

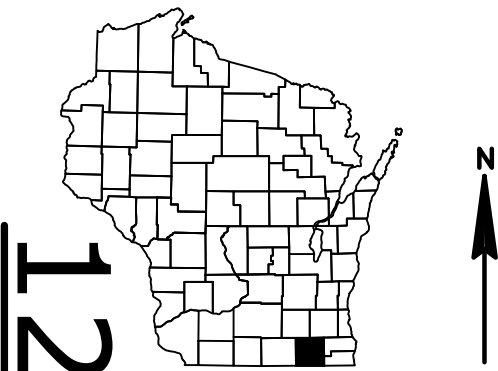
WKE
PROJECT ID: 3150-11-60
WITH:
COUNTY: WALWORTH

JULY 2016

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 = 106



DESIGN DESIGNATION

A.A.D.T. (2016)	=	5,300-8,100
A.A.D.T. (2036)	=	6,600-9,500
D.H.V. (2036)	=	
D.D.	=	60-40
T.	=	16.8
DESIGN SPEED	=	55mph-45mph
ESALS	=	NA

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
	STORM SEWER
	TELEPHONE
	WATER
MARSH AREA	UTILITY PEDESTAL
	POWER POLE
WOODED OR SHRUB AREA	TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

JANESVILLE - DARIEN

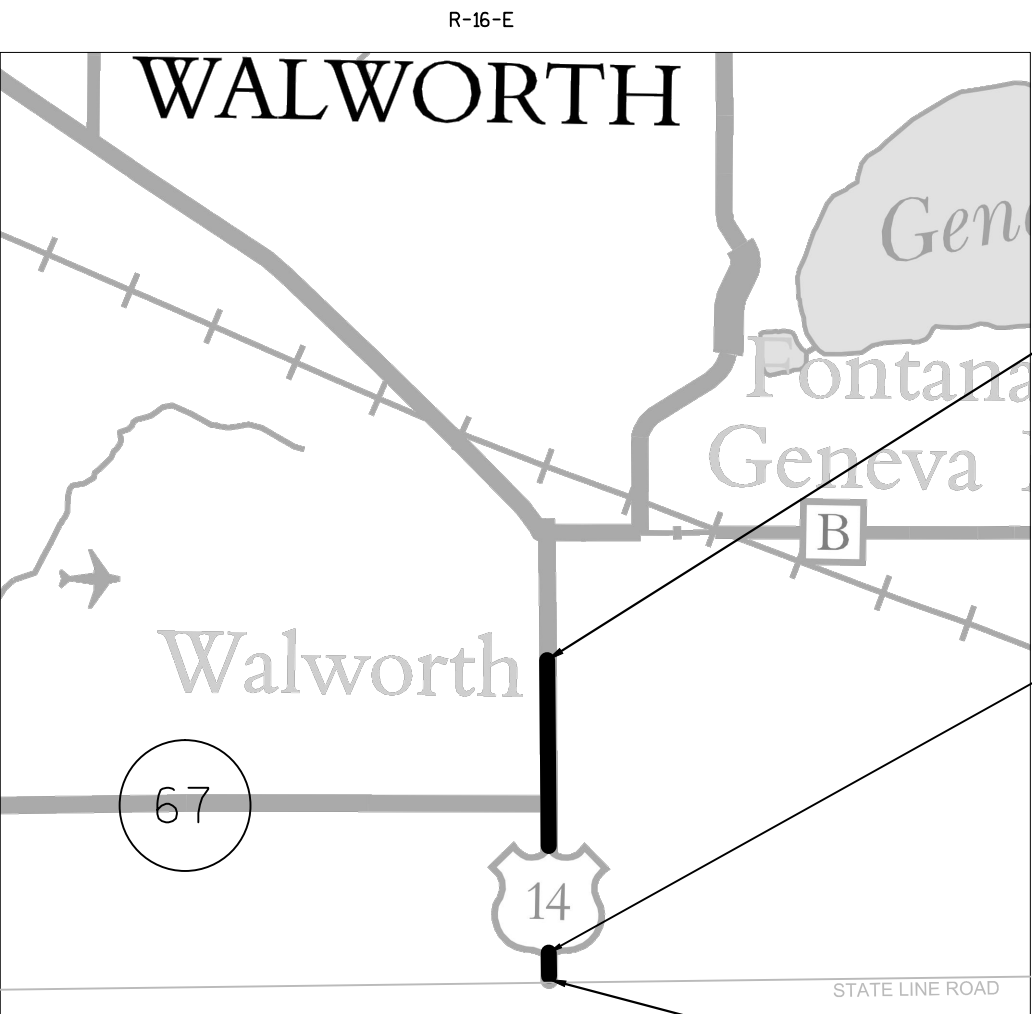
PRAIRIE DR TO ILLINOIS STATE LINE

USH 14

WALWORTH COUNTY

STATE PROJECT NUMBER
3150-11-60

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3150-11-60		



LAYOUT
SCALE 0 1 MILE
TOTAL NET LENGTH OF CENTERLINE = 1.686 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WALWORTH COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
ELEVATIONS ON THIS PLAN ARE REFERENCED TO NAVD 88 (2007) VERTICAL DATUM.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	WISDOT
Designer	TYLER BEINLICH
Project Manager	JULIE JENKS
Regional Examiner	RICHARD HERRICK
Regional Supervisor	JANET CANNON
APPROVED FOR THE DEPARTMENT	
DATE: MARCH 1, 2016	<i>Julie Jenks</i> (Signature)

GENERAL NOTES

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

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

THE LOCATIONS OF JOINTS IN THE HMA PAVEMENT SHALL BE APPROVED BY THE ENGINEER.

THE CONTRACTOR WILL MAINTAIN ACCESS TO ALL DRIVEWAYS AND BUSINESSES AT ALL TIMES.

AT NO TIME SHALL BOTH TRAFFIC LANES BE OPEN WITHOUT CENTERLINE PAVEMENT MARKING.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

TRAFFIC CONTROL LOCATIONS AS SHOWN IN THE PLAN ARE SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.

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

RETOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLAND, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.

EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTANINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

COORDINATE WITH SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC) FOR THE PERPETUATION OF SECTION CORNER (PUBLIC LAND SURVEY SYSTEM - PLSS) MONUMENTS. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH SEWRPC AND THE WISDOT PROJECT MANAGER THROUGHOUT THE PERPETUATION PROCESS. THE CONTRACTOR WILL CONTACT SEWRPC AT (262) 953-4295 AT LEAST TWO WEEKS BEFORE STARTING CONSTRUCTION OPERATIONS OR THE PRECONSTRUCTION MEETING TO ALLOW FOR SECTION CORNER MONUMENT PERPETUATION COORDINATION.

CONTRACTOR SHALL PLACE RING(S) AT SECTION CORNER DURING HMA PAVING OPERATIONS TO PERPETUATE MONUMENT. RING WILL BE REUSED FROM EXISTING MONUMENT OR SUPPLIED BY SEWRPC. RING INSTALLATION SHALL BE INCIDENTAL TO HMA PAVING.

THE CONTRACTOR SHALL USE CARE TO NOT DAMAGE THE EXISTING SECTION CORNER MONUMENT DURING ANY OPERATIONS AND WILL BE RESPONSIBLE TO COORDINATE WITH AND REPLACE MONUMENT ACCORDING TO SEWRPC REQUIREMENTS AT OWN COST IF DAMAGE OCCURS. REPLACEMENT WORK WILL INCLUDE, BUT IS NOT LIMITED TO: COMPLETELY REMOVE EXISTING MONUMENT THAT WAS DAMAGED, BACKFILLING 3 TO 4 FOOT DEEP HOLE WHERE EXISTING MONUMENT WAS REMOVED AND COORDINATING THE METHODOLOGY AND PROVIDING THE MATERIALS TO COMPLETE THE CONSTRUCTION OF THE SURFACE SURROUNDING THE MONUMENT. SEWRPC WILL THEN REPLACE THE DAMAGED MONUMENTS UNDER A SEPARATE CONTRACT WITH WISDOT. A \$1,500 DEDUCTION PER DAMAGED SECTION CORNER WILL BE MADE FROM MONIES OWED TO THE CONTRACTOR TO COVER COSTS OF WISDOT'S CONTRACT WITH SEWRPC.

HMA PAVING

<u>2" HMA PAVEMENT</u>		
2" - 4LT 58-28 S	UPPER LAYER	
<u>6" HMA PAVEMENT</u>		
6" - 3LT 58-28 S	UPPER LAYER (TO BE PAID AS BASE PATCHING ASPHALTIC)	

ORDER OF SHEETS

- GENERAL NOTES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- BEAM GUARD DETAIL/EROSION CONTROL PLAN
- PLAN DETAILS
- PERMANENT SIGNING
- PAVEMENT MARKING
- TRAFFIC CONTROL
- ALIGNMENT LAYOUT

UTILITY CONTACTS

ALLIANT ENERGY CORPORATION
JASON HOGAN
4902 N BILTMORE LN, STE 1000
MADISON, WI 53718
PHONE: (608) 458-4871
FAX: (563) 557-2288
JASONHOGAN@ALLIANTENERGY.COM

ANR PIPELINE COMPANY
DICK MELLOM
W3925 PIPELINE LN
EDIN, WI 53019
OFFICE: (608) 373-6923
CELL: (331) 256-0815
RICHARD_MELLOM@TRANSCANADA.COM

CHARTER COMMUNICATONS
BRANDON OPHEIM
510 BELOIT ST
WALWORTH, WI 53184
PHONE: (608) 209-3195
BRANDON.OPHEIM@CHARTER.COM

ENBRIDGE (US) INC
STEVE SPATA
803 HIGHLAND AVE
FORT ATKINSON, WI 53538
PHONE: (920) 728-0199
STEVEN.SPATA@ENBRIDGE.COM

FRONTIER - WISCONSIN
ED STIEBER
100 COMMUNICATIONS DR
SUN PRAIRIE, WI 53590
OFFICE: (608) 837-1410
CELL: (262) 325-7048
EDWARD.O.STIEBER@FTR.COM

WINDSTREAM KDL, INC
AARON GRODI
13935 BISHOPS DR
BROOKFIELD, WI 53005
OFFICE: (608) 819-5014
CELL: (919) 770-1778
AARON.GRODI@WINDSTREAM.COM

SHARON TELEPHONE CO
ZACH LEHMAN
105 PLAIN ST
PO BOX 400
SHARON, WI 53585
PHONE: (262) 215-6270
FAX: (262) 736-9200
ZACH@SHARONTELEPHONE.COM

WISDOT CONTACTS

PROJECT MANAGER
JULIE JENKS, P.E.
141 NW BARSTOW ST
PO BOX 798
WAUKESHA, WI 53187-0798
PHONE: (262) 548-6462
JULIE.JENKS@DOT.WI.GOV

DNR LIASON
CRAIG WEBSTER
141 NW BARSTOW
ROOM 180
WAUKESHA, WI 53187-0798
PHONE: (262) 574-2141
CRAIG.WEBSTER@WISCONSIN.GOV

WISDOT STOC
JEFF MADSON
433 W ST. PAUL AVE, STE 300
MILWAUKEE, WI 53203-3007
PHONE: (414) 225-3723
JEFFREY.MADSON@DOT.WI.GOV

NOT A UTILITY - FOR INFORMATION ONLY

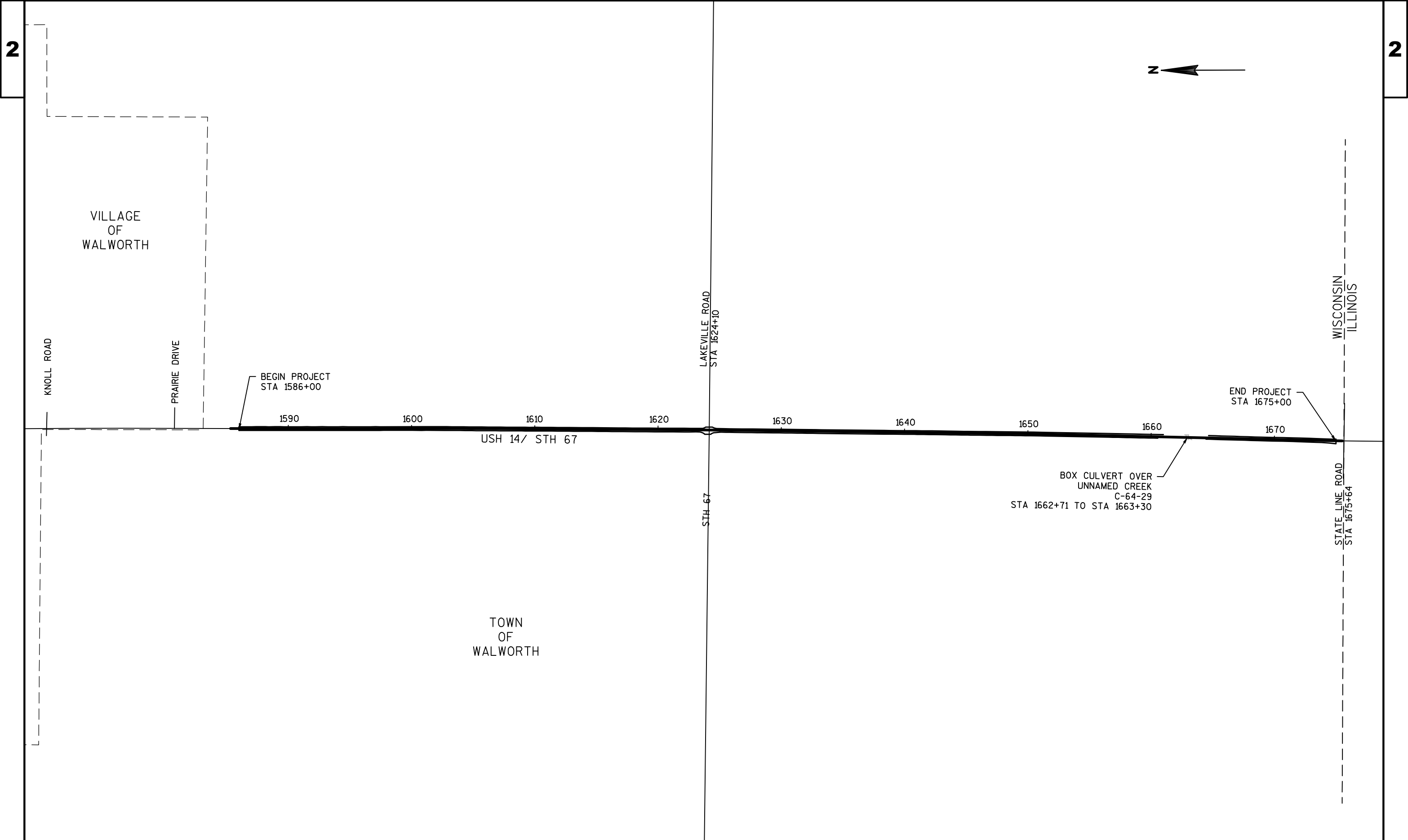
SOUTHEASTERN WI REGIONAL PLANNING COMMISSION
JOHN WASHBURN
W239 N1812 ROCKWOOD DR
PO BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4295
FAX: (262) 547-1103
JWASHBURN@SEWRPC.ORG

WALWORTH COUNTY PUBLIC WORKS DEPARTMENT
JOSEPH KROLL
W4097 COUNTY RD NN
ELKHORN, WI 53121
PHONE: (262) 741-3441
JKROLL@CO.WALWORTH.WI.US

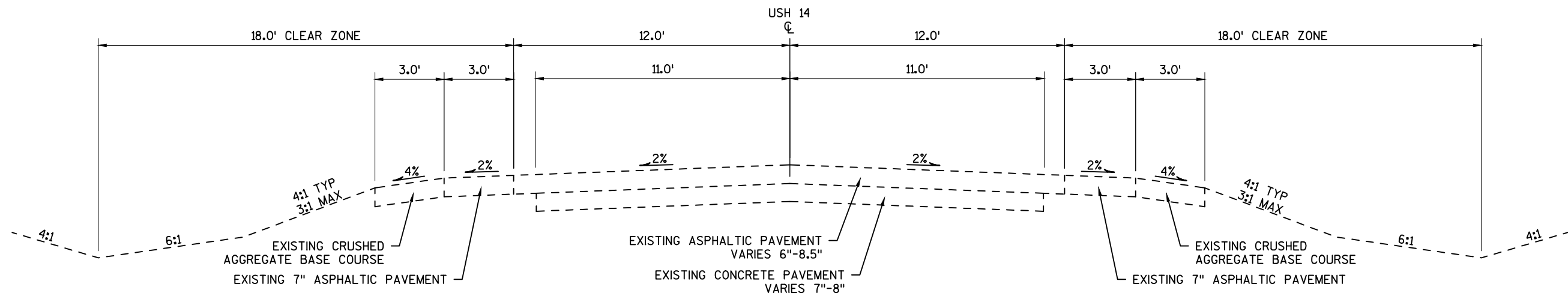


Dial **811** or (800) 242-8511

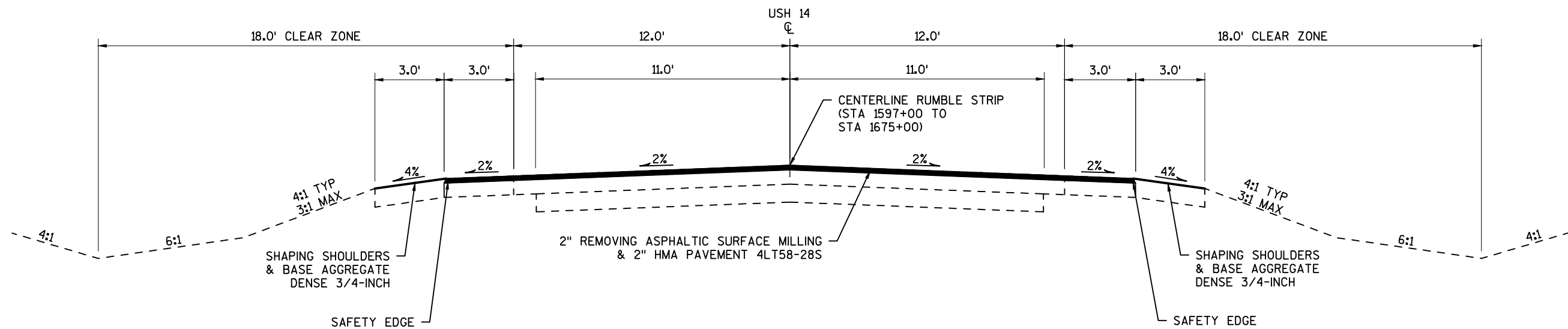
www.DiggersHotline.com



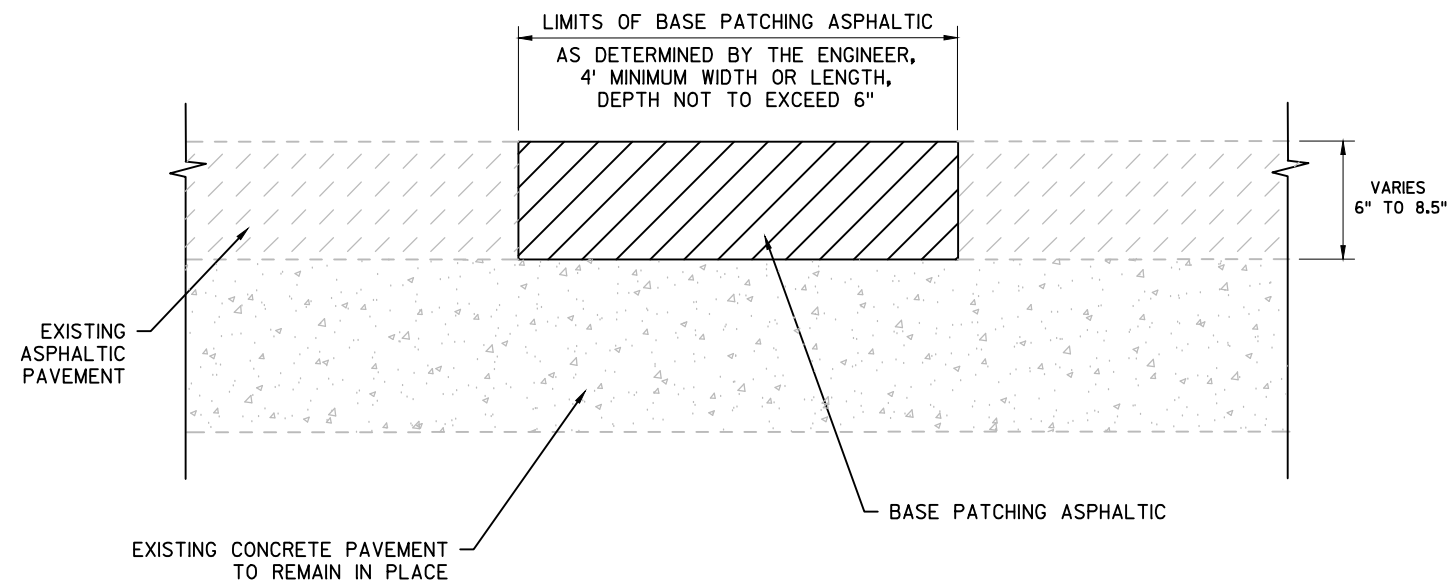
PROJECT NO: 3150-11-60	HWY: USH 14	COUNTY: WALWORTH	PROJECT OVERVIEW	SHEET	E
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EXISTING TYPICAL SECTION
STA 1586+00 TO STA 1675+00



FINISHED TYPICAL SECTION
STA 1586+00 TO STA 1675+00



BASE PATCHING ASPHALTIC

NOTES:

BASE PATCH EXISTING ASPHALT PRIOR TO MILLING ASPHALTIC SURFACE, BASE PATCHING ASPHALTIC DEPTH NOT TO EXCEED 6"

EXISTING CONCRETE NOT TO BE REMOVED WITHIN BASE PATCH LIMITS

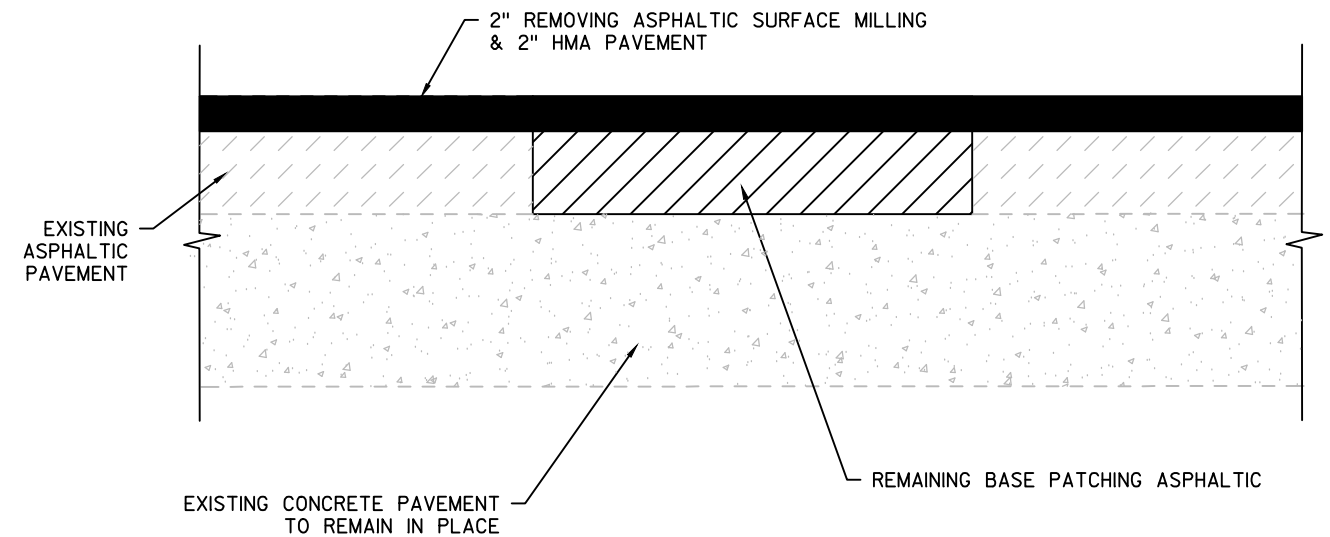
BASE PATCH LIMITS TO BE REMOVED AND PAVED IN SAME DAY

ALL CENTERLINE PAVEMENT MARKING REMOVED TO BE REPLACED SAME DAY WITH TEMPORARY EPOXY 4-INCH

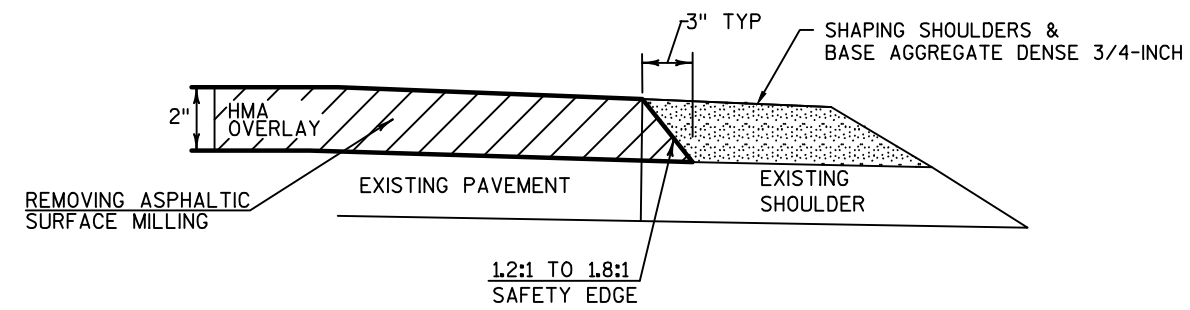
SEE PAVING TABLE FOR HMA PAVEMENT TYPE

6" TO BE PLACED IN 1 LIFT UP TO EXISTING SURFACE

SEE MISCELLANEOUS QUANTITY SHEETS FOR LOCATIONS

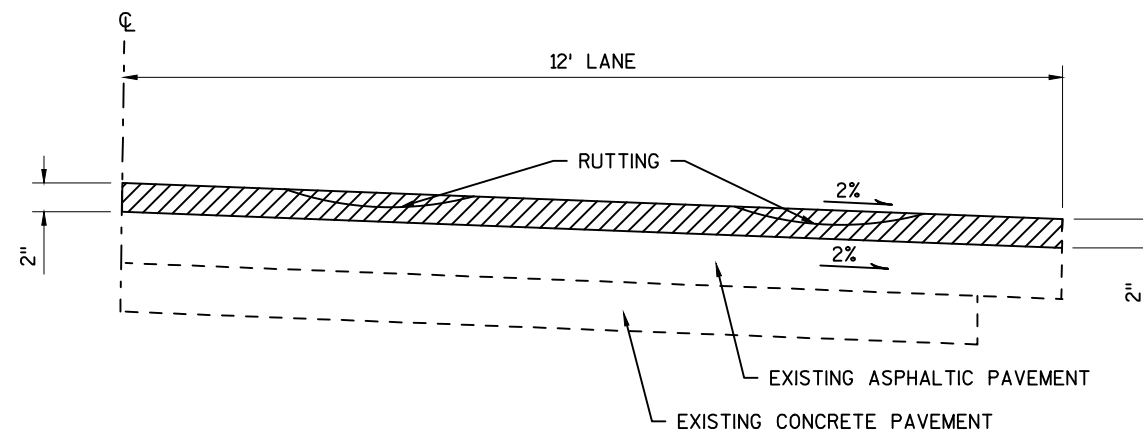


2" REMOVING ASPHALTIC SURFACE MILLING AFTER BASE PATCHING ASPHALTIC



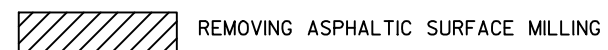
PAVEMENT SAFETY EDGE ON HMA OVERLAY

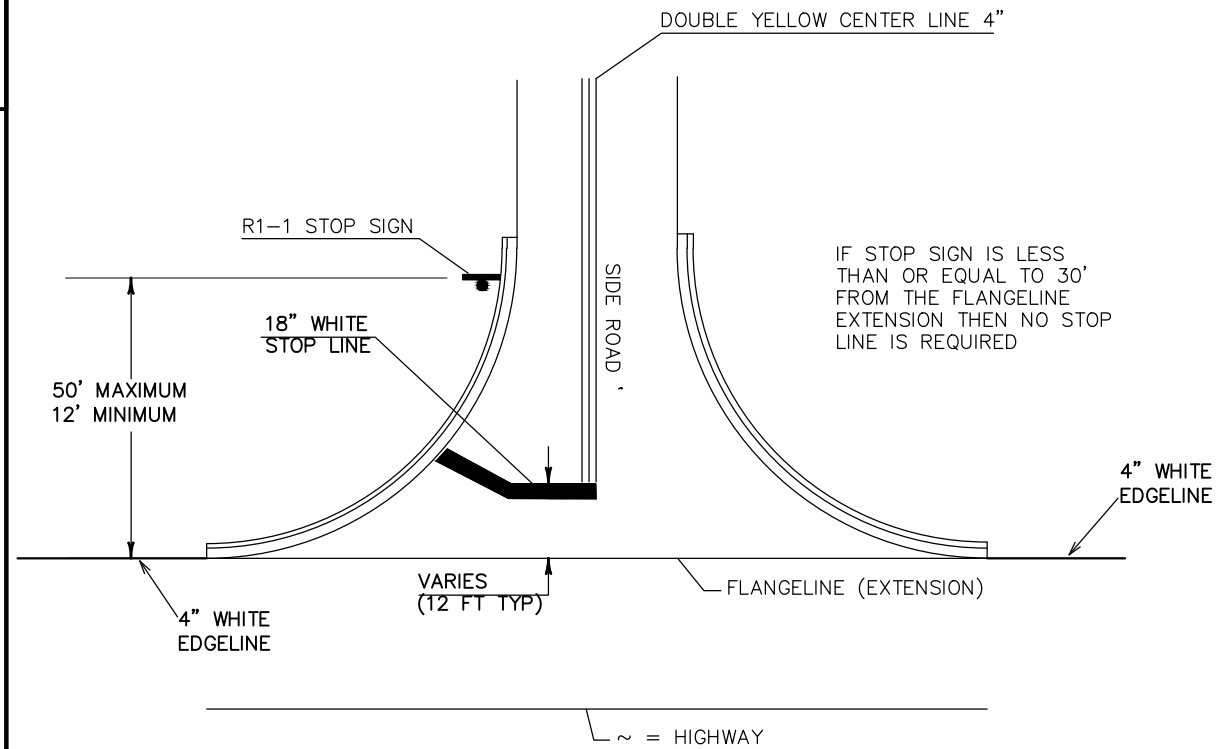
NOTES:
PAVEMENT SAFETY EDGE WILL BE PAID AS HMA PAVEMENT.
SEE SDD SAFETY EDGE



REMOVING ASPHALTIC SURFACE MILLING IN AREAS OF RUTTING

NOTES:
IF RUTTING DEPTH EXCEEDS 2" CONTACT PROJECT ENGINEER





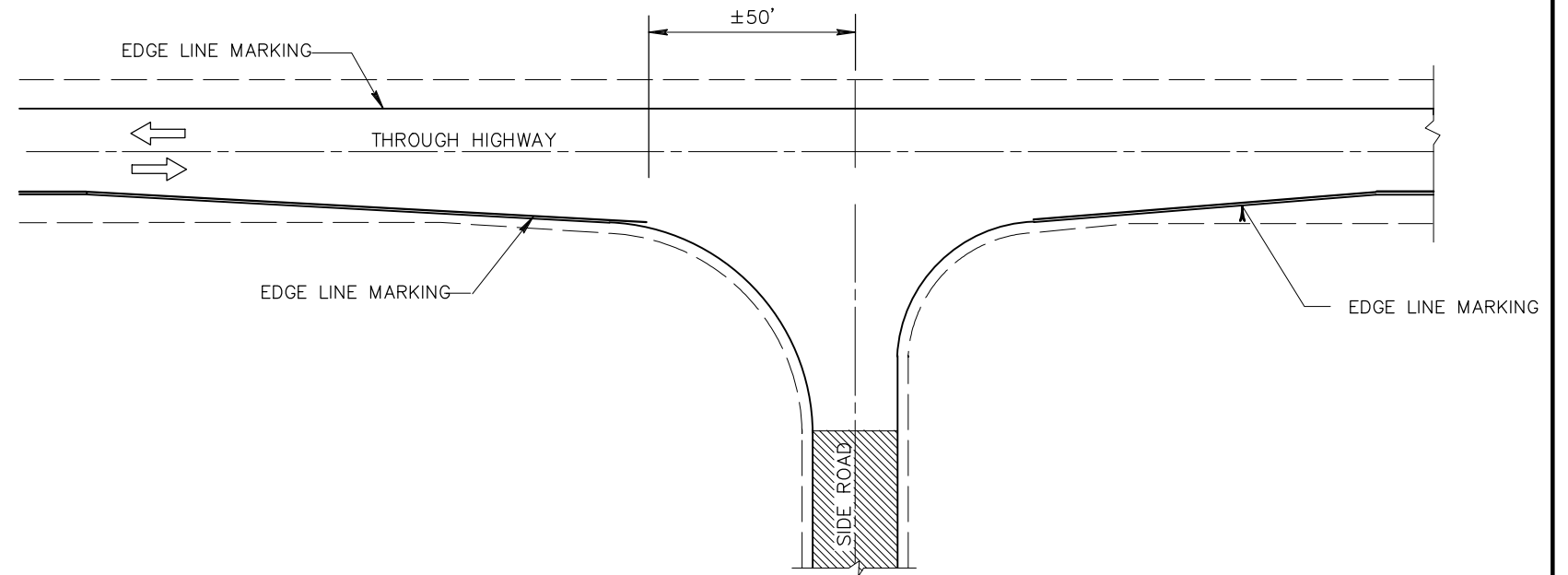
TYPICAL PAVEMENT MARKING FOR SIDEROADS

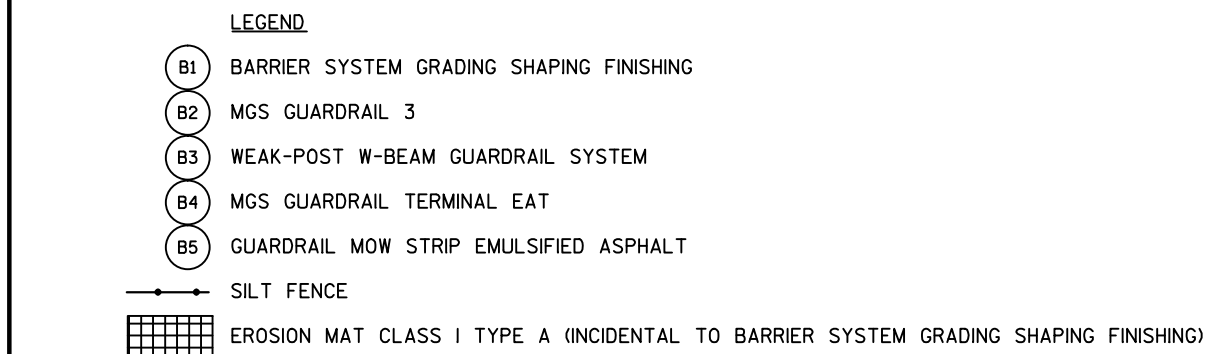
NOTES:

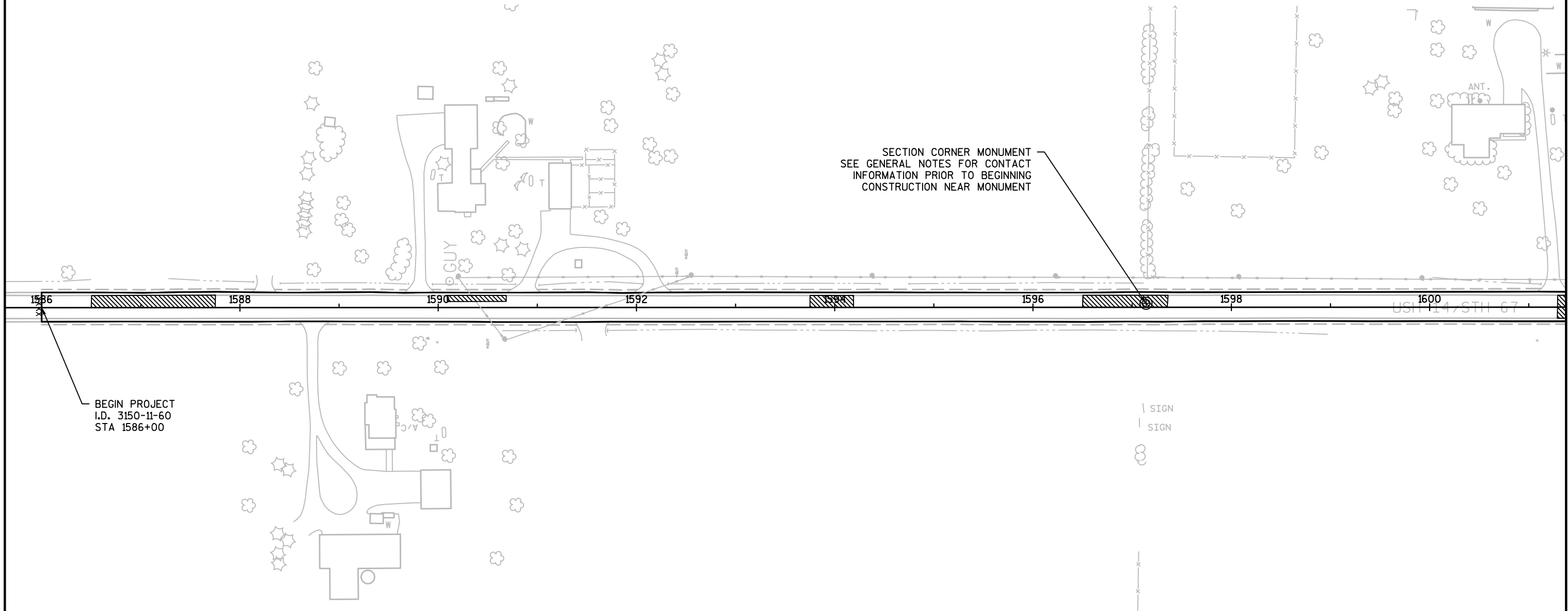
18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.

STOP LINES REQUIRED WHERE:



- CROSSWALK MARKINGS EXIST OR BEING PROVIDED
- LARGE RADII
- OFFSET LEFT TURNS WHERE STOP BAR FOR LEFT TURN IS SET BACK FROM THRU MOVEMENT.

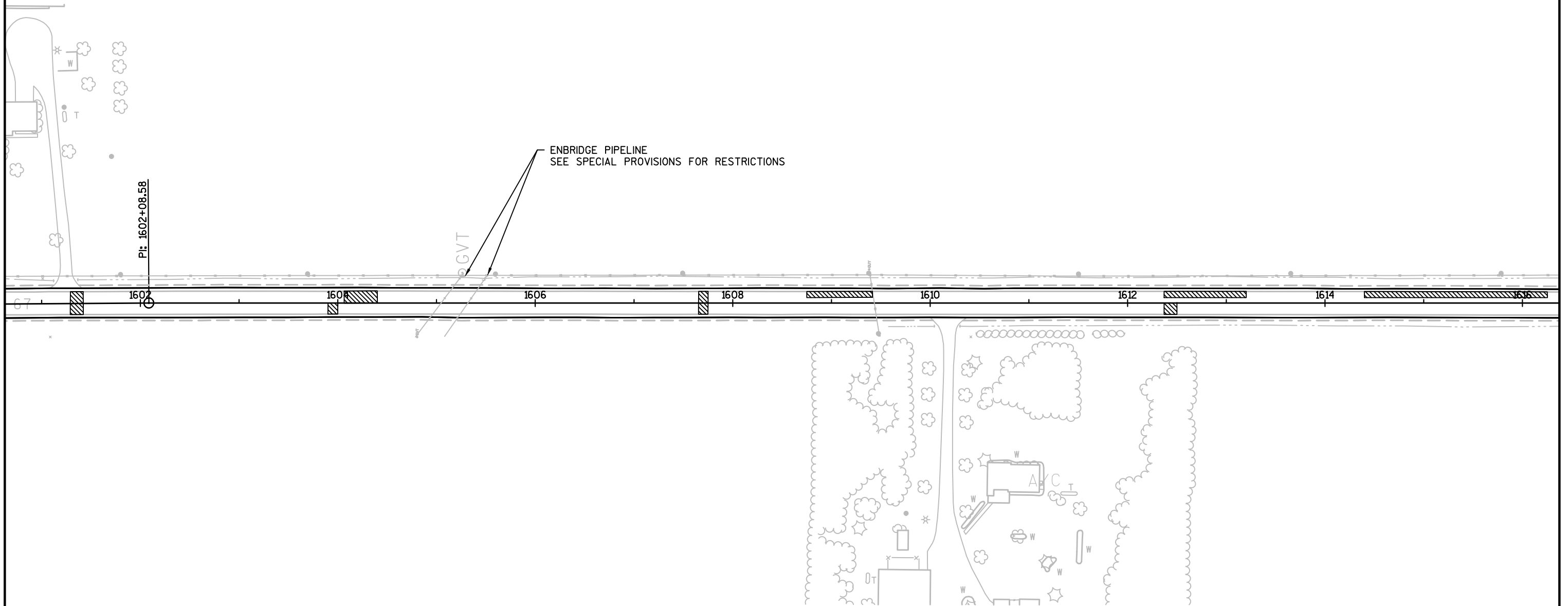
MINOR INTERSECTION WITHOUT CURBS
(TYPICAL MARKING)







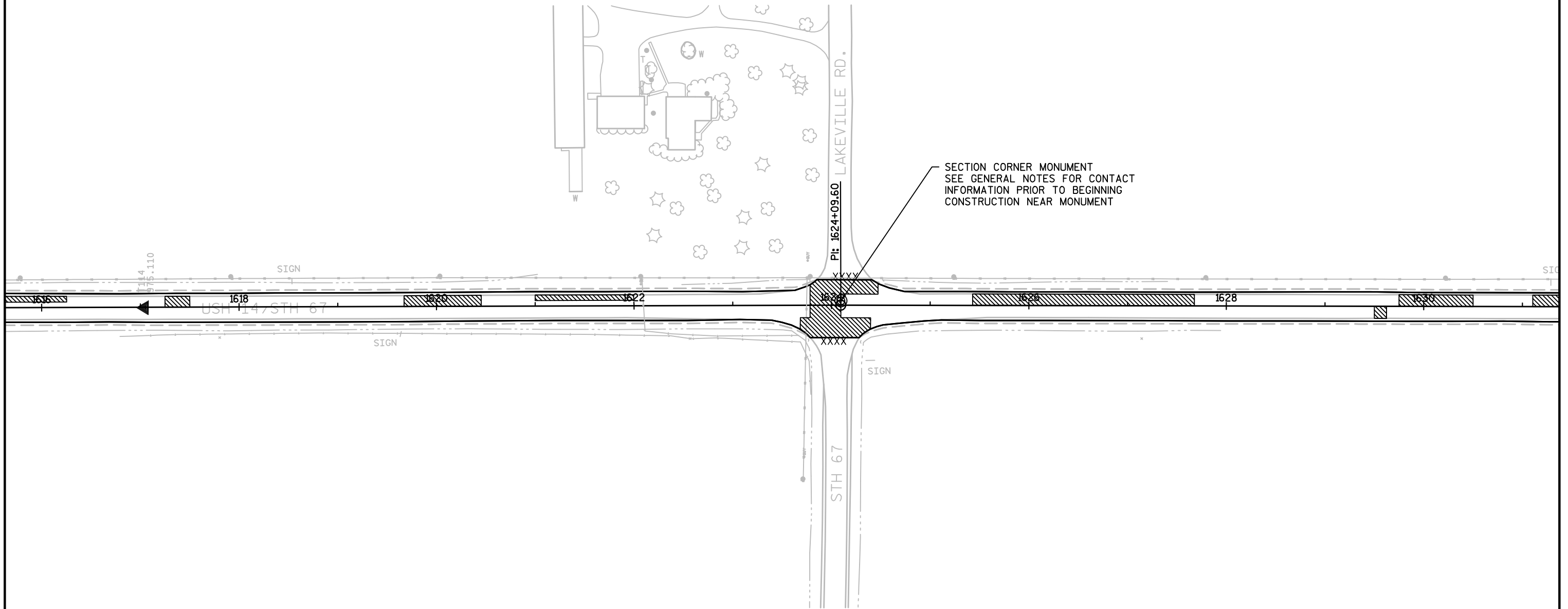
LEGEND

-  BASE PATCHING ASPHALTIC
-  SAWCUT





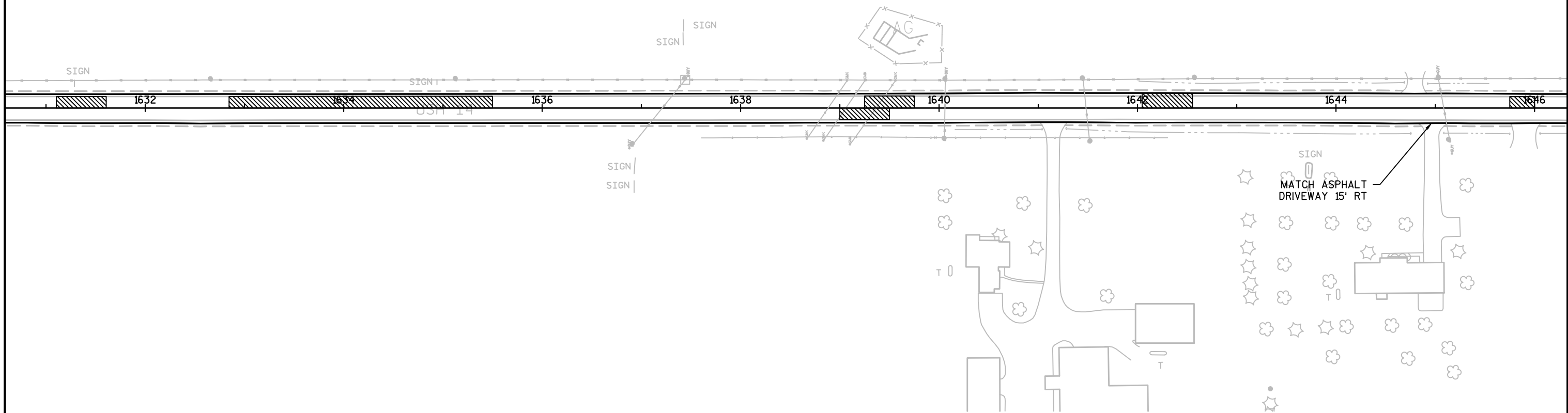
LEGEND

-  BASE PATCHING ASPHALTIC
-  SAWCUT





LEGEND

-  BASE PATCHING ASPHALTIC
-  SAWCUT



LEGEND

-  BASE PATCHING ASPHALTIC
-  SAWCUT



47WL323 (BIGFOOT PRAIRIE)

ARCHEOLOGICAL SITE -
SEE SPECIAL PROVISIONS FOR
RESTRICTIONS

PI: 1649+89.09

SIGN

SECTION CORNER MONUMENT
SEE GENERAL NOTES FOR CONTACT
INFORMATION PRIOR TO BEGINNING
CONSTRUCTION NEAR MONUMENTMATCH ASPHALT
DRIVEWAY 15' RT

SIGN

LEGEND

 BASE PATCHING ASPHALTIC SAWCUT



47WL323 (BIGFOOT PRAIRIE)
ARCHEOLOGICAL SITE -
SEE SPECIAL PROVISIONS FOR
RESTRICTIONS

MATCH BOX CULVERT HEADER
15.5' LT

C-64-29

PI: 1663+03.20

SEE BEAM GUARD DETAIL

SI

SIGN

SIGN

SIGN

INL

1660

1662

1664

1666

1668

1670

1672

1674

SI

UNNAMED
CREEK

MATCH BOX CULVERT HEADER
16' RT

MATCH ASPHALT
DRIVEWAY 15' LT

END PROJECT
I.D. 3150-11-60
STA 1675+00,
64' NORTH OF
STATE LINE RD.

LEGEND

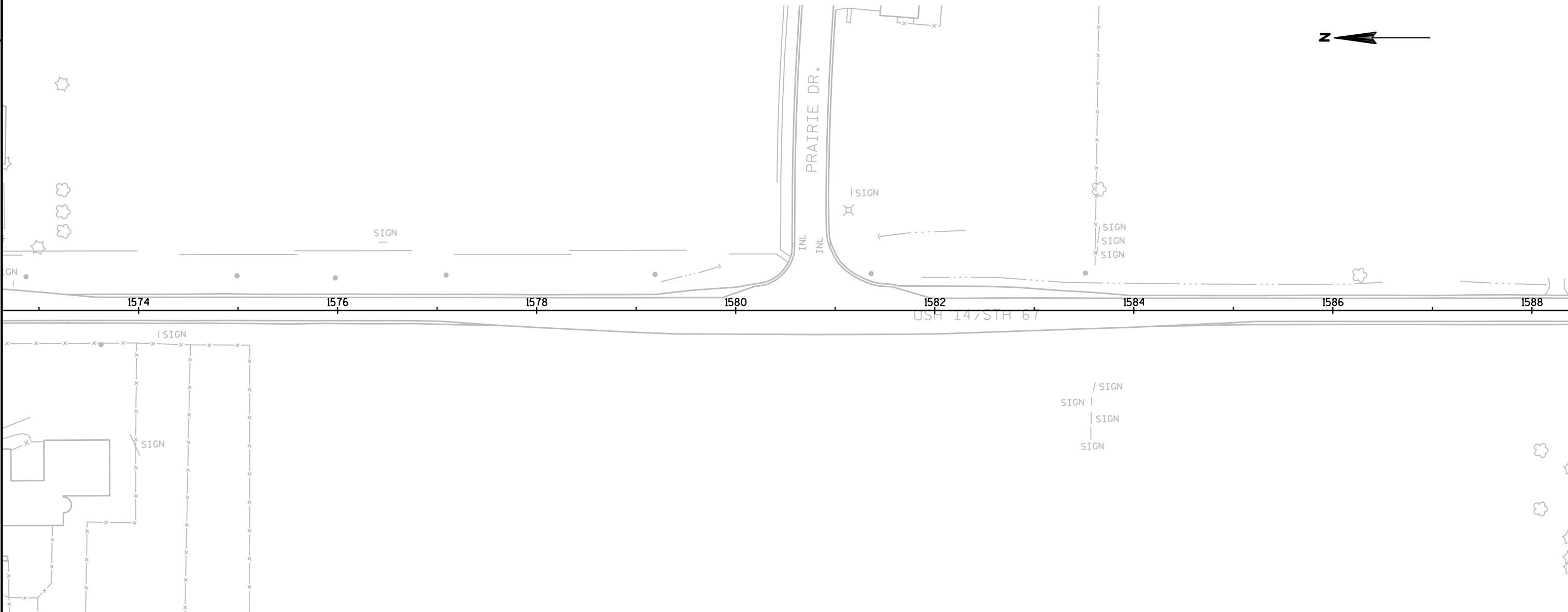


BASE PATCHING ASPHALTIC

XXXX

SAWCUT

NO SIGNS ON THIS SHEET



Signing Notes

Type II aluminum signs removed under the contract shall be delivered to the Regional Traffic Sign Shop on 60th street in West Allis. Signs shall be carefully removed from sign supports. The signs shall be palletized for handling with a forklift (see special provision 638.3.4). The Regional sign shop (414-266-1165) shall be notified three working days prior to delivery of the signs.

When an existing stop sign support is to be removed and a new stop sign and support erected, the work shall be done concurrently. For other signs and supports that are to be removed and new signs and supports erected, the removal of the existing sign/support and erection of the new sign/support should be done as concurrently as possible. In no case shall a new sign/support be down for more than 24 hours and there shall not be more than one sign of the same legend missing in a row.

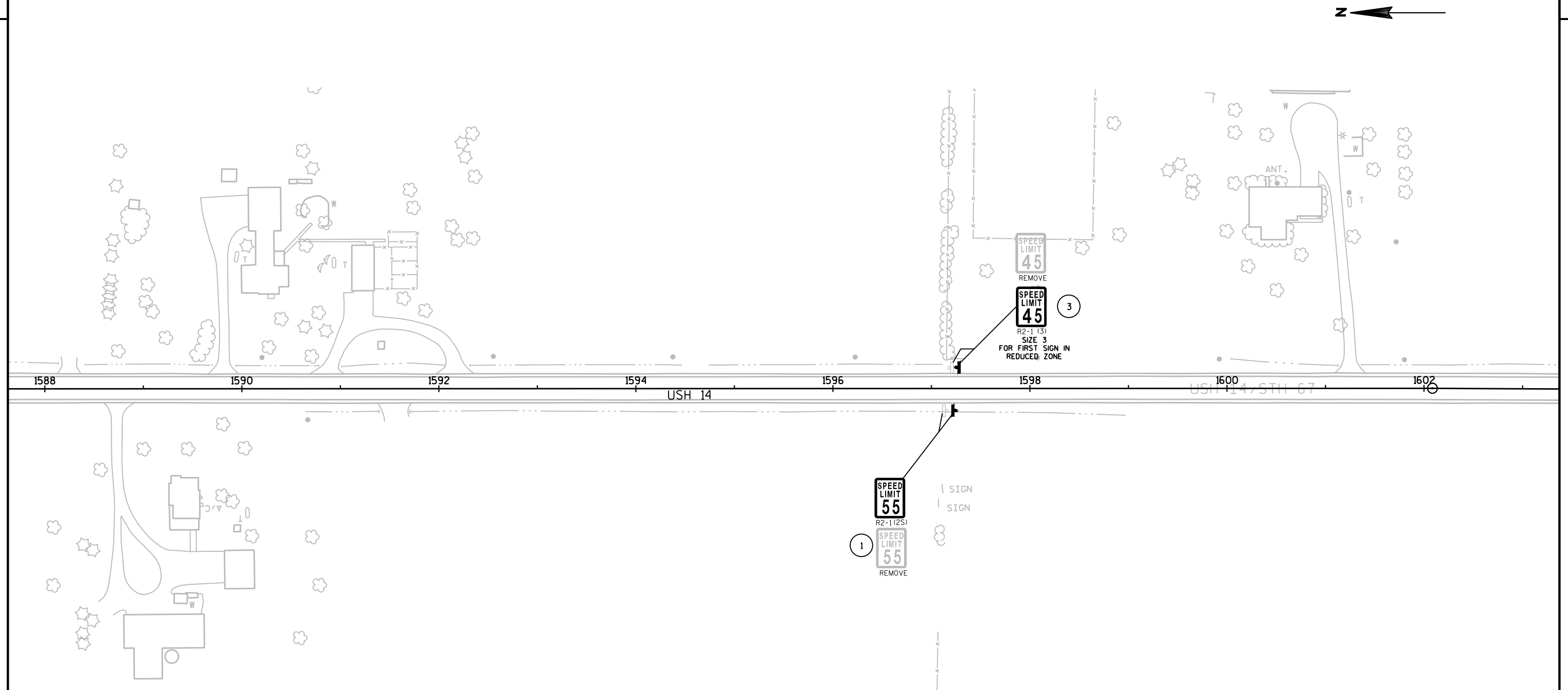
Wood posts sizes, for type II signs are estimated lengths and the actual length will be determined in the field.

