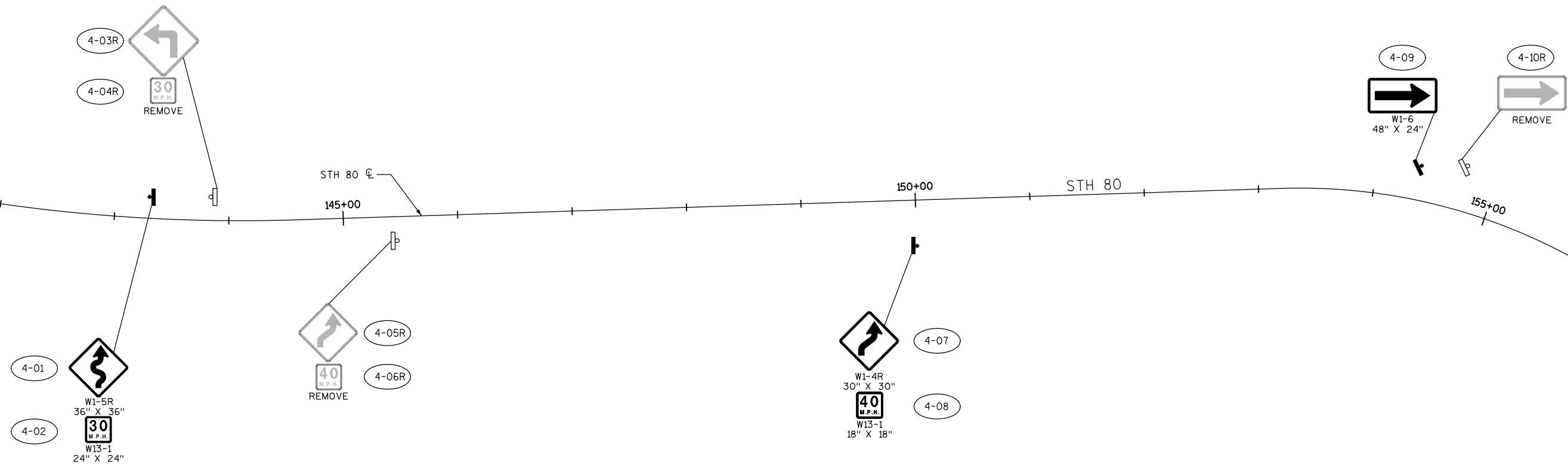
NOTE: UTILIZE STATION PROVIDED ON MISCELLANEOUS QUANTITY SHEETS FOR SIGN PLACEMENT.

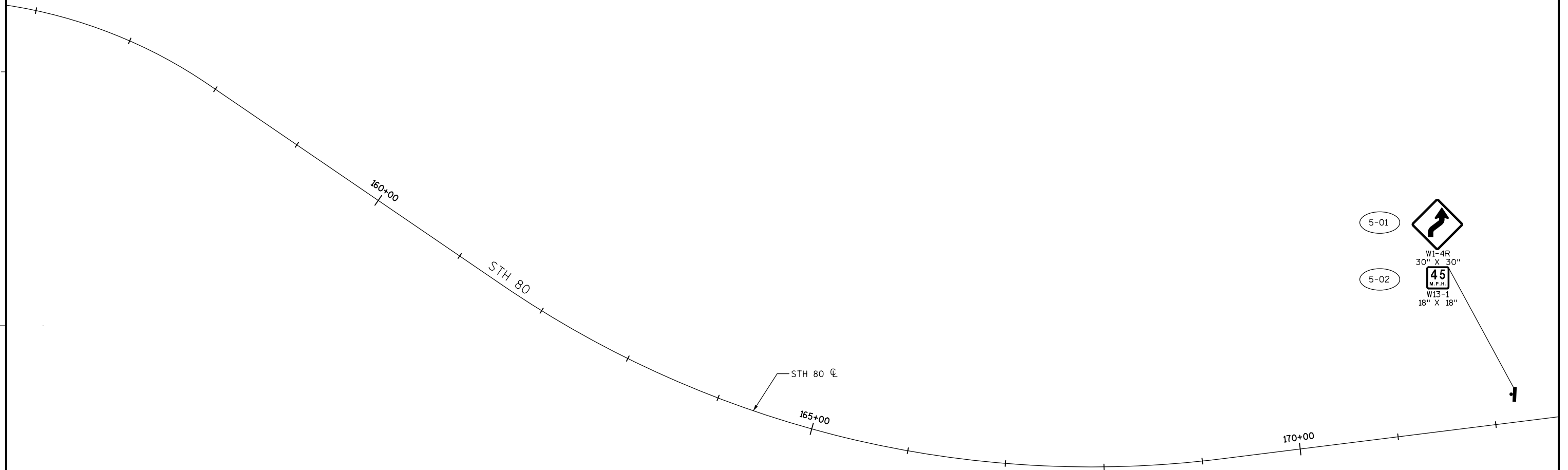


LEGEND

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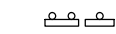
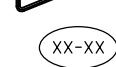


LEGEND

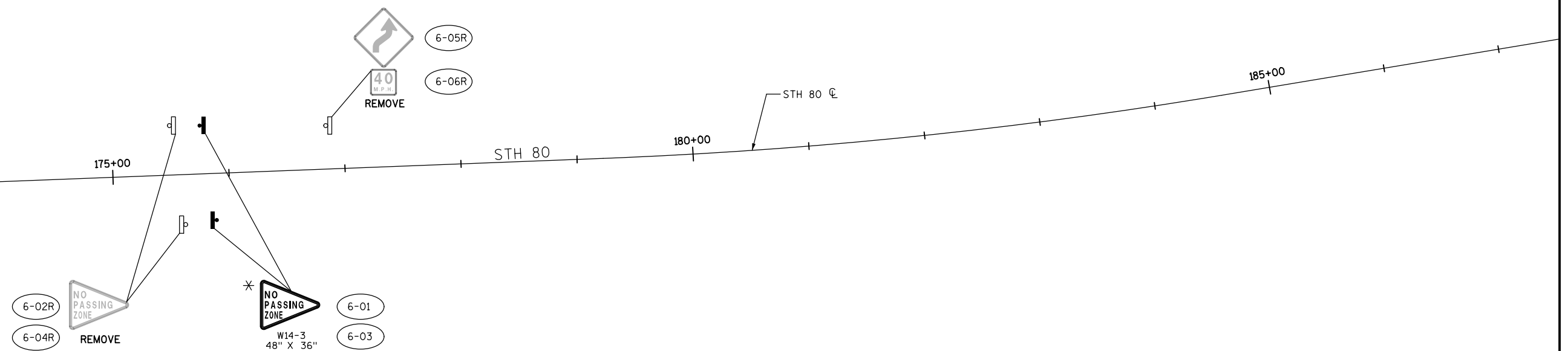
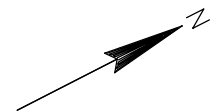
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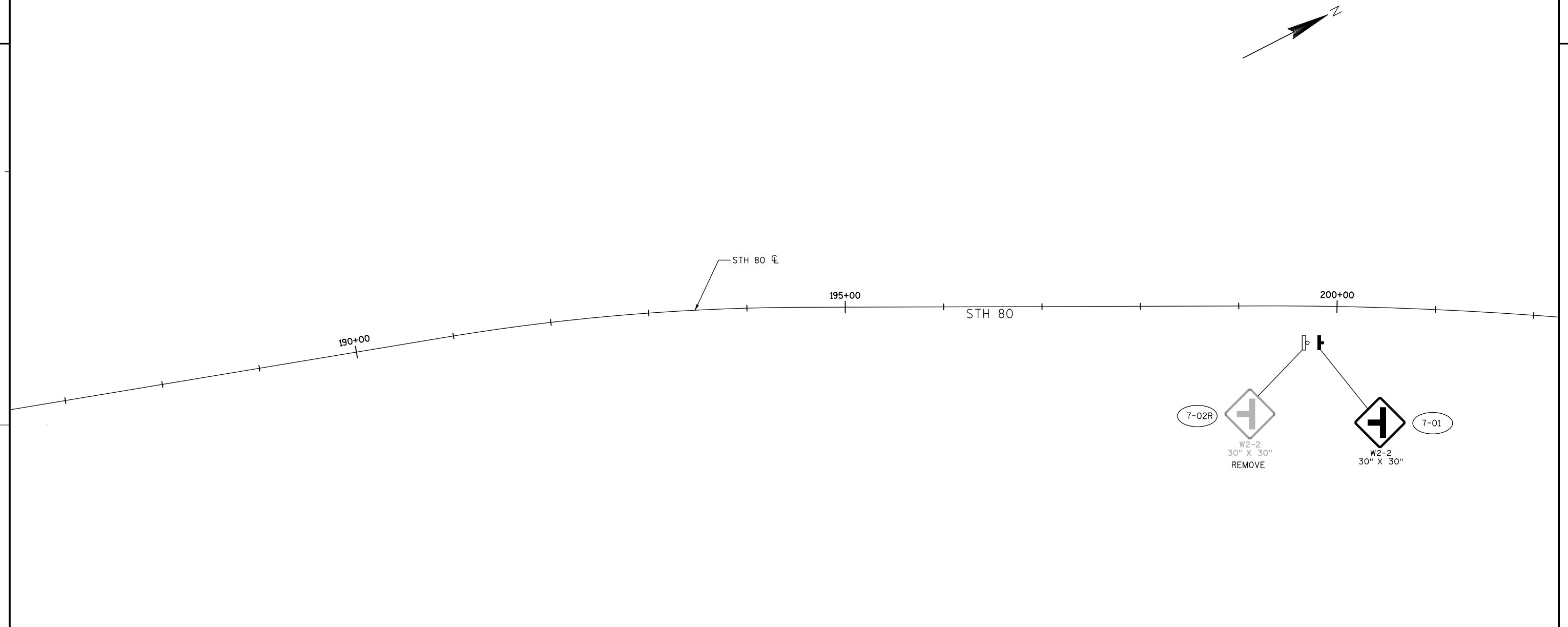
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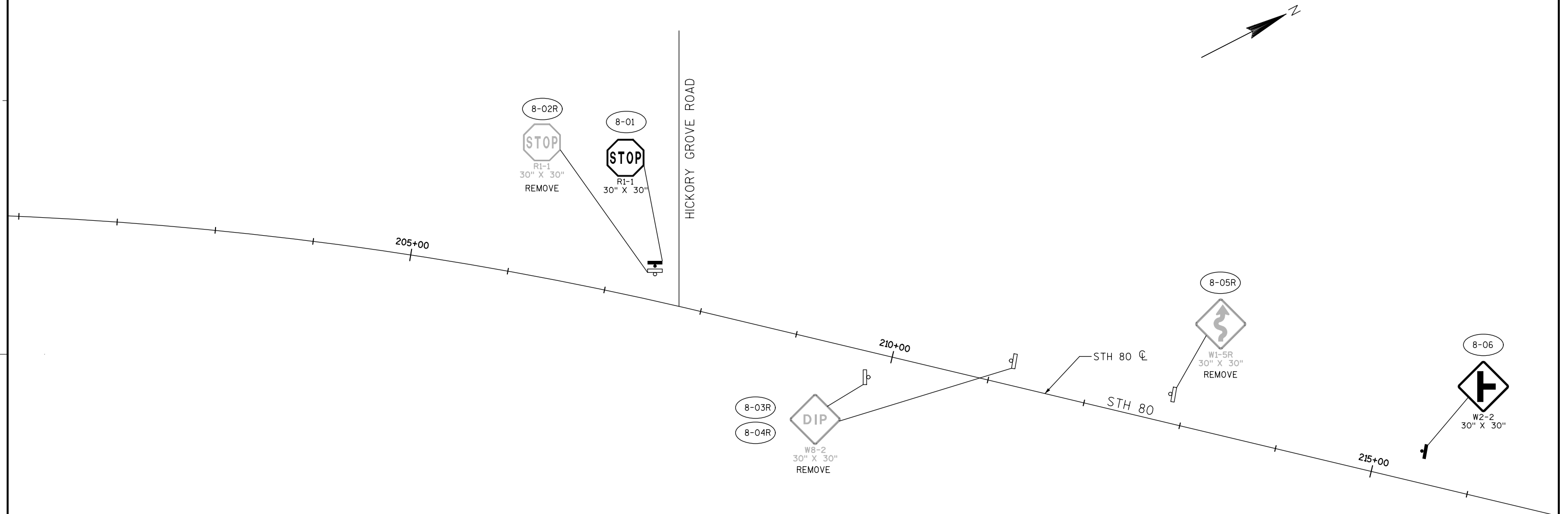
* FINAL LOCATIONS OF W14-3 NO PASSING ZONE SIGNS TO BE DETERMINED
AFTER LOCATING NO PASSING ZONES IS COMPLETED.



LEGEND

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SHEETS FOR SIGN PLACEMENT.

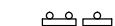
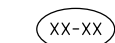


LEGEND

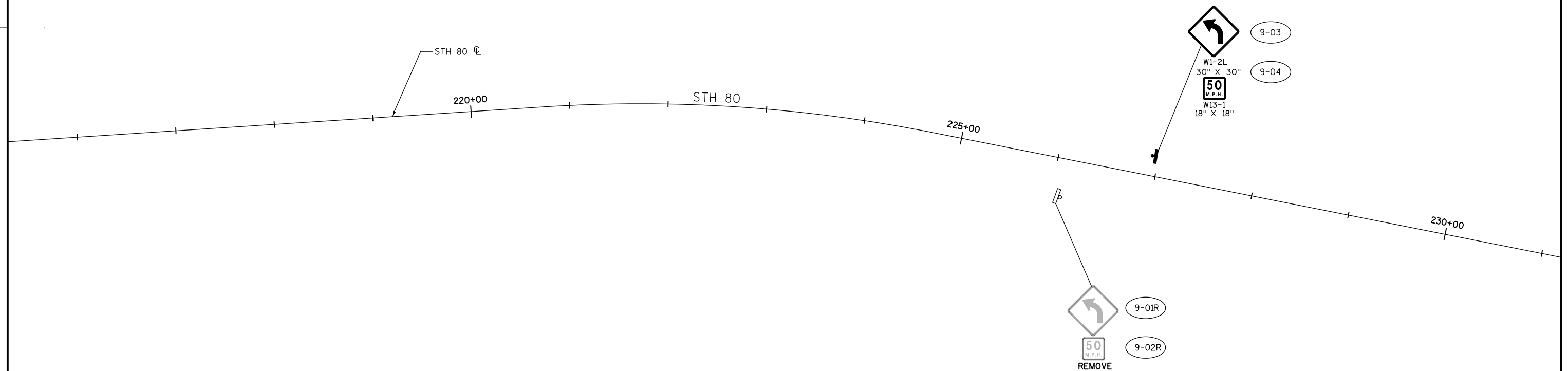
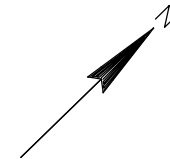
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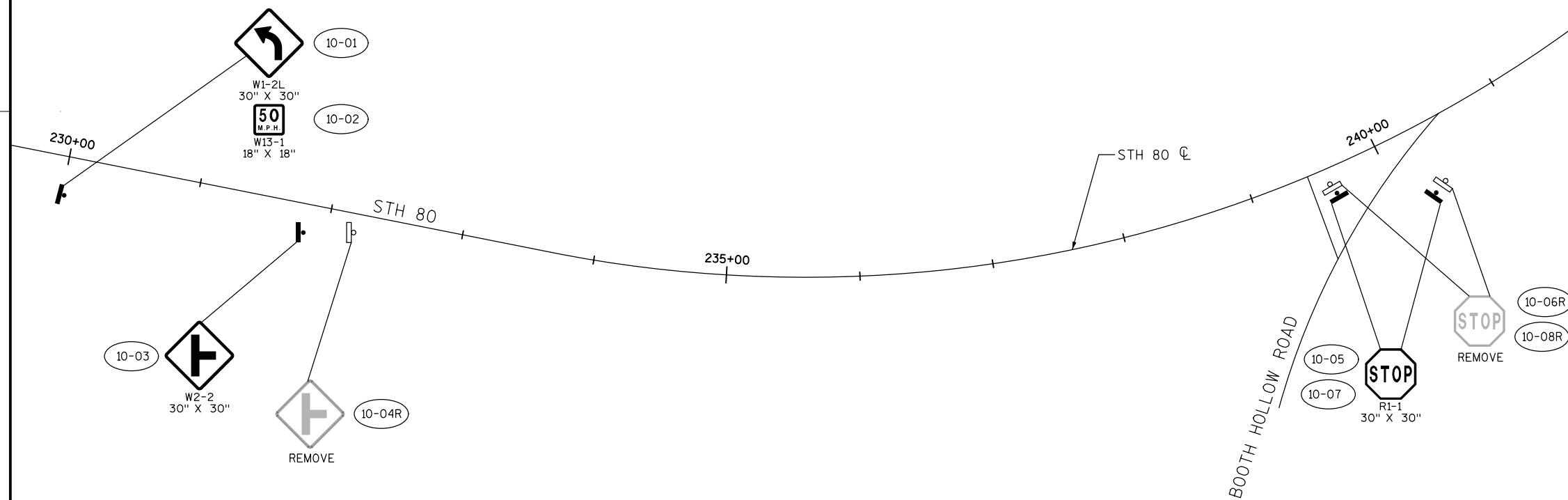
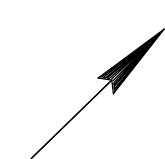
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SHEETS FOR SIGN PLACEMENT.



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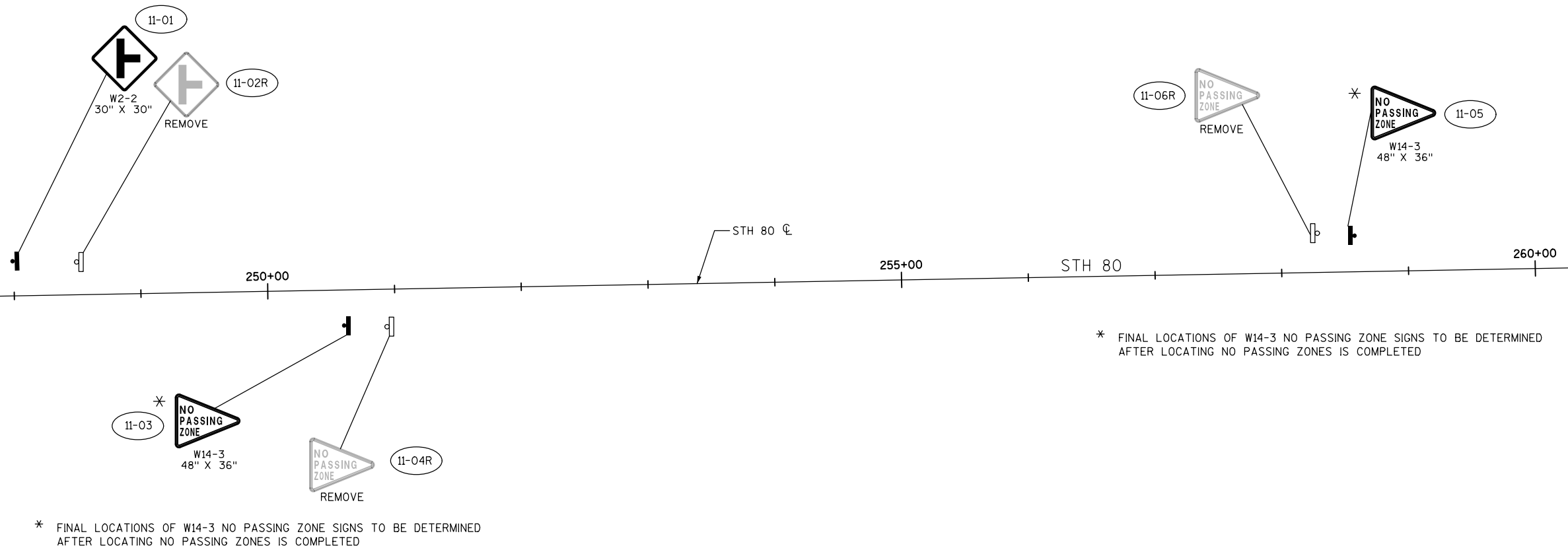
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SHEETS FOR SIGN PLACEMENT.



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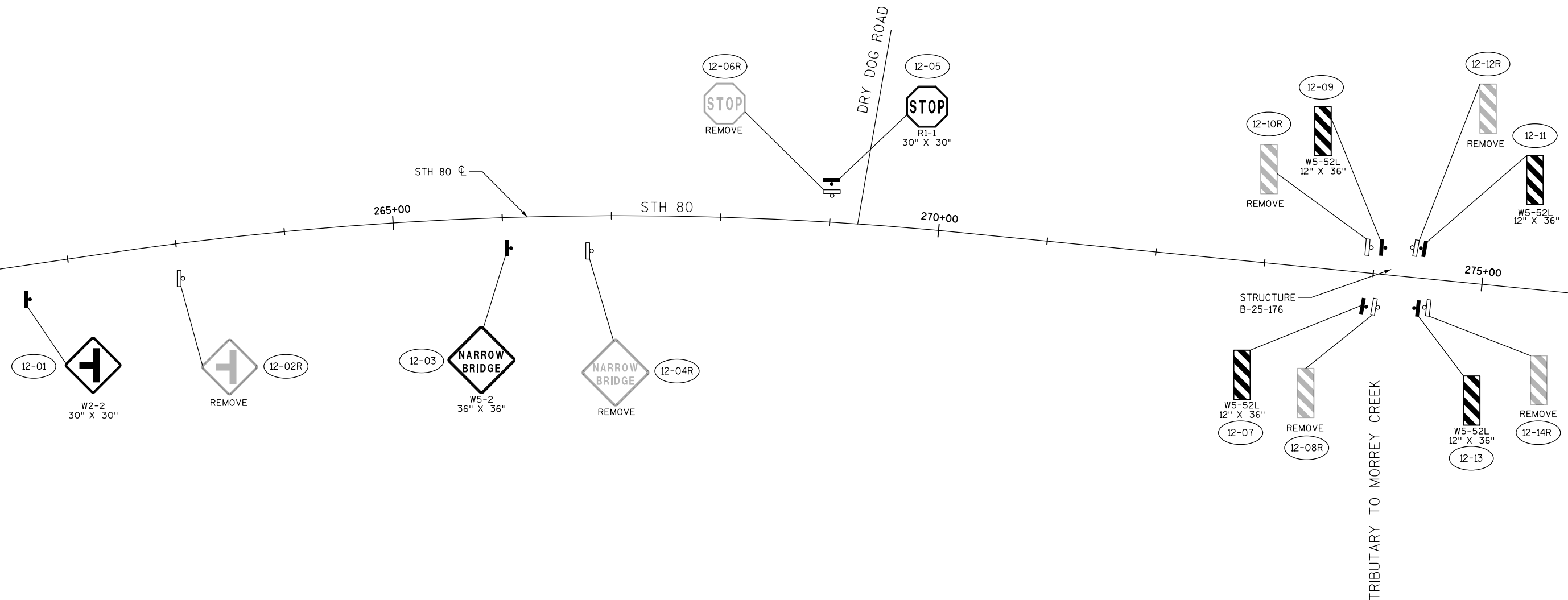
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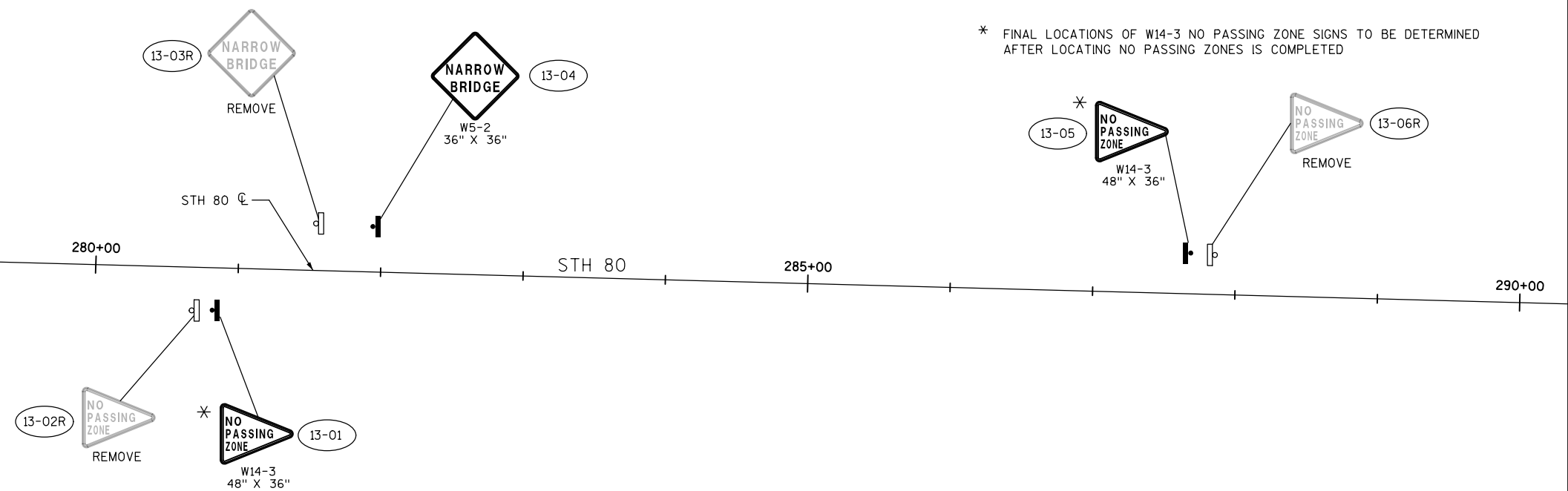
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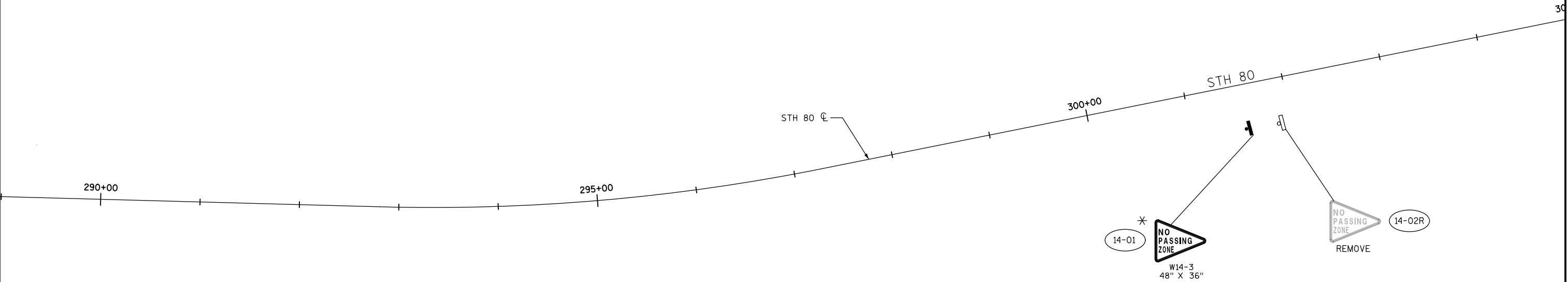


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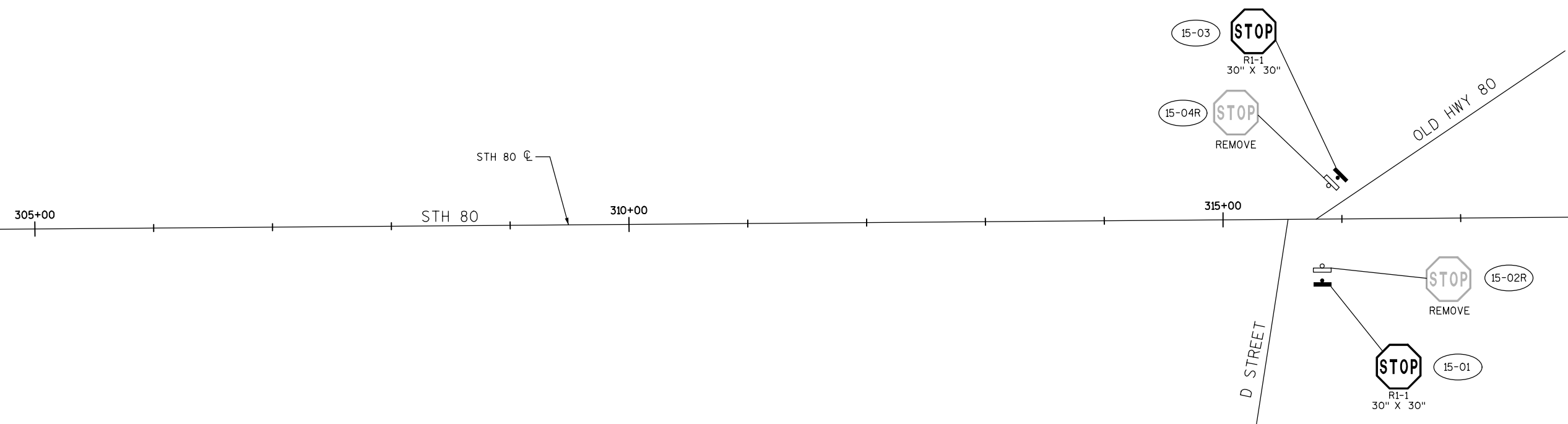


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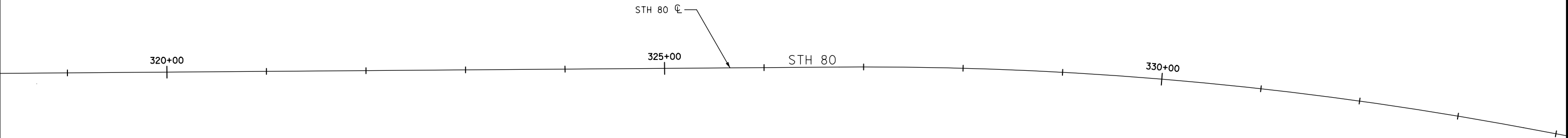
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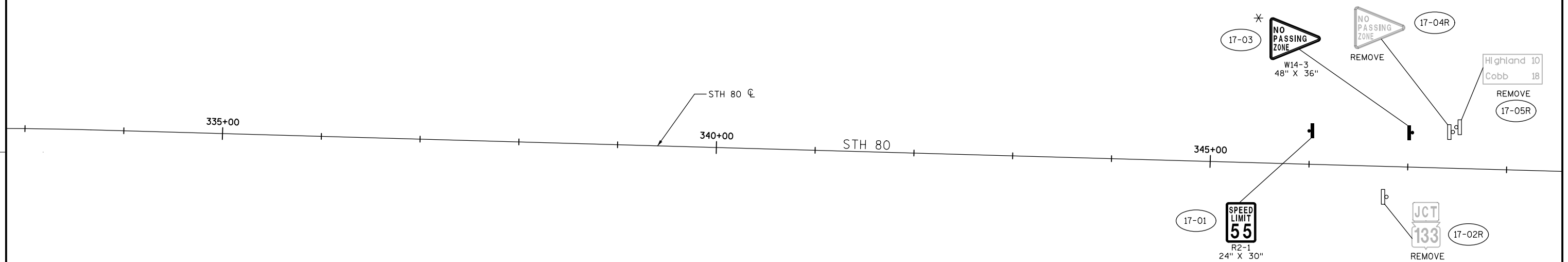
LEGEND

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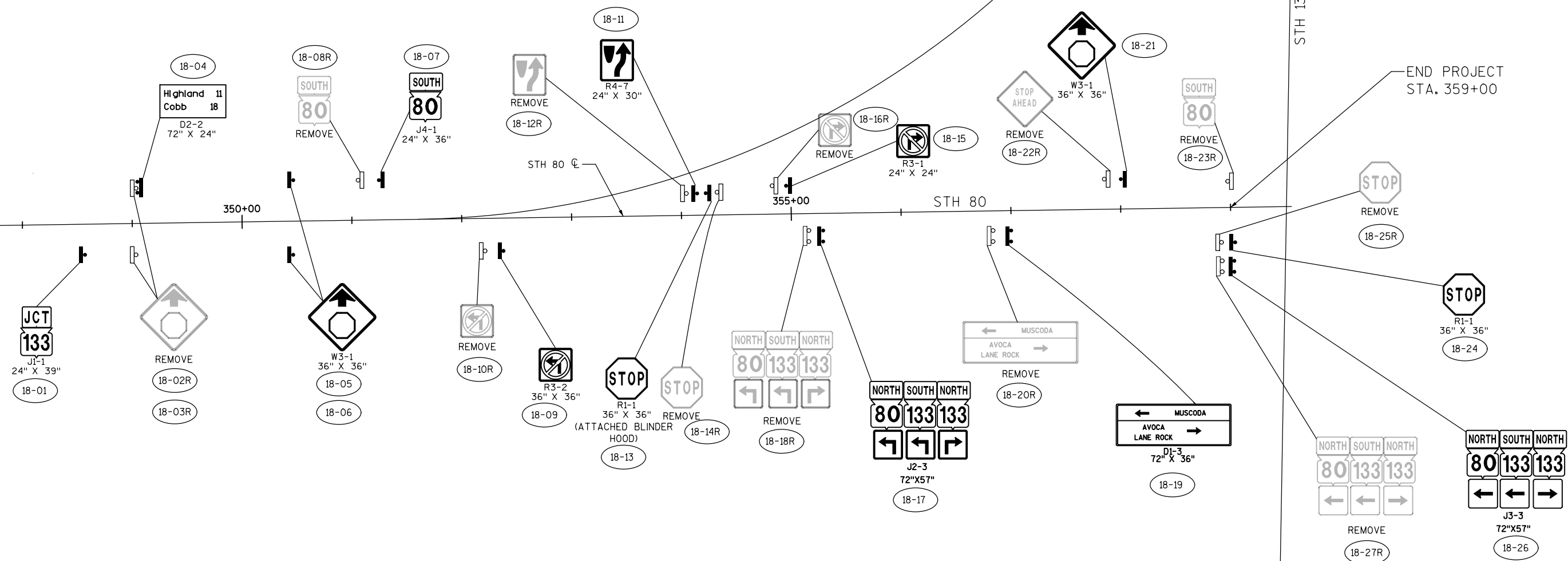


LEGEND

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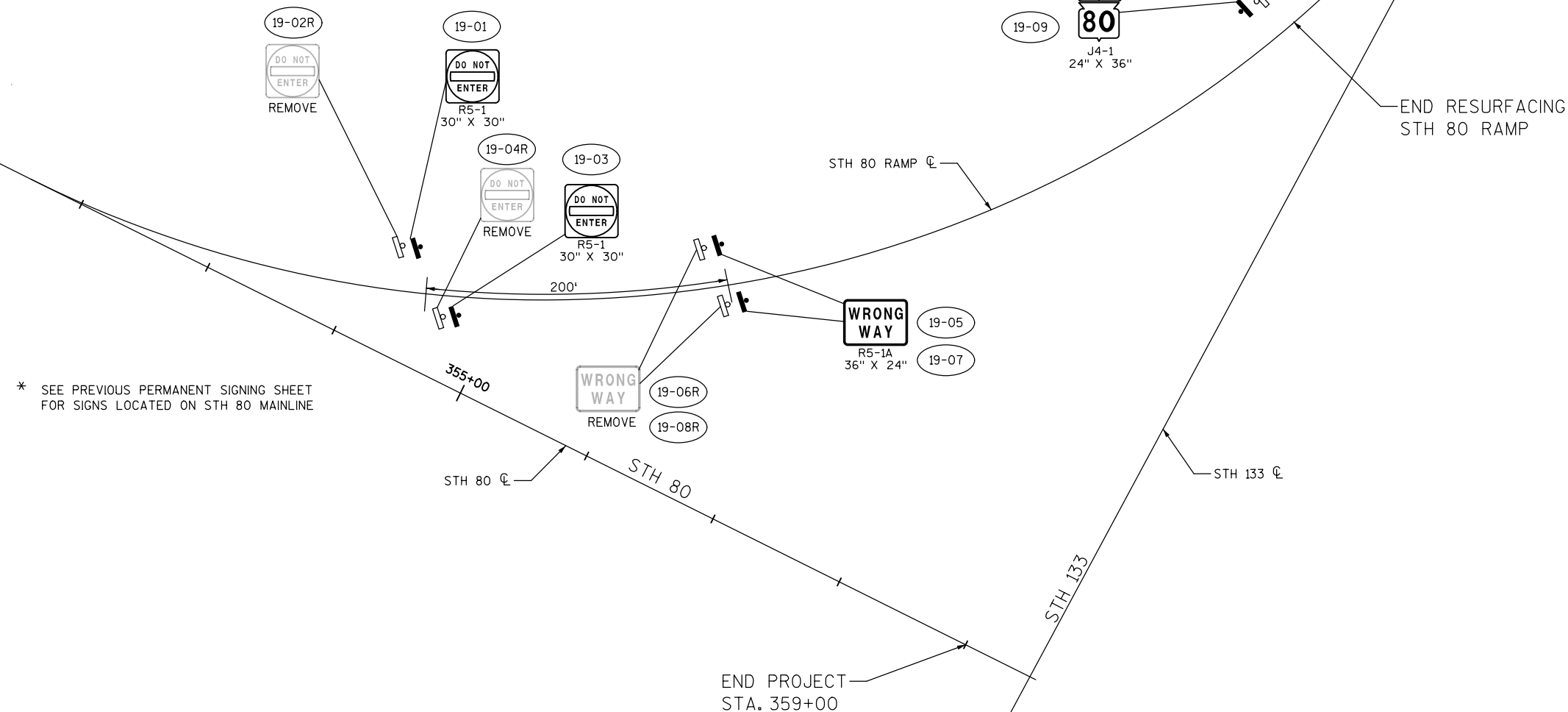
* SEE NEXT PERMANENT SIGNING SHEET FOR SIGNS LOCATED ON STH 80 RAMP AND STH 133



LEGEND

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3

DATE 25MAR14		E S T I M A T E O F Q U A N T I T I E S			
LINE		5939-00-61			
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	37.000	37.000
0020	201.0205	GRUBBING	STA	37.000	37.000
0030	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	1,735.000	1,735.000
0040	204.0165	REMOVING GUARDRAIL	LF	100.000	100.000
0050	211.0100	PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) 01. 5939-00-61	LS	1.000	1.000
0060	211.0400	PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS	STA	60.000	60.000
0070	213.0100	FINISHING ROADWAY (PROJECT) 01. 5939-00-61	EACH	1.000	1.000
0080	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	1,275.000	1,275.000
0090	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	200.000	200.000
0100	305.0500	SHAPING SHOULDERS	STA	516.000	516.000
0110	440.4410.S	INCENTIVE IRI RIDE	DOL	19,500.000	19,500.000
0120	455.0105	ASPHALTIC MATERIAL PG58-28	TON	465.000	465.000
0130	455.0605	TACK COAT	GAL	1,830.000	1,830.000
0140	460.1100	HMA PAVEMENT TYPE E-0.3	TON	8,340.000	8,340.000
0150	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	5,340.000	5,340.000
0160	490.0205	SALVAGED ASPHALTIC PAVEMENT MILLING	TON	3,118.000	3,118.000
0170	614.0010	BARRIER SYSTEM GRADING SHAPING FINISHING	EACH	8.000	8.000
0180	614.0925	SALVAGED GUARDRAIL END TREATMENTS	EACH	4.000	4.000
0190	614.2300	MGS GUARDRAIL 3	LF	2,837.500	2,837.500
0200	614.2500	MGS THRIE BEAM TRANSITION	LF	158.000	158.000
0210	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	8.000	8.000
0220	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 5939-00-61	EACH	1.000	1.000
0230	619.1000	MOBILIZATION	EACH	1.000	1.000
0240	625.0100	TOPSOIL	SY	4,140.000	4,140.000
0250	627.0200	MULCHING	SY	4,140.000	4,140.000
0260	628.1504	SILT FENCE	LF	750.000	750.000
0270	628.1520	SILT FENCE MAINTENANCE	LF	1,500.000	1,500.000
0280	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0290	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	2.000	2.000
0300	628.2023	EROSION MAT CLASS II TYPE B	SY	40.000	40.000
0310	628.7504	TEMPORARY DITCH CHECKS	LF	100.000	100.000
0320	629.0210	FERTILIZER TYPE B	CWT	2.590	2.590
0330	630.0120	SEEDING MIXTURE NO. 20	LB	11.100	11.100
0340	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	33.000	33.000
0350	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	26.000	26.000
0360	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	6.000	6.000
0370	637.2210	SIGNS TYPE II REFLECTIVE H	SF	229.680	229.680
0380	637.2230	SIGNS TYPE II REFLECTIVE F	SF	242.250	242.250
0390	638.2602	REMOVING SIGNS TYPE II	EACH	69.000	69.000
0400	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	64.000	64.000
0410	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000
0420	643.0100	TRAFFIC CONTROL (PROJECT) 01. 5939-00-61	EACH	1.000	1.000
0430	643.0300	TRAFFIC CONTROL DRUMS	DAY	800.000	800.000
0440	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	160.000	160.000
0450	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	320.000	320.000
0460	643.0900	TRAFFIC CONTROL SIGNS	DAY	670.000	670.000
0470	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	96.000	96.000
0480	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	51,540.000	51,540.000
0490	646.0406	PAVEMENT MARKING SAME DAY EPOXY 4-INCH	LF	42,180.000	42,180.000
0500	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	22.000	22.000

3

3

DATE 25MAR14			E S T I M A T E O F Q U A N T I T I E S		
LINE			5939-00-61		
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0510	648.0100	LOCATING NO-PASSING ZONES	MI	4.879	4.879
0520	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	2,110.000	2,110.000
0530	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	25,762.000	25,762.000
0540	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01.5939-00-61	LS	1.000	1.000
0550	690.0150	SAWING ASPHALT	LF	260.000	260.000
0560	SPV.0060	SPECIAL 01. COVER PLATES LEFT IN PLACE	EACH	2.000	2.000
0570	SPV.0060	SPECIAL 02. LANDMARK REFERENCE MONUMENTS SPECIAL	EACH	3.000	3.000

3

3

CLEARING AND GRUBBING

ROADWAY	STATION	TO	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
CATEGORY 0010					
STH 80 NB	123+00		127+00	4	4
STH 80 NB	133+00		138+00	5	5
STH 80 NB	153+00		159+00	6	6
STH 80 SB	160+00		170+00	10	10
STH 80 SB	233+00		245+00	12	12
TOTAL				37	37

3

REMOVING GUARDRAIL

ROADWAY	STATION	TO	STATION	204.0165 REMOVING GUARDRAIL LF	614.0925 SALVAGED GUARDRAIL END TREATMENTS EACH
CATEGORY 0010					
STH 80 NB	273+35		274+90	50	2
STH 80 SB	273+35		274+90	50	2
TOTAL				100	4

REMOVING PAVEMENT ITEMS

ROADWAY	STATION	TO	STATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	490.0205 SALVAGED ASPHALTIC PAVEMENT MILLING TON	COMMENTS
CATEGORY 0010						
STH 80 BEGIN PROJCT	101+38		102+26	215	26 19	BUTT JOINT
STH 80 END PROJECT	358+13		359+00	215	26 19	BUTT JOINT AT STH 133
STH 80 END RESURFACING	358+13		359+00	215	26 19	BUTT JOINT AT STH 133 ON CURVE
SOUTH OF STRUCTURE B-25-176	271+63		272+50	215	26 19	BUTT JOINT
STH 80 OVER STRUCTURE B-25-176	272+50		275+73	-	94 71	STRUCTURE MILLING
NORTH OF STRUCTURE B-25-176	275+73		276+61	215	26 19	BUTT JOINT
AIDE ROAD	-		-	100	12 9	SIDE ROAD BUTT JOINT
BOOTH HALLOW ROAD	-		-	245	30 22	SIDE ROAD BUTT JOINT
DRY DOG ROAD	-		-	75	10 7	SIDE ROAD BUTT JOINT
OLD WISCONSIN 80	-		-	125	15 11	SIDE ROAD BUTT JOINT
D STREET	-		-	115	14 11	SIDE ROAD BUTT JOINT
UNDISTRIBUTED	-		-	-	2813 2814	SPOT REPAIR & CROWN CORRECTION
TOTAL				1735	3118 3040	

PROJECT NO: 5939-00-61

HWY: STH 80

COUNTY: IOWA

MISCELLANEOUS QUANTITIES

SHEET

E

FINISHING ROADWAY PROJECT ID 5939-00-61

	213.0100
	FINISHING
	ROADWAY
	(5939-00-61)
ROADWAY	EACH
CATEGORY 0010	
STH 80	1
TOTAL	1

BASE AGGREGATE DENSE ITEMS

				305.0110	305.0120	305.0500	
				BASE	BASE		
				AGGREGATE	AGGREGATE	SHAPING	
				DENSE	DENSE	SHOULDERS	
				3/4-INCH	1 1/4-INCH		
ROADWAY	STATION	TO	STATION	TON	TON	STA	COMMENTS
CATEGORY 0010							
STH 80 NB	101+38		359+00	490	-	258	NORTHBOUND SHOUDLER
STH 80 SB	101+38		359+00	570	-	258	SOUTHBOUND SHOULDER
HICKORY GROVE RD				9	-	-	HICKORY GROVE ROAD MATCH
FIELD ENTRANCE	113+50	LT		4	-	-	
DRIVEWAY	113+50	RT		4	-	-	
FIELD ENTRANCE	140+00	LT		4	-	-	
DRIVEWAY	146+50	LT		5	-	-	
FIELD ENTRANCE	157+50	LT		4	-	-	
DRIVEWAY	160+70	RT		5	-	-	
FIELD ENTRANCE	170+10	RT		4	-	-	
FIELD ENTRANCE	170+50	LT		4	-	-	
FIELD ENTRANCE	175+10	LT		4	-	-	
FIELD ENTRANCE	175+10	RT		4	-	-	
FIELD ENTRANCE	184+90	RT		4	-	-	
FIELD ENTRANCE	209+10	RT		4	-	-	
FIELD ENTRANCE	210+10	RT		4	-	-	
DRIVEWAY	210+05	LT		5	-	-	
FIELD ENTRANCE	216+00	LT		4	-	-	
FIELD ENTRANCE	221+00	RT		4	-	-	
FIELD ENTRANCE	226+00	LT		4	-	-	
DRIVEWAY	250+15	LT		5	-	-	
FIELD ENTRANCE	259+50	RT		4	-	-	
DRIVEWAY	260+25	LT		5	-	-	
FIELD ENTRANCE	271+80	RT		4	-	-	
DRIVEWAY	282+60	RT		5	-	-	
FIELD ENTRANCE	282+60	LT		4	-	-	
FIELD ENTRANCE	282+65	LT		4	-	-	
FIELD ENTRANCE	283+00	RT		4	-	-	
DRIVEWAY	294+75	LT		5	-	-	
FIELD ENTRANCE	295+20	RT		4	-	-	
FIELD ENTRANCE	302+00	RT		4	-	-	
DRIVEWAY	304+00	LT		5	-	-	
DRIVEWAY	305+00	LT		5	-	-	
FIELD ENTRANCE	329+40	LT		4	-	-	
FIELD ENTRANCE	336+00	LT		4	-	-	
DRIVEWAY	337+00	RT		5	-	-	
FIELD ENTRANCE	348+20	LT		4	-	-	
UNDISTRIBUTED				60	200	-	
TOTAL				1275	200	516	

ASPHALT ITEMS										
ROADWAY	STATION	TO	STATION	211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING (5939-00-61) LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0605 TACK COAT GAL	460.1100 HMA PAVEMENT TYPE E-0.3 TON	SPV.0195.01 HMA, THIN LAYER OVERLAY, E-0.3 TON	COMMENTS
CATEGORY 0010										
STH 80	101+38		359+00	1	-	390	1580	7060		NORTHBOUND & SOUTHBOUND
STH 80 SHOULDERS	113+00		160+00	-	47	13	53	240		ADDITIONAL SHOULDER WIDENING
STH 80 SHOULDERS	233+00		245+00	-	12	3	14	60		ADDITIONAL SHOULDER WIDENING
AIDE ROAD				-	-	1	3	11		
BOOTH HALLOW ROAD				-	-	2	7	28		
DRY DOG ROAD				-	-	1	3	9		
OLD WISCONSIN 80				-	-	1	4	14		
D STREET				-	-	1	3	13		
DRIVEWAY	102+00	LT		-	-	1	1	5		
DRIVEWAY	173+10	LT		-	-	1	1	5		
DRIVEWAY	271+10	LT		-	-	1	1	5		
UNDISTRIBUTED				-	1	50 60	160	890 1060		SPOT REPAIR, CROWN CORRECTIONS, & SCRATCH COAT
TOTAL				1	60	465 60	1830 160	8340 1060		

ROADWAY BARRIER ITEMS										
ROADWAY	STATION	TO	STATION	LOCATION	614.0010	614.2500	614.2300	614.2610	LF	NO. OF
					BARRIER SYSTEM	MGS THRIE	MGS	MGS GUARDRAIL		
					GRADING SHAPING	BEAM	GUARDRAIL 3	TERMINAL		
					FINISHING	TRANSITION		EAT		
					EACH	# OF			PANELS	EACH
CATEGORY 0010										
STH 80	118+10		137+90	LT	2	-	-	1875	150	2
	128+10		136+39	RT	2	-	-	725	58	2
	272+21		275+31	RT	2	79	2	112.5	9	2
	272+83		276+18	LT	2	79	2	125	10	2
TOTAL					8	158		2837.5		8

BARRIER SYSTEM GRADING SHAPING FINISHING							
		EXCAVATION COMMON*	BORROW*	TOPSOIL*	FERTILIZER TYPE B*	SEEDING MIXTURE NO. 20 *	MULCHING*
ROADWAY	STATION	CY	CY	SY	CWT	LB	SY
CATEGORY 0010							
STH 80	118+10	-	16	33	0.05	1.3	33
	128+10	-	15	33	0.04	1.2	33
	135+86	-	15	33	0.04	1.2	33
	137+37	-	16	33	0.05	1.3	33
	272+21	-	12	33	0.03	1	33
	272+83	-	12	33	0.03	1	33
	274+78	-	12	33	0.03	1	33
	275+65	-	12	33	0.03	1	33
TOTAL		-	110	264	0.3	9	264

* ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY

3

3

RESTORATION ITEMS

				625.0100	627.0200	629.0210	630.0120
				TOPSOIL	MULCHING	FERTILIZER	SEEDING
						TYPE B	MIXTURE
							NO. 20
							LBS
ROADWAY	STATION	TO	STATION	SY	SY	CWT	
CATEGORY 0010							
STH 80 NB	123+00		127+00	450	450	0.28	1.2
STH 80 NB	133+00		138+00	560	560	0.35	1.5
STH 80 NB	153+00		159+00	670	670	0.42	1.8
STH 80 SB	160+00		170+00	1120	1120	0.7	3
STH 80 SB	233+00		245+00	1340	1340	0.84	3.6
TOTAL				4140	4140	2.59	11.1

EROSION CONTROL ITEMS

		628.1504	628.1520	628.2023	628.7504
		SILT	SILT	EROSION MAT	TEMPORARY
		FENCE	FENCE	CLASS II	DITCH
			MAINTENANCE	TYPE B	CHECKS
ROADWAY	LOCATION	LF	LF	SY	LF
CATEGORY 0010					
STH 80	UNDISTRIBUTED	750	1500	40	100
TOTAL		750	1500	40	100

EROSION CONTROL MOBILIZATIONS

		628.1905	628.1910
		MOBILIZATIONS	MOBILIZATIONS
		EROSION	EMERGENCY
		CONTROL	EROSION
			CONTROL
ROADWAY	LOCATION	EACH	EACH
CATEGORY 0010			
STH 80	UNDISTRIBUTED	2	2
TOTAL		2	2