Street name signs are property of the municipality (city, village or town). The municipality shall be contacted to remove their street name signs prior to construction and it is their responsibility to reinstall the old signs or replace them following construction. WisDOT does not furnish or install street name signs. The street name signs shall not be placed on top of the STOP signs.

LEGEND

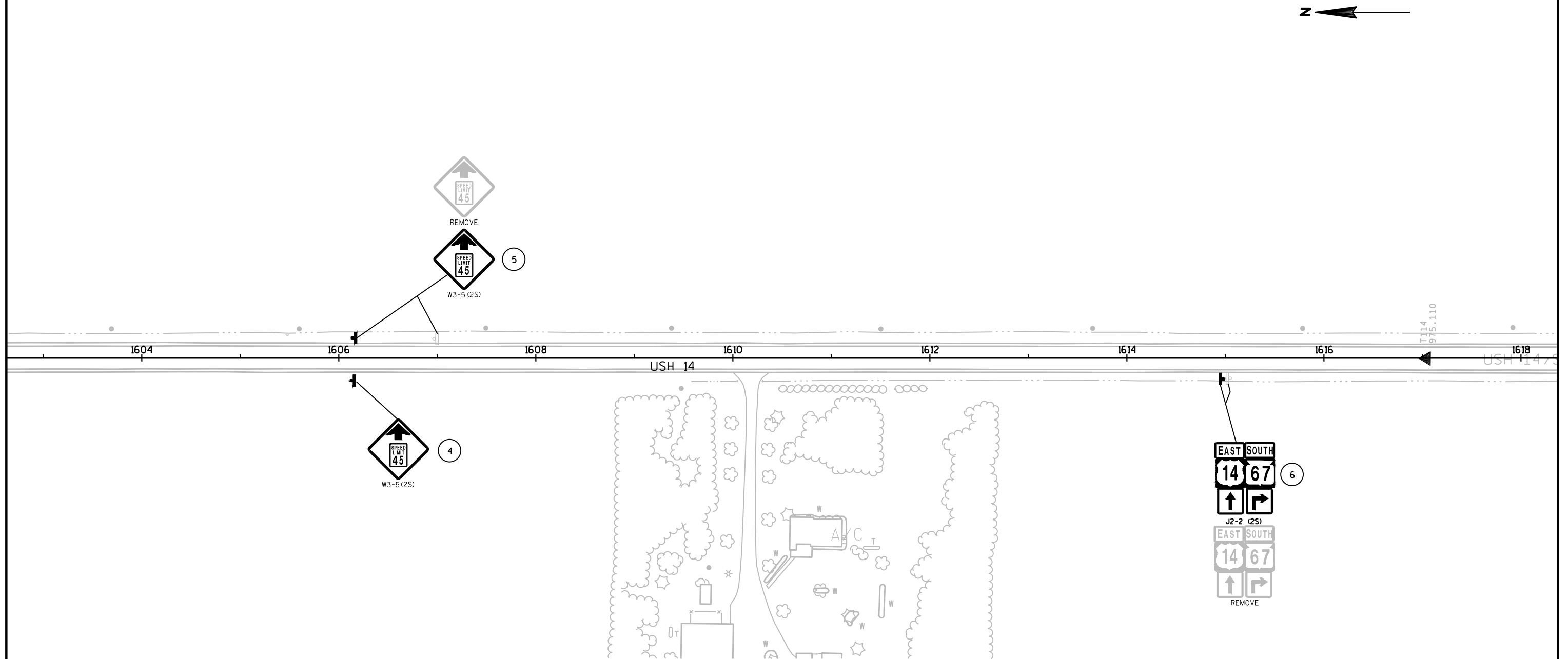
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE

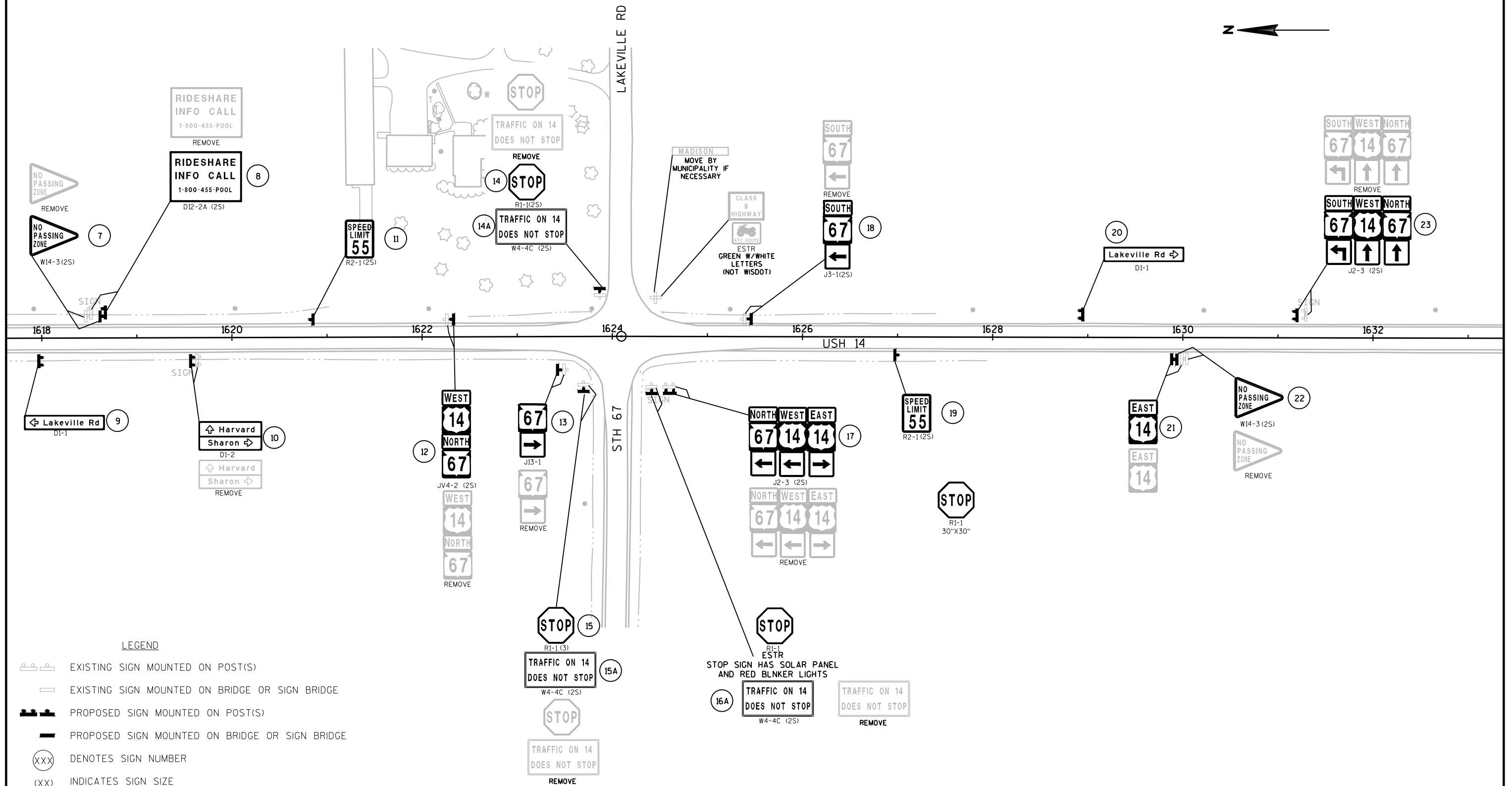
Locate no passing pennants based on establishing no passing zones pay item. Place signs based on where the pavement marking for no passing zones begin.



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE





SHEET 4 OF 7

PROJECT NO: 3150-11-60

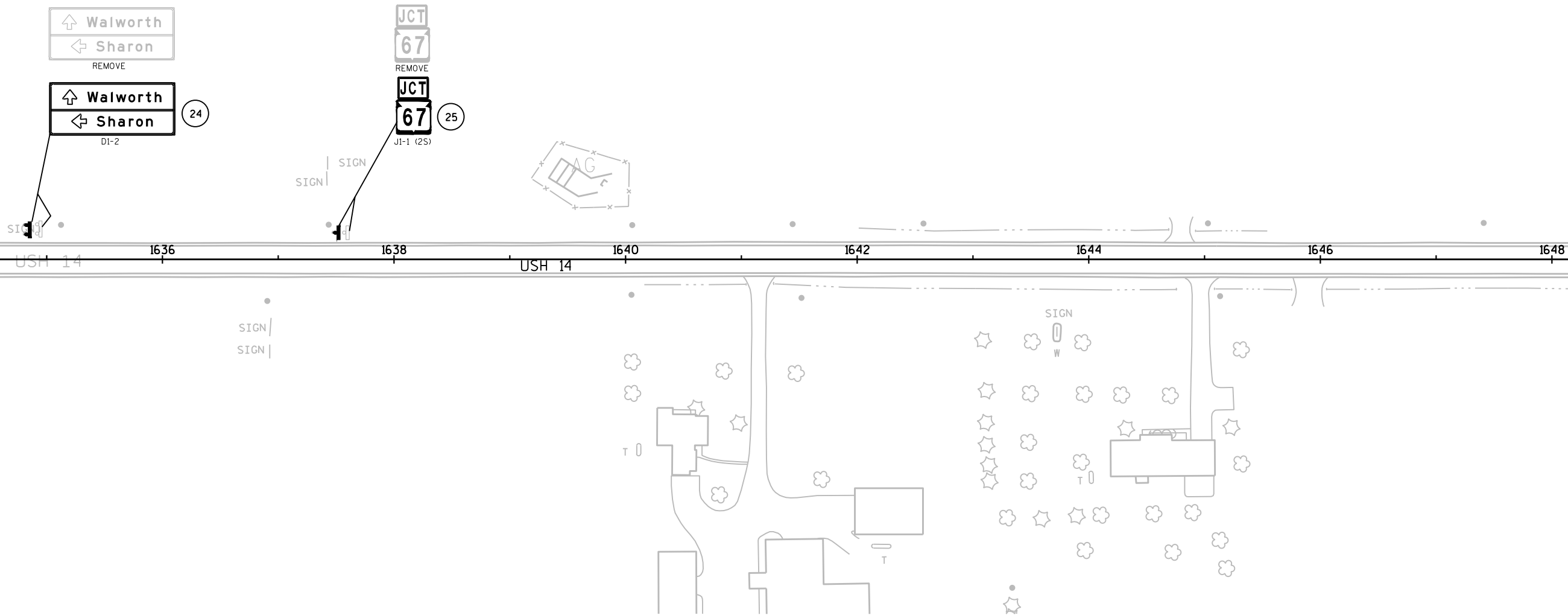
HWY: USH 14

COUNTY: WALWORTH

PERMANENT SIGNING

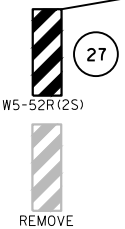
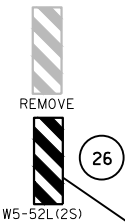
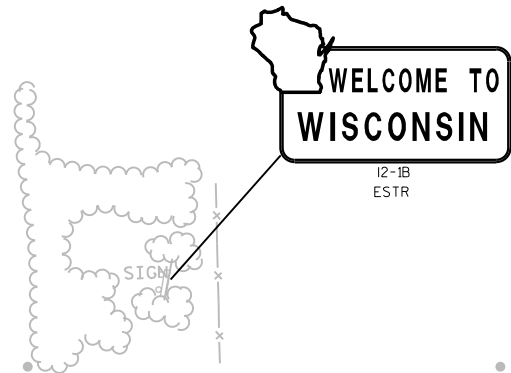
SHEET

E



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- DENOTES SIGN NUMBER
- INDICATES SIGN SIZE

SHEET 6 OF 7

PROJECT NO: 3150-11-60

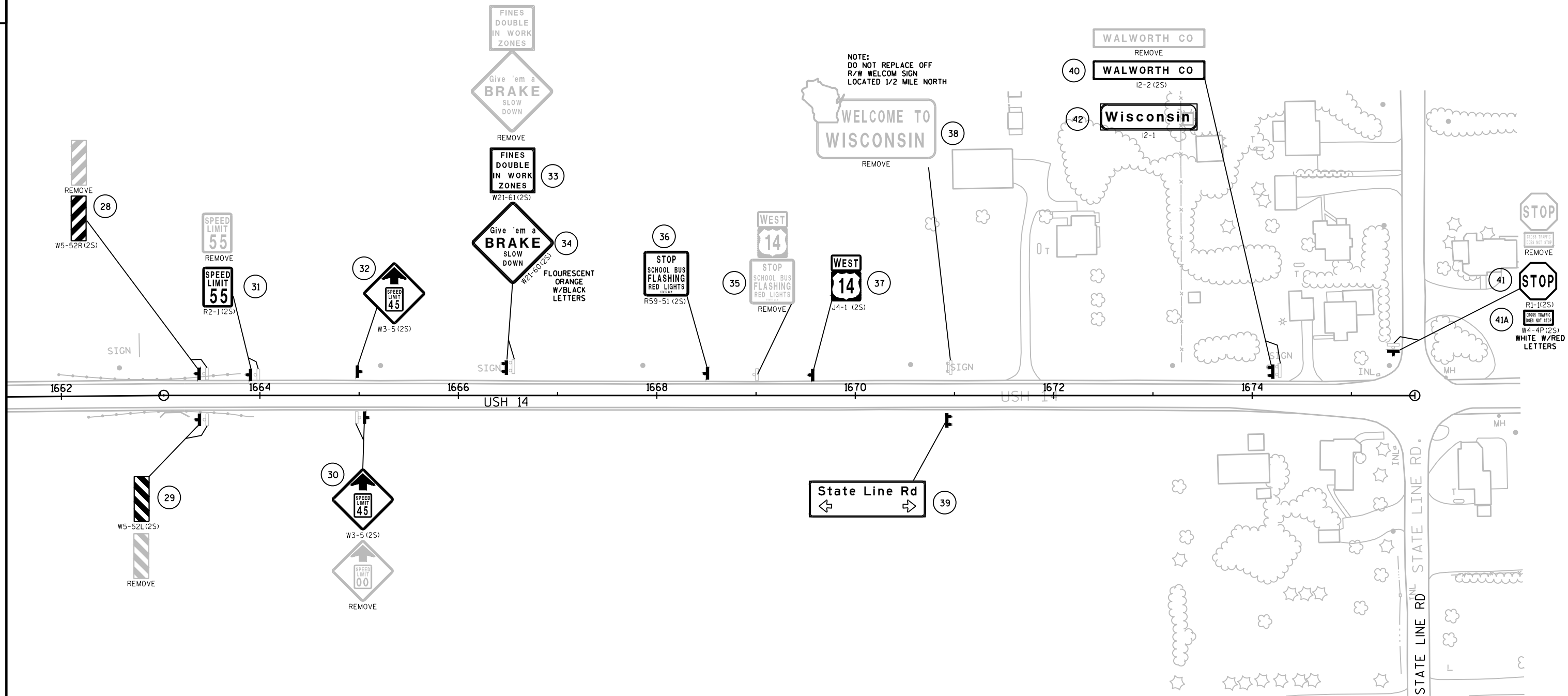
HWY: USH 14

COUNTY: WALWORTH

PERMANENT SIGNING

SHEET

E



LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE

SHEET 7 OF 7

PROJECT NO: 3150-11-60

HWY: USH 14

COUNTY: WALWORTH

PERMANENT SIGNING

SHEET

E

FILE NAME : N:\PDS\C3D\CAD\31501130\SIGN\60\023201_PS.DWG
LAYOUT NAME - 023207_PS

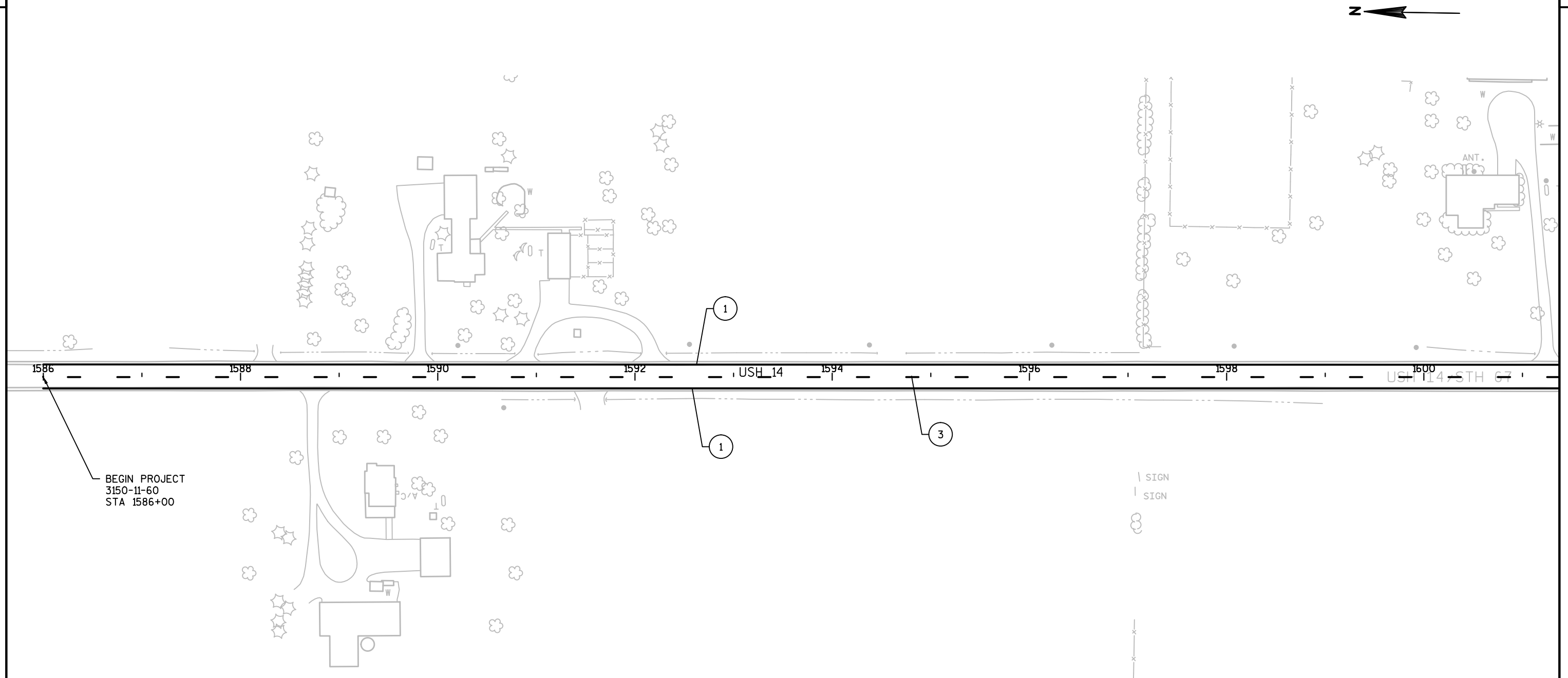
PLOT DATE : 4/5/2016 7:29 AM

PLOT BY : DODGE, BRIAN M

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



BEGIN PROJECT
3150-11-60
STA 1586+00

LEGEND:

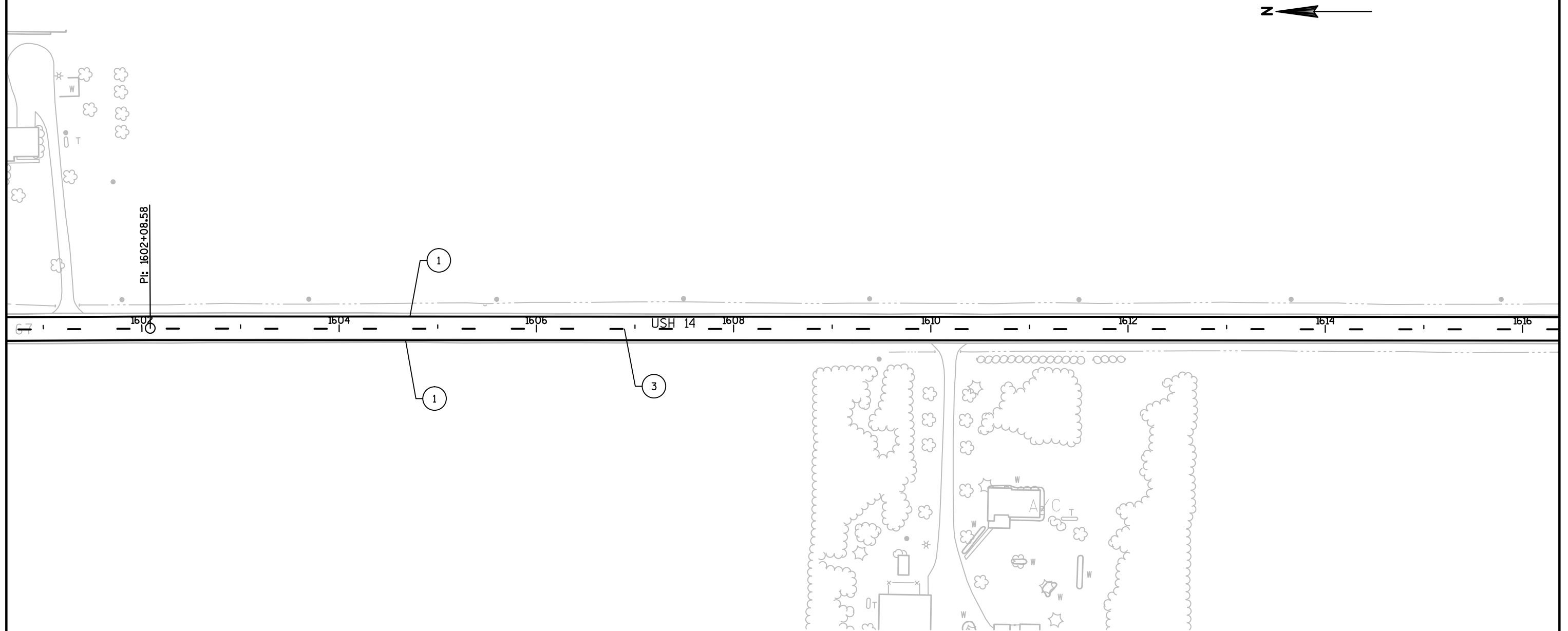
- 1 PAVEMENT MARKING GROOVED EPOXY 4-INCH (WHITE)
- 2 PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
- 3 PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW SKIPS-12.5' LINE, 37.5' GAP)
- 4 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH

NOTES:

CONTRACT TO ESTABLISH NO PASSING ZONES. EXACT LOCATIONS OF PENNANTS AND MARKINGS PER LOCATING NO PASSING ZONES.

SEE DETAIL FOR LOCATION OF STOP BARS AND EDGELINE MARKING AT INTERSECTIONS

EPOXY 4-INCH OVER CENTERLINE RUMBLE STRIPS REQUIRES HIGHER APPLICATION RATE PER STANDARD SPECIFICATION 646.3.3.2



LEGEND:

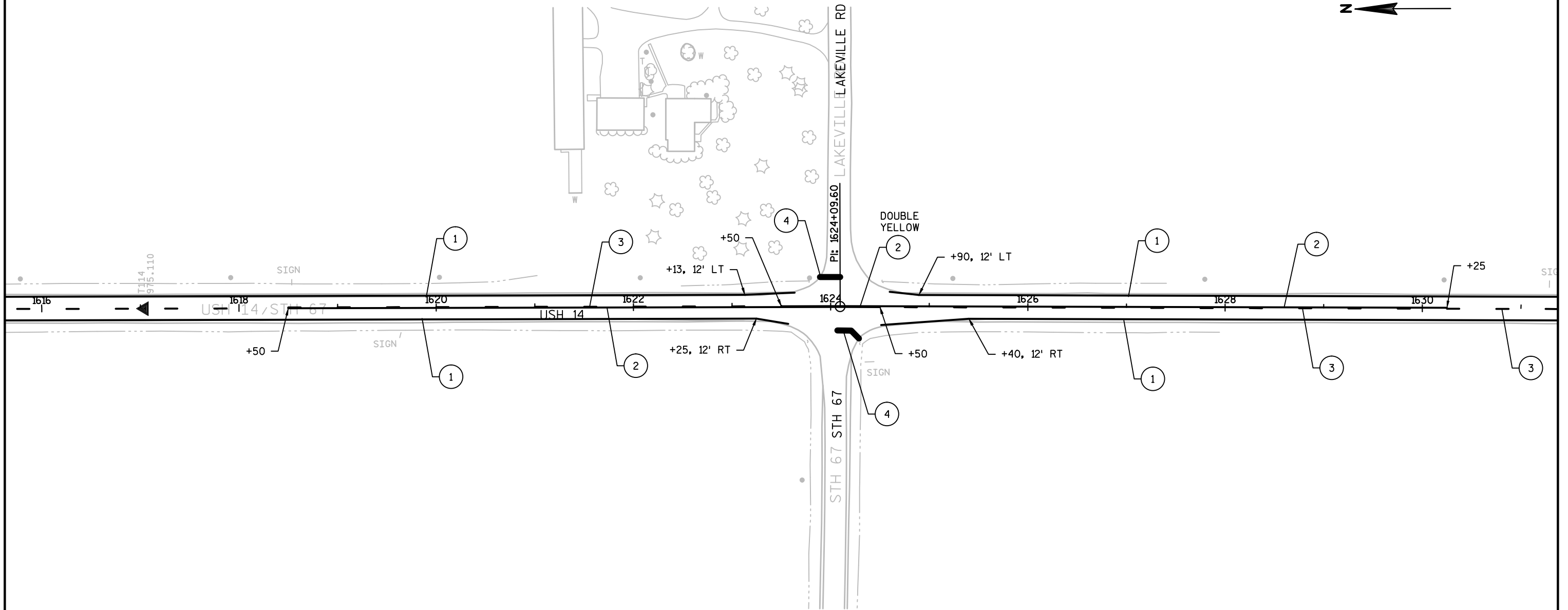
- 1 PAVEMENT MARKING GROOVED EPOXY 4-INCH (WHITE)
- 2 PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW)
- 3 PAVEMENT MARKING SAME DAY EPOXY 4-INCH (YELLOW SKIPS-12.5' LINE, 37.5' GAP)
- 4 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH

NOTES:

CONTRACT TO ESTABLISH NO PASSING ZONES. EXACT LOCATIONS OF PENNANTS AND MARKINGS PER LOCATING NO PASSING ZONES.

SEE DETAIL FOR LOCATION OF STOP BARS AND EDGELINE MARKING AT INTERSECTIONS

EPOXY 4-INCH OVER CENTERLINE RUMBLE STRIPS REQUIRES HIGHER APPLICATION RATE PER STANDARD SPECIFICATION 646.3.3.2



LEGEND:

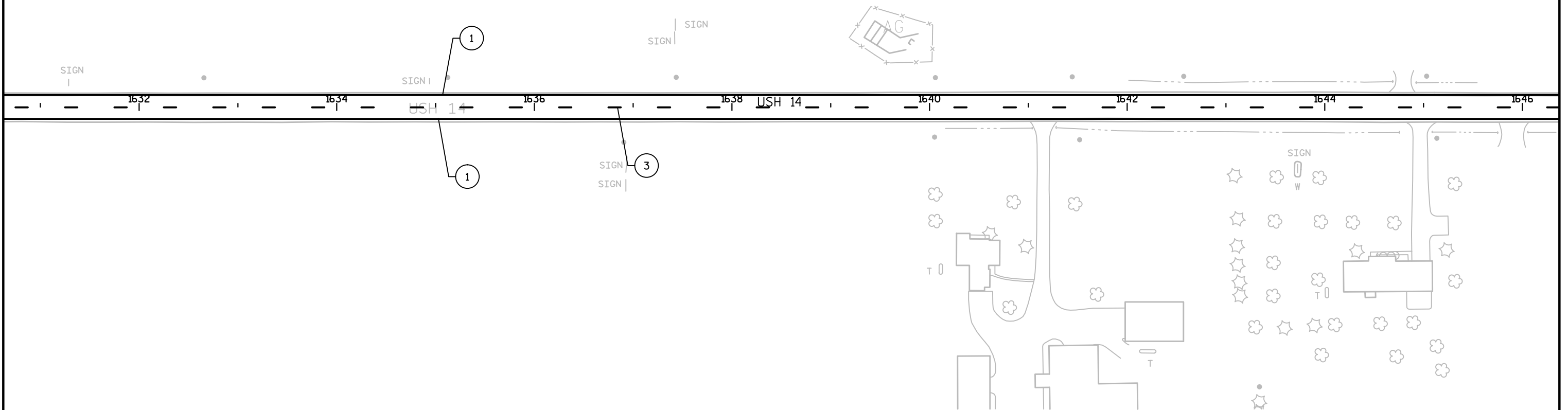
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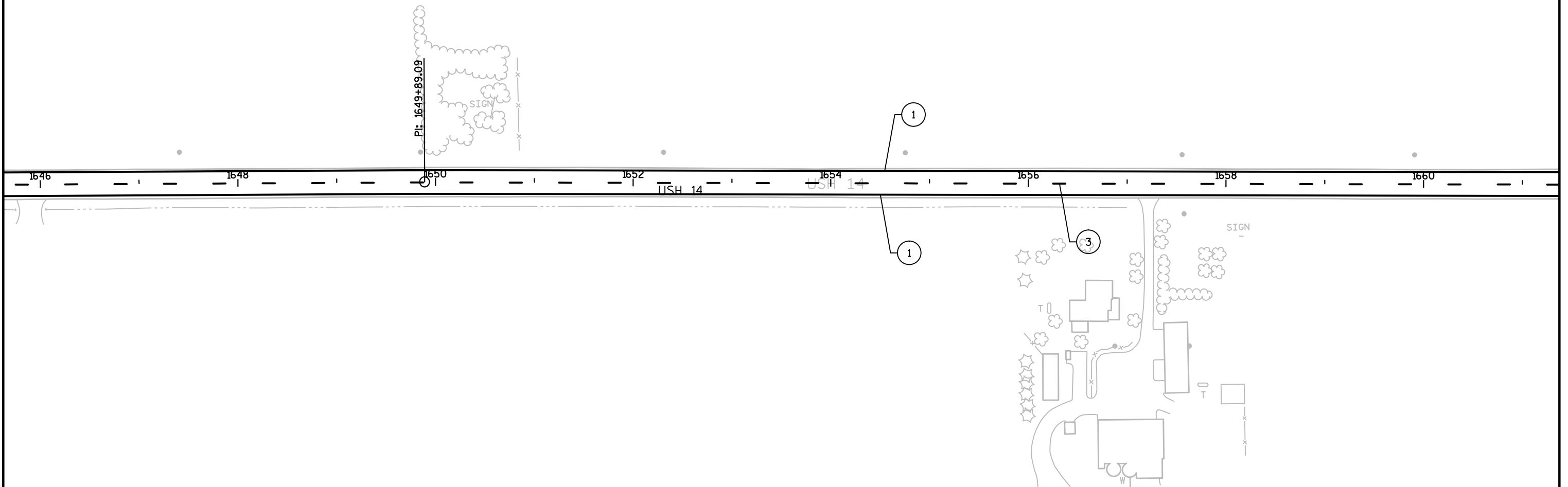
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LEGEND:

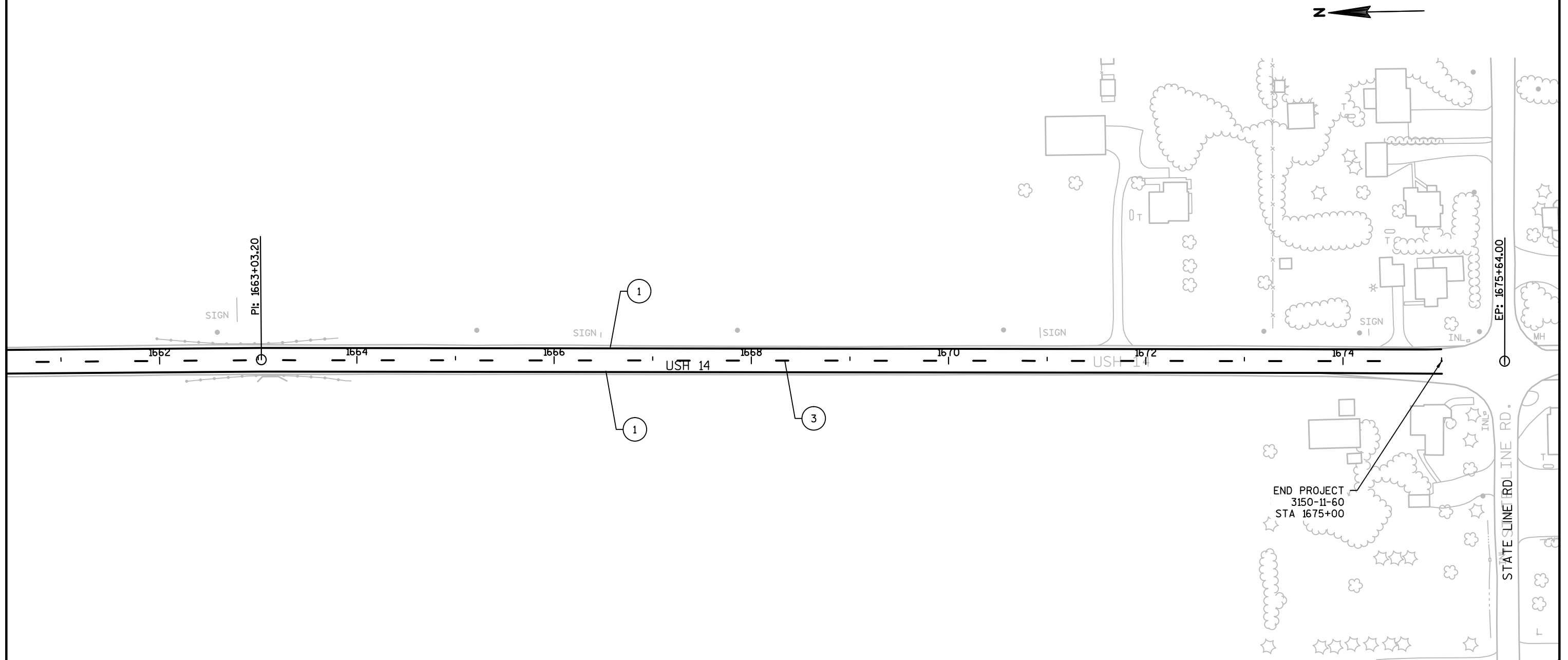
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LEGEND:

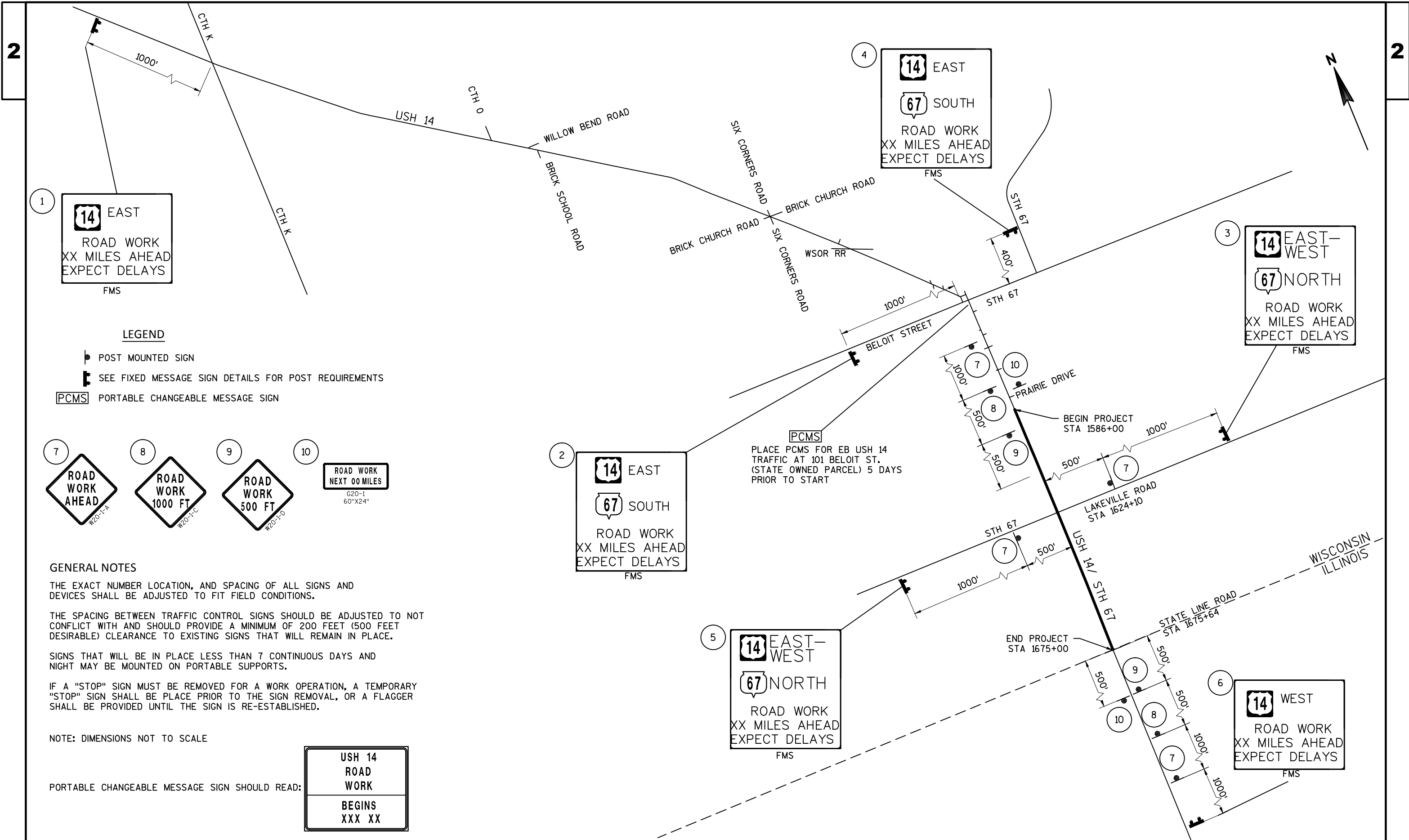
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EPOXY 4-INCH OVER CENTERLINE RUMBLE STRIPS REQUIRES HIGHER APPLICATION RATE PER STANDARD SPECIFICATION 646.3.3.2



FIXED MESSAGE SIGNS (DETAILS SHEETS)

GENERAL NOTES:

- 1. ALL SIGNS TO HAVE FLUORESCENT REFLECTIVE SHEETING – REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.
- 2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE PROJECT ENGINEER SHALL VERIFY EACH SIGN LOCATION.
- 3. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6") (FREEWAY) OR TUBULAR. STEEL POSTS OR 4X6 WOOD POSTS (NON FREEWAY). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN.
- 4. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "FIXED MESSAGE SIGNS."
- 5. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE FLUORESCENT REFLECTIVE BACKGROUND PER SPEC 643 & 637.
- 6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
12" CAPS SHALL BE SERIES "D"
6" CAPS SHALL BE SERIES "C" – UNLESS OTHERWISE SHOWN
- 7. ALL SIGNS SHALL HAVE BORDER & RADIUS OF BORDERS AS FOLLOWS:






SIGN AREA	WIDTH OF BORDER
GREATER THAN 150 SQ FT	3"
60-150 SQ FT	2"
LESS THAN 60 SQ FT	1"

RADIUS	CORNER RADIUS
SMALLEST OUTSIDE DIMENSION	
> 8 FT	12"
≥ 6 FT	9"
≥ 4 FT	6"
LESS THAN 4 FT	3"
- 8. BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE PLACED OVER EXPECT DELAYS WHEN SIGN IS ERECTED. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD. PANELS SHALL BE REMOVED AFTER THEIR EFFECTIVE DATE.
- 9. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 643 & 637.
- 10. SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION.

(X) = SIGN NUMBER

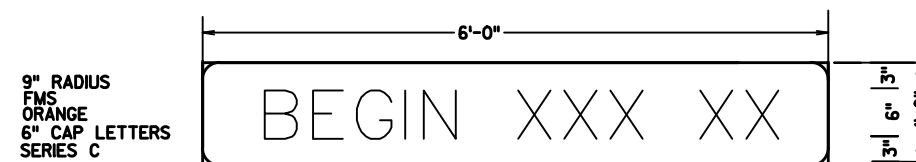
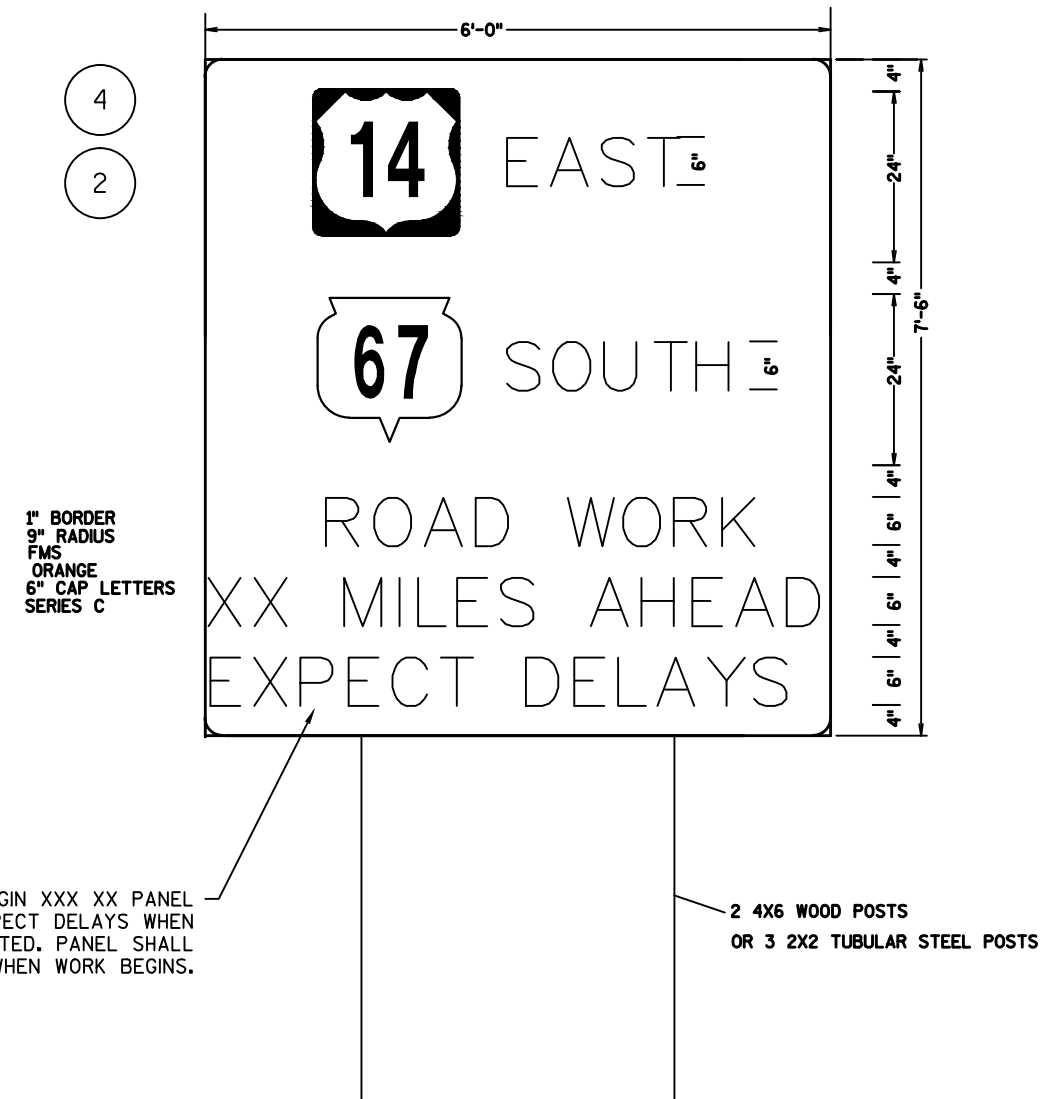
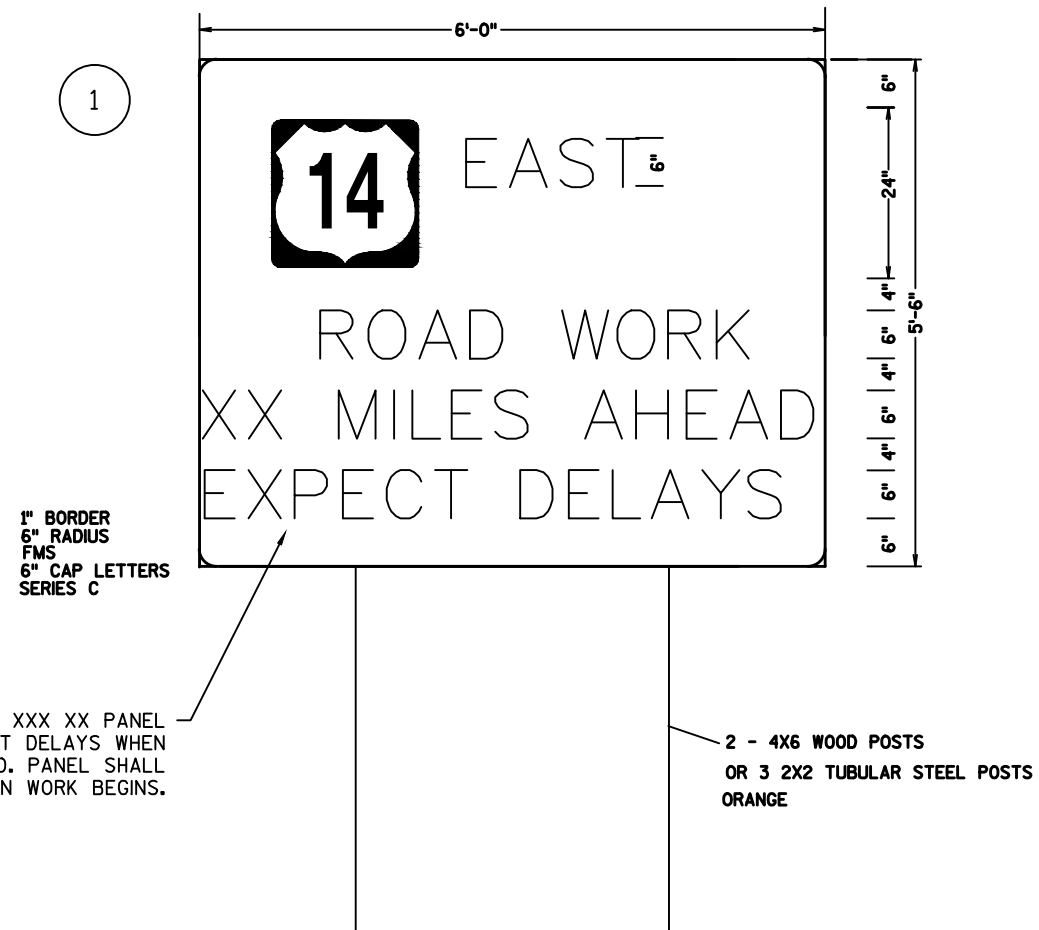
FOR PLAN SHEETS

LEGEND: FIXED MESSAGE SIGNS

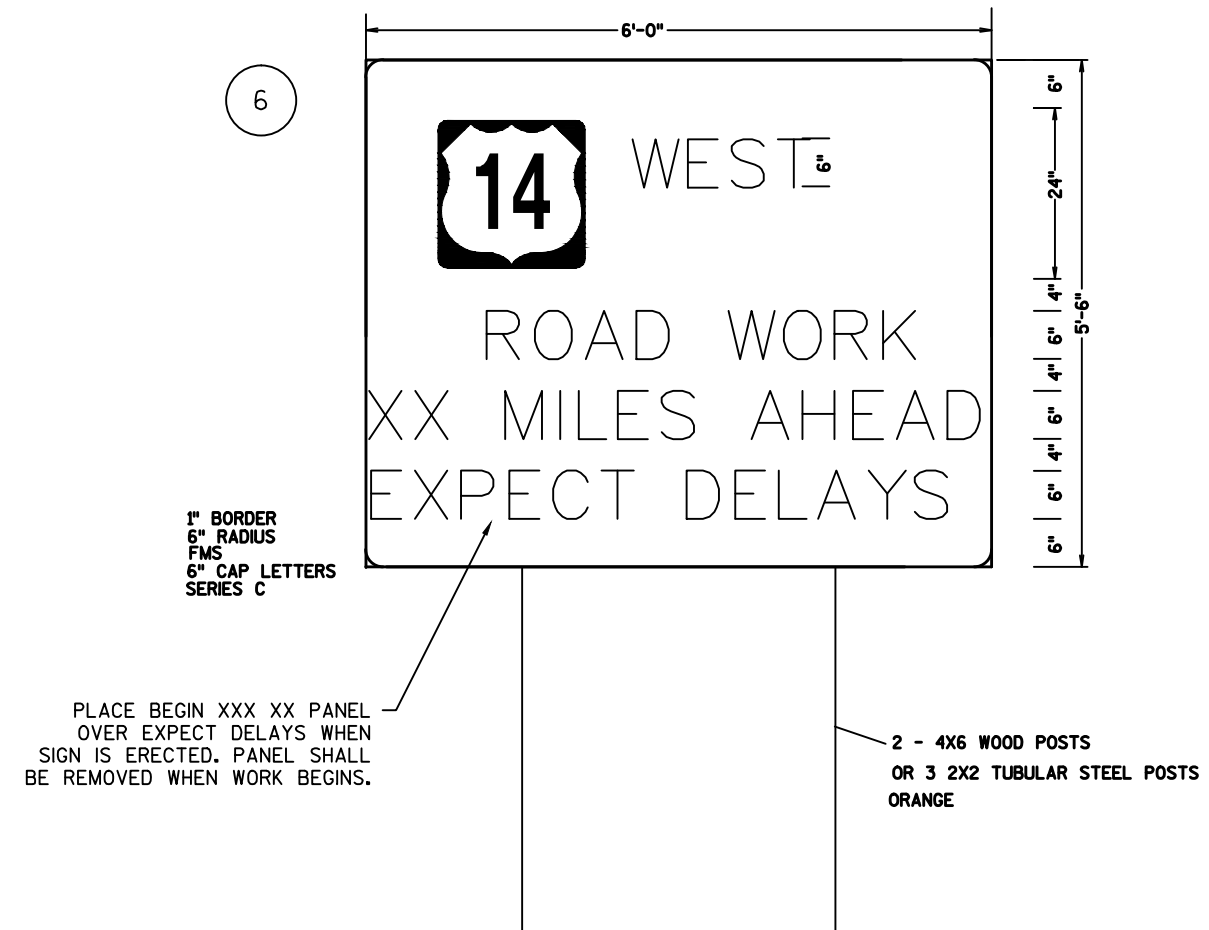
-  EXISTING GUIDE SIGN TO BE COVERED
-  FIXED MESSAGE SIGN(S) ON WOOD POST SUPPORTS OR TUBULAR STEEL POSTS
-  FIXED MESSAGE SIGN NUMBER
-  CONTRACTOR SHALL COVER AS DIRECTED BY THE ENGINEER ALL ROUTE MARKINGS PERTAINING TO THE PROJECT. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
-  CHANGEABLE MESSAGE SIGN

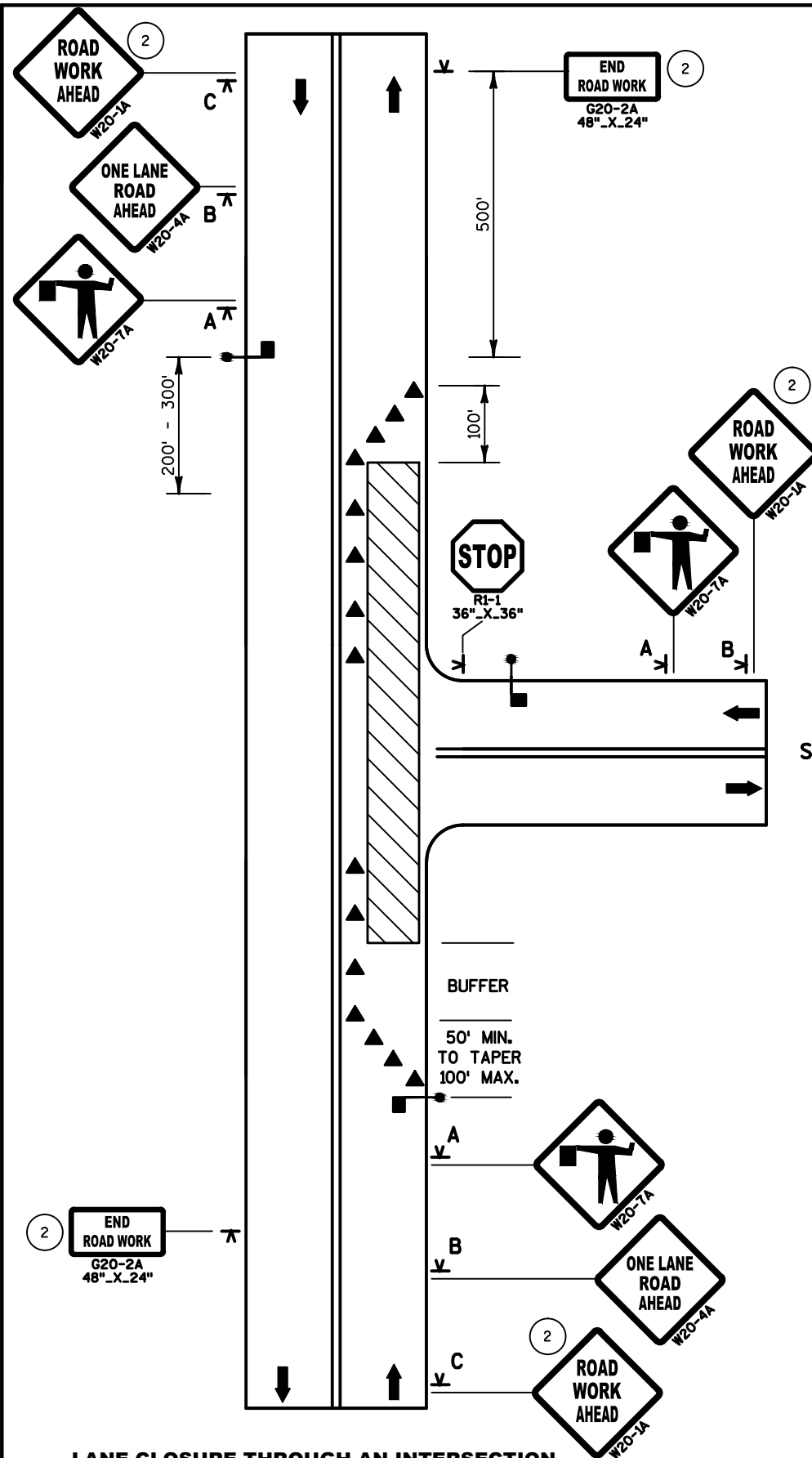
NOTES: FIXED MESSAGE SIGNS

- 1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE "I" SIGN.
- 2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE FLORESCENT REFLECTIVE BACKGROUND PER SPEC 643 & 637.
- 3. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
- 4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
- 5. SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.