3

PERMANENT SIGNING

SIGN NUMBER	APPROX. STATION	POSITION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE IN X IN	637.2210 SIGN TYPE II		637.2230 SIGN TYPE II		634.0614 POSTS 14 FT		634.0616 WOOD 4X6 16 FT		634.0618 INCH 18 FT		638.2602 REMOVING SIGN SUPPORTS		638.3000 REMOVING SIGN MOUNTED ON SAME		REMARKS
							REFLECTIVE H SF	F SF	REFLECTIVE SF	F SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
1-01	104+00	Left	J1-1	Junction Assembly	JCT P	24 x 39	6.50	---	---	---	1	---	---	---	---	---	---	---	---	---	
1-02R	104+00	Left	J1-1	Junction Assembly	JCT P	24 x 39	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
1-03R	104+80	Left	W1-4L	Left Reverse Curve		30 x 30	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
2-01R	108+50	Right	W8-2	Dip		30 x 30	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
2-02	109+00	Right	W2-2	Side Road 90 Degrees, Right		30 x 30	---	6.25	---	---	---	1	---	---	---	---	---	---	---	---	
2-03	111+50	Right	W1-5L	Left Winding Road		36 x 36	---	9.00	---	---	---	---	---	1	---	---	---	---	---	---	
2-04	111+50	Right	W13-1	Speed Advisory Plaque	30	24 x 24	---	4.00	---	---	---	---	---	---	---	---	---	---	---	---	2-03
2-05R	111+50	Right	W1-1L	Left Turn		36 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
2-06R	111+50	Right	W13-1	Speed Advisory Plaque	30	24 x 24	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2-05R
2-07R	111+50	Left	W1-1L	Left Turn		36 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
2-08R	111+50	Left	W13-1	Speed Advisory Plaque	30	24 x 24	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2-07R
2-09	111+55	Left	W1-2L	Left Curve		30 x 30	---	6.25	---	---	---	1	---	---	---	---	---	---	---	---	
2-10	111+55	Left	W13-1	Speed Advisory Plaque	50	18 x 18	---	2.25	---	---	---	---	---	---	---	---	---	---	---	---	2-09
2-11R	115+65	Right	W1-5L	Left Winding Road		36 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
2-12R	115+65	Right	W13-1	Speed Advisory Plaque	30	24 x 24	---	---	---	---	---	---	---	---	---	---	1	---	---	---	2-11R
2-13	117+00	Right	R1-1	Stop		30 x 30	5.18	---	---	---	1	---	---	---	---	---	---	---	---	---	Aide Rd
2-14R	117+00	Right	R1-1	Stop		30 x 30	---	---	---	---	---	---	---	---	---	---	1	1	---	---	Aide Rd
2-15	123+80	Left	W1-8	Chevron		18 x 24	---	3.00	---	---	1	---	---	---	---	---	---	---	---	---	4 Foot Mounting Height
2-16	123+80	Left	W1-8	Chevron		18 x 24	---	3.00	---	---	---	---	---	---	---	---	---	---	---	---	4 Foot Mounting Height
2-17	124+20	Left	W2-2	Side Road 90 Degrees, Left		30 x 30	---	6.25	---	---	---	1	---	---	---	---	---	---	---	---	
3-01	134+20	Left	W1-8	Chevron		18 x 24	---	3.00	---	---	1	---	---	---	---	---	---	---	---	---	4 Foot Mounting Height
3-02	134+20	Left	W1-8	Chevron		18 x 24	---	3.00	---	---	---	---	---	---	---	---	---	---	---	---	4 Foot Mounting Height
3-03R	138+60	Left	W1-5L	Left Winding Road		36 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
3-04R	138+60	Left	W13-1	Speed Advisory Plaque	30	24 x 24	---	---	---	---	---	---	---	---	---	---	1	---	---	---	3-03R
4-01	143+25	Left	W1-5L	Left Winding Road		36 x 36	---	9.00	---	---	---	---	---	1	---	---	---	---	---	---	
4-02	143+25	Left	W13-1	Speed Advisory Plaque	30	24 x 24	---	4.00	---	---	---	---	---	---	---	---	---	---	---	---	4-01
4-03R	143+85	Left	W1-1L	Left Turn		36 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
4-04R	143+85	Left	W13-1	Speed Advisory Plaque	30	24 x 24	---	---	---	---	---	---	---	---	---	---	1	---	---	---	4-03R
4-05R	146+00	Right	W1-4R	Right Reverse Curve		36 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
4-06R	146+00	Right	W13-1	Speed Advisory Plaque	40	24 x 24	---	---	---	---	---	---	---	---	---	---	1	---	---	---	4-05R
4-07	150+00	Right	W1-4R	Right Reverse Curve		30 x 30	---	6.25	---	---	---	1	---	---	---	---	---	---	---	---	
4-08	150+00	Right	W13-1	Speed Advisory Plaque	40	18 x 18	---	2.25	---	---	---	---	---	---	---	---	---	---	---	---	4-07
4-09	154+40	Left	W1-6	Large Night Arrow (Single)		48 x 24	---	8.00	---	---	1	---	---	---	---	---	---	---	---	---	
4-10R	154+60	Left	W1-6	Large Night Arrow (Single)		48 x 24	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
5-01	172+25	Left	W1-4R	Right Reverse Curve		30 x 30	---	6.25	---	---	---	1	---	---	---	---	---	---	---	---	
5-02	172+25	Left	W13-1	Speed Advisory Plaque	45	18 x 18	---	2.25	---	---	---	---	---	---	---	---	---	---	---	---	5-02
6-01	175+85	Right	W14-3	No Passing Zone Pennant		48 x 36	---	6.00	---	---	---	1	---	---	---	---	---	---	---	---	See Plan Note
6-02R	175+85	Right	W14-3	No Passing Zone Pennant		48 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
6-03	175+85	Left	W14-3	No Passing Zone Pennant		48 x 36	---	6.00	---	---	---	1	---	---	---	---	---	---	---	---	See Plan Note
6-04R	175+85	Left	W14-3	No Passing Zone Pennant		48 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
6-05R	176+80	Left	W1-4R	Right Reverse Curve		36 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
6-06R	176+80	Left	W13-1	Speed Advisory Plaque	40	24 x 24	---	---	---	---	---	---	---	---	---	---	1	---	---	---	6-05R
7-01	199+80	Right	W2-2	Side Road 90 Degrees, Left		30 x 30	---	6.25	---	---	---	1	---	---	---	---	---	---	---	---	
7-02R	199+80	Right	W2-2	Side Road 90 Degrees, Left		36 x 36	---	---	---	---	---	---	---	---	---	---	1	1	---	---	
8-01	207+40	Left	R1-1	Stop		30 x 30	5.18	---	---	---	1	---	---	---	---	---	---	---	---	---	Hickory Grove Rd
8-02R	207+40	Left	R1-1	Stop		30 x 30	---	---	---	---	---	---	---	---	---	---	1	1	---	---	Hickory Grove Rd
8-03R	209+75	Right	W8-2	Dip		30 x 30	---	---	---	---	---	---	---	---	---	---	1	1	---	---	

Sheet Totals	16.86	102.25	6	8	2	24	17
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SHEET 1 OF 4

PROJECT NO: 5939-00-61

HWY: STH 80

COUNTY: IOWA

MISCELLANEOUS QUANTITIES

SHEET

36

E

PERMANENT SIGNING

SIGN NUMBER	APPROX. STATION	POSITION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE IN X IN	637.2210 SIGN TYPE II	637.2230 SIGN TYPE II	634.0614	634.0616	634.0618	638.2602 REMOVING SIGN SUPPORTS	638.3000 REMOVING SMALL SIGN	SIGN MOUNTED ON SAME	REMARKS
							REFLECTIVE H SF	REFLECTIVE F SF	POSTS WOOD 4X6 INCH 14 FT EACH	16 FT EACH	18 FT EACH	TYPE II EACH	EACH		
17-02R	346+60	Right	J1-1	Junction Assembly	JCT 133	24 x 39	---	---	---	---	---	1	1		
17-03	347+00	Left	W14-3	No Passing Zone Pennant		48 x 36	---	6.00	---	1	---	---	---		See Plan Note
17-04R	347+05	Left	W14-3	No Passing Zone Pennant		48 x 36	---	---	---	---	---	1	---	17-05R	
17-05R	347+05	Left	D2-2	Destinations Distances	Highland 10 Cobb 18	72 x 24	---	---	---	---	---	1	2		
18-01	348+50	Right	J1-1	Junction Assembly	JCT 133	24 x 39	6.50	---	---	1	---	---	---		
18-02R	348+90	Right	W3-1	Stop Ahead		36 x 36	---	---	---	---	---	1	1		
18-03R	348+90	Left	W3-1	Stop Ahead		36 x 36	---	---	---	---	---	1	1		
18-04	349+00	Left	D2-2	Destinations Distances	Highland 11 Cobb 18	72 x 24	12.00	---	2	---	---	---	---		
18-05	350+50	Right	W3-1	Stop Ahead		36 x 36	---	9.00	---	1	---	---	---		
18-06	350+50	Left	W3-1	Stop Ahead		36 x 36	---	9.00	---	1	---	---	---		
18-07	351+00	Left	J4-1	Reassurance Assembly	SOUTH 80	24 x 36	6.00	---	---	1	---	---	---		
18-08R	351+00	Left	J4-1	Reassurance Assembly	SOUTH 80	24 x 36	---	---	---	---	---	1	1		
18-09	352+15	Right	R3-2	No Left Turn Symbol		36 x 36	9.00	---	---	1	---	---	---		
18-10R	352+15	Right	R3-2	No Left Turn Symbol		24 x 24	---	---	---	---	---	1	1		
18-11	354+10	Left, Island	R4-7	Keep Right		24 x 30	5.00	---	1	---	---	---	---		
18-12R	354+10	Left, Island	R4-7	Keep Right		24 x 30	---	---	---	---	---	1	1		
18-13	354+20	Left, Island	R1-1	Stop		36 x 36	7.46	---	1	---	---	---	---		
18-14R	354+20	Left, Island	R1-1	Stop		36 x 36	---	---	---	---	---	1	1		Has Blinder Hood
18-15	354+75	Left	R3-1	No Right Turn Symbol		24 x 24	4.00	---	1	---	---	---	---		
18-16R	354+75	Left	R3-1	No Right Turn Symbol		24 x 24	---	---	---	---	---	1	1		
18-17	355+05	Right	J2-3	Advance Route Turn Assembly	NORTH, SOUTH, NORTH 80, 133, 133 Left Turn Arrow, Left Turn Arrow, Right Turn Arrow	72 x 57	28.50	---	---	1	1	---	---		
18-18R	355+05	Right	J2-3	Advance Route Turn Assembly	NORTH, SOUTH, NORTH 80, 133, 133 Left Turn Arrow, Left Turn Arrow, Right Turn Arrow	72 x 57	---	---	---	---	---	1	2		
18-19	356+95	Right	D1-3	Destinations Arrows	Left Arrow, Muscoda Avoca, Right Arrow Lone Rock, Right Arrow	72 x 36	18.00	---	1	1	---	---	---		
18-20R	356+95	Right	D1-3	Destinations Arrows	Left Arrow, Muscoda Avoca, Right Arrow Lone Rock, Right Arrow	72 x 36	---	---	---	---	---	1	2		
18-21	357+85	Left	W3-1	Stop Ahead		36 x 36	---	9.00	---	1	---	---	---		
18-22R	357+85	Left	W3-1	Stop Ahead		36 x 36	---	---	---	---	---	1	1		
18-23R	358+85	Left	J4-1	Reassurance Assembly	SOUTH 80	24 x 36	---	---	---	---	---	1	1		
18-24	359+00	Right	R1-1	Stop		36 x 36	7.46	---	1	---	---	---	---		STH 133
18-25R	359+00	Right	R1-1	Stop		36 x 36	---	---	---	---	---	1	1		STH 133
Sheet Totals							103.92	33.00	7	9	1	15	17		

PERMANENT SIGNING

SIGN NUMBER	APPROX. STATION	POSITION	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE IN X IN	637.2210	637.2230	634.0614	634.0616	634.0618	638.2602	638.3000	SIGN MOUNTED ON SAME	REMARKS
							SIGNS TYPE II REFLECTIVE H F SF SF	SIGNS TYPE II REFLECTIVE F SF	POSTS WOOD 4X6 INCH 14 FT EACH	16 FT EACH	18 FT EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH		
18-26	359+00	Right	J3-3	Route Turn Assembly	NORTH, SOUTH, NORTH 80, 133, 133 Left Arrow, Left Arrow, Right Arrow	72 x 57	28.50	---	---	---	2	---	---		STH 133
18-27R	359+00	Right	J3-3	Route Turn Assembly	NORTH, SOUTH, NORTH 80, 133, 133 Left Arrow, Left Arrow, Right Arrow	72 x 57	---	---	---	---	---	1	2		STH 133
19-01	354+15	Ramp, Left	R5-1	Do Not Enter		30 x 30	6.25	---	1	---	---	---	---		
19-02R	354+15	Ramp, Left	R5-1	Do Not Enter		30 x 30	---	---	---	---	---	1	1		
19-03	354+50	Ramp, Right	R5-1	Do Not Enter		30 x 30	6.25	---	1	---	---	---	---		
19-04R	354+50	Ramp, Right	R5-1	Do Not Enter		30 x 30	---	---	---	---	---	1	1		
19-05		Ramp, Right	R5-1A	Wrong Way		36 x 24	6.00	---	1	---	---	---	---		200 Feet Northwest of R5-1
19-06R		Ramp, Right	R5-1A	Wrong Way		36 x 24	---	---	---	---	---	1	1		
19-07		Ramp, Left	R5-1A	Wrong Way		36 x 24	6.00	---	1	---	---	---	---		200 Feet Northwest of R5-1
19-08R		Ramp, Left	R5-1A	Wrong Way		36 x 24	---	---	---	---	---	1	1		
19-09		Ramp, Left	J4-1	Reassurance Assembly	SOUTH 80	24 x 36	6.00	---	---	1	---	---	---		
19-10R		Ramp, Left	J4-1	Reassurance Assembly	SOUTH 80	24 x 36	---	---	---	---	---	1	1		
19-11		STH 133	W13-3	Ramp Speed	45	24 x 30	---	5.00	1	---	---	---	---		Place at Start of Taper
19-12R		STH 133	J3-2	Route Turn Assembly	NORTH, SOUTH 133, 80 Up Arrow, Tilt Right Arrow	48 x 57	---	---	---	---	---	1	1		
19-13		STH 133	J3-2	Route Turn Assembly	NORTH, SOUTH 133, 80 Up Arrow, Tilt Right Arrow	48 x 57	19.00	---	---	---	1	---	---		150 Feet West of Taper
Sheet Totals							78.00	5.00	5	1	3	7	8		
Project Totals							229.68	242.25	33	26	6	69	64		

TRAFFIC CONTROL ITEMS

ROADWAY	LOCATION	643.0300 TRAFFIC CONTROL DRUMS	643.0420 TRAFFIC CONTROL BARRICADE TYPE III DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
CATEGORY 0010						
STH 80	UNDISTRIBUTED	800	160	320	670	96
TOTAL		800	160	320	670	96

TRAFFIC CONTROL PROJECT ID 5939-00-61

ROADWAY	643.0100 TRAFFIC CONTROL (5939-00-61) EACH
CATEGORY 0010	
STH 80	1
TOTAL	1

PAVEMENT MARKING ITEMS

ROADWAY	STATION	TO	STATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH YELLOW LF	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH WHITE LF	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH YELLOW LF
CATEGORY 0010							
STH 80 NB EDGE	101+38		359+00	25,770	-	-	-
STH 80 CL	101+38		113+00	-	2,330	-	-
	113+00		160+00	-	9,400	-	-
	160+00		233+00	-	10,950	-	-
	233+00		245+00	-	2,400	-	-
	245+00		359+00	-	17,100	-	-
STH 80 SB EDGE	101+38		359+00	25,770	-	-	-
STH 80 SB AT STH 133	354+30	LT		-	-	11	-
STH 80 NB AT STH 133	359+10	RT		-	-	11	-
UNDISTRIBUTED				-	-	-	2,110
SUBTOTAL				51,540	42,180	22	2,110
TOTAL				51,540	42,180	22	2,110

CONSTRUCTION STAKING ITEMS

ROADWAY	STATION	TO	STATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS
CATEGORY 0010					
STH 80	101+38		359+00	25,762	1
TOTAL				25,762	1

3

LOCATE NO-PASSING ZONES

		648.0100
		LOCATE
		NO-PASSING
		ZONES
ROADWAY	DISTANCE	MI
CATEGORY 0010		
STH 80	25,762	4.879
TOTAL		4.879

3

SAW CUTTING ITEMS

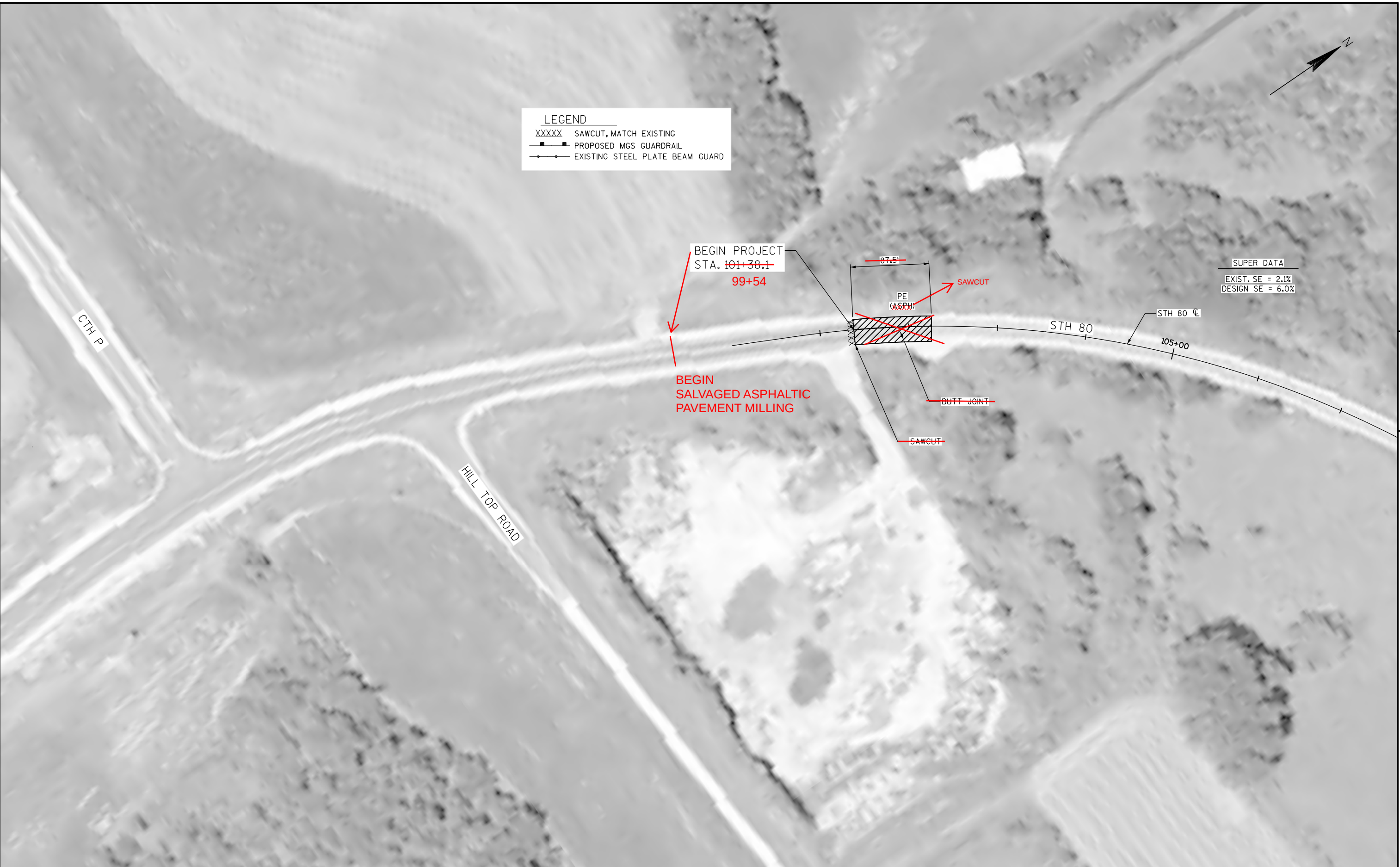
			690.0150
			SAWING
			ASPHALT
			LF
ROADWAY	STATION	LOCATION	
CATEGORY 0010			
STH 80 BEGIN PROJECT	101+38	-	22
STH 80 END PROJECT	359+00	-	22
DRIVEWAY	102+00	LT	24
AIDE ROAD	-	-	24
DRIVEWAY	173+10	LT	24
BOOTH HALLOW ROAD	-	-	44
DRY DOG ROAD	-	-	22
DRIVEWAY	271+10	LT	24
OLD WISCONSIN 80	-	-	30
D STREET	-	-	24
TOTAL			260

COVER PLATES

			SPV.0060.01
			COVER PLATES
			LEFT IN PLACE
ROADWAY	STATION	LOCATION	EACH
CATEGORY 0010			
STH 80 NB	274+12	RT	1
STH 80 SB	274+12	LT	1
TOTAL			2

LANDMARK REFERENCE MONUMENTS SPECIAL

						SPV.0060.02
						LANDMARK
						REFERENCE
						MOMUMENTS
						SPECIAL
ROADWAY	STATION	OFFSET	TOWNSHIP	RANGE	SECTION CORNER	EACH
CATEGORY 0010						
STH 80	274+12	0'	T8N	R1E	10/11/14/15	1
UNDISTRIBUTED						2
TOTAL						3



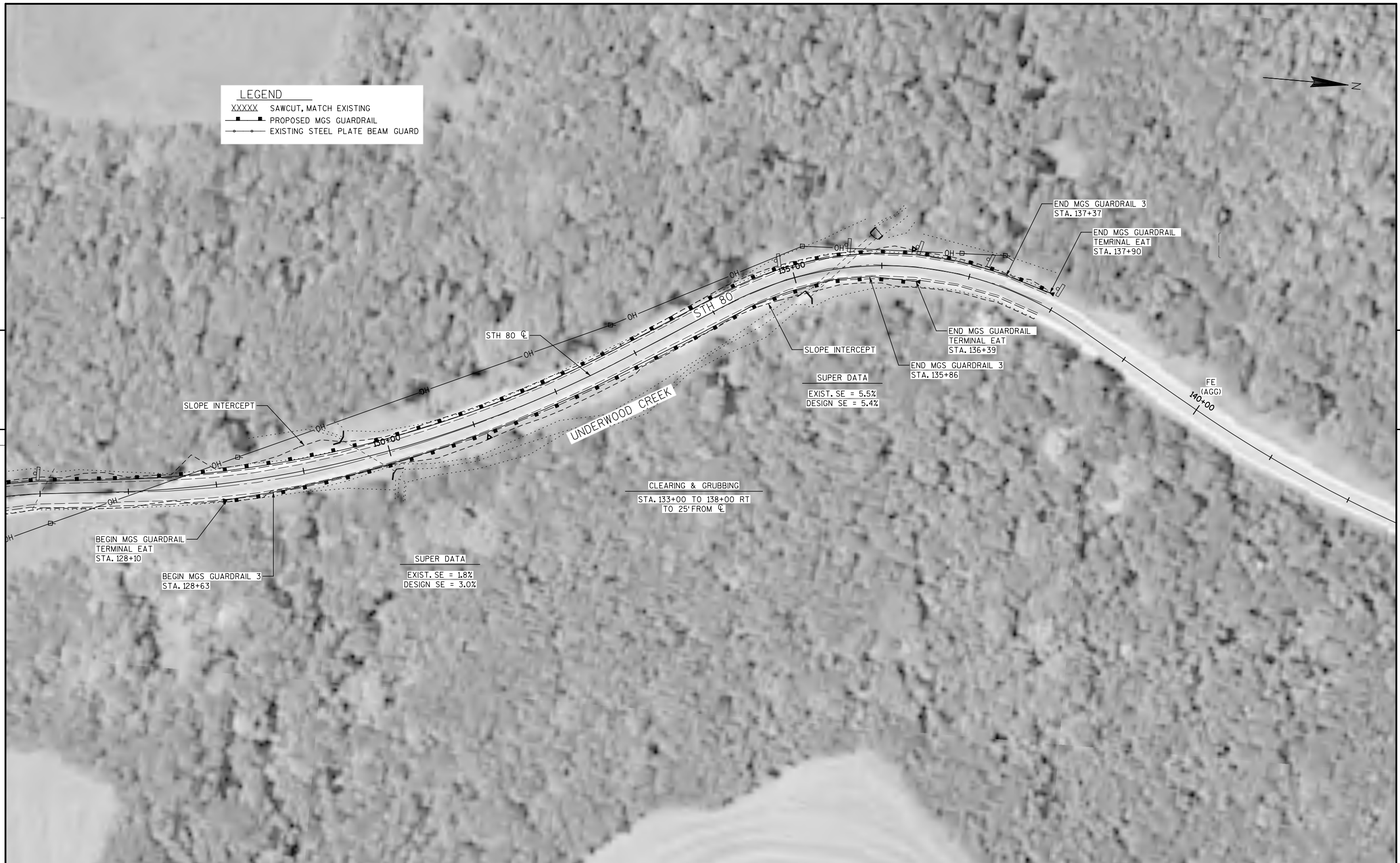


LEGEND

XXXXX SAWCUT, MATCH EXISTING

PROPOSED MGS GUARDRAIL

EXISTING STEEL PLATE BEAM GUARD







5

5





LEGEND

- XXXXX SAWCUT, MATCH EXISTING
- PROPOSED MGS GUARDRAIL
- EXISTING STEEL PLATE BEAM GUARD

SUPER DATA

EXIST. SE = 1.2%
DESIGN SE = 3.1%



5



5



5



5



NOTE: BETWEEN BUTT JOINTS NEAR STRUCTURE
MILL ASPHALTIC SURFACE MINIMUM 3" DEPTH
(ALLOW WATER TO DRAIN ACROSS STRUCTURE
TO THE SOUTH) AND PLACE 2" HMA PAVEMENT
E-0.3.

THIN LAYER OVERLAY

SLOPE INTERCEPT

END MGS GUARDRAIL 3
STA. 275+65

END MGS GUARDRAIL
TERMINAL EAT
STA. 276+18

275+00

87.5'

END MGS GUARDRAIL
TERMINAL EAT
STA. 275+43

SLOPE INTERCEPT

END MGS GUARDRAIL 3
STA. 274+90

END BUTT JOINT
237.5' FROM STRUCTURE

280+00

STH 80 C

FE (AGG) FE (AGG)

STH 80

285+00

PE (AGG)

FE (AGG)

290+00

ENVIRONMENTALLY SENSITIVE AREA





5

5

LEGEND

XXXXX SAWCUT, MATCH EXISTING

—■— PROPOSED MGS GUARDRAIL

—○— EXISTING STEEL PLATE BEAM GUARD

5



5

LEGEND

XXXXX SAWCUT, MATCH EXISTING

PROPOSED MGS GUARDRAIL

EXISTING STEEL PLATE BEAM GUARD



5

5



5

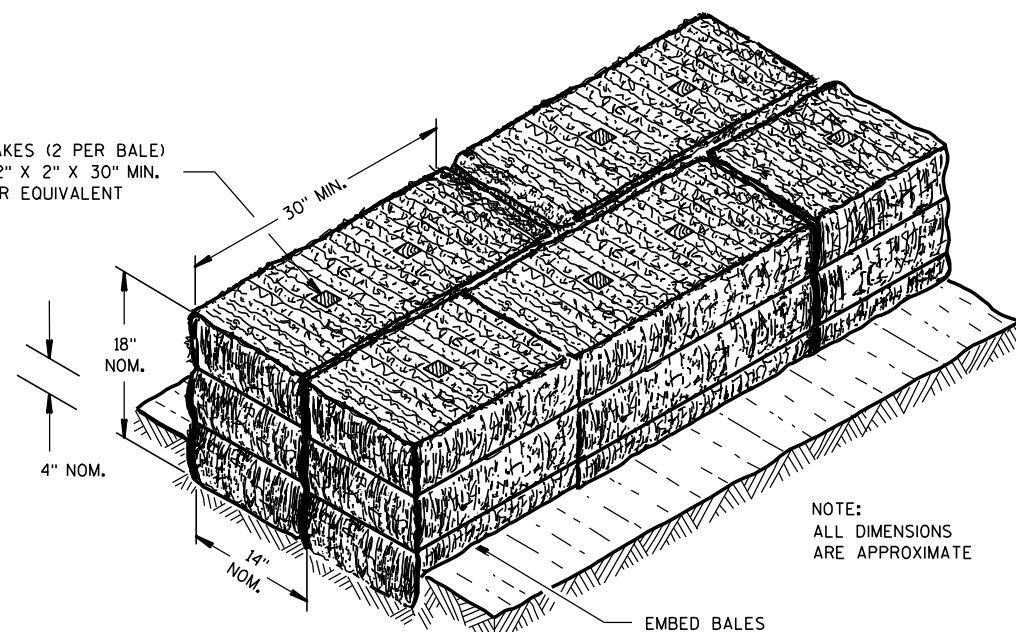


5

Standard Detail Drawing List

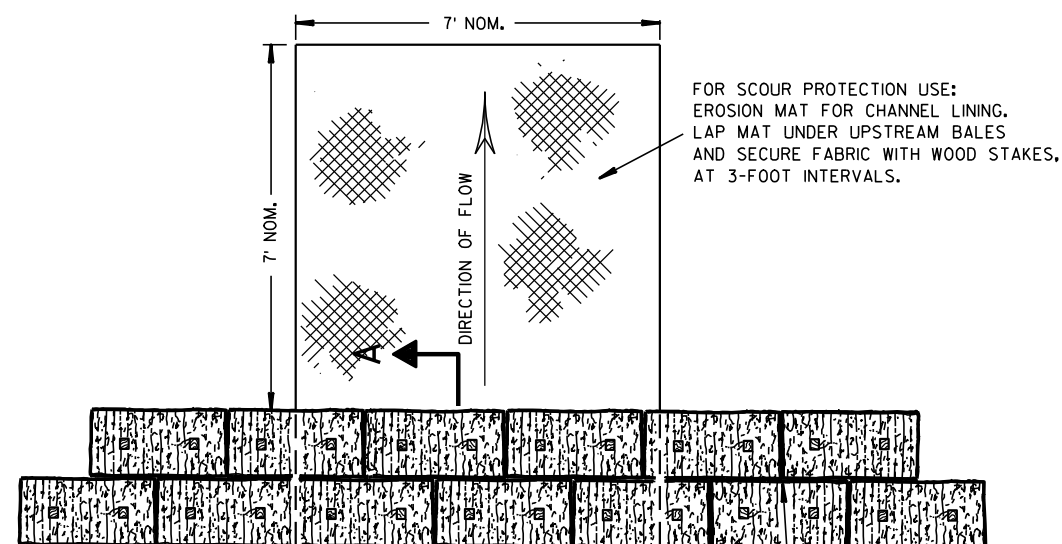
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C06-06	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING

WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT

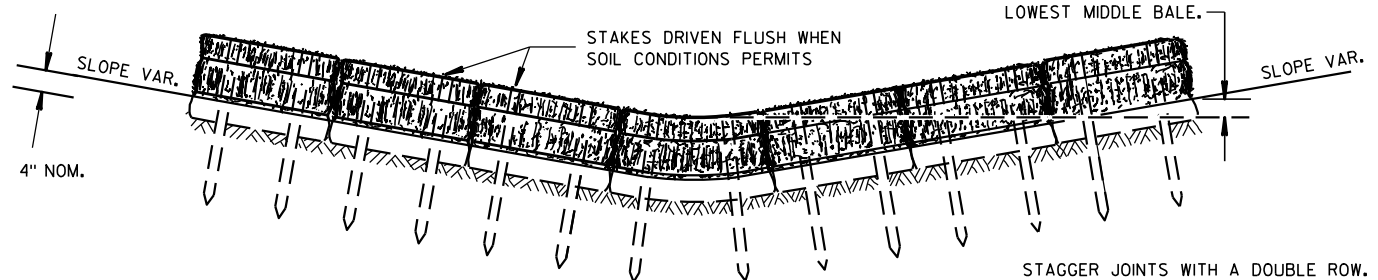


NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

SECTION A-A



PLAN VIEW



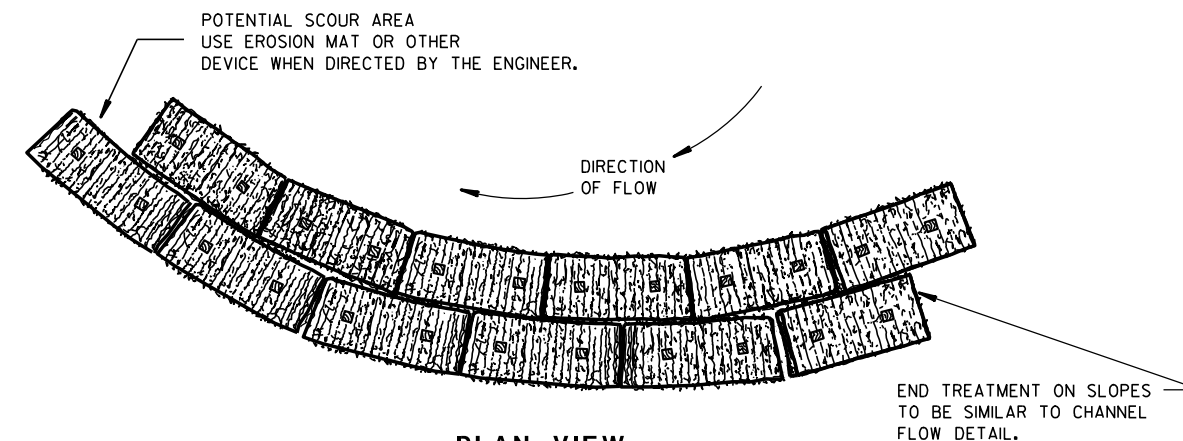
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

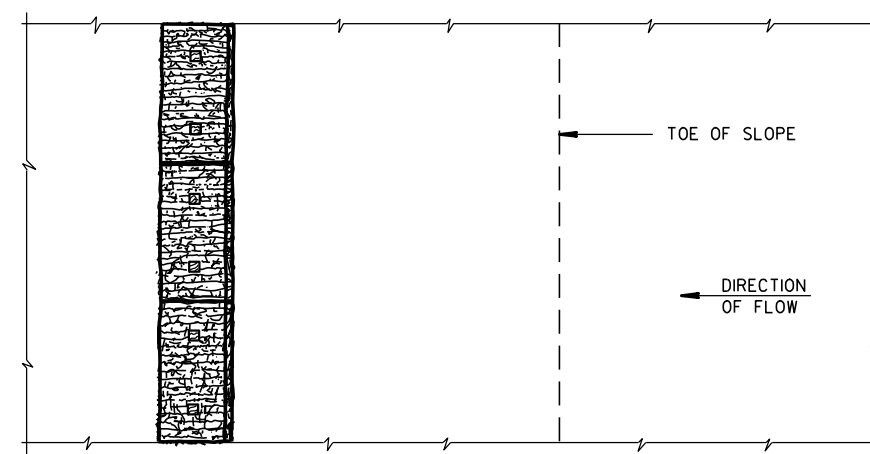
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

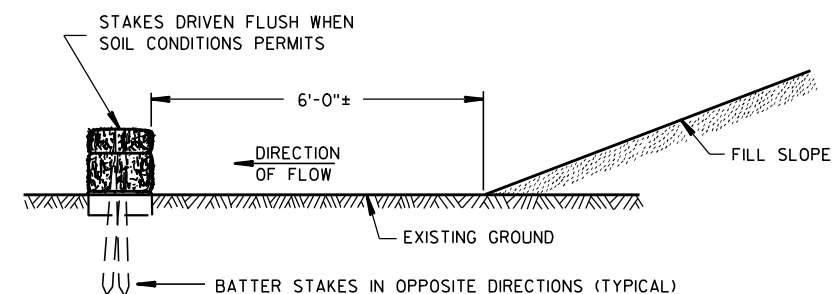


PLAN VIEW

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

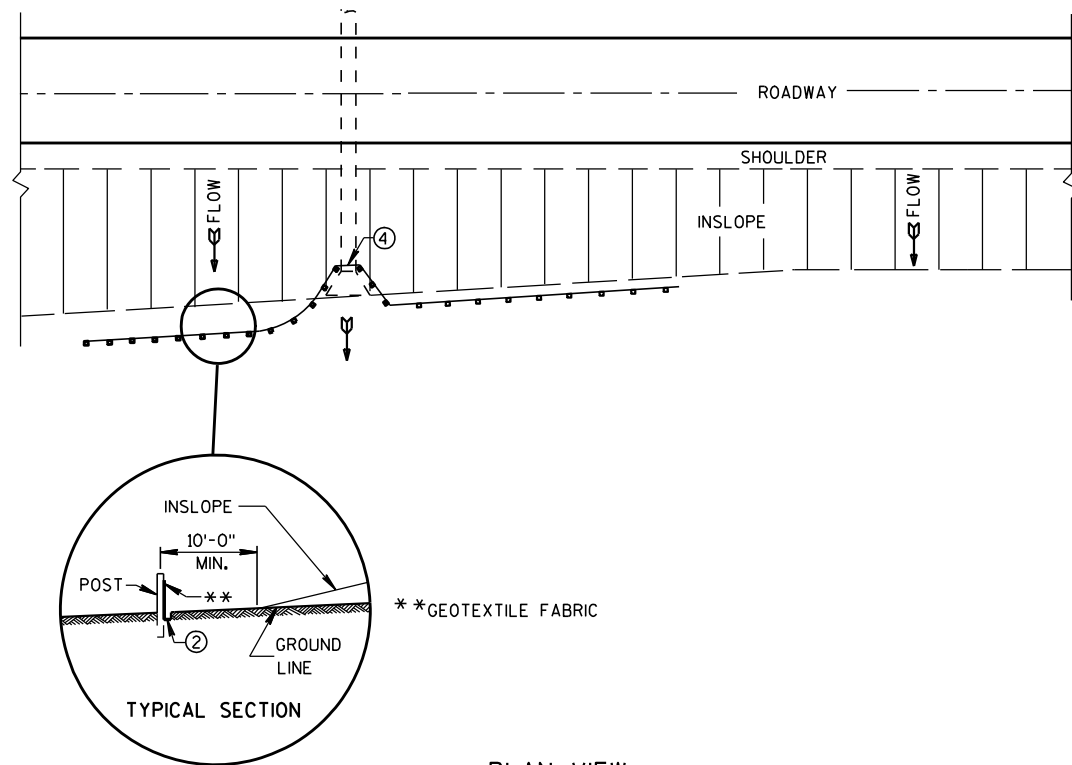
APPROVED

6/04/02
DATE

/S/ Beth Connolly
CHIEF ROADWAY DEVELOPER

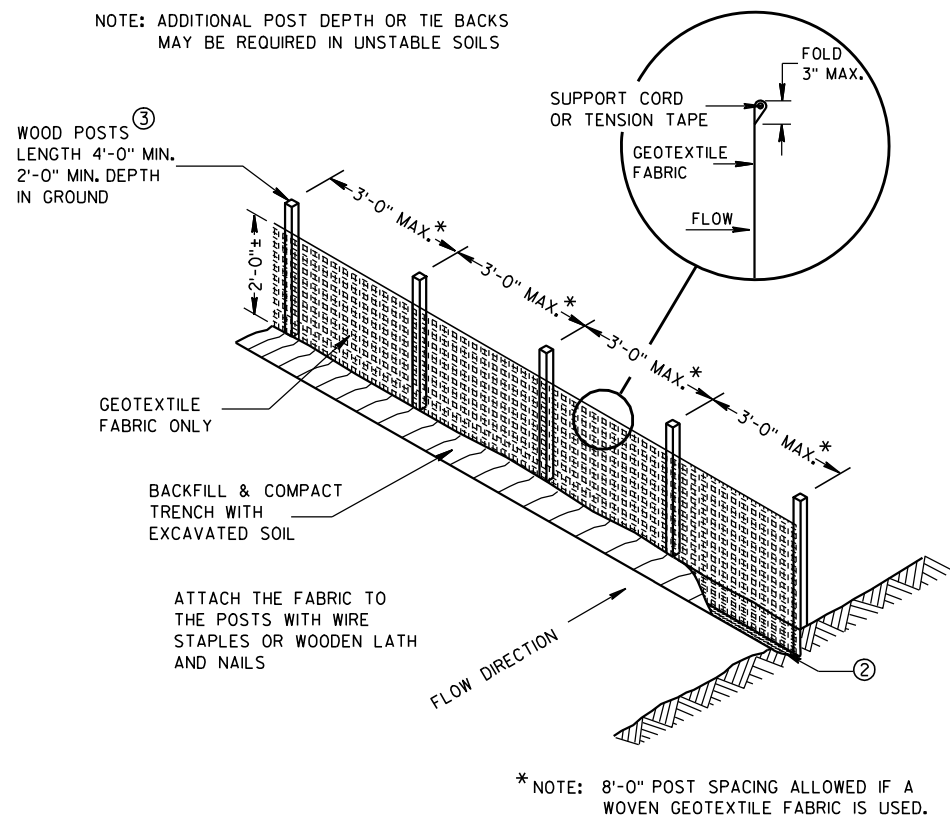
ENGINEER

FHWA

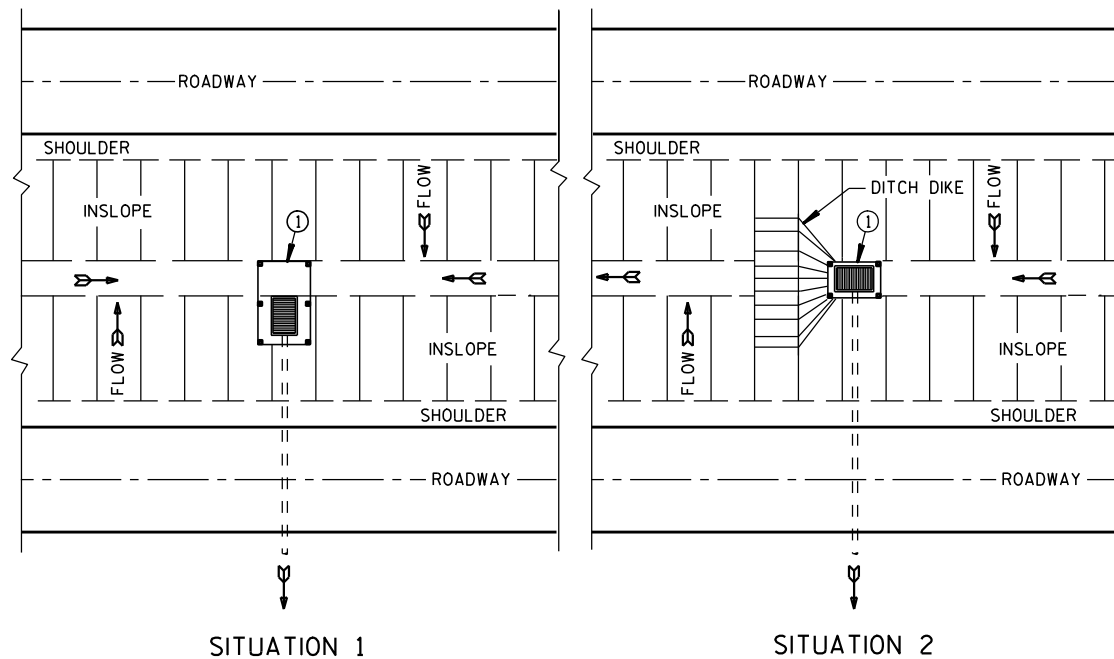


PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

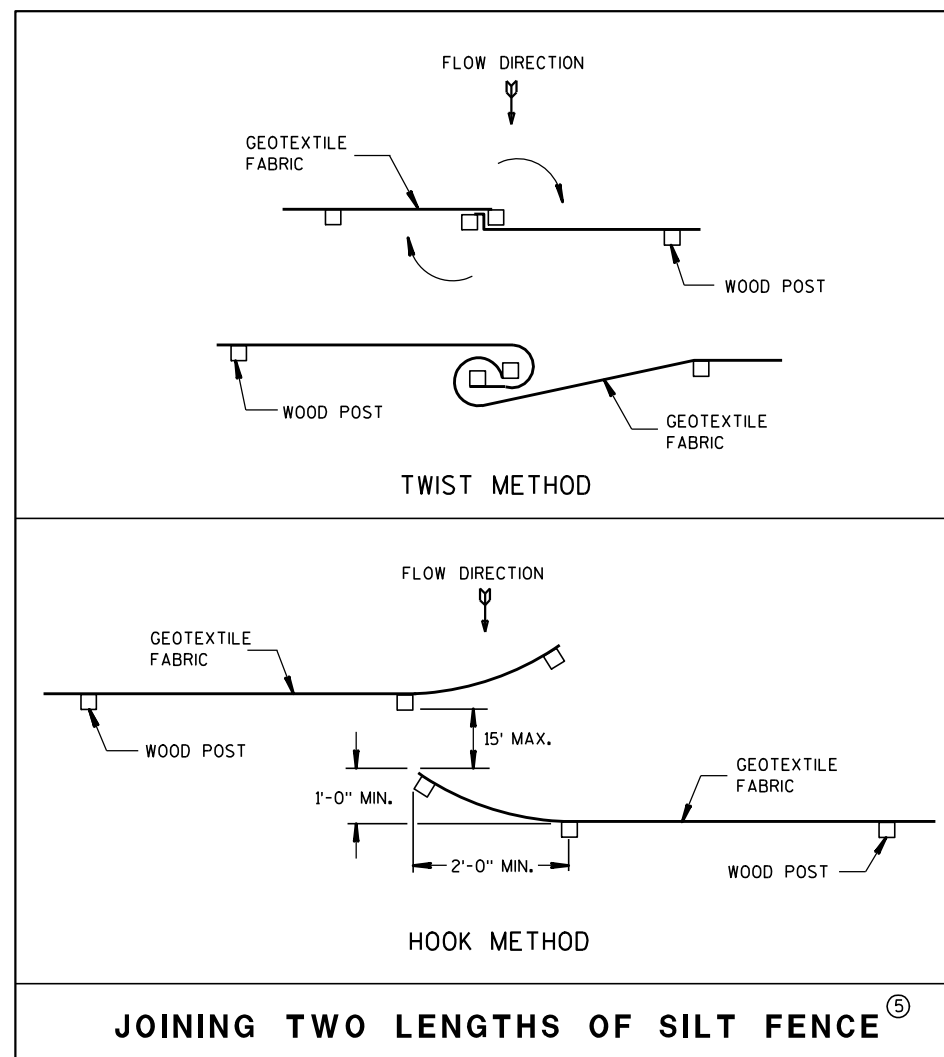
NOTE: ADDITIONAL POST DEPTH OR TIE BACKS
MAY BE REQUIRED IN UNSTABLE SOILS



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

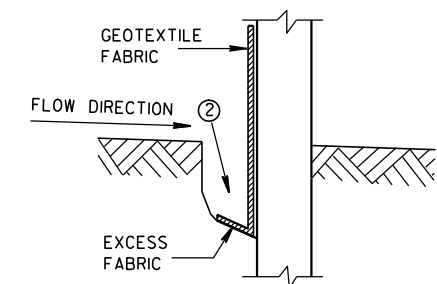


JOINING TWO LENGTHS OF SILT FENCE^⑤

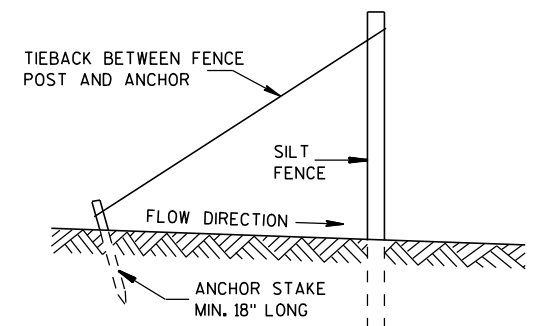
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-29-05
DATE

FHWA

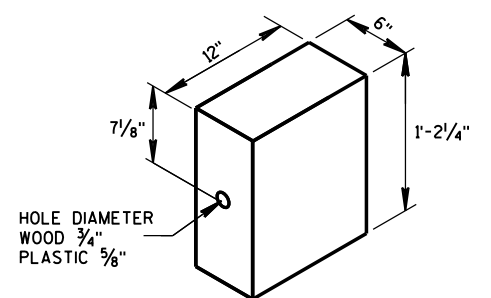
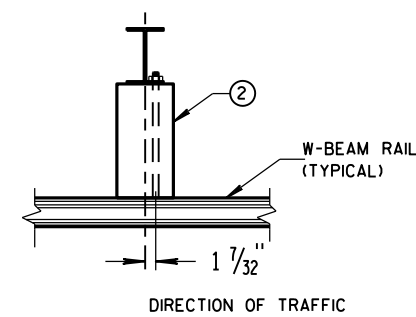
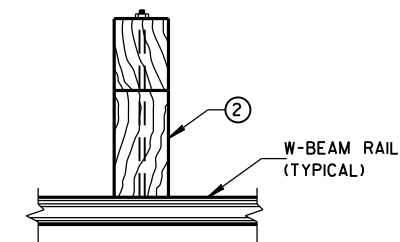
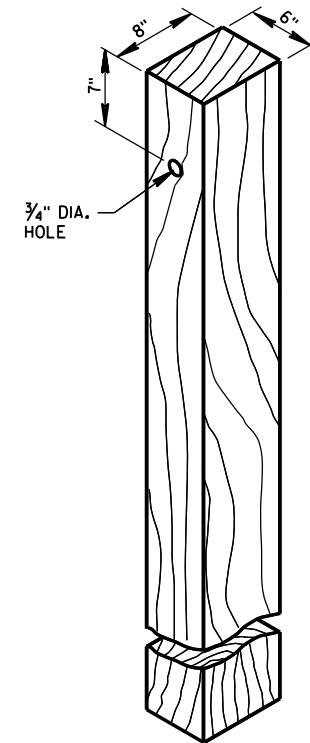
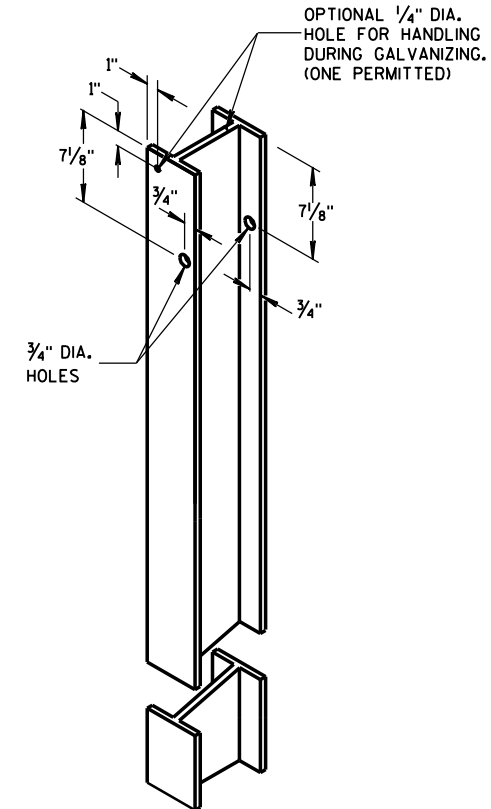
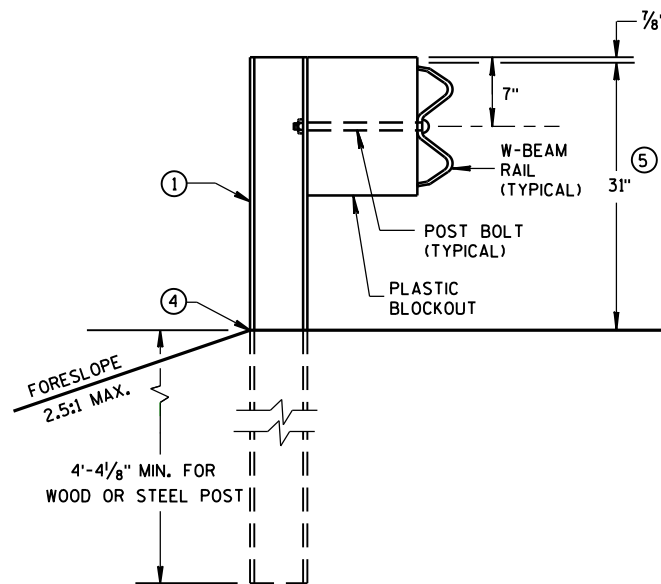
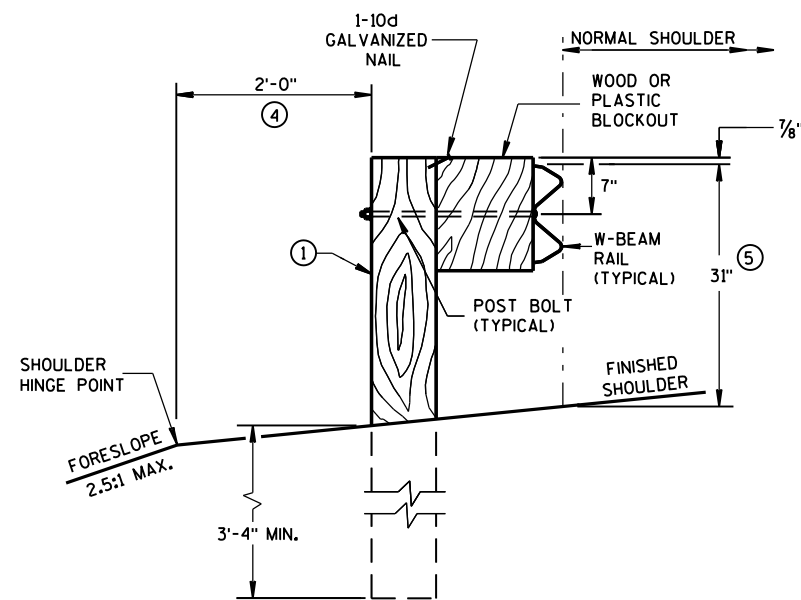
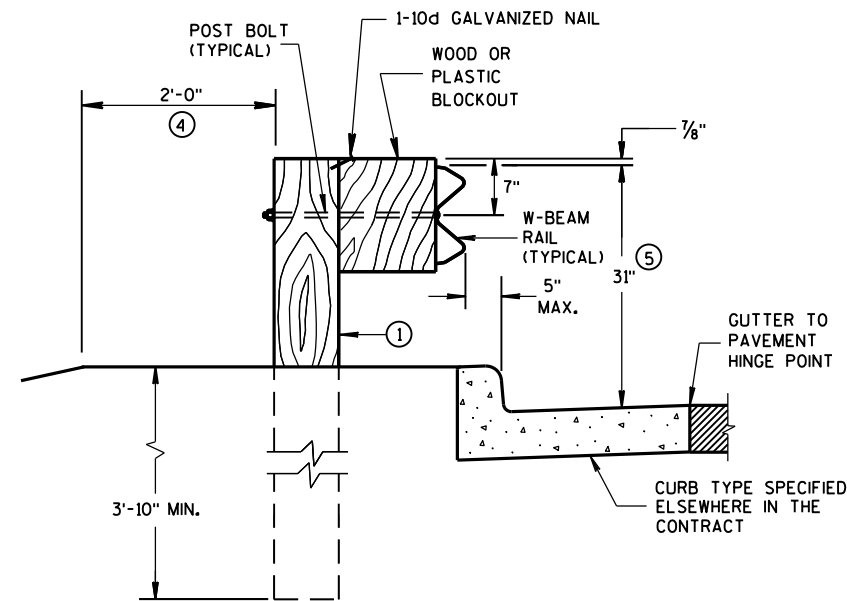
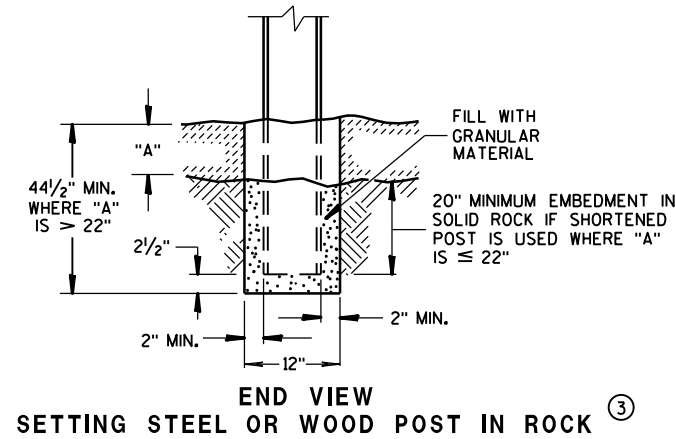
/S/ Beth Conn

CHIEF ROADWAY DEVELOPER

ENGINEER

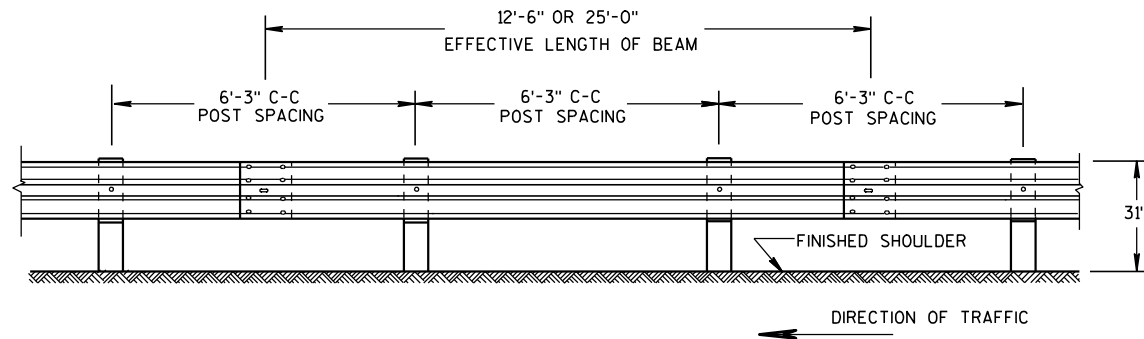
S.D.D. 14 B 42-2a

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

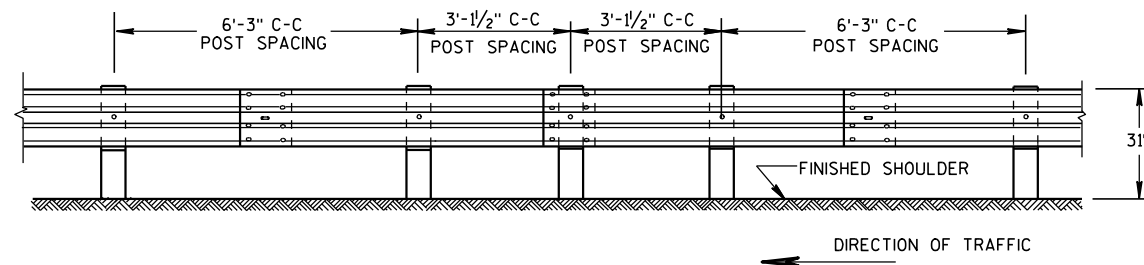


**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

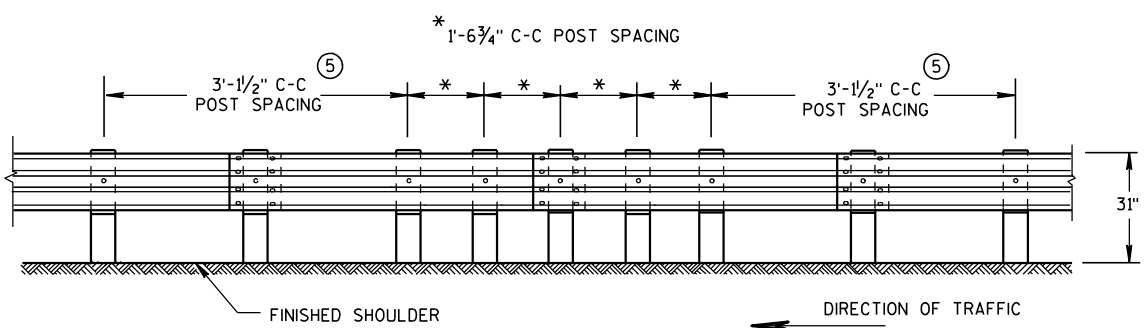
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION⁶³



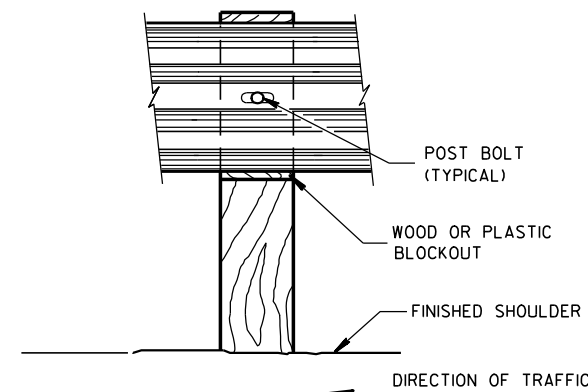
FRONT VIEW
POST SPACING STANDARD INSTALLATION



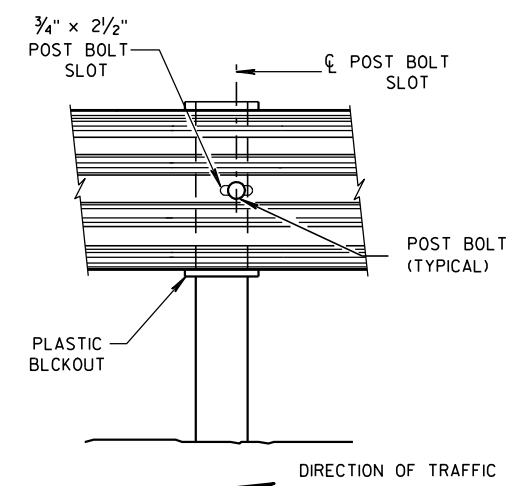
FRONT VIEW
**HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



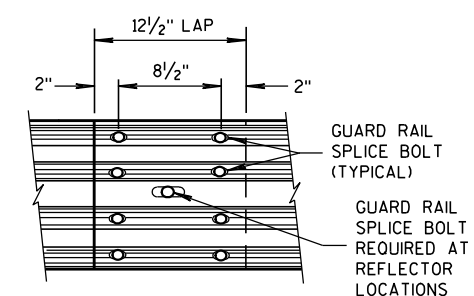
FRONT VIEW
QUARTER POST SPACING (QS)



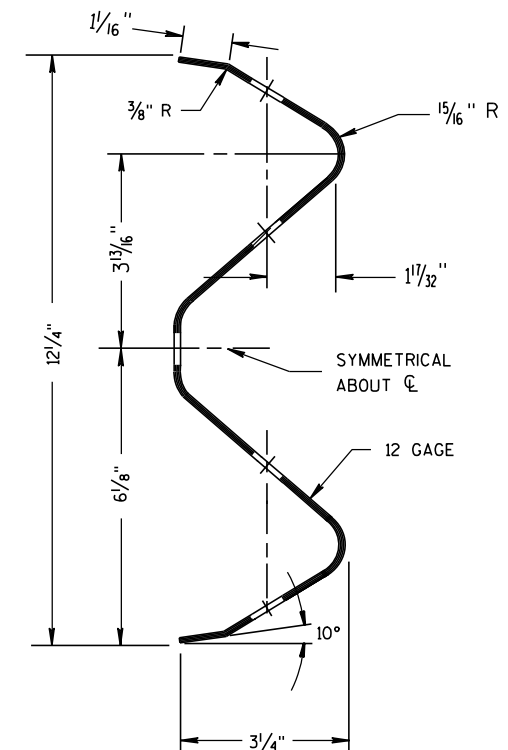
FRONT VIEW AT WOOD POST



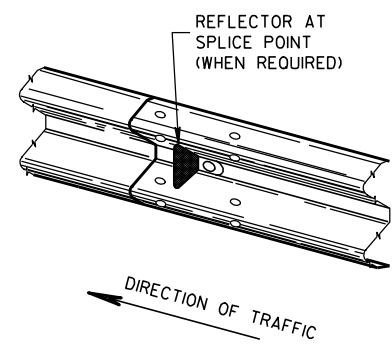
FRONT VIEW AT STEEL POST



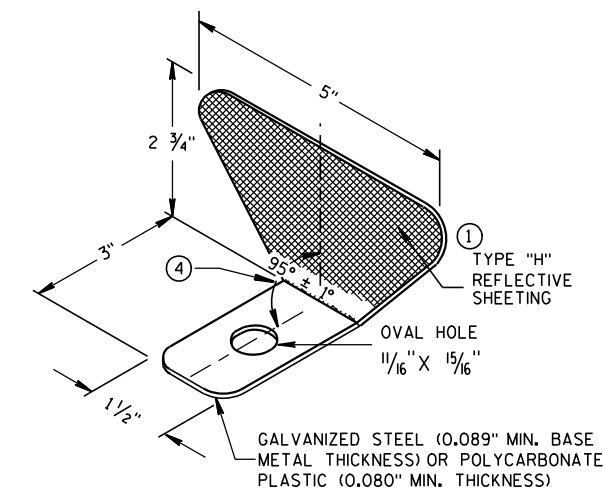
**FRONT VIEW
MID-SPAN BEAM SPLICE**



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION



GENERAL NOTES

- 1 PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.
- 2 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
- 3 REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
- 4 PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.
- 5 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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

REFLECTOR SPACING

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{1}{16}$ ".

2. IF THE BOLT EXTENDS MORE THAN $\frac{1}{4}$ " FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.



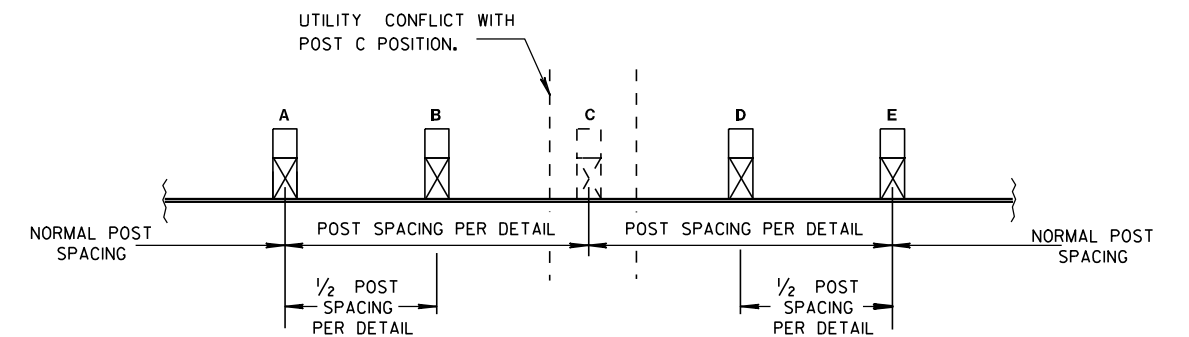
Technical drawing of a circular part with dimensions: $\frac{5}{8}$ " for the inner hole diameter, $\frac{15}{16}$ " for the outer diameter, and $\frac{15}{16}$ " for the thickness.

DETAIL FOR 36" BLOCKOUT DEPTH

A diagram showing a road with a bump. The road is represented by two horizontal lines, with the upper line having a small upward curve. Above the road, there is a rectangular box labeled "OBSTACLE". To the right of the obstacle, an arrow points to the right, labeled "DIRECTION OF TRAFFIC". The road continues to the right, ending at a dashed line labeled ζ .

PLAN VIEW

BEAM LAPPING DETAIL



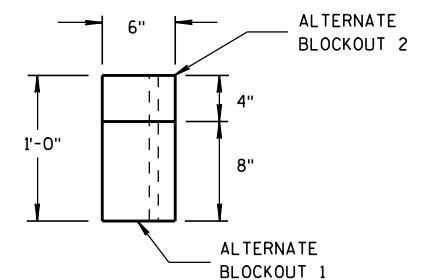
16D DOUBLE HEAD NAILS

SEE OTHER DETAILS

ALTERNATE BLOCKOUT 1

ALTERNATE BLOCKOUT 2

SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

ENGINEER

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

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.
- (F) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (G) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (H) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

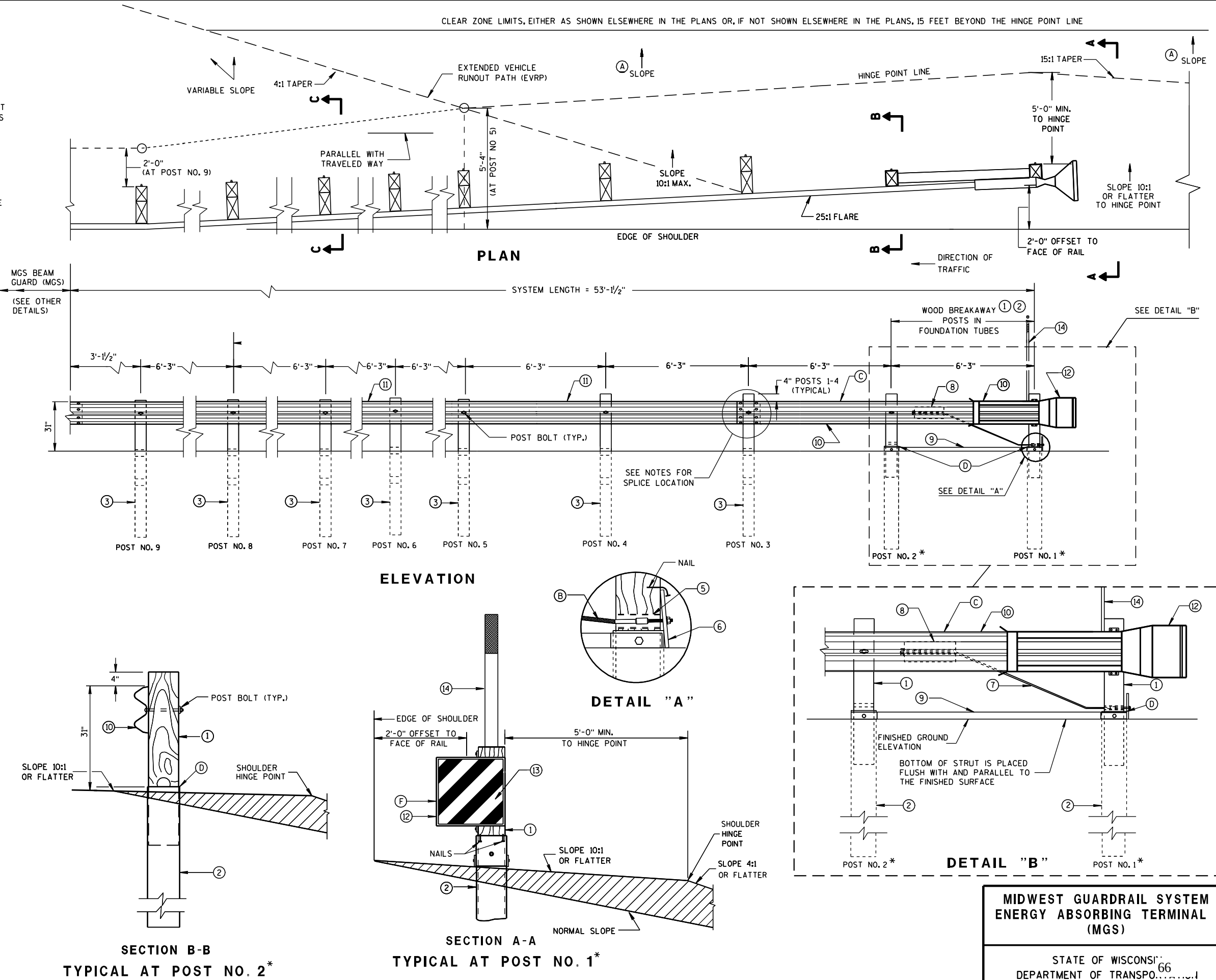
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

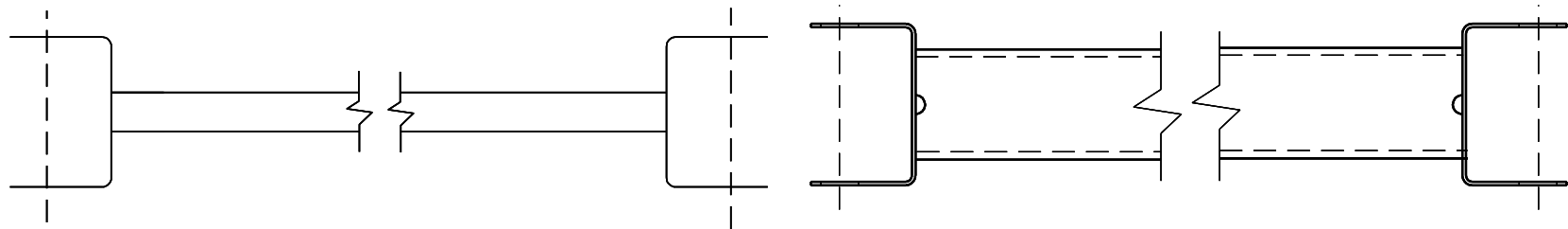
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

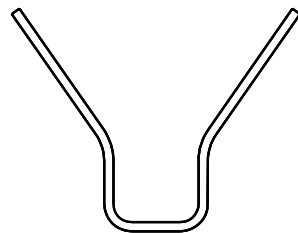
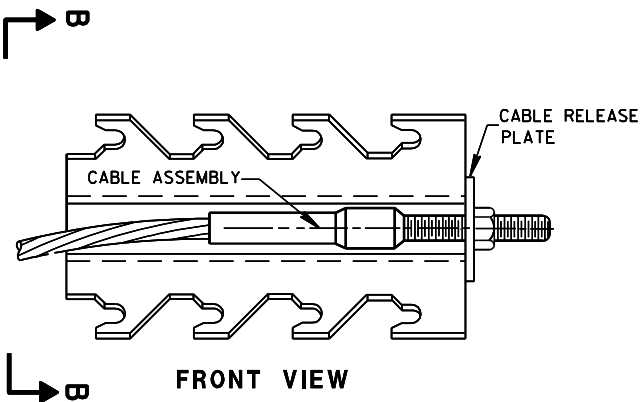
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

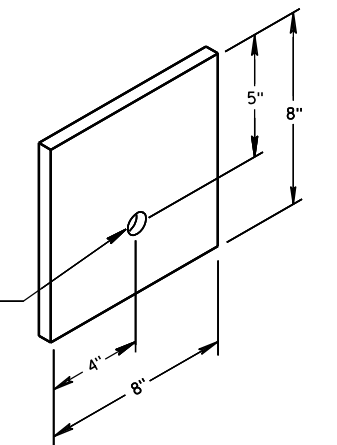
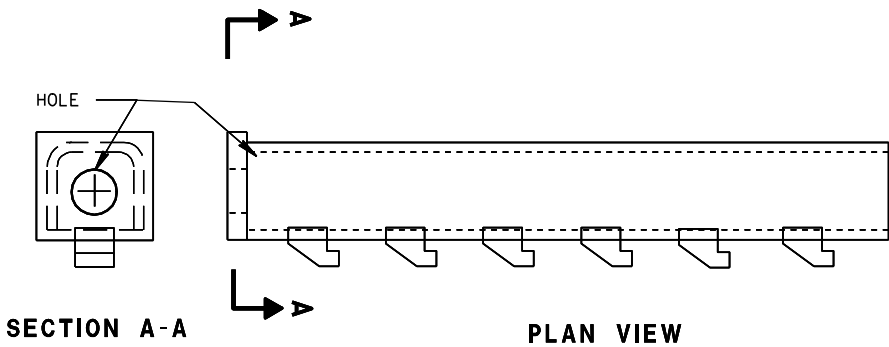




9 H
GENERIC GROUND STRUT

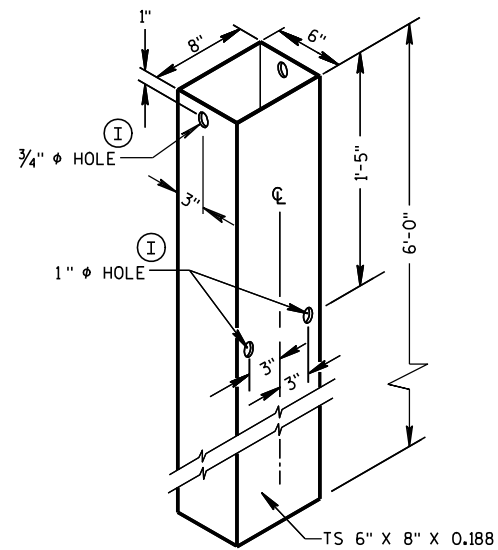


SECTION B-B
8 H
GENERIC ANCHOR CABLE BOX

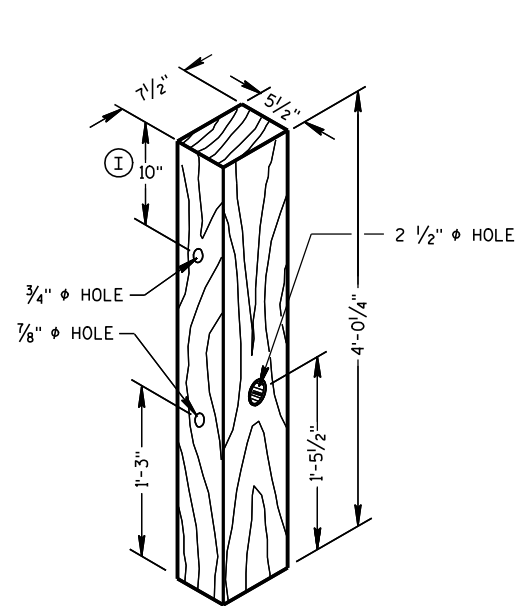


6
BEARING PLATE

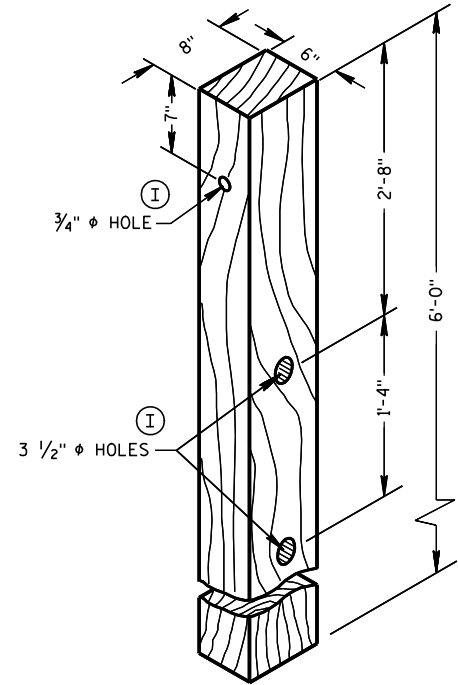
BILL OF MATERIALS	
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR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



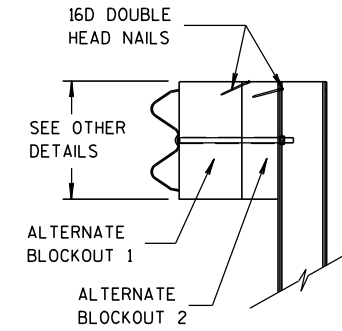
FOUNDATION TUBE ②



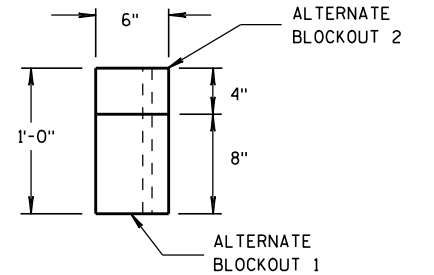
WOOD BREAKAWAY POST ①



WOOD CRT POST ③

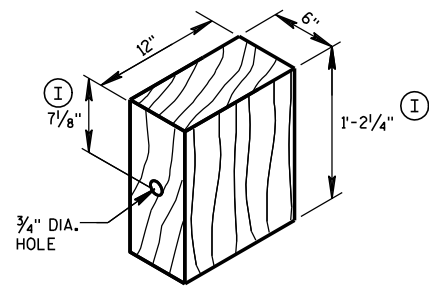


SIDE VIEW



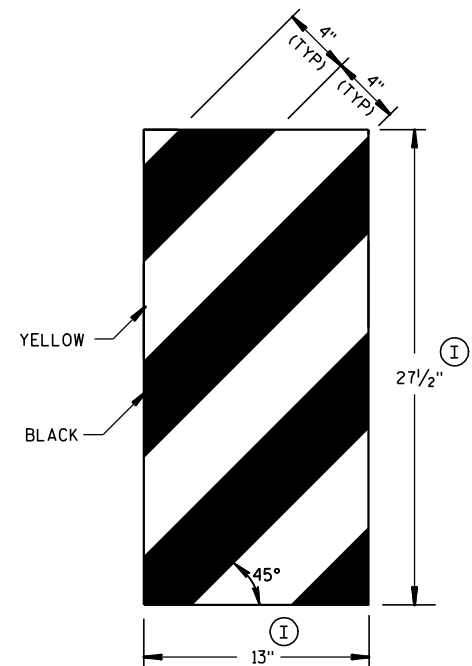
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

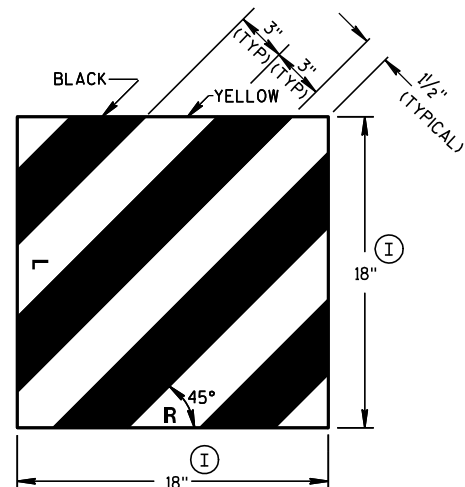


WOOD BLOCKOUT ④

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



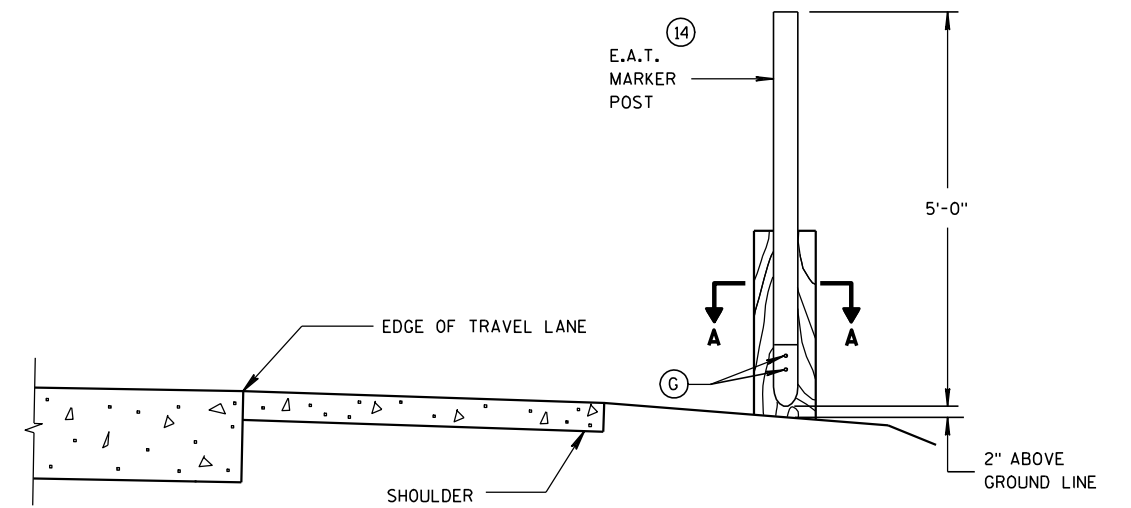
GENERIC REFLECTIVE SHEETING ⑬ ④



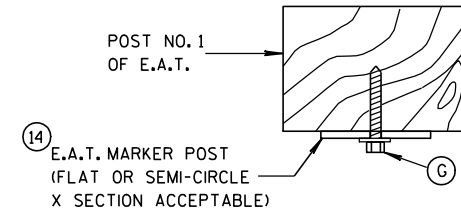
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST ⑭



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

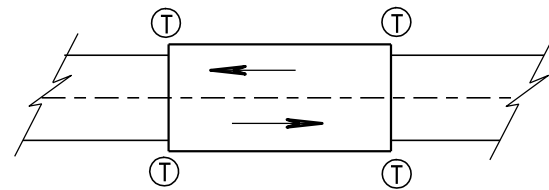


SECTION A-A

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

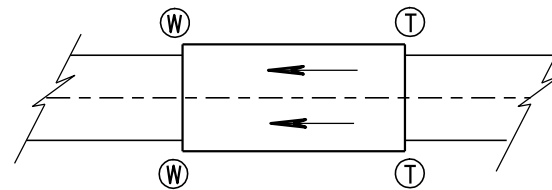
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 /S/ Jerry H. 3000
DATE ROADWAY STANDARDS 68 1ENT
FHWA ENGINEER



TWO WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION



ONE WAY TRAFFIC

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

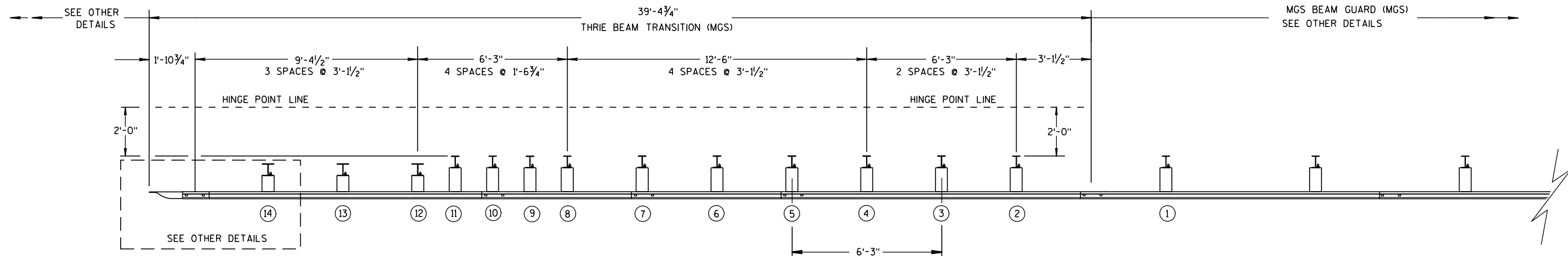
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

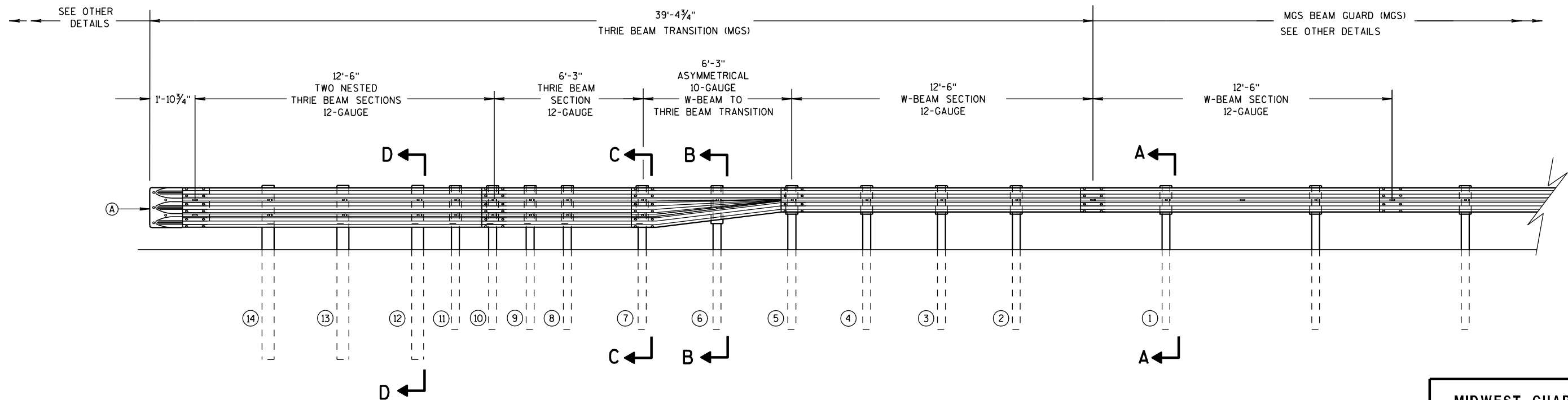
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 45-3b



S.D.D. 14 B 45-3b



S.D.D. 14 B 45-3b

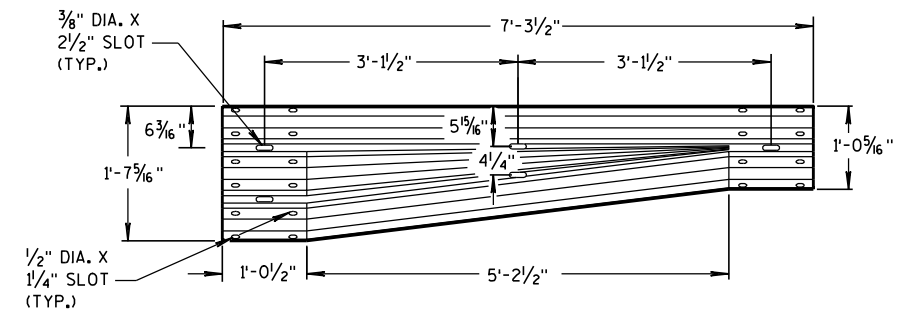
10

10

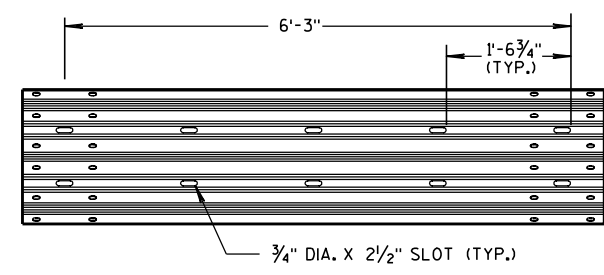
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

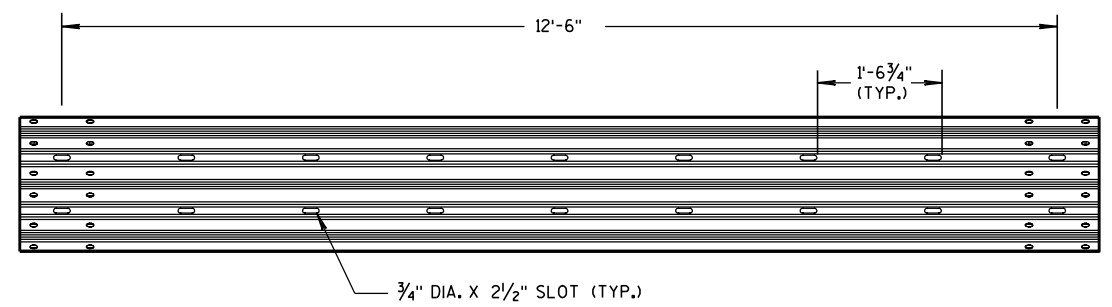
S.D.D. 14 B 46-3b



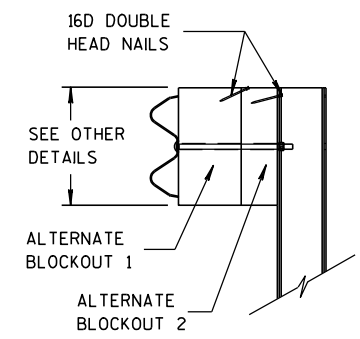
W-BEAM TO THRIE BEAM TRANSITION SECTION



6'-3" THRIE BEAM SECTION

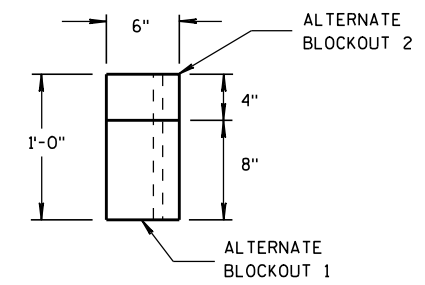


12'-6" THRIE BEAM SECTION

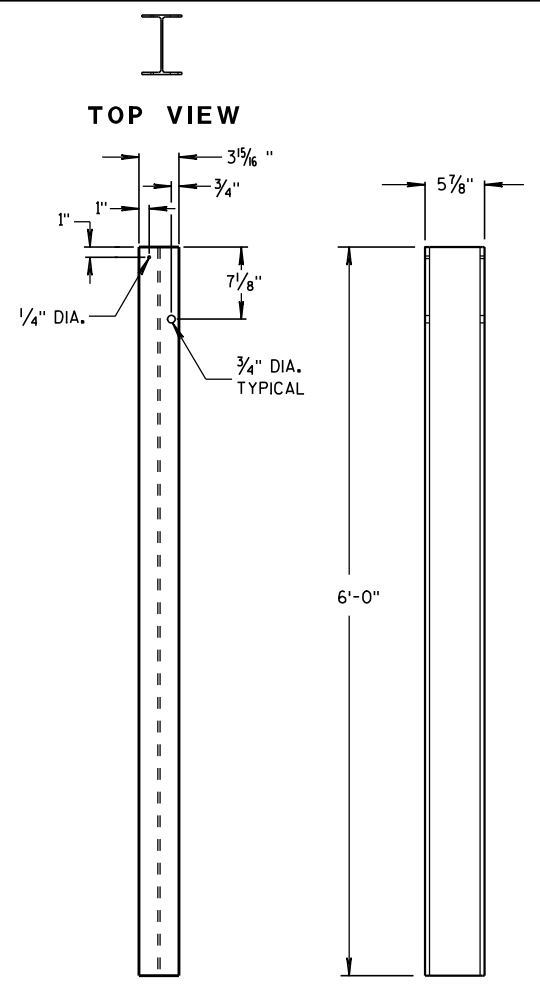


SIDE VIEW

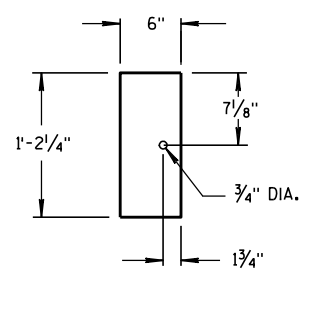
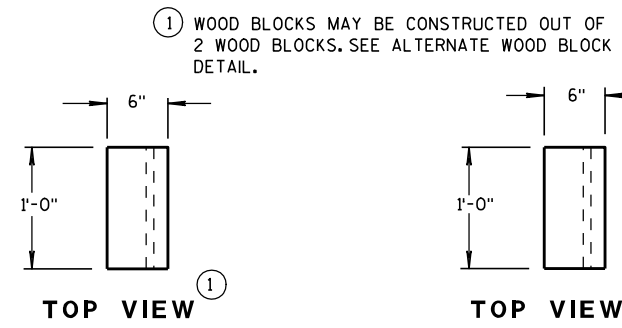
ALTERNATE WOOD BLOCKOUT DETAIL



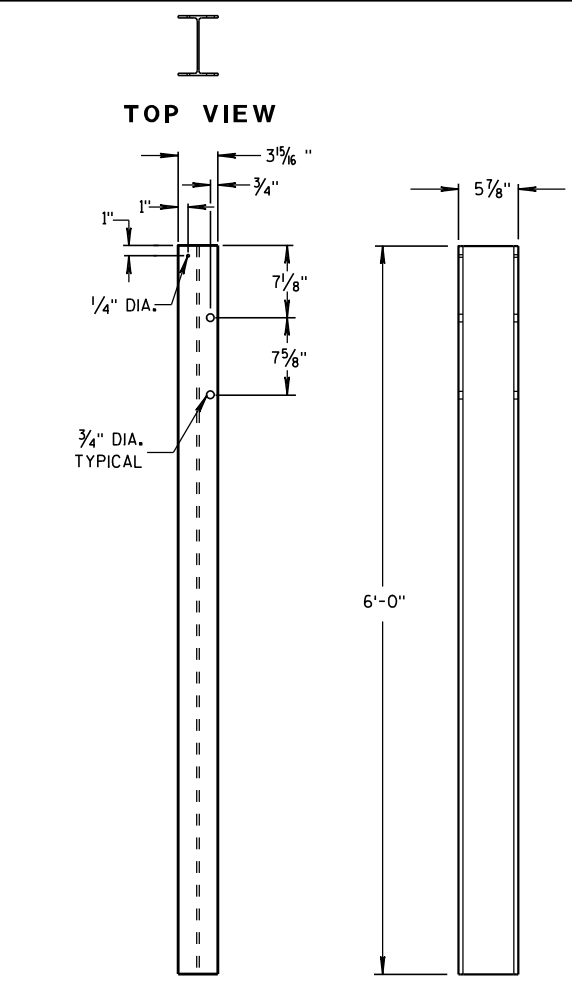
TOP VIEW



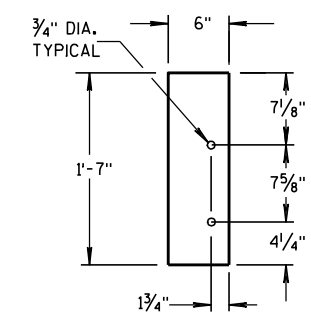
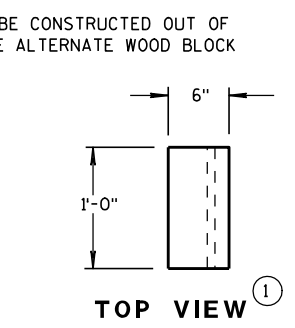
STEEL POSTS 1-5



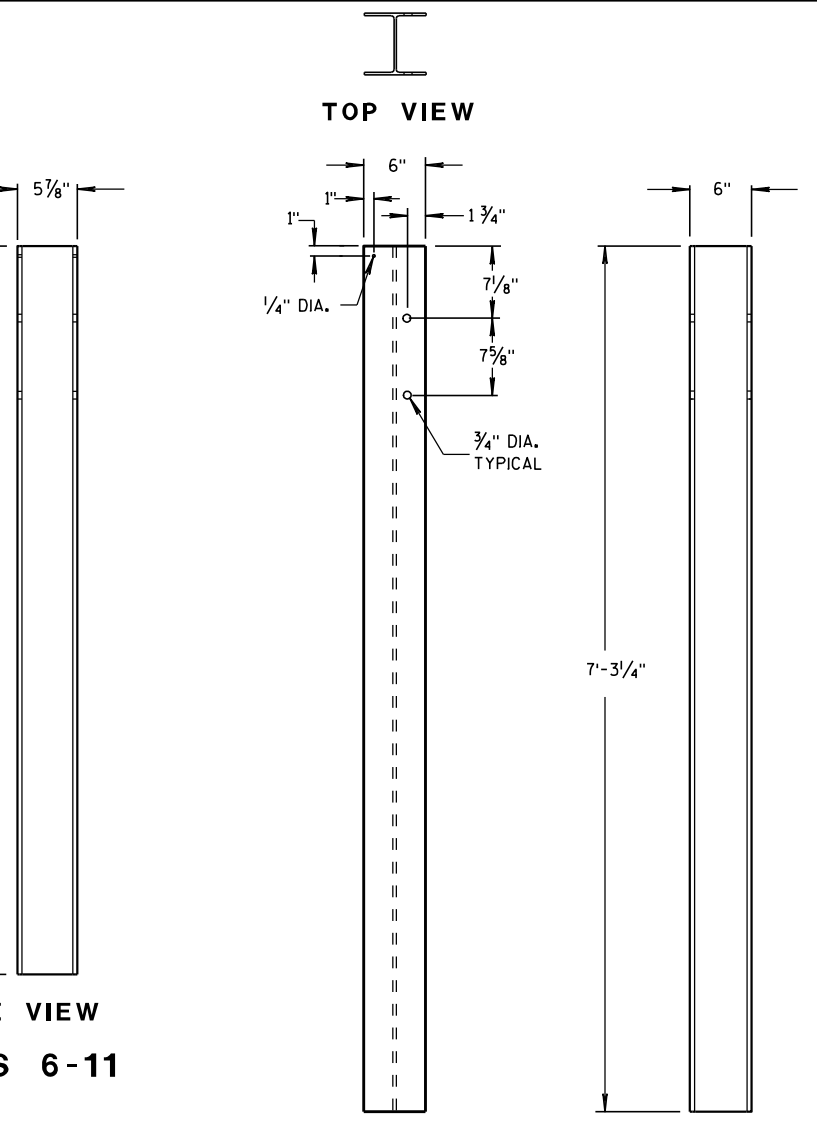
BLOCKOUT POSTS 1-5



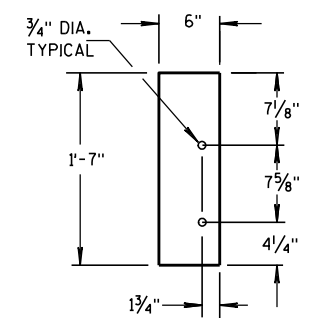
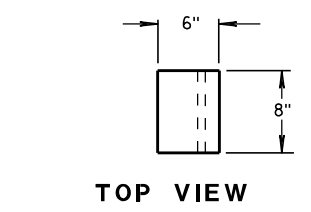
STEEL POSTS 6-11



BLOCKOUT POSTS 6-11



STEEL POSTS 12-14

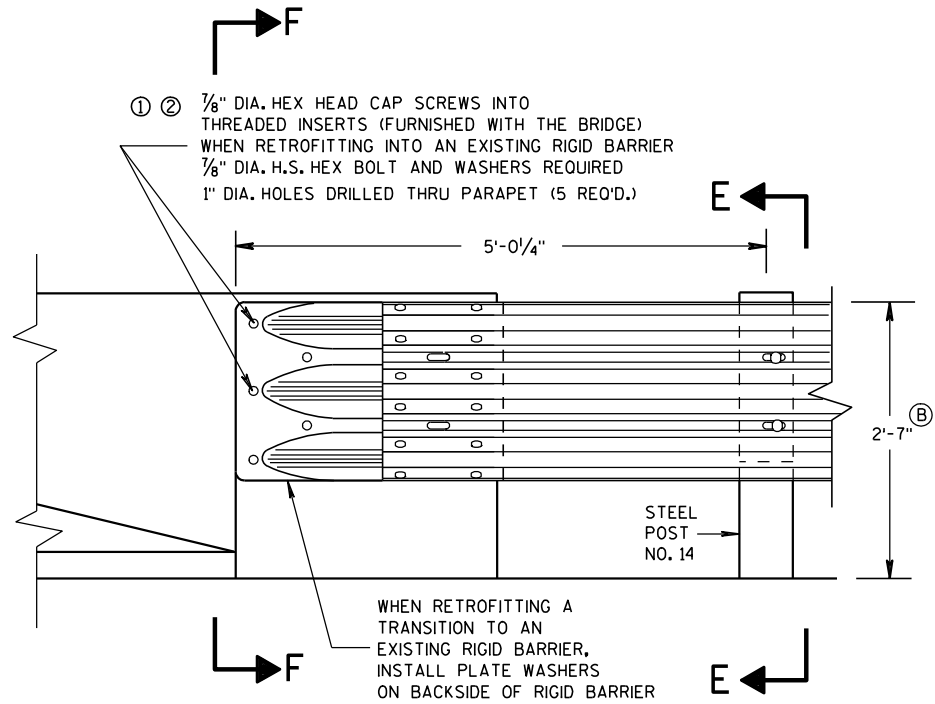


BLOCKOUT POSTS 12-14

STEEL POST SIZES

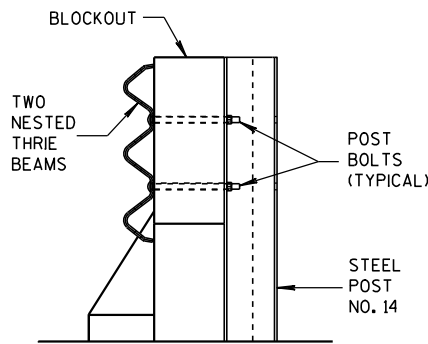
POST NUMBER	SECTION TYPE	LENGTH
①	W6x9	72"
②	W6x9	72"
③	W6x9	72"
④	W6x9	72"
⑤	W6x9	72"
⑥	W6x9	72"
⑦	W6x9	72"
⑧	W6x9	72"
⑨	W6x9	72"
⑩	W6x9	72"
⑪	W6x9	72"
⑫	W6x15	87 1/8"
⑬	W6x15	87 1/8"
⑭	W6x15	87 1/8"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)



FRONT VIEW

THRIE BEAM CONNECTION TO BRIDGE
PARAPET WITH SQUARE ENDS

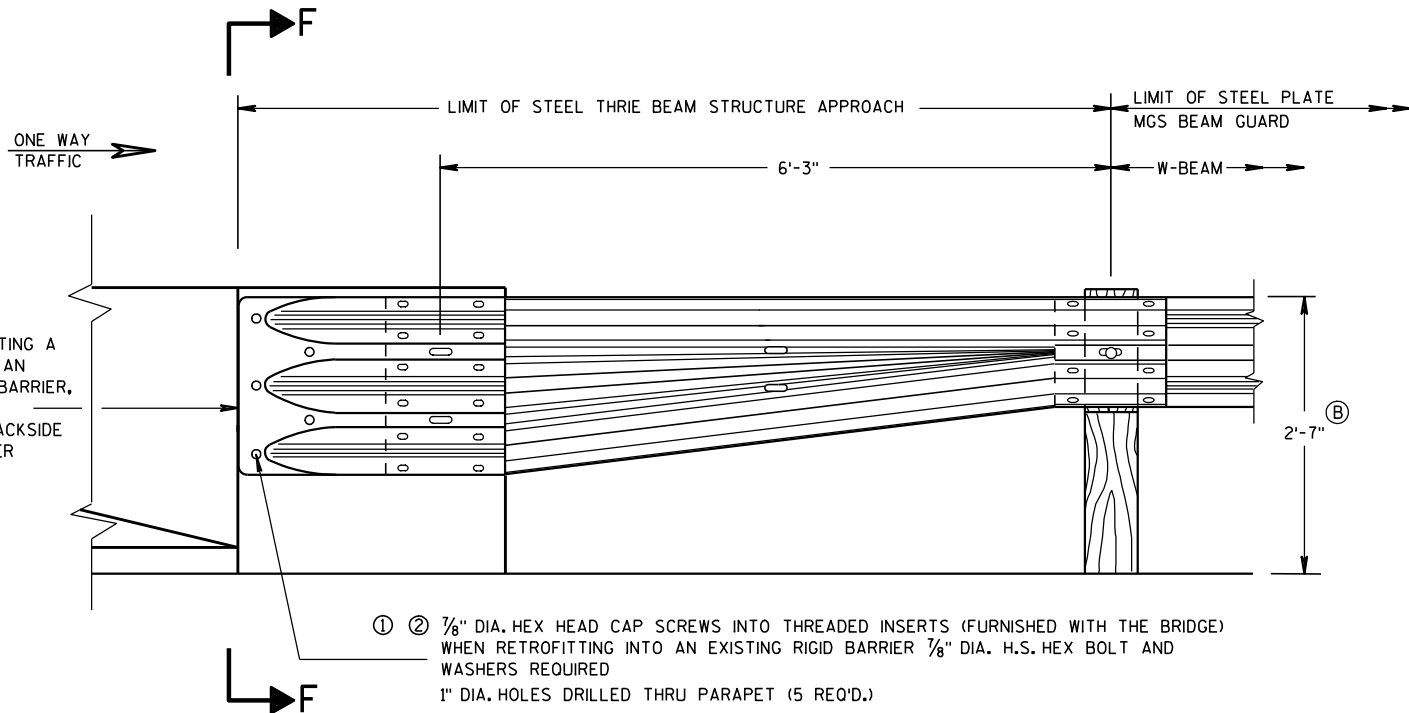


SECTION E-E

GENERAL NOTES

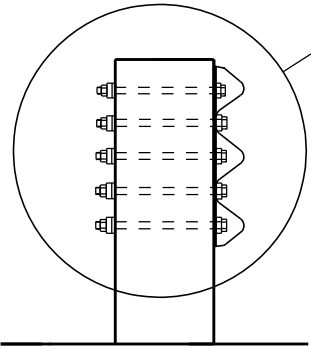
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

- ① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ② 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.
- ③ 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".
- (B) TOLERANCE FOR TOP OF BEAM IS ± 1".