SEE NOTE 8 ON FIXED MESSAGE SIGNS, GENERAL NOTES.





LEGEND

- ◀ CHANNELIZING DEVICE
- ⌵ PORTABLE SIGN SUPPORT
- ▨ WORK AREA
- ➡ TRAFFIC FLOW
- ⬮ FLAGGER
- ⌵ POST MOUNTED SIGN

SPEED LIMIT (MPH)	SIGN SPACING A, B, C, (FT)	BUFFER (FT)
25	200	55
30	200	85
35	350	120
40	350	170
45	500	220
50	500	280
55	500	335

SIDE ROAD

NOTES

1. DEPENDING ON TRAFFIC CONDITIONS, CONSIDER ADDITIONAL TRAFFIC CONTROL ON THE SIDE ROAD APPROACHES, SUCH AS FLAGGERS AND APPROPRIATE SIGNS.
2. SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATION, 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 DIRECTED BY THE ENGINEER.

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

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, THE "FLAGGER AHEAD", THE "ROAD CONSTRUCTION AHEAD" AND THE ONE LANE ROAD AHEAD" SIGN SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

**LANE CLOSURE THROUGH AN INTERSECTION
FLAGGER ON SIDE ROAD
(WORK AREA ON THROUGH ROAD)**

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.

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

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.

ADDITIONAL WORK VEHICLES MAY BE USED BETWEEN V1 AND V2.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE AND OTHER FACTORS.







IF THERE IS A SIDE ROAD INTERSECTION BETWEEN THE FLAGGER STATIONS PROVIDE "ROAD WORK AHEAD" SIGNS ON THE SIDE ROAD AS APPROVED BY THE ENGINEER.

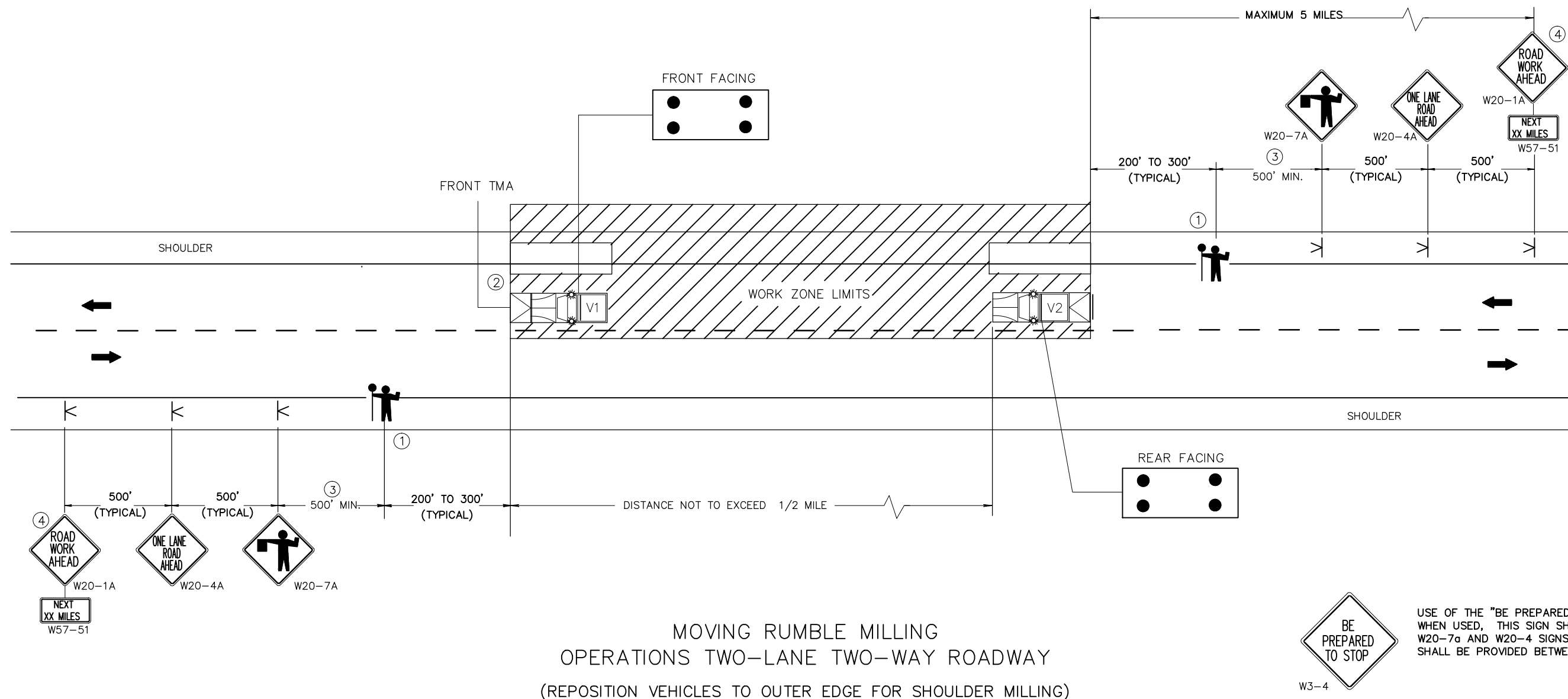
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE "ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

THIS DRAWING SHALL BE USED FOR CENTERLINE AND SHOULDER MILLING OF RUMBLE STRIPS.

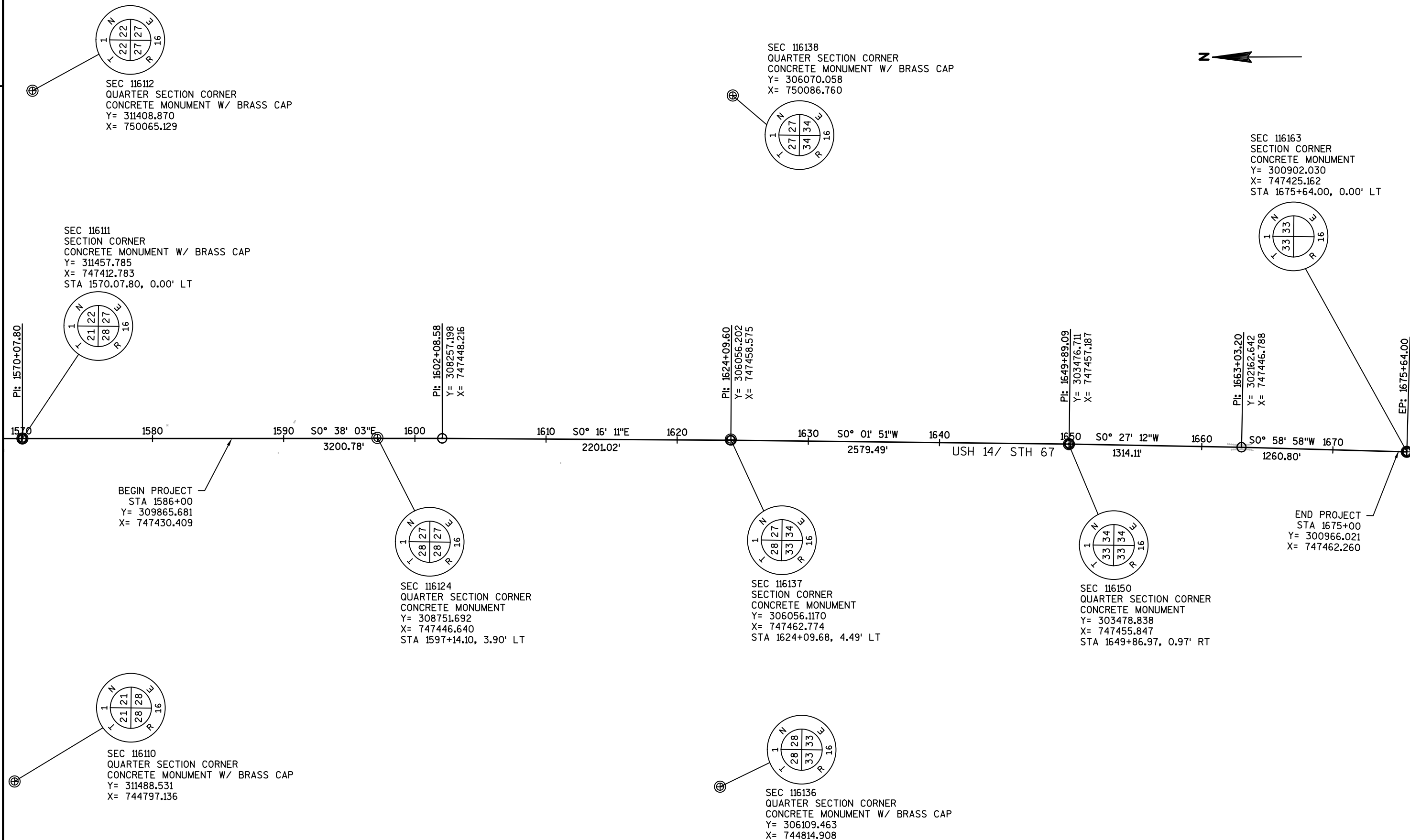
- ① MAXIMUM DISTANCE BETWEEN FLAGGER STATIONS SHALL BE TWO MILES.
- ② FRONT TRUCK-MOUNTED ATTENUATOR V1 OPTIONAL FOR SHOULDER RUMBLE MILLING.
- ③ FOR MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ④ SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

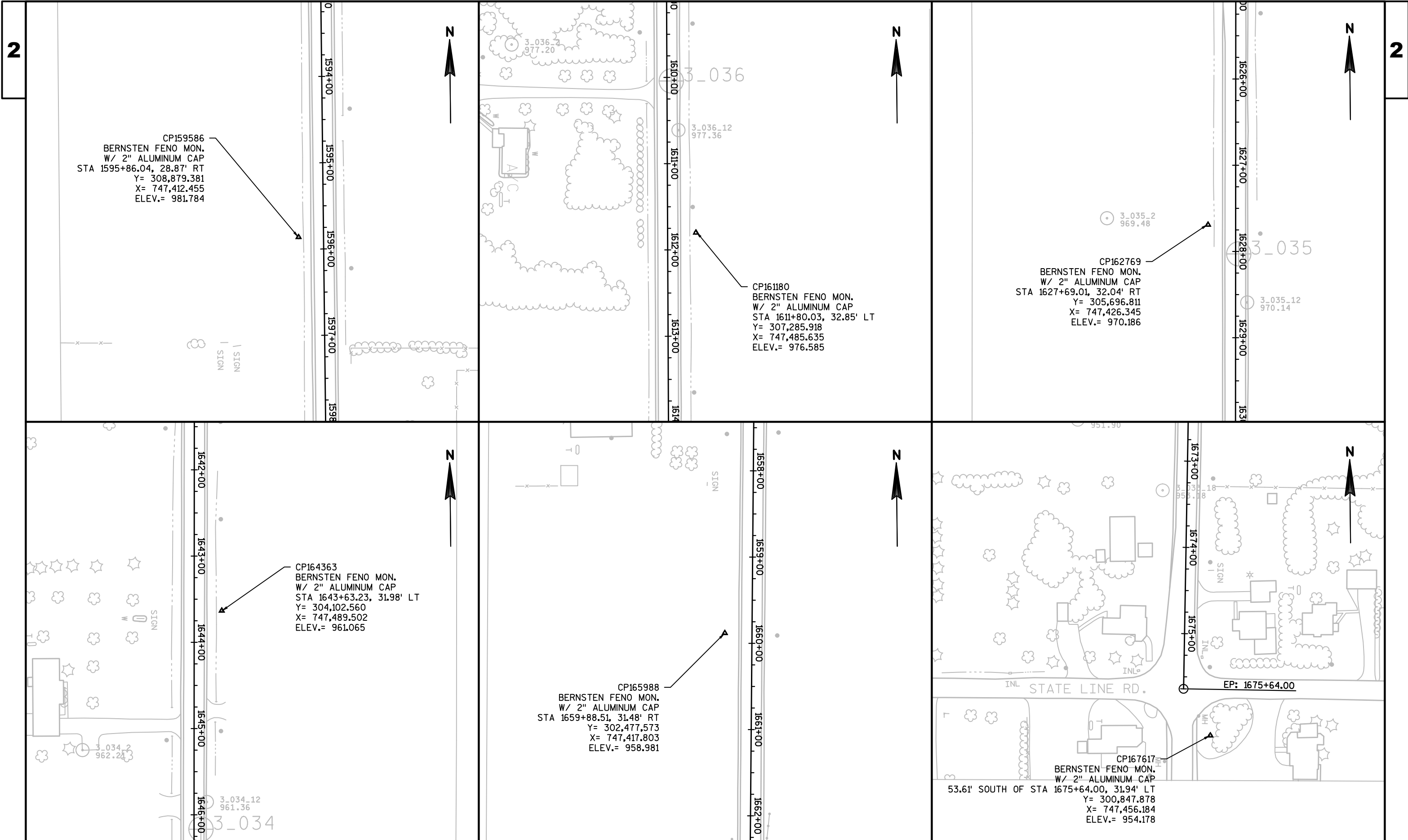
LEGEND

V1	LEAD VEHICLE
V2	TRAIL VEHICLE WITH TMA
	TMA TRUCK-MOUNTED ATTENUATOR
	SIGN ON PORTABLE SUPPORT
	DIRECTION OF TRAVEL
	FLASHING ARROW PANEL (CAUTION)
	(FLAGGER STATION) FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
	WORK AREA



MOVING RUMBLE MILLING
OPERATIONS TWO-LANE TWO-WAY ROADWAY
(REPOSITION VEHICLES TO OUTER EDGE FOR SHOULDER MILLING)





DATE 10MAY16		E S T I M A T E O F Q U A N T I T I E S			
LINE					3150-11-60
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTI TY
0010	203.0200	Removing Old Structure (station) 01. 1663+00	LS	1.000	1.000
0020	204.0125	Removi ng Asphal tic Surface Milling	TON	3,298.000	3,298.000
0030	204.0165	Removi ng Guardrail	LF	314.000	314.000
0040	213.0100	Finishing Roadway (project) 01. 3150-11-60	EACH	1.000	1.000
0050	305.0110	Base Aggregate Dense 3/4-Inch	TON	515.000	515.000
0060	305.0500	Shapi ng Shoul ders	STA	178.000	178.000
0070	390.0203	Base Patching Asphal tic	SY	3,078.000	3,078.000
0080	440.4410	Incentive IRI Ride	DOL	1.000	1.000
0090	455.0605	Tack Coat	GAL	2,105.000	2,105.000
0100	460.2000	Incentive Densi ty HMA Pavement	DOL	1.000	1.000
0110	460.5224	HMA Pavement 4 LT 58-28 S	TON	3,889.000	3,889.000
0120	465.0475	Asphal t Center Line Rumble Strips 2-Lane Rural	LF	7,264.000	7,264.000
0130	509.1500	Concrete Surface Repair	SF	115.000	115.000
0140	614.0010	Barri er System Gradi ng Shapi ng Fini shing	EACH	4.000	4.000
0150	614.0397	Guardrail Mow Strip Emulsi fied Asphal t	SY	240.000	240.000
0160	614.2300	MGS Guardrail 3	LF	354.000	354.000
0170	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0180	619.1000	Mobilization	EACH	1.000	1.000
0190	628.1504	Silt Fence	LF	1,226.000	1,226.000
0200	628.1520	Silt Fence Maintenance	LF	1,226.000	1,226.000
0210	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0220	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0230	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	40.000	40.000
0240	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	4.000	4.000
0250	637.2210	Signs Type II Reflective H	SF	294.945	294.945
0260	637.2230	Signs Type II Reflective F	SF	69.000	69.000
0270	638.2602	Removi ng Signs Type II	EACH	28.000	28.000
0280	638.3000	Removing Small Sign Supports	EACH	35.000	35.000
0290	642.5201	Field Office Type C	EACH	1.000	1.000
0300	643.0100	Traffic Control (project) 01. 3150-11-60	EACH	1.000	1.000
0310	643.0300	Traffic Control Drums	DAY	168.000	168.000
0320	643.0900	Traffic Control Signs	DAY	582.000	582.000
0330	643.1000	Traffic Control Signs Fixed Message	SF	282.000	282.000
0340	643.1050	Traffic Control Signs PCMS	DAY	10.000	10.000
0350	646.0406	Pavement Marking Same Day Epoxy 4-Inch	LF	3,875.000	3,875.000
0360	648.0100	Locating No-Passing Zones	MI	1.690	1.690
0370	649.0403	Temporary Pavement Marking Epoxy 4-Inch	LF	1,891.000	1,891.000
0380	650.8000	Construction Staking Resurfacing Reference	LF	8,900.000	8,900.000
0390	650.9910	Construction Staking Supplemental Control (project) 01. 3150-11-60	LS	1.000	1.000
0400	690.0150	Sawing Asphal t	LF	173.000	173.000
0410	SPV.0045	Speci al 01. PCMS Remote Communications	DAY	10.000	10.000
0420	SPV.0090	Speci al 01. Pavement Marking Grooved Epoxy 4-Inch	LF	17,751.000	17,751.000
0430	SPV.0090	Speci al 02. Pavement Marking Grooved Preformed Thermoplasti c Stop Bar 18-Inch	LF	45.000	45.000
0440	SPV.0090	Speci al 03. Weak-Post W-Beam Guardrail System	LF	47.000	47.000

ASPHALT ITEMS				
	204.0125 REMOVING ASPHALTIC SURFACE MILLING	455.0605 TACK COAT	460.5224 HMA PAVEMENT 4 LT 58-28 S	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL
LOCATION	TON	GAL	TON	LF
EASTBOUND				
1586+00 TO 1597+00	202	128	237	--
1597+00 TO 1625+00	531	338	625	2510
1625+00 TO 1673+00	880	565	1,043	4690
1673+00 TO 1675+00	42	27	49	64
WESTBOUND				
1586+00 TO 1597+00	202	128	237	--
1597+00 TO 1625+00	524	334	616	--
1625+00 TO 1673+00	880	562	1,039	--
1673+00 TO 1675+00	37	23	43	--
TOTAL	3,298	2,105	3,889	7,264

SHOULDER ITEMS		
	305.0110 BASE AGGREGATE DENSE 3/4-INCH	305.0500* SHAPING SHOULDER
LOCATION	TON	STA
EASTBOUND		
1586+00 TO 1623+90	100	38
1624+15 TO 1675+00	134	51
WESTBOUND		
1586+00 TO 1623+95	100	38
1624+25 TO 1675+00	134	51
UNDISTRIBUTED	47	--
TOTAL	515	178

*UPPER LAYER OF EXISTING SHOULDER MATERIAL ARE MILLINGS. SHAPING SHOULDER ITEM SHALL BLADE OR SCARIFY MILLINGS TO DEPTH OF 2 INCHES, THEN PLACE ADDITIONAL BASE AGGREGATE DENSE 3/4-INCH AS NEEDED TO SHAPE AND COMPACT THE SHOULDER ACCORDING TO TYPICAL SECTION AND PAVEMENT SAFETY EDGE ON HMA OVERLAY CONSTRUCTION DETAIL. BLADING OR SCARIFYING MILLINGS IS INCIDENTAL TO ITEM SHAPING SHOULDER.

BASE PATCHING ASPHALTIC

LOCATION		LENGTH	WIDTH	*390.0203 BASE PATCHING ASPHALTIC
STATION	DIRECTION	FT	FT	SY
1586+50	WB	125	12	167
1590+10	WB	60	6	40
1593+75	WB	45	12	60
1596+50	WB	85	12	113
1601+30	WB	10	12	13
1601+30	EB	10	12	13
1603+90	EB	10	12	13
1604+05	WB	35	12	47
1607+65	WB	10	12	13
1607+65	EB	10	12	13
1608+75	WB	65	6	43
1612+35	EB	15	6	10
1612+35	WB	85	12	113
1614+40	WB	185	6	123
1617+25	WB	25	12	33
1619+70	WB	75	12	100
1621+00	WB	100	6	67
1623+65	EB	85	12	113
1623+75	WB	75	12	100
1623+75	WB	35	12	47
1623+75	EB	35	12	47
1625+40	WB	225	12	300
1629+50	EB	10	12	13
1629+75	WB	75	12	100
1631+10	WB	50	12	67
1632+85	WB	265	12	353
1639+00	EB	50	12	67
1639+25	WB	50	12	67
1642+05	WB	50	12	67
1645+75	WB	25	12	33
1648+90	EB	10	12	13
1655+40	EB	55	12	73
1657+05	EB	15	12	20
1662+45	EB	55	12	73
1665+50	EB	85	6	57
1669+55	EB	50	12	67
1671+00	EB	25	12	33
1672+25	EB	15	12	20
1673+40	EB	20	12	27
1674+55	EB	45	12	60
UNDISTRIBUTED				280
TOTAL				3,078

*ENGINEER TO DETERMINE EXACT LOCATION IN THE FIELD
NOTE: HMA PAVEMENT 3LT 58-28S TO BE PAID AS BASE PATCHING ASHPALTIC

NOTE: UNLESS OTHERWISE NOTED, ALL ITEMS ARE CATEGORY 0010

BEAM GUARD ITEMS				
LOCATION	204.0165	614.0397	614.2300	614.2610
	REMOVING	GUARDRAIL MOW STRIP	MGS GUARDRAIL	
	GUARDRAIL	EMULSIFIED ASPHALT	3	TERMINAL EAT
	LF	SY	LF	EACH
EASTBOUND				
1661+35 TO 1663+01	83	70	116	1
1663+22 TO 1664+28	72	47	50	1
WESTBOUND				
1661+12 to 1661+74	81	69	109	1
1662+99 TO 1664+31	78	54	79	1
TOTAL	314	240	354	4

EROSION CONTROL		
LOCATION	628.1504	628.1520
	SILT FENCE	SILT FENCE
	LF	MAINTENANCE
		LF
EASTBOUND		
1660+39 TO 1663+05	292	292
1663+25 TO 1665+28	242	242
WESTBOUND		
1661+72 TO 1662+75	211	211
1663+05 TO 1665+27	236	236
UNDISTRIBUTED	245	245
TOTAL	1,226	1,226

BARRIER SYSTEM GRADING SHAPING FINISHING							
LOCATION	**EXCAVATION			**FERTILIZER	**SEED MIXTURE	**EROSION MAT	614.0010
	COMMON	**BORROW	**TOPSOIL	TYPE B	NO. 30	CLASS I TYPE A	
	CY	CY	SY	CWT	LB	SY	EACH
EASTBOUND							
1660+72 TO 1663+00	--	20	133	0.08	2	133	1
1663+25 TO 1665+25	--	37	208	0.13	4	208	1
WESTBOUND							
1661+62 TO 1662+75	--	8	83	0.05	1	83	1
1663+00 TO 1665+52	--	5	85	0.05	2	85	1
TOTAL	0	70	509	0.31	9	509	4

**FOR INFORMATION ONLY, INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING
NOTE: QUANTITIES CALCULATED BASED ON SLOPE INTERCEPT LIMITS, ANY ADDITIONAL QUANTITIES DUE TO GRADING OPERATION ARE
INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING

EROSION CONTROL MOBILIZATIONS		
LOCATION	628.1905	628.1910
	MOBILIZATIONS	MOBILIZATIONS
	EROSION	EMERGENCY
	CONTROL	EROSION
		CONTROL
	EACH	EACH
USH 14	1	2
TOTAL	1	2

NOTE: UNLESS OTHERWISE NOTED, ALL ITEMS ARE CATEGORY 0010

3

3

TYPE I&II PERMANENT SIGNING -														3150-11-60 USH 14		
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE			637.2210	637.2230	637.2215	638.2602	638.3000	638.2102	634.0618	634.0816	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	
			W [IN.]	x x	H [IN.]	SIGNS TYPE II REFLECTIVE H [SF]	SIGNS TYPE II RELFECTIVE F [SF]	SIGNS TYPE II REFLECTIVE H FOLDING [SF]	REM SIGNS TYPE II [EA]	REM SMALL SIGN SUP [EA]	MOVING SIGNS TYPE II [EA]	WOOD POSTS 4" X 6" X 18' [EA]	POSTS TUBULAR STEEL 2" X 2" X 16' [EA]			
1	R2-1 (2S)	SPEED LIMIT 55	24	X	30	5.000			1	1		1			SIZE 3 FOR FIRST SIGN IN REDUCED ZONE	
2	NOT USED															
3	R2-1 (3)	SPEED LIMIT 45	36	X	48	12.000			1	1		1				
4	W3-5 (2S)	REDUCED SPEED AHEAD	36	X	36		9.000					1				
5	W3-5 (2S)	REDUCED SPEED AHEAD	36	X	36		9.000		1	1		1				
6	J2-2 (2S)		48	X	57	19.000			1	1		1				
	M3-2	EAST	24	X	12											
	M1-4	USH 14	24	X	24											
	M6-1	ARROW UP	21	X	21											
	M3-3	SOUTH	24	X	12											
	M1-6	STH 67	24	X	24											
	M5-1R	ADVANCE ARROW RIGHT	21	X	21											
7	W14-3 (2S)	NO PASSING ZONE	48	X	36		6.000							8	REMOVE THE W14-3 ALSO	
8	D12-2A (2S)	RIDESHARE INFO	60	X	42	17.500			1	2		2				
9	D1-1	[A] LAKEVILLE RD	84	X	15	8.750						2				
10	D1-2	[A] HARVARD	66	X	30	13.750			1	2		2				
		SHARON [A]														
11	R2-1 (2S)	SPEED LIMIT 55	24	X	30	5.000						1				
12	JV4-2 (2S)		24	X	72	12.000			1	1		1				
	M3-4	WEST	24	X	12											
	M1-4	USH 14	24	X	24											
	M3-1	NORTH	24	X	12											
	M1-6	STH 67	24	X	24											
13	J13-1 (2S)		24	X	45	7.500			1	1		1				
	M1-6	STH 67	24	X	24											
	M6-1	ARROW LEFT	21	X	21											
14	R1-1 (2S)	STOP	30	X	30	5.180			1	1		1		14	REMOVE THE W4-4C ALSO	
14A	W4-4C (2S)	TRAFFIC ON 14 DOES NOT STOP	24	X	12	2.000									YELLOW WITH BLACK LETTERS	
15	R1-1 (3)	STOP	36	X	36	7.460			1	1		1			REMOVE THE W4-4C ALSO	
15A	W4-4C (2S)	TRAFFIC ON 14 DOES NOT STOP	24	X	12	2.000									YELLOW WITH BLACK LETTERS	
16	NOT USED	STOP (BLINKER)													BLINKER STOP SIGN, EXISTING SIGN TO REMAIN.	
SHEET: 1 OF 3																
PROJECT NO: 3150-11-60			HWY: USH 14			COUNTY: WALWORTH			MISCELLANEOUS QUANTITIES – PERMANENT SIGNING					SHEET:		E

TYPE I&II PERMANENT SIGNING -														3150-11-60 USH 14	
SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]			637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTION F [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
16A	W4-4C (2S)	TRAFFIC ON 14 DOES NOT STOP	24	X	12	2.000			1						YELLOW WITH BLACK LETTERS. MOUNT UNDER BLINKER STOP SIGN
17	J3-3 (2S)		72	X	57	28.500			1	2		2			
	M3-1	NORTH	24	X	12										
	M1-6	STH 67	24	X	24										
	M6-1	ARROW LEFT	21	X	21										
	M3-4	WEST	24	X	12										
	M1-4	USH 14	24	X	24										
	M6-1	ARROW LEFT	21	X	21										
	M3-2	EAST	24	X	12										
	M1-4	USH 14	24	X	24										
M6-1	ARROW RIGHT	21	X	21											
18	J3-1 (2S)		24	X	57	9.500			1	1		1			
	M3-3	SOUTH	24	X	12										
	M1-6	STH 67	24	X	24										
	M6-1	ARROW LEFT	21	X	21										
19	R2-1 (2S)	SPEED LIMIT 55	24	X	30	5.000						1			
20	D1-1	LAKEVILLE RD [A]	84	X	15	8.750						2			
21	J4-1 (2S)		24	X	36	6.000			1	1		1			REMOVE THE W14-3 ALSO
	M3-2	EAST	24	X	12										
	M1-4	USH 14	24	X	24										
22	W14-3 (2S)	NO PASSING ZONE	48	X	36		6.000							21	
23	J2-3 (2S)		72	X	57	28.500			1	2		2			
	M3-3	SOUTH	24	X	12										
	M1-6	STH 67	24	X	24										
	M5-1L	ADVANCE ARROW LEFT	21	X	21										
	M3-4	WEST	24	X	12										
	M1-4	USH 14	24	X	24										
	M6-1	ARROW UP	21	X	21										
	M3-1	NORTH	24	X	12										
	M1-6	STH 67	24	X	24										
	M6-1	ARROW UP	21	X	21										

PROJECT NO:3150-11-60

HWY: USH 14

COUNTY: WALWORTH

MISCELLANEOUS QUANTITIES – PERMANENT SIGNING

SHEET: 2 OF 3

E

TYPE I&II PERMANENT SIGNING -

3150-11-60 USH 14

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4" X 6" X 18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
24	D1-2	[A] WALWORTH	72 X 30	15.000			1	2		2			
		[A] SHARON											
25	J1-1 (2S) M2-1 M1-6	JCT STH 67	24 X 39 21 X 15 24 X 24	6.500			1	1		1			
26	W5-52L (2S)	CLEARANCE STRIPER DOWN R	12 X 36		3.000		1	1			1		
27	W5-52R (2S)	CLEARANCE STRIPER DOWN L	12 X 36		3.000		1	1			1		
28	W5-52R (2S)	CLEARANCE STRIPER DOWN L	12 X 36		3.000		1	1			1		
29	W5-52L (2S)	CLEARANCE STRIPER DOWN R	12 X 36		3.000		1	1			1		
30	W3-5 (2S)	REDUCED SPEED AHEAD	36 X 36		9.000		1	1		1			
31	R2-1 (2S)	SPEED LIMIT 55	24 X 30	5.000			1	1		1			
32	W3-5 (2S)	REDUCED SPEED AHEAD	36 X 36		9.000					1			
33	W21-61 (2S)	FINES DOUBLE IN WORK ZONE	36 X 36	9.000			1	2		2			REMOVE THE W21-60 ALSO
34	W21-60 (2S)	GIVE 'EM A BRAKE SLOW DOWN	36 X 36		9.000							33	
35	J4-1 (2S)	EXISTING ASSEMBLY					1	1					REMOVE THE R59-51 ALSO
36	R59-51 (2S)	STOP FOR BUS FLASHING LIGHTS	36 X 36	9.000						1			
37	J4-1 (2S) M3-4 M1-4	WEST USH 14	24 X 36 24 X 12 24 X 24	6.000						1			
38	I2-1B (2S)	WELCOME TO WISCONSIN					1	2					EXISTING WELCOME TO WISCONSIN SIGN 1/2 MILE NORTH
39	D1-61	STATE LINE RD [A] [A]	78 X 24	13.000						2			
40	I2-2 (2S)	WALWORTH CO	72 X 15	7.500			1	2		2			
41	R1-1 (2S)	STOP	30 X 30	5.180			1	1		1			REMOVE THE W4-4P ALSO
41A	W4-4P (MOD) (2S)	CROSS TRAFFIC DOES NOT STOP	24 X 12	2.000								41	WHITE WITH RED LETTERS
42	I2-1	WISCONSIN	78 X 21	11.375									MOUNT UNDER SIGN 40
UNDISTRIBUTED				--								--	--
TOTALS				294.945	69.000	0.000	28	35	0	40	4	--	--

3

3

NOTE: UNLESS OTHERWISE NOTED,
ALL ITEMS ARE CATEGORY 0010

TRAFFIC CONTROL									
	643.0300		643.0900		643.1000	643.1050		SPV.0045.01	
	DRUMS		SIGNS		SIGNS FIXED	SIGN PCMS		PCMS REMOTE	
	EACH DAYS		EACH DAYS		MESSAGE	EACH DAYS		COMM	
	EACH DAYS		EACH DAYS		SF	EACH DAYS		EACH DAYS	
3150-11-60	26	168	54	582	282	1	5	1	5
UNDISTRIBUTED	--	--	--	--	--	1	5	1	5
TOTAL	168		582		282	10		10	

PAVEMENT MARKING						
LOCATION	646.0406		649.0403		SPV0090.01	SPV.0090.02
	SAME DAY EPOXY 4-INCH		TEMPORARY EPOXY 4-INCH		GROOVED EPOXY	GROOVED PREFORMED
	(YELLOW)	(YELLOW)	(YELLOW)	(YELLOW)	4-INCH	THERMOPLASTIC STOP BAR
	LF	12.5' SKIPS	LF	4' SKIPS	(WHITE)	18-INCH
	LF	LF	LF	LF	LF	LF
USH 14						
1586+00 TO 1597+00**	--	675	--	--	2,200	--
1597+00 TO 1622+10	360	625	360	200	5,165	--
1622+10 TO 1626+10	500	75	500	24	606	--
1626+10 TO 1673+00	415	1,188	415	380	9,508	--
1673+64 TO 1675+00	--	38	--	12	272	--
STH 67/LAKEVILLE RD	--	--	--	--	--	45
SUBTOTAL	1,275	2,600	1,275	616	17,751	45
TOTAL	3,875		1,891		17,751	45

**ADDITIONAL QUANTITY INCLUDED FOR LOCATING NO PASSING ZONE MARKING BEYOND NORTH PROJECT LIMITS

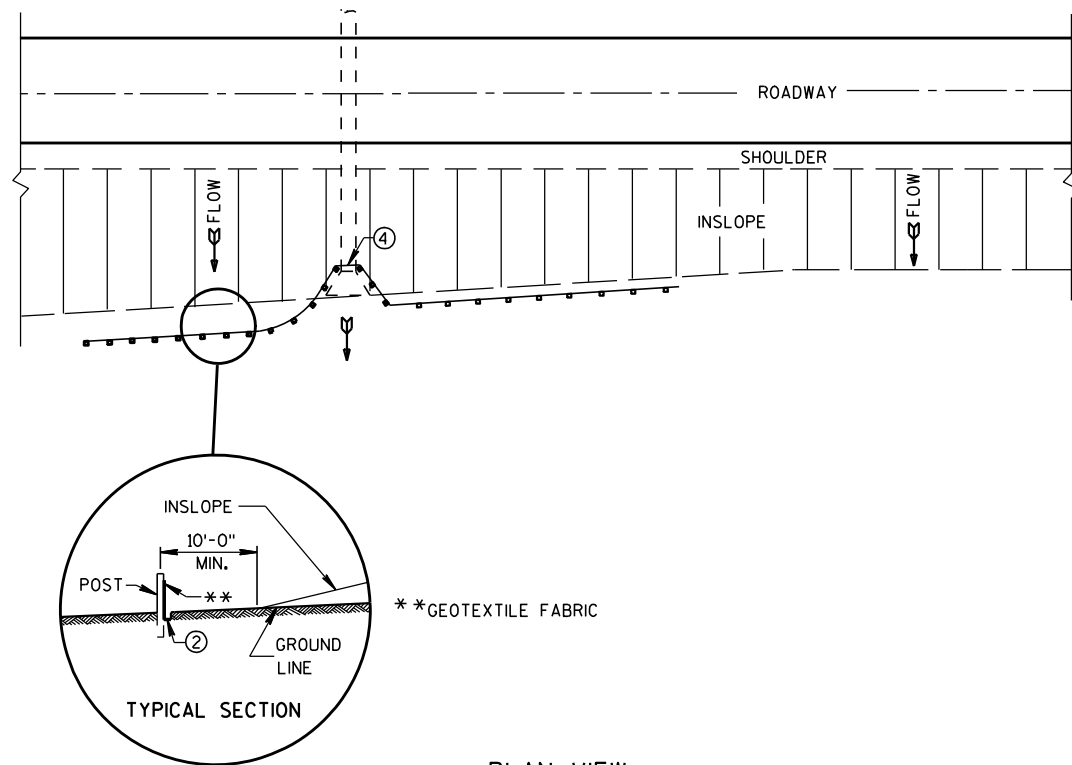
LOCATING NO-PASSING ZONES	
	648.0100
	LOCATING
	NO-PASSING ZONES
LOCATION	MI
USH 14	1.69
TOTAL	1.69

CONSTRUCTION STAKING		
	650.8000	650.9910
	RESURFACING	SUPPLEMENTAL
	REFERENCE	CONTROL
	(3150-11-60)	
LOCATION	LF	LS
USH 14	8,900	1
TOTAL	8,900	1

SAWING ASPHALT	
	690.0150
LOCATION	LF
BEGIN PROJECT	30
STH 67	56
LAKEVILLE ROAD	50
END PROJECT	37
TOTAL	173

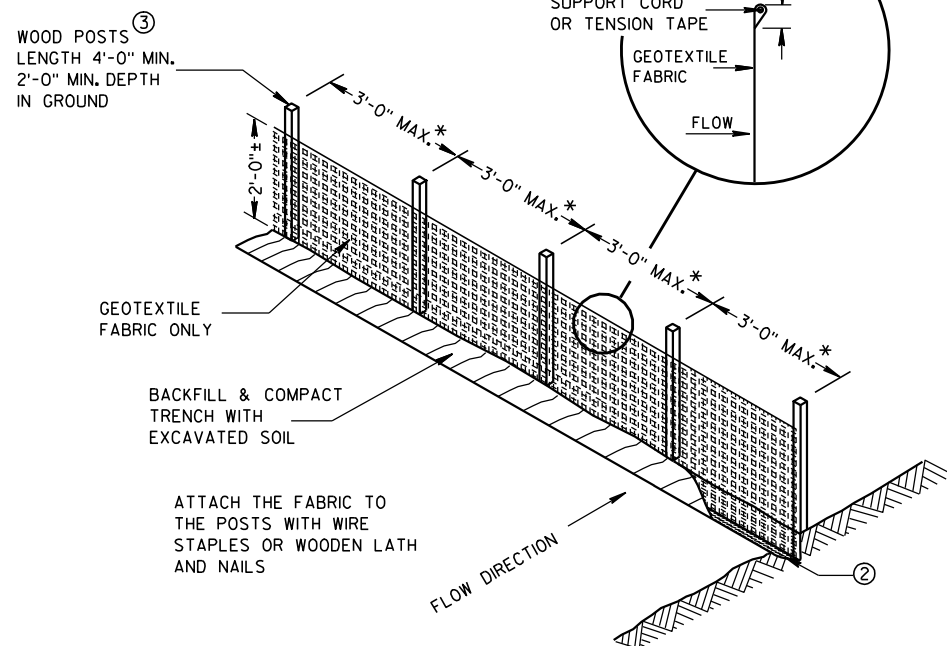
Standard Detail Drawing List

08E09-06	SILT FENCE
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B28-03	GUARDRAIL MOW STRIP
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-03A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



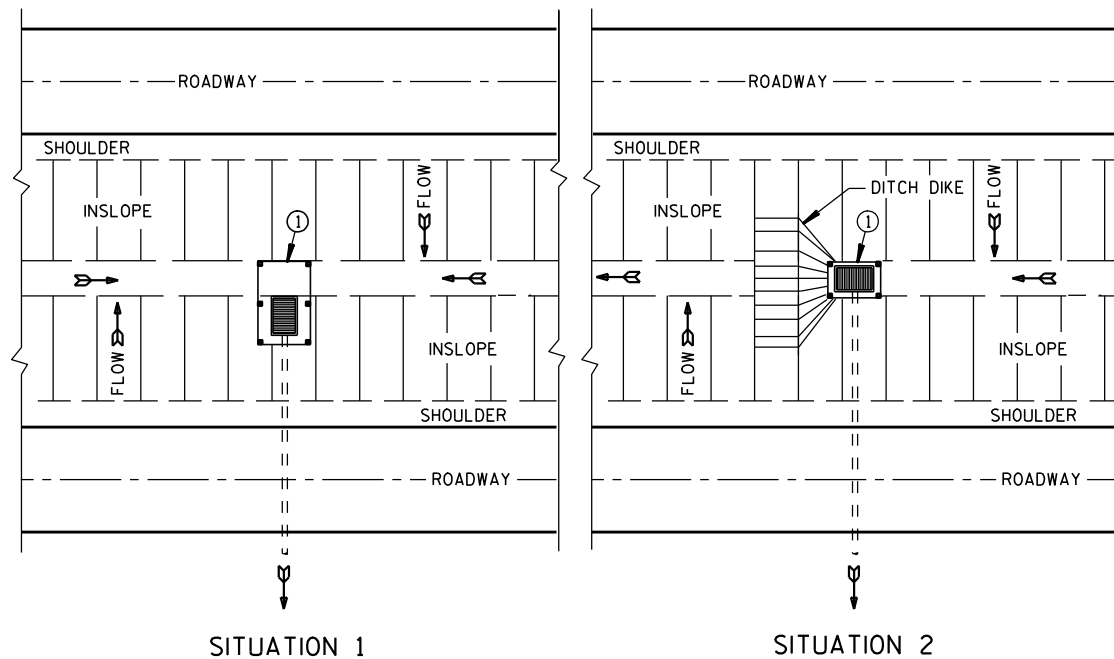
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

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

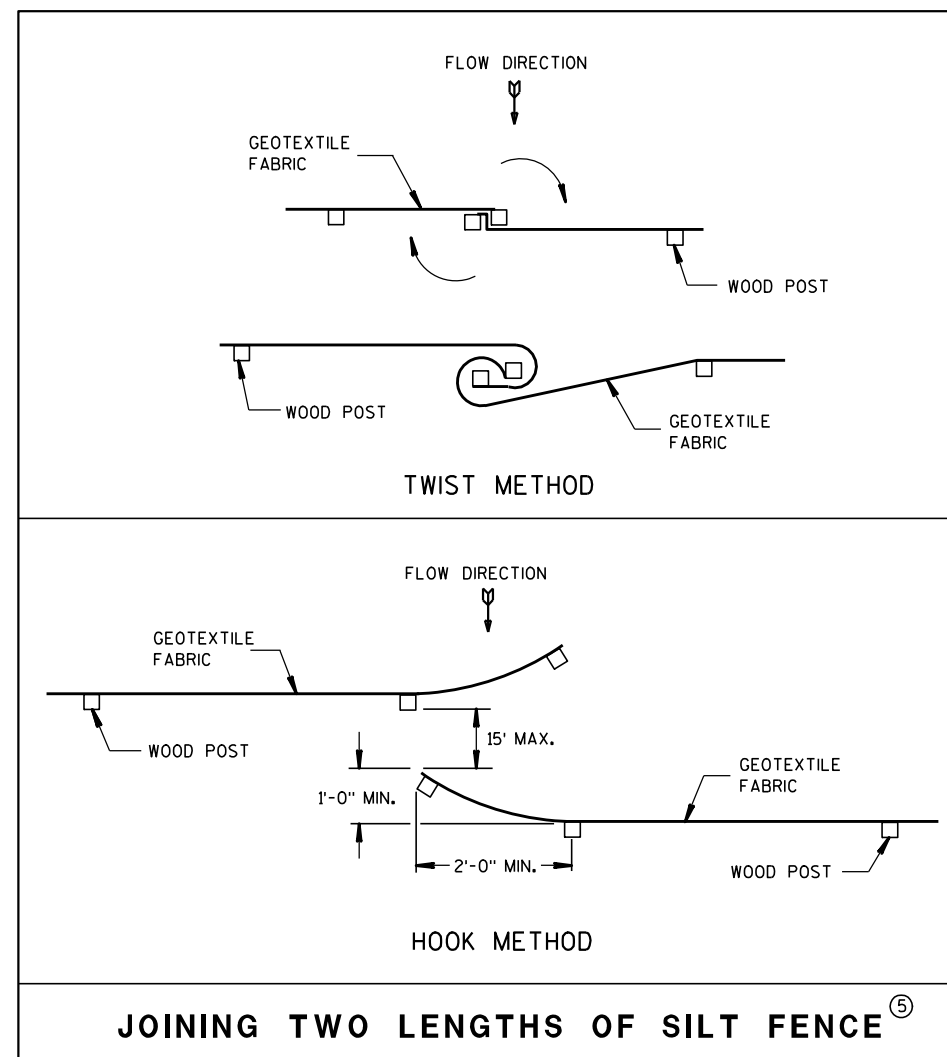


SILT FENCE

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



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

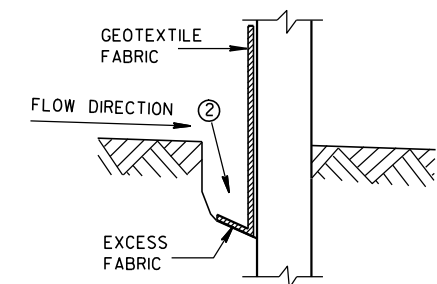


JOINING TWO LENGTHS OF SILT FENCE^⑤

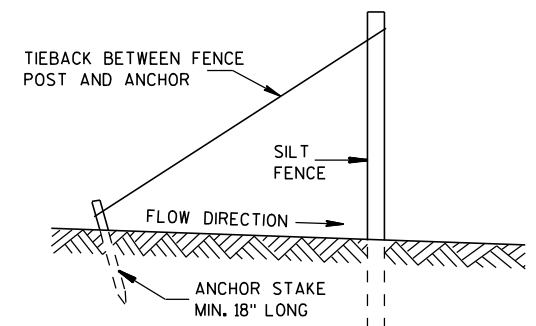
GENERAL NOTES

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 Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

GENERAL NOTES

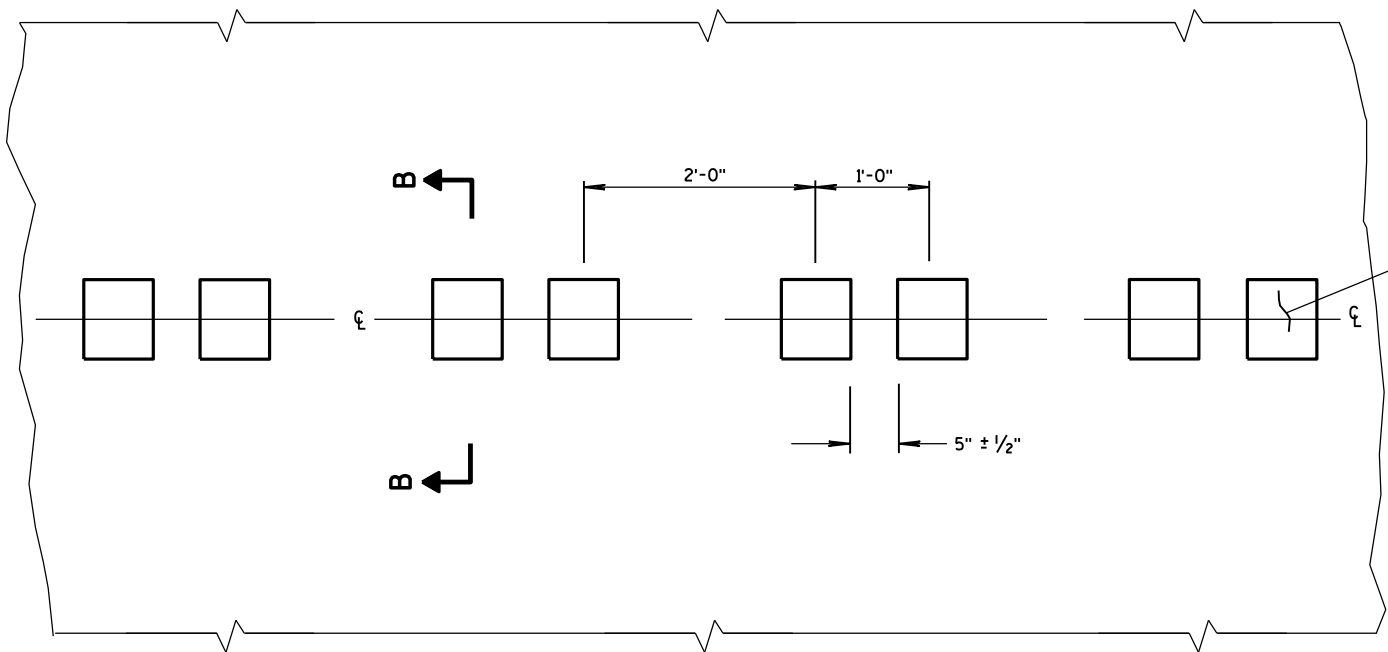
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

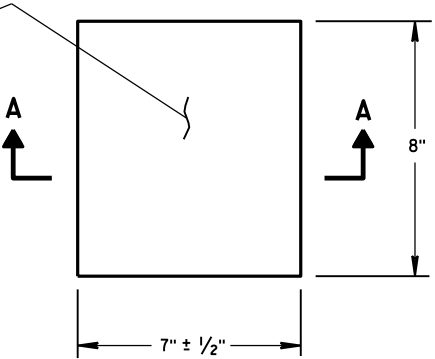
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

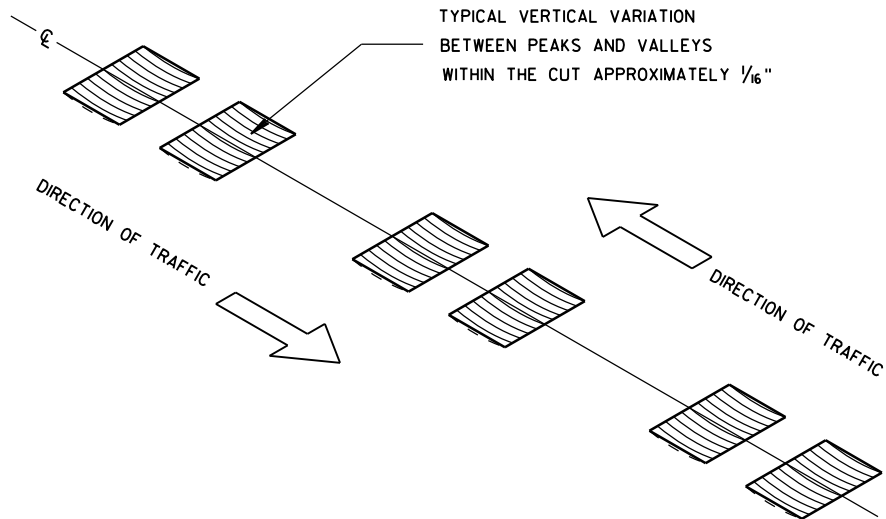
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



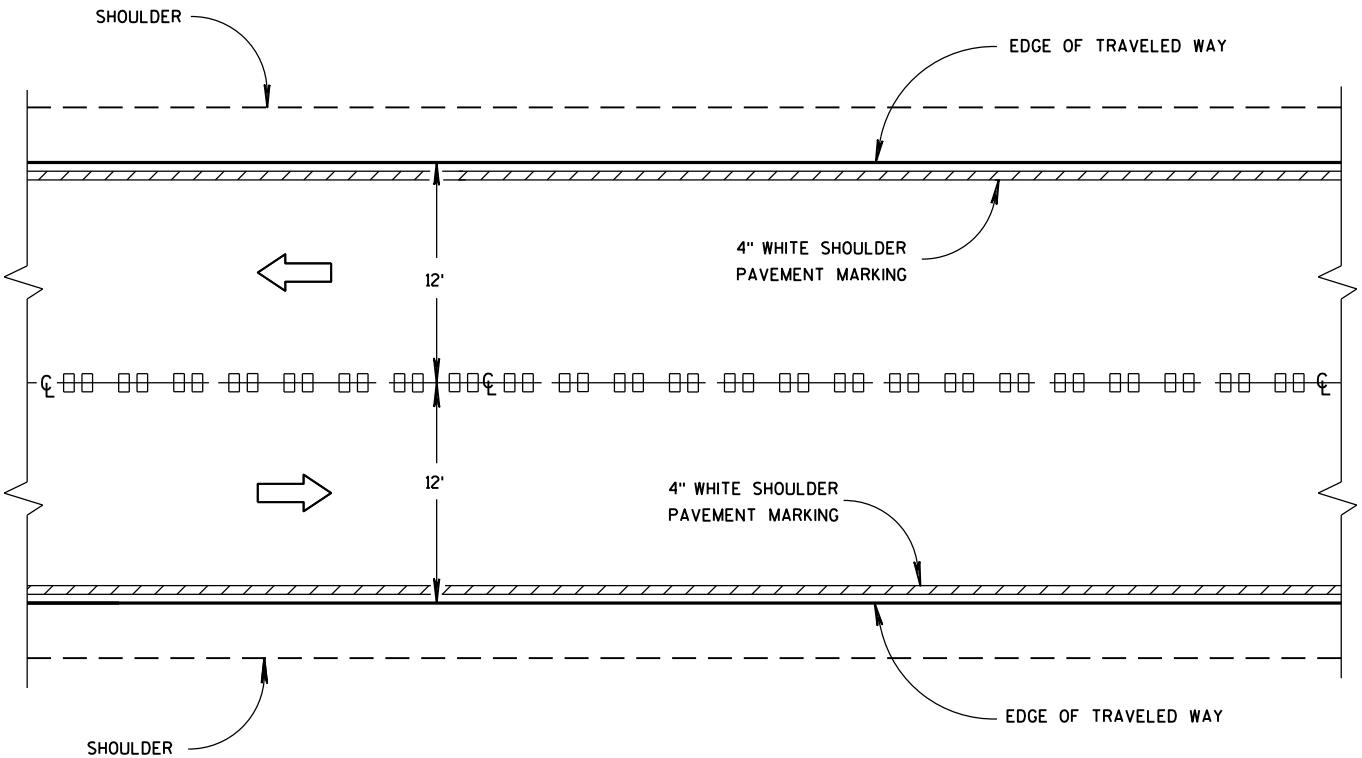
PLAN VIEW
CENTER LINE WITH GROOVES



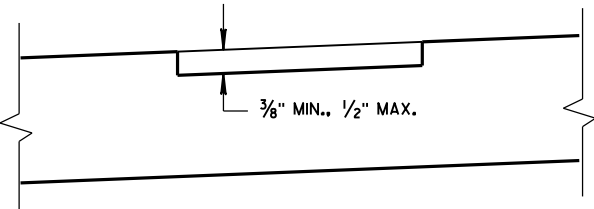
PLAN VIEW
(SINGLE GROOVE)



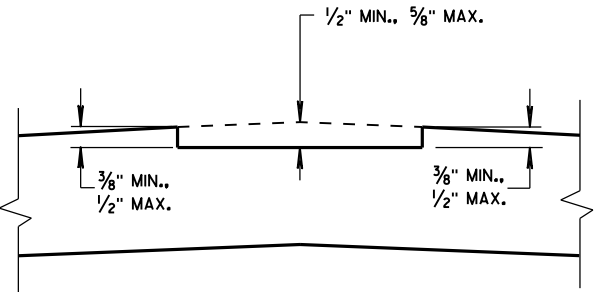
ISOMETRIC



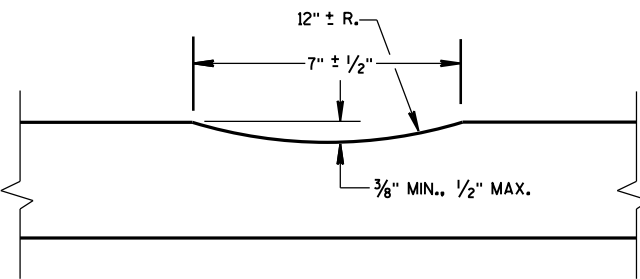
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