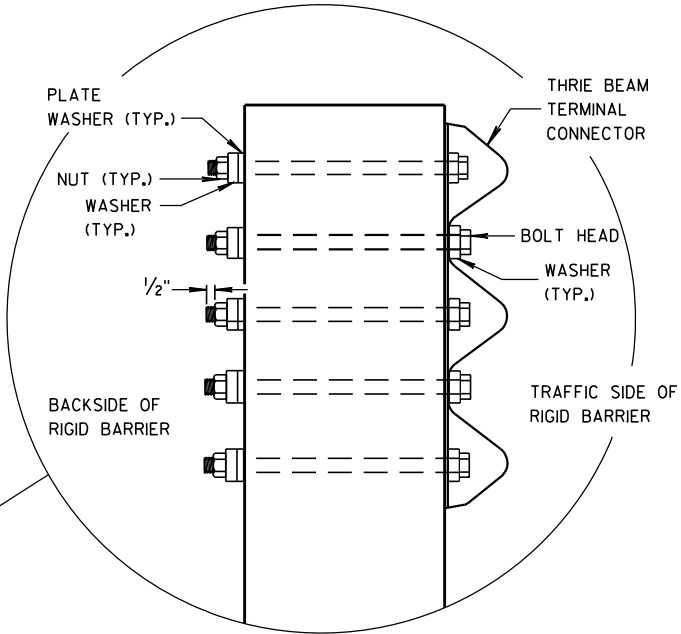


FRONT VIEW

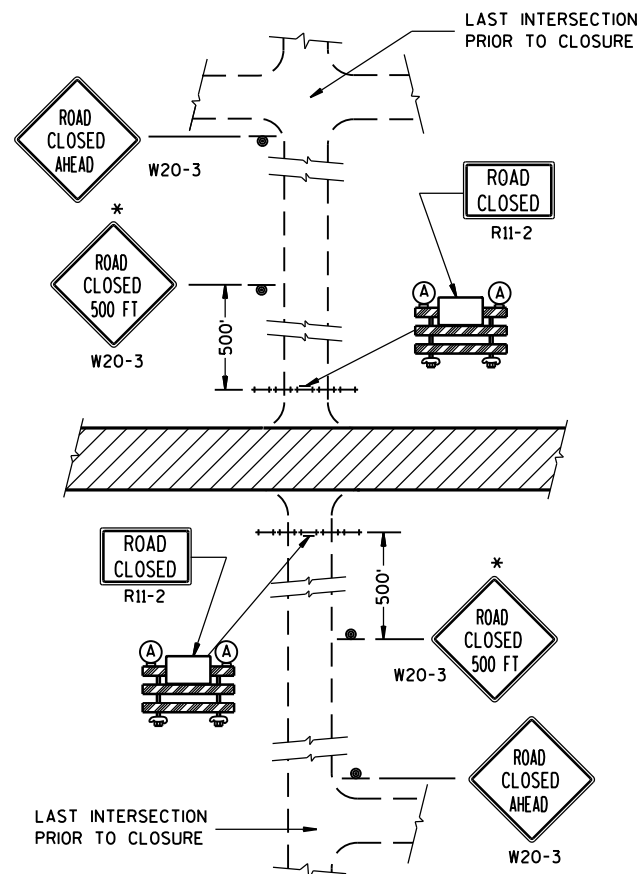
W BEAM TRANSITION AND CONNECTION TO
BRIDGE PARAPETS WITH SQUARE ENDS
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



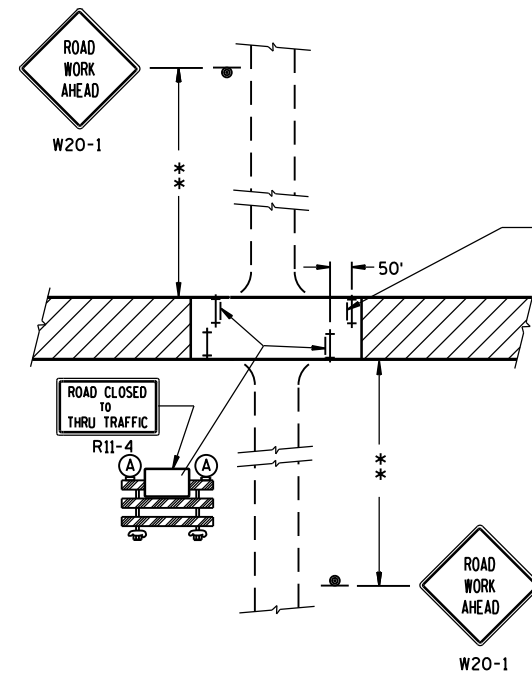
SECTION F-F



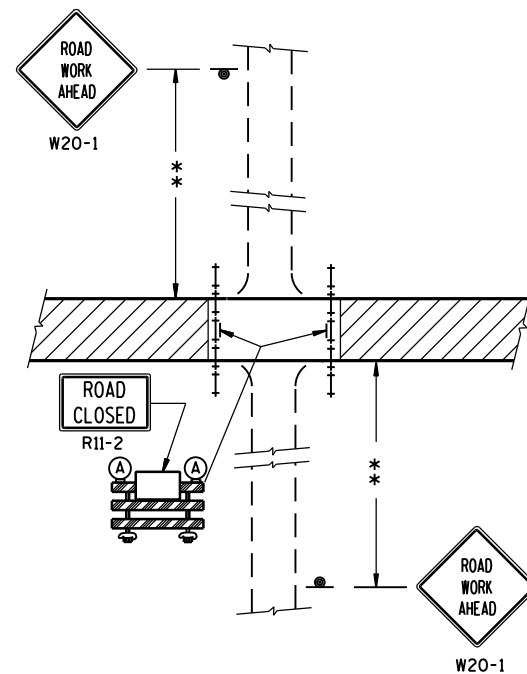
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 8/31/2012 DATE	/S/ Jerry H. Zapp ROADWAY STANDARDS ENGINEER
FHWA	



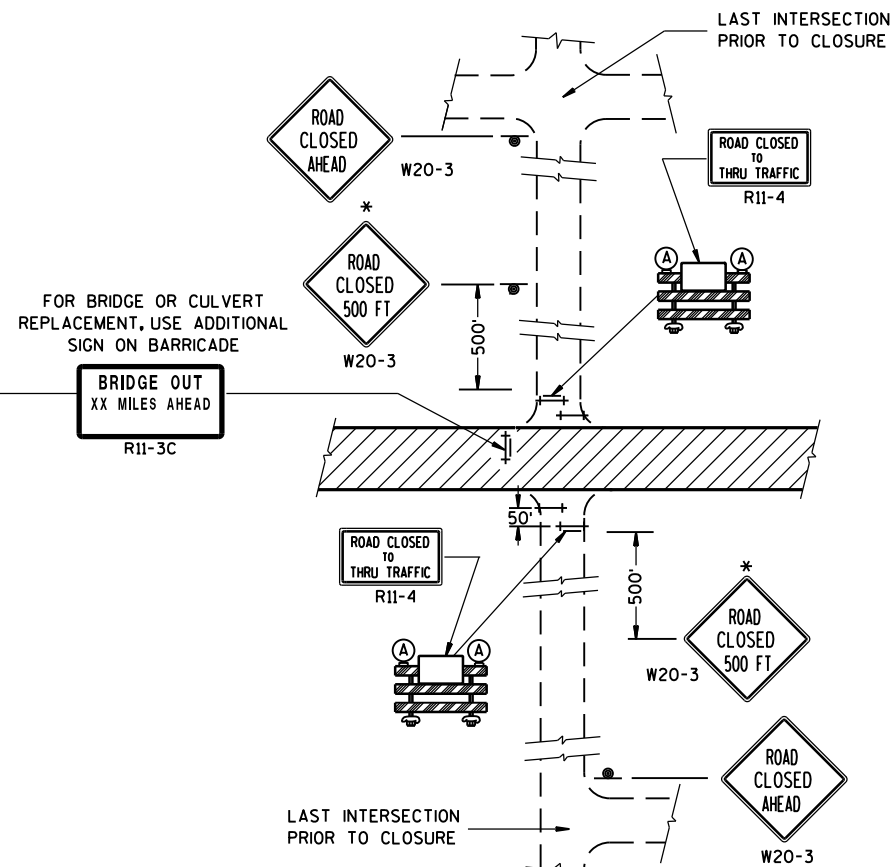
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

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

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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

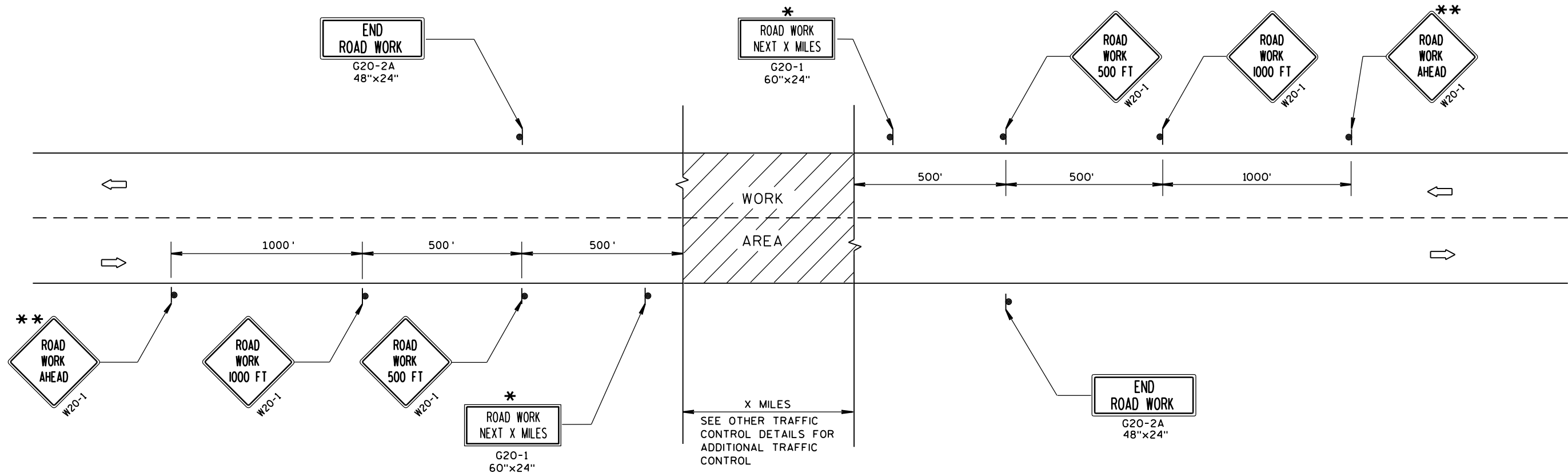
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 /S/ Travis Feltes

DATE STATE TRAFFIC ENGINE 73 SIGN

FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

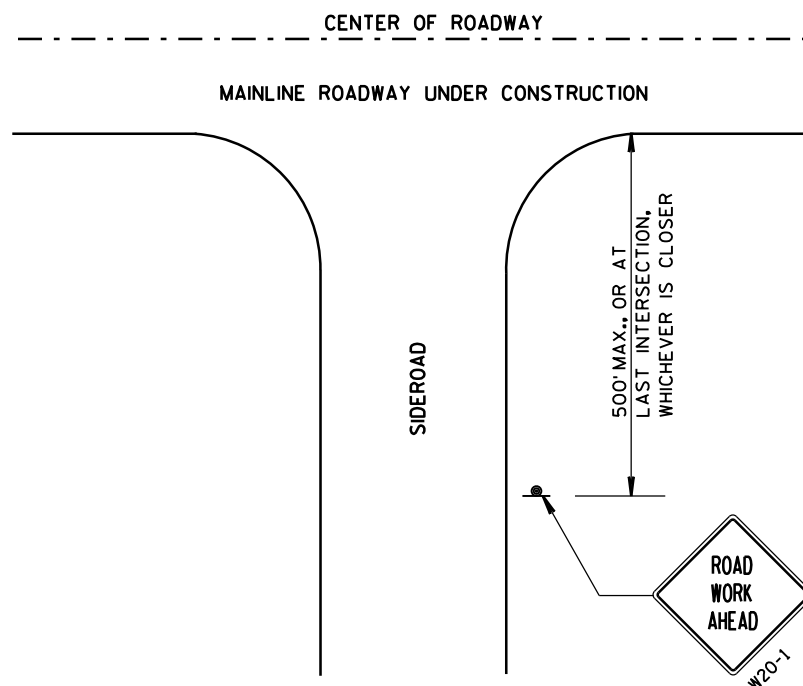
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

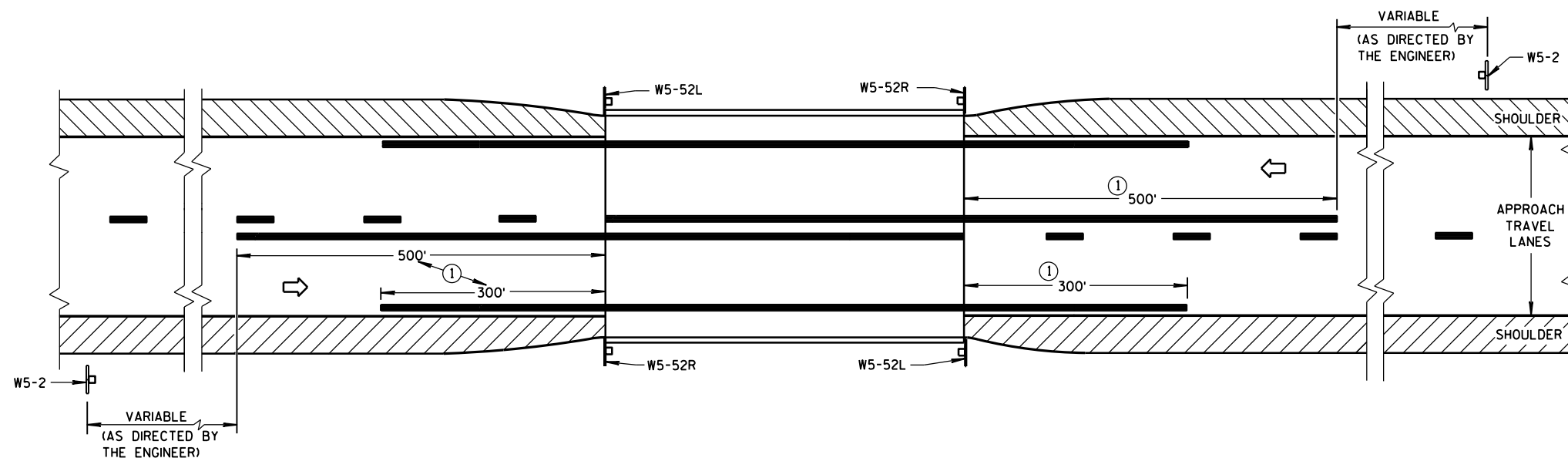
** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

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

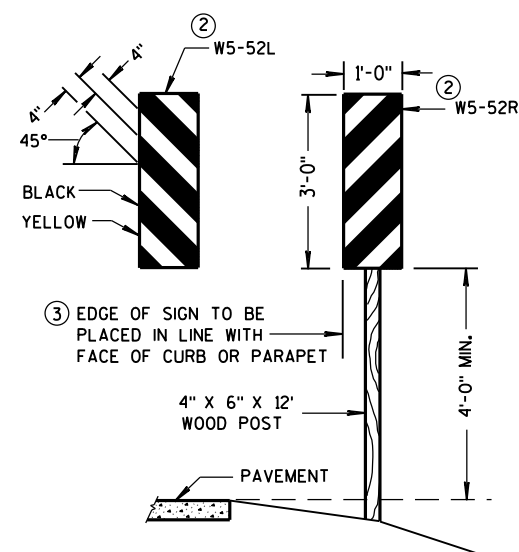
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 8/2013 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER	SIGN
FHWA		



SITUATION 1

WARRANTING CRITERIA:

BRIDGE WIDTH IS AT LEAST 18 FEET BUT LESS THAN 24 FEET



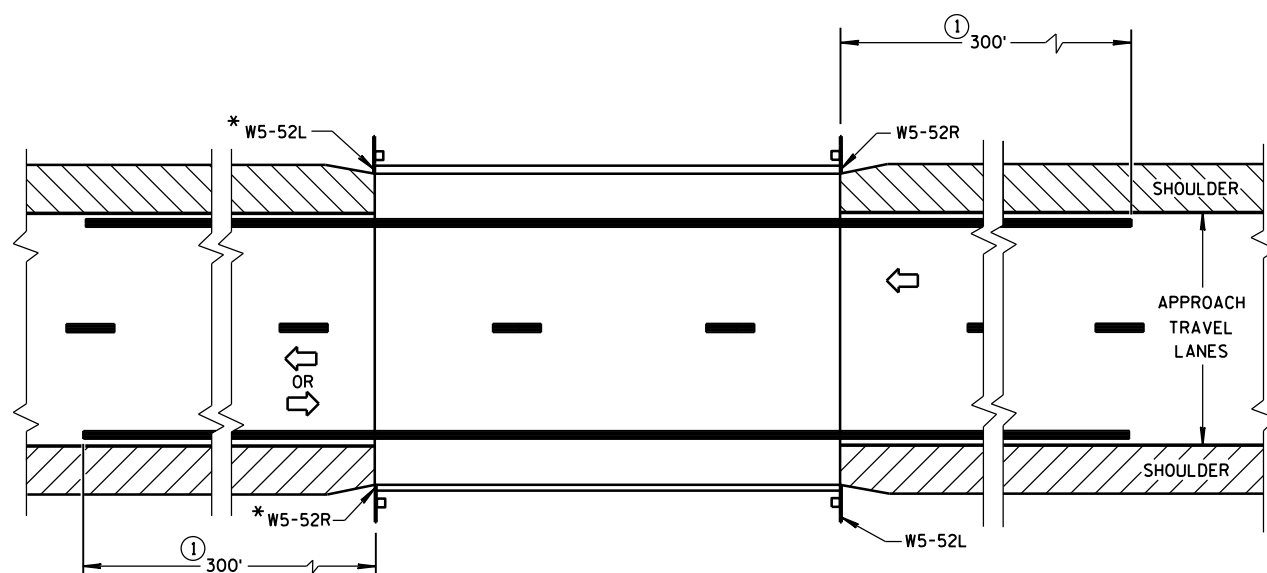
OBJECT MARKER PLACEMENT

GENERAL NOTES

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

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

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

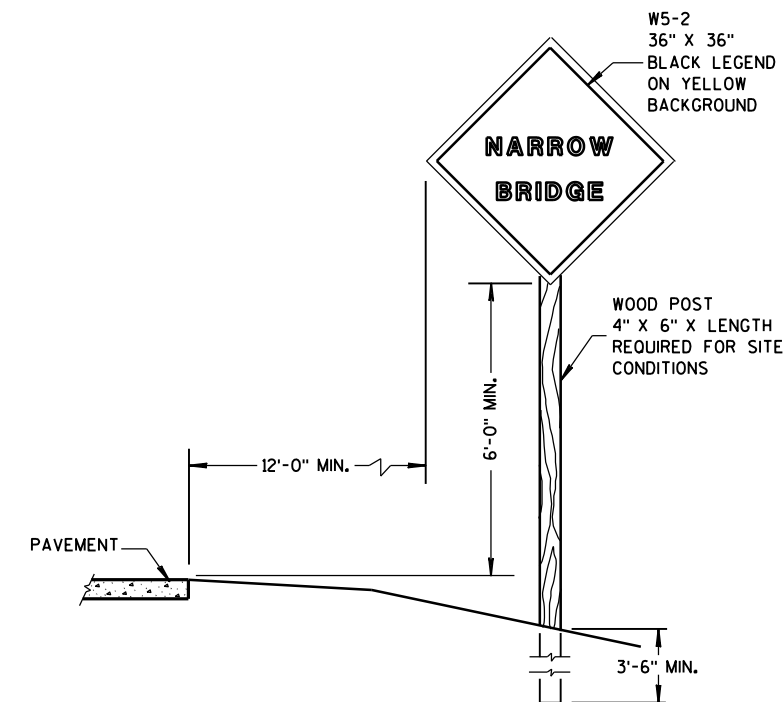


*OMIT ON ONE-WAY TRAVELLED WAYS

SITUATION 2

WARRANTING CRITERIA:

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



SIGN PLACEMENT

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

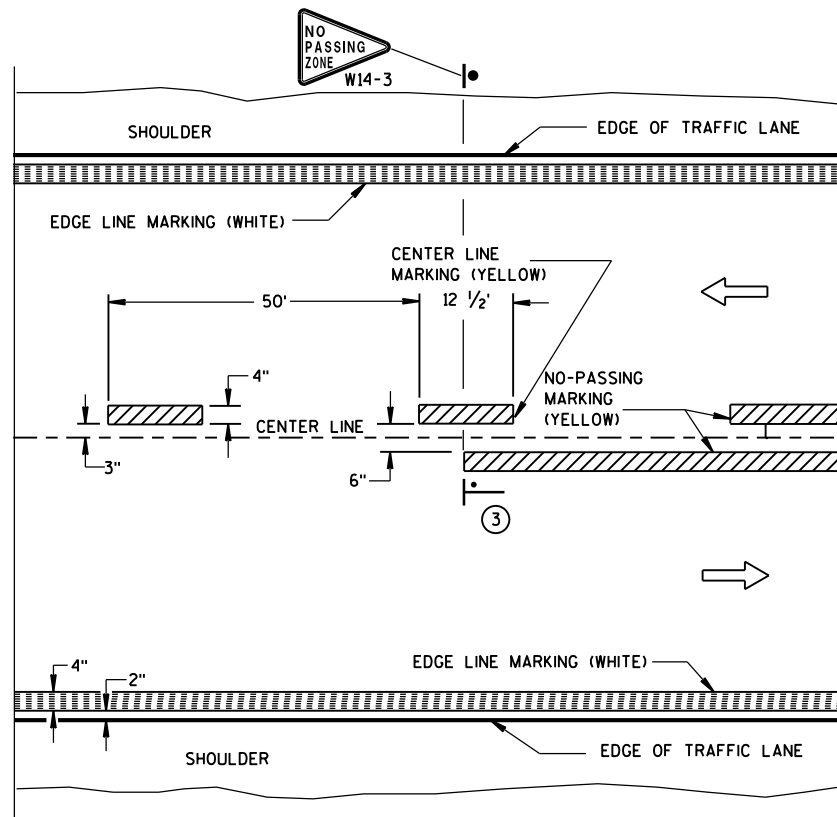
APPROVED

3/4/2013
DATE

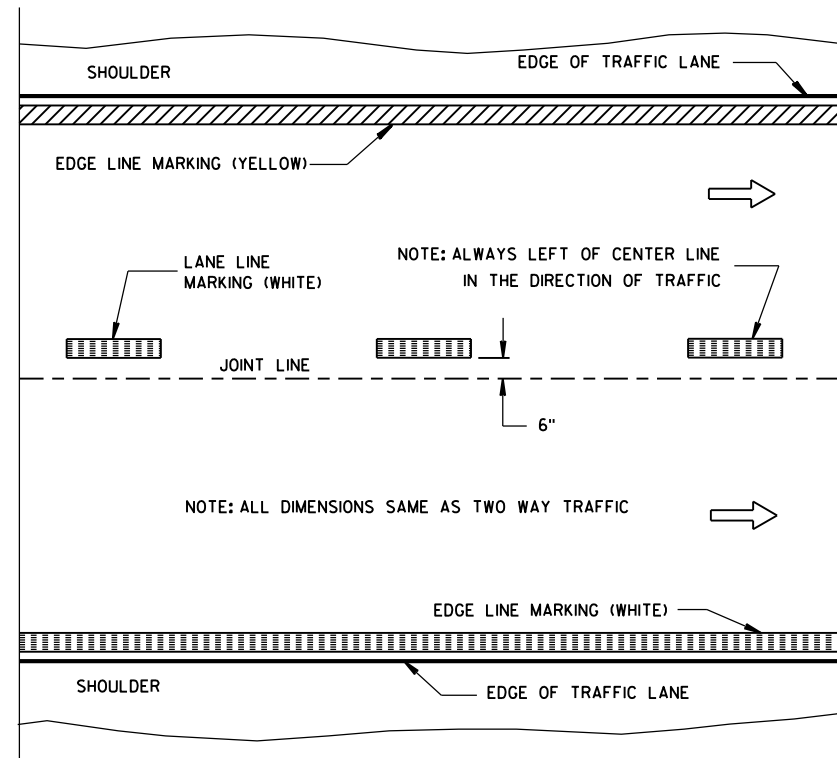
FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

JGN

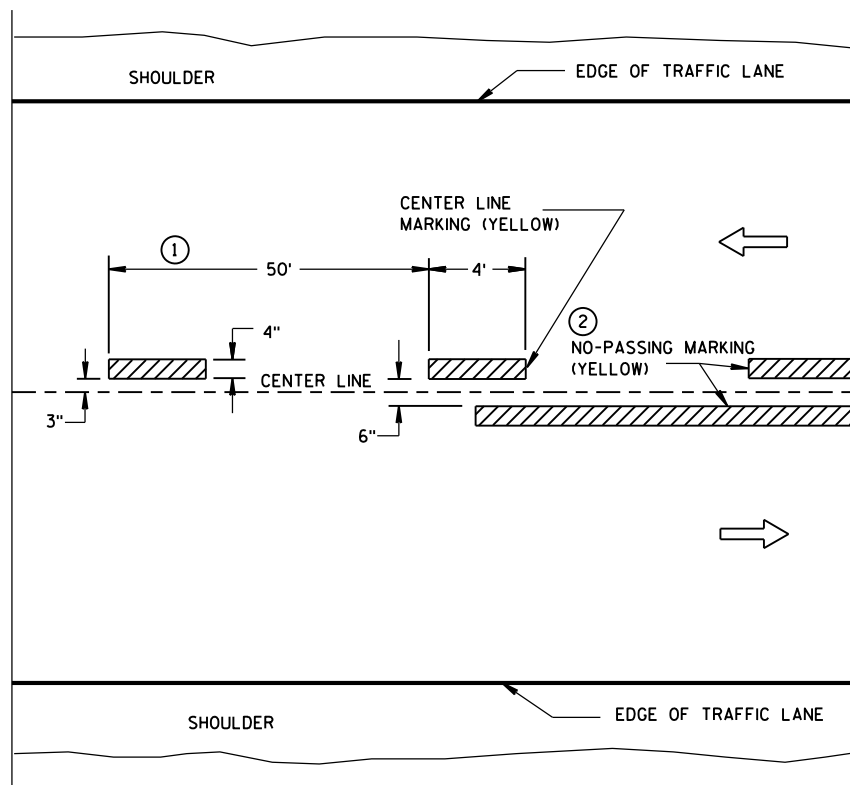


TWO WAY TRAFFIC

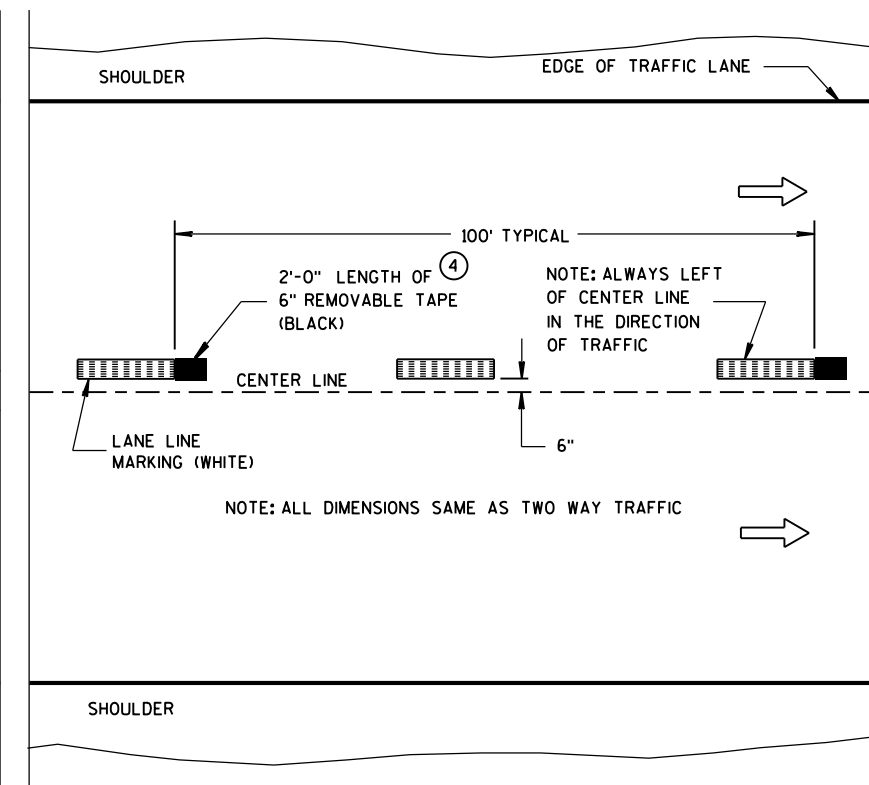


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

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

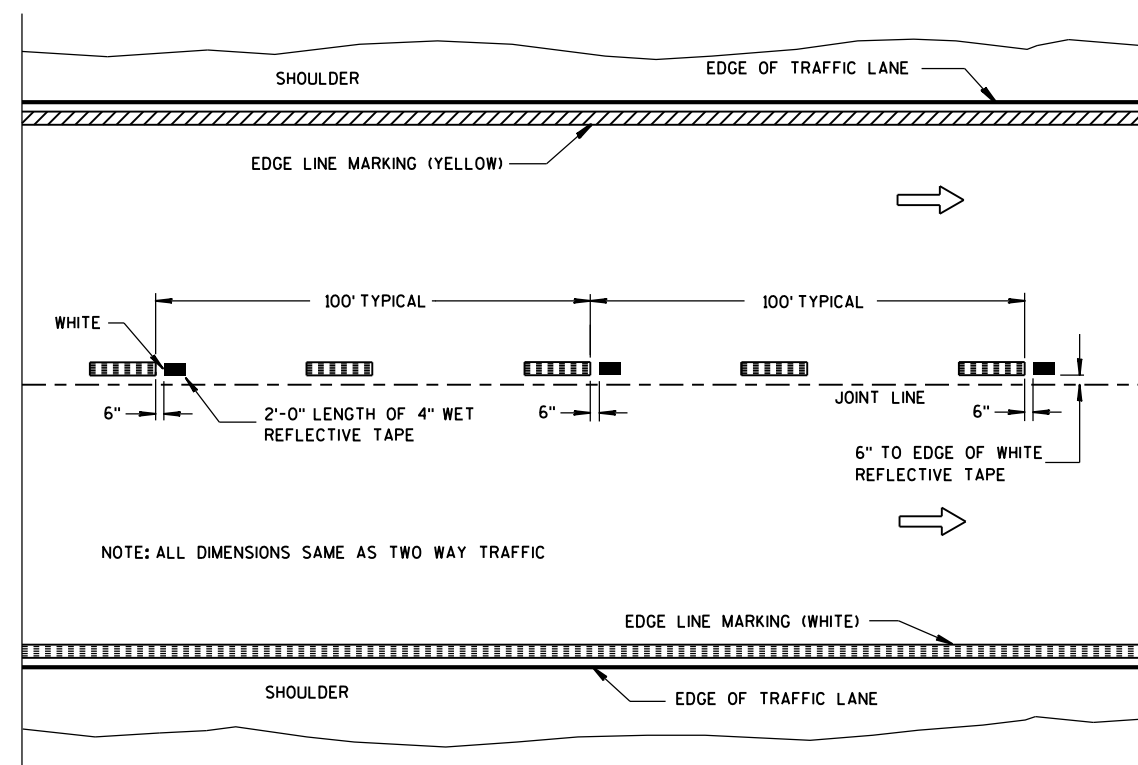
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



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

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC E 76

LEGEND

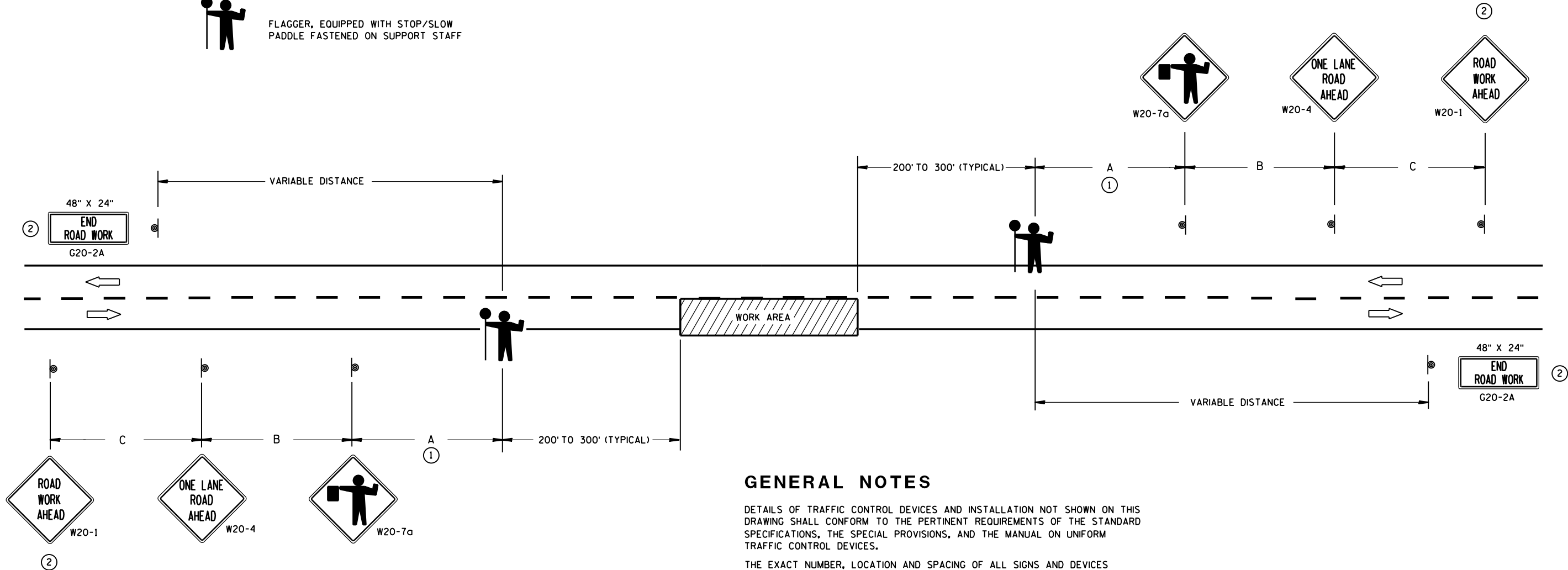
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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



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



GENERAL NOTES

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

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

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

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

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

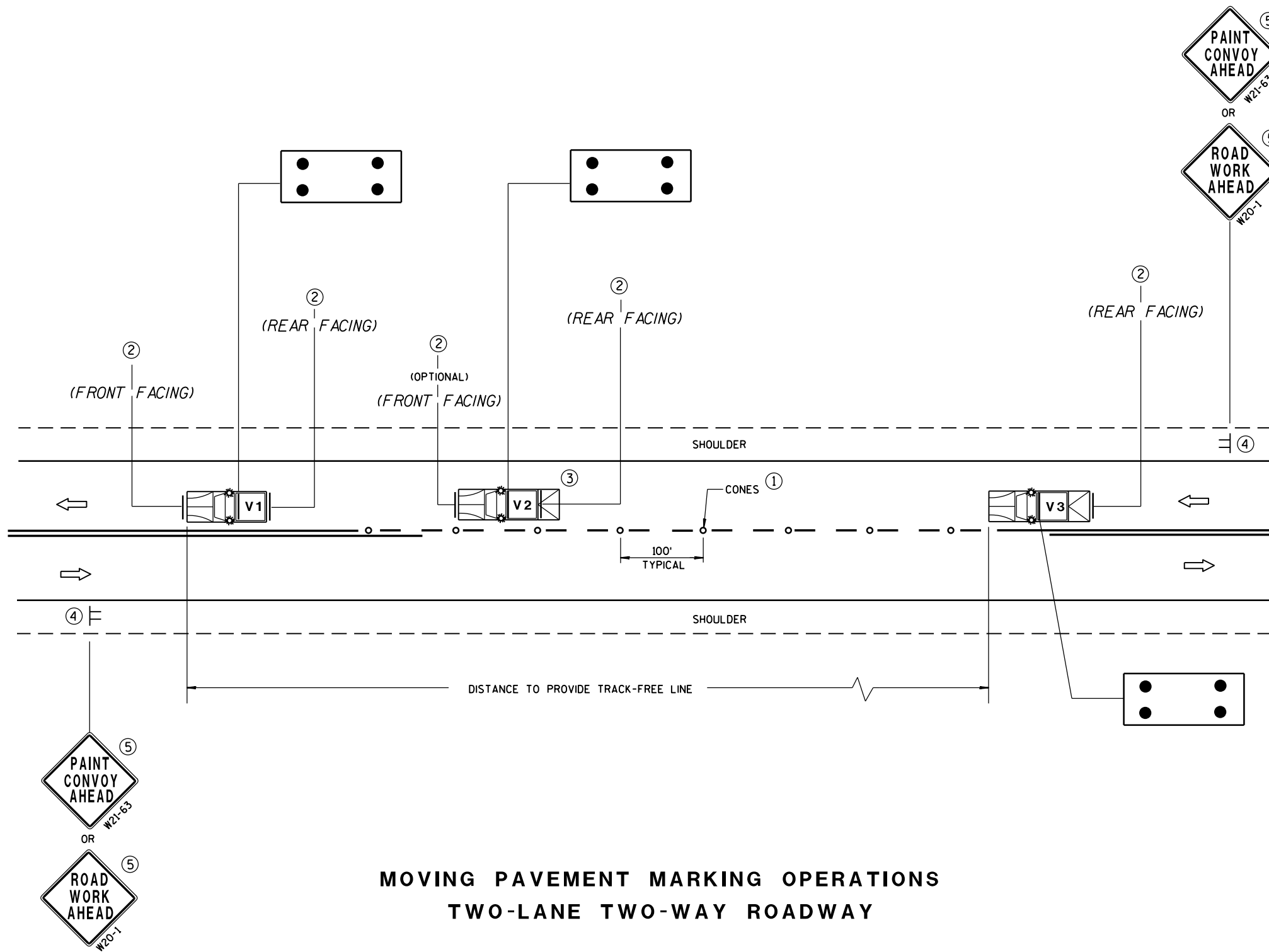
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 /S/ Travis Feltes
DATE STATE TRAFFIC ENGINE 77 SIGN
FHWA



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.

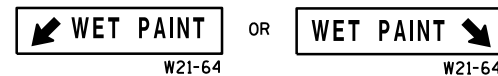
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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.



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

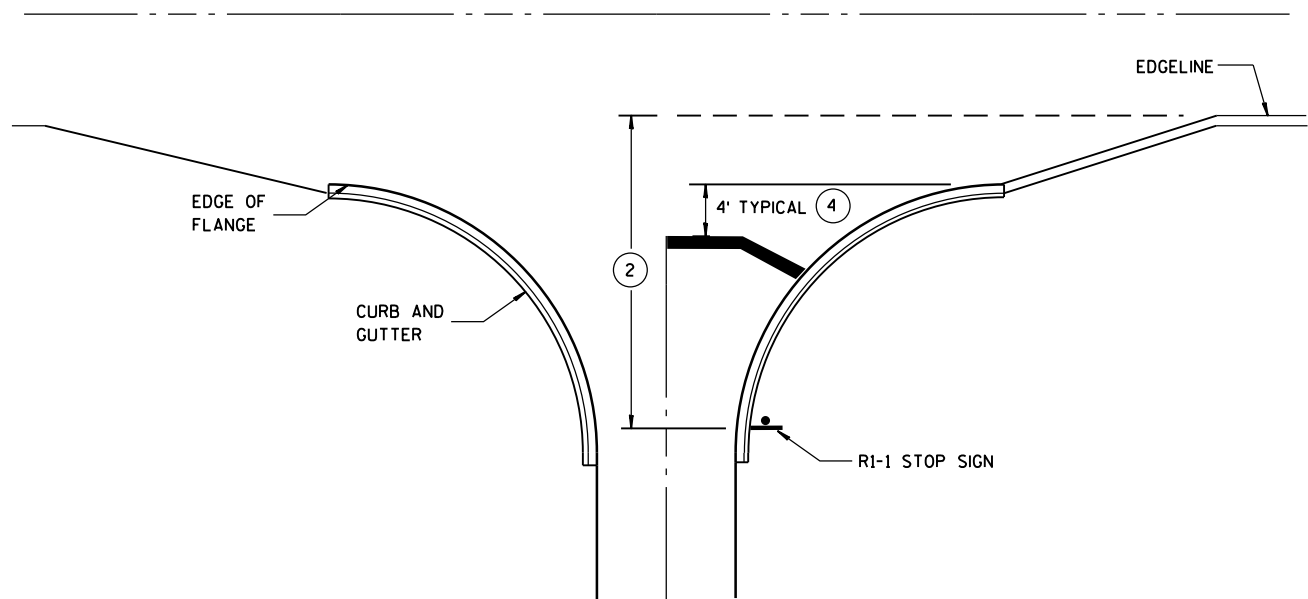
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

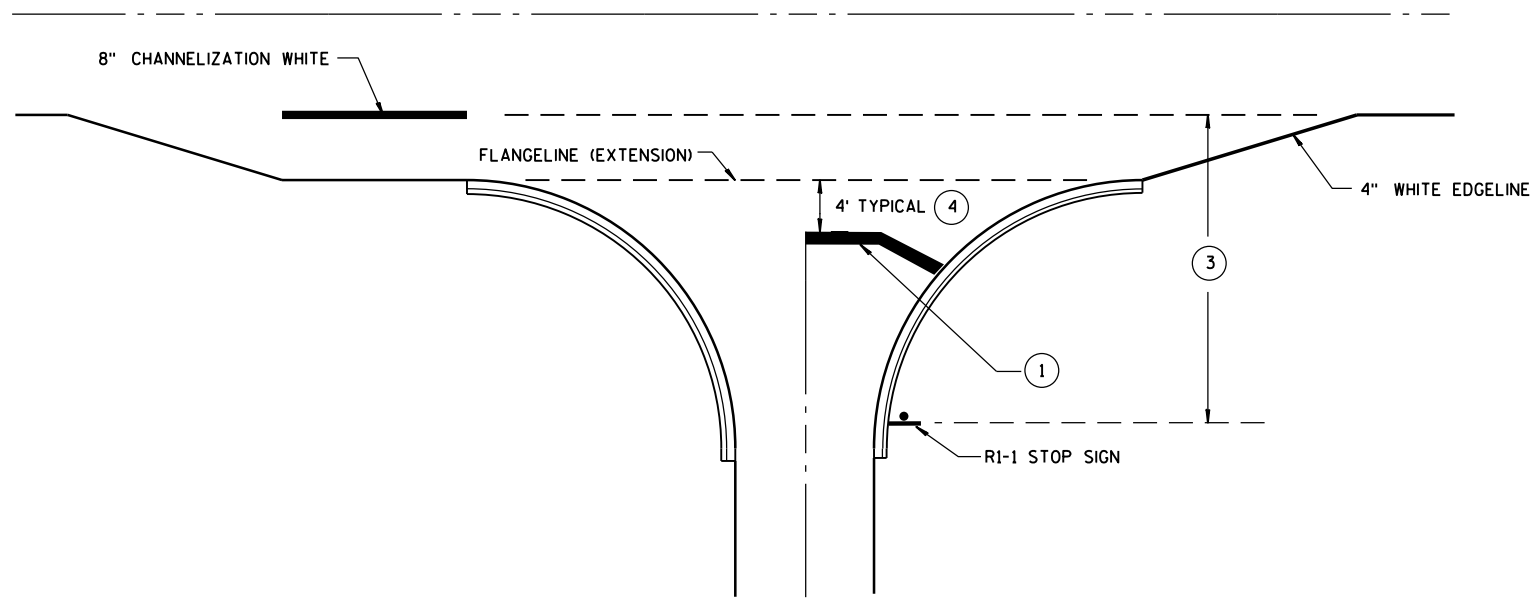
5/3/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

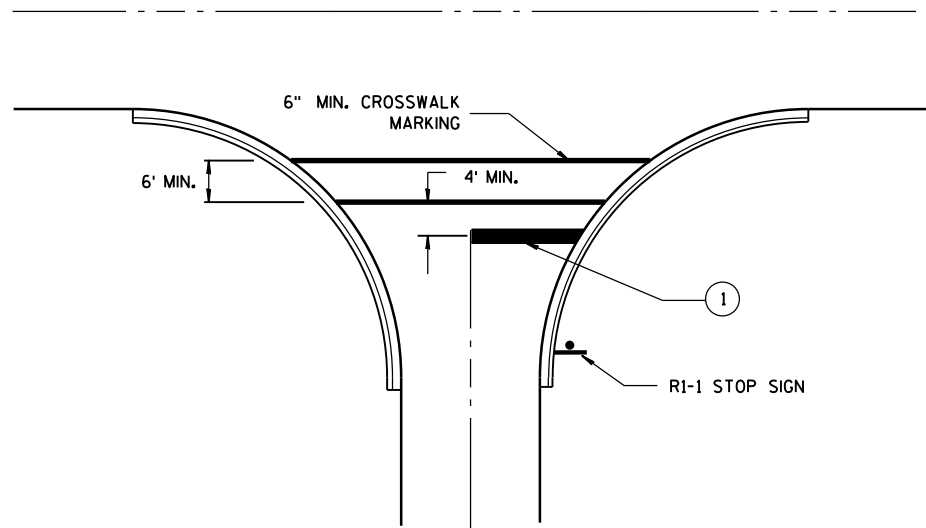
FHWA



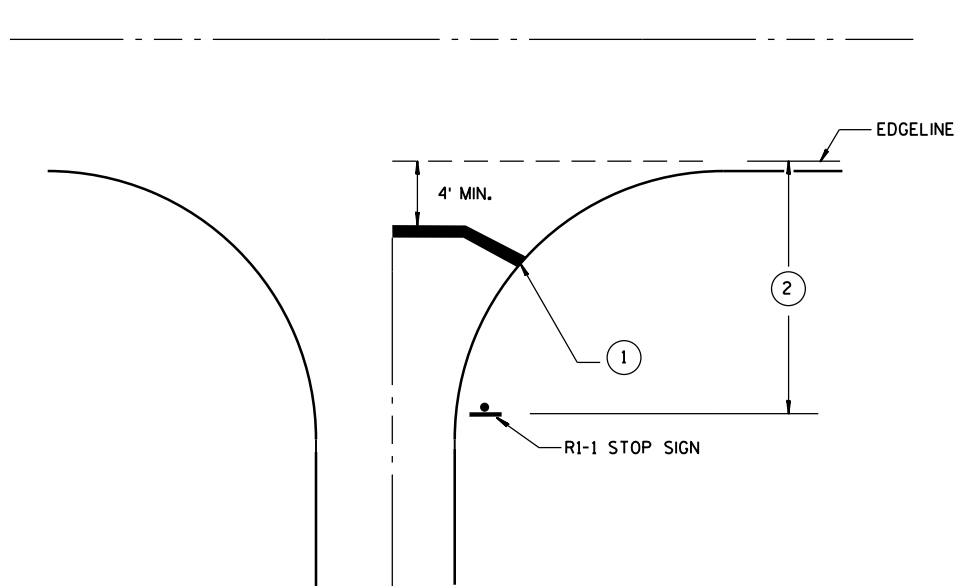
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

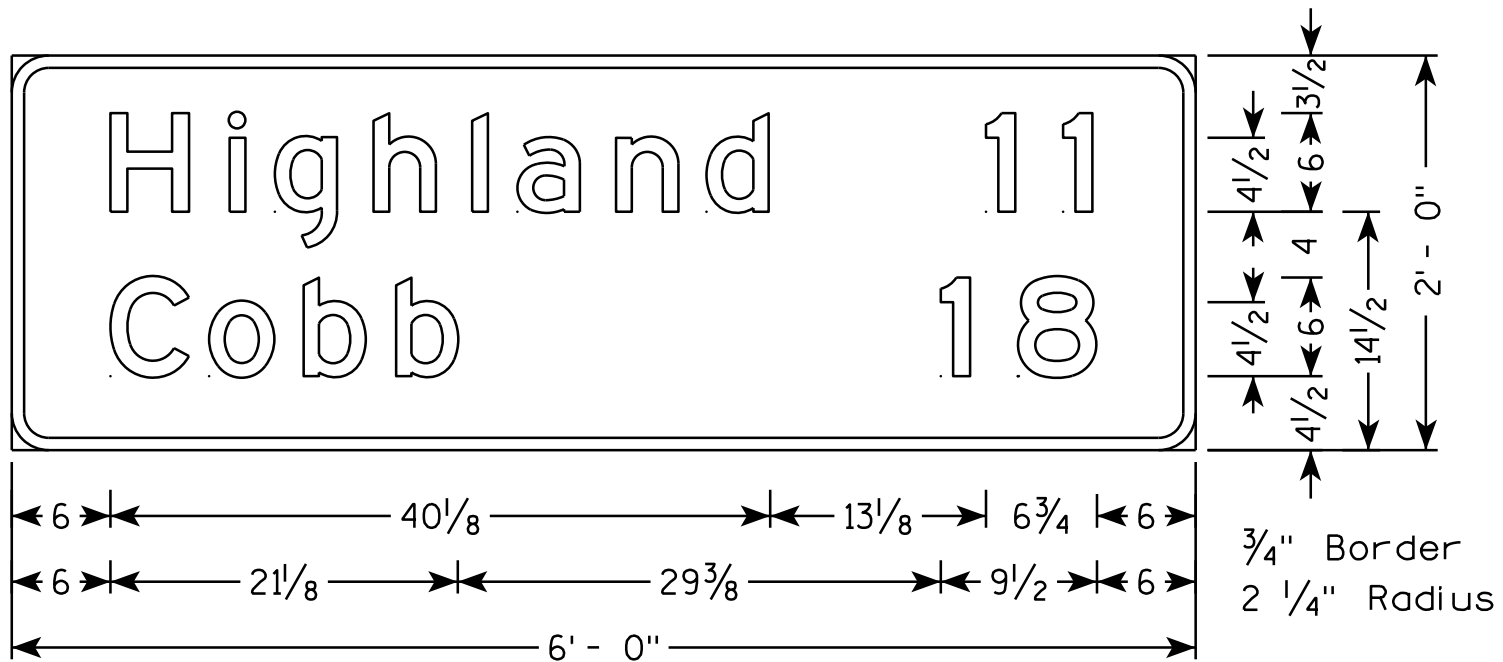
GENERAL NOTES

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

STOP LINE AND CROSSWALK
PAVEMENT MARKING

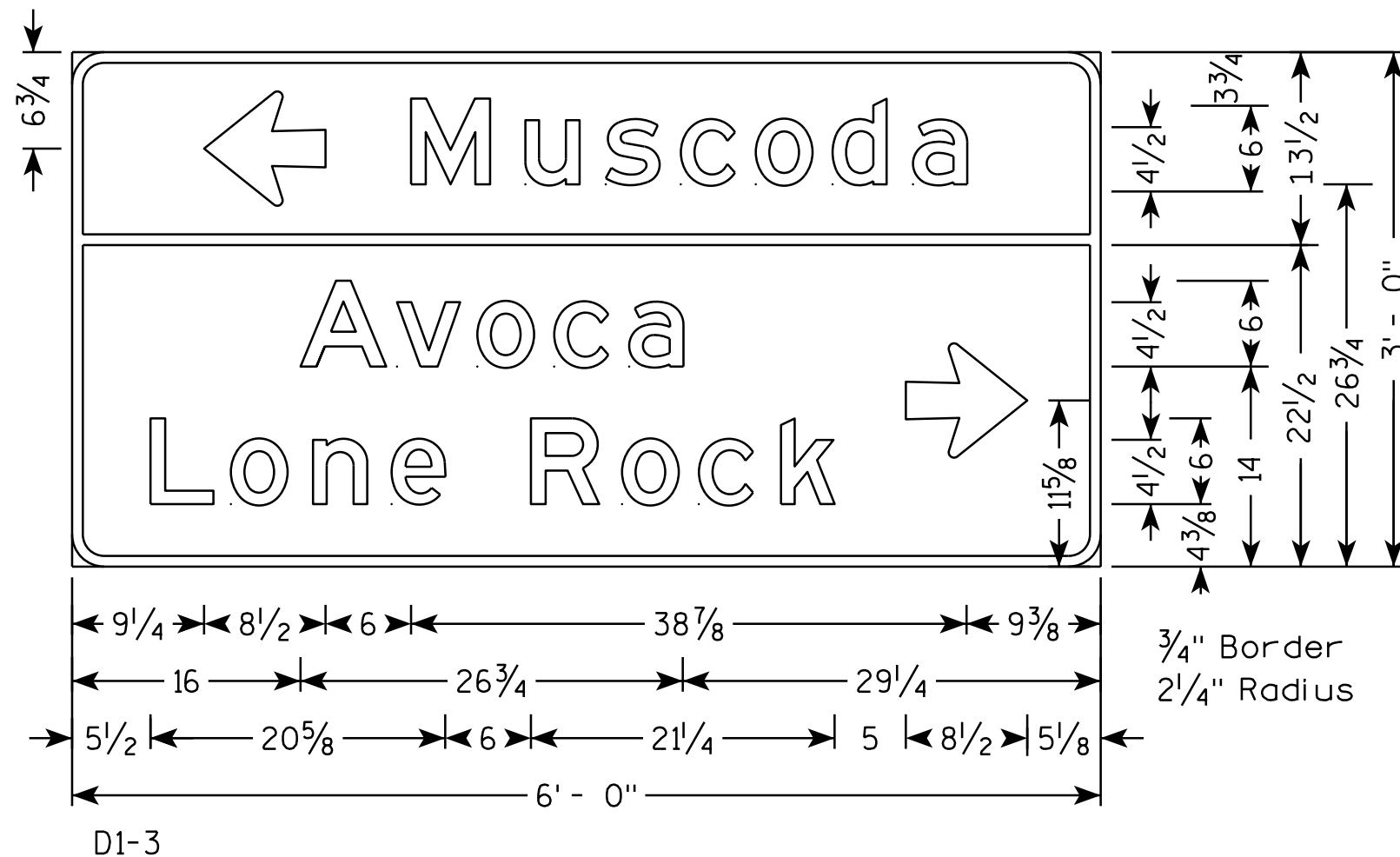
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE /S/ Travis Feltes
FHWA STATE TRAFFIC ENGINEER 79



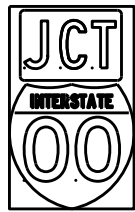
- NOTES
1. All Signs Type II - Type H Reflective
 2. Color:
Background - GREEN
Message - WHITE
 3. Message Series - E

D2-2

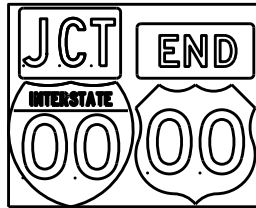


D1-3

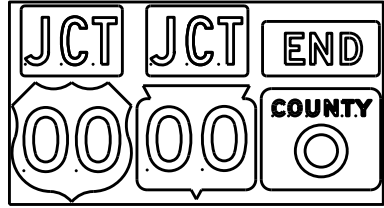
TYPICAL ASSEMBLIES



J1-1



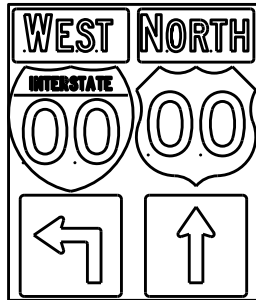
J1-2



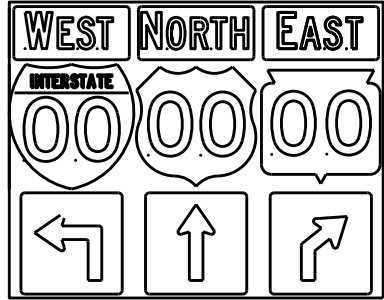
J1-3



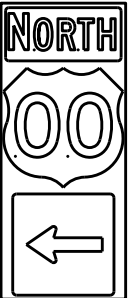
J2-1



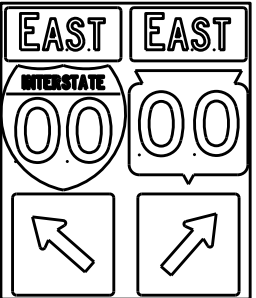
J2-2



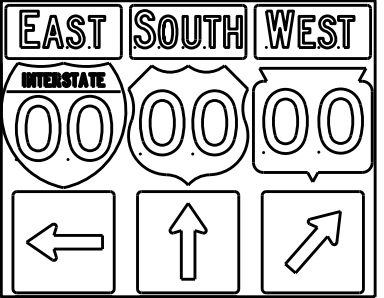
J2-3



J3-1



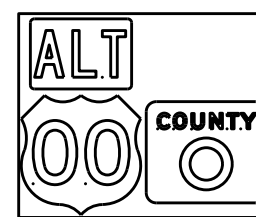
J3-2



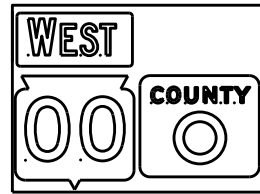
J3-3



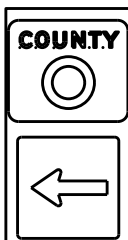
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

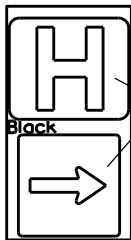


J22-1



JV

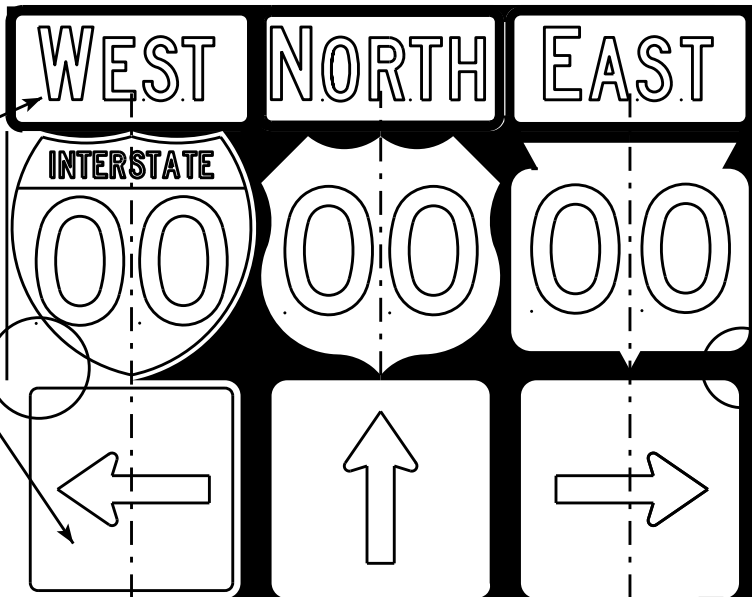
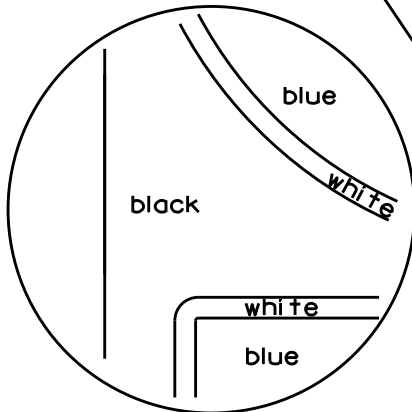
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

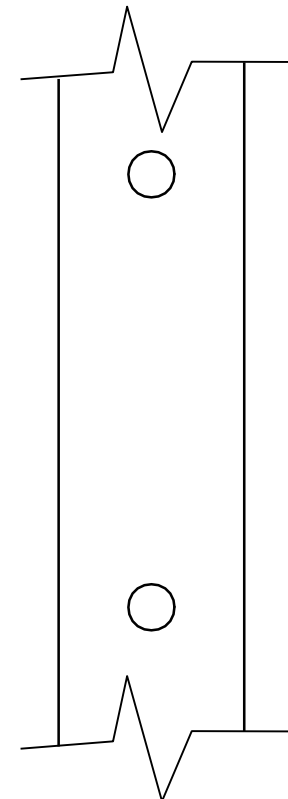
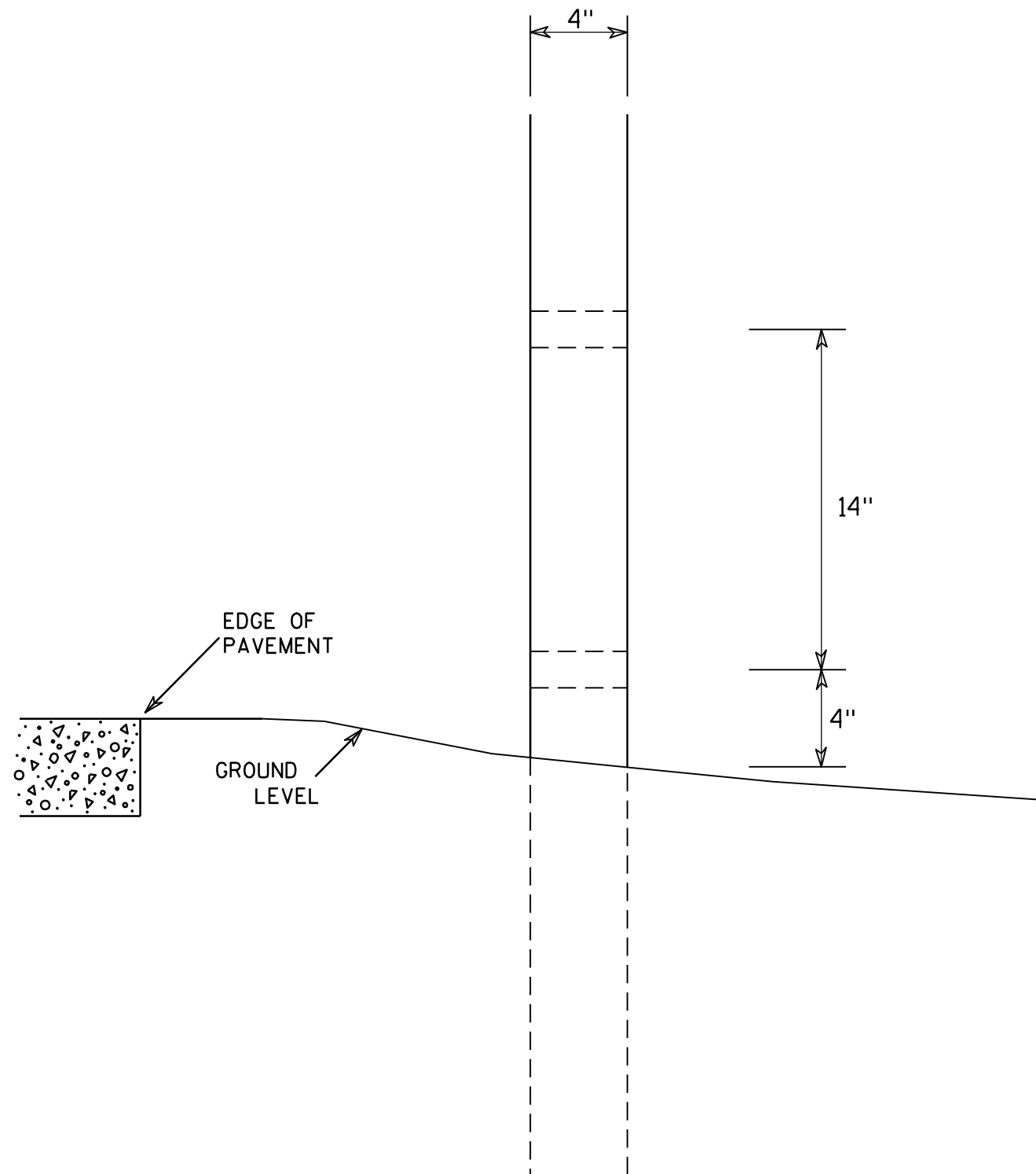
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PL 81 A2-1S.8

SHEET NO: E

NOTES

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



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:

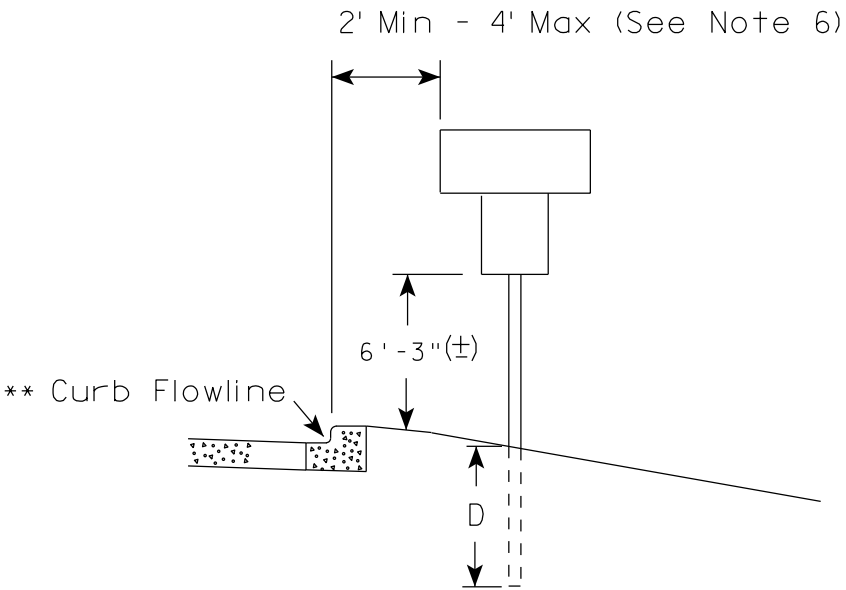
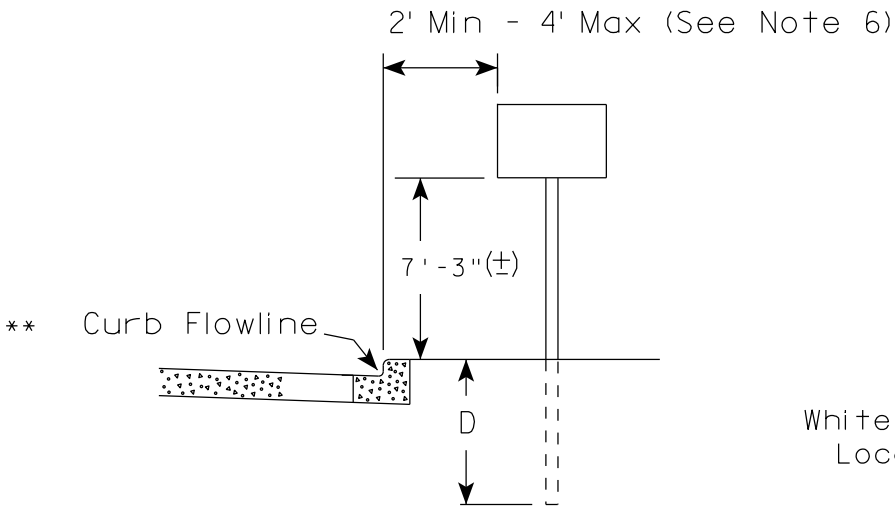
HWY:

COUNTY:

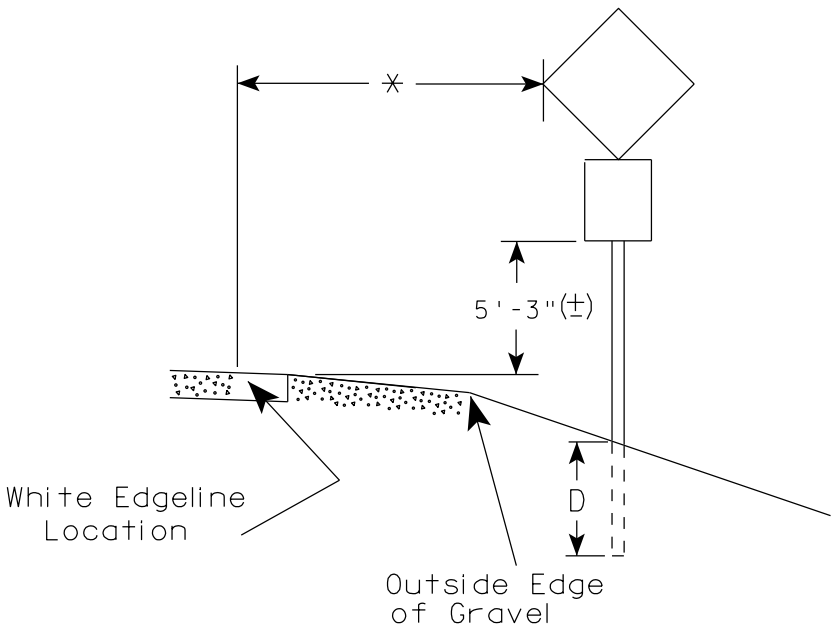
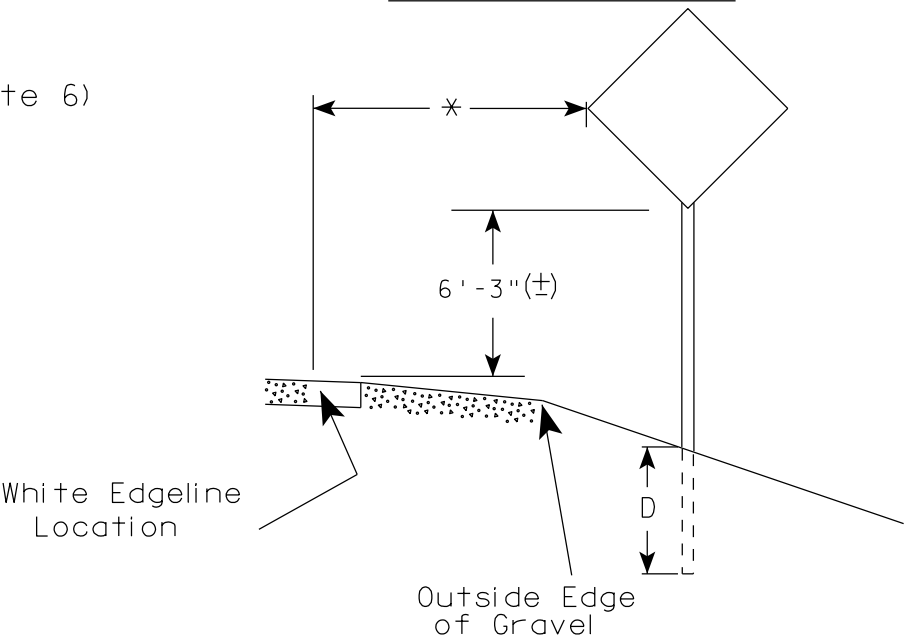
SHEET NO: 82

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

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

POST EMBEDMENT DEPTH

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

×× 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.

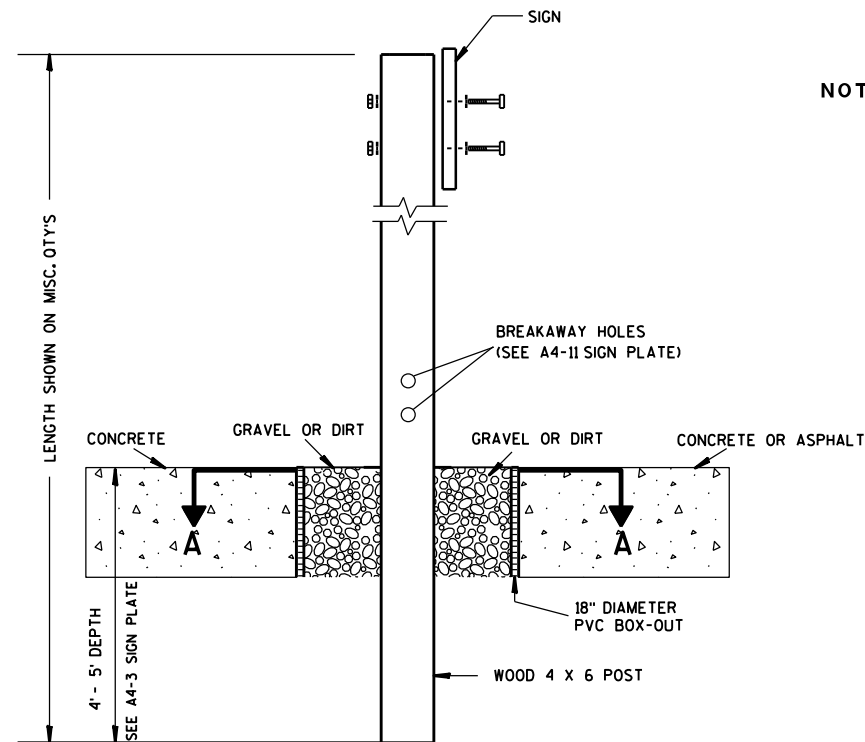
TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

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

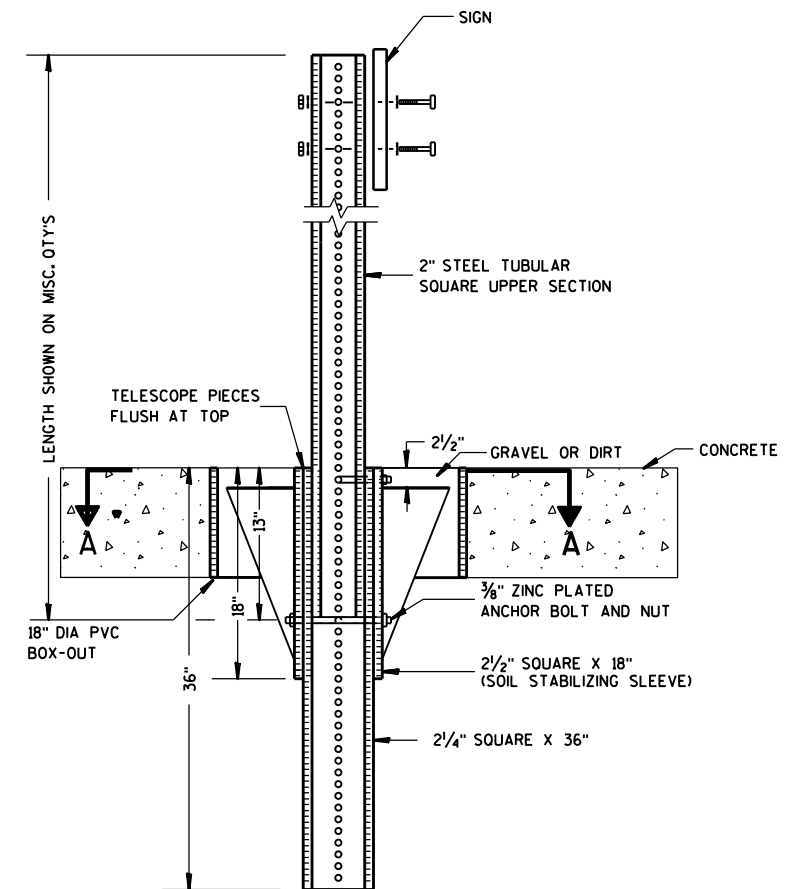
83



ELEVATION VIEW

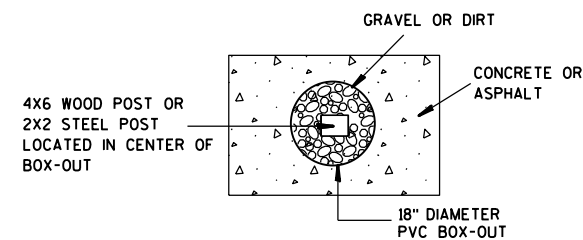
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 84 A4-3B.1

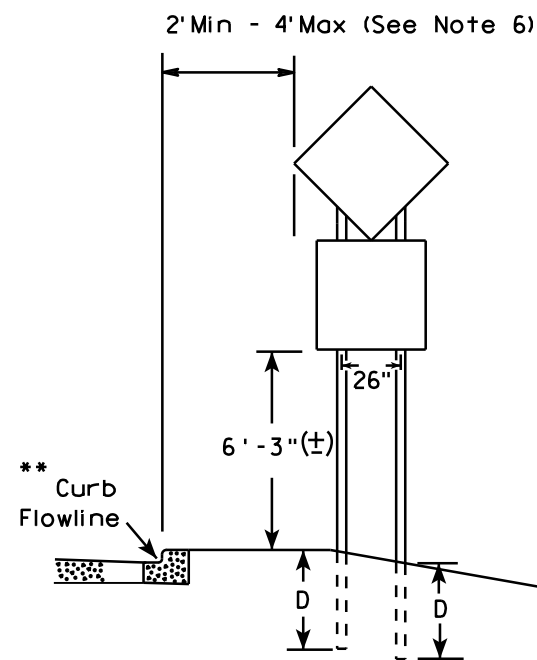
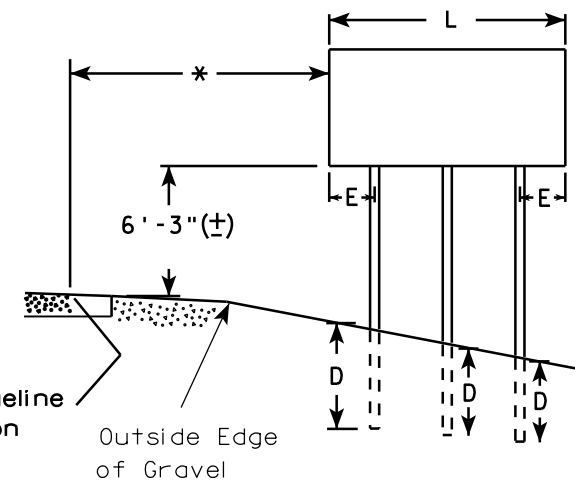
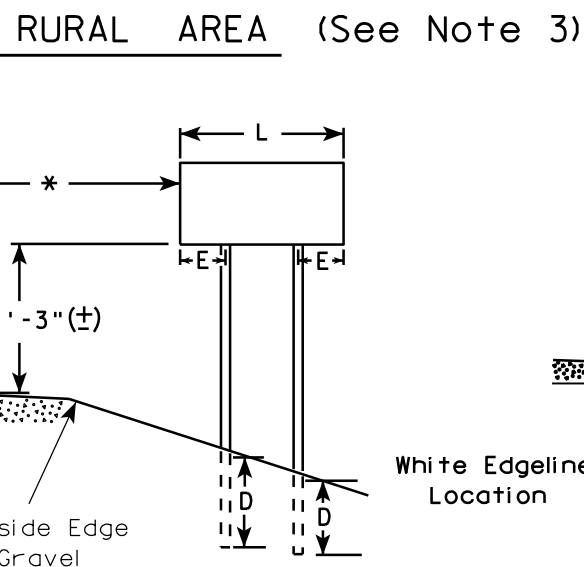
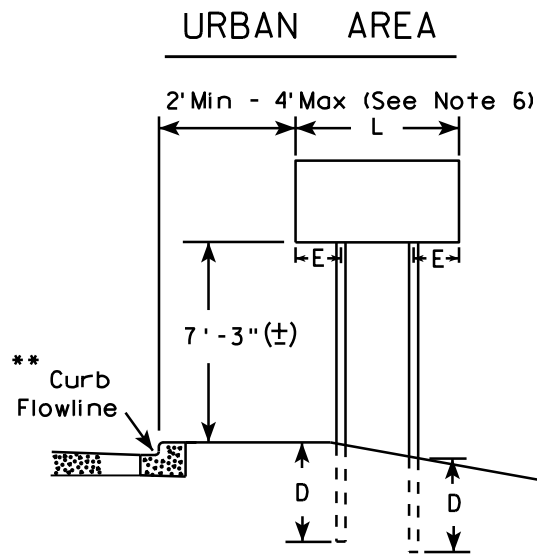
PROJECT NO:

HWY:

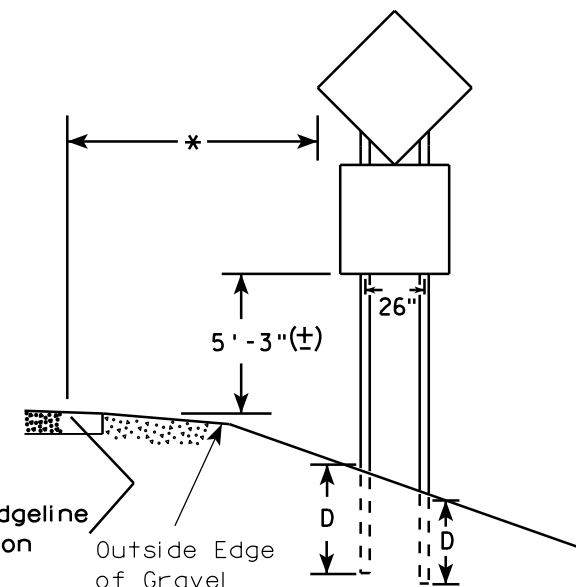
COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

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

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

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

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

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

POST EMBEDMENT DEPTH

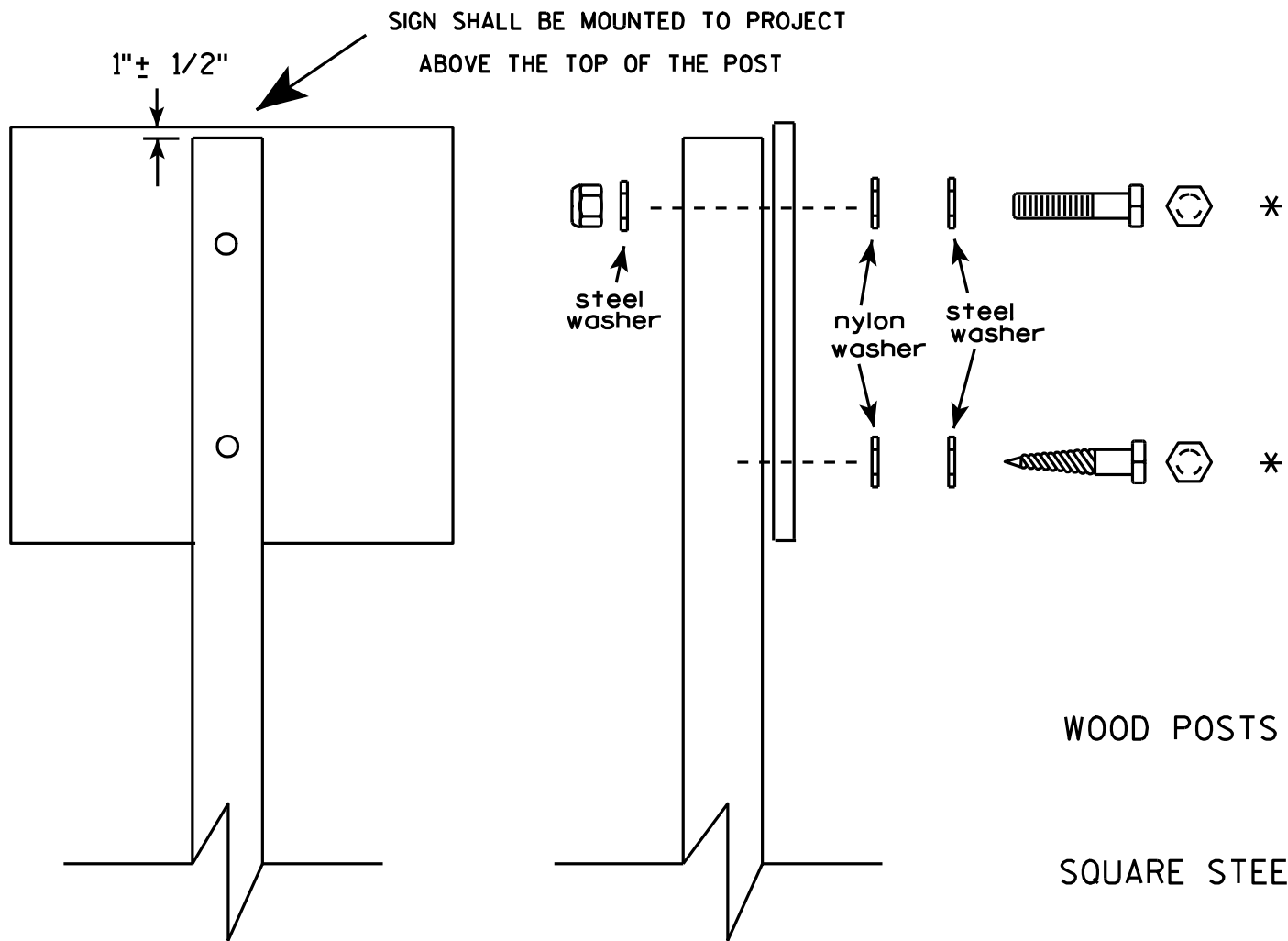
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/30/13 PLATE NO. 85 12

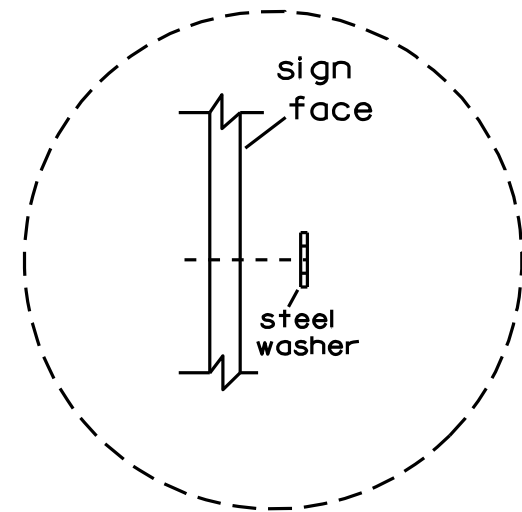


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3"
- MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
- RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
- 1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



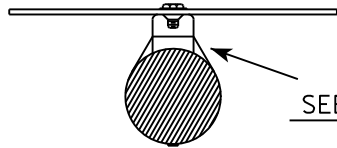
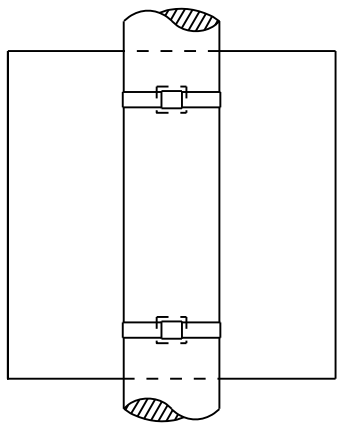
Washer Placement when Sign Has Other Than Type H or Type F Face

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

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

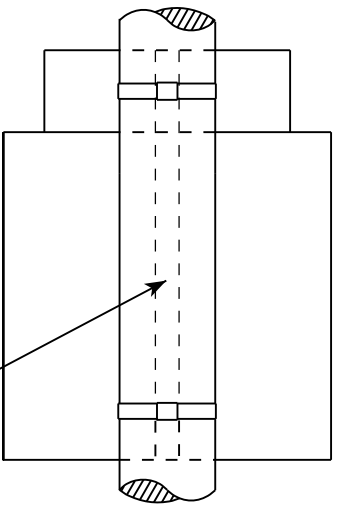
BANDING

SINGLE SIGN

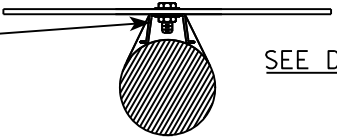


SEE DETAIL A

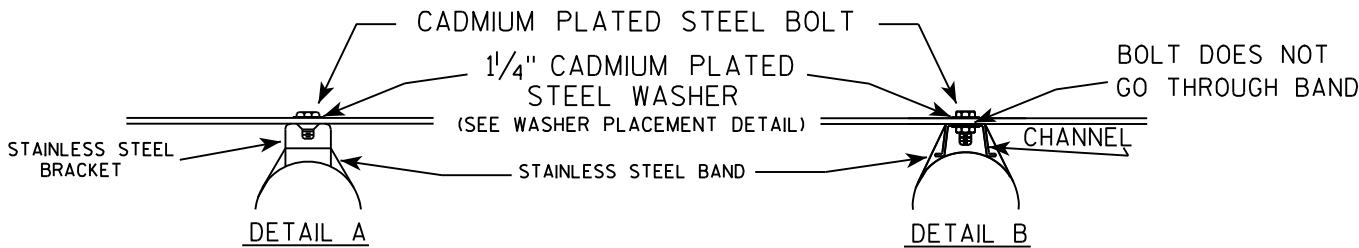
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



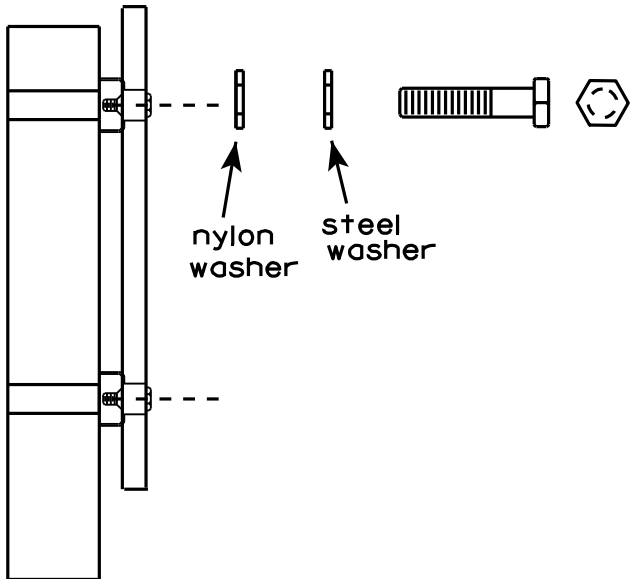
SEE DETAIL B



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 $\frac{3}{4}$ " in width and 0.025" thickness.

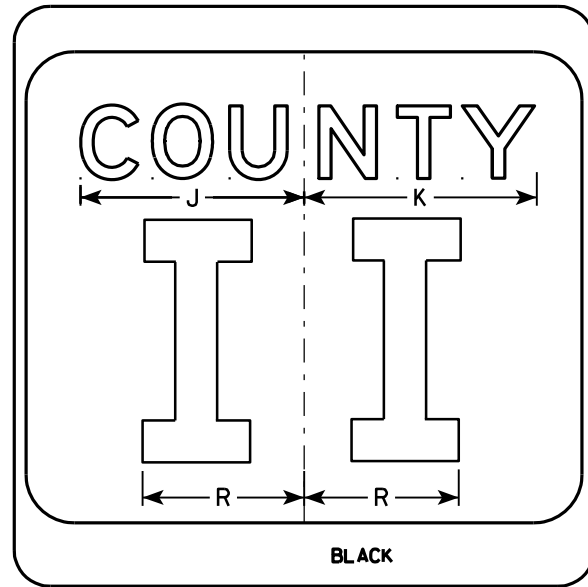
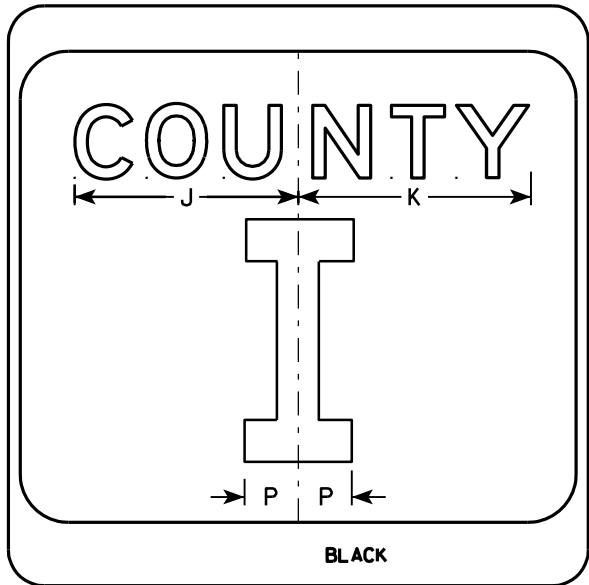
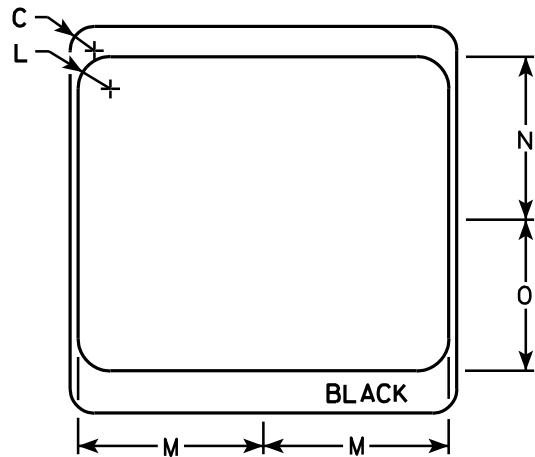
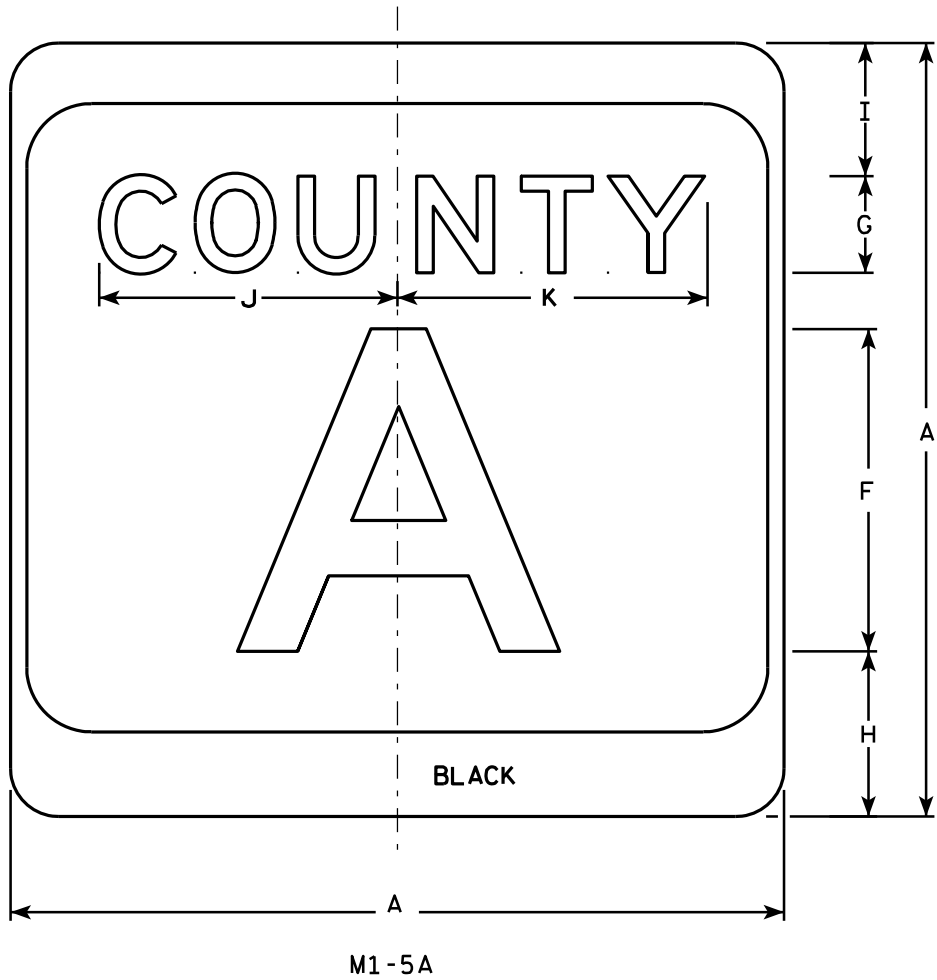
WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN SIGN BANDING DETAILS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 8/16/13	PLATE NO. A5-9.3

7



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 88	E
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CTH MARKER

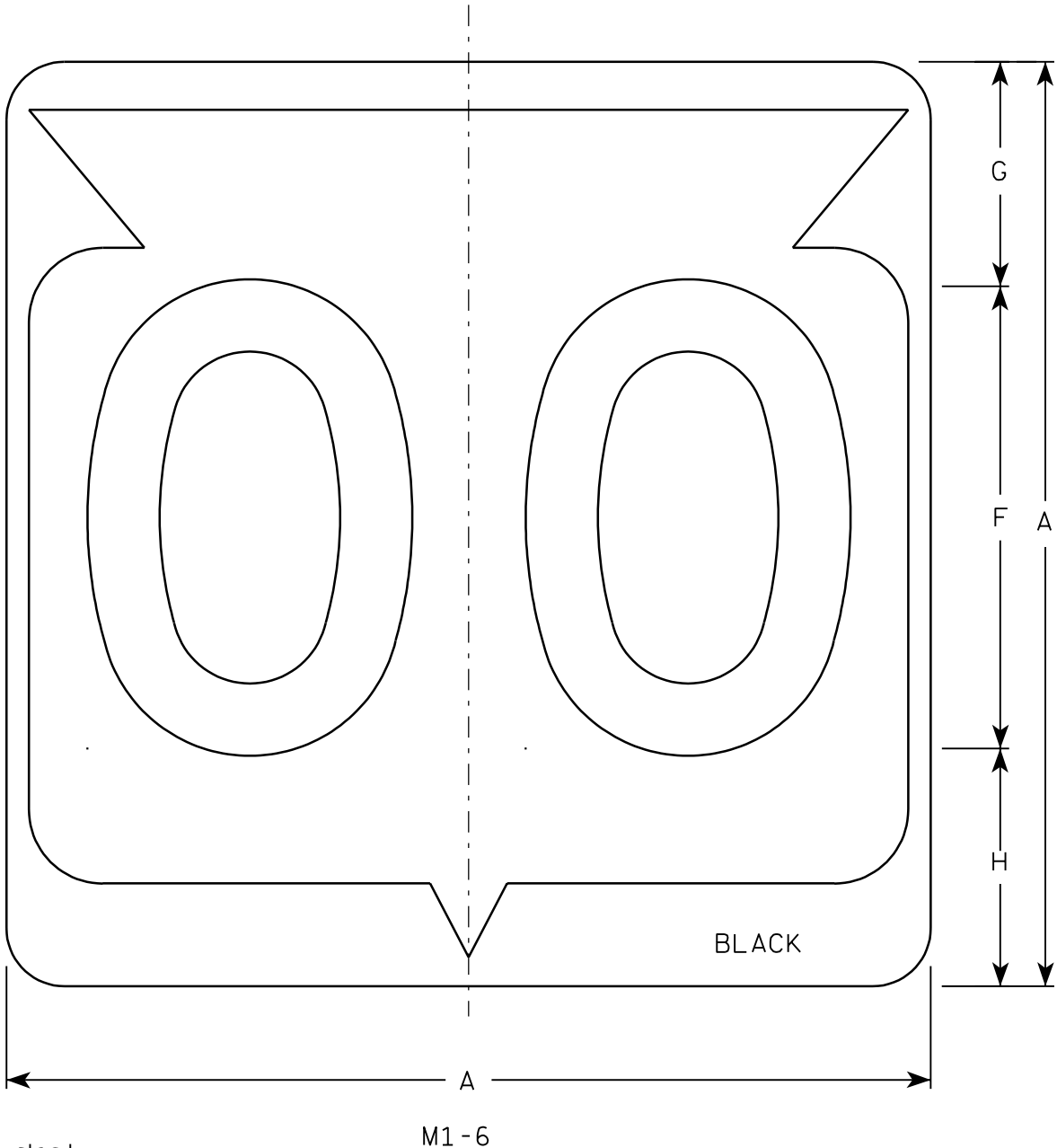
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

7



M1-6

Metric equivalent
for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

PROJECT NO:

HWY:

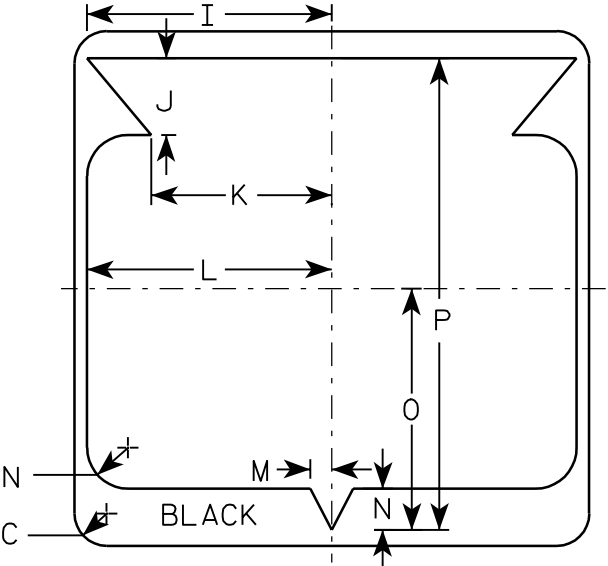
COUNTY:

SHEET NO: 89

E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

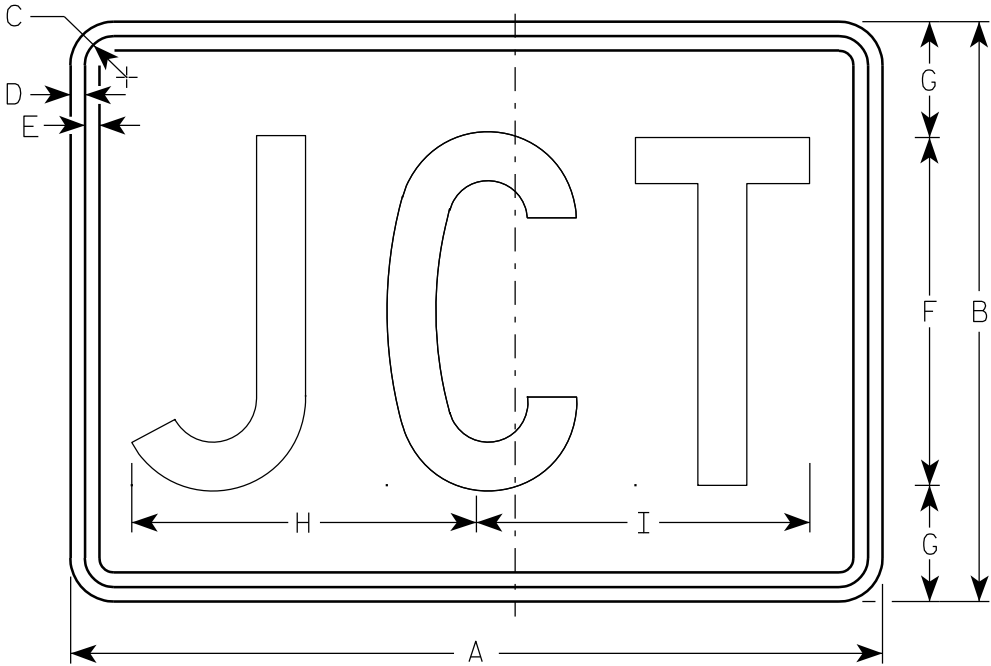
Chester J. Spang
for State Traffic Engineer