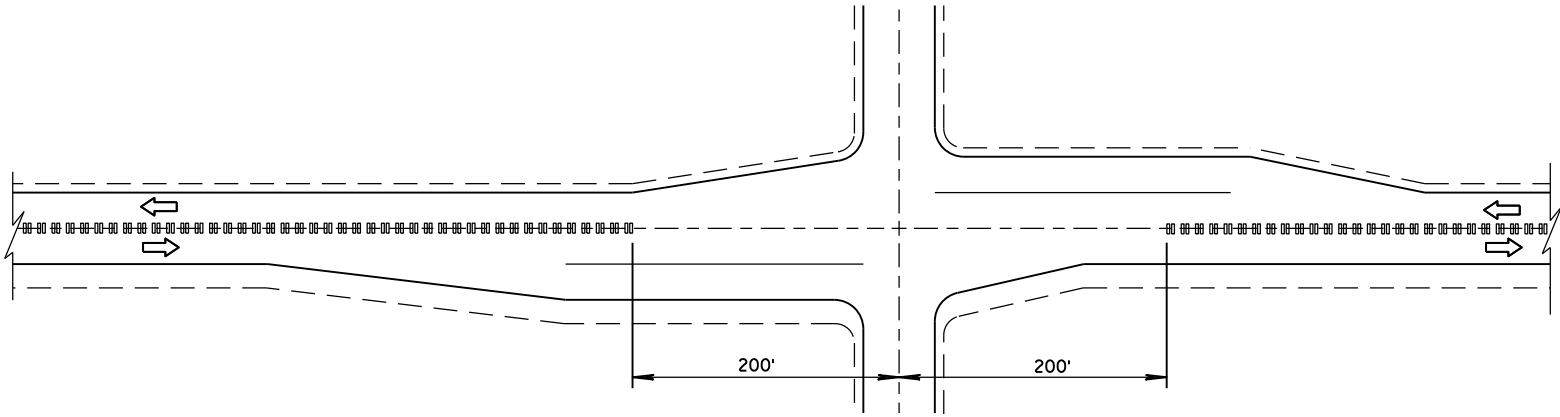
SECTION B-B
CROWNED ROADWAY



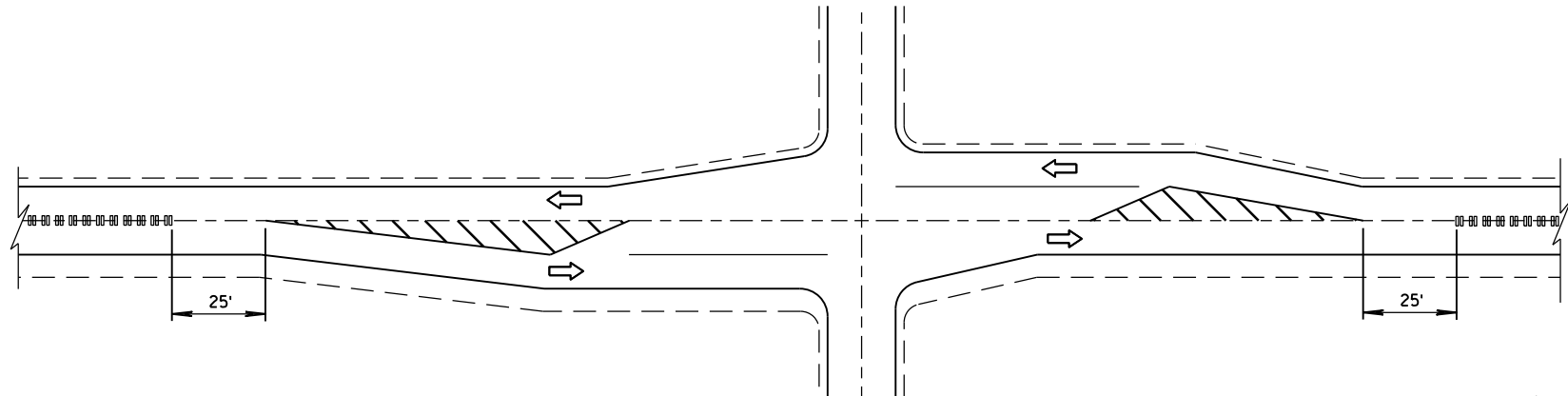
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

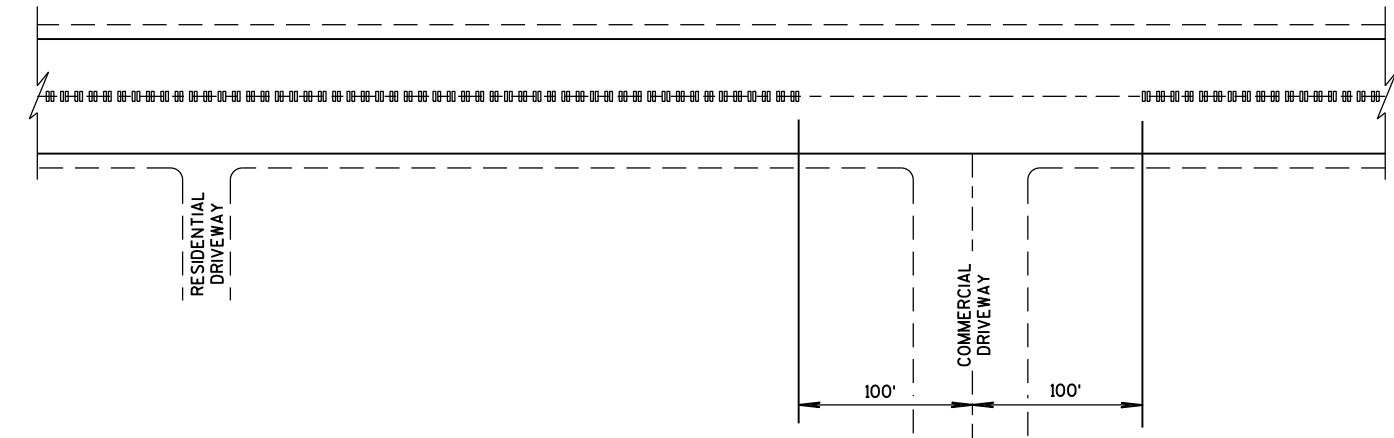
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTER LINE GROOVES AT INTERSECTIONS

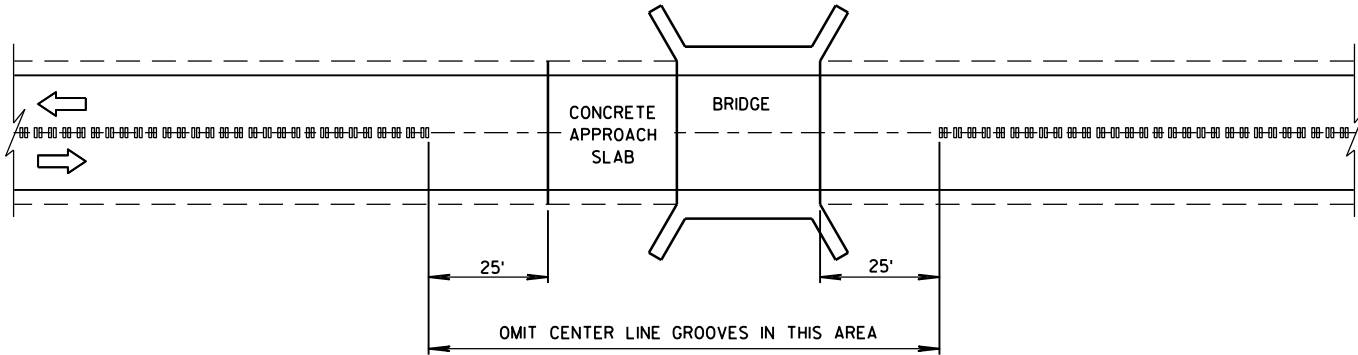


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

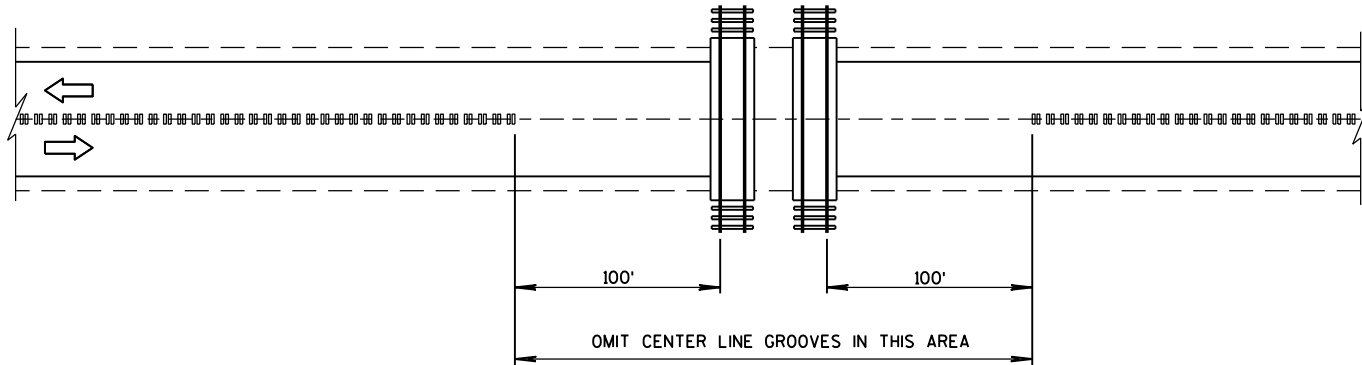


CENTER LINE GROOVES AT DRIVEWAYS^①

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



CENTER LINE GROOVES AT BRIDGES

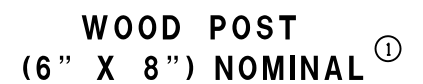


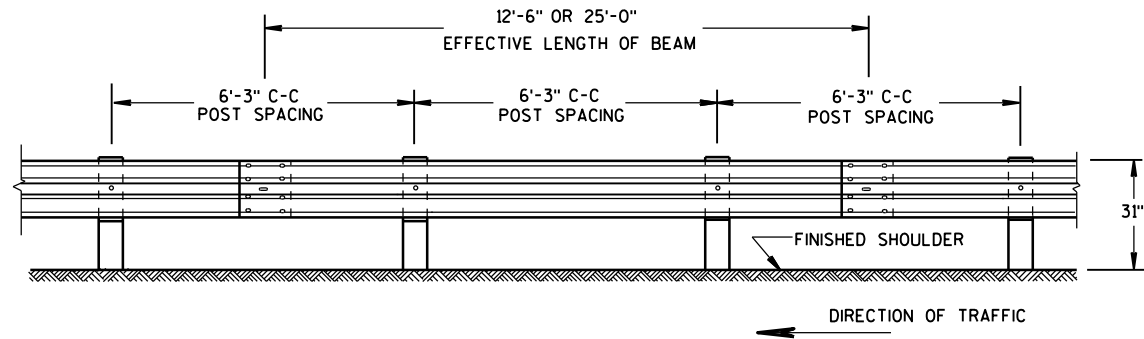
CENTER LINE GROOVES AT RAILROADS

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

S.D.D. 14 B 42-3a

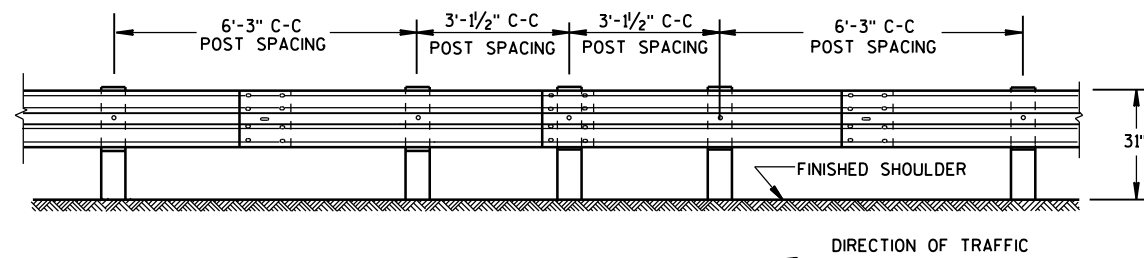
- S.D.D. 14 B 42-3a**





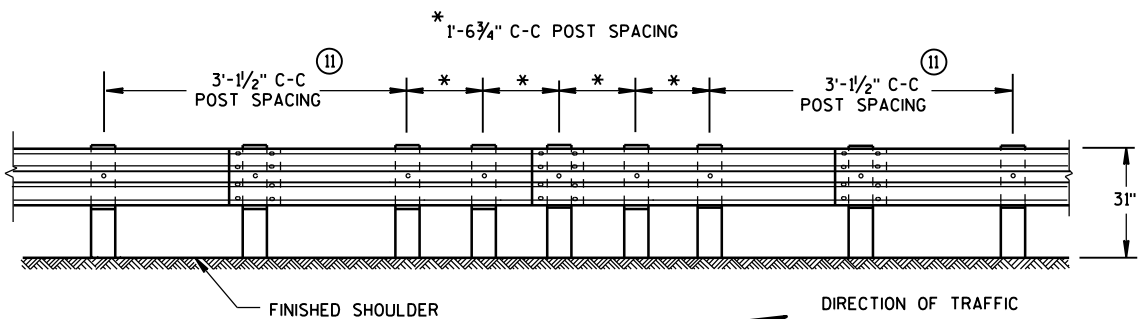
FRONT VIEW

POST SPACING STANDARD INSTALLATION



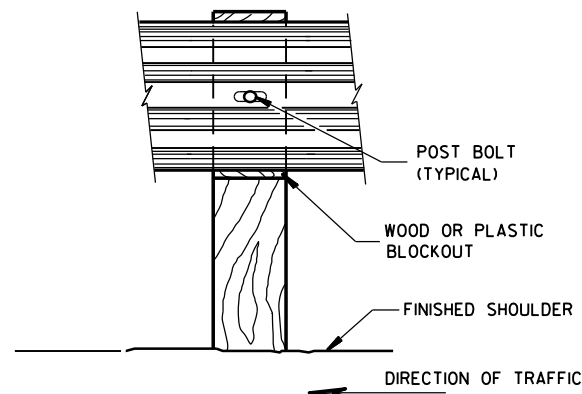
FRONT VIEW

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

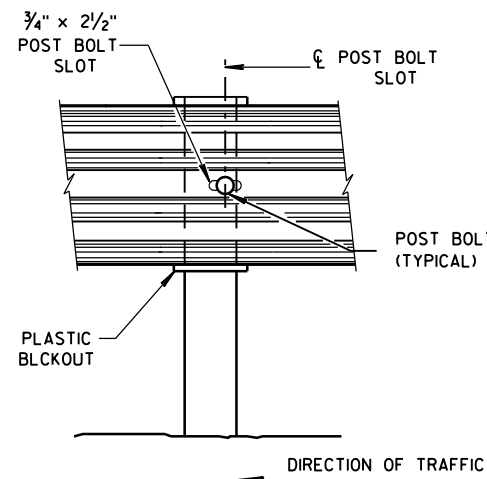


FRONT VIEW

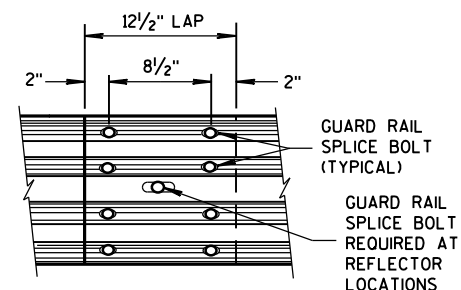
QUARTER POST SPACING (QS)



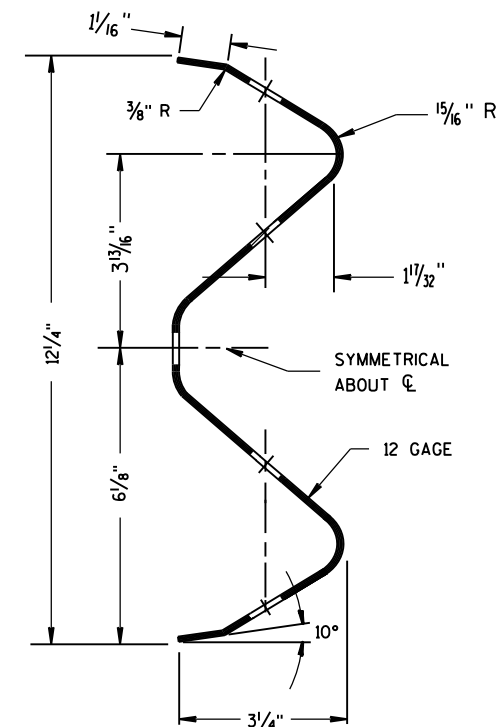
FRONT VIEW AT WOOD POST



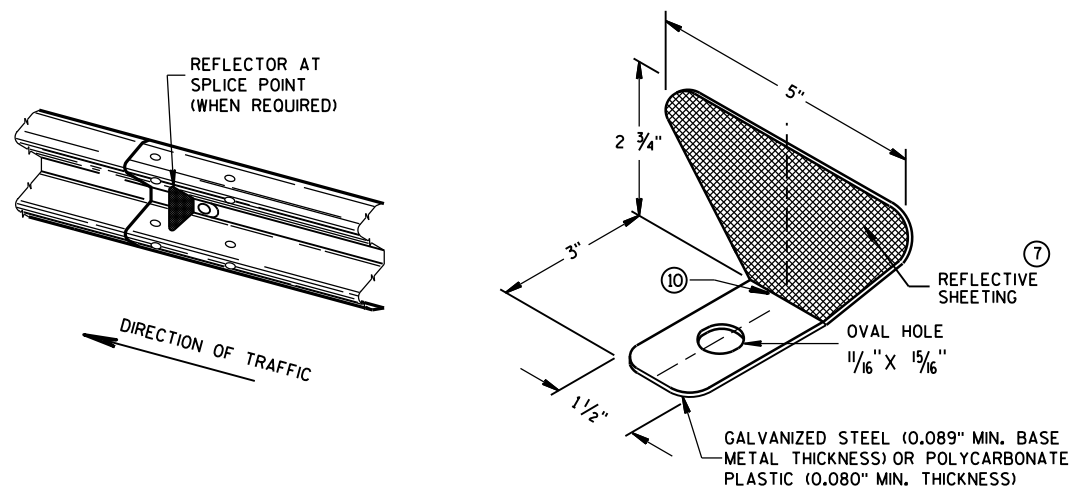
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

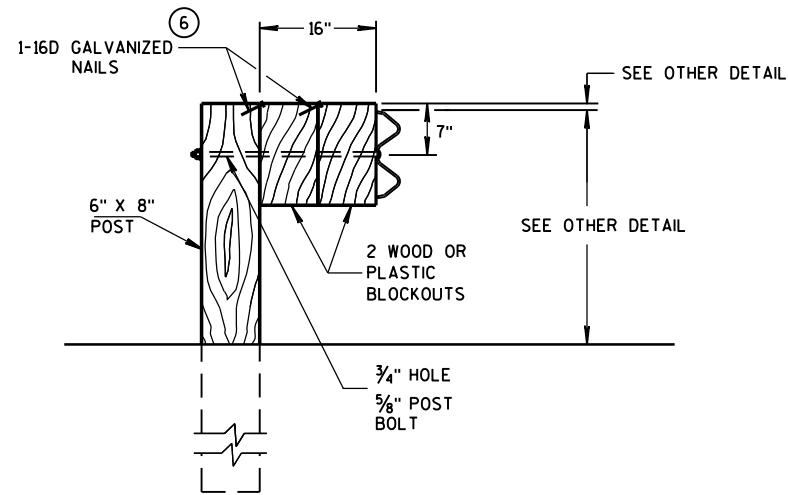
GENERAL NOTES

- ⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
 - ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
 - ⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
 - ⑩ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
 - ⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧				
	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 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ⑩	3
	> 200'	100' C-C	2	

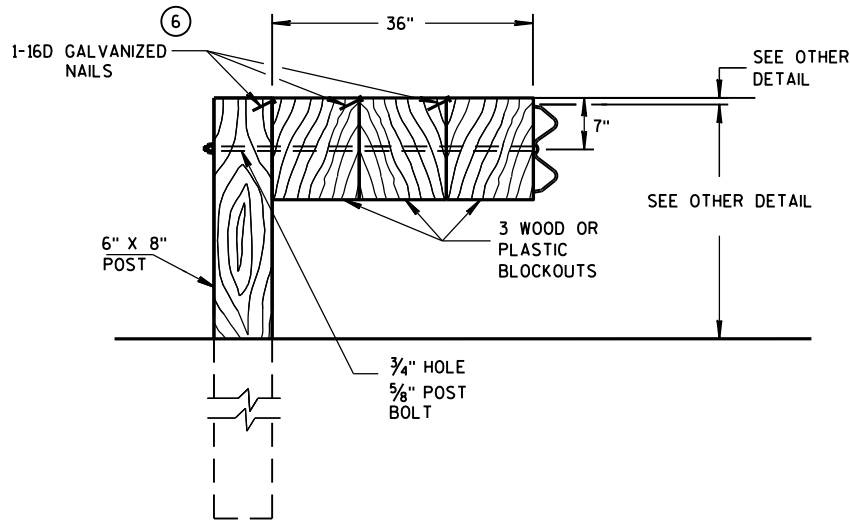
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL FOR 16" BLOCKOUT DEPTH

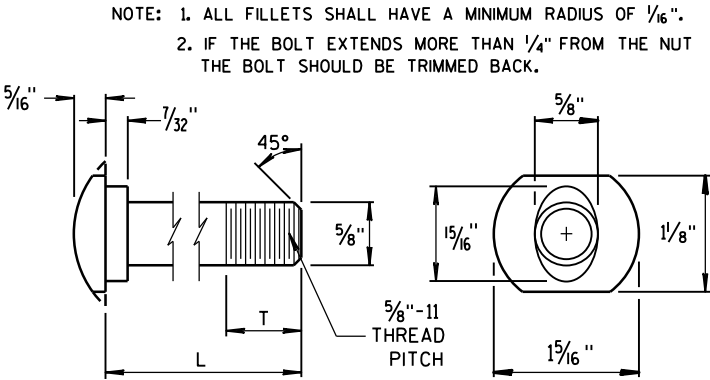
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



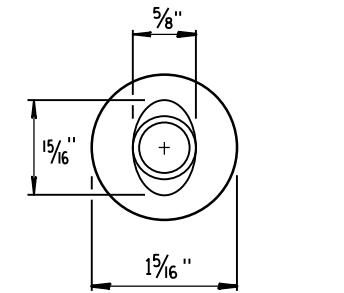
DETAIL FOR 36" BLOCKOUT DEPTH

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

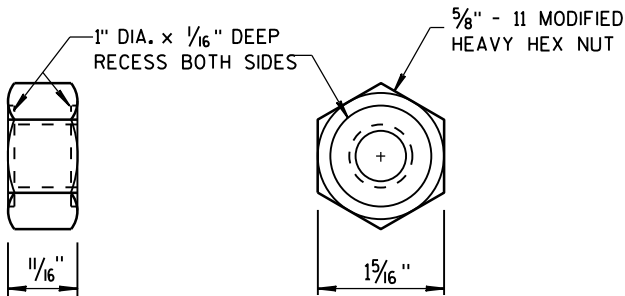
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



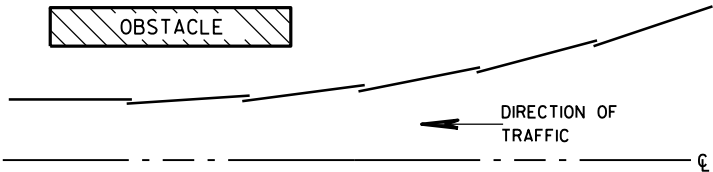
POST BOLT TABLE



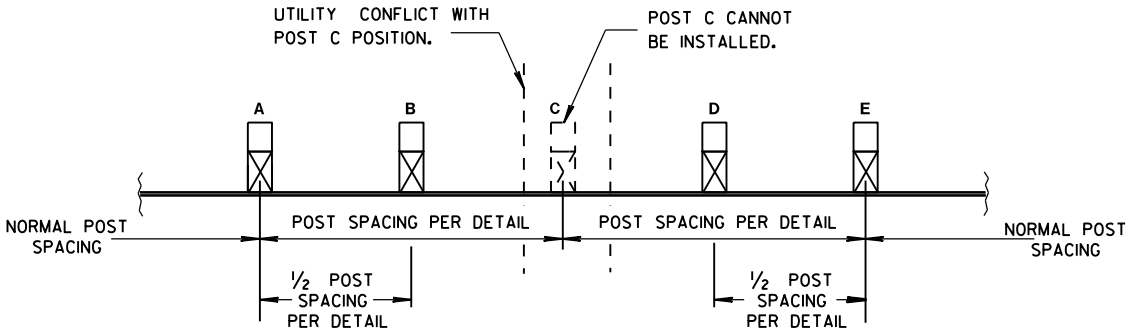
ALTERNATE BOLT HEAD



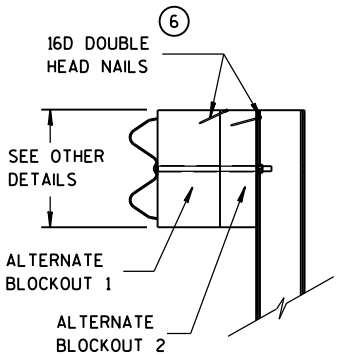
POST BOLT
AND RECESS NUT



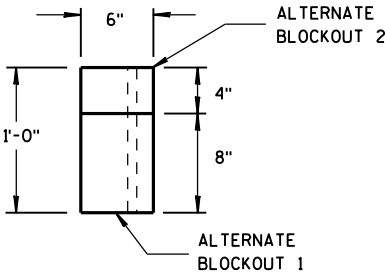
PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS
UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

GENERAL NOTES

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

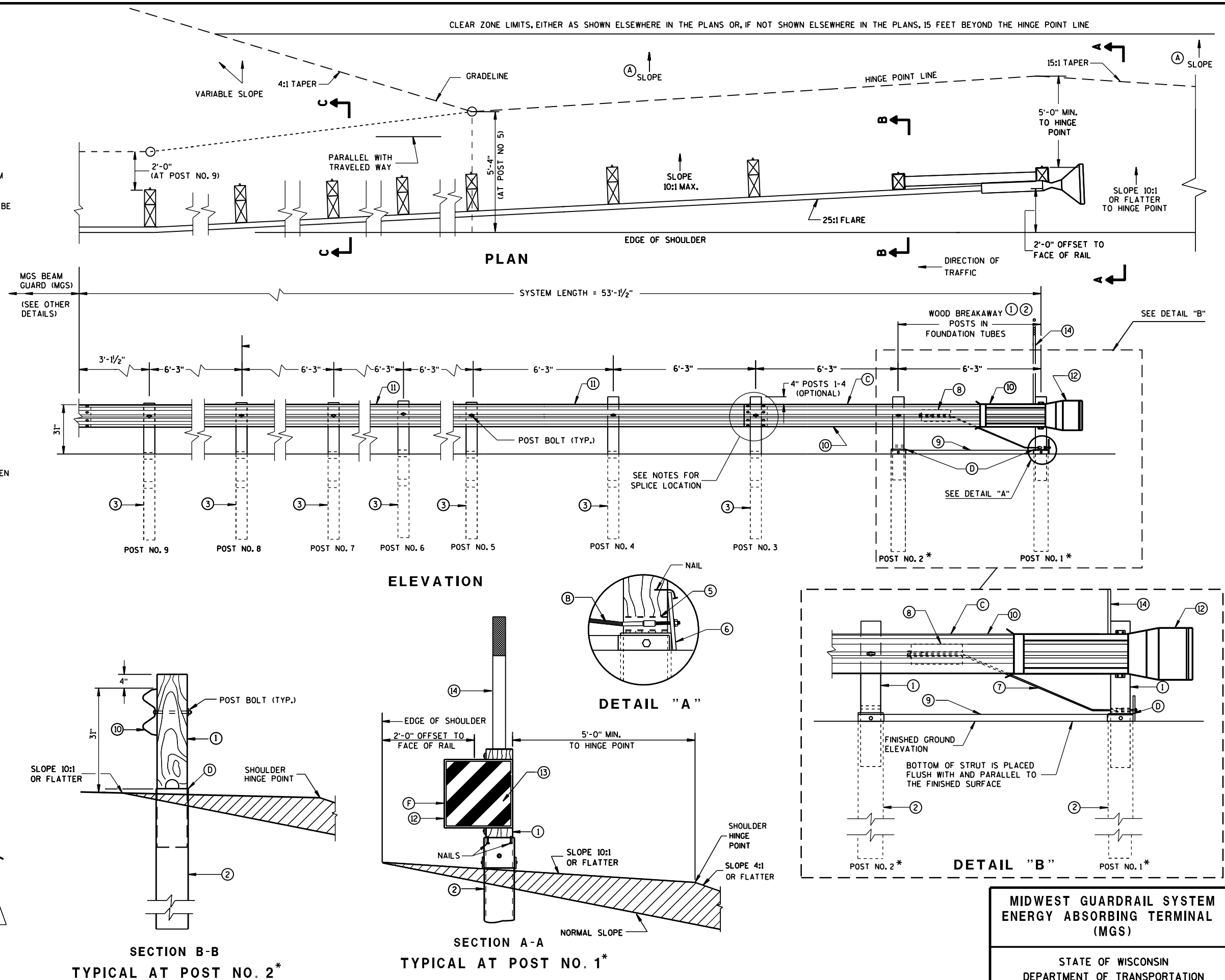
SEE SDD 14B42 FOR MORE INFORMATION.

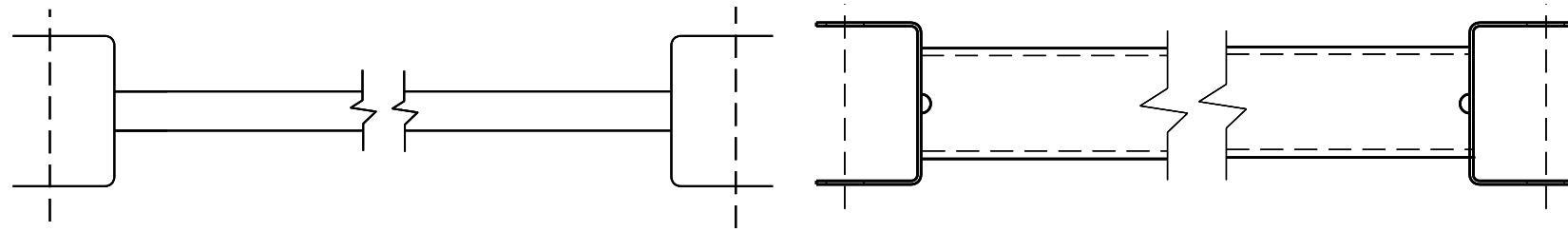
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

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

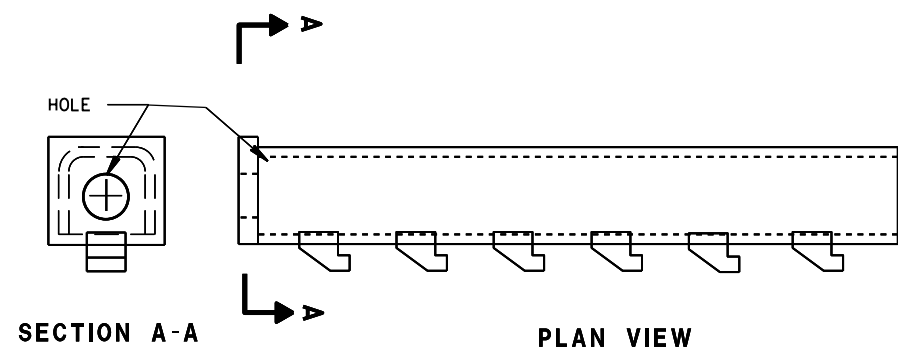
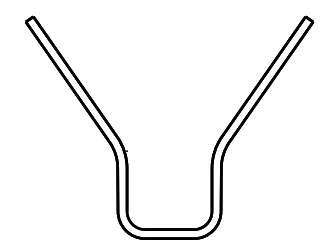
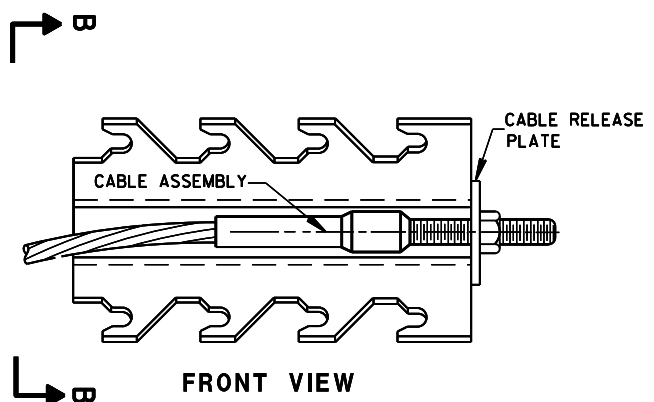
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER $\frac{3}{4}$ " DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.





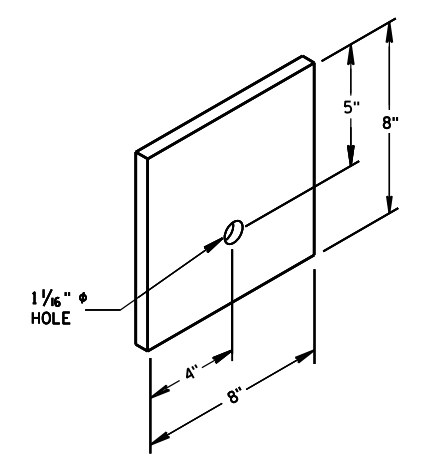
9 H
GENERIC GROUND STRUT



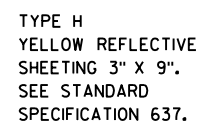
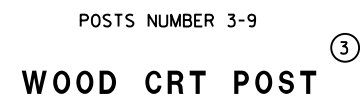
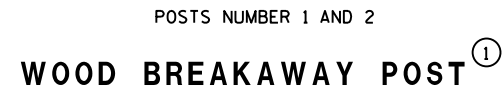
8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

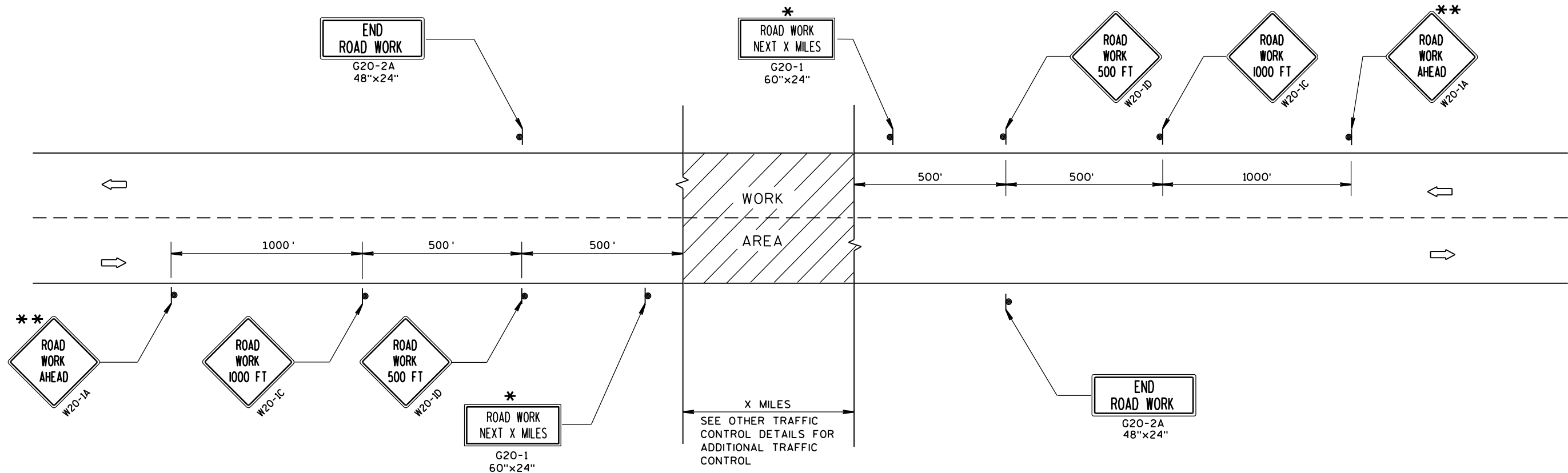
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND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



⑥
BEARING PLATE



MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014	/S/ Jerry H. Zogg
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

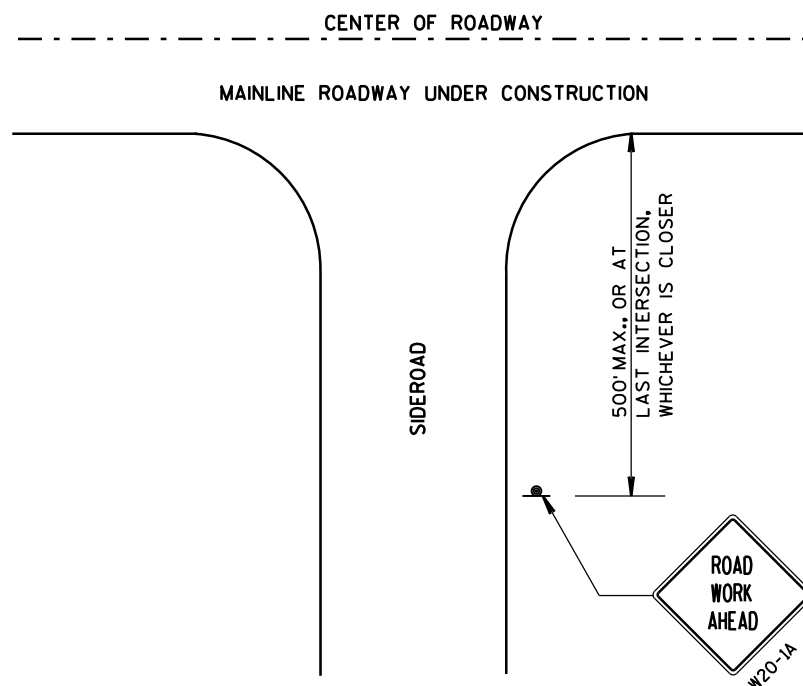
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



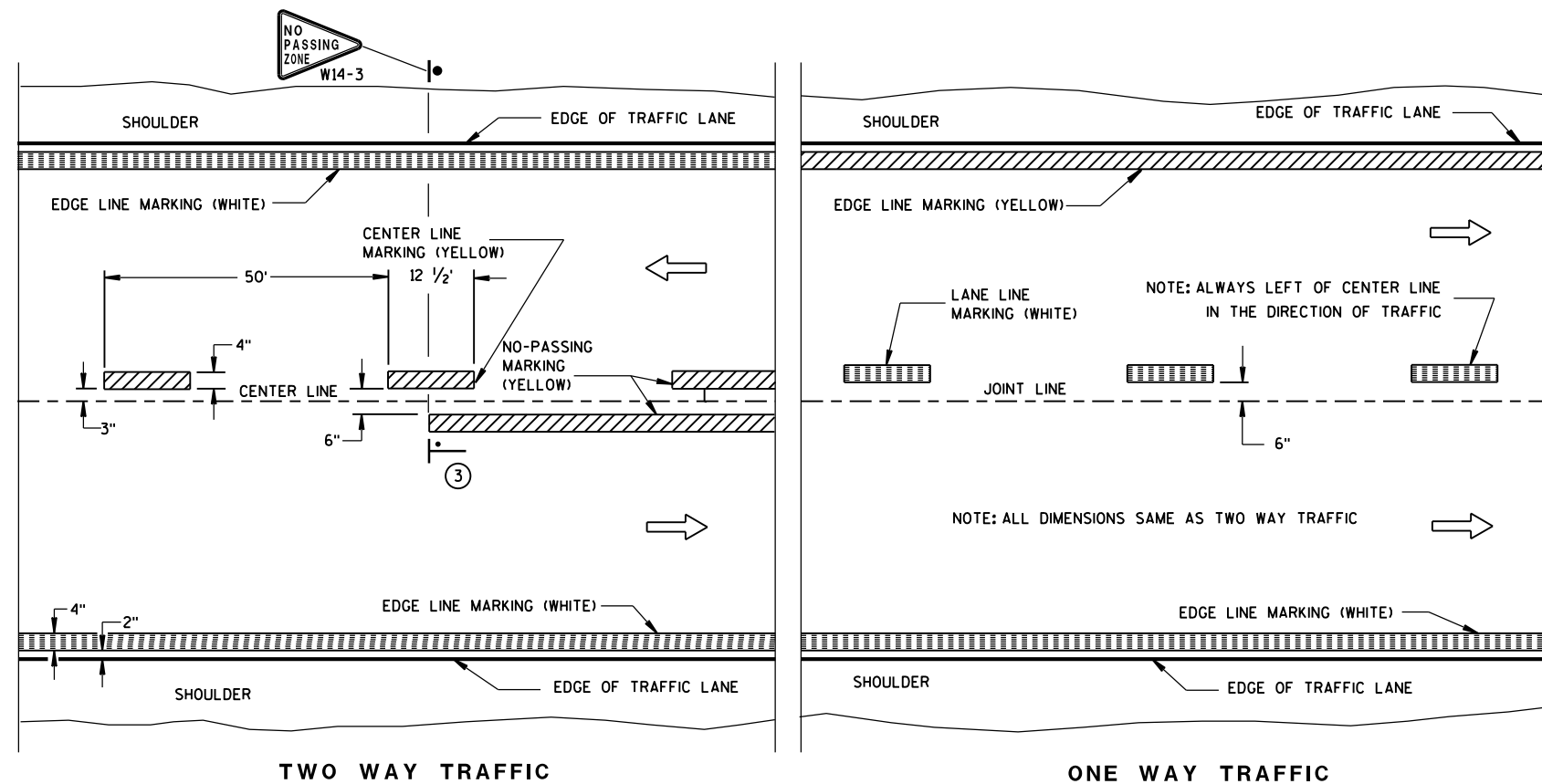
LEGEND

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

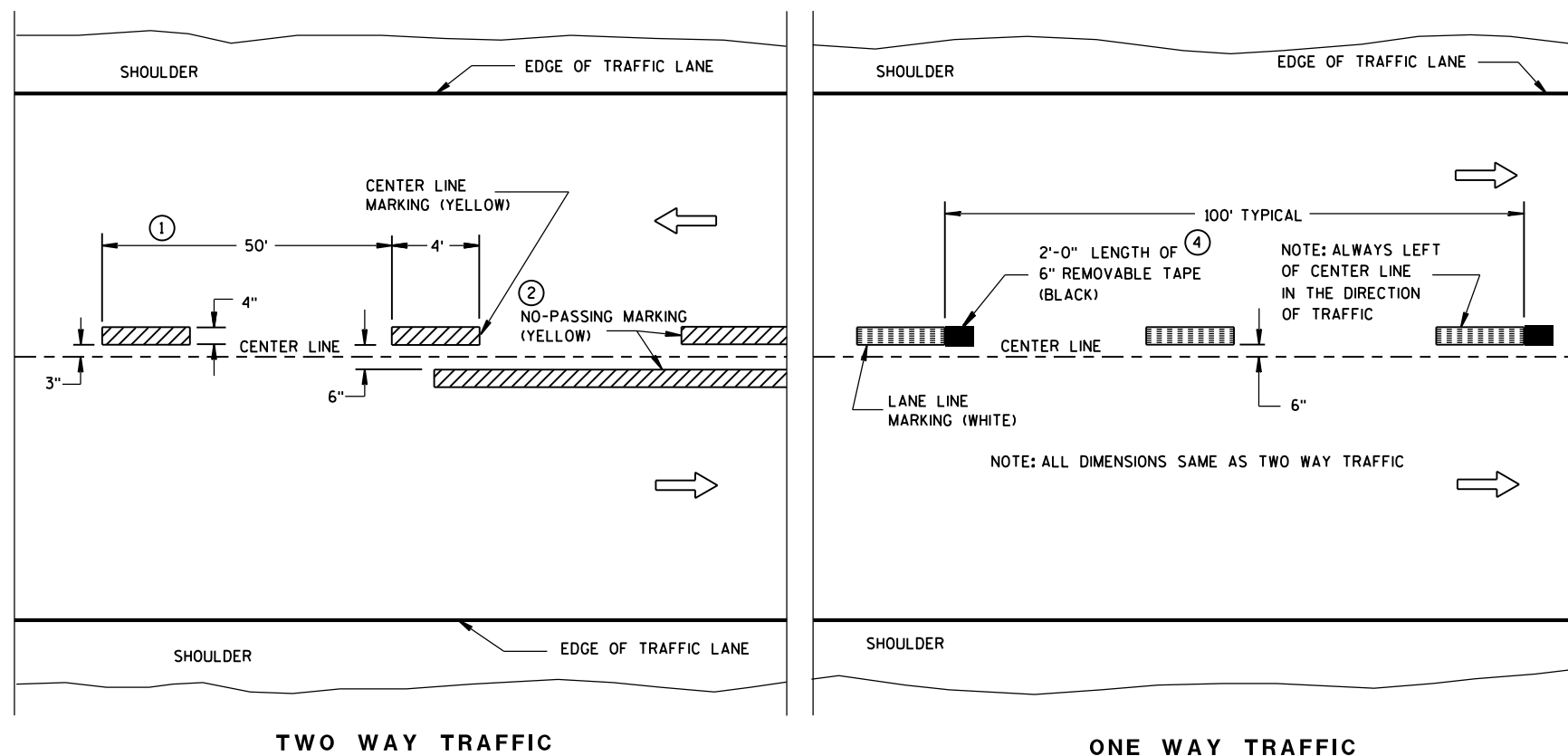
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 /S/ Peter Amokobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



PERMANENT PAVEMENT MARKING



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

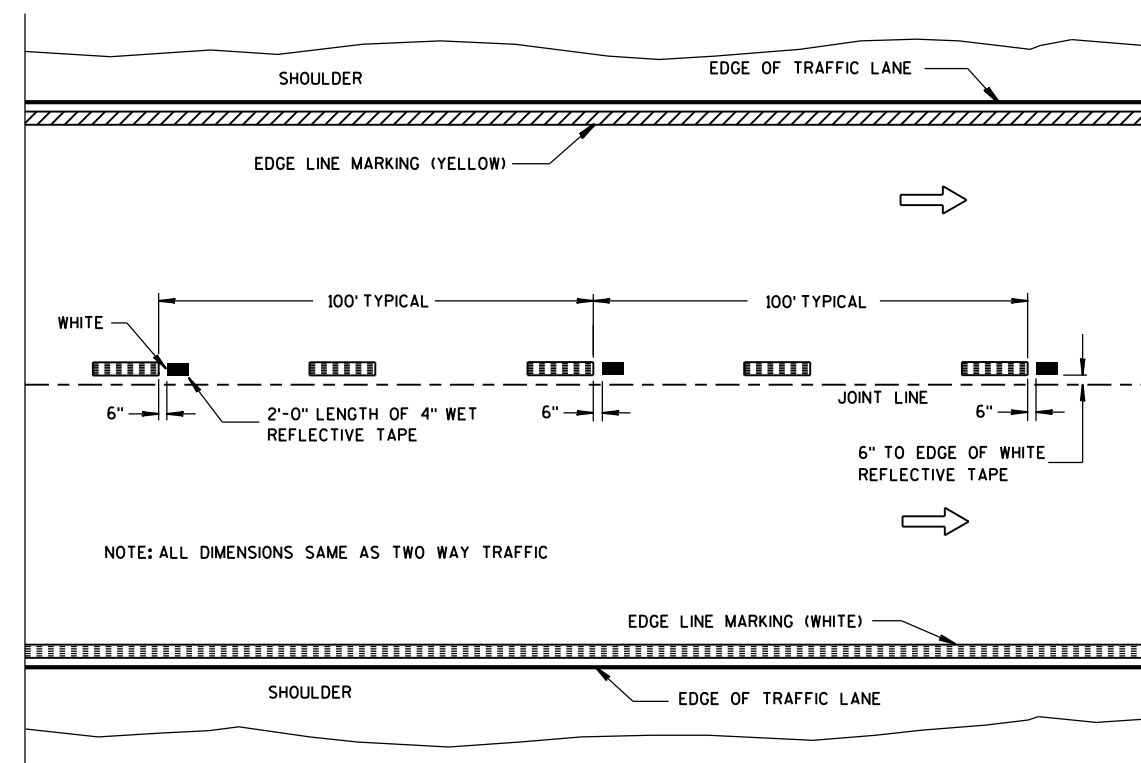
GENERAL NOTES

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

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



NOTE

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL



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

LEGEND

-  "T" MARKING
-  POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

LEGEND

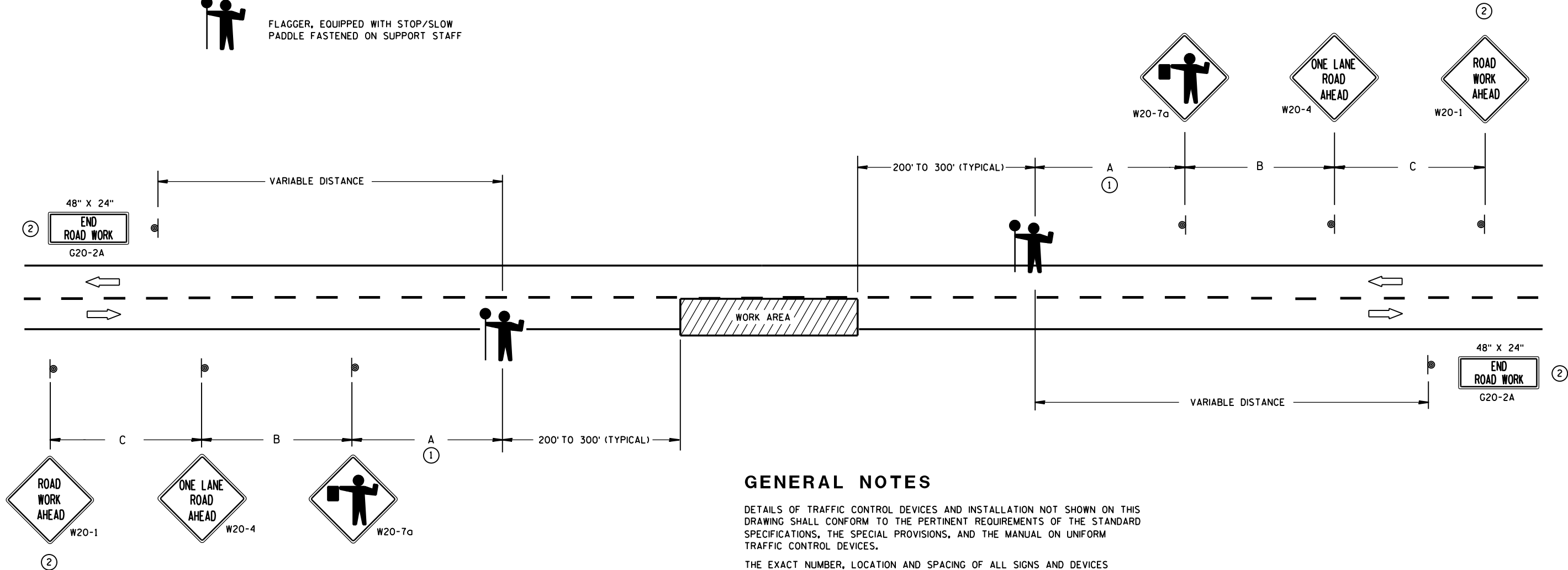
-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

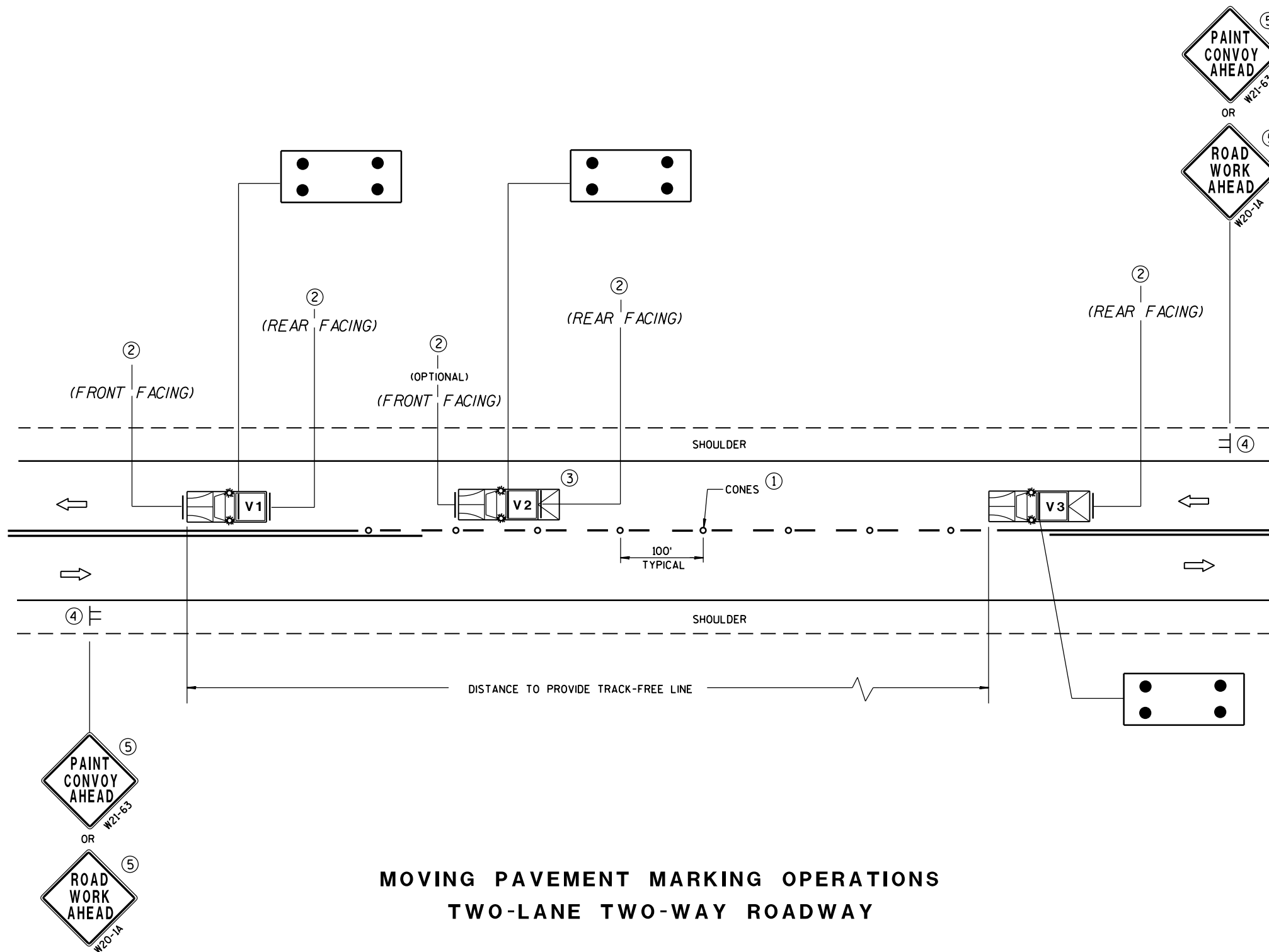
① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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 ENGINEER OF DESIGN
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.
 OR 
W21-64 W21-64
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

 **TMA** TRUCK-MOUNTED ATTENUATOR

 SIGN ON TEMPORARY SUPPORT

 DIRECTION OF TRAFFIC

 CONES

 FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

DATE /S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

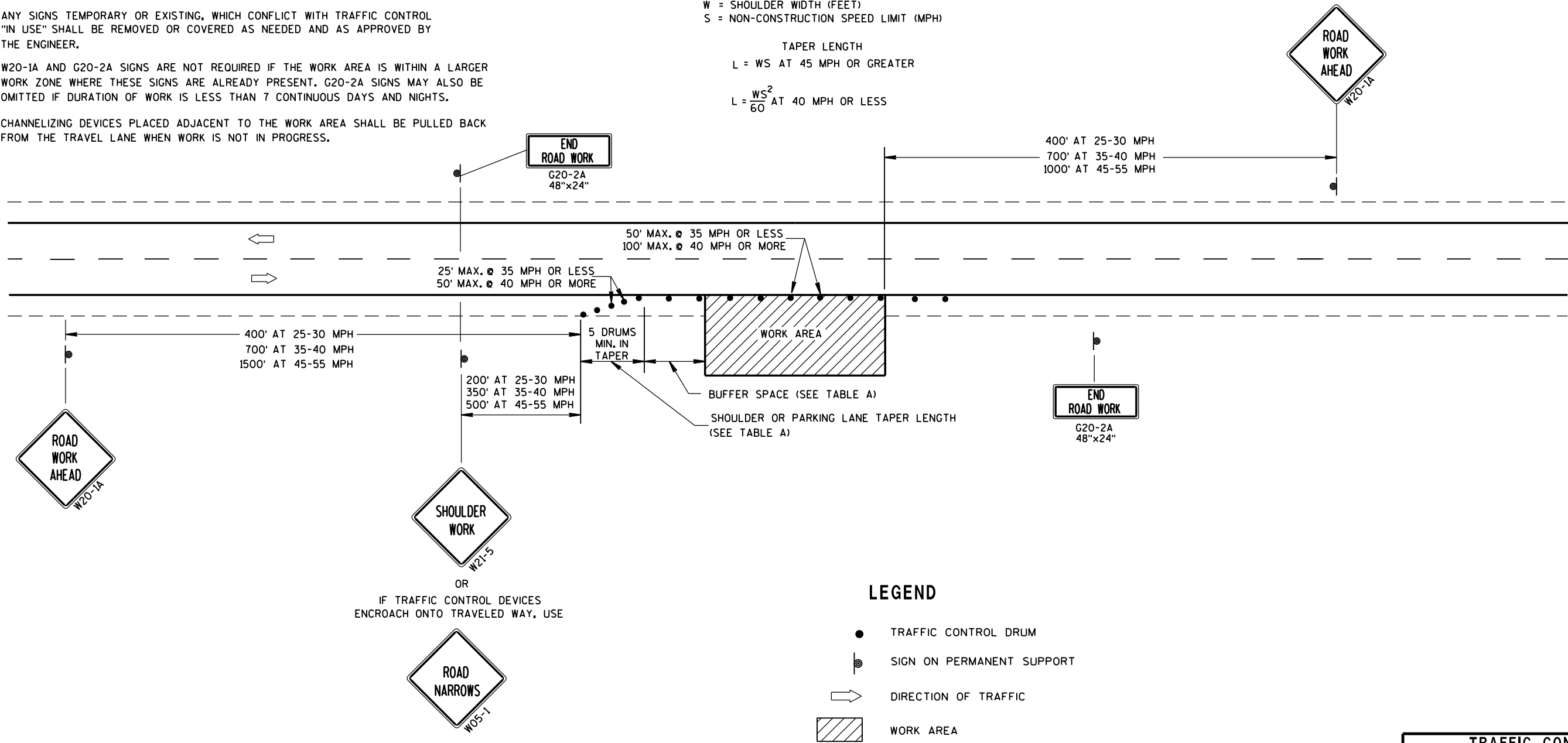
SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S	W	4	6	8	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

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

TAPER LENGTH
L = WS AT 45 MPH OR GREATER

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

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

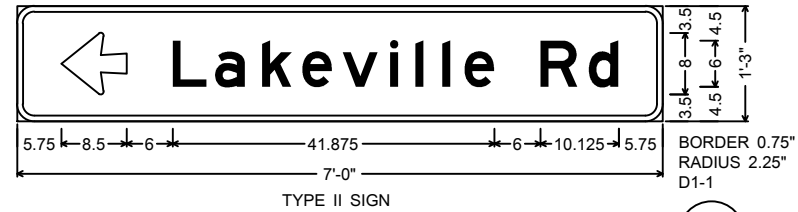
TRAFFIC CONTROL,
WORK ON SHOULDER OR
PARKING LANE,
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

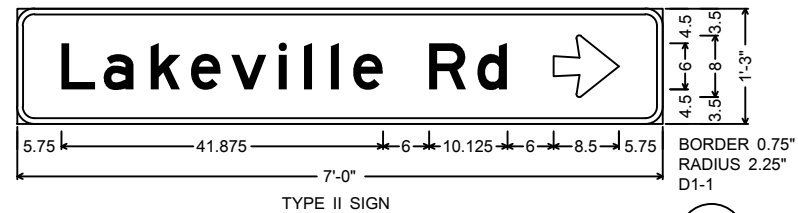
APPROVED
July 14, 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

GENERAL NOTES:

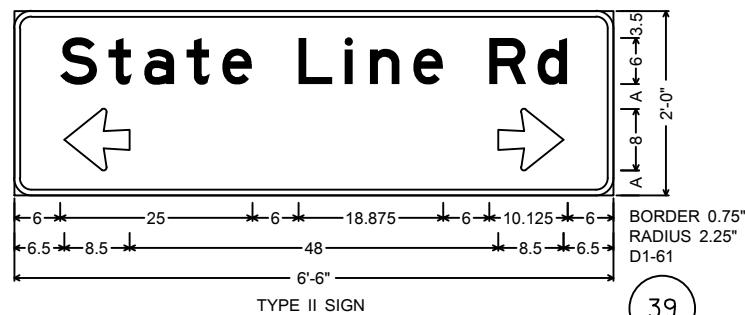
1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE "TYPE SH REFLECTIVE SHEETING".
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E". ALL LOWERCASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E".
6. TYPE I SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E MODIFIED". ALL LOWER CASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E MODIFIED". ALL CAP WORDS ARE "SERIES E".
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE "SERIES E" PER PLATES A11-7 AND A11-10.