DATE 3/20/02

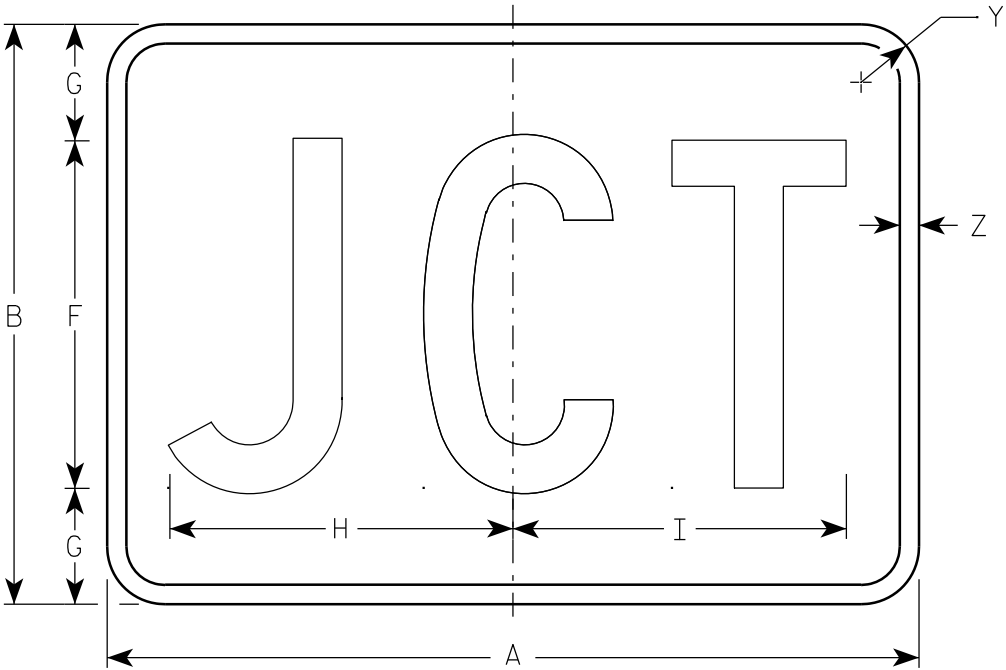
PLATE NO. M1-6.9

NOTES

1. Sign is Type II - See Note 5 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base
material is plywood but borders shall be rounded
as shown. When base material is metal, the
corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB2-1 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG2-1 Background - Green
Message - White - Type H Reflective
MK2-1 Background - Green
Message - White - Type H Reflective
MM2-1 Background - White - Type H Reflective
Message - Green
MN2-1 Background - Brown
Message - White - Type H Reflective
MR2-1 Background - Brown
Message - Yellow - Type H Reflective



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



MB2-1
MG2-1
MN2-1

Metric equivalent
for this sign is:

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

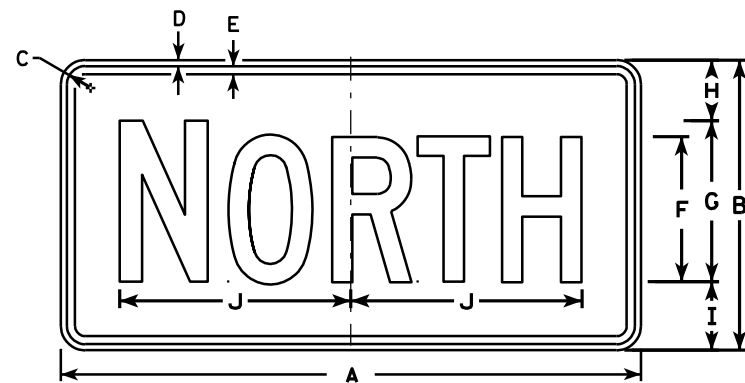
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8		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

STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

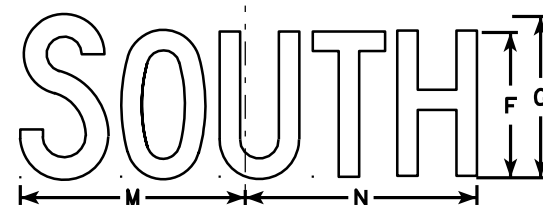
DATE 3/16/10 PLATE NO. M2-1.10



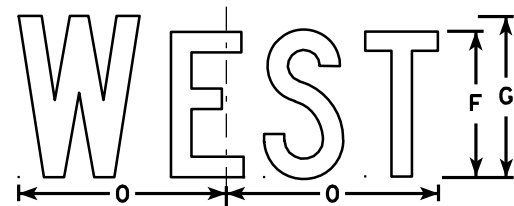
M3-1
MK3-1
M03-1



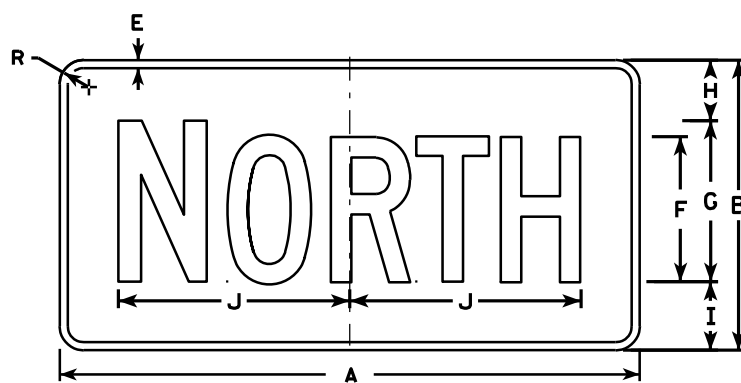
M3-2
MK3-2
M03-2



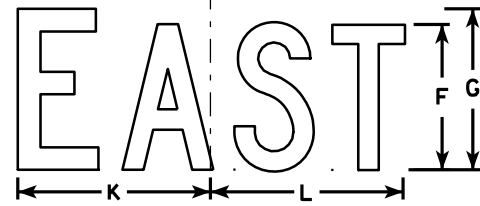
M3-3
MK3-3
M03-3



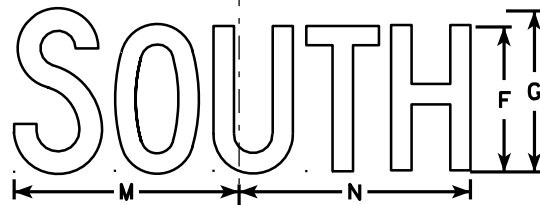
M3-4
MK3-4
M03-4



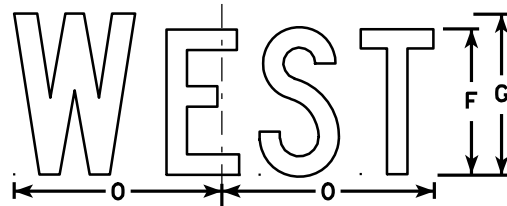
MB3-1
MG3-1
MM3-1
MN3-1



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



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



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

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

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

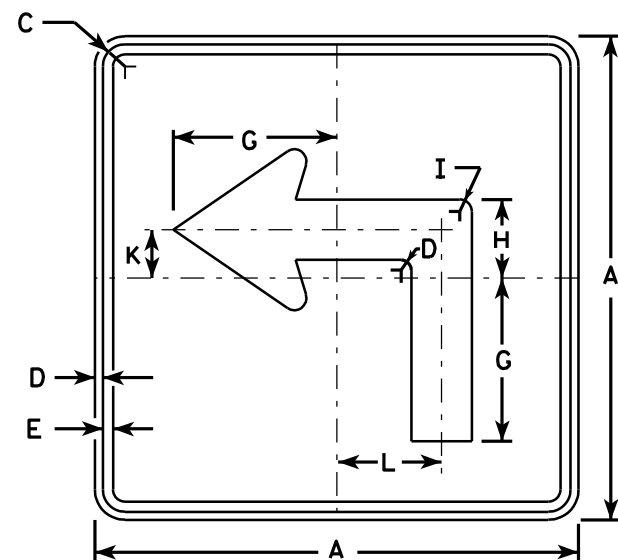
PROJECT NO: HWY: COUNTY: SHEET NO: 91 E

STANDARD SIGNS M3-1 thru M3-4 SERIES

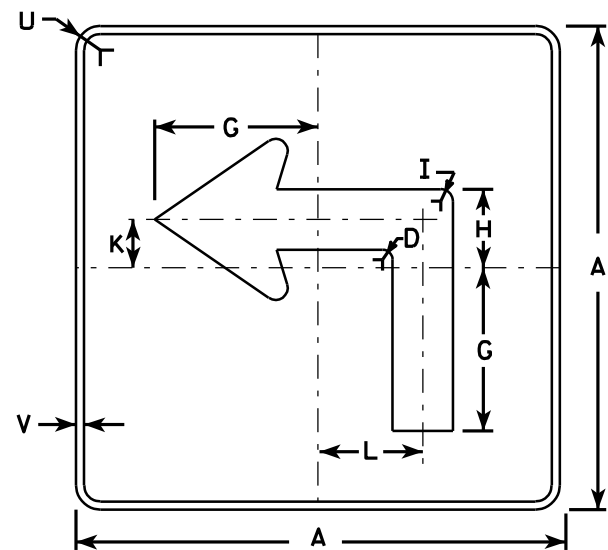
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

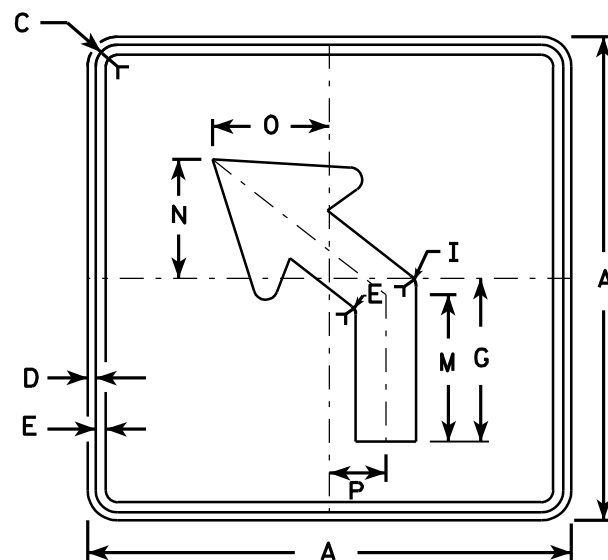
DATE 11/10/10 PLATE NO. M3-1.12



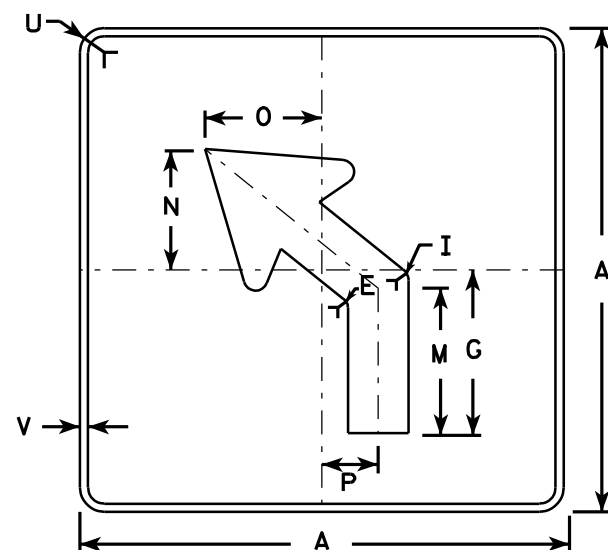
M5-1L
MK5-1L
MM5-1L
M05-1L
MP5-1L
MR5-1L



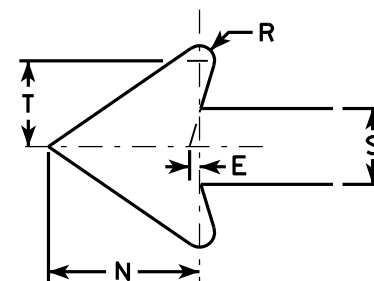
MB5-1L
MG5-1L
MN5-1L



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



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

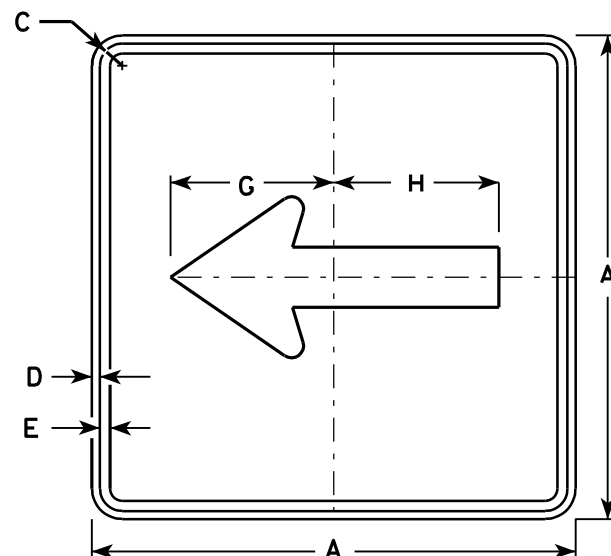


NOTES

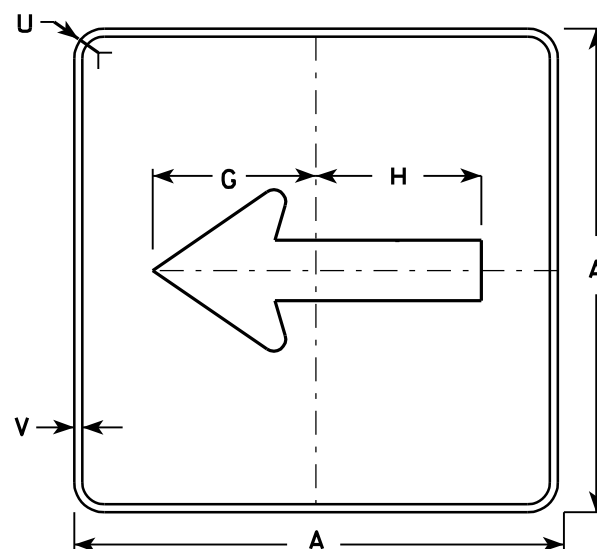
- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M5-1 and M5-2 Background - White - Type H Reflective
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
M05-1 and M05-2 Background - Orange - Type F Reflective
Message - Black
MP5-1 and MP5-2 Background - White - Type H Reflective
Message - Blue
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

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

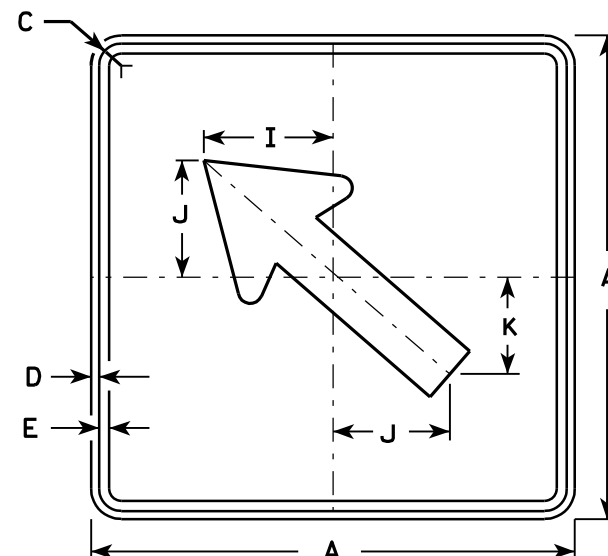
STANDARD SIGN	
M5-1 & M5-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 7/29/13	PLATE NO. M5-1.12



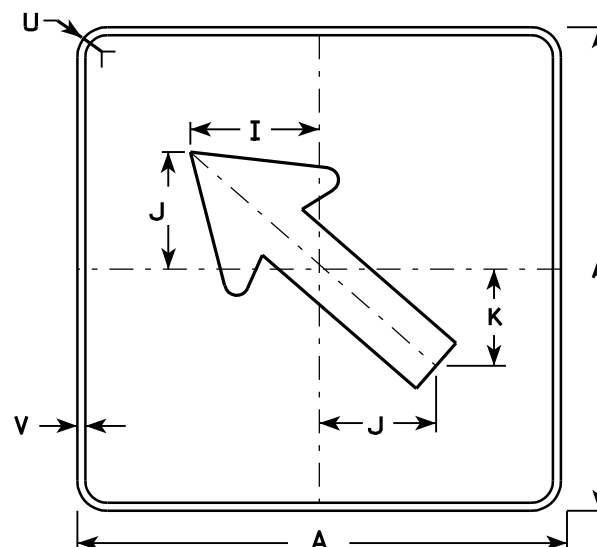
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



MB6-1
MG6-1
MN6-1



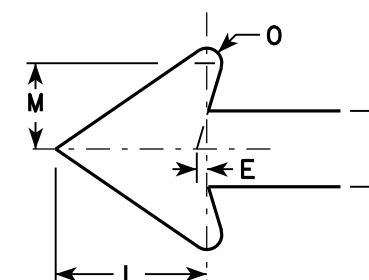
M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
 - Background - See note 4
 - Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White - Type H Reflective
Message - Black
 MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
 MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
 MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
 MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
 MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
 MO6-1 and MO6-2 Background - Orange - Type F Reflective
Message - Black
 MP6-1 and MP6-2 Background - White - Type H Reflective
Message - Blue
 MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective



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

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

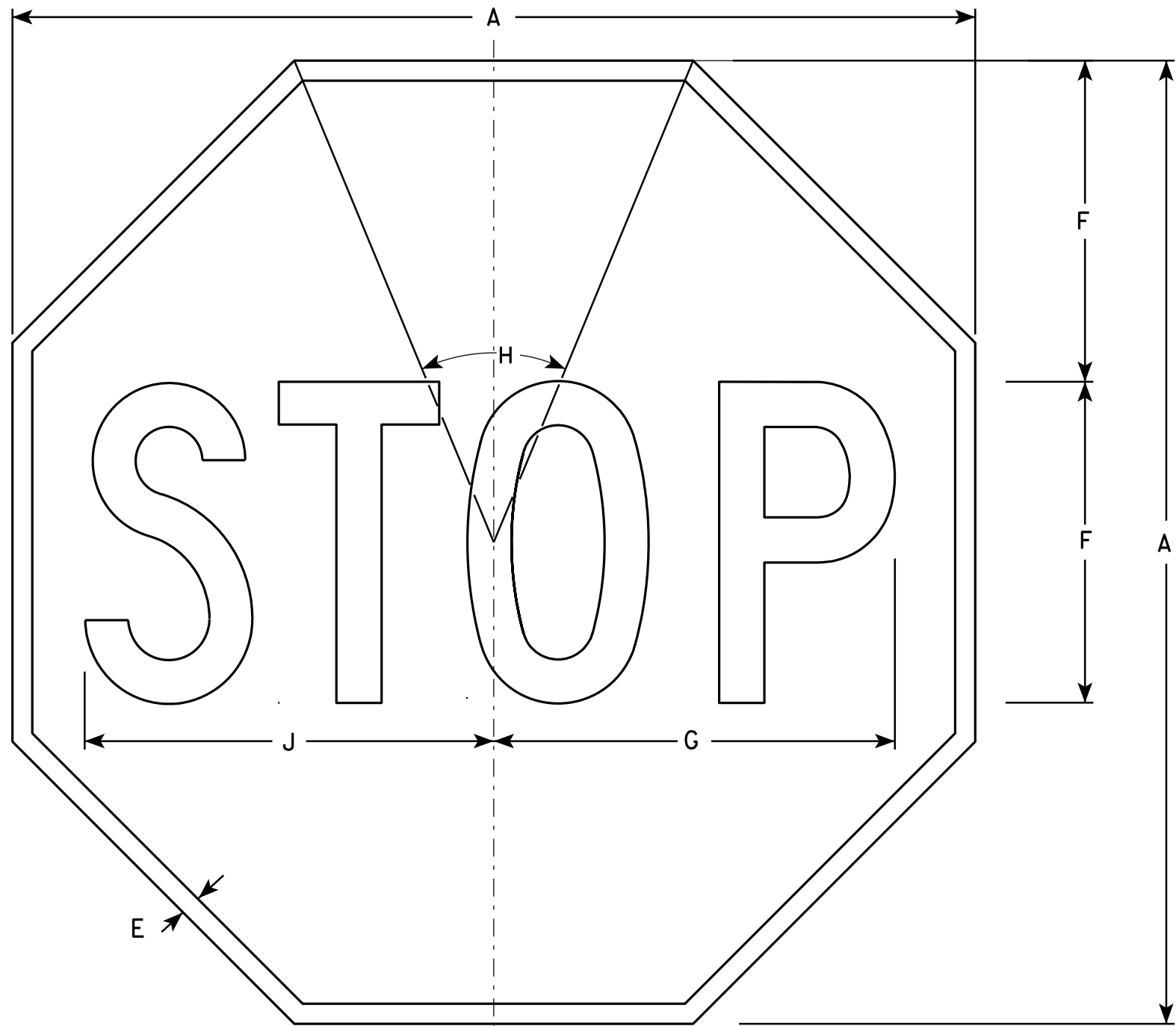
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 93

E



NOTES

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

R1-1

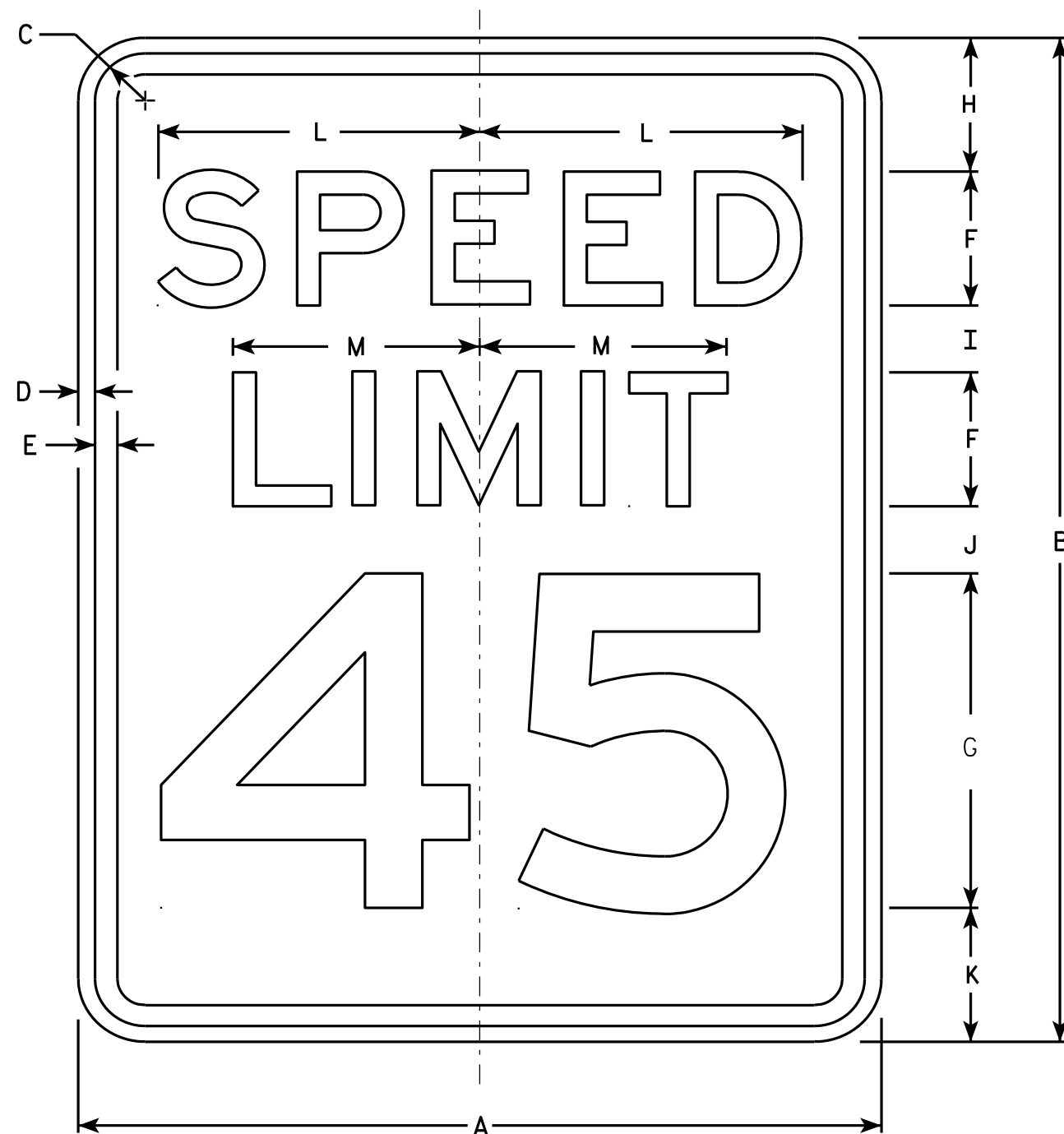
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20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

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



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.

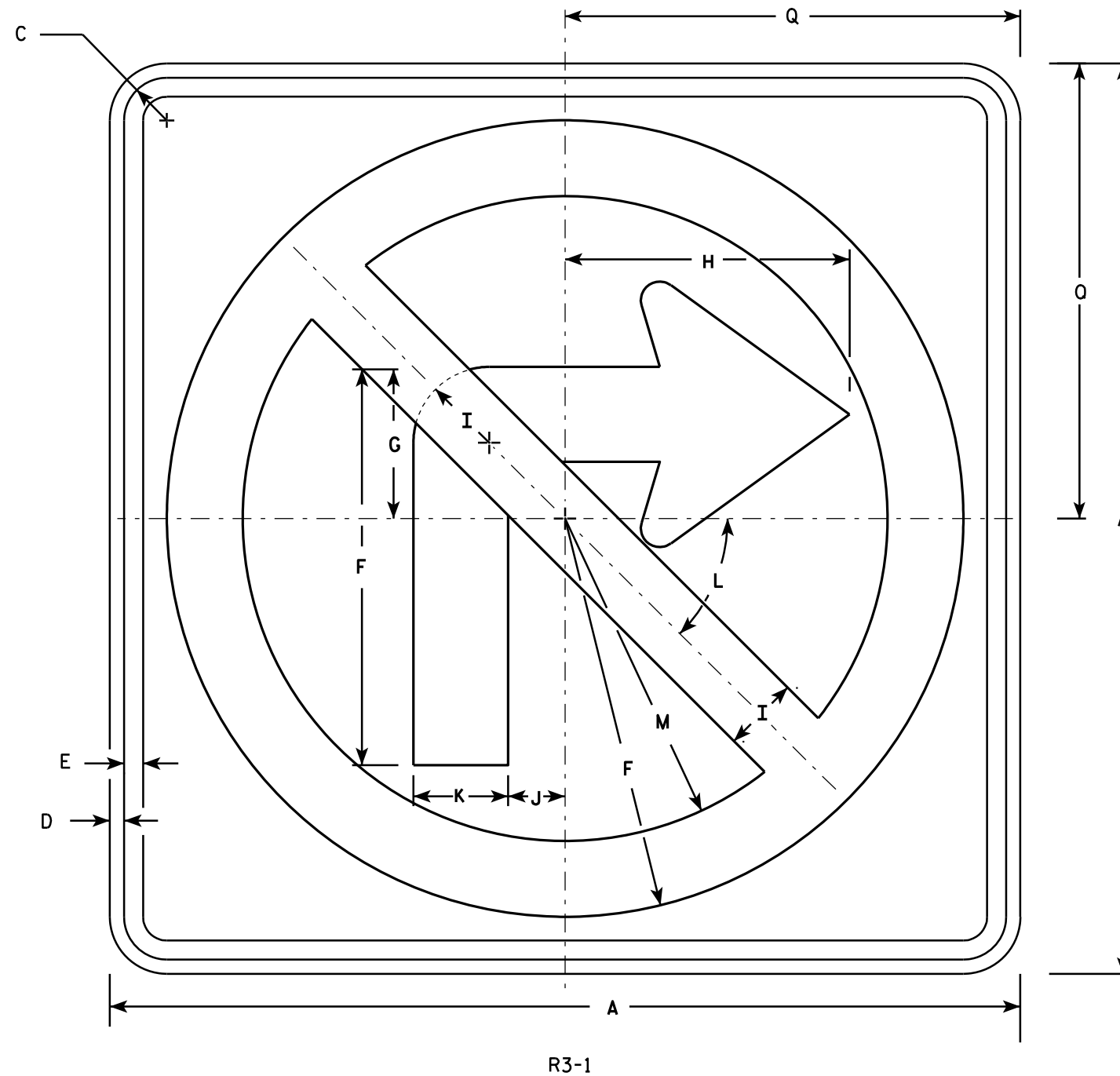
R2-1

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

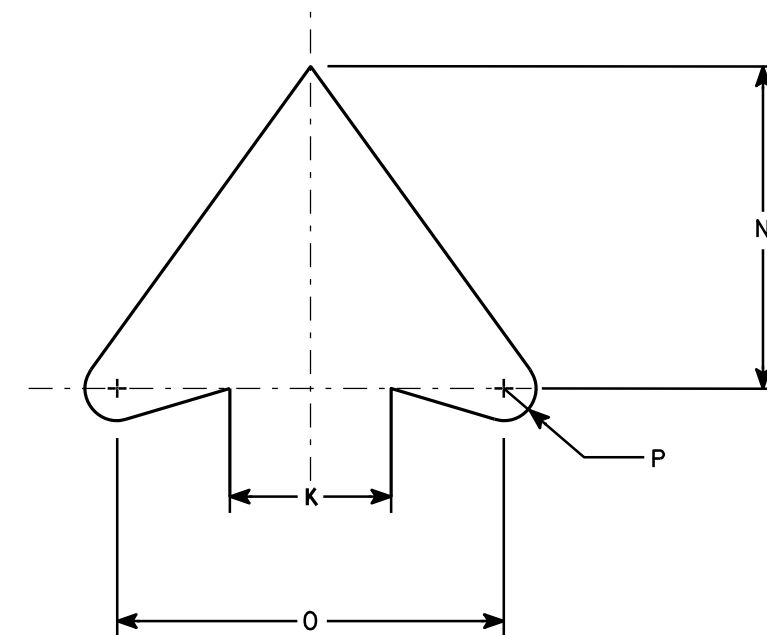
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 95 E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - 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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

STANDARD SIGN

R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

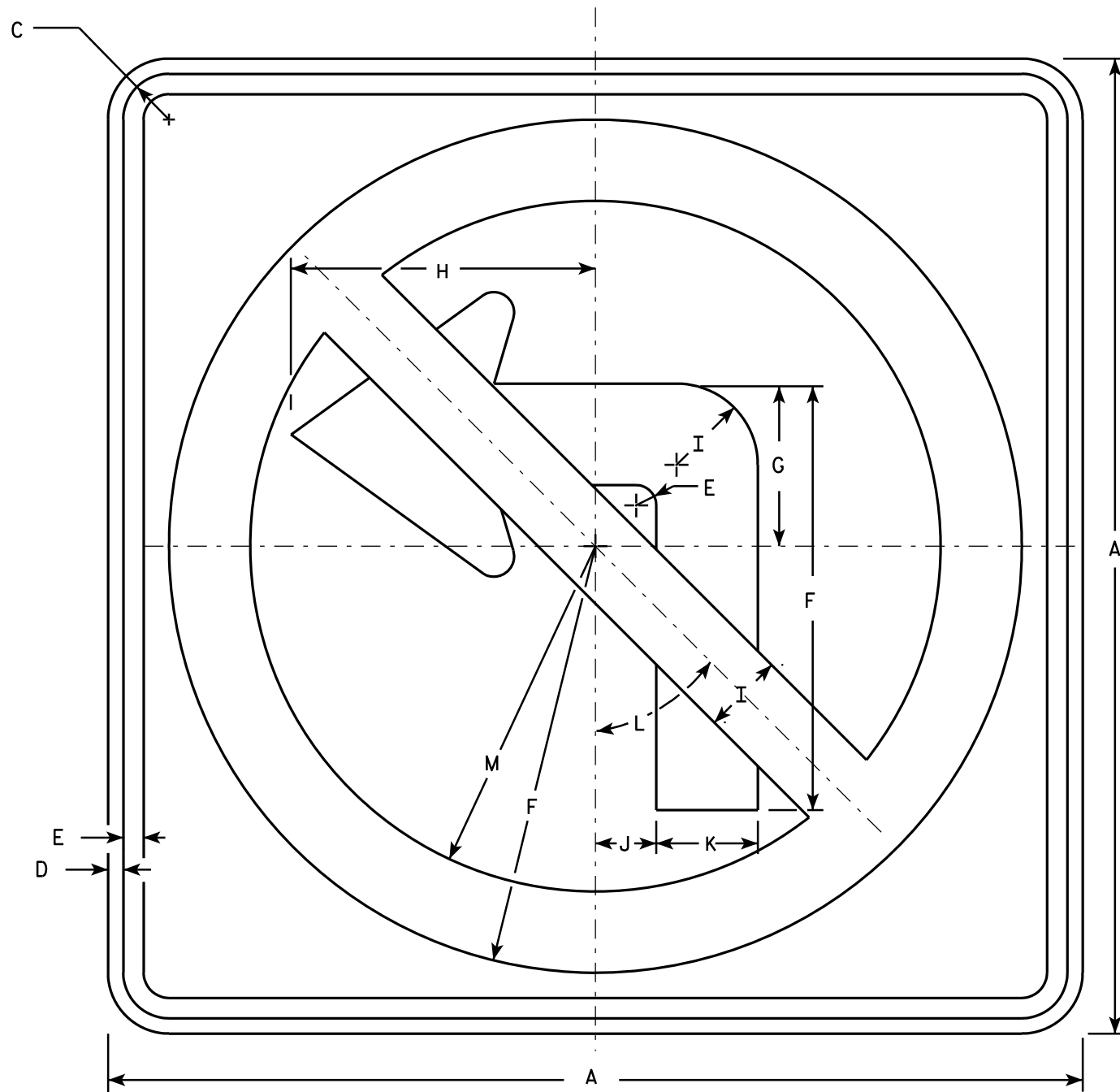
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 96

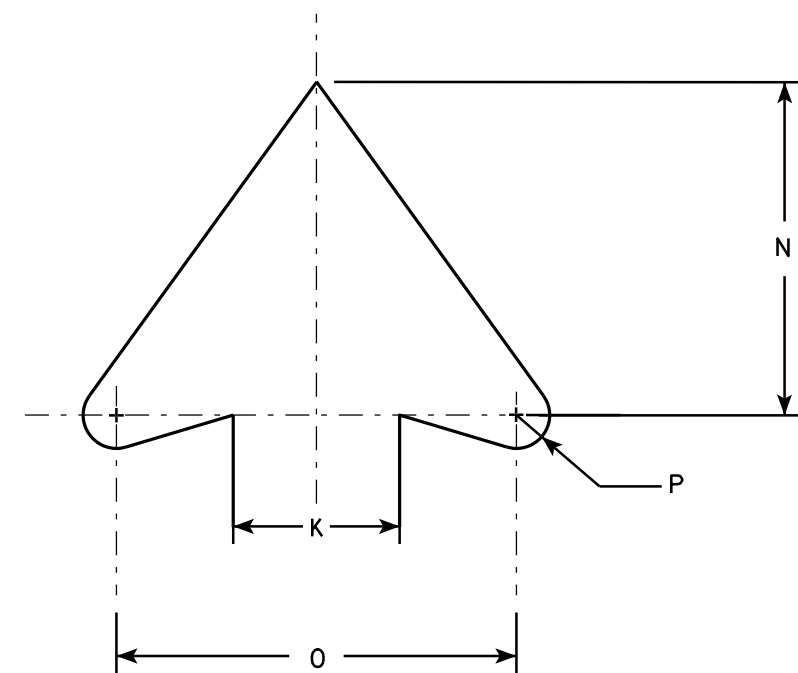
E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

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	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

STANDARD SIGN R3-2

WISCONSIN DEPT OF TRANSPORTATION

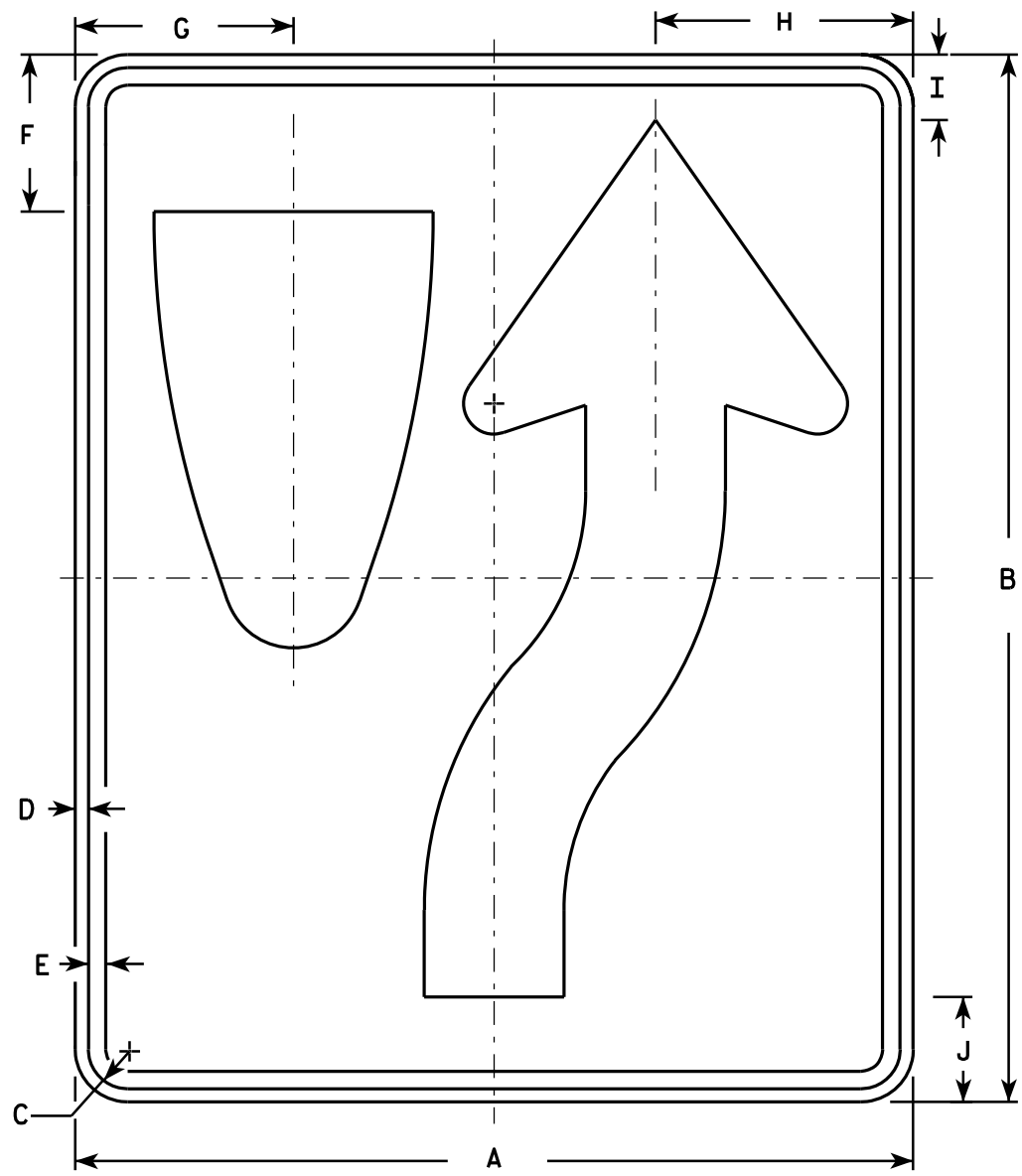
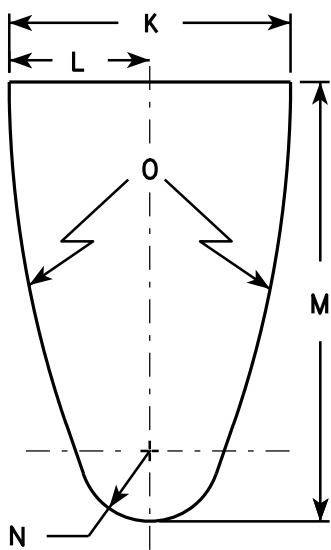
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

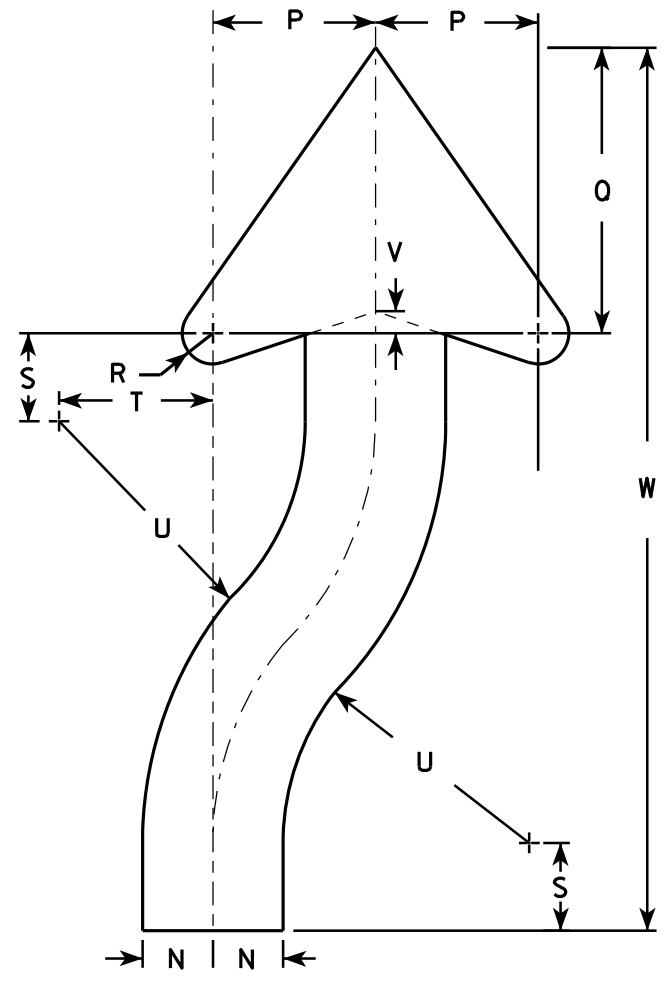
PROJECT NO: HWY: COUNTY: SHEET NO: 97 E

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.



R4-7



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:

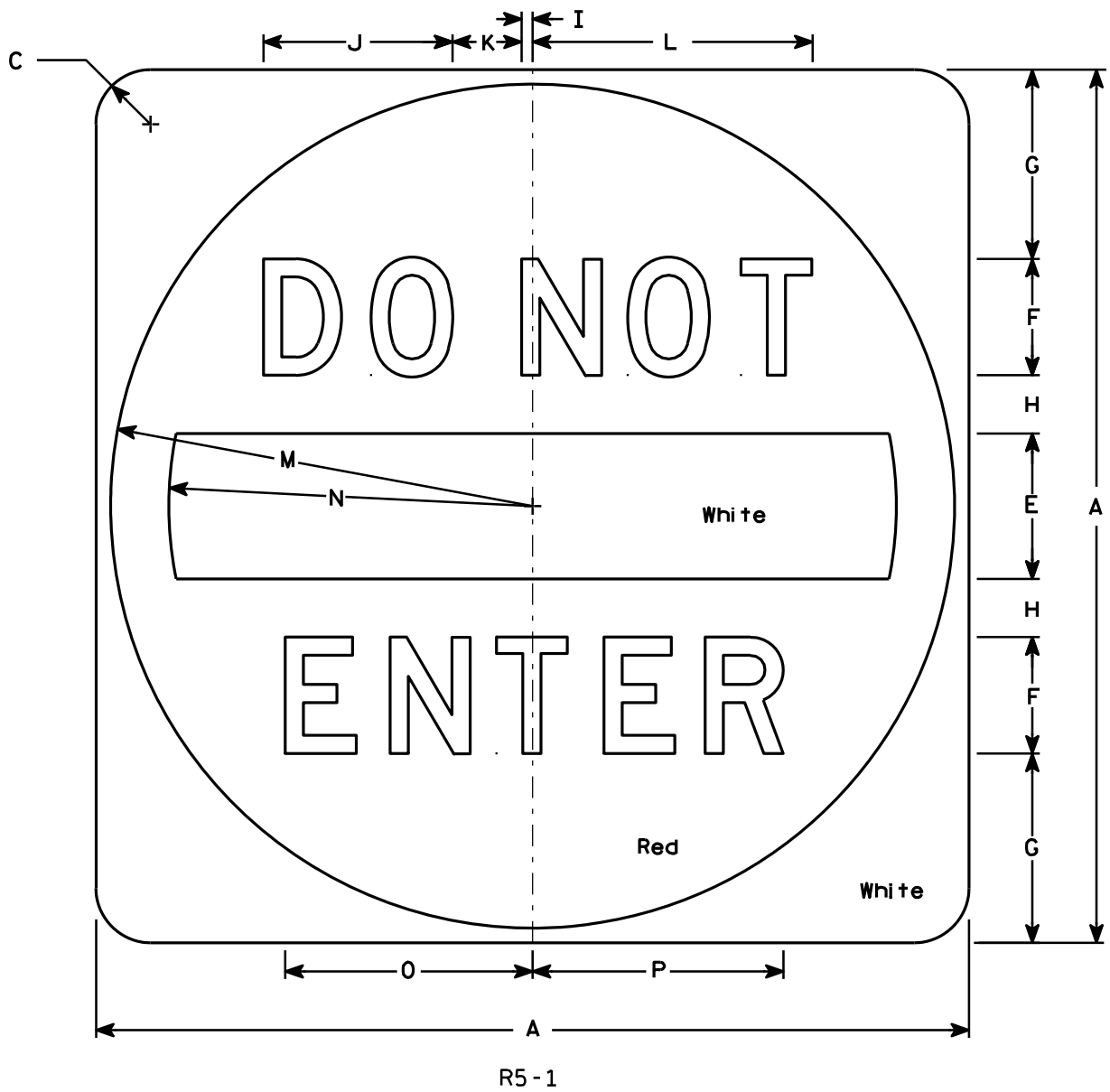
COUNTY:

SHEET NO: 98

E

NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - See detail
 - Message - White - Type H Reflective
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but 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																											
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											6.26
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

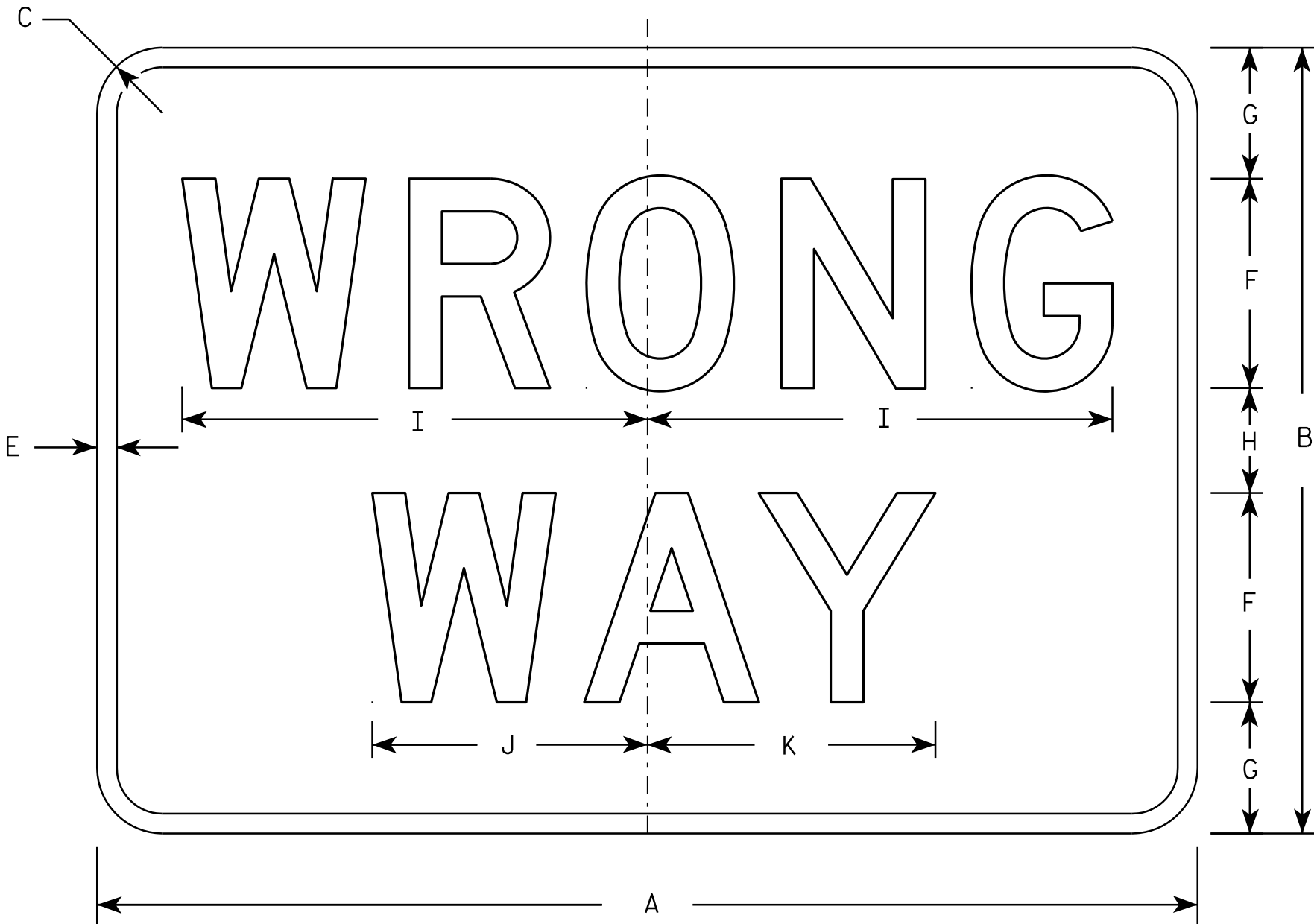
STANDARD SIGN

R5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15



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

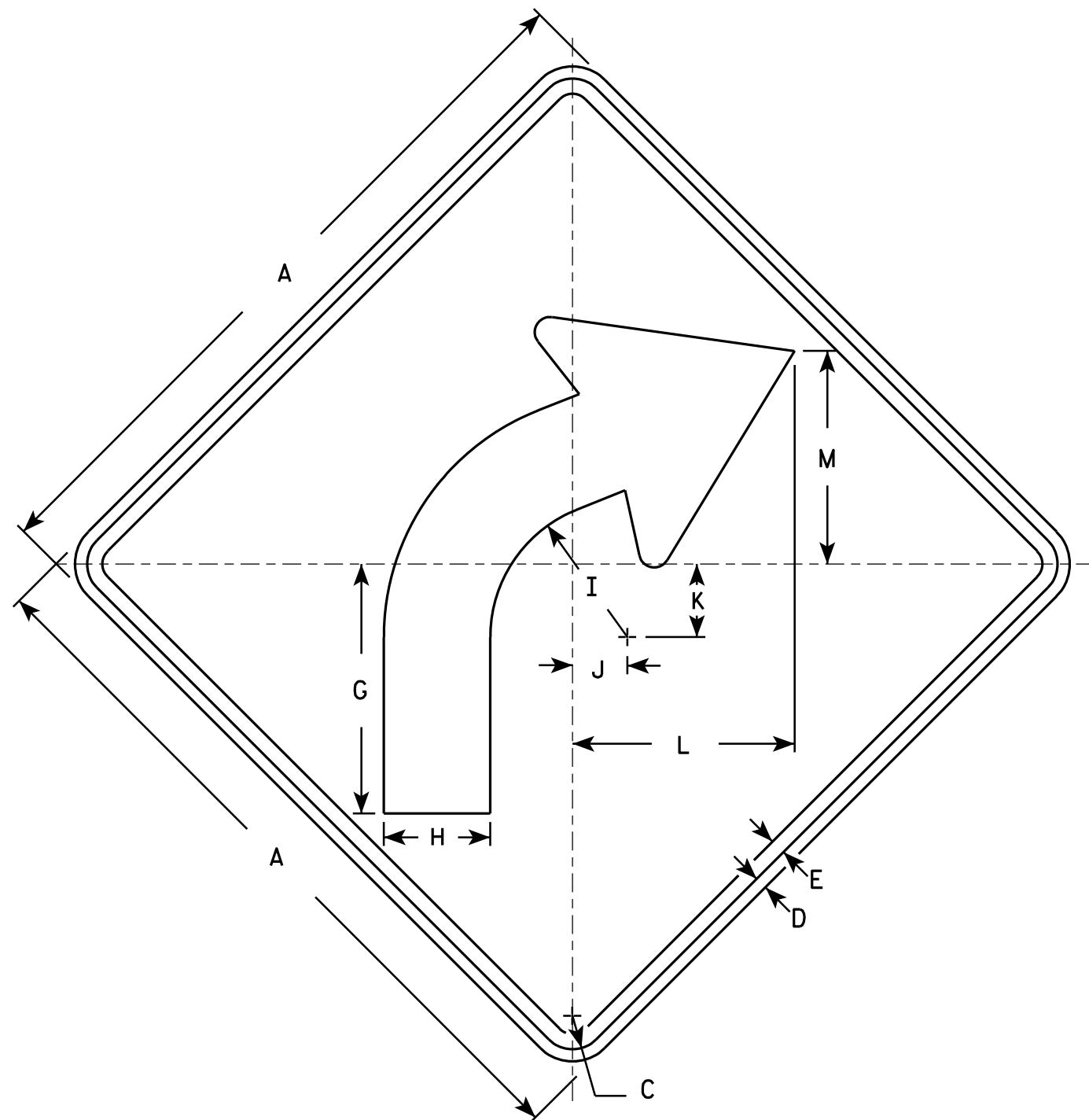
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