9

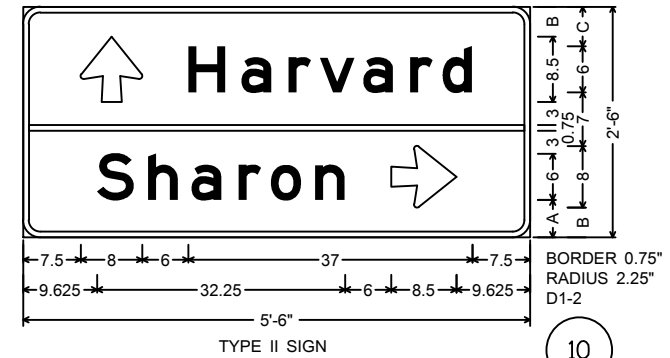


20



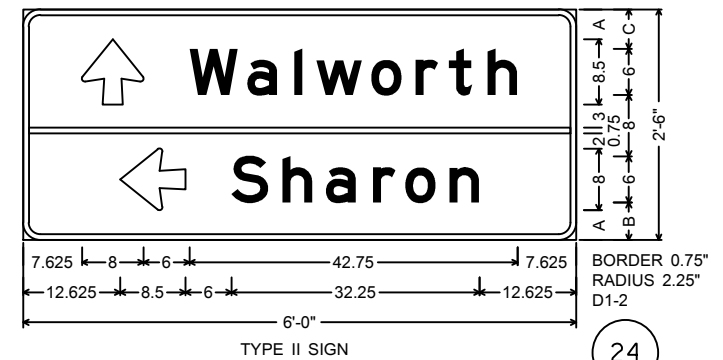
39

A = 3.25"



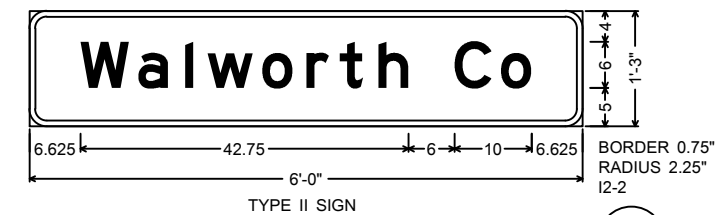
10

A = 4.875"
B = 3.875"
C = 5.125"



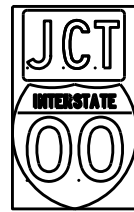
24

A = 3.875"
B = 4.875"
C = 5.125"

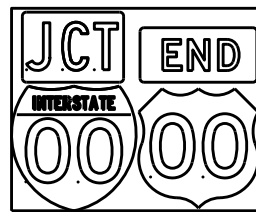


40

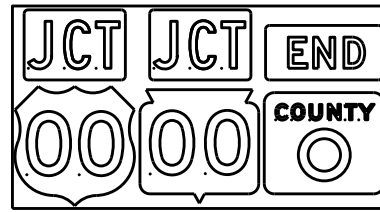
TYPICAL ASSEMBLIES



J1-1



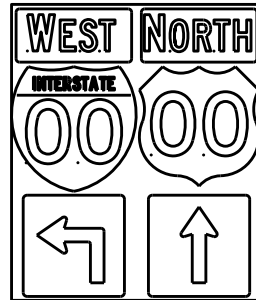
J1-2



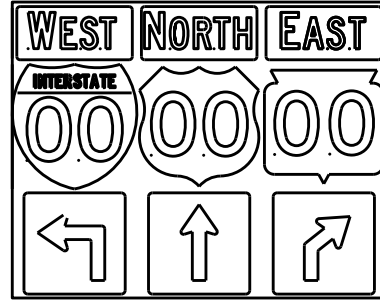
J1-3



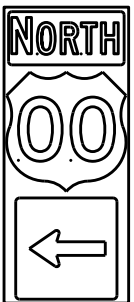
J2-1



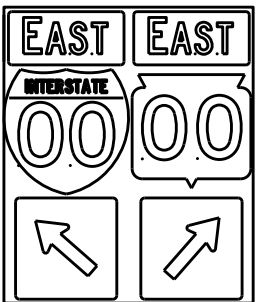
J2-2



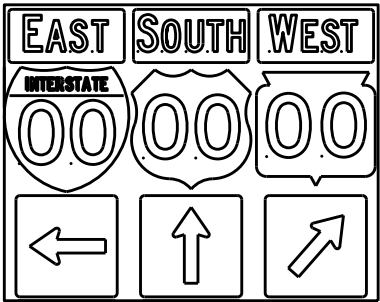
J2-3



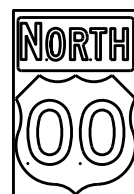
J3-1



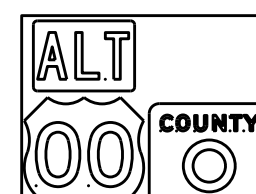
J3-2



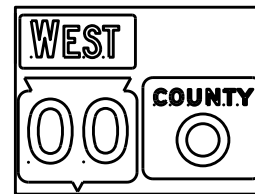
J3-3



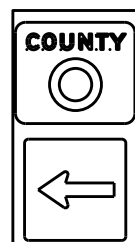
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

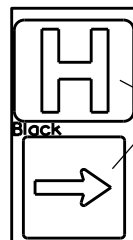


J22-1



JV

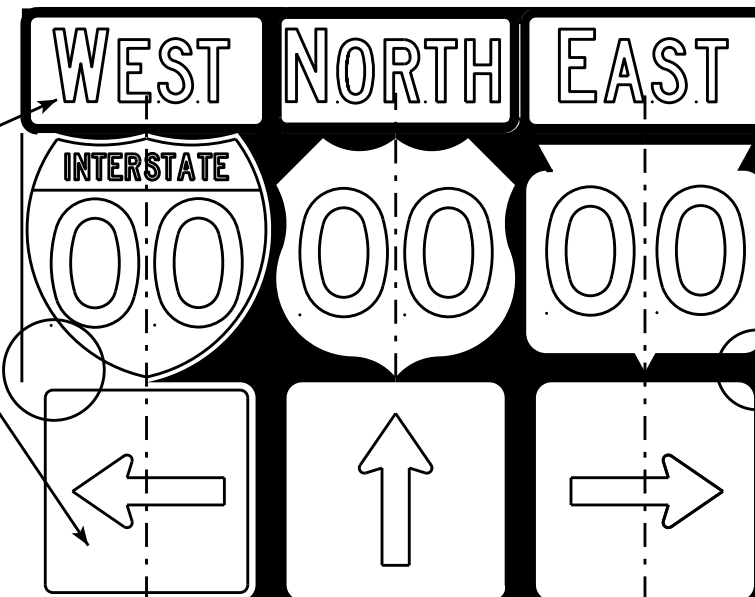
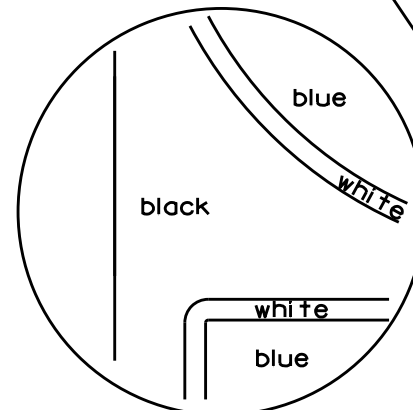
(Typical Vertical J-Assembly
See Note 10 and 11)



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 PLATE NO. A2-1S.8

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.

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN

PLOT DATE : 06-FEB-2014 14:10

PLOT BY : mscs.ja

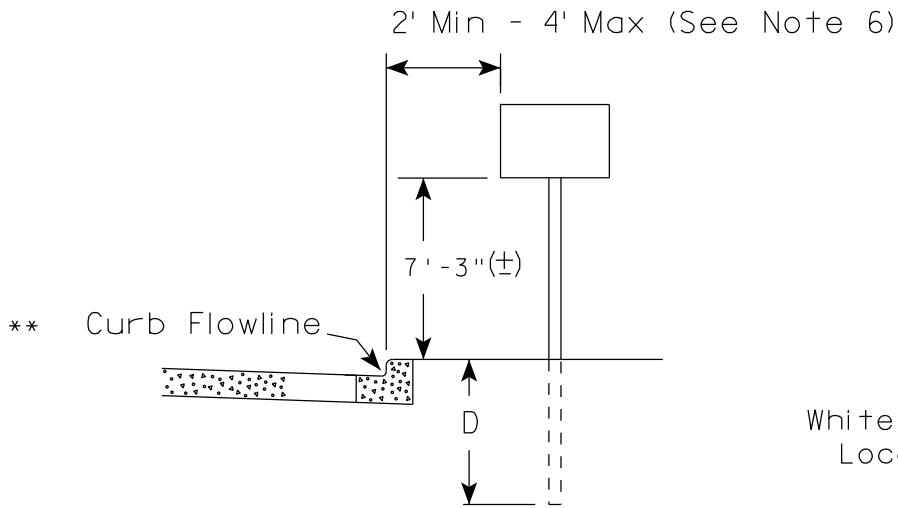
PLOT NAME :

SHEET NO:

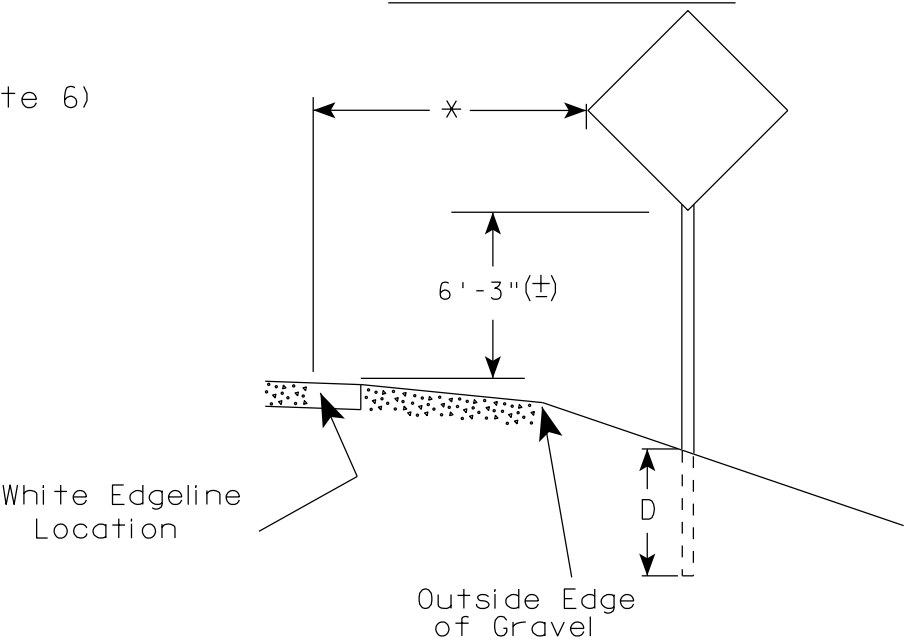
E

WISDOT/CADDs SHEET 42

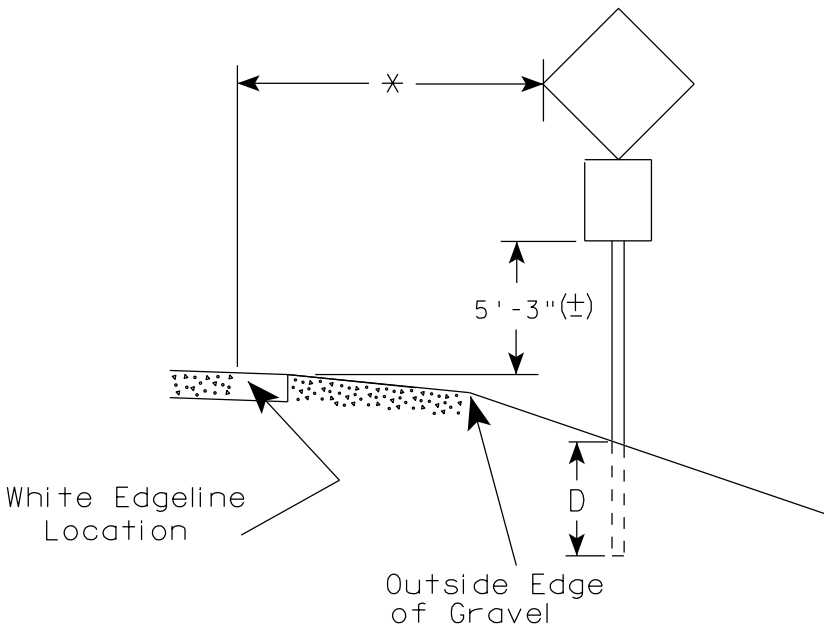
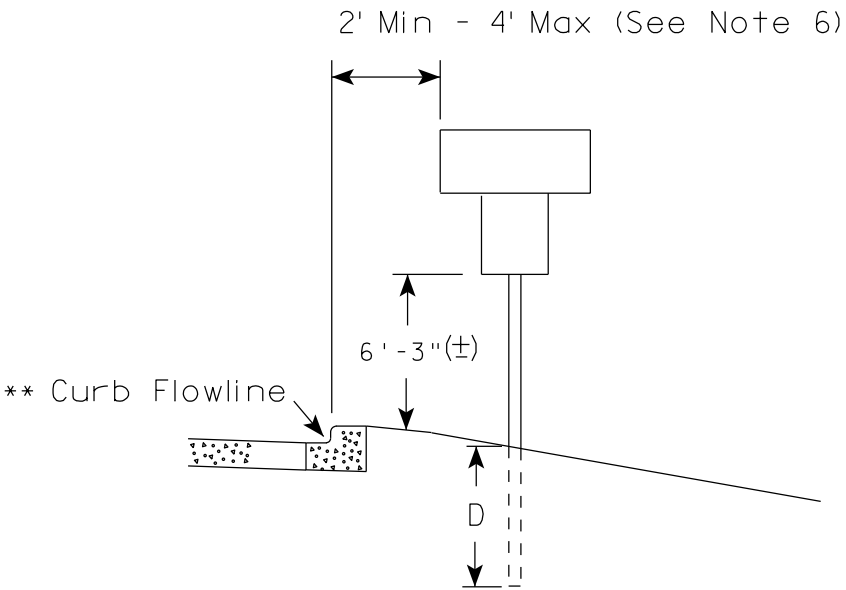
URBAN AREA



RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on barrier wall, see A4-10 sign plate.
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. The (±) tolerance for mounting height is 3 inches.
 8. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
 9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).



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.

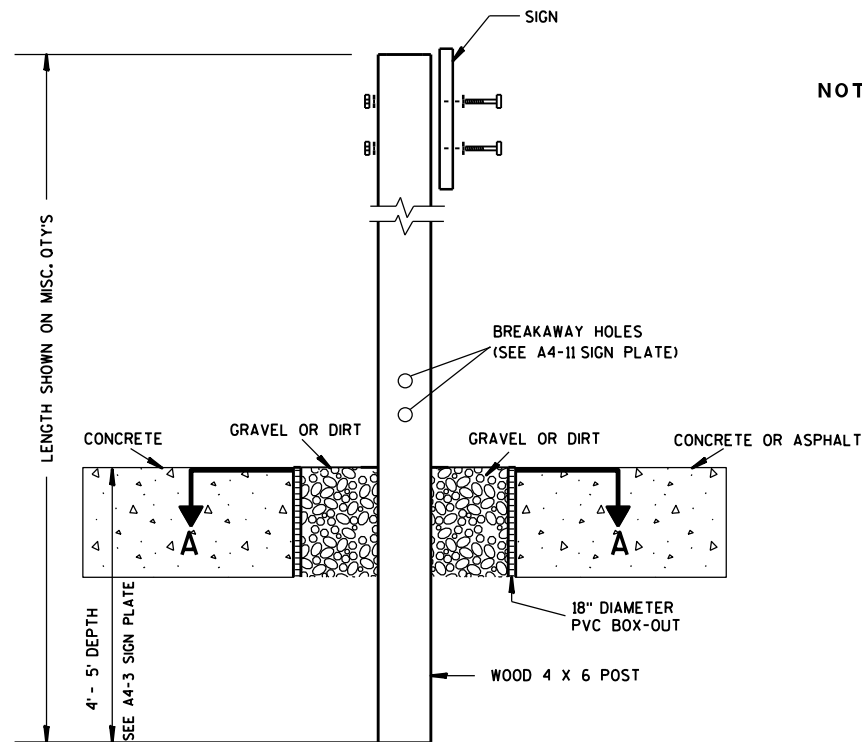
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

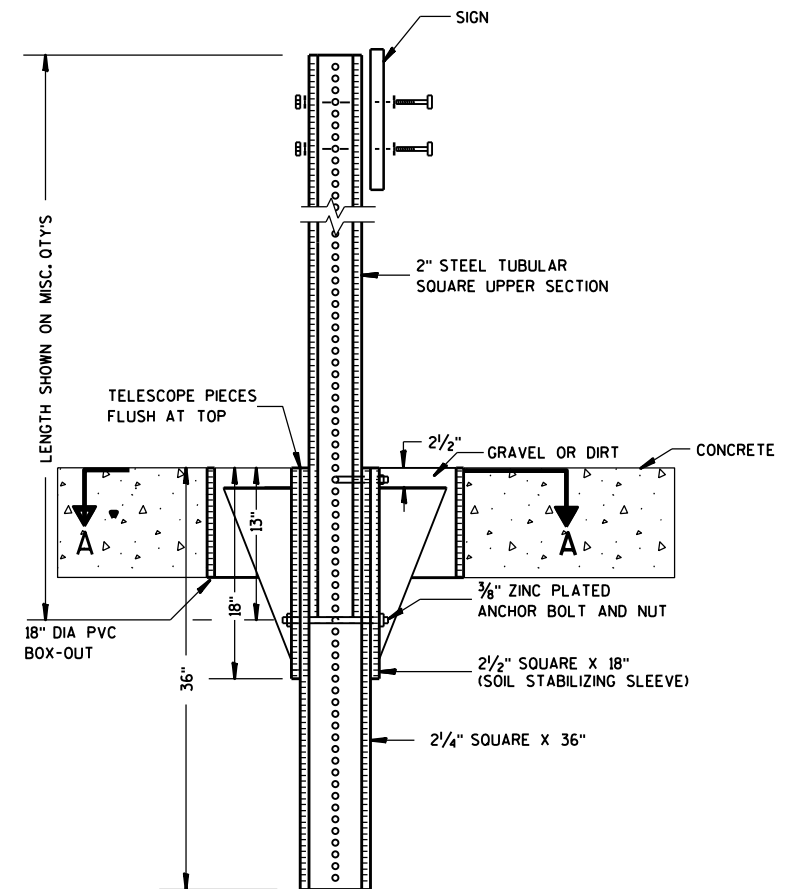
DATE 7/23/15 PLATE NO. A4-3.20



ELEVATION VIEW

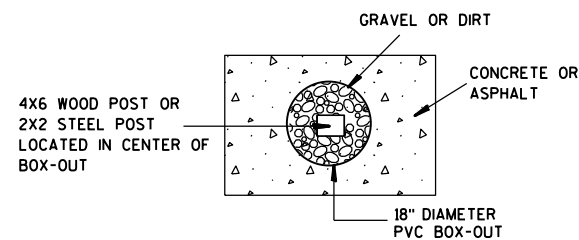
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

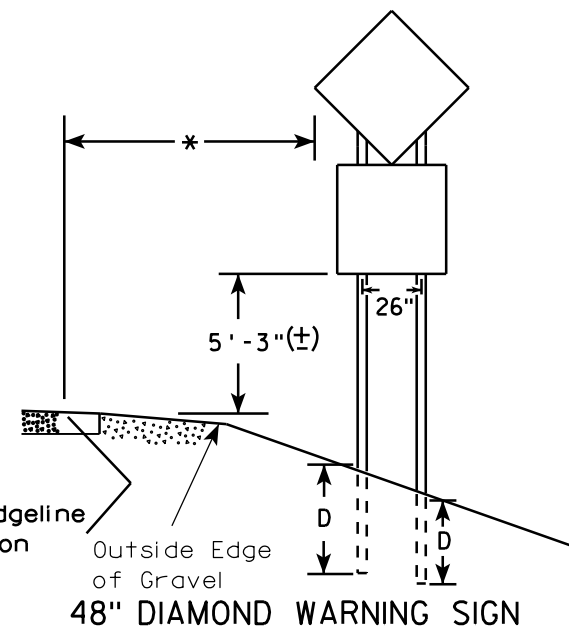
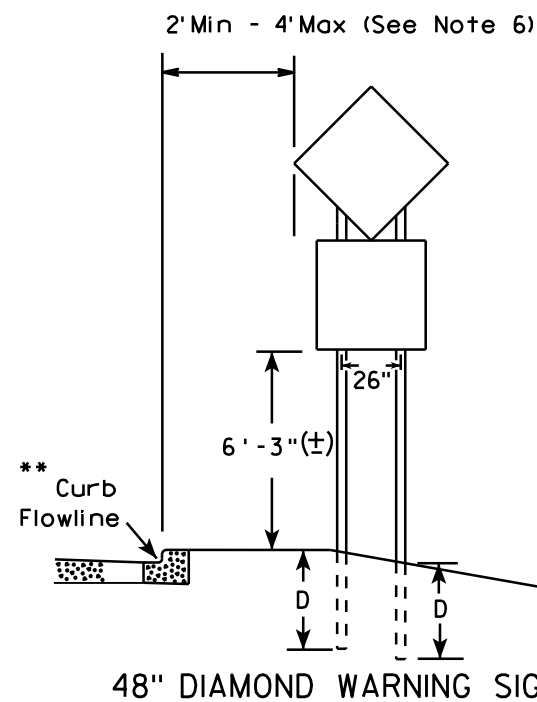
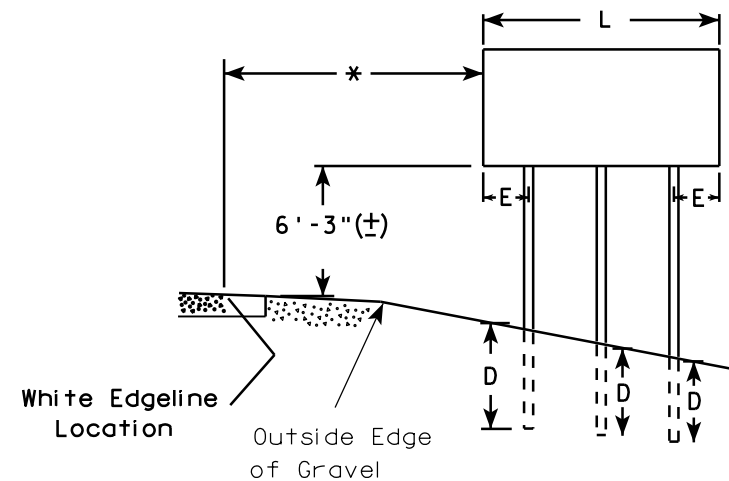
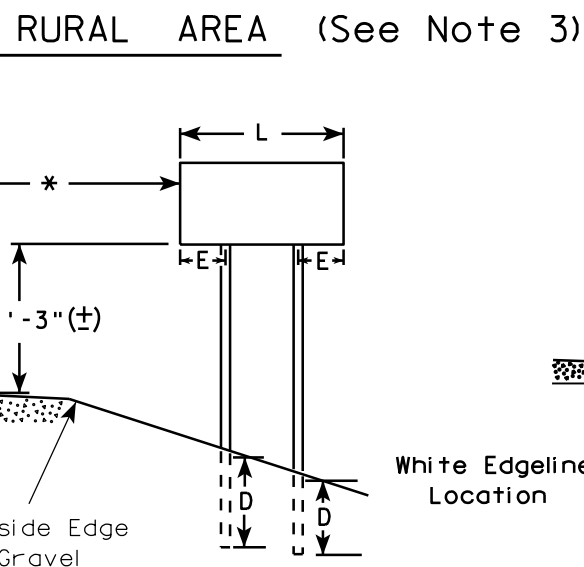
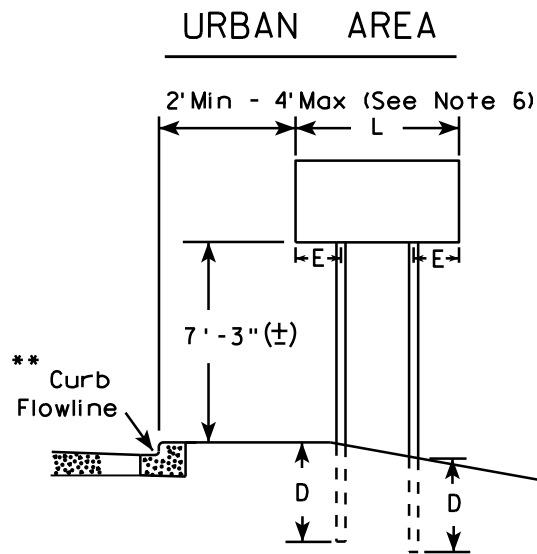
FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

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

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

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

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

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

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

POST EMBEDMENT DEPTH

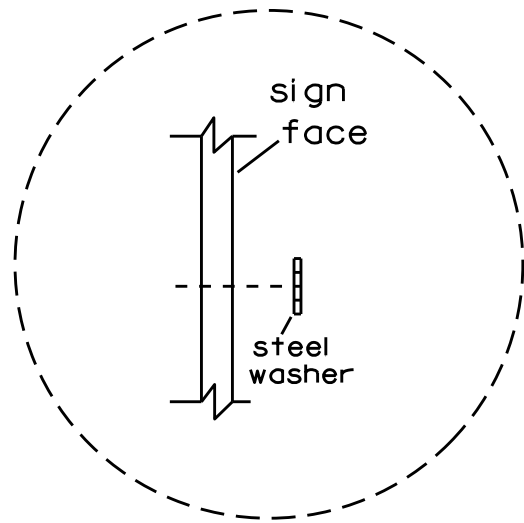
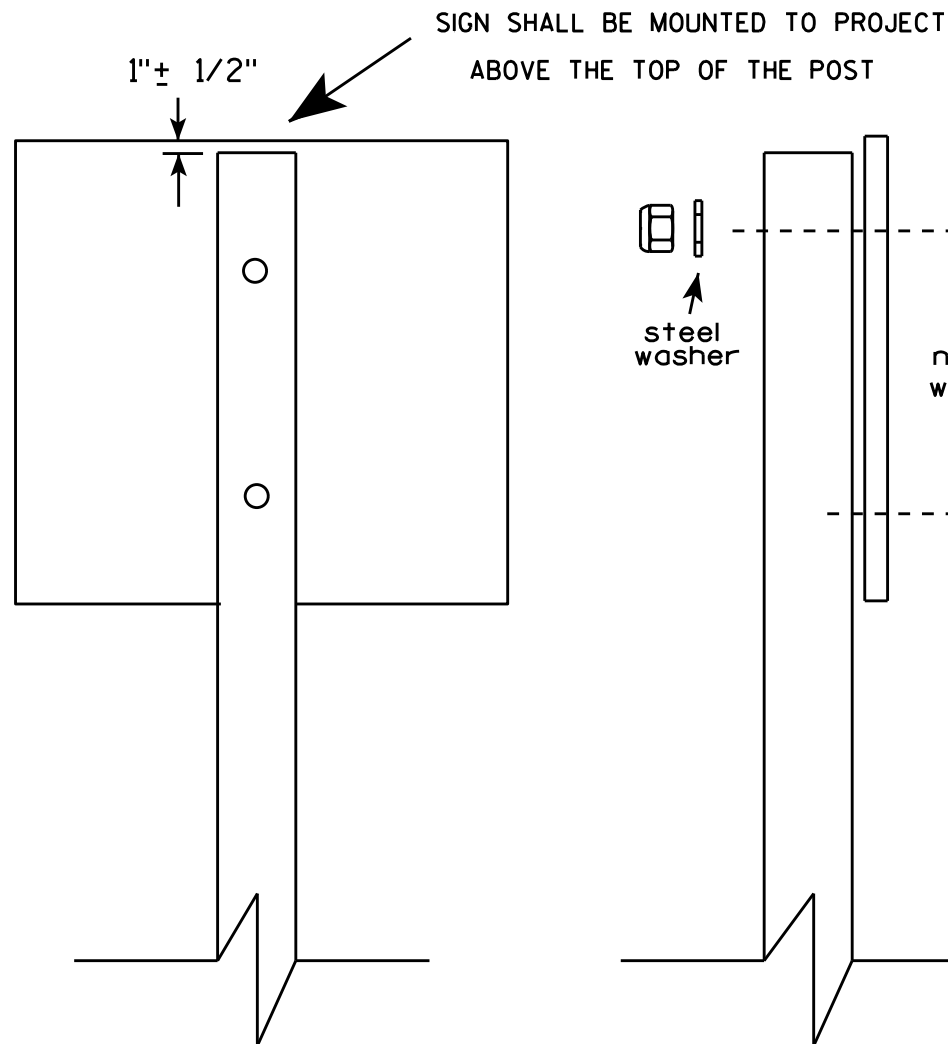
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4.14



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

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

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

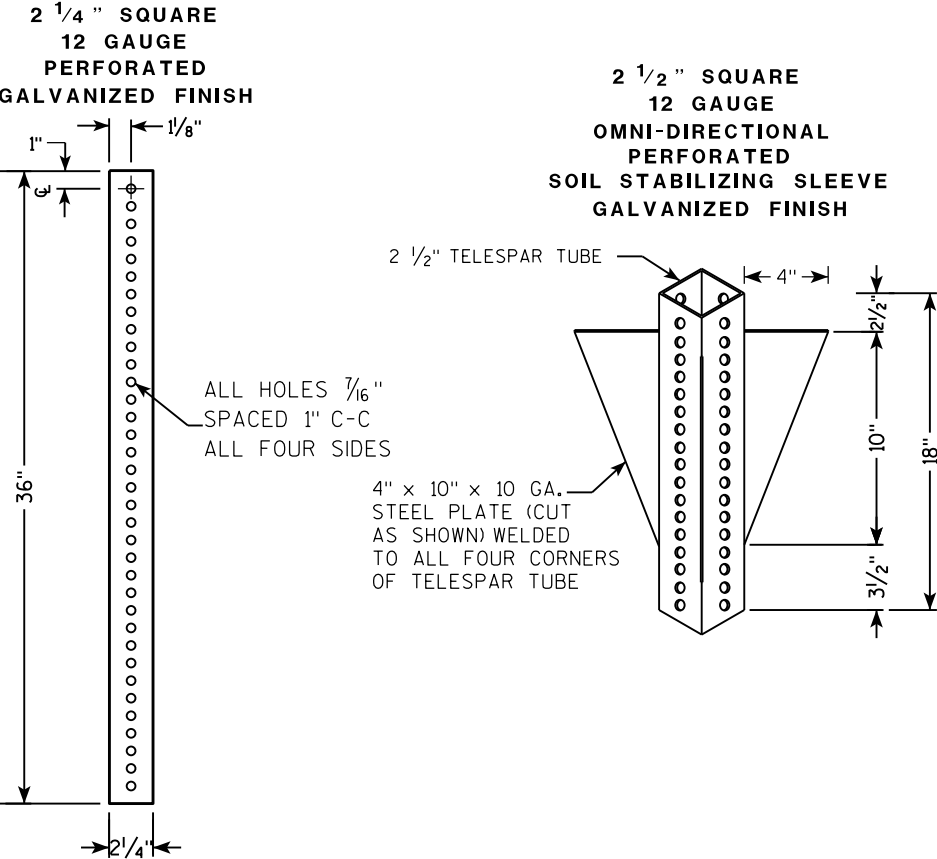
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{8}$ " X 1-3/4" Length w/ nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " 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.

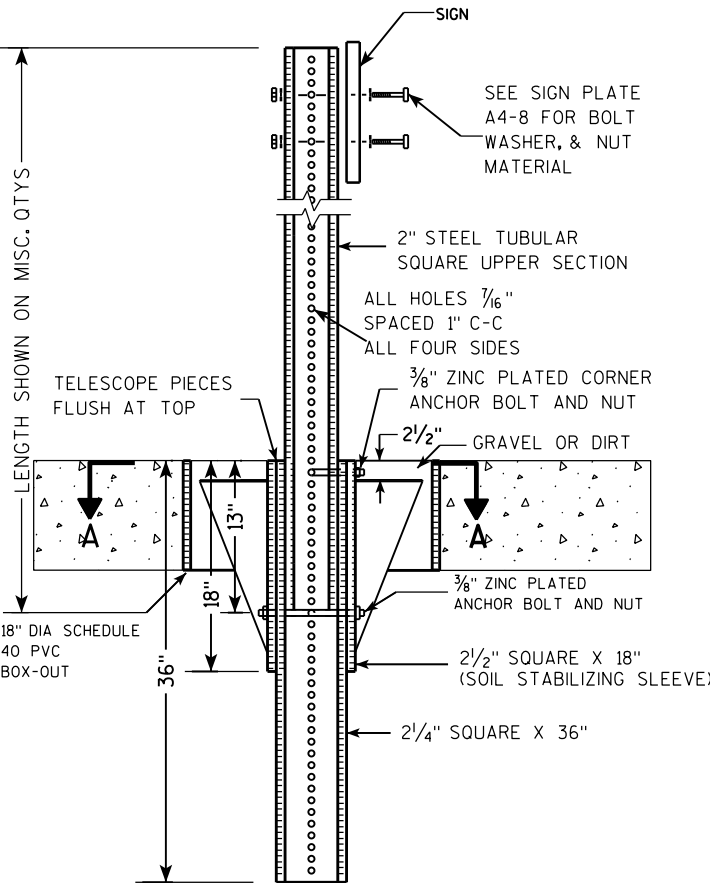
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require 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 4/5/16	PLATE NO. A4-8.8

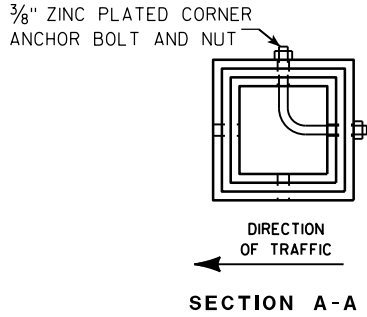
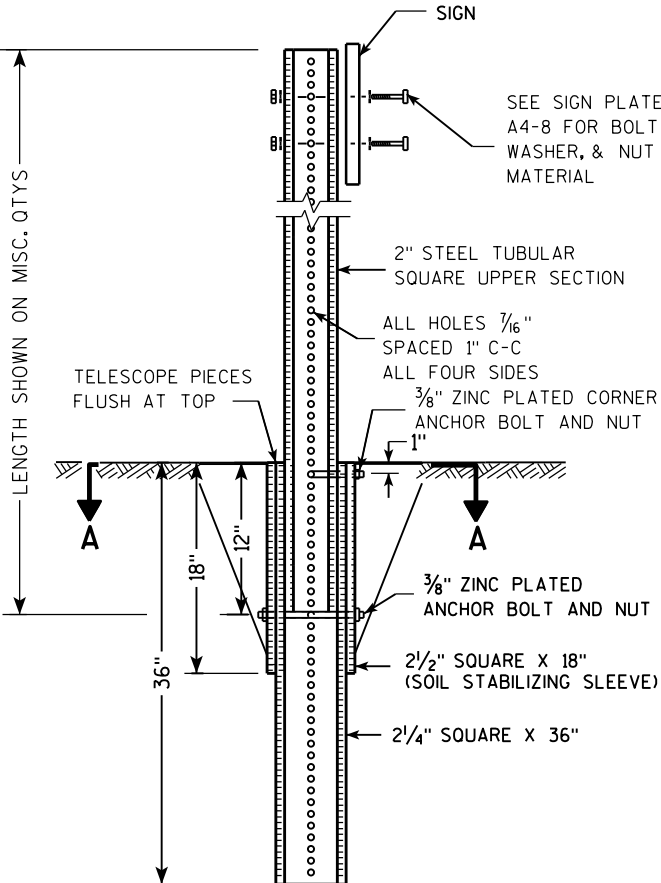
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



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



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



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

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

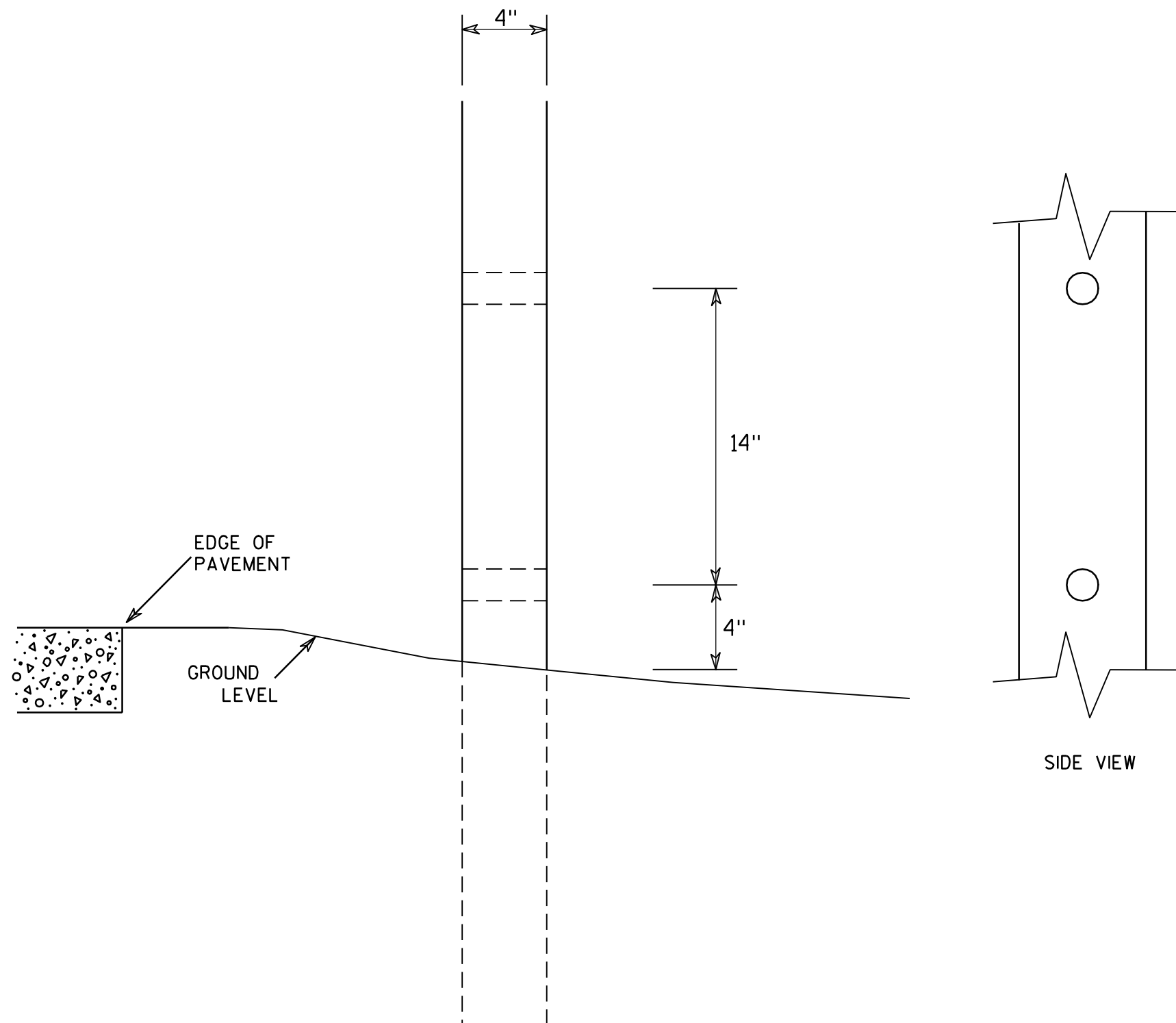
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

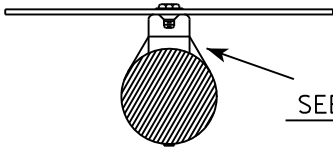
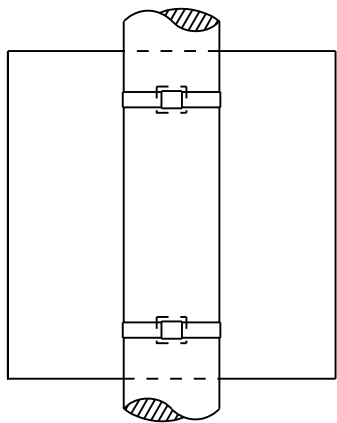
COUNTY:

SHEET NO:

E

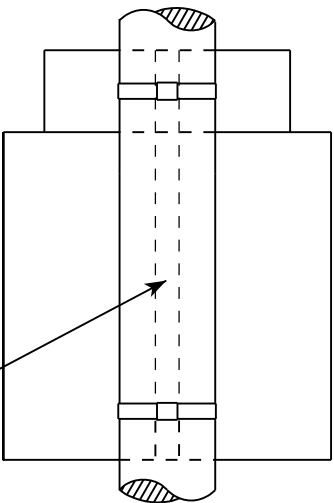
BANDING

SINGLE SIGN

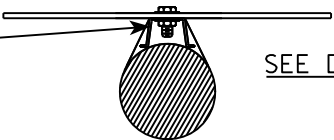


SEE DETAIL A

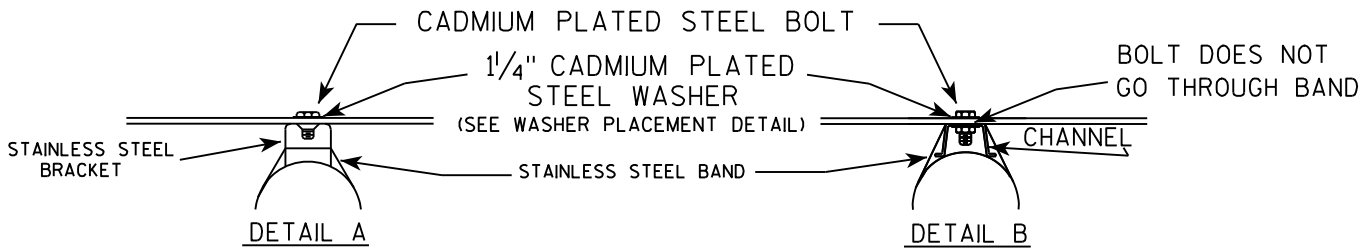
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



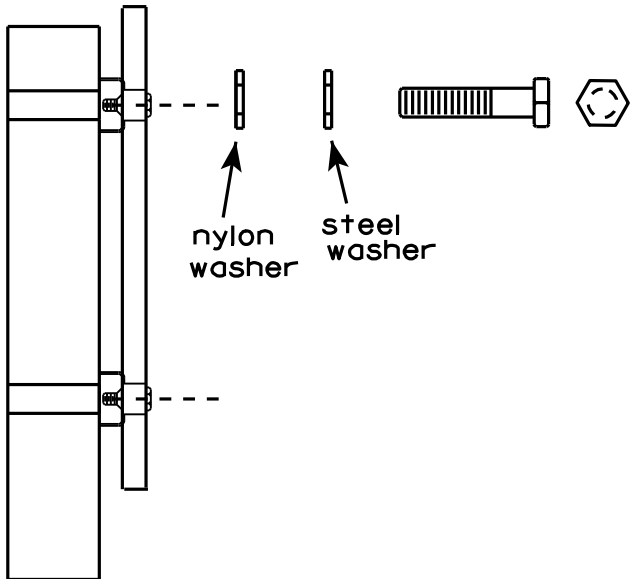
SEE DETAIL B



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



nylon washer

steel washer

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

Matthew R. Rauch
for State Traffic Engineer

DATE 8/16/13

PLATE NO. A5-9.3

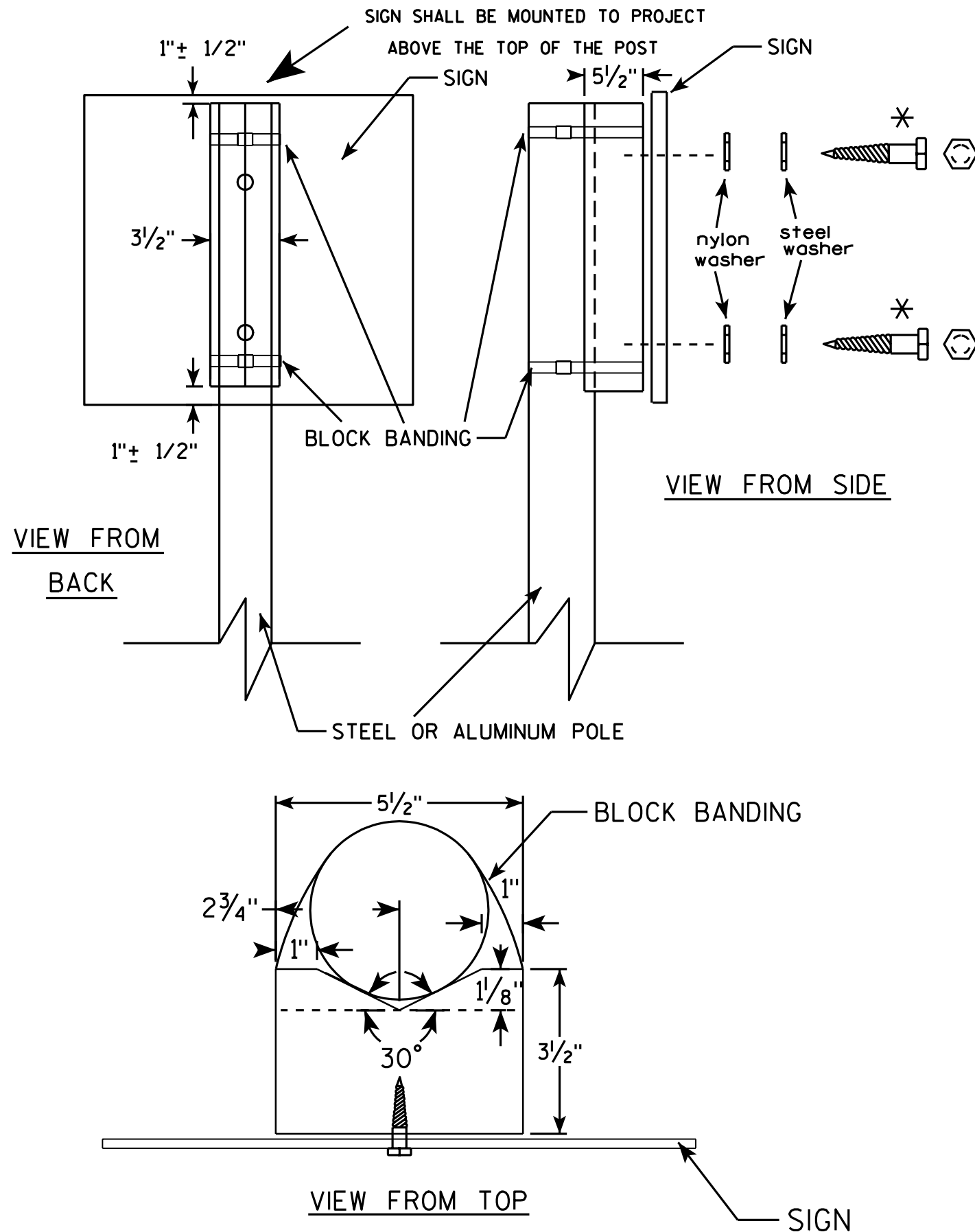
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

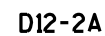
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

SHEET NO:

E



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

7

* Variable (See note 5)

[illegible]

SHEET NO:

7

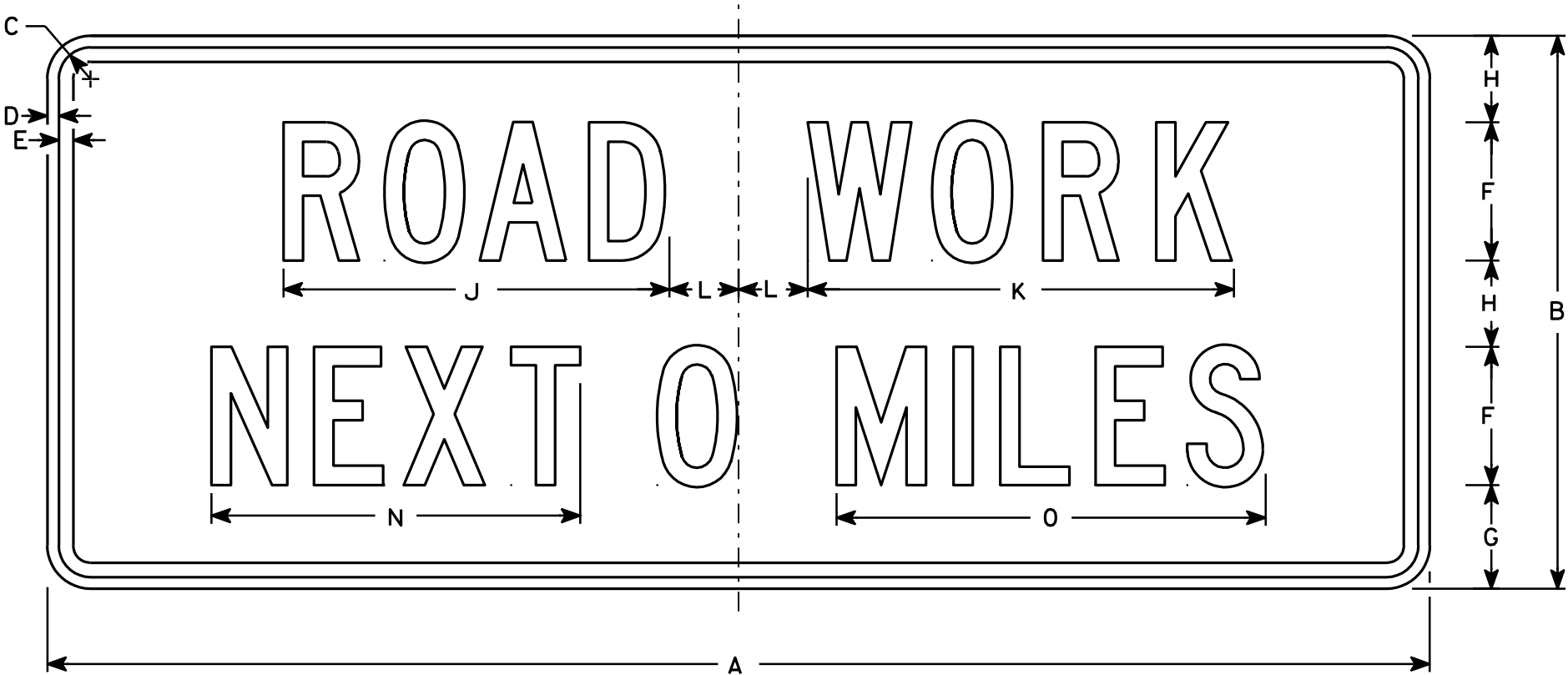
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 1/16/02 PLATE NO. D12-2A.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 - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance



G20-1

Metric equivalent
for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
5	

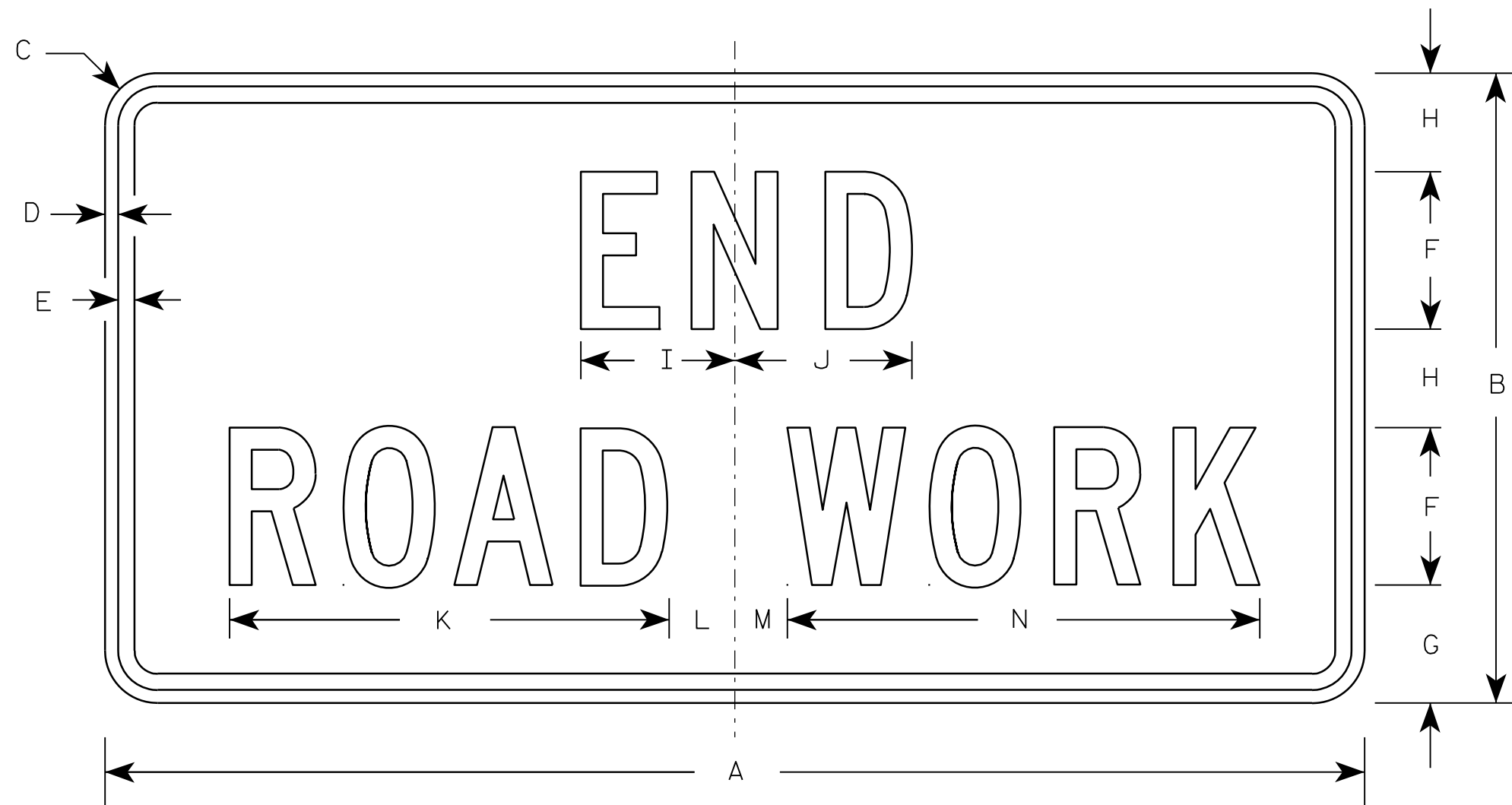
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
3																												
4	60	24	1 3⁄8	1⁄2	5⁄8	6	4 1⁄2	3 3⁄4		16 3⁄4	18 1⁄2	3		16	18 5⁄8												10	.90
5																												

STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chris J. Spay
State Traffic Engineer
DATE 4/8/97 PLATE NO. G20-1.7

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

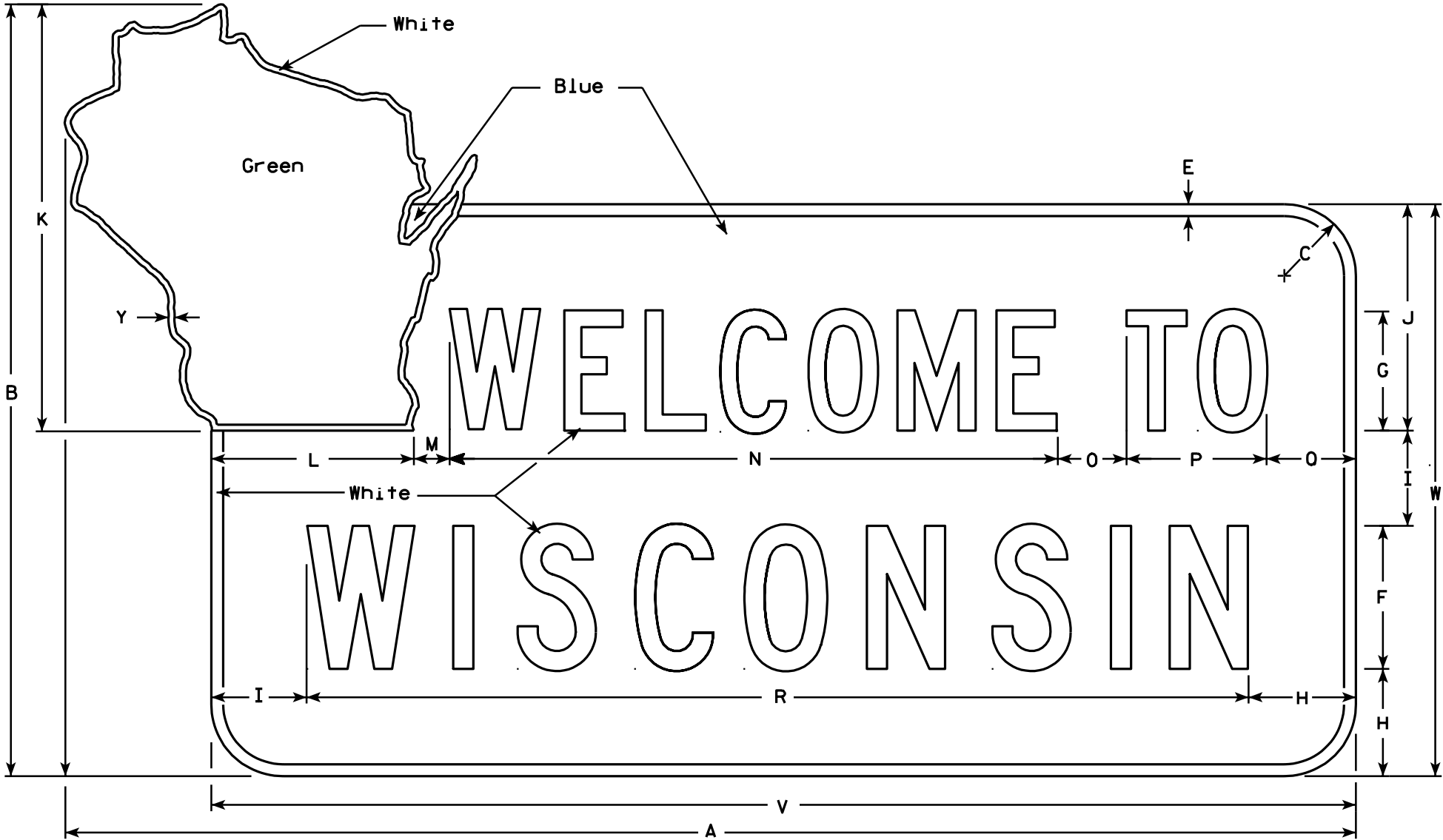
NOTES

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

7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - As Noted
Message - As Noted - Type H Reflective
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. The State Cutout is a scaled reproduction of State Outline.



I2-1B

Metric equivalent
for this sign is:

SIZE	
1	
2	2750 mm X 1650 mm
3	
4	
5	

*Combination of state cutout
and main sign board.

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 sq. m.
1																												
2	108 1/2	65	6		1	12	10	9	8	19	36	17	3	51	5 3/4	11 3/4	7 1/2	79				96	48		1/2		41.0*	3.81
3																												
4																												
5																												

STANDARD SIGN
I2-1B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 1/24/02

PLATE NO. I2-1B.4

PROJECT NO:

HWY:

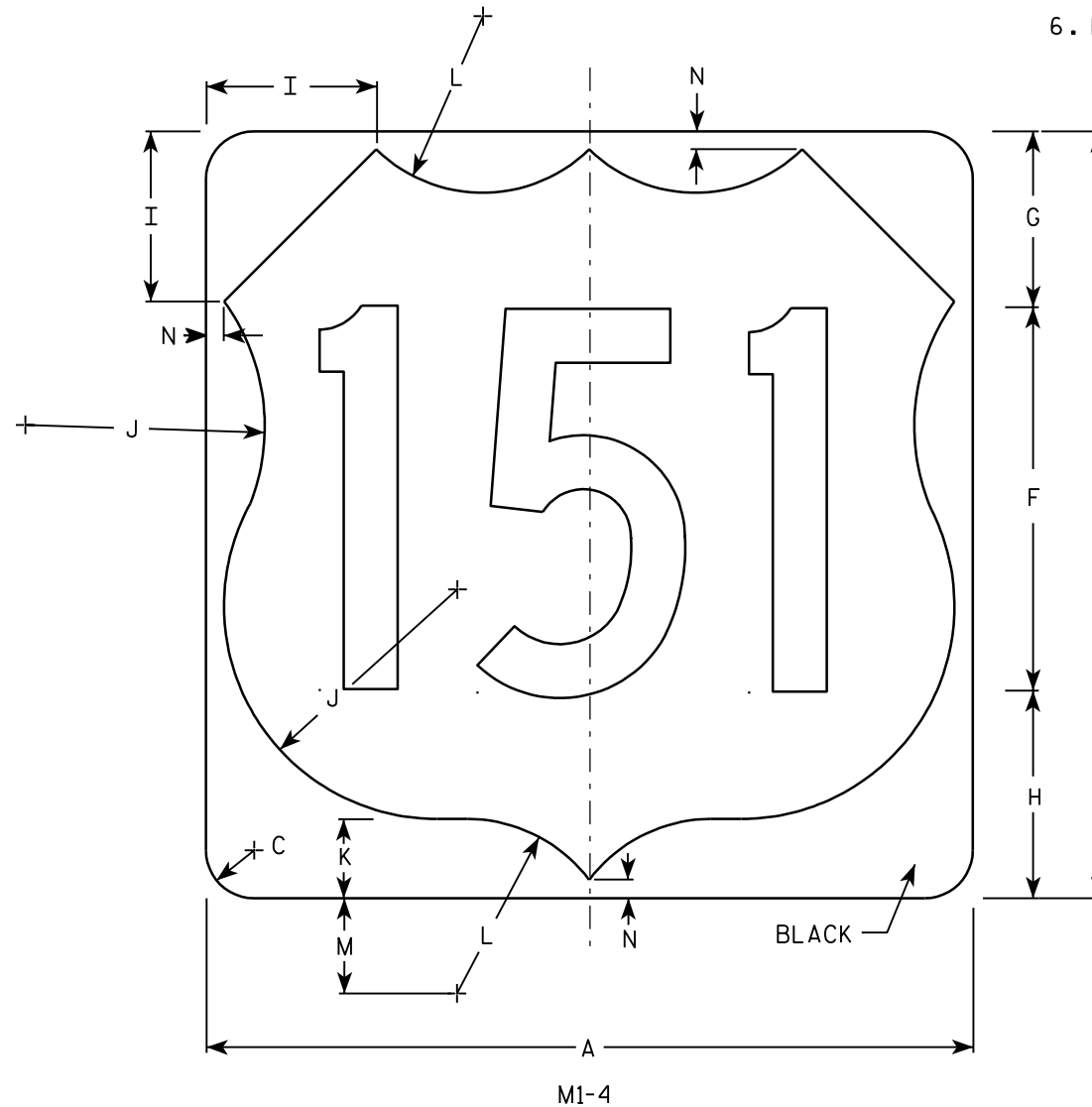
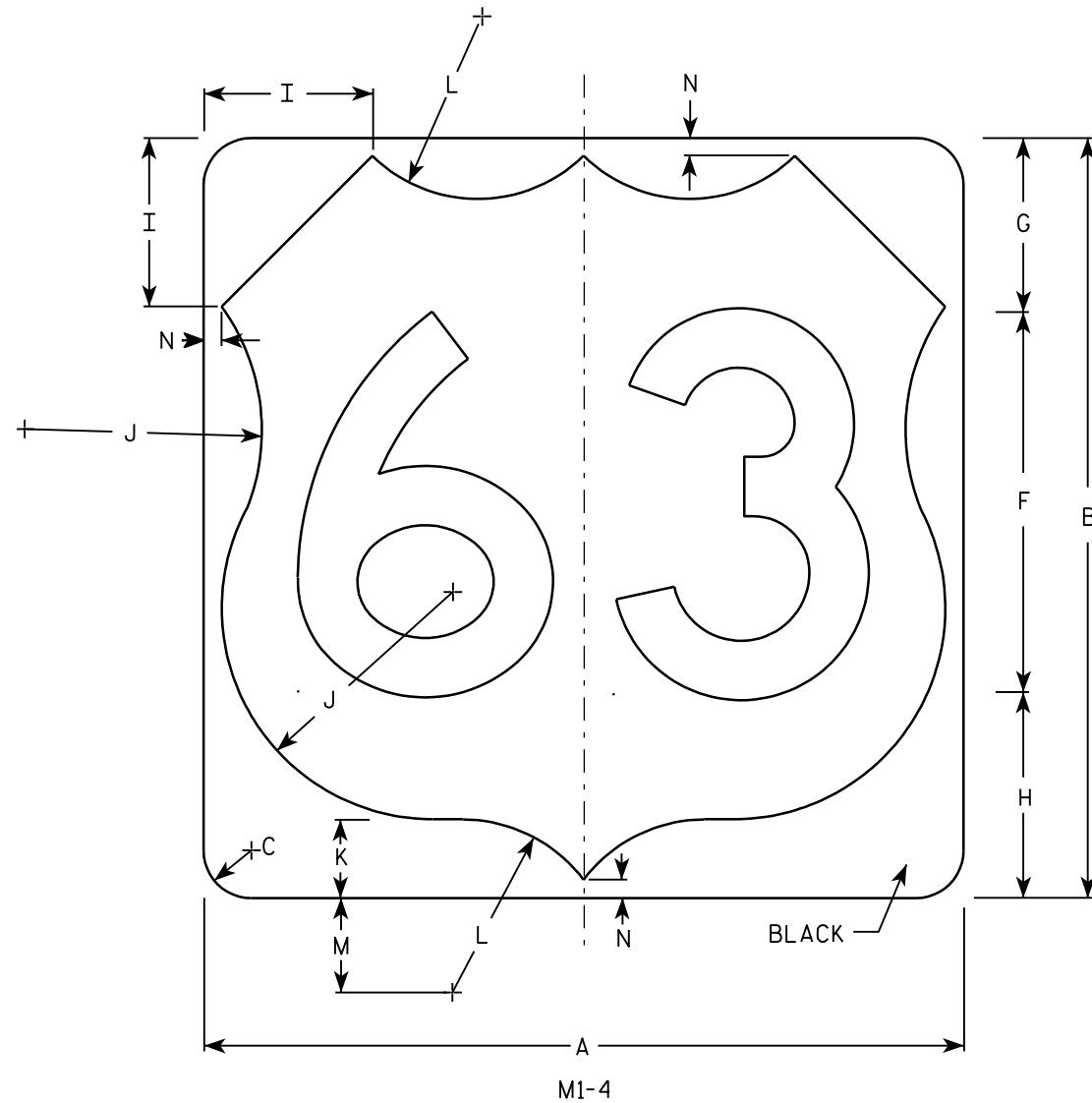
COUNTY:

SHEET NO:

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 numerals and adjust
spacing as per Plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or other temporary signs
Background - Reflective



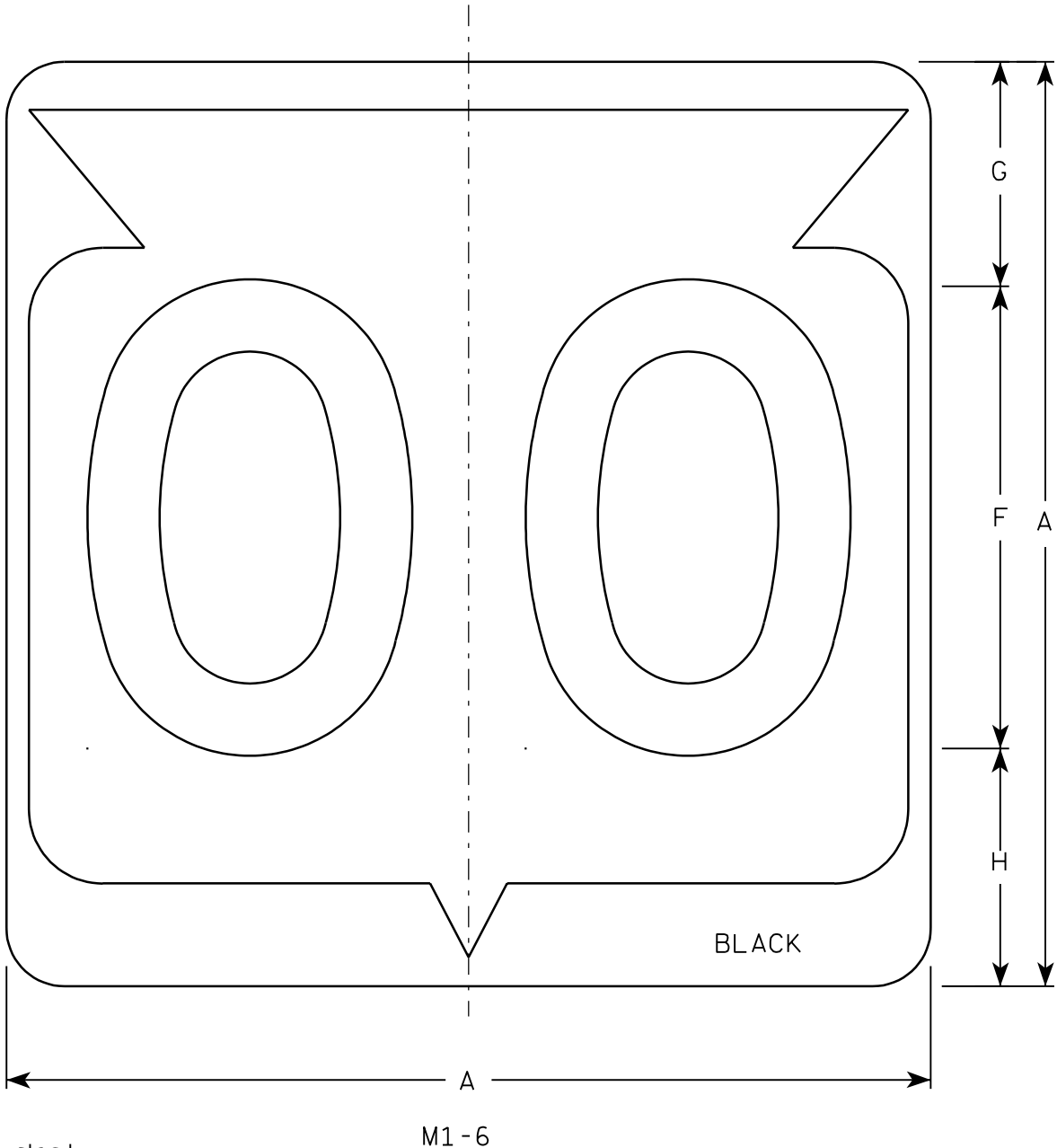
Metric equivalent
for this sign is:

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	Areq sq. ft.	Area m ²
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

PROJECT NO: HWY: COUNTY: SHEET NO: E

7



Metric equivalent
for this sign is:

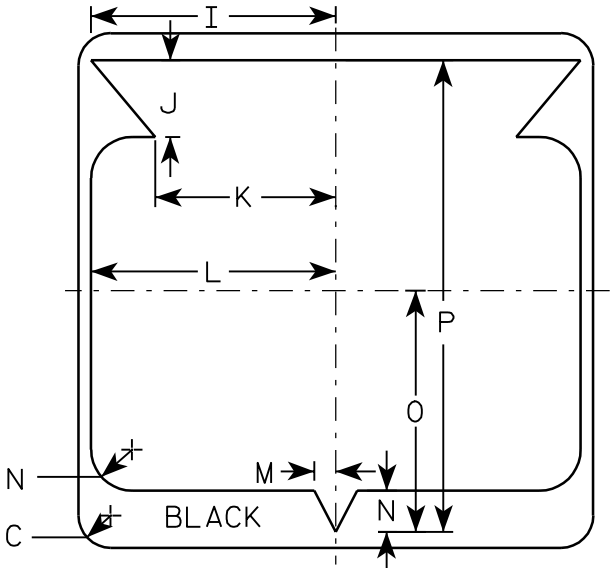
SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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NOTES

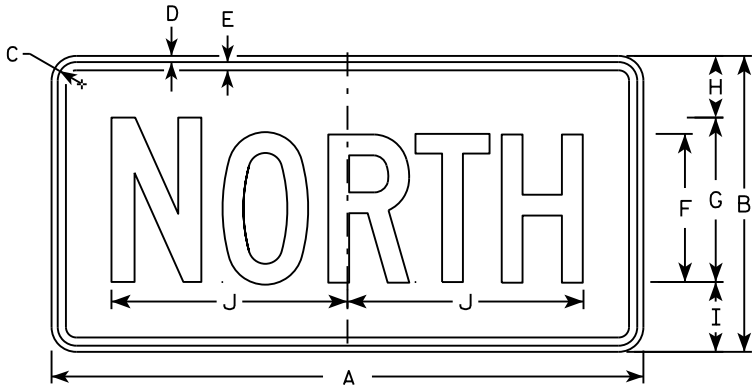
1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders 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



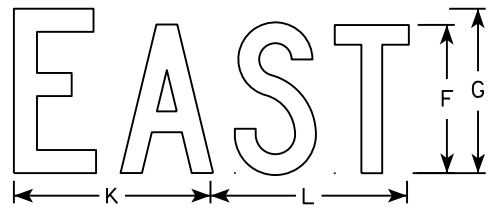
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

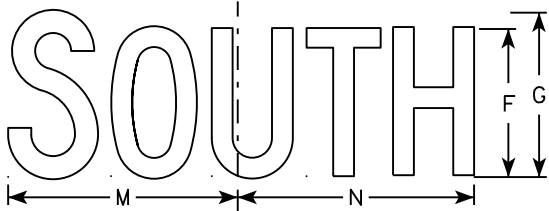
APPROVED
Chester J. Spang
for State Traffic Engineer
DATE 3/20/02 PLATE NO. M1-6.9



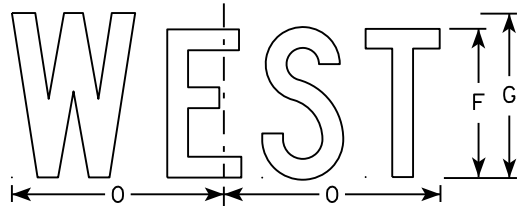
M3-1
MM3-1
MP3-1



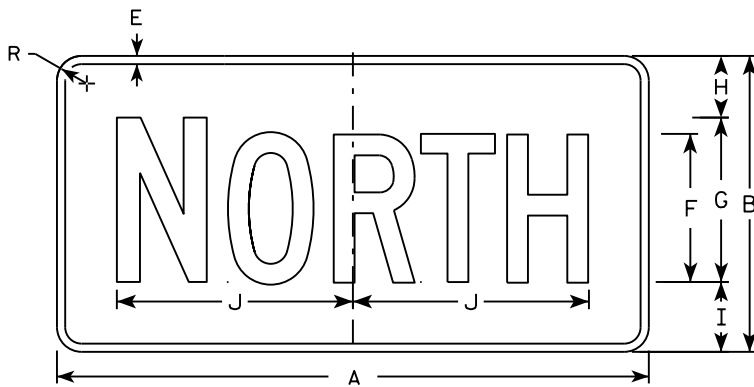
M3-2
MM3-2
MP3-2



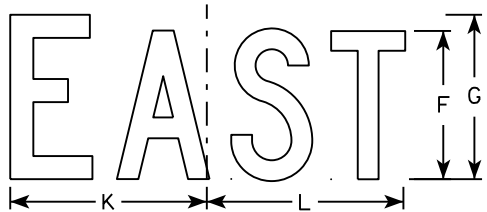
M3-3
MM3-3
MP3-3



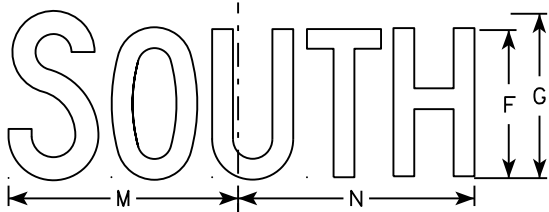
M3-4
MM3-4
MP3-4



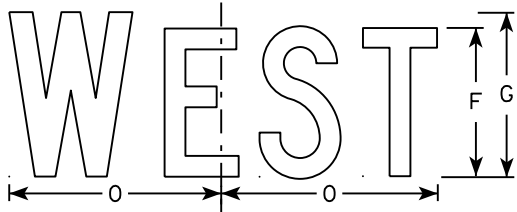
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

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

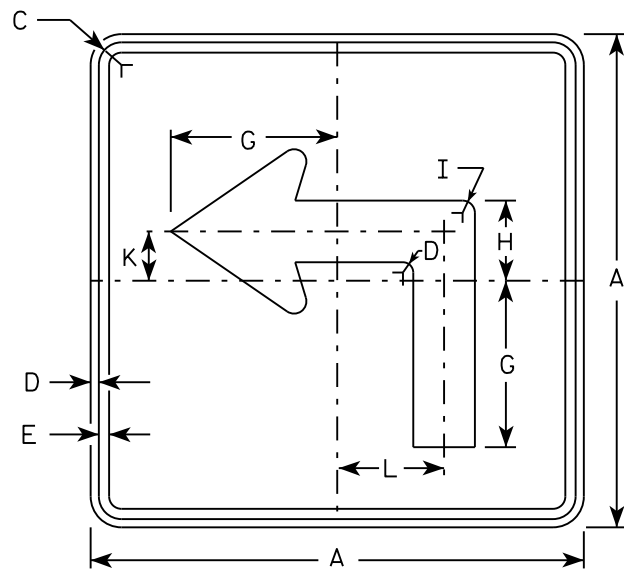
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

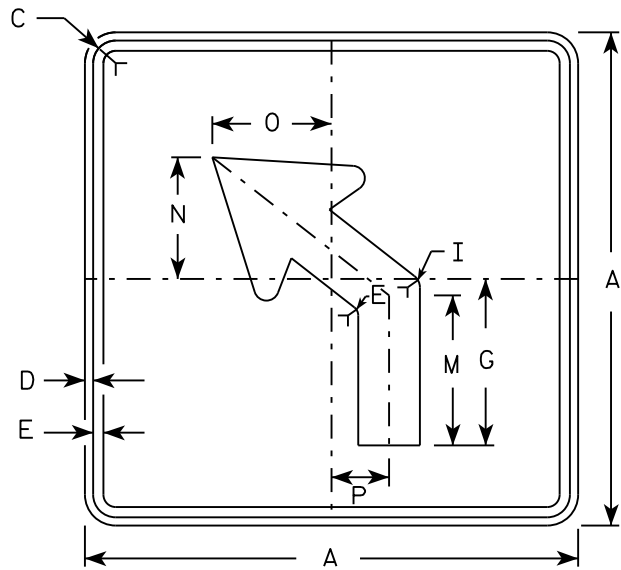
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

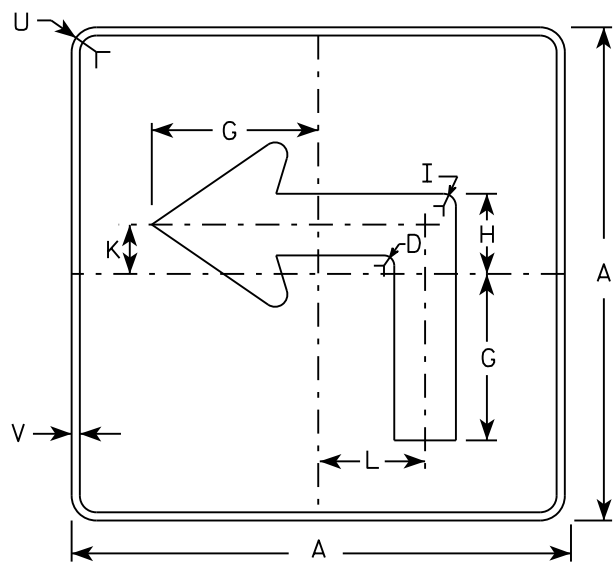
DATE 10/15/15 PLATE NO. M3-1.14



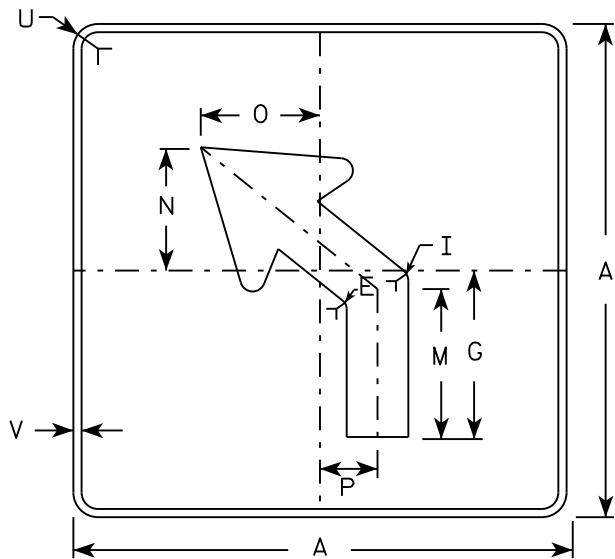
M5-1L
MM5-1L
M05-1L
MP5-1L



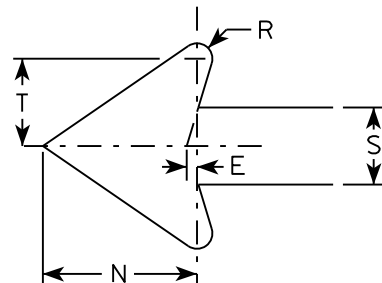
M5-2L
MM5-2L
M05-2L
MP5-2L



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



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



NOTES

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

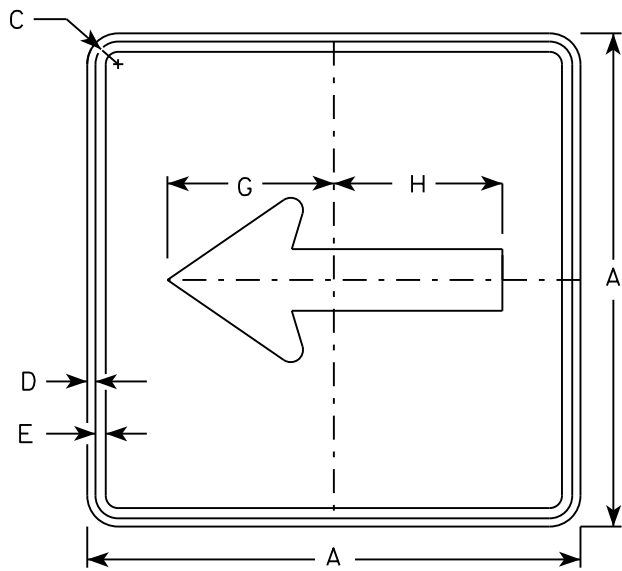
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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

STANDARD SIGN
M5-1 & M5-2

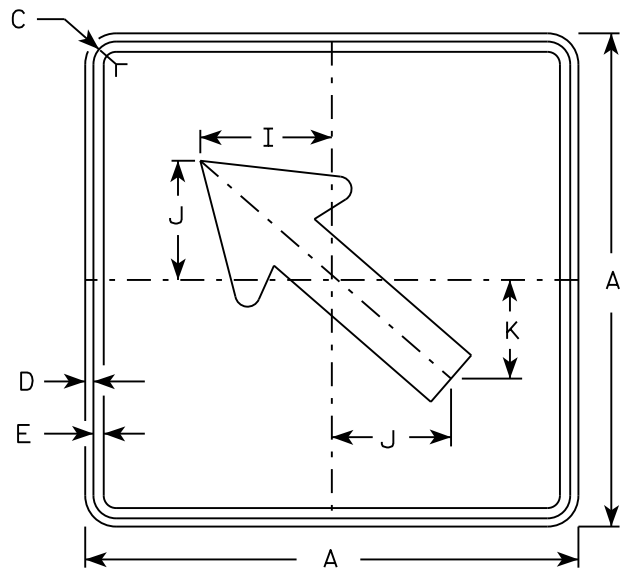
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

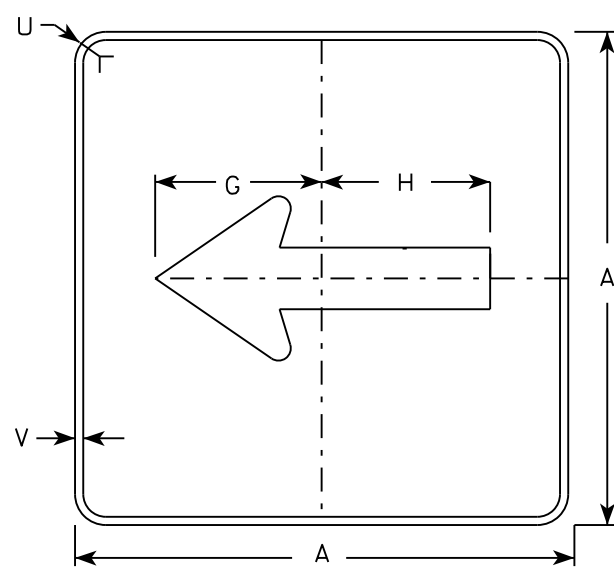
DATE 10/15/15 PLATE NO. M5-1.13



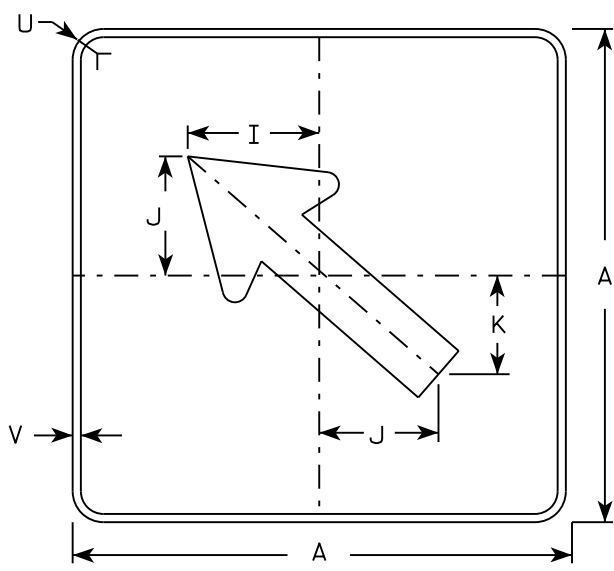
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



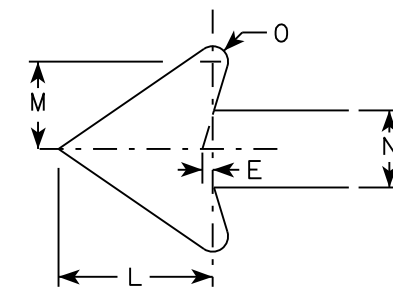
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



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



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



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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

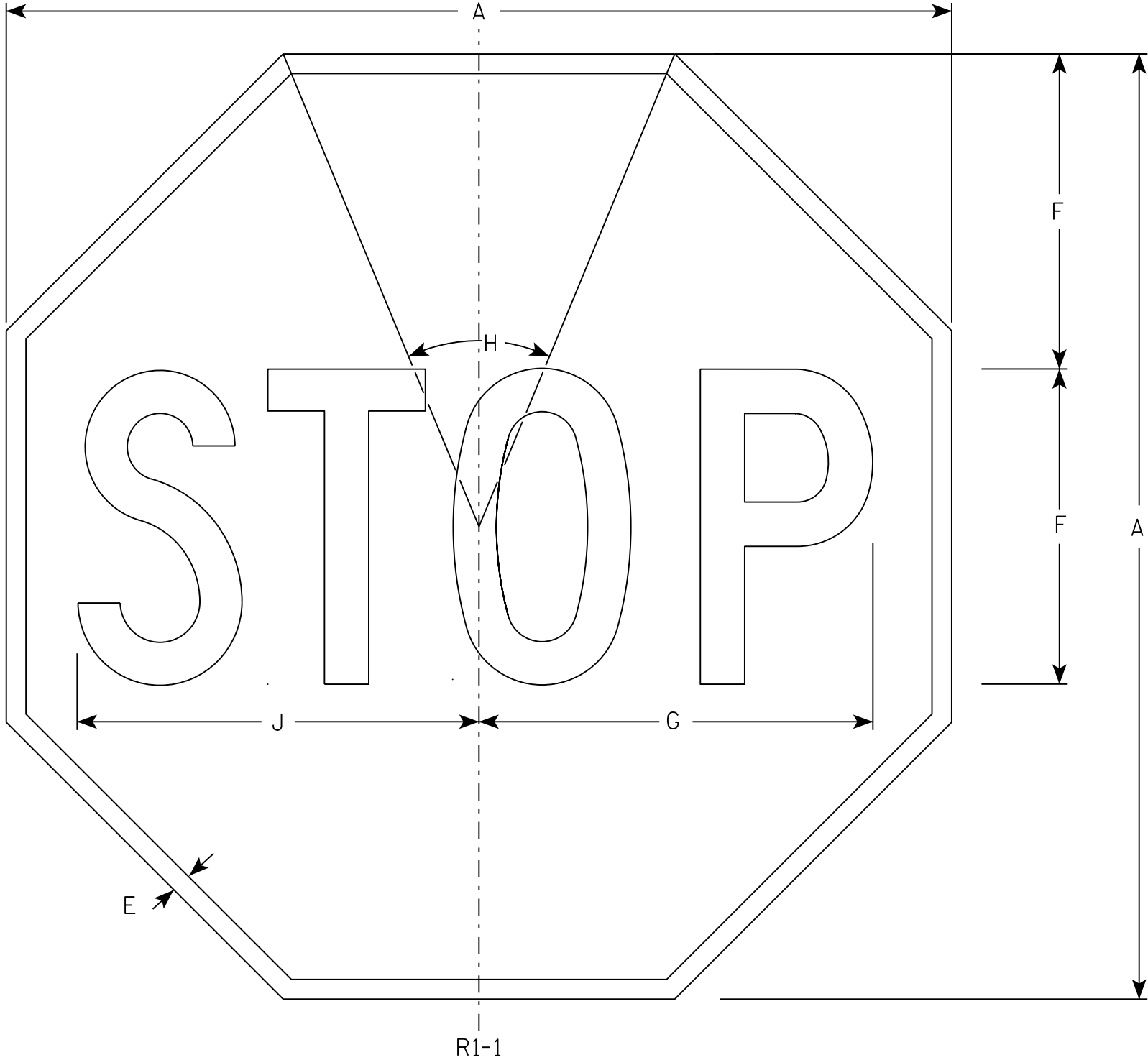
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



NOTES

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

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

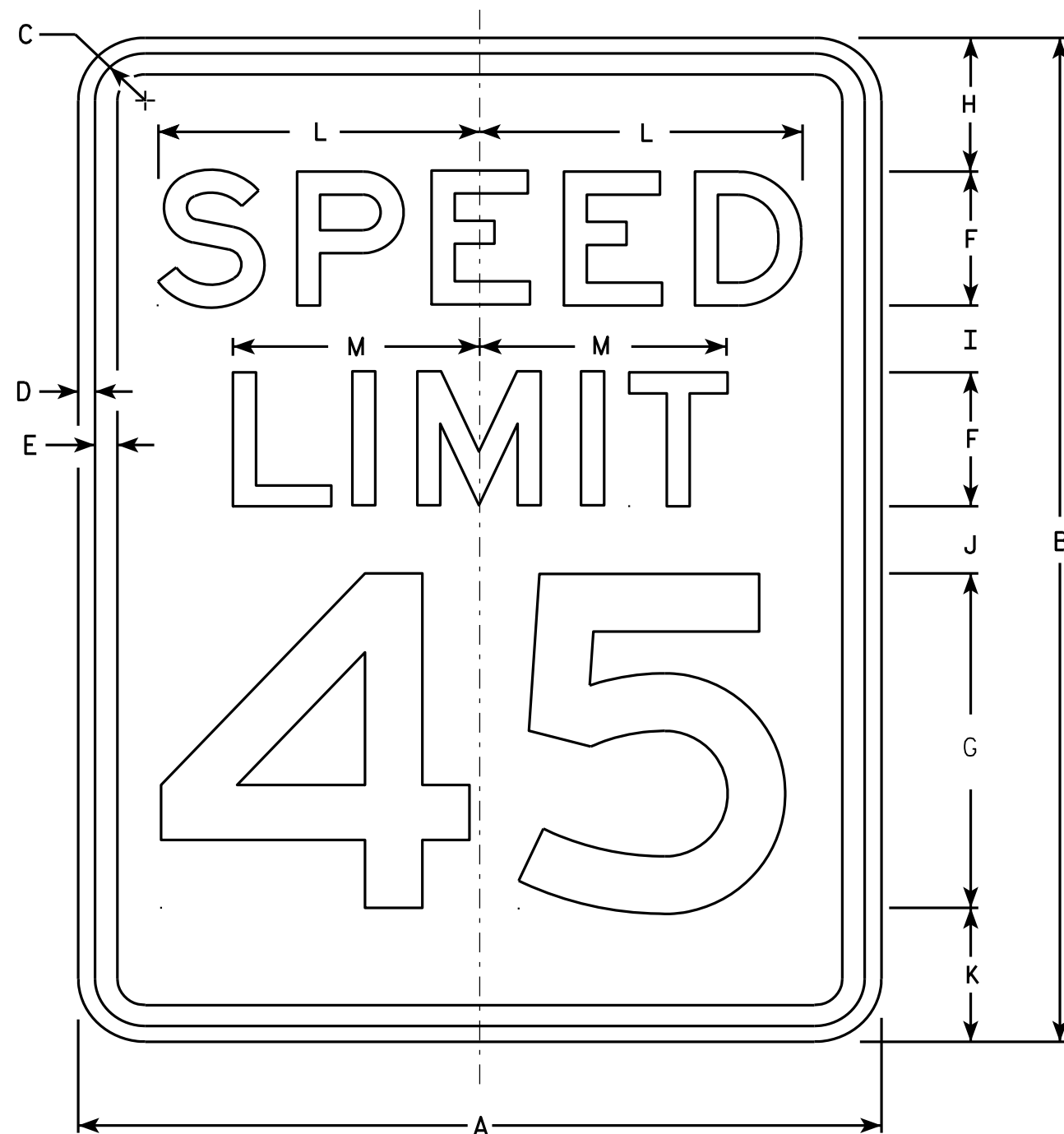
STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



R2-1

NOTES

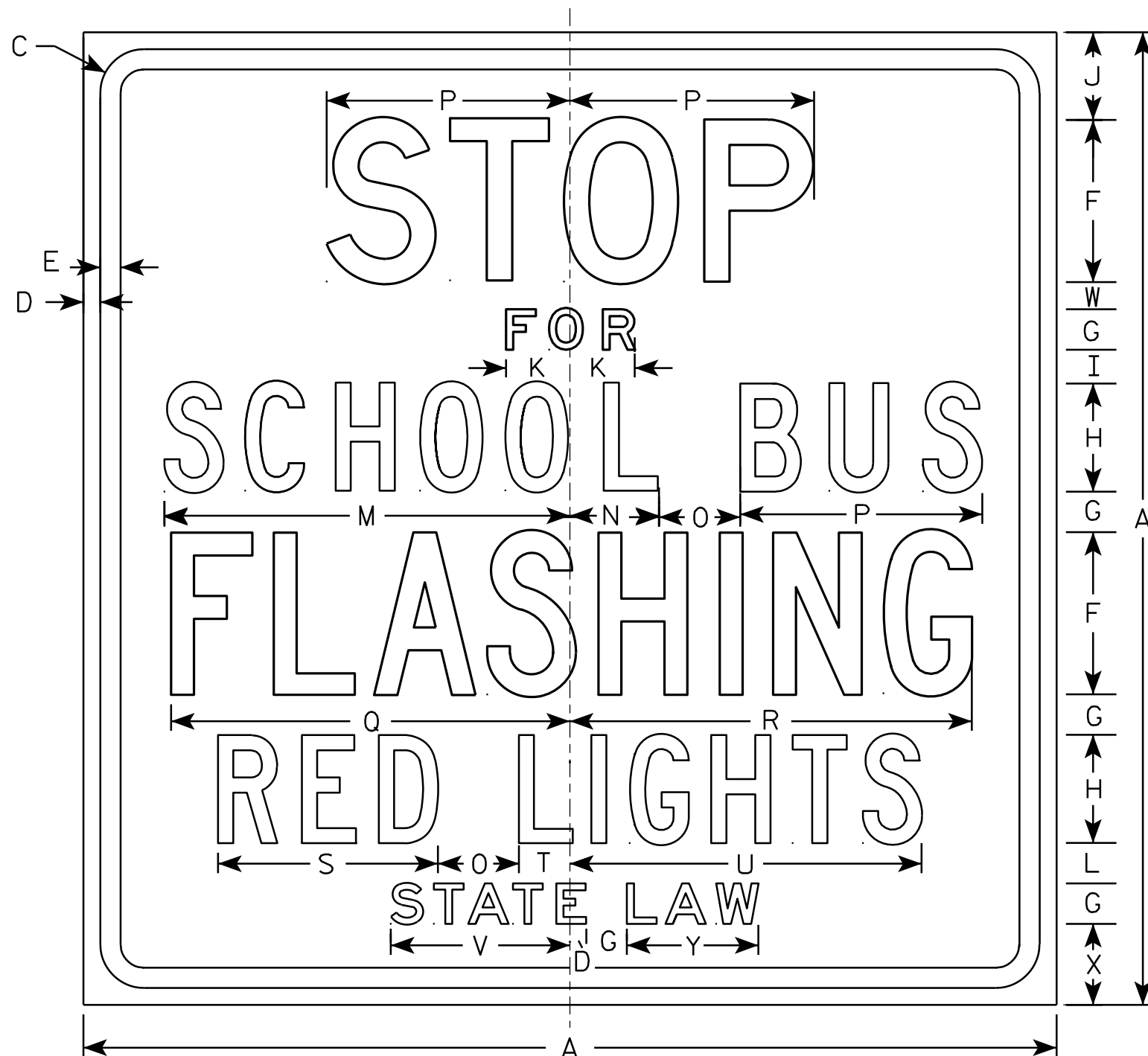
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as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

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

STANDARD SIGN
R2-1

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

PROJECT NO: HWY: COUNTY: SHEET NO: E



R59-51

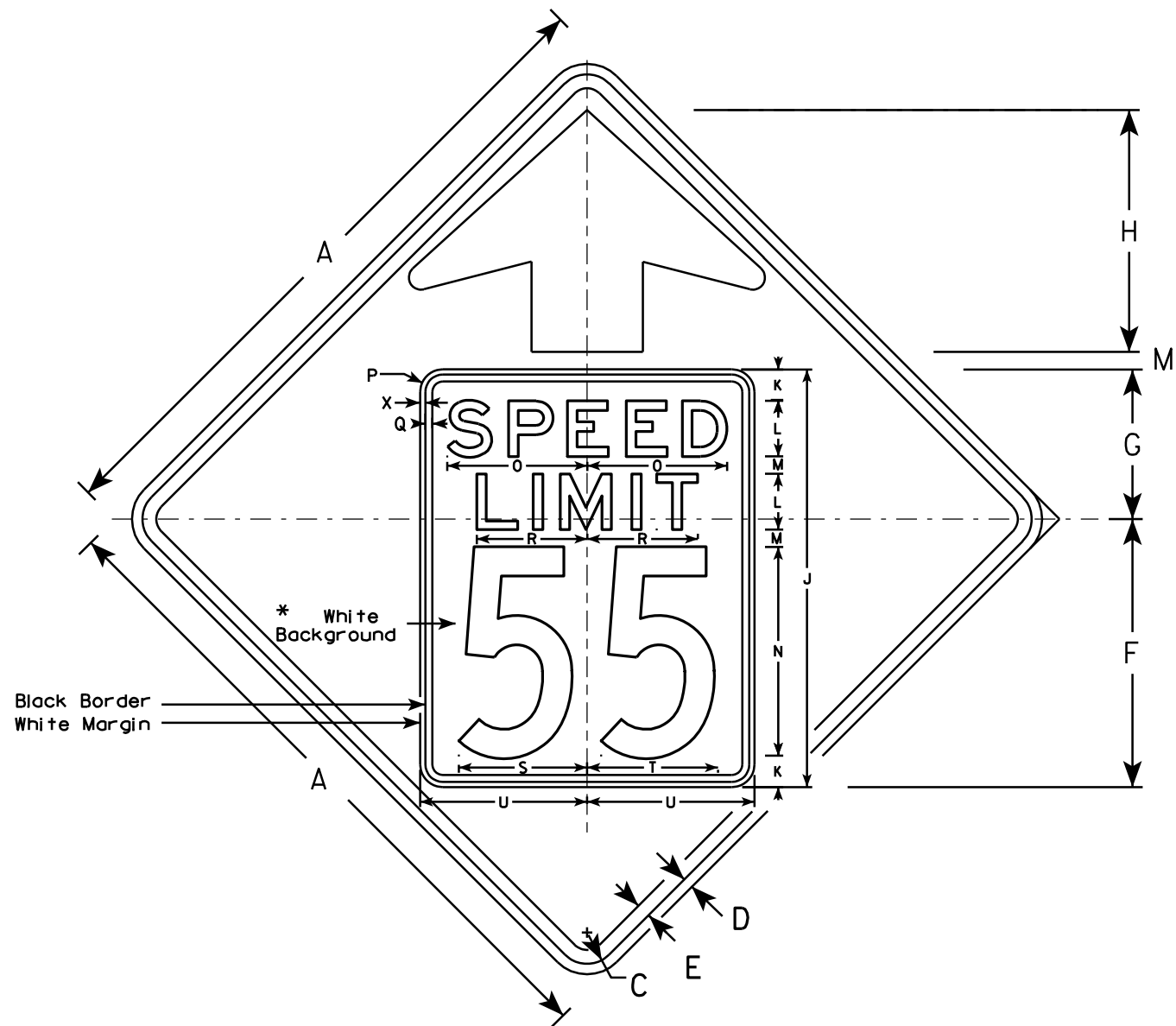
NOTES

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 - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D
Lines 2 & 6 are Series E
Line 3, 4 & 5 are 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	36		1 5⁄8	5⁄8	3⁄4	6	1 1⁄2	4	1 1⁄4	3 1⁄4	2 3⁄8	1 1⁄2	15	3 1⁄4	3	9	14 3⁄4	14 7⁄8	8 1⁄8	1 7⁄8	13	6 5⁄8	1	3	4 7⁄8		9.0
2M	36		1 5⁄8	5⁄8	3⁄4	6	1 1⁄2	4	1 1⁄4	3 1⁄4	2 3⁄8	1 1⁄2	15	3 1⁄4	3	9	14 3⁄4	14 7⁄8	8 1⁄8	1 7⁄8	13	6 5⁄8	1	3	4 7⁄8		9.0
3	48		2 1⁄4	3⁄4	1	8	2	6	1 1⁄4	4 3⁄4	3 1⁄4	1 1⁄2	20 1⁄4	5	3 5⁄8	12	19 1⁄2	20	11 5⁄8	3 3⁄4	19	9 1⁄2	1	3 1⁄2	6 3⁄4		16.0
4	48		2 1⁄4	3⁄4	1	8	2	6	1 1⁄4	4 3⁄4	3 1⁄4	1 1⁄2	20 1⁄4	5	3 5⁄8	12	19 1⁄2	20	11 5⁄8	3 3⁄4	19	9 1⁄2	1	3 1⁄2	6 3⁄4		16.0
5																											