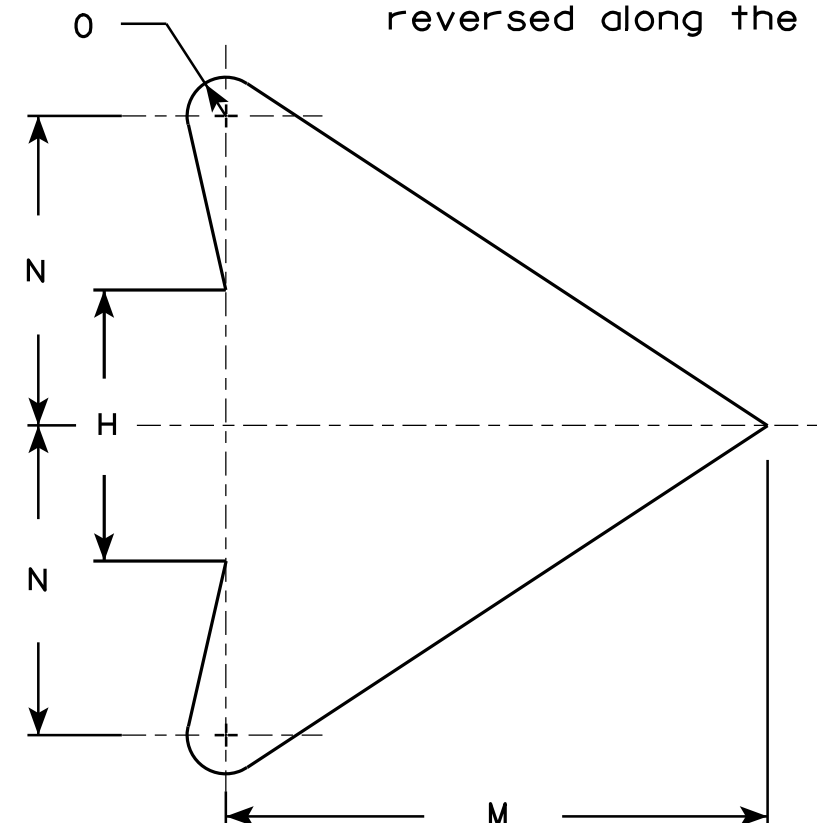
DATE 12/17/10 PLATE NO. R5-1A.2

NOTES

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



W1-2R



ARROW DETAIL

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

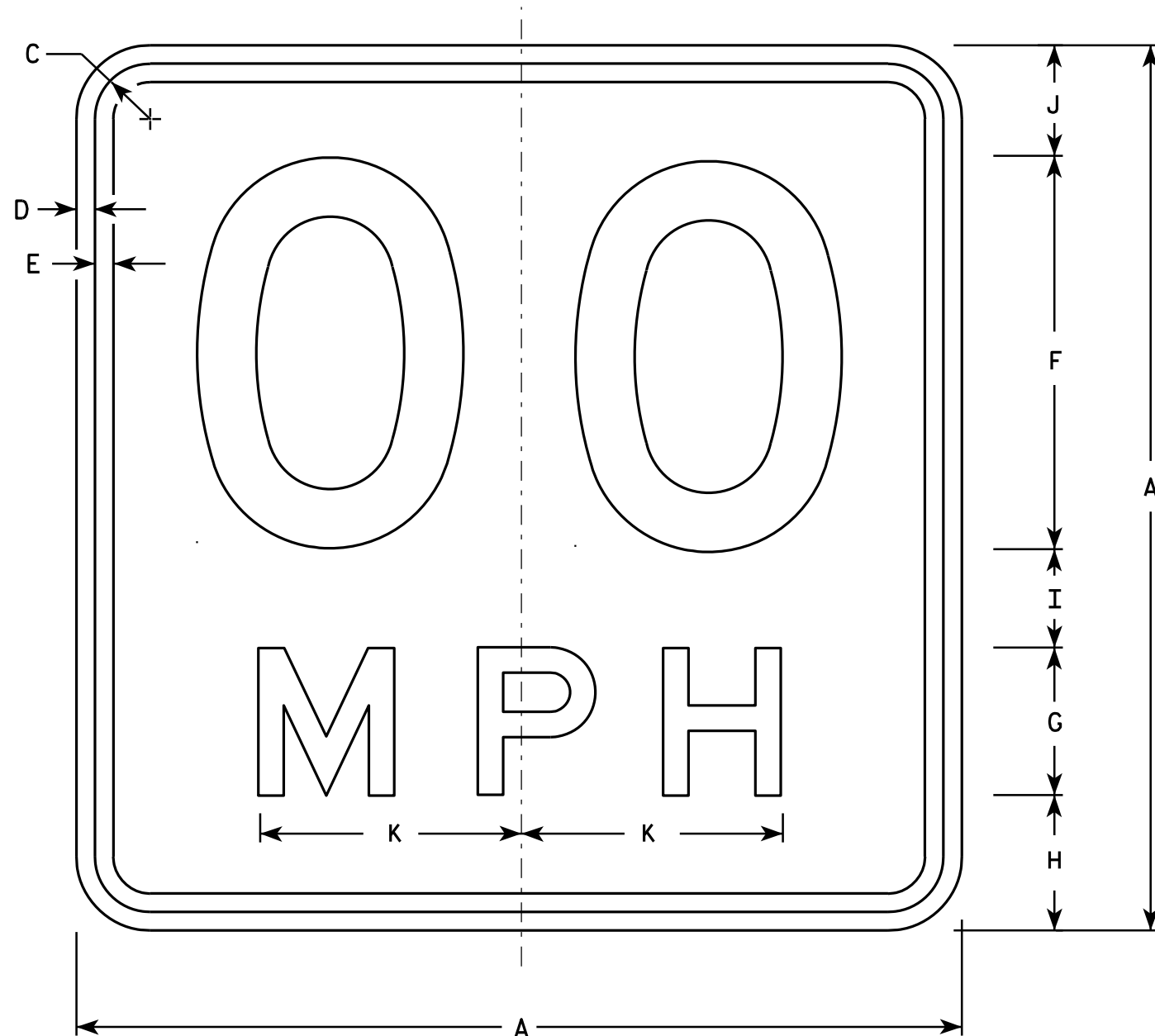
STANDARD SIGN W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

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



NOTES

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

W13-1

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

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

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

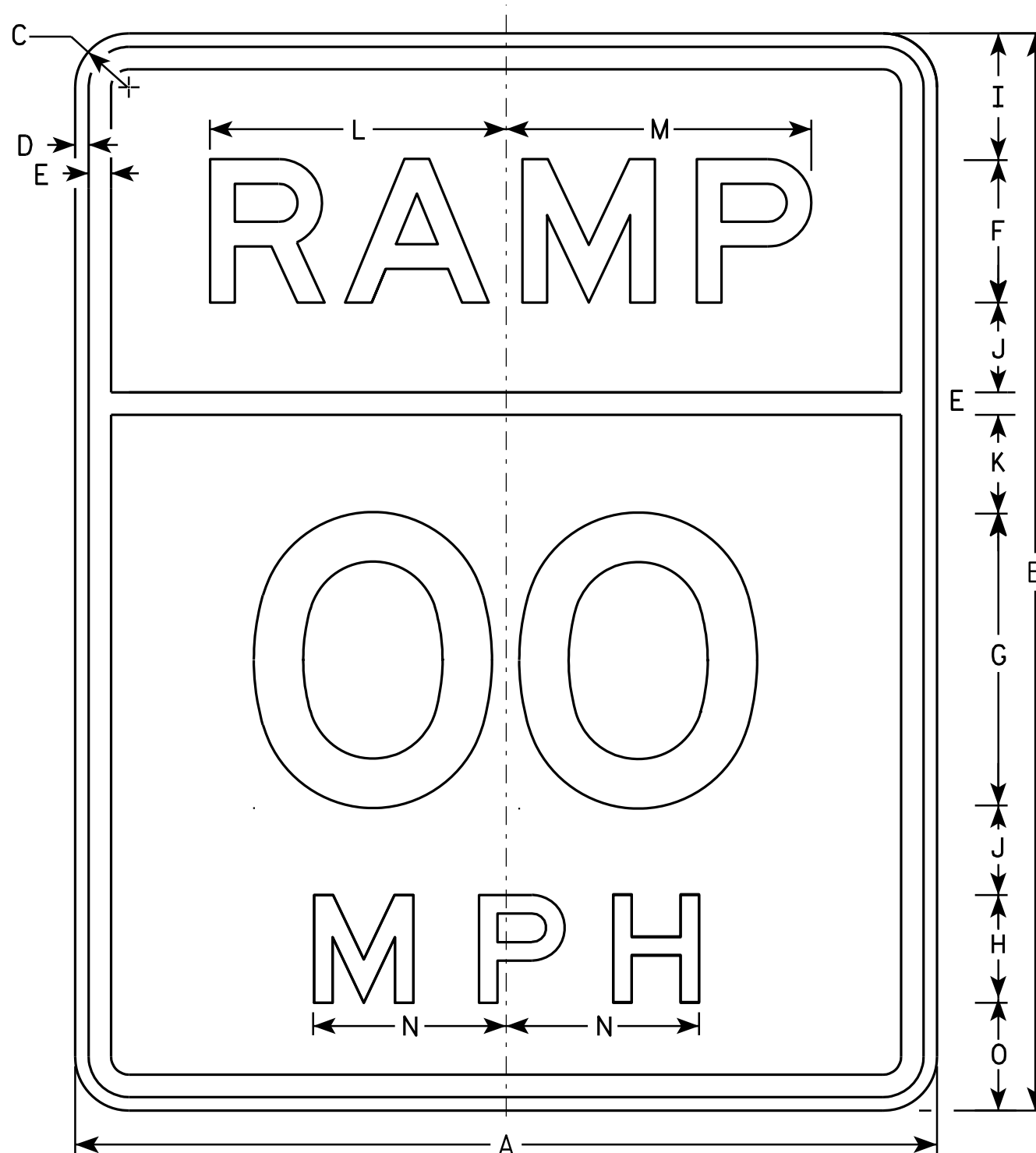
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 102

E



W13-3

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. 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 space about centerline 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	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2S	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
2M	24	30	1 1/8	3/8	5/8	4	8	3	3 1/2	2 1/2	2 7/8	8 1/4	8 1/2	5 3/8	3												5.0
3																											
4	36	48	1 5/8	5/8	7/8	6	12	4	6	4 1/8	5 1/8	13 1/2	13 5/8	7 1/8	6												12.0
5	48	60	2 1/4	3/4	1 1/4	8	16	6	7	5	5 3/4	16 1/2	17	10 5/8	6												20.0

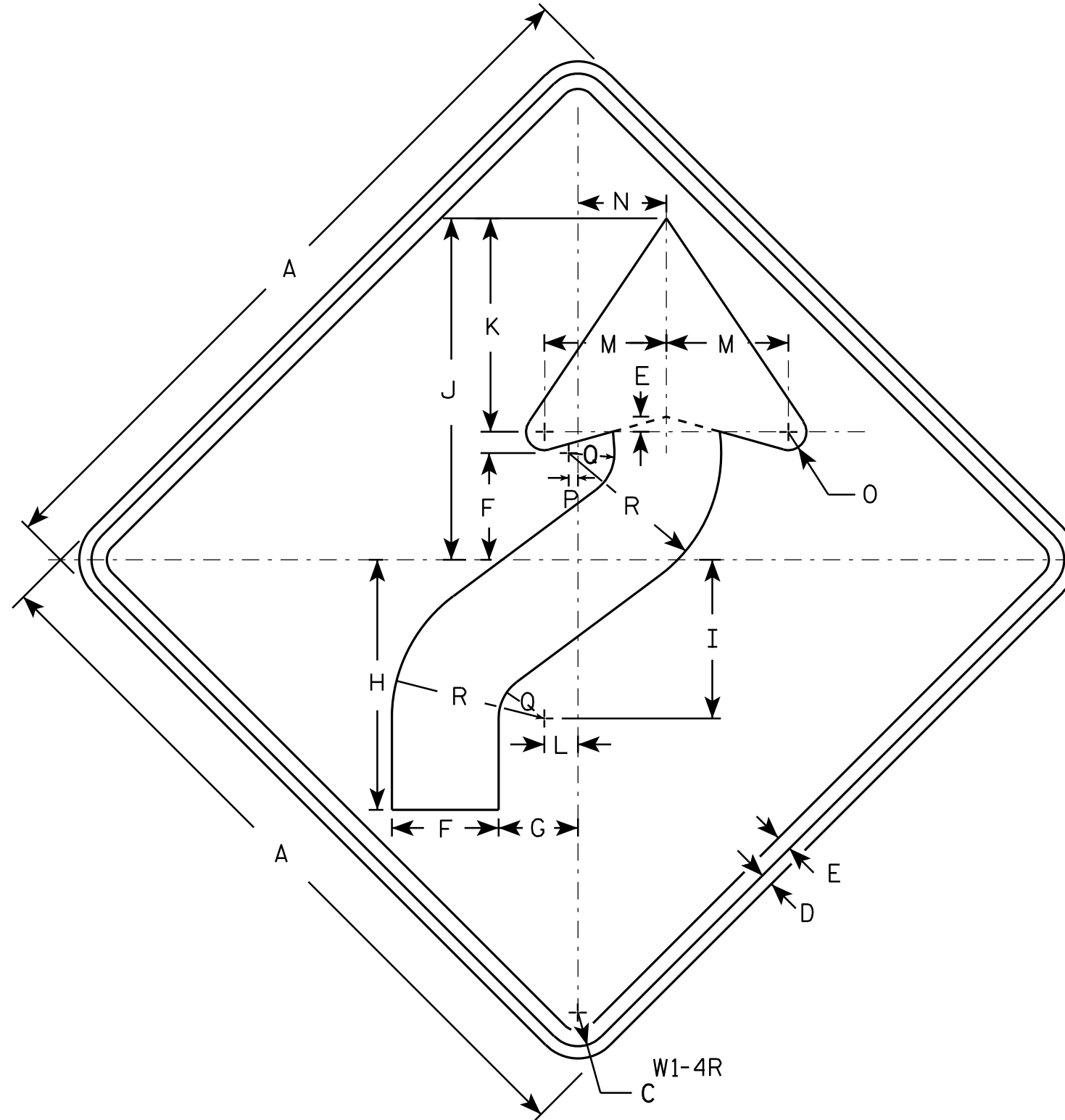
STANDARD SIGN
W13-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/13/13 PLATE NO. W13-3.9

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



NOTES

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

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

STANDARD SIGN

W1 - 4

WISCONSIN DEPT OF TRANSPORTATION

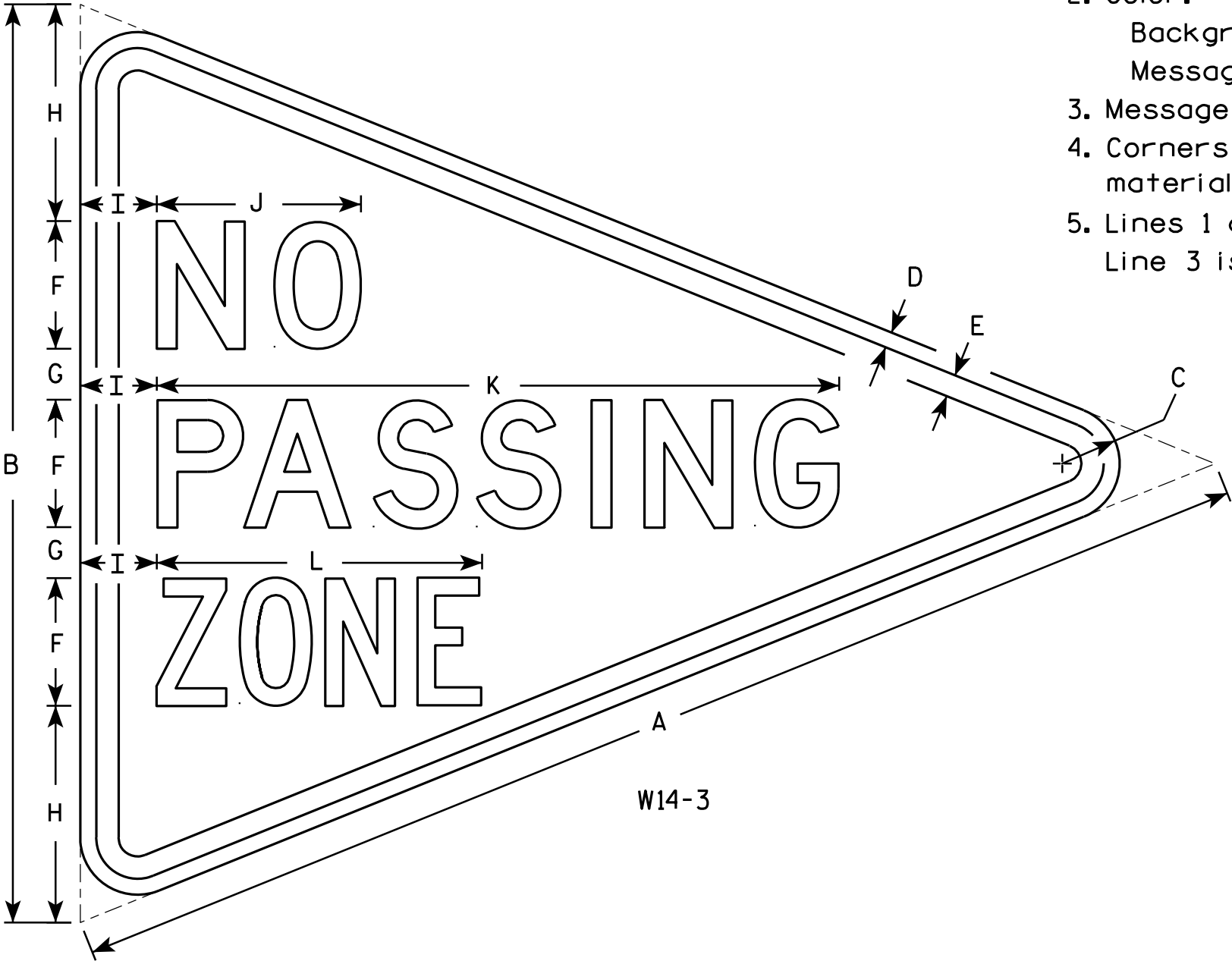
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO: HWY: COUNTY: SHEET NO: 104 E

NOTES

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



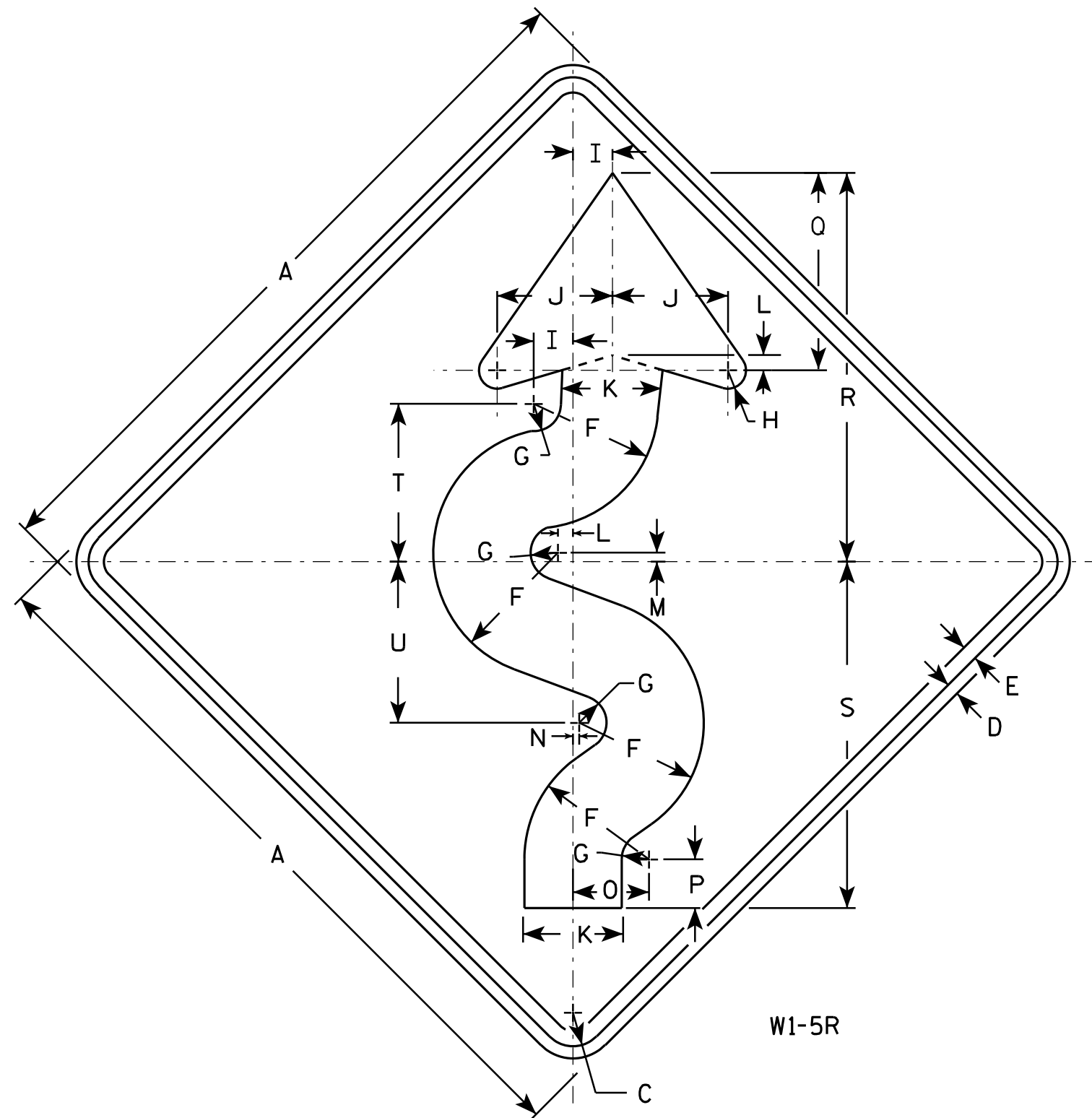
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2														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

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-5L is the same as W1-5R except the arrow is reversed along the vertical centerline.

W1-5R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4 1/8	7/8	5/8	1 1/4	3 3/4	3 1/4	1/2	1/4	1/8	2 1/2	1 5/8	6 1/2	12 3/4	11 3/8	5 1/4	5 1/4						4.0
2S	30		1 3/8	1/2	5/8	5 1/8	1 1/8	3/4	1 5/8	4 3/4	4 1/8	5/8	3/8	1/4	3 1/8	2	8 1/8	16	14 1/4	6 1/2	6 5/8						6.25
2M	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
3	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
4	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
5	48		2 1/4	3/4	1	8 1/4	1 3/4	1 1/4	2 1/2	7 1/2	6 1/2	1	1/2	3/8	5	3 1/4	13	25 1/2	22 3/4	10 3/8	10 1/2						16.0

STANDARD SIGN W1-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 5/18/12

PLATE NO. W1-5.8

PROJECT NO:

HWY:

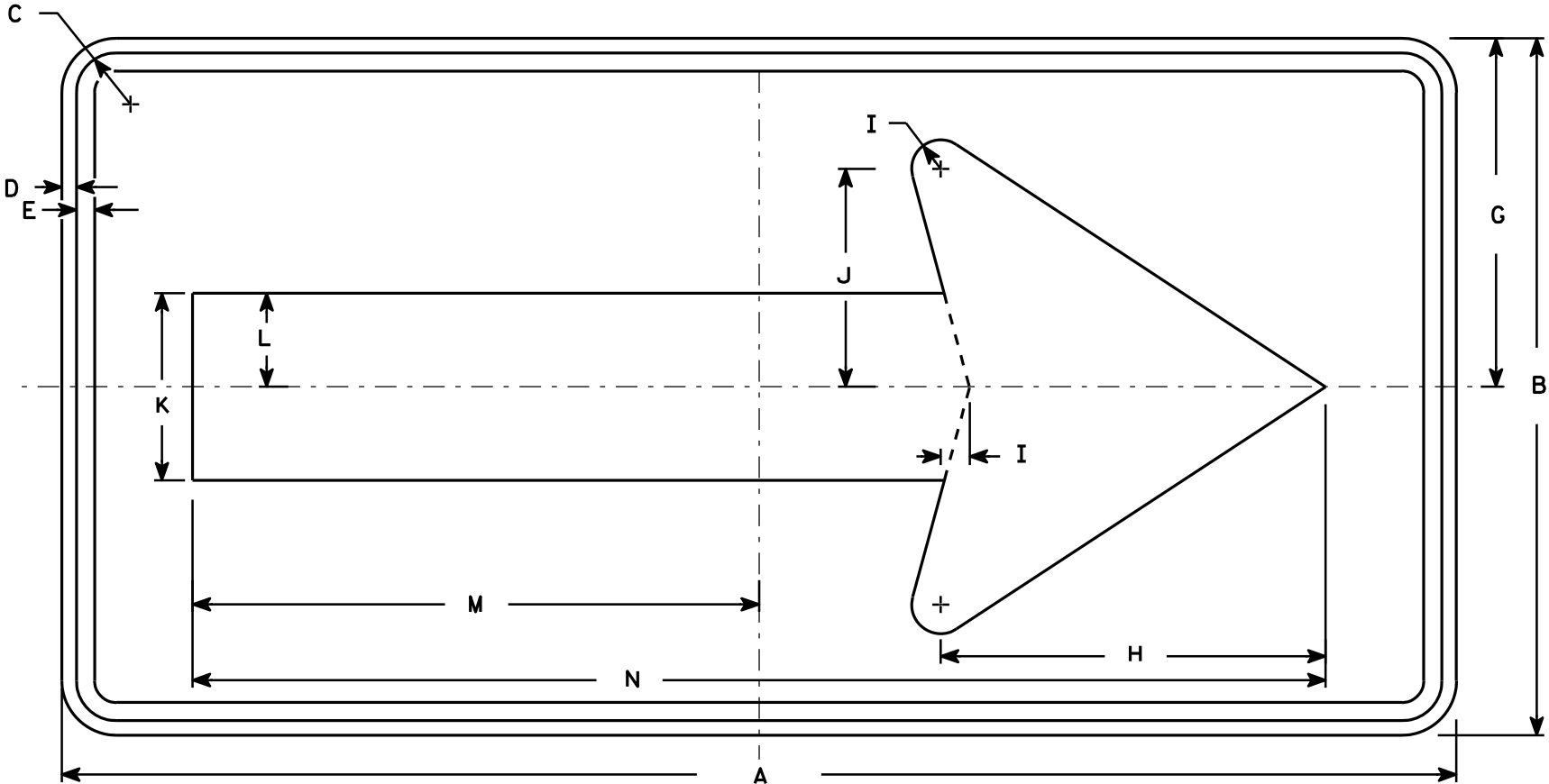
COUNTY:

SHEET NO: 106

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.



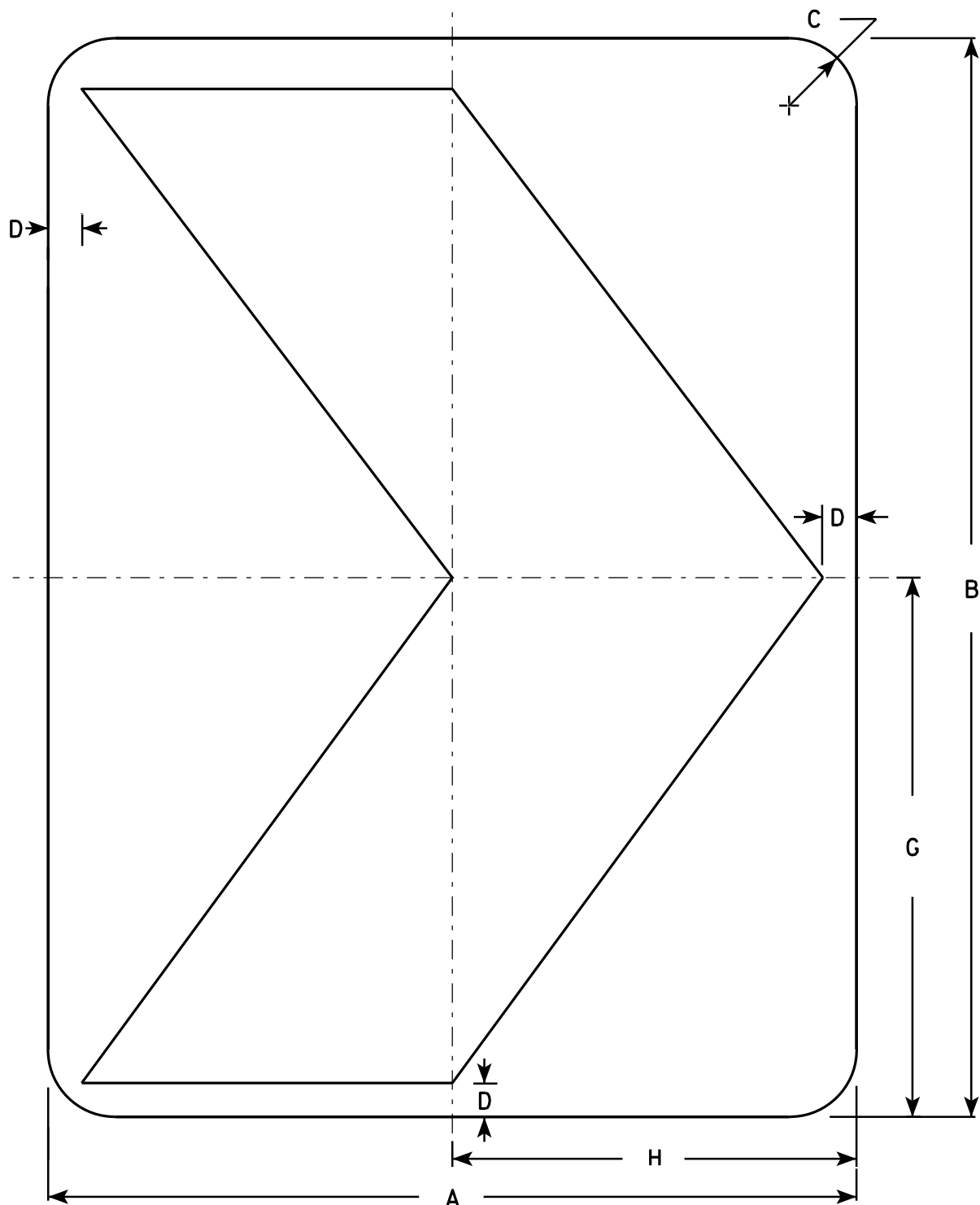
W1-6

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

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

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



W1-8

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/2	1/2			9	6																			1.5
2S	18	24	1 1/2	3/4			12	9																			3.0
2M	18	24	1 1/2	3/4			12	9																			3.0
3	24	30	1 1/2	1			15	12																			5.0
4	30	36	1 7/8	1 1/4			18	15																			7.5
5	36	48	2 1/4	1 1/2			24	18																			12.0

STANDARD SIGN

W1-8

WISCONSIN DEPT OF TRANSPORTATION

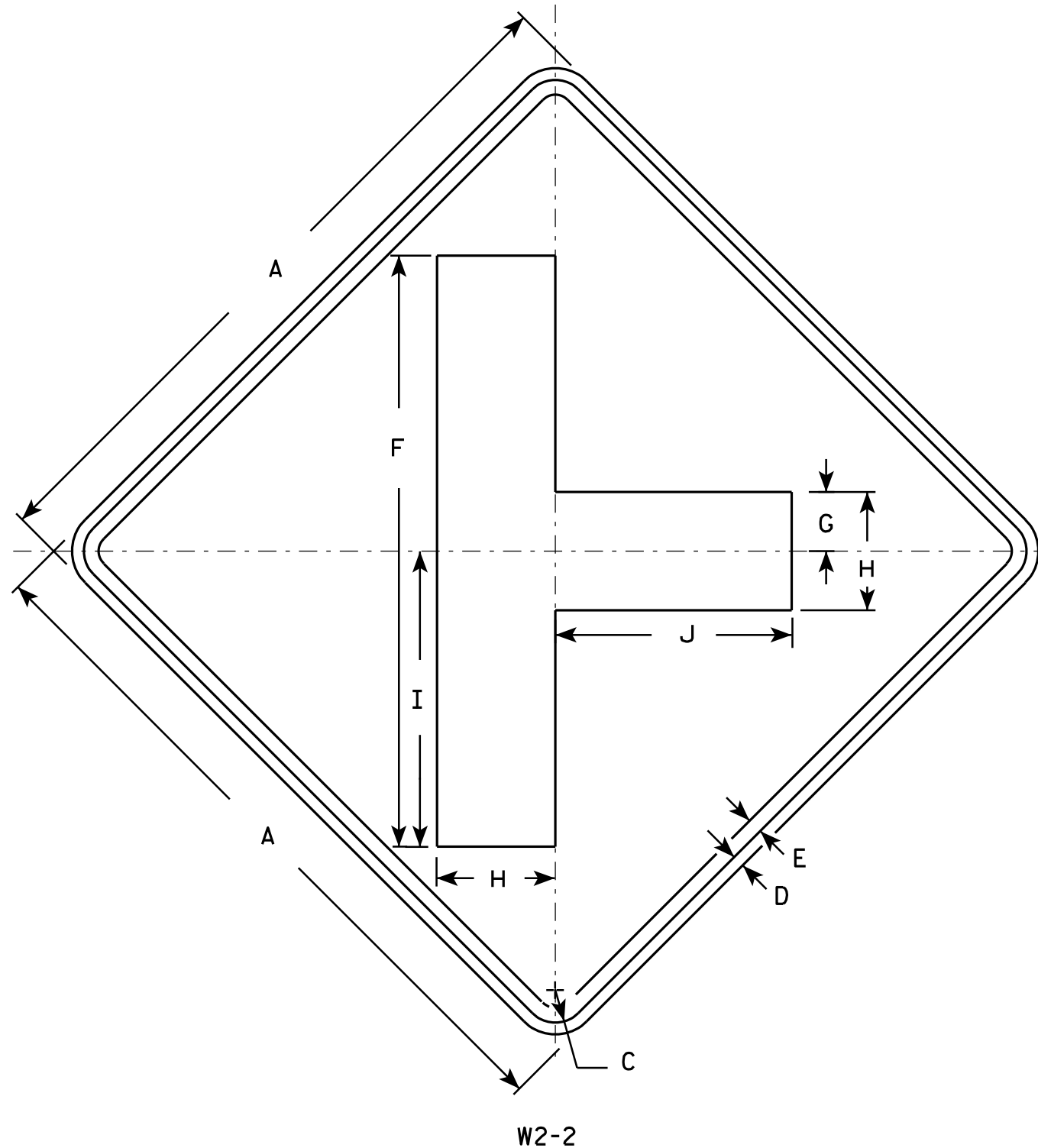
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 108

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	24		1 1/8	3/8	1/2	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

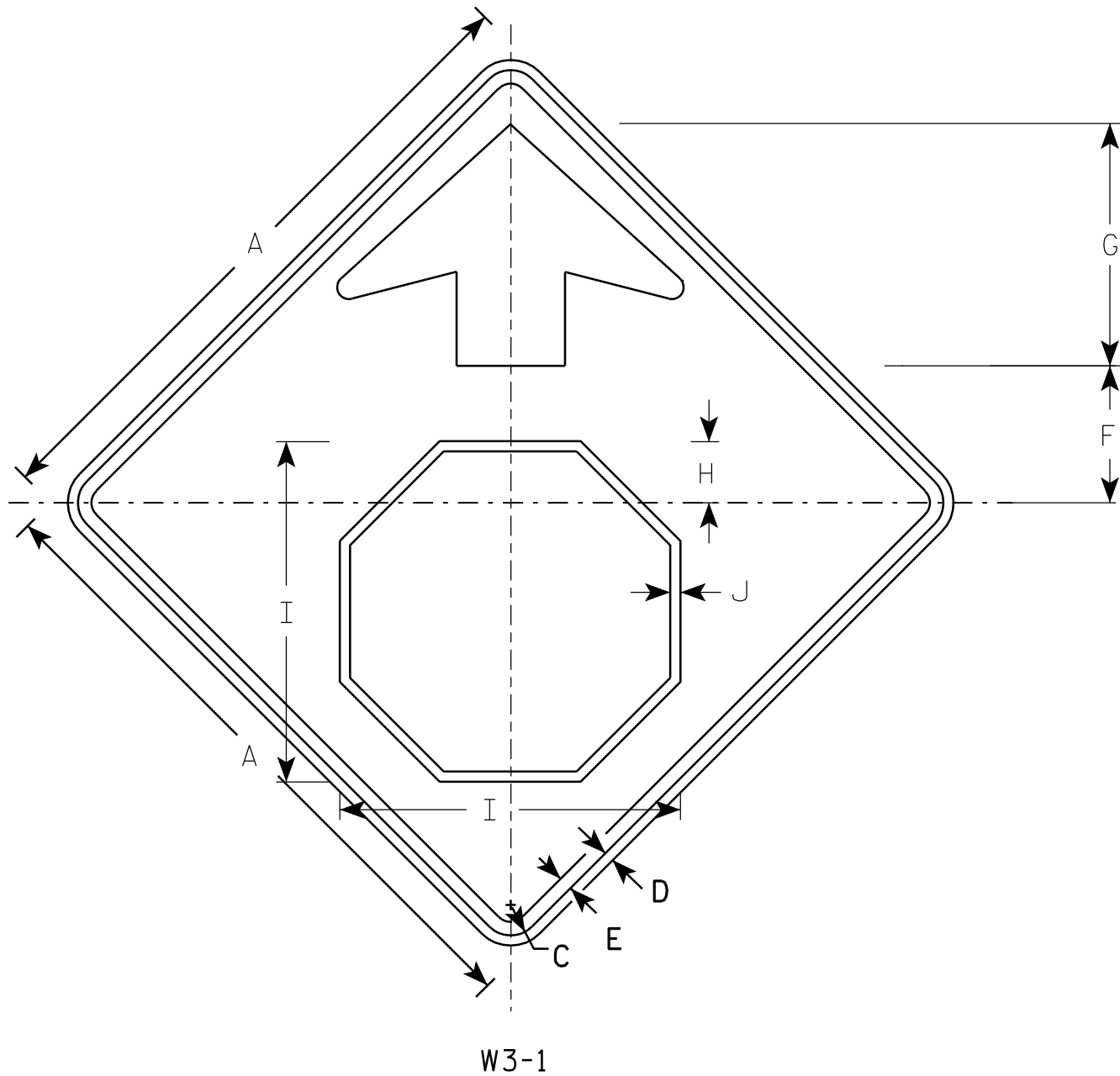
STANDARD SIGN W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

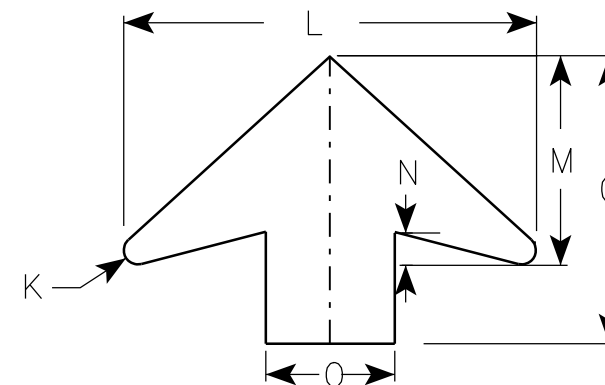
DATE 5/29/12 PLATE NO. W2-2.6

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



NOTES

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



ARROW DETAIL

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

PROJECT NO:

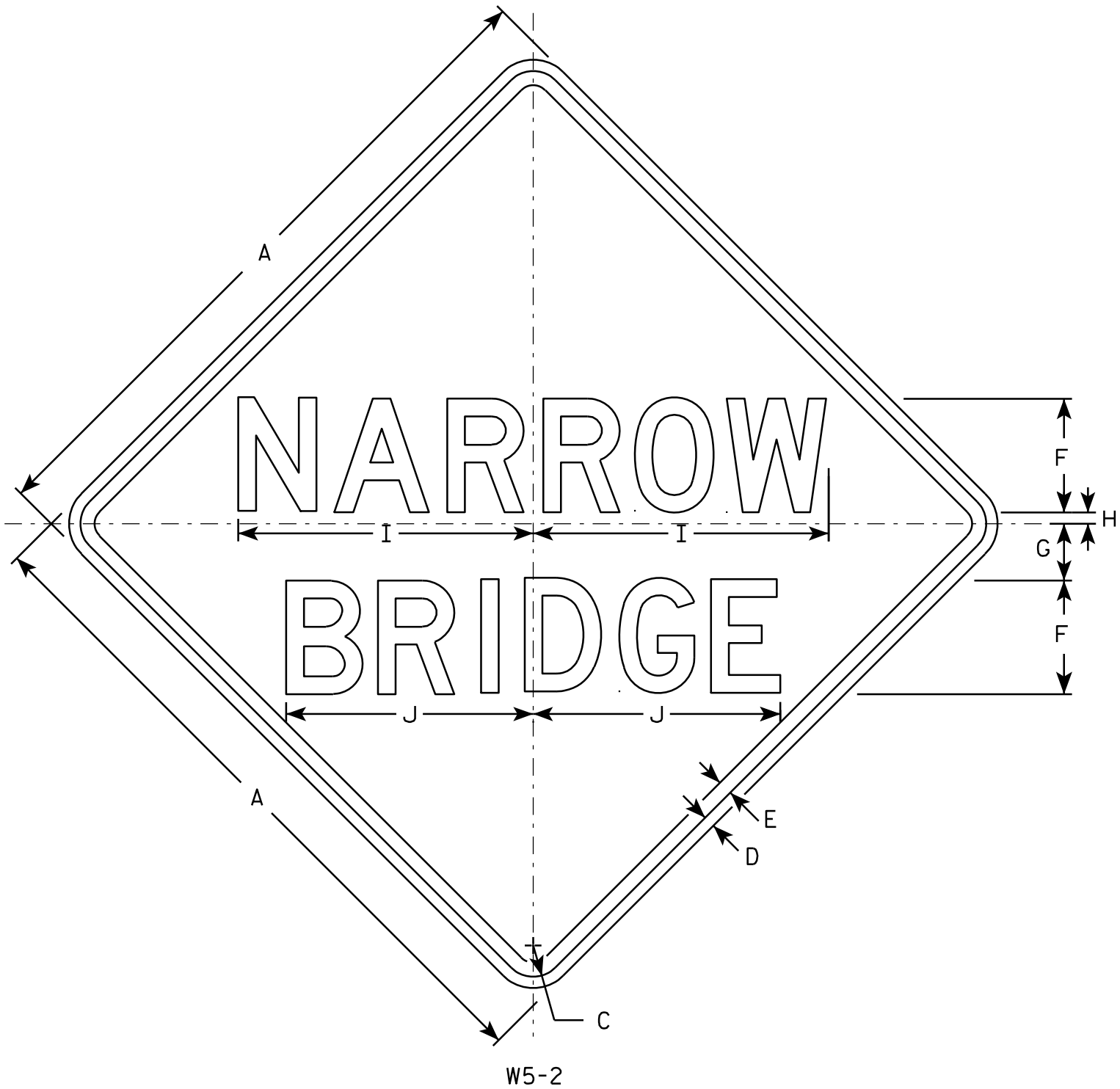
STANDARD SIGN
W3-1

WISCONSIN DEPT OF TRANSPORTATION

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

SHEET NO: 110

E



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3⁄8	1⁄2	5⁄8	5	2 1⁄2	1⁄2	13	10 7⁄8																	6.25
2S	36		1 5⁄8	5⁄8	3⁄4	6	3	3⁄4	15 5⁄8	13 1⁄8																	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	6	3	3⁄4	15 5⁄8	13 1⁄8																	9.0
3	36		1 5⁄8	5⁄8	3⁄4	6	3	3⁄4	15 5⁄8	13 1⁄8																	9.0
4	48		2 1⁄4	3⁄4	1	8	4	3⁄4	20 3⁄4	17 3⁄8																	16.0
5																											

STANDARD SIGN
W5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W5-2.8

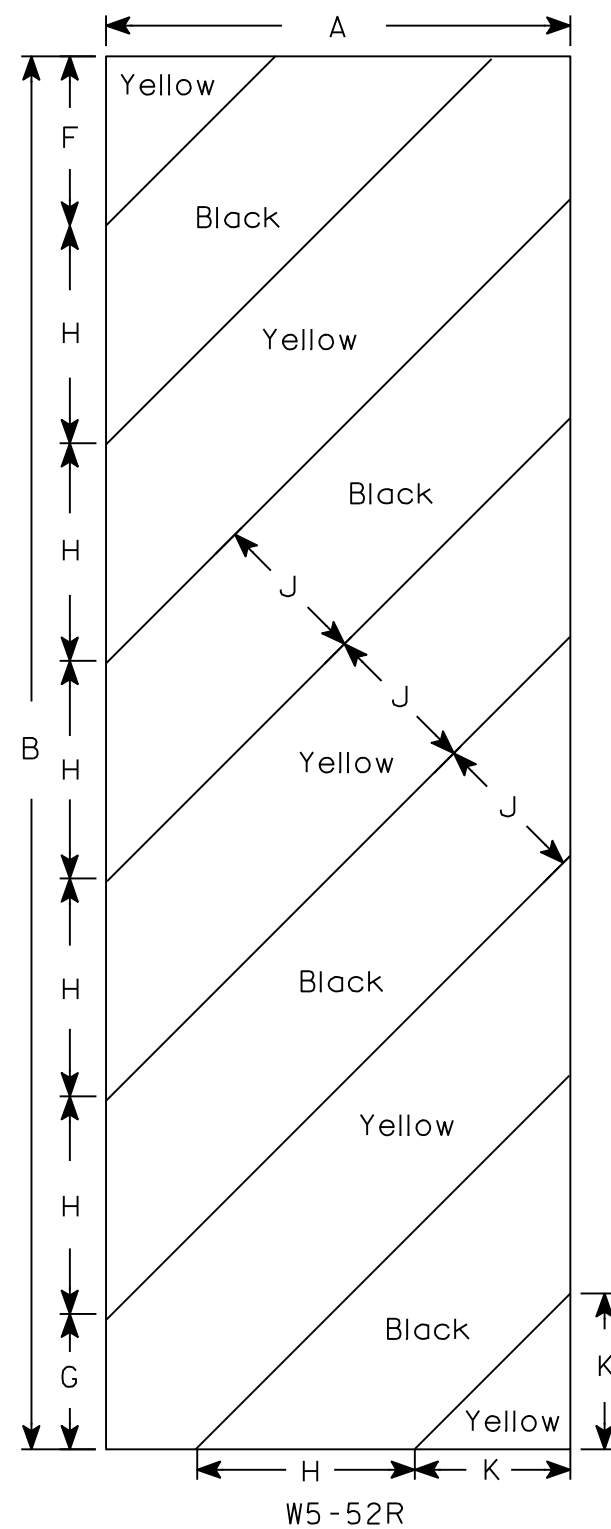
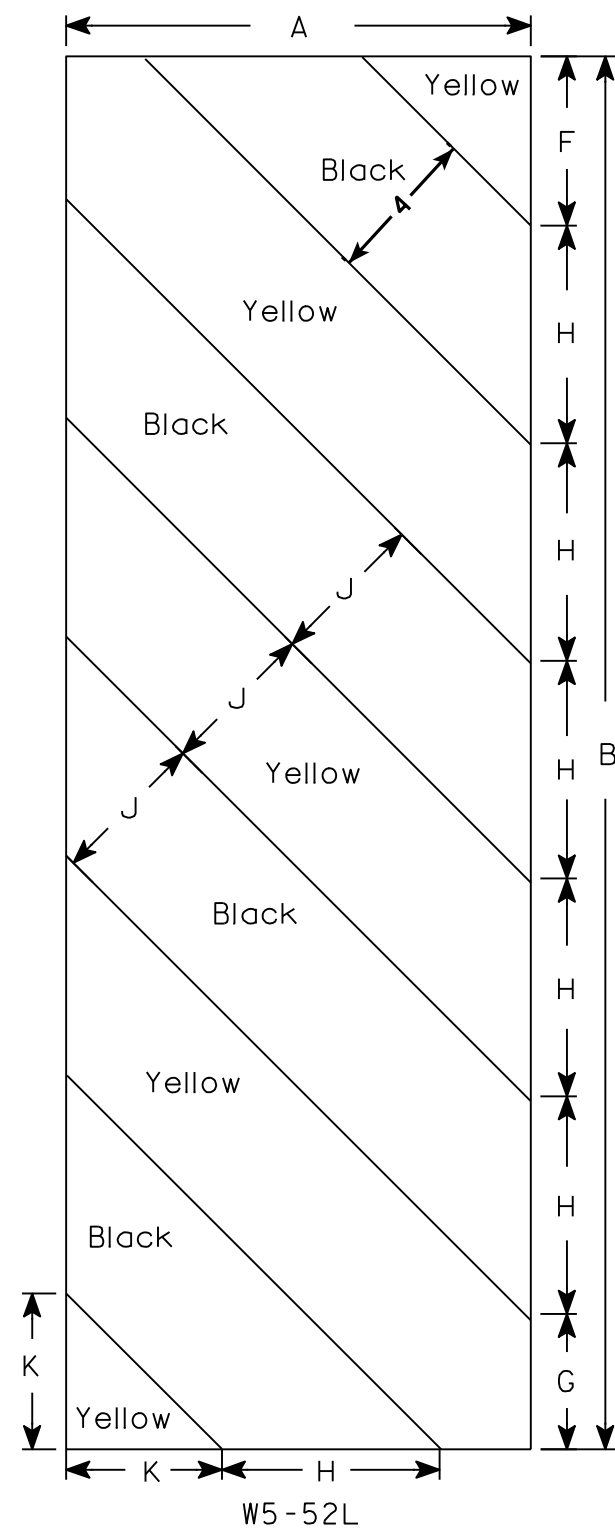
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 111