STANDARD SIGN R59-51	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/30/11	PLATE NO. R59-51.10

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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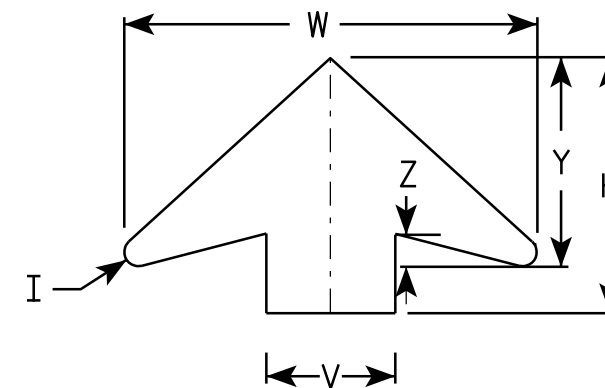


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

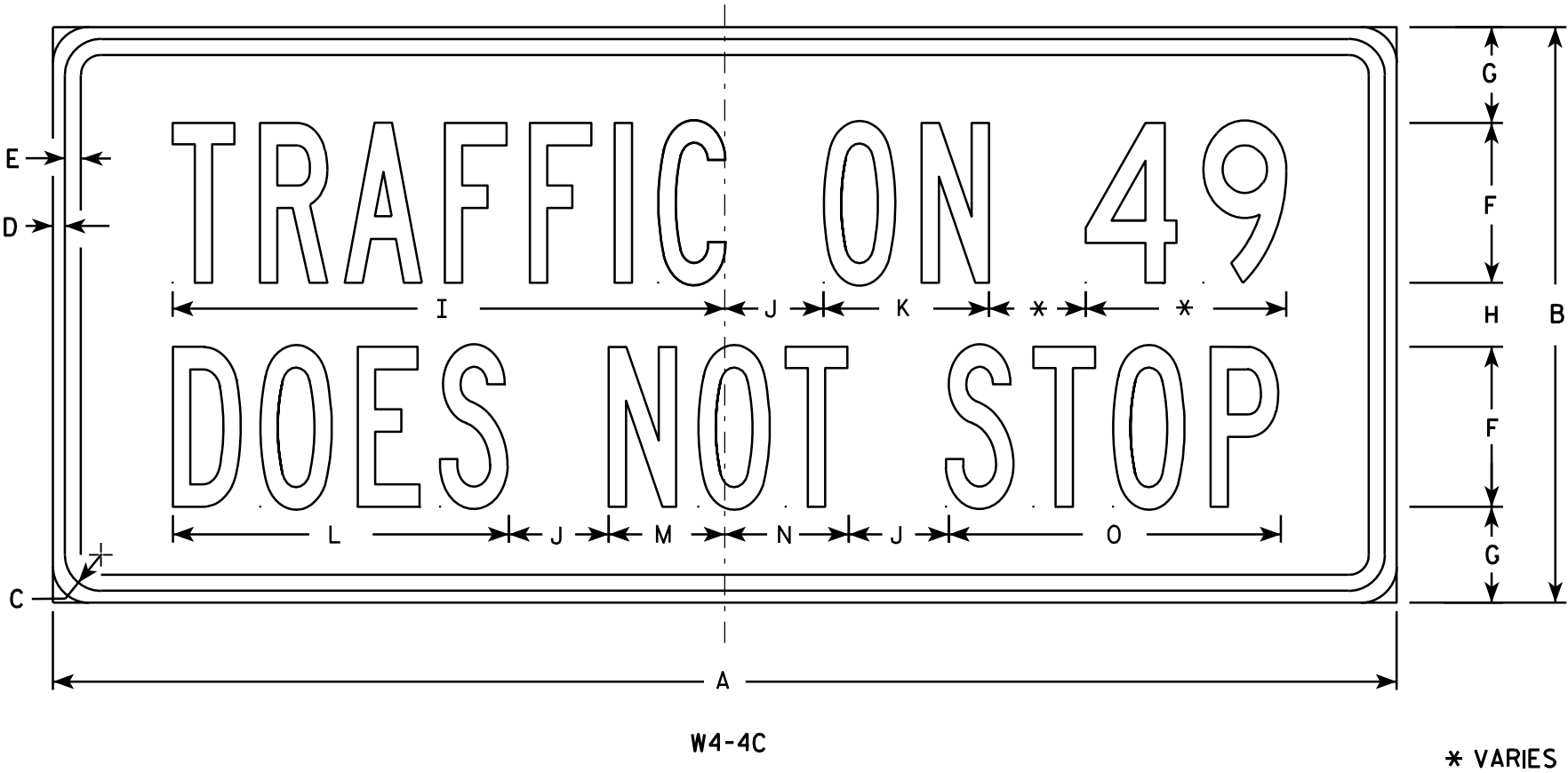
PROJECT NO:

SHEET NO:

E

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 - B (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. Highway Number usually Series D. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	3 1/8	6 1/4	2 1/4	2 1/4	6 1/4												2.0
2M	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	10 3/8	1 1/2	3 1/8	6 1/4	2 1/4	2 1/4	6 1/4												2.0
3	36	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	13 7/8	2 3/8	4 1/4	8 3/8	3 1/8	3 1/8	8 3/8												3.75
4	42	18	1 1/8	3/8	1/2	5	3	2	17 1/4	3 1/8	5 1/8	10 1/2	3 7/8	3 7/8	10 3/8												5.25
5																											

STANDARD SIGN

W4-4C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4.2



W4-4P

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 - B
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
2M	24	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	8	1 1/2	3/8	10	6 1/4	2 1/4	2 1/4	6 1/4											2.0
3	36	15	1 1/8	3/8	1/2	4	2 5/8	1 3/4	10 3/4	2 3/8	3/8	13 1/2	8 3/8	3	3 1/8	8 3/8											3.75
4	42	18	1 1/8	3/8	1/2	5	3	2	13 3/8	3 1/8	3/8	16 7/8	10 1/2	3 5/8	3 7/8	10 3/8											5.25
5																											

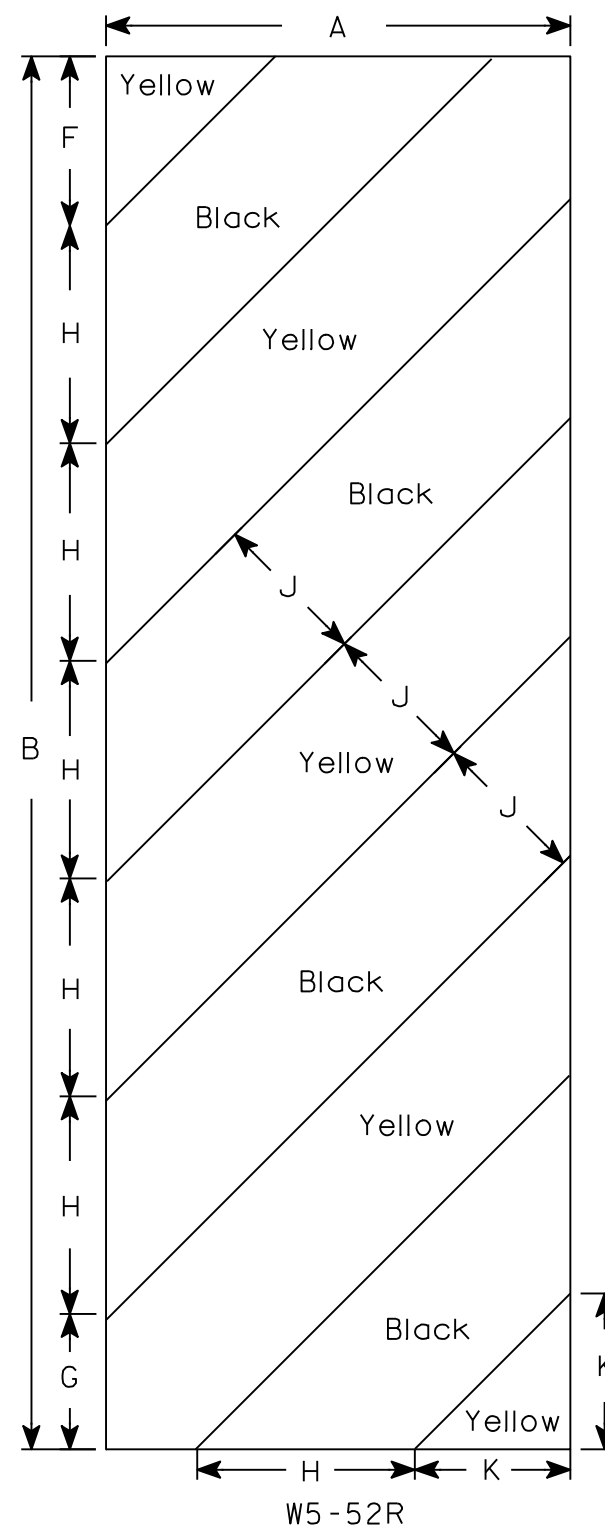
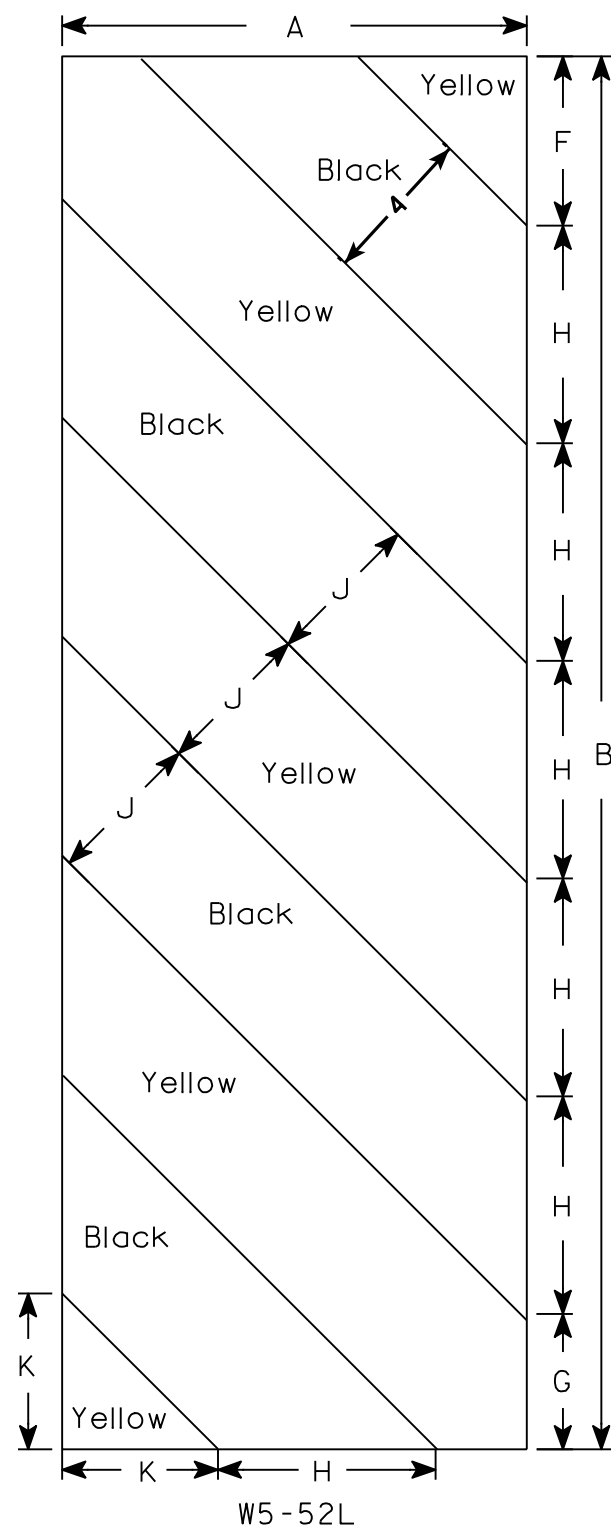
STANDARD SIGN
W4-4P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rasch*
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-4P.2

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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NOTES

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

[illegible]

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

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

PROJECT NO:

HWY:

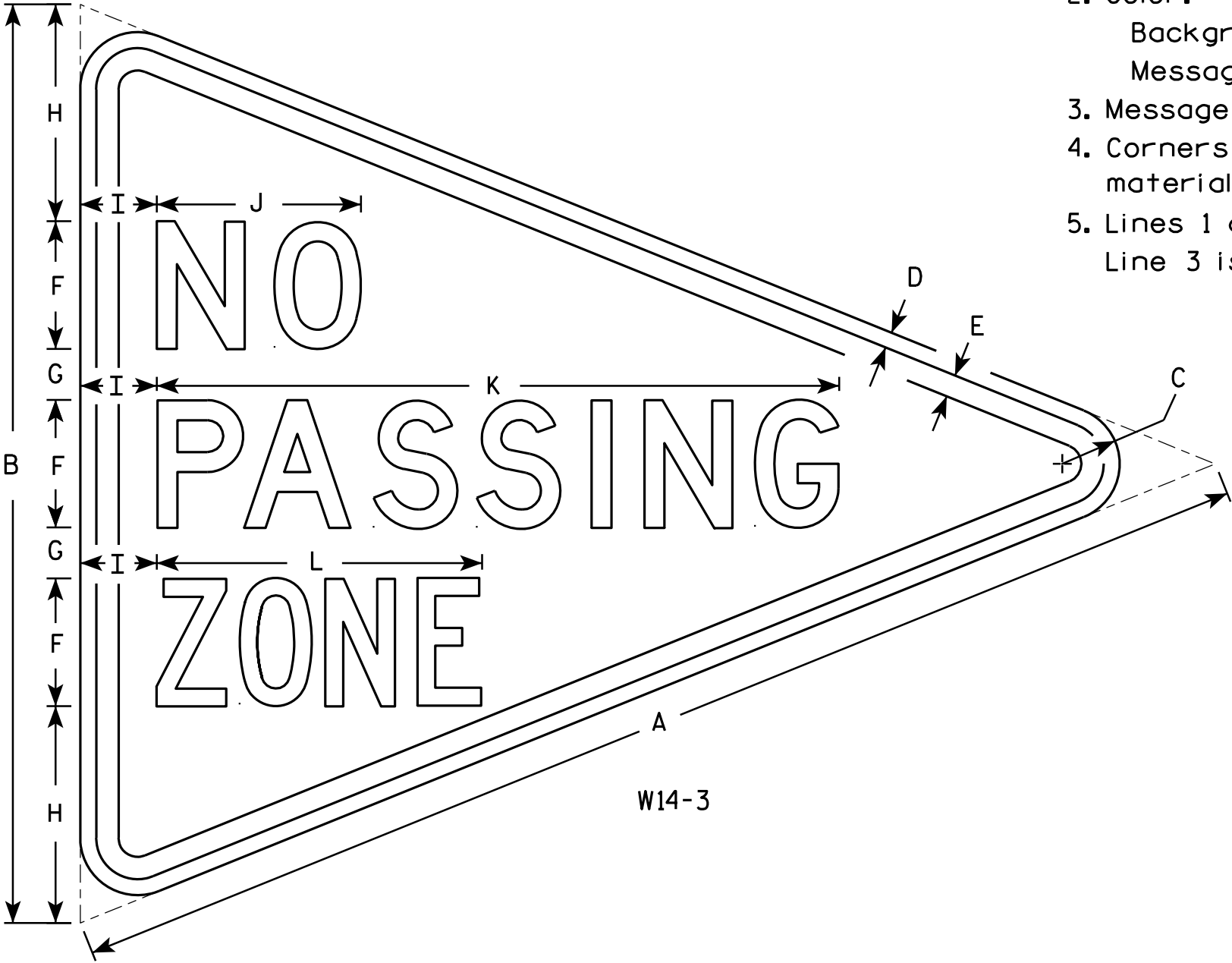
COUNTY:

SHEET NO:

E

NOTES

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



W14-3

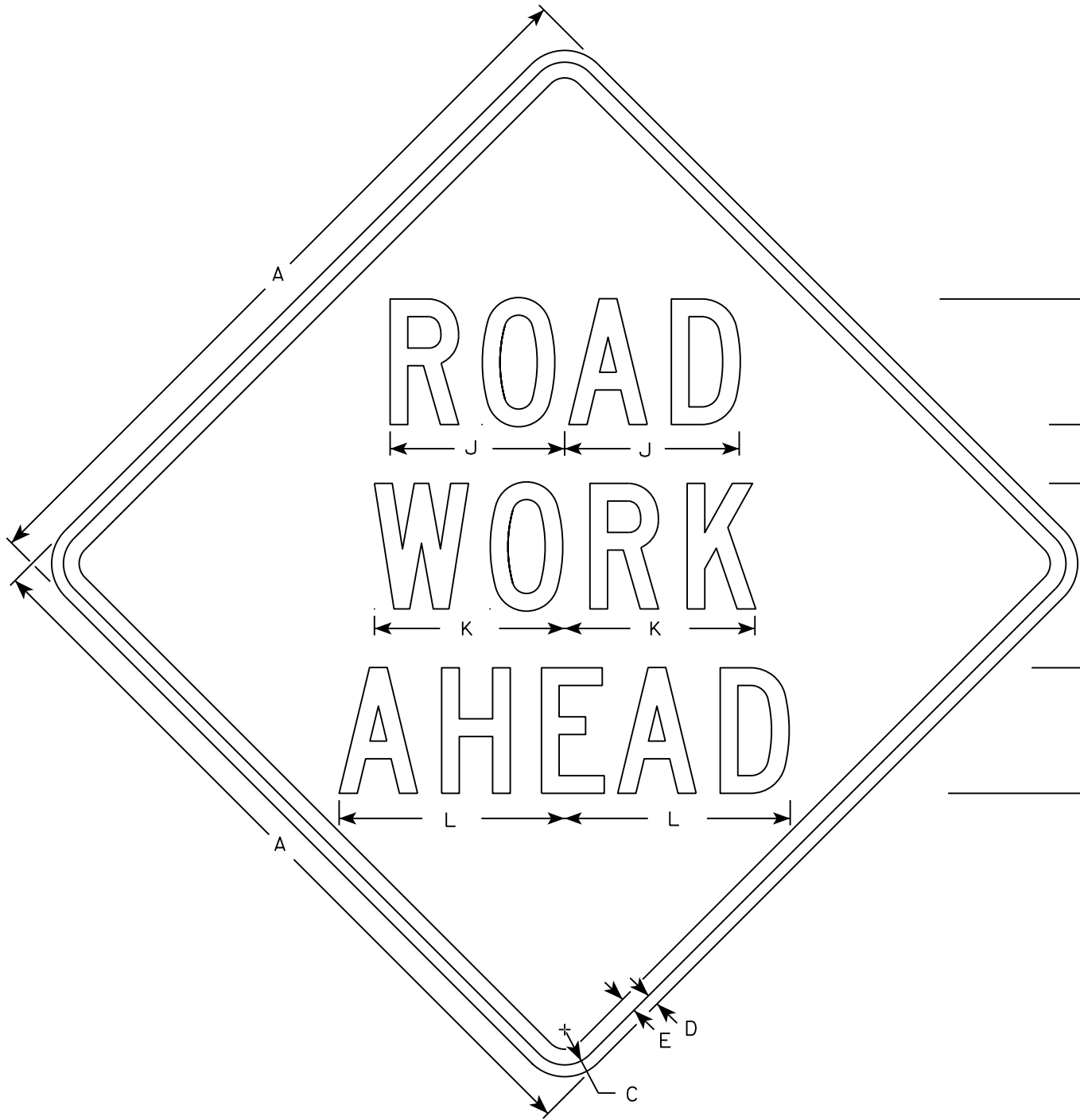
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2														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

STANDARD SIGN
W14-3

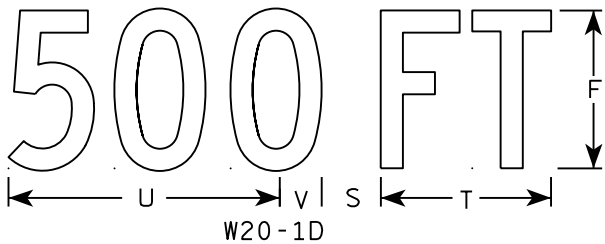
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

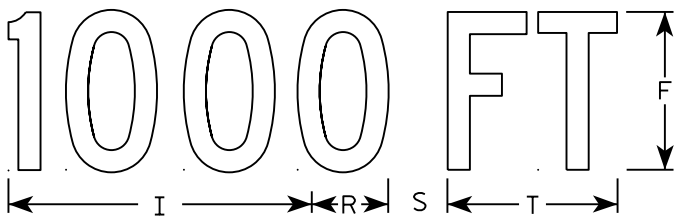
DATE 6/7/10 PLATE NO. W14-3.9



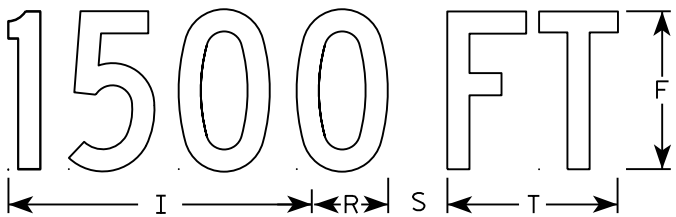
W20-1A



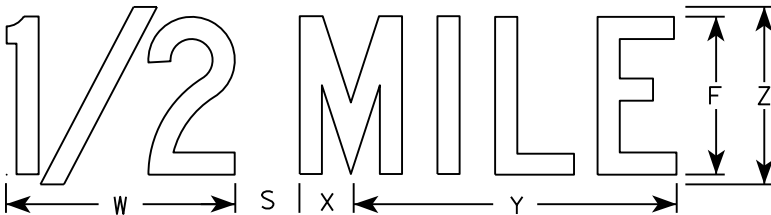
W20-1D



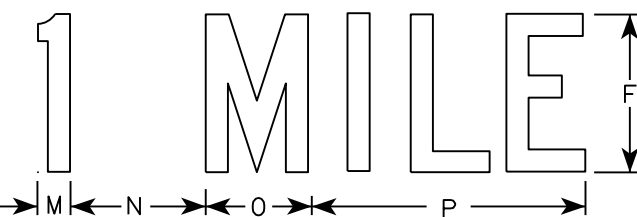
W20-1C



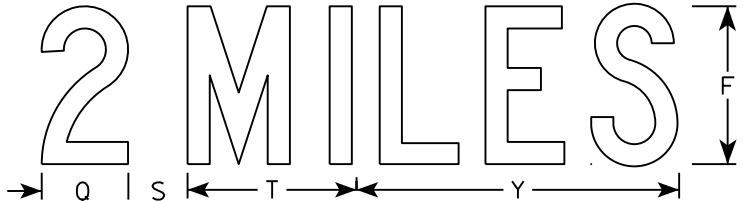
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

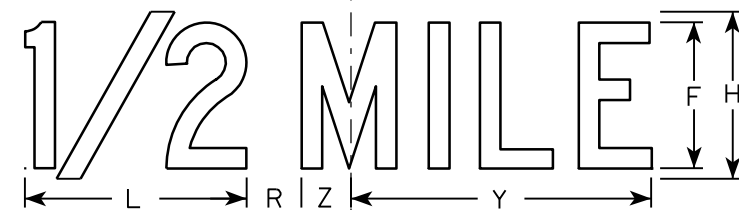
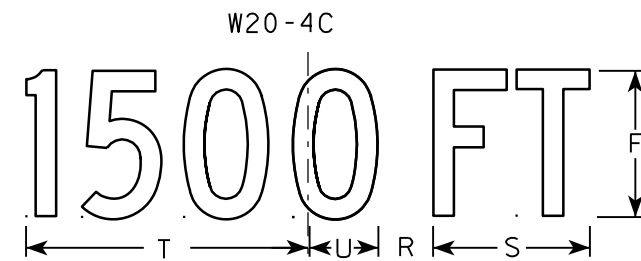
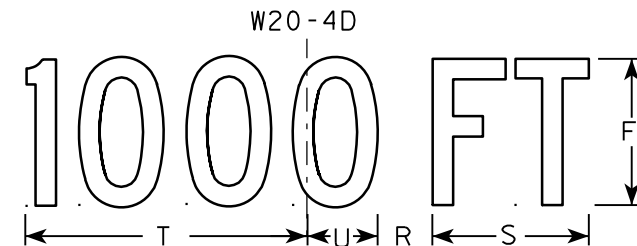
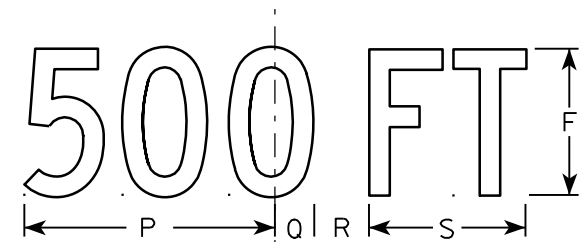
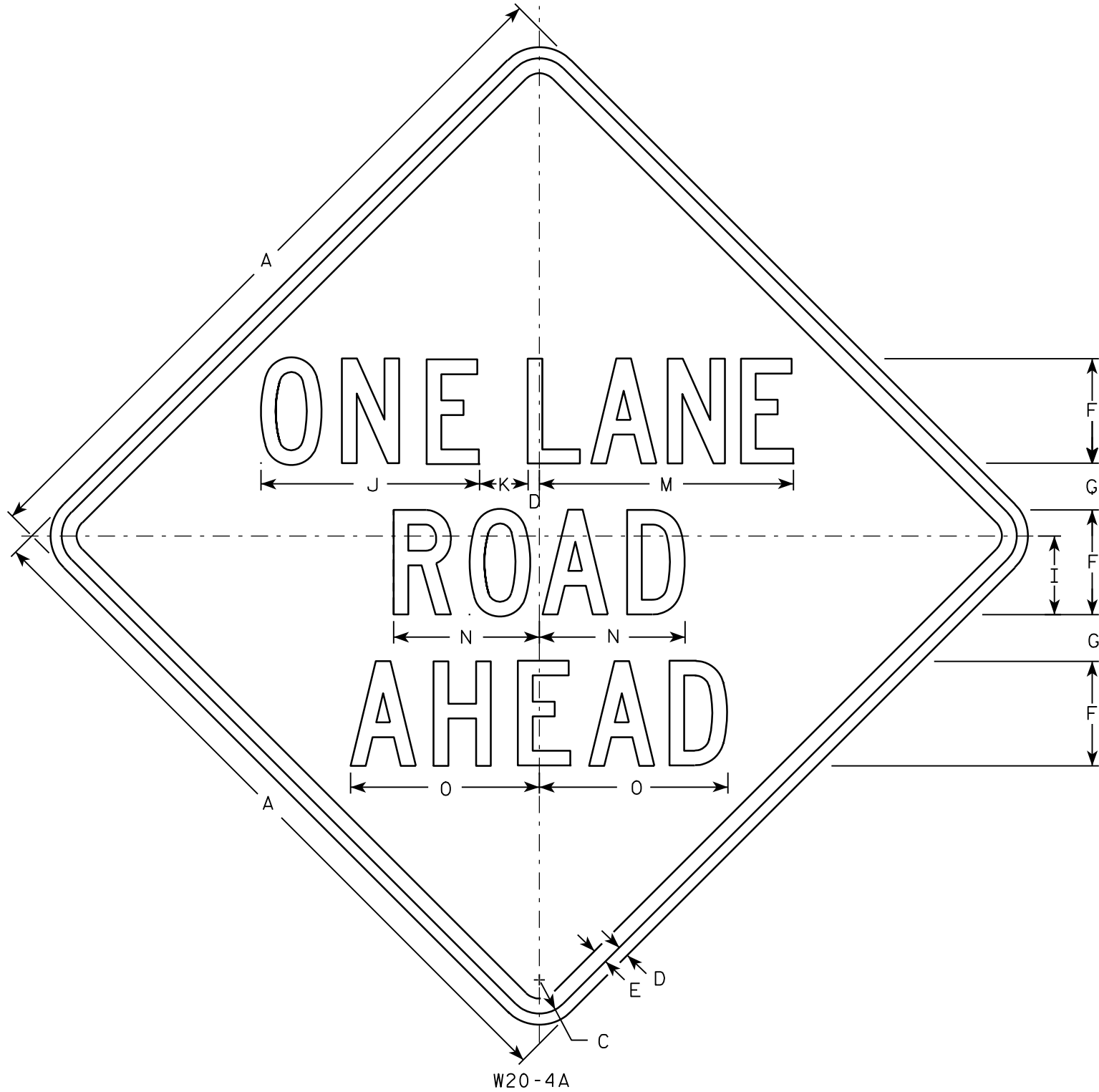
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



NOTES

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

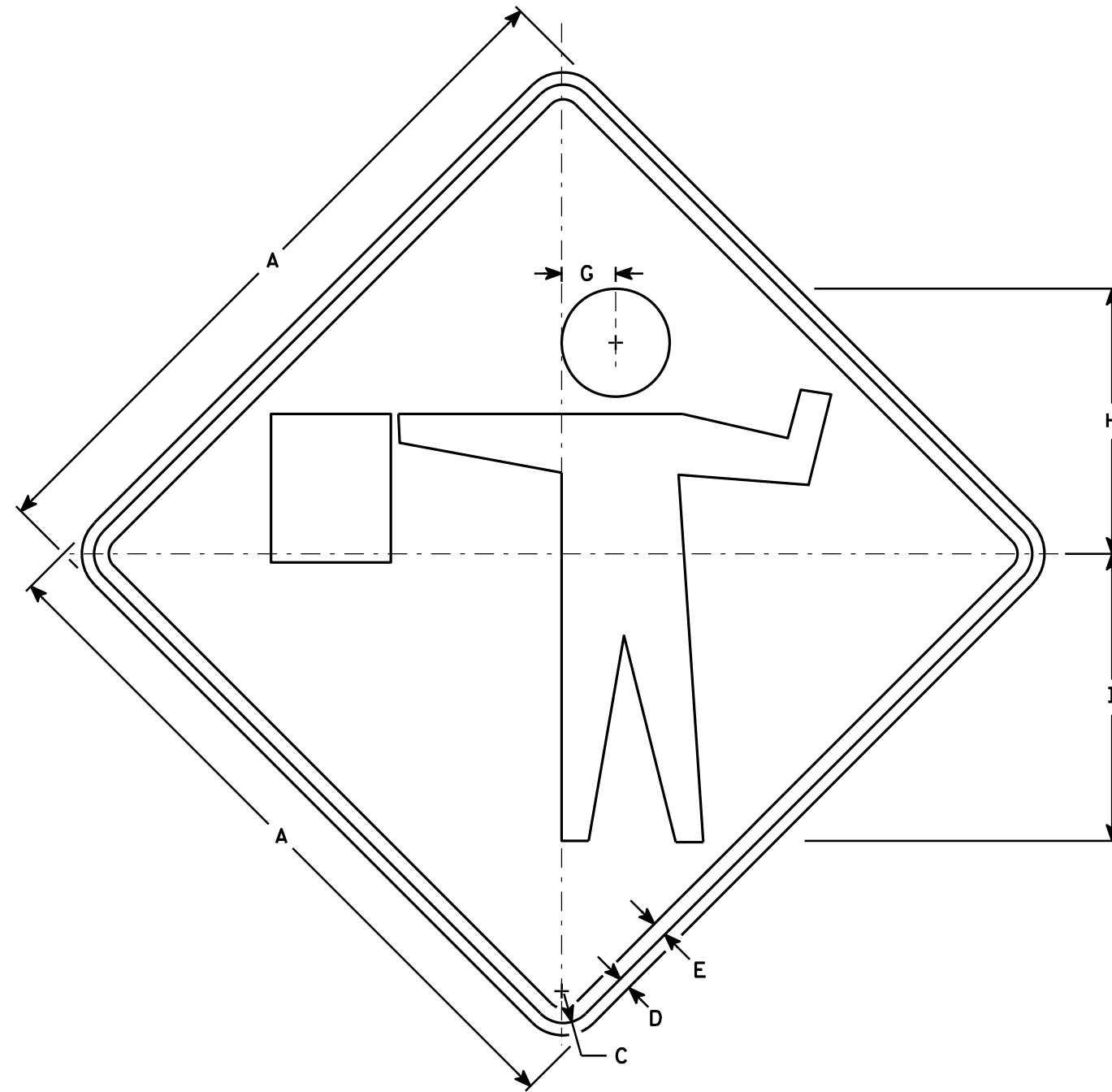
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 3/8	6	3 3/4	10 3/8	2 3/8	8	13 1/2	7	8 7/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	3 1/8	8	5 1/4	14 5/8	3 1/4	10 5/8	17 3/4	9 3/4	12 5/8	12	1 7/8	2 5/8	7 1/2	13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

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-4.9



W20-7A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

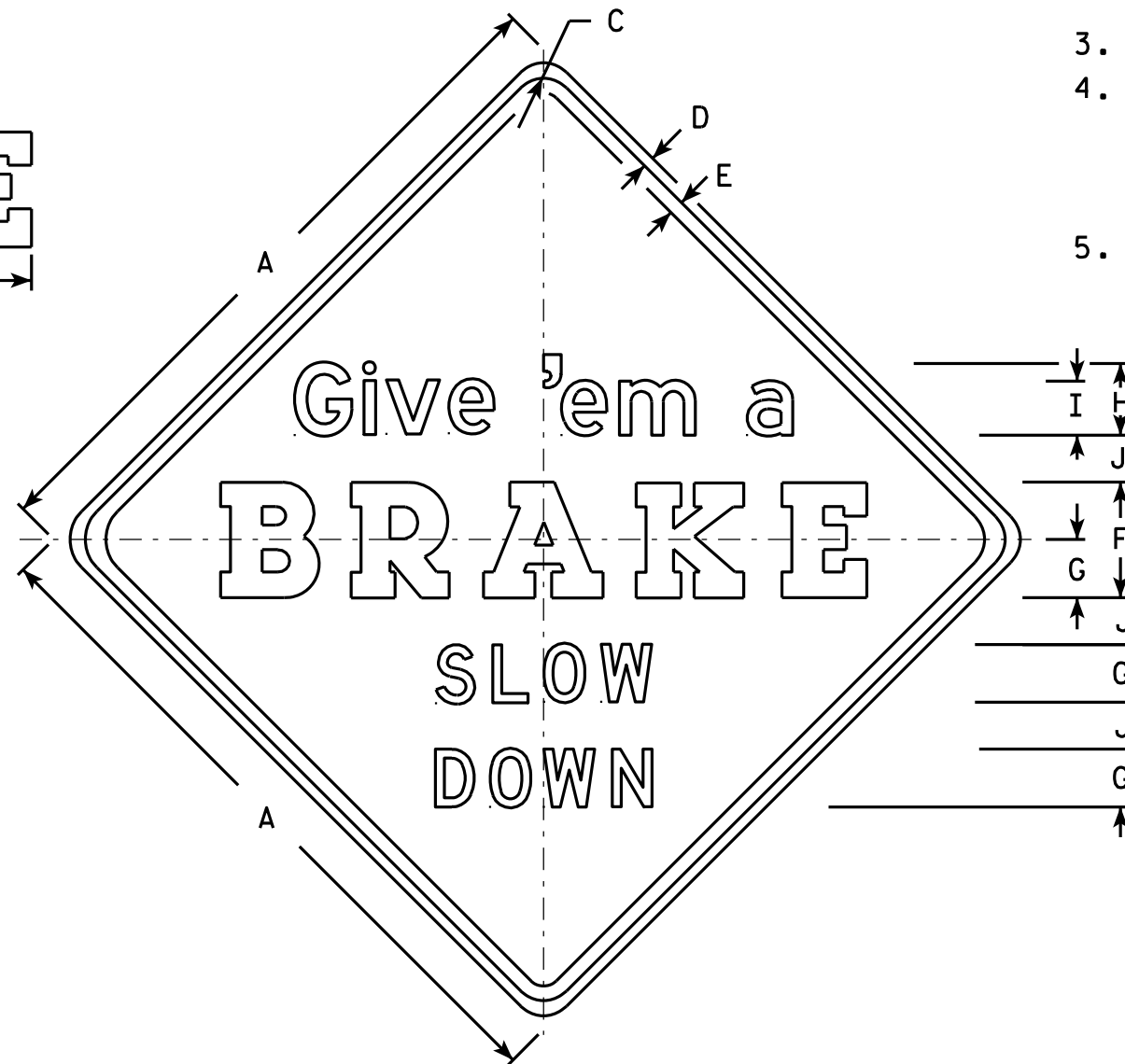
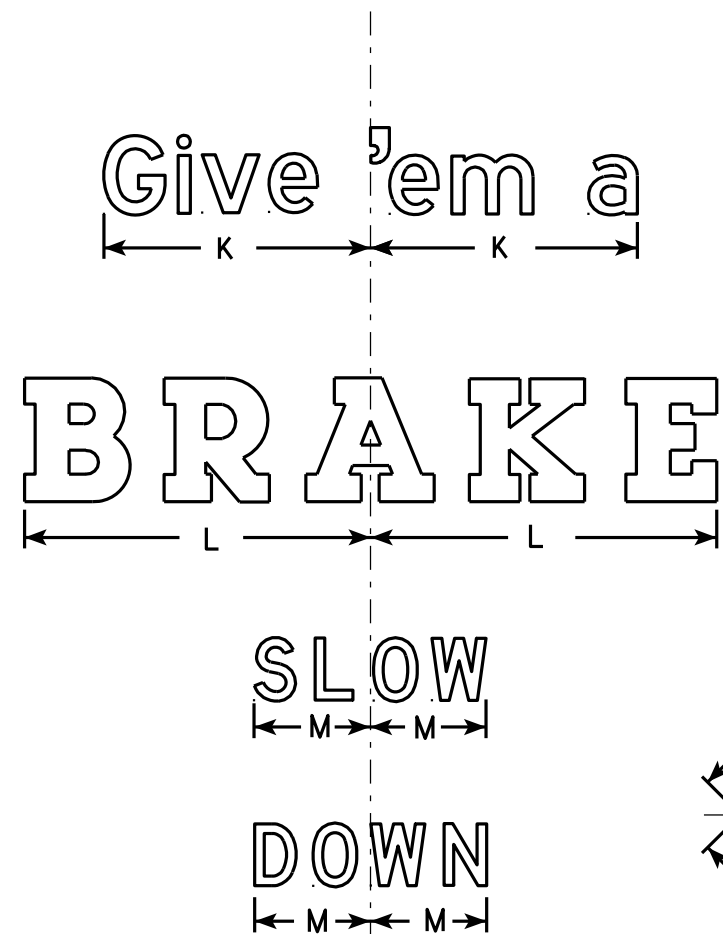
STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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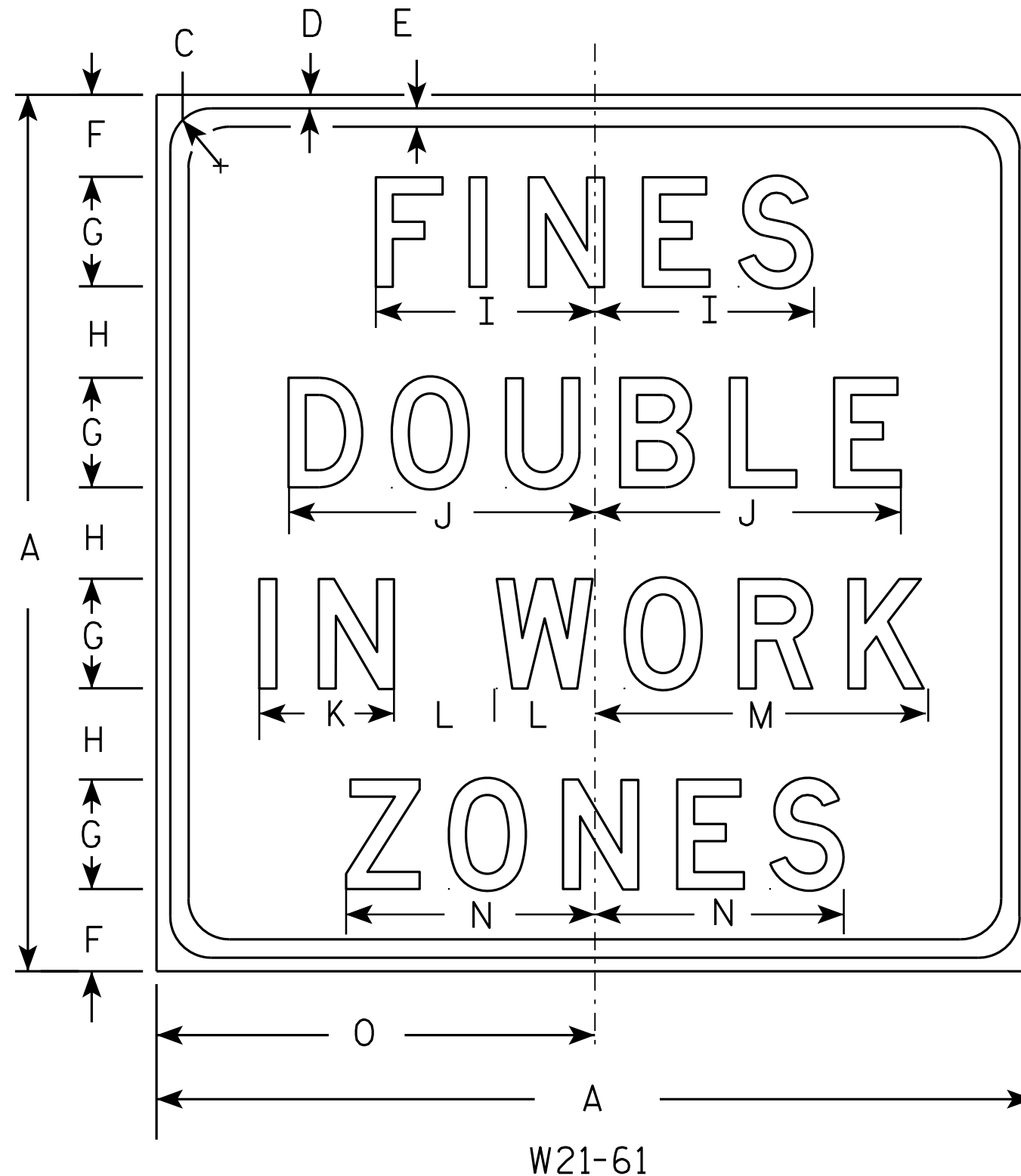
W21-60

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line one is Series E. Line two is a Special Graphic Series and Lines three and four are Series D.

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

STANDARD SIGN	
W21-60	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/21/11	PLATE NO. W21-60.4



W21-61

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	2 1/4	3	2 1/2	6	8 3/8	3 3/4	2 3/4	9 1/8	6 7/8	12												4.0
2S	36		1 5/8	5/8	3/4	3 3/8	4 1/2	3 3/4	9	12 5/8	5 1/2	4 1/8	13 3/4	10 1/4	18												9.0
2M	36		1 5/8	5/8	3/4	3 3/8	4 1/2	3 3/4	9	12 5/8	5 1/2	4 1/8	13 3/4	10 1/4	18												9.0
3	48		2 1/4	3/4	1	4 1/2	6	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24												16.0
4																											
5																											

STANDARD SIGN W21-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 3/21/11 PLATE NO. W21-61.4

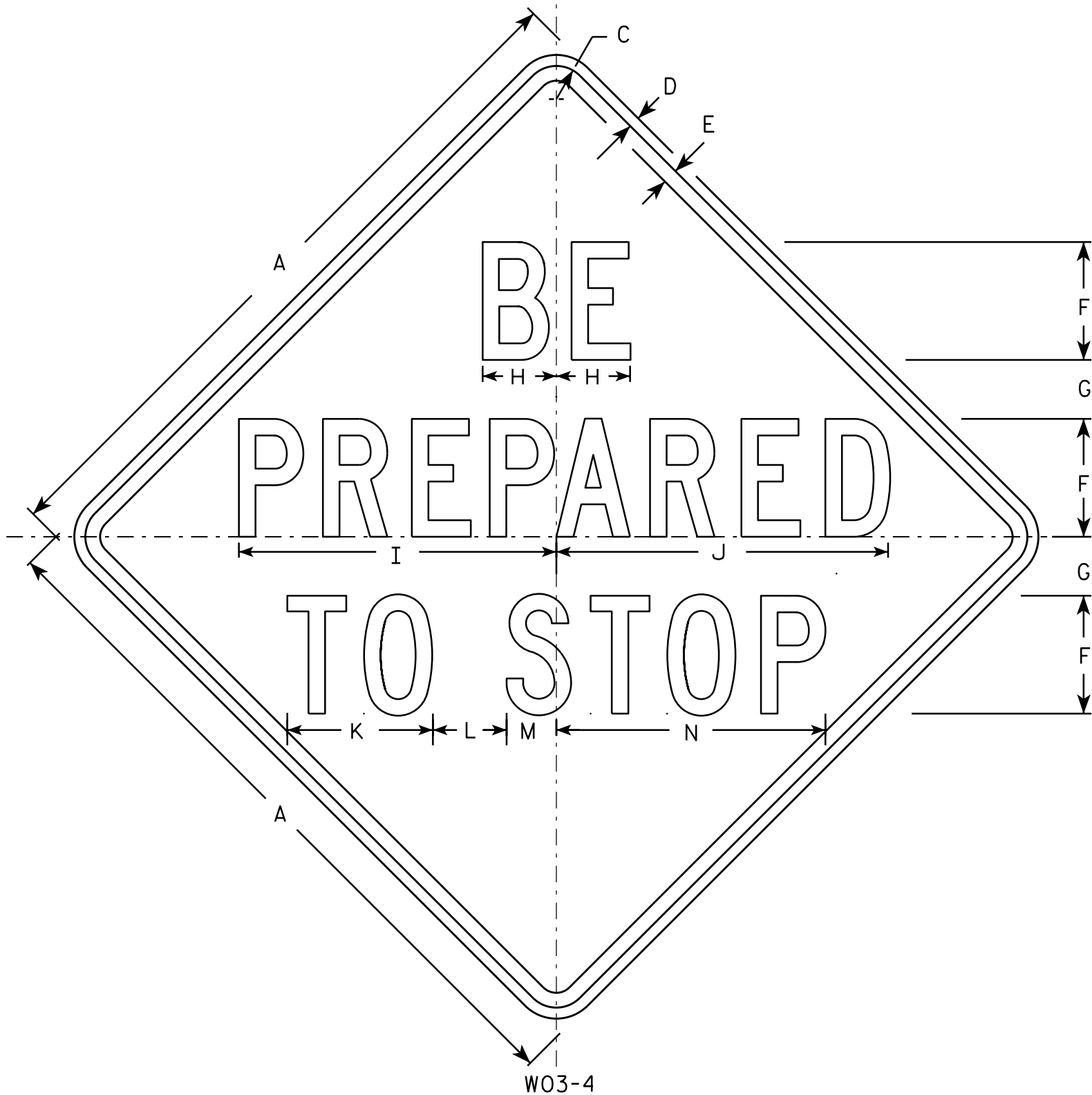
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3⁄8	1⁄2	5⁄8	6	2 1⁄2	3 3⁄4	15 7⁄8	16 7⁄8	7 3⁄8	4	2 3⁄8	13 3⁄4													9.0
2S	48		2 1⁄4	3⁄4	1	8	4	5	21 1⁄2	22 1⁄2	9 7⁄8	5	3 3⁄8	18 1⁄4													16.0
2M	48		2 1⁄4	3⁄4	1	8	4	5	21 1⁄2	22 1⁄2	9 7⁄8	5	3 3⁄8	18 1⁄4													16.0
3	48		2 1⁄4	3⁄4	1	8	4	5	21 1⁄2	22 1⁄2	9 7⁄8	5	3 3⁄8	18 1⁄4													16.0
4	48		2 1⁄4	3⁄4	1	8	4	5	21 1⁄2	22 1⁄2	9 7⁄8	5	3 3⁄8	18 1⁄4													16.0
5	48		2 1⁄4	3⁄4	1	8	4	5	21 1⁄2	22 1⁄2	9 7⁄8	5	3 3⁄8	18 1⁄4													16.0

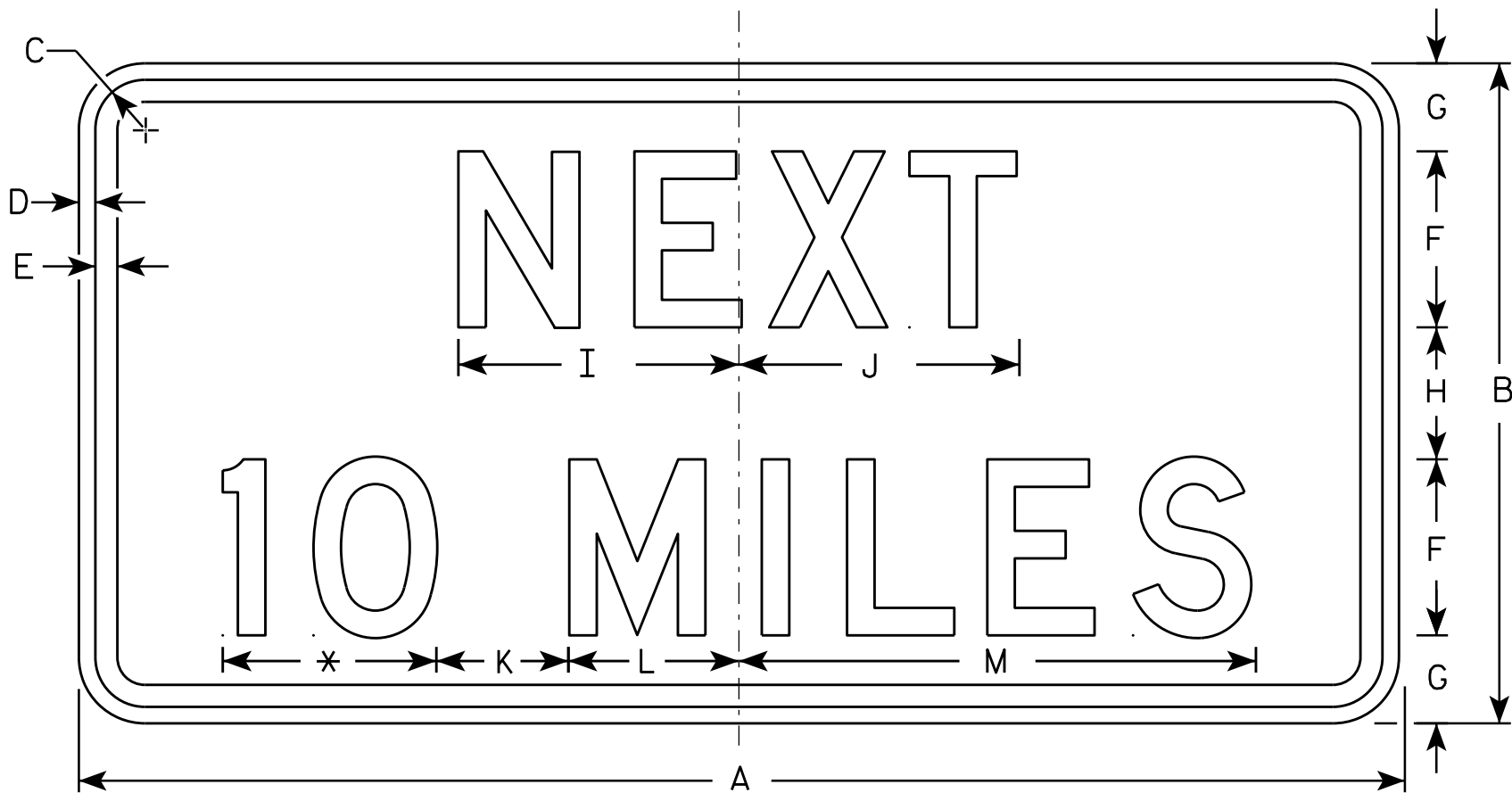
STANDARD SIGN
W03-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/02/13 PLATE NO. W03-4.1

PROJECT NO: HWY: COUNTY: SHEET NO: E



W057-51

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

* See note 5

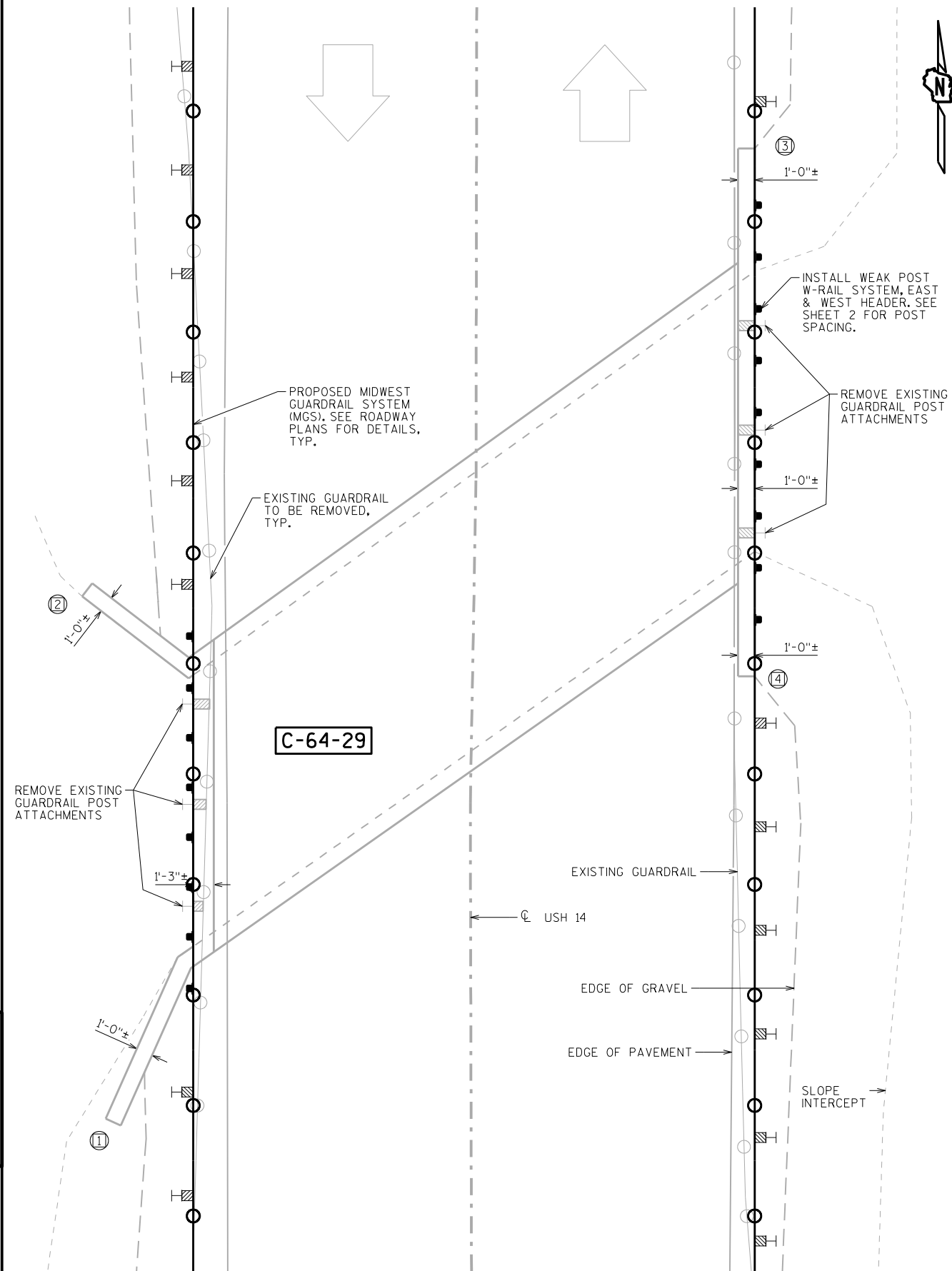
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 5/8	2 3/4	7 7/8	8	5	4 1/8	15 3/8														4.5
2S	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
2M	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
3	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
4	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0
5	48	24	1 3/8	1/2	5/8	6	3 1/2	5	10	10 1/8	6	5 5/8	19														8.0

STANDARD SIGN
W057-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W057-51.1



○ INDICATES WING NUMBER

CONTRACTOR TO ADJUST
HEADER ELEVATION AS NEEDED.APPROXIMATE LIMITS OF
CONCRETE SURFACE REPAIREXISTING GUARDRAIL POST,
TO BE REMOVED, TYP.**WING 2
SURFACE REPAIR**

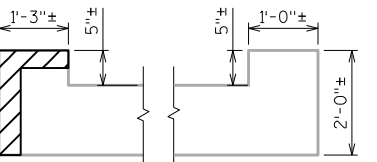
(LOOKING NORTHEAST, NORMAL TO F.F. WING)

**WING 1
SURFACE REPAIR**

(LOOKING SOUTHEAST, NORMAL TO F.F. WING)

EXISTING GUARDRAIL POST,
TO BE REMOVED, TYP.**WING 4****WING 3****EAST ELEVATION
SURFACE REPAIR**

(LOOKING WEST, NORMAL TO F.F. WING)

**WEST EAST
HEADER DIMENSIONS**

(DIMENSIONS ARE BASED ON FIELD MEASUREMENTS)

LIST OF DRAWINGS

1. GENERAL PLAN
2. GUARDRAIL LAYOUT
3. GUARDRAIL DETAILS 1
4. GUARDRAIL DETAILS 2

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

DIMENSIONS SHOWN ARE BASED ON FIELD MEASUREMENTS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A $\frac{1}{2}$ "-INCH DEEP SAW CUT.

REMOVE THE EXISTING RAILINGS (INCLUDING POSTS AND ASSOCIATED ANCHOR BOLTS AND HARDWARE). THIS SHALL BE INCIDENTAL TO "REMOVING OLD STRUCTURE STA. 1663+00." THE EXISTING RAILING NEED NOT BE SALVAGED.

REMOVE ALL LOOSE CONCRETE AT HEADERS AND WINGS UNDER BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL SHALL BE BRUSH CLEANED PRIOR TO THE CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE ENGINEER.


TOTAL ESTIMATED QUANTITIES

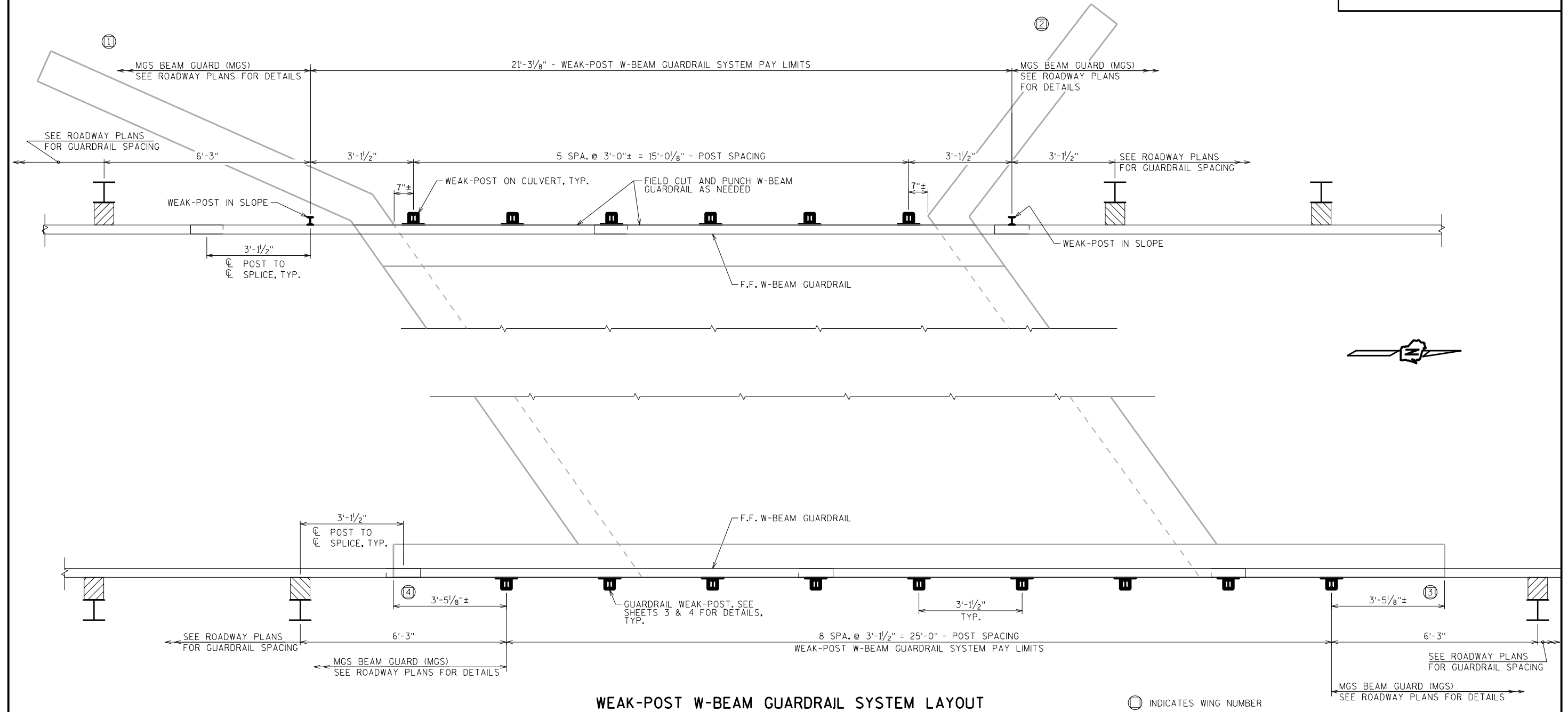
BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 1663+00	LS	1
509.1500	CONCRETE SURFACE REPAIR	SF	115
SPV.0090	WEAK-POST W-BEAM GUARDRAIL SYSTEM	LF	47

STRUCTURE DESIGN CONTACTS:

ADAM SWIERCZEK (608) 267-4593




AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY
 Plans Prepared By WISDOT BUREAU OF STRUCTURES ACCEPTED <i>William C. Dehner</i> 3/21/16 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE C-64-29			
US 14 OVER UNNAMED WATERWAY			
COUNTY	WALWORTH	TOWN/CITY/VILLAGE	WALWORTH
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	ABS	DESIGN CK'D.	EMK
DRAWN BY	ABS	PLANS CK'D.	EMK
GENERAL PLAN			SHEET 1 OF 4



WEAK-POST W-BEAM GUARDRAIL SYSTEM LAYOUT

LEGEND

-  WEAK-POST IN SLOPE
-  WEAK-POST ON CULVERT
-  STANDARD MGS GUARDRAIL POST. SEE ROADWAY PLANS FOR DETAILS.

WEAK POST IN SLOPE

SEE "GUARDRAIL DETAILS 1" AND "GUARDRAIL DETAILS 2" SHEETS FOR DETAILS.

WEAK POST ON CULVERT

SEE "GUARDRAIL DETAILS 1" AND "GUARDRAIL DETAILS 2" SHEETS FOR DETAILS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-64-29			
DRAWN BY		ABS	PLANS CK'D. EMK
GUARDRAIL LAYOUT		SHEET 2	

- (1) HSS $\frac{3}{8}$ " X 4" X 4", 1'-4 $\frac{1}{2}$ " LONG SQUARE SOCKET.
- (2) PL $\frac{1}{2}$ " X 8" X 3" BOTTOM MOUNTING PLATE. WELD TO NO. 1.
- (3) PL $\frac{1}{2}$ " X 10" X 3" TOP MOUNTING PLATE. WELD TO NO. 1 & NO. 4
- (4) PL $\frac{1}{4}$ " TOP PLATE GUSSET. SEE DETAIL FOR DIMENSIONS. WELD TO NO. 1 & NO. 3.
- (5) MASONRY ANCHOR TYPE S $\frac{3}{4}$ ". EMBED 9" IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE. USE WITH NO. 6. & NO. 7.
- (6) $\frac{3}{4}$ " DIA. HARDENED ROUND NARROW WASHER. USE WITH NO. 5 & NO. 7.
- (7) $\frac{3}{4}$ " DIA. HEAVY HEX NUT. USE WITH NO. 5 & NO. 6.
- (8) S3x5.7 X 3'-8" LONG STEEL POST. BOLT TO NO. 1 WITH NO. 13.
- (9) PL $\frac{1}{4}$ " X 2 $\frac{3}{4}$ " X 1" POST STANDOFF. WELD TO NO. 8.
- (10) MASONRY ANCHOR TYPE S $\frac{1}{2}$ ". EMBED 4 $\frac{1}{2}$ " IN CONCRETE. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE. USE WITH NO. 11 & NO. 12.
- (11) $\frac{1}{2}$ " DIA. HARDENED ROUND WASHER. USE WITH NO. 10 & NO. 12.
- (12) $\frac{1}{2}$ " DIA. HEAVY HEX NUT. USE WITH NO. 10 & NO. 11.
- (13) $\frac{5}{8}$ " DIA. 5" LONG HEAVY HEX BOLT AND NUT. USE TO BOLT NO. 1 TO NO. 8.
- (14) $\frac{5}{8}$ " DIA. 1 $\frac{1}{4}$ " LONG HEAVY HEX BOLT AND NUT. USE WITH NO. 15 TO ATTACH NO. 16 & NO. 17 TO NO. 8.
- (15) PL WASHER $\frac{1}{8}$ " X 1 $\frac{3}{4}$ " X 1 $\frac{3}{4}$ ". USE WITH NO. 14.
- (16) 1'-0" W-BEAM BACKUP PLATE. BOLT TO NO. 8, UNDER NO. 17, WITH NO. 14 & NO. 15.
- (17) 13'-6 $\frac{1}{2}$ " W-BEAM MGS SECTION $\frac{1}{2}$ " POST SPACING. BOLT ON TOP OF NO. 16 TO NO. 8. & NO. 19 WITH NO. 14 & NO. 15.
- (18) $\frac{5}{8}$ " DIA. 1 $\frac{1}{2}$ " LONG ASTM A307 GUARDRAIL HEAD BOLT. REQUIRES $\frac{5}{8}$ " DIA. A563A DOUBLE RECESSED (DR) HEAVY HEX NUT. USE TO ATTACH MULTIPLE NO. 17 SECTIONS. (8 PER CONNECTION).
- (19) S3x5.7 X 6'-0" LONG STEEL POST.

THE BID ITEM SHALL BE "WEAK-POST W-BEAM GUARDRAIL SYSTEM", WHICH SHALL INCLUDE ALL ITEMS SHOWN.

ALL PLATES CUT SHALL BE MACHINE OR MACHINE FLAME CUT.

MATERIAL SPECIFICATIONS SHALL BE AS SHOWN IN TABLE 1 ON THIS SHEET.

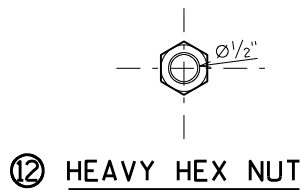
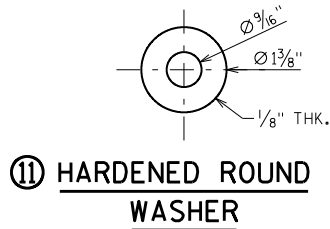
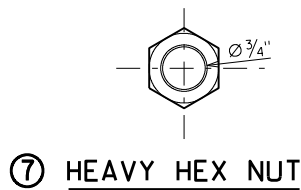
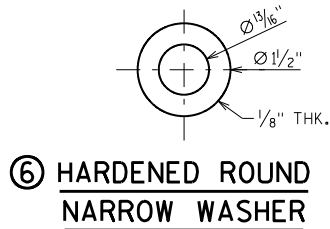
AFTER FABRICATION AND PRIOR TO INSTALLATION, STEEL SHALL BE BLAST CLEANED PER SSPC-SP 6 AND GALVANIZED ACCORDING TO ASTM A 123. REPAIR ZINC COATING DAMAGED DURING INSTALLATION AS SPECIFIED IN 513.3.3(3).

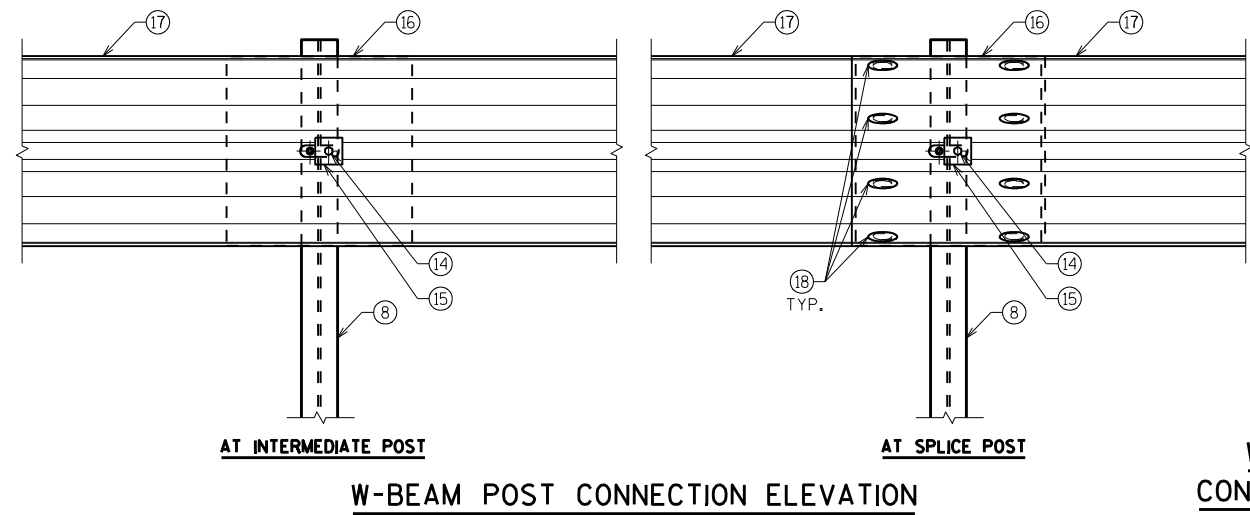
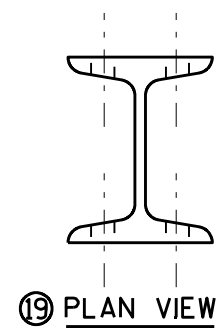
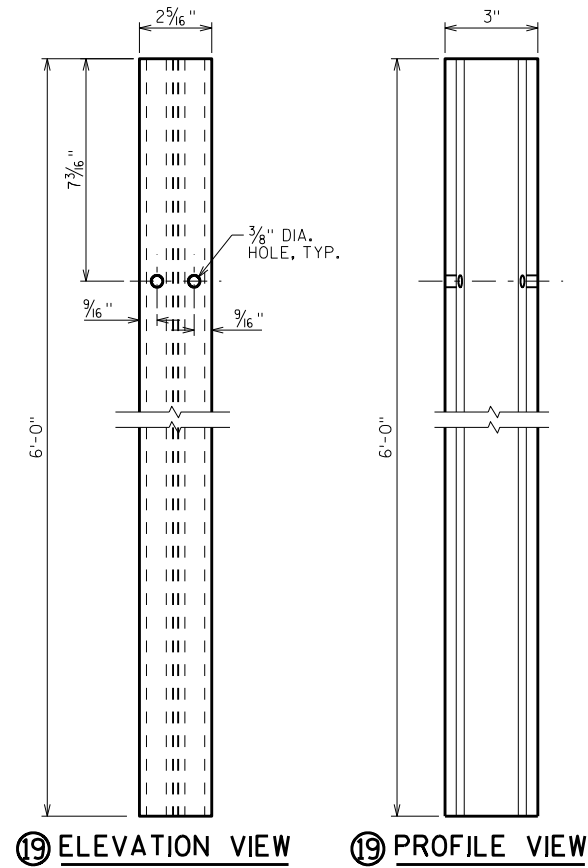
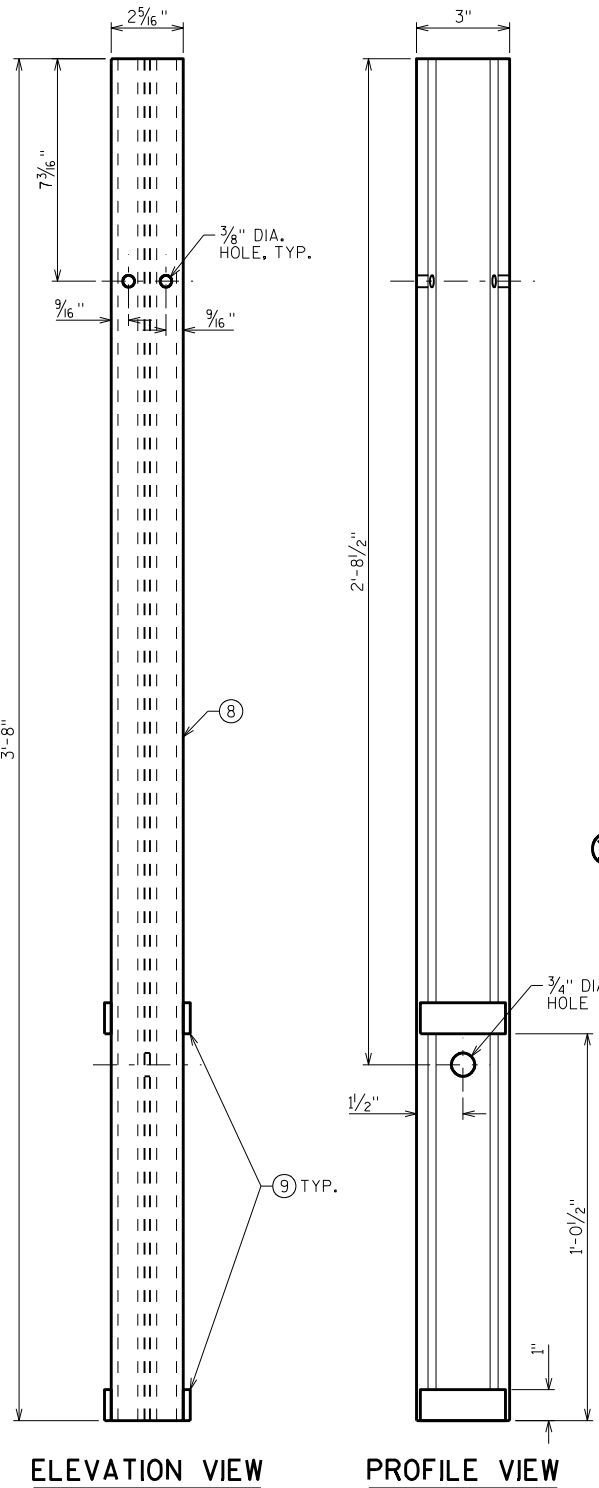
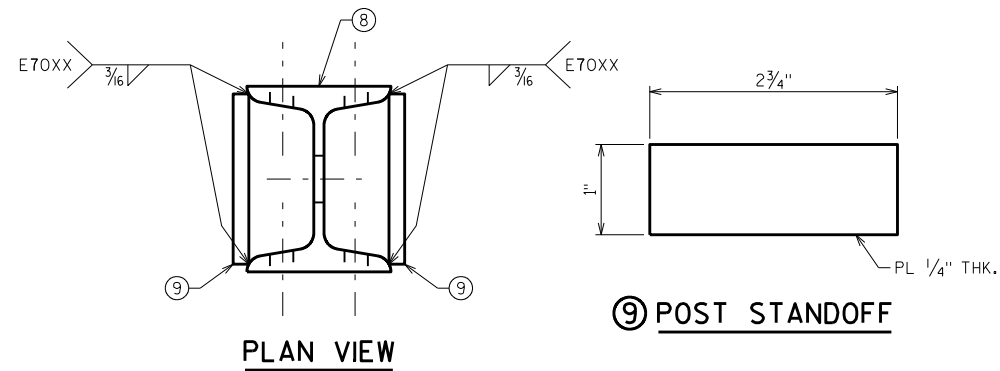
ALL WELDS SHALL BE PREQUALIFIED ACCORDING TO THE STRUCTURAL WELDING CODE STEEL (AWS D1.1). WELDS SHALL BE SIZED AS SHOWN IN THE PLANS.

MATERIAL DESIGNATION	APPLICABLE COMPONENTS
ASTM A500 GRADE B	(1)
ASTM A572 GRADE 50	(2) (3) (4)
ASTM F436	(6) (11)
ASTM F563A	(7) (12)
ASTM A992 GRADE 50	(8)
ASTM A36	(9) (15)
ASTM A307	(14) (18)
12 GAUGE AASHTO M180	(16) (17)

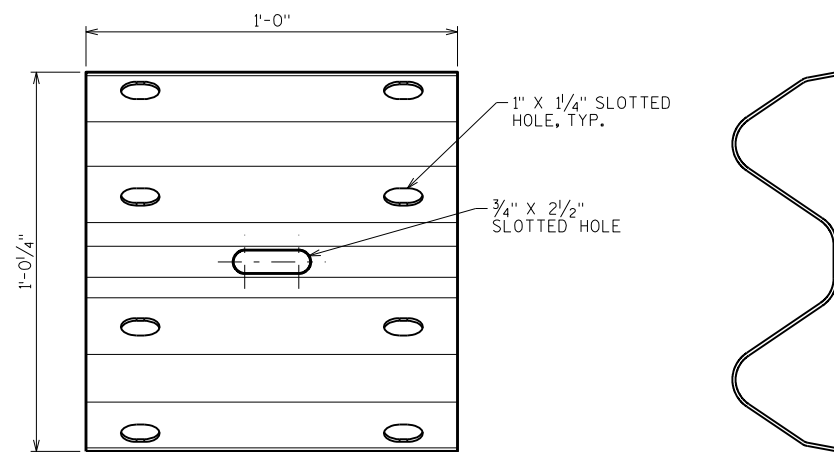
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-64-29			
DRAWN BY		ABS	PLANS CK'D. EMK
GUARDRAIL DETAILS 1		SHEET 3	

SCALE = 0.5





W-BEAM POST CONNECTION PROFILE

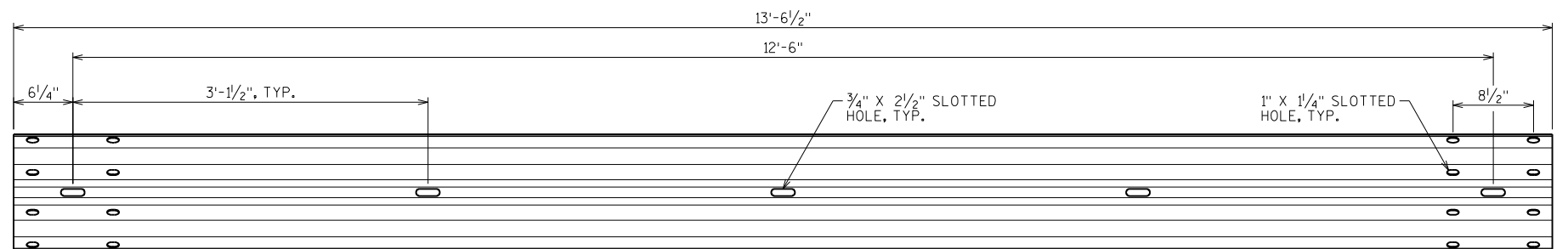
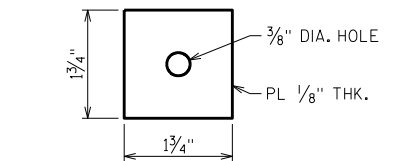


⑬ ELEVATION VIEW

1" X 1/4" SLOTTED HOLES NEEDED AT EVERY GUARDRAIL SPLICE POST. HOLES ARE NOT NEEDED AT INTERMEDIATE POSTS.

⑬ & ⑭ PROFILE VIEW

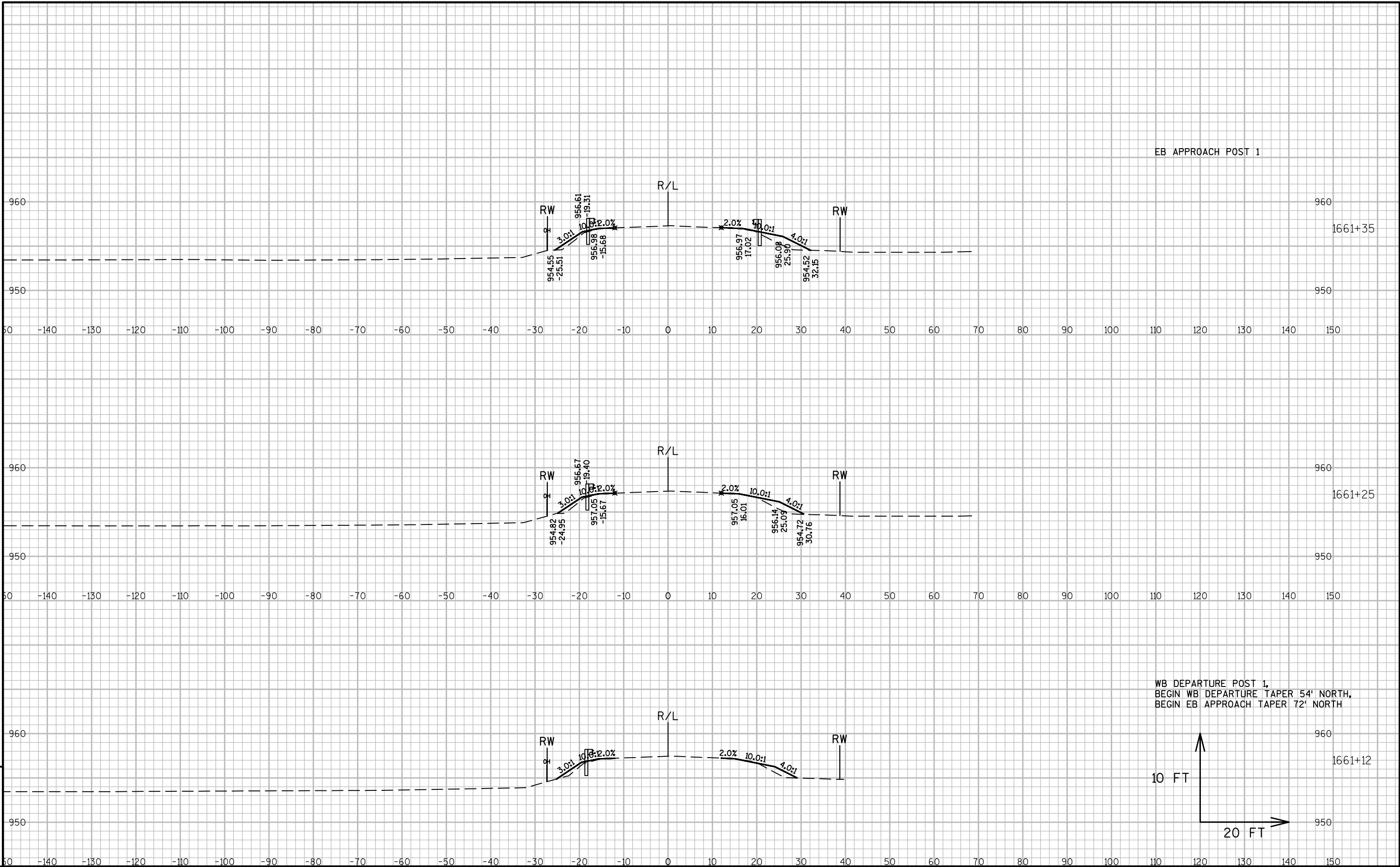
STANDARD MGS. PROFILE, SEE FDM SDD 14B 42-3B FOR DETAILS.

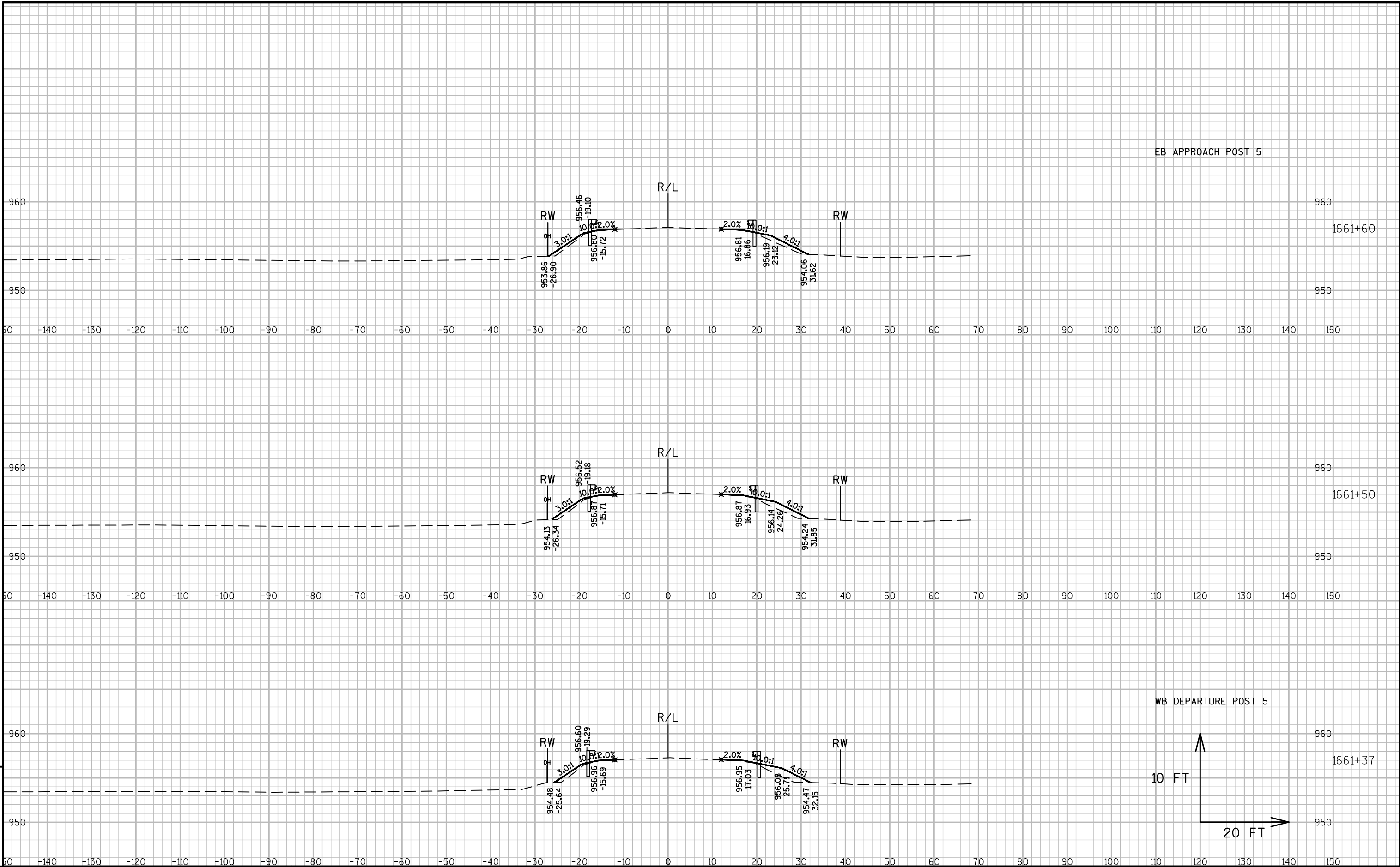


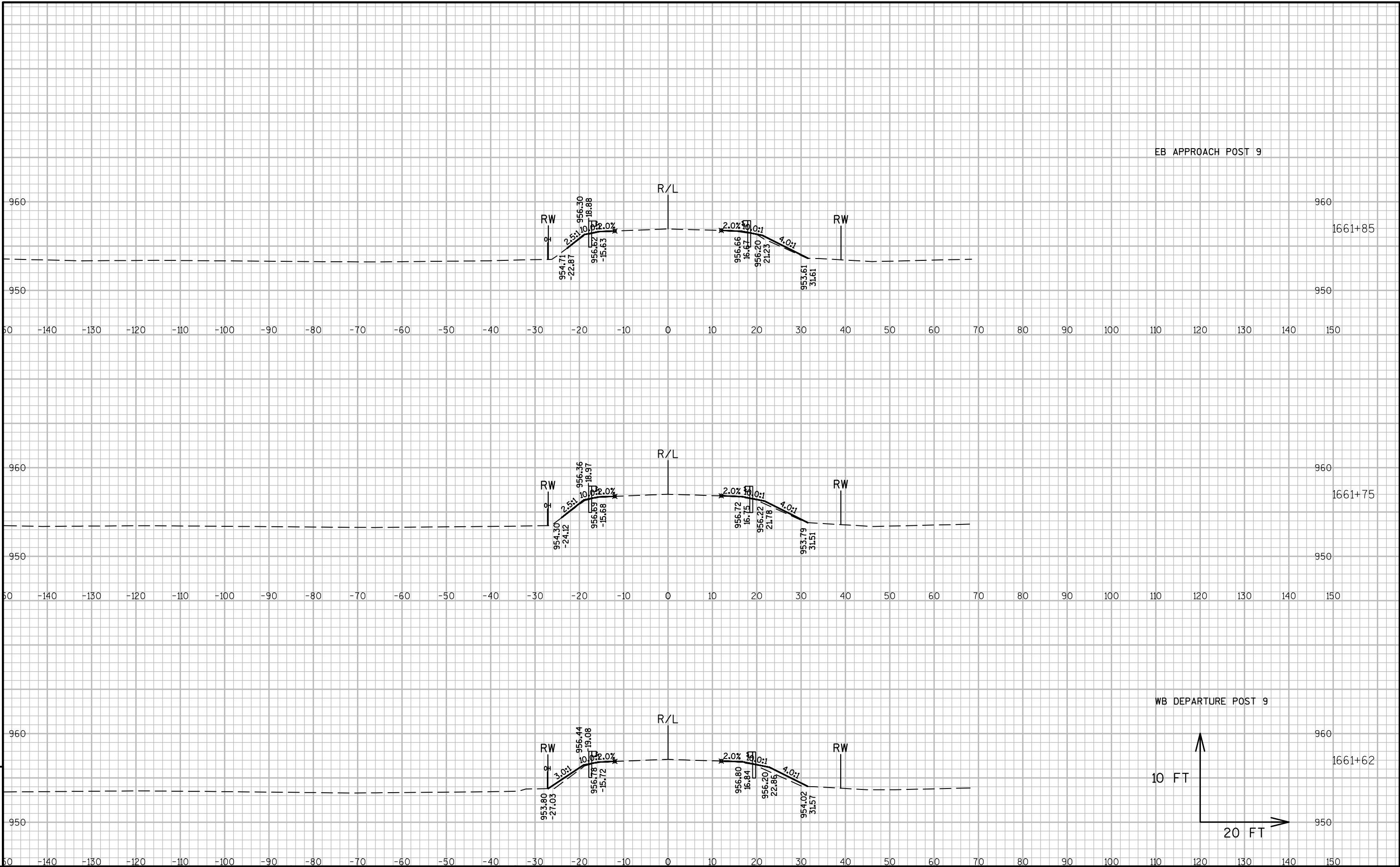
⑭ ELEVATION VIEW

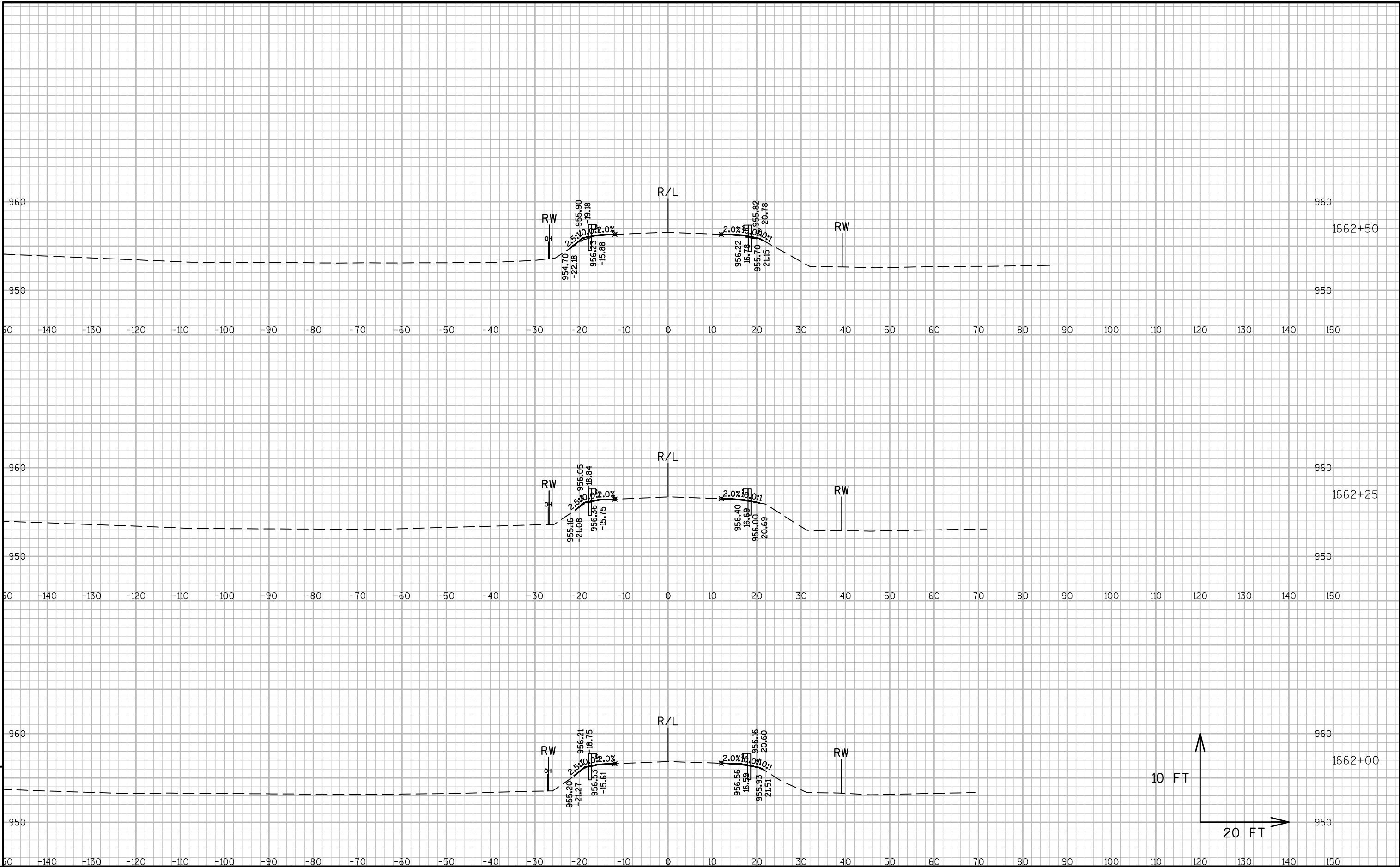
NOTE: W-BEAM GUARDRAIL MAY NEED TO BE FIELD CUT AND PUNCHED TO ACCOMMODATE PART ⑧ SPACING.

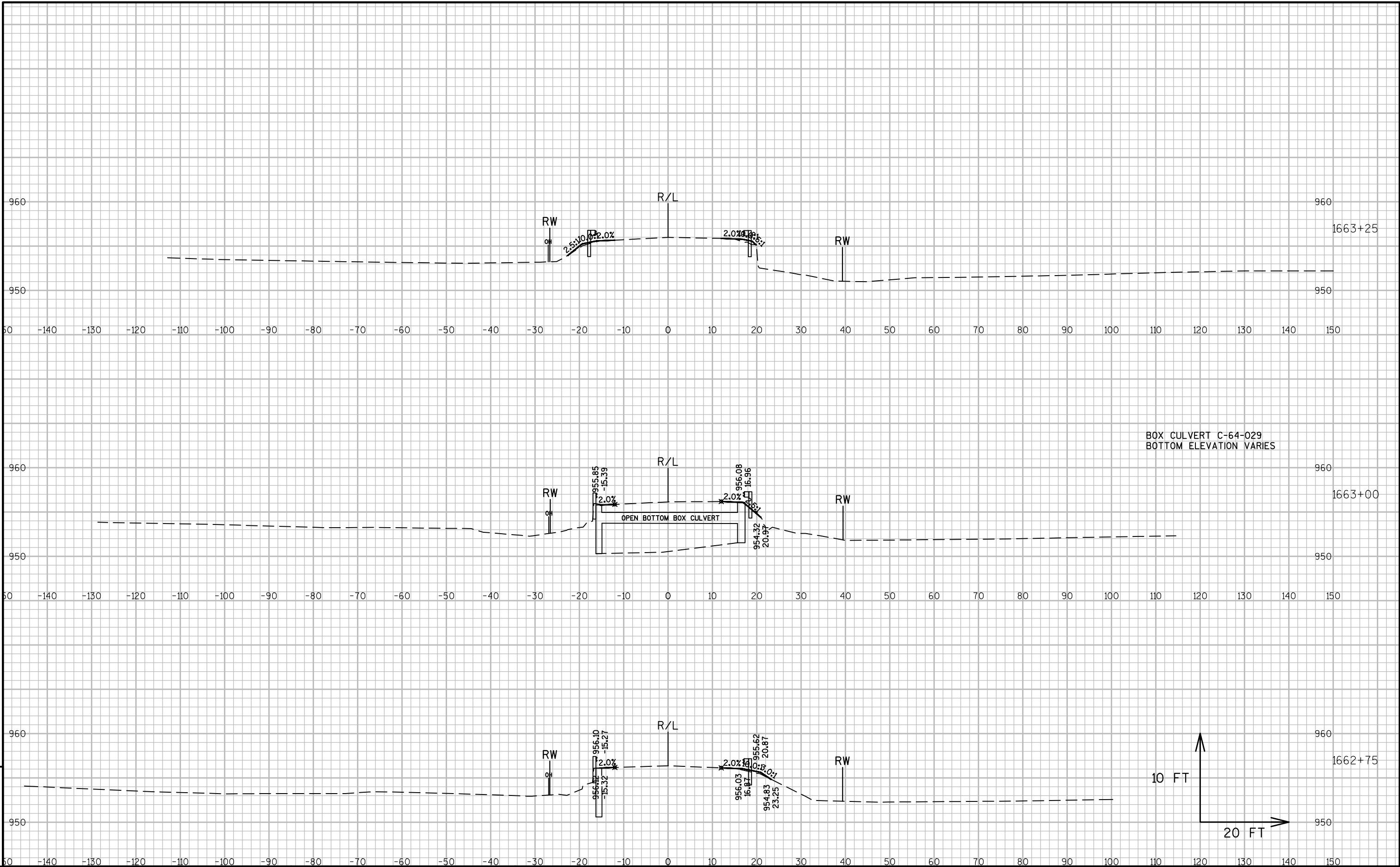
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-64-29			
DRAWN BY		ABS	PLANS CK'D. EMK
GUARDRAIL DETAILS 2		SHEET 4	

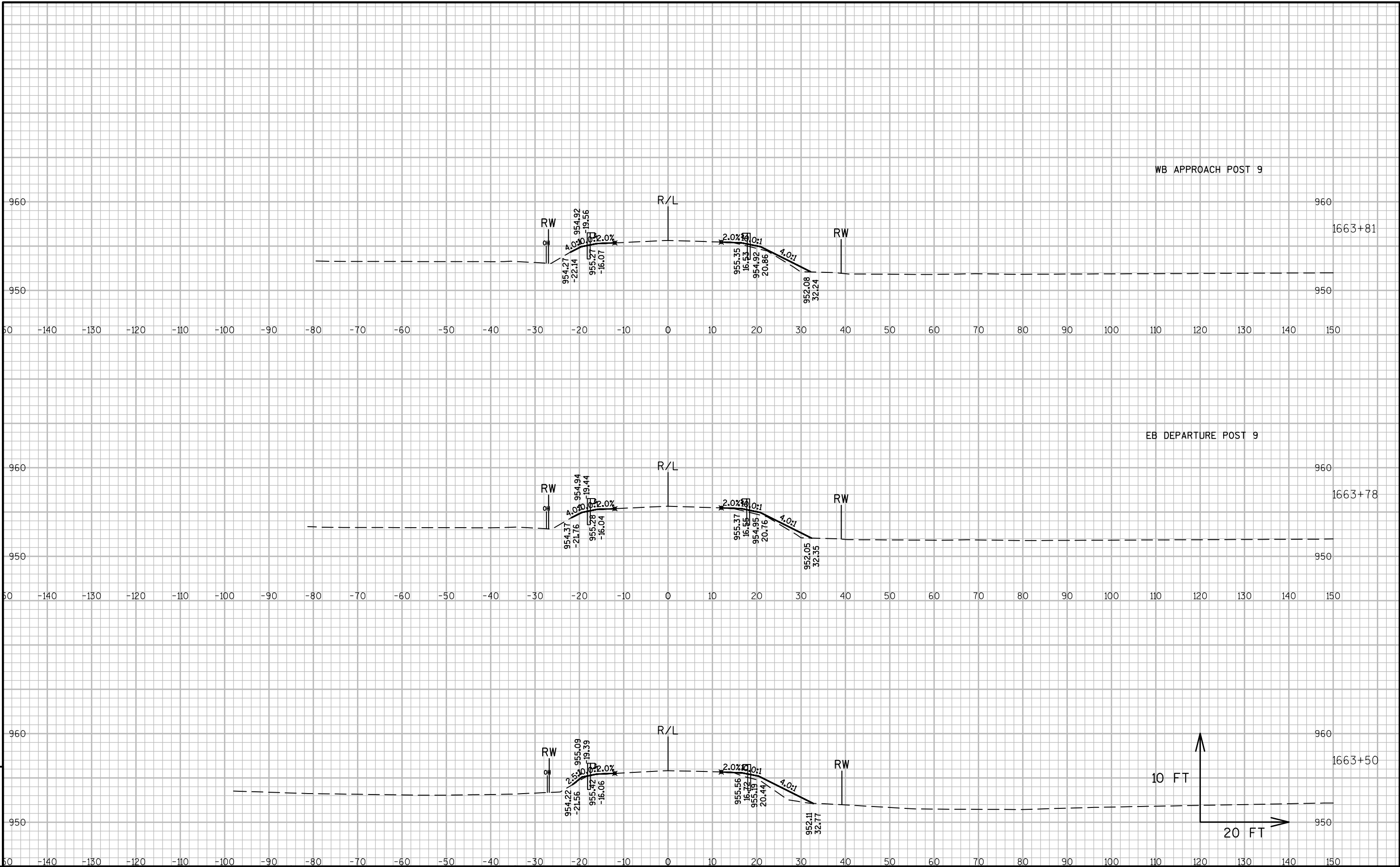


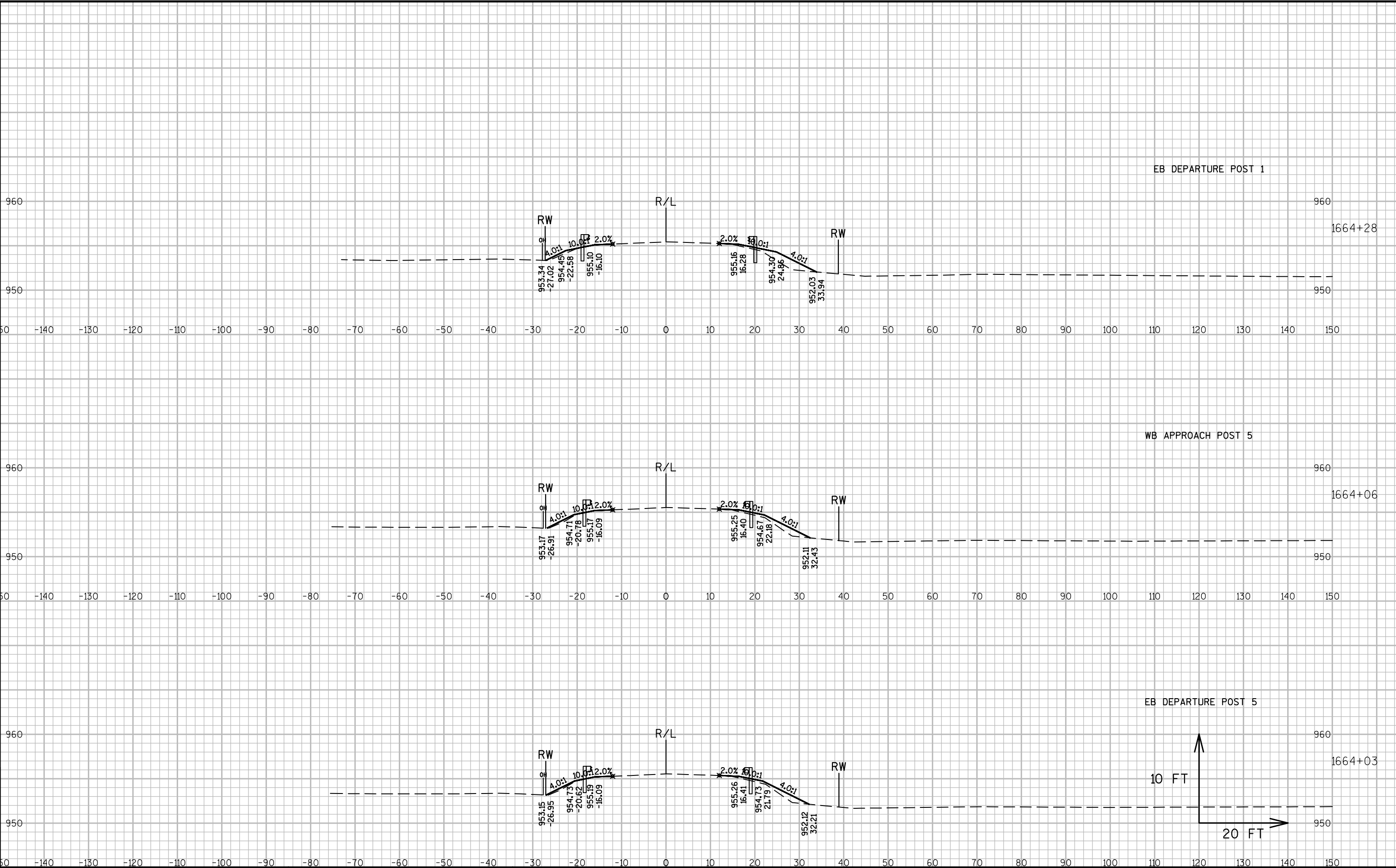


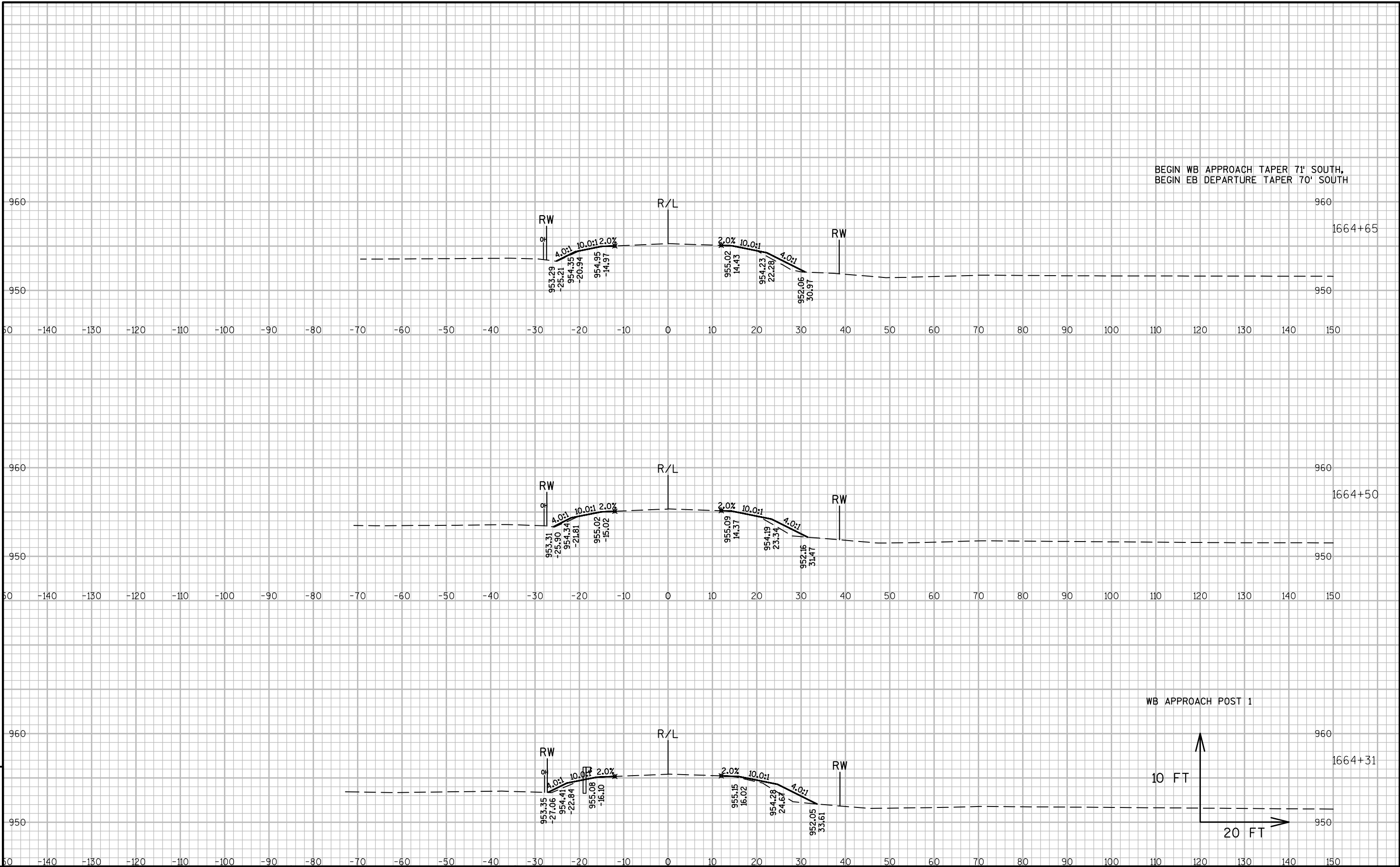














Wisconsin Department of Transportation

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