E



NOTES

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

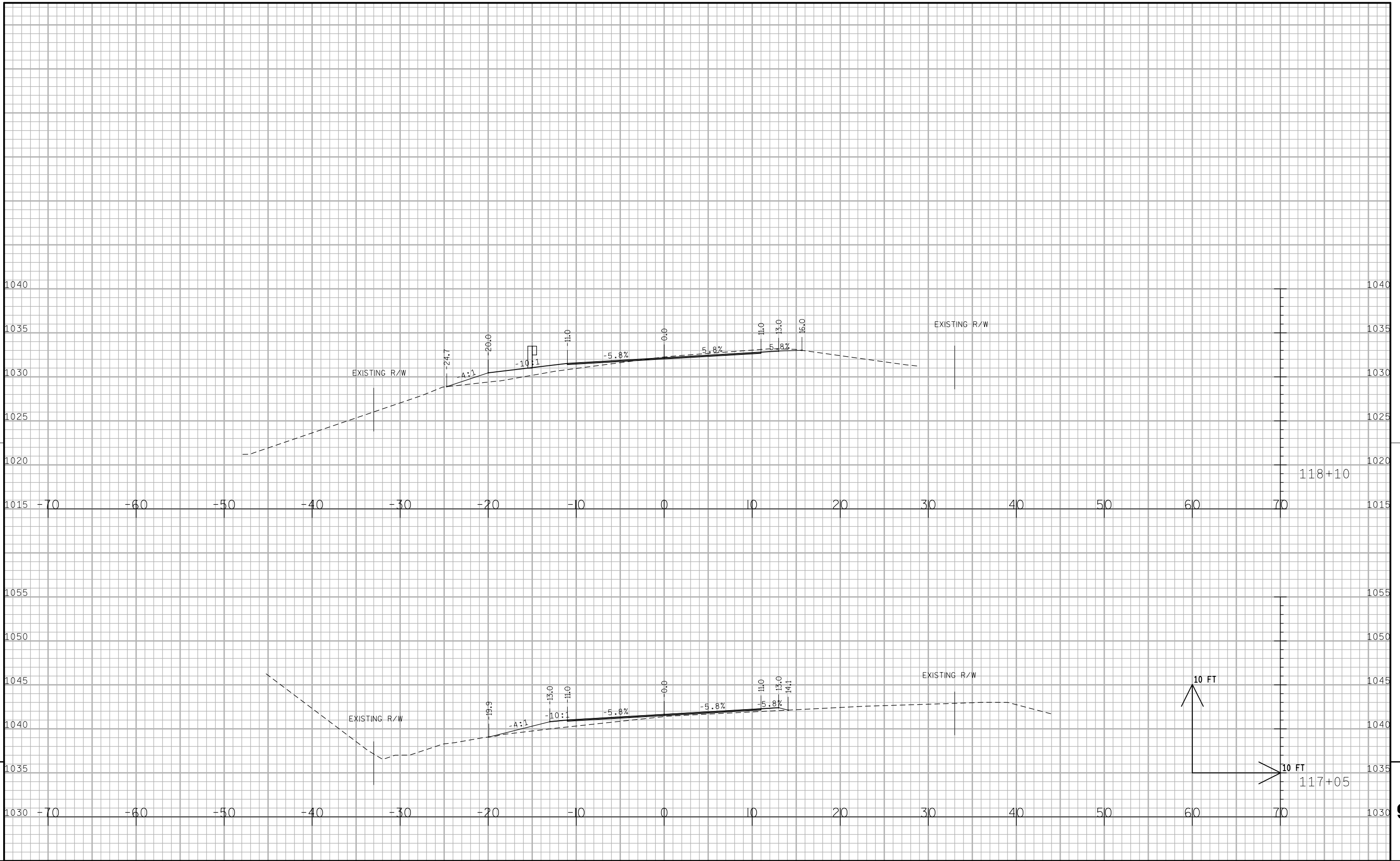
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 9⁄16																6.75
4																											
5																											

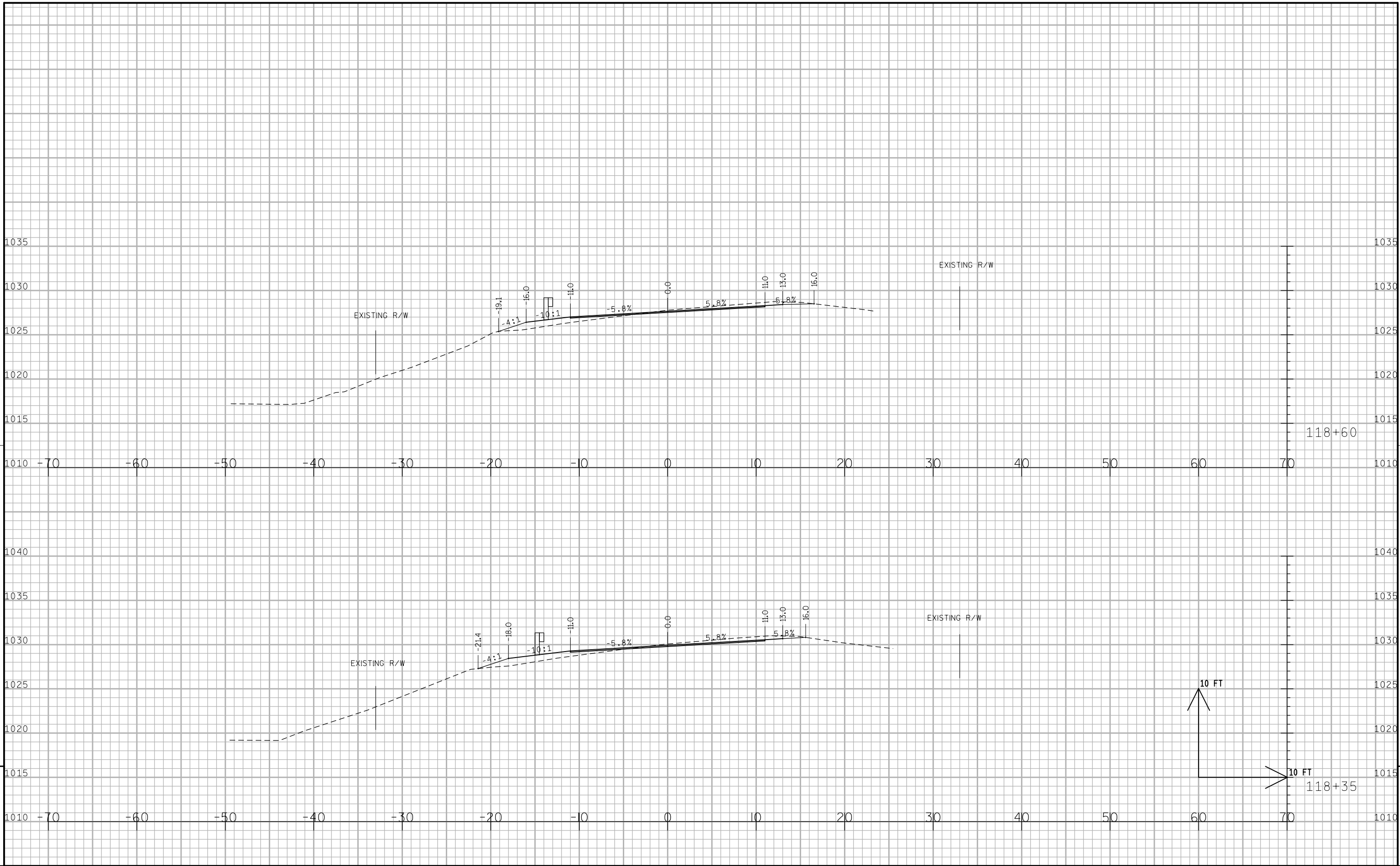
STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9





PROJECT NO:5939-00-61

HWY:STH 80

COUNTY:IOWA

CROSS SECTIONS:

SHEET

114

E

FILE NAME : Y:\Milwaukee\201005\20174.01\Eng_Docs\Sheets\090201_xs.dgn

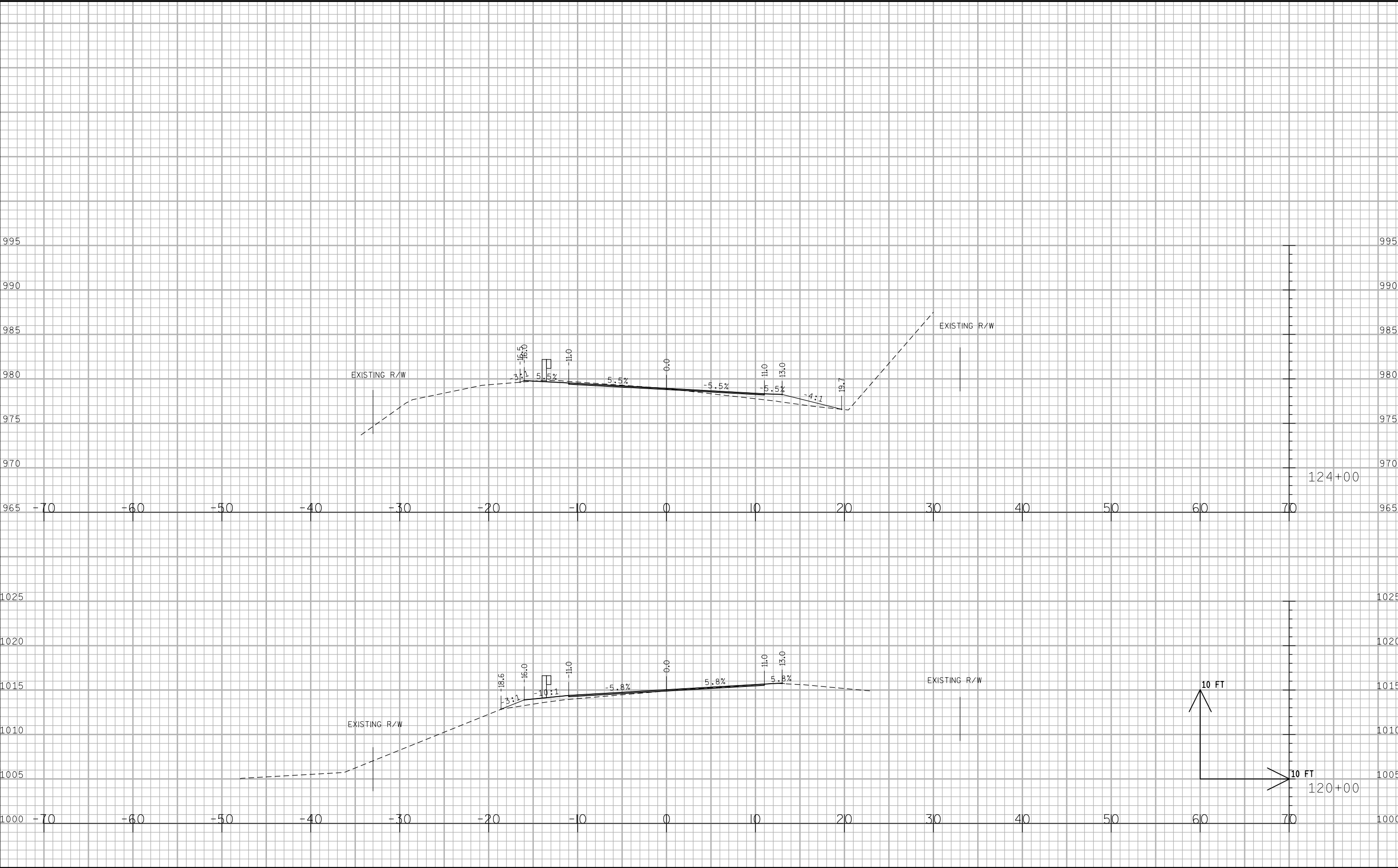
PLOT DATE : 2/27/2014

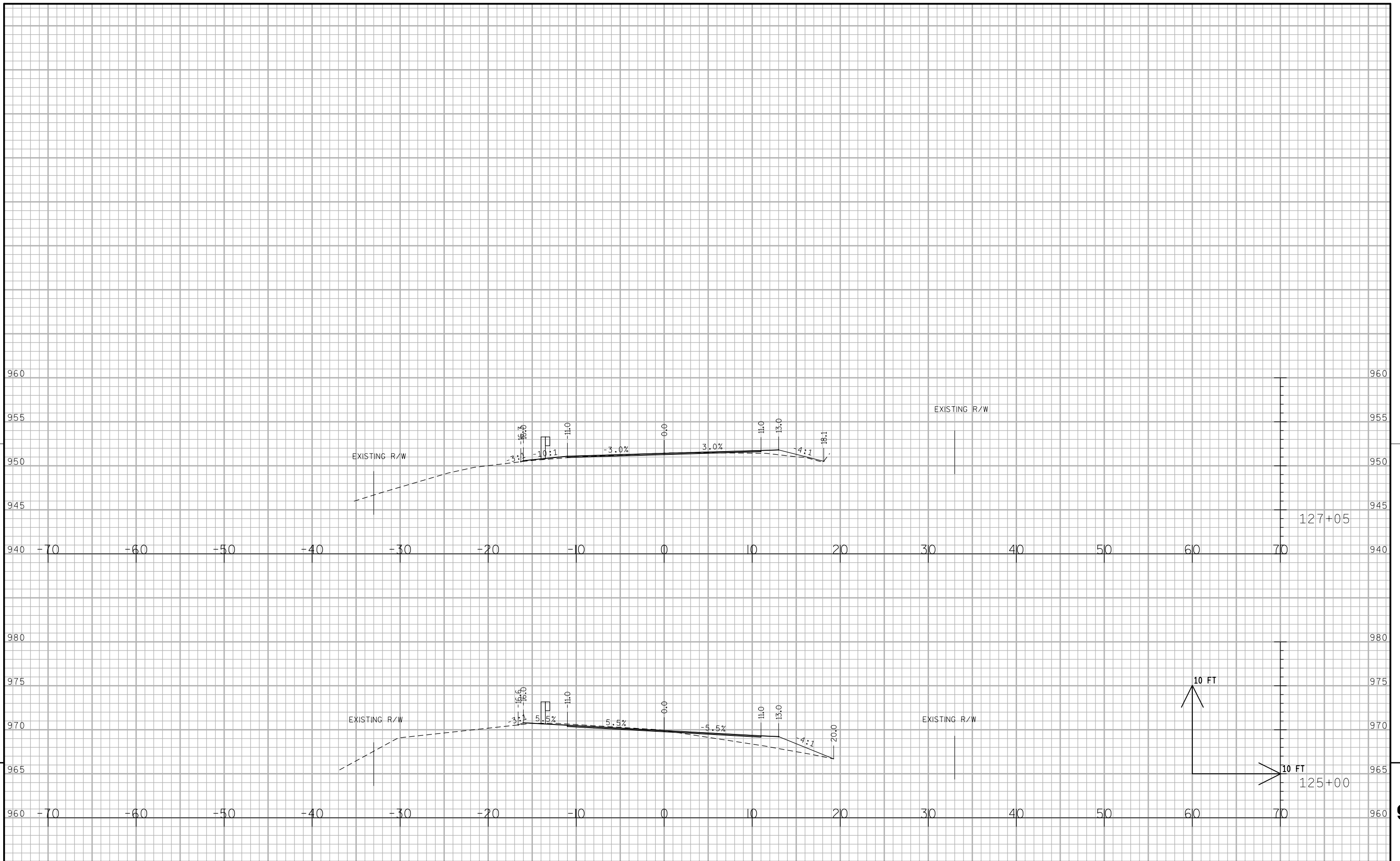
PLOT BY : twatt

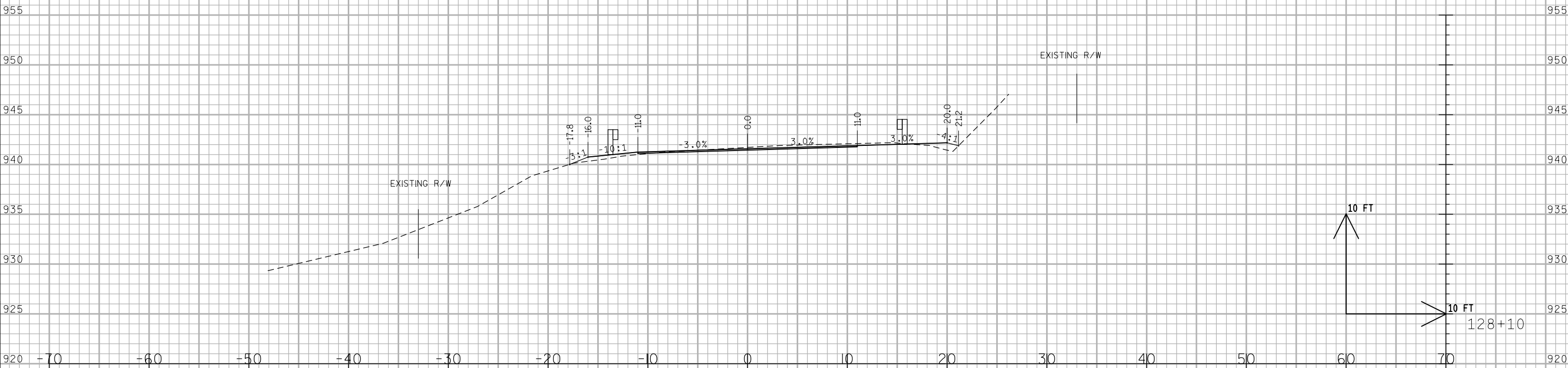
PLOT NAME :

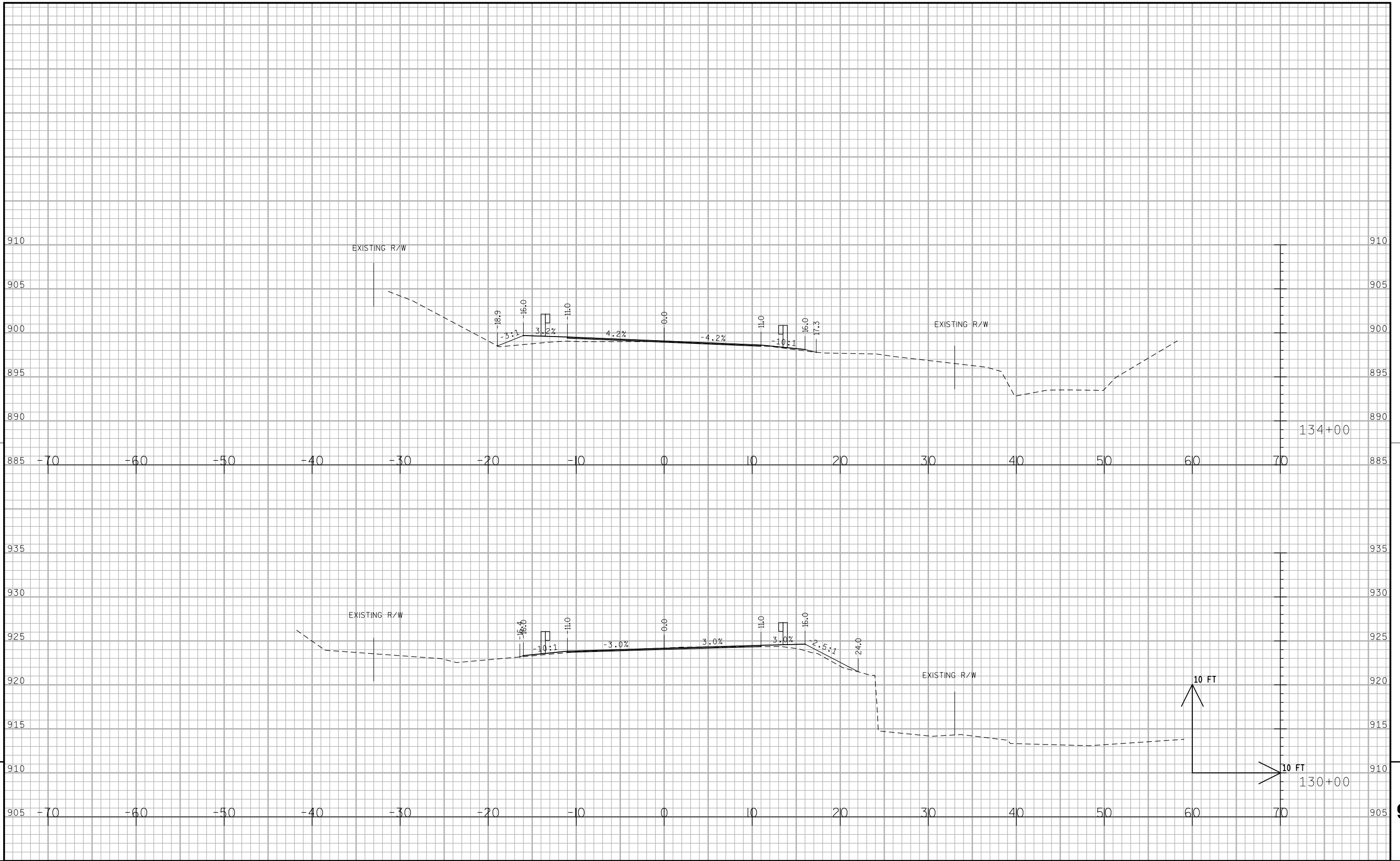
PLOT SCALE : 1:10

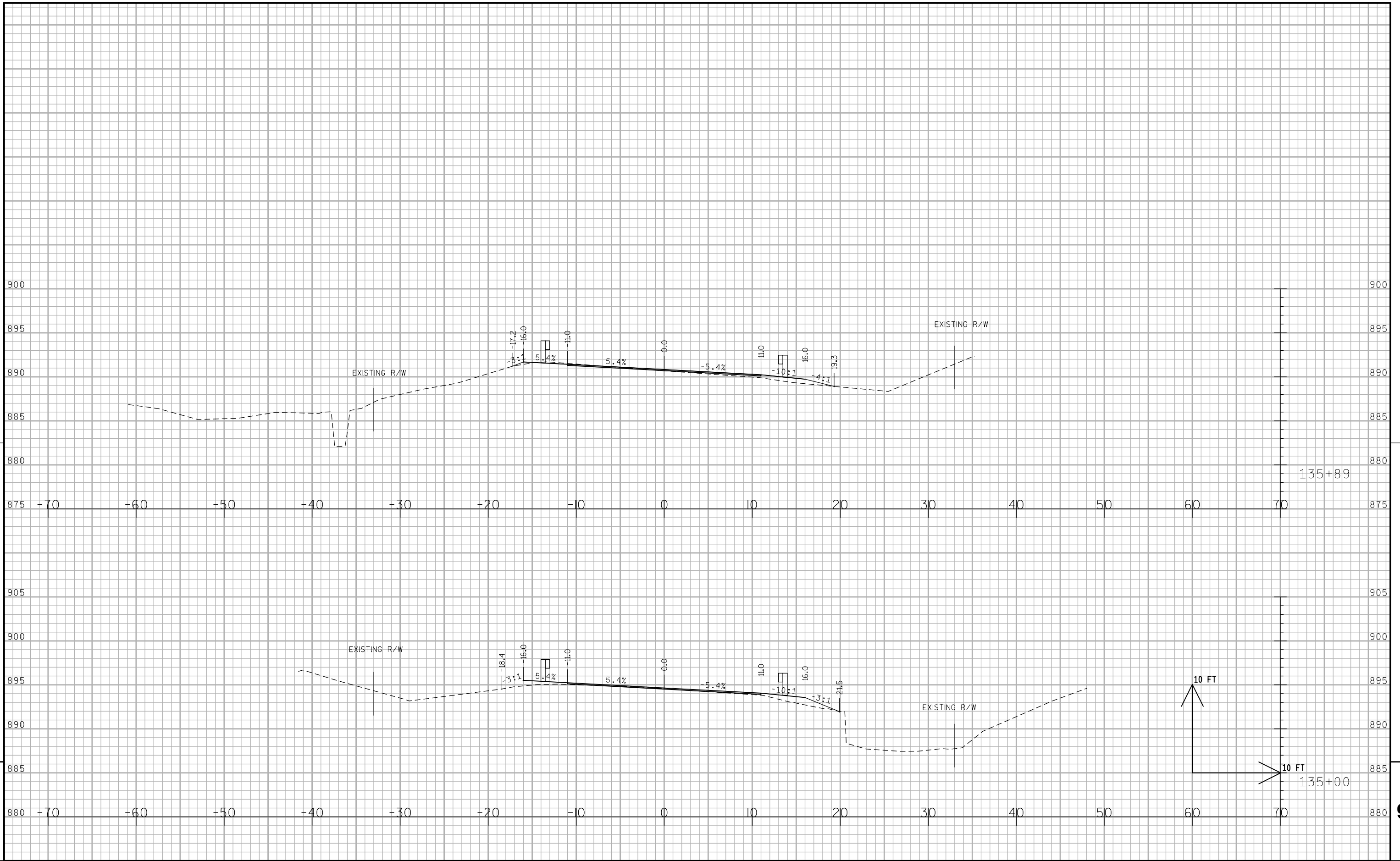
WISDOT/CADDs SHEET 21

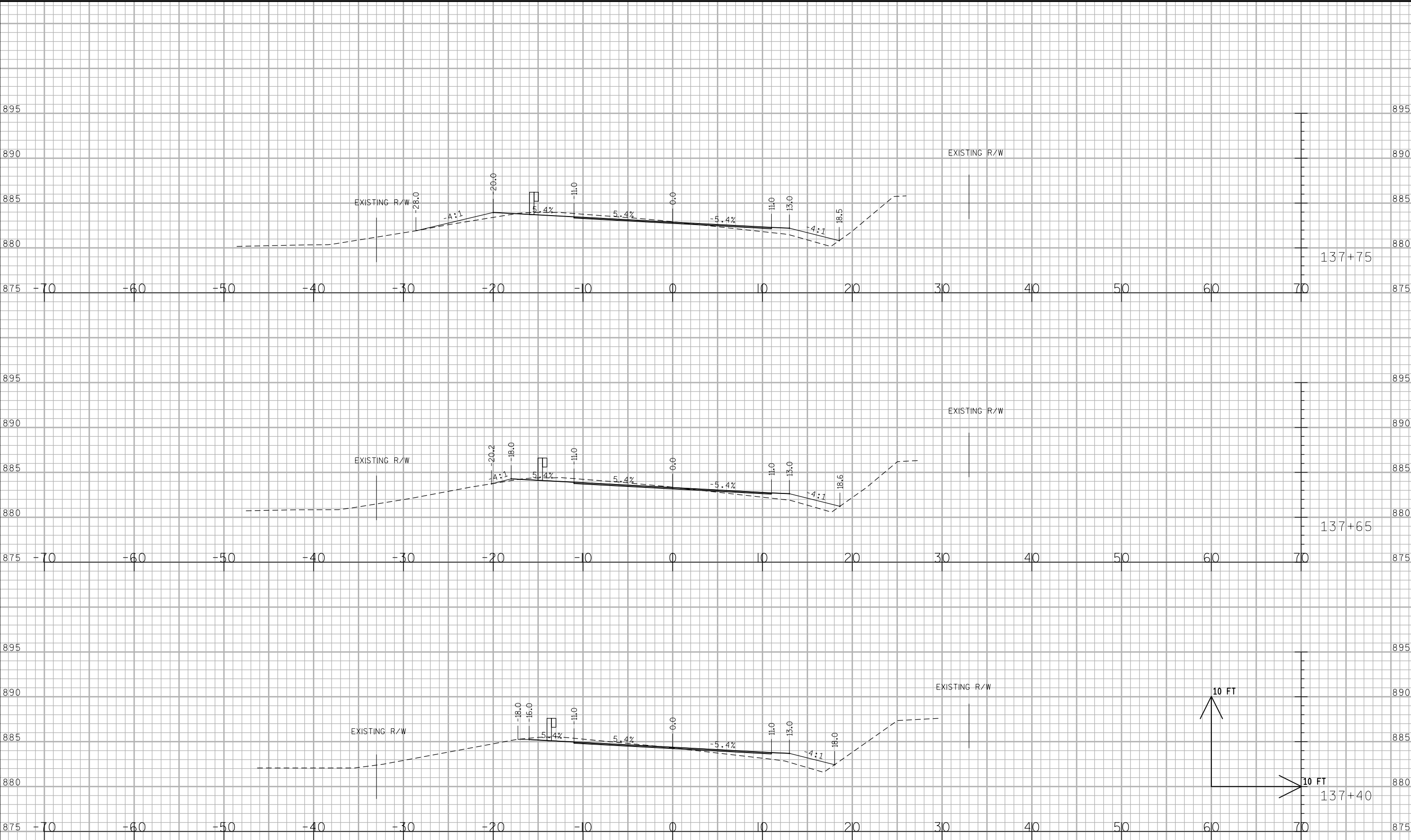












PROJECT NO:5939-00-61

HWY:STH 80

COUNTY:IOWA

CROSS SECTIONS:

SHEET

122

E

FILE NAME : Y:\Milwaukee\201005\20174.01\Eng_Docs\Sheets\090201_xs.dgn

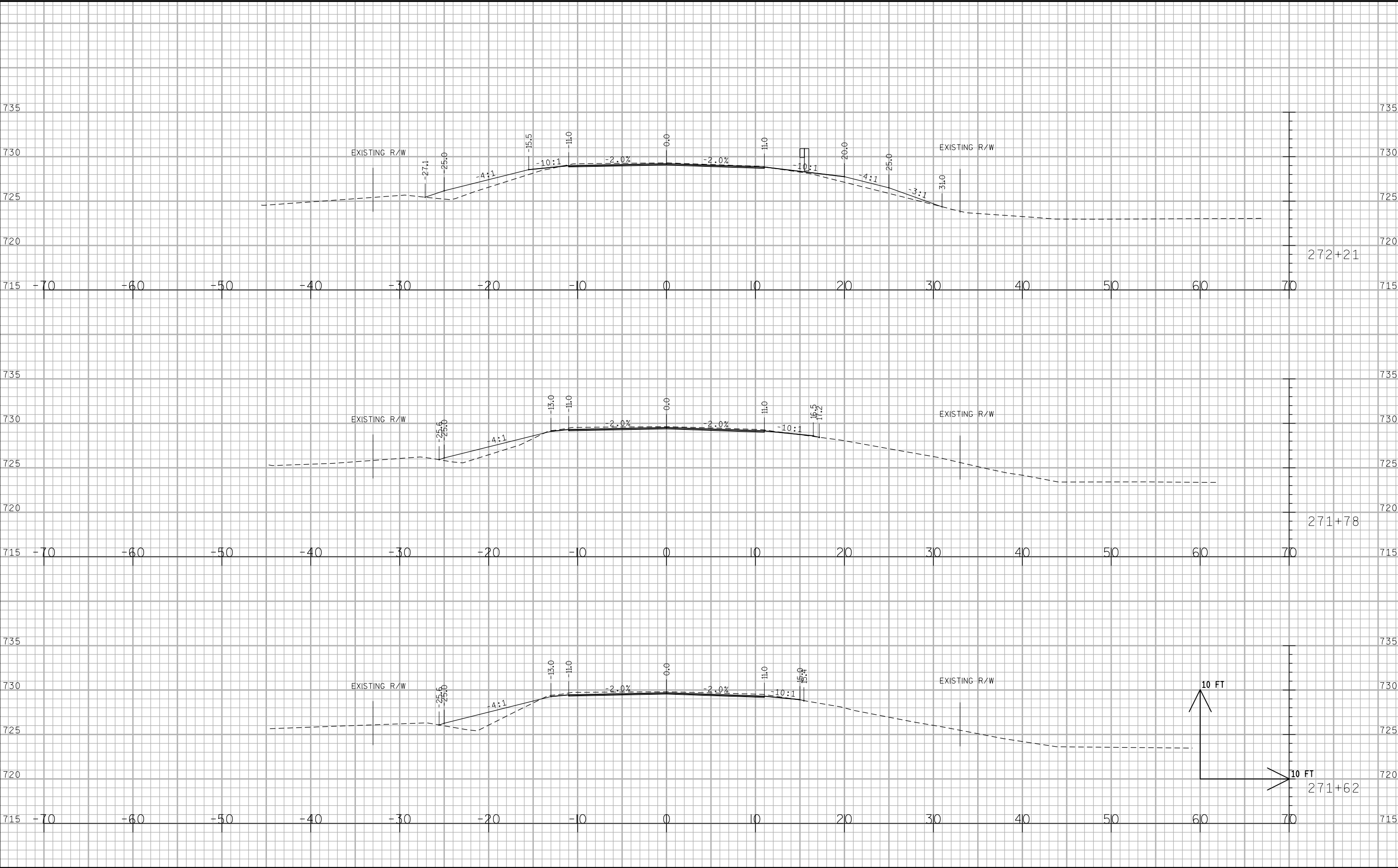
PLOT DATE : 2/27/2014

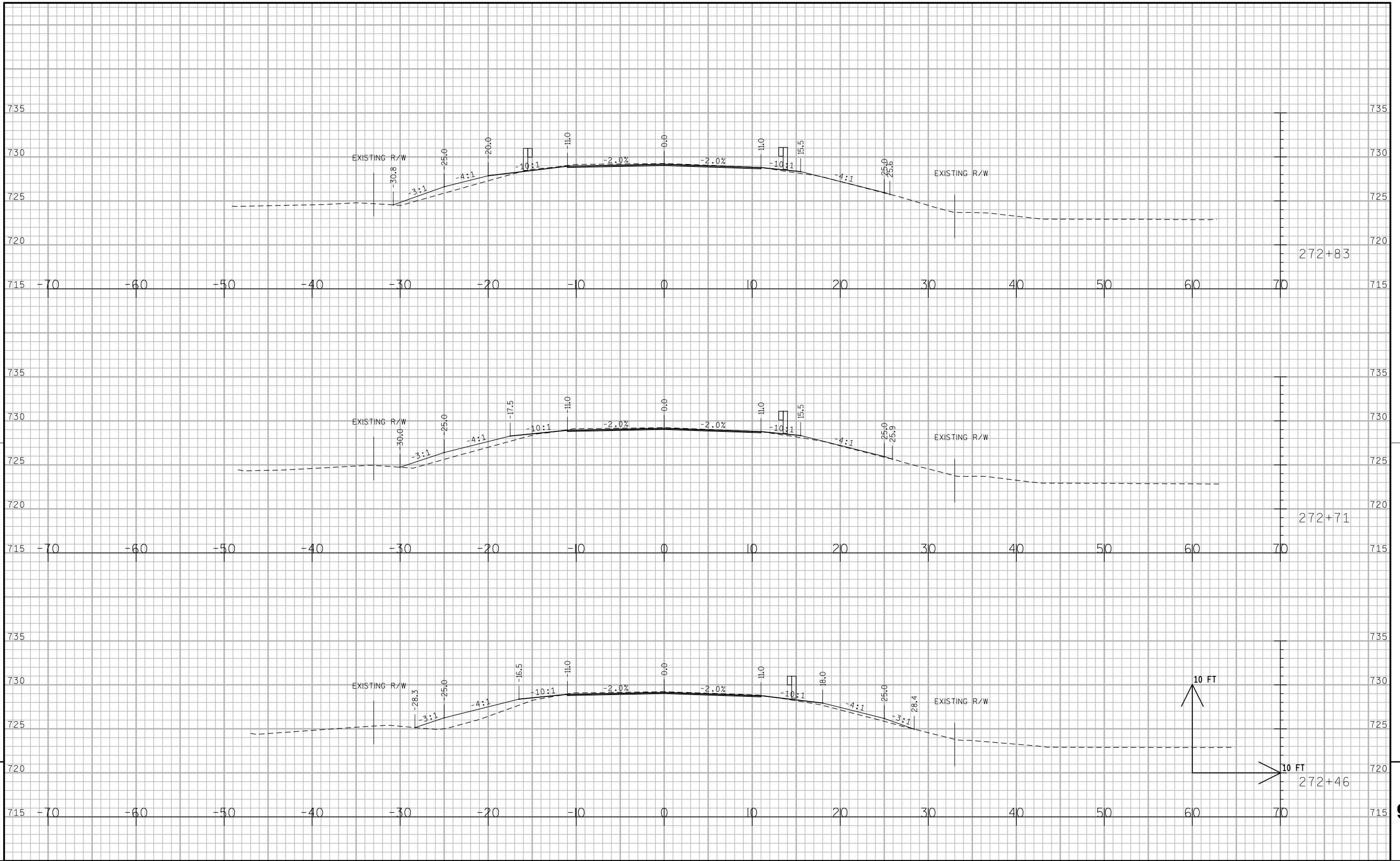
PLOT BY : twatt

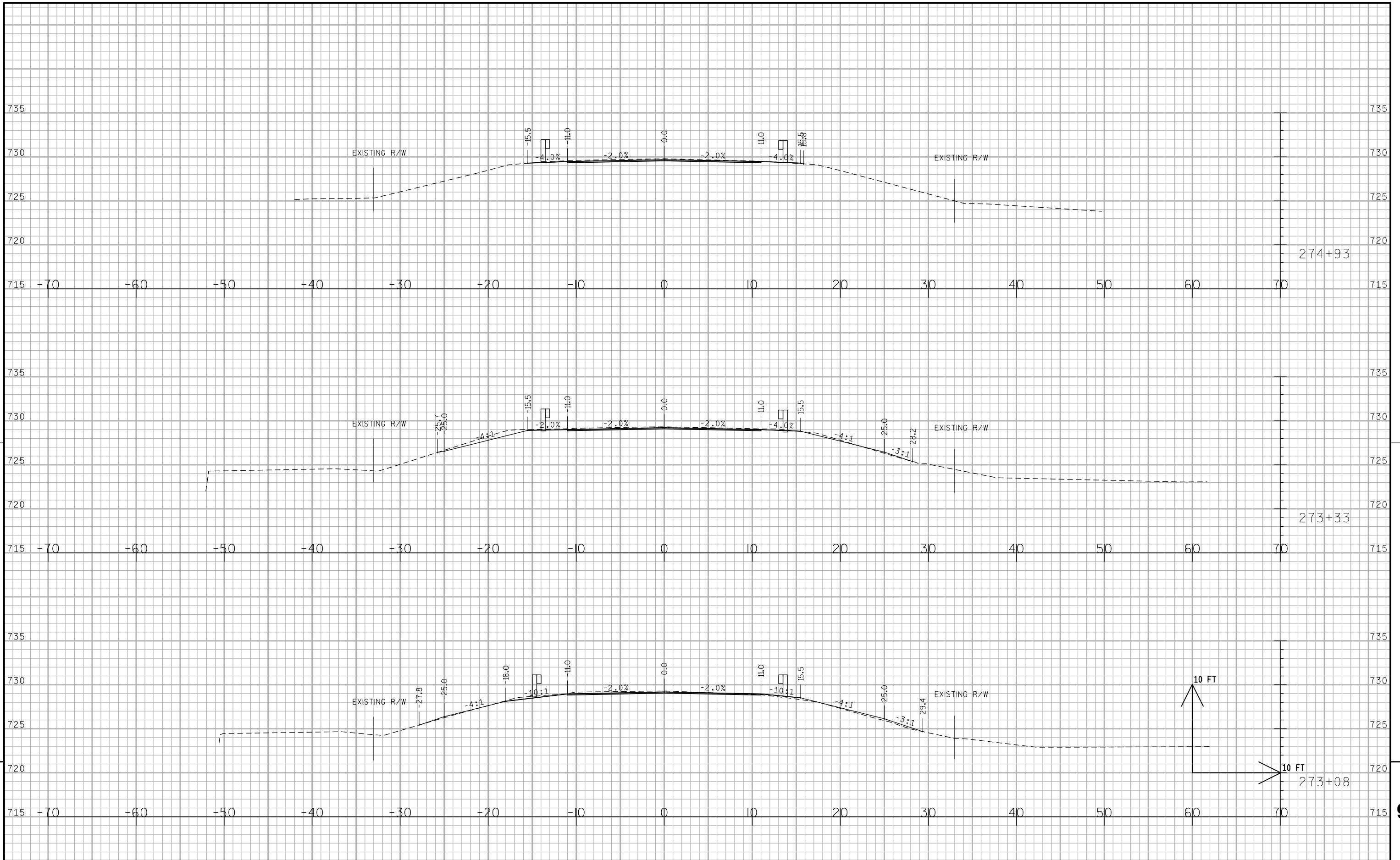
PLOT NAME :

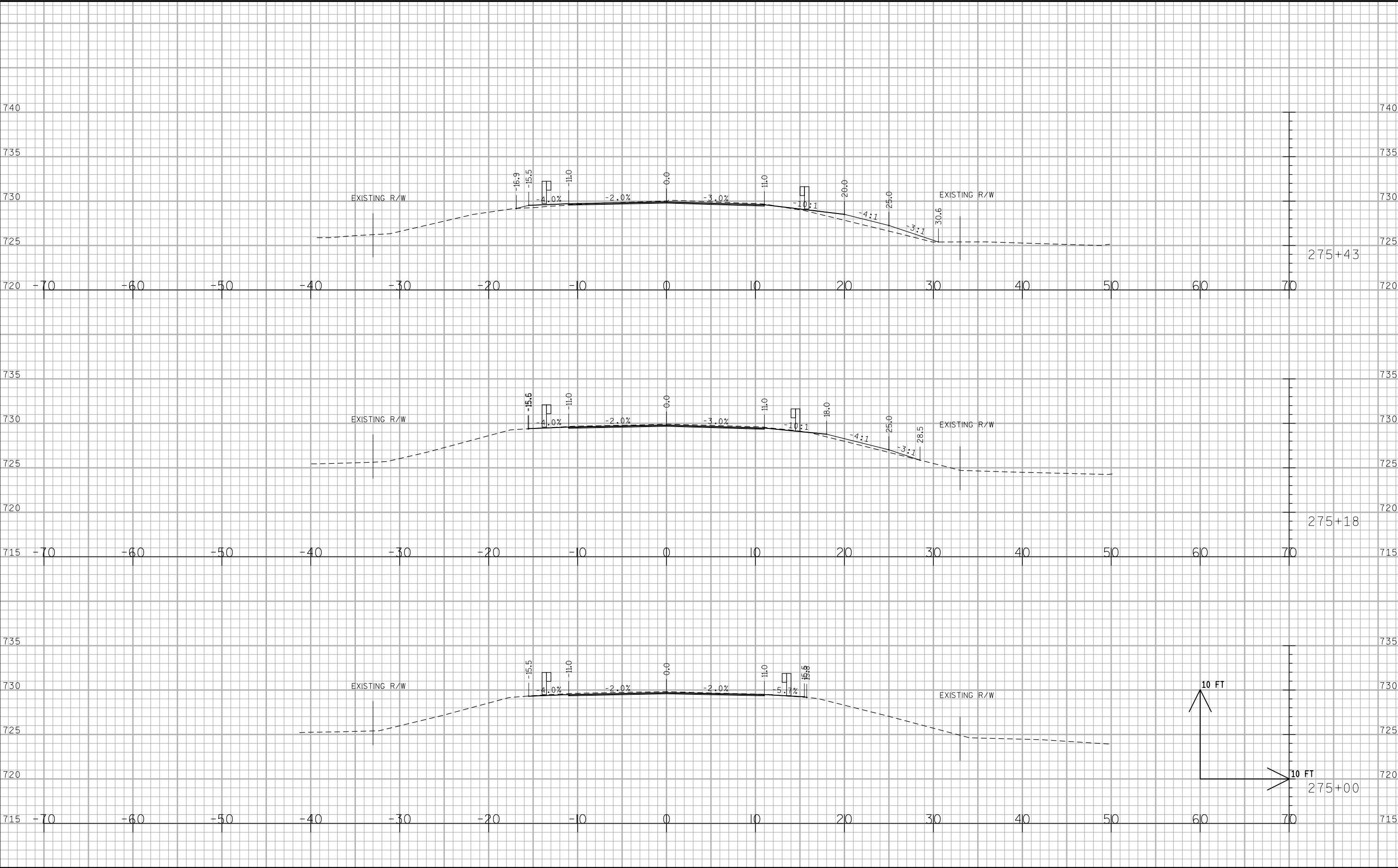
PLOT SCALE : 1:10

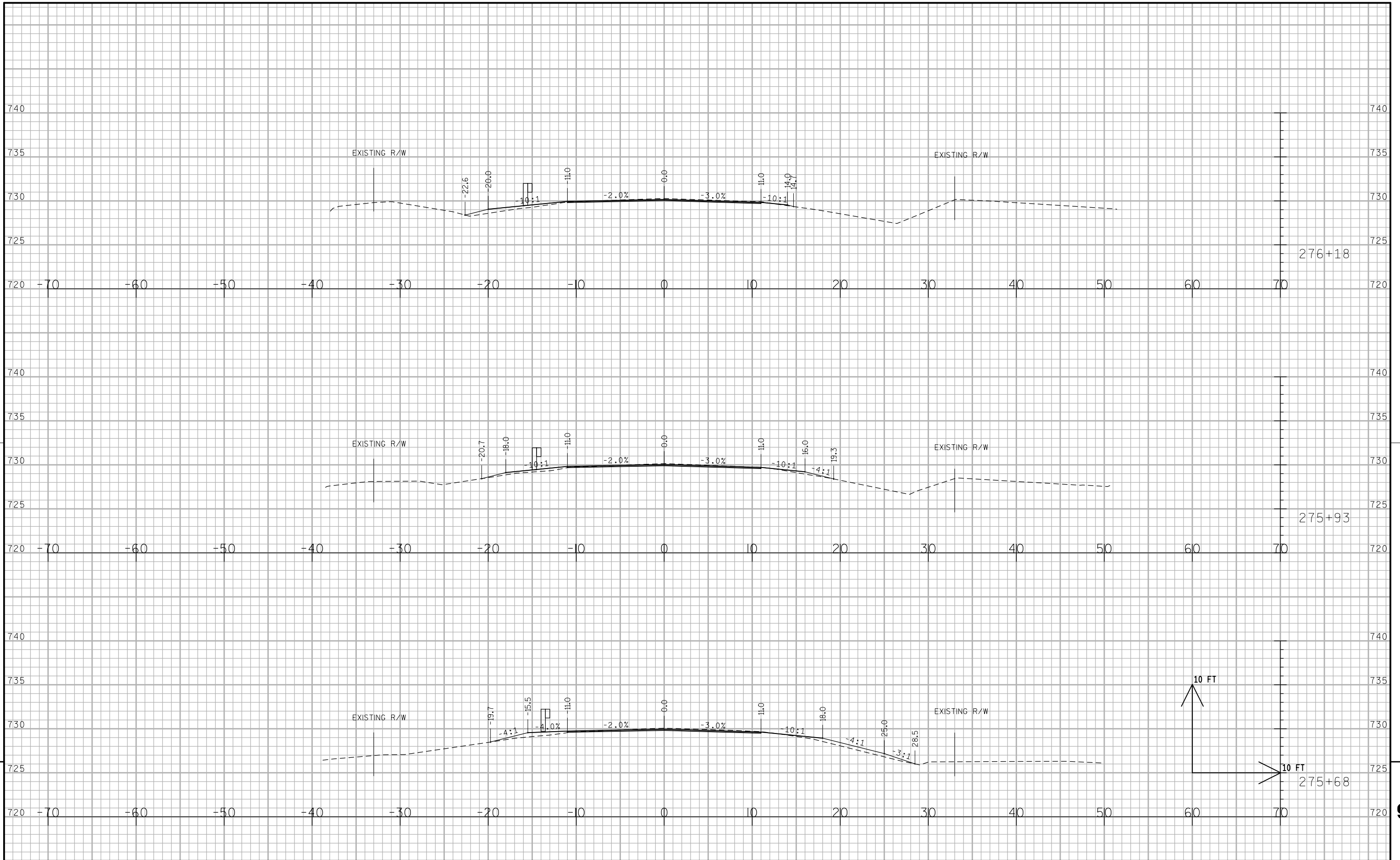
WISDOT/CADDs SHEET 21

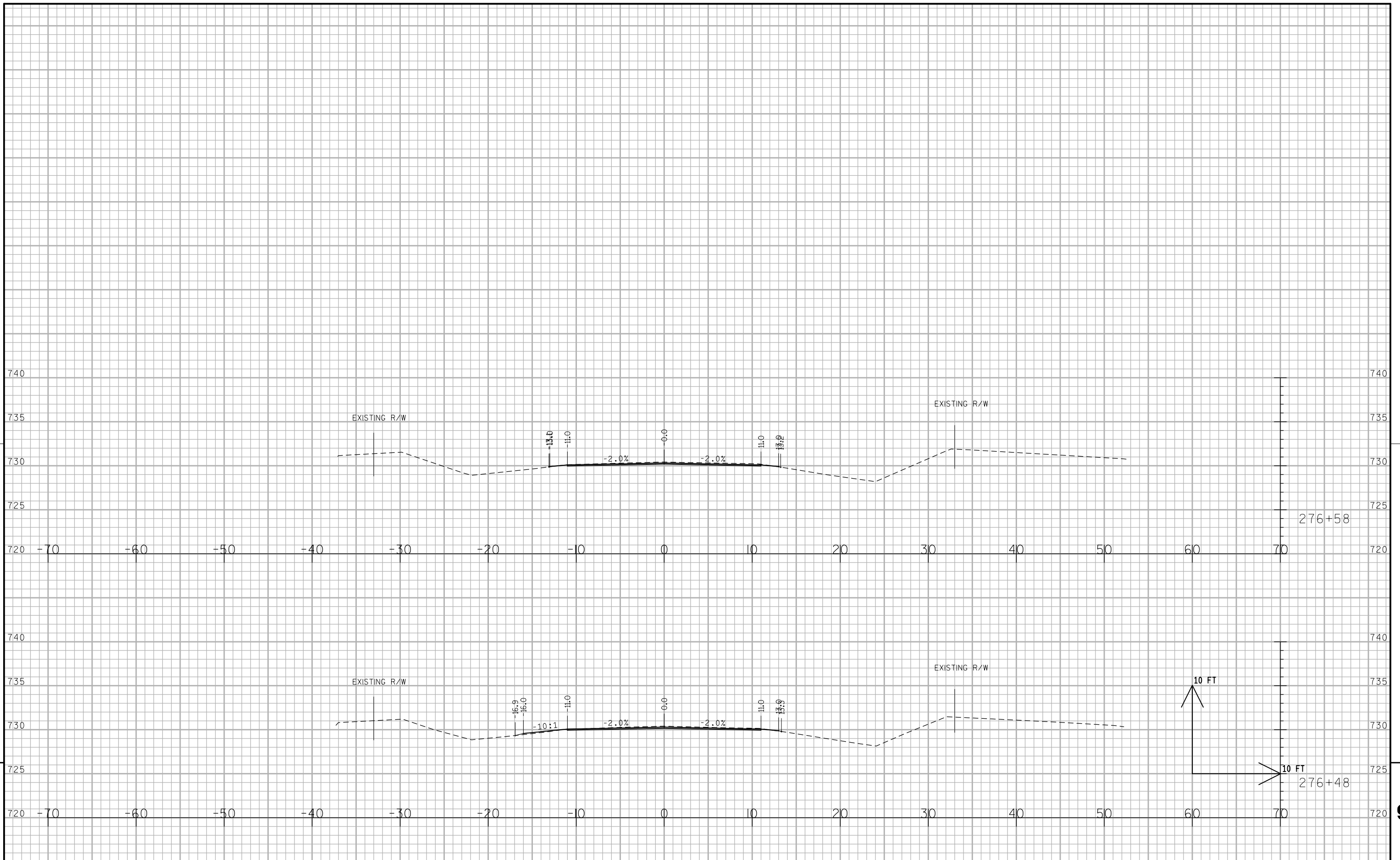




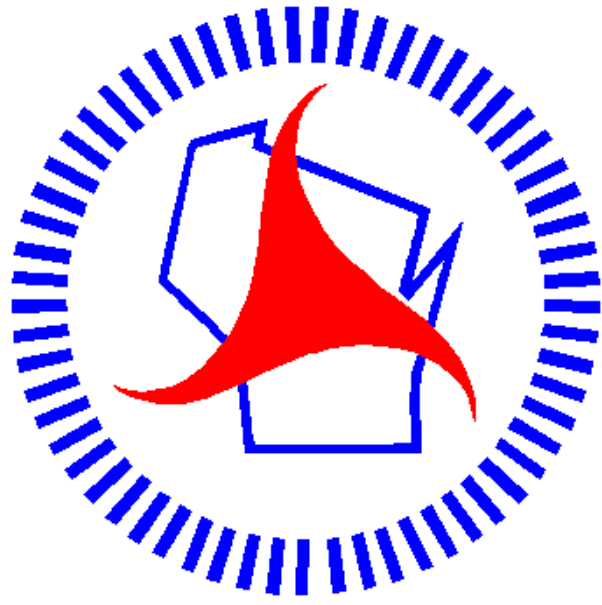








Notes



Wisconsin Department of Transportation

